

Classification: ST14-007 Reference: ITB14-019 SERVICE BULLETIN

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2014 Q50; VDC ACTIVATES WHEN IT IS NOT NEEDED

APPLIED VEHICLES: 2014 Q50 (V37) equipped with Direct Adaptive Steering (DAST) 2014 Q50 Hybrid (V37)

IF YOU CONFIRM:

While driving, the Vehicle Dynamic Control (VDC) activates when conditions <u>do not</u> call for VDC activation (VDC activation is not needed).

NOTE: If the above condition should occur, you will see the VDC warning light flash and you will hear a mechanical noise like Anti-Lock Brake (ABS) activation.

ACTION:

- 1. Check F/B ANGLE 2 in EPS/DAST3.
- 2. If needed, perform Calibration and Confirmation Procedure.

IMPORTANT: The purpose of "ACTION" (above) is to give you a quick idea of the work you will be performing. You MUST closely follow the entire Service Procedure as it contains information that is essential to successfully completing the repair.

Infiniti Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Infiniti dealer to determine if this applies to your vehicle.

SERVICE PROCEDURE

PART 1: Check F/B ANGLE 2

- 1. Connect CONSULT-III plus (C-III plus) to the vehicle.
- 2. Turn the ignition ON.
- 3. Open/start C-III plus and navigate to:



CONSULT-III plus Ver.	35.20 VIN:-		Vehicle : -		Country : States	United
Back Home	Print Screen Capture	Measurement Mode	led Help	11.7V VI	<u>х</u> П	
Data Monitor			Line Graph		Single List	
EPS/DAST 3	F/B ANGLE 2			-1.45	deg	
			Step 4 Should be w	; check rea ithin ±3 de	ading: earees of 0.	
						=
E	xplanation	Trigger Info.			Record	

Figure 1

4. Check F/B ANGLE 2 reading:



PART 2: Calibration and Confirmation Procedures

NOTE: PART 2 includes DAST CALIBRATION (MODE1) and ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION.

DAST CALIBRATION (MODE1)

CAUTION:

- Never move the vehicle during **DAST CALIBRATION (MODE1)** because the steering gear is held in a neutral position until the ignition switch is turned OFF.
- Never rotate the steering wheel more than 120 degrees just after DAST CALIBRATION (MODE1) has been completed because the spiral cable will be damaged.

WARNING: <u>Be careful of moving parts</u>. The steering wheel and front wheels will move automatically by themselves after starting DAST CALIBRATION (MODE1).

Before starting Calibration Mode1:

- Place the vehicle on an alignment rack and then remove the pins from the turn tables so they are allowed to move freely, or place the vehicle on a lift so that the tires do not touch the ground.
- Place the steering wheel tilt to the highest level.
- <u>Connect a battery charger to the vehicle battery set to a low charge rate</u>.

NOTE: This calibration procedure will be performed <u>twice</u> completely through.

IMPORTANT: <u>Do Not</u> turn the ignition OFF at the end of the second time through.

- 1. Make sure the plus VI is connected to the vehicle.
- 2. Connect the AC adapter to the CONSULT PC.

- 3. Turn the ignition ON (engine OFF / Ready light OFF).
 - **IMPORTANT**: Do Not start the engine (for Hybrid models the READY light must be OFF).
- 4. Turn ON the CONSULT PC, and start C-III plus.
- 5. Select **Diagnosis (All Systems)** and Erase all DTCs.
- 6. Navigate C-III plus to EPS/DAST 3 >> Work support >> DAST CALIBRATION (MODE1). See Figure 2.

CONSUL T-III plus Ver.31.11 VIN:	Vehicle : INFINITI Q50: V37 2014 Country : United States					
Image: Second	13.0V VI MI					
Diagnosis (All Select Vehicle Confirm Vehicle	Diagno sis (All Systems) EPS/DAST 3					
Result	ECU Fidentification					
Test Item						
DAST CALIBRATION (MODE1)	Step 6					
DAST CALIBRATION (MODIE2)						
	Sten					
	7 Start					
Figure 2						

- 7. Select START, and then START a second time to begin DAST CALIBRATION (MODE1).
 - Do not rotate the road wheels during the DAST calibration.

WARNING: <u>Be careful of moving parts</u>. The steering wheel and front wheels will move automatically by themselves after starting DAST CALIBRATION (MODE1).

NOTE: If DAST CALIBRATION (MODE1) will not start, refer the Electronic Service Manual for additional diagnostic and repair information.

8. When Auto steering has completed, center the steering wheel to the neutral (straight ahead) position, and then select **Start** again (see Figure 3).

IMPORTANT: The steering wheel must be positioned in the neutral (straight ahead) position for step 8 to ensure that the steering wheel will be centered when driving straight.

CAUTION: When DAST CALIBRATION (MODE1) has completed, the steering wheel is disconnected from the steering gear and the force feedback of the steering is reduced. **Never turn the steering wheel** beyond 120 degrees otherwise the spiral cable will be damaged.

CONSULT-III plus Ver.CSP19.10 VIN:	Vehicle : INFINITI Q50 V37 2014	Country : United States		
Euck Borne Print Screen Captore Mosserment Mode	ded Betp 13.6V VI MI	-		
Diagnosis (All Select Vehicle Confirm Vehicle	e Diagnosis (All EPS/DAST 3 Systems)			
Work support : DAST CALIBRATION (MODE1)				
Auto steering is completed.				
CAUTION: Since the force feedback of steering becomes smaller take good care for turning the steering. Also, do not turn the steering beyond 120 degrees.	r after the completion of "auto steering",	Start Step 8		
		End		

Figure 3

9. Select End.

CONSULT-III plus	Ver.31.11 Ver.CSP19.10	VIN:	Vehicle : IN	FINITI Q50 V37 2014	Country : United States
Back Horne	Print Screen	reen plure Mode	Recorded Belp	13.6V VI MI	-
Diagnosis (All Systems)	Select W	ehicle 🕨 Confirm V	ehicle Diagno-sis (/ Systems)	All PS/DAST 3	
Work support : DAST	CALIBRATION (M	DDE1)			
"DAST CALIBRATIC NOTE: "OFF-CENTE	DN (MODE1)" is co R" is not used.	impleted.			Start
MONITOR					
OFF-CENTER				0 deg	
				Step 9	End
			~~		

Figure 26

- 10. Turn the ignition OFF.
- 11. With the C-III plus still connected, repeat steps 1-9 a second time, but <u>Do Not</u> turn the ignition OFF after step 9, and then proceed to step 12.
- 12. Select the BACK button twice, and then select Yes to "Delete results".
 - After system call completes, proceed to ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION on the next page.

IMPORTANT:

- <u>Do Not</u> turn the ignition OFF. If the ignition is turned OFF between the DAST CALIBRATION (MODE1) and ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION, the procedure for DAST CALIBRATION (MODE1) <u>must</u> be started over from step 1.
- Do Not touch the steering wheel until ADJUSTMENT OF STEERING ANGLE NEUTRAL POSITION (on the next page) is finished.

ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION

- 1. With C-III plus in Diagnosis (All Systems), select ABS >> Work support >> ST ANGLE SENSOR ADJUSTMENT, and then select START.
- 2. When the message "Waiting for your operation....." is displayed, select **Start**.

IMPORTANT: <u>Do Not</u> touch the steering wheel while performing ST Angle Sensor Adjustment.

CONSULT-III plus	Ver.31.11 Ver.CSP19.10	VIN:	Vehicle : INFINIT	1 Q50 V37	7 2014	C S	ountry : United tates
Eack Horne	Print Screen Cept	en Mose Recorded Data	e Help	13.9V	vi Vi	× •	🔀
Diagnosis (All Systems)	Select Veh	icle 🕨 Confirm Vehicle 🕨	Diagnosis (All Systems)		ABS		
Work support : ST AN	GLE SENSOR ADJU	ISTMENT					
TOUCH 'START', AF' STRAIGHT-AHEAD.	TER KEEP THAT TH	E STEERING WHEEL IS IN TH	IE NEUTRAL POSI	TION WH	IEN DF	RIVING	Start
Current status			Waiting) for you	r oper:	ation	Step 2
				Ste 3	эр Г		End



- 3. When the message **COMPLETE** is shown (after approximately 5 seconds), select **End**.
- 4. Turn the ignition OFF.
- 5. Disconnect the battery charger from the vehicle 12V battery.
- 6 Test drive the vehicle and make sure the issue is fixed.

CLAIMS INFORMATION

Submit a Primary Part (PP) type line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Calibrate & Adjust Steering Angle Sensor	(1) (2)	QX30AA	ZE	32	0.7

(1) Refer to the electronic parts catalog (FAST) and use the (controller assy –power steering, column) part number (285H0 – xxxxx) as the Primary Failed Part (PFP).

(2) No other diagnostic procedures subsequently required. Do NOT claim any diagnostic OP Codes with this claim.