TECH TIPS



Subaru Service and Technical Support Line Newsletter

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SUBARU TECHLINE HOLIDAYS & HOURS OF OPERATION

Memorial Day

Monday, May 29, 2017

Independence Day

Tuesday, July 4, 2017

Mon. - Thurs. 8:30AM - 7:30PM EST
Friday 10:30AM - 5:00PM EST
Saturday 9:00AM - 3:00PM EST

SUBARU OF AMERICA



NEW TECHTIPS EDITORS

This month, we bid a fond farewell to John Mooney who began his career with Subaru in 1980. He held several positions within the company before joining Techline in March of 2008. In July of 2012, John took over the responsibilities of the TechTIPS editor. We want to thank John for his 36+ years of service with Subaru of America. We congratulate him on his retirement and wish him ALL THE BEST.

David Jones and Chris Owen look forward to a seamless transition as your new Editors of the monthly TechTIPS publication. They value your input so, keep those suggestions coming for articles that can be used in upcoming TechTIPS.

01

QMR OF THE MONTH

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

David Derks from Groove Subaru in Englewood, CO

David submitted a very detailed QMR on his diagnosis and repair of a very unusual condition on a 2013 Outback with 53360 miles. The customer presented with a complaint of his car not having the power he wanted or expected and, the check engine light was on. David inspected the car and confirmed the condition. Using the SSM4, he inspected the ECM and found a DTC P0351- Ignition Coil "A" Primary/ Secondary Circuit. Following the diagnostic flow in the Service Manual, David found at Step 4, there was higher than expected resistance between the ECM and the ignition coil. He decided to split the circuit and localize the source of the high resistance. The first connection he separated was between the bulkhead harness and engine harness. Here he found visible engine oil collected inside the connection. David inspected the engine bay and found no evidence of current or past oil leaks.

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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 regulations.



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01 QMR OF THE MONTH

Checking the vehicle history, there was no indication of any prior engine repair. At this point, David began disconnecting and inspecting the various connectors on the engine harness to check for a source of the contamination. He found the Right Hand (RH) Intake Oil Control Solenoid connection was full of engine oil. Pressurized engine oil had been leaking past the oil control solenoid connection, into the engine harness and eventually finding its way to the bulkhead connection where it was creating added resistance. This resistance triggered the P0351 and resulted in the lack of power the customer described. Replacing the RH oil control solenoid, the engine harness and the #1 ignition coil corrected the condition. The detailed report and attached pictures made it very clear how David arrived at the root cause and provided useful feedback for Subaru Corporation and the vendor.

In appreciation for going the extra mile and sharing his experience with us, David will be receiving the following from his Field Service Engineer (FSE):

A Snap On ATECH2FR100B Electronic Torque Wrench plus credits to be used for additional award items of his choice.

Any Subaru Service Technician can participate in QMR of the Month. See the February 2013 and January 2016 TechTIPS for full details. You may see your name here in a future TechTIPS.



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 winner selected from QMR of the Month submissions received during March, was David Derks, a Technician at Groove Subaru in Englewood, CO. David is joined by: (I to r), Jason Bade, Service Manager, Robert Farnett, General Manager along with Tom Kenner, Field Service Engineer, SOA.



Congratulations and **THANK YOU** to March's QMR of the Month Award recipient!

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01 LOST KEYS? CONTACT THE SUBARU TECHLINE

If you receive a vehicle from the customer where all their originally registered keys have been lost, you may need to contact the Subaru Techline for the necessary steps to program new keys. Depending on the immobilizer type, you will be unable to just program one new key without an original key. Both immobilizer Type-B and Type-D require an original key to make any changes to the immobilizer system. Without an original key, a new one cannot be added. Unsure of which type immobilizer you have? Refer to the Quick Reference Chart found in the October 2016 TechTIPS newsletter. Once you have confirmed the vehicle is the Type-B or Type-D immobilizer system, you will need to do the following:

- Verify the vehicle is onsite.
- Open a Repair Order with all necessary information.
 - o VIN, RO number, RO date, Mileage if it can be obtained, etc.
- Verify key type (push-button, turn-key)
- Contact the Subaru Techline.

When calling the Subaru Techline, please ensure all necessary information is available at the time of the call. Once connected with the Techline, we will be able to provide you the necessary procedure to program new keys to the vehicle.

TECH TIPS GREATEST TIPS

New for the Tech Tips Newsletter is Tech Tips Greatest Tips. Every edition of Tips will include a past Tech Tip that is still relevant and useful on our vehicles today. For the first edition, we chose the Too Much Oil TIP. The Techline still uses this TIP to assist Technicians daily. Remember, if a vehicle comes into your Service Department with a hesitation/sluggish type feeling, check the engine oil!



TOO MUCH OIL IN THE ENGINE REVISITED

How much is too much? What can happen if you put too much oil in an engine? If you've ever seen an engine that had way too much oil added, you'd say a lot can happen and all of it is very bad and expensive. What if it's just a little over full, say by half a quart? Shouldn't hurt anything...right? Excess will just burn off...right? Wrong! What if we told you that an engine just half a quart over full could result in a drivability concern? It can.

IF YOU ENCOUNTER A CONCERN OF:

- Sluggish operation
- Hesitation
- Continual Surging

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02 TOO MUCH OIL IN THE ENGINE REVISITED

You may want to check the engine oil level when the engine is cold. In addition, we have received reports outlining CVT operational issues listed (but not limited to) the conditions below. These have also been found to be a result of an over-filled crankcase:

- CVT not "shifting" properly, delayed up-ratio or wrong ratio selected for the engine load followed by an engine over-rev condition when CVT ratios down in response to throttle input
- "Grabbing" sensation, CVT operating in a jerking fashion
- Vehicle seems to be lacking power at times or continually

If the engine oil level is over-filled, drain the excess oil to the full mark on the dipstick then see if theconditions are corrected. Conditions like these will generally be most noticeable when acceleratingup a grade. If you are monitoring the ECM using the SSM, you may also notice knocking correction occurring at the same time you experience the surging sensation. We are aware of concerns like this occurring in the field following both Retailer and aftermarket oil changes. If the oil level is found to be over-filled, always make sure to check the oil level in the front differential to rule out an accidental draining. Always confirm the engine oil level is correct following any service. What if the car is new? What if the mileage isn't near the scheduled service interval? Don't discount the possibility of someone adding oil to an engine between services. After all, if it's down half a quart why not just add the whole quart. It's only a little over full. What could it hurt? Now you know. It could hurt drivability!



PAK FILE ERROR MESSAGES

The Techline has received some calls from Technicians having issues with certain Pak files programming. The issue is usually accompanied with some kind of an error message. If this issue occurs, there are a few basic steps to take before attempting diagnosis.

- Verify the correct PAK file and CID (where applicable)
- Make sure the GR8 has entered power supply mode and the battery voltage is stable
- Verify the CF Laptop is fully charged or being supplied a charge.

If you still have an issue after verifying the above, shut off the key, exit the vehicle, lock and unlock the car with the remote, then retry programming.

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07 PAK FILE ERROR MESSAGES

See example of error message below:



15

BLUETOOTH CONCERNS?

The Techline continues to experience high call volume on Bluetooth issues. Keep in mind in order to diagnose a Bluetooth concern, we first have to make sure the phone is compatible with our system. We can do this by going onto Subaru.com, select FOR OWNERS at the top of the screen, selecting Bluetooth Compatibility and following the prompts. After confirming the phone compatibility for your specific issue, check with another phone to rule out the phone as an issue. For more on Bluetooth operation and diagnostics, refer to Tech Tips 4/2016. In the event that you are calling Techline for assistance, you should have a Bluetooth pre-call worksheet filled out and ready. This will give the Representative most of the answers to the initial questions you will be asked. Doing these initial steps is crucial as it will help us cut down drastically on call and wait times for the Techline. In the event you are experiencing an issue on multiple vehicles and may seem to be a characteristic, we recommend submitting a Quality Monitoring Report.



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BLUETOOTH CONCERNS?







Vehicle Resources

Manuals, tips, and videos to help you manage your Subaru. Learn More

Vehicle Recalls

In the event of a recall, we're dedicated to getting you back on the road safely. Learn More

Parts & Service

Maintenance recommendations and special offers in your area.

Learn More

Subaru STARLINK™

Learn how to use STARLINK in-vehicle technology to stay safe, informed, and entertained.

Learn More





Helpful information to keep your travels safer and longer.

Learn More



Vehicle Warranty

Get answers to questions you may have about your Subaru Warranty.

Learn More





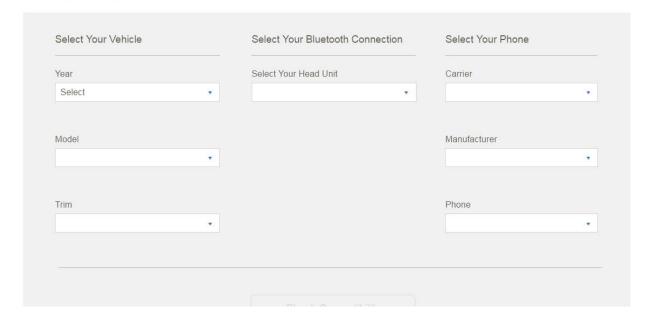
Bluetooth® Compatibility

Check to see which of your devices will pair with your vehicle's Bluetooth®.

Learn More

Real Check Your Phone Compatibility

We're constantly testing new phones. If you don't see yours listed, check back soon.



15 DOES THIS ACCESSORY WORK WITH THIS CAR?

There is an easy way for a Technician verify accessory applicability. Navigate to the home page of Subarunet. Click on the Parts/Service-Prgms/Accessories link, then select Accessories. After selecting the vehicle, the catalog will open. Keep in mind, you can also use the part number to get your accessory installation guide. Copy the part number, navigate to the Accessory Installation Guide and paste the part number in the Keywords/Tool # box. Leave all other fields blank.



Example of the catalog below.

					-								
	Part		Part	2.5 i	2.5i	2.5i	2.5i	3.6R	3.6R				
Item	Number	Component	Name	Base	Prem.	Touring	Ltd.	Touring	Ltd.	NOTE	15	16	17
1	28111AL02A		Aluminum Wheel (17")	Х	11100					Base Model Only Must order all four items for one set	X	Х	
	28821VA000		Center Cap	Х							Х	Х	
	28194SC000		TPMS Valve Stem	Х							X	X	
	28192SA000		Valve Screw	Х							X	X	
	28821VA000		Center Cap (Subaru Logo)	Х	Х		Х		Х		Χ	Х	
2	F541SAL000		Moonroof Air Deflector	7/314	Х	X	х	Х	х	Only Applicable to Models with Moonroof	Х	Х	Х
		F541SAL110	Hardware Kit		Х		Х		Х		X	X	
3	H001SAL000		Remote Engine Starter (Turn Start Models)	Х	Х		Х		Х	Not Applicable to Models with Manual Transmissions	Х	Х	Х
		HOOTCALOTO	Control Madula Manualina Burglas	37	30	1	37	1	10		17	11	100

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE	
TKB-16R	Subaru Product/ Campaign Bulletin	Takata Front Passenger Airbag		
TKC-16R	Subaru Product/ Campaign Bulletin	Takata Front Passenger Airbag	11-May-17	
TKA-16R	Subaru Product/ Campaign Bulletin	Takata Front Passenger Airbag	11-May-17	
TKC-17R	Subaru Product/ Campaign Bulletin	Takata Front Passenger Airbag 11-		
TKB-17R	Subaru Product/ Campaign Bulletin	Takata Front Passenger Airbag	11-May-17	
TKA-17R	Subaru Product/ Campaign Bulletin	Takata Front Passenger Airbag	11-May-17	
07-117-17	Technical Service Bulletin	Rear Combination Lamps- "Jingl	10-May-17	
E2410CA010	Accessory Installation Guide	Front under spoiler (2017 BRZ)	28-Apr-17	
A091SVA100	Accessory Installation Guide	ENGINE BLOCK HEATER KIT (2018 STI)	27-Apr-17	
SUTTIPSLOC	Other / Miscellaneous	TechTIPS Article Locator Index (Updated 02-2017)	25-Apr-17	
SOA801P001	Accessory Installation Guide	FORESTER Door Edge Guard	25-Apr-17	
15-196-16R	96-16R Technical Service Bulletin Data Communication Module (DCM) Procedure for Provisioning Failure, Inspection / Repair		25-Apr-17	
E721SAL000	Subaru Product / Takata Front Passenger Airbag Inflator Re		24-Apr-17	
TKC-16R			21-Apr-17	
TKB-16R	Subaru Product / Campaign Bulletin	Takata Front Passenger Airbag Inflator Replace- ment	21-Apr-17	
TKA-16R	Subaru Product / Campaign Bulletin	Takata Front Passenger Airbag Inflator Replace- ment	21-Apr-17	
J501SFL400	Accessory Installation Guide	2017 Impreza Rear Seat Back Protector	21-Apr-17	

OO STIS NEW RELEASES

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
F551SSG021	Accessory Installation Guide	Forester Rear of Seat Net	21-Apr-17
F551SSG011	Accessory Installation Guide	Forester Side Net	21-Apr-17
16-103-16R	Technical Service Bulletin	Transmission Fluid Seepage	20-Apr-17
12-201-16R	Technical Service Bulletin	Paint Chipping between Hood Grille (Scoop) and Hood	20-Apr-17
14-22-16R	Technical Service Bulletin	Special Service Tool Cross Reference List	17-Apr-17

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""" 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

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