

Articles Contained in this Issue

*Click on a title below to jump to the article.
Click the date located in the footer to return to page 1.*

CODE	ARTICLE.....	PAGE
(00)	STIS New Releases	9
(01)	QMR of the Month	1-2
(01)	QMR of the Month Award Presentations.....	2
(02)	New and Remanufactured Short Block Replacement Tips & Break-In Procedure.....	3-4
(07)	Door Lock Battery Back Up Unit.....	5
(09)	Won't Take Fuel Concerns - Revisited.....	6
(15)	Gen 3, 3.1 and 3.1 alpha Harman and Gen 4 Denso CP1 – Check for conflicting accessories prior to performing a software update via USB Port	7
(15)	Gen 3 Bluetooth streaming stuttering issue update AKA BT Skipping with Apple watch paired	7-8

SUBARU TECHLINE HOLIDAYS & HOURS OF OPERATION

Labor Day: (Closed)	
Monday, September 6, 2021	
Mon. - Thurs.	8:30AM - 7:30PM EST
Friday	10:30AM - 5:00PM EST
Saturday	9:00AM - 3:00PM EST

01 QMR of the Month

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

Nicholas Lehman from
Capital Subaru of Greensboro in Greensboro, NC

June's winning QMR of the Month submission detailed the diagnosis and repair of 2020MY Outback Limited with customer concerns of the Reverse Automatic Braking, Blind Spot Monitoring, and Power Steering warning lights coming on intermittently. After road testing and verifying the warning light concerns would duplicate when driving over bumps and rough roads, Nicholas suspected a loose harness connection. He proceeded to perform a DTC scan revealing various loss of communication codes in the advanced safety CAN system. After review of the related wiring diagrams, the search was on for the suspected poor connection. While wiggle testing various sections of the instrument panel (IP) harness, Nicholas duplicated the concern approximately 8 inches below connector i52. Here, he found the IP harness had not been secured properly to a body clip and was rubbing against a steering column alignment pin. He proceeded to carefully dissect the harness in the affected area where two CAN system heat-shrink wrapped joint connectors are located, each containing 4 wires. Closer inspection revealed one of the 4 brown CAN wires was not secured to the other 3 within the shrink wrap causing the poor connection. Nicholas went further by inspecting both CAN joint connections, soldered and re-wrapped them then went on another "bumpy" road test to confirm the repair before reassembling the IP. His QMR detailed the diagnostic steps taken, test results and included multiple quality photos documenting the repair.

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

\$500.00 Snap-On gift card

Continued on the next page

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, Ascent, Crosstrek Hybrid 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

We Support



01 QMR of the Month (CONTINUED)

The other Regional winners selected from QMRs submitted during June 2021 were:

- **Leo Gilmore** from **Ruge's Subaru** in Rhinebeck, NY
- **Chris Grad** from **Ganley Subaru of Wickliffe** in Wickliffe, OH
- **Josh Arnold** from **Subaru of Corvallis** in Corvallis, OR
- **Nicholas Thomson** from **Clay Subaru** in Norwood, MA

Any Subaru Technician can participate in the QMR of the Month program. See the February 2013 and January 2016 issues of Tech TIPS 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 include a photo (whenever available) of the recipient’s award presentation in TIPS. The winner selected from QMR of the Month submission received during June 2021 was Nicholas Lehman, a Technician from Capital Subaru of Greensboro in Greensboro, NC.



Nicholas is shown above being presented with his \$500.00 Snap-On Gift Card. Pictured here (left to right) are General Manager, Ashley Murphy, Field Service Engineer, Joseph Marchica, June’s winning Technician, Nicholas Lehman, and Service Director, Lamar Bordeaux. Congratulations and THANK YOU to our June 2021 QMR of the Month Award recipient!

Continued on the next page

2. Short block inspection and preparation.

When removing the engine from the crate, inspect the cylinder walls and machining. Make sure no damage to the mating surfaces is found (gouges, sever pitting, etc). If no lubrication is found on the cylinder walls, apply a thin coat of clean engine oil to the cylinder wall surface with an oil squirt can. **DO NOT use a rag or fiber towel.** If a large puddle of oil is found at the bottom of the crate, or in the plastic wrap, apply a light coating of clean engine oil across the crankshaft journals (engine upside down). This should be done before any other components are installed onto the short block. After application, rotate the crankshaft clockwise one full rotation (still upside down) to have gravity help move the oil down onto the bearings. The crankshaft keyway should be returned to its original starting point (continuing in a clockwise rotation) to coincide with engine timing chain installation. **Do not rotate the crank shaft counterclockwise other than when instructed in the timing chain installation instructions.**



Be sure to review 02-157-14R, starting on page 7, for valuable information about cleaning, inspection and assembly of chain driven engine components.

3. Engine Break-in recommendations

There are several myths surrounding proper break in procedures for a new/freshly rebuilt engine. However, the Subaru recommended break-in procedure for naturally aspirated and turbocharged engines, can be found in the Owner's Manual. These recommendations cover all situations and circumstances.

Before installing the long block assembly into the vehicle, rotate the engine clockwise several full rotations **BY HAND**, with the engine filled to the proper level. The crankshaft counterweight will be soaked in oil and help lubricate the internal surfaces throughout. This will also supply oil to the main pump and saturate it. If any binding is felt or the engine will not rotate, **STOP, do not force the rotation. This could lead to broken components.** Instead, inspect for craftsmanship errors.

Note: Turbo engine head gaskets have different specifications compared to the N/A engine head gaskets.

Under **NO** circumstance should the **starter be used to prime the engine with engine oil pressure. NEVER use clear flood mode to prime the engine with oil pressure.**

It is best to have the engine ready to start, on a cold start, and let it run.

412 New Vehicle Break-In Driving

8-1. New Vehicle Break-In Driving – the First 1,000 miles (1,600 km)

The performance and long life of your vehicle are dependent on how you handle and care for your vehicle while it is new. Follow these instructions during the first 1,000 miles (1,600 km):

- Do not race the engine. And do not allow engine speed to exceed 4,000 rpm except in an emergency.
- Do not drive at one constant engine or vehicle speed for a long time, either fast or slow.
- Avoid starting suddenly and rapid acceleration, except in an emergency.
- Avoid hard braking, except in an emergency.

The same break-in procedures should be applied to a newly installed or overhauled engine or when brake pads are replaced with new ones.

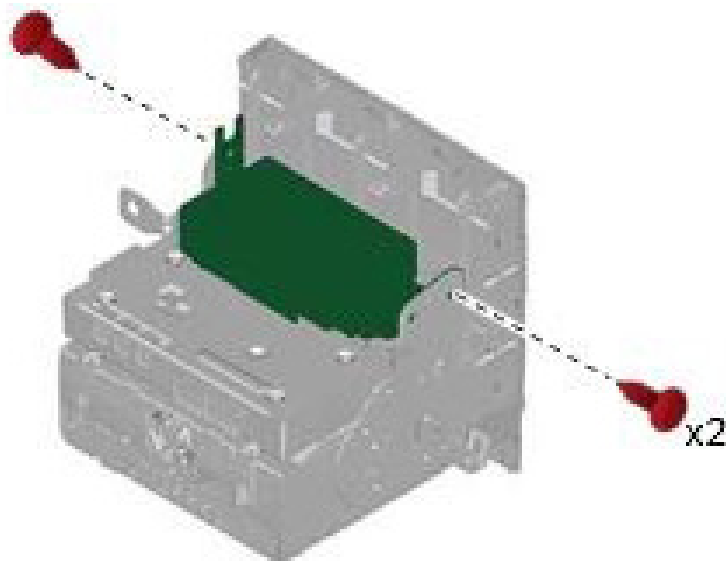
(The above picture is taken directly from the owner's manual)

Continued on the next page

07 Door Lock Battery Back Up Unit

Techline has received calls about identifying a newly implemented device for the door lock system. The Battery Back Up power source was implemented into vehicles outlined in the chart below. The Battery Back Up unit provides power to the door locks in the event of a collision that disables the standard 12v power source. When the vehicle receives a strong impact, all the doors and the rear gate are automatically unlocked, so as not to trap the vehicle occupants. The device is mounted above or near the audio unit in most cases. Refer to STIS for specific model removal/installation, and inspection.

Note: When the ignition is turned on, the capacitor in the device is charged for 90 seconds.



SL-11076

Ascent	MY19 and Newer
Outback/Legacy	MY20 and Newer
Impreza	MY20 and newer (does not include WRX/STI)
Crosstrek	MY21 and newer
Forester	MY19 and newer

Continued on the next page

09 Won't Take Fuel Concerns - Revisited

If encountering a vehicle with a customer concern of difficulty filling the fuel tank, do not overlook the July 2017 and September 2017 Tech TIPS. If the filler neck, EVAP vent line and EVAP filter are free and clear, look at the internal flapper valve of the fuel tank. This can be done easily with a borescope. Start by removing the inlet hose off the tank and perform the inspection. Confirm your findings by removing the fuel pump and inspecting the flapper valve from the inside of the tank. The photos below are an example of a deformed flapper valve.

Deformed valve



Continued on the next page

15**Gen 3, 3.1 and 3.1 alpha Harman and Gen 4 Denso CP1 – Check for conflicting accessories prior to performing a software update via USB Port**

Prior to performing a software update via USB thumb drive, please check the USB Port for the presence of conflicting accessories (ex: additional thumb drives, chargers, etc.). Please remove all accessories connected to USB Port prior to performing update. Leaving conflicting accessories connected while performing an update may result in black display or the update failing.

Example:

**15****Gen 3 Bluetooth streaming stuttering issue update AKA BT Skipping with Apple watch paired**

Techline has received reports from the field regarding stuttering/skipping concern while a customer is streaming music via Bluetooth connection with phone device. It was found the concern was consistent when the customer had their Apple Watch paired via Bluetooth to their phone device, and their Phone Device Paired via Bluetooth to the Head unit.

The following steps have been provided for a work around of the concern. **NOTE:** This is not an problem with the head unit and should not lead to unit replacement. This is a iPhone related characteristic. SOA is actively working towards a resolution.

1. Confirm Wi-Fi status of the Head Unit (ON/OFF)
 - a. To Access Wi-Fi Status: Settings > Wi-Fi

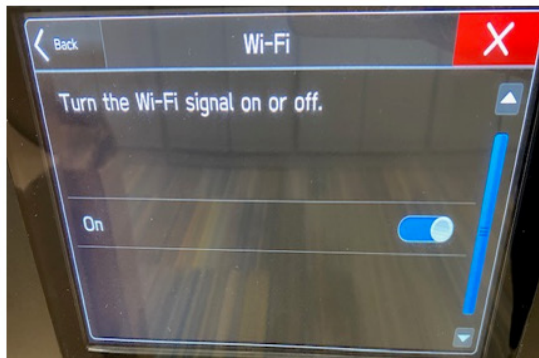
➤ Gen 3 BT streaming stuttering issue update aka BT Skipping with Apple watch paired



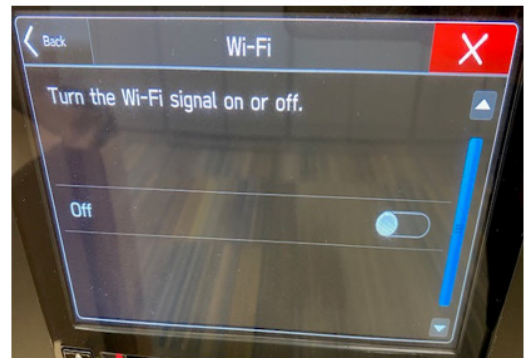
- For item 1, please request to confirm Wi-Fi status and verify the concern is duplicated with Wi-Fi OFF.
 - Temporary work around: set Wi-Fi to OFF
- For item 2, Apple is preparing a permanent fix. No schedule is available.

Continued on the next page

- If Wi-Fi Status is set to **ON**, please turn it **OFF**. Once the Wi-Fi setting is turned **OFF**, this will alleviate the reported concern and the customer will be able stream music as intended via Bluetooth.



Toggle to Off



Continued on the next page

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
WRE-21R	Subaru Product/Campaign Bulletin	Ignition Coil Replacement	31-Aug-21
09-74-21R	Technical Service Bulletin	Cleaning Procedure for Carbon ...	30-Aug-21
WRD-20R	Subaru Product/Campaign Bulletin	Fuel Pump Impeller Failure	27-Aug-21
07-199-21R	Technical Service Bulletin	Measurement of Dark Current (S...	27-Aug-21
15-286-21	Technical Service Bulletin	Telematics Diagnostic Strategy	26-Aug-21
12-322-21	Technical Service Bulletin	Cross Bar Integrated Roof Rail...	25-Aug-21
07-198-21	Technical Service Bulletin	Engine Not Starting / Excessiv...	25-Aug-21
15-285-21R	Technical Service Bulletin	Gen 2 Head Unit Identification...	24-Aug-21
WRG-21	Subaru Product/Campaign Bulletin	Fuel Pump Impeller Failure	24-Aug-21
L101SAN000	Accessory Installation Guide	PORT INSTALLATION: 2022MY Outb...	23-Aug-21
18-216-21	Service Manual Correction	Service Manual Corrections	23-Aug-21
18-215-21	Service Manual Correction	Service Manual Corrections	23-Aug-21
09-77-21R	Technical Service Bulletin	Lack of Power / Hesitation Dur...	19-Aug-21
06-78-20R	Technical Service Bulletin	2019-20 MY Ascent Brake Pad De...	18-Aug-21
12-224-21	Technical Service Bulletin	Trailer Hitch Fascia Panel / L...	13-Aug-21

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: _____