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01 QMR OF THE MONTH

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

Zach Alley from
Ferguson Subaru in Broken Arrow, OK

The QMR Zach submitted involved a very low-mileage 2019MY Ascent with a customer concern described as a humming noise heard at speeds over 50mph. After a short road test to confirm the condition, Zach's first check was to verify the fluid level and fluid condition in the front differential. After determining the level was low and seeing evidence of a leak, he drained the front differential, inspected a sample of the gear oil and identified a considerable amount of metal contamination. Zach determined the leak was coming from one of the differential side seals but, closer inspection revealed the lock plate which engages in the notches around the perimeter of the seal retainer to maintain carrier bearing preload adjustment was not installed properly. Although the bolt was tight, the lock plate was rotated and never engaged any of the retainer notches. This allowed the retainer to loosen and cause extensive internal differential damage from the resulting excessive backlash. The vehicle was repaired with a replacement transmission assembly. In addition to fulfilling all the requirements for nomination as a QMR of the Month nominee, Zach's report contained excellent, high-quality photos which caught the eye of the SBR Engineering staff. This led them to request collection of the original transmission assembly from the Retailer for further analysis due to the peculiar nature of the root cause of this failure.

In appreciation for going the extra mile and sharing his experience with us, Zach will be receiving the following.

A \$500.00 Snap-On gift card.

SUBARU TECHLINE HOLIDAYS & HOURS OF OPERATION

Memorial Day: (Closed)

Monday, May 27, 2019

Independence Day: (Closed)

Thursday, July 4, 2019

Mon. - Thurs.	8:30AM - 7:30PM EST
Friday	10:30AM - 5:00PM EST
Saturday	9:00AM - 3:00PM EST

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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.



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01 QMR OF THE MONTH

The other Regional winners selected from QMRs submitted during January 2019 were:

- **Brian Gray** from **Milea Subaru** in Bronx, NY
- **Jeremy Hughes** from **Subaru of Spokane** in Spokane, WA
- **Michael Wageman** from **River City Subaru** in Huntingdon, WV
- **Todd Carlson** from **Tri City Subaru** in Somersworth, NH

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 be including a photo (whenever available) of the recipient’s award presentation in TIPS. The winner selected from QMR of the Month submissions received during February 2019, was Zach Alley, a Technician at Ferguson Subaru in Broken Arrow, OK.



Zach is shown above being presented with his \$500.00 Snap-On Gift Card by SOA Field Service Engineer, Alex Portillo. He was joined by Ferguson Subaru’s Service Director Joe Cyr. Congratulations and THANK YOU to our March 2019 QMR of the Month Award recipient!

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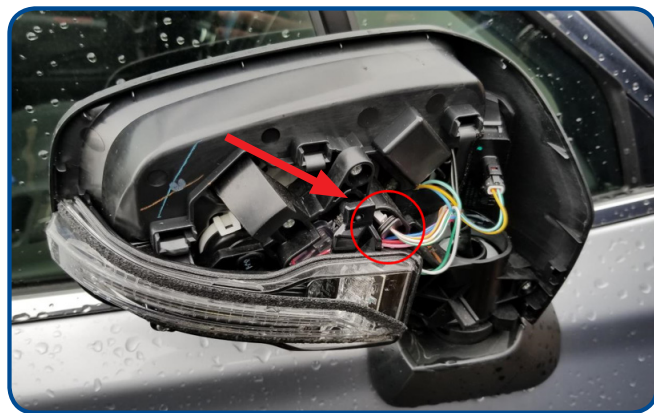
01 UNDERSTANDING CUSTOMER'S CONCERN

The most important step in ensuring a customer's concern is properly addressed is fully understanding the concern. Too often Technicians spend time diagnosing a concern they do not fully understand. This leads to lost productivity, unnecessary comebacks, vehicles not fixed right the first time, and dissatisfied customers. When calling Techline for assistance where the concern is vague, often the Technician will be presented with more questions than answers. When a concern is not fully understood the Technician should ask clarifying questions. Customer questionnaires can be found on **Subarunet > Service Operations & Technical > Forms / downloads**. Customer Interview forms can be found in the applicable Service Manual under most system sections. If after getting additional information a concern still cannot be reproduced, then have the customer reproduce the condition for the Technician servicing the vehicle. Often, once a Technician experiences the condition they can rectify it.

07 2019MY FORESTER, DRIVER MONITORING SYSTEM (DMS) INOPERATIVE B2632 B2642

If DTC B2362 and/or B2642 are stored in history or set as current with any of the following conditions:

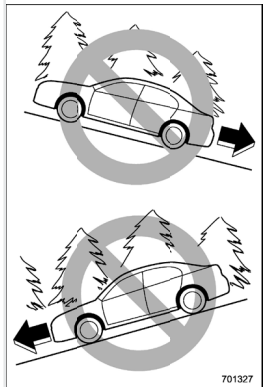
- Driver Focus will not register a name.
- When registering a new user, the system will fail registration, yet create a new profile with a default name that cannot be customized.
- Memory seat switches are inoperative.
- Right door mirror does not dip in reverse, check for poor contact at the door harness connection as shown in the photo.



07 HILL START ASSIST LAMP ILLUMINATED WITHOUT ASSOCIATED DTCS OR CUSTOMER'S CONCERN

Techline continues to receive calls regarding Hill Start Assist Lamp that remain illuminated at all times. In the absence of any DTC(s), the Technician should determine if the lamp illumination is normal operation. Some drivers prefer to drive with the Hill Start Assist system turned OFF. When the system is deactivated, the lamp will remain illuminated. Should a Technician encounter this condition, they should interview the customer to determine if the system was deactivated intentionally. The activation / deactivation procedure can be found in applicable Owner's Manual > Starting and operating/Hill start assist system. The pages below are from 2018 MY WRX Owner's Manual.

Starting and operating/Hill start assist system 7-51



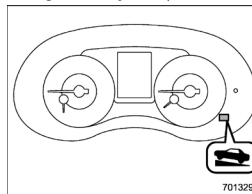
- when starting backward facing uphill
- when starting forward facing downhill
- while the parking brake is applied
- while the ignition switch is in the "ACC" or "LOCK"/"OFF" position
- while the Hill start assist warning light/

Hill start assist OFF indicator light is illuminated (models without the electronic parking brake system)

When using the Hill start assist system, a braking effect may be felt even after the brake pedal has been released. However, this braking effect should disappear once the clutch pedal is released.

NOTE
A slight jolt may be felt when the vehicle begins to move forward after being reversed.

■ To activate/deactivate the Hill start assist system (models without the electronic parking brake system)



Hill start assist OFF indicator light

CAUTION
When starting on an uphill grade, make sure the Hill start assist OFF indicator light is off. If the Hill start assist OFF indicator light is on, make sure the parking brake is applied.

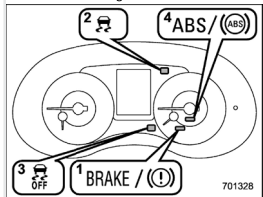
To activate and deactivate the Hill start assist system, perform the following steps.

- CONTINUED -

7-52 Starting and operating/Hill start assist system

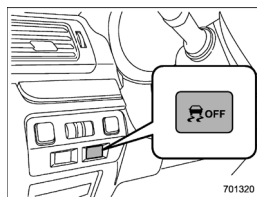
NOTE
If you make an error when performing any steps in the following procedure, place the ignition switch in the "LOCK"/"OFF" position once and then start over again.

- ▼ To deactivate
1. Park your vehicle in a flat and safe location and apply the parking brake.
 2. Turn the ignition switch to the "LOCK"/"OFF" position.
 3. Restart the engine.



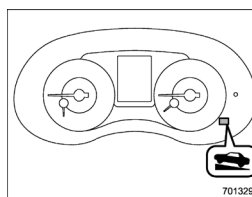
4. Confirm the following items.
 - (1) The Brake system warning light illuminates.
 - (2) The Vehicle Dynamics Control warning light turns off.

- (3) The Vehicle Dynamics Control OFF indicator light turns off.
- (4) The ABS warning light turns off.



Vehicle Dynamics Control OFF switch

5. Press and hold the Vehicle Dynamics Control OFF switch for 30 seconds until the Vehicle Dynamics Control OFF indicator light "OFF" on the combination meter turns on and off.
6. Within 5 seconds, release the Vehicle Dynamics Control OFF switch.



Hill start assist OFF indicator light

7. Within 2 seconds, press back the Vehicle Dynamics Control OFF switch. The Hill start assist OFF indicator light turns on and off.
8. Turn the ignition switch to the "LOCK"/"OFF" position. The Hill start assist system is deactivated.

NOTE
When the Hill start assist system is deactivated, the Hill start assist OFF indicator light illuminates continuously.

Starting and operating/Cruise control 7-53

▼ To reactivate
To reactivate the Hill start assist system, repeat steps 1 to 8. When the Hill start assist system is activated, the Hill start assist OFF indicator light turns off.

■ Hill start assist warning light/Hill start assist OFF indicator light (models without the electronic parking brake system)

Refer to "Hill start assist warning light/Hill start assist OFF indicator light (models without electronic parking brake system)" 3-24.

Cruise control

NOTE
For models with the EyeSight system: Refer to the Owner's Manual supplement for the EyeSight system.

Cruise control enables you to maintain a constant vehicle speed without holding your foot on the accelerator pedal and it is operative when the vehicle speed is 20 mph (30 km/h) or more.

WARNING

- Do not use the cruise control under any of the following conditions. These may cause loss of vehicle control.
 - driving up or down a steep grade
 - driving on slippery or winding roads
 - driving in heavy traffic
- When using the cruise control, always set the speed appropriately according to the speed limit, traffic flow, road conditions, and other conditions.

NOTE
• On uphill and downhill slopes, depending on the degree of the slope and the load of the vehicle, there may be cases when a constant speed cannot be guaranteed.

• If the cruise control indicator does not appear even after pressing the cruise control main button, it is possible that there is a malfunction in the system. We recommend that you contact your SUBARU dealer for an inspection.

• Make sure the cruise control system is turned off when the cruise control is not in use to avoid unintentionally setting the cruise control.

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TECH TIPS GREATEST TIPS

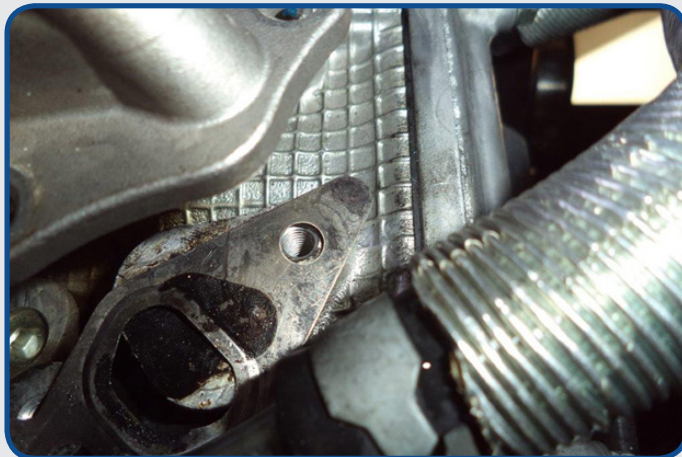
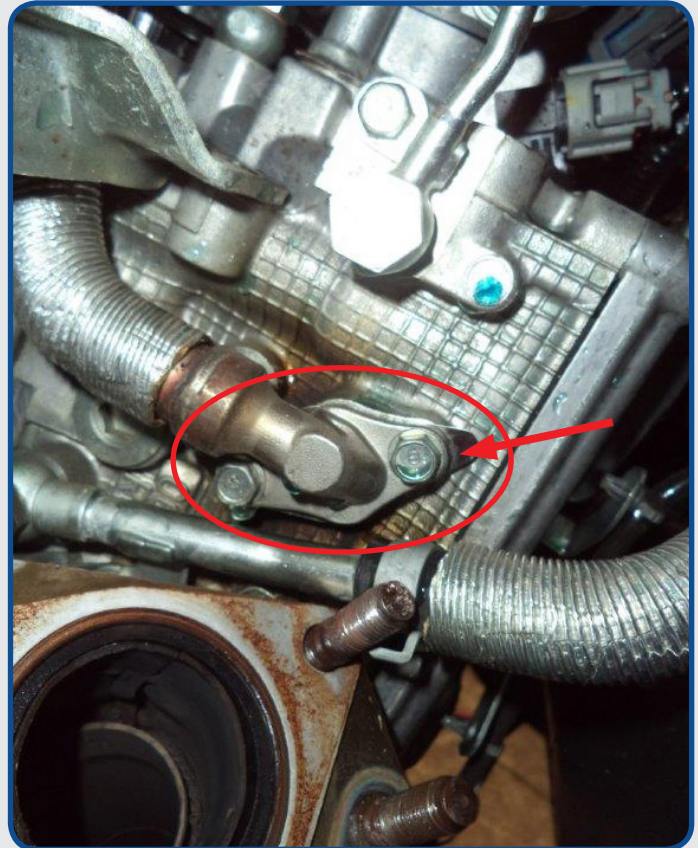
This series features TechTIPS articles frequently referred to by Techline. This month's features from July 2015 illustrates secondary air system gasket installation on EJ engines.

11 SECONDARY AIR INJECTION DIAGNOSTIC TROUBLE CODES P2441 AND P2442

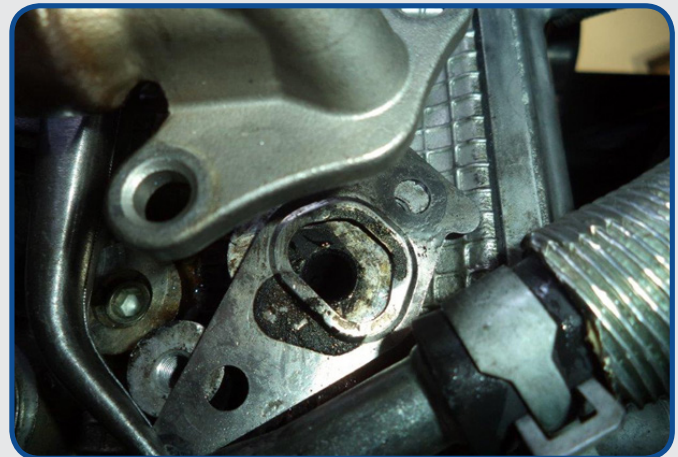
When working on a vehicle with Secondary Air Injection System DTCs P2441 or P2442, check the vehicle history to see if there has been any work done to the engine or the Secondary Air Injection System prior to the DTC setting.

If so, check to see if there appear to be traces of carbon on the back of the right hand cylinder head. Turbo Charger removal may be necessary to get a good view of the pipe which bolts to the back of the cylinder head. If carbon traces are seen as shown in the photos below, there is a good chance the gasket that seals the secondary air pipe to the back of the cylinder head is installed in the wrong direction (from prior repair) causing secondary air flow to be partially blocked.

As seen in the attached photos, this gasket is pointed on one end. The correct way to install this gasket is with the pointed end facing towards the transmission.



Wrong Way (Point Towards the Valve Cover)

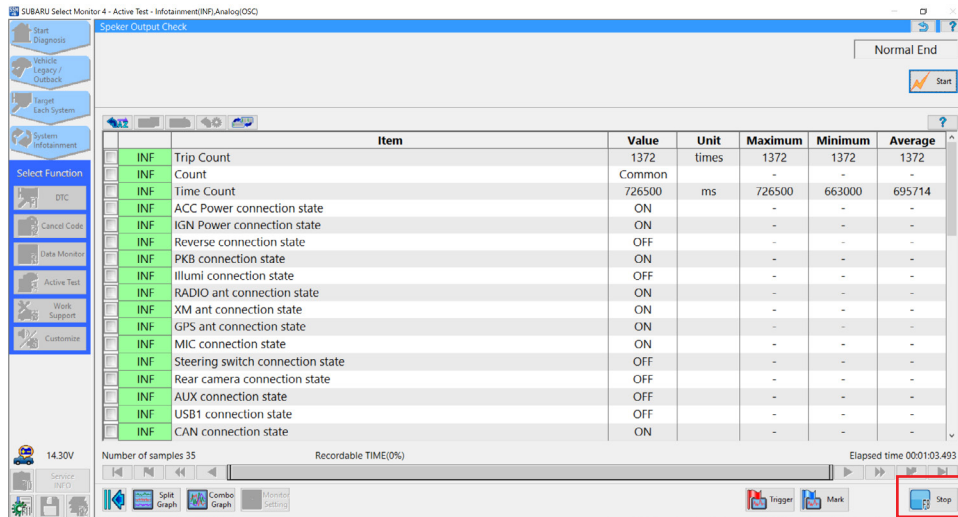


Correct Way (Point Towards the Short Block)

15 HOW TO END SPEAKER OUTPUT CHECK WHEN USING SSM

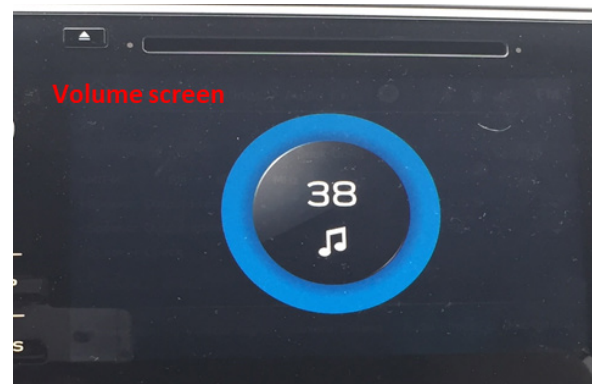
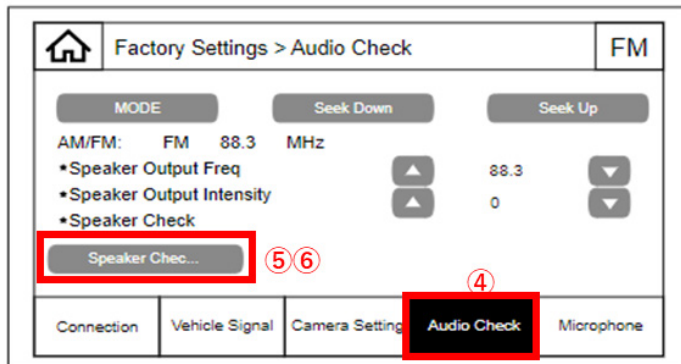
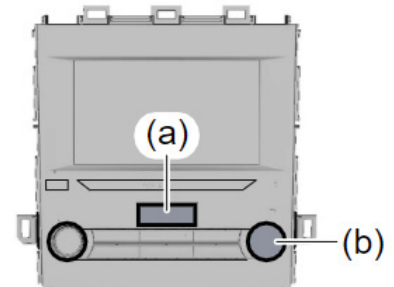
When performing the Speaker Output Check Active Test with SSM, there is possibility the SSM cannot stop the test. If you encounter this scenario follow the directions below to end the test.

1. Press the “Stop” Button in the right lower part on the Active test screen. (If this procedure isn’t performed, you may not perform step 2 since the volume screen continues to be displayed on the Head Unit display)



2. Perform and end “CHECK SPEAKER OUTPUT WITH LINE DIAG MODE” on Head Unit. (Refer to “ENTERTAINMENT & MONITORING > Audio System” in Service Manual)

1. Turn the ignition switch to ACC.
2. Press the TUNE/SCROLL (b) twice with the Home button (a) pressed.
3. {Line Diag} screen is displayed.
4. Select the {Audio Check} soft key at the bottom of the display.
5. Select “speaker check”. (Normally, “speaker output check” will start. But at this situation, just the volume screen will appear and disappear, since the “speaker output check” is already running.)
6. Select the “speaker check” again. Then, “speaker output check” will shut off.



CONTINUED ON THE NEXT PAGE

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
15-208-17R	Technical Service Bulletin	Availability of "Gracenote® Me...	25-Apr-19
WUE-90R	Subaru Product/Campaign Bulletin	Brake Lamp Switch Replacement	24-Apr-19
J101SAN200	Accessory Installation Guide	2020MY Legacy Splash Guards	24-Apr-19
02-170-17R	Technical Service Bulletin	Oil Leaking from AVCS Oil Cont...	23-Apr-19
15-240-19R	Technical Service Bulletin	New Harman Audio Amplifiers	19-Apr-19
12-260-19	Technical Service Bulletin	Metallic Rattle / Chirping Sou...	18-Apr-19
07-150-19	Technical Service Bulletin	Rear Combination Lamp Harness ...	17-Apr-19
12-261-19	Technical Service Bulletin	EyeSight Camera Cover Removal ...	17-Apr-19
WUF-91	Subaru Product/Campaign Bulletin	Replacement Ignition Switch Re...	15-Apr-19
WTY-84R	Subaru Product/Campaign Bulletin	2.0L Engine Valve Spring Fract...	11-Apr-19
07-149-19	Technical Service Bulletin	Airbag System Sensor-Related D...	10-Apr-19
TKC-19	Subaru Product/Campaign Bulletin	Takata Front Passenger Airbag ...	10-Apr-19
TKB-19	Subaru Product/Campaign Bulletin	Takata Front Passenger Airbag ...	10-Apr-19
TKA-19	Subaru Product/Campaign Bulletin	Takata Front Passenger Airbag ...	10-Apr-19
WUE-90	Subaru Product/Campaign Bulletin	Brake Lamp Switch Replacement	9-Apr-19
WUC-88R	Subaru Product/Campaign Bulletin	Power Steering Gear Box Inspec...	8-Apr-19
15-208-17R	Technical Service Bulletin	Availability of "Gracenote® Me...	8-Apr-19
J3110AN020	Accessory Installation Guide	2020MY - 2 Piece Rear Gate Tr...	1-Apr-19
J1010AN000	Accessory Installation Guide	2020MY Outback Sport Grille	1-Apr-19
SOA7181004	Accessory Installation Guide	Bumper Corner Molding (4 piece...	28-Mar-19
12-253-18	Technical Service Bulletin	"Squeak" "Creak" or "Pop" -Typ...	27-Mar-19
E771SAN000	Accessory Installation Guide	Legacy Rear Bumper Appliqué	27-Mar-19
14-22-16R	Technical Service Bulletin	Special Service Tool Cross Ref...	26-Mar-19
F411SXC020	Accessory Installation Guide	Ascent Seat Cover - 3rd Row Be...	26-Mar-19
F411SXC010	Accessory Installation Guide	Ascent Seat Cover - 2nd Row Ca...	26-Mar-19
DCA-8000	Other/Miscellaneous	DCA-8000 Diagnostic Battery Ch...	26-Mar-19
15-236-18R	Technical Service Bulletin	Reprogramming File Availabilit...	25-Mar-19
SUTTIPSLOC	Other/Miscellaneous	TechTIPS Article Locator Index...	25-Mar-19

All revised publications are highlighted in yellow.

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: _____