

ARTICLES CONTAINED IN THIS ISSUE

CODE	ARTICLE.....	PAGE
(00)	January STIS New Releases ...	7
(01)	QMR of the Month	1
(01)	QMR of the Month Award Presentation	2
(02)	Addressing Accessory Drive Belt Noise.....	5
(07)	2016 Impreza / Crosstrek Telematics and "D-Check" Fuse Clarification	6
(15)	Auto Dimming and Home Link Accessory Mirror Wiring Harness Troubleshooting.....	3
(18)	WVX-34 (Lower Control Arm Corrosion) REMINDER	2

2016 CALENDAR OF SUBARU HOLIDAYS

Memorial Day
Monday, May 30, 2016

Independence Day
Monday, July 4, 2016

Labor Day
Monday, September 5, 2016

Happy
St. Patrick's
Day



01 QMR OF THE MONTH

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

Frank Pelletier from **Suburban Subaru in Vernon, CT**

Frank submitted a very detailed QMR on his diagnosis and repair of a 2015 Outback with 3600 miles where the customer reported multiple warning lamps illuminated. Based upon the complaint, Frank started his diagnosis with a check for codes. Knowing that an all system check would only show current codes, and since there were currently no lamps illuminated, Frank checked each control module for past codes. None were found. At this point, he proceeded with a road test to attempt duplication based upon the customer's description of when and how the condition occurred. The condition duplicated during the test drive. Frank noted that no dash lamps were illuminated and the climate control and audio systems remained working. Upon return to the retailer, the vehicle was checked and again no codes were found. Assuming a poor electrical connection, Frank started to check the harness connections for the vehicle power supply with the engine running. When he tapped the main fuse box under the hood the condition duplicated. A more detailed inspection of the fuse box connections found that moving the red wire with blue tracer feeding the number 2 ignition relay duplicated the condition. Finding no issue with the relay connection he checked the number 15 fuse. Here he found that fuse's receiving pin connection was not locked in place and would not lock when he tried to seat it. Further inspection yielded the connector had a broken locking tab. As a result, Frank replaced the bulkhead harness including the fuse box to correct the condition. His report included many clear and detailed photos documenting his findings during the repair process. This report provided valuable feedback for vehicle manufacturing.

In appreciation for going the extra mile and sharing his experience with us in hopes of improving product quality, Frank 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 Tech Tips for full details. You may see your name here in a future Tech Tips.

Exciting enhancements are coming to QMR of the Month. See this month's Tips for more details and keep those reports coming. All of us here at Subaru appreciate your feedback.

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.



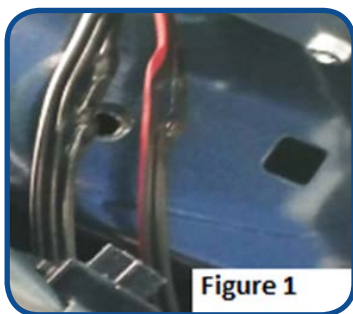
QUALITY DRIVEN® SERVICE



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 December, 2015 was **Frank Pelletier**, a Technician at Suburban Subaru in Vernon, CT. Frank is shown receiving his new iPad mini from **Ron Mann**, Field Service Engineer, Subaru New England and is joined by (l to r): **Lane Resnick**, General Manager, and **Rick Manas**, Service Manager both from Suburban Subaru along with Suburban's Dealer Principal **Peter Krause** and Subaru New England District Fixed Operations Manager, **Brian Giffen**. **Congratulations Frank!**



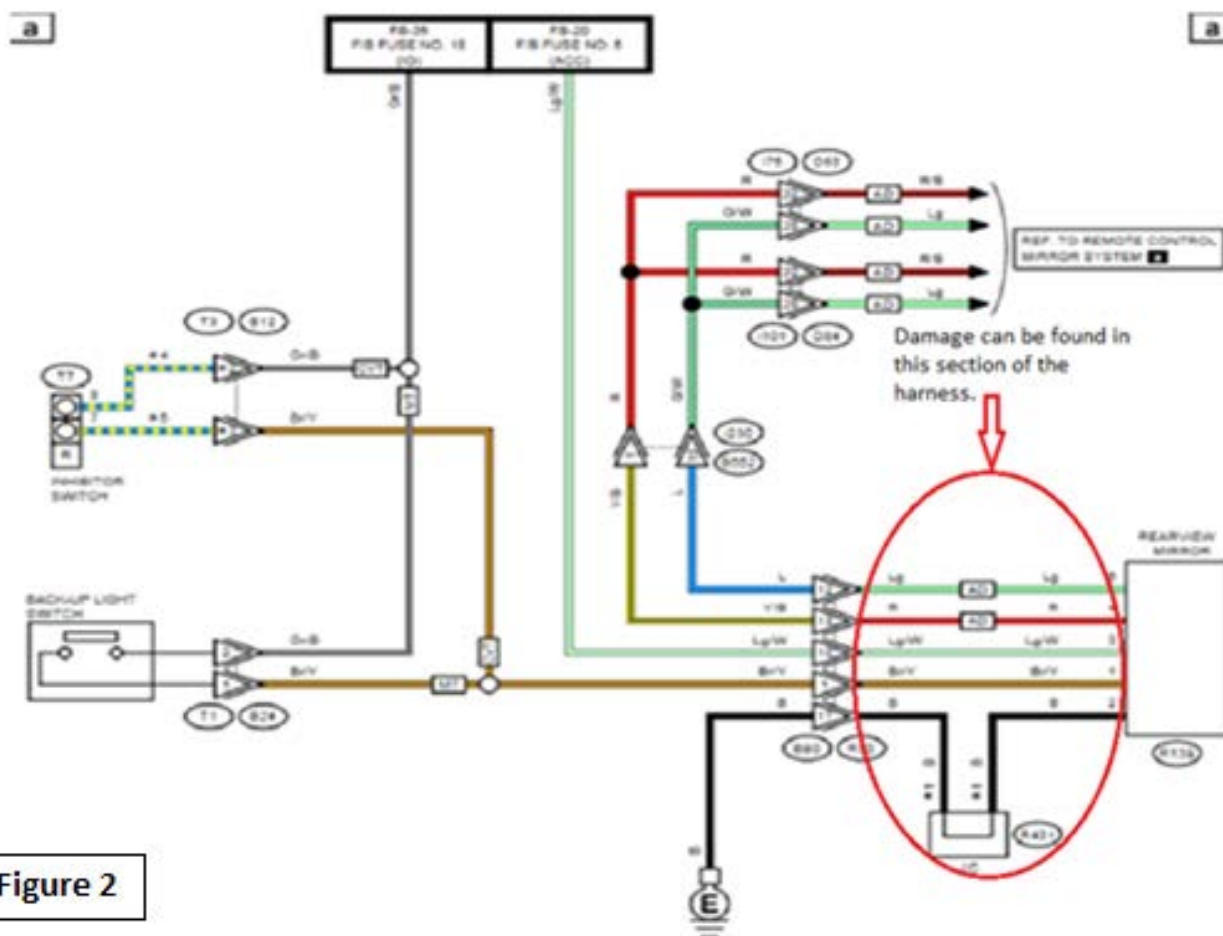
As with any campaign, it is critical for **ALL** outlined procedures to be followed exactly as they are written. In the case of WVX-34, Front Lower Control Arm (Transverse Link) Corrosion, a step which should NEVER be skipped is the punch testing of the upper side of the control arms. **BOTH UPPER AND LOWER SIDES OF THE CONTROL ARMS MUST BE PUNCH TESTED AS DESCRIBED IN THE WVX-34 SERVICE PROCEDURE.** Never assume just because the bottom of the control arm(s) passed the punch test that the upper portion does not require testing, **IT DOES.** Failure to test this area may result in not finding a weakness in this area which could eventually lead to a failure of the control arm. It is also **VERY IMPORTANT** to follow the Service Procedure instructions for proper application of both the Nox-Rust oil and Nox-Rust anti-rust wax products. Don't put yourself, your retailer, your customers, or other drivers on the roadways at risk. Always follow **ALL** procedures in every campaign (or Service Bulletin) completely.


Figure 1

Example of damaged harness

If you are diagnosing an electrical fault on a vehicle, do not forget to check all of the associated systems involved with the circuit in question. One example would be inoperative back-up lights on a 2016 Forester with a short to ground in power supply circuit FB-35. If the vehicle is equipped with the Auto Dimming and Home Link accessory mirror, there is a possibility when the map light or Eye Sight® panel was reinstalled, the wiring harness could have been damaged when inserting the retaining fasteners if not routed correctly as shown in Figure 1. Outlined below is the wiring diagram, connector identification, and associated circuits involved with this particular scenario.

2016 Forester Rearview Mirror System Wiring Diagram


Figure 2


CONTINUED ON THE NEXT PAGE

Power Supply Table

Fuse-Box/ Multi-Box	Fuse No.	Fuse Description	Wire Color	Controlling circuits Systems that could be INOP
FB-20	Fuse No. 6	(ACC)	Lg/W	Seat Heater Relay, Rear View Mirror Power for Auto Dimming and Home-link Functions, Remote Control Mirror Switch
FB-35	Fuse No. 18	(IG)	Gr/B	Inhibitor Switch, Back-Up Light Switch
MB-5	Fuse No. 10		R/L	Exterior Mirror Heater LH, Exterior Mirror Heater RH, A/C Control Panel

Figure 3

Figure 4 **Connector R139 Terminal I/O Chart**



Terminal No.1 = [Br/Y] Back-Up Light Switch (Auto un-dims the A/D Mirror when Reverse Gear is selected).

Terminal No.2 = [B] Ground wire

Terminal No.3 = [Lg/W] Accessory 12v Power to A/D Home Link Accessory Mirror.

Terminal No.4 = [R] Reference Wire to the accessory exterior Auto Dimming Mirrors with Approach Lighting

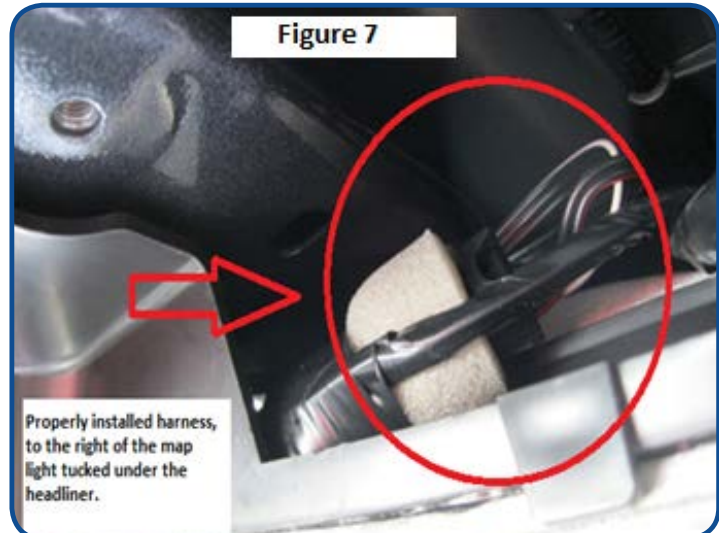
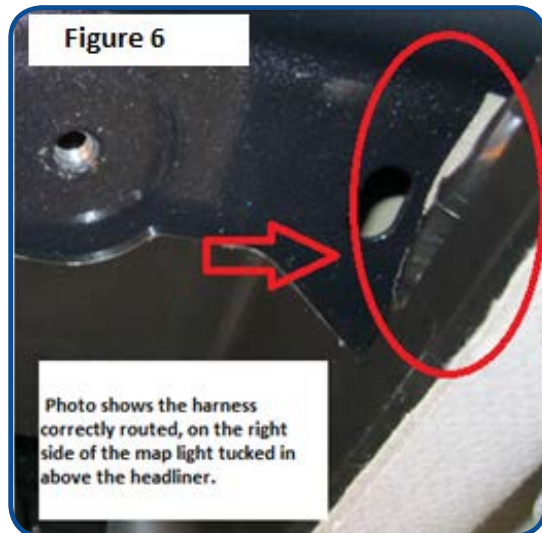
Terminal No.5 = [Lg] Reference Wire to the accessory exterior Auto Dimming Mirrors with Approach Lighting

As you can see, there are multiple components that can be affected on this 2016 Forester if the roof harness or Auto Dimming and Home Link accessory mirror harness is damaged. Another symptom of this damage, shown in figure 5, can be found in Service Bulletin 15-173-14 which is applicable to the 2014-2015 Forester models. Information found in this bulletin includes excellent material pertaining to damaged exterior auto dimming mirrors with approach lighting caused by a short to ground in the interior auto dimming mirror harness.



CONTINUED ON THE NEXT PAGE

Service bulletin 15-173-14 also includes detailed images of the harness damage, along with auto dimming mirror circuit testing when applicable. If inspecting this harness for damage, or replacement of the harness is necessary, it is required that the harness be routed correctly. Figures 6 and 7 show the proper routing and placement of the roof harness and accessory mirror harness.



Keep in mind that not all vehicles are equipped with the accessory Auto Dimming and Home Link mirror but could exhibit similar symptoms if the factory roof harness is damaged. In order to eliminate the roof harness, a simple test would be to refer to the applicable Service Manual and use the split-half troubleshooting technique on the circuit in question.

Whenever addressing a squealing or chirping-type sound from the engine compartment isolated as coming from an accessory drive belt, it is important to determine the root cause of the condition. In the past, especially when “V” belts were common, unless an obvious cause was identified, often times a belt dressing or other form of cleaner / lubricant was applied to the belt which TEMPORARILY eliminated the noise addressing the customer concern. Now that ribbed or serpentine belts are the standard, lubricants or conditioners like these should never be used. The Service Manual even indicates “Do not use the V-belt (sic) if there is any oil, grease or coolant on the belt.” If the belt needs to be tested, FHI recommends that only a light spray of pure water be applied to the belt in order to see if the characteristics of the sound changes or not. The belt itself, in addition to items such as the tensioner, accessories, idlers, and even simple adjustment make up the list of items which may cause belt noise conditions. This makes the need to identify the root cause extremely important to help avoid repeat repair attempts and most importantly, dissatisfied customers.

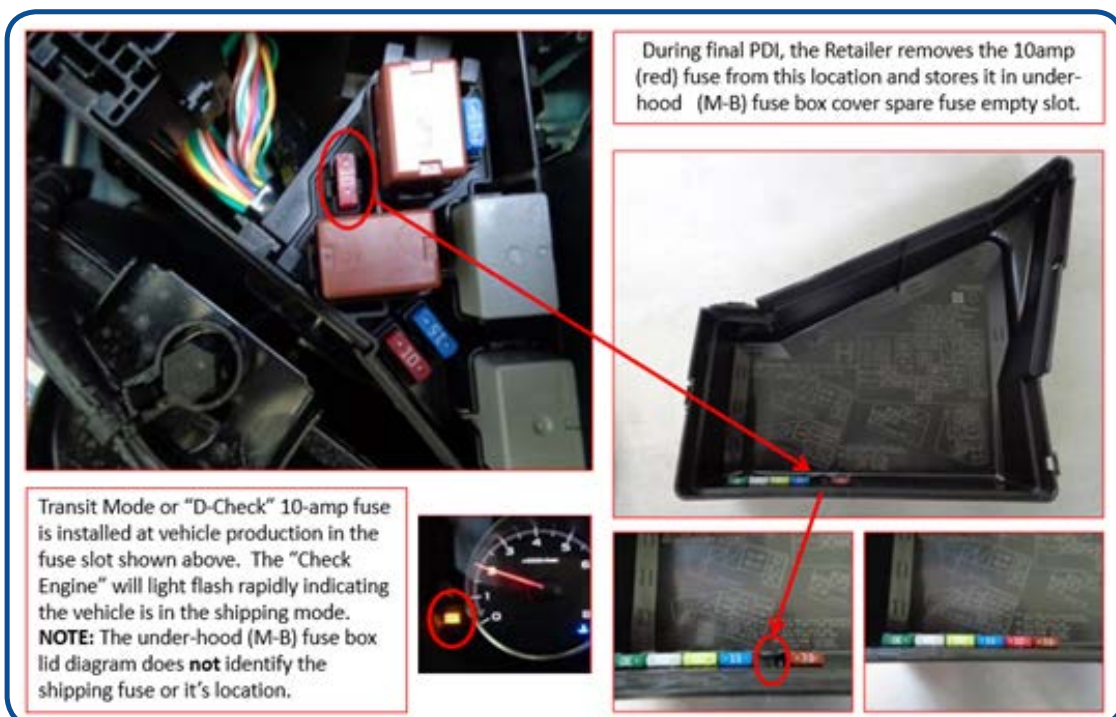


To summarize, although these types of products (belt dressings, cleaners, and lubricants) are readily available and in some cases commonly used, it is **NOT RECOMMENDED** to use any kind of belt dressing product or lubricant on a Subaru accessory drive belt. In the event the belt becomes contaminated, it should always be replaced. Cleaning and re-use is not recommended. Always keep the best interests of your customers in mind by identifying the root cause of the condition and repairing it properly the first time.

Some 2016MY Crosstrek and Impreza models are now available with the optional Telematics system. We have received a number of reports from the field describing what seems to be some confusion between the 10-amp fuse for the Telematics system and the 10-amp "D-Check" (Transit or "PDI") fuse. First and foremost, there is NO need to do anything at all with the 10-amp Telematics fuse. Although the 2 fuses are the same red color, amperage rating and located relatively close to each other in the under-hood (M/B) fuse box as shown in the bottom photo below, the Telematics fuse should be left alone.



The second photo shows the location of the 10-amp "D-Check" (Transit or "PDI") fuse. During Retailer PDI, this fuse must be removed from the M/B and stored in the empty slot in the fuse box cover. Prior to removing this fuse, when the ignition is "ON", the Check Engine light will flash rapidly. Photo (1) below shows the fuse in the "transit" position and (2) the location where it belongs after removal during PDI.



ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
SOA567C010	Accessory Installation Guide	Cargo Basket	29-Feb-16
SOA567B030	Accessory Installation Guide	Bike Wheel Holder	29-Feb-16
SOA567B020	Accessory Installation Guide	Upright Bike Carrier	29-Feb-16
16-99-16	Technical Service Bulletin	TCM Reprogramming for RPM Flare and Cruise Control Operation	29-Feb-16
11-161-16	Technical Service Bulletin	Reprogramming File Availability for DTC P0300 and Rough Idle	29-Feb-16
15-194-16	Technical Service Bulletin	Fujitsu 10/ FTEN/ F10 Navigation Voice Guidance Instructions Getting Cut Off	29-Feb-16
07-107-16	Technical Service Bulletin	Reprogramming File Availability for DTC P0604	29-Feb-16
L1010SG611	Accessory Installation Guide	Forester Trailer Hitch	25-Feb-16
H4510SG160	Accessory Installation Guide	Forester Fog Lamp Kit	25-Feb-16
12-197-16	Technical Service Bulletin	Melting / Sticky Dashboards / Instrument Panel (IP)	25-Feb-16
15-177-14R	Technical Service Bulletin	New "Gen 2" Fujitsu Ten (F10) SD Card Audio / Navigation (AVN) System Operating Tips	25-Feb-16
15-193-16	Technical Service Bulletin	All 2012 to 2015 Models Equipped with Fujitsu Ten (F10) Generation 1 (Gen1) Audio / Navigation Systems	25-Feb-16

All revised publications are highlighted in yellow.

CONTINUED ON THE NEXT PAGE

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
15-186-15R	Technical Service Bulletin	Reprogramming File Availability to Improve Bluetooth Pairing	24-Feb-16
01-167-08R	Technical Service Bulletin	Recommended Materials (All Vehicles)	24-Feb-16
WQW-58R	Subaru Product / Campaign Bulletin	Engine Control Module (ECM) Reprogramming	24-Feb-16
02-157-14R	Technical Service Bulletin	Surface Treatment Change To Oil Control Piston Rings	24-Feb-16
MSA5P2106C	Technician Reference Booklet	Engine Theory and Diagnosis (March 2016)	23-Feb-16
SOA801P020xx	Accessory Installation Guide	WRX and WRX STI Door Edge Guards	17-Feb-16
F541SSG001	Accessory Installation Guide	Moonroof Air Deflector	11-Feb-16
06-49-15R	Technical Service Bulletin	Design Change to Retaining Clip for Front ABS Wheel Speed Sensor	8-Feb-16
07-106-16	Technical Service Bulletin	DTC P1C00 / Change to Battery Sensor	8-Feb-16
09-63-16	Technical Service Bulletin	DTC B1500 and Fuel Level Sensor Replacement Procedures	5-Feb-16
16-98-16	Technical Service Bulletin	TCM Reprogramming File Availability to Address Inconsistent Shifting / Slipping Concerns When Cold	5-Feb-16
ACRNM_001	Other / Miscellaneous	Acronyms	4-Feb-16

All revised publications are highlighted in yellow.

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
11-120-12R	State Inspection / Maintenance Advisory Bulletin	Readiness Code Set Procedure; On-Board Diagnostic System I/M Check During State Emission Test	3-Feb-16
15-188-15R	Technical Service Bulletin	Reprogramming File Availability to Improve Audio Unit Performance	3-Feb-16
MSA5M1601A	Owner Manual	2016MY Impreza and Crosstrek Owner's Manual	1-Feb-16
TIPS0116	TechTIPS NewsLetter	2016 January TechTIPS Newsletter	1-Feb-16
SOA801P000xx	Accessory Installation Guide	Forester Door Edge Guards	1-Feb-16

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: _____