ATTENTION:
GENERAL MANAGER ❑
PARTS MANAGER ❑
CLAIMS PERSONNEL ❑
SERVICE MANAGER ❑

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.

SUBARU

QUALITY DRIVEN® SERVICE

PRODUCT CAMPAIGN BULLETIN

APPLICABILITY: 2017-19MY Impreza
2018-19MY Crosstrek

SUBJECT: Ignition Coil Short Circuit

NUMBER: WUQ-02R
NHTSA ID: 19V-743
DATE: 10/22/19
REVISED: 04/23/21

UPDATE April 23, 2021:

- This recall (WUQ-02) has been expired and superseded to the WRE-21 Ignition Coil Replacement safety recall.
- On April 23, 2021, any open WUQ-02 recall coverage was expired in SOA's system.
- All vehicles affected by the WUQ-02 recall must return to complete the WRE-21 recall repair, even if the WUQ-02 recall repair was completed.
- Please refer to the WRE-21 Product Campaign Bulletin for more detail.

Subaru of America, Inc. (Subaru) is recalling certain 2017-2019 model year Impreza and 2018-2019 Crosstrek vehicles due to improper Engine Control Module (ECM) programming. A total of 466,205 U.S. vehicles will be affected by this recall.

AFFECTED VEHICLES:

Model Year	Carline	Production Date Range
2017-2019	Impreza 4D	7/01/2016 - 6/17/2019
2017-2019	Impreza 5D	7/01/2016 – 6/17/2019
2018-2019	Crosstrek	5/09/17 – 5/08/2019

Not all vehicles in the production range listed above are affected by this recall. Coverage must be confirmed by using the Vehicle Coverage Inquiry function on subarunet.com prior to repair.

CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.
Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

Subaru of America, Inc. is ISO 14001 Compliant
ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.

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REASON FOR THIS RECALL:

Under certain circumstances, the ignition coil may be energized longer than designed after the engine is OFF. If the ignition coil remains energized for too long, the internal temperature of ignition coil may increase which could cause a short circuit and a blown fuse. If a short circuit occurs while the vehicle is in motion, the vehicle may experience a loss of motive power while driving without the ability to immediately restart the engine.

SAFETY RISK:

If a short circuit in the ignition coil occurs while the vehicle is in motion, the vehicle may experience a loss of motive power while driving without the ability to immediately restart the engine, increasing the risk of a crash.

DESCRIPTION OF THE REMEDY:

For all the potentially affected vehicles, Subaru retailers will reprogram the ECM and inspect the ignition coil at no cost. If ignition coil damage is found, the damaged ignition coil will be replaced with a new part at no cost. On vehicles with confirmed ignition coil damage, if a certain DTC is stored, Subaru will replace the front exhaust pipe at no cost.

OWNER NOTIFICATION:

Subaru will notify affected vehicle owners by first class mail within 60 days. Owners with a valid email address on file will also be notified by email. Retailers will be advised when the notification is scheduled.

RETAILER RESPONSIBILITY:

Please be advised that it is a violation of Federal law for a dealer to deliver a new motor vehicle covered by a recall under a sale or lease until the defect is remedied. Therefore, any Authorized Subaru Retailer failing to perform the applicable service procedures to correct all affected vehicles in their inventory prior to the vehicle being placed in service may be subject to civil penalties of up to $21,000 per violation (i.e., for each vehicle), as provided in 49 CFR §578.6 and will also be in breach of the Subaru Dealer Agreement.

Any vehicles listed in any recall/campaign that are in retailer stock must be:

- Immediately identified.
- Tagged or otherwise marked to prevent their delivery or use prior to repair.
- Repaired in accordance with the repair procedures outlined in the Product Campaign Bulletin

Retailers are to promptly follow the applicable service procedures, to correct all affected vehicles in their inventory (used, demo & SSLP). Additionally, whenever a vehicle subject to this recall is taken into retailer inventory necessary steps should be taken to ensure the recall correction has been made before selling or releasing the vehicle.

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PACK FILE APPLICABILITY:

Model	PAK File Name	New ECM Part Number	Old ECM Part Numbers	Decryption Keyword	New CID Number
2017-18MY Impreza MT w/ AGS	22765AJ59J.pak	22765AJ59H	22765AJ59 A, B, C, D, E, F, G & H	6C42F7AA	XH3J2C0C
2017MY Impreza CVT w/ AGS	22765AJ60H.pak	22765AJ60H	22765AJ60A, B, C, D, E, F & G	2D10095A	XH3J2B0D
2017-18MY Impreza MT w/o AGS	22765AK61H.pak	22765AK61H	22765AK61 A, B, C, D, E, F & G	1A140CF2	XH3J2B0A
2017-18MY Impreza CVT w/o AGS	22765AL71H.pak	22765AL71H	22765AL71 A, B, C, D, E, F & G	8B9CB1DB	XH3J2B0B
2018MY Impreza CVT w/ AGS	22765AM28G.pak	22765AM28F	22765AM28A, B, C, D, E & F	20A2B49B	XH3J9A0D
2018MY Crosstrek 6MT	22765AJ615.pak	22765AJ615	22765AJ610, 11, 12, 13 & 14	8B8D6153	XH3J2B0E
2018MY Crosstrek CVT	22765AJ626.pak	22765AJ625	22765AJ620, 21, 22, 23, 24 & 25	98238F2B	XH3J2C0F
2019MY Impreza 5MT w/o AGS	22765AM65E.pak	22765AM65D	22765AM65A, B, C & D	38657746	XH3N600A
2019MY Impreza CVT	22765AM67D.pak	22765AM67D	22765AM67A,B & C	2E8AC82A	XH3N500B
2019MY Impreza 5MT w/AGS	22765AM64D.pak	22765AM64D	22765AM64A,B & C	A8239A37	XH3N500C
2019MY Impreza CVT w/AGS	22765AM66D.pak	22765AM66D	22765AM66A, B & C	3C8E9D2E	XH3N500D
2019MY Crosstrek 6MT w/ AGS	22765AM813.pak	22765AM813	22765AM810, 811 & 812	590F86B2	XH3N500E
2019MY Crosstrek CVT	22765AM823.pak	22765AM823	22765AM820, 21 & 22	AECDC448	XH3N500F

PART INFORMATION:

Description	Part Number
COIL AY IGNITION	22433AA741

REMINDER: If ignition coil replacement is necessary (rare case), always order the most up-to-date part number(s) based on the specific VIN being repaired.

SERVICE PROCEDURE / INFORMATION:

REMINDER: Customer satisfaction and retention starts with performing quality repairs.

The procedure involves checking the Calibration ID of the ECM and if necessary, inspecting the four (4) ignition coils on all affected vehicles. If not already installed, reprograming the ECM with the latest logic following the normal FlashWrite/SSM procedure is also required. Any ignition coil(s) found to be damaged during inspection (rare case) must be replaced. If the ignition coil damage is accompanied by certain Diagnostic Trouble Codes (DTCs), the exhaust pipe front (EPF) may also require replacement.

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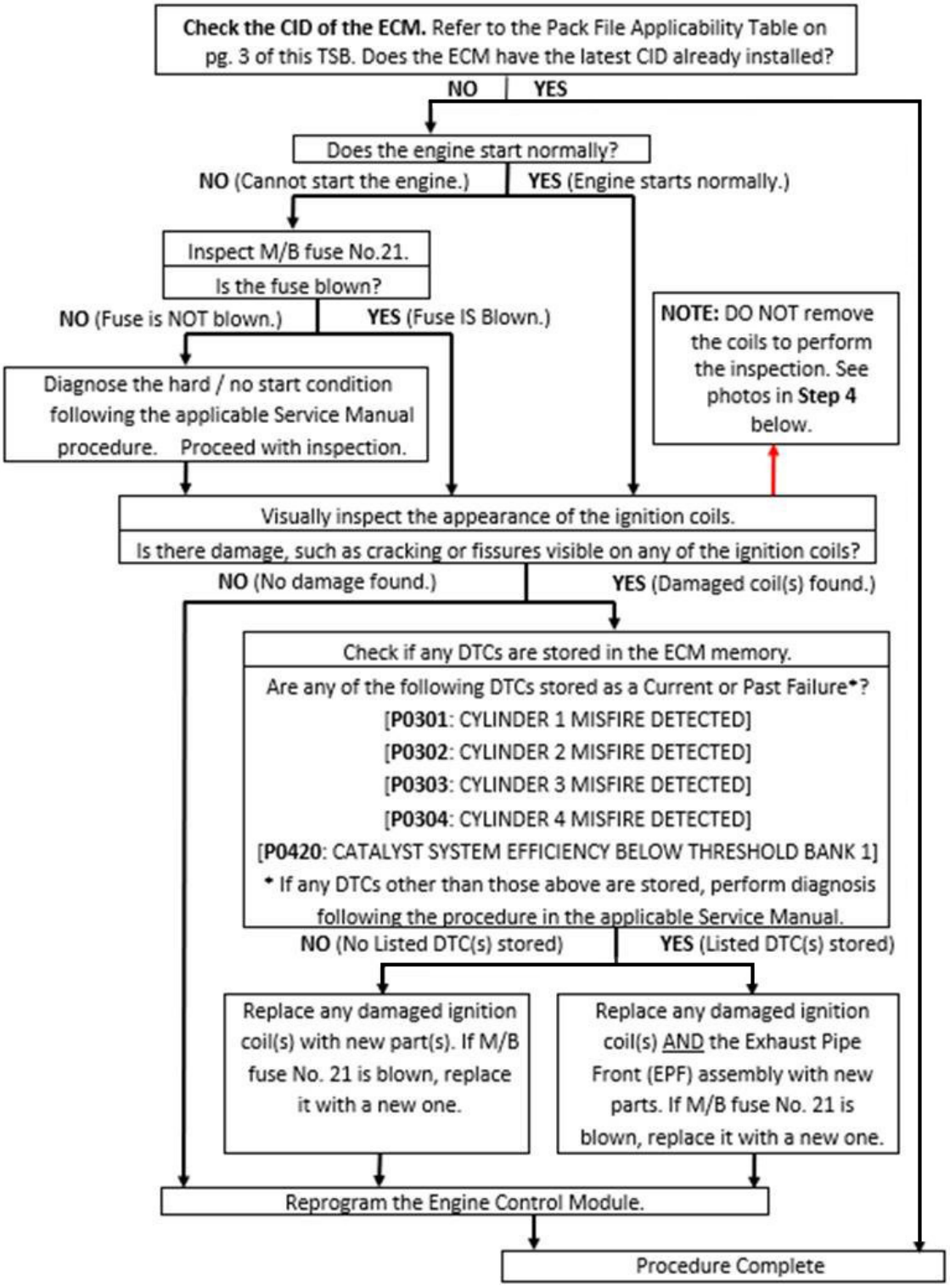
The following Flow Chart is provided as an overview of the procedures required to perform this Recall. A detailed Service Procedure is also supplied below.

WUQ-02 Service Procedure Flow Chart



Step 1: Connect the SSM and perform a Calibration ID (CID) check to determine if the latest logic is already installed.

YES: **STOP**. Procedure is complete. Proceed to the **CLAIM REIMBURSEMENT AND ENTRY PROCEDURES** section.

NO: Proceed to **Step 2**.

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Step 2: Does the engine start normally?

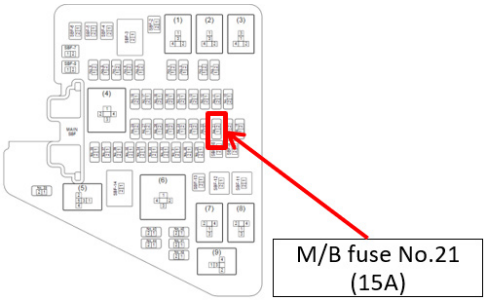
NO: The engine does not start normally: Proceed to **Step 3** and inspect Fuse 21.

YES: The engine starts normally: Proceed to **Step 4** and inspect (Do NOT remove) all 4 of the ignition coils closely.

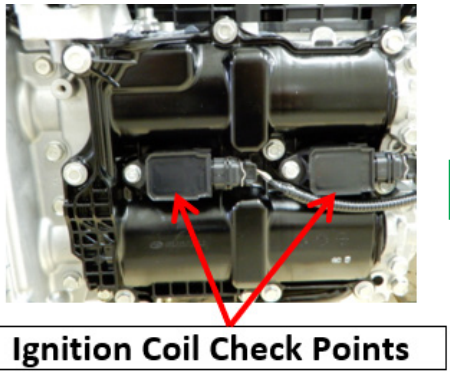
Step 3: Remove the lid from the under-hood Main Fuse Box (M/B) and inspect Fuse 21. Is Fuse 21 blown?

NO: Diagnose the hard / no start according to the applicable Service Manual. Proceed to **Step 4**.

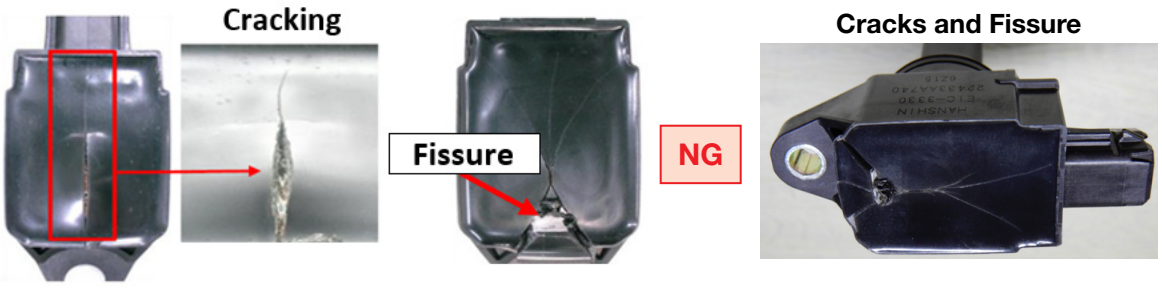
YES: Proceed to **Step 4** and inspect all 4 of the ignition coils closely.



Step 4: Inspect all 4 ignition coils CLOSELY for any damage, cracking, fissures, etc. Coil removal is NOT necessary as any damage will be external. Were any cracks, fissures or other damage found on any of the 4 ignition coils?



OK



YES: Replace any damaged coil(s) (rare case) following the procedure in the applicable Service Manual then proceed to **Step 5** and using the SSM, check for any stored DTCs.

NO: Proceed to **Step 6** and reprogram the ECM following the normal FlashWrite procedure.

Step 5: When performing the DTC check, are any DTCs, P0301, 2, 3 or 4: Cylinder Misfire Detected or P0420: for Catalyst Efficiency Below Threshold Bank 1 stored in memory?

NO: None of the listed DTCs are stored. Replace ONLY any damaged ignition coils and Fuse 21 (if blown) in the M/B. When complete, proceed to **Step 6** and reprogram the ECM following the normal FlashWrite procedure.

YES: One or more of the listed DTCs are current or in history. Replace any damaged ignition coils, Fuse 21 (if blown) in the M/B and the EPF assembly following the procedure in the applicable Service Manual. When completed, proceed to **Step 6** and reprogram the ECM following the normal FlashWrite procedure.

Continued...

Step 6: Reprogram the ECM following the normal FlashWrite procedure. Subaru of America, Inc. (SOA) highly recommends connecting either the Subaru Midtronics DCA-8000 Dynamic Diagnostic Charging System or the Subaru Midtronics GR8-1100 Diagnostic Battery Charger to the vehicle and utilizing the Power Supply Mode feature anytime a vehicle control module is being reprogrammed. Once the Midtronics charger is connected to the vehicle, **if the battery is fully charged**, it takes less than three (3) minutes to boot-up the charger, select the Power Supply Mode, and have the battery voltage stabilized and ready for reprogramming.

NOTES:

- For instructions on using the power supply mode, reference the applicable User Manual for the Midtronics DCA-8000 Dynamic Diagnostic Charging System and the Midtronics GR8-1100 Diagnostic Battery Charger on STIS.
- Confirm all electrical loads such as lights, audio, HVAC, seat heaters, and rear defroster are all switched **OFF** before setting up the charger for Power Supply Mode.
- Select the correct battery type (Flooded, EFB, Gel, AGM or AGM Spiral).
- Input the CCA which matches the vehicle's battery. **NOTE:** OE and replacement batteries have different CCA ratings. Always confirm the battery's CCA rating before proceeding.
- If using a DCA-8000 Dynamic Diagnostic Charging System, set the power supply voltage to 13.5 volts.
- **DO NOT** connect the DST-i or SDI until the Power Supply mode function has completed its battery test mode and the Charging Voltage has dropped to and shows a steady 13.5 Volts on the display.
- Once Power Supply Mode reaches a steady 13.5 volts, connect the DST-i or SDI to the OBD connector and proceed with initiating the normal FlashWrite reprogramming process.
- Amperage will fluctuate based upon the vehicle's demand for power. **NOTE:** If the voltage rises beyond 14V while programming is in process, the procedure will abort. This can indicate a need to test or charge the vehicle battery before any further attempt at programming is made.

VERY IMPORTANT:
This information is applicable to the Subaru Midtronics DCA-8000 Dynamic Diagnostic Charging System and the Subaru Midtronics GR8-1100 Diagnostic Battery Charger **ONLY**. It does not apply to any other brand / type of "generic" battery charger whatsoever. **ONLY** the DCA-8000 and the GR8-1100 and their Power Supply Mode feature have been tested and approved by SOA.

REMINDER: If the DCA-8000 or GR8-1100 indicates the vehicle's battery must be charged, charge the battery fully before proceeding to reprogram the vehicle while using the Power Supply Mode.

NOTE: Control module failures resulting from battery discharge during reprogramming are not a matter for warranty. Should any DTCs reset after the reprogramming update is performed, diagnose per the procedure outlined in the applicable Service Manual.

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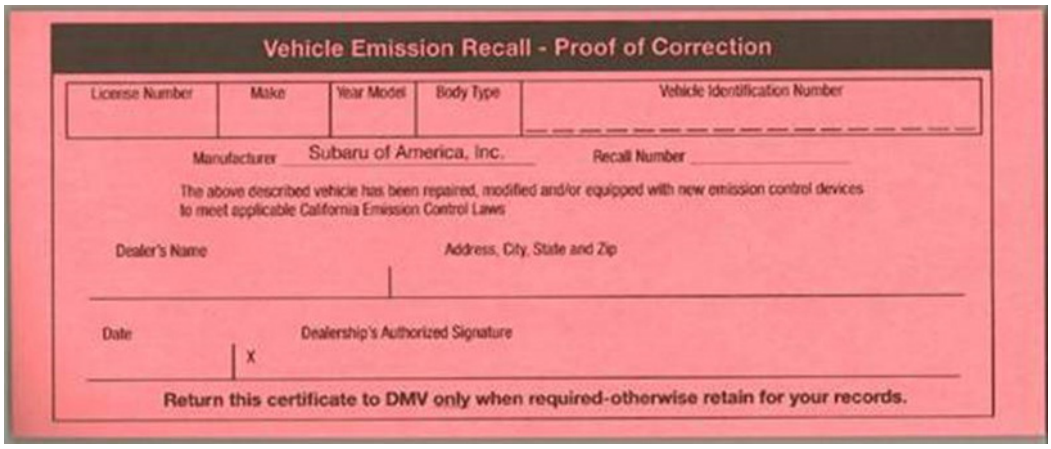
CALIFORNIA "VEHICLE EMISSION RECALL - PROOF OF CORRECTION" CERTIFICATE

The California Air Resources Board and the Department of Motor Vehicles Registration/Recall Program requires that all emission related Recall/Campaign or Service Program repairs be completed before a vehicle registration is renewed. Please provide owners of vehicles registered in the state of California a completed "Vehicle Emission Recall - Proof of Correction" certificate. Vehicle owners should be advised to retain this certificate because the California Department of Motor Vehicles may require they provide proof this service program repair has been completed.

Additional certificates are available through normal parts ordering channels using part number MSA6P1301. Quantity 1 = 1 booklet of 50 certificates.


Vehicle Emission Recall - Proof of Correction

License Number | Make | Year Model | Body Type | Vehicle Identification Number

Manufacturer Subaru of America, Inc. Recall Number

The above described vehicle has been repaired, modified and/or equipped with new emission control devices to meet applicable California Emission Control Laws

Dealer's Name Address, City, State and Zip

Date Dealership's Authorized Signature

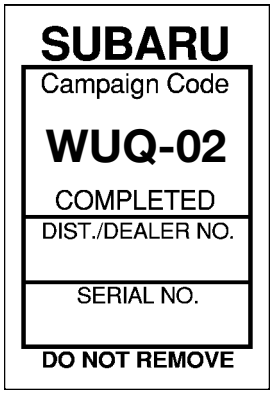
X

Return this certificate to DMV only when required-otherwise retain for your records.

SERVICE PROGRAM IDENTIFICATION LABEL:

Type or print the necessary information on a Campaign Identification Label. The completed label should be attached to the vehicle's upper radiator support. Additional labels are available through normal parts ordering channels. The part number is **MSA6P1302**, which comes as one sheet of 20 labels.

Part Number	Applicability	Description	Order Quantity
MSA6P1302	All Models	Campaign Completion Labels (contains one sheet of 20 labels)	1



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CLAIM REIMBURSEMENT AND ENTRY PROCEDURES:

Credit to perform this recall will be based on properly completed repair order information. Retailers may submit claims through Subarunet.com.

Labor Description	Labor Operation #	Labor Time	Fail Code	Claim Type
ECM CALIBRATION ID (CID) CHECK ONLY	A181-310	0.2	WUQ-02	RC
IGNITION COIL INSPECTION AND ECM REPROGRAMMING	A181-311	0.5		
IGNITION COIL INSPECTION, COIL REPLACEMENT, (ONE OR ALL), DTC CHECK, AND ECM REPROGRAMMING	A181-312	1.0		
IGNITION COIL INSPECTION, COIL REPLACEMENT, (ONE OR ALL), DTC CHECK, EPF REPLACEMENT AND ECM REPROGRAMMING	A181-313	2.5		

IMPORTANT REMINDERS:

- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.