



## Service Campaign T6G Dealer Best Practice

**Date:** March 30, 2021

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

**Subject:** Service Campaign T6G: DTC P1326 – Engine Inspection / Replacement (TSB #21-01-024H)

Updates to This Document	Date
<ul style="list-style-type: none"> <li>Service Campaign T6G Launch</li> </ul>	03/30/2021

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## Campaign Overview

### Affected Vehicles

The affected vehicles include:

- Certain 2016 MY Sonata HEV (LFE) vehicles with Nu 2.0L GDI Hybrid engines
- Certain 2012-2017 MY Veloster (FS) vehicles with Gamma 1.6L GDI engines

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

### Description

Certain vehicles listed below may experience the Check Engine warning lamp illuminated with DTC P1326. Follow the procedure to inspect the vehicle and replace the engine and/or update the engine ECU software (if new ROM is available) based on the inspection results.

### **PLEASE NOTE:**

- If a customer alleges to have experienced a fire related concern with their vehicle, please have them contact Consumer Affairs at 1-800-633-5151.
- If during the engine diagnosis, there is evidence of a fire or other components are in need of replacement due to fire, please disclose all affected parts to Warranty Prior Approval (PA) as part of the engine PA review process.

## Readiness Checklist

The following items should be completed prior to performing TSB work:

### **Training:**

- Training requirements recommended for Level of Technician Certification and/or Completed Coursework to perform TSB work:
  - Minimum Certified Level Certification
  - Successful completion of the Engine Technology - Classroom (#SVCET28\_208) or the Engine Tech vILT Final Exam - Web (#SVCDENGVILTEXTW20\_865) Course
- Ensure the entire team completes the "Engine Support" training course on HLP.

### **Special Service Tools:**

- Ensure your dealer has all necessary Special Service Tools to perform campaign (see **TSB #21-01-024H or latest revision**).

### **Shop Requirements:**

- Ensure your dealer's shop is configured properly to use SST bearing clearance tester (bearing tool).
- Confirm the following pressures meet requirements. The correct ranges for VC/AP air pressures are also indicated with red/blue decals on the gauges:
- Shop air supply: 0.36MPa (50psi) minimum
  - AP: 0.1 ~ 0.11 MPa



- VC: -73 ~ -83Kpa

- **Bearing Tool SST Power Check**
  - Supply 12 volts (or an alternate external AC/DC 13.8 volt power supply with at least ~2 amp output to the power cable connected to the bearing tool SST.

## Warranty Information

### **Warranty Extension**

The Powertrain warranty coverage for certain engine repairs and/or replacement where *the engine damage, defect, or failure is related to the connecting rod bearing wear*, has been extended to 15 years or 150,000 miles from the date of original retail delivery or date of first use, whichever occurs first, and is valid for original and subsequent owners.

Please refer to **TSB # 21-EM-005H (or latest revision)** for those models receiving a warranty extension.

### **Before Proceeding with T6G**

Make sure to confirm diagnosis meets warranty eligibility requirements before proceeding with any repairs. If a vehicle is brought in for an engine condition unrelated to T6G (e.g. oil consumption), please follow the proper engine diagnosis procedures, and refer to standard warranty policies and procedures.

### **Prior Approval (PA)**

*If during the engine diagnosis or repair process, there is evidence of a fire or other components are in need of replacement due to fire, please disclose all affected parts to PA as part of the engine PA review process and await further direction prior to proceeding with repairs.*

PA Approval is required for any engine replacement. The following documentation will be required as outlined in the T6G TSB. Use STUI on the GDS to take and submit pictures and videos while following the steps outlined in the T6G TSB:

**See Documentation Requirements on the next page!**



### Prior Approval Submission Documentation:

- Refer to chart below for items needed for submissions based on condition.
- If current condition does not fall within the chart below, contact Techline.

Utilize STUI to Capture Photo/Video or Direct Upload to PA				
	Cannot Rotate Crank @94lb-ft / Damage	Knocking Concern & "PASS" Tests	Sludge on Oil Cap Or No Oil on Dipstick	198 Bearing Clearance "NO PASS"
Repair Order (R.O.)	✓	✓	✓	✓
Engine Diagnosis Worksheet	✓	✓	✓	✓
Towing Invoice	If Available	If Applicable	If Applicable	N/A
GDS DTC Freeze Frame Screen Print	✓	✓	✓	✓
Bearing Test Uploaded	N/A	✓	N/A	✓
BCT Gauge Calibration Photo	N/A	✓	N/A	✓
Photo of Oil Cap	✓	✓	✓	✓
Photo of Dipstick	✓	✓	✓	✓
Photo of Drained Oil Measurement	✓	N/A	If Requested by PA	N/A
Crank Rotation Video	✓	N/A	N/A	N/A
Engine Noise Video	N/A	✓	N/A	N/A
Photo of Cylinder Block Damage	If Applicable	N/A	N/A	N/A
Photo of Spark Plugs	N/A	N/A	If Requested by PA	N/A
Maintenance Records	If Requested by PA	If Requested by PA	If Requested by PA	If Requested by PA
Valvetrain Photo	If Requested by PA	If Requested by PA	If Requested by PA	If Requested by PA
Techline Case Required	N/A	✓	N/A	N/A
Accident Damage Photo(s)	If Applicable	If Applicable	If Applicable	If Applicable

### \*\*Proper Photos / Videos:

- VIN in view when photo is taken of the item in question. **(Windshield or doorjamb VIN Plate)**
  - **Exception:** For oil Measurement photo, a Repair Order in photo will suffice.
- Photo taken with clear focus, showing the item being presented.
- BCT Connection Calibration Test - show connections and gauges clearly (up to two photos)
- Crank Rotation Video and Engine Noise Video - start at the Windshield VIN Plate and move to the front of the engine showing no crankshaft movement or noise (as applicable) in a continuous video beginning to end.
  - \*\*\*Returned engines may be inspected by WTC for a seized condition\*\*\*

### Media Submission Process:

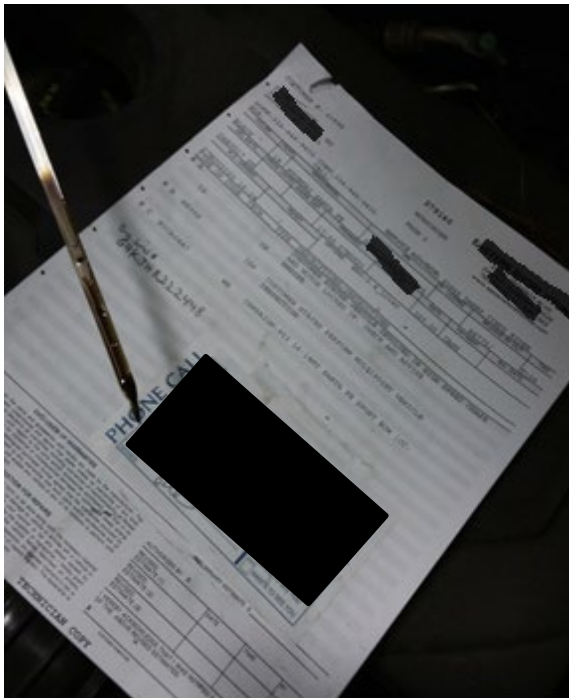
- All photos / videos will be submitted via Single Technician User Interface (STUI). (See Page 4 of Tech Net Times Vol 30 Issue 7 for additional details.)



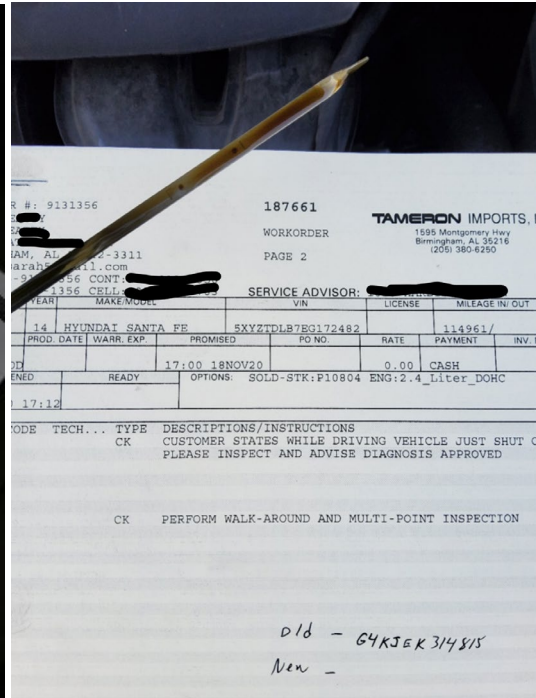
### PA Submission Examples

The following are good and bad examples of pictures and video PA documentation submissions

#### Good Dipstick Photo (see below)



Example 1



Example 2

#### Bad Dipstick Photo (see below)





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**Good Oil Drain Photo (see below)**



**Bad Oil Drain Photo (see below)**



Example 1



Example 2



Example 3

**Video Examples (click on link to watch)**

[Good Seized Engine Video 1](#)

[Good Seized Engine video 2](#)

[Bad Seized Engine Video 1](#)



## Warranty Claim Submission

- Refer to TSB # 21-01-025H (or latest version) for Campaign T6G OP Codes
  - **Note:** OP Codes for engine replacement should only be used if engine replacement is deemed necessary by the service procedure in the T6G TSB.
- The Campaign 966 Engine ECM update is only required if new software is available, in which case. Please submit a campaign claim for 966 after the software has been updated.
- If a **part is in need of replacement** and the failure is directly caused by Campaign T6G related engine failure, or if additional labor is required while performing Campaign T6G:
  - Submit one compiled separate claim using the same Repair Order number AND
  - Submit with 21101NTT using the engine Causal Part number associated with the T6G OP Code AND
  - Ensure part replacement and punch times are accurate and that they match the labor performed along with the service manager's signature approving the TT time.
    - For TT time best practices, refer to [Hyundaidealer.com](http://Hyundaidealer.com) > Service Tab > Documents Library > Warranty > ATT-NTT Documentation and Claim Submission Guide
  - **Note:** If the part replacement does not require additional labor, follow the above steps and use the system minimum of .1 labor time with a quantity of 1.

**PLEASE NOTE: General engine replacement for conditions outside of those contained within the Campaign T6G TSB are not eligible for Warranty Extension TXXM .**

## Service Actions

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

**Dealers must perform Service Campaign T6G on all vehicles that return with DTC P1326**



- **Reservation** – Always check the Vehicle Information Screen in WebDCS for open campaigns and recalls, and advise the customer on time requirements. *If there is an open recall 198 that applies to the model/model year of the year vehicle, please perform this first.* 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.



**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.

- Recommended Level of Technician Certification and/or Completed Coursework to perform TSB work:
  - Minimum Certified Level Certification
  - Successful completion of the Engine Technology - Classroom (#SVCET28\_208) or the Engine Tech vILT Final Exam - Web (#SVCDENGVILTEXITW20\_865) Course
- Make sure to have necessary Special Service Tools to perform campaign (see **TSB #21-01-024H** or **latest revision** for more details).
- This campaign can possibly require additional repairs after initial inspection; make sure to prepare for unplanned work and maintain sufficient staff to keep vehicles moving through the shop.
- Ensure the entire team completes the “Engine Support” training course on HLP.



**Reception** – Always check the Vehicle Information Screen in WebDCS for open campaigns and recalls, and print a copy for technicians. *If there is an open recall 198 that applies to the model/model year of the year vehicle, please perform this first.* 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.

- It is important to explain to each customer during the reception step of the service process what happens if their vehicle requires additional repairs after the inspection process.
- Make sure to advise customers of potential vehicle down time and provide alternative transportation such as an SRC or 3<sup>rd</sup> party rental.
  - All customers that come in with P1326 or "Engine Protection Mode" should be provided an SRC or alternative 3<sup>rd</sup> Party Rental. **All SRC or Rental claims will be reimbursed regardless of PA's decision to cover the engine replacement.**
- Do not charge diagnosis for vehicles that previously may have had campaign 966 performed and return to the dealership in "Engine Protection Mode" or with DTC P1326.



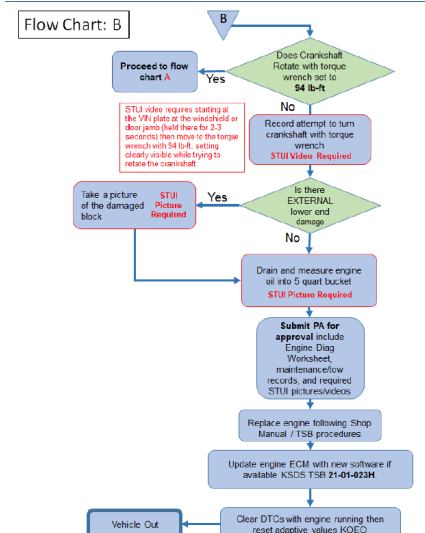
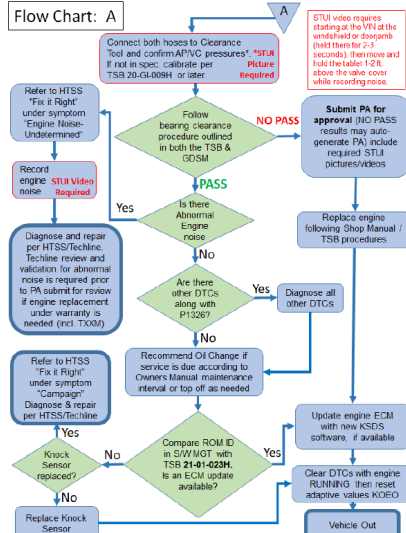
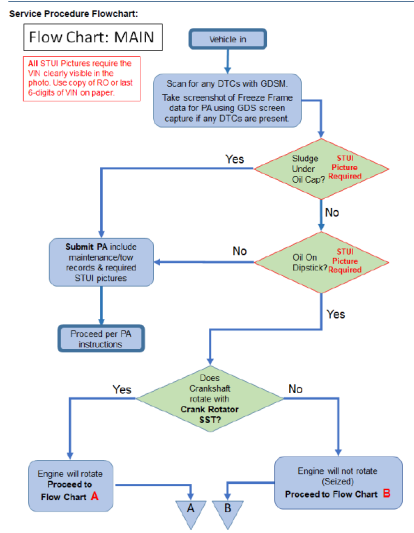
**Repair** – Always plug in the GDS before starting the repair. Make sure to complete an MPI on all vehicles and Quality Control your work. If there is an open recall 198 that applies to the model/model year of the year vehicle, please perform this first.

- **Please review the TSB thoroughly as the service procedures have been updated.**
- **Please view service procedure flow chart in TSB # 21-01-024H or latest.**
- **Make sure to check through GDS that the vehicle has the latest software installed.**
- Confirm the GDS-M has the latest software update prior to plugging it in to the vehicle.
- This campaign can possibly require additional repairs. Make sure to refer to the most current TSB for all necessary steps of the repair process and view the **Service Procedure Flowchart** in **TSB #21-01-024H** or latest).
- Make sure to quality control work after repair is complete and confirm condition is resolved.
- Record the audio station presets (XM,AM,FM, etc) prior to disconnecting the battery.
- Clear DTC P1326 with engine **ON**. P1326 may reset if not cleared with the Engine **ON**.
- If an engine replacement is required, PA may request dealers to perform additional steps before approving replacement. Dealers will be compensated for this additional time and such steps may include connecting the GDS to retrieve additional information from the vehicle.
- Use the **Service Process Results Worksheet** (reference or latest) as a guide to determine the appropriate part numbers. This is not mandatory and should be used as a tool to assist.

6-Digit VIN:	Repair Order #:				
Options / Tests / Procedures	(Circle ALL Vehicle Options / Test Results / Performed Procedures That Apply)				
Vehicle Model Year	11	12	13	14	15
	16	17	18	19	
Vehicle Model Type	_____				
Vehicle Engine Size	_____				
Smart Cruise Control (SCC)	Yes		No		
All Wheel Drive (AWD)	Yes		No		
Crank Rotation (w/ 94 lb-ft. or less)	Yes		No		
External Lower End Damage	DAMAGED		NOT DAMAGED		
Oil Drain Procedure Required	Yes		No		
Bearing Clearance Test Performed	Yes		No		
Bearing Clearance Test Result	PASS		NO PASS		
Abnormal Engine Noise	Yes		No		
Knock Sensor Replaced (in this Repair Order)	Yes		No		
Replaced Engine (in this Repair Order)	Yes		No		
Replacement Engine (if replaced)	NEW		REMAN		
ECM Newly Updated (in this Repair Order)	Yes		No		
Contacted Techline	Yes		No		



- Follow the Service Procedure Flowchart found in TSB #21-01-024H (or latest revision) and update Engine ECM if new version is available (Campaign 966).



- Important: If a vehicle passes the bearing inspection test, but DTC P1326 comes back on after the code is cleared, contact Techline for further assistance on diagnosing the vehicle.**

**REMINDER - PLEASE NOTE:**

- If a customer alleges to have experienced a fire related concern with their vehicle, please have them contact 1-800-633-5151.
- If during the engine diagnosis, there is evidence of a fire or other components are in need of replacement due to fire, please disclose all affected parts to PA as part of the engine PA review process.



**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 that the 966 Engine Improvement Campaign is still active and they should contact the dealership if any Check Engine Light is illuminated or Engine Protection Mode is activated.
- If a vehicle passes the bearing inspection test, ask your technician to print a copy of the results and present to the customer. Also, remember to inform the customer whose vehicle passed the bearing inspection test, that the vehicle has received the latest software update to monitor the health of their vehicle.



**Reconnect** – Follow up for customer satisfaction.



## Special Service Tools (SST)

Review the Special Service Tools required starting on page 1 of **TSB 21-01-024H (or latest revision)**.

- Engine Bearing Clearance Tester set (bearing tool)



- Note: the bearing tool must be accurately calibrated prior to performing the engine inspection procedure outlined in the T6G TSB. Refer to TSB 20-GI-009H (or latest version) for the calibration procedure as needed.
- Contact GIT 1-888-437-0308 for software issues
- Check HTSS or Contact Techline 1-800-325-6604 for hardware issues
- **Bearing tool warranty:**
  - 12 month warranty (does not include damage or abuse)
  - If defective:
    1. Utilize published resources to determine part needed
    2. Order applicable part listed in the T6G TSB
    3. Submit the warranty claim in Sublet as follows:
      - Use the related T6G VIN (or recent T6G VIN) in the claim
      - Use the bearing tester tool replacement part as the Causal Part
      - Use the first 5 digits of the part plus "AZZ" as the Labor Op
      - Use X1 Sublet Code
      - Attach parts invoice
      - Claim will be paid at dealer cost, no part markup and no labor
    4. Follow standard Warranty Procedure for parts retention
    5. Return the replaced/defective part to the Warranty Technical Center (WTC) by following the WTC part callback request instructions
    6. Please note: If the part failure is determined to be caused by damage or abuse, the warranty claim is subject to chargeback

- Torque Wrench Socket
- Injector Combustion Seal Ring Installer (Only needed if engine replacement is required. Refer to TSB 19-FL-001H for detailed usage instructions)
- 5 quart container








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## Spark Plug Tools

<p>KQ231-2T101QQH</p> 	<p>(B) SPARK PLUG ROD (M12 for GD and Theta II MPI Hybrid engines)</p> <p>← Upper body portion is smooth with no grooves.</p>
<p>KQ231-2T107QQH</p> 	<p>(B) SPARK PLUG ROD (M14 for MPI engines)</p> <p>← 2 machined identification grooves on upper body.</p>

### Optional Tool:

Part Name	Part Number / Figure	Note
17 mm 12-Point Metric Flank Drive® Reversible Ratcheting Box/ Speed Open-End Combination Wrench	<p>(Snap-on) SRXRM17</p> 	For unfastening torque converter bolts to separate engine/trans between bellhousing if engine cannot rotate.

## Parts

Refer to TSB# 21-01-025H (or latest revision) for the parts required based on the vehicle inspection results.

**NOTE:** Use the Service Process Results Worksheet in the following page as a guide to determine the appropriate Part Number(s).

1. Order the required parts based on the vehicle inspection results outlined in the Service Procedure Flowchart. (Use the Service Process Results Worksheet found on page 4 of TSB# 2-01-024H as a guide to determine the appropriate part numbers.)
2. Refer to TSB # 21-01-025H-2 (or latest revision) for parts information.
3. Consult the Hyundai Warranty Policy & Procedure to determine new or Reman engine usage. Please note that a reman Engine may not be available for certain vehicle models/model years. engine.

**Note:** Make sure to reference HMA Warranty Policy prior to ordering a reman engine. A standard service engine or QQH engine may be required in certain cases.



## Key Contact Information

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
WarrantyHELPREPLine	1-877-446-2922	Warranty Claim questions for Hyundai Dealers
Warranty Prior Approval (PA)Center	PA@hmausa.com	Warranty Prior Approval (PA) Center for Hyundai Dealers
Xtime Technical Support	Support@xtime.com  1-866-984-6355	Assistance with Car Care Scheduling: <ul style="list-style-type: none"> <li>• Appointment / Shop Capacity Management / Campaign Integration / Operation Codes</li> </ul>
AutoLoop Technical Support	<a href="mailto:Support@autoloop.com">Support@autoloop.com</a> 1-877-850-2010	Assistance with Car Care Scheduling: <ul style="list-style-type: none"> <li>• Appointment / Shop Capacity Management / Campaign Integration / Operation Codes</li> </ul>
CDK Technical Support	<a href="https://serviceconnect.support.cdk.com/">https://serviceconnect.support.cdk.com/</a>	Assistance with Car Care Scheduling: <ul style="list-style-type: none"> <li>• Appointment / Shop Capacity Management / Campaign Integration / Operation Codes</li> </ul>
Customer Support	Contact Information	Description
<b>Hyundai Customer Care Center (Recall/Campaign Questions)</b>	<b>1-855-671-3059</b>	Customer questions or concerns related to <b><u>recall or service campaigns</u></b>
<b>Hyundai Recall /Campaign Website</b> Hyundai Customer Care Center (GeneralQuestions)	<a href="http://www.hyundaiusa.com/recall">www.hyundaiusa.com/recall</a>  1-800-633-5151	Updated information related to the specific recall or service campaign Customers general questions, <u>non-campaign related</u>
HyundaiRoadside Assistance	1-800-243-7766	HyundaiRoadside Assistance



Key Reference Information	
Name	Source
<b>Campaign Central</b> Car Care Scheduling (Xtime) - Tutorials	Consolidated repository of recall and service campaign dealer best practices. Located on the service tab homepage in <a href="http://www.HyundaiDealer.com">www.HyundaiDealer.com</a> <a href="http://www.HyundaiDealer.com">www.HyundaiDealer.com</a> > Service > Dealer Resources > Documents Library > Car Care Scheduling
Car Care Scheduling (Xtime) - Recall Appointment Notification	<ol style="list-style-type: none"> <li>1. Log into Xtime</li> <li>2. Under the menu at the top left, select 'CONFIGURE'</li> <li>3. Under the dealership tab, click "EMAIL COMMUNICATION"</li> <li>4. Slide the toggle to "ADVANCED"</li> <li>5. Populate as many e-mails as desired in the "PARTS DESK EMAIL FIELD"</li> </ol>
Parts – Campaign Parts Management (CPM) Procedure	As applicable; <a href="http://www.HyundaiDealer.com">www.HyundaiDealer.com</a> > Parts > Documents Library > Campaign Parts Management
Service Rental Car (SRC) Program	<b>SRC Documentation:</b> <a href="http://www.HyundaiDealer.com">www.HyundaiDealer.com</a> > Service tab > Documents Library > Service Rental Car <b>TSD:</b> <a href="http://www.HyundaiDealer.com">www.HyundaiDealer.com</a> > Service tab > SRC Fleet Mgmt Software <b>Insurance:</b> <a href="http://www.HyundaiDealer.com">www.HyundaiDealer.com</a> > Service tab > SRC Insurance
Technical Service Bulletin (TSB)	<a href="http://www.HyundaiDealer.com">www.HyundaiDealer.com</a> > 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 NHTSA Website	<a href="http://www.hyundaiusa.com/recall">www.hyundaiusa.com/recall</a> <a href="http://www.safercar.gov">www.safercar.gov</a>



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## Appendix

<u>Previous Updates To This Document</u>	Date
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