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2015 CALENDAR OF SUBARU HOLIDAYS

Labor Day

Monday, September 7, 2015
Techline will be closed in observance of Labor Day.

Thanksgiving

Thursday, November 26, 2015
Friday, November 27, 2015

01 QMR OF THE MONTH

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

Eric Quan from **Puente Hills Subaru**
in **City of Industry, CA**

Eric submitted a very detailed QMR on his diagnosis and repair of a 2015 WRX with a P2021- Tumble Generated Valve Position Sensor 2 Circuit Low. Following the Service Manual diagnostics, Eric quickly found an open in the circuit between the ECM and the tumble generator. While inspecting the harness, he found it had abraded against the fuel pipe protector resulting in the open circuit. Eric documented the harness location and condition in clear detailed photos before repairing the open and ensured the harness would not be in contact with the protector. This allowed us to see the actual condition as he found it. He also included clear photos of his repair and final positioning of the harness. In appreciation for going the extra mile and sharing his experience with us in hopes of improving product quality, Eric 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.

If you have never entered a QMR before, have an idea for one, or are not sure what should be reported, please discuss with your Field Service Engineer (FSE) or District Parts and Service Manager (DPSM) as they visit your store.

SCHOOL'S OPEN
DRIVE CAREFULLY **SUBARU**

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.



QUALITY DRIVEN® SERVICE



01 2015 AUGUST QMR OF THE MONTH AWARD PRESENTATION

As part of our QMR of the Month recognition program, we will include a photo (when available) of the recipient's award presentation in TIPS. The winner selected from QMR of the Month submissions received during August was Rick Vens, a Technician at AutoNation Subaru in Spokane Valley, WA.

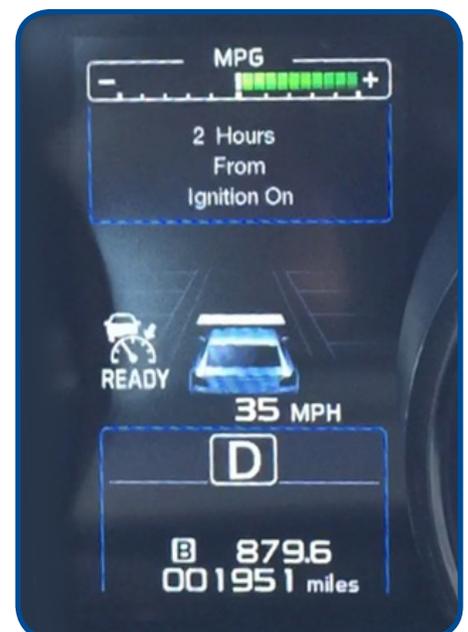
Shown below after receiving his new iPad mini from (l to r) are: Subaru of America Field Service Engineer, **Gary Borland**, **Rick Vens**, Service Technician along with **John Roach**, Service Manager from AutoNation Subaru.



08 2015 MY LEGACY AND OUTBACK: JOURNEY TIME ALERT ON COMBINATION METER TELLTALE DISPLAY

An added feature of the Combination Meter is an alert message (accompanied by a single “beep” sound) which will be displayed in the Telltale section above the odometer after 2 hours of driving have elapsed from ignition ON. The “beep” is the same sound heard when the low fuel lamp is first illuminated. This message is provided simply as a notification to make the driver aware they have been driving for 2 hours and it may be a good time to consider taking a break, checking fuel level, etc. Like other alerts shown on the Telltale display, it cannot be turned off or adjusted. This feature has been included on Subaru vehicles for several years, but unless the vehicle is driven for approximately 2 hours or more, many customers may have never experienced it.

Until the Owner's Manual is revised, information will be limited regarding this message.



Due to a limited supply of remaining Subaru Diagnostic Interface (SDI) boxes, SOA recommends in all applicable situations, Technicians should use the new interface, the Denso Scan Tool – interface (DST-i).

The current SDI will remain on the required tool list until 2019 to allow service of 2003 and earlier Subaru vehicles as required by law. However, for all instances where an interface is needed to diagnose 2004 and newer vehicles, the DST-i should be used.

It is recommended that the SDI box be secured and stored in a safe place and to be used only when needed on pre-2004 vehicles thereby avoiding unnecessary wear and tear.

DST-i Applications:

Subaru Select Monitor III software (SSMIII) – The DST-i can be used in combination with SSMIII software for all 2004 to 2015 vehicles. (From the SSMIII main menu, use the F10 button to select the proper interface.)

Subaru Select Monitor 4 software (SSM4) – The DST-i must be used in combination with SSM4 software for all 2016 and newer vehicles.



SDI



DST-i

The Techline has received a number of calls inquiring about a rattling sound heard from the BRZ 6M/T when decelerating with the transmission in neutral and the A/C system on. We have reviewed these reports with FHI and were provided the following explanation regarding the cause of the sound:

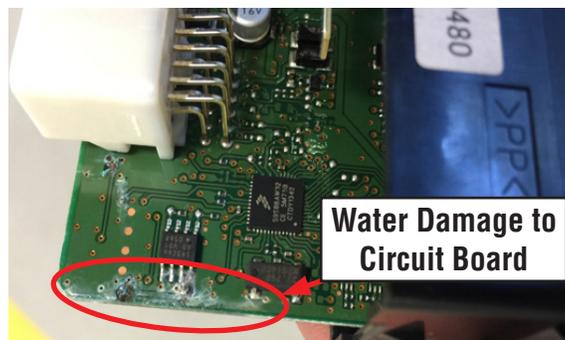
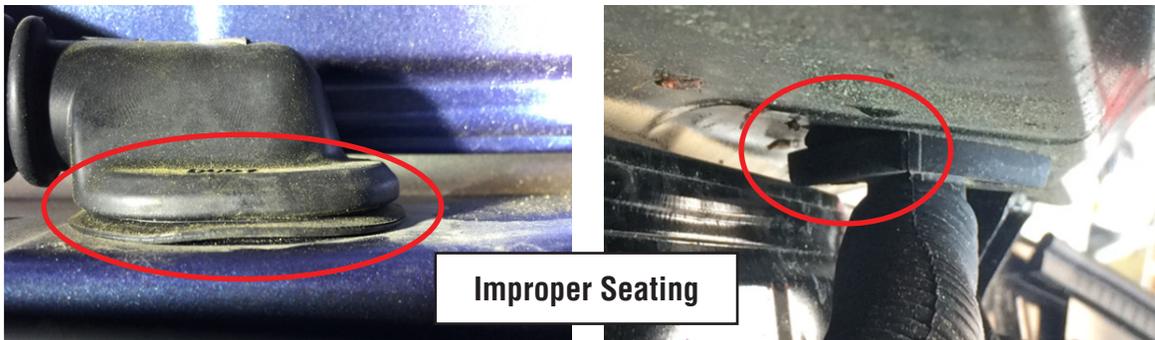
- It is produced by very light tooth-to-tooth contact between multiple disengaged gears.
- It only occurs when the A/C is on because the system's operational load induces small variations to the engine idle speed. As the engine rpm decreases, those variations increase and the sound results.
- Most importantly, it is non-detrimental as the forces acting on the gears and causing the sound are extremely low (insufficient to cause any wear).

In conclusion, this sound is normal operating characteristic of the BRZ 6M/T. No repairs are required.

The Techline has received a limited number of inquiries regarding erratic illumination of the washer fluid level warning indicator lamp. An investigation involving parts collection along with a review of the corresponding repair order documentation was performed. The results concluded the root cause to be customer use of a popular, readily available water-dispersant windshield washer fluid / de-icer / bug remover which is orange in color. Fluid level sensors removed from the collected assemblies all showed an accumulation of an oily, orange-colored residue along with staining on the inside of the tanks. This residue was determined to be impeding proper operation of the sending unit float and switch components. Some photos of the collected parts with the residue are shown on the right. This type of damage is to be considered resultant from an outside influence and therefore not a matter for warranty.

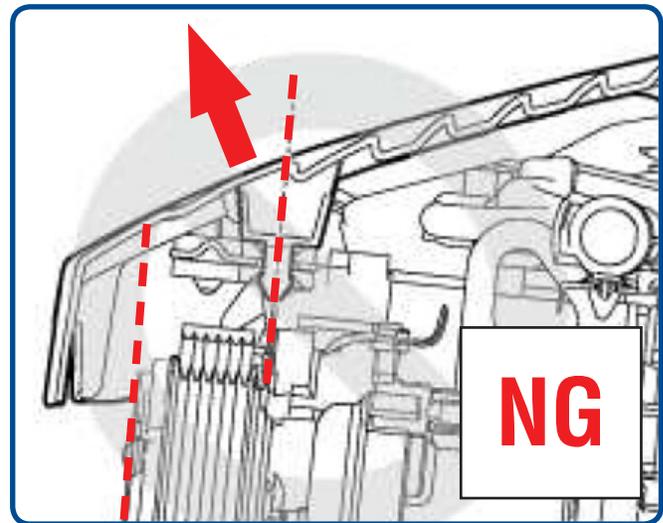
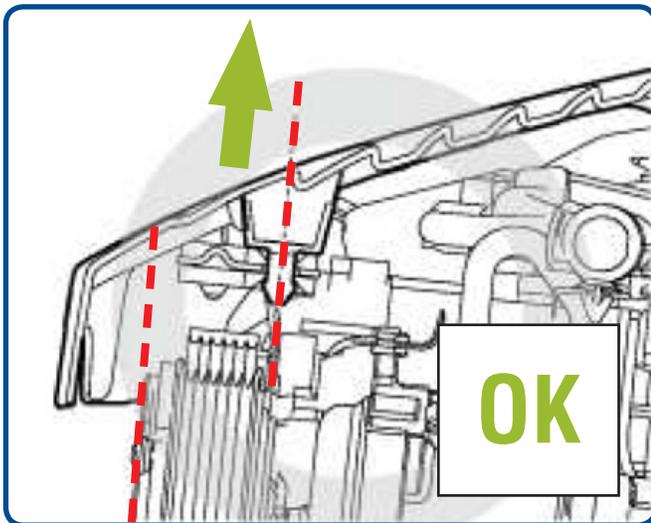
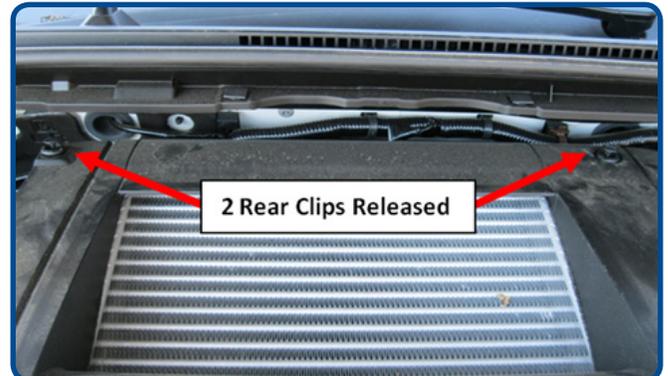
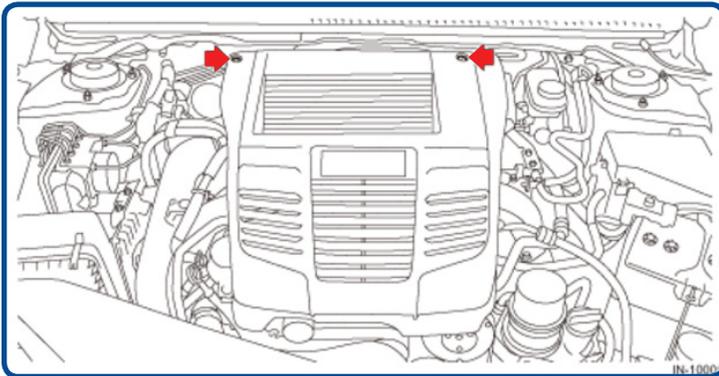


The Techline has received a number of calls regarding flashing TPMS warning lights. After initial diagnosis, if you are even able to communicate with the TPMS system, sometimes codes are stored, but most of the time there are none. If you encounter this condition, and for example, only 3 of 4 TPMS sensors are able to be registered, always check the TPMS control module for signs of water intrusion before replacing any parts. Also, always inspect the connectors and pins at the module carefully for corrosion if this condition is verified. Most cases have been traced back to the pass-through rubber harness cover / bellows between the body and the rear gate not being fully seated as shown in the photos below. The improper seating area has been primarily on the front side which can make it hard to see if not inspected carefully. There have also been isolated cases of a missing sealing gasket on the rear roof rail mounting stud. When either of these conditions occur, water can enter the vehicle, follow down the rear gate harness and drip directly onto the TPMS control module, eventually causing internal damage as seen in the bottom photo of a damaged circuit board. If you verify this concern, make sure to thoroughly clean and fully re-seat the pass through harness cover and re-check to verify any water leak has been repaired. To complete the repair, it will be necessary to replace the TPMS control module and re-register all the transmitters.



When removing the plastic engine cover on a 2015MY WRX, extra caution must be taken to release the two front pins from their rubber retaining grommets. The rear corners are secured with retaining clips. After removing the 2 clips, the cover must be **CAREFULLY** lifted **STRAIGHT UP** (parallel to the face of the A/C compressor pulley as shown in the illustrations below) to release the front pins otherwise, the cover will likely be damaged. Lifting the cover up at any other angle will usually break the pin portion(s) off the underside of the cover. This precaution is even more important to follow in colder temperatures. If the front pins are found to be sticking to the rubber grommets, sparingly apply a **very small** amount of non-silicone lubricant to the pins to make any future removal easier.

REMINDER: NEVER apply silicone lubricants or sprays onto or near any electrical connections or components.



There has been a high occurrence of missing information when requesting CPO CID/CVN certification. Please ensure all criteria are met before sending in a CPO CID/CVN Certification request to avoid delays.

ECM CHECK PROCESS:

It is required that any turbo model being considered for certification have this inspection completed first.

All correspondences should be directed to TECH@Subaru.com. Techline will not process phone requests for CPO.

- In the subject line of the e-mail, please NOTE: "CPO CID/CVN Certification request".
- Attach the screen shot of the vehicle information screen.
- The e-mail should contain the retailer code, retailer name and contact person's name and phone number.
- The Techline representatives will respond back to retailers within 24 hours.



Once the vehicle has passed this part of the inspection process, you should proceed with the rest of the decision making process on certifying the vehicle.

As the CPO 152-point inspection form indicates, if a vehicle has ANY performance modifications, it cannot be enrolled as a Subaru Certified Pre-Owned vehicle. If there are any other, non-performance related modifications, the vehicle must be returned to stock, with all stock/OEM parts installed before it can be enrolled as Certified. Non-compliance to these requirements may result in chargeback to the retailer for replacements after it is sold as a Subaru CPO unit.

Information regarding CPO CID / CVN Certification request procedure was originally posted to Subarunet on 9/16/2014.

The Techline has been receiving calls from Technicians who in some cases are following the wrong trouble tree when diagnosing DTCs. When a vehicle comes in with multiple codes stored, you should always look at the Freeze-Frame (FF) data and the Time Count PID first. This will be the best place to get a direction as to what the first DTC to set in the affected system was. Never clear any DTCs until all have been recorded and the corresponding FF data saved electronically.

In the example below, a customer could come in with a traction (VDC) light, Check Engine light and A/T Temp light on. If the root cause issue is not current, they could come in with no warning lights on at all. The Technician connects the SSM and the following DTCs are stored:

- VDC code C1424 (ECM failure): DTC indicates there is a code in the ECM.
- ECM code P0700 (AT request MIL on): DTC indicates there is a code in the TCM.
- TCM code P0841 (Secondary Pressure Sensor malfunction): This DTC is the root-cause issue and should be the code the Technician diagnoses first.

In this case, the other codes (C1424 and P0700) are secondary codes. The TCM informed the other control modules of its failure by setting the P0841. Whenever a control module has an issue and stores a DTC, there is a strong possibility of DTCs in other modules due to the interdependence of one system on another through operation of the high-speed CAN system.

You may also see CAN communication codes stored. These DTCs should be interpreted as secondary or by-product codes unless no other codes are stored. Always check each system for DTCs as once the issue has subsided, the only place you will see the DTC is in the affected system. An All-System scan will only provide current codes which in the example above, would be the C1424.

| ITEM CODE | ITEM TYPE | TITLE | CREATED DATE |
|---------------|------------------------------|---|--------------|
| L101SSC000 | Accessory Installation Guide | 2009 Trailer Hitch (L101SSC000) | 31-Aug-15 |
| H461SAL000 | Accessory Installation Guide | Interior Footwell Illumination | 31-Aug-15 |
| H630SFJ301 | Accessory Installation Guide | Powered Subwoofer Installation Instructions | 31-Aug-15 |
| MSA5B1602A | Owner Manual | 2016MY Forester Quick Reference Guide | 28-Aug-15 |
| MSA5B1614A | Owner Manual | 2016MY EyeSight Quick Reference Guide | 28-Aug-15 |
| H4510SG110 | Accessory Installation Guide | Forester Fog Lamp Kit | 27-Aug-15 |
| S1001BE | Other / Miscellaneous | 2005-2015MY Registration Manual For Immobilizer | 26-Aug-15 |
| SOA801P000... | Accessory Installation Guide | Forester Door Edge Guards | 26-Aug-15 |
| S1205BE | Service Manual Full | 2016MY Registration Manual For Immobilizer | 26-Aug-15 |
| 15-184-15R | Technical Service Bulletin | "Please Check Audio System" Message Displayed on MFD (Multi-Function Display) | 24-Aug-15 |
| 15-185-15 | Technical Service Bulletin | Cellular Phone Pairing to Clarion Audio Units | 24-Aug-15 |
| 12-180-15 | Technical Service Bulletin | Change to Door Glass Retaining Bolts | 24-Aug-15 |

| ITEM CODE | ITEM TYPE | TITLE | CREATED DATE |
|------------|------------------------------------|---|--------------|
| WQR-53R | Subaru Product / Campaign Bulletin | Takata Front Passenger Air Bag Inflator Replacement | 24-Aug-15 |
| WQP-51R | Subaru Product / Campaign Bulletin | Regional Front Passenger Air Bag Inflator Replacement | 24-Aug-15 |
| WQL-48R | Subaru Product / Campaign Bulletin | Front Passenger Air Bag Inflator Replacement | 24-Aug-15 |
| 18-182-15 | Service Manual Correction | Service Manual Corrections | 21-Aug-15 |
| | HTML Diagnostics | 2016MY Forester Service Manual V3 | 20-Aug-15 |
| WQU-56R | Subaru Product / Campaign Bulletin | Propeller Shaft Oil Seal Failure | 19-Aug-15 |
| H701SFJ001 | Accessory Installation Guide | Interior Footwell Illumination Kit (Red & Blue) | 19-Aug-15 |
| MSA5M1603A | Owner Manual | 2016MY Legacy and Outback Owner's Manual | 12-Aug-15 |
| MSA5B1604A | Owner Manual | 2016MY Outback Quick Reference Guide | 12-Aug-15 |
| MSA5B1603A | Owner Manual | 2016MY Legacy Quick Reference Guide | 12-Aug-15 |
| MSA5M1611A | Owner Manual | 2016MY Legacy and Outback SUBARU STARLINK 7.0" Multimedia Plus and Multimedia Navigation Owner's Manual | 12-Aug-15 |

All revised publications are highlighted in yellow.

CONTINUED ON THE NEXT PAGE

| ITEM CODE | ITEM TYPE | TITLE | CREATED DATE |
|------------|------------------------------|---|--------------|
| MSA5M1614A | Owner Manual | 2016MY Legacy and Outback EyeSight Owner's Manual | 12-Aug-15 |
| G2520BE | Service Manual Full | 2016MY Legacy and Outback Service Manual | 12-Aug-15 |
| | HTML Diagnostics | 2016MY Legacy and Outback Service Manual V1 | 12-Aug-15 |
| 06-50-15 | Technical Service Bulletin | Design Changes to Master Cylinder and Brake Booster | 10-Aug-15 |
| 07-96-15 | Technical Service Bulletin | Design Change to Engine Wiring Harness | 10-Aug-15 |
| E771SAL001 | Accessory Installation Guide | Bumper Cover (Outback) | 10-Aug-15 |
| E771SFJ401 | Accessory Installation Guide | Bumper Cover (Crosstrek) | 10-Aug-15 |
| E771SSG350 | Accessory Installation Guide | Bumper Cover (Forester) | 10-Aug-15 |
| 07-97-15 | Technical Service Bulletin | Procedure Change when EyeSight Stereo Camera Cover Finish Is Peeling | 10-Aug-15 |
| 02-131-12R | Technical Service Bulletin | Oil Seepage Diagnosis and Repair Procedures | 6-Aug-15 |
| 16-95-15 | Technical Service Bulletin | Diagnosis Procedure for CVT Chain Slip | 6-Aug-15 |
| 11-159-15 | Technical Service Bulletin | Reprogramming File Availability for Extended Engine Cranking (Delayed Starting) | 6-Aug-15 |
| 07-95-15 | Technical Service Bulletin | Design Change to Engine Wiring Harness | 6-Aug-15 |

All revised publications are highlighted in yellow.

| ITEM CODE | ITEM TYPE | TITLE | CREATED DATE |
|------------|------------------------------------|---|--------------|
| WQT-55 | Subaru Product / Campaign Bulletin | Occupant Detection System (ODS) Occupant Control Unit (OCU) | 5-Aug-15 |
| 01-168-09R | Technical Service Bulletin | Replacement Key and Immobilizer Information for Authorized Subaru Dealers | 5-Aug-15 |
| MSA5M1617A | Owner Manual | 2016MY SUBARU STARLINK Safety and Security Owner's Manual | 4-Aug-15 |
| 13-98-15 | Technical Service Bulletin | 2016 MY Paint Coding Information | 4-Aug-15 |
| TIPS0815 | TechTIPS NewsLetter | 2015 August TechTIPS Newsletter | 3-Aug-15 |
| H6710FJ000 | Accessory Installation Guide | Cigarette Lighter Kit (H6710FJ000) | 3-Aug-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.

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: _____