

## Service Campaign 953 Dealer Best Practice

Date: February 13, 2020

Attn: Dealer Principal/General Manager/Service Manager/Parts Manager

Subject: Service Campaign 953: ECM & Cluster Update (TSB #20-01-006H supersedes TSB#19-01-002H-4) – UPDATED v14

Updates To This Document	<u>Date</u>
• Update: Reference to TSB #20-01-006H which includes the update to the ECM software on 2.4L engines.	02/13/20

## \*\*\*IMPORTANT Retail Vehicles\*\*\*

Dealers must perform this Campaign on all affected vehicles whenever an affected vehicle is in the shop for any maintenance or repair.

## Affected Vehicles

Hyundai has launched a Product Improvement Campaign to perform a knock sensor software update on applicable vehicles.

The affected vehicles include:

- Certain 2011-2014 MY Sonata (YF) vehicles with 2.0L Turbo and 2.4L engines
- · Certain 2015-2019 MY Sonata (LF) vehicles with 2.0L Turbo and 2.4L engines
- Certain 2013-2018 MY Santa Fe Sport (AN) vehicles with 2.0L Turbo and 2.4L engines
- Certain 2019 MY Santa Fe (TM) vehicles with 2.0L Turbo and 2.4L engines
- Certain 2014-2015 MY Tucson (LM) vehicles with 2.4L engines
- Certain 2018-2019 MY Tucson (TL) vehicles with 2.4L engines
- Certain 2019 MY Veloster N (JSN) vehicles with 2.0L Turbo engines

Hyundai is initiating this action to ensure the safety and quality of its vehicles and the continued satisfaction of Hyundai customers.

## **Description**

Hyundai has developed a new engine monitoring technology called a Knock Sensor Detection System (KSDS). The technology uses software innovations and leverages existing engine sensors to continuously monitor for symptoms that may precede an engine failure. Watch this <u>video</u> to learn more.

The KSDS software continuously monitors engine vibrations for unusual patterns that develop as an engine connecting rod bearing wears abnormally that could later cause engine seizure. If vibrations caused by bearing wear start to occur, the malfunction indicator lamp will blink continuously, an audible chime will sound and the vehicle will be placed in a temporary engine protection mode with reduced power and acceleration. At that time, Diagnostic Trouble Code (DTC) P1326 will be recorded in the ECM.

In addition, Hyundai will extend the warranty to 10 years and 120,000 miles (up from 100,000 miles) for original and subsequent owners of the covered vehicles for engine repairs needed because of excessive connecting rod bearing damage.

## Service Action



**Reservation** – Always check the Vehicle Information Screen in WebDCS for open campaigns and recalls, and advise the customer on time requirements.

- As this is a high volume campaign, make sure to check your appointment reservation settings and verify customer information. This will help reduce unplanned work and speed up the customer check in process.
- Make sure to review Blue Link alerts with DTC P1326 and reach out accordingly.
- Provide customer with transportation options such as SRC or alternative vehicle.
- When a customer's vehicle is eligible for 953, please explain: "Hyundai developed a new engine monitoring technology that uses software innovations and existing engine sensors to continuously monitor for symptoms that



may precede an engine failure. Your vehicle is eligible for this product improvement campaign at no cost, may I add it to your service order today?"

- If the customer declines, please follow up: "We can schedule the procedure at a better time for you. When would that be?"
- For more detailed talk tracks, refer to the appendix section on page 8 (also available on the Engine Support Page found on Hyundaidealer.com).



**Readiness** – Review this announcement and the accompanying FAQs with all Service and Parts staff including Reservationist/BDC. Also, complete all applicable training, check your reservation capacity settings (you can set separate capacities for every recall/campaign), confirm email addresses for campaign appointments, and that you have all necessary tools, campaign parts and shop equipment as needed.

- This campaign can be completed quickly and does not require a hoist.
- Dealers should consider a workspace that offers the technicians the appropriate vehicle and Wi-Fi access that also
  ensures high frequency completion rates.
- Prepare for unplanned work and make sure there is sufficient staff on the service drive to keep vehicles moving through the shop.



**Reception** – Always check the Vehicle Information Screen in WebDCS for open campaigns and recalls, and print a copy for technicians. Provide SRC or an alternative vehicle, as needed. If a customer has declined the campaign, note this on the repair order and request the customer's signature next to the statement.

- When a customer's vehicle is eligible for 953, please explain: "Hyundai developed a new engine monitoring technology that uses software innovations and existing engine sensors to continuously monitor for symptoms that may precede an engine failure. Your vehicle is eligible for this product improvement campaign at no cost, may I add it to your service order today?"
- If the customer declines, please follow up: "We can schedule the procedure at a better time for you. When would that be?"
- For more detailed talk tracks, refer to the appendix section on page 8 (also available on the Engine Support Page found on Hyundaidealer.com).



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**Repair** – Always plug in the GDS before starting the repair. Make sure to complete an MPI on all vehicles and Quality Control your work.

- Perform any open Recalls prior to performing Service Campaign 953.
  - The TSB provides vehicle service procedures, affected VIN production range, and warranty claim information. If 953 was previously completed on the VIN and required an additional ECM update, HMA will support the
- submission of an additional 953 claim even if it is no longer an open campaign on the VIN.
  Use Greeters, Porters and Service Consultants to bring vehicles to Technicians to make it easier for them to stay working in the bay.
- Make sure to verify the in-vehicle service interval reminder is set after completing Service Campaign 953. Refer to TSB#19-EM-002H and the Service Interval Reminder Dealer Best Practices in the appendix of this document on pg. 9 (also found on the Engine Support Page on HD.com) for instructions.



**Return** – Review all completed campaign and repairs to answer any customer questions. Also, schedule the customer's next service.

- It's important to explain to each customer during the return step of the service process what happens with their **vehicle if abnormal engine bearing noise is detected**. If the customer experiences a flashing MIL and restricted performance, let them know they should return to the dealership to have the condition addressed by a subsequent campaign (T3G) or available warranty. **No diagnostic fee should be charged if the customer returns with a check engine light on and describes engine protection mode**.
  - In the event DTC code P1326 is set <u>after</u> the campaign software update is performed, refer to latest Campaign T3G TSB.
  - Please note: The DTC code may not set until vehicle is test driven through a normal drive cycle.
  - Campaign T3G will not show as an open campaign in WebDCS and is for warranty claim submission purposes.
  - If the engine needs to be replaced, place the customer into a Service Rental Car (SRC) or alternate vehicle. All SRC or Rental claims will be reimbursed regardless of PA's decision to cover the engine replacement.



Reconnect – Follow up for customer satisfaction.

• HMA have sent reminder communications to customers that have not had Campaign 953 completed. Please followup with your DPSM for the most current Campaign 953 Incomplete VIN list.

## Parts 1 4 1

This campaign is a software update only. In the event any parts are needed, please proceed with ordering OE parts as outlined in the corresponding TSB(s).

#### **Customer Notification**

Hyundai has notified 2011-2019 owners of the vehicles described above and strongly encourage them to return their vehicles to their Hyundai dealers for the service procedure as soon as possible.

Thank you for your prompt attention to this important matter and continued commitment to Hyundai customers.

Hyundai Motor America



### Engine Software Update Product Improvement Campaign Q&A

#### Q: What is this Product Improvement Campaign?

A: Hyundai has recently developed a new engine monitoring technology called a knock sensor detection system as an added layer of protection from engine damage. The technology uses software innovations and leverages existing engine sensors to continuously monitor for symptoms that may precede an engine failure. The software update is being performed by Hyundai dealers free of charge to customers as part of a Product Improvement Campaign.

In addition, Hyundai will extended the warranty to 10 years and 120,000 miles (up from 100,000 miles) for original and subsequent owners of the covered vehicles for engine repairs needed because of excessive connecting rod bearing damage. This extended warranty will be automatically applied to the covered vehicles.

#### Q: What vehicles are covered by this Product Improvement Campaign?

A: This Product Improvement Campaign covers:

- Certain 2011-2014 MY Sonata (YF) vehicles with 2.0L Turbo and 2.4L engines
- Certain 2015-2019 MY Sonata (LF) vehicles with 2.0L Turbo and 2.4L engines
- Certain 2013-2018 MY Santa Fe Sport (AN) vehicles with 2.0L Turbo and 2.4L engines
- Certain 2019 MY Santa Fe (TM) vehicles with 2.0L Turbo and 2.4L engines
- Certain 2014-2015 MY Tucson (LM) vehicles with 2.4L engines
- Certain 2018-2019 MY Tucson (TL) vehicles with 2.4L engines
- Certain 2019 MY Veloster N (JSN) vehicles with 2.0L Turbo engines

#### Q: Why is Hyundai conducting this product improvement campaign?

A: Hyundai is conducting this product improvement campaign to ensure the satisfaction of its customers and provide additional warranty protection. The knock sensor detection system being installed is able to alert customers at an early stage of bearing wear before the occurrence of severe engine damage. This will allow customers to get their vehicle to a Hyundai dealer for repair.

#### Q: Do I need the Product Improvement Campaign performed on my vehicle?

A: Hyundai strongly encourages customers bring their vehicles in to their Hyundai dealer for the free software update as soon as possible. The software is designed to alert the vehicle driver at an early stage of bearing wear before the occurrence of severe engine damage, including engine failure, and enable the customer to safely drive their vehicle to a Hyundai dealer for inspection and repair.

#### Q: How long will it take for the software update?

**A:** The software installation should take less than one hour. However, it is always suggested that customers contact their local Hyundai dealer to schedule a service appointment. The dealer can advise on the actual time needed for the procedure.

#### Q: What will happen if the knock sensor detects Bearing Wear?

A: If excessive bearing wear is detected after the knock sensor detection system software update has been completed, the following will occur:

1. The Malfunction Indicator Lamp (MIL) will blink continuously, an audible chime will sound and the vehicle will be placed in a temporary engine protection mode with reduced power and acceleration.



Malfunction Indicator Lamp (MIL)

2. The vehicle can continue to be operated for a limited time in Engine Protection Mode to permit the customer to drive the vehicle to a safe location, but it will accelerate slowly and have a reduced maximum speed. Engine RPMs will be limited to approximately 1800-2000 RPM. This means the maximum vehicle speed will be limited to approximately 65 mph or less depending on vehicle loading and road conditions.

### Q: If the knock sensor is activated and bearing wear is identified, what is the repair that will take place?

A: Hyundai dealers will inspect, and if necessary, replace the engine.



### Q: Will other Hyundai vehicles get this update?

A: Hyundai is currently evaluating the deployment of the knock sensor detection system in additional vehicles and model years as part of ongoing technology and software innovations.

#### Q: When will owners be notified?

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A: Owners of 2011-2019 models on the affected vehicles list have been notified. Customers can contact their Hyundai dealer to schedule an appointment or visit <u>www.HyundaiUSA.com/campaignhome</u>.

#### Q: What if I have already paid for related engine repairs?

A: Hyundai has a Reimbursement Program in place if you previously had any repairs or expenses related to this Product Improvement Campaign. Submit a request for reimbursement online at <u>www.HyundaiUSA.com/campaignhome</u>.

## 2011-2014 Sonata and 2013-2014 Santa Fe Sport Only Additional Q&A

#### Q: What is the difference between the previous engine recalls and this Product Improvement Campaign?

A: Hyundai previously recalled certain 2011-2014 Sonata and 2013-2014 Santa Fe Sport vehicles equipped with 2.0 liter and 2.4 liter gasoline direct injection engines to inspect, and if necessary, replace the engine assembly.

In addition, Hyundai has recently developed a new engine monitoring technology called a knock sensor detection system as an added layer of protection from engine damage. The technology uses software innovations and leverages existing engine sensors to continuously monitor for symptoms that may precede an engine failure. The software update is being added to vehicles beyond the recalled population as a preventive measure, and is being performed free of charge by Hyundai dealers to customers as part of the Product Improvement Campaign.



Key Contact Information						
Dealer Support	Contact Information	Description				
Parts	HyundaiPartsHotline@MobisUSA.com 1-800-545-4515	Parts ordering hotline				
Techline	1-800-325-6604	Vehicle Technical Support for Hyundai Dealer Technicians				
Warranty HELPREP Line	1-877-446-2922	Warranty Claim questions for Hyundai Dealers				
Warranty Prior Approval (PA) Center	1-844-371-3808	Warranty Prior Approval (PA) Center for Hyundai Dealers				
Xtime Technical Support	Support@xtime.com 1-866-984-6355	Assistance with Car Care Scheduling: Appointment / Shop Capacity Management / Campaign Integration / Operation Codes				
AutoLoop Technical Support	Support@autoloop.com 1-877-850-2010	<ul> <li>Assistance with Car Care Scheduling:</li> <li>Appointment / Shop Capacity Management / Campaign Integration / Operation Codes</li> </ul>				
CDK Technical Support	https://serviceconnect.support.cdk.com/	Assistance with Car Care Scheduling: • Appointment / Shop Capacity Management / Campaign Integration / Operation Codes				
Customer Support	Contact Information	Description				
Hyundai Customer Care Center (Recall/Campaign Questions)	1-855-671-3059	Customer questions or concerns related to <u>recall or</u> <u>service campaigns</u>				
Hyundai Recall /Campaign Website	www.hyundaiusa.com/recall	Updated information related to the specific recall or service campaign				
Hyundai Customer Care Center (GeneralQuestions)	1-800-633-5151	Customers general questions, <u>non-campaign</u> related				
Hyundai Roadside Assistance	1-800-243-7766	Hyundai Roadside Assistance				

Key Reference Information				
Name	Source			
Campaign Central	Consolidated repository of recall and service campaign dealer best practices. Located on the service tab homepage in <u>www.HyundaiDealer.com</u>			
Car Care Scheduling (Xtime) - Tutorials	www.HyundaiDealer.com > Service > Dealer Resources > Documents Library > Car Care Scheduling			
Car Care Scheduling (Xtime) - Recall Appointment Notification	<ol> <li>Log into Xtime</li> <li>Under the menu at the top left, select 'CONFIGURE'</li> <li>Under the dealership tab, click "EMAIL COMMUNICATION"</li> <li>Slide the toggle to "ADVANCED"</li> <li>Populate as many e-mails as desired in the "PARTS DESK EMAIL FIELD"</li> </ol>			
Parts – Campaign Parts Management (CPM) Procedure	As applicable; <u>www.HyundaiDealer.com</u> > Parts > Documents Library > Campaign Parts Management			
Service Rental Car (SRC) Program	<pre>www.HyundaiDealer.com &gt; Service tab &gt; SRC Fleet Mgmt Software</pre>			
Technical Service Bulletin (TSB)	www.HyundaiDealer.com > Service tab > Hyundai Tech Info			
Uncompleted Campaign VIN Listing	A listing of vehicles is located on WEBDCS> SERVICE tab> select UNCOMPLETED CAMPAIGN VIN LISTING – Dealer Stock (New, SRC, CPO, etc.) and Retailed.			
Recall Campaign Website	www.hyundaiusa.com/recall			
NHTSAWebsite	www.safercar.gov			



## Appendix

Updates To Previous Versions of this Document	<u>Date</u>
<ul> <li>Update: Reference updated TSB #19-01-002H-4 and to add 19MY Sonata, Santa Fe, Tucson, and Veloster N vehicles.</li> </ul>	10/28/19
Please note: Wiring Signal Interference Inspection (Refer to pg. 21 on the TSB)	
<ul> <li>Update: Reference to updated TSB #19-01-002H-3 and updates the Engine ECM software on 11-14MY Sonata and 13-14MY Santa Fe Sport.</li> </ul>	10/3/19
Added Service Procedure: Wiring Signal Interference Inspection (Refer to pg. 19 on TSB)	
<ul> <li>Update: Reference to updated TSB #19-01-002H-2 and updates the ECM software on 15-18MY Sonata, 13- 18MY Santa Fe Sport, 14-15MY and 18MY Tucson.</li> </ul>	09/26/19
Update: Clarified SRC information in the "Return Process".	03/15/19
<ul> <li>Update: Added Extended Warranty Coverage to description, details to Service Actions and updated FAQs. "Limp Home Mode" is now referred to as "Engine Protection Mode". Updated TSB reference for Campaign 953 and T3G.</li> </ul>	02/15/19
<ul> <li>Update: Added verbiage to include "Contact Warranty Prior Approval (PA)" if DTC Code P1326 is set and Campaign T3G is not applicable. Updated template.</li> </ul>	01/17/19
<ul> <li>16-18MY Sonata, 16-18MY Santa Fe Sport, 14-15MY and 18MY Tucson vehicles added to Service Campaign 953. Updated TSB#19-01-002 supersedes TSB#18-01-027-2.</li> </ul>	01/10/19
<ul> <li>2011-2014 Sonata and 2013-2014 Santa Fe Sport only: In the event DTC code P1326 is set after Service Campaign 953 is performed: Down vehicle and provide SRC.</li> </ul>	12/17/18
<ul> <li>Update: 2015 Santa Fe Sport vehicles repair process outlined for each model and model year in the event DTC code P1326 is set after Service Campaign 953 is performed</li> </ul>	12/12/18
<ul> <li>2011-2014 Sonata and 2013- 2014 Santa Fe Sport vehicles added to Service Campaign 953.</li> <li>Repair process outlined for each model and model year in the event DTC code P1326 is set after Service Campaign 953 is performed</li> </ul>	12/07/18
• 2015 Santa Fe Sport vehicles added to Service Campaign 953.	11/08/18
<ul> <li>2015 Sonata only: In the event DTC code P1326 is set after Service Campaign 953 is performed, refer to TSB #18-01-032 (campaign T3G) for the service procedure and Special Service Tools information.</li> </ul>	10/17/18
2015 Sonata only: Initial communication to dealers.	08/09/18



## Appendix

## Service Consultant Talk Tracks for Campaign 953

## You are eligible for a new Product Improvement campaign!

"Hyundai has developed new engine monitoring technology that uses software innovations and existing sensors to proactively monitor engine performance. If an abnormality is detected, the vehicle is put into "engine protection mode" to prevent further engine wear. This software update is available free of charge as part of a Product Improvement Campaign, and only takes about 30 minutes to complete. Can I add that to your service order today?" (If not, when would be a good time to schedule this update?)

## I received a letter in the mail, what is Service Campaign 953?

"Hyundai has developed innovative new software that utilizes an existing engine sensor to detect abnormal engine performance. If detected, the vehicle is put into an "engine protection mode" to prevent further engine wear. Service Campaign 953 will apply this software update to qualified Sonata, Santa Fe Sport, and Tucson vehicles free of charge to customers as part of a Product Improvement Campaign."

## What happens if my vehicle goes into "Engine Protection Mode"?

"The newly updated software continuously monitors the engine for vibration patterns that could indicate unusual parts wear. In the rare instance that this occurs, the check engine light will illuminate, an audible chime will sound, and the vehicle will be placed into a temporary "engine protection mode." This "engine protection mode" limits vehicle speed to 65 mph or less depending on vehicle load and road conditions. This is still sufficient to drive to the nearest Hyundai dealer for diagnosis. Alternatively, if your vehicle is less than 5 years old, you can call Hyundai Roadside Assistance at 1-800-243-7766."

## What should I expect when I bring my vehicle in with "Engine Protection Mode"?

"If your vehicle goes into "Engine Protection Mode," the dealership will diagnose the check engine light under warranty. If the diagnosis requires an engine replacement, a Service Rental Car (SRC) or alternative transportation will be provided to you at no cost."

## I already had an engine recall performed on my vehicle, do I still need this?

"Hyundai strongly encourages customers to bring their vehicles in to the dealer for the free software upgrade. Hyundai previously recalled certain 2011-2014 Sonata and 2013-2014 Santa Fe Sport vehicles to inspect, and if necessary, replace the engine. Hyundai developed this new software update as an added layer of protection to deliver an early warning to the driver."



## Appendix

## Service Interval Reminder Best Practice Guide

## What is the Service Interval Reminder?

It is a reminder that informs the customer of an upcoming service due. Three of the most common reminders that you will see are:

- Instrument cluster and touch screen navigation display programmed mileage and time intervals (Å)
  - BlueLink Alert (B)
  - Maintenance Sticker (C)



Click here to see a short video on how to set the service interval light in the new Hyundai Palisade

## How to Reset the Service Interval Reminder

### Instrument Cluster

- 1. Press on mode button from the steering wheel
- 2. Scroll to service interval section
- 3. Click on "reset"
- 4. When prompted "Reset time and distance", click on yes
- 5. Verify mileage and months have been updated





#### Touch Screen Navigation – Vehicle Settings Menu

- 1. Press the Setup button on the control panel and then select Vehicle settings on the screen
- 2. Follow the touch screen menu and navigate to the following items
- 3. Cluster > Service Interval > Enable Service Interval > Enter Interval Distance/Time

🕸 Vehicle Settings		🔅 Cluster		Distance				
Climate	Service Interval	>	Service Interval	Enable Service Interval	50			00 miles
Lights	Energy Consumption Reset	>	Energy Consumption Reset After Refueling Content Selection	Distance 5000 miles Duration	Enter the service interval reminder distance.			
Door	or Content Selection				6 month			month(s)
Cluster	Welcome Sound		Welcome Sound	273 day(s)	1	nter the service in 2	terval reminder ti 3	me.
Convenience				neset	4	5	6	
					7	0	9	ОК

#### Blue Link Alert

- 1. Reset Maintenance Alerts (TSB 17-BE003-1)
- 2. Go to HD.com>WebDCS> Service>Vehicle Information Screen
- 3. Enter the VIN and Click Search
- 4. Scroll down to Blue Link Information> Maintenance Alert and click Reset



#### Maintenance sticker

- 5. Remove old sticker
- 6. Replace new sticker with new mileage and return date





Make sure the date and mileage match what is set for the customer's Blue Link maintenance alerts



### Service Action



### Reception

- The Service Consultant should reset the customers Blue Link Maintenance Alert on the VIS screen when writing up the repair order. This saves time since the Service Consultant is already in the VIS screen checking for open campaigns and service history.
- Optional Best Practices for Service Consultants:
  - Fill out the maintenance sticker to match the Blue Link Maintenance Alert that has now been reset.
  - When placing the hang tag in the vehicle, place the new maintenance sticker in the window and reset the service interval light in the instrument cluster prior to the vehicle going into the shop for a lube and filter change. This will ensure that all maintenance reminders are aligned and will save time by completing it all at once.

# Repair

- Always plug in the GDS before starting the repair.
- Confirm that the service intervals are reset on the vehicle even if the time or miles have not expired, and that they match the new maintenance sticker.
- Make sure to complete an MPI on all vehicles and Quality Control your work.



### Return

- Schedule the customer's next appointment to align with all three Service Interval Reminders based on this visit's day of week and time of day.
- Inform the customer that they will get an email reminder prior to service and can reschedule as needed.
- This will help ensure the customer will bring in their vehicle and improve customer trust with unexpected alerts turning on.



Reconnect – Follow up on Blue Link DTC and Maintenance alerts, to bring your customers in for service.

## Pre-Delivery Inspection – Enabling the Service Interval Reminder

• Technicians should **always** set the service interval reminder on every vehicle based on the vehicles maintenance schedule when performing the pre-delivery inspection

## Instrument Cluster

- 1. Press the mode button on the steering wheel and navigate to User Settings on the instrument cluster
- 2. Select Service Interval
- 3. Select Enable Service Interval and make sure box is checked
- 4. Select Adjust Interval and set miles and months
- 5. Select "Yes" when "Save?" is prompted prior to exiting the setting menu





#### Touch Screen Navigation - Vehicle Settings Menu

- 1. Press the Setup button on the control panel and then select Vehicle settings on the screen
- 2. Follow the touch screen menu and navigate to the following items
- 3. Cluster > Service Interval > Enable Service Interval > Enter Interval Distance/Time

🕸 Vehicle Settings		🕸 Cluster		Distance				
Climate	Service Interval	>	Service Interval	Enable Service Interval	50			00 mile
Lights	Energy Consumption Reset	> En	Energy Consumption Reset	Distance	Enter the service interval reminder distance.			
Door			Content Selection	5000 miles Duration	6 month(			
Cluster		-		273 day(s)	En 1	ter the service int 2	erval reminder tir 3	ne.
Convenience	welcome Sound		Welcome Sound	Reset	4	5	6	
-					7	8	9	OF
						0	#	UK

#### Additional Resources

• For more information on **Blue Link DTC and Maintenance Alerts** go to HD.com>Service tab>Blue Link>Resources>Guides & Reference





• For additional resources on Maintenance Schedules for each vehicle and model year, go to HD.com>Service Tab>Documents Library> Quick Reference Guide and click on any of the Model Year QRGs

