ATTENTION:
GENERAL MANAGER ❏
PARTS MANAGER ❏
CLAIMS PERSONNEL ❏
SERVICE MANAGER ❏

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

SUBARU.

QUALITY DRIVEN® SERVICE

REPAIR PROCEDURE

APPLICABILITY: 2015MY Legacy
2015MY Outback
2015MY Impreza
2015MY XV Crosstrek
2016MY WRX

DATE: June 5, 2015

SUBJECT: Repair Procedure for Subaru Recall Campaign Stop Sale WQS-54
Driver Assist System Delay in Warning Indicator

Please refer to Product Campaign Bulletin **WQS-54,** dated June 30, 2015

INTRODUCTION

Subaru of America, Inc. (SOA) is recalling certain 2015 model year Subaru Legacy, Subaru Outback, Subaru Impreza (4Door and 5Door) and Subaru XV Crosstrek vehicles and certain 2016MY Subaru WRX vehicles equipped with a Driver Assist System.

The programming of the Driver Assist System will not detect a fault in one of the associated system components. In the event of Brake Lamp Switch (BLS) failure, the Vehicle Dynamic Control (VDC) correctly detects the BLS failure, but the Driver Assist System will be delayed in detecting the BLS failure. Therefore, it will take longer for the multi information display to inform the driver of a malfunction. In addition, VDC will not receive the brake request from the Driver Assist System, resulting in no automatic braking, including Adaptive Cruise Control and PreCollision Braking.

Automatic braking will not occur under the following condition:

If a BLS failure occurs, the VDC Warning Lamp will illuminate. If the driver of an affected vehicle approaches an obstacle, "Obstacle Detected" will be properly indicated on the multi information display. Upon noticing the "Obstacle Detected" warning, the driver can apply the brake pedal to safely stop the vehicle. If the driver ignores the "Obstacle Detected" warning and does not apply the brake pedal, the VDC pressure control system will not operate.

DESCRIPTION OF THE SAFETY HAZARD

In the event of Brake Lamp Switch (BLS) failure, the Driver Assist System will be delayed in detecting the BLS failure, which may increase the risk of a crash.

DESCRIPTION OF THE REMEDY

The Driver Assist System will be reprogrammed.

AFFECTED VEHICLES

This condition may exist on certain vehicles listed below. **NOTE:** Not all vehicles within the range are affected. Coverage for all affected vehicles must be confirmed by using the Vehicle Coverage Inquiry function on Subarunet.com.

MODEL YEAR	MODEL	STARTING PRODUCTION DATE	ENDING PRODUCTION DATE
2015	Legacy	March 10, 2014	April 16, 2015
2015	Outback	February 24, 2014	April 16, 2015
2015	Impreza	September 9, 2014	April 14, 2015
2015	XV Crosstrek	October 16, 2014	April 15, 2015
2016	WRX	March 23, 2015	March 23, 2015

Continued...

PAK FILE APPLICABILITY

MODEL	PAK FILE NAME	NEW ECM PART NUMBER	OLD ECM PART NUMBER
Legacy / Outback	87501AL003.pak	87501AL003	87501AL002
Impreza / XV Crosstrek	87501FJ032.pak	87501FJ032	87501FJ031
WRX	87501VA012.pak	87501VA012	87501VA011

FlashWrite INFORMATION

PAK FILE NAME	DECRYPTION KEYWORD	CONTROL SOFTWARE VERSION*
87501AL003.pak	CB28A80C	00006394
87501FJ032.pak	60182D70	00006391
87501VA012.pak	37CC8AE5	00006393

* After reprogramming the Driver Assist System please verify that the correct Control Software Version is displayed.

REPAIR PROCEDURE

NOTES:

SOA now highly recommends connecting the Midtronics GR8 Diagnostic Battery Charger to the vehicle and utilizing the Power Supply Mode feature anytime a vehicle control module is being reprogrammed. Once the GR8 is connected to the vehicle, as long as the battery is fully charged, it takes less than 3 minutes to boot-up the charger, select the Power Supply Mode, and have the battery voltage stabilized and ready for reprogramming.

VERY IMPORTANT: This information is applicable to the Midtronics GR8 Diagnostic Battery Charger **ONLY.** It does not apply to any other brand / type of "generic" battery charger whatsoever. **ONLY** the GR8 and its Power Supply Mode feature has been tested and approved by SOA.

- If the GR8 indicates the vehicle's battery must be charged, charge the battery using the GR8 before proceeding to reprogram the vehicle while using the Power Supply Mode.

- Control module failures as a result of battery discharge during reprogramming are not a matter for warranty. Should any DTCs reset after the reprogramming update is performed, diagnose per the procedure outlined in the applicable Service Manual.
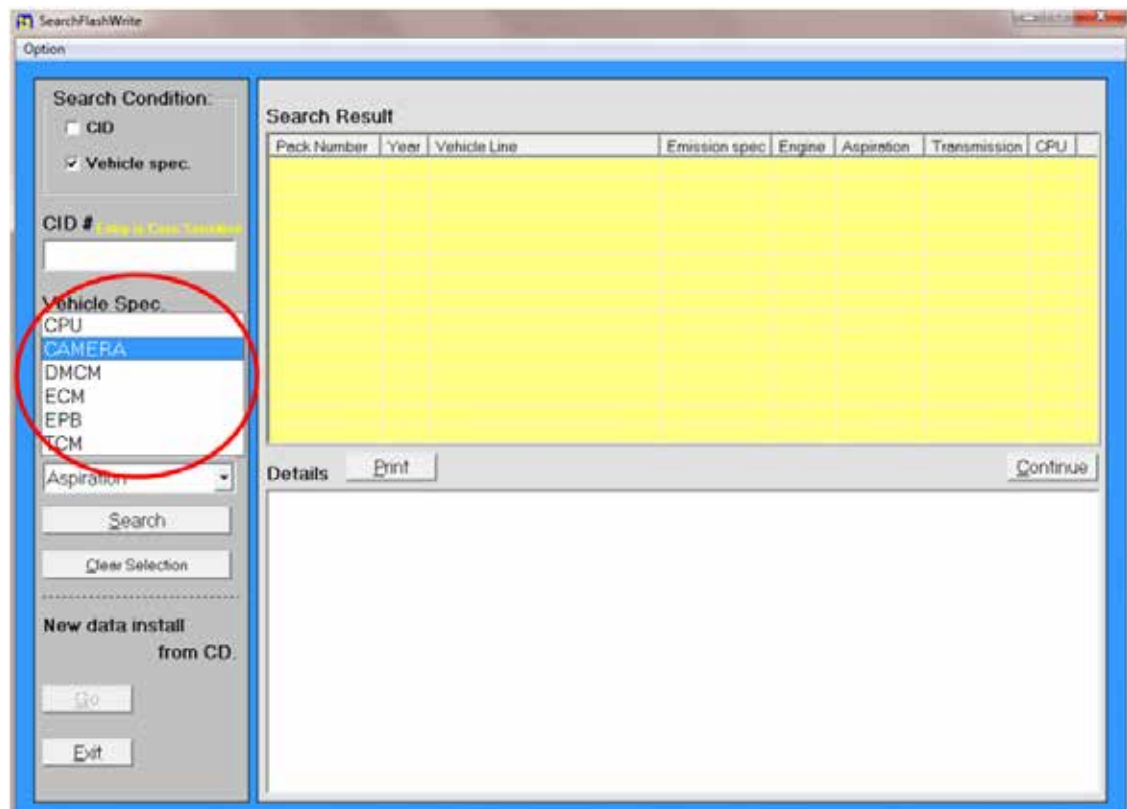
Continued...

Reprogram the Driver Assist System

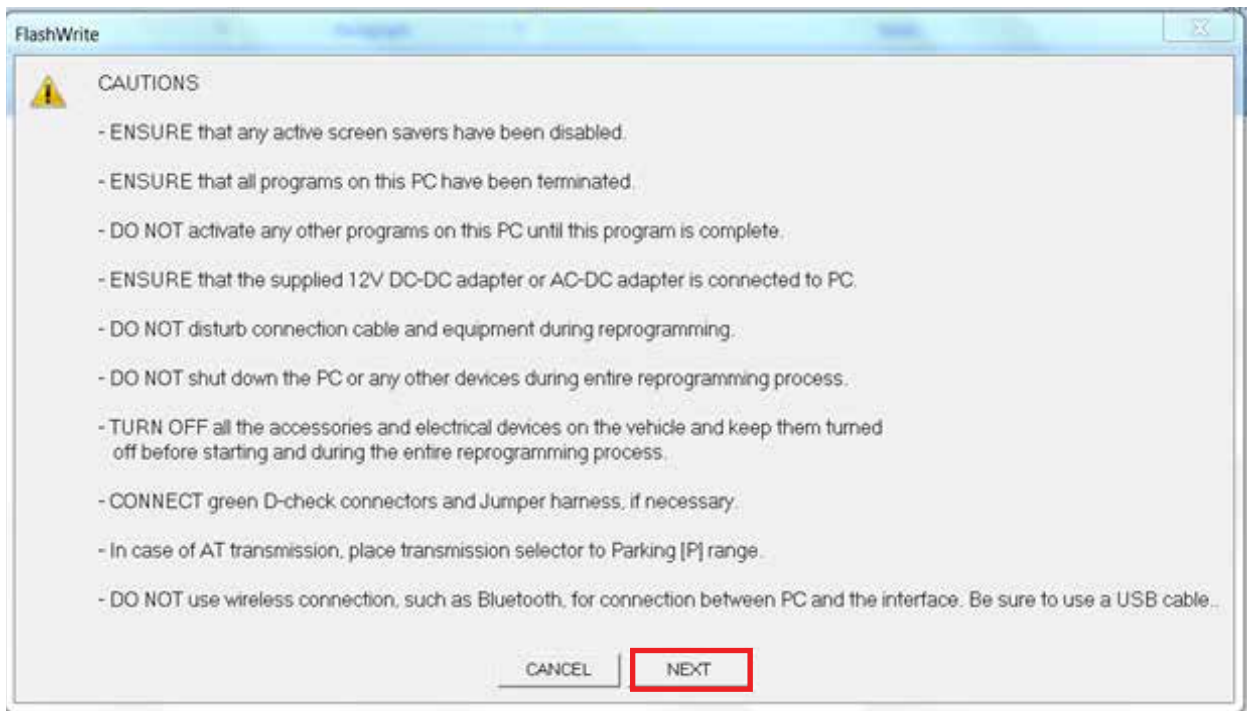Open FlashWrite application. Click the box "Vehicle spec."
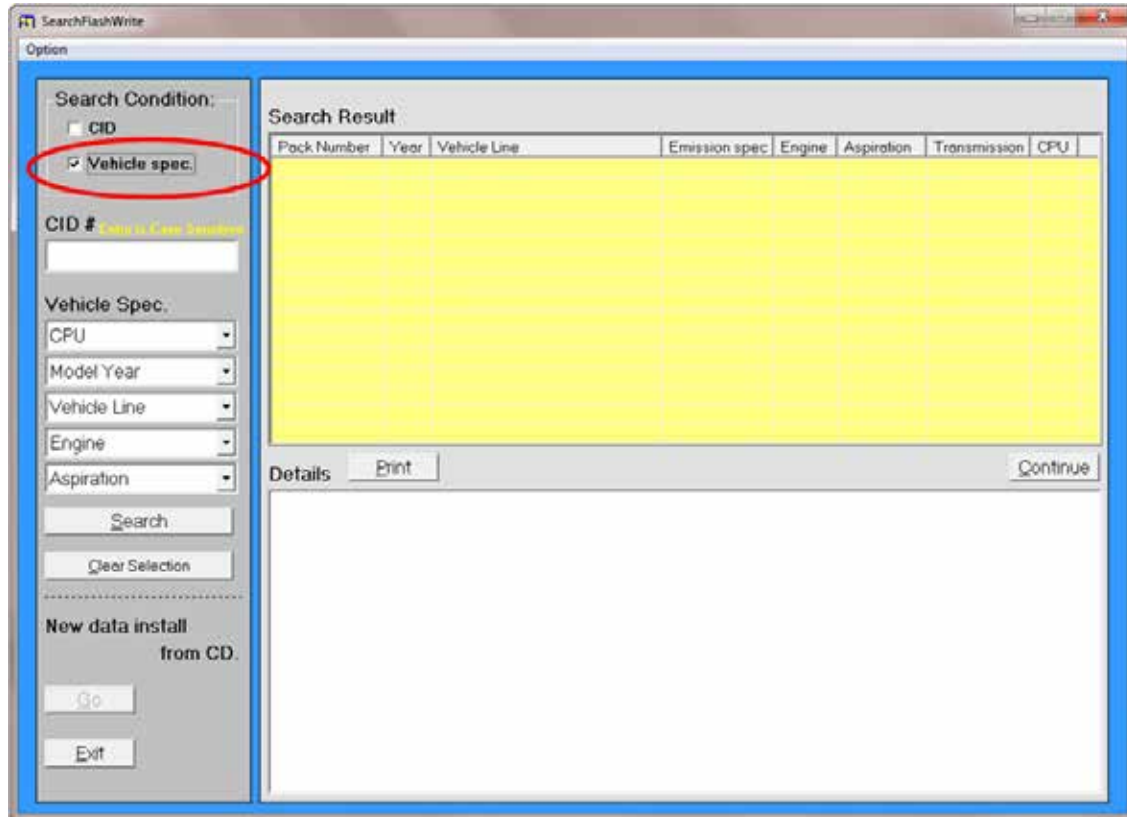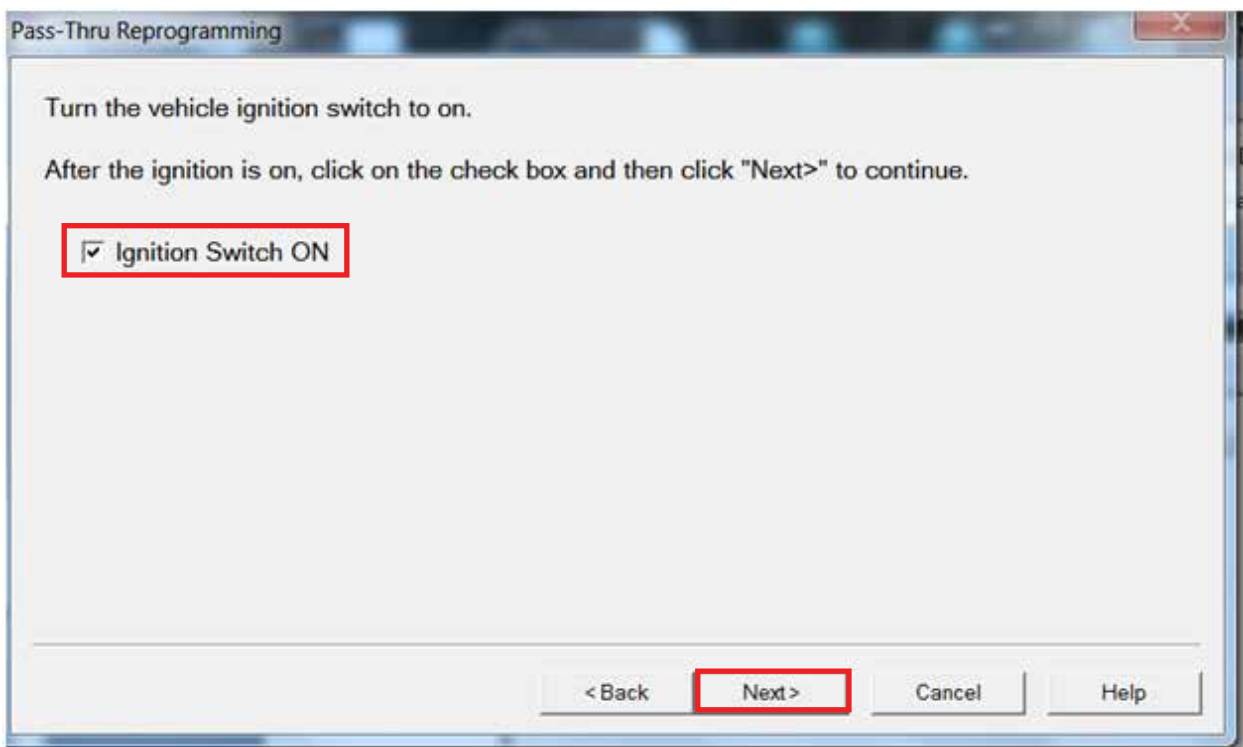

Click on the drop down box for CPU and Select CAMERA

Using the drop down boxes, select the applicable vehicle

Under Search Result, highlight applicable file, click "Continue"

Continued...

FlashWrite - 87501AL003.pak

File   View   Tools   Help

SELECT THE REPROGRAMMING DEVICE YOU ARE USING

- ○ SUBARU SELECT MONITOR III (SSMIII)
- ○ SUBARU SELECT MONITOR (SSM)
- ● DENSO DST-i

To proceed, select the reprogramming method by clicking on a button below.

Pass-Thru...   Remote...

Ready   NUM

Pass-Thru Reprogramming

Turn the vehicle ignition switch to on.

After the ignition is on, click on the check box and then click "Next>" to continue.

☑ Ignition Switch ON

< Back   Next >   Cancel   Help

Continued...

Pass-Thru Reprogramming

Current Pass-Thru device

DST-i - DENSO CORPORATION

Prepare the above Pass-Thru device.

☑ Preparation of the Pass-Thru device is completed.

< Back | Next > | Cancel | Help

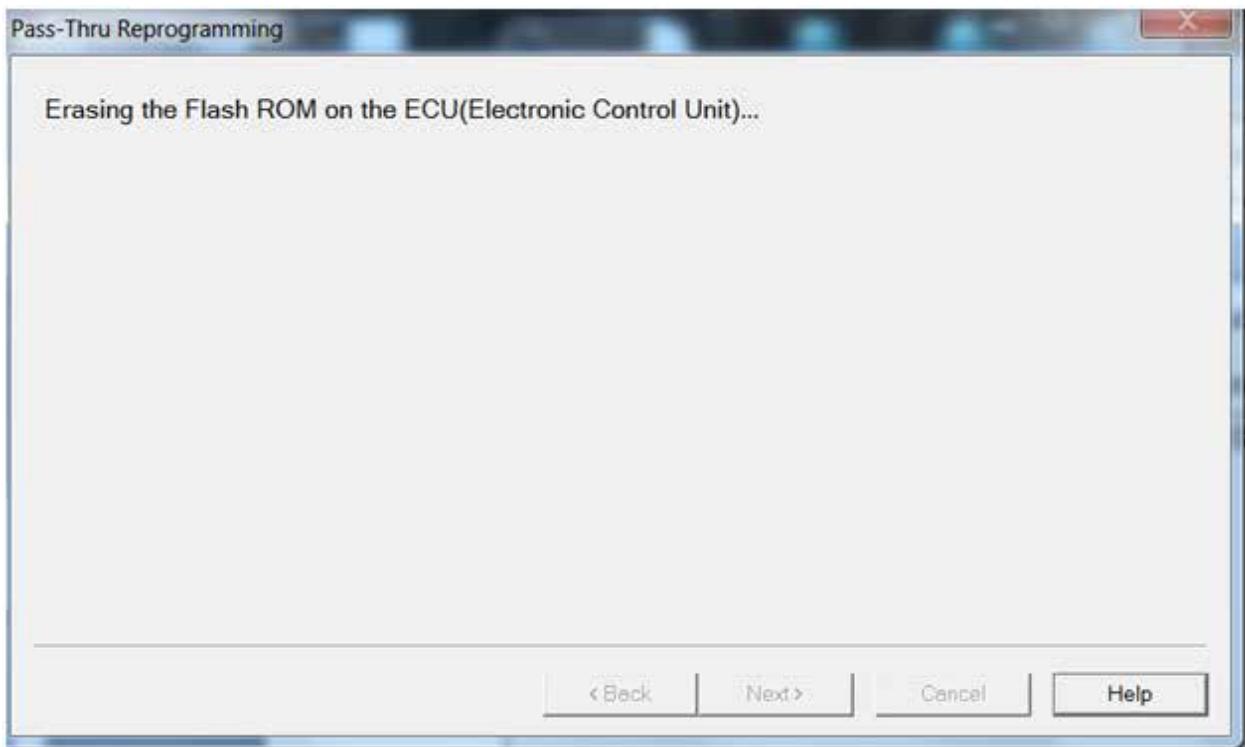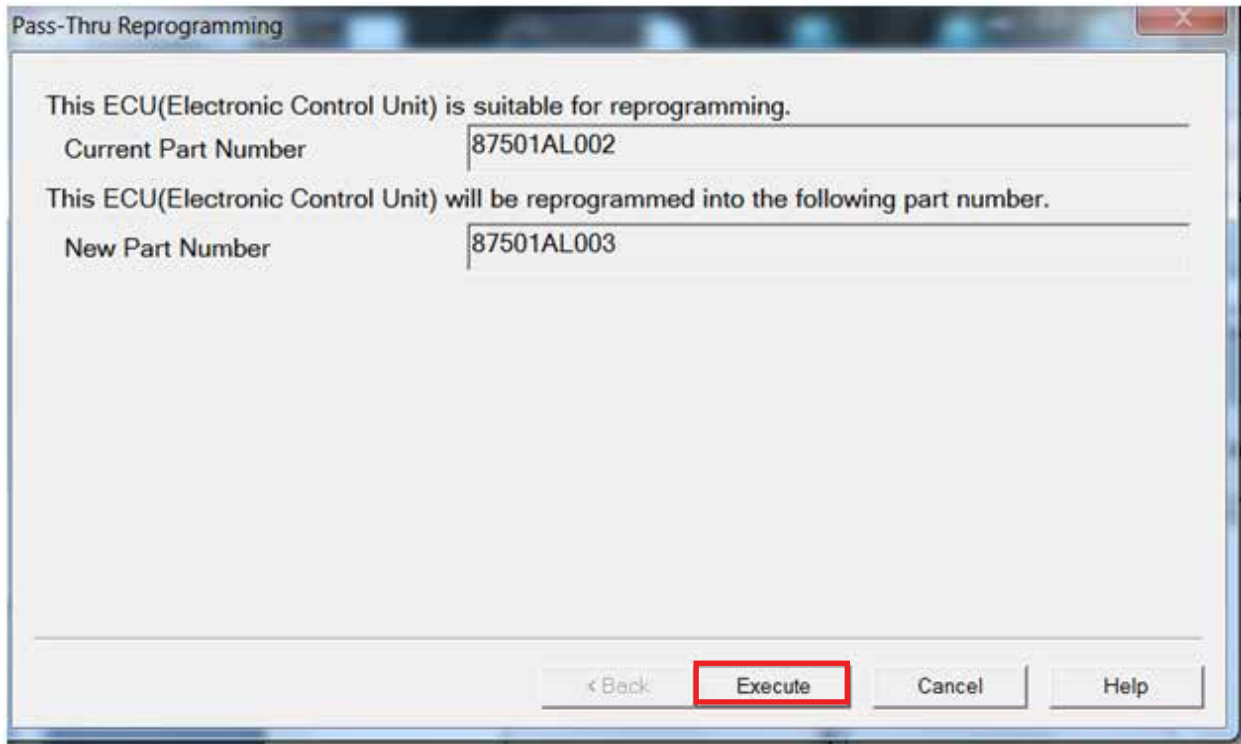

Pass-Thru Reprogramming

Enter the decryption keyword.

File Name

87501AL003.pak

Decryption Keyword

CB28 A800

< Back | Next > | Cancel | Help

Continued...

Pass-Thru Reprogramming

This ECU(Electronic Control Unit) is suitable for reprogramming.

Current Part Number   87501AL002

This ECU(Electronic Control Unit) will be reprogrammed into the following part number.

New Part Number   87501AL003

‹ Back   **Execute**   Cancel   Help

Pass-Thru Reprogramming

Erasing the Flash ROM on the ECU(Electronic Control Unit)...

‹ Back   Next ›   Cancel   Help

Continued...

Pass-Thru Reprogramming

Sending the reprogramming data...

Address   056380

Retry   0

< Back   Next >   Cancel   Help

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Pass-Thru Reprogramming

Turn the vehicle ignition switch to off.

After the ignition is off, click on the check box and then click "Next>" to continue.

☑ Ignition Switch OFF

< Back   Next >   Cancel   Help

Continued...

Pass-Thru Reprogramming

Turn the vehicle ignition switch to on.

After the ignition is on, click on the check box and then click "Next>" to continue.

☑ Ignition Switch ON

< Back   Next >   Cancel   Help

Pass-Thru Reprogramming

Clearing the memory...

< Back   Next >   Cancel   Help

Continued...

Pass-Thru Reprogramming
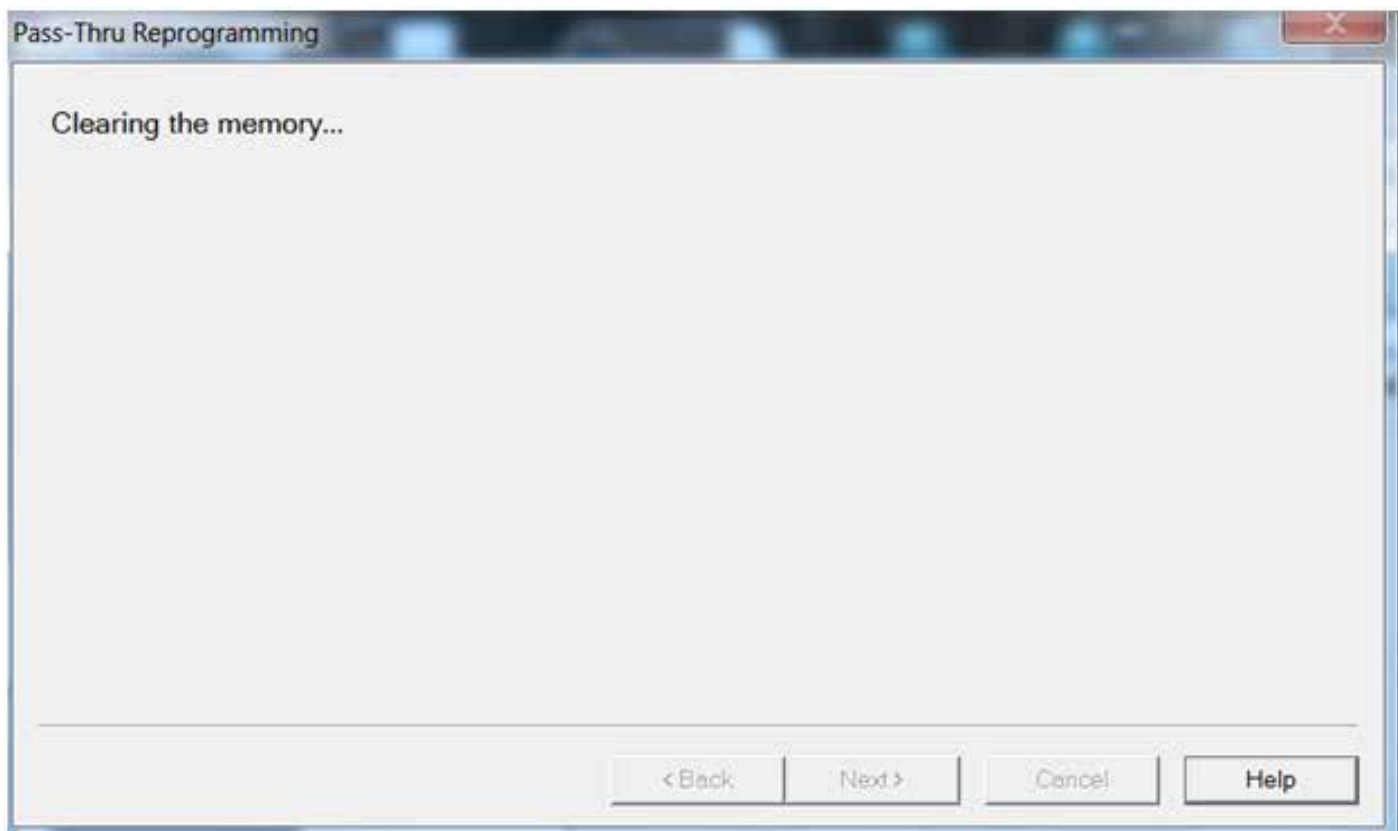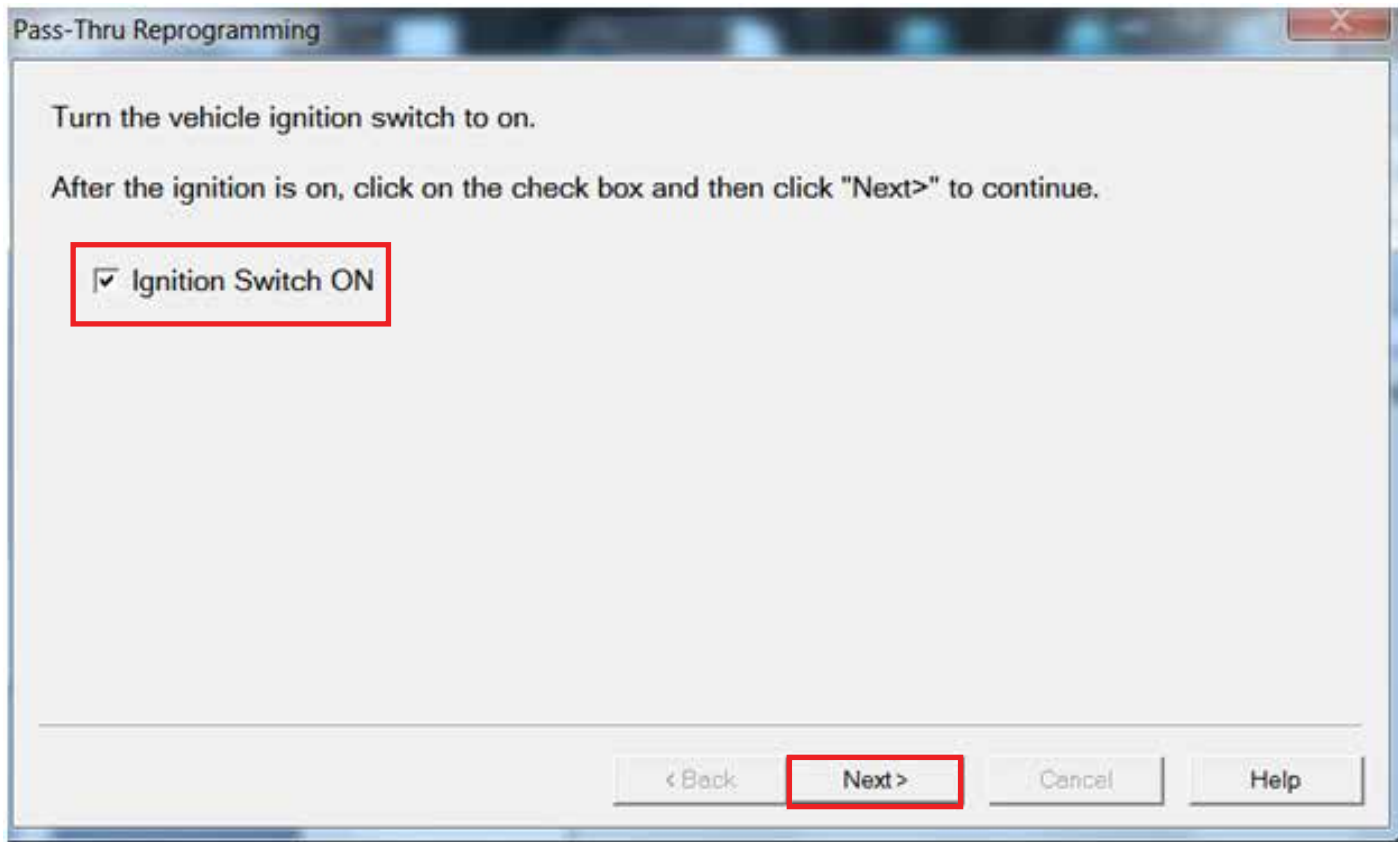
Reprogramming is now complete.

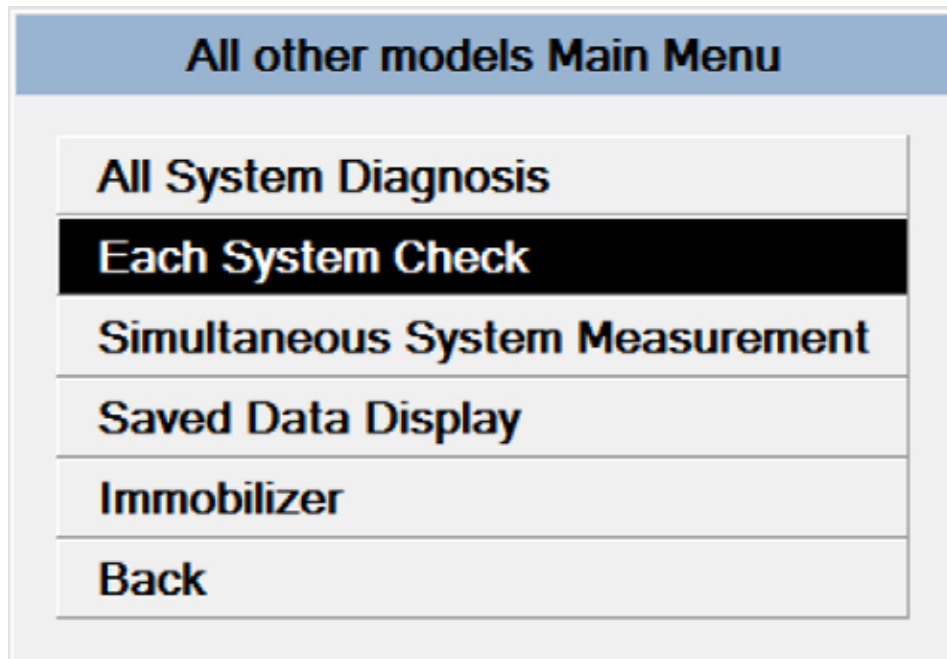Turn the vehicle ignition switch to off.

< Back   Finish   Help

After reprogramming verify the Control Software Version* using the SSMIII as follows.

Select "All other models"
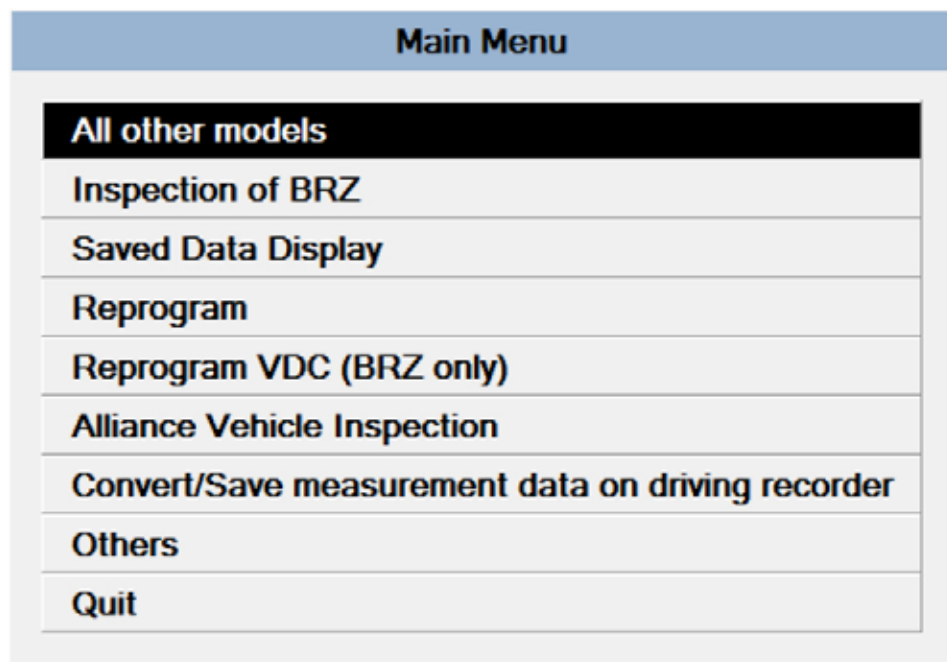
Select "Each System Check"

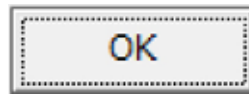**Select "ADA adaptive cruise control system"**

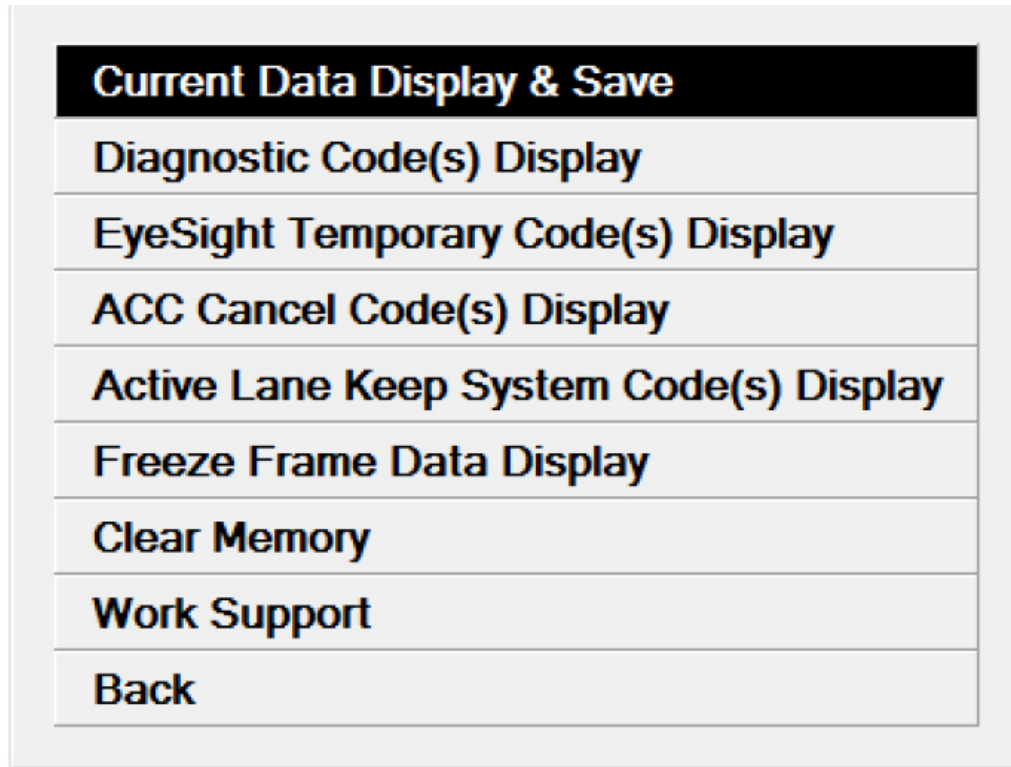| System Selection Menu |
| --- |
| Engine Control System |
| Transmission Control System |
| Cruise Control System |
| Brake Control System |
| Entry VIN |
| Tire pressure monitor |
| Integ. unit mode |
| Occupant Detection System |
| Impact Sensor |
| Airbag System |
| Brake Vacuum Pump System |
| Keyless Unit Mode |
| Air Suspension System |
| Air Condition System |
| Power Steering System |
| Keyless access system |
| **ADA adaptive cruise control system** |
| OBD System |
| Automatic Light and Wiper system |
| Combination meter |

Select the highlighted box below

ADA adaptive cruise control system
EyeSight (from 2009MY)
ADA camera type (until 2008MY)
Adaptive cruise control, radar type
Back

Continued...

Click "OK"

Select "Current Data Display & Save"

Current Data Display & Save
Diagnostic Code(s) Display
EyeSight Temporary Code(s) Display
ACC Cancel Code(s) Display
Active Lane Keep System Code(s) Display
Freeze Frame Data Display
Clear Memory
Work Support
Back

Verify the value of "Control Software Version"

SUBARU Select Monitor III - DST-i

File   View   Tool   Help

Number of samples 15 | 32.16 s from sampling start

Item	Value	Unit	Maximum	Minimum	Average	
Camera ID	014409170410		-	-	-	
Control Software Version	00006394		-	-	-	
Recognition Software Version	1F401004		-	-	-	
Model Registration	521108446910		-	-	-	
ECU Power Supply Voltage (IG)	11.5	V	11.5	11.5	11.5	
Initial Aiming Completion Status	Finished		-	-	-	
Aiming Completion Status	Not Finish		-	-	-	
Ignition SW ON Count	2675	Time	2675	2675	2675	
Trip Meter	13022.5	km	13022.5	13022.5	13022.5	
Front Axle Wheel Average Speed	0.00	km/h	0.00	0.00	0.00	
Engine Speed	0	rpm	0	0	0	
Accelerator Opening Angle	0	%	0	0	0	
ETC Throttle Angle Signal	7	%	7	7	7	
Steering Angle Sensor Value (Ri...	8.8	deg	8.8	8.7	8.7	
Longitudinal G Sensor Value (D...	0.0	m/s2	0.0	0.0	0.0	
Brake Fluid Target Pressure	0.000	MPa	0.000	0.000	0.000	
Master Cylinder Actual Fluid Pre...	0.00	MPa	0.00	0.00	0.00	
Right Front Wheel W/C Actual Fl...	0.00	MPa	0.00	0.00	0.00	
Left Front Wheel W/C Actual Flu...	0.00	MPa	0.00	0.00	0.00	
Target Torque	-100.0	Nm	-100.0	-100.0	-100.0	
Actual Engine Torque	14.8	Nm	14.8	14.8	14.8	
Engine Torque Down Target Val...	408.0	Nm	408.0	408.0	408.0	
Warning Code	No alarm		-	-	-	

Continued...

RECALL IDENTIFICATION LABEL

Type or print the necessary information on a Recall identification label. The completed label should be attached to the vehicle's upper radiator support.

Additional labels are available through normal parts ordering channels. The part number is MSA6P1302. Ordering qty 1 = 1 sheet of 20 labels.

```
┌─────────────────────────┐
│        SUBARU           │
├─────────────────────────┤
│      Campaign Code       │
│        WQS-54            │
├─────────────────────────┤
│       COMPLETED          │
├─────────────────────────┤
│    DIST./DEALER NO.      │
│                          │
├─────────────────────────┤
│       SERIAL NO.         │
│                          │
├─────────────────────────┤
│      DO NOT REMOVE       │
└─────────────────────────┘
```

CLAIM REIMBURSEMENT AND ENTRY PROCEDURES

Credit to perform this recall will be based on the submission of properly completed repair order information. Dealers may submit claims through Vehicle Claim Entry on Subarunet.com.

CLAIM TYPE	CAMPAIGN CODE	LABOR	DESCRIPTION	LABOR TIME
RC	WQS-54	A106-778	Driver Assist System Delay in Warning Indicator	0.4