



# SERVICE BULLETIN

Classification: AT10-009c	Reference: NTB11-002c	Date: November 5, 2013
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## 2010 MAXIMA, MURANO, & V-6 ALTIMA; MIL IS ON AND / OR SLOWER-THAN-NORMAL ACCELERATION

This bulletin has been amended to update the SERVICE PROCEDURE to CONSULT-III plus. The REPAIR FLOW CHART and TCM P/N table have been amended. Please discard all previous versions of this bulletin.

**APPLIED VEHICLES:** 2010 Maxima (A35)  
2010 Murano (Z51)  
2010 Altima Sedan (L32) equipped with VQ35DE engine **ONLY**  
2010 Altima Coupe (CL32) equipped with VQ35DE engine **ONLY**

### IF YOU CONFIRM:

The vehicle has slower-than-normal acceleration from a stop at times

**and / or**

The customer describes the vehicle has slower-than-normal acceleration from a stop at times

**NOTE:** The condition of slower-than-normal accelerating from a stop, if it should occur, happens more commonly when the vehicle has been driven for extended periods at highway speeds.

**and / or**

The MIL is ON with DTC P1778 (STEP MOTOR) stored in Engine and/or Transmission.

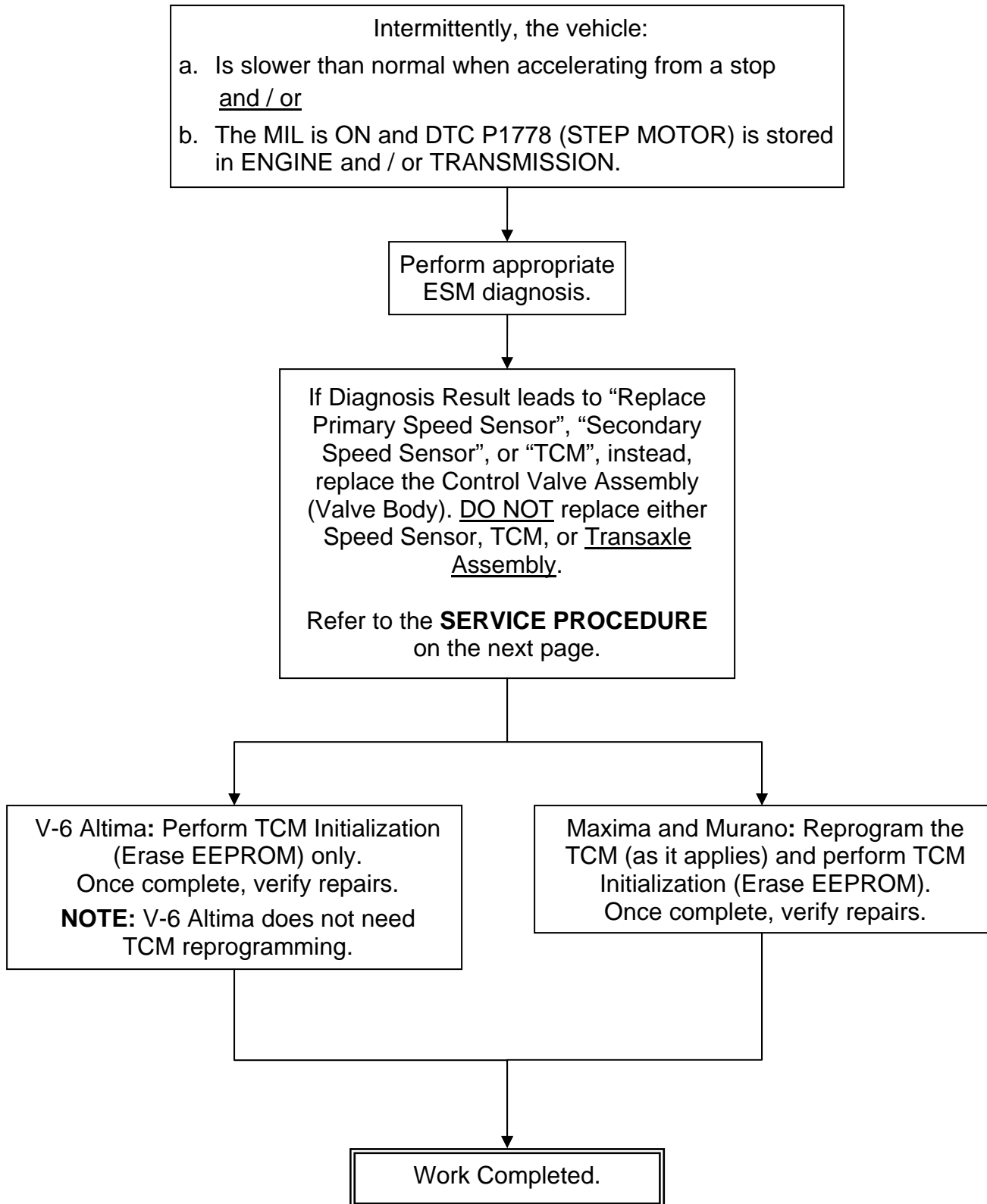
### ACTION:

Refer to the **REPAIR FLOW CHART** on page 2 for repair procedure.

**IMPORTANT:** The purpose of **ACTION** (above) is to give you a quick idea of the work you will be performing. You **MUST** closely follow the **REPAIR FLOW CHART** (on page 2) and the **SERVICE PROCEDURE** if applicable (starting on page 3) as they contain information that is essential to successfully completing the 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 FLOW CHART



## SERVICE PROCEDURE

### Remove Control Valve Assembly

#### PRECAUTIONS WHEN REPLACING CONTROL VALVE ASSEMBLY

Transmissions are vulnerable to particles (dust, metal, lint, etc.)

- When replacing a valve body, make sure your work environment (shop, workbench, etc.), the transmission area (sub-frame, oil pan, harness connector, etc.), and your hands are free of contamination.
- Make sure all parts are clean prior to installing on the vehicle. Unpack Service Parts just before installation.

**NOTE:** The transmission does not need to be removed for this procedure.

1. Write down all radio station presets.

Presets	1	2	3	4	5	6
A						
B						
C						
SAT						

2. Set the vehicle on a hoist, but do not raise it.
3. Disconnect both battery cables, negative cable first.

4. Remove the CVT dipstick, and then raise the vehicle on the hoist.
5. Remove the undercover from underneath the front bumper.
6. Remove the transmission pan drain plug and drain the CVT fluid.

**WARNING:** CVT Fluid may be hot.

7. Remove the oil pan bolts to remove the oil pan.

8. Disconnect CVT harness connector F6 by turning it in the direction shown in Figure 1.

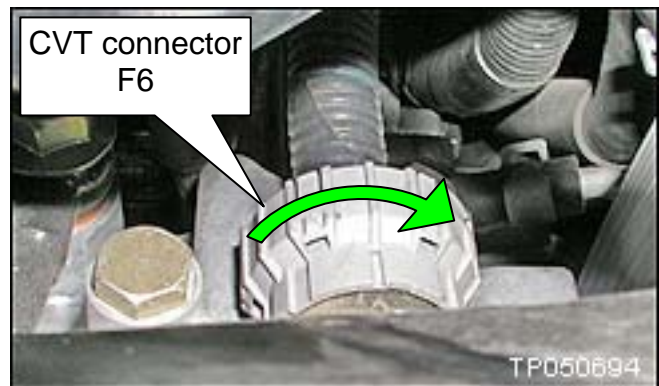


Figure 1

9. Remove the nut and lock nut to remove the manual plate (see Figure 2).

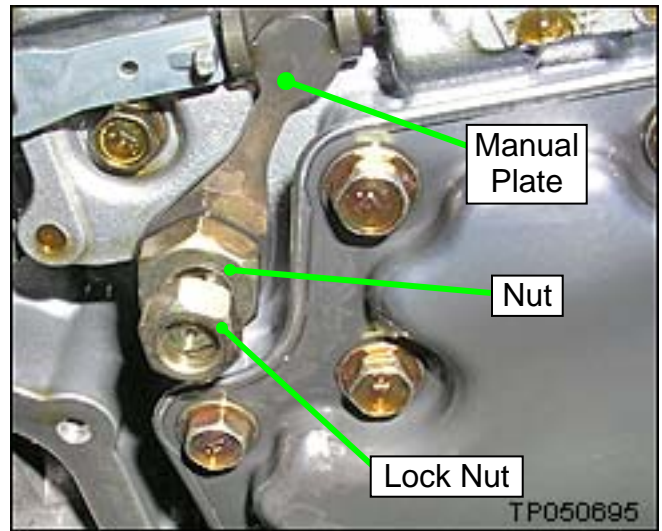


Figure 2

10. Remove the collar from the manual shaft (see Figure 3).

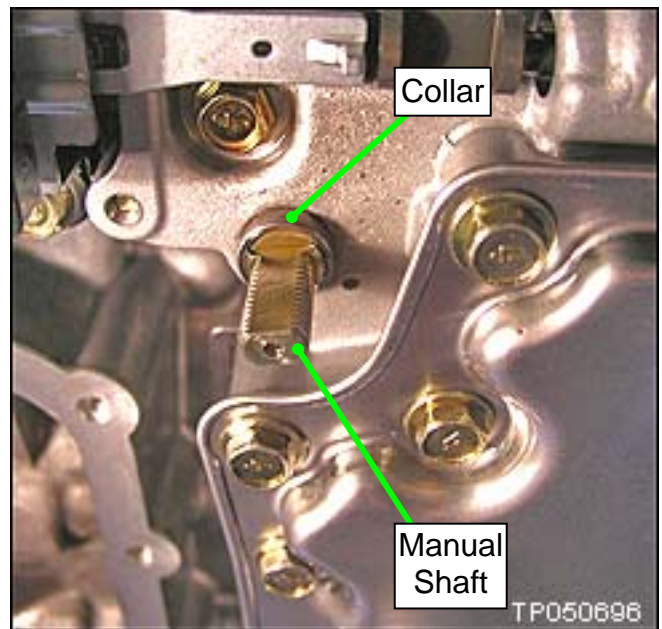


Figure 3

11. Remove the large lock ring holding the black CVT connector to the transmission case (see Figure 4).

- Push the black CVT connector down inside the transmission case to remove it.

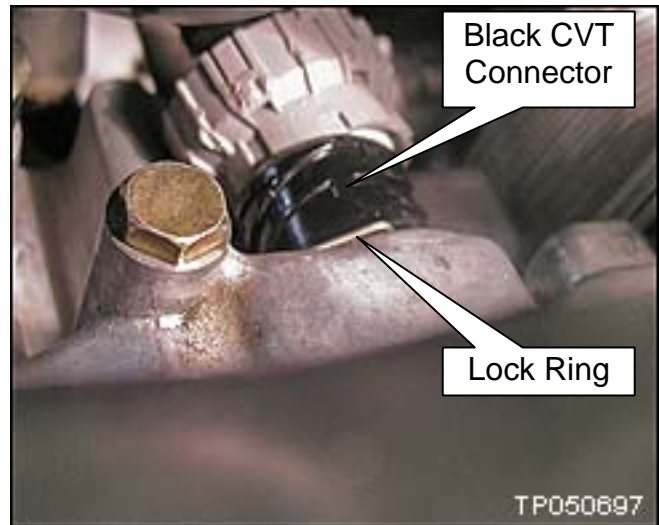


Figure 4

- Black CVT harness connector and lock ring shown removed from the transmission case (see Figure 5).



Figure 5

12. Disconnect the harness from the Primary oil pressure sensor assembly (see Figure 6).



Figure 6

13. Remove the bolts attaching the valve body to the transmission (see Figure 7).

- There are eleven (11) bolts shown and numbered for convenience.
- There are three (3) different length bolts which are identified by:

S-short

M-medium

L-long

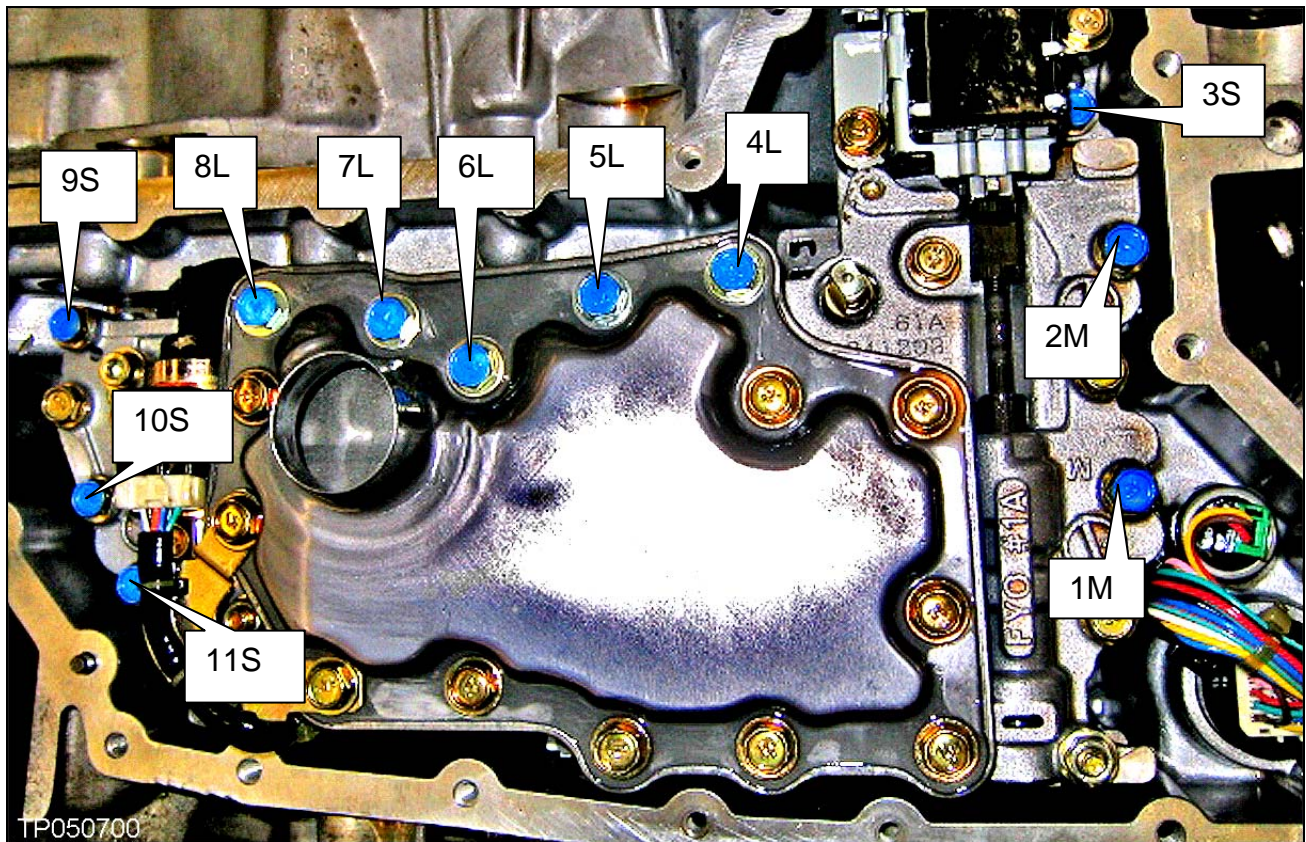


Figure 7

14. Carefully remove the valve body.

- Note the position of the Ratio Control Valve and attached shift link (see Figure 8).
- Be careful not to allow the Ratio Control Valve to fall out.

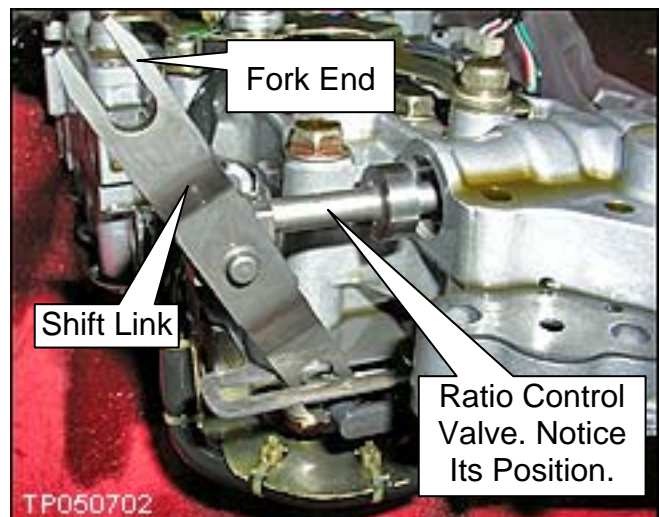


Figure 8

15. Make sure you replace the two (2) lip seals shown in Figure 9.

- Do not reuse the old lip seals.
- Use petroleum jelly or equivalent to keep the new lip seals in place during reassembly.



Figure 9

**Install the replacement Control Valve Assembly:**

16. Carefully install the new valve body and shift link with the fork end of the shift link around the pin (see Figure 10).

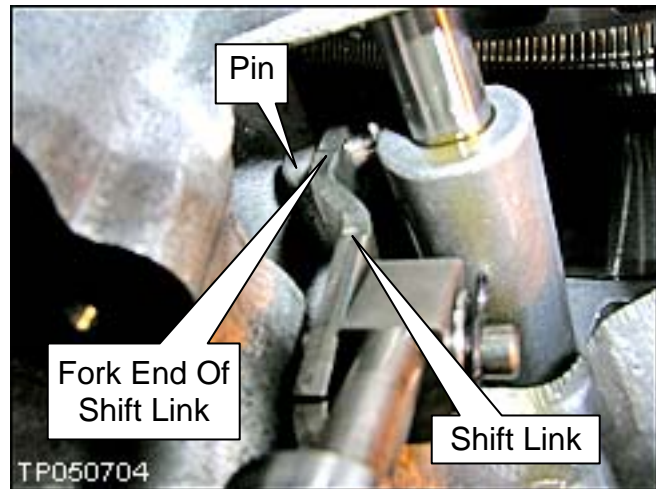


Figure 10

17. While you are doing step 16 above, the lower end of the shift link must stick through the bottom of the step motor pin as shown in Figure 11.

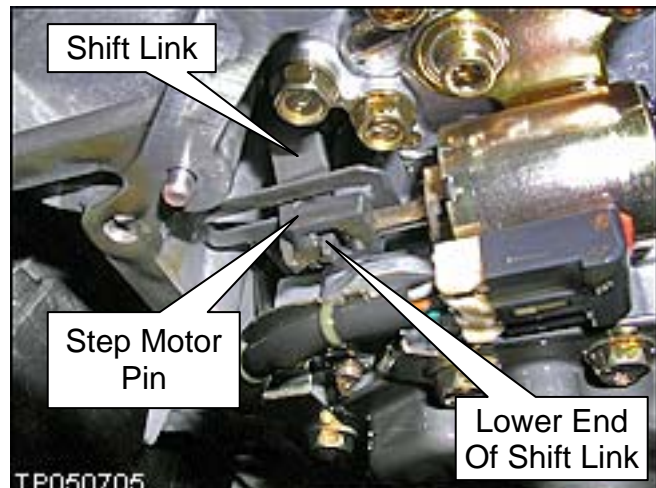


Figure 11



18. Install finger tight the eleven (11) valve body bolts removed on page 7, step 13.

- Make sure the different lengths of bolts are installed in the correct holes (see page 7, Figure 7).

**IMPORTANT CHECKS:**

- After you install the new valve body, make sure the upper end (fork end) of the shift link is positioned around the pin. Space is very limited in the work area.
- Install the CVT dip stick and make sure there is adequate clearance between the dipstick and the harness.

19. Torque the eleven (11) valve body bolts.

- Tightening torque: 6.9-8.9 N•m (0.7-0.9 kg-m, **61.1-78.8 in-lb**) \*.
- Torque sequence as per Figure 7, page 7: 6-7-5-8-4-9-3-10-2-11-1.
- Refer to Figure 7 for bolt numbering and position.

20. Reinstall the collar on the manual shaft (see page 5, step 10 and Figure 3).

21. Align the manual plate with the notch in the manual valve (see Figure 12).

**NOTE:** First, tighten the nut, and then tighten the lock nut with the specified tightening torque.

- Use a Torque wrench to tighten both the 14 mm and 19 mm nuts; same torque specification for both:

**TORQUE:** 20.6-23.5 N•m  
(2.1-2.3 kg-m, **15.1 - 17.3 ft-lb**) \*

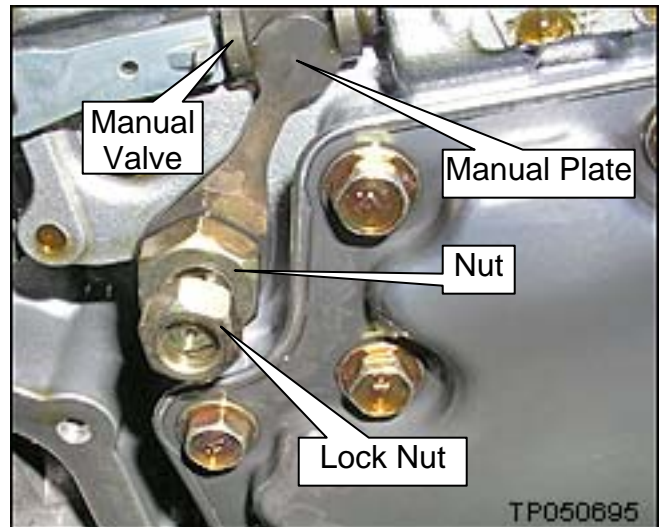


Figure 12


22. Reconnect the harness to the primary oil pressure sensor (see page 6, step 12 and Figure 6).

\* Do not confuse in-lb with ft lb.

23. Install the black CVT connector in its transmission case mounting hole.

- Secure it by installing its large lock ring.
- Secure the gray F6 CVT connector to the black CVT connector.

24. Install the oil pan with a new gasket and new bolts.

- Make sure the oil pan and magnets are clean.
- Bolts tightening torque: 5.4 – 7.4 N•m (0.5 – 0.7 kg-m, **47.8 – 65.5 in-lb**). \* 

25. Install the drain plug with new seal.

- Drain plug torque: 21.0 N•m (2.14 kg-m, **15.5 ft lb**)

26. Install the undercover.

27. Connect both battery cables, negative cable last.

28. Check the fluid level.

- Add as necessary.
- Inspect for fluid leaks.

29. For Maxima and Murano: Go to “**TCM Reprogramming: Determine And Perform If Needed**” on page 11 to determine if the TCM needs to be reprogrammed.

- a. If TCM reprogramming applies, reprogram the TCM, perform TCM initialization, and then skip to step 31.
- b. If TCM reprogramming does not apply, go to step 30.

**NOTE:** TCM reprogramming does not apply to V-6 Altima. Go to step 30.

30. Perform TCM initialization.

- Refer to “**TCM Initialization Procedure**” on page 18.

31. Reset / initialize all applied systems i.e., radio, power windows, clock, sunroof, etc.

- Refer to the ESM as needed.

32. Make sure to erase DTCs from all Systems.

33. Test drive the vehicle and make sure it operates correctly, and:

- The MIL is OFF, and there are no DTCs stored in ENGINE and / or TRANSMISSION.
- If the MIL comes ON; diagnose, perform repairs, and erase DTCs.
  - Diagnosis and repairs beyond TCM reprogramming / initialization and valve body replacement are not covered by this bulletin.

\* Do not confuse in-lb with ft lb.

## TCM Reprogramming: Determine and Perform if Needed

### 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) Reprogramming" general procedure.

### CAUTION:

- Connect the GR8 to the vehicle 12 volt battery and set to ECM power supply mode. If the vehicle battery voltage drops below 12.0V or rises above 15.5V during reprogramming, the TCM may be damaged.
- Be sure to turn OFF all vehicle electrical loads.  
If a vehicle electrical load remains ON, the TCM 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 TCM may be damaged.
- 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 the TCM may be damaged.

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

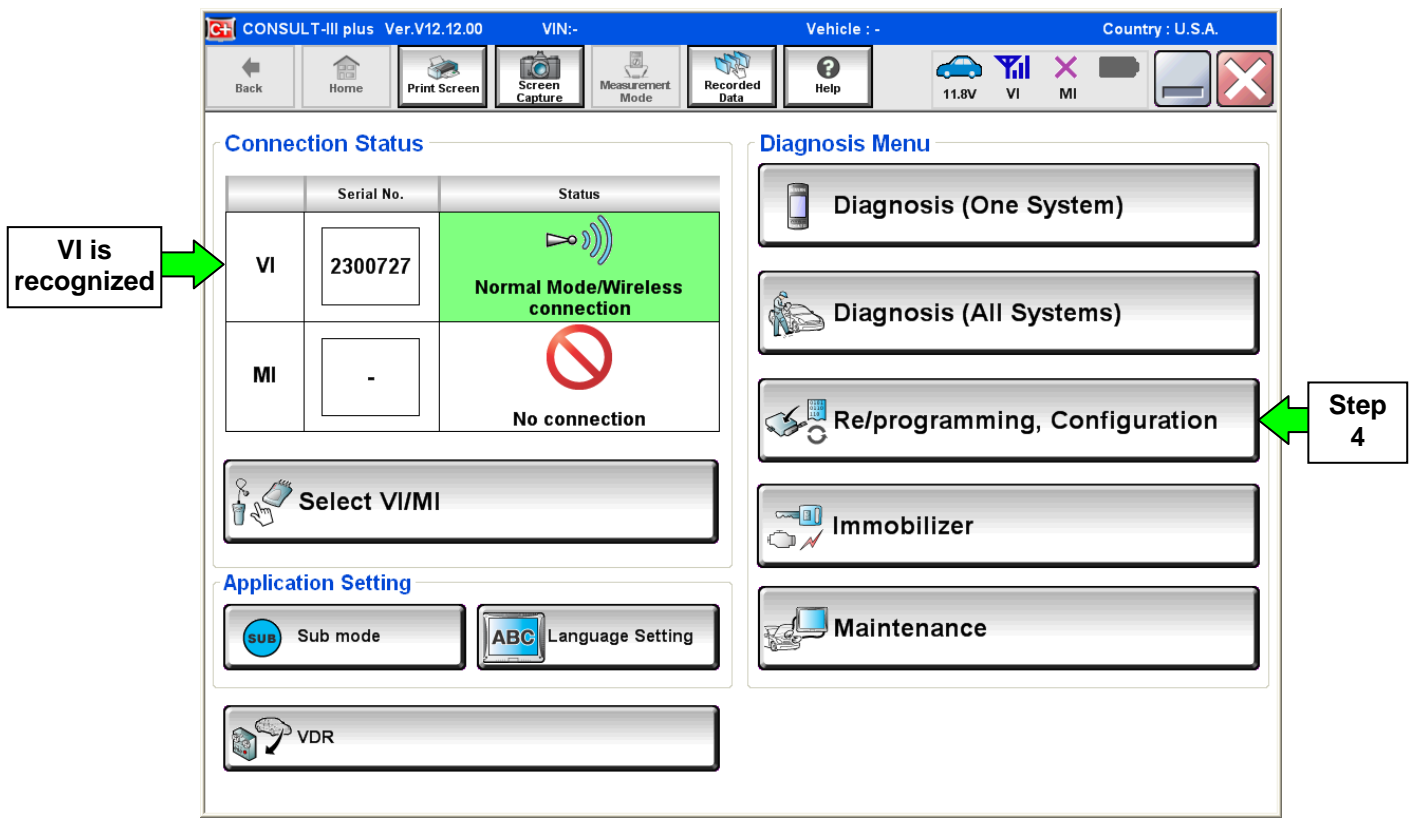


Figure 13

5. Follow the on-screen instructions and navigate C-III plus to the screen shown in Figure 14 on the next page.

6. When you get to the screen shown in Figure 14, confirm this bulletin applies as follows.
- A. Find the TCM **Part Number** and write it on the repair order.

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

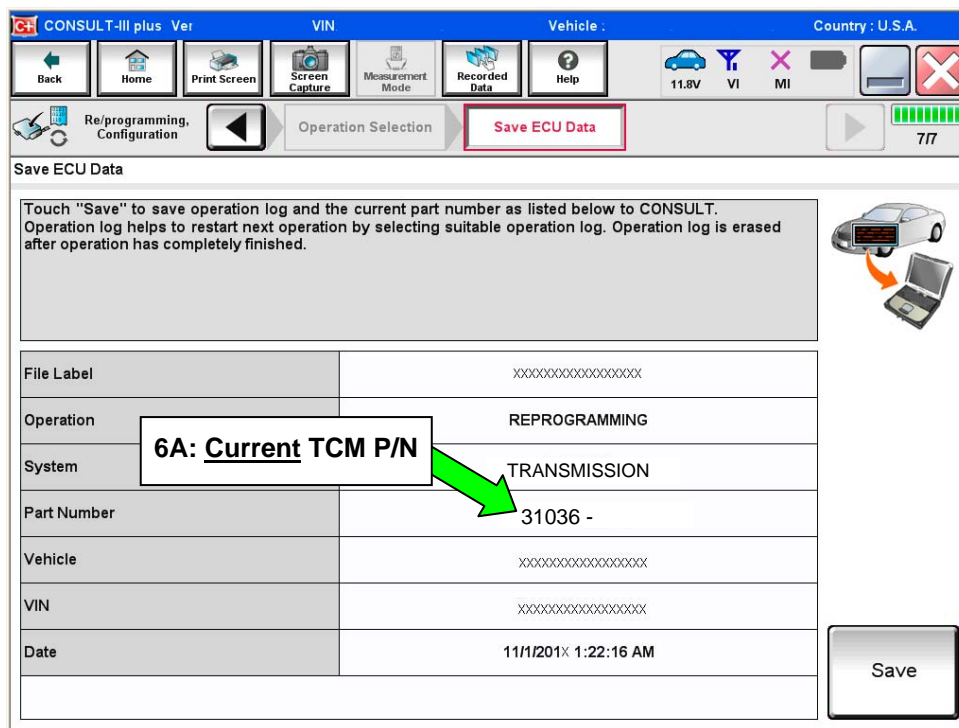


Figure 14

- B. Compare the P/N you wrote down to the numbers in the **Current TCM Part Number** column in **Table A** below.
- If there is a match, this reprogramming applies. Continue with the reprogramming procedure.
  - If there is not a match, this reprogramming is not needed.

**Table A**

MODEL	Current TCM P/N: 31036-
<b>2010 Maxima</b>	9N00C, 9N00D, 9N00E, 9N01A, 9N01B, 9N09A
<b>2010 Murano</b>	1AA0A, 1AA0B, 1AA0C, 1AA0D, 1AA0E, 1AA9A, 1AA1A, 1AA1B, 1AA1C
<b>2010 Altima V-6</b>	No TCM reprogramming necessary; (see page 3, <b>REPAIR FLOW CHART</b> )

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

**NOTE:**

- In some cases, more than one new P/N for reprogramming is available.
  - In this case, the screen in Figure 15 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. Close C-III plus and refer back to ASIST for further diagnosis.

**IMPORTANT:** If C-III plus locks up or freezes at this point or displays “cannot complete reprogramming, the CONSULT PC is set up with User Rights. Reprogramming can be completed with Administrator log in”, the TOUGHBOOK settings need to be changed so that Users have full access rights. See your Dealership’s IT System Administrator for details.

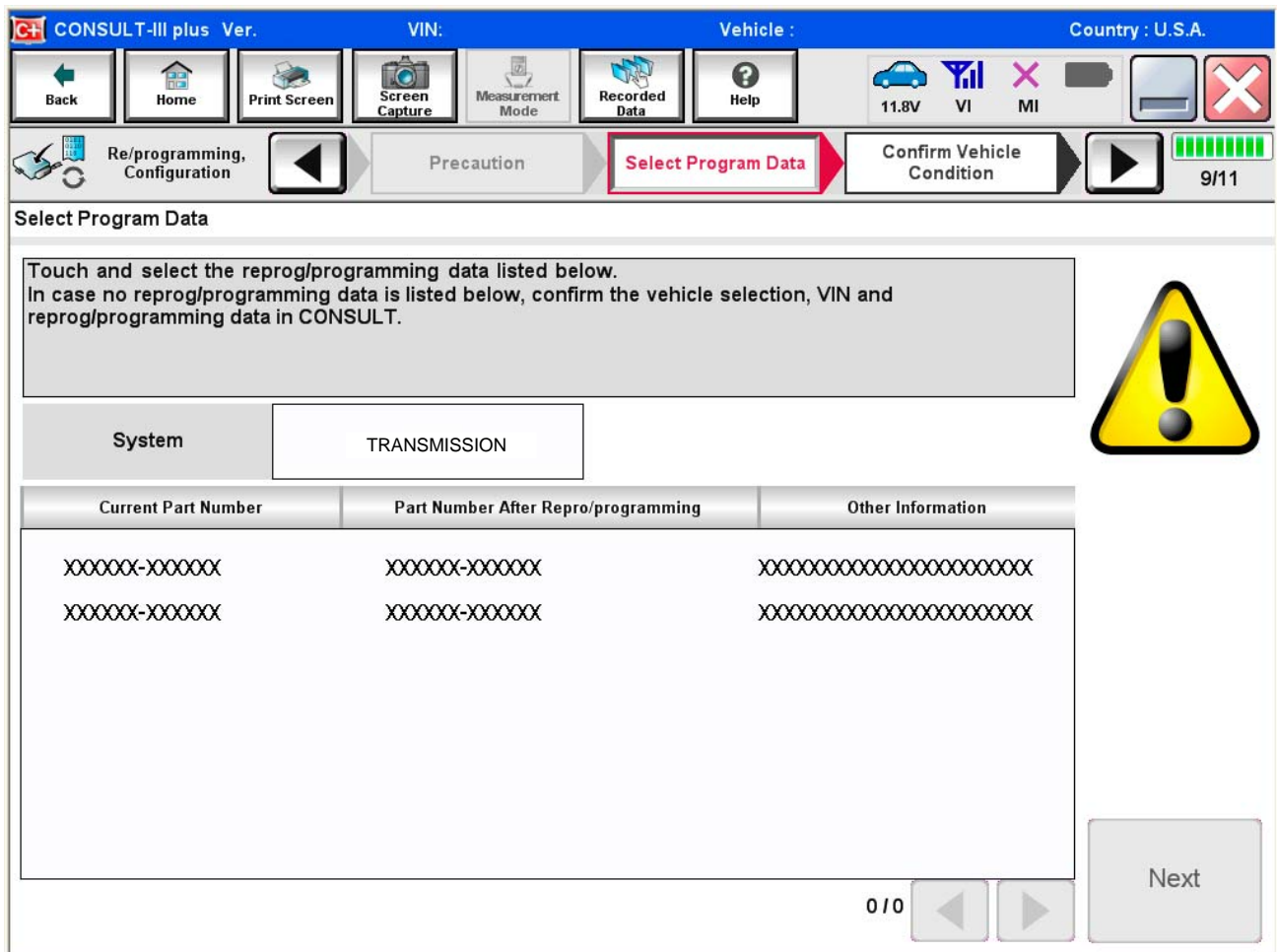


Figure 15

8. When the screen in Figure 16 displays, reprogramming is complete.

**NOTE:** If the screen in Figure 16 does not display (reprogramming does not complete), refer to the information on the next page.

9. Disconnect the battery charger from the vehicle.

10. Select **Next**.

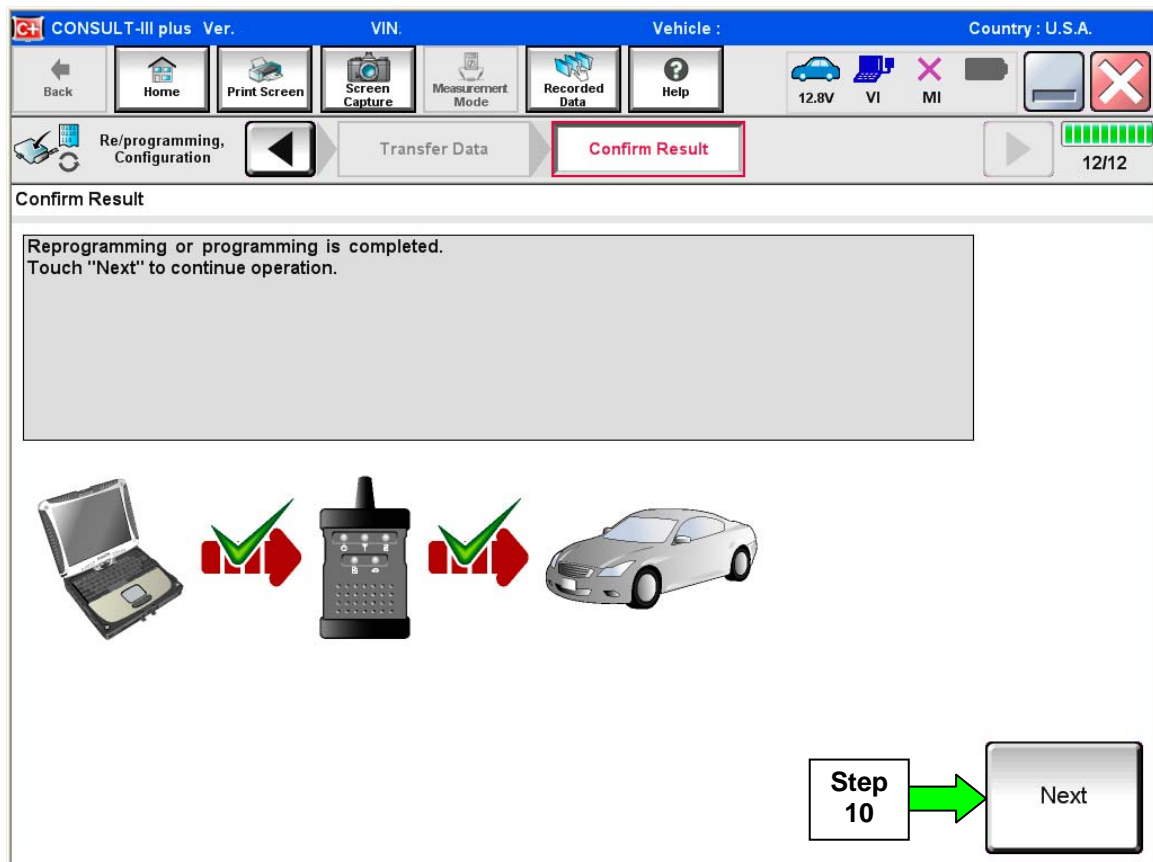


Figure 16

**NOTE:**

- In the next step (page 17), you will perform **Erase All DTCs**.
- DTC erase is required before C-III plus will provide the final reprogramming confirmation report.

## TCM recovery:

**Do not disconnect plus VI or shut down C-III plus if reprogramming does not complete.**

If reprogramming does not complete and the “!?” icon displays as shown in Figure 17:

- 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.

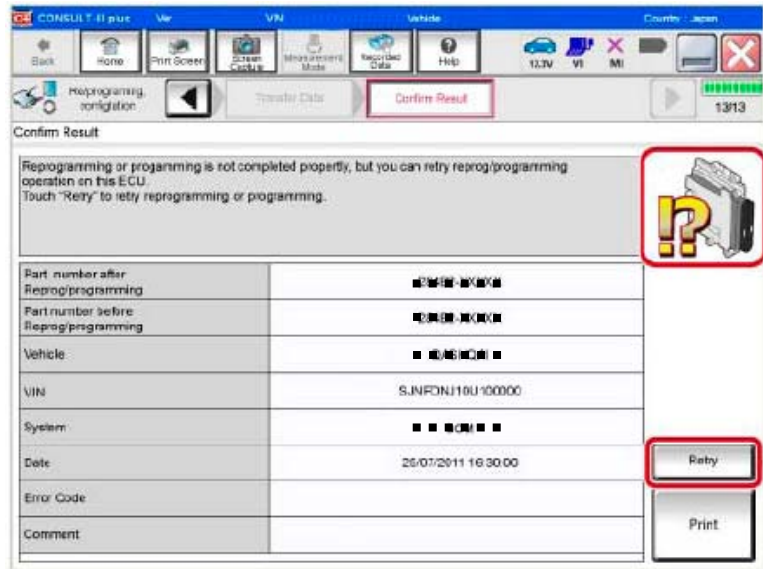


Figure 17

If reprogramming does not complete and the “X” icon displays as shown in Figure 18:

- 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.**

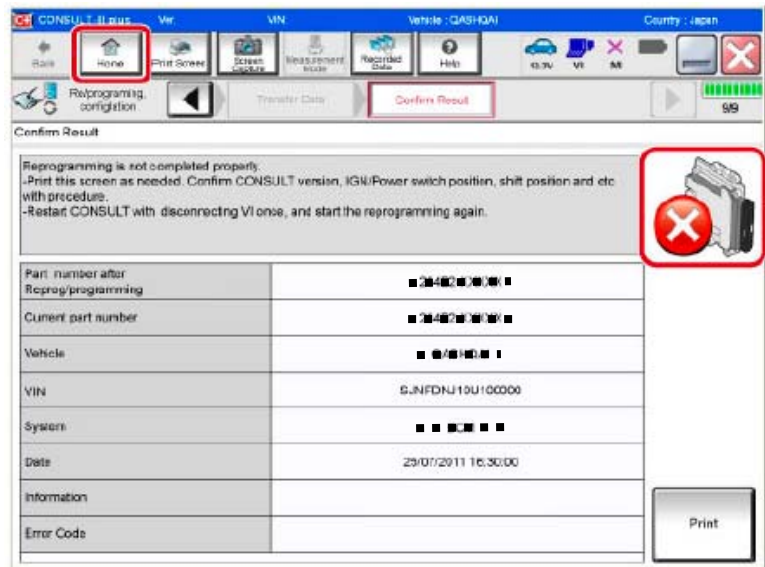


Figure 18



11. Follow the on-screen instructions to **Erase All DTCs**.
12. When the entire reprogramming process is complete, the screen in Figure 19 will display.
13. Verify the before and after part numbers are different.
14. Print a copy of this screen (Figure 19) and attach it to the repair order for warranty documentation.
15. Select **Confirm**.

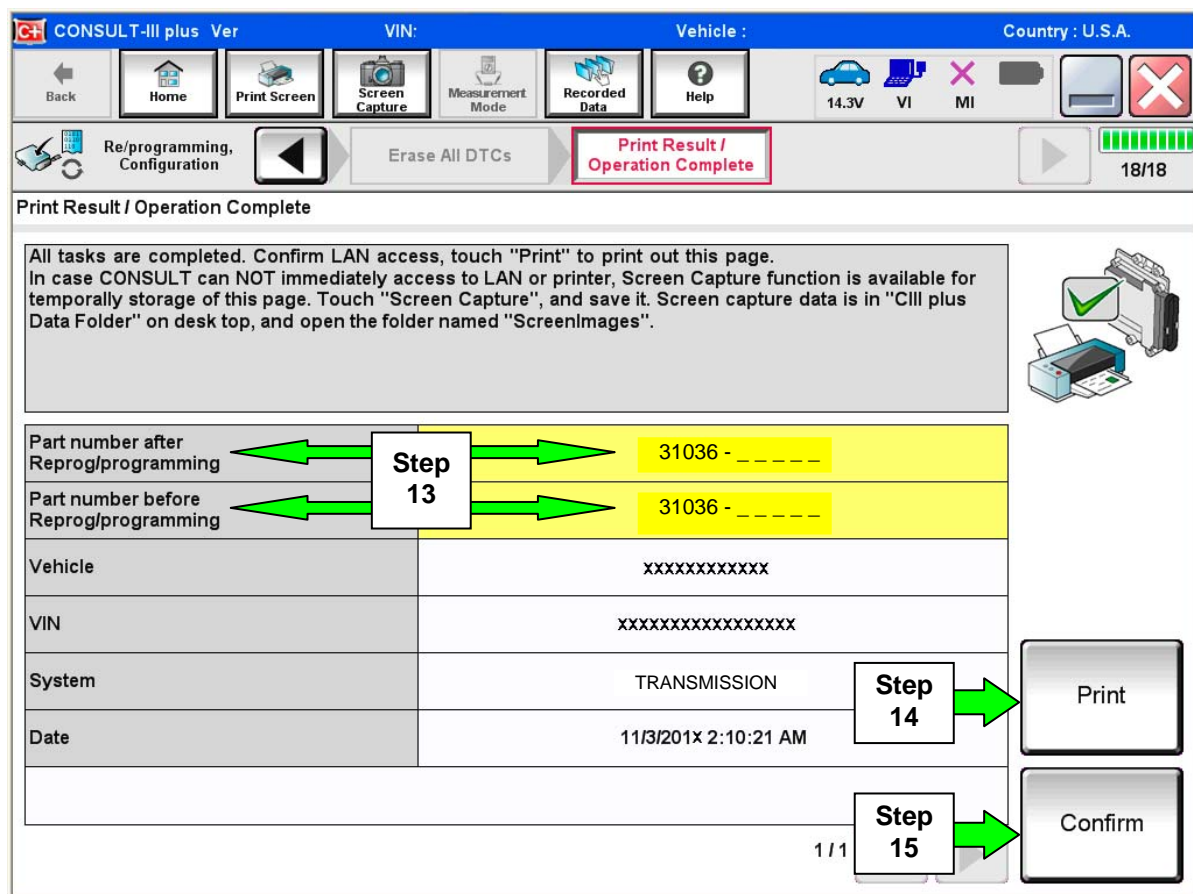


Figure 19

16. If TCM Initialization has already been performed, go back to page 10, step 31.

## TCM Initialization Procedure

**NOTE:** If reprogramming is not performed, make sure TCM initialization is performed as part of the control valve assembly replacement.

1. Set the parking brake with the selector lever in “P” (Park).
2. Attach C-III plus to the vehicle with the plus VI.
3. Turn the ignition ON (engine OFF - not running).
4. Open C-III plus and navigate screens to: **Diagnosis One System >> Transmission >> Calibration Data.**
5. Print the Calibration Data and save a copy (or write down the calibration data).
6. Select Transmission **Self Diagnostic Results.**
7. Perform the initialization (EEPROM erase) procedure as follows:
  - a. Press and hold the brake pedal.
  - b. Shift the selector lever to “R” (Reverse).
  - c. Press and hold the accelerator pedal down about one-third, but no more than halfway.
    - The purpose of this step is to get both the wide open throttle and closed throttle position signals to read “OFF” at the same time.
  - d. Press **Erase** on the C-III plus screen.
  - e. Shift the selector lever to “P” (Park).

**NOTE:** If the EEPROM erase was successful, the “P” in the instrument display will have a short delay (about 1.5 seconds) before illuminating after shifting to park.
  - f. Remove foot from brake and accelerator.
  - g. Turn the ignition OFF.
  - h. Wait 5 seconds.
  - i. Turn the ignition ON.
8. On C-III plus, select **Transmission Calibration Data** again.
9. Print the Calibration Data and save a copy (or write down the calibration data).
10. Compare the values between the first and second Calibration Data prints.
  - The procedure is complete if the values are different.
  - If the values are not different, repeat the procedure.
11. Make sure to erase DTCs from all systems.
12. Return to page 10, step 31.

## PARTS INFORMATION

VEHICLE	DESCRIPTION	PART #	QTY
2010 Maxima (A35)	Valve Assy - Control	31705-1XE2B	1
2010 Murano (Z51)	Valve Assy - Control	31705-1XE1E	1
2010 Altima (C/L32) w/VQ35DE	Valve Assy - Control	31705-1XE2C	1
ALL	Gasket - Oil Pan	31397-1XE0A	1
ALL	Nissan CVT Fluid <b>(1)</b>	999MP-NS200P	<b>(2)</b>
ALL	Washer - Thrust (lip seal)	31528-1XA01	2
ALL	Bolt (oil pan)	31377-1XD0D	20
ALL	Seal - O Ring (drain plug)	31526-1XA01	1

**(1)** Order Nissan CVT NS-2 Fluid through the Nissan Maintenance Advantage program:  
Phone: 877-NIS-NMA1 (877-647-6621) Website order via link on dealer portal  
[www.NNAnet.com](http://www.NNAnet.com) and click on "Tire Advantage" link.

**(2)** Up to eight (8) quarts.

## CLAIMS INFORMATION

Submit a Primary Failed Part (PP) line claim using the following claims coding.

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
RPL CONTROL VALVE ASSY	(1)	JD48AA	ZE	32	(2)
REPROGRAM TCM		JE99AA			(2) (3)

- (1) Reference the Parts Information Table and use the applicable Control Valve Assy P/N as the PFP.
- (2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated flat rate time.
- (3) FRT allows adequate time to access DTCs and reprogram TCM. No other diagnostic procedures subsequently required. Do NOT claim any Diagnostic Op Codes with this claim.

