TECH TIPS

Subaru Service and Technical Support Line Newsletter



© 2015 Subaru of America, Inc. All rights reserved.

ARTICLES CONTAINED IN THIS ISSUE

CODE	ARTICLEPAGE
(00)	April STIS New Releases7
(01)	QMR of the Month1
(01)	New Required Detail Fields Established for Claims Submissions
(01)	Explanation of New Required Fields in Quality Monitoring Report (QMR)5
(01)	QMR of the Month Award Presentation6
(06)	What's That Green Stuff under the Master Cylinder Reservoir Cap?2
(07)	DTC Diagnosis and Related Wiring Harness Checks 3
(15)	Inoperative, No Response from Remote on Push-Button (Smart)
	Start Models 6

2015 CALENDAR OF SUBARU HOLIDAYS

Memorial Day

Monday, May 25, 2015

Independence Day

Friday, July 3, 2015

Labor Day

Monday, September 7, 2015

01

QMR OF THE MONTH

We are pleased to announce this month's winner of QMR of the Month:

Wilson Mitcham from O'Brien Subaru of Fort Myers in Fort Myers, FL

Wilson submitted a very detailed QMR on his diagnosis and repair of a 2015 Outback with P0171/ P0174. He started his diagnosis by reviewing and saving the DTCs and related FFD. After reviewing the Service Manual troubleshooting for these codes. Wilson viewed the SSMIII data and found the short term fuel trims for bank 1 and bank 2 were at +35%. He immediately started looking for a source of unmetered air. After removal of the engine cover, he was able to detect a hissing sound from the intake manifold. Inspecting further he applied a slight mist of aerosol to various areas of the intake until noting a change in the short term fuel trim readings. This change was noted as he tested in the area of the throttle body. At this point, he removed the throttle body from the intake manifold and found the gasket between the two was deformed and damaged. After replacement of the gasket and clearing the ECM memory, the fuel trims returned to expected levels. Due to the unusual nature of the failure, Wilson contacted the SOA Technical Helpline to immediately notify SOA of this unusual condition. In addition, he filed a QMR with photos of the gasket and the conditions of the surrounding components along with the electronic data he collected during his diagnosis. In appreciation for going the extra mile and sharing his experience with us in hopes of improving product quality, Wilson will be receiving the following from his FSE:

An Apple iPad Mini tablet with a custom Subaru Confidence in Motion case

Any Subaru Service Technician can participate in QMR of the Month. See the February 2013 TechTIPS for full details. You may see your name here in a future TechTIPS.

CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.

The Subaru TechTIPS newsletter is intended for use by professional technicians ONLY. Articles 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 your vehicle has or will have that condition. Impreza, Legacy, Justy, Loyale, Outback, Forester, Subaru SVX, WRX, WRX, STI, L.L. Bean, Baja, Tribeca, BRZ, XV Crosstrek and "Quality Driven" are Registered Trademarks.

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 reculations.



01

NEW REQUIRED DETAIL FIELDS ESTABLISHED FOR CLAIMS SUBMISSIONS

The purpose of this article is to reiterate information released February 3, 2015 via Subarunet. Beginning February 16, 2015, additional requirements were added for claim submission of the repairs listed below. While Calibration Identification (CID) numbers and serial numbers have always been required information on the repair order as part of any repair documentation, this information is now a required entry for claim for reimbursement. This required information must be entered in the Misc. Detail field of any related claim submission. Technicians are reminded to document this information on the repair order hard copy or in the ERO notes so it is available to the Warranty Administrator for use as part of their claim entry.

NOTE: All numbers listed below are for the assembly or programming logic BEING INSTALLED into the vehicle.

The NEW CID number for Engine Control Module replacement and / or reprogramming
The NEW CID number for Transmission Control Module replacement and / or reprogramming
The NEW CID number for Hybrid Powertrain Control Unit replacement and / or reprogramming
The NEW CID number for Drive Motor Control Module replacement and / or reprogramming
The NEW CID number for Battery Energy Control Module replacement and / or reprogramming

In addition, the serial numbers for all replacement engine assemblies, long blocks and short blocks (new and remanufactured) along with Serial numbers for all replacement transmissions; MT, AT and CVT (new and remanufactured) must also be recorded and entered.



WHAT'S THAT GREEN STUFF UNDER THE MASTER CYLINDER RESERVOIR CAP?

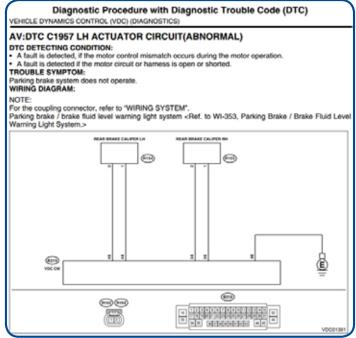
We have received a small number of inquiries regarding a greenish substance found when removing the brake master cylinder fluid reservoir cap. This substance results from a natural reaction between the copper coating applied to the inside of the brake lines during manufacturing and a chemical compound called Triasole ($C_2H_3N_3$) which exists naturally in brake fluid. When these two substances contact each other, Cupric Benzotriazol ($C_6H_4N_{32}$ Cu) results which is greenish in color. The actual particles of this substance are very small and have no impact on brake system performance or durability.



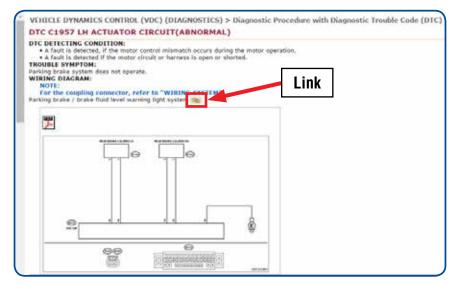


DTC DIAGNOSIS AND RELATED WIRING HARNESS CHECKS

When troubleshooting DTCs, the diagnosis almost always involves harness and electrical connector / pin checks for resistance, voltage, continuity to ground (short), etc. When using STIS, if you look up the DTC's diagnostics from the Online Reference tab, Publication Type / Service Manual Full, your result will be the .pdf version of the Service Manual. Although a basic overview of the affected wiring is provided, not all of the connectors utilized in the circuit are identified. For the purpose of this article, we will use the DTC example: C1957. The Service Manual Full search result of the circuit for C1957 is pictured below.



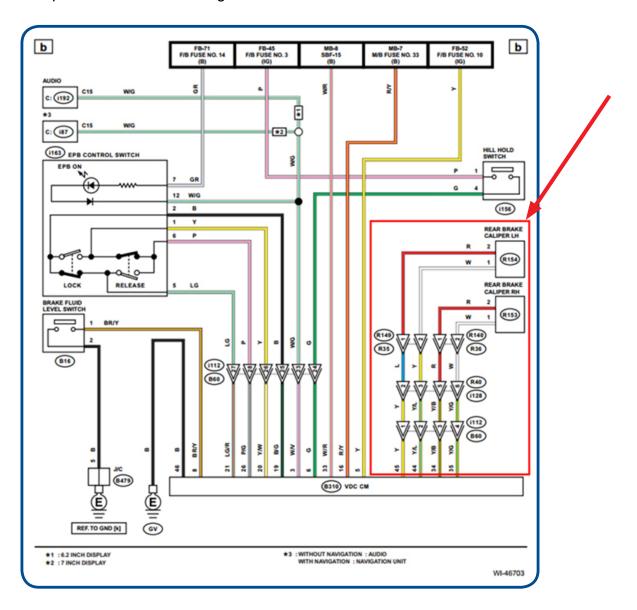
The affected components are identified as are the connectors at the ends of the harness but, nothing in between. This is a very good reason to always use the .html version of the Service Manual accessible by utilizing the Service Diagnostics tab then plugging in your particular vehicle data as prompted. The result below looks quite different and contains a very important link to additional related component information not provided in the PDF version.



07

DTC DIAGNOSIS AND RELATED WIRING HARNESS CHECKS (Continued)

When clicking on the link, you will be taken to the additional harness connector information contained in the Wiring System section of the Service Manual. As you can see, this information provides additional detail of the harness and connectors necessary to perform a complete diagnosis of the circuits related to the DTC. In this example, there are 3 connectors in the related harness between the calipers and VDC Control Module not shown in the 2 previous screen shots which could conceivably be the source of a poor connection causing the DTC to set.



In conclusion, if you are not already doing so, get in the habit of using the .html version of the Service Manual, especially when diagnosing a potential wiring concern. When the diagnostic trouble chart dictates pin checks to perform, always access the related wiring diagram from the .html version of the Service Manual. This way, you have the complete picture of the circuit being diagnosed. If you must use the PDF version, always remember to manually check the Wiring Section for the appropriate wiring diagram(s) in order to get a comprehensive overview of the circuit(s) you are working with.

01

EXPLANATION OF NEW REQUIRED FIELDS IN QUALITY MONITORING REPORT (QMR)

Recently, you may have noticed some new fields have been added to the Electronic Quality Monitoring Report (QMR) submission form. These additional fields are part of a new enhanced reporting program implemented by SOA enabling retailers to report concerns which significantly affect our customers with greater urgency and consistency. These are all required fields for any Quality Monitoring Report submitted to SOA. Due to the significance of each of these areas, it is critical that each of them be marked correctly with a simple **YES** or **NO** to indicate if they apply to the new report or not.

To address these fields in each case, the reporter only needs to ask themselves a few simple questions.

- What did the customer report or say?
- Did the customer report an accident occurred as a result of this condition? The accident box must be marked as YES.
- Did the customer report a fire as a result of this condition? The fire box must be marked as YES.
- Did the customer report an injury as a result of this condition? The injury box must be marked as
 YES.
- Did the customer report that the vehicle rolled over as a result of this condition? The rollover box must be marked as **YES**.
- Has a human death been reported as a result of this condition? The death box must be marked as YES.

If you submit a QMR with any of these boxes marked as **YES**, you **MUST** open a case with Subaru Customer Retailer Services (CRS) and submit an Urgent Request for Customer Assistance (URFCA) at the same time. This ensures official notification of SOA has occurred. The URFCA form may be entered online or printed and faxed. It is found in the Customer Retailer Services area of Subarunet.

If the answers to all the questions listed here are **NO**, then these boxes must be marked as **NO**.

It's that simple. If any of these boxes are marked incorrectly through mistake, omission, or as a result of later information, always update your QMR submission with the new details immediately. Please direct any questions to your Field Service Engineer (FSE).

Quality Monitoring Reports Indicates Required Inform Please fill out this form in detail to submit to Subaru of America, Inc. Dealer Number Section* Sub Section VIN* (Last 8 or Full 17 Digits) Engine # Failure Date Fail Code*(ABC##) **Technician Duplicated Condition?** ■-Reporter First Name Customer's Description of Complaint* (use cust Technician's Findings and Repair* (Be specific and detailed, max 4000 characters) Next Cancel Clear

If you receive a customer concern of their RES system not working and no response from the remote, the condition could likely be a result of operator error. Go to the vehicle with the customer and have them demonstrate their concern for you. Pay close attention to the "cadence" they use when pressing the LOCK button on the remote. If they are not pressing the LOCK button exactly as described in the table below (press and release the LOCK button twice within 2 seconds then hold the button down for more than 3 seconds on the third press), the RES system will not operate. This table was copied from pg. 21 of the Installation Instructions included with RES kit p.n. H001SAL800 designed for 2015MY Legacy and Outback push-button start (Smart) vehicles.

	Operation	Confirmation point	Checking point if operation failed
1	Press the LOCK button of the vehicle's remote twice within two seconds, then press and hold the LOCK button for more than three seconds. Lock Lock Lock Press & Hold 3s	The horn sounds once. The Engine starts. After the engine starts, the horn sounds once and the parking lights flash once. The parking lights turn on afterwards.	Check C (page 26)



QMR OF THE MONTH AWARD PRESENTATION

As part of our "enhanced" QMR of the Month recognition program, we will be including a photo (whenever available) of the recipient's award presentation in TIPS.

The award winner selected from QMR of the Month submissions received during April is Wilson Mitcham from O'Brien Subaru of Fort Myers in Fort Myers, FL. Wilson is shown below after receiving his new iPad mini from: (I to r) O'Brien Subaru Service Advisor Pete Followell, April's Winner Wilson Mitcham, SOA Field Service Engineer Brent Roberts and O'Brien Subaru Service Director Jim Haag.



ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
H771SFJ000	Accessory Installation Guide	XV Crosstrek Trailer Hitch Harness (H771SFJ000)	28-Apr-15
H501SCA001	Accessory Installation Guide	Auto Dimming Mirror with Compass	28-Apr-15
H501SCA101	Accessory Installation Guide	Auto Dimming Mirror with Compass and Homelink	28-Apr-15
H001SFJ601	Accessory Installation Guide	Remote Engine Starter-Turn (Key) Start	28-Apr-15
MSA5T1559A	Service Manual Full	2015MY WRX and WRX STI Body Repair Manual	24-Apr-15
E7210FJ400	Accessory Installation Guide	STI Roof Spoiler	24-Apr-15
C1010SG100	Accessory Installation Guide	STI Shift Knob (CVT)	24-Apr-15
02-160-15	Technical Service Bulletin	Revised Cylinder Block Measuring Procedures	23-Apr-15
H4510FJ150	Accessory Installation Guide	Impreza Fog Lamp Kit	23-Apr-15
07-90-15	Technical Service Bulletin	DTC B2350 for SRVD System	22-Apr-15
15-177-14R	Technical Service Bulletin	New "Gen 2" Fujitsu Ten (F10) SD Card Audio / Navigation System Operating Tips	21-Apr-15
12-183-15	Technical Service Bulletin	Rear Gate Stay Replacements	21-Apr-15
02-161-15	Technical Service Bulletin	New Installation Procedure for Front Crankshaft Oil Seal	16-Apr-15

All revised publications are highlighted in yellow.

CONTINUED ON THE NEXT PAGE

OO APRIL STIS NEW RELEASES

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
MSA5M1503A	Owner Manual	2015MY Forester Owner's Manual	14-Apr-15
MSA5P0136C	Technician Reference Booklet	Supplemental Restraint System (SRS) (Module 604) (December 2014)	13-Apr-15
02-130-12R	Technical Service Bulletin	Oil Seepage Diagnosis and Repair Procedures	13-Apr-15
H630SFJ301	Accessory Installation Guide	Powered Subwoofer Installation Instructions	10-Apr-15
15-181-15	Technical Service Bulletin	"Popping Sound" Heard From Speakers	9-Apr-15
TIPS0415	TechTIPS NewsLetter	2015 April TechTIPS Newsletter	7-Apr-15
11-149-14R	Technical Service Bulletin	Reprogramming File Availability for Oil Level Detection	6-Apr-15
18-180-15	Service Manual Correction	Service Manual Corrections	1-Apr-15
J1010FJ010	Accessory Installation Guide	Sport Mesh Grille	1-Apr-15

Be sure to always check the "What's New" section on STIS for any updated or recently released information that may not be listed here.

""" NUW TUU CAN E-WAIL TUUK TECHTIPS INPUT AND SUGGESTIONS TO: TECH@SUBAKU.CUM """
This is your chance to offer suggestions for use in future issues of TechTIPS! Make sure that if you e-mail us, you place in the subject line of your e-mail "For TechTIPS Newsletter". Thank you!
MODEL:
YEAR:
VIN:
Description of situation encountered:
Your suggestion for repair procedure, product improvements, etc.:
Please attach separate sheets, if necessary. You may also want to include Service Manual diagrams or references, or your own drawings to assist in describing your suggestion. All information submitted becomes the property of Subaru of America, Inc. Permission is granted to Subaru of America, Inc. to print your name and suggestions in TechTIPS and other Subaru of America, Inc. publications. Mail items to: PO Box 6000, Cherry Hill, NJ 08034-6000.
Your Name:
Signature:
Dealer's Name:
City:
Date:
Dealer Code:

SUBARU TECHLINE Hours of Operation

Monday – Thursday 8:30 am to 7:30 pm Friday 10:30 am to 5 pm and Saturday 9 am to 3 pm