



GROUP
Climate

MODEL
2011~2016MY
Optima Hybrid
(TF HEV)

NUMBER
PS391

DATE
August 2015



TECHNICAL OPERATIONS

SUBJECT

OPTIMA HYBRID (TF HEV) WITH DTC B1695 - LOST
COMMUNICATION WITH E-COMP

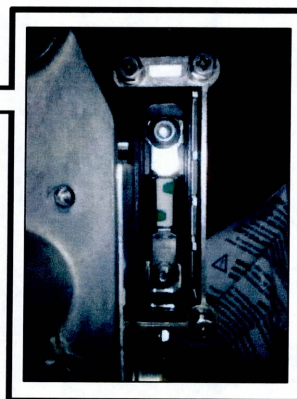
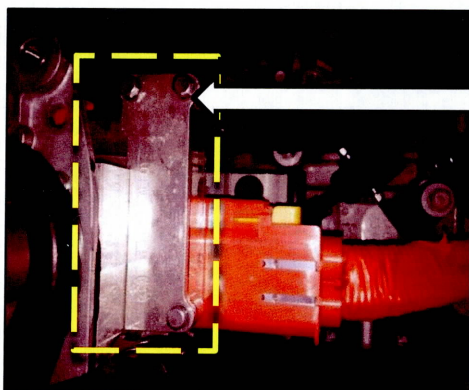
CAUTION


Be sure to remove the hybrid battery safety plug before performing this repair, and keep the plug in your possession until complete. If not, electric discharge injury may result from High-Voltage (HV) current.

When addressing a customer concern related to an A/C system not blowing cold air and DTC B1695 is active in the A/C Control Unit, this could be the result of one, or more, of the following conditions:

- A blown High-Voltage (HV) fuse in the E-Comp 270 volt supply circuit.
- A circuit concern between the A/C Control Unit and the E-Comp
- A High-Voltage (HV) circuit concern

Begin the diagnosis process by locating the HV E-Comp fuse on the HPCU. The fuse is located at the rear of the unit just above the 270V input to the HPCU. Once the fuse is located, remove it and test for continuity across the fuse. If the continuity test reveals an open circuit, order a replacement fuse. **Note – If the fuse is blown, it is likely due to either a harness or an E-Comp concern. Verify the root cause before replacing the fuse or it will likely blow again. For additional diagnosis information, refer to the Service Information on KGIS.**



	GROUP TRA	MODEL 2014~2015MY Cadenza (VG)
	NUMBER 056	DATE August 2015
TECHNICAL SERVICE BULLETIN		
SUBJECT: TCM UPGRADE – SHIFT LOGIC IMPROVEMENT		

This bulletin provides information related to a TCM (Transmission Control Module) software upgrade for some 2014~2015MY Cadenza (VG) vehicles, produced from February 11, 2013 through July 11, 2014 and from July 14, 2014 through December 12, 2014, to improve a transmission shift concern that may be described as “hunting” and/or busy shift. This concern is most prominently felt while climbing an incline with the Smart Cruise Control (SCC) engaged. To resolve the concern, reprogram the TCM/PCM using the GDS/KDS download as described in this bulletin. For confirmation that the latest reflash has been performed, verify ROM ID using the tables in this TSB.



Global Diagnostic System (GDS)

*** NOTICE**

After performing the software upgrade, make sure to reset the TCM Adaptive Learning Values by referring to TSB TRA 049.

File Under: <Transmission>

-
- Circulate To: General Manager Service Manager Parts Manager
- Service Advisor(s) Technician(s) Body Shop Manager Fleet Repair

SUBJECT:

TCM UPGRADE – SHIFT LOGIC IMPROVEMENT

Upgrade Procedure:

The TCM should be reprogrammed using the GDS/KDS Download, as described in this bulletin.

UPGRADE EVENT NAME
259.VG 3.3GDI BUSY SHIFT LOGIC IMPROVEMENT

*** NOTICE**

- A fully charged battery is necessary before TCM/PCM upgrade can take place. It is recommended that the Midtronics GR8-1299 system be used in TCM/PCM mode during charging. **DO NOT** connect any other battery charger to the vehicle during TCM/PCM upgrade.
- All TCM/PCM 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 TCM/PCM upgrade procedure.
- **DO NOT** start the engine during TCM/PCM upgrade.
- **DO NOT** turn the ignition key 'OFF' or interrupt the power supply during TCM/PCM upgrade.
- When the TCM/PCM upgrade is completed, turn the ignition 'OFF' and wait 20 seconds before starting the engine.
- **ONLY** use approved TCM/PCM upgrade software designated for the correct model, year.

ROM ID INFORMATION TABLES:

Upgrade Event #259

MODEL	Prod. Date	TCM/PCM P/N	ROM ID	
			PREVIOUS	NEW
Cadenza (VG) 3.3L GDI	02/2013~07/2014	39110 3CGN9	TVG0Z33N*****S2	TVG0Z33N*****S3
	07/2014~12/2014	39110 3CGN5 39110 3CGN7	TVG0Z33N*****S0 TVG0Z33N*****S1	TVG0Z33N*****10

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

SUBJECT:

TCM UPGRADE – SHIFT LOGIC IMPROVEMENT

★ NOTICE

If performing this TSB using KDS, refer to TSB SST 037 for detailed information.

1. Connect the power supply cable to the GDS.

★ NOTICE

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

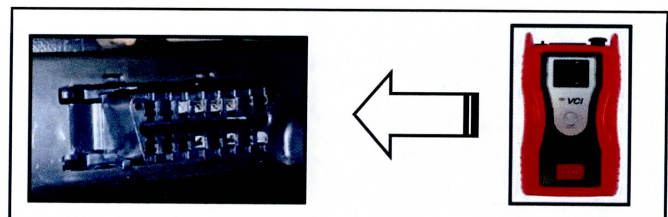
2. Connect the USB cable between the VCI and the GDS.

★ NOTICE

When performing the TCM 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.

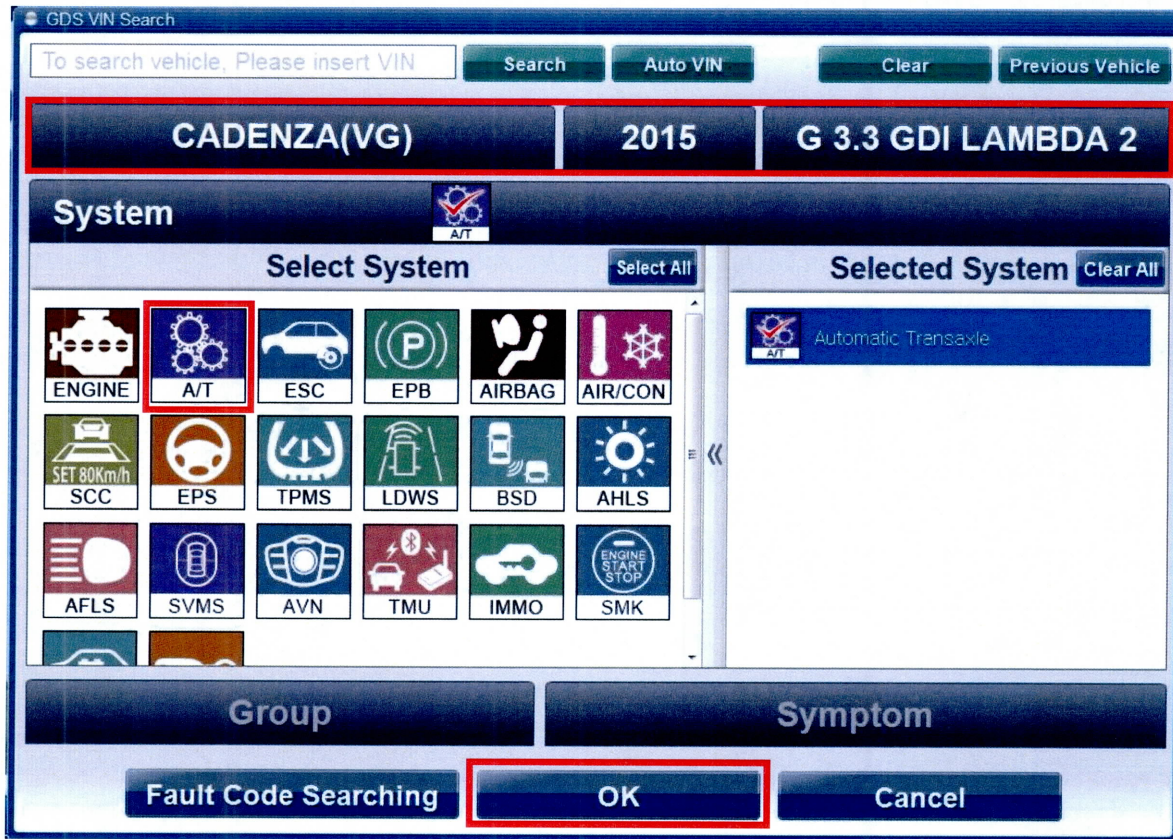
4. Connect the Main 16-pin DLC cable (GHDM – 241000) to the OBD-II connector, located under the driver's side of the instrument panel.



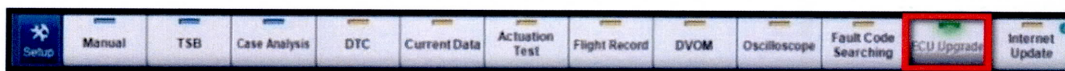
5. With the ignition key ON, turn ON the VCI and GDS. Access the GDS vehicle identification number (VIN) screen and configure the vehicle using the **VIN AUTO DETECT** Function.

SUBJECT:

TCM UPGRADE – SHIFT LOGIC IMPROVEMENT



6. Once back at the GDS Main Screen, select ECU Upgrade from the bottom right-hand corner. Next select Auto Mode, and then EPS as the system. Perform the TCM upgrade in accordance with normal GDS TCM upgrade procedures.




7. Check for Diagnostic Trouble Codes using the GDS and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during reprogramming.
8. After the upgrade is complete, reset the TCM Adaptive Learning Values per TSB TRA 049.

SUBJECT:

TCM UPGRADE – SHIFT LOGIC IMPROVEMENT

Manual Mode Upgrade

 **CAUTION**

Before attempting an TCM 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.

MANUAL MODE TCM UPGRADE PASSWORDS:

Upgrade Event #259 Cadenza (VG)

MENU	PASSWORD
VG FL 3.3GDI TCU : 39110-3CGN9	1039
VG FL 3.3GDI TCU : 39110-3CGN5/N7	1037

1. Within the TCM Upgrade screen, select Manual Mode in the left column, select Engine and then select Upgrade Event #259. Select the appropriate control unit part number by referring to the ROM ID Information Table on Page 2, and click **OK**.
2. Enter the appropriate password from the table above, and click **OK**.
3. Upgrade will begin and the progress of the upgrade will appear on the bar graph.
4. When the GDS reports that the TCM upgrade has been successfully completed, click **OK**, turn OFF the ignition key, and wait at least 10 seconds before attempting to start the engine.
5. Check for Diagnostic Trouble Codes using the GDS and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during reprogramming.
6. After the upgrade is complete, reset the TCM Adaptive Learning Values per TSB TRA 049.