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01 QMR OF THE MONTH

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

Seth DeGraff
Capitaland Subaru in Glenville, NY

Seth submitted a very detailed QMR reviewing his repair of a 2013 Outback equipped with push button start that exhibited an intermittent no-crank/ no-start condition. Seth found this was the result of a soft set connection at connector B36. In appreciation for going the extra mile and sharing his experience with us, Seth will be receiving the following from his FSE:

A Subaru Confidence In Motion Jacket
and a \$100 Gift Card

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

Congratulations Seth!

02 2.0L AND 2.5L FA / FB CHAIN DRIVEN ENGINE TIMING INFORMATION

When performing repairs involving the removal of the timing chain and related components, to minimize the chances of improper timing upon reassembly, we highly recommend referring to the Technician Reference Booklet (TRB) for Module 105: "Chain Driven Valve Train Boxer Engines". The illustrations and instructions found in this TRB present the information in a different manner which many technicians have indicated they prefer over those outlined in the Service Manual. We would also strongly recommend attending the Module 105 instructor led training course if you have not already done so.

**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.

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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



Subaru of America, Inc. is pleased to announce that Greg Sampley of Maple Hill Subaru in Kalamazoo, Michigan is this year's recipient of the Subaru-ASE Master Automobile Technician of the Year Award. This is the fifth year that Subaru of America, Inc. and the National Institute for Automotive Service Excellence have presented this award.

Greg Sampley has been a loyal member of the Maple Hill Subaru family for fourteen years. He has been a Subaru Senior Master Technician since 2009 and was most recently the Subaru Technical Competition Chicago Zone Champion for 2013. Greg has over 22 years experience in the automotive field.

Mr. Sampley and a guest will attend the award ceremony on November 20, 2013 at the Fairmont Luxury Hotel in Newport Beach, CA.

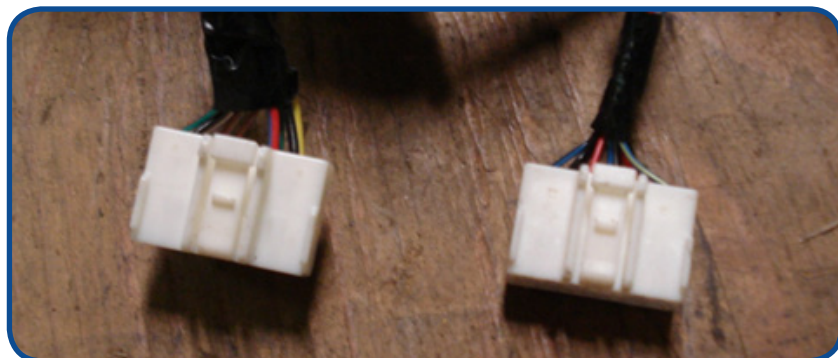
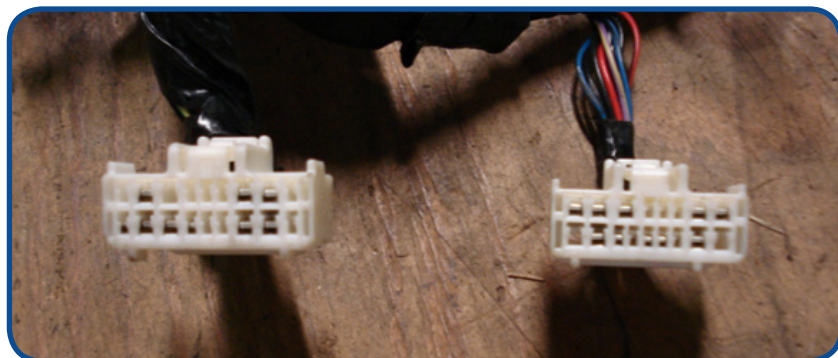
2013 Subaru-ASE
Master Automobile
Technician of
the Year



Greg Sampley

Maple Hill Subaru in
Kalamazoo, MI

The Subaru Techline and Quality Assurance Department have received several calls and submitted QMRs (Quality Monitoring Reports) regarding inoperative HVAC climate control systems and audio systems after a technician has replaced a bulkhead wiring harness or dash pad. From 2005 model year and later, there are identical connectors that plug into the back of the A/C control panel and audio unit. These connectors are easily confused with one another and can be plugged into either component. The difference is wire location. As with any repair, you should always check the operation of all vehicle systems whenever a major repair to wiring is done. The photos below show the connectors side by side.



The reference chart below shows the differences in the remote engine start systems from 2007 to 2014 model year. All of the troubleshooting guides for these systems can be found on STIS.

In STIS, select the “Online Reference” tab, click the drop down arrow on “Publication Type” and select “Troubleshooting Guide”. You do not need to put any model year or vehicle type to have all of the troubleshooting guides returned. Next, simply click “View PDF” for the vehicle that you are working on. There are detailed troubleshooting steps to check inputs/outputs as well as a parts matrix for each RES system.

Major Remote Engine Start System Operating Feature Differences		Audiovox (Turn Key To Start Engine)							Fujitsu-Ten (Push Button To Start Engine)		
		2007-2009 Legacy/ Outback	2007-2014 Tribeca	2008-2011 Impreza	2009-2013 Forester	2010-2014 Legacy/ Outback	2012 Impreza	2013 Impreza	2014 Forester	2013-2014 Legacy/ Outback	2014 Forester
General Operation	Bi-Direction Communication	No	No	No	No	Yes	Yes	Yes	Yes	No	No
Stop Engine if...	Any door/tailgate is opened	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	AT/CVT is shifted from Park	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Key is inserted in ignition	No	No	No	No	No	No	Yes	Yes	N/A	N/A
	Engine start button is pressed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	Yes
	Hood is opened	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Brake pedal is applied	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	~3000RPM is exceeded	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Prevent Starting If...	Any door/tailgate is open	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	AT/CVT is not in Park	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Key is in ignition	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A
	Ignition is ON (push or turn)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Hood is open	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Brake pedal is applied	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Service mode is enabled	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A
Disarm OE Security (RES takes over security features while idling)		Yes	Yes	Yes	Yes	No	No	No	No	No	No
System Operates On CAN Bus		No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Power Windows Disabled During Idling		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Idle Time ("time out" before system shuts engine off)		15 min	15 min	15 min	15 min	15 min	15 min	15 min	15 min	Selectable: 3, 10, 15 min	Selectable: 3, 10, 15 min

Continued...

The following information applies to all automatic and manual transmission Subaru vehicles. Each vehicle's owner's manual has specific information regarding towing. There are also five Tech Tip articles on the subject and a Service Bulletin. The Tech Tips are August and October 1993, February 1997, February 2001 and July 2005. The Service Bulletin number is 01-162-05 which is specific to the STI. The best way to tow any Subaru vehicle is on a flat bed truck with all 4 wheels off the ground.

All manual transmission vehicles can be towed with all 4 wheels on the ground. Leave the gear position in neutral with the steering wheel unlocked. When the vehicle is towed on a flat bed truck, you must set the parking brake. Never attempt to tow with only two wheels on the ground or the vehicle could spin away and likely cause damage to the transmission. If you receive inquiries about towing a Subaru Impreza STI behind a motor home, you can advise your customer the vehicle can be towed with all 4 wheels on the ground like a conventional manual transmission but, the DCCD (Driver Controlled Center Differential), must be set to the manual mode and the DCCD control dial must be set to the furthest rearward position. All of this information can be found in the Service Bulletin (01-162-05).

For CVT, 5 AT and 4 AT equipped vehicles, you can tow the vehicle with all of the wheels on the ground but you cannot exceed 20 MPH and must not travel further than 31 miles. For further distances and higher speeds, the vehicle must be transported on a flat bed truck. For BRZ models equipped with either a 6 MT or 6 AT, a flat bed truck is required.

WQJ-46; Subaru Product / Campaign Bulletin, 5-Speed Automatic Transmission (5EAT) Parking Rod

15-156-12R; Technical Service Bulletin, Deletion of Compass Mirror

06-45-13R; Technical Service Bulletin,ETC (Electronic Toll Collection) Device Mounting Guidelines (14MY Forester)

12-154-13; Technical Service Bulletin, Acceptable Windshield Repair Areas (14MY Forester)

15-165-13; Technical; Service Bulletin, Reprogramming for Non-Requested Bluetooth Audio Streaming Affecting ONLY Clarion Audio Units

05-55-13; Technical Service Bulletin, Tire and Tread Pattern Change

2013 Calendar of Subaru Holidays

Thanksgiving

Thursday, November 28, 2013 and Friday, November 29, 2013

Happy Holidays

Tuesday, December 24, 2013 and Wednesday, December 25, 2013

New Year's Day

Wednesday, January 1, 2014

***** NOW YOU CAN E-MAIL YOUR TECHTIPS INPUT AND SUGGESTIONS TO: TECH@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