 TSB-Local	Model	Sorento [BL](all)
	Group	Fuel System(14)
	TSB No.	KCE10-14-E051-BL;C21VA
Subject Sorento (BL) ECM Upgrade - Turbo Charger Over-Speed Logic Improvement	Published	10/12/2010
	TSB Type	Service Action
	Area & Distributor	U.K (C21VA)

1. Description

This bulletin supersedes bulletin number JC043 / AS190 published 15/04/2010 and now includes an upgrade for vehicles equipped with ACV (*Diesel Throttle Valve*). It also includes the procedure to upgrade the ECM software of Sorento (BL) 2.5 diesel vehicles for improving the turbo charger over-speed logic.

Check the attached Vin list to confirm the vehicle is within the effected range, identify if the vehicle is equipped with ACV or not and check the vehicle's Rom ID as detailed in the tables below.

Important Note:

Check if the vehicle is equipped with ACV (Diesel Throttle Valve) before proceeding with the upgrade. Vehicles not equipped with ACV, carry out upgrade #130 or #131. Vehicles equipped with ACV, carry out upgrade #168.

If, after upgrading vehicles not equipped with ACV to event #130 or #131 there is evidence of noise or vibration, please upgrade to #168 and claim outside of campaign as normal warranty using OP 39110F2E, as mentioned below.

CAUTION:

For vehicles equipped with Cruise Control and ABS/ESP system, ensure the upgrades are carried out in 'Manual Mode'. If the ECU upgrade is carried out by 'Auto Mode', the vehicle may not start due to a mismatch of the velocity signal.

2. Applicable Vehicles

Model: 2006~2009MY SORENTO (BL) vehicles with A-2.5 diesel engines
 Applicable vehicle production date range : From Dec 14,2005 to Nov 28,2009
Vehicle equipped with ACV, From Dec 14,2005 to Apr.21, 2008
 VIN Range : KNEJC524865579917 ~ KNAJC524895899376
 See attached Vin list.

3. Parts Information



1) BL A2.5L equipped without ACV EUROPE – Upgrade event #130

EM	IMMO	ECM P/N	ROM ID		SYSTEM	
			PREVIOUS	NEW		
EURO4	With	39114-4A410	90BL4M4EI00S	E1BL4M4EI04A		
			90BL4M4EI01S			
			90BL4M4EI02S			
			90BL4M4EI03S			
		B1BL4M4EI04S	E1BL4A4EI04A			
		B1BL4M4EI05S				
		E1BL4M4EI01A				
		90BL4A4EI00S				
		90BL4A4EI01S	E1BL4A4EI04A			
		90BL4A4EI02S				
		90BL4A4EI03S				
		B1BL4A4EI04S				
		B1BL4A4EI05S	H0BL4M4EI01R	H0BL4M4EI04R		Auto cruise and ABS/ESP
		E1BL4A4EI01A				
		39114-4A415	H0BL4A4EI01R	H0BL4A4EI04R		Auto cruise and ABS/ESP
			E1BL4A4EI02A	E1BL4A4EI05A		
			H0BL4M4EI02R	H0BL4M4EI05R		Auto cruise and ABS/ESP
		H0BL4A4EI02R	H0BL4A4EI05R			
		39114-4A411	E1BL4M4EI03A	E1BL4M4EI06A		Auto cruise and ABS/ESP
			E1BL4A4EI03A	E1BL4A4EI06A		
			H0BL4M4EI03R	H0BL4M4EI06R		
			H0BL4A4EI03R	H0BL4A4EI06R		
		39114-4A430	90BL4MLEI01S	E1BL4MLEI04A		
90BL4MLEI02S						
B1BL4MLEI03S						
B1BL4MLEI04S						
E1BL4MLEI01A	E1BL4ALEI04A					
90BL4ALEI01S						
90BL4ALEI02S						
B1BL4ALEI03S						
B1BL4ALEI04S	H0BL4MLEI01R	H0BL4MLEI04R	Auto cruise and ABS/ESP			
E1BL4ALEI01A						
39114-4A435	H0BL4ALEI01R	H0BL4ALEI04R	Auto cruise and ABS/ESP			
				E1BL4MLEI02A	E1BL4MLEI05A	
	E1BL4ALEI02A	E1BL4ALEI05A				
	H0BL4MLEI02R	H0BL4MLEI05R	Auto cruise and ABS/ESP			
H0BL4ALEI02R	H0BL4ALEI05R					
39114-4A431	E1BL4MLEI03A	E1BL4MLEI06A	Auto cruise			
	E1BL4ALEI03A	E1BL4ALEI06A				
	H0BL4MLEI03R	H0BL4MLEI06R				

			H0BL4ALEI03R	H0BL4ALEI06R	and ABS/ESP
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2) BL A2.5L equipped with ACV EUROPE – Upgrade event #168

EM	IMMO	ECM P/N	ROM ID		SYSTEM	
			PREVIOUS	NEW		
EURO4	With	39114-4A410	90BL4M4EI00S	E1BL4M4EI07R		
			90BL4M4EI01S			
			90BL4M4EI02S			
			90BL4M4EI03S			
			B1BL4M4EI04S			
			B1BL4M4EI05S			
		E1BL4M4EI04A				
		90BL4A4EI00S	E1BL4A4EI07R			
		90BL4A4EI01S				
		90BL4A4EI02S				
		90BL4A4EI03S				
		B1BL4A4EI04S				
E1BL4A4EI04A						
H0BL4M4EI01R	H0BL4M4EI07R	Auto cruise and ABS/ESP				
H0BL4M4EI04R						
H0BL4A4EI01R	H0BL4A4EI07R					
H0BL4A4EI04R						
39114-4A430			90BL4MLEI01S	E1BL4MLEI07R		
			90BL4MLEI02S			
			B1BL4MLEI03S			
			E1BL4MLEI04A			
			90BL4ALEI01S	E1BL4ALEI04A		
			90BL4ALEI02S			
B1BL4ALEI03S						
E1BL4ALEI04A						
H0BL4MLEI01R	H0BL4MLEI07R	Auto cruise and ABS/ESP				
H0BL4MLEI04R						
H0BL4ALEI01R	H0BL4ALEI07R					
H0BL4ALEI04R						

3) BL A2.5L GEN – Upgrade event #131

EM	IMMO	ECM P/N	ROM ID		SYSTEM		
			PREVIOUS	NEW			
EURO4	With	39114-4A450	B1BL4M4CI01S	B1BL4M4CI02S			
			B1BL4A4CI01S	B1BL4A4CI02S			
			H0BL4M4CI01R	H0BL4M4CI03R		Auto cruise and ABS/ESP	
			H0BL4A4CI01R	H0BL4A4CI03R			
		39114-4A451			E1BL4M4CI03A	E1BL4M4CI05A	
					E1BL4M4CI04A		
					E1BL4A4CI03A	E1BL4A4CI05A	
					E1BL4A4CI04A		
H0BL4M4CI02R	H0BL4M4CI04R	Auto cruise					

			H0BL4A4CI02R	H0BL4A4CI04R	and ABS/ESP
	With Out	39114-4A440	B1BL4M4CN01S	B1BL4M4CN02S	
			B1BL4A4CN01S	B1BL4A4CN02S	
			H0BL4M4CN01R	H0BL4M4CN03R	Auto cruise and ABS/ESP
			H0BL4A4CN01R	H0BL4A4CN03R	Auto cruise and ABS/ESP
		39114-4A441	E1BL4M4CN03A E1BL4M4CN04A	E1BL4M4CN05A	
			E1BL4A4CN03A E1BL4A4CN04A	E1BL4A4CN05A	
	H0BL4M4CN02R		H0BL4M4CN04R	Auto cruise and ABS/ESP	
			H0BL4A4CN02R	H0BL4A4CN04R	Auto cruise and ABS/ESP
EURO3	With Out	39114-4A460	E1BL3M4GN01A	E1BL3M4GN04A	
			E1BL3A4GN01A	E1BL3A4GN04A	
		39114-4A461	E1BL3M4GN02A E1BL3M4GN03A	E1BL3M4GN05A	
			E1BL3A4GN02A E1BL3A4GN03A	E1BL3A4GN05A	
	With	39114-4A470	E1BL3M4GI01A	E1BL3M4GI04A	
			E1BL3A4GI01A	E1BL3A4GI04A	
		39114-4A471	E1BL3M4GI02A E1BL3M4GI03A	E1BL3M4GI05A	
			E1BL3A4GI02A E1BL3A4GI03A	E1BL3A4GI05A	
	With Out	39114-4A480	E1BL3M4GNH1A	E1BL3M4GNH4A	
			E1BL3A4GNH1A	E1BL3A4GNH4A	
		39114-4A481	E1BL3M4GNH2A E1BL3M4GNH3A	E1BL3M4GNH5A	
			E1BL3A4GNH2A E1BL3A4GNH3A	E1BL3A4GNH5A	
	With	39114-4A490	E1BL3M4GIH1A	E1BL3M4GIH4A	
			E1BL3A4GIH1A	E1BL3A4GIH4A	
		39114-4A491	E1BL3M4GIH2A E1BL3M4GIH3A	E1BL3M4GIH5A	
			E1BL3A4GIH2A E1BL3A4GIH3A	E1BL3A4GIH5A	

4. Operation Code And Time

OP CODE	OP NAME	OP TIME	NATURE	CAUSE
100003R1	ECM UPGRADE	0.3 M/H	N94	C40
39110F2E	ECM UPGRADE (#130 → #168)	0.3 M/H		

5. Service Procedure

■ CAUTIONS DURING CONTROL UNIT UPGRADE

- 1) Make sure the vehicle's battery has reasonable charge. If the vehicle has been in storage for days, run the engine to assure an adequate battery charge state for reliable upgrade results.
- 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.) 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 scan tool during upgrade.
- 5) Do not start the engine during upgrade.
- 6) Do not turn off the ignition switch during upgrade.

■ 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 **ENGINE** 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 **ENGINE** 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**, "**130.BL 2.5 T/C OVER-SPEED IMPROVEMENT - EUROPE**." or "**131.BL 2.5 T/C OVER-SPEED IMPROVEMENT - GEN**"
- 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 #130** or **Upgrade Event #131**. Select the appropriate control unit part number with reference to the above ROM ID Information Table and click **OK**.

■ Upgrade event #130

■ Upgrade event #131

■ Upgrade event #168


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

■ Upgrade event #130 BL A2.5L equipped without ACV EUROPE

MENU	SYSTEM	Password
BL 2.5 +IMMO HIGH POWER EU4 : 39114-4A410		4410
BL 2.5 +IMMO HIGH POWER EU4 : 39114-4A410[~EI01R]	Auto cruise and ABS/ESP	4411
BL 2.5 +IMMO HIGH POWER EU4 : 39114-4A415		4415
BL 2.5 +IMMO HIGH POWER EU4 : 39114-4A415[~EI02R]	Auto cruise and ABS/ESP	4416
BL 2.5 +IMMO HIGH POWER EU4 : 39114-4A411		4412
BL 2.5 +IMMO HIGH POWER EU4 : 39114-4A411[~EI03R]	Auto cruise and ABS/ESP	4413
BL 2.5 +IMMO LOW POWER EU4 : 39114-4A430		4430
BL 2.5 +IMMO LOW POWER EU4 : 39114-4A430[~EI01R]	Auto cruise and ABS/ESP	4431
BL 2.5 +IMMO LOW POWER EU4 : 39114-4A435		4435
BL 2.5 +IMMO LOW POWER EU4 : 39114-4A435[~EI02R]	Auto cruise and ABS/ESP	4436
BL 2.5 +IMMO LOW POWER EU4 : 39114-4A431		4432
BL 2.5 +IMMO LOW POWER EU4 : 39114-4A431[~EI03R]	Auto cruise	4433

	and ABS/ESP	
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■ Upgrade event #168 BL A2.5L equipped with ACV EUROPE

MENU	SYSTEM	Password
BL 2.5 +IMMO ACV EU4 : 39114-4A410		4410
BL 2.5 +IMMO ACV EU4 : 39114-4A410[~EI01R,~EI04R]	Auto cruise and ABS/ESP	4411
BL 2.5 +IMMO ACV EU4 : 39114-4A430		4430
BL 2.5 +IMMO ACV EU4 : 39114-4A430[~EI02R,~EI04R]	Auto cruise and ABS/ESP	4431

■ Upgrade event #131

MENU	SYSTEM	Password
BL 2.5 +IMMO LOW POWER EU4 : 39114-4A450		4450
BL 2.5 +IMMO LOW POWER EU4 : 39114-4A450[~CI01R]	Auto cruise and ABS/ESP	4451
BL 2.5 +IMMO LOW POWER EU4 : 39114-4A451		4452
BL 2.5 +IMMO LOW POWER EU4 : 39114-4A451[~CI02R]	Auto cruise and ABS/ESP	4453
BL 2.5 -IMMO LOW POWER EU4 : 39114-4A440		4440
BL 2.5 -IMMO LOW POWER EU4 : 39114-4A440[~CN01R]	Auto cruise and ABS/ESP	4441
BL 2.5 -IMMO LOW POWER EU4 : 39114-4A441		4442
BL 2.5 -IMMO LOW POWER EU4 : 39114-4A441[~CN02R]	Auto cruise and ABS/ESP	4443
BL 2.5 -IMMO EU3 : 39114-4A460		4460
BL 2.5 -IMMO EU3 : 39114-4A461		4461
BL 2.5 +IMMO EU3 : 39114-4A470		4470
BL 2.5 +IMMO EU3 : 39114-4A471		4471
BL 2.5 -IMMO EU3 : 39114-4A480		4480
BL 2.5 -IMMO EU3 : 39114-4A481		4481
BL 2.5 +IMMO EU3 : 39114-4A490		4490
BL 2.5 +IMMO EU3 : 39114-4A491		4491

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.