

### ARTICLES CONTAINED IN THIS ISSUE

CODE	ARTICLE .....	PAGE
(00)	STIS Release Highlights from 04/01/2013 to 04/30/2013..	07
(01)	QMR of the Month .....	01
(01)	Recommended Materials Update .....	03
(02)	2012 WRX and STI Motor Mounts.....	05
(02)	Remanufactured Short Blocks.....	06
(05)	2005 and Up Front Lower Control Arm Bushings.....	05
(07)	Campaign WQF-42 Information .....	06
(07)	Fuel Gauge Diagnosis .....	06
(12)	Melting Plastic Parts.....	02
(15)	2014 Forester and 2013 Legacy Keyless Access, Keyless Entry.....	03
(15)	Navigation Voice Guidance .....	03
(15)	2014 Forester Speaker Kit Installation.....	04

### 01 QMR OF THE MONTH

We are pleased to announce this month's winner of the recently released QMR of the Month program.

**Toby Costa**

**Maita Subaru in  
Sacramento, CA**

Toby submitted a very detailed QMR on his diagnosis and repair of a wiring failure that was found following a battery replacement. In appreciation for going the extra mile and sharing his experience with us in hopes of improving product quality, Toby will be receiving the following from his FSE:

**A Subaru Confidence  
In Motion Jacket**

**&**

**A \$100  
Gift Card**

### **Congratulations Toby!**

Any Subaru Service Technician can participate in QMR of the Month. See the February 2013 Tech Tips for full details. If your QMR is selected, you may see your name here in a future issue of Tech Tips.



On Monday, May 27th, Techline  
will be closed in observance of  
**MEMORIAL DAY**

**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"**

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.

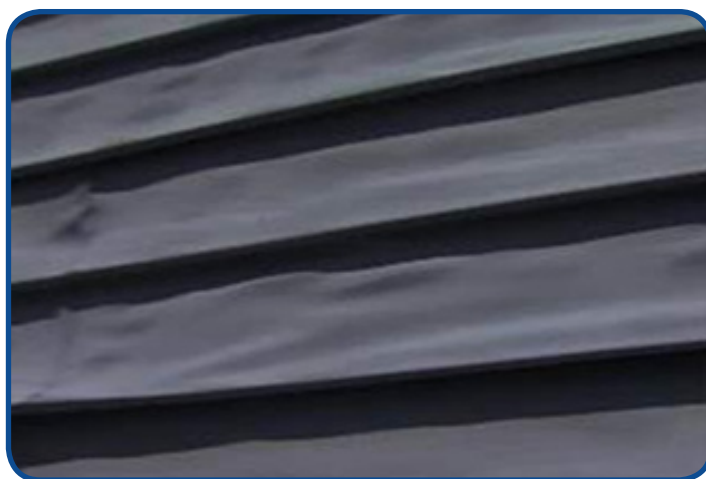
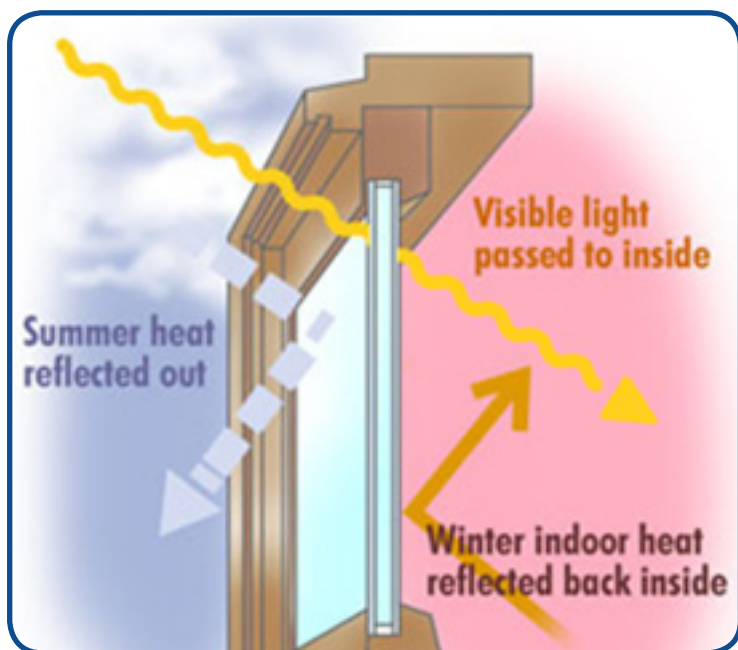


**QUALITY DRIVEN® SERVICE**



## 12 MELTING PLASTIC PARTS

Have you had a customer come into your dealership and report they have plastic parts on their car that look like they are melting? The customer may be correct but this kind of damage, is not a defect with their car's plastic exterior parts. During the warmer months, the sun's ultraviolet rays are stronger than at other times. If their vehicle is parked near a house or building which utilizes "Low-E" glass windows, sunlight reflection from this type of glass can actually direct enough heat to damage plastic parts. "Low-E" energy-saving glass has widespread uses, from office buildings to residential windows. Basically, it reflects the sun's UV rays in the summer and helps retain heat inside during the colder months. Here's an illustration of how Low-E glass works.



Under the right conditions, the heat from this concentrated sunlight reflection as shown on the left can reach up to near 180 degrees. That kind of concentrated temperature is more than hot enough to damage residential vinyl siding and in some cases, plastic car parts.

*Continued...*

## 12 MELTING PLASTIC PARTS (CONTINUED)

The photo below shows an example of a sunlight-damaged Subaru door mirror.



With springtime already here and summer on the way, you may experience these kinds of customer concerns at any time. Keep in mind, this kind of damage is not a defect and therefore, not a matter for warranty.

## 15 2014 FORESTER AND 2013 LEGACY KEYLESS ACCESS, KEYLESS ENTRY

The Keyless entry programming for the Keyless Access Control (KAC) remote key has been eliminated. Programming a remote KAC fob for the Immobilizer also programs the Keyless Entry System. Please refer to page 58 of the Registration Manual for Immobilizer type “D” system for information and Registration processes. The Manual can be found by searching STIS/Online Reference under Publication Type “Other/Miscellaneous. You also must select a vehicle with push button start. Enter 2013 Outback or Legacy and type in search key word “Immobilizer”.

## 15 NAVIGATION VOICE GUIDANCE (F10 SYSTEMS ONLY)

If you have a customer concern that their Navigation Voice Guidance is inoperative, make sure the voice mode is on TTS voice Samantha.

When set to Natural Voice Amy or Dave, the voice commands will not work. Refer to the Navigation Owner’s Manual page 83 for further explanation.

## 01 RECOMMENDED MATERIALS UPDATE

The Techline and Quality Assurance area of SOA Service have been receiving inquiries as to the proper gear oil for a BRZ equipped with a 6 speed manual transmission. We have confirmed with FHI that 75W/90 weight gear oil part number K0322AA093 (5 Gallon Container) is the correct fluid to use when servicing either the transmission or rear differential. The BRZ has a Torque Sensing Limited Slip Differential that does not require LSD type oil. The STI still uses a traditional Limited Slip Rear Differential and requires LSD type oil. The correct fluid for the STI is part number K0318Y0000 (4 liter container). All of this information can be found in the Service Manual under section 1, General Information.

## 15 2014 FORESTER SPEAKER KIT INSTALLATION

When removing the left & right rear door trim panels on the 2014 Forester, use caution to first release the clip designated below before releasing any other trim panel clips to avoid trim panel damage.

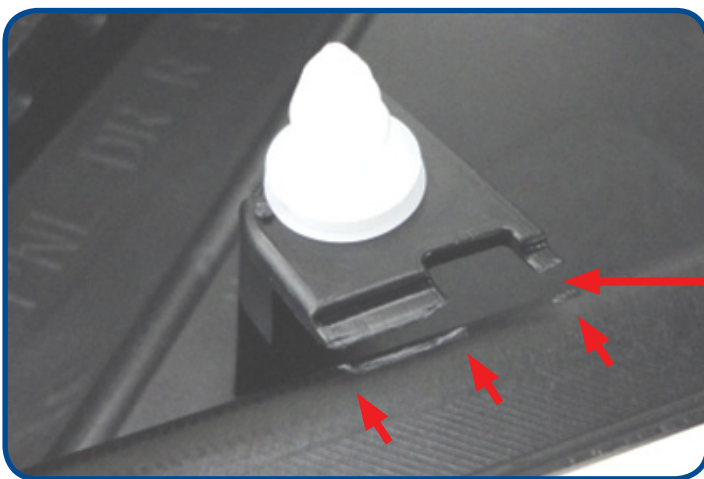


After removing the panel gusset piece & mount screws, remove the clip designated with an arrow above before releasing any other panel mount clips



Use a standard trim tool to widen the gap between the trim panel & the door panel near the clip location & then insert a slotted trim tool into place at the designated clip to carefully disengage the clip by twisting the tool.

This specific clip should be released first on both the right & left rear door trim panels. Then the other trim panel clips can be released by pulling with fingers while working around the edges of the trim panel normally.



Without releasing the designated clip first, the molded clip support at this clip location is likely to break as per the photo above. The clip at this one location is much less supported than at all other rear door or front door trim panel clip locations.

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## 15 2014 FORESTER SPEAKER KIT INSTALLATION (CONTINUED)



This one designated clip support is much less substantial than all other clip locations with support along two “lines” only

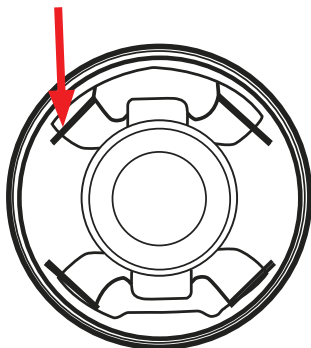


Other panel clips are much more supported in a variety of designs and we have encountered no damage to the supports at any other clip locations during panel removal



## 05 2005MY AND LATER FRONT LOWER CONTROL ARM BUSHINGS

### Crack at 4 Positions



To further clarify the information that was released in May 2006 Tech Tips, it is not necessary to replace the bushings for cracks up to 15mm across the outside surface, and all the way through the bushing from one side to the other. The strength of the bushing is still 20 times stronger than specification. This information includes the current model (Legacy and Outback) with this style control arm bushing. Unless you receive a direct customer complaint regarding a suspension issue such as a knocking noise on acceleration or some type of noise generated when turning, you should not replace the control arm bushings based upon a visual inspection where cracks are found. Only replace the bushings when it is confirmed to have caused a problem and the customer has reported the problem to your dealership.

## 02 2012MY AND 2013MY WRX AND STI MOTOR MOUNTS

Should you receive a customer complaint of a clicking or knocking sound heard when shifting or engaging/disengaging the clutch, check both motor mount nuts at the bottom of the engine and rear transmission cross members for either being loose or missing. Also, be sure to inspect the engine wiring harness as high torque output can pull on and damage the wiring harness in some cases. As with any noise complaint, the motor mount nuts should be checked for proper torque on any model Subaru.

## 07 CAMPAIGN WQF-42 INFORMATION

The Techline has been receiving calls from technicians performing campaign WQF-42 and reporting that they cannot enter programming mode, particularly on 2012 Impreza models. We have confirmed the Impreza RES module has a larger window to look for the key sweep cycles when entering the programming mode. In each case, we have asked technicians to perform a battery capacitive discharge and to slow down the speed of the key cycle from off to on. This has enabled entry into programming mode and allowed registration of the new RES key fobs.

## 02 REMANUFACTURED SHORT BLOCKS



The deck surface of some remanufactured short blocks will sometimes exhibit a difference in finish texture, as shown in the picture.

This is caused during the remanufacturing process, when the cutter changes directions as it finishes its pass across the deck.

The change in textures can be differentiated with a fingernail, but it is a normal condition and the block can be installed without any issues.

## 07 FUEL GAUGE DIAGNOSIS

Should you receive a customer complaint that their fuel gauge is not reading accurately or not going all the way up to the full position on any model Subaru that is equipped with a BIU (Body Integrated Unit), never ground any of the wiring at the BIU. The proper way to diagnose both of the fuel sending units, BIU and combination meter can be found in the Service Manual for the particular model year you are working on.

Generally, the BIU looks at both fuel tank sending units for a combined resistance value that does vary from model year to model year. For example, if you were troubleshooting a 2009 Forester with a customer complaint that their fuel gauge does not go all the way up to the full mark after filling their fuel tank, the first step should be to check for any DTCs ( Diagnostic Trouble Codes). Assume the vehicle had a P0462 Fuel Level Sensor Circuit High Input DTC. After choosing a 2009 Forester on STIS and searching for the DTC P0462, you will see a search link that says check combination meter. If you click on that link, it will take you to a flow chart that will show you what each sending unit resistance value should be at both the Full and Empty positions. In this particular case, the main sending unit value should be 1 to 3 ohms with a full tank and 31 to 33 ohms with an empty tank. The sub sending unit should be 1 to 3 ohms with a full tank and 61 to 63 ohms with an empty tank. The BIU is looking for a combined resistance of 90 ohms for the gauge to read empty.

### The key points to remember are:

- Never ground out any of the BIU signal wiring in an attempt to make the gauge read full or empty
- The combined resistance value that the BIU is looking for can vary from different model years.

**11-131-13**; Technical Service Bulletin, ECM Reprogramming for Extended Engine Cranking

**H001SSG800**; Accessory Installation Guide, 2014 Forester Smart Engine Start (Push-start)

**T3010TS010**; Accessory Installation Guide, Legacy, Outback and Impreza Wheel Lock Kit (For Steel Wheels)

**12-145-13R**; Technical Service Bulletin, Condensation in Rear Combination Lamps, Retaining Nut Change

**02-140-13**; Technical Service Bulletin, Oil Filler Cap Gasket Coming Unseated

**18-171-13**; Service Manual Correction, Service Manual Corrections

## 2013 Calendar of Subaru Holidays

### Memorial Day

Monday, May 27, 2013

### Independence Day

Thursday, July 4, 2013

### Labor Day

Monday, September 3, 2013

### Thanksgiving Day

Thursday, November 28, 2013

### Christmas Eve

Tuesday, December 24, 2013

### Christmas Day

Wednesday, December 25, 2013

\*\*\* NOW YOU CAN E-MAIL YOUR TECHTIPS INPUT AND SUGGESTIONS TO: [SERVICEINFO@SUBARU.COM](mailto:SERVICEINFO@SUBARU.COM) \*\*\*

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 8:30am to 6:30pm  
Friday 10:30am to 5pm