			Model	RIO(UB) (2014, 2015)
KIA	**TSB-Local**		Group	Automatic Transaxle System (52)
			TSB No.	KCE14-52-E070-UB
Subject **TCM Upgrade : 2014,2015MY UB 1.4 TCM Logic Improvement**			TSB Type	Service Action
			Published	2015-03-07

Description

This bulletin provides information related to the TCM (Transaxle Control Modules) software upgrade of some 2014, 2015MY RIO(UB) 1.4 A/T vehicles to improve Shift control logic.

Applicable Vehicle

■ Model: 2014, 2015MY RIO(UB) A/T vehicles.
■ Applicable vehicle production date range: See campaign look up
■ Area: EUROPE, GENERAL

[NOTE]
- To verify the vehicle is affected, be sure to check the version of the vehicle's control unit ROM ID with reference to the ROM ID Information Table mentioned below before attempting to upgrade the control unit software.

- Make sure your GDS / G Scan / KDS software is up to date and the latest internet updates have been downloaded / installed. Failure to do this may result in the ECU upgrade not being installed on your GDS / G-Scan and not being visible being in the event table.

- Make a note on the repair order of the current ECU part number ROM ID prior to starting the upgrade.

Parts Information

MODEL	REGION	TCM P/N	ROM ID	
			PREVIOUS	NEW

		39134-2B351 39134-2B371 39134-2B431 39134-2B451 39134-2B751 39134-2B771	TUB2C14EE2	**TUB2C14E10**
		39134-2B341 39134-2B361 39134-2B421 39134-2B441 39134-2B741 39134-2B761	TUB2C14ES2	**TUB2C14E40**
		39134-2B511 39134-2B531 39134-2B551 39134-2B571 39134-2B671 39134-2B691	TUB2C14GE2	**TUB2C14G10**
UB 1.4 MPI	EUR/GEN	39134-2B501 39134-2B521 39134-2B541 39134-2B561 39134-2B661 39134-2B681	TUB2C14GS2	**TUB2C14G40**
		39134-2B301	TUB2C14UE2	**TUB2C14U10**
		39134-2B591 39134-2B611 39134-2B631 39134-2B651	TUB2C14XE3	**TUB2C14X10**
		39134-2B581 39134-2B601 39134-2B621 39134-2B641	TUB2C14XS3	**TUB2C14X40**
		39134-2B391 39134-2B411 39134-2B471 39134-2B491	TUB2C14YE3	**TUB2C14Y10**
		39134-2B381 39134-2B401 39134-2B461 39134-2B481	TUB2C14YS3	**TUB2C14Y40**

Service Procedure

■ **PREPARATION & CAUTIONS DURING CONTROL UNIT UPGRADE**

1) Make sure the vehicle's battery has reasonable charge. Connect the Midtronics battery charger that

was supplied with your GDS and set to power supply mode / ECU upgrade function.
2) Turn off all lamps (Do not leave head lamp switch in auto mode.) and all accessories (including heater, A/C, blower, radio, seat warmer, defroster, etc.) Do not to allow the battery to be discharged during upgrade.
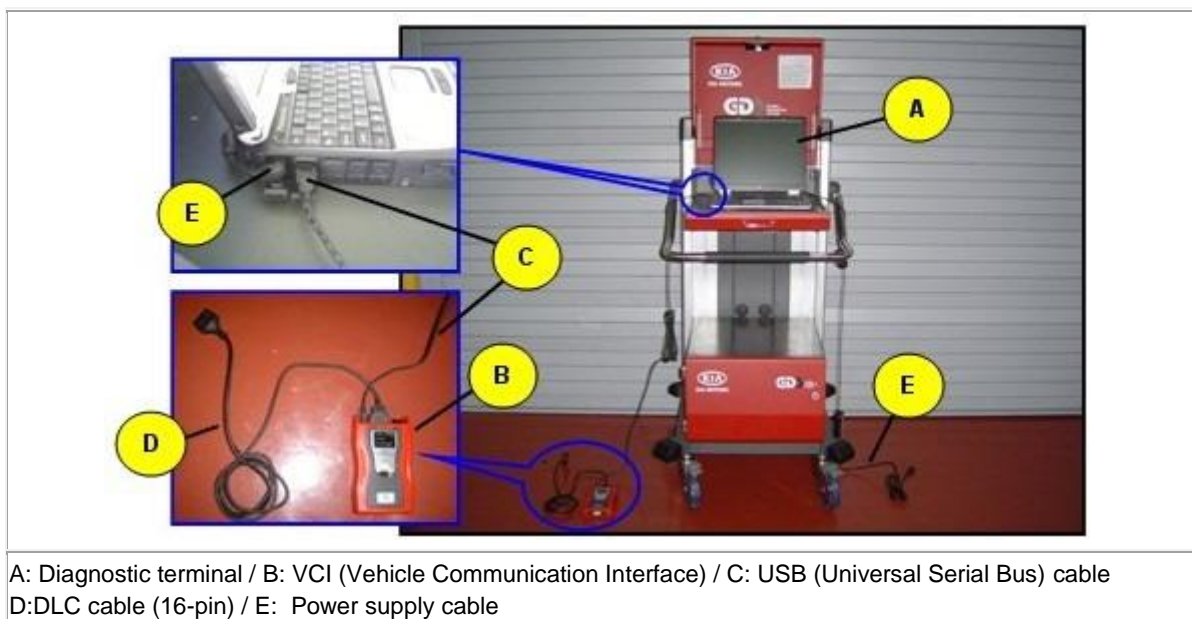3) Perform upgrade with the ignition switch in the ON position.
4) Be careful not to disconnect any cables connected to the vehicle or GDS during upgrade.
5) Do not start the engine during upgrade.
6) Do not turn off the ignition switch during upgrade. After completing the upgrade ensure all other system control units are checked for DTC and any erased. Please advise the customer that after the upgrade the ECU adaption values may take up to 1000miles to be re-learnt.

■ **CONTROL UNIT UPGRADE PROCEDURE**

1. GDS (Global Diagnostic System) INSTALLATION PROCEDURE

A: Diagnostic terminal / B: VCI (Vehicle Communication Interface) / C: USB (Universal Serial Bus) cable
D:DLC cable (16-pin) / E: Power supply cable

1) Connect the power supply connector to the diagnostic terminal.
   [NOTE]
- If attempting to perform the upgrade with the power supply cable disconnected from the
  diagnostic terminal, make certain that the diagnostic terminal is charged enough for the upgrade.
  If not, the upgrade may fail in progress. Therefore, it is strongly recommended to connect the
  power supply cable to the diagnostic terminal during the upgrade procedure.
2) Connect the USB cable between the VCI and the diagnostic terminal.
   [NOTE]
- When performing the upgrade using the GDS, wireless communication between the VCI and the
  diagnostic terminal is NOT available. Therefore, be sure to connect the USB cable between the
  VCI and the diagnostic terminal.
3) Connect the 16-pin DLC cable from the VCI into the vehicle's DLC connector under the driver side
    instrument panel.
4) Turn on the VCI and diagnostic terminal with the ignition key in the ON position.
   [NOTE] Do not start the engine.

2. AUTOMATIC UPGRADE PROCEDURE USING GDS

1) Choose **VIN** or **ECU Upgrade** on the initial screen.
2) Enter the vehicle information by entering the vehicle's VIN or selecting the vehicle model, model year, engine/fuel type and **A/T** as the system and then click **OK**.

3) Select **ECU Upgrade** on the initial screen after entering the vehicle information.
4) Select **Auto Mode** then **A/T** in the left **ECU Upgrade** column.
5) Read **Preparation** and click **OK**.
6) The GDS will read the vehicle's ROM ID.
7) After the **Current ROM ID** is displayed, select the **Upgrade Event**, **"361.UB 1.4MPI TCM LOGIC IMPROVEMENT " 8) After clicking the Upgrade button, read Information then click OK.**

9) The vehicle battery voltage is checked to make sure it is at least 12 volts to assure reliable upgrade results. Click OK if the results indicate Voltage is OK.
  [NOTE]
- If voltage is below 12 volts, click Cancel and then run the engine to assure an adequate battery charge state for reliable upgrade results.
10) Upgrade will begin and the progress of the upgrade will appear on the bar graph.
11) Upgrade will occur until 100% is reached on the bar graph. Turn the ignition key OFF for 10 seconds, place it back in the ON position and then click OK to continue according to Information displayed on the screen.
12) Click OK on the final screen, which indicates upgrade is complete

13) Check if any incidental Diagnostic Trouble Codes (DTC) have been created by the upgrade and clear   the DTC (s) present.
14) Start the engine to confirm proper operation of the vehicle.

3. MANUAL UPGRADE PROCEDURE

  [CAUTION]
- Manual upgrade should be performed only when automatic upgrade fails.
- If automatic upgrade fails, turn the ignition key OFF for about 10 seconds, place it back in the ON position to reset the control unit before performing manual upgrade.

1) Within the **ECU Upgrade** screen, select **Manual Mode** in the left column, then select **Upgrade Event #361**. Select the appropriate control unit part number with reference to the above ROM ID Information Table and click **OK**.

2) Enter the appropriate password from the below table then click **OK**.

MENU	Password
UB 1.4MPI AT : 39134-2B351/371/431/451/751/771	**2771**
UB 1.4MPI AT : 39134-2B341/361/421/441/741/761	**2761**
UB 1.4MPI AT : 39134-2B511/531/551/571/671/691	**2691**
UB 1.4MPI AT : 39134-2B501/521/541/561/661/681	**2681**
UB 1.4MPI AT : 39134-2B301	**2301**
UB 1.4MPI AT : 39134-2B591/611/631/651	**2651**
UB 1.4MPI AT : 39134-2B581/601/621/641	**2641**
UB 1.4MPI AT : 39134-2B391/411/471/491	**2491**
UB 1.4MPI AT : 39134-2B381/401/461/481	**2481**

3) The vehicle battery voltage is checked to make sure it is at least 12 volts to assure reliable upgrade results. Click **OK** if the results indicate **Voltage is OK**.
  [NOTE]
- If voltage is below 12 volts, click Cancel and then run the engine to assure an adequate battery charge state for reliable upgrade results.
4) Upgrade will begin and the progress of the upgrade will appear on the bar graph.
5) Upgrade will occur until 100% is reached on the bar graph. Turn the ignition key OFF for 10 seconds, place it back in the ON position and then click **OK** to continue according to **Information** displayed on the screen.
6) Click **OK** on the final screen, which indicates upgrade is complete

7) Check if any incidental Diagnostic Trouble Codes (DTC) have been created by the upgrade and clear   the DTC (s) present.

8) Start the engine to confirm proper operation of the vehicle.

2. CONTROL UNIT UPGRADE PROCEDURE USING THE G-SCAN

2-1. G-SCAN INSTALLATION PROCEDURE

1) Connect the 16-pin Data Link Connector (DLC) cable to the G-Scan and securely tighten the three bolts.	
2) Insert the updated SD memory card into the G-Scan bottom slot.	
3) Connect the 16-pin DLC cable from the G-Scan into the OBD-II connector, located under the driver's side of the instrument panel.	

2-2. AUTOMATIC UPGRADE PROCEDURE USING THE G-SCAN

1) Select **ECM Upgrade**. Select the vehicle model, model year, **AT** as the system and engine displacement, and then touch **OK**.	
2) Select the upgrade event, **"361.UB 1.4MPI TCM LOGIC IMPROVEMENT "** and touch **AUTO**. 3) Perform the ECM upgrade in accordance with the instructions given on the G-Scan screen.	

4) Turn the ignition key OFF for 10 seconds and place it back in the ON position, then touch OK to continue

5) Check if any incidental Diagnostic Trouble Codes (DTC) have been created by the upgrade and clear   the DTC (s) present.

6) Start the engine to confirm proper operation of the vehicle.

1-3. MANUAL UPGRADE PROCEDURE USING THE G-SCAN

NOTE)
- The manual upgrade should be performed only when the automatic upgrade fails.
- If automatic upgrade fails, turn the ignition key OFF for about 10 seconds,
place it back in the ON position and then perform manual upgrade.

1) Select **ECU Upgrade**. Select the vehicle model, model year, **ENGINE** as the system and engine displacement, and then touch **OK**.

2) Select the upgrade event, **"361.UB 1.4MPI TCM LOGIC IMPROVEMENT "** and touch **MANUAL**.

3) Select the appropriate control unit part number with reference to the ROM ID Information Table and touch **MANUAL**.	

4) Enter the appropriate password from the below table then click **OK**.

MENU	Password
UB 1.4MPI AT : 39134-2B351/371/431/451/751/771	2771
UB 1.4MPI AT : 39134-2B341/361/421/441/741/761	2761
UB 1.4MPI AT : 39134-2B511/531/551/571/671/691	2691
UB 1.4MPI AT : 39134-2B501/521/541/561/661/681	2681
UB 1.4MPI AT : 39134-2B301	2301
UB 1.4MPI AT : 39134-2B591/611/631/651	2651
UB 1.4MPI AT : 39134-2B581/601/621/641	2641
UB 1.4MPI AT : 39134-2B391/411/471/491	2491
UB 1.4MPI AT : 39134-2B381/401/461/481	2481

5) Perform the ECM upgrade in accordance with the instructions given on the G-Scan screen.
6) Turn the ignition key OFF for 10 seconds and place it back in the ON position, then touch OK to continue.

7) Check if any incidental Diagnostic Trouble Codes (DTC) have been created by the upgrade and clear   the DTC (s) present.

8) Start the engine to confirm proper operation of the vehicle.

Operation Code And time

OP CODE	OP NAME	OP TIME	NATURE	CAUSE
140088P0	TCM UPGRADE	0.3 M/H	T13	ZZ3