

	<h1>TSB-Local</h1>	Model	Carnival/Sedona [VQ](), ()
		Group	Engine Electrical System(11)
		TSB No.	KCE11-11-P280-VQ;C21VA
Subject Glow Plug and Relay Inspection/Replacement	Published	1/11/2012	
	TSB Type	Service Action	
	Area & Distributor	U.K (C21VA)	

1. Description

■ Symptom/Condition

Some Sedona/Carnival (VQ) vehicles with R engine might exhibit rough idling because of the poor glow relay function.

■ Cause

Incorrect glow relay function.

■ Countermeasure

Verify that the lot number of the glow relay is in affected range, and then check whether DTC P0684 or P0670 exists..

If DTC P0684 or P0670 is detected, replace the glow relay and glow plugs. If a different DTC or no DTC exists, replace only the glow relay following the Service Procedure below.

- P0684: Glow Plug Control Module to PCM Communication Circuit Range/Performance
- P0670: Glow Plug Control Module Control Circuit/Open

2. Applicable Vehicles

- **Model:** Sedona/Carnival (VQ) vehicles with R engine
- **Applicable vehicle production date range:** From June 7, 2011 to Sep. 19, 2011
- **Applicable VIN date range:** VIN list attached
- **Area:** All except North America

3. Parts Information

■ PARTS REQUIRED

Part Name	Part No.		Q'TY per One Vehicle
	Previous	New	
Relay Assembly – Glow FET (Ceramic)	368302F200	368302F200QQK	1 EA
Plug Assembly – Glow (Ceramic)	367102F000	367102F000QQK	4 EA

* Please refer to the VIN LIST attached about the material type (Metal or Ceramic).

4. Operation Code And Time

OP CODE	OP NAME	OP TIME	NATURE	CAUSE
110106I0	GLOW RELAY INSPECTION	0.3 M/H	N 50	C 20
110106R0	GLOW RELAY INSPECTION AND REPLACEMENT	0.4 M/H		
110106R1	GLOW RELAY AND GLOW PLUG REPLACEMENT	1.0 M/H		

Warranty claims must be processed immediately following the repair.

All Campaign claims must be entered via the Global Warranty Management System (GWMS) using the following process.

1. From the home page of the GWMS select the 'Claim Process' tab.
2. Select from the Claim Process Menu (LH toolbar) the 'Claim Create' option.
3. Enter the VIN and 'click' on the 'Inquiry' icon.
4. When the system has loaded the VIN, double click on the VIN.
5. From the Campaign list click on the corresponding campaign number.
6. Complete the highlighted mandatory fields on the preformed claim and select the correct campaign operation code from the drop down menu applicable to the repair being carried out.
7. Click on 'save' and then 'submit'

5. Service Procedure

NOTE

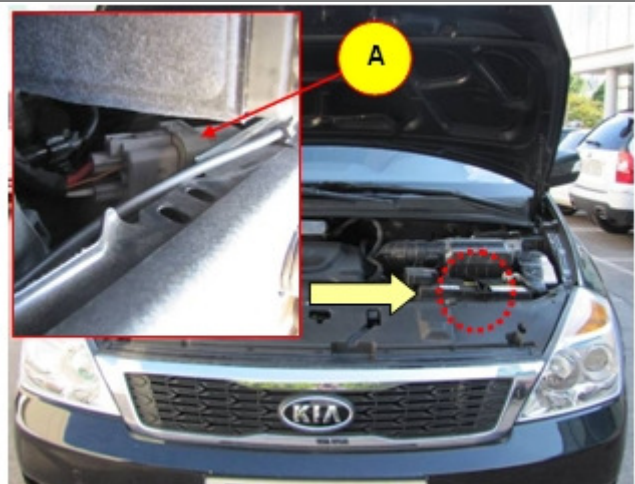
Before conducting the procedure, verify that the vehicle is included in the list of the affected VINs.

GLOW RELAY AND DTC CODE INSPECTION, GLOW RELAY REPLACEMENT

1. Open the hood, and then locate the glow relay (A).

NOTE

Flashlight and mirror are useful to check the lot number of the glow relay.



2. Check the LOT No. of the glow relay.

1) Location of LOT No.



2) Following is the affected lot number range.

* **Affected production range : 16B ~ 180 (June 2, 2011 ~ Aug. 20, 2011)**

Month	Affected LOT No.	Information of the LOT No. Identification																																																																																																																																																							
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3. Using GDS confirm whether either of the following DTCs exists:

- P0684: Glow Plug Control Module to PCM Communication Circuit Range/Performance
- P0670: Glow Plug Control Module Control Circuit/Open

4. Conduct the following procedures according to the condition below.

1) Condition 1: The glow relay is an affected one.

→ If the DTC P0684 or P0670 detected, replace the glow relay and 4 glow plugs with new ones following the procedure. But, if no or other DTC detected, replace only the glow relay with a new one.

2) Condition 2: The glow relay is not an affected one.
→ If any DTC exists, repair the system according to the applicable workshop manual.

NOTE

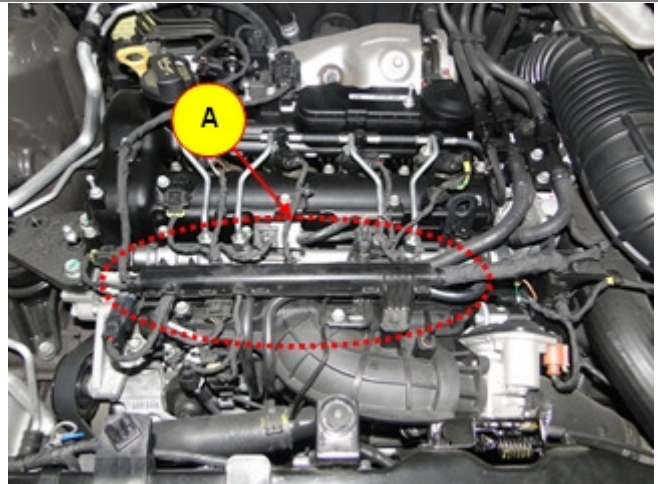
For further information, refer to the applicable Work Shop Manual.

GLOW PLUG REPLACEMENT

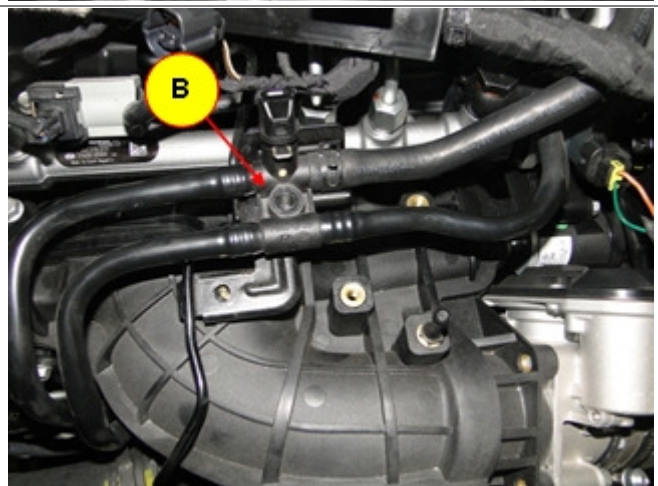
NOTE

1) This procedure is applicable to the vehicles with DTC P0684, P0670.

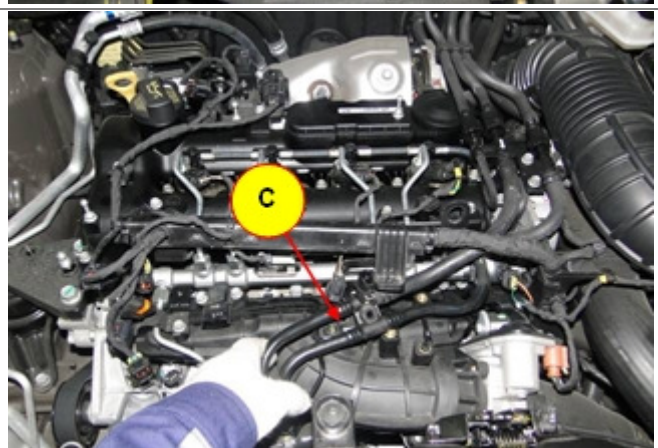
1. Place the ignition switch to the OFF position, and then remove the engine cover.
2. Disconnect the wiring connectors (A) including the glow plug wiring connector to get an access to the glow plug.



3. Remove the fuel return hoses bracket mounting bolt (B).



4. Partially set the fuel return hoses (C) aside to gain access to the glow plug.



5. Replace the glow plugs with new ones.

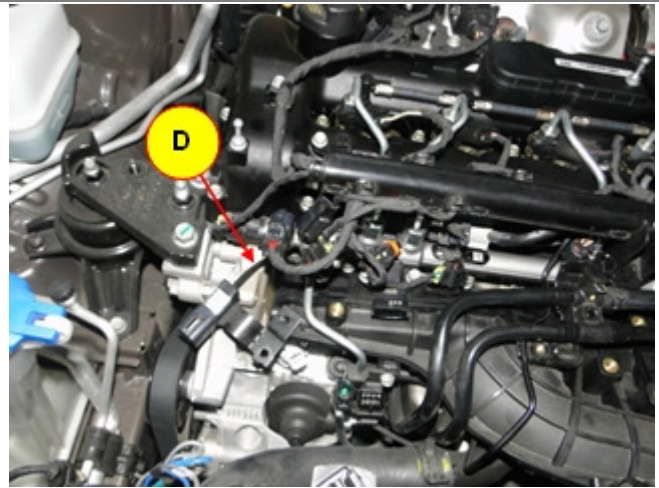
- 1) Remove the glow plug connector & plate (D) by loosening mounting screws (E: 4 EA).

NOTE

The current glow plug plate should be reused when reinstalling.

Tightening Torque:

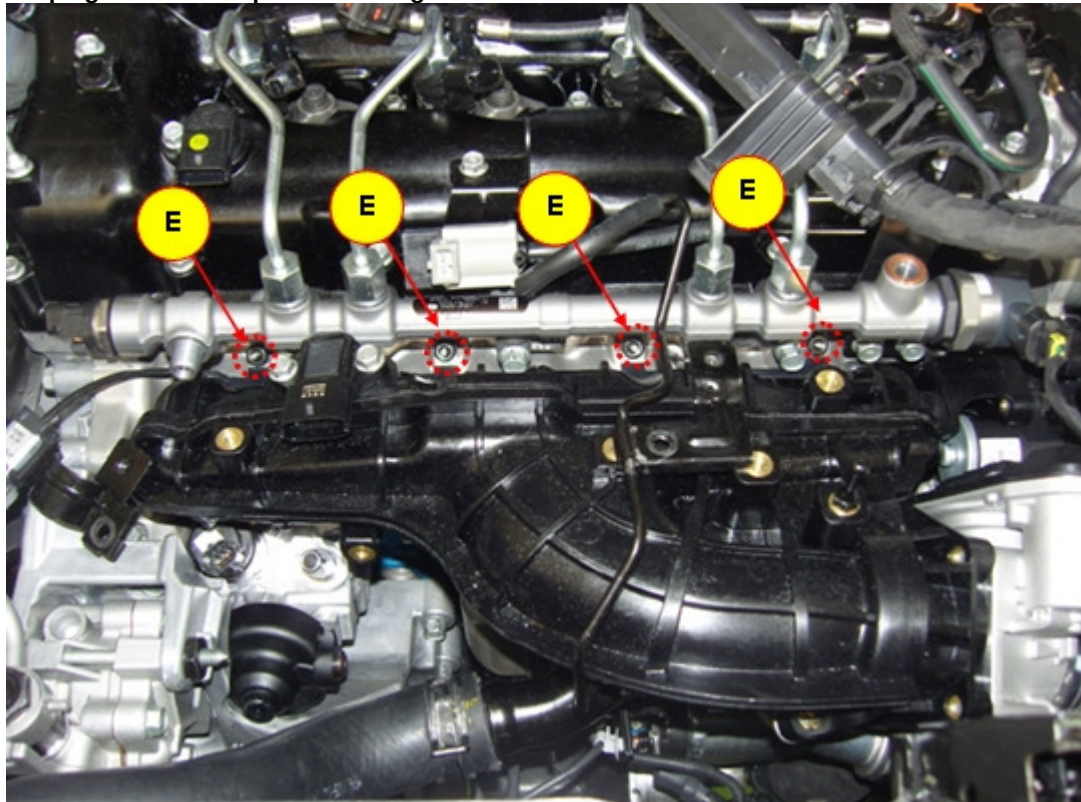
0.8 ~ 1.5N.m (0.1 ~ 0.15kgf.m, 0.6 ~ 1.1lb-ft)



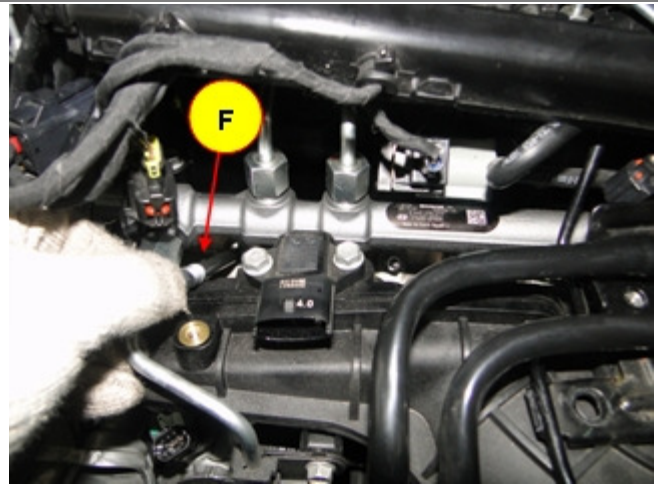
NOTE

This photo shows the removed engine assembly to help technicians understand the Service Procedure.

E: Glow plug connector & plate mounting nuts.



2) Remove the glow plugs. (F: 4EA)



3) Install new glow plugs to the engine assembly.

Tightening Torque:

15 ~19 N.m (1.5 ~ 2.0 kgf.m, 11 ~ 14.5 lb-ft)



6. Reinstall all the removed parts in reverse of removal.

7. Using GDS, erase the stored DTCs P0684, P0670