INFINITI®

Reference: ITB16-024 COPYRIGHT© NISSAN NORTH AMERICA, INC

June 29, 2016

Date:

VOLUNTARY SAFETY RECALL CAMPAIGN 2014 Q50 HYBRID; DIRECT ADAPTIVE STEERING CONTROL MODULE REPLACE, REPROGRAM, AND RECALIBRATE

CAMPAIGN ID #: R1612

NHTSA #: 16V-430

APPLIED VEHICLES: 2014 Q50 Hybrid (V37)

Check Service COMM to confirm campaign eligibility.

- There are multiple bulletins with different campaign ID numbers for the DAST system.
- Each bulletin is applicable to specific vehicles.
- Make sure the correct bulletin (Campaign ID #) is being used.

INTRODUCTION

Infiniti is conducting a Voluntary Safety Recall Campaign on certain specific Model Year 2014 Q50 Hybrid vehicles to replace and reprogram the Direct Adaptive Steering (DAST) control modules, and recalibrate the DAST system. This Service will be performed at no cost to the customer for parts or labor.

IDENTIFICATION NUMBER

Infiniti has assigned identification number R1612 to this campaign. This number must appear on all communication and documentation of any nature dealing with this campaign.

DEALER RESPONSIBILITY

It is the dealer's responsibility to check Service Comm for the campaign status on each vehicle falling within the range of this voluntary safety recall which for any reason enters the service department. This includes vehicles purchased from private parties or presented by transient (tourist) owners and vehicles in a dealer's inventory. Federal law requires that new vehicles in dealer inventory which are the subject of a safety recall must be corrected prior to sale. Failure to do so can result in civil penalties by the National Highway Traffic Safety Administration. While federal law applies only to new vehicles, Infiniti strongly encourages dealers to correct any used vehicles in their inventory before they are retailed.

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: Replace all Three DAST Control Modules.

1. Replace all three DAST Control Modules (see Figure R1):

DAST 1 - Steering Angle Main Control Module.

• For R&R information, refer to the Service Manual > Section STC > Direct Adaptive Steering > Steering Angle Main Control Module.

DAST 2 - Steering Angle Sub Control Module.

• For R&R information, refer to the Service Manual > Section STC > Direct Adaptive Steering > Steering Angle Sub Control Module.

NOTE: The washer bottle does not need to be removed. Suspend it with string while replacing DAST 2 control module.

EPS/DAST 3 - Steering Force Control Module.

• For R&R information, refer to the Service Manual > Section STC > Direct Adaptive Steering > Steering Force Control Module.



2. After all three DAST Control Modules are replaced; go to <u>PART 2: Configure all Three DAST Control</u> <u>Modules</u> on the next page.

PART 2: Configure all Three DAST Control Modules

NOTE: PART 2 must be performed 3 separate times to configure the control modules for DAST 1, DAST 2, and EPS/DAST 3.

- 1. Connect CONSULT III plus (C-III plus) VI to the vehicle.
- 2. Turn the ignition ON (engine OFF / Not Ready).
- 3. Turn ON the CONSULT PC.
- 4. Open C-III plus and wait for the VI to be recognized.
- 5. Select Re/programming, Configuration.

| | Back | Home Print | Screen Capture Mode | sorded Data |
|-----------------------|--------------|-------------------------------|-------------------------|-------------------------------|
| | Connec | tion Status - | | Diagnosis Menu |
| | | Serial No. | Status | Diagnosis (One System) |
| Plus VI is recognized | VI 2300182 | Normal Mode/USB connection | Diagnosis (All Systems) | |
| | м | - | \bigotimes | 5 |
| | | | No connection | Re/programming, Configuration |
| | Select VI/MI | | | Immobilizer |
| | Applicat | ion Setting | | |
| | SUB S | Sub mode | ABC Language Setting | Maintenance |
| | | /DR | | |

Figure A1

6. Check the box for **Confirmed instructions**, and then select **Next**.

| Back Rome Print Screen Capture Measured | arement de la constant de la constan | → ₩ × ■ 13.5V VI MI | • |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------|
| Re/programming, Configuration | Precaution | Vehicle Selection | |
| Precaution | | | |
| Operating suggestions for reprogramming, progra Please review the all of precautions, and click the ' touch ''Next''. | amming and C/U configration: 'Confirm'' check box after con | firming the its points. And | |
| Caution: 1. Follow the operation guide displayed on screer 2. "Back" and "Home" button may not be used or -For reprogramming and programming 1. Install the latest version of the CONSULT-III plus CONSULT-III plus PC. 2. Preparation and read the service manual or rep -For ECU Configuration 1. Need to write the configuration data to new ECI | n. n this flow. sortware, reprogramming/pro rogramming procedure sheet. U, after replace it. | gramming data to this | |
| 2. If writing the wrong configuration data, ECU car -For ECU Configuration using manual mode 1. Confirm the vehicle's spec and its configuration configuration data, ECU can not work. Pu- | Step | ght data. anual. If writing the wrong | |
| 2. Operate the saving complete Confirmed instructions | | 1/1 | Next |
| | Figure A2 | | |

- 7. Select Q50 Hybrid and 2014, or Automatic Selection(VIN).
 - If Automatic Selection(VIN) is selected, or the screen in Figure A3 does not display, skip to step 9.

| | Back Borne Borne Configuratio | Print Screen Captur | Precaution | Vehicle Selection | Vehicle Confirmation | MI |
|-------------|-------------------------------------|-----------------------------|-----------------------------|----------------------|----------------------|----------------|
| This works, | Automatic S | election(VIN) | Manual Select | ion(Vehicle Name) | $\mathbf{)}$ | |
| 100 | Vehicle Name : | | - | | Model Year : | Salles Channel |
| | "INFINITI EX35 Camp:P8202 | INFINITI G35 Sedan | INFINITI M37/M56 | INFINITI QX56 | 2014 | NISSAN |
| | INFINITI EX35 | INFINITI G37 Convertible | INFINITI M45 | INFINITI QX60 | | INFINITI |
| | INFINITI EX35/EX37 | INFINITI G37 Coupe | INFINITI Q45 | INFINITI QX60 Hybrid | | |
| | INFINITI FX35/FX45 | INFINITI G37 Sedan | INFINITI Q50 | INFINITI QX70 | | |
| | INFINITI FX35/FX50 | INFINITI 130 | INFINITI Q50 Hybrid | | otep 7 | |
| | INFINITI FX37/FX50 | INFINITI 13:5 | INFINITI Q60 Convertible | | | |
| | INFINITI G20 | INFINITI JX35 | INFINITI Q60 Coupe |] | | |
| | INFINITI G25/G37 Sedan | INFINITI M35/M45 | INFINITI QX4 |] | | CLEAR |
| | INFINITI G35 Coupe | INFINITI M35h | INFINITI QX50 |] | Step | Colort |
| | | | | 1/1 | | Select |

8. Select Select.

Figure A3

- 9. Verify the VIN or Chassis # matches that of the vehicle.
 - If the correct VIN is displayed, select **Confirm**.

| | Image: Second Configuration Image: Second Configuration Image: Second Configuration Vehi | Image: New Processor Image: Ne | |
|-------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| | Please confirm selected information and to touch "Change". | ouch "Confirm". In case you want to select another vehicle, | |
| Verify here | VIN or Chassis # | JN1BV7AP2EM | |
| | Vehicle Name : | INFINITI Q50 | |
| | Model Year | 2014 | |
| | | 1/1 | |
| | | If OK, select Confirm | Change |
| | | | |

Figure A4

10. Select Confirm again.

| Image: Back Image: Back | • |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Re/programming, Configuration Vehicle Confirmation Input VIN System Selection | 4/6 |
| Input VIN | |
| Enter the VIN number, and touch "Confirm". According to this operation, in case of specified operation that requires to save ECU information into CONSULT, VIN number you input is saved as file name. Therefore, confirm VIN number correctly. | |
| | |
| VIN (17 or 18 digits) JN 182 121 AP 12C 10 920 021 4 | |
| | |
| | |
| | |
| Step 10 | Confirm |

Figure A5

11. Use the page arrows to scroll and **select the correct control module** for configuration.

Make sure to configure the control modules in this order:

DAST 1, then DAST 2, and then EPS/DAST 3

NOTE: DAST 1 and DAST 2 are shown in Figure A6; EPS/DAST 3 is not shown.

| Reiprogramming. Configuration Price Screen Centres System Selection Touch "system". In case ECU you want to operate is not list | Input VIN System Se | Rep 22.1V VI | ection 5/6 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------|------------|
| AVM CHASSIS CONTROL | TRANSMISSION Step 11 | | |
| DAST 1 DAST 2 HIGH BEAM ASSIST | | Scroll with arrows | |
| | | | ziz 🗨 🕨 |

Figure A6

12. Select Manual Configuration.

| | | States |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Back Back Print Screen | ne Measurement Mode Recorded Help | 12.2V VI MI |
| Re/programming, Configuration | rstem Selection Operation Selection | 6/6 |
| Operation Selection | | |
| Touch "Operation". In case over write current ECU, touch "F In case replacement of ECU, select an ope | Reprogramming". eration in REPLACE ECU category. | |
| REPROGRAMMING | | |
| Reprogramming | In case you want to reprogramming EC | J, touch "Reprogramming". |
| Replacement OF ECU | | |
| Programming (Blank ECU) | | |
| Programming | In case you want to replace ECU Before replace ECU, ECU data is After replace ECU, CONSULT writ | tep SULT. U programming data. |
| VEHICLE CONFIGURATION | | |
| Read / Write Configuration | Manual Configuration | In case you has already replaced ECU, touch "Manual Configuration". |

Figure A7

- 13. Select (highlight) the correct DATA PART NO. (Use the scroll arrows as needed).
 - Use the table below to determine the correct DATA PART NO.
- 14. Select Next.

| | states | |
|-----------------------------------------------------------------------------------------------------------------|--------|------|
| Back Print Screen Screen Measurement Recorded Print Screen Note | | |
| Re/programming, Confirmation of Manual Configuration Write Configuration Write Configuration | 9/11 | |
| Manual Configuration | | |
| Select Type ID from following table which is equal to FAST(Service parts catalogue), then touch "Next". | | |
| Step 13: Select correct | | |
| number | | |
| DATA PART NO. | | |
| 285H0 - 4GB4C | | |
| Examples | | Step |
| 285H0 - 4GB3E | Cancel | |
| 285H0 - 4GF4C | | |
| 1/2 | Next | |
| Figure A8 | | |

DATA PART NO.

| Q50 Hybrid | 2WD With Active Lane Control | AWD With Active Lane Control | 2WD Without Active Lane Control | AWD Without Active Lane Control |
|------------|------------------------------------|------------------------------------|----------------------------------------------|---------------------------------------|
| DAST1 | 28505-4GF3E | 28505-4GF4A | 28505-4GF4B | 28505-4GF4C |
| DAST2 | 28505-4GF8E | 28505-4GF9A | 28505-4GF9B | 28505-4GF9C |
| EPS/DAST3 | 285H0-4GF3E | 285H0-4GF4A | 285H0-4GF4B | 285H0-4GF4C |

NOTE: Vehicles with Active Lane Control will have a Lane Camera Unit mounted above the inside rearview mirror.

- 15. Confirm the DATA PART NO. is correct.
- 16. Select OK.

| Image: Back Image: Back | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Configuration Configuration Complete | 8/9 |
| Write Configuration | |
| Following setting value for each item are saved to vehicle ECU. Confirm setting value for each items, if OK, touch "OK" to save them to vehicle ECU. | |
| DATA PART NO. 28305 • 40F4A 15 | |
| Step 16 | Cancel |
| | |

Figure A9

- 17. Wait for Transfer Data (Write Configuration) to complete.
- 18. Select END.

| Back Home Print Screen Screen | Messurement Mode | (11.7V VI MI | |
|--------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------|-------|
| Re/programming, Configuration | e Configuration Print Result / Operation Complete | | 9/9 |
| Print Result / Operation Complete | | | |
| Write Configuration has been successful Touch "End" to finish operation, and to b | lly completed. ack to Home Screen. Confirm each functic | on works correctly. | |
| DAST 1 | | | |
| | DATA PART NO. | | |
| | 28505 - 4GF4A | | |
| | | Step 18 | Print |
| · | E' 140 | | |

Figure A10

- 19. Repeat the configuration procedure in the correct order; DAST 2 (2nd) and then EPS/DAST 3 (3rd).
- 20. After all 3 DAST control modules have been configured, go to **PART 3: Reprogramming Procedure** on the next page.

PART 3: Reprogramming Procedure

NOTE: PART 3 must be performed 3 separate times to reprogram the control modules for DAST 1, DAST 2, and EPS/DAST 3.

- 1. Before continuing, it is IMPORTANT to make sure:
 - ASIST on the CONSULT PC has been synchronized (updated) with the current date.
 - All CONSULT related software updates (if any) have been installed.

NOTE: The CONSULT PC automatically gets all reprogramming software during ASIST synchronization.

CAUTION:

- Connect the GR8 to the vehicle 12 volt battery and set to ECM power supply mode. If the vehicle battery voltage drops below <u>12.0V or rises above 13.5V</u> during reprogramming, <u>the DAST may be damaged</u>.
- Be sure to turn OFF all vehicle electrical loads.
 If a vehicle electrical load remains ON, <u>the DAST may be damaged</u>.
- Be sure to connect the AC Adapter. If the CONSULT PC battery voltage drops during reprogramming, the process will be interrupted and <u>the DAST may be damaged</u>.
- Turn off all external Bluetooth[®] devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the VI. If Bluetooth[®] signal waves are within range of the CONSULT PC during reprogramming, reprogramming may be interrupted and <u>the DAST may be damaged</u>.
- 2. Once all ASIST and CONSULT related updates have been performed, attach the CONSULT PC to the vehicle.
 - Connect the AC adapter to the CONSULT PC.
- 3. Turn ON the CONSULT PC, and then open CONSULT III plus (C-III plus). **NOTE:** Make sure all applications other than C-III plus are closed.

- 4. Press the ignition switch twice <u>without</u> depressing the brake pedal.
 - The meter and gauges will illuminate.

CAUTION: <u>Do Not</u> start the engine, the DAST may be damaged. (For Hybrid vehicles, make sure the Ready light is OFF.)

NOTE: Make sure <u>ALL</u> accessories are turned OFF.

- 5. Check for stored DTCs in all systems as follows:
 - a. Wait for the plus VI to be recognized.
 - b. Select Diagnosis (All Systems) and Confirm.
 - c. Wait for **System Call** to complete.
 - d. Check for stored DTCs.
 - If no DTCs found, go to step 6.
 - If any DTCs are found stored:
 - > Perform diagnosis and repairs related to the stored DTC(s), and then erase the DTC(s).
 - When completed, go to step 6.

NOTE: Make sure the ignition is not turned OFF between step 5 and step 6.

INFORMATION: If there are DTCs related to the Brake or Steering systems that are falsely stored and will not erase, perform the following:

- aa. Turn the ignition OFF.
- bb. Disconnect the 12V battery negative cable.
- cc. Wait 5 minutes.
- dd. Reconnect the negative battery cable.
- ee. Restart the SERVICE PROCEDURE from the beginning.
- 6. Go to Re/programming, Configuration.
 - a. Select the Home button, and then select YES to return to the screen shown in Figure 1.
 - b. Select **Re/programming**, **Configuration**.



Figure 1

7. Check the box for **Confirmed instructions**, and then select **Next**.

| Back Rome Print Screen | Screen Capture | e Help | (13.5V VI | × 🗭 📃 🔀 | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------|---------|--|
| Re/programming, Configuration | Pr | ecaution | Vehicle Selecti | on 🕨 🕨 | |
| Precaution | | | | | |
| Operating suggestions for reprogramming, programming and C/U configration: Please review the all of precautions, and click the "Confirm" check box after confirming the its points. And touch "Next". | | | | | |
| Caution: 1. Follow the operation guide displa 2. "Back" and "Home" button may -For reprogramming and programm 1. Install the latest version of the CO CONSULT-III plus PC. 2. Preparation and read the service | yed on screen. not be used on this flow. ing NSULT-III plus sortware, reprogr manual or reprogramming proce | amming/programmi edure sheet. | ng data to this | | |
| -For ECU Configuration 1. Need to write the configuration da 2. If writing the wrong configuration | ata to new ECU, after replace it. data, ECU can not work. Please | write the right data | a. | | |
| -For ECU Configuration using manu 1. Confirm the vehicle's spec and its configuration data, ECU can not wo 2. Operate the saving complete | al mode configuration rk pi 7 | e service manual. If | writing the w | rong | |
| Confirmed instructions | | 1 | | Next | |
| | | | | | |
| | Figure | 2 | | | |

- 8. Select Q50 Hybrid and 2014, or Automatic Selection(VIN).
 - If Automatic Selection(VIN) is selected, or the screen in Figure 3 does not display, skip to step 10.
- 9. Select Select.

| [| e fack | Print: Screen Captur | n Mose | Norded Data | 13.5V VI MI | |
|-------------|------------------------------|-----------------------------|-----------------------------|----------------------|----------------------|---------------|
| | Configuratio | s. 🔳 | Precaution | Vehicle Selection | Vehicle Confirmation | |
| This works, | Automatic S | election(VIN) | Manual Select | ion (Vehicle Name) | $\mathbf{)}$ | |
| | Vehicle Name : | | | | Model Year : | Sales Channel |
| | "INFINITI EX35 Camp:P8202 | INFINITI G35 Sedan | INFINITI M37/M56 | INFINITI QX56 | 2014 | NISSAN |
| | INFINITI EX35 | INFINITI G37 Convertible | INFINITI M45 | INFINITI QX60 | 1 | INFINITI |
| | INFINITI EX35/EX37 | INFINITI G37 Coupe | INFINITI Q45 | INFINITI QX60 Hybrid | | |
| | INFINITI FX35/FX45 | INFINITI G37 Sedan | INFINITI Q50 | INFINITI QX70 | | |
| | INFINITI FX35/FX50 | INFINITI 130 | INFINITI Q50 Hybrid | | step 8 | |
| | INFINITI FX37//FX50 | INFINITI (35 | INFINITI Q50 Convertible | | | |
| | INFINITI G20 | INFINITI JX35 | INFINITI Q60 Coupe | | | |
| | INFINITI G25/G37 Sedan | INFIINITI M35/M45 | INFINITI QX4 | | | CLEAR |
| | INFINITI G35 Coupe | INFINITI M35h | INFINITII QX50 | | Sten | Select |
| | | | • | 1/1 | 1 9 | Select |

Figure 3

- 10. Verify the VIN or Chassis # matches that of the vehicle.
 - If the correct VIN is displayed, select **Confirm**.

| | Image: Second | Image: Confirmation Inclusion Vehicle Confirmation Douch "Confirm". In case you want to select another vehicle, |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Verify here | VIN or Chassis # | JN1BV7AP2EM |
| | Vehicle Name : | INFINITI Q50 |
| | Model Year | 2014 |
| | | 1/1 |
| | | Change |
| | | If OK, select Confirm |
| | | Figure 4 |

Figure 4

11. Select Confirm again.

| Image: Back Image: Back | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Configuration Vehicle Confirmation Input VIN System Selection | 4/6 |
| Input VIN | |
| Enter the VIN number, and touch "Confirm". According to this operation, in case of specified operation that requires to save ECU information into CONSULT, VIN number you input is saved as file name. Therefore, confirm VIN number correctly. | |
| | |
| VIN (17 or 18 digits) JN 1E 11 AP 1C 18 990 01 4 | |
| | |
| | |
| | |
| Step 11 | Confirm |



12. Use the page arrows to scroll and **select the correct control module** to be reprogrammed.

Make sure to reprogram the control modules in this order:

DAST 1, then DAST 2, and then EPS/DAST 3

NOTE: DAST 1 and DAST 2 are shown in Figure 6; EPS/DAST 3 is not shown.

| | | JULIE I |
|----------------------------------------------------------------|------------------------------------------|-------------------------|
| tack Horne Print Screen Capture | Measurement Mode Bata | 🚓 🧈 🗙 🖿 🔜 🔀 |
| Configuration | Input VIN System Selection | Operation Selection 5/6 |
| System Selection | | |
| Touch "system". In case ECU you want to operate is not list | ted below, the vehicle or model year mig | ght be selected wrong. |
| AVM | TRANSMISSION | |
| CHASSIS CONTROL | Step | _ |
| DAST 1 | | |
| DAST 2 | | Scroll with |
| HIGH BEAM ASSIST | | arrows |
| | | 212 |
| - | Figure 6 | |

13. Wait for System Call to complete, and then select **Reprogramming**.

| | Image: Back Image: Back |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Re/programming, Configuration System Selection Operation Selection 6/6 |
| | Operation Selection |
| | Touch "Operation". In case over write current ECU, touch "Reprogramming". In case replacement of ECU, select an operation in REPLACE ECU category. |
| | REPROGRAMMING |
| Step 13 | In case you want to reprogramming ECU, touch "Reprogramming". |
| | Replacement OF ECU |
| | Programming (Blank ECU) |
| | Programming In case you want to replace ECU, you should operate followings. Before replace ECU, ECU data is saved to CONSULT. After replace ECU, CONSULT writes ECU data and programming data. |
| | VEHICLE CONFIGURATION |
| | Read / Write Configuration Manual Configuration |
| | |

Figure 7

- 14. When you get to the screen shown in Figure 8, confirm reprogramming applies as follows:
 - A. Find the DAST Part Number and write it on the repair order.

NOTE: This is the <u>current</u> DAST Part Number. DAST 1 is shown; DAST 2 and DAST 3 are similar.

| | Reiprogramming. Cenfiguration Operation Save ECU Data Touch "Save" to save operation log and th | ttion Selection | |
|--------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------|
| | n by selecting suitable operation log. Operation log is erased JN1BV7AP6EM | | |
| | Operation | REPROGRAMMING | |
| | System | DAST 1 | |
| Number | Part Number | 285054GA1B | |
| | Vehicle | V37INFINITI Q50 | |
| | VIN | JN1BV7AP6EM | |
| | Date | 6/18/20 If a match, select Save | Save |
| | | Figure 8 | |

- B. Compare the P/N you wrote down to the numbers in the **Current Part Number** column of Table A below:
 - If there is a <u>match</u>, reprogramming <u>applies</u>. Continue with the reprogramming procedure.

NOTE: The software (current part number) for the DAST Control Modules that were replaced earlier in this procedure should match the ones listed in Table A.

• If there is <u>not a match</u>, reprogramming <u>does not apply</u>.

NOTE: If there is no match for DAST 1, there will be no match for DAST 2 or DAST 3. You can stop. This reprogramming does not apply, or it has already been done.

| т | ~ I | - 1 | _ | | • |
|---|-----|-----|---|---|---|
| Ŀ | aı | וכ | е | ŀ | ł |

| MODEL | CONTROL MODULE | CURRENT PART NUMBER: |
|-----------------|----------------|----------------------|
| 2014 Q50 Hybrid | DAST 1 | 28505-4GA1E |
| | DAST 2 | 28505-4GA6E |
| | EPS/DAST 3 | 285H0-4GA5E |

C. If there is a part number match as specified above, select **Save**, and then continue with the reprogramming procedure on the next page.

15. Read the precautions on the C-III plus screen (use page arrow as needed). After reading, select **Confirmed instructions**, and then select **Next**.

| Image: Back | - |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Re/programming, Configuration Save ECU Data Precaution Select Program Data | · b 8/11 |
| Precaution | |
| Operating suggestions: If the reprogramming/programming is unsuccessful, ECU software may be damaged and ECU is no longer usable. Please review the all of precautions, and click the "Confirm" check box after confirming the its points. | |
| Precautions | |
| <before reprogramming="" starting=""> -Work preparation 1. Install the latest version of the reprogramming data to this CONSULT-III plus PC. 2. Turn off any wireless devices such as mobile phones, cordless phones, transceivers, etc. -PC preparation 1. Close all other software except CONSULT-III plus and DO NOT activate any other software. 2. Check that the screen saver is turned OFF. To do this, right-click on the PC Desktop, and select "Properties". Select the Screen Saver tab then select "(None)" from the Screen Saver pull-down menu, and click "OK".</before> | |
| 3. Operate the PC using the A/C adaptor to keep the battery charged. 4. DO NOT disconnect the VI diagnosis data link cable during report/programmingVehicle preparation 1. Adjust the battery charger output so that 13.5V. For EV, DO NOT charge the transformer of 12.0V to 13.5V. For EV, DO NOT charge the transformer of 12.0V to 13.5V. For EV, DO NOT charge the transformer of 12.0V to 13.5V. For EV, DO NOT charge the transformer of 12.0V to 13.5V. For EV, DO NOT charge the transformer of 12.0V to 13.5V. For EV, DO NOT charge the transformer of 12.0V to 13.5V. For EV, DO NOT charge the transformer of 12.0V to 13.5V. For EV/LEV, pushing the transformer of 12.0V to 14.5V. The transformer of 12.0V to 15.5V. Th | Next |
| | |

Figure 9

NOTE:

- In some cases, more than one new P/N for reprogramming is available.
 - ▶ If more than one P/N is available, the screen in Figure 10 will display.
 - Select and use the reprogramming option that <u>does not</u> have the message "Caution! Use ONLY with ITBXX-XXX".
- If you get this screen and it is <u>blank</u> (no reprogramming listed), it means there is no reprogramming available for that control module.

| Back Re/programming, Configuration Select Program Data | Screen Screen Mode Records | ed Program Data | 9/11 |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------|------|
| Touch and select the rep In case no reprog/program reprog/programming data | rog/programming data listed below. nming data is listed below, confirm the v in CONSULT. | rehicle selection, VIN and | |
| Current Part Number | DAST I Part Number After Repro/program | nming Other Information | |
| XXXXX-XXXXX XXXXX-XXXXX | XXXXX-XXXXX XXXXX-XXXXX | xxxxxxxxxxxxxxxxxxxxxxxxx | |
| | | 0/0 | Next |

Figure 10

16. Verify the Current Part Number matches the Part Number written down in step 14, and then select Next.

| Back Borne Print Screen Capture | Measurement Mode Data Data | 🔀 | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--|--|--|
| Configuration | recaution Select Program Data Confirm Vehicle Condition | 9/11 | | | |
| Select Program Data | | | | | |
| Confirm the detail listed below, and touch In case the screen to select reproglprogram vehicle. In case the part number after reprogramming selection, VIN and reproglprogramming data | Confirm the detail listed below, and touch "Next" if OK. -In case the screen to select reproglprogramming data is NOT displayed, only one data is available for this vehicle. -In case the part number after reprogramming is wrong, touch "Re-select", and confirm the vehicle selection, VIN and reproglprogramming data in CONSULT. | | | | |
| Part Number After Repro/programming | 28505 | | | | |
| Current Part Number | 28505 | | | | |
| Vehicle | V37 INFINITI Q50 | | | | |
| VIN | JN1BV7AP2EM | | | | |
| System | DAST 1 | | | | |
| Other Information | L53H_ST1 | Re-select | | | |
| Expected time to finish re/programming | Verify P/Ns above, then select Next | Next | | | |
| Figure 11 | | | | | |

17. If the screen in Figure 12 appears, first select **Delete**, then **Confirm**, and then **Other Operation**.

- This will erase the **Saved Data List** and restart the reprogram from step 12. You must go back to step 12.
- If no **Saved Data List** is stored, Figure 13 on the next page will be displayed.

| Back References | Screen Laptare | Pertion Log | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------|
| Configuration | Vehicle Confirmation | Selection | |
| Operation Log Selection | | | |
| CONSULT has the saved data relate In case you want to write the save da data list (left side), and confirm the d want to do other operation, touch "Ot | d relprogramming and config ta from CONSULT to vehicle E etail (right side). If the detail is her Operation". | uration. (CU, touch and select the data in Save OK, and touch "Confirm". In case you | |
| Saved Data List | Saved Data Detail | | |
| JN18V7AP2EM | Operation | REPROGRAMMING | |
| | System | DAST 1 | |
| | Part Number | 285H0 | |
| | Vehicle | N Step | Delete |
| | VIN | JN1BV7AF2EM | Other |
| | Saved Date | 1/26/2012 8:37:38 AM | Operation |
| 1/1 |] | 1/1 | Confirm |

Figure 12

18. Confirm battery voltage is correct, and then select Next.

NOTE: Battery voltage must stay within the specified range to make the indicator turn green.



- 19. With battery voltage OK (green), select Start.
 - The reprogramming process begins when Start is selected.

NOTE: For reprogramming to continue, vehicle 12V battery voltage must stay within 12 volts and 13.5 volts.



Figure 14

IMPORTANT: Until the reprogramming has completed:

- <u>Do not touch the **Home** button until instructed to.</u>
- When the plus VI is transferring the reprogram to the DAST control module, do not disconnect the plus VI from the vehicle even if the PC freezes.
- If you need to disconnect the plus VI, first check the LED on the plus VI body to confirm that the communication from the plus VI to the vehicle has completed and the LED for the vehicle icon is OFF.
- If you accidentally disconnect the VI during program writing to the vehicle, the DAST control module that is being reprogrammed may need to be replaced. Refer to <u>Control Unit Recovery</u> on the next page.

20. Wait for both bar graphs to complete and then proceed to page 21.

| _ | | Incomistic | | | | | | | | States | |
|--------------------|--------------------------------------|--------------------------------|----------------------------|-----------------------------|------------------|-----------------------------------|----------------|---------------------|----------|---------------------------|----------|
| dit. Back | Home | Print Screen | Screen Capture | Measurement Mode | Recorded Data | () Help | 13.99 | | × | | |
| % | Re/programming Configuration | · 🔳 | Confir Cor | m Wehicle ndition | Tra | ansfer Data | | | | | 11/11 |
| Transfer | Data | | | | | | | | | | |
| Progra | mming_VI is tra | ansferring ti | he data to v | vehicle ECU | J. | | | | | | |
| In case other v | the other VI is rehicles by using | available, C g other VI. Ir | ONSULT-III n case you v | plus is avai want to use | CONSULT | her operation -III plus with (| other VI, toud | program the "Hom | e" to b | or diagnosi ack to Hom | ng ie |
| "Repro | , and touch "VII gramming/Prog | MI selection ramming" o | " to select on Home scr | other VI. In o een. | case you wa | ant to back to | o this screen | , select | this VI, | and touch | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| E | stimated Time | | 5min | |] | | | | | | |
| c | Transfer ONSIULT to VI | | | | | | | | | | 100% |
| | Transfer VI to ECU | | | | | | | | | | 40% |
| | | | > | • | | | | 0 | ٥ | | |
| | | | | - | | | | | | | |

Figure 15

Possible errors that may rarely occur:

- If the progress bar freezes at 90% of a complete transfer to the plus VI and error code "12-1-1NR" is displayed as shown in Figure 16 on the next page, <u>turn the ignition OFF, then ON</u>, and then refer to Control Module Recovery on the next page.
- If the progress bar freezes at 90% more than 3 times "on the same DAST control module" but without Error Code "12-1-1NR", replace only the DAST control module that is currently being reprogrammed, and then reprogram to the most current software.
- If the reprogramming does not complete, refer to <u>Control Unit Recovery</u> on the next page.

NOTE: If a DAST control module replacement is required:

- Refer to the appropriate section of the ESM for the procedure to replace and configure a DAST control module.
- Make sure to write the correct configuration to the new control module.

Do not disconnect plus VI or shut down Consult III plus if reprogramming does not complete.

If reprogramming does <u>not</u> complete and the "!?" icon displays as shown in Figure 16:

- Check battery voltage (12.0–13.5 V).
- Ignition is ON, engine OFF (Not READY).
- External Bluetooth[®] devices are OFF.
- All electrical loads are OFF.
- Select <u>retry</u> and follow the on screen instructions.
- <u>"Retry" may not go through on the first attempt and can be selected more than once.</u>

| CONSULT-III plus Ver.32.21 VIN: | Vehicle : INFINITI Q50 V37 2014 | Country : North Imerica Common |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------|
| Eack Home Print Screen Capture | Memerereret Mode Data | 🔀 |
| Configuration | nsfer Data | 3/3 |
| Confirm Result | | |
| Reprogramming or programming is not con operation on this ECU. Touch "Retry" to retry reprogramming or pro | pleted properly, but you can retry reprog/programming gramming. | |
| Part number after Reprog/programming | 28505-4GA6C | |
| Current Part Number | 28505-4GA6B | |
| Vehicle | V37INFINITI Q50 | |
| VIN | Select Retry if Error | |
| System | Code 12-1-1-NR is | |
| Date | present. | Retry |
| Other Information | L53H_ST2 | |
| Error Code | 12-1-1-NR | Print |
| | | |

Figure 16

If reprogramming does <u>not</u> complete and the "X" icon displays as shown in Figure 17:

- Check battery voltage (12.0 13.5 V).
- CONSULT A/C adapter is plugged in.
- Ignition is ON, engine OFF (Not READY).
- Transmission is in Park.
- All C-III plus / plus VI cables are securely connected.
- All C-III plus updates are installed.
- Select <u>Home</u>, and then restart the reprogram procedure from the beginning.

| | MN. | Vehicle : QASHQAI | County : Japan |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------|----------------|
| Bark Hone Print Screer | Ecreen Capture | Recorded Help | R 🖉 🖌 🐂 🥅 🔀 |
| Re/programiag. | Transfer Data | Confirm Result | 9/9 |
| onfirm Result | | | |
| Reprogramming is not completed on Print this screen as needed. Confir with precedure. -Restart CONSULT with disconnections -Restart CONSULT wi | operly m CONSULT version, K ng VI once, and start if | GN/Power switch position, shift po ne reprogramming again. | sition and etc |
| Part number after | | 284E2-XXXXX | |
| Keprog/programming | | | |
| Current part number | | 28482-00000 | |
| Koprogramming Current part number Vehicle | | 28482-3XXXX QASHQAI | |
| Reprogramming Current part number Vehicle | | 284E2-XXXXX QASHQAI SJNFDNJ19U100000 | |
| Reprograge programming Current part number Vahicle VIN System | | 284E2JXXXX QASHQAI SUNFDHU10U100000 BCM | |
| Reprogramming Current part number Vehicle VIN System Date | | 28482-300000 QASHQAI 6UNFDNJ190160000 BCM 29/07/291116:30:00 | |
| Reprograge programming Current part number Vehicle VIN System Date information | | 28482-300000 QASHQAI SUNFDNJ1901603000 BCM 29/07/2011 16:30,00 | |

Figure 17

- 21. When the screen in Figure 18 appears, reprogramming is complete.
- 22. Select Next.
- 23. Wait for System Call to complete.

| Image: Back Image: Back | × 🗭 📃 🔀 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Configuration Transfer Data Confirm Result | 12/12 |
| Confirm Result | |
| Reprogramming or programming is completed. Touch "Next" to continue operation. | |
| | |
| Step 22 | Next |
| Figure 18 | |

- 24. Erase all DTCs as follows:
 - a. Turn "ignition" OFF.
 - The screen in Figure 19 will read **OFF** after pressing the power switch once.

| Back Rome Print Screen | Screen Capture Mode | Recorded Data | (12.6V V | | - |
|--------------------------------------|------------------------|------------------|-------------------------|-------------------|-------|
| Re/programming, Configuration | Confirm Result | Erase All DTCs | Print Re Operation C | sult / omplete | 13/14 |
| Erase All DTCs | | | | | |
| According to the instruction below, | erase All DTCs. | | | | |
| 1 | Enocition | | | | |
| Turn ignition switch OFF position | 1 | _ 4 | | AND N | OFF |
| Current status of ignition switch | OFF | | N to DFF | | |
| | | | | | |
| | | | | | |

Figure 19

- b. Turn the ignition ON (engine OFF / Not Ready).
 - The screen in Figure 20 will read ON after pressing the power switch twice.

NOTE: Do not be confused by any screen messages. At this point, simply turn the ignition ON.

| Ba | k Home Print Screen Screen Capture Messarement Model Reorded Did Did V Mi Mi |
|-------|-----------------------------------------------------------------------------------------|
| S. | Re/programming. Confirm Result Confirm Result Confirm Result I Operation Complete 13/14 |
| Erase | a All DTCs |
| Acc | ording to the instruction below, erase All DTCs. |
| 1 | Turn the ignition switch to the OFF position. |
| | Current status of ignition switch |
| | |
| | Figure 20 |

- c. Wait for the bar graph in the **ERASE** window to complete 100%.
- d. Select Next.

| de Back | Horne | Print Screen | Screen Capture | Measurement Mode | Recorded Data | e Relp | 🧀 📕 13.6V VI | × = | |
|------------------------------|-----------------------------------------------------------|---------------------|-------------------|---------------------|------------------|------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| % 0 | Re/programming, Configuration | | Conf | irm Result | Eras | e All DTCs | Print Resi Operation Co | ult / mplete | 13/14 |
| Erase All | DTCs | | | | | | | | |
| Accord 1 Tur If the | rn Ignition switch Step 24c ter actual vehicle i | to gnition swite | ch, touch | "NEXT" to g | o to the new | t screen. | | THE REAL PROPERTY IN THE REAL PROPERTY INTO THE REAL PR | ON SIN |
| | | | | | | | Step 24d |) | Next |

Figure 21

- 25. Verify the part number has changed (before and after reprogramming part numbers should be different).
 - a. Print a copy of the screen in Figure 22 by selecting **Print**.
 - b. Attach the copy to the repair order.
 - c. Once a copy has been printed, select **Confirm**.

| + 🚖 😹 🕅 | | 0 | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------|---------|
| Back Home Print Screen Capture | Moasurement Recorded Mode Data | Help | 13.5V VI N | ; — 🖃 🔼 |
| Configuration | se All DTCs Oper | rint Result / ation Complete | | 14/14 |
| Print Result / Operation Complete | | | | |
| All tasks are completed. Confirm LAN acce in case CONSULT can NOT immediately ac temporally storage of this page. Touch "Sc Data Folder" on desk top, and open the fold | ess, touch "Print" to prir cess to LAN or printer, S reen Capture", and save ler named "Screenimage | nt out this page. Screen Capture functio it. Screen capture dat: s''. | n is available fo a is in "CIII plus | |
| Part number after Reprog/programming | Step | 28505 | | |
| Part number before Reprog/programming | | 28505 | | |
| Vehicle | | V37 INFINITI Q50 | | |
| VIN | ٩L | N1BV7AP2EM - S | tep | |
| System | | DAST 1 2 | 25a | Print |
| Date | 9 | /24/2013 9:14:12 AM | | |
| | | S 2 | tep 25c | Confirm |

Figure 22

26. After Confirmation has completed, select Home.

| Back Back Print Screen | Screen Capture | Image: Weip Image: Weip | м 🖿 📃 🔀 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------|
| Re/programming, Configuration | Erase All DTCs Print R Operation | lesult / Complete | 14/14 |
| Print Result / Operation Complete | | | |
| All tasks are completed. In case CONSULT can Not temporally storage of this Data Folder" on desk top Part number after Reprog/programming Part number before Partonorcamming | " "Complete Operation" Screen is no backing Home once. In case "Comp necessary document, touch "Cance | longer shown after slete Operation'' Screen is el'' to back previous screen. | or s |
| Vehicle VIN System Date | Home 1/11/2 | Cancel 012 2:04:13 PM | Print |
| | Step 26 | 1/1 | Confirm |
| | Figure 23 | } | |

- 27. Repeat the entire reprogramming procedure for DAST 2.
- 28. Repeat the entire reprogramming procedure for EPS/DAST 3.

After all three reprograms (DAST 1, DAST 2, and EPS/DAST 3) are complete, go to step 29 on the next page.

- 29. Check for DTCs in DAST 1, DAST 2, and EPS/DAST 3.
 - a. Open C-III plus, and then select **Diagnosis (All Systems)** and **Confirm**.
 - b. Wait for system call to complete.
 - c. Check for stored DTCs.
 - If no DTCs are stored, go to **PART 4** on the next page.
 - If C13C0 or C13C2 are stored in DAST 1 or DAST 2, go to DAST DTCs on page 33.
 - If DTC C13F2 is stored in DAST 1, DAST 2, or DAST 3 as current:
 - > Then, at least one of the DAST control modules did not complete the reprogramming correctly.
 - > Perform reprogramming again for the DAST control module that <u>Does Not</u> have this code.
 - If only DTCs other than the ones listed above are stored, erase DTCs and go to **PART 4** on the next page.

NOTE: If a DAST control module replacement is required:

- Refer to the appropriate section of the ESM for the procedure to replace and configure a DAST control module.
- Make sure to write the correct configuration to the new control module.

PART 4: Calibration and Confirmation Procedures

NOTE: PART 4 includes the following:

- DAST CALIBRATION (MODE1)
- ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION
- Self-Diagnosis Check
- Confirmation of EPS/DAST 3 ANGLE 1

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.
- 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 still connected to the vehicle.
- 2. Make sure the AC adapter is still connected to the CONSULT PC.

- 3. Turn the ignition ON (engine OFF / Not Ready).
 - **IMPORTANT**: Do Not start the engine (for Hybrid models the READY light must be OFF).
- 4. Turn ON the CONSULT PC, and then open C-III plus (if not already open).
- 5. On the C-III plus screen, select **Diagnosis (All Systems)**. After system call has completed, select **EPS/DAST 3** >> **Work support** >> **DAST CALIBRATION (MODE1)**. See Figure 24.

| Ver.CSP19.10 | | | | States |
|------------------------------------|-------------------|---------------------------------------|--------------|---------|
| Back Borne Print Screen Capture | Meanurement Mode | e e e e e e e e e e e e e e e e e e e | (13.11V VI M | x 💻 🔜 🔀 |
| Diagnosis (All Select Vehicle | e Gonfirm Vehicle | Diagnosis (All Systems) | EPS/DAST 3 | |
| Self Diagnostic Data Monitor | Work support | | Configurati | ion |
| Test Item DAST CALIBRATION (MODE1) | | Step 5 | | |
| DAST CALIBRATION (MODE2) | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | Step | Start |
| | Figuro | 24 | 6 | |
| | Figure | 24 | | |

- 6. 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 to DAST DTCs on page 33.

7. When Auto steering has completed, center the steering wheel to the neutral (straight ahead) position, and then select **Start** again (see Figure 25).

IMPORTANT: The steering wheel must be positioned in the neutral (straight ahead) position, for step 7 above, 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**.



Figure 25

8. Select End.

| Image: Streen Lagrange Image: Streen Lagrange< | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Diagnosis (All Systems) Select Vehicle Confirm Vehicle Systems) EPS:DAST 3 | |
| Work support : DAST CALIBRATION (MODE1) | |
| "DAST CALIBRATION (MODE1)" is completed. NOTE: "OFF-CENTER" is not used. | Start |
| MONITOR | |
| OFF-CENTER 0 deg | |
| | |
| | |
| | |
| | |
| | |
| Step 8 | End |

Figure 26

- 9. Turn the ignition switch OFF.
- 10. With the C-III plus still connected, repeat steps 1-8 a second time, **but** <u>Do Not</u> turn the ignition OFF after step 8, and then proceed to step 11.
- 11. 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: Do Not 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.

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 adjusting steering angle sensor.

| Back Image: Second Systems Image: Secon | ehicle Confirm Vehicle Diagnos Syste | sis (All ABS | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------|--------------------|
| TOUCH 'START', AFTER KEEP THAT T STRAIGHT-AHEAD. | HE STEERING WHEEL IS IN THE NEUTR | AL POSITION WHEN DRIVING | Start Step 2 |
| | | Step 3 | End |

Figure 27

- 3. When the message **COMPLETE** is shown (after approx. 5 seconds), select **End**.
- 4. Turn the ignition switch OFF and wait at least 10 seconds.
- 5. Disconnect the battery charger from the vehicle 12V battery.
- 6. Go to **Self-Diagnosis Check** on the next page.

SELF-DIAGNOSIS Check

- 1. Start the engine or place in READY mode (turn ignition ON <u>with brake pressed</u>).
- 2. Check for DTCs in DAST 1, DAST 2, and EPS/DAST 3 as follows:
 - A. On C-III plus, return to the Home screen.
 - B. Select **Diagnosis (All Systems)**, and then select **Confirm**.
 - C. Wait for system call to complete.
 - D. Check for stored DTCs.
 - If no DTCs are stored, go to CONFIRMATION of EPS/DAST 3 ANGLE 1 on the next page.
 - If DTCs C13E9-00, C13EB-00, and/or C13F0-00 are stored:
 - a. Erase all DTCs.
 - b. Change the steering wheel tilt to a slightly lower position.
 - c. Perform DAST CALIBRATION (MODE1) again.
 - d. Perform SELF-DIAGNOSIS Check again.
 - e. Repeat a d above until no DTCs are stored.
 - f. Go to CONFIRMATION of EPS/DAST 3 ANGLE 1 on the next page.

IMPORTANT: <u>Do Not</u> drive the vehicle.

CONFIRMATION of EPS/DAST 3 ANGLE 1

NOTE: At this point the ignition should still be ON with the engine running or the READY light ON.

- 1. With C-III plus in **Diagnosis (All Systems)**, select **EPS/DAST 3** >> **DATA MONITOR** >> **ANGLE 1**, and then check the value of **ANGLE 1** (see Figure 28).
 - ANGLE 1 should be within the standard value shown below.
 - If ANGLE 1 is not within the standard value:
 - a. Change the steering wheel tilt to a slightly lower position.
 - b. Perform DAST CALIBRATION (MODE1) again.
 - c. Perform CONFIRMATION of EPS/DAST 3 ANGLE 1 again.
 - d. Repeat a c above until ANGLE 1 is within the standard value.





- 2. Disconnect C-III plus from the vehicle.
- 3. Procedure is complete.

DAST DTCs

NOTE: Perform the following steps only if:

- DTCs are stored for DAST 1 and/or DAST 2.
- DAST CALIBRATION (MODE1) will not start.
- 1. Check DTCs for **DAST 1**.
 - If C13C0 and C13C2 are detected as <u>current</u> on **DAST 1**, replace the control module for **DAST 2**.
 - If DTCs cannot be read (DAST 1 is not listed), go to step 2 and check DTCs for DAST 2.
- 2. Check DTCs for **DAST 2**.
 - If C13C0 and C13C2 are detected as current on DAST 2, replace the control module for DAST 1.
 - If DTCs cannot be read (DAST 2 is not listed), turn the ignition switch OFF and then back ON. Then go back to Check DTCs for DAST 1 (step 1) again.
 - If step 1 and step 2 are repeated more than 5 times and there is still no DTCs stored/listed, replace the control module for DAST 3.

NOTE: If a DAST control module replacement is required:

- Refer to the appropriate section of the ESM for the procedure to replace and configure a DAST control module.
- Make sure to write the correct configuration to the new control module.

INFORMATION: If DTCs, other than the ones listed above, are stored and will not erase; do the following:

- a. Turn the ignition OFF.
- b. Disconnect the 12V battery negative cable.
- c. Wait 5 minutes.
- d. Reconnect the negative battery cable.
- e. Return to where you were in the Service Procedure.

PARTS INFORMATION

| DESCRIPTION | PART # | QUANTITY |
|---------------------------------------------------------------|-------------|----------|
| DAST 1 Control Module (Steering Angle Main Control Module) | 28505-4GA1E | 1 |
| DAST 2 Control Module (Steering Angle Sub Control Module) | 28505-4GA6E | 1 |
| EPS/DAST 3 Control Module (Steering Force Control Module) | 285H0-4GA5E | 1 |

CLAIMS INFORMATION

Submit a Campaign (CM) line claim using the following claims coding:

| CAMPAIGN ("CM") I.D. | DESCRIPTION | OP CODE | FRT |
|----------------------|---------------------------------------------------|---------|----------|
| R1612 | DAST Replace Modules, Reprogram, & Recalibrate | R16120 | 3.0 hrs. |