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SERVICE BULLETIN

Classification:	Reference:	Date:
EC16-003c	NTB16-027c	July 17, 2017

2013 – 2017 SENTRA; MIL ON WITH DTC P0101

This bulletin has been amended. CLAIMS INFORMATION has been revised.
No other changes have been made. Discard all previous versions of this bulletin.

APPLIED VEHICLES: 2013 – 2017 Sentra (B17)

APPLIED ENGINE: MRA8DE **Non-Turbo**

IF YOU CONFIRM

The MIL is ON with DTC P0101 (MAF SEN/CIRCUIT-B1) stored.

and

There are no drivability issues.

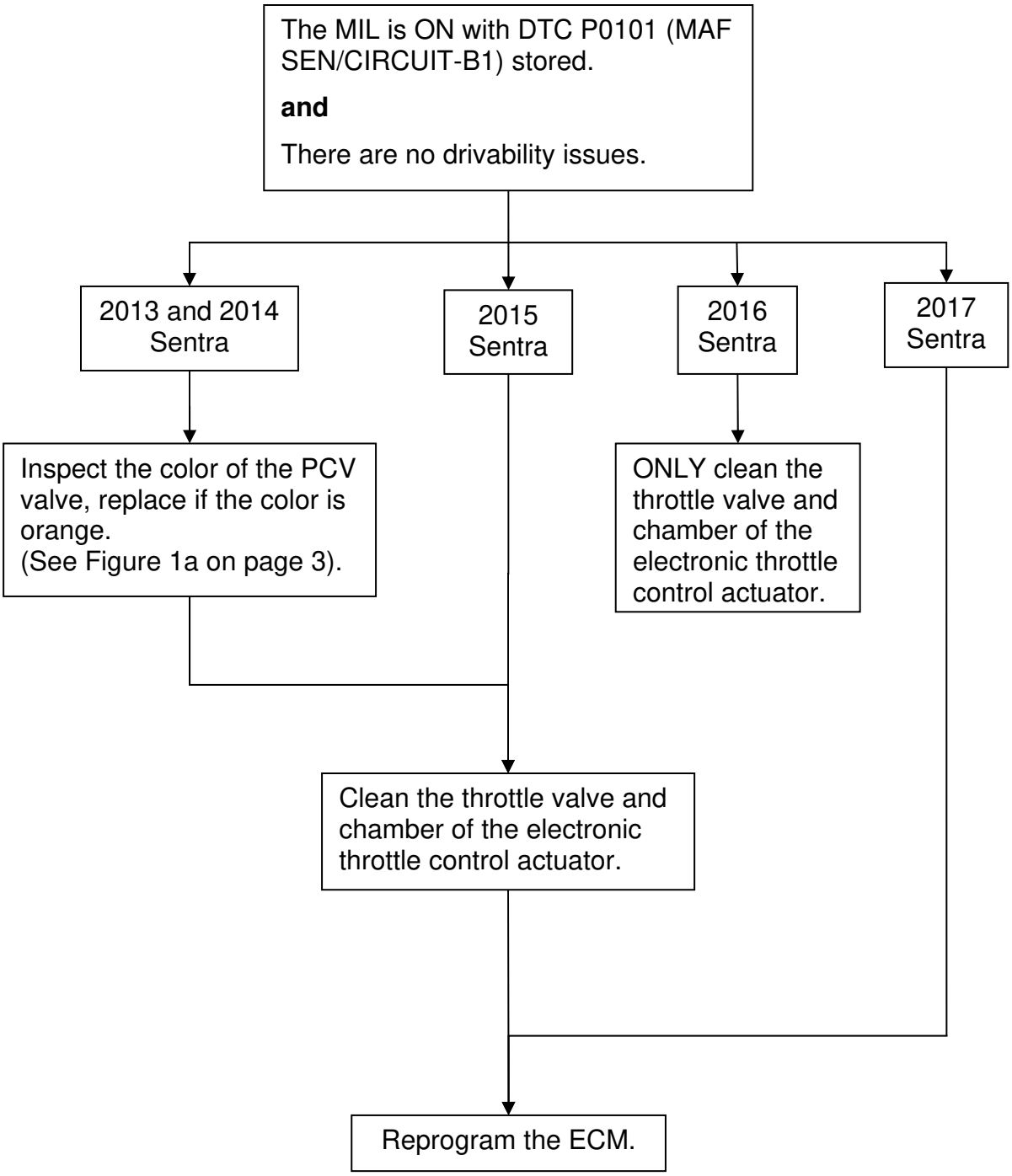
ACTION

1. For 2013 and 2014 models only:
   - Inspect the color of the PCV valve, replace if the color is orange (see Figure 1a on page 3).
2. For 2013-2016 models only: Clean the throttle valve and chamber of the electronic throttle control actuator.
3. For 2013-2015 and 2017 models: Reprogram the ECM.
   - Refer to step 6 in the **ECM Reprogramming/Confirmation** section of the **SERVICE PROCEDURE** to confirm if reprogramming is needed.

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 this repair.

Nissan 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 Nissan dealer to determine if this applies to your vehicle.

Repair Overview



SERVICE PROCEDURE

Inspect / Replace PCV Valve (2013- 2014 Sentra Only)

1. Open the engine hood and locate the PCV valve.
2. Inspect the color of the PCV valve.

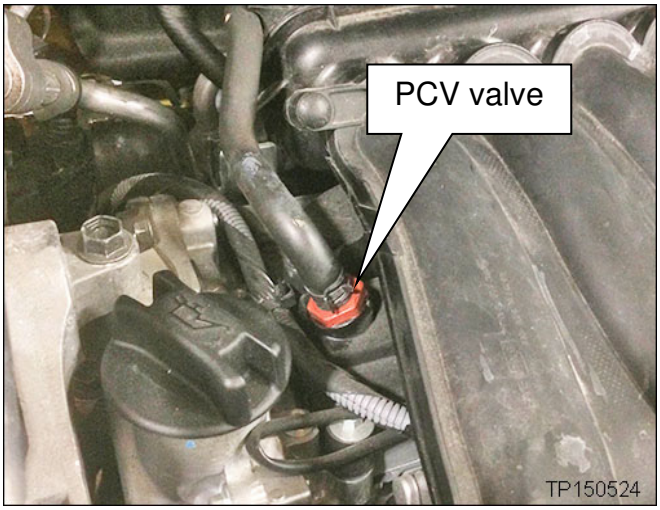


Figure 1a

<u>If the PCV valve is orange, as shown in Figure 1a</u>:

- Replace the PCV valve.
- Refer to the Electronic Service Manual (ESM), section **EM-Engine Mechanical**, for replacement information.
- Install the new PCV valve listed in **PARTS INFORMATION**.

  NOTE: The new PCV valve is “black” color.

<u>If the PCV valve is black</u>:

- DO NOT replace – continue with the **SERVICE PROCEDURE**.

Go to the next page.

Electronic Throttle Control Actuator – Clean Throttle Valve and Chamber (2013-2016 Sentra only)

1. Remove the electronic throttle control actuator (ETC).
   - Refer to the ESM, section **EM-Engine Mechanical**, for ETC removal.

2. On the engine-side of the ETC, clean off deposits on the chamber and throttle valve.

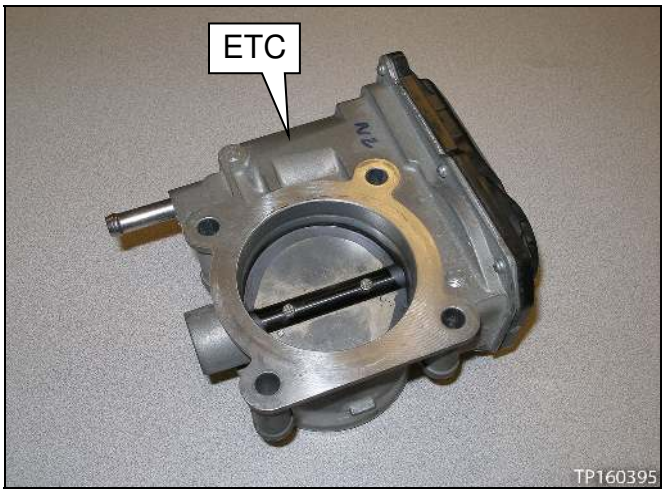


Figure 2a

3. Spray “carburetor” cleaner on a clean cloth towel.
   - Do not use a paper towel.
   - For warranty repairs, use only Nissan Genuine Low VOC Non-Chlorinated Carburetor Cleaner.
   - For non-warranty repairs, Nissan Genuine Low VOC Non-Chlorinated Carburetor Cleaner is recommended, but an equivalent “carburetor” cleaner may be used.
     - ➢ See **PARTS INFORMATION** for further details.

   CAUTION: Do not spray directly on the ETC chamber. Damage may occur to the electronics of the ETC.



Figure 3a



Figure 4a

4. Clean the throttle valve and chamber with the soaked cloth towel.

   - Clean off the deposits from the edges and outer ends of the throttle valve (see Figure 5a).

   - Clean off the areas of the chamber where the throttle valve meets up to and around it.

     ➢ Hold the valve open to access these areas.

     CAUTION:

     - Do not use excessive force when opening the throttle valve.
     - Be careful not to scratch the throttle valve or chamber areas during cleaning.

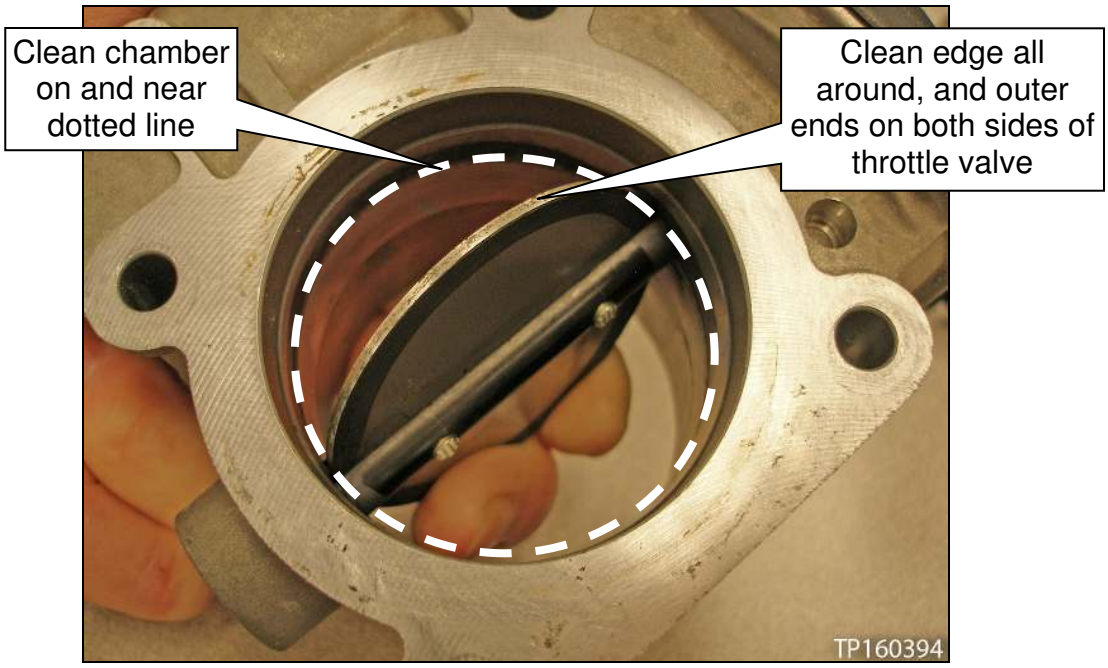


Figure 5a

5. The cleaning is complete when unobstructed clearance is seen between the throttle valve and chamber (see Figure 6a).

   - Looking at the clearance while shining a light from behind will help confirm proper cleaning.



Figure 6a

6. Reinstall the ETC.

   - Refer to the ESM, section **EM-Engine Mechanical**, for ETC installation.
   - Install a new ETC gasket.
     - Do not reuse the old ETC gasket.

7. For 2013-2015 and 2017 models, refer to step 6 in the **ECM Reprogramming** section of the **SERVICE PROCEDURE** to confirm if reprogramming is needed.

   NOTE: Throttle Valve Closed Position Learning and Idle Air Volume Learning is included in the reprogramming procedure.

8. For 2016 models and other vehicles that do not require ECM reprogramming; refer to the ESM, section **EC-Engine Control**, and perform Idle Air Volume Learning (IAVL). This includes:

   - Accelerator Pedal Position Learning, and
   - Throttle Valve Closed Position Learning.

ECM Reprogramming (2013-2015 and 2017 Sentra only)

NOTE:

- Most instructions for reprogramming with CONSULT-III plus (C-III plus) are displayed on the CONSULT PC screen.
- If you are not familiar with the reprogramming procedure, *click here*. This will link you to the "CONSULT-III plus (C-III plus) ECM Reprogramming" general procedure.
- Take the vehicle for a 10 minute drive in order to meet the following Idle Air Volume Learn (IAVL) conditions:
  - Engine coolant temperature: 70 -100°C (158 - 212°F)
  - Battery voltage: More than 12.9V (At idle)
  - Transmission: Warmed up
- After reprogramming is complete, you will be required to perform Idle Air Volume Learn. The above condition are required for Idle Air Volume Learn to complete.



Figure A

CAUTION:

- Connect the GR8 to the 12V battery and select ECM Power Supply Mode. If the vehicle battery voltage drops below 12.0V or above 15.5V during reprogramming, the ECM may be damaged.
- Be sure to turn OFF all vehicle electrical loads. If a vehicle electrical load remains ON, the ECM may be damaged.
- Be sure to connect the AC Adapter. If the CONSULT PC battery voltage drops during reprogramming, the process will be interrupted and the ECM may be damaged.
- Turn off all external Bluetooth® devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the plus VI. If Bluetooth® signal waves are within range of the CONSULT PC during reprogramming, reprogramming may be interrupted and the ECM may be damaged.

1. Connect the CONSULT PC to the vehicle to begin the reprogramming procedure.
2. Start C-III plus.
3. Wait for the plus VI to be recognized.
   - The serial number will display when the plus VI is recognized.
4. Select **Re/programming, Configuration**.

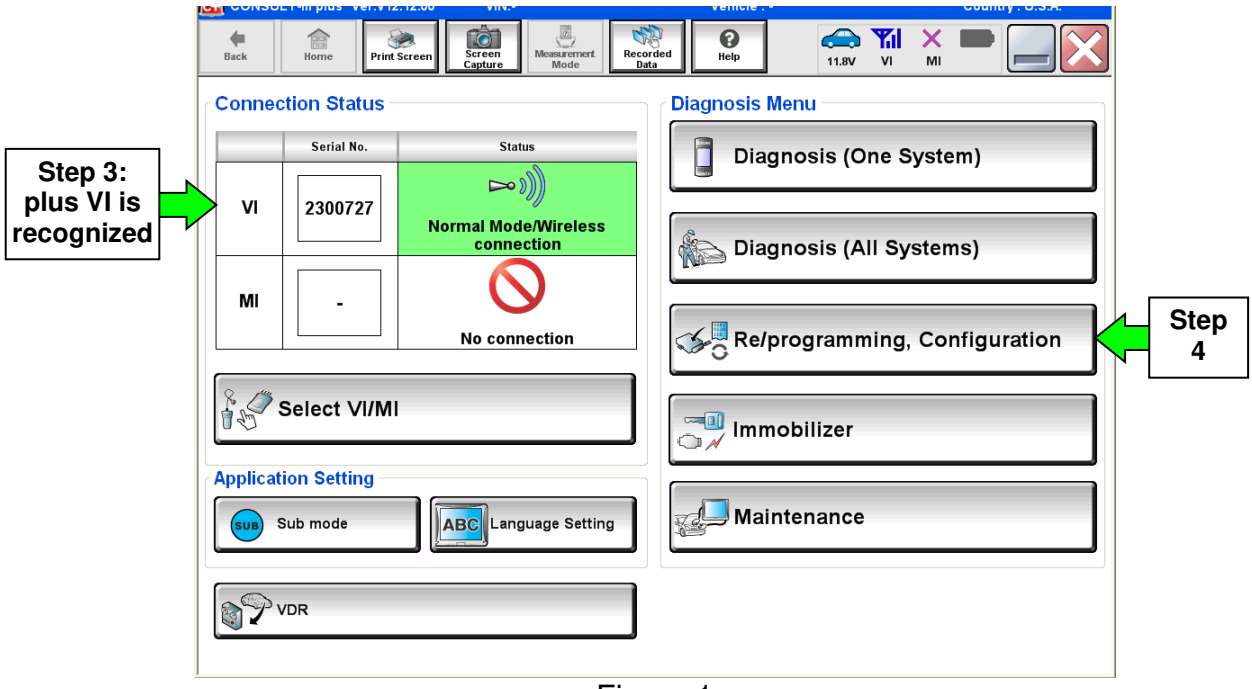


Figure 1

5. Follow the on-screen instructions and navigate C-III plus to the screen shown in Figure 2 on the next page.

6. When you get to the screen shown in Figure 2, confirm this bulletin applies as follows.

   A. Find the ECM **Part Number** and write it on the repair order.

      NOTE: This is the current ECM Part Number (P/N).

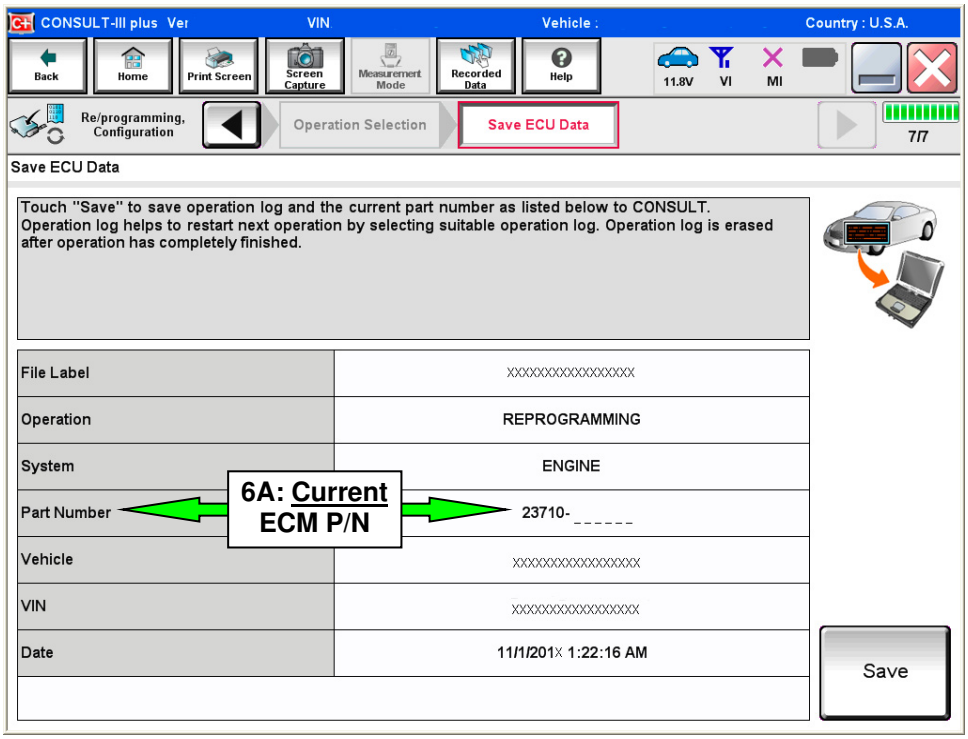


Figure 2

   B. Compare the P/N you wrote down to the numbers in the **Current ECM Part Number** column in **Table A** on the next page.

      - If there is a match, continue with the reprogramming procedure.
      - If there is not a match, reprogramming is not needed.

Table A

MODEL	CURRENT ECM PART NUMBER: 23710-
2013 Sentra	3SA0A, 3SA0B, 3SA0C, 3SA0D, 3SA0E 3SA2A, 3SA2B, 3SA2C, 3SA2D, 3SA2E 3SA3A 3SA4A, 3SA4B, 3SA4C, 3SA4D, 3SA4E 3SA5A, 3SA5B, 3SA5C, 3SA5D, 3SA5E 3SA6A, 3SA6B, 3SA6C, 3SA6D, 3SA6E 3SB0A, 3SB0B, 3SB0C, 3SB0D, 3SB0E 3SG2A, 3SG2B, 3SG2C, 3SG2D, 3SG2E 3SG3B, 3SG3C, 3SG3D, 3SG3E 3SG6A, 3SG6B, 3SG6C, 3SG6D, 3SG6E 3SG7A, 3SG7B, 3SG7C, 3SG7D, 3SG7E 3SG8A, 3SG8B, 3SG8C, 3SG8D 3SG9A, 3SG9B, 3SG9C 3SR2A, 3SR2B, 3SR2C, 3SR2D, 3SR2E 3SR3A, 3SR3B, 3SR3C, 3SR3D, 3SR3E 3SZ0A, 3SZ0B, 3SZ0C, 3SZ0D, 3SZ0E 3SZ1A, 3SZ1B, 3SZ1C, 3SZ1D, 3SZ1E 3RH0A, 3RH0B, 3RH0C 3RH1A, 3RH1B 3RH2A, 3RH2B, 3RH2C, 3RH2D 3RH3A, 3RH3B, 3RH3C, 3RH3D
2014 Sentra	3RU6A, 3RU6B, 3RU6C 3RU7A, 3RU7B, 3RU7C 3RU8A, 3RU8B, 3RU8C, 3RU8E 3RU9A, 3RU9B, 3RU9C, 3RU9E 9AM0A, 9AM0B, 9AM0C, 9AM0D, 9AM0E 9AM1A, 9AM1B, 9AM1C, 9AM1D, 9AM1E 9AM2A, 9AM2B, 9AM2C, 9AM2D, 9AM2E 9AM3A, 9AM3B, 9AM3C, 9AM3D, 9AM3E 9AM4A, 9AM4B, 9AM4C, 9AM4D, 9AM4E 9AM5A, 9AM5B, 9AM5C, 9AM5D, 9AM5E
2015 Sentra	4AT2A, 4AT2B 4AT4A, 4AT4B, 4AT4C 4AT6A, 4AT6B, 4AT6C 4AT8A, 4AT8B, 4AT8C, 4AT8D
2016 Sentra	**Not applicable**
2017 Sentra	3SH4B, 3SH4C 3SH5B, 3SH5C, 3SH5D 3SH6B, 3SH6C, 3SH6D 3SH7B, 3SH7C, 3SH7D

7. Follow the on-screen instructions to navigate C-III plus and reprogram the ECM.

NOTE:

- In some cases, more than one new P/N for reprogramming is available.
  - If there is more than one new P/N, the screen in Figure 3 displays.
  - Select and use the reprogramming option that **does not** have the message "Caution! Use ONLY with NTBXX-XXX".
- If you get this screen and it is blank (no reprogramming listed), it means there is no reprogramming available for this vehicle.

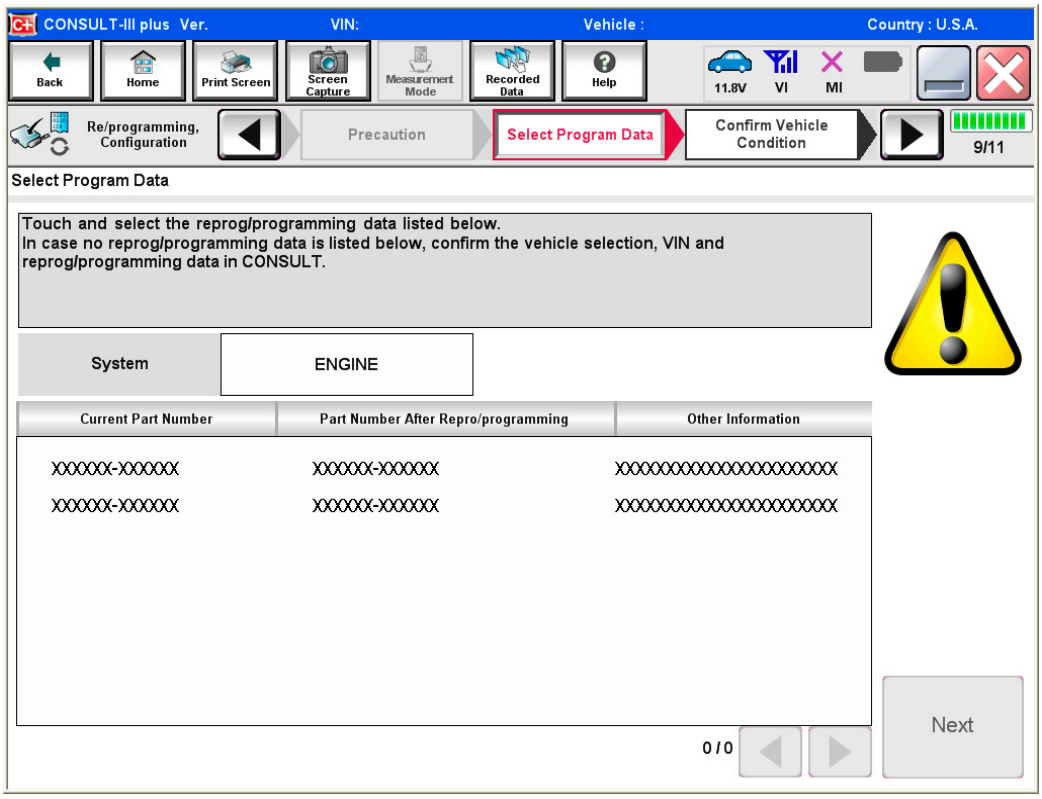


Figure 3

8. When the screen in Figure 4 displays, reprogramming is complete.

   NOTE: If the screen in Figure 4 does not display (indicating that reprogramming did not complete), refer to the information on page 13.

9. Disconnect the battery charger from the vehicle.

10. Select **Next**.

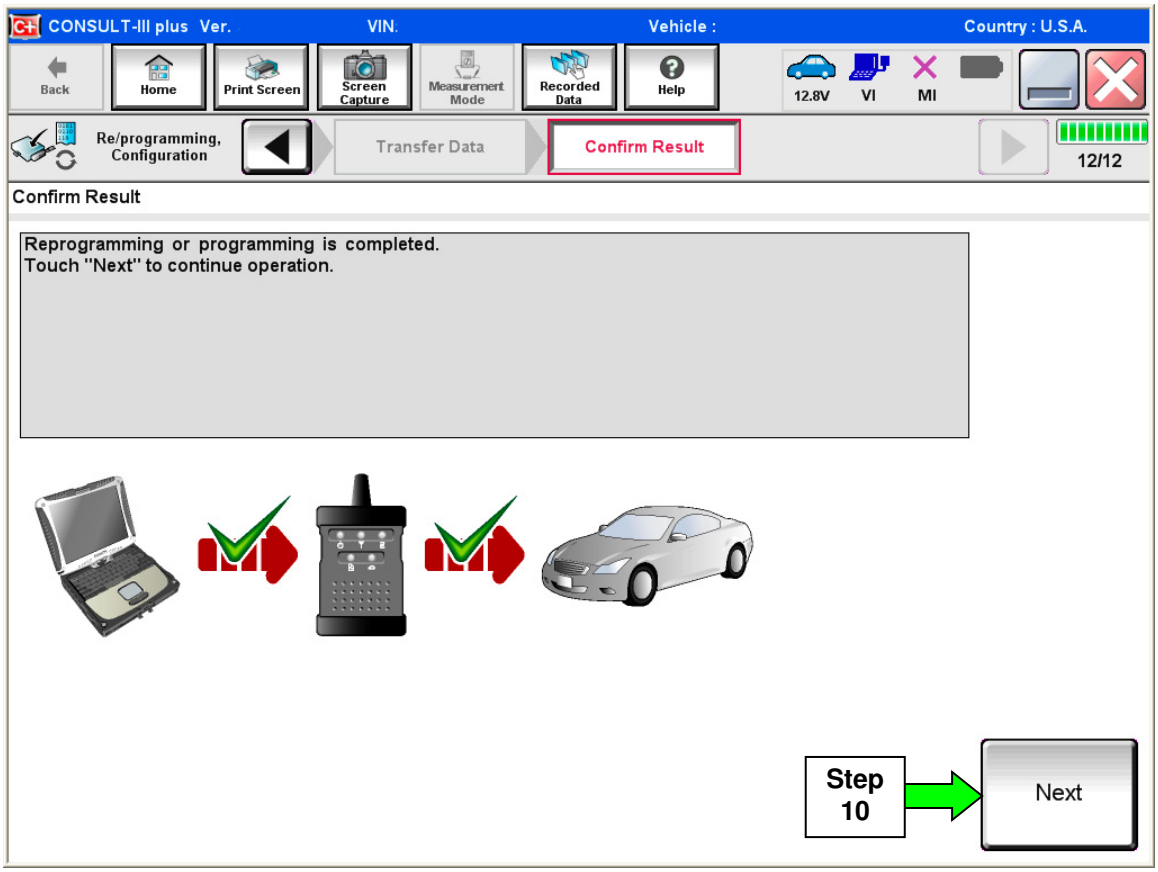


Figure 4

NOTE:

- In the next steps, starting on page 14, you will perform Throttle Valve Closed Position, Idle Air Volume Learn, Accelerator Closed Position, and DTC erase.
- These operations are required before C-III plus will provide the final reprogramming confirmation report.

ECM recovery:

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

If reprogramming does not complete and the "!?" icon displays as shown in Figure 5:

- Check battery voltage (12.0–15.5 V).
- Ignition is ON, engine OFF.
- External Bluetooth® devices are OFF.
- All electrical loads are OFF.
- **Select retry and follow the on screen instructions.**
- "Retry" may not go through on first attempt and can be selected more than once.

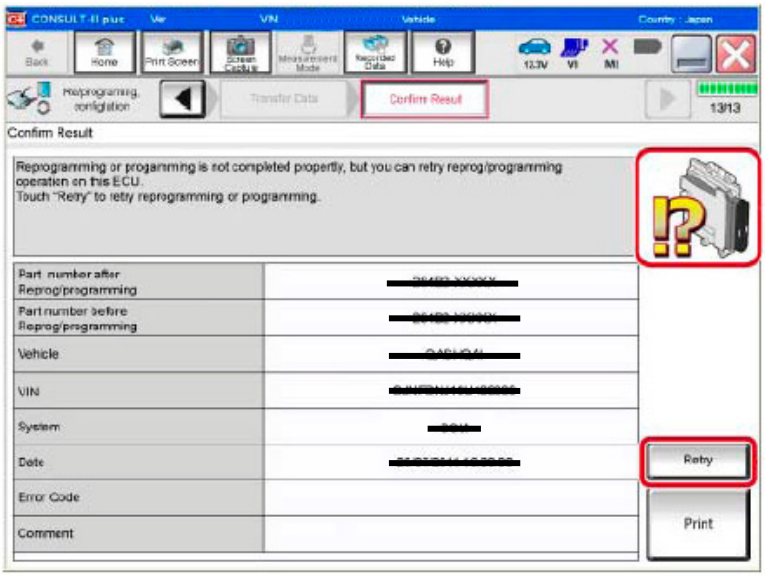


Figure 5

If reprogramming does not complete and the "X" icon displays as shown in Figure 6:

- Check battery voltage (12.0 – 15.5 V).
- CONSULT A/C adapter is plugged in.
- Ignition is ON, engine OFF.
- Transmission is in Park.
- All C-III plus / VI cables are securely connected.
- All C-III plus updates are installed.
- **Select Home, and restart the reprogram procedure from the beginning.**

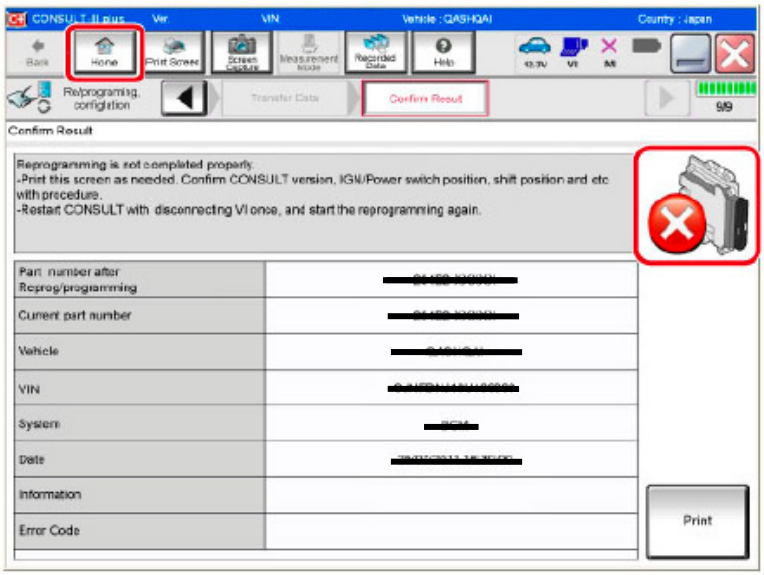


Figure 6

11. Follow the on-screen instructions to perform the following:

- **Throttle Valve Closed Position**

- **Idle Air Volume Learn (IAVL)**

  NOTE:

  - **Listed below are common conditions required for IAVL to complete.**
  - **If IAVL does not complete within a few minutes, a condition may be out of range.**
  - **Refer to the appropriate ESM for specific conditions required for the vehicle you are working on.**
    - Engine coolant temperature: 70 -100° C (158 - 212°F)
    - Battery voltage: More than 12.9V (At idle)
    - Selector lever: P or N
    - Electric load switch: OFF (Air conditioner, headlamp, rear window defogger)
    - Steering wheel: Neutral (Straight-ahead position)
    - Vehicle speed: Stopped
    - Transmission: Warmed up

- **Accelerator Pedal Close Position Learning**

- **Erase DTCs**

Continue to the next page.

12. When the entire reprogramming process is complete, the screen in Figure 7 will display.

13. Verify the before and after part numbers are different.

14. Print a copy of this screen (Figure 7) and attach it to the repair order for warranty documentation.

15. Select **Confirm**.

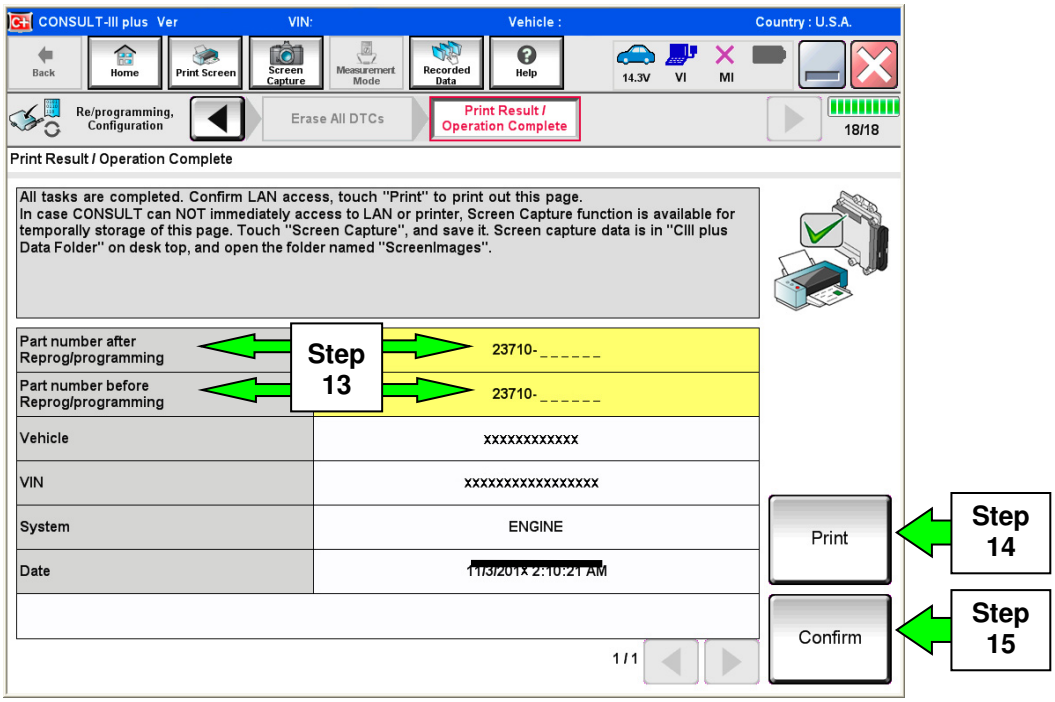


Figure 7

16. Close C-III plus.

17. Turn the ignition OFF.

18. Disconnect the plus VI from the vehicle.

PARTS INFORMATION

DESCRIPTION	PART NUMBER	QUANTITY
PCV Valve (Black Color)	11810-6N202	1 **(a)**
GASKET-ADAPTER (ETC gasket)	16175-JA00A	1
Nissan Genuine Low VOC Non-Chlorinated Carburetor Cleaner	999MP-A3001P	**(b) (c)**

(a) If needed. See page 3, **Inspect / Replace PCV Valve (2013- 2014 Sentra Only)**.

(b) For warranty repairs, Nissan Genuine Low VOC Non-Chlorinated Carburetor Cleaner **must** be used. For non-warranty repairs, Nissan Genuine Low VOC Non-Chlorinated Carburetor Cleaner is recommended, but an equivalent "carburetor" cleaner may be used.

(c) Nissan Genuine Low VOC Non-Chlorinated Carburetor Cleaner can be ordered through the Nissan Maintenance Advantage program: Phone: 877-NIS-NMA1 (877-647-6621) or Website: Order via link on dealer portal www.NNAnet.com and click on the "Maintenance Advantage" link.

CLAIMS INFORMATION

For 2013 and 2014 models only IF PCV Valve Is Orange

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
RPL PCV Valve	11810-6N202	AR32AA	HD	32	(1)

(1) Reference the current Nissan Warranty Flat Rate Manual and use the indicated FRT.

And

On the same repair line:

DESCRIPTION	OP CODE	SYM	DIA	FRT
Clean Electronic Throttle Chamber off Vehicle	DX48AA	ZE	32	0.5

EXPENSE CODE	DESCRIPTION	MAX AMOUNT
041	Nissan Genuine Low VOC Non-Chlorinated Carburetor Cleaner	$1.75

And

Only if needed for 2013-2014

On the same repair line if the ECM is reprogrammed:

DESCRIPTION	OP CODE	SYM	DIA	FRT
Reprogram ECM	DE97AA	ZE	32	(1)(2)

(1) Reference the current Nissan Warranty Flat Rate Manual and use the indicated FRT.

(2) FRT allows adequate time to access DTC codes and reprogram ECM. No other diagnostic procedures subsequently required. Do NOT claim any Diagnostic Op Codes with this claim.

OR

For 2013 and 2014 models only IF PCV Valve is Black, and reprogramming is needed

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram ECM	(1)	DE97AA	ZE	32	(2)(3)

(1) Reference FAST and use the ECM part number (23710-*****) as the PFP.
(2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated FRT.
(3) FRT allows adequate time to access DTC codes and reprogram ECM. No other diagnostic procedures subsequently required. Do NOT claim any Diagnostic Op Codes with this claim.

And

On the same repair line:

DESCRIPTION	OP CODE	SYM	DIA	FRT
Clean Electronic Throttle Chamber off Vehicle	DX48AA	ZE	32	0.5

EXPENSE CODE	DESCRIPTION	MAX AMOUNT
041	Nissan Genuine Low VOC Non-Chlorinated Carburetor Cleaner	$1.75

OR

For 2015 Models, if reprogramming is needed

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram ECM	(1)	DE97AA	ZE	32	(2)(3)

(1) Reference FAST and use the ECM part number (23710-*****) as the PFP.
(2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated FRT.
(3) FRT allows adequate time to access DTC codes and reprogram ECM. No other diagnostic procedures subsequently required. Do NOT claim any Diagnostic Op Codes with this claim.

And

On the same repair line:

DESCRIPTION	OP CODE	SYM	DIA	FRT
Clean Electronic Throttle Chamber off Vehicle	DX48AA	ZE	32	0.5

EXPENSE CODE	DESCRIPTION	MAX AMOUNT
041	Nissan Genuine Low VOC Non-Chlorinated Carburetor Cleaner	$1.75

OR

If ONLY the throttle chamber requires cleaning (2013-2016 only).

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Idle Air Volume Learning Procedure	(1)	DE96AA	ZE	32	(2)
Clean Electronic Throttle Chamber off Vehicle		DX48AA			0.5

(1) Refer to the electronic parts catalog (FAST) and use the Electronic Throttle Control Chamber assembly part number as the Primary Failed Part (PFP).
(2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated flat rate time.

EXPENSE CODE	DESCRIPTION	MAX AMOUNT
041	Nissan Genuine Low VOC Non-Chlorinated Carburetor Cleaner	$1.75

OR

For 2017 Models, if reprogramming is needed

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram ECM	(1)	DE97AA	ZE	32	(2)(3)

(1) Reference FAST and use the ECM part number (23710-*****) as the PFP.
(2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated FRT.
(3) FRT allows adequate time to access DTC codes and reprogram ECM. No other diagnostic procedures subsequently required. Do NOT claim any Diagnostic Op Codes with this claim.