KIN	GROUP Service Campaign	MODEL 2011~2012MY Sedona (VQ) w/3.5L Engine
	NUMBER	DATE

## VOLUNTARY EMISSIONS SERVICE CAMPAIGN

SUBJECT:

## ECM/TCM SOFTWARE UPGRADE (SC105)

**\*** NOTICE

This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the margin area.

This bulletin provides information related to an inspection of the current ECM ROM ID and, if necessary, an upgrade of the ECM/TCM software on some 2011MY Sedona (VQ) vehicles, produced from March 3, 2010 through February 14, 2011 and some 2012MY Sedona (VQ) vehicles, produced from February 7, 2011 through August 14, 2012, which may not be in compliance with EPA and/or CARB emissions regulations. To ensure maximum customer satisfaction, Kia is requesting the completion of this Service Campaign on all affected 2011~2012MY Sedona vehicles. For confirmation that the latest reflash has been done to a vehicle you are working on, verify ROM ID using the tables in this TSB.

Affected Model/ Production Dates	Applicable Emissions Certification	Affected Control Module
2011MY Sedona (VQ) / Production date on or before 1/24/2011	All Federal and California Emissions	ECM/TCM
2011~2012MY Sedona (VQ) / Production date after 1/24/2011	California Emissions Only (includes vehicles currently registered in California and the S.177 States of CT, ME, MD, MA, NJ, NY, OR, PA, RI, VT, WA)	ECM

## **\*** NOTICE

To assure complete customer satisfaction, always remember to refer to WebDCS Warranty Coverage (validation) Inquiry Screen (Service > Warranty Coverage >Warranty Coverage Inquiry) for a list of any additional campaigns that may need to be performed on the vehicle before returning it to the customer.

File Under: <Service Campaign>

Circulate To:	X General Manager	X Service Manager	X Parts Manager
X Service Adviso	r(s) X Technician(s)	X Body Shop Manager	Fleet Repair

#### ECM Upgrade Procedure:

To correct this condition, the ECM/TCM should be reprogrammed using the GDS Download, as described in this bulletin.

UPGRADE EVENT NAME	COMMENTS
230.VQ F/L 3.5 11/12MY IUVP IMPROVEMENT (ECM)	• Vehicles built on or before 1/24/2011 will require both ECM and TCM update.
231.VQ F/L 3.5 A/T IUVP IMPROVEMENT (TCM)	• Vehicles built after 1/24/2011 will require <u>only</u> the ECM update.

**\*** NOTICE

- A fully charged battery is necessary before ECM upgrade can take place. It is recommended that the Midtronics GR8-1299 system be used in ECM mode during charging. DO NOT connect any other battery charger to the vehicle during ECM upgrade.
- All ECM upgrades must be done with the ignition key in the 'ON' position.
- Be careful not to disconnect any cables connected to the vehicle or GDS during the ECM upgrade procedure
- DO NOT start the engine during ECM upgrade.
- DO NOT turn the ignition key 'OFF' or interrupt the power supply during ECM upgrade.
- When the ECM upgrade is completed, turn the ignition 'OFF' and wait 20 seconds before starting the engine.
- ONLY use approved ECM upgrade software designated for the correct model, year.

## 

Before attempting an ECM upgrade on any Kia model, make sure to first determine whether the particular model is equipped with an immobilizer security system. Failure to follow proper procedures may cause the PCM to become inoperative after the upgrade and any claims associated with this repair may be subject to chargeback.

### ECM/TCM SOFTWARE UPGRADE (SC105)

#### **ROM ID INFORMATION TABLES :**

#### Upgrade event #230 Sedona (VQ)

MODEL MY				ROM ID		
MODEL	M Y	ІММО	ECM P/N	PREVIOUS	NEW	
11 VQ 3.5L	11MY	Yes (+)	39109-3C610	VQAN35*M2**AB8C* VQAN35*M2**AB8D* VQAN35*M2**AB8G* VQAN35*M2**AB8E* VQAN35*M2**AB8F*	VQAN35*M2**AD0AS	
		NO (-)	39109-3C660	VQAN35*S2**AB8C* VQAN35*S2**AB8D* VQAN35*S2**AB8E* VQAN35*S2**AB8G* VQAN35*S2**AB8F*	VQAN35*S2**AD0AS	
	12MY	Yes (+)	39109-3C611	VQBN35*M2**AC3A* VQBN35*M2**AC4B* VQCN35*M2**AC6A* VQBN35*M2**AC4A*	VQBN35*M2**AD0AS	
		12MY -	NO (-)	39109-3C661	VQBN35*S2**AC3A* VQBN35*S2**AC4B* VQCN35*S2**AC6A* VQBN35*S2**AC4A*	VQBN35*S2**AD0AS

#### Upgrade event #231 Sedona (VQ)

MODEL	MAX		ROM ID		
MODEL	IVI Y	ECM P/N	PREVIOUS	NEW	
VQ 3.5L	11MY	39109-3C610 39109-3C660 39109-3C611 39109-3C661	TVQ0C35N*****KA TVQ0C35N*****KB TVQ0C35N*****KC TVQ0C35N*****KD TVQ0C35N*****KE TVQ0C35N*****KE	TVQ0C35N*****KG	

To verify the vehicle is affected, be sure to check the Calibration Identification of the vehicle's ECM ROM ID and reference the Information Table as necessary.

- For Vehicles built on or before 1/24/2011, perform upgrade events # 230 and #231.

- For Vehicles built after 1/24/2011, perform <u>only</u> upgrade event #230. NOTE: Events should be performed in succession, when applicable.

1. Connect the power supply cable to the GDS.



If attempting to perform the ECM upgrade with the power supply cable disconnected from the GDS, be sure to check that the GDS is fully charged before ECM upgrade. If the GDS is not fully charged, failure to perform the ECM upgrade may occur. Therefore, it is strongly recommended that the power supply connector be connected to the GDS.

## ECM/TCM SOFTWARE UPGRADE (SC105)

2. Connect the USB cable between the VCI and the GDS.

## **\*** NOTICE

When performing the ECM upgrade using the GDS, wireless communication between the VCI and GDS is not available. Therefore, be sure to connect the USB cable between the VCI and the GDS.

- 3. Connect the Main 16-pin DLC cable (GHDM 241000) to the VCI.
- Connect the Main 16-pin DLC cable (GHDM – 241000) to the OBD-II connector, located under the driver's side of the instrument panel.



- 5. With the ignition key ON, turn ON the VCI and GDS. Access the GDS vehicle identification number (VIN) screen and configure the vehicle using the **VIN AUTO DETECT** Function.
- 6. Select ENGINE and click OK.



7. Select ECU Upgrade.



9.

## ECM/TCM SOFTWARE UPGRADE (SC105)

8. Select Auto Mode and click Next.

Select ENGINE and click OK.





- GD 0 02 ECU Upa Event Group Event List VO E/L 2 5 11/ Mode System Preparation 1) Connect the DLC(Data ector) of VCI to the OBD-II connector of Vehicle ID Register 2) Turn on VCI unit 3) Check the system then, Click the OK button to continue Data Treatment Actual DTC
- After the system reads the ROM ID, select event: 230.VQ F/L 3.5 11/12MY IUVP IMPROVEMENT (ECU) and Click on Next.

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11. Click on **Upgrade**.



GD 0 • Event List Event Group Mode Current ROM ID Lat System Turn IG off for 10 seconds and en back on. Click the OK button to co 31% Event Group ID Register Option Treatment I disturb or disconnect the DLC(Data Link Connector), turn off the VCI or DO NOT disconnect VCI USB Connector start the vehicle or turn the IG key off. Data Treatment audio, etc. Inspection / Test TSB Case Analysis DTC Current Data Actuation Flight Record DVOM Oscilloscope Fault Code Searching



12. Click **OK** on the voltage check screen and cycle the ignition ON and OFF once, as shown. Then, click on **OK**.

13. The upgrade will begin and the progress of the upgrade will appear on the bar graph.

## ECM/TCM SOFTWARE UPGRADE (SC105)

 Click **OK** on the final screen. Upgrade event #230 is now complete.

	VCI : USB On 💿 VMI : Off 💿 Internet : Off	-×
GD	Preparation Diagnosis Vehicle SW Management Repair	0
Vehicle 🕨	System 🕨	•
Vehicle S/W Management	ECU Upgrade	
ECU Upgrade 🌗	Event List	TSB
Mode	Current R  Information Latest RC	
• System	230.VQ F/L 32 The ECU Upgrade is successfully finished.	
Event Group	CAUTIO Caution the Failure to	×
ID Register	1) DO NOT 2) DO NOT 3) DO NOT 4) DO NOT start ure vende or turn tre is key on.	
Option Treatment	audio, etc.)	
Data Treatment		
Inspection / Test		
ECU Mapping Verification		×
Setup Manual TSB	Case Analysis DTC Current Data Actuation Flight Record DVOM Oscilloscope Searching ECU	Upgrade Update

- <sup>15.</sup> Perform steps 6~14 again to complete Event #231.VQ F/L 3.5 A/T IUVP IMPROVEMENT (TCM). NOTE: The TCM update applies <u>only</u> to vehicles built prior to 1/24/2011.
- 16. Check if any incidental Diagnostic Trouble Codes DTC(s) have been created by the upgrade process; clear any DTC(s) that may be present.
- 17. Start the engine to confirm proper vehicle operation.



Once update events are complete, proceed to Page 9 to perform the TCM Adaptive Learning Values Procedure (only for vehicles with TCM update).

## 

Before attempting an ECM upgrade on any Kia model, make sure to first determine whether the particular model is equipped with an immobilizer security system. Failure to follow proper procedures may cause the PCM to become inoperative after the upgrade and any claims associated with this repair may be subject to chargeback.

## **\*** NOTICE

Do NOT attempt to perform a Manual Mode upgrade unless Auto Mode fails. Always follow the instructions given on the GDS in either Auto or Manual mode. See table for Manual Mode passwords.

## ECM/TCM SOFTWARE UPGRADE (SC105)

#### \* MANUAL MODE ECM UPGRADE PASSWORDS:

#### \* <u>Do NOT perform Manual Mode ECM upgrade unless Auto Mode fails</u>.

#### Upgrade event #230 Sedona (VQ)

MENU	PASSWORD
VQ 3.5 NAS +IMMO : 39109-3C610	3610
VQ 3.5 NAS -IMMO : 39109-3C660	3660
VQ 3.5 NAS +IMMO : 39109-3C611	3611
VQ 3.5 NAS -IMMO : 39109-3C661	3661

#### Upgrade event #231 Sedona (VQ)

MENU	PASSWORD
VQ F/L 3.5 AT : 39109-3C610/660/611/661	3661

- For Vehicles built on or before 1/24/2011, perform upgrade events # 230 and #231.
- For Vehicles built after 1/24/2011, perform <u>only</u> upgrade event #230. NOTE: Events should be performed in succession, when applicable.
- 1. Within the ECM Upgrade screen, select Manual Mode in the left column, select Engine/TCM and then select either Upgrade Event 230 or 231 (perform events in succession, if applicable). Select the appropriate control unit part number by referring to the ROM ID Information Table on Page 3, and click OK.
- 2. Enter the appropriate password from the table on above and click **OK**.
- 3. Upgrade will begin and the progress of the upgrade will appear on the bar graph.
- 4. Following the guidelines displayed on the screen during upgrade procedure, cycle the ignition OFF ↔ ON for ten (10) seconds.
- 5. Check if any incidental Diagnostic Trouble Codes DTC(s) have been created by the upgrade process; clear any DTC(s) that may be present.
- 6. Start the engine to confirm proper vehicle operation.

### **\*** NOTICE

Once update events are complete, proceed to Page 9 to perform the TCM Adaptive Learning Values Procedure (only for vehicles with TCM update).

## ECM/TCM SOFTWARE UPGRADE (SC105)

#### **TCM Adaptive Learning Values:**

1. Select **A/T** Menu and click **OK**.



2. From the main screen, select **Option Treatment**.

	VCI : WLAN On I	VMI : Off 🔹 Internet : Off	- ×		
GD) FEEDBA	CK 🗤 Techline o 🕴	User's Guide   Notice 0   0	Configuration   Search		
Vehicle	omatic Transaxle				
Preparation	Diagnosis	Vehicle S/W Management	Repair		
Vehicle Info 0	Basic Inspection	ECU Upgrade	B Replacement		
Hot Fix	DTC Analysis	ID Register	Component Info		
+By DTC	Data Analysis	Option Treatment	Circuit Diagram		
▶By Symptom	Case Analysis	Data Treatment			
▶By Model	Flight Record	Inspection / Test			
+By VIN	Oscilloscope	ECU Mapping Verification			
	CARB OBD-II				
Go to »					
kiatechinfo.com					
	- La Paula		and the second		
Manual TSB Cas	e Analysis DTC Current Data AC	tustion Test Flight Record DVOM Oscillosco	Pe Fault Code ECU Upgrade Internet Update		
🚺 Start 🛛 😥 🔄 🚆 👋 🚺 GD	5		2 « <b>***************</b> *********		

3. Select Resetting Auto T/A Values.

GD	Preparation	Diagnosis	Vehicle S/W Mana	gement	Repair	0
Vehicle •		s	ystem > Transmissie	on/Automatic	Transaxle	1
nicle S/W Management	📕 Vehicle S/W Managem	ient				1
ECU Upgrade	ID Register					
D Register	System Iden	tification				
ption Treatment	1					
)ata Treatment 🛛 🗈	Data Treatment					
Resetting Auto T/A Value				-	-	_
	Resetting Au	uto I/A Values				
rspection / Test						
rspection / Test 2U Mapping Verification #						

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4. Follow the on screen instructions and Select **Reset**.



5. Start the engine to confirm proper vehicle operation.

# For California, Connecticut, Maine, Maryland, Massachusetts, New Jersey, Oregon, Pennsylvania, Rhode Island, Vermont and Washington:

#### **VEHICLE EMISSION RECALL - PROOF OF CORRECTION CARD**

A Vehicle Emission Recall - Proof of Correction card must be filled out for all vehicles registered in California, Connecticut, Maine, Maryland, Massachusetts, New Jersey, Oregon, Pennsylvania, Rhode Island, Vermont and Washington. Residents of these states, who own an affected vehicle, will be required to possess a Vehicle Emission Recall - Proof of Correction card as evidence of voluntary service campaign completion, when they apply for vehicle registration renewal.

#### WHAT TO DO WITH THE CARD:

The Vehicle Emission Recall - Proof of Correction card <u>must</u> be completed by the Dealership's Service Manager using a permanent ink pen. A fine point pen is recommended. When filling in the information, copy the information directly from the vehicle, <u>not</u> the repair order. <u>ALL</u> **INFORMATION MUST BE PRINTED AND NEAT.** 

# NOTE: DO NOT COMPLETE THE CARD UNLESS THE SERVICE CAMPAIGN WORK IS COMPLETED.

The copy of the card shown below indicates the areas to be filled in. Each area must be filled in.

	Vehicle Emission Recall - Proof of Correction							
Lice	ense Number	Make	Year Model	Body Type		Vehicle Identification N	lumber	
	Manufacturer <u>Kia Motors America, Inc.</u> Recall Number <u>SC105</u> The above described vehicle has been repaired, modified and/or equipped with new emission control devices to meet applicable California Emission Control Laws.							
- [	Deale	r's Name	A	ddress, City	/, State and Zi	p		
l	Reti	urn this ce	Dealers (	ship's Author	ized Signatur	e d - otherwise retain	for your records	
-								UV111SC105

#### FILLING OUT AND APPLYING THE CAMPAIGN COMPLETION LABEL:

The dealer must fill in the Dealer Code and Date information fields on the Campaign Completion Label. Once complete, affix the campaign completion label under the hood of the vehicle, as shown on Page 12.

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For vehicles within the states that require the proof of correction card, apply the SC105 Campaign Completion Label onto the body in the area next to fuse box, as shown. **NOTE: Be sure to clean the mounting surface to ensure proper label adhesion.** 



#### **REQUIRED PARTS:**

Part Name	Part Number	Figure			
Campaign Sticker	UV110 SC105	SC105 Dealer Code: Date:			
Vehicle Emission Recall- Proof of Correction Card	UV111 SC105				

#### AFFECTED VEHICLE PRODUCTION RANGE:

Model	MY	Production Date Range			
Sedona (VQ)	2011	From March 3, 2010 through February 14, 2011			
Sedona (VQ)	2012	From February 7, 2011 through August 14, 2012			

#### WARRANTY CLAIM INFORMATION:

Claim Type	Causal P/N	Qty.	N Code	C Code	Repair Description	Labor Op Code	Op Time	Related Parts	Qty.
R	39109 3C611	0	N99	C99	(SC105) ECM ROM ID Inspect	140044R2*	0.2 M/H	N/A	0
R	39109 3C611	0	N99	C99	(SC105) ECM/TCM Upgrade (Production date on or before 1/24/2011)	140044R0*	0.3 M/H	N/A	0
R	39109 3C661	0	N99	C99	(SC105) ECM Upgrade (Production date after 1/24/2011)	140044R1*	0.3 M/H	N/A	0

\*Only one labor op code can be claimed.

## **\*** NOTICE

To assure complete customer satisfaction, always remember to refer to WebDCS Warranty Coverage (validation) Inquiry Screen (Service > Warranty Coverage >Warranty Coverage Inquiry) for a list of any additional campaigns that may need to be performed on the vehicle before returning it to the customer.