	GROUP	NUMBER
HYUNDAI NEW THINKING. NEW POSSIBILITIES.	CAMPAIGN	16-01-025
	DATE	MODEL(S)
Technical Service Bulletin	MAY 2016	LF HEV SONATA HYBRID

SUBJECT:

TPMS DIAGNOSTIC LOGIC UPDATE (SERVICE CAMPAIGN TY7)

THIS TSB SUPERSEDES 15-01-043 TO INCLUDE INSTRUCTIONS TO REMOVE THE MULTIMEDIA (AVN) FUSE BEFORE PERFORMING THE SOFTWARE UPDATE. THIS HELPS TO PREVENT POTENTIAL CAN-COMMUNICATION ERRORS AFTER PERFORMING THE SOFTWARE UPDATE.

***** IMPORTANT

*** Dealer Stock and Retail Vehicles ***

Dealers must perform this Service Campaign on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair.

When a vehicle arrives at the Service Department, access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS to identify open Campaigns.

Description: This bulletin describes the procedure to update the TPMS software of some 2016MY Sonata Hybrid (LF HEV) vehicles. The software updates the TPMS diagnostic logic related to DTC C1212 (Vehicle Speed Sensor).

NOTICE

There is no impact on the TPMS system's ability to measure and indicate low tire pressure.





Applicable Vehicles: Certain 2016MY Sonata Hybrid (LF HEV) vehicles. LF HEV – Vehicles produced from March 17, 2015 through September 17, 2015.

Parts Information:

Model	Model Year	TPMS Part No.	Old ROM ID	New ROM ID
LF HEV Sonata Hybrid	16MY	95800-E6100	1.1 1.2	1.3

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

GDS Information:

Event #	Description
385	LF HEV/PHEV TPMS RECEIVER SW IMPROVEMENT

Warranty Information:

Model	Op. Code	Operation	Op. Time
LF HEV	50C088R1	TPMS UPGRADE	0.3 M/H

NOTE: Submit Claim on Campaign Claim Entry Screen

Service Procedure:



This Service Procedure is performed using PC-based GDS, or GDS-mobile. For update information and general precautions, please refer to TSBs #15-GI-001 and #15-GI-002.

Before performing the the TPMS software update, remove the 15A multimedia (AVN) fuse located in the smart junction block, as shown below.



P/SEAT 82 PASS 22 SPARE 12 MODULE 12	
P/WDW & BATTERY & BATTERY & MANAGE. RH MEMORY & MEMORY & MEMORY & MEMORY & MEMORY & MANAGE. MEMORY & MEMORY & MEMORY & MANAGE.	
DR KEY SU P/SEAT SU P/SEAT SU MEMORY SU MODULE SPARE SU IG1 ST A/BAG	
SHEATER RR R	
BRAKE S SWITCH LE START S START S S START S S START S S START S S S S S S S S S S S S S S S S S S S	

PC-Based GDS Procedure: AUTO MODE

1. From the ECU Upgrade screen, select AUTO MODE and click Next.



2. Select **TPMS** for System, and click **OK**.



3. After the Current ROM ID is displayed, select the upgrade event **"385.LF HEV/PHEV TPMS RECEIVER SW IMPROVEMENT**." Click **Upgrade** to continue.

	VCI : WLAN On SVMI : Off SInternet : Off	- X
GD	Preparation Diagnosis Vehicle S/W Manageme	nt Repair Q
Vehicle 🕨 SONATA H	EV(LF HEV)/2016/G 2.0 HEV System) Tire Pressure M	onitoring/Tire Pressure 🛛 🔯 🔡
Vehicle S/W Management	ECU Upgrade	
ECU Upgrade 🜗	Event Group Event List	TSB
Mode	Current ROM ID 1.1	
Auto Mode	• Latest ROM ID 1.3	
▶System	385 LF HEVIPHEV TPMS RECEIVER SW IMPROVEMENT	
TPMS		
	Previous Upgrad	e
	Event selection	<u>A</u>
	 Review and understand related TSB for vehicle reprogramming. Select reprogramming event from Upgrade Event pull down menu above Glick the Ungrade button to begin FOI ungrade. 	
Audio Update	o, onor no opgrado batton to bogin 200 apgrado,	
ID Register		
Option Treatment		
Data Treatment		
Inspection / Test		
ECU Mapping Verification		<u>v</u>
Setup Manual	TSB Case Analysis DTC Current Data Actuation Test Flight Record Oscilloscop	e Simulation Internet Update

4. After confirming USB cable is connected between VCI and laptop PC, and that the vehicle's battery has adequate charge, the update will begin. After update progress reaches 100%, turn the ignition **OFF** for 10 seconds, then back **ON** again.

5. Update completion confirmation window will be displayed, along with ROM ID.



- 6. Re-install the multimedia fuse.
- 7. Check for any incidental diagnostic trouble codes (DTCs) and clear any present.
- 8. Start the engine to confirm proper operation of the vehicle.
- 9. After upgrade is complete, perform <u>Vehicle Name Writing</u> and <u>Register Sensor</u> procedures from the <u>Vehicle S/W Management</u>, <u>Option Treatment</u> menu.

PC-Based GDS Procedure: MANUAL MODE

- 1. From the ECU Upgrade screen, select **MANUAL MODE** and click **Next**.
- 2. Select TPMS for System, and click Next.
- 3. Select the upgrade event "385.LF HEV/PHEV TPMS RECEIVER SW IMPROVEMENT" and click Next.



4. GDS will display latest ROM ID, to which TPMS system will be upgraded. Confirm ROM ID is correct based on the ROM ID Table on page 1, then click **Upgrade**.

	<u>()</u>	CI : WLAN On ု 🔘	VMI: Off	Internet : Off			- ×
GD	Preparation	Diagnos	sis Ve	hicle S/W Manag	gement R	Repair	0
Vehicle > SONATA H	EV(LF HEV)/2016/G 2.0	HEV	System	Tire Pressu	re Monitoring/Tire	Pressure	0 🗄
Vehicle S/W Management	ECU Upgrade						
ECU Upgrade	- Event	Event	List			TSB	
• Mode Manual Mode	 Current ROM ID Latest ROM ID 	1.3					
→System TPMS	LF HEV/PHEV TPMS	95800-E6100					
• Event Group 385.LF HEV/PHEV TPMS		P	revious	Up	grade		×
A dia la da	CAUTION During the ECU Up Failure to follow these DO NOT operate any DO NOT disturb or dis	grade, observe the e precautions may other computer progra connect the DLC(Dat	following pred result in ECL im, a Link Connector	cautions, I damage,).			
ID Register	3) DO NOT turn off the V 4) DO NOT start the veh 5) DO NOT operate any	CI or DO NOT discon cle or turn the IG key of the vehicles other s	nect VCI USB Co off, systems(climate	nnector, control, lighting, au	udio, etc,)		
Option Treatment							
Data Treatment							
Inspection / Test							
ECU Mapping Verification I							¥
Setup Manual	TSB Case Analysis D	TC Current Data	Actuation Test	light Record Oscill	loscope Simulation Test	Internet Update ECU	Jpgrade

5. A prompt for password will be displayed. Input the password according to the table below.

Password	
ок	Cancel
ок	Cancel

MENU	PASSWORD
LF HEV TPMS 95800-E6100	6100

- 6. Vehicle battery voltage will be checked for at least 12 volts to ensure reliable upgrade results. Click **OK** if the results indicate voltage is ok.
- 7. Upgrade will begin and the upgrade progress will appear on the bar graph.
- 8. After upgrade reaches 100%, turn the ignition to **OFF** for 10 seconds, then back **ON**. Click **OK** to continue.
- 9. Click **OK** on the final screen.
- 10. Re-install the multimedia fuse.
- 11. Check for any incidental diagnostic trouble codes (DTCs) and clear any present.
- 12. Start the engine to confirm proper operation of the vehicle.
- 13. After upgrade is complete, perform <u>Vehicle Name Writing</u> and <u>Register Sensor</u> procedures from the <u>Vehicle S/W Management</u>, <u>Option Treatment</u> menu.

GDS Mobile Procedure: Auto Mode

1. Starting from the ECU Upgrade menu, select **AUTO MODE.**



 Select TPMS system and click ID Check. Current ROM ID will be displayed along with update ROM ID. Select Event #385. LF HEV/PHEV TPMS RECEIVER SW IMPROVEMENT. Verify ROM IDs according to the ROM ID Table on page 1. Click Upgrade to continue.

GDS KMHE34L15GA007745	11/0	09/15 1	6:0
HOME Online SONATA HEV(L/2016/G 2.0 HEV	VCI 🚌	•	2+3
ECU Upgrade			₽
📾 SONATA HEV(LF HEV) > 2016 > G 2.0 HEV			
System			
< Markovicki statisticki stratisticki strati		>	
ROM ID			
Currently in Vehicle 1.1 Latest Update 1.3	ID Che	ck	
Event Group		TSB	
State 1 385.LF HEV/PHEV TPMS RECEIVER SW IMPROVEMENT	ΝΤ		
Previous Upgrade			
Information			×
CAUTION			
1. DO NOT start the engine and DO NOT turn the ignition key to during the ECU upgrade. 2. Ensure that the battery is fully charged BEFORE beginning ECU 3. Confirm the target vehicle/system BEFORE performing a m ECU upgrade. 4. Review the apolicable TSB/orocedure before performing an ECU Do not touch any system buttons while performing	o the OFF J upgrade aanual/err CU upgrad this funct	positio or mod le. tion.	de

3. Read the caution note, then click **OK** to continue.



4. ECU Upgrading graph will display in two parts. After ECU Upgrading...(2/2) reaches 100%, turn the ignition **OFF** for 10 seconds, then back **ON** again. Click **OK** to continue.

	100%
	ECU Upgrading(2/2)
then ba	Turn IG off for 10 seconds and ck on. Click the OK button to continue.
ROM ID	
Currently in Vehicle	1.1
Latest Update	1.3
	ок

5. Click **OK** after "ECU Upgrade has successfully finished" message is displayed.

100%					
	Succeed				
The ECU Upgrade is successfully finished.					
ROM ID					
Currently in Vehicle	1.3				
Latest Update	1.3				
	ОК				

6. Read note that instructs to perform "<u>Vehicle Name Writing</u>" and "<u>Register Sensor</u>" processes and click **OK.**



- 7. Re-install the multimedia fuse.
- 8. Click **Yes** to search for fault codes in <u>all systems</u>. Clear any DTCs found.

Notice			
	Do you want run Fa	ult Code Searching?	
	Vac	No	

9. Complete the procedure by performing "<u>Vehicle Name Writing</u>" and "<u>Register Sensor</u>" processes in the TPMS system from the <u>S/W Management</u> screen.

GDS Mobile Procedure: Manual Mode

- 1. Starting from the ECU Upgrade menu, select **MANUAL MODE.**
- Select TPMS system, and select Event #385. LF HEV/PHEV TPMS RECEIVER SW IMPROVEMENT. Verify upgrade ROM ID according to the ROM ID Table on page 1. Click Upgrade to continue.

KMHE34L15GA007745				11/	11/09/15 16:03					
🕂 НОМЕ (Online	SONATA HEV(L	/2016/G 2.0 HEV	Y	VCI 🚌	•	2-2			
		ECU U	pgrade				₽			
📾 SONAT	🖴 SONATA HEV(LF HEV) > 2016 > G 2.0 HEV									
System										
<	РМЯ					>				
• Event G	roup					TSB				
<u>a</u> 3	385.LF HEV/P	HEV TPMS RECE	IVER SW IMPF	ROVEMEN	т	ſ				
LF HEV/PHEV TPMS 95800-E6100										
Latest U	pdate	1.3								
	Pre	vious	Up	ograde						
	Inform	ation					*			
! 0	Do not touch any system buttons while performing this function.									

3. Input the appropriate password according to the table below, then click OK.

PASSWORD			
6100			
P			
2			

- 4. Read the caution note, then click **OK** to continue.
- 5. ECU Upgrading graph will display in two parts. After ECU Upgrading...2/2 reaches 100%, turn the ignition **OFF** for 10 seconds, then back **ON** again. Click **OK** to continue.
- 6. Click **OK** after "ECU Upgrade has successfully finished" message is displayed.
- 7. Read note that instructs to perform "Vehicle Name Writing" and "Register Sensor" processes.

- 8. Re-install the multimedia fuse.
- 9. Click **Yes** to search for fault codes in <u>all systems</u>. Clear any DTCs found.
- 10. Complete the procedure by performing "<u>Vehicle Name Writing</u>" and "<u>Register Sensor</u>" processes in the TPMS system from the <u>S/W Management</u> screen.