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### 01 QMR OF THE MONTH

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

## Nicholas Regula

Town Subaru in Englewood, NJ

Nicholas submitted a very detailed QMR reviewing his diagnosis of a dash rattle coming from behind the instrument cluster on a 2012 STI. His report included clear photos indicating the source of the sound and a video of how it was occurring. These elements helped our understanding greatly. In appreciation for going the extra mile and sharing his experience with us, Nicholas 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 Tech Tips.

### 07 OPERATION OF SI-DRIVE, SPORT SHARP (S#) MODE AFTER COLD START

The SI-Drive (Subaru Intelligent Drive) Sport Sharp (S#) mode is not available until the engine coolant and transmission temperatures reach their normal operating ranges. Should you receive a related customer concern or inquiry, this information will be added to future editions of the Owner's Manual. In addition, S# mode cannot be selected if the Check Engine light is on.



Just a reminder,  
Techline will be closed on  
Monday, Feb. 17th, 2014  
in honor of  
**PRESIDENTS' 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



On a daily basis, Techline receives Authorization Requests (AR) through Subarunet for paint and glass repairs exceeding \$500.00. These ARs are reviewed to determine if the condition reported will be covered under Warranty. Many of the ARs submitted are caused by outside influence which is not a matter for warranty. Prior to submitting your next AR, please review the Subaru Claims Policy and Procedures manual (Sections 8.4.25 and 8.4.31) to familiarize yourself with valid repairs related to Paint and Glass.

#### Common reasons ARs are rejected:

- **Impact causing damage to the windshield or other glass, stone chips, wiper slap (To avoid damage caused by wiper slap, it is recommended the wiper arm(s) be lowered to the glass without letting go until the rubber of the wiper blade touches the glass.)**
- **Paint Chips caused by outside influence**
- **Clear coat lifting/blistering and/or color coat damage caused by outside influence like: fluids, tree sap, bird droppings, solvents or impact**

To improve the process, a close inspection of the glass crack or paint condition is required to identify any source of outside influence. If you determine a condition is not warrantable, review your findings with the customer at the time of the inspection. Submitting an AR when it is known it will be rejected is counterproductive for everyone involved.

If it is determined an AR is required, provide only quality pictures that clearly show the condition being reported. All dealers are required to have a 5 megapixel (minimum) camera that provides high quality photos.

- **Windshield cracks must have overlapping photos showing the entire length of the crack when applicable**
- **Vehicle should be clean**
- **Avoid glare from overhead lighting, bright sunlight and reflections**

It is important to review all of the pictures you intend to submit and ensure they are quality photos clearly showing the condition being reported. If you are unable to see the condition on the photo, we will not see it either resulting in requests for additional photos.

Following these recommendations will save you time and improve the Authorization Request process for everyone.

The Techline occasionally receives calls from Technicians having difficulty removing connecting rod bolts. The **one-time use** connecting rod bolts used in FA and FB engines require a female Torx® socket for their removal, size E-12, (listed in the Service Manual as special tool P.N. 18270AA010) or size E-14, (18270AA020) depending on the application. Because of the ready availability of less expensive common shop tools, these special tool sockets were not shipped to dealers. See your local tool dealer for assistance in locating one of each size of these special sockets. As shown in the photos above, there are differences in the “taper” areas of these sockets. Be sure to specify that you need a “low taper” or shallow counter-sunk socket for this application.



To reduce the possibility of damage or stripping of the bolt head and to get the most engagement of the socket onto the fastener, our recommendation is to only use the “low” taper socket as shown on the right. In addition, always confirm an E-12 socket is being used on an E-12 bolt. Although an E-14 socket will fit onto an E-12 bolt, it will round-off the fastener and could make it impossible to use an E-12 socket afterward. The following is not recommended as permanent solution. Use of the correct tool for the job is always preferred. If all you have available is a “high” taper version, until a new low taper socket can be secured, **carefully** grind it as necessary to remove the excess tapered portion and “convert” it to a low taper tool. **Take your time** (always wear eye protection!) and be careful to not excessively overheat the socket while grinding which will likely change the hardness characteristics (temper) of the socket material and soften it.

#### IMPORTANT REMINDERS:

- NEVER use an impact tool to loosen the connecting rod bolts. **Use hand tools only.**
- Always make sure the socket you are using is fully seated “square” on the fastener and not at an angle which could cause the fastener to round off as shown below.



## 16 CVT TORQUE CONVERTERS

When replacing a torque converter on a CVT equipped vehicle, you may notice the appearance of RED colored fluid when unpacking the converter. This fluid is for shipping purposes and will not cause any harm when installed in either generation 1 or 2 CVT transmissions. See the photos below for examples of this fluid when the converter is unwrapped.





A Special FHI Quality Monitoring Team is currently in the USA through the end of February monitoring the launch of this much anticipated new model. The Team is very interested in EVERYTHING related to this new Vehicle. They are looking for specific and detailed information on EVERY condition identified. Naturally, this includes any and all repairs performed. It also includes cases when a customer comments on a condition that is deemed to be a normal or operational characteristic, or any improvement opportunity where some feature or function could be made even better.

### **WE ARE ASKING YOU TO BE OUR EYES AND EARS WITH THIS NEW MODEL.**

E-QMRs are the best and preferred reporting method for reporting any new model feedback.

For high priority, unusual, or serious issues, we ask that you call SOA's Technical Helpline right away with all details. When you report something, include pictures and where practical, videos of the condition prior to repair. Providing as much detail as possible on the customer complaint, the actual condition, and your findings are all strongly requested and greatly appreciated. Be sure to save all DTC and freeze frame data electronically before performing any clear memory functions. You will be asked by Techline to submit only electronic DTC and freeze frame data files. Printed and faxed copies do not retain the important details contained in the electronic data files. While there is no guarantee that a change will occur based upon any individual report, we can guarantee that nothing will happen if we don't know about it. Our request is that you report everything, even if it seems small or straightforward to repair.

E-QMRs, Techline or CDS Cases, and Warranty Claims are being reviewed daily. Team Members may contact you for additional details, photos, parts collections, or to arrange for an on-site inspection. We ask your cooperation in quickly responding to these requests for additional information. Please save any and all removed parts no matter how small including gaskets, clips, fasteners, any filtered sediments, or other small bits and pieces.

The more specific information you can provide on each condition or repair the better. Otherwise, you may be contacted multiple times with follow up questions. Please note that questions may come to you regardless if you report the condition in a QMR or not, so please keep detailed notes on each repair.

For example: If you perform a wiring repair, the team will be asking for the wire color, connector number, pin location, and the details of the condition. This would include your comments on if the wire was cut, pinched, corroded, or nicked. If there was a loose pin, bent pin, pin pushed out, wire pulled out of the pin, or simply a soft set connection (connectors not locked together fully). Was the harness strained or stretched? How? Was the circuit open or shorted? Was the operation of the circuit intermittent, or totally inoperative? What related systems were affected? Was the condition temperature or moisture related? They will also want to know the exact details of your repair. How exactly did you fix it? If possible try to get a photo before the condition prior to the repair as one will most likely be requested. This is the kind of detail the team is looking for and is most helpful to them in making product or production improvements quickly and also speed up release of related service information.

As a reminder, E-QMRs must never be used to request escalation of a repair, request information, or for any other purpose than to notify SOA of a new or trending condition.

Authorization or Repair Escalation Requests must always go through normal channels for the fastest, most efficient handling. Paint, Glass or Long Block Authorization requests must go through the Techline Authorization System on Subarunet. All other authorizations must be reviewed in advance with your DPSM.

We thank you all in advance for your continued support and assistance in making this launch successful.

**IMPORTANT:** This information is applicable to the Midtronics GR8 Diagnostic Battery Charger **ONLY**. It does not apply to any other brand /type of “generic” battery charger whatsoever. **ONLY** the GR8 and its Power Supply Mode feature has been tested and approved for use as described below by Subaru of America, Inc. (SOA).

Among the many features the Midtronics GR8 Diagnostic Battery Charger has to offer, its capability of acting as a “safe” power supply for maintaining the battery state-of-charge at a solid 13.5v during vehicle control unit reprogramming (and extensive service work) is one you may not be aware of. After review and testing of this beneficial feature, SOA now endorses and requests its use anytime a vehicle control module is being reprogrammed. We will also be including this recommendation in all future reprogramming-related service publications going forward. Once the GR8 is connected to the vehicle, as long as the battery is fully charged, it only takes about 3 minutes to boot-up the charger, select the Power Supply mode, and have the battery voltage stabilized and ready for reprogramming. Using the GR8 in this capacity should also virtually eliminate any instances of voltage-related control module damage during reprogramming. See the reprint of the related Instruction Manual page below for more information. **NOTE:** If the vehicle battery must be charged, the labor time for charging is not warrantable.

### Chapter 3: Power Supply Mode



Power Supply Mode tests and maintains battery voltage in the vehicle at 13.5 volts to allow for uninterrupted reflashing of vehicle computers, retain vehicle system settings, or maintain battery voltage.



**IMPORTANT!** Before starting Power Supply Mode, verify that all vehicle loads are off and the key is not in the ignition.



**NOTE:** Start the Power Supply Mode before beginning the Control Module reflashing process.

- Use ▲ or ▼ to highlight the Power Supply Mode icon and press **NEXT** to continue, or press the corresponding number key.
- Connect the clamps to the battery terminals.
- In the Options Menu use ◀ or ▶ to highlight the POWER SUPPLY icon and press the **SELECT**.
- Use ▲ or ▼ to highlight the correct USER ID and press **NEXT**.
- Use ▲ or ▼ to select the BATTERY TYPE and press **NEXT** to continue, or press the corresponding number key.
  - FLOODED
  - AGM
  - AGM SPIRAL
- Press ▲ or ▼ to select the BATTERY RATING and press **NEXT** to continue, or press the corresponding number key.

500 CCA

- Before entering the Power Supply Mode, the charger will test the battery to determine if it needs to be charged. A Warning message is displayed if the battery does not have a sufficient charge.

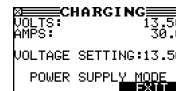


**NOTE:** If you choose to charge the battery, you will need to restart the Power Supply Mode once the battery has been successfully charged.



**NOTE:** The charger tests the battery to determine if it is safe to charge. If it detects that the battery is defective, it beeps, flashes the status light, and displays a warning that the battery is unsafe to charge. Press **EXIT** to return to the Main Menu.

- If the battery is safe to charge, the charger begins maintaining the battery voltage at 13.5 volts.



**NOTE:** Amperage fluctuates in response to the vehicle's demands.

If the voltage drops below the 12.8, the charger displays a warning and raises the voltage to the set point.

- When finished servicing the vehicle, press the **STOP** button or the OFF switch, unplug the power cord and disconnect the clamps.

**15-169-13;** Technical Service Bulletin, Customer Satisfaction - Navigation SD Card Update Program (2013MY Legacy and Outback)

**MSA5M1424A ;** Owner's Manual 2014 XV Crosstrek Hybrid Owner's Manual

**16-90-13;** Technical Service Bulletin, Design Change to Lock-Up Type Torque Converter

**TIPS0114;** TechTIPS NewsLetter, 2014 January TechTIPS Newsletter

**MSA5P1702C;** Technical Reference Booklet, 2014 XV Crosstrek Hybrid (Module 702) (Nov 2013)

**03-70-12R;** Technical Service Bulletin, Repair Procedure for High-Pitched Sound from Extension Housing Area Using Latest Generation Production Parts

## 2014 Calendar of Subaru Holidays

### President's Day

Monday, February 17, 2014

### Memorial Day

Monday, May 26, 2014

### Independence Day

Friday, July 4, 2014

### Labor Day

Monday, September 1, 2014

### Thanksgiving

Thursday, November 27, 2014

Friday, November 28, 2014

\*\*\* NOW YOU CAN E-MAIL YOUR TECHTIPS INPUT AND SUGGESTIONS TO: [TECH@SUBARU.COM](mailto: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 8:30 am to 7:30 pm  
Friday 10:30 am to 5 pm and Saturday 9 am to 3 pm