



GROUP

MODEL

ENG

2021-2024MY
K5 (DL3a)
w/Theta III 2.5L T-GDI

NUMBER

DATE

260

November 2025

TECHNICAL SERVICE BULLETIN

SUBJECT:

ITM REPLACEMENT AND ECM
LOGIC IMPROVEMENT (CA2511)

This bulletin provides information to replace the Integrated Thermal Management Module (ITM) and then upgrade the Engine Control Module 'ECM' system software on certain K5 (DL3a) vehicles, in the event the Multifunction Indicator Lamp (MIL) is illuminated with DTC(s) P218100, P2181F0, and/or P2181F1 stored. This condition may occur due to degradation of the diaphragm inside the ITM. There are no drivability or other symptoms associated with this condition. Follow the procedure outlined in this publication to replace the ITM and upgrade the ECM software in 'Manual Mode' only. Refer to [SST081](#) for software upgrade instructions using Kia Diagnostic System (KDS) tablet and VCI-II and confirm the Upgrade Event Number/Name, ROM ID Information, and Manual Mode passwords on the applicable vehicle.

Model Year	Model	Engine	Production Date
2021-2024	K5 (DL3a)	Theta III 2.5L T-GDI	November 14, 2020 to December 20, 2023

DTC Descriptions:**P218100 - Cooling System Performance****P2181F0 - Cooling System Performance****P2181F1 - Cooling System Performance**

A [Vehicle Diagnosis Number \(VDN\)](#) must be created for DTC's prior to ordering parts and performing necessary procedure(s), as outlined in this TSB. If a VDN is not created, Parts Ordering and Warranty claim submission issues WILL occur. Any claims for replacement parts are subject to Warranty review and chargeback.

NOTICE

A Technical Service Bulletin is a field fix repair program without customer notification that may be performed during the warranty period.

This bulletin should only be performed with valid customer of a Malfunction Indicator Lamp (MIL) 'ON' MUST be stated in the opening RO and Claim Notes with the related DTC's stored.

Repair status for a VIN is provided on KDealer+ (Service → Warranty Coverage → Warranty Coverage Inquiry). **If ENG260/CA2511 is complete, any subsequent or follow up concerns need to be addressed under the terms of Kia's Basic Limited Warranty Coverage.**

A printed copy is for reference only; publication information can be updated at any time.
Always refer to KGIS for the latest information. After logging in kdealer.com, the newest technical publications are listed in 'Service Releases' and has the latest service information that has been released.

Repair Procedure:

1. Replace the Integrated Thermal Management Module 'ITM' (A) by referring to "Engine Mechanical System → Cooling System → Integrated Thermal Management Module (ITM) → Repair procedures" in the applicable Shop Manual on KGIS.



Tightening torque for bolts:
7.2 - 8.7 lb.ft (9.8 - 11.8 N.m)

NOTICE

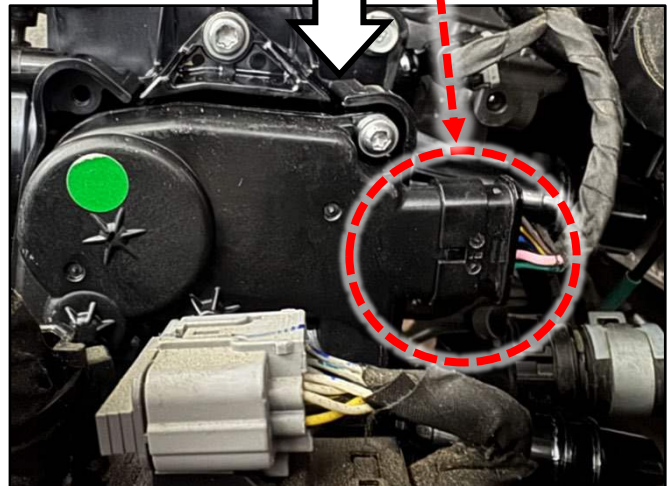
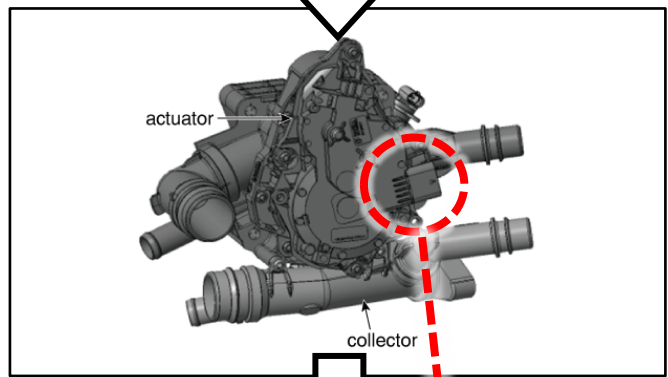
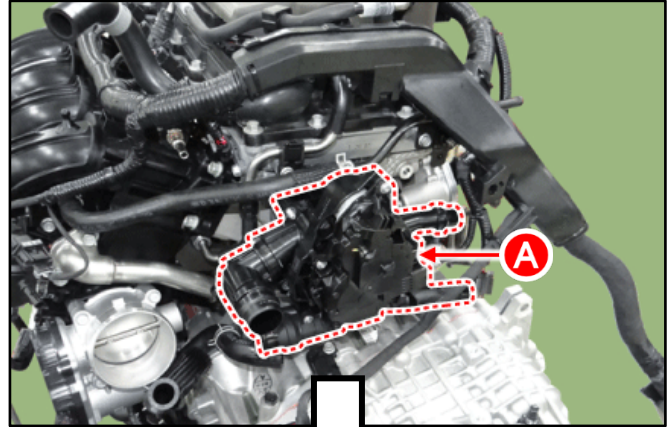
DO NOT disassemble the actuator and collector. The new ITM is supplied as an assembly unit.

2. Reinstall all removed parts in reverse order of removal.

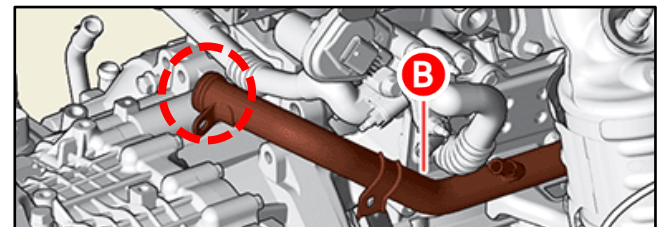
Note: The ITM connection orientation changes after replacing the new ITM part. The locking tab will face the engine.

**CAUTION**

Trying to make the connection on the new ITM in the same orientation as the original ITM may damage the connector pins/terminals.



3. Install a new inlet pipe (B) O-ring on the red circled area shown.
4. Proceed to upgrade the 'ECM' with Event 850 software in **Manual Mode** only, after ITM part replacement is completed by referring to the ROM ID table on page 4.



5. Verify normal vehicle operation.

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Refer to [TSB SST081](#) for instructions to upgrade the 'ECM' systems:

❗ IMPORTANT

The ECU and TCM **MUST** be programmed in **Manual Mode ONLY** using the KDS 2.0 download as described in this bulletin.

To correct this condition, the specified system module should be reprogrammed using KDS as described in this bulletin in 'Manual Mode'.

Upgrade Event Name
850.DL3a THETA 2.5GDI ECM Upgrade After ITM Parts Replacement

Manual Mode Software Upgrade After ITM Replacement Only

📄 NOTICE

- Confirm a fully charged battery (12.3 volts or higher is necessary) is used or utilize a fully charged jump starter box connected to the battery.
- **Ensure the KDS GDS is sufficiently charged at 60% or higher prior to reflash.**
- All ECU upgrades must be performed with the ignition set to the 'ON' position unless otherwise stated.
- **Damaged VCI II units should not be used and promptly replaced.**
- Be careful not to disconnect the VCI-II connected to the vehicle during the ECU upgrade procedure.
- **DO NOT start the engine during ECU upgrade.**
- **DO NOT turn the ignition key 'OFF' or interrupt the power supply during ECU upgrade.**
- **When the ECU upgrade is completed, turn the ignition 'OFF' and wait 10 seconds before starting the engine.**
- **ONLY use approved ECU upgrade software designated for the correct application.**

📄 NOTICE

Before attempting an ECU upgrade on any Kia model, make sure to first determine whether the applicable 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.

ROM ID Information Table: **K5 (DL3a)****Upgrade Event #850 Manual Mode ONLY****❗ IMPORTANT**

It is recommended to ALWAYS check the Electronic Parts Catalog (EPC) to locate the ECU Part Number respective to Auto/Manual Mode ROM IDs. DO NOT reference the parts label affixed to the ECU.

Model	MY	IMMO	ECU P/No.	ROM ID	
				Previous	New
K5 (DL3a)	21MY	No	39101 2S002	DLBWN5TMDCCXXG2A DLBWN5TMDCCXXG2B DLBWN5TMDCCXXG2C DLBWN5TMDCCXXG2D	DLBWN5TMDCCXXG2E
	21MY	Yes	39101 2S003	DLBWN5TSDCCXXG2A DLBWN5TSDCCXXG2B DLBWN5TSDCCXXG2C DLBWN5TSDCCXXG2D	DLBWN5TSDCCXXG2E
	21MY	No	39101 2S002	DLBWN5TMDCCXXJ0A	DLBWN5TMDCCXXJ0B
	21MY	Yes	39101 2S003	DLBWN5TSDCCXXJ0A	DLBWN5TSDCCXXJ0B
	22MY	No	39101 2S007	DLDWN5TMDCCXXJ1A DLDWN5TMDCCXXJ1B	DLDWN5TMDCCXXJ1C
	22MY	Yes	39101 2S008	DLDWN5TSDCCXXJ1A DLDWN5TSDCCXXJ1B	DLDWN5TSDCCXXJ1C
	23MY	No	39101 2S009	DLEWN5TMDCCXXM0A	DLEWN5TMDCCXXM0B
	23MY	Yes	39101 2S010	DLEWN5TSDCCXXM0A	DLEWN5TSDCCXXM0B
	24Y	No	39101 2S011	DLFWN5TMDCCXXM2A	DLFWN5TMDCCXXM2B
	24Y	Yes	39101 2S012	DLFWN5TSDCCXXM2A	DLFWN5TSDCCXXM2B

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.

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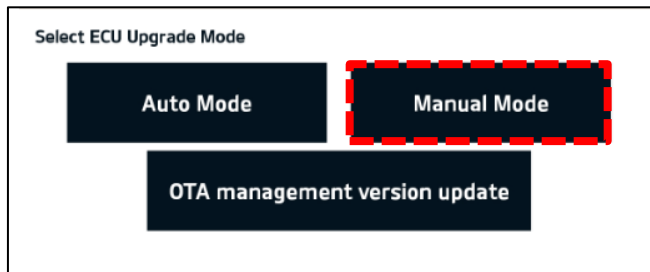
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Software Information:

❗ IMPORTANT

The ECU and TCM **MUST** be programmed in **Manual Mode ONLY** using the KDS 2.0 download as described in this bulletin.

The required software must be installed by selecting the **'Manual Mode'** ECU Upgrade option.



'Manual Mode' passwords.

Event No.	Menu	Password
850	DL3a 2.5TGDI +IMMO: 39101-2S002	2002
	DL3a 2.5TGDI -IMMO: 39101-2S003	2003
	DL3a 2.5TGDI R/C +IMMO: 39101-2S002	2004
	DL3a 2.5TGDI R/C -IMMO: 39101-2S003	2005
	DL3a 2.5TGDI +IMMO: 39101-2S007	2007
	DL3a 2.5TGDI -IMMO: 39101-2S008	2008
	DL3a 2.5TGDI +IMMO: 39101-2S009	2009
	DL3a 2.5TGDI -IMMO: 39101-2S010	2010
	DL3a 2.5TGDI +IMMO: 39101-2S011	2011
	DL3a 2.5TGDI -IMMO: 39101-2S012	2012

UPGRADE EVENT:

Select the applicable **'ECM'** system module and the Event Group.

- 850.DL3a THETA 2.5GDI ECM Upgrade After ITM Parts Replacement

Verify the affected vehicle Calibration Identification of the applicable ECU ROM ID and reference the Information Table on page 4 as necessary.



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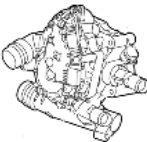
AFFECTED VEHICLE RANGE:

Model	Production Date Range
K5 (DL3a)	November 15, 2020 to December 2023

REQUIRED TOOL:

Tool Name	Part Number	Figure	Comments
Kia Diagnostic System (KDS)	N/A		KDS + VCI

REQUIRED PART:

Part Name	Part Number	Figure	Qty.	Comments
ITM	25600 2S650QQK		1	N/A
Water Inlet Pipe O-ring	25462 2S000QQK		1	N/A
Coolant (Gal.)	UM020 CH263	N/A	2	Prediluted

Note: The replacement part numbers will require a VIN entry for parts ordering. DO NOT order these parts for stocking purposes, related to this TSB. Supply is very limited. Until supply stabilizes, please confirm part availability before scheduling customers. Please be sure to expedite warranty claim filing.

SUBJECT:

ITM REPLACEMENT AND ECM LOGIC IMPROVEMENT (CA2511)**WARRANTY INFORMATION:****N Code: I3A C Code: ZZ3**

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
V	39100 2S226	0	(CA2511) ITM Replacement & ECM Logic Improvement K5 (DL3a)	250A47R0	1.5 M/H	25600 2S650QQK	1
						25462 2S000QQK	1
						UM020 CH263	2

Note: When substitute transportation is provided, manually enter sublet code 'X2' for rental expense reimbursement or one roundtrip rideshare expense. Please make sure to submit any substitute transportation claim at the time of the warranty expense.

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