GENERAL MANAGER PARTS MANAGER CLAIMS PERSONNEL SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and		
Initial in the boxes provided, right.		



QUALITY DRIVEN® SERVICE

© 2016 Subaru of America, Inc. All rights reserved.

# PRODUCT CAMPAIGN BULLETIN

 APPLICABILITY: 2015 MY Legacy and Outback
 SUBJECT: VDC System Filter Clogged -Noncompliance with FMVSS No. 126, "Electronic Stability Control Systems" 
 NUMBER:
 WTC-64

 DATE:
 May 19, 2016

 NHTSA ID:
 16V-251

Subaru of America, Inc. is recalling certain 2015 model year Legacy and Outback vehicles for noncompliance with Federal Motor Vehicle Safety Standard (FMVSS) No.126, "Electronic Stability Control Systems."

## DESCRIPTION OF THE NONCOMPLIANCE

The brake fluid used during the production of the potentially affected vehicles may have contained excess moisture. Excess moisture in brake fluid may cause a gelatinous material to form in the brake system. This material may accumulate and temporarily clog stability control-related valve filter(s) in the Vehicle Dynamics Control (VDC) system. In this situation, VDC performance may not fully comply with the FMVSS No.126 requirement. However, the brakes will continue to operate normally.

## **DESCRIPTION OF THE SAFETY RISK**

If a stability control-related valve filter becomes temporarily clogged as described above, the system might exhibit reduced yaw rate control. In certain situations, when the VDC system is activated, it may not be as effective in preventing loss of vehicle control, which may increase the risk of a crash.

# **DESCRIPTION OF THE REMEDY**

Retailers will perform an ABS sequence control (activation), then flush and replace the brake fluid in all potentially affected vehicles.

## AFFECTED VEHICLES

Not all vehicles in the VIN ranges listed below are affected by this campaign. Coverage for all affected vehicles must be confirmed by using the Vehicle Coverage Inquiry function on subarunet.com. This data will be available in the system before owner notification begins.

Model Year	Models	Potentially Affected VIN Range (last 8 digits)
2015	Legacy	From F3076001 to F3076277
2015	Outback	From F3363225 to F3363905

### Continued...

CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS. Subaru Service Bulletins are intended for use by professional technicians ONLY. They 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 this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

#### SUBARU OF AMERICA, INC. IS "ISO 14001 COMPLIANT"

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.

#### **OWNER NOTIFICATION**

Subaru will notify all potentially affected vehicle owners by first class mail. This is expected to occur in May. Retailers will be advised when owner notification begins. A copy of the Owner Notification Letter is included at the end of this bulletin.

## **RETAILER AFFECTED VIN LISTS**

Each Subaru retailer will receive an affected VIN list from their Zone Office when owner notification begins. Vehicles will be assigned to retailers in the affected VIN list as follows:

- Original vehicle owners are assigned to the original selling retailer when their current address is within a 100-mile radius of that retailer.
- If the original selling retailer is inactive, the VIN has been assigned to the nearest active retailer.
- For any new owners or when original owners live more than 100 miles from the original selling retailer, the VIN has been assigned to the nearest active retailer.

Important: Retailer affected VIN lists include owner name and address information for vehicles affected by this recall. This information will enable retailers to follow up with owners of potentially affected vehicles. The lists contain owners' names and addresses obtained from State Motor Vehicle Registration Records. The use of such motor vehicle registration data for any other purpose is unlawful. Accordingly, retailers are required to limit the use of these lists for the purpose of completion of this recall.

### **RETAILER PROGRAM RESPONSIBILITY**

Any vehicles listed in a recall/campaign that are in retailer stock must be:

- Immediately identified.
- Tagged or otherwise marked to prevent their delivery or use prior to inspection and/or repair.
- Repaired in accordance with the repair procedures outlined in this Product Campaign Bulletin.

Retailers are to promptly perform the applicable service procedures to correct all affected vehicles in their inventory (used, demo & SSLP). Additionally, whenever a vehicle subject to this recall is taken into retailer inventory, or in for service, necessary steps should be taken to ensure the recall correction has been made before selling or releasing the vehicle.

### PARTS INFORMATION

This repair requires brake fluid, which is available through the "Genuine Subaru Automotive Chemicals" program. No other parts are required for this repair.

For parts ordering purposes, retailers should use the part number listed below. Each case contains 24 bottles.

Part Number	Description	Case/ Order Quantity
SOA868V9220	Brake Fluid – one 12-ounce bottle	24

For claim reimbursement purposes, retailers should use the part number listed below which represents one 12-ounce bottle. Up to three 12 ounce bottles can be claimed for this repair.

Part Number	Description	Claim quantity
SOA635004	Claim reimbursement for brake fluid– per 12 ounce bottle	Maximum 3

### **SERVICE PROCEDURE / INFORMATION:**

This Service Procedure will consist of 4 basic steps:

- Perform the Sequence Control procedure.
- Flush and bleed the brake system.
- Perform the Sequence Control procedure again.
- Perform a final bleeding of the brake system.



### **IMPORTANT:**

Never let brake fluid come into contact with the painted surface of the vehicle body. If a spill occurs, wash away with water immediately and wipe dry.

**Step 1:** Perform the Sequence Control procedure following the Service Manual steps and screen shots provided below. If any ABS / VDC DTC(s) are stored, the sequence control function will not operate.

The first procedure and screen shots are for **SSMIII** use. The **SSM4** procedure and screen shots follow.

### **SSMIII Procedure and Screen Shots**

- Connect the Subaru Select Monitor to the vehicle's data link connector.
- Turn the ignition switch to ON.
- From the Main Menu, select All other models.

	Main Menu
All other	models
Inspectio	n of BRZ
Saved D	ata Display
Reprogra	m
Reprogra	m VDC (BRZ only)
Alliance	Vehicle Inspection
Convert/	Save measurement data on driving recorder
Others	
Quit	

• From the All other models Main Menu, select Each System Check.

	All other models Main Menu
All	System Diagnosis
Ea	ch System Check
Sin	nultaneous System Measurement
Sa	ved Data Display
Imr	mobilizer
Ba	ck

• From the System Selection Menu, select Brake Control System

System Selection Menu	
Engine Control System	
Transmission Control System	
Cruise Control System	
Brake Control System	
Entry VIN	
Tire pressure monitor	
Integ. unit mode	

• From Brake Control System, select ABS/VDC System.

Brake Control Syste	em
ABS/VDC System	
Parking Brake Syste	em
Back	

• When the VDC / Parking Brake System screen shown below appears, select OK.



• From Brake Control Diagnosis, select Current Data Display & Save.

Brake Cont	rol Diagn	osis		
Current Data	Display &	Save		
Diagnostic Co	de(s) Dis	play		
Freeze Frame	Data Dis	play		
Clear Memory				
Work Support				
Driving record	er			
Back				
Item	Value	Unit	Maximum	Minimum
Item		Unit Time	Maximum	Minimum 6
Trip Count	6	Time		
Trip Count Count	6 Originally 221300	Time	6	6 -
Trip Count Count Time Count	6 Originally 221300 0.0	Time ms	6 - 221300	6 - 197000
Trip Count Count Time Count FR Wheel Speed	6 Originally 221300 0.0 0.0	Time ms km/h	6 - 221300 0.0	6 - 197000 0.0
Trip Count Count Time Count FR Wheel Speed FL Wheel Speed	6 Originally 221300 0.0 0.0 0.0	Time ms km/h km/h	6 - 221300 0.0 0.0	6 - 197000 0.0 0.0
Trip Count Count Fire Count Fire Count Fire Wheel Speed RWheel Speed RWheel Speed RWheel Speed	6 Originally 221300 0.0 0.0 0.0 0.0	Time ms km/h km/h km/h	6 - 221300 0.0 0.0 0.0	6 - 197000 0.0 0.0 0.0
Trip Count Count Time Count FR Wheel Speed RR Wheel Speed RL Wheel Speed RL Wheel Speed	6 Originally 221300 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Time ms km/h km/h km/h km/h	6 - 221300 0.0 0.0 0.0 0.0	6 - 197000 0.0 0.0 0.0 0.0
Trip Count Count Time Count FR Wheel Speed FL Wheel Speed RR Wheel Speed RL Wheel Speed Steering Angle Sensor	6 Originally 221300 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Time ms km/h km/h km/h km/h deg	6 	6 
Trip Count Count FR Wheel Speed RL Wheel Speed RL Wheel Speed RL Wheel Speed Value Speed RL Wheel Speed Yaw Rate Sensor Yaw Rate Sensor Yaw Rate Sensor	6 Originally 221300 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Time ms km/h km/h km/h km/h deg deg/s	6 	6 
Trip Count Count Fire Count FR Wheel Speed FL Wheel Speed RL Wheel Speed RL Wheel Speed Steering Angle Sensor Yaw Rate Sensor Pressure Sensor Output	6 Originally 221300 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Time ms km/h km/h km/h deg deg/s bar m/s*2 m/s*2	6 - 221300 0.0 0.0 0.0 0.0 0.0 0.0	6 
Trip Count Count Time Count FR Wheel Speed FL Wheel Speed RL Wheel Speed RL Wheel Speed KL Wheel Speed RL Wheel Speed RL Wheel Speed RL Wheel Speed Lateral G Sensor Voltage of IGN	6 Originally 221300 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.7	Time ms km/h km/h km/h deg deg/s bar m/s*2 m/s*2	6 - 221300 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.7	6  197000 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Trip Count Count Time Count FR Wheel Speed FL Wheel Speed RL Wheel Speed RL Wheel Speed Steering Angle Sensor Yaw Rate Sensor Pressure Sensor Output Longitudinal G Sensor Lateral G Sensor Voltage of IGN M. Relay monitor Voltage	6 Originally 221300 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Time ms km/h km/h km/h deg deg/s bar m/s*2 w/s*2 V	6 - 221300 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.7 -0.1	6 
Trip Count Count Time Count FR Wheel Speed FL Wheel Speed RL Wheel Speed RL Wheel Speed KL Wheel Speed RL Wheel Speed RL Wheel Speed RL Wheel Speed Lateral G Sensor Voltage of IGN	6 Originally 221300 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Time ms km/h km/h km/h deg deg/s bar m/s*2 w/s*2 V	6 - 221300 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	6 

OFF

ON

• Depress the brake pedal while monitoring the Pressure Sensor Output until a minimum 100 bar is shown. Use a brake pedal pressure gauge or a tape measure to record a "value" for the length of the pedal stroke required to achieve 100 bar as displayed in the Current Data screen. This value must be duplicated when performing the Sequence Control.

Average 6 209100 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.6 -0.1 11.8 0.0 0.0

• From Brake Control Diagnosis, select Work Support.



EBD Warning Light
 ABS Warning Lamp

• From Work Support, select Function Check Sequence.

	Work Support
Functio	on Check Sequence
Mainte	nance at the time of ECM replacement
Brake	Maintenance Mode
Back	

• From Function Check Sequence, select ABS Sequence Control Mode.

DC Check Mode SC(VDC) Centering Mode Brake Lamp Lighting Operation	ABS Sequence Control Mode
VSC(VDC) Centering Mode Brake Lamp Lighting Operation	
VSC(VDC) Centering Mode Brake Lamp Lighting Operation Back	VDC Check Mode
	VSC(VDC) Centering Mode
Back	Brake Lamp Lighting Operation
	Back
	Press Brake Pedal Firmly

• Press the brake pedal firmly to the value established (approximately 100 bar) and the Sequence Control will start. Keep the brake pedal depressed until the check is complete. Releasing the brake pedal while the Sequence Control is part way through will result in an incorrect check.

### SSM4 Procedure and Screen Shots



Continued...

• From the System List, select Brake Control.



• From the Select Function menu, select Data Monitor.

System Brake Control	
Select Function	
ртс	
Cancel Code	
Data Monitor	

• With the Data Monitor screen displayed, depress the brake pedal while monitoring the Pressure Sensor Output until a minimum 100bar is shown. Use a brake pedal pressure gauge or a tape measure to record a "value" for the length of the pedal stroke required to achieve 100 bar as displayed in the Data Monitor screen shown below. This value must be duplicated when performing the Sequence Control. Once the value is established, select Work Support.

Start Diagnosis			
Vehicle		Item	Value
Legacy /	BC	Trip Count	931
Outback	BC	Count	Commor
Target Each System	BC	Time Count	783900
	BC	FR Wheel Speed	0.0
System Brake Control	BC	FL Wheel Speed	0.0
Liake Control	BC	RR Wheel Speed	0.0
lect Function	BC	RL Wheel Speed	0.0
DTC	BC	Steering Angle Sensor	16.0
FI DIC	BC	Yaw Rate Sensor	0,0
Cancel Code	BC	Pressure Sensor Output	100.6
	BC	Longitudinal G Sensor	0.2
Data Monitor	BC	Lateral G Sensor	0.1
Active Test	BC	Voltage of IGN	14.4
P4 Active Test	BC	M. Relay monitor Voltage	0.0
Work Support	BC	Motor Relay Signal	OFF
illo aubhour	BC	Valve Relay Signal	OFF
Customize	BC	EBD Warning Light	OFF



• From the Work Support item list, select ABS Sequence Control Mode.

SUBARU Select Monito	or 4 - Work Support - Brake Control			
Start Diagnosis	Work Support item			
Vehicle	Transfer of Driving Recorder Setting			
Legacy / Outback	ABS Sequence Control Mode			
Outback	VDC Check Mode			
Target Each System	Brake Lamp Lighting Operation			
	VSC(VDC) Centering Mode			
System Brake Control	Reading of parameter: ECM to SSM			
- Diake control	Writing of parameter: SSM to ECM			
Select Function	Selection of Parameter			
DTC	Confirm on parameter			
₹PI DIC	Brake Maintenance Mode			
Cancel Code				
Data Monitor				

• The following screens will display in order:



• Press the brake pedal firmly to the value established (approximately 100 bar), press OK and the Sequence Control will start. Keep the brake pedal depressed until the check is complete. Releasing the brake pedal before the Sequence Control is finished will result in an incorrect check.



Continued...



**Step 2:** Flush then bleed the brake system following the procedure provided below:

**NOTE:** There are several methods of bleeding the brakes including manual bleeding, vacuum bleeding, and pressure bleeding. Each method has its own advantages and disadvantages. To support these methods, a wide variety of brake bleeding equipment exists in the automotive industry. If a specialty tool is to be utilized, always consult the manufacturer's specifications and guidelines before attempting to bleed the brakes. Currently, the Service Manual supports the manual bleeding method.

### **REMINDERS:**

- Never reuse drained brake fluid.
- Do not allow dirt or dust to get into the Master Cylinder reservoir.
- For convenience and safety, perform the procedure with a helper.

**VERY IMPORTANT:** Always keep the Master Cylinder reservoir filled with brake fluid at the **MIN** level marked on the reservoir or higher to prevent entry of air.

- In this step, numbers 1, 2, 3 and 4 outline the "flushing" procedure.
- Numbers **5**, **6**, **7** and **8** outline the "bleeding" procedure.
  - **1.** Confirm the Master Cylinder reservoir is filled with brake fluid.
  - 2. Attach one end of a transparent vinyl tube to the Right Front caliper bleed screw, and the other end to a brake fluid collection container as shown in the illustration below.
  - 3. Starting with the Right Front, loosen the caliper bleed screw, and repeatedly press

**VERY IMPORTANT:** Flush and bleed the brake system (calipers) in the following sequence:  $\mathbf{RF} \rightarrow \mathbf{LF} \rightarrow \mathbf{LR} \rightarrow \mathbf{RR}$ . Failure to perform bleeding in this sequence can result in air remaining trapped in the system resulting in a low or "soft" brake pedal.



the brake pedal slowly over the full range of travel until no air bubbles and fresh brake fluid is seen in the transparent vinyl tube. Tighten the caliper bleed screw and add fluid to the reservoir as it is depleted. Never let the fluid level fall below the minimum level (MIN) marked on the reservoir.

**NOTE:** Air bubbles should be removed after repeating the depressing operation approximately 15 times or more for the front calipers, and 20 times or more for the rear calipers.

- 4. Perform the steps above (2 and 3) on each brake caliper:  $\mathbf{RF} \rightarrow \mathbf{LF} \rightarrow \mathbf{LR} \rightarrow \mathbf{RR}$ .
- **5.** Tighten the bleed screw and repeat full stroke depressing of the brake pedal 5 to 6 times, then depress and hold the brake pedal.
- 6. Loosen the bleed screw to drain the brake fluid. When the brake pedal reaches the full stroke position (floor), immediately tighten the bleed screw and release the brake pedal. Never let the fluid level fall below the minimum level (MIN) marked on the reservoir.
- 7. Repeat until there are no more air bubbles and fresh brake fluid is seen in the transparent vinyl tube.
- 8. Perform the steps above (5, 6 and 7) on each brake caliper:  $\mathbf{RF} \rightarrow \mathbf{LF} \rightarrow \mathbf{LR} \rightarrow \mathbf{RR}$ .

Step 3: Perform the Sequence Control (Step 1) again.

**Step 4:** Bleed the system a final time (**5 - 8** above) to complete the procedure.

# CLAIM REIMBURSEMENT AND ENTRY PROCEDURES

Credit to perform this service campaign will be based on the submission of properly completed repair order information. Retailers may submit claims through Vehicle Claim Entry on subarunet.com.

Labor Description	Labor Operation #	Failure Code	Labor Time	Claim Type
2015MY LEGACY / OUTBACK BRAKE FLUSH / BLEED PROCEDURE	A153-310	WTC-64	0.8	RC

**NOTE:** Up to 3 (three) 12 oz. bottles of SOA635004 brake fluid can be claimed for this procedure.

# **IMPORTANT REMINDERS:**

- SOA strongly discourages the printing and/or local storage of service information as previously released information and electronic publications may be updated at any time.
- Always check for any open recalls or campaigns anytime a vehicle is in for servicing.
- Always refer to STIS for the latest service information before performing any repairs.

#### IMPORTANT SAFETY RECALL This notice applies to the VIN identified

in the address section printed below.



Subaru of America, Inc Subaru Plaza PO Box 6000 Cherry Hill, NJ 08034-6000 800-782-2783 www.subaru.com

Subaru Recall Campaign WTC-64 NHTSA Recall No. 16V-251 May 2016

#### Dear Subaru Owner:

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

SUBARU OF AMERICA, INC. has decided that certain 2015 model year Legacy and Outback vehicles may fail to conform to the requirements of Federal Motor Vehicle Safety Standard No. 126, "Electronic Stability Control Systems."

You received this notice because our records indicate that you currently own one of these vehicles.

#### DESCRIPTION OF THE NONCOMPLIANCE

The brake fluid used during production of your vehicle may have contained excess moisture. Excess moisture in brake fluid may cause a gelatinous material to form in the brake system. This material may accumulate and temporarily clog stability control-related valve filter(s) in the Vehicle Dynamics Control (VDC) system. If that occurs, VDC performance may not fully comply with the FMVSS No.126 requirement. However, your vehicle's brakes will continue to operate normally.

#### **DESCRIPTION OF THE SAFETY RISK**

If a stability control-related valve filter becomes temporarily clogged as described above, the VDC system, when activated, may not be as effective in preventing loss of vehicle control, which may increase the risk of a crash.

#### REPAIR

Subaru will perform an ABS (anti-lock braking system) sequence control, then flush and replace the brake fluid in your vehicle at no cost to you.

#### WHAT YOU SHOULD DO

You should immediately contact your Subaru retailer (dealer) for an appointment to have this recall repair performed.

#### HOW LONG WILL THE REPAIR TAKE?

The time to perform this repair is approximately 45 minutes. However, it may be necessary to leave your vehicle for a longer period of time on the day of your scheduled appointment to allow your Subaru retailer flexibility in scheduling.

#### CHANGED YOUR ADDRESS OR SOLD YOUR SUBARU?

If you have moved or sold your vehicle, please complete the enclosed prepaid postcard and mail it to us. Or if you prefer to update this information online, please go to www.subaru.com, select 'Customer Support,' then select 'Address Update' or 'Ownership Update' from the drop down menu.

#### IF YOU NEED FURTHER ASSISTANCE:

To locate the nearest Subaru retailer you can access our website at www.subaru.com and select 'Find a Retailer.' If you need additional assistance, please contact us directly:

- <u>By e-mail</u>: Go to www.subaru.com, Customer Support and select "Contact Us"
- <u>By telephone</u>: 1-800-SUBARU3 (1-800-782-2783)
  - Monday through Thursday between 7:30 a.m. and 8:00 p.m. ET
  - Friday between 10:30 a.m. and 5:00 p.m. ET
  - $\circ~$  Saturday between 9:00 a.m. and 3:30 p.m. ET
- <u>By U.S. Postal mail</u>: Subaru of America, Inc. Attn: Customer-Retailer Services Department, P.O. Box 6000 Cherry Hill, NJ 08034-6000

Please contact us immediately if the Subaru retailer fails or is unable to make the necessary repairs free of charge.

You may also contact the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave. SE, West Building, Washington, DC 20590 or call the toll free Auto Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153) or go to http://www.safercar.gov if you believe the Subaru retailer has failed or is unable to remedy your vehicle without charge within a reasonable amount of time.

Your continued satisfaction with your Subaru is important to us. Please understand that we have taken this action in the interest of your safety and your vehicle's proper operation. We sincerely apologize for any inconvenience this matter may cause and urge you to schedule an appointment as soon as possible to have this repair performed.

Sincerely, Subaru of America, Inc.

<u>Notice to Lessors</u>: Under Federal law the lessor of a vehicle who receives this letter must provide a copy of it to the vehicle lessee(s) within 10 business days from receipt. The lessor must also keep a record of the lessee(s) to whom this letter is sent, the date sent, and the applicable vehicle identification number (VIN). (For the purposes of this section, a lessor means a person or entity that in the last twelve months prior to the date of this notification has been the owner, as referenced on the vehicle's title, of any five or more leased vehicles. A leased vehicle is a vehicle leased to another person for a term of at least four months.)

A subsidiary of Fuji Heavy Industries Ltd.