



REMINDER

Techline Saturday Hours Of Operation Are 9:00AM - 3:00PM Est

ARTICLES CONTAINED IN THIS ISSUE

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SUBARU TECHLINE HOLIDAYS & HOURS OF OPERATION

Memorial Day
Monday, May 29, 2017

Independence Day
Tuesday, July 4, 2017

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

SUBARU OF AMERICA



ANNIVERSARY
Est. 1968

01 QMR OF THE MONTH

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

Dane Dankha from **Brilliance Subaru in Elgin, IL**

Dane submitted a very detailed QMR on his diagnosis and repair of a very unusual concern on a 2017 Impreza with 131 miles. The customer presented with a complaint of the message Keyless Access System Disabled was being displayed on the Combination Meter Display but, no vehicle functions seemed to be affected. Dane inspected the car and verified the message in the combination meter display. He also noted the Engine Start button was flashing continually whether the engine was running or not. Checking for codes, he found B227B- Push Engine Start Switch Input Performance. Proceeding to the Service Manual diagnostics, he followed the troubleshooting step by step. At the first step, he confirmed the code. At the second, he found no concerns with circuit continuity. At the third step, he found no concerns with the Start button itself. At the fourth step, while monitoring Push Start Switch 1 and Push Start Switch 2, he found Push Start Switch 1 would not always change to ON when the Start button was pressed. This diagnosis indicated a need to replace the keyless access control module. Checking further and wiggling the connector at the keyless access control module, Dane found the signal would change. At that point, a further inspection of the connector (i75) was made and pin #8 (red wire) was found to be slightly backed out of the connector. Repositioning and securing the pin corrected the intermittent contact and the condition would no longer duplicate. The detailed report and his video made it very clear how Dane arrived at the root cause and provided useful feedback for production and the vendor.

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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, 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



01 QMR OF THE MONTH

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

A Snap On ATECH2FR100B Electronic Torque Wrench plus credits to be used for additional award items of his choice.

Any Subaru Service Technician can participate in QMR of the Month. See the February 2013 and January 2016 TechTIPS for full details. You may see your name here in a future TechTIPS.

01 QMR OF THE MONTH AWARD PRESENTATION



As part of our “enhanced” QMR of the Month recognition program, we include a photo (when available) of the recipient’s award presentation in TIPS. The winner selected from QMR of the Month submissions received during February was Dane Dankha. In the photo above from Brilliance Subaru in Elgin, IL left to right: Jim DaLuga, GM. Richard Dencs, SM. Dane Dankha, Master Tech. Bill Sanders, FSE.

Congratulations and THANK YOU to February’s QMR of the Month Award recipient!

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Subaru-U is committed not only to the development of future Technicians, but also educating existing Service personnel on how Automotive Education works and how to give back to local programs. The Subaru-U Program is a true partnership and it cannot work unless all parties strive to make it work.

We will continue to publish short articles to help keep you informed and up to date about the educational side of Subaru-U and what you can do to make the program a success and get the most out of it in your store(s).

For Information and program details see: Subaru-U.com



Mentoring Students - Why should I have Interns and Apprentices?

April is here and May is just around the corner which means this is a HOT time of the year to find the right intern students. How are you doing with your bench? No successful team hits the field or court without a bench of players learning and honing their skills for the future. How is your bench building coming? If you want to be successful in this game, there are a few automotive educational terms you want to understand:

Job Shadow: A term used to describe the student coming in for a test drive in your store. They will normally come in in a group of 2 maybe 3 and invest time observing your Technicians at work, asking questions about the work and seeing if it is a good fit. Are you doing the same? See if they are a fit, test drive the students who are a good zero cost option then pick the best ones for your store.

Internship: A program where a student works part time in your store working with experienced people acting as a helper and learning the business. As the student learns, they become more of a help while learning from the Masters and helping overall shop productivity. This is a paid position while the student is learning to be a full-time employee. What a way to “Grow your own,” starting with good seed stock!

Apprentice: Normally a term used for a longer internship where the student and the retailer have more invested in the process. These are Technicians to be, learning fast and quickly becoming an asset to your store. This is also a good time to provide opportunities for students to learn some of the other facets of the business. Why not have additional help on the Service desk or Parts area for peak times? You may find a future quality Service Advisor!

We are in the midst of time when qualified Technicians are becoming somewhat of a rarity. Gone are the days of posting an ad in the paper and several very capable Technicians come running to answer it. The proverbial pool has been drying up over the past several decades with young people becoming increasingly interested in the technologies and other skilled trade career fields. Because automotive service is a self-regulated discipline, those in the field need to support and cultivate the next generation of automotive Technicians. Industrywide, the reasons (are they real or just excuses?) why a retailer CANNOT mentor a young Technician are plenty. It seems there are those in the industry who feel the job of educating these new technicians rests solely on the schools with the Service Departments reaping the benefits of Technician development. Technician training is a partnership between the retailers and the schools to provide and cultivate different skills within the new Technician. Investment of one without the other equates to an incomplete or inadequately trained Technician.

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“I don’t have the room in my shop to mentor a Technician”-An apprentice Technician is just that, an apprentice. You wouldn’t want someone to read a book on brain surgery then have them operate on you without any supervision, would you? Apprentices need to work under the tutelage of another Technician to develop the skills necessary to be a successful Technician. Although the occasional entry level task solo is understood and encouraged, the apprentice should be primarily operating in the same space as the mentor. If this is done right, a mentor Technician can increase productivity and have very positive benefits for the shop. The unseen value is how it changes and hones the skills of the mentor. Try it and find out for yourself.

For examples of this and the labor calculator visit:

<https://www.ayes.org/Dealers/Intern-Value-Calculator.aspx>

“Our insurance doesn’t cover young apprentices”-Students in college are almost always over the age of 18, legal age to hold a traditional job. Insurance coverage for those apprentices is usually not an issue. Most insurance companies will cover them as long as they meet the same guidelines as any other employee of the retailer (drug test, driving history, etc.). High school programs which are AYES accredited are covered differently. Please contact your local AYES representative for more information on mentoring high school apprentices.

“We don’t have time to mess with someone who doesn’t know what they’re doing”-How can a young person ever know what they’re doing if shops aren’t willing to invest time in an apprentice? These students may have what it takes to be a truly effective Technician but, unless shops are willing to step up to the plate, that won’t be determined until after the Technician is already out in the work force repairing customer vehicles without mentor supervision. We have had retailers say: “We tried that once and it didn’t work out.” The truth is, not all of them will. Retailers who understand this will usually mentor several students at the same time knowing that one or two may not work out in their shop. However, if a student does show talent, the mentoring shop usually can get first shot at picking that student up after their schooling is complete. So many young potential Technicians are discouraged because no shop is willing to take the time to cultivate them to their true potential. Those shops that are willing to work with these young students are thinking ahead at the direction they want their business to progress. Something to think about; if your shop isn’t willing to work with and cultivate the talent coming into the workforce, your competition is.

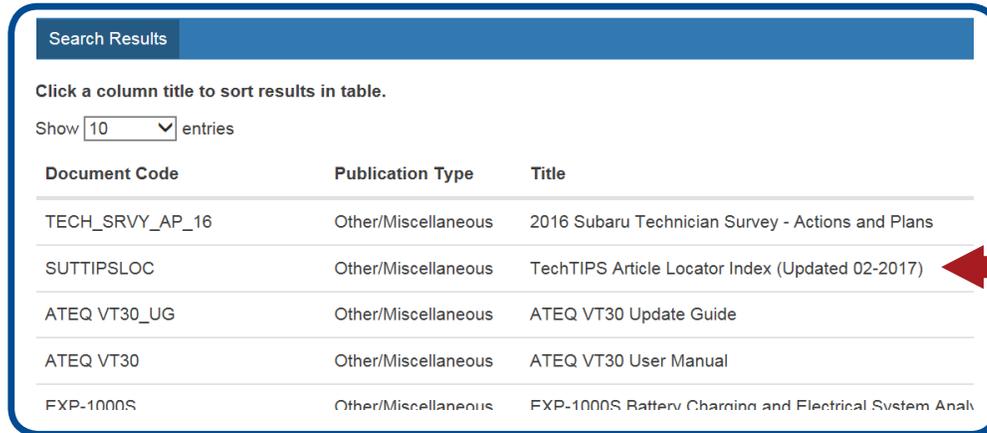
As a retailer or part of the store management team, if you are unsure how to effectively work with apprentices, develop mentors within your organization or find willing students in your area, contact your local AYES or NATEF representative or your FSE to find out how best to proceed with growing your service business.

Stay tuned next month for: The best practices for developing student interns in your store.

01 LOCATING TECHTIPS

The Techline receives many calls throughout the year for Technicians looking for specific TechTIPS. Most Technicians are unaware of the Locator document and how it works. The Locator document is an excellent tool for finding TechTIPS of all years and months. It can be found by navigating to STIS and click Online Reference, click the box that says Other/Miscellaneous. After that, find TechTIPS Article Locator Index.

Screenshot below:



Document Code	Publication Type	Title
TECH_SRVY_AP_16	Other/Miscellaneous	2016 Subaru Technician Survey - Actions and Plans
SUTTIPSLOC	Other/Miscellaneous	TechTIPS Article Locator Index (Updated 02-2017)
ATEQ_VT30_UG	Other/Miscellaneous	ATEQ VT30 Update Guide
ATEQ_VT30	Other/Miscellaneous	ATEQ VT30 User Manual
FXP-1000S	Other/Miscellaneous	FXP-1000S Battery Charging and Electrical System Anal

At this point it is recommended to save the Locator. It gets updated quarterly so, be sure you have the latest copy. Once opened, you can press Ctrl + F on your keyboard and enter keywords. This will make searching for TIPS much easier.

01 CPO PROCEDURE FOR TURBOCHARGED SUBARU VEHICLES

Due to the high number of phone calls presented to the Techline, we felt it necessary to remind retailers of the correct CPO procedures for Turbocharged Subaru vehicles. Checking the CID/CVN over the phone for CPO purposes is not the correct procedure, and the below information was published in the September 2015 TechTIPS Newsletter:

ECM CHECK PROCESS:

It is required that any turbo model being considered for certification have this inspection completed first.

All correspondences should be directed to TECH@Subaru.com. Techline will not process phone requests for CPO.

- In the subject line of the e-mail, please NOTE: "CPO CID/CVN Certification request".
- Attach the screen shot of the vehicle information screen.
- The e-mail should contain the retailer code, retailer name and contact person's name and phone number.
- The Techline representatives will respond back to retailers within 24 hours.



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Please ensure all criteria are met before sending in a CPO CID/CVN Certification request to avoid delays. Once the vehicle has passed this part of the inspection process, you should proceed with the rest of the decision-making process on certifying the vehicle.

As the CPO 152-point inspection form indicates, if a vehicle has ANY performance modifications, it cannot be enrolled as a Subaru Certified Pre-Owned vehicle. If there are any other non-performance related modifications, the vehicle must be returned to stock, with all stock/OEM parts installed before it can be enrolled as Certified. Non-compliance to these requirements may result in chargeback to the retailer for replacements after it is sold as a Subaru CPO unit.

Everything, it's that simple. Technicians may not realize it but, their input is thoroughly monitored by SOA to improve vehicle quality and the customer's overall satisfaction. You're our first line of defense when it comes to reporting on quality issues, and we need your feedback whether it is something you feel is normal or if it is something you see reoccur on multiple vehicles. Perhaps you have a customer bring their vehicle in for a complaint that is addressed by a Service Bulletin, and after investigation you find the vehicle already has the production enhancement. What should you do? If the enhanced component has failed, then SOA needs to know about it before attempting any additional repairs. SOA strongly encourages the use of Quality Monitoring Reports and the Techline to accomplish this. When submitting your QMR or contacting the Techline, make sure you have documented all of your testing, with FFD and DTCs (if applicable) to reduce the time necessary to take action. Details cannot be too much, but they can easily be too little. This is where a team effort is imperative at the retailer between the Technicians and Service Advisors. Customers should be interviewed for all details related to when the condition was noticed as this can help reproduce the concern and streamline testing. Details such as temperature, noises, warning lights, time of day, amount of time driving, and vehicle speed all play a crucial role in expediting a root cause for the concern. Ultimately, our number one priority is the customer, and Technicians are a vital part of our continued effort to improve our customer's satisfaction.

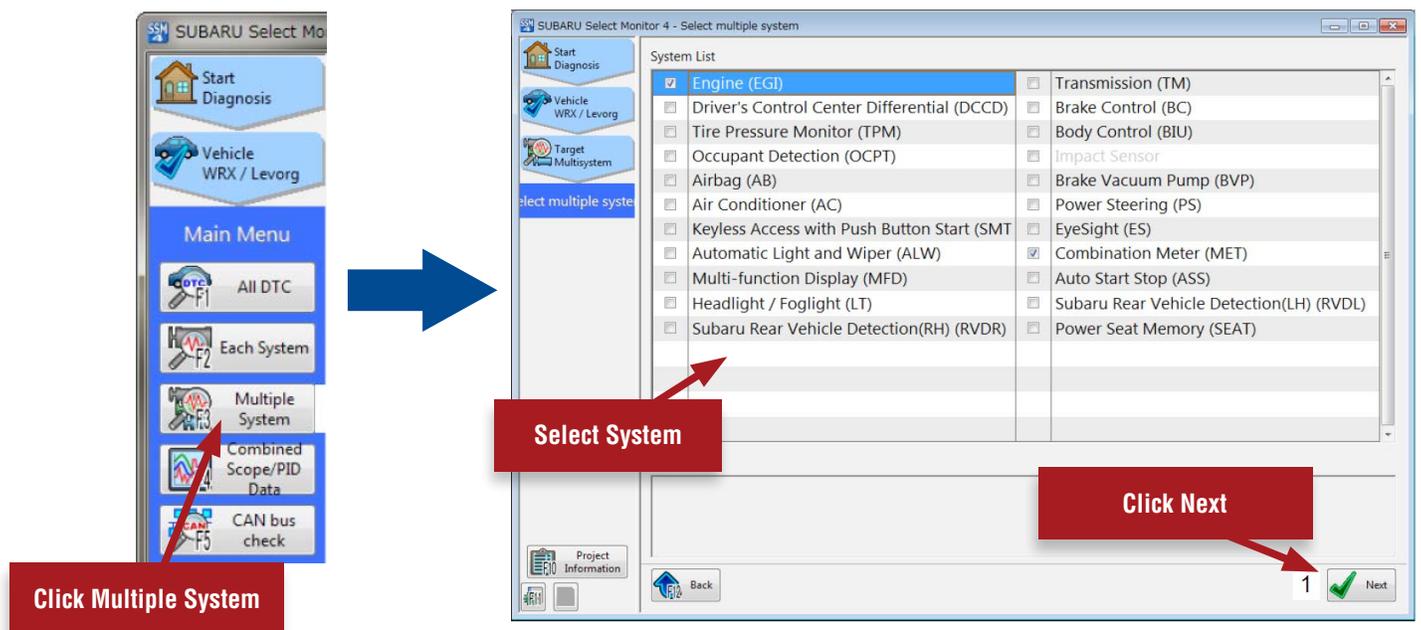
Answering this question is simple, use the tool which will provide the best results in the most efficient manner. For diagnosis of Subaru specific vehicles, the SSM4 provides the best results when applicable to the vehicle being serviced. Some of the benefits the SSM4 provides a Technician are:

- VIN recognition feature.
- Provides current and history DTCs along with associated FFD when the All Systems Scan is performed.

- Tasks involving data monitor, DTC collection, and FFD collection are automatically saved or you are prompted to save the data to the project file (no need to print).
- You can search for specific PIDs in the Data Monitor section.
- You can save the customized settings of the Body Integrated Unit as a setting file in the vehicle project information (useful when replacement of the BIU is necessary).
- Data Comparison allows you to compare suspect vehicle data with known good data from a like vehicle.
- Monitor data from multiple systems at the same time.

Multiple System Data Monitor

This monitor allows the Technician to view multiple systems at one time during their diagnostic path. For example, if diagnosing a surging or hesitation while driving, you can record live data from the ECM and TCM simultaneously. If the condition is duplicated during the test drive, the data can be marked for review when the test drive is completed. To enable this feature, simply:



Note: Up to 3 different systems can be selected.

All Systems Scan

Utilizing the All Systems Scan of the SSM4 provides current and history DTCs, along with FFD (when available) found in each module equipped on the vehicle. The SSM3 will only provide current DTCs using the All Systems Scan, which as you can see in the figure below, would only show you DTC B14A1. This limited information could potentially mislead a Technician in his diagnostic strategy and potentially result in an unnecessary comeback.

All Systems Scan with SSM4

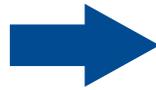
System	Status	Code	Description & trouble part	Time stamp			IG c...	FFD
				Trip ...	Time C...	Gro...		
Engine	History	P1603	Engine Stall History	00977	153100	Com...		
Transmis...	No DTC							
Driver's C...	No communication							
Brake CO...	History	C1422	VDC Interruption for Engine Convenience	00498	115300	Com...		
Tire Pres...	No DTC							
Body Co...	No DTC							
Occupan...	No DTC							
Airbag	No DTC							
Brake Va...	No DTC							
Power St...	History	C2548	Vehicle Dynamics Control Module system	00499	3900	Com...		
Air Condi...	Current	B14A1	Sunload Sensor Circuit Low/Open					
Keyless A...	No communication							
EyeSight	No communication							
Automati...	No communication							
Combina...	No DTC							
Multi-fun...	No DTC							
Auto Star...	No communication							
Headligh...	No DTC							
Blind Spo...	No communication							
Blind Spo...	No communication							
Power Se...	No communication							
Impact S...	No communication							

Once this screen is displayed, the information will be automatically saved in the project information and can be exported for sending to Techline as an example. In the same screen, you can see when the DTCs were triggered by the ignition count and compare this to the actual ignition count of the vehicle (Trip Count). This information can be useful in generating a timeline of events regarding the customer complaint. Clicking on the ice cubes located in the FFD column takes you to the freeze frame data display for review. The ease of access from one screen provides the most efficient results for diagnostic purposes.

Locating Project Files

Locating a previous project file within the SSM4 is a relatively simple procedure. To accomplish this, simply click:

“Play Project”



Once you’ve clicked on this, the following screen will be displayed. **NOTE: You have three different locations to locate project files.**

File Location Selection

Project Files

Project nam	Reference				r of
4/26/2016 12:52:37 PM	Legacy / Outback	16MY		4/26/2016 11:53:01 AM	0
4/15/2016 10:43:11 AM	Forester	16MY		4/15/2016 10:32:16 AM	0
4/13/2016 2:39:22 PM	Legacy / Outback	15MY		4/13/2016 1:39:48 PM	0
3/2/2016 12:23:20 PM	Legacy / Outback	16MY		3/2/2016 12:27:16 PM	0
2/1/2016 11:01:06 AM	Forester	16MY		2/1/2016 11:01:30 AM	0

Memo

Delete Search Settings Open Cancel

Most files will be located under the “Project Management Data” selection, but if you save files to your PC desktop, they can be accessed this way.

Taking an SSM4 Screenshot

Taking a screenshot with the SSM4 is necessary at times. For example, you may need to send in the CID/CVN information for CPO certification. To accomplish this, click on  and then click **File > Save Displayed Data**.

This will open a window allowing you to save the screenshot to your desired location and name it accordingly.

Supported Models

Supported Models

Legacy/Outback 15MY – UP
 WRX/STI 15MY – UP
 Impreza 12MY – UP
 Crosstrek 13MY – UP
 Forester 14MY – UP
 BRZ 13MY – UP

There are two useful documents to assist you with any questions regarding the SSM4. Service Bulletin 01-175-16 highlights the step by step process to export and email the project file if, for example, it is requested to be reviewed by an SOA representative. In order to provide you the best assistance possible, we need this information in electronic form. Printing items such as FFD is not an accepted method as this can cut off essential data during the printing process. The SSM4 help document, which is accessible by opening the SSM4, clicking F11 > Help > Help, will provide the user all the features available within the software. For example, if you want to send in data to be reviewed by Techline and the data file consists of a 30-minute drive cycle, reviewing section 11-11-1 will show you how to cut and save a portion of this data.

IMPORTANT NOTE: Prior to sending project files in to Techline, please be sure you've already contacted Techline and obtained a case number.

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
E2410VA030	Accessory Installation Guide	2018 STI Front Under Spoiler (WRX and WRX STI)	13-Apr-17
J601SVA000	Accessory Installation Guide	2018 WRX/STI Battery Warmer Kit	13-Apr-17
A091SVA000	Accessory Installation Guide	2018 WRX ENGINE BLOCK HEATER KIT	13-Apr-17
WTP-75R	Subaru Product / Campaign Bulletin	WTP-75 Impreza ECM Reprogramming	13-Apr-17

All revised publications are highlighted in yellow.

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ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
MSA5P1105C	Technician Reference Booklet	Chain Driven Valve Train Boxer Engines (Module 105) (April 2017)	11-Apr-17
MSA5P2501C	Technician Reference Booklet	Vehicle Dynamics and Driver Assist Systems (April 2017)	11-Apr-17
12-219-17	Technical Service Bulletin	Sticking Secondary Hood Latch	10-Apr-17
12-162-14R	Technical Service Bulletin	Design Change to Rear Combination Lamps to Prevent Insect Intrusion	31-Mar-17
12-160-13R	Technical Service Bulletin	Cracked Rear Combination Lamps	31-Mar-17
12-131-12R	Technical Service Bulletin	Condensation in Rear Combination Lamp	31-Mar-17
12-145-13R	Technical Service Bulletin	Condensation in Rear Combination Lamps, Retaining Nut Change	31-Mar-17
12-218-17	Technical Service Bulletin	Additional TIPS for Front Door Wind Rushing Sound Repair	30-Mar-17
16-104-17	Technical Service Bulletin	"Bump" Feeling from CVT at Idle in Drive	30-Mar-17
WTP-75	Subaru Product / Campaign Bulletin	WTP-75 Impreza ECM Reprogramming	23-Mar-17
18-190-17	Service Manual Correction	Service Manual Corrections	23-Mar-17
12-216-17	Technical Service Bulletin	Roof Rail Gapping- Design Change	21-Mar-17
TKC-17R	Subaru Product / Campaign Bulletin	Takata Front Passenger Airbag Inflator Replacement	21-Mar-17
TKB-17R	Subaru Product / Campaign Bulletin	Takata Front Passenger Airbag Inflator Replacement	21-Mar-17
TKA-17R	Subaru Product / Campaign Bulletin	Takata Front Passenger Airbag Inflator Replacement	21-Mar-17
F10_Gen2_N...	Troubleshooting Guide	Technical Support Guide SUBARU STARLINK 7.0" Multimedia Plus and SUBARU STARLINK 7.0" Multimedia Navigation System	1-Mar-17

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 6000, Cherry Hill, NJ 08034-6000.

Your Name: _____

Signature: _____

Dealer's Name: _____

City: _____

Date: _____

Dealer Code: _____