



**Revision II** March 2019

Dealer Service Instructions for:

# Safety Recall V27 / NHTSA 19V-148 Adaptive Cruise Control

NOTE: Brake pedal feel software applicability dates changed in Procedure C.

**Remedy Available** 

# 2017-2019 (GA) Alfa Romeo Giulia

2018-2019 (GU) Alfa Romeo Stelvio

*NOTE:* This recall applies only to the above vehicles with Adaptive Cruise Control (sales code NH3).

NOTE: Some vehicles above may have been identified as not involved in this recall and therefore have been excluded from this recall.

**IMPORTANT:** Some of the involved vehicles may be in dealer new vehicle inventory. Federal law requires you to complete this recall service on these vehicles before retail delivery. Dealers should also consider this requirement to apply to used vehicle inventory and should perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

### Subject

The Adaptive Cruise Control (ACC) on about 19,100 of the above vehicles may not allow cancelation of the ACC in very specific driving conditions. In certain circumstances while ACC is active and the traction control detects a specific wheel slip, it is possible for a positive torque request to be locked by the Brake System Module (BSM) which may result in unexpected acceleration. If the driver does not shift to neutral or apply firm, sustained brake-pedal application to deactivate the ACC, this condition can cause a vehicle crash without prior warning.

# Repair

Update the Antilock Brake System (ABS) module / BSM software.

NOTE: Some vehicles may require up to three separate software flashes.

# **Parts Information**

No parts are required to perform this service procedure.

### Parts Return

No parts return required for this campaign.

# **Special Tools**

#### The following special tools are required to perform this repair:

- ▹ NPN wiTECH micro pod II
- NPN Laptop Computer
- > NPN wiTECH Software

### Service Procedure

NOTE: Before beginning, check if the vehicle is involved in any previously issued open safety campaigns and complete those before continuing.

CAUTION: If this is an unsold vehicle, before beginning the service procedure, deactivate the vehicle shipping/transportation mode.

NOTE: The wiTECH scan tool must be used to perform this recall. If the reprogramming flash for the Antilock Brake System (ABS) module / BSM is aborted or interrupted, repeat the procedure.

1. Open the hood and install a battery charger. Verify that the charging rate provides 13.0 to 13.5 volts. Do not allow the charger to time out during the flash process. Set the battery charger timer (if so equipped) to continuous charge.

NOTE: Use an accurate stand-alone voltmeter. The battery charger volt meter may not be sufficiently accurate. Voltages outside of the specified range will cause an unsuccessful flash. If voltage reading is too high, apply an electrical load by activating the park or headlamps and/or HVAC blower motor to lower the voltage.

- 2. Connect the wiTECH micro pod II to the vehicle data link connector.
- 3. Place the ignition in the "**RUN**" position.
- 4. Open the wiTECH 2.0 website.
- 5. Enter your "User id" and "Password" and your "Dealer Code", then select "Sign In" at the bottom of the screen. Click "Accept".
- 6. From the "Vehicle Selection" screen, select the vehicle to be updated.

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### Service Procedure [Continued]

**NOTE:** Before updating the ABS/BSM software, create a scan report and save a copy for future reference.

- 7. Create and save a Vehicle Scan Report (VSR) before proceeding.
  - a. From the left column in the analysis section, select "Reports".
  - b. On the reports page, select "Scan Report".
  - c. Select "ECU Summary" from the dropdown menu on the right.
  - d. Select "**Printer Friendly**" then save file type as "**PDF**". Name the file with the last eight digits of the vehicle VIN.
- 8. From the "Action Items" screen, select the "Topology" tab.
- 9. From the "**Topology**" tab, select the "**ABS**" module icon.
- From the ABS "Flash" tab, record the "Current Part Number" (Figure 1) for the software currently installed in the Electronic Control Unit (ECU), then proceed to the table in (Figure 2) to determine which flash Procedure A, B, C, D, E, F is the appropriate starting point for the specific hardware and software combination currently installed in the vehicle.

ABS			CURR	ENT PART I	NUMBER			
Anti Lock B	Brakes							
Flash	DTCs	Data	Misc Function	System Tests	Actuators	Details	Configuratio	n
A CONTRACTOR OF A CONTRACTOR O			)10443-00-XJ_RAK	00479-8381				
ECU Statu	us: Up-to-D	ate						
ECU	NEW F	PART NU	MBER				C	CALIBRATION
ABS	28554	010443-0	00-XJ_RAN00015-8	BOB		2017 - 2018 GA GU 1 BSM / ABS STEP ONE		
BSM	28554	010443-0	00-XJ_RAK00479-8	381			2	2017 GA BSM HW 443

Figure 1 – Example of ECU "Current Part Number"

NOTE: Use the chart below in order to determine the appropriate flash service procedure based on the hardware (HW) and software (SW) level currently installed in the vehicle. Then proceed to the appropriate service procedure A, B, C, D, E, F and complete all relevant steps detailed in that service procedure.

HW number	HW version	SW number	SW version	To do	
		XJ_RAL00164	83C1		
		XJ_RAK00479	8383		
		XJ_RAK00496	8382		
		XJ_RAK00479	8382		
28554010353		XJ_RAK00479	8381		
0r		XJ_RAK00478	8381	Procedure A	
28554010443	00	XJ_RAJ00430	8343	Trocedure A	
or		XJ_RAJ00428	8343		
28554010535		XJ_RAJ00370	8342		
		XJ_RAJ00314	8342		
		XJ_RAL00165	83C1		
		XJ_RAJ00480	8343		
		XJ_RAN00010	8401	Procedure B	
28554010353 or		XJ_RAN00010	8402		
28554010443 or 28554010535	00	XJ_RAN00010	8403	Procedure C	
28554010535	00	XJ_RAP00046	8441	<b>Procedure D</b>	
	00	XJ_RAT00007	84C1		
28554057115	00	XJ_RAS00023	8481	<b>Procedure E</b>	
	00	XJ_RAS00042	8482		
28554010353		XJ_RAX00007	8541		
or 28554010443	00	XJ_RAX00007	8542		
or 28554010535		XJ_RAX00007	XJ_RAX00007 8543		
28554010535	00	XJ_RAW00010	8502		
28554057115	00	XJ_RAY00006	8581		

Figure 2 – Currently Installed Software Level Chart

### **Procedure A**

NOTE: To update the ABS / BSM software to proper level, three separate software flashes are required. Complete all relevant procedures steps. The procedure must be followed in the same sequence as listed below (Figure 3):

- Step 1 First flash ABS / BSM "STEP ONE"
- Step 2 "Restore Vehicle Configuration"
- Step 3 Second flash ABS / BSM "STEP TWO"
- Step 4 Third flash ABS / BSM "FINAL STEP"
- Step 5 Post reprogramming calibration "Learn Procedure"

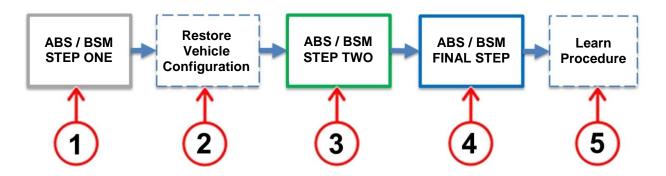


Figure 3 – ABS/BSM Software Reprogramming Sequence

Step 1 – First flash ABS / BSM – "STEP ONE"

11. From the ABS flash tab, select the ABS flash "**STEP ONE**" and proceed with the first reprogramming procedure (Figure 4).

I LOCK	Brakes										
lash	DTCs	Data	Misc Functions	System Tests	Actuators	Details	Configuration	SELECT FLASH			
	Part Numb tus: Up-to-[		010443-00-XJ_RAK	(00479-8381							
CU	NEW	PART NUI	MBER				CALIBRATION				
ABS	2855	4010443-0	00-XJ_RAN00015-8	3B0B	2017 - 2018 GA GU 1 BSM / ABS STEP ONE						
BSM	28554010443-00-XJ_RAK00479-8381					2017 GA BSM HW 443					

Figure 4 – First Flash ABS / BSM "STEP ONE"

- 12. Read the flash special instructions page. Select "OK" to continue.
- 13. From the flash ECU agreement page, agree to terms by checking the box.
- 14. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.

NOTE: Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

**NOTE:** If the reprogramming process is interrupted/aborted, it must be restarted.

15. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".

16. The following table shows the software (SW) codes of the ABS / BSM, before and after the first reprogramming flash (Figure 5).

Before ABS / BS	M programming	After ABS / BSN	A programming
SW number	SW version	SW number	SW version
XJ_RAL00164	83C1		
XJ_RAK00479	8383		
XJ_RAK00496	8382		
XJ_RAK00479	8382		
XJ_RAK00479	8381		
XJ_RAK00478	8381	VI DANOO015	8B0B
XJ_RAJ00430	8343	– XJ_RAN00015	0D0D
XJ_RAJ00428	8343		
XJ_RAJ00370	8342		
XJ_RAJ00314	8342		
XJ_RAL00165	83C1		
XJ_RAJ00480	8343		

#### Figure 5 – ABS / BSM Software Before and After Step 1

Step 2 – Restore Vehicle Configuration

#### Obtain the key code pin number for use later during vehicle configuration:

- 1. Sign into DealerConnect.
- 2. Select the "**Service**" tab.
- 3. Within the "**Repair Information**" section select "**Key Code**".
- 4. Enter the following:
  - ➢ Vehicle VIN.
  - Reason Code (Module Replacement).
  - ➢ Password.
- 5. Check the box next to Dealer Policy acknowledgement.
- 6. Click "**Search**" then record the key code pin number.

- 17. Under the "Activities" heading in the left column of the wiTECH screen, select "Vehicle Preparations".
- 18. Within "Vehicle Preparations", select "Restore Vehicle Configuration" then follow the screen prompts.

**NOTE:** If not successful, the Restore Vehicle Configuration procedure may be repeated until successful.

19. From the "Topology" screen, select the "ABS" module icon.

#### Step 3 – Second flash ABS / BSM – "STEP TWO"

20. From the ABS "**Flash**" tab, select the ABS flash "**STEP TWO**" and proceed with the second reprogramming procedure (Figure 6).

ABS							
Anti Lock B	Brakes						
Flash	DTCs Data	Misc Functions	System Tests	Actuators	Details	Configuration	SELECT FLASH
	<b>art Number</b> : 285540 u <b>s</b> : Up-to-Date	10443-00-XJ_RAN	100015-8B0B				
ECU	NEW PART NUMB	ER				CALIBRATION	
ABS	28554010443-00-2	XJ_RAN00010-840	)1			2017 - 2018 GA GIUI	LIA GU STELVI <mark>O</mark> STEP TWO
ABS	28554010443-00-2	XJ_RAN00015-880	ЭВ			2017 - 2018 GA GU 1	1 BSM / ABS STEP ONE

Figure 6 – Second Flash ABS / BSM "STEP TWO"

- 21. Read the flash special instructions page. Select "OK" to continue.
- 22. From the flash ECU agreement page, agree to terms by checking the box.

23. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

NOTE: If the reprogramming process is interrupted/aborted, it must be restarted.

- 24. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 25. The following table shows the software (SW) codes of the ABS / BSM, before and after the second reprogramming (Figure 7).

Before ABS / BS	M programming	After ABS / BSM programming				
SW number	SW version	SW number	SW version			
XJ_RAN00015	8B0B	XJ_RAN00010	8401			

Figure 7 – ABS / BSM Software Before and After Step Two

#### Step 4 – Third flash ABS / BSM – "FINAL STEP"

26. From the ABS flash tab, select the ABS flash "FINAL STEP" and proceed with the third reprogramming procedure (Figure 8).



Figure 8 – Third Flash ABS / BSM "FINAL STEP"

- 27. Read the flash special instructions page. Select "OK" to continue.
- 28. From the flash ECU agreement page, agree to terms by checking the box.
- 29. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

NOTE: If the reprogramming process is interrupted/aborted, it must be restarted.

30. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".

31. The following table shows the software (SW) codes of the ABS / BSM, before and after the third reprogramming (Figure 9).

Before ABS / BS	M programming	After ABS / BSM programming			
SW number	SW version	SW number	SW version		
XJ_RAN00010	8401	XJ_RAX00007	8541		

Figure 9 – ABS / BSM Software Before and After Step Three - Final Step

**NOTE:** The ABS/BSM Brake Pedal Feel software flash may be bypassed. Proceed to the next steps for Post-Reprogramming Calibration Procedure.

The brake pedal feel software flash may be performed on all (GU) Stelvio vehicles and will modify brake pedal feel. However, this flash is <u>NOT</u> required for <u>Procedure A</u> of this recall and labor time to perform this flash will <u>NOT</u> be reimbursed (Figure 10):

- "2018 2019 GU 2.9L BSM/ABS BRAKE PEDAL FEEL"
- "2018 2019 GU 2.0L GME BSM/ABS BRAKE PEDAL FEEL"

ABS	3						Switch ECU		
Anti Lock	Brakes								
Flash	DTCs Dat	a Misc Functions	System Tests	Actuators	Details	Configuration			
	Part Number: 285 atus: Up-to-Date	54010353-00-XJ_R/	AX00007-8541						
ECU	NEW PART NU	/BER		CALIBRAT	ION		# OF BULLETINS		
ABS	28554010353-00-XJ_RAX00007-8542 2018 - 2019 GU 2.9L BSM / ABS HW353 BRAKE PEDAL FEEL						0-		
ABS	28554010353-00	-XJ_RAX00007-854		2018 - 2019 GU 2.0L GME BSM / ABS HW353 BRAKE PEDAL FEEL 0 -					

Figure 10 – ABS/BSM Brake Pedal Feel Software Flash Files

Step 5 – Post-Reprogramming Calibration Procedure

**NOTE:** The post-reprogramming calibration procedure must be carried out with the vehicle on a flat ground and no people on board.

32. From the ABS "Misc. Functions" tab, select and run the "Control Unit Reprogramming" routine (Figure 11).

ABS								
Flash	DTCs	Data	Misc Functions	System Tests	Actuators	Details	Configuration	
NAME								
ABS un	it bleed							
Brake fl	uid replace	ement / Br	ake fluid reservoir	substitution				
Brake p	ads substit	tution EPE	3 (Brembo)					
Caliper	EPB subst	itution (Br	embo)					
Check a	air presenc	e in ABS	unit					
Checkin	ng air in the	e hydraulio	circuit veen th	e control unit ar	nd brake cali	pers		
Control	unit reprog	ramming						
Ecu Re	placement							
Electric	Park Brake	e motors s	substitution					

Figure 11 - Control Unit Reprogramming

33. Select "**Procedure to be carried out after ECU reprogramming**" and then click "**Continue**" (Figure 12).



Figure 12 - Procedure to be Carried Out After ECU Reprogramming

34. Select "Restore Vehicle" and then click "Continue" (Figure 13).



Figure 13 - Restore Vehicle

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

- 35. Check that every calibration has been completed.
- 36. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 37. Proceed according the procedure description in **Procedure F.** Vehicle Release.

# **Procedure B**

**NOTE:** To update the ABS / BSM software to proper level, the procedure must be followed in the same sequence as listed below (Figure 14):

- Step 1 Flash ABS / BSM "FINAL STEP".
- Step 2 Post reprogramming calibration procedure.



Figure 14 – ABS / BSM Software Reprogramming Sequence

#### Step 1 – Flash ABS / BSM – "FINAL STEP"

11. From the ABS flash tab, select the ABS flash "FINAL STEP" and proceed with the reprogramming procedure (Figure 15).

ABS	;										
nti Lock	Brakes										
Flash	DTCs	Data	Misc Functions	System Tests	Actuators	Details	Configuration	SELECT FLASH			
	Part Number tus: Out-Of-Dat		10535-00-XJ_RAN	100010-8402							
ECU	NEW PAR	NEW PART NUMBER						CALIBRATION			
ABS	28554010	28554010535-00-XJ_RAX00007-8541						2017 - 2019 GA GU BSM / ABS 117 FINAL STEP			

Figure 15 – Flash ABS / BSM "FINAL STEP"

- 12. Read the flash special instructions page. Select "OK" to continue.
- 13. From the flash ECU agreement page, agree to terms by checking the box.

14. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

NOTE: If the reprogramming process is interrupted/aborted, it must be restarted.

- 15. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 16. The following table shows the software (SW) codes of the ABS / BSM, before and after the reprogramming (Figure 16).

Before ABS / BS	M programming	After ABS / BSM programming					
SW number	SW version	SW number	SW version				
XJ_RAN00010	8401	XJ_RAX00007	8541				

Figure 16 – ABS / BSM Software Before and After Reprogramming

**NOTE:** The ABS/BSM Brake Pedal Feel software flash may be bypassed. Proceed to the next steps for Post-Reprogramming Calibration Procedure.

The brake pedal feel software flash may be performed on all (GU) Stelvio vehicles and will modify brake pedal feel. However, this flash is <u>NOT</u> required for <u>Procedure B</u> of this recall and labor time to perform this flash will <u>NOT</u> be reimbursed (Figure 17):

- "2018 2019 GU 2.9L BSM/ABS BRAKE PEDAL FEEL"
- "2018 2019 GU 2.0L GME BSM/ABS BRAKE PEDAL FEEL"

ABS	S												Switch ECU -
nti Lock	Brakes												
Flash	DTCs	Data	Misc Functions	System Tests	Actuators	Details	Configuration						
	Part Numbe atus: Up-to-I		0353-00-XJ_RA	X00007-8541									
ECU	NEW PAR		2		CALIBRATION							# OF BUI	LLETINS
ABS	28554010353-00-XJ_RAX00007-8542 2018 - 2019 0					9 GU 2.9L	GU 2.9L BSM / ABS HW353 BRAKE PEDAL FEEL 0 🗸						
ABS	285540103	353-00-XJ_	RAX00007-8543		2018 - 201	9 GU 2.0L	GME BSM / AI	3S HW353 BRAKE PED	DAL FEEL			0 🕶	

Figure 17 – ABS/BSM Brake Pedal Feel Software Flash Files

<u>Step 2 – Post reprogramming calibration procedure</u>

**NOTE:** The post-reprogramming calibration procedure must be carried out with the vehicle on a flat ground and no people on board.

17. From the ABS "Misc. Functions" tab, select and run the "Control Unit Reprogramming" routine (Figure 18).

Floob	DTCs	Data	Misc Functions	Sustam Testa	Actuators	Details	Configuration
Flash	DICS	Dala	MISC FUNCTIONS	System Tests	Actuators	Details	Configuration
NAME							
ABS un	it bleed						
Brake fl	luid replace	ment / Bra	ake fluid reservoir	substitution			
Brake p	ads substit	ution EPE	8 (Brembo)				
Caliper	EPB subst	itution (Br	embo)				
Check a	air presence	e in ABS u	unit				
Checkir	ng air in the	hydraulic	circuit veen th	e control unit an	nd brake cali	pers	
Control	unit reprog	ramming					
Ecu Re	placement						
	Park Brake		<b>V</b>				

Figure 18 - Control Unit Reprogramming

18. Select "**Procedure to be carried out after ECU reprogramming**" and then click "**Continue**" (Figure 19).



Figure 19 - Procedure to be carried out after ECU reprogramming



19. Select "Restore Vehicle" and then click "Continue" (Figure 20).



Figure 20 - Restore Vehicle

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

- 20. Check that every calibration has been completed.
- 21. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 22. Proceed according the procedure description in **Procedure F.** vehicle release.

### **Procedure C - ( Only for 2018 - 2019 GU )**

**NOTE:** To update the ABS / BSM software (SW) to proper level, the procedure must be followed in the same sequence as listed below (Figure 21):

- Step 1 First flash ABS / BSM "FINAL STEP"
- Step 2 Second flash "BRAKE PEDAL FEEL"
- Step 3 Post reprogramming calibration procedure

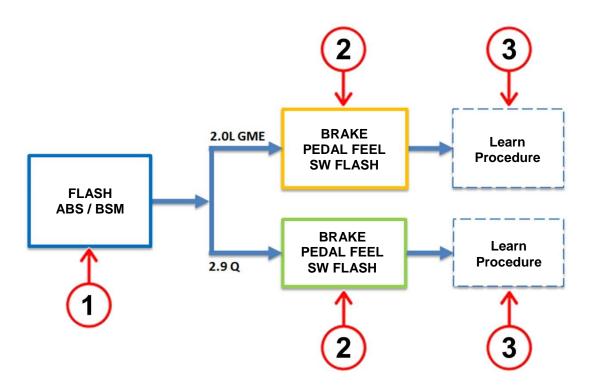


Figure 21 – ABS / BSM Software Reprogramming Sequence

**CAUTION:** Brake pedal feel software <u>must</u> be applied to (GU) Stelvio vehicles with the following production dates:

- Stelvio 2.9L V6: All vehicles
- Stelvio 2.0L GME: Built between April 12, 2018 to August 28, 2018

NOTE: Brake pedal feel software may be applied to all (GU) Stelvio vehicles.

#### Step 1 – First flash ABS / BSM - "FINAL STEP"

11. From the ABS tab, select the ABS flash "**FINAL STEP**" and proceed with the reprogramming procedure (Figure 22).

ABS								
Flash	DTCs	Data	Misc Functions	System Tests	Actuators	Details	Configuration	SELECT FLASH
	Part Numbe tus: Out-Of-D		)10535-00-XJ_RAN	100010-8402				
ECU	NEW PA	RT NUMB	ER			1	CALIBRATION	
ABS	2855401	10535-00-	XJ_RAX00007-854	11			2017 - 2019 GA GU	BSM / ABS 11 / FINAL STEP

Figure 22 – First Flash ABS / BSM - "FINAL STEP"

- 12. Read the flash special instructions page. Select "OK" to continue.
- 13. From the flash ECU agreement page, agree to terms by checking the box.
- 14. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

NOTE: If the reprogramming process is interrupted/aborted, it must be restarted.

15. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".

16. The following table shows the software (SW) codes of the ABS/BSM, before and after the reprogramming (Figure 23).

Before BSM	programming	After BSM programming		
SW number	SW version	SW number	SW version	
XJ_RAN00010	8402		8541	
XJ_RAN00010	8403	XJ_RAX00007	0341	

#### Figure 23 – ABS / BSM Software Before and After Reprogramming

#### Step 2 – Second flash "BRAKE PEDAL FEEL"

17. From the ABS flash tab, select the ABS / BSM flash name, according to the engine liter size installed in the vehicle described in the table below, then proceed with the reprogramming procedure (Figure 24).

Enging	Original ABS S	W Level	ABS SW A Programm		ABS SW flash name
Engine	SW number	SW version	SW number	SW version	ADS S W Hash hante
2.9L	XJ_RAN00010	8402	XJ_RAX00007	8542	2018 - 2019 GU 2.9L BSM/ABS B P F ABS
2.0L	XJ_RAN00010	8403	XJ_RAX00007	8543	2018 - 2019 GU 2.0L GME BSM/ABS B P F ABS

#### Figure 24 – ABS / BSM Software (SW) Before and After Reprogramming

**CAUTION:** Brake pedal feel software <u>must</u> be applied to (GU) Stelvio vehicles with the following production dates:

- Stelvio 2.9L V6: All vehicles
- Stelvio 2.0L GME: Built between April 12, 2018 to August 28, 2018

NOTE: Brake pedal feel software may be applied to all (GU) Stelvio vehicles.

- 18. Read the flash special instructions page. Select "OK" to continue.
- 19. From the flash ECU agreement page, agree to terms by checking the box.
- 20. Select "**Flash ECU**" then follow the wiTECH screen instructions to complete the flash (Figure 25).

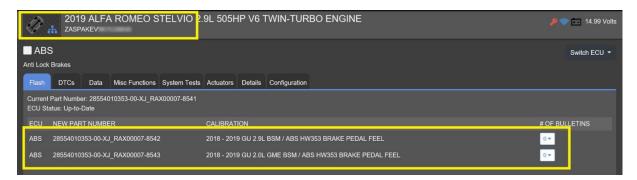


Figure 25 – Brake Pedal Feel Software

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

NOTE: If the reprogramming process is interrupted/aborted, it must be restarted.

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#### Service Procedure [Continued]

Step 3 – Post reprogramming calibration procedure

**NOTE:** The post-reprogramming calibration procedure must be carried out with the vehicle on a flat ground and no people on board.

21. From the ABS "Misc. Functions" tab, select and run the "Control Unit Reprogramming" routine (Figure 26).

ABS								
Flash	DTCs	Data	Misc Functions	System Tests	Actuators	Details	Configuration	
NAME								
ABS uni	t bleed							
Brake flu	uid replace	ment / Br	ake fluid reservoir	substitution				
Brake pa	ads substit	ution EPE	(Brembo)					
Caliper I	EPB substi	tution (Br	embo)					
Check a	iir presence	e in ABS (	unit					
Checkin	g air in the	hydraulic	circuit veen th	e control unit ar	id brake cali	pers		
Control	unit reprog	ramming						
Ecu Rep	placement							
Electric	Park Brake	e motors s	ubstitution					

Figure 26 - Control Unit Reprogramming

22. Select "**Procedure to be carried out after ECU reprogramming**" and then click "**Continue**" (Figure 27).



Figure 27 - Procedure to be Carried Out After ECU Reprogramming

23. Select "Restore Vehicle" and then click "Continue" (Figure 28).



Figure 28 - Restore Vehicle

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

- 24. Check that every calibration has been completed.
- 25. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 26. Proceed according the procedure description in **Procedure F.** vehicle release.

# **Procedure D**

**NOTE:** To update the ABS / BSM software (SW) to proper level, the procedure must be followed in the same sequence as listed below (Figure 29):

- Step 1 Flash ABS / BSM "FINAL STEP".
- Step 2 Post reprogramming calibration procedure.



Figure 29 – ABS / BSM Software Reprogramming Sequence

#### Step 1 – Flash ABS / BSM "FINAL STEP"

11. From the ABS flash tab, select the ABS flash "**FINAL STEP**" and proceed with the reprogramming procedure (Figure 30).

i Lock	Brakes							
Flash	DTCs	Data	Misc Functions	System Tests	Actuators	Details	Configuration	SELECT FLASH
	Part Numbe tus: <b>Out-Of-D</b> a		10535-00-XJ_RAP	00046-8441				
ECU	NEW PAI	RT NUMB	ER			1	CALIBRATION	
ABS	2855401	0535-00-	XJ_RAW00010-85	02		1	2017 - 2019 GA GU	BSM / ABS 11 Y FINAL STE

Figure 30 – Flash ABS / BSM "FINAL STEP"

- 12. Read the flash special instructions page. Select "OK" to continue.
- 13. From the flash ECU agreement page, agree to terms by checking the box.

14. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

NOTE: If the reprogramming process is interrupted/aborted, it must be restarted.

- 15. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 16. The following table shows the software (SW) codes of the ABS / BSM, before and after the reprogramming (Figure 31).

Before ABS / BS	M programming	After ABS / BSM programming				
SW number	SW version	SW number	SW version			
XJ_RAP00046	8441	XJ_RAW00010	8502			

Figure 31 – ABS / BSM Software Before and After Reprogramming

Step 2 – Post reprogramming calibration procedure

**NOTE:** The post-reprogramming calibration procedure must be carried out with the vehicle on a flat ground and no people on board.

17. From the ABS "Misc. Functions" tab, select and run the "Control Unit Reprogramming" routine (Figure 32).

ABS Anti Lock E	ABS Iti Lock Brakes								
Flash	DTCs	Data	Misc Functions	System Tests	Actuators	Details	Configuration		
NAME									
ABS unit	t bleed								
Brake flu	id replace	ment / Bra	ake fluid reservoir	substitution					
Brake pa	ads substit	ution EPB	(Brembo)						
Caliper B	EPB subst	itution (Br	embo)						
Check a	ir presence	e in ABS ι	ınit						
Checkin	g air in the	hydraulic	circuit veen th	e control unit ar	nd brake cali	pers			
Control u	unit reprog	ramming							
Ecu Rep	lacement								
Electric I	Park Brake	e motors s	ubstitution						

Figure 32 - Control Unit Reprogramming

18. Select "**Procedure to be Carried Out After ECU reprogramming**" and then click "**continue**" (Figure 33).



Figure 33 - Procedure to be Carried Out After ECU Reprogramming

19. Select "Restore Vehicle" and then click "Continue" (Figure 34).



Figure 34 - Restore Vehicle

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

- 20. Check that every calibration has been completed.
- 21. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 22. Proceed according the procedure description in **Procedure F.** vehicle release.

### **Procedure E**

**NOTE:** The procedures must be followed in the same sequence as listed below (Figure 35):

- Step 1 First flash "2019 GA GU BSM/ABS HW 115 NAFTA"
- **Step 2** Post reprogramming calibration procedure.



Figure 35 - ABS/BSM Software Reprogramming Sequence

#### Step 1 – First flash "2019 GA GU BSM/ABS HW 115 NAFTA"

11. From the ABS flash tab, select the ABS flash "2019 GA GU BSM/ABS HW 115 NAFTA" and proceed with the reprogramming procedure (Figure 36).

ABS								
Flash	DTCs	Data	Misc Functions	System Tests	Actuators	Details	Configuration	SELECT FLASH
Current I	Part Numbe	er: 28554(	010535-00-XJ_RAN	100010-8402				
	tus: Out-Of-D			N00010-8402			CALIBRATION	

Figure 36 – Flash ABS / BSM "2019 GA GU BSM/ABS HW 115 NAFTA"

- 12. Read the flash special instructions page. Select "OK" to continue.
- 13. From the flash ECU agreement page, agree to terms by checking the box.
- 14. Select "Flash ECU" and then follow the wiTECH screen instructions to complete the flash.

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

NOTE: If the reprogramming process is interrupted/aborted, it must be restarted.

- 15. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 16. The following table shows the software (SW) codes of the ABS/BSM before and after the third reprogramming (Figure 37).

Before BSM	programming	After BSM programming			
SW number	SW version	SW number	SW version		
XJ_RAT00007	84C1				
XJ_RAS00023	8481	XJ_RAY00006	8581		
XJ_RAS00042	8482				

Figure 37 – ABS/BSM Software Before and After Reprogramming

<u>Step 2 – Post reprogramming calibration procedure</u>

**NOTE:** The post-reprogramming calibration procedure must be carried out with the vehicle on a flat ground and no people on board.

17. From the ABS "Misc. Functions" tab, select and run the "Control Unit Reprogramming" routine (Figure 38).

ABS							
Flash	DTCs	Data	Misc Functions	System Tests	Actuators	Details	Configuration
NAME							
ABS uni	t bleed						
Brake flu	uid replace	ment / Bra	ake fluid reservoir	substitution			
Brake pa	ads substit	ution EPE	8 (Brembo)				
Caliper	EPB substi	itution (Br	embo)				
Check a	ir presence	e in ABS ι	unit				
Checkin	g air in the	hydraulic	circuit veen th	e control unit ar	id brake cali	pers	
Control	unit reprog	ramming					
Ecu Rep	olacement						
Electric	Park Brake	e motors s	substitution				

Figure 38 - Control Unit Reprogramming

18. Select "**Procedure to be carried out after ECU reprogramming**" and then click "**Continue**" (Figure 39).



Figure 39 - Procedure to be Carried Out After ECU Reprogramming

19. Select "Restore Vehicle" and then click "Continue" (Figure 40).

Control unit reprogramming	
Select and execute the required option. Start with "Vehicle preparation" and end with "Restore vehicle".	
Option	
Vehicle preparation	
Restore vehicle	
	Continue

Figure 40 - Restore Vehicle

**NOTE:** Read all the instructions and warning messages displayed during reprogramming; do not continue without performing all of the relevant procedures when prompted.

- 20. Check that every calibration has been completed.
- 21. Click "View DTCs", select "Clear All DTCs", click "Continue" and then click "Close".
- 22. Proceed according the procedure description in **Procedure F.** vehicle release.

# **Procedure F**

- 1. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 2. Remove the battery charger from the vehicle.
- 3. Close the vehicle hood.
- 4. Return the vehicle to the customer or inventory.

#### **Completion Reporting and Reimbursement**

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims paid will be used by FCA to record recall service completions and provide dealer payments.

Use <u>one</u> of the following labor operation numbers and time allowance:

	Labor Operation <u>Number</u>	Time <u>Allowance</u>
Inspect ABS/BSM Software Level and Release the vehicle with procedure <b>F</b>	18-V2-71-81	0.2 hours
Inspect ABS/BSM Software Level and Reprogram ABS/BSM with procedure <b>E</b>	18-V2-71-82	0.3 hours
Inspect ABS/BSM Software Level and Reprogram ABS/BSM with procedure <b>D</b>	18-V2-71-83	0.3 hours
Inspect ABS/BSM Software Level and Reprogram ABS/BSM with procedure C	18-V2-71-84	0.4 hours
Inspect ABS/BSM Software Level and Reprogram ABS/BSM with procedure <b>B</b>	18-V2-71-85	0.3 hours
Inspect ABS/BSM Software Level and Reprogram ABS/BSM with procedure A	18-V2-71-86	0.7 hours

**NOTE:** See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

### **Dealer Notification**

To view this notification on DealerCONNECT, select "Global Recall System" on the Service tab, then click on the description of this notification.

### **Owner Notification and Service Scheduling**

All involved vehicle owners known to FCA are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

### Vehicle Lists, Global Recall System, VIP and Dealer Follow Up

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an <u>updated</u> VIN list of <u>their incomplete</u> vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the "Service" tab and then click on "Global Recall System." Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

**Dealers** <u>must</u> perform this repair on all unsold vehicles <u>before</u> retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.

### **Additional Information**

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services / Field Operations FCA US LLC