TECH TIPS

May 2019 SUBARU

Subaru Service and Technical Support Line Newsletter

| ARTIC | LES CONTAINED | |
|--------------|---------------|--|
| II. | THIS ISSUE | |
| | | |

| Click | Click on a title below to jump to the article. It the date located in the footer to return to page 1. |
|-------|--|
| CODE | ARTICLEPAGE |
| (00) | STIS New Releases8-9 |
| (01) | QMR of the Month 1 |
| (01) | QMR of the Month Award Presentations2 |
| (01) | Use Of Silicone Spray Precautions ${\bf 3}$ |
| (01) | Brake Lamp Switch Replacement Web Based Training 3 |
| (07) | 2019MY Forester Manual Override for Power Rear Gate 3 |
| (07) | 2019MY WRX, Telematics "i" Button Sticking 4 |
| (12) | 2019MY Ascent, Spare Tire Hoist Precautions |
| (14) | WUE-90 Stop Lamp Switch Recall, Special Tool TIP5 |
| (15) | Telematics Operational Concerns Accompanied By DTC B2A15 6 |
| (15) | Harman Audio / Navigation System Concerns6-7 |

SUBARU TECHLINE HOLIDAYS & HOURS OF OPERATION

Memorial Day: (Closed) Monday, May 27, 2019

Independence Day: (Closed)

Thursday, July 4, 2019

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

01 QMR OF THE MONTH

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

David Jodat from Subaru City of Milwaukee in Milwaukee, WI.

David's excellent QMR detailed his diagnosis and repair of a new 2019MY Impreza (19 miles) which prior to delivery, was experiencing driveability concerns along with both the Check Engine and AT Temp lights flashing. His thorough report began with describing the condition as the transmission slipping and feeling like it was starting out in a much higher ratio than normal. After easily duplicating the condition, David began his diagnosis by looking into the list of 3 stored transmission DTCs, all relating to a different shaft speed sensor. He then connected the SSM4, selected the PIDs for the sensors in guestion along with front wheel speed to help with his diagnosis. During the brief road test, David identified all 3 shaft sensors were unresponsive while the wheel speed data would rise and drop normally. He then turned to the transmission wiring diagram and identified a common power supply feed for all 3 sensors although, each had its own separate ground. This led David to start tracing the sensor power supply wiring. Using the split-half technique, he was able to track down two separate problems. The first was a broken locking tab on the outside of connector E115 along with a poor connection found at Pin 19 of connector T15 (which connects to E115). Because of the broken locking tab, David proceeded to order and install a new engine wiring harness which repaired the vehicle. His QMR also included numerous quality photos with call-outs, SSM data snapshots and a video showing how he was able to simulate the poor Pin 19 sensor power supply connection.

In appreciation for going the extra mile and sharing his experience with us, David will be receiving the following:

A \$500.00 Snap-On gift card.

CONTINUED ON THE NEXT PAGE

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, Baja, Tribeca, BRZ, XV Crosstrek, Ascent, Crosstrek Hybrid 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.



May 2019 TechTIPS Page 1 of 10

01 QMR OF THE MONTH (CONTINUED)

The other Regional winners selected from QMRs submitted during March 2019 were:

- David Wood from Riverhead Bay Subaru in Riverhead, NY
- Eric Heck from Pine Belt Subaru in Lakewood, NJ
- Ken Mitsumasu from Subaru Orange Coast in Santa Ana, CA
- Daniel Evans from North Reading Subaru in North Reading, MA

Any Subaru Technician can participate in the QMR of the Month program. See the February 2013 and January 2016 issues of Tech TIPS for full details. You just might see your name and photo in a future issue of Tech TIPS!



QMR OF THE MONTH AWARD PRESENTATIONS

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 2019, was David Jodat, a Technician at Subaru City of Milwaukee in Milwaukee, WI.



David is shown above after being presented with his \$500.00 Snap-On Gift Card by SOA Field Service Engineer, Keith Cook (far left). He was joined by Subaru City of Milwaukee's Dealer Principal, Michael Schlossmann and Assistant Service Manager Jason O'Donnell (far right). Congratulations and THANK YOU to our March 2019 QMR of the Month Award recipient!

May 2019 TechTIPS Page 2 of 10

01 USE OF SILICONE SPRAY PRECAUTIONS

Techline continues to receive reports of aerosol products containing silicone being used during diagnosis and repair. We are providing the following information regarding the use of lubricating sprays containing silicone (WD-40®, Armor-All®, Silicone Spray, etc.). When silicone attaches to an electrical contact point such as a relay circuit, switch or harness connector, silicon dioxide (SiO2) is formed by the heat generated during current flow which can result in electrical contact failure. Eventually, there is a possibility electrical components or connections could fail as a result. Therefore, when cleaning car interiors, lubricating weather stripping or repairing noises it is imperative sprays containing silicone are not used.

01

BRAKE LAMP SWITCH REPLACEMENT WEB BASED TRAINING

The required Course "Subaru Brake Switch Replacement" has been assigned to all technicians, interns and apprentices. This 15-minute WBT will cover the switch replacement procedures. To locate this WBT logon to click:

SKILS > Learning > View Your Transcript > Brake Lamp Switch Replacement WBT

If this training has not been assigned to you, simply enter **Brake Lamp Switch Replacement WBT** into the search field located at the top right of SKILS.



07

2019MY FORESTER MANUAL OVERRIDE FOR POWER REAR GATE

When the power rear gate system senses a malfunction and the gate is closed, the vehicle will chirp three times and the gate will not open. To open the gate, simply press and hold the opener button on the gate until the latch releases. The gate can then be manually opened and closed. Initialization information for the power rear gate can be found on pages 148-149 of the Owner's Manual.

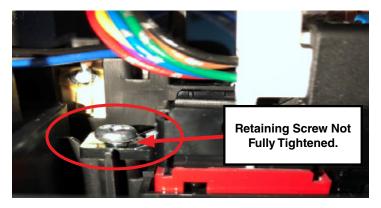


07

2019MY WRX, TELEMATICS "i" BUTTON STICKING

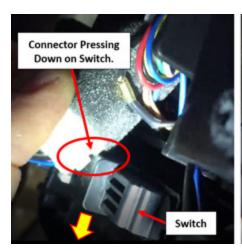
Recently, there have been some QMRs received describing the blue "i" button for the Telematics system sticking. Thanks to the hard work of our Port Quality Assurance teams, a couple of causes for this condition have been identified which we would like to pass along.

If you encounter a 2019MY WRX with the blue "i" button sticking or loose, it most likely won't require replacement of the switch or housing to repair. This condition is usually caused one of two concerns. In

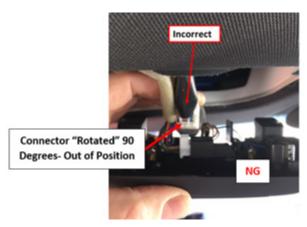


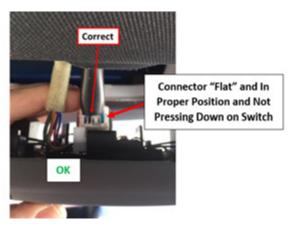
the first condition, one or both of the screws securing the Telematics switch to the housing may not be fully tightened (as shown in the photo above) which can allow the switch to move.

The second concern involves one of the other harness connectors above the housing being out of position and pushing down on the switch. This results in the button getting hung up on the edge of the opening in the housing. This can generally be repaired by simply rotating the connector that is pressing down on the switch as shown below.









May 2019 TechTIPS Page 4 of 10

12

2019MY ASCENT, SPARE TIRE HOIST PRECAUTIONS

When using the Ascent's spare tire hoist, it is IMPORTANT to use <u>ONLY</u> the spare tire lug wrench included with the vehicle to operate it. <u>NEVER</u> use an electric or air-operated power tool to operate the hoist as damage to the internal mechanism and / or the hoist cable can result preventing the spare tire from being secured fully in place against the underside of the vehicle body. A customer concern of a "clunking" noise may also result from this condition along with sidewall damage to the spare and corresponding vehicle underbody / paint rub-through.





Witness marks on the hex portion and face plate of winch from using a deep-well socket and power tool.

14

WUE-90 STOP LAMP SWITCH RECALL, SPECIAL TOOL TIP

A Technician submitted a QMR with an excellent suggestion to prevent the WUE-90 adjustment nut special tool from being left behind after completing the repair procedure:



Simply drill a hole near the handle end of the tool and install an unused lanyard as shown above. The brighter color the better but, we liked the choice used here too!

15

TELEMATICS OPERATIONAL CONCERNS ACCOMPANIED BY DTC B2A15

There have been a significant number of inquiries regarding DTC B2A15 and Telematics system operation. Customers usually report a concern of the red Telematics LED being illuminated, either currently or in the past. In a case where the red LED is currently not illuminated, the customer may also have an email telling them STARLINK has detected their services may not be operating correctly and recommending they return to the retailer to have the system diagnosed. Once at the retailer, if the LED is green, the system is usually operating within manufacturer specification BUT, there may be a DTC B2A15 in history.

The first step to any B2A15 concern investigation is to ask the customer if they are using or have used any kind of third-party device like an insurance company's driver monitoring or OBD-II port-connected device. There are more and more products hitting the market every day meant to plug into the OBD II connector to monitor and collect data from the vehicle.

If an OBD-II port-connected device is being used and following a detailed customer interview, secure customer permission to remove the device and confirm operation of all the remote Telematics services as well as both the "i" and SOS buttons. If all services are currently performing within manufacturers specifications, clear the DTC and inform the customer to consult the STARLINK Service agreement terms and conditions. Below is the section copied from the Agreement applicable to this situation.

"Subaru cannot guarantee the performance of any devices not supplied by Subaru of America, Inc or its affiliates. Additionally, third-party devices (such as some driver monitoring or third-party OBD-II port devices), may interfere with the proper function of certain vehicle features, including the Subaru STARLINK® system. Customers may, at their discretion, use those devices, but if they create interference with the vehicle or the STARLINK® system's operation, the system may not operate properly, and the warranty may not offer relief for the conditions that result from such usage."



HARMAN AUDIO / NAVIGATION SYSTEM CONCERNS

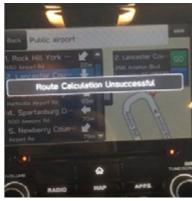
The following three TIPS involve conditions reported involving Harman Audio / Navigation systems. These conditions will also be added to the related TSB **15-221-18R**.

Condition 1: Map Display "Whiteout"

- Map display is either white (blank) or, an incomplete screen (no roads) is displayed.
- "Route Calculation Unsuccessful" message is displayed when trying to calculate a route.

Cause: If a MOTA (Map Over the Air Update) was performed or attempted





previously, the state map data may have become corrupted. This can occur due to weak a Wi-Fi signal during MOTA causing the state to disappear (appear white). Updating the map (again) successfully using a strong Wi-Fi signal or via USB will restore the missing map data.

May 2019 TechTIPS Page 6 of 10

15 HARMAN AUDIO / NAVIGATION SYSTEM CONCERNS (CONTINUED)

Condition 2: Map display not going into "night" mode in low light (night time / dark) conditions

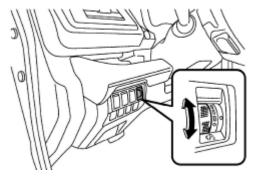
Possible Causes:

• Map display setting may be set to "Day" instead of "Night" or "Auto" as shown below. From the Settings menu, select Map Display and either "Auto" or "Night".





• If the instrument panel illumination control knob is set to MAX brightness (all the way up), the map display will not change regardless if "Auto" or "Night" mode is selected in Settings. Lower the illumination control knob as shown in the illustration and "Auto" or "Night" mode operation will be restored.



Condition 3: Wrong Head Unit (H/U) part numbers being ordered

Several reports have been received describing operational issues occurring after installation of the replacement H/U. In some cases, further investigation revealed an incorrect (or different than the original) part number H/U was ordered and installed. When ordering an exchange unit, there are Exchange Component Identification bulletins for every model year posted to STIS. These are an excellent resource to use in combination with the Electronic Parts Catalog (EPC). In the event a new unit is being installed (e.g. for a new, in-stock vehicle), always order the most up-to-date replacement part number H/U based on the specific VIN being repaired using the exchange portal and indicate the new unit is required for an in-stock unit.



| ITEM CODE | ITEM TYPE | TITLE | CREATED DATE |
|--------------|----------------------------------|--------------------------------|-----------------|
| 09-69-19 | Technical Service Bulletin | Fuel Pulsation Damper- Service | 20-May-19 |
| SOA801P060xx | Accessory Installation Guide | 2020 Legacy / Outback Door Edg | 17-May-19 |
| 12-264-19 | Technical Service Bulletin | Child Anchor Retaining Bolt- D | 15-May-19 |
| 12-263-19 | Technical Service Bulletin | Rattling Sound from Front Door | 13-May-19 |
| A091SAN000 | Accessory Installation Guide | 2020 Legacy and Outback Engine | 10-May-19 |
| J501SAN230 | Accessory Installation Guide | 2020 Legacy Rear Seatback Prot | 10-May-19 |
| 15-221-18R | Technical Service Bulletin | Harman Audio / Infotainment: H | 10-May-19 |
| F551SAN400 | Accessory Installation Guide | 2020 Outback Cargo Separator | 9-May-19 |
| J501SAN220 | Accessory Installation Guide | 2020 Outback Rear Seatback Pro | 9-May-19 |
| 16-121-19 | Technical Service Bulletin | "Tapping" -Type Sound Coming f | 9-May-19 |
| 15-235-18R | Technical Service Bulletin | Harman Kardon Gen 3 Audio Ampl | 8-May-19 |
| 15-217-18R | Technical Service Bulletin | Harman Kardon Gen 3 Audio Ampl | 8-May-19 |
| 15-240-19R | Technical Service Bulletin | New Harman Audio Amplifiers | 8-May-19 |
| WUE-90R | Subaru Product/Campaign Bulletin | Brake Lamp Switch Replacement | 8-May-19 |
| C8110FG010 | Accessory Installation Guide | STI Pedal Pads - Manual Transm | 7-May-19 |
| C8110FG000 | Accessory Installation Guide | STI Pedal Pads - Automatic Tra | 7-May-19 |
| SOA567X060 | Accessory Installation Guide | Crosstrek Hybrid Crossbar | 7-May-19 |
| J131SAN000 | Accessory Installation Guide | 2020MY OUTBACK-LEGACY DOOR | 7-May-19 |
| J101SAN100 | Accessory Installation Guide | 2020 Outback Splash Guards | 7-May-19 |
| J1210SJ500 | Accessory Installation Guide | STI Door Handle Cup Protector | 7-May-19 |
| J1210CA500 | Accessory Installation Guide | STI Door Handle Cup Protector | 7-May-19 |
| J1210FL500 | Accessory Installation Guide | STI Door Handle Cup Protector | 7-May-19 |
| J1210VA500 | Accessory Installation Guide | STI Door Handle Cup Protector | 7-May-19 |
| 07-153-19 | Technical Service Bulletin | Ignition Coil Cap Now Availabl | 7-May-19 |
| 14-22-16R | Technical Service Bulletin | Special Service Tool Cross Ref | 6-May-19 |
| 07-152-19 | Technical Service Bulletin | Power Window Switch Changes | 2-May-19 |
| 04-17-17R | Technical Service Bulletin | Rattling Sound from Steering R | 2-May-19 |
| J101SAN800 | Accessory Installation Guide | 2020MY LEGACY/OUTBACK Body | 2-May-19 |
| J101SAN800 | Accessory Installation Guide | 2020MY LEGACY/OUTBACK Body | 2-May-19 |
| WUF-91R | Subaru Product/Campaign Bulletin | Replacement Ignition Switch Re | 30-Apr-19 |
| 15-236-18R | Technical Service Bulletin | Reprogramming File Availabilit | 30-Apr-19 |
| 01-167-08R | Technical Service Bulletin | Recommended Materials (All Veh | 29-Apr-19 |
| F551SAN100 | Accessory Installation Guide | 2020MY Legacy Cargo Nets | 29-Apr-19 |
| F551SAN000 | Accessory Installation Guide | 2020MY Outback Cargo Nets | 29-Apr-19 |
| 15-241-19 | Technical Service Bulletin | Accessory Chrome Rear Bumper C | 29-Apr-19 |

Page 8 of 10



| ITEM CODE | ITEM TYPE | TITLE | CREATED DATE |
|--------------------------------------|------------------------------|--------------------------------|-----------------|
| MSA5P2602C | Technician Reference Booklet | Advanced Electrical Systems Di | 29-Apr-19 |
| MSA5P2606C | Technician Reference Booklet | Automatic Climate Control Syst | 29-Apr-19 |
| MSA5P3610T | Technician Reference Booklet | Electrical Theory and Diagnosi | 29-Apr-19 |
| 07-151-19 Technical Service Bulletin | | DTC B112C or B112E -Driver Mon | 25-Apr-19 |

| """ 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 9103; Camden, NJ 08101-9877. |
| 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

May 2019 TechTIPS Page 10 of 10