

ARTICLES CONTAINED IN THIS ISSUE

CODE	ARTICLE.....	PAGE
(00)	STIS New Releases	10-11
(01)	QMR of the Month	1
(01)	QMR of the Month Award Presentation	2
(01)	Subaru-U.....	2-3
(01)	Update to STIS.....	4
(07)	Satellite Signal Lost When Traveling South 2014 -UP Forester.....	5-6
(15)	2017MY Impreza, Remote Engine Start (RES) Remote FOB Registration TIPS	6-7
(15)	RES Hood Switch.....	7-8
(15)	2017MY Impreza Audio Unit Stays Powered Up After Key OFFOr Does It?.....	9
(15)	2017MY Impreza Remote Engine Start (RES) Time-Out Function.....	10

SUBARU TECHLINE HOLIDAY HOURS OF OPERATION

Memorial Day

Monday, May 29, 2017

Independence Day

Tuesday, July 4, 2017

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:

Nicholas Snow from **Hanson Subaru in Olympia, WA**

Nicholas submitted a very detailed QMR on his diagnosis and repair of a 2016 Outback with 6044 miles. The customer reported the engine started and then stalled. When they tried to start the engine again, it again ran a short time and then stalled. After that, it would not start. The car was towed in and started normally when it was delivered to the retailer. Nicholas found when he went to move the car into the shop, it would not crank or start. He checked for codes and found no communication with the ECM and the information display in the instrument cluster was reading, "Keyless Access System Disabled". He then checked the ECM power supply and found the battery voltage low. Further testing using the GR8 condemned the battery as having a bad cell. Following battery replacement, the condition persisted. Nicholas then started checking the balance of the power supply circuit for an open or poor connection. While inspecting FB fuse 5, he determined power returned when the fuse was reinserted. Believing this to be a result of a poor contact in the fuse box, Nicholas adjusted the terminals as it seemed the root cause until additional movement in this area indicated another cause. Further wiggling and inspection of the harness in this area found that pin 8 of connector B56 was soft set in the connector and had backed out. Nicholas attached photos to his QMR that clearly showed this condition. After securing the pin, the condition was corrected and no further concerns found. The detailed report made it very clear how Nicholas arrived at the final result and provided useful feedback for us.

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

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, 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 “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 December, was Nick Snow, a Technician at Hanson Subaru in Olympia, WA. Nick is shown above receiving his award and is flanked by: Frank Kersul, Sales Manager to his left and Randy Ledoux, Service Manager to his right.

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



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.



Over the following months a series of short articles will be released to help inform you, our retailers, about the education side of Subaru-U, what you can do to make the program a success and how to get the most out of it.

What to Expect from an Apprentice

Most of the past articles have focused on how to make the most of using apprentices for service operations in the retailer environment. Emphasis has been placed what a retailer needs to do in order to help an apprentice feel more comfortable in a place where the pace of operation is much different than the safe, controlled space of a high school or college automotive shop. Any apprentice coming to the retailer looking for guidance and experience should also bring certain knowledge and skills with them. The retailer should expect anyone walking through the door with the intent to work will have these skills. Communication between the school and retailer must be on a frequent basis. This will help ensure the apprentices know how to conduct themselves and to help improve the quality of instruction received at their school. This also is another reason why communication during advisory committee meetings becomes critical. Just having the retailer and school talk to each other twice a year is insufficient to foster a solid working relationship. As a retailer, these are some of the basic knowledge items every apprentice walking through the door should know.

CONTINUED ON THE NEXT PAGE

Safety- Most programs spend a very large chunk of time on this subject at the beginning of the year. Items many seasoned Technicians take for granted might be foreign to someone not having hundreds of hours in a shop environment. Every student walking into your shop should know things such as, cleaning up spills immediately, proper use of Personal Protective Equipment (PPE), and general housekeeping procedures. Time spent having to train an apprentice in areas they should already be well versed in is time away from the areas they have come to your Service Department to learn. Make sure you find out how much the student knows by asking questions during the interview process. If you, as an employee of the retailer, find potential apprentices seem to be lacking in basic safety and housekeeping knowledge, make the effort to let the instructor know. Changes in curriculum to address these issues will go a long way in developing a higher quality Technician down the line.

Subaru Training- One of the major reasons that Subaru-U was developed was to give the student exposure to Subaru Technology and ideology. Not all Technicians are big fans of Web-Based Training. By giving students the ability to complete it prior to entry into the shop environment, it adds value to the retailer trying to “grow their own Technicians.” As with everything else, there has been growing pains in this program. Some of the SU schools have embraced the program whole-heartedly and their students have completed many, if not all, of the training they have access to. Some schools might not have as much success. It is the responsibility of the retailer to follow up with the school to ensure the potential apprentices coming to you arrive with the credentials they can potentially have. When interviewing them, make sure they provide a current copy of their transcripts from SKILS. This shows the student has the drive and desire to succeed at a Subaru retailer. Students who become apprentices have the option of attending ILT courses with their mentor Technician, but advanced training is ineffective without the basics in place first.

Professionalism- Even though an apprentice is new to the business, they should at all times handle themselves with professionalism in the workplace. Respect for coworkers and their mentor Technicians should be a given. Most schools screen students eligible for apprenticeship to ensure only the ones that are capable of handling the rigors of the automotive workplace even make it to the interview phase, but some can possibly slip through. As a retailer, professionalism in the workplace is paramount to ensure Subaru customers receive the highest quality workmanship your service department can deliver. This goes back to open communication between the schools and store employees to make sure these areas are thoroughly covered in the classroom and the school shop environment prior to entering the retailer.

Even though a lot seems to be expected from a retailer when dealing with apprentices, it really is a team effort. If both the school and retailer know what is expected of themselves and exchanges feedback in a positive manner, the quality of apprentice will grow dramatically from year to year. If both parties continue participation in the process, there is no end to how well they can develop the Technician of tomorrow together.

CONTINUED ON THE NEXT PAGE

The Online Reference page of STIS has recently been updated with a different layout. When performing a search, the user's Search Criteria will now appear above the Search Results allowing them to modify their current search without losing the inputted data. Using the (-) and (+) buttons the Search Criteria box can be expanded and closed. **NOTE:** If the user clicks Online Reference tab after a search their Search Criteria will be lost. Please refer to the updated User Guide.

The screenshot shows the Subaru Technical Information System (STIS) Online Reference page. The top navigation bar includes links for French, Home, User's Guide (highlighted with a red box), and Logout. Below the navigation bar, the main menu has tabs for Information, Online Reference, Service Diagnostics, and Administration. The Search Criteria section is expanded, showing a list of Publication Types on the left and search fields on the right. The Publication Types list includes: Accessory Installation Guide, Service Diagnostics, On-Board Diag II Information, Other/Miscellaneous, Owner Manual, Video Training Reference/Video, Service Manual, Service Manual Correction, State Inspection/Maintenance Advisory Bulletin, and Subaru Product/Campaign Bulletin. The search fields include: VIN or Model Type (with a VIN input field and a Lookup VIN button), Model Year (with a dropdown menu), Model / Carline (with a Choose Model Year button), Trim (with a Choose Model Year button), and Keywords/Tool # (with a text input field and Search/Clear buttons). Below the search fields, there is a Quick Search section with a Document Code, Literature #, or Bulletin # input field and Search/Clear buttons.

The screenshot shows the Subaru Technical Information System (STIS) Online Reference page with the Search Results section expanded. A yellow callout box points to the (+) sign to expand the search criteria section. The Search Criteria section is collapsed, and the Search Results section is expanded, showing a table of search results. The table has columns for Document Code, Publication Type, Title, Visibility, Created Date, and Actions. The table contains four rows of results for Owner Manuals. The Actions column includes links for download, edit, and favorite.

Click on (+) sign to expand the search criteria section.

Search Criteria

Search Results

Click a column title to sort results in table.

Show 10 entries

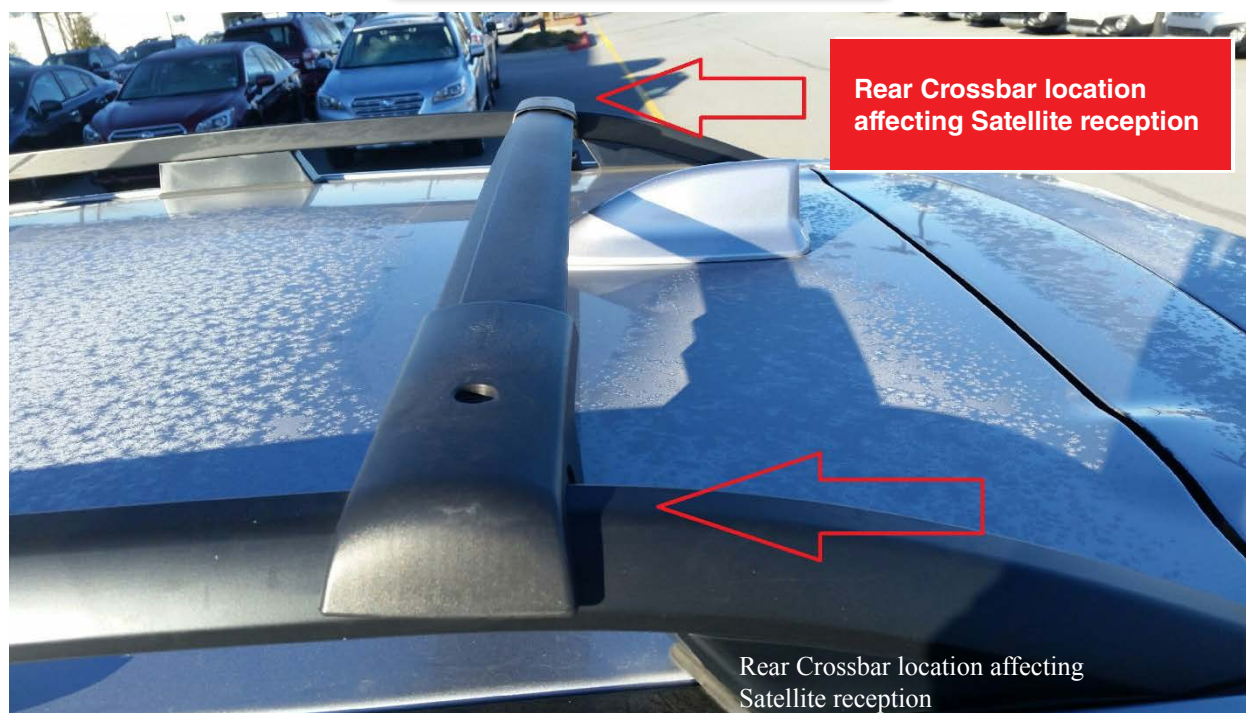
Filter:

Document Code	Publication Type	Title	Visibility	Created Date	Actions
MSA5M1707A	Owner Manual	2017MY Crosstrek Owner's Manual	free	Feb 15, 2017	Download Edit Favorite
MSA5M1701A	Owner Manual	2017MY Impreza Owner's Manual	free	Jan 5, 2017	Download Edit Favorite
MSA5M1706A	Owner Manual	2017 BRZ Owner's Manual	free	Aug 5, 2016	Download Edit Favorite
MSA5M1703A	Owner Manual	2017MY Legacy and Outback Owner's Manual	public	Aug 2, 2016	Download Edit Favorite

CONTINUED ON THE NEXT PAGE

If you receive a customer complaint of their Sirius/XM cuts out or shuts off while traveling south, ask the customer if they recently moved the position of the rear roof rack crossbar. If the crossbar is in the rearmost position, there is the possibility of causing interference with the Sirius/XM signal reception. To test this, move the rear crossbar towards the front of the vehicle 3 inches, then test operation again. If the satellite reception has returned to normal, advise the customer positioning the roof rack crossbar in this location could potentially result in loss of satellite reception while traveling south. **Figure 1** shows the cross bar location affecting satellite reception.

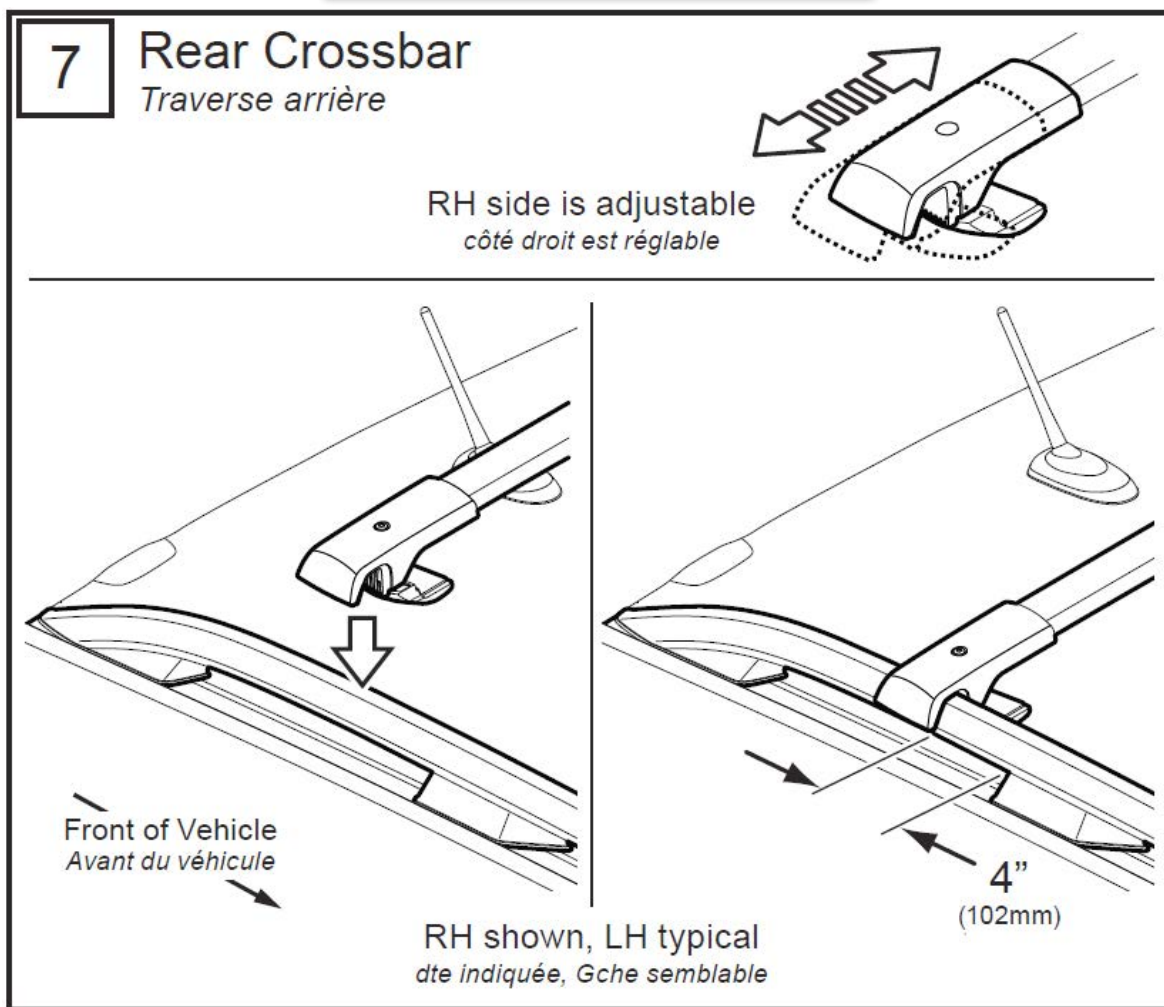
Figure 1 – Crossbar location



CONTINUED ON THE NEXT PAGE

According to the accessory installation guide shown in **Figure 2**, the typical location of the rear crossbar is 4" behind the roof rail base measuring point.

Figure 2 – Installation Crossbar location

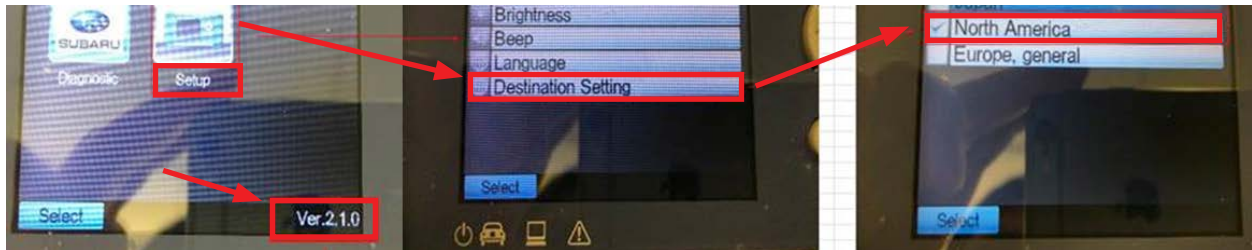


There have been a small number of reports from the field describing difficulty registering the fobs at the end of the RES installation procedure. The following three TIPS may be beneficial:

- 1) Confirm the currently installed DSTi software version by following the screen shot sequence below: On the Main Menu screen, the software version will be displayed in the lower right hand corner. The latest version should be 2.1.0. If the software needs to be updated, make sure your SSM4 software is the latest version. The DSTi software will automatically be updated the first time it is connected to the SSM4 after a new version is pushed out.

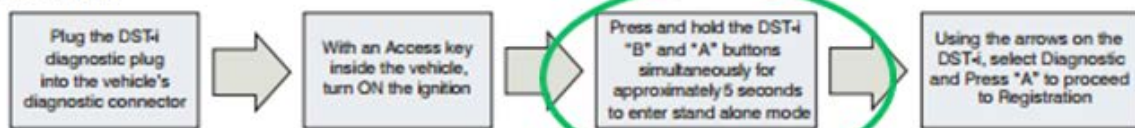
CONTINUED ON THE NEXT PAGE

- 2) Confirm the Destination setting has been selected (North America). To check, from the Main Menu screen, select “Setup”, select “Destination Setting” and if not already selected, select “North America”.



- 3) Confirm the DST-i is in **stand alone** mode. Press the “A” and “B” buttons simultaneously and hold them down for approximately 5 seconds to enter stand alone mode. When completed, proceed to Registration.

DST-i SETUP



The Techline has been receiving calls regarding vehicles not starting when using the Remote Engine Start (RES) intermittently. This symptom usually involves the vehicle's ignition powering up however, the user will receive abnormal feedback in the form of horn honks or transponder beeps. When encountering this concern, one thing to inspect is the hood switch placement. The hood has an indentation very close to where the hood switch sits. If the hood does not fully depress the switch when closed, the starting operation will be disabled for safety. To test operation, the hood switch can be ruled out by disconnecting the connector and attempting RES operation. If the vehicle starts normally with the hood switch disconnected, the next step would be to inspect the hood switch positioning. Be sure to follow the applicable instructions found in the troubleshooting guide and RES installation instructions during inspection (and possible replacement). **Figure 1** shows the correct installation of the RES hood switch while **Figure 2** shows the incorrect installation.

CONTINUED ON THE NEXT PAGE

Figure 1 – Hood Switch Position Installed Correctly

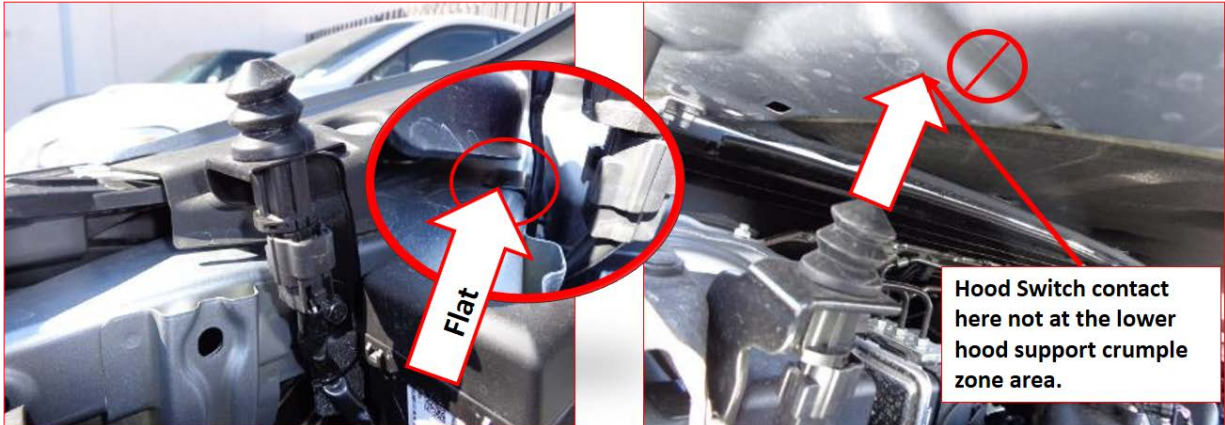


Figure 2 – Hood Switch Position Installed Incorrectly



Note: Be sure to connect the hood switch after testing has been completed.

CONTINUED ON THE NEXT PAGE

All of the new 2017MY Impreza audio systems include a feature where the audio system stays powered for a period of time after the ignition is switched OFF. If the vehicle has been equipped with the accessory Rockford Fosgate audio amplifier, some confusion may arise when comparing audio unit operation of one Impreza to another. Although the audio unit will continue to operate after the ignition is switched OFF on all models, the power supply for the accessory amplifier is switched off along with the ignition resulting in the loss of audio output. This may cause confusion for customers when seeing the audio unit appear to be operating but not hearing any audio output. Be advised, this is a normal operating characteristic and no attempt should be made to repair or replace any of the system components. **This operating characteristic is also briefly described on pg. 118 of the Multimedia System guide contained in the Owner Information Kit as shown below.**

BASIC OPERATION

BASIC OPERATION

SOME BASICS

This section describes some of the basic features of the audio system. Some information may not pertain to your system.

Your audio system works when the ignition switch is turned to the "ACC" or "ON" position.

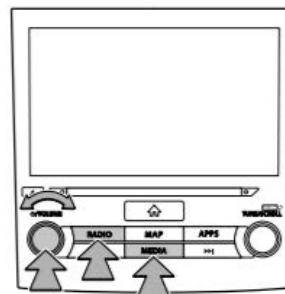
CAUTION

- To prevent the battery from being discharged, do not leave the audio system on longer than necessary when the engine is not running.

NOTE

- The audio system upgrade accessory (dealer option) only works when the ignition switch is in the "ACC" or "ON" position. No audio is output from the amplifier when the ignition switch is "OFF".

TURNING THE SYSTEM ON AND OFF



"**VOLUME**" knob: Press and hold to turn the audio system on and off. The system turns on in the last mode used. Turn this knob to adjust the volume.

RADIO, **MEDIA**: Press to display screen buttons for the audio system.

The Techline has received a limited number of inquiries regarding the time-out function of the RES system. When utilizing the RES feature, the system will automatically shut the engine off after 15 minutes of initial run time. (15 minutes is the default setting but, instructions are supplied with the system to customize this setting allowing owners to stay compliant with their specific state and local laws.) Using the default 15-minute parameter, if the vehicle is restarted using the RES without the system seeing an ignition “ON” signal (from the vehicle’s mechanical or “smart” key) to “reset” it, the engine will only run for an additional 5 minutes for a **20-minute maximum total run-time**. The 20-minute total run-time is fixed (not adjustable), regardless of what the initial time-out setting is. For example, if the initial setting is changed from the default 15 minutes to 5 minutes, the RES can be used to start the car 4 times (20 minutes total) without the system seeing an ignition “ON” signal to reset it.

It is also important to note, the audio head unit (H/U) will stay powered up for an additional 3 minutes after the ignition is switched off UNLESS there is an active Bluetooth phone call in process. In that case, the additional 3 minutes of H/U on-time will be extended to a maximum of 10 minutes after the ignition is switched off.

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
WVH-18R	Subaru Product / Campaign Bulletin	Engine Control Module (ECM) Reprogramming	17-Feb-17
WVI-19R	Subaru Product / Campaign Bulletin	Engine Control Module (ECM) Reprogramming	17-Feb-17
06-58-17	Technical Service Bulletin	Electronic Parking Brake (EPB) Inoperative / DTC C0251	16-Feb-17
12-217-17	Technical Service Bulletin	Front Seat Hinge Cover Trim- Design Change	16-Feb-17
MSA5M1707A	Owner Manual	2017MY Crosstrek Owner's Manual	15-Feb-17
09-65-16R	Technical Service Bulletin	Fuel Injector Design Change to Prevent Water Intrusion	15-Feb-17
SUTTIPSLOC	Other / Miscellaneous	TechTIPS Article Locator Index (Updated 02-2017)	10-Feb-17
E4010FL000	Accessory Installation Guide	2017 Impreza STI Flexible Strut Tower Brace Installation	7-Feb-17
WVM-23R	Subaru Product / Campaign Bulletin	Engine Control Module (ECM) Reprogramming	6-Feb-17

All revised publications are highlighted in yellow.

CONTINUED ON THE NEXT PAGE

ITEM CODE	ITEM TYPE	TITLE	CREATED DATE
WVU-31R	Subaru Product / Campaign Bulletin	Engine Control Module (ECM) Reprogramming (revised)	6-Feb-17
WVN-24R	Subaru Product / Campaign Bulletin	Engine Control Module (ECM) Reprogramming & Fuel Tank One-Way Fuel Valve Removal	6-Feb-17
15-204-16R	Technical Service Bulletin	2017 Audio/Navigation Exchange Component Identification and Procedures	3-Feb-17

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