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## SUBARU TECHLINE HOLIDAYS & HOURS OF OPERATION

### Thanksgiving: (Closed)

Thursday, November 22, 2018

### Day After Thanksgiving: 10:30-3:30

Friday, November 23, 2018

### Holiday Break: (Closed)

Monday, December 24, 2018

Tuesday, December 25, 2018

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

## ATTENTION:

### Modified Operation Hours Claims & TechLine

**12/7/2018**

**Open 10:30 - 11:15**  
**Closed 11:15 - 2:00**  
**Re-Open 2:00 - 5:00**

## 01 QMR OF THE MONTH

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

**David Wood** from  
**Riverhead Bay Subaru in Riverhead, NY**

David's QMR outlined his detailed diagnosis and repair of the headlight system. During his Pre-Delivery Inspection (PDI) of a new 2019 Outback 2.5i Limited, David noticed the SRH (Steering Responsive Headlight) OFF and the AHL (Automatic Headlight Leveler) warning lights were both on in the combination meter. After connecting the SM4 to check for DTCs, he found a DTC B2902 was stored. The DTC indicated a potential circuit problem with the rear height sensor. After checking for proper signal voltage at the sensor, he found none when there should have been 2.5v. Pushing down on the back of the vehicle to change its posture did not change the voltage reading. After confirming the output signal voltage from the Automatic Headlight Leveler Control Module (AHLCM) was within specification, he began to diagnose the related wiring harness using the split-half technique.

David determined he was losing voltage at the b60 and i112 connection on pin 70. He disconnected the battery then checked for continuity between AHLCM connector b150 pin 3 and i112 pin 70. When his DVOM registered OL, he opened the b60 / i112 connector and found pin 70 in i112 to be bent and causing the open circuit. David repaired the damaged pin, re-checked for continuity (now OK) and after reconnecting the battery, confirmed the specified voltage back at the sensor. After clearing the DTC, he attempted to perform the system reinitialization procedure as outlined in the Service Manual but was unsuccessful. After numerous attempts, David determined Step #6 in the Service Manual procedure to be unclear; the headlight switch must be in the ON position before turning the ignition on, NOT in the OFF position. He then performed the procedure with the headlight switch in the ON position prior to turning the ignition on and it completed normally on the first attempt. After clearing the DTC and road testing to confirm the repair, normal system operation was restored.

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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, Baja, Tribeca, BRZ, XV Crosstrek and "Quality Driven" are Registered Trademarks. Ascent is a trademark.

### 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

We Support



Education Foundation

## 01 QMR OF THE MONTH

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

**A \$500.00 Snap-On gift card.**

The other Regional winners selected from QMRs submitted during September 2018 were:

- **David Calendar** from **Roy Robinson Subaru** in Tulalip, WA
- **Brad Fera** from **Dan Perkins Subaru** in Milford, CT
- **Brian Freeman** from **Bob Moore Subaru** in Oklahoma City, OK
- **Sean Ernest** from **Annapolis Subaru** in Annapolis, MD

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

## 01 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 September 2018, was David Wood, a Technician at Riverhead Bay Subaru in Riverhead, NY.



Field Service Engineer Scott Nichol from Subaru Distributors Corporation and Riverhead Bay Subaru’s General Manager, Anthony Mauro (left) are shown here presenting David with his \$500.00 Snap-On Gift Card. Congratulations and THANK YOU to our September QMR of the Month Award recipient!

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# TECH TIPS GREATEST TIPS

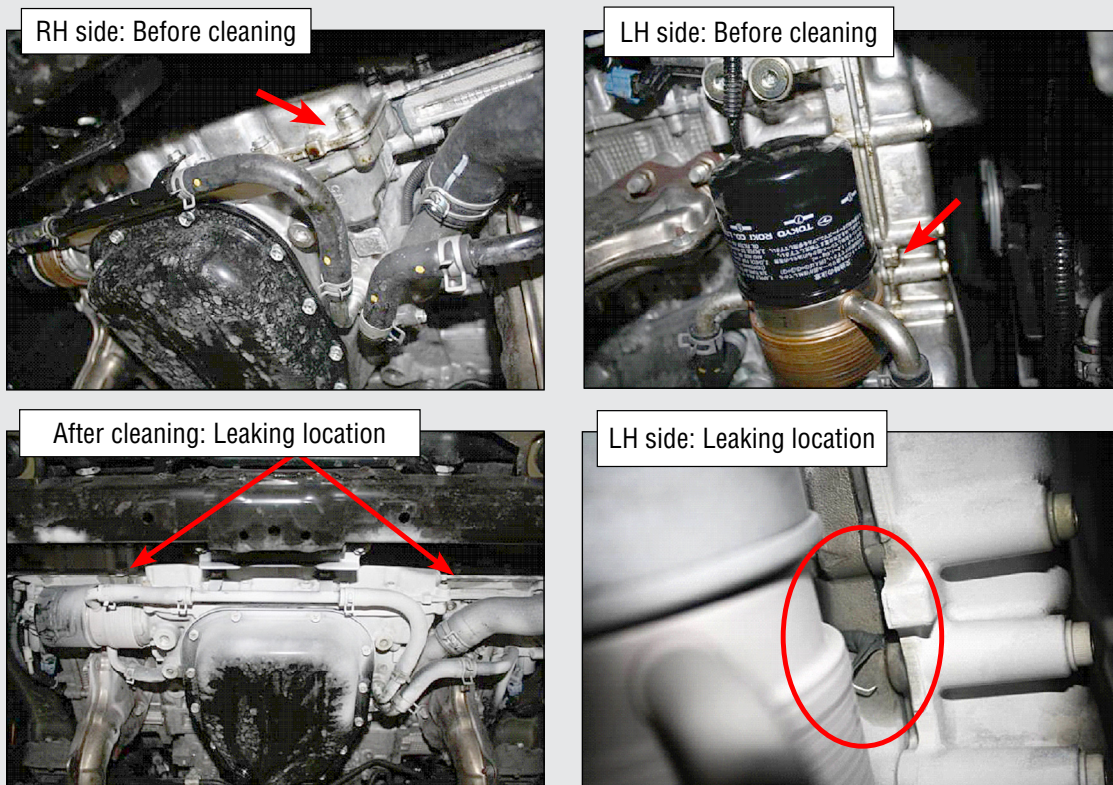
This series features TechTIPS articles frequently referred to by Techline. This month's feature from April 2011 shows the recommended method of fluid leak detection using leak tracing powder. There are several commercially available leak tracing powders. The article below features Magnaflux SKD-S2 Developer.

**REMINDER:** Leak tracing powder is considered a shop supply and subject to Subaru – Policies & Procedures 8.4.36 Shop Supplies. Dye is **NOT** an approved method of leak detection, unless explicitly directed.

## 02 FLUID LEAK DETECTION MADE EASIER

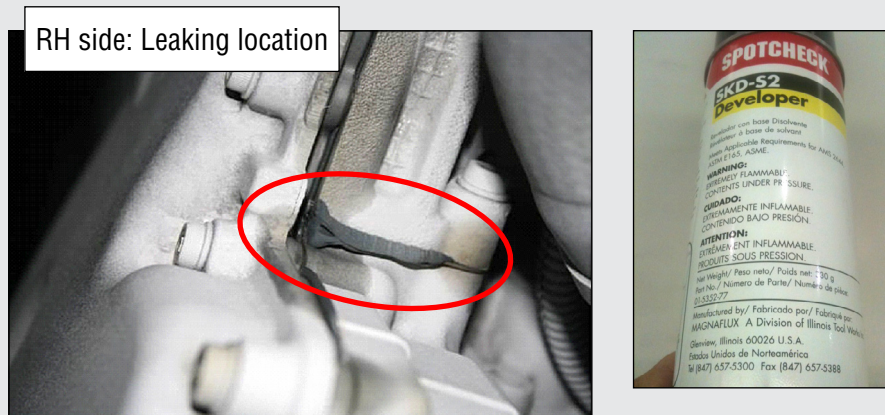
Identifying the true origin of fluid leaks/seepage can be a time consuming and frustrating process. Misdiagnosis can, and often does, result in a costly shop comeback which can erode your profit margins along with your dealership's customer satisfaction index. You can help to minimize these costly shop comebacks by using Magnaflux SKD-S2 developer. Simply clean the suspect area, apply the developer and watch the results. The SKD-S2 quickly and accurately finds the source of the leak so you can "fix it right the first time". This tool can be used to help illustrate to your customers the true nature of what is happening with their vehicle. Being able to demonstrate the source of the leak will build the confidence of both you and your customer that the repair will be effective. The pictures below show how the product works.

This product is available in 16oz. aerosol cans from suppliers such as MX Industrial, [www.mxindustrial.com](http://www.mxindustrial.com) (215)322-8909 for \$219 / case of 16 cans or from Grainger, [www.Grainger.com](http://www.Grainger.com) (P/N 3WU60) at \$21.80 / can. Product information, including MSDS and PDS sheets can be downloaded from the Magnaflux website: [www.magnaflux.com](http://www.magnaflux.com).



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## 02 FLUID LEAK DETECTION MADE EASIER



## 05 NEW MODEL ALIGNMENT SPECIFICATIONS

As new models are released, Technicians often find their alignment machines do not have the alignment most up-to-date specifications stored. To ensure a vehicle handles properly and to provide the highest quality repair for our customers, it is imperative to properly adjust alignment angles to specification. Alignment specifications are found in every Service Manual by clicking Suspension > Front Suspension > Wheel Alignment > Inspection. Once you have the specifications, you can enter them into your alignment equipment. If you are unsure how to manually enter alignment specifications, please contact your equipment supplier.

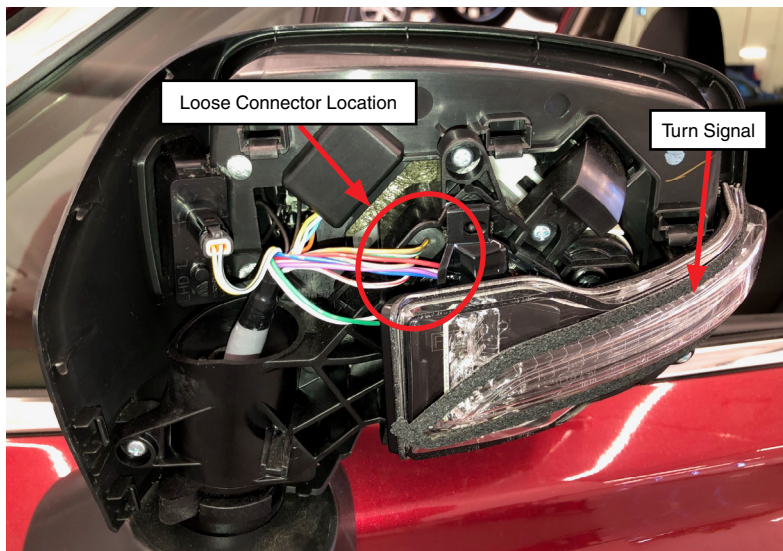
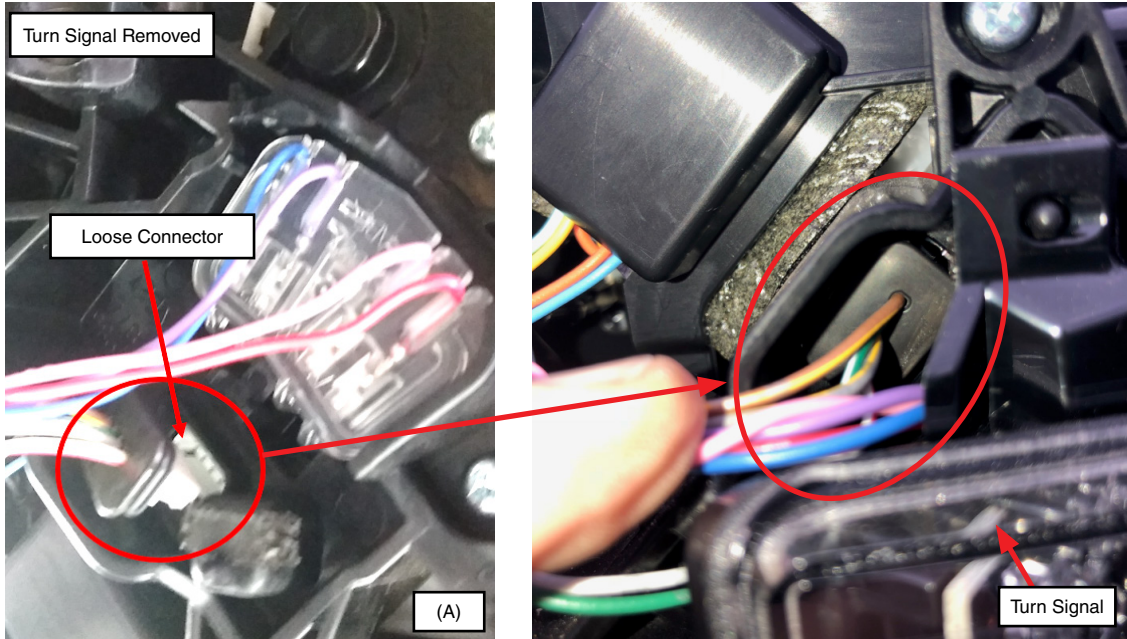
**REMINDER:** Always ensure your alignment software is up to date. Never use incorrect specifications.

## 07 2019MY FORESTER, DRIVER MONITORING SYSTEM (DMS) INOPERATIVE

A small number of field reports have been received with a concern involving the DMS system being inoperative. One of these reports stated a DTC U0156 for Lost Communication was stored in multiple modules. In addition, the seat memory feature was also found to be inoperative. After performing extensive electrical diagnostics, the root cause was traced to a loose harness connector located behind the exterior trim cover of the driver's door mirror assembly. The upper and lower covers were **CAREFULLY** removed using a plastic trim tool. With the covers removed, access to this connector was made easier by removing the turn signal lamp from the mirror housing (A). After re-seating the connector and confirming it was fully locked in place, all systems returned to normal operation. The photos below show the loose connector and its location.

**TIP:** When **removing** the covers, remove the lower cover first, then the top. On **re-installation**, refit the top cover first then the bottom.

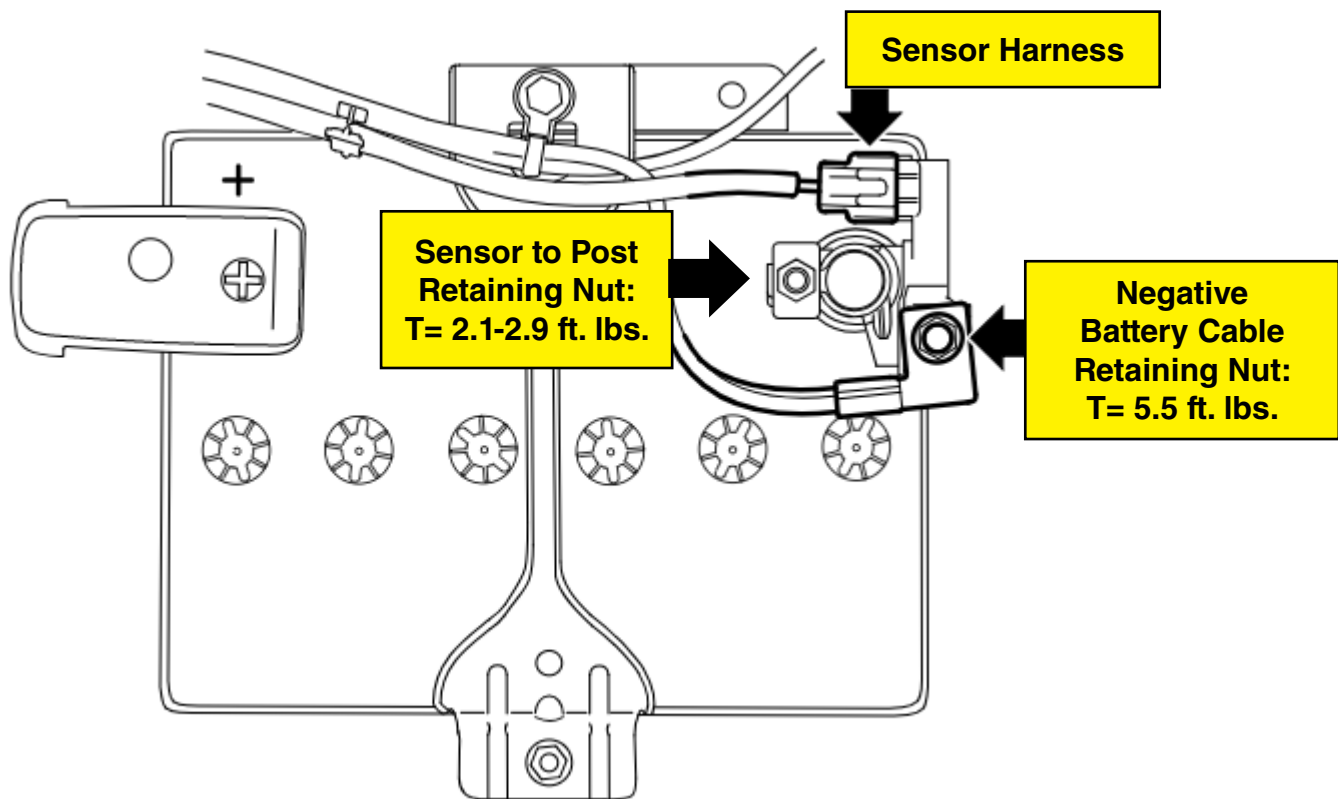
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During review of reports received by the Quality Monitoring Team supporting the launch of the new 2019MY Forester, there have been several cases involving damaged or deformed battery sensors. These reports usually describe a loose negative battery terminal (battery sensor) and / or cable connection. **As a reminder, unless the battery or the battery sensor is being replaced, the sensor should not be removed from the negative battery post.** When disconnecting the negative battery cable, it should be removed from the battery sensor NOT the sensor assembly from the battery post.

**VERY IMPORTANT:** When removing or installing the negative battery cable from or to the battery sensor, **always support it and hold it in place with one hand** while loosening or torquing either retaining nut. Doing so will prevent battery sensor damage / deformation from unnecessary movement.

**NOTE:** The torque specification for the battery sensor retaining nut (secures the sensor to the post) has been changed from 6 Nm (4.4 ft. lbs.) to **2.9 – 3.9 Nm (2.1 – 2.9 ft. lbs.)**. The torque specification for the negative battery cable retaining nut is unchanged: 7.5 Nm (5.5 ft. lbs.). Never over-torque either nut.



When presented with a customer concern of water entering door panels, it is important to understand water entry is a normal condition. All doors, rear gates, and deck lids are equipped with drain ports for this reason. If water can be heard inside the panel or is entering the cabin, ensure the drain ports are free of debris and flowing properly.

## 15 AIR CONDITIONING LEAK DIAGNOSIS REVISITED

With today's modern refrigerants, we would also like to remind all Technicians the use of dyes in Subaru air conditioning systems is strictly forbidden. The proper use of a recently calibrated refrigerant sniffing / leak detection tool is the most effective method for finding leaks.

The following is from Subaru Policies & Procedures section 8.4.5 Air Conditioning:

“The use of dye to diagnose an air conditioning refrigerant leak is not an approved Subaru of America diagnostic procedure.”

## 00 STIS NEW RELEASES

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
C1010CA100	Accessory Installation Guide	PORT INSTALLATION: 2017-2019MY...	16-Nov-18
07-143-18	Technical Service Bulletin	Power Rear Gate (PRG) Control ...	16-Nov-18
07-133-18	Technical Service Bulletin	Knock Sensor Design Change, DT...	15-Nov-18
14-22-16R	Technical Service Bulletin	Special Service Tool Cross Ref...	15-Nov-18
04-13-14R	Technical Service Bulletin	New Electric Power Steering (E...	14-Nov-18
H671SSJ000	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
H461SXC000	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
H001SFL100	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
J1010SJ100	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
H4510SJ000	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
J101SSJ000	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
J101SSJ200xx	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
H501SSG203	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18

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ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
J201SFL301	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
12-253-18	Technical Service Bulletin	“Squeak” “Creak” or “Pop” -Typ...	13-Nov-18
H461SFL110	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
H630SSJ000	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
L101SSJ000	Accessory Installation Guide	PORT INSTALLATION: 2019MY Fore...	13-Nov-18
H001SFL400	Accessory Installation Guide	PORT INSTALLATION: Impreza/Cro...	12-Nov-18
04-24-18	Technical Service Bulletin	Increased Steering Effort when...	9-Nov-18
L101SXC000	Accessory Installation Guide	PORT INSTALLATION: Ascent Trai...	9-Nov-18
15-235-18	Technical Service Bulletin	Harman Kardon Gen 3 Audio Ampl...	8-Nov-18
H501SSG203	Accessory Installation Guide	2019 Forester Interior Auto Di...	7-Nov-18
WTN-74R	Subaru Product/ Campaign Bulletin	Reprogramming File Availabilit...	7-Nov-18
16-112-18R	Technical Service Bulletin	Ignition Key Sticking / Design...	6-Nov-18
07-142-18	Technical Service Bulletin	Battery Sensor Removal and Ins...	31-Oct-18
15-219-18R	Technical Service Bulletin	Error Code 202 and / or 204 Ge...	31-Oct-18
15-220-18R	Technical Service Bulletin	Harman Audio / Infotainment: T...	30-Oct-18
WTV-81	Subaru Product/ Campaign Bulletin	Electronic Parking Brake (EPB)...	30-Oct-18
16-94-15R	Technical Service Bulletin	Diagnosis and Repair of DTCs P...	29-Oct-18
03-82-18	Technical Service Bulletin	Clutch Release (Throw-Out) Bea...	26-Oct-18

All revised publications are highlighted in yellow.



ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
10-89-18	Technical Service Bulletin	Center Vent Grille Assembly- I...	23-Oct-18
H001SFL401	Accessory Installation Guide	2019 Impreza / Crosstrek Remot...	23-Oct-18
F001SXC000	Accessory Installation Guide	Ascent Side Window Deflector (...)	23-Oct-18
15-234-18	Technical Service Bulletin	2019 Audio/Navigation & Power ...	22-Oct-18
MSA5B1915A	Owner Manual	2019 BRZ STARLINK QG	22-Oct-18
MSA5M1916A	Owner Manual	2019 BRZ Clarion Audio System ...	22-Oct-18
MSA5B1906A	Owner Manual	2019 BRZ Quick Guide	22-Oct-18
MSA5M1920A	Owner Manual	2019 BRZ Starlink Navigation S...	22-Oct-18
U4467BE	Service Manual	2019 BRZ New Car Information	22-Oct-18
MSA5M1906A	Owner Manual	2019 BRZ Owner's Manual	22-Oct-18
G4467BE	Service Manual	2019MY BRZ Service Manual	22-Oct-18
	Service Diagnostics	2019MY BRZ Service Manual v0	22-Oct-18
03-79-18R	Technical Service Bulletin	Clutch System Part Changes	22-Oct-18
15-214-17R	Technical Service Bulletin	2018 Audio/Navigation Exchange...	19-Oct-18
06-67-18	Technical Service Bulletin	DTC C0075- Additional Diagnost...	19-Oct-18
12-252-18	Technical Service Bulletin	Under-Body Grommets	19-Oct-18
05-66-18	Technical Service Bulletin	Front Suspension Crossmember B...	19-Oct-18

All revised publications are highlighted in yellow.

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: \_\_\_\_\_