



SERVICE BULLETIN

Classification:

EC10-014

Reference:

NTB10-083

Date:

July 8, 2010

2005 - 2006 ALTIMA WITH QR25DE ENGINE AND 50 STATE EMISSIONS; MIL ON WITH DTC P0420

APPLIED VEHICLE: 2005-2006 Altima (L31)

APPLIED ENGINE: QR25DE * Engine **Only**
* 50 State emission specification **ONLY**

IF YOU CONFIRM:

DTC P0420 (Catalyst System Efficiency Below Threshold) is stored in the ECM.

ACTION:

Determine if this bulletin applies by checking the **ECM Part Number**.

- You will do this by performing **Step A** in the **SERVICE PROCEDURE**, starting on Page 2.

If this bulletin applies, reprogram the ECM and perform P0420 DTC Confirmation.

- You will perform **Step B** and **C** in the **SERVICE PROCEDURE**, starting on Page 4.

If this bulletin does not apply, refer back to ASIST and the Electronic Service Manual (ESM) for further diagnostic and repair information.

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.

CLAIMS INFORMATION

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

| DESCRIPTION | PFP | OP CODE | SYM | DIA | FRT |
|--|-----|---------|-----|-----|---------|
| Reprogram ECM and Perform P0420 DTC Confirmation (catalyst operation/efficiency) | (1) | DX31AA | HD | 32 | 0.8 (2) |

- (1) Reference the final CONSULT-II print-out and use the indicated new ECM P/N as the PFP.
- (2) FRT allows adequate time to access DTC codes, reprogram the ECM, and perform DTC P0420 Confirmation. No other diagnostic procedures subsequently required – Do NOT claim any Diagnostic Op Codes with this claim.

SERVICE PROCEDURE

Step A: Check and Compare the Current ECM Part Number (P/N)

1. With CONSULT-II (C-II) “ON”, print the ECM P/N as follows:

START(Nissan) >> **ENGINE** >> **ECM PART NUMBER** >> **COPY**

- Figure 1 is an example of the ECM P/N printout.
- You will use the ECM P/N to see if this bulletin applies.
- Leave C-II connected to the vehicle at this time.

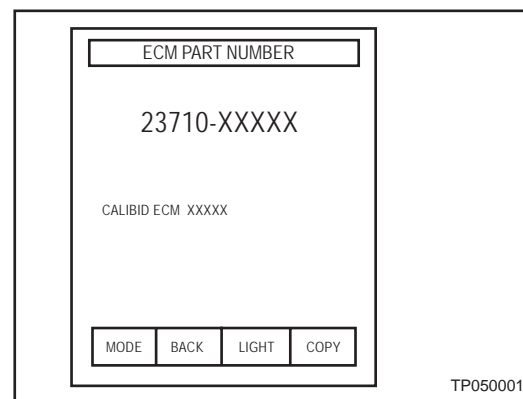


Figure 1

2. Compare your vehicle's ECM P/N to those shown under **Current ECM P/N** in Chart A, below:

- Use the ECM P/N printout (see example on Page 2, Figure 1):

NOTE:

- Some States may have both ULEV (50-State emissions) and CAL SULEV (California emissions) level vehicles.
- It is best to refer to **Current ECM P/Ns** (below) to determine the vehicle configuration.

Chart A

| M/Y | Configuration | Current ECM P/Ns |
|------------|----------------------|---|
| 2005 | A/T | 23710 – 9J500, 9J501, 9J502, 9J50A, 9J50B, 9J50C |
| 2005 | A/T ASCD | 23710 – 9J505, 9J506, 9J507, 9J51A, 9J51B, 9J51C |
| 2006 | A/T | 23710 – ZD80A, ZD80B, ZD80C, ZD80D, ZD80E, ZD88A |
| 2006 | A/T ASCD | 23710-ZD81A, -ZD81B, -ZD81C, -ZD81D, ZD81E, ZD89A |

- If your vehicle's ECM P/N **matches** one of the Current ECM P/Ns in the chart above, this bulletin applies. Continue with this procedure and **perform Step B and C**.
- If your vehicle's ECM P/N **does not match** one of the Current ECM P/Ns in the chart above, **this bulletin does not apply**. Refer back to ASIST for further diagnostic and repair information.

Step B: Reprogram the ECM

ECM Reprogramming Overview

There are four basic steps:

Step 1: Download reprogramming data (transfer it) from ASIST into C-II.

Step 2: “Preparation” steps before reprogramming.

Step 3: Reprogram the ECM.

Step 4: ECM reprogramming “Wrap-up”.

If you are familiar with ECM reprogramming:

- Review Step 1 though Step 4, starting on page 5.
- Use them as a “Quick Reference” for ECM reprogramming.

If you are not familiar with ECM Reprogramming, [click here](#).

- This will link you to the “ECM Reprogramming for Nissan Vehicles” General Procedure.

CAUTION:

- Connect a battery charger to the vehicle battery.
If the 12V battery voltage drops during reprogramming, the ECM may be damaged.
- Make sure CONSULT-II is connected to the A.C power supply.
If the CONSULT-II battery voltage drops during ECM 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.

Step One: Download Reprogramming Data (Transfer) Data From ASIST Into CONSULT-II

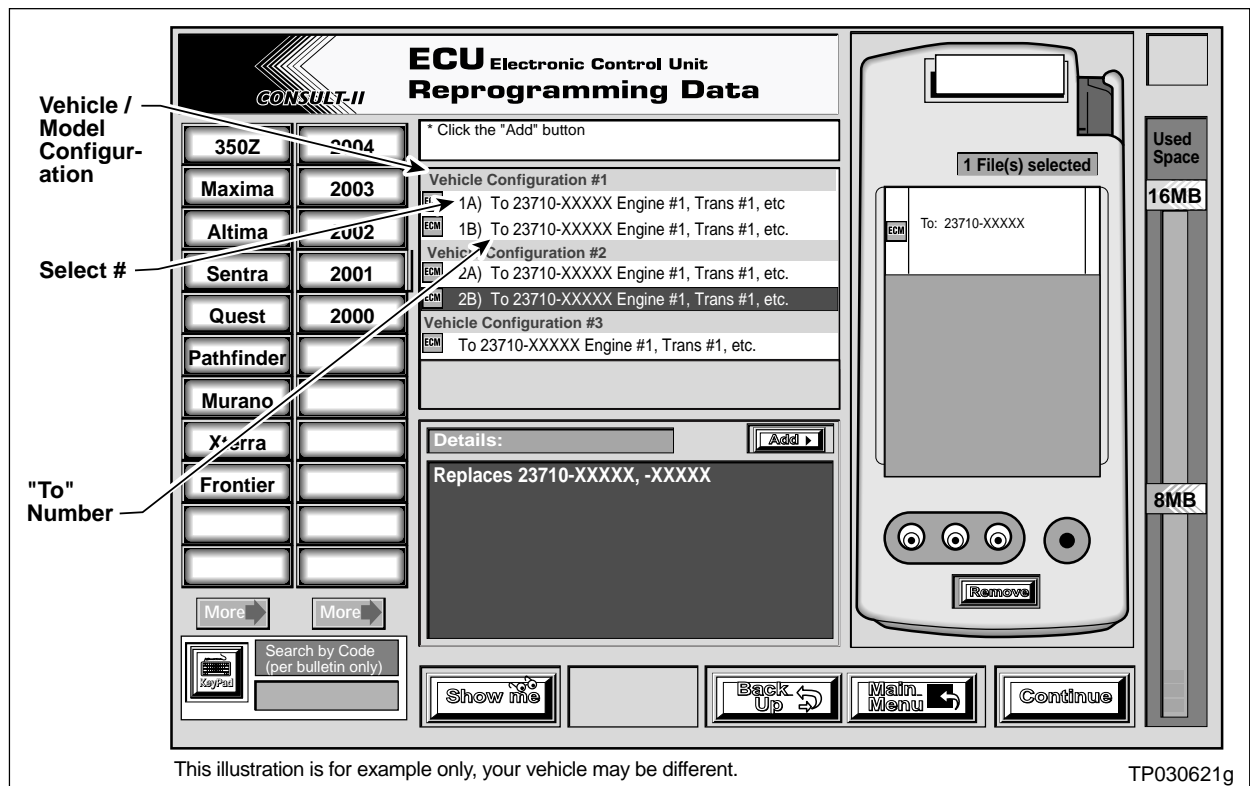


Figure 5

1. Select vehicle model and model year (Example: Altima 2005).
2. Select the correct Reprogramming Data:
 - a. Locate the specific "Vehicle Configuration" (Example: A/T, ASCD).

NOTE: Vehicle Configuration may include items such as engine type, transmission type, and vehicle options such as ASCD, TCS, ABS, etc.
 - b. Select (click on) the "To" number for your Vehicle Configuration for the Reprogramming Data. (Write the "To" number on the repair order.)

NOTE: The "To" number will read: 23710-XXXXX.
3. Click on the "Add" button.
 - This will add the selected data to the "File(s) Selected" list.
4. Click on "Continue" and follow the on-screen directions to perform "data transfer" (download) from ASIST into C-II.

Step Two: Preparation Steps Before Reprogramming

1. Connect a battery charger to the vehicle's battery.
 - Set the charger to a low charge rate (trickle charge).

CAUTION: For number 2 below, and number 3 on the next page, **DO NOT** connect the C-II AC power supply.

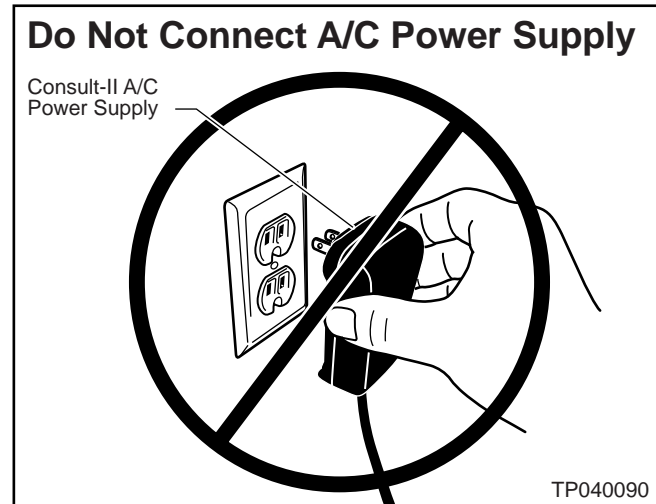


Figure 6

2. Press **SUB MODE** (see Figure 7) then:
 - a. From the listed items, find and select **BATTERY CHARGE**

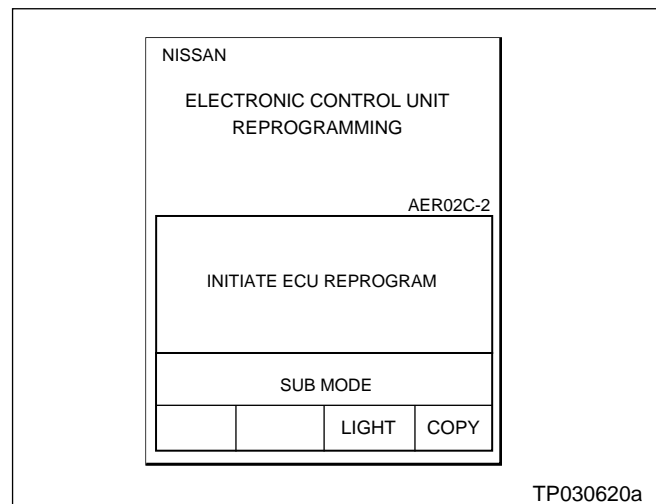


Figure 7

3. Check the C-II “Charger Input” reading (see Figure 8).

NOTE:

- **“Battery Voltage”** is the voltage level of the CONSULT-II battery.
- **“Charger Input”** is the voltage level of the vehicle’s battery. **(It must be above 12 volts.)**

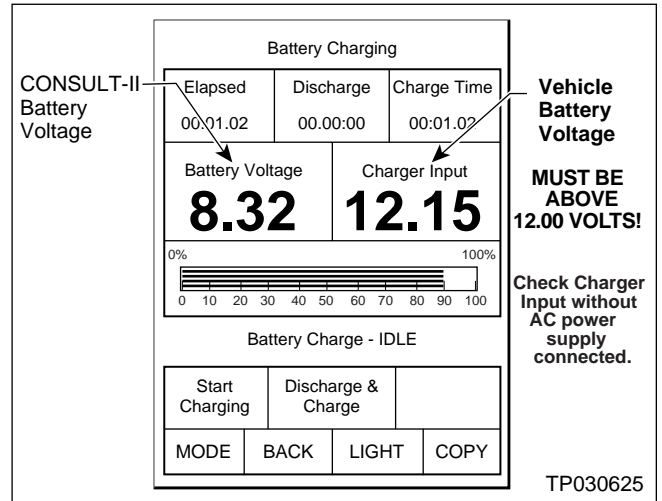


Figure 8

CAUTION: If the “Charger Input” is below 12 volts:

- A list of items to check is contained in the “ECM Reprogramming for Nissan Vehicles” General Procedure. Click here to link to it.

Step Three: Reprogram The ECM

Step Four: ECM Reprogramming “Wrap-up”

1. Turn the ignition switch "OFF" and C-II “OFF”.
2. Wait more than 10 seconds, and then:
 - a. Turn the ignition switch "ON" for 2 seconds, and then
 - b. Turn the ignition switch "OFF" again for 10 seconds (see Figure 9).
 - This will reset ECM “self learned” Data.

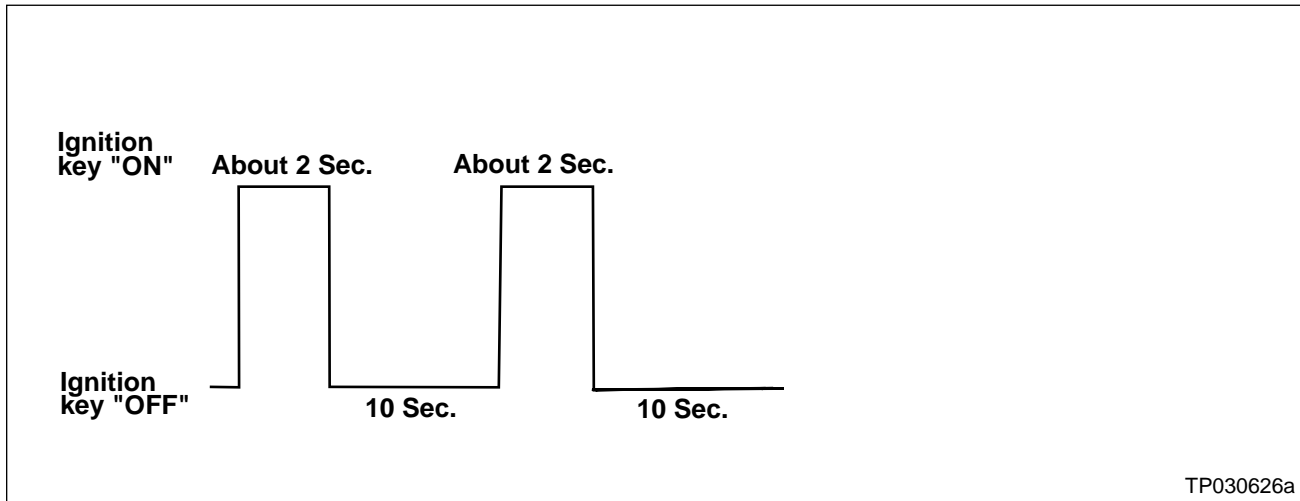


Figure 9

3. Start the engine and check the idle speed.
 - If idle speed is too low, perform “Idle Air Volume Learning” (IAVL). See the appropriate ESM for this procedure.

NOTE: If the engine will not idle, hold the engine RPM at about 2000, then slowly bring it down to an idle. IAVL can now be performed.
4. Confirm the engine is operating normally.
5. Make sure the MIL is OFF.
 - If it's still ON, use C-II with the Diagnostic (red/white) Card to erase any DTCs that may have stored during the reprogramming procedure.
6. Go to **Step C** on the next page.

Step C: Perform P0420 DTC Confirmation Using CONSULT II

IMPORTANT: Before starting the DTC Confirmation procedure, erase all DTCs.

Regardless if there are no DTCs, press the **ERASE** button on C-II. This will reset all SRTs to “INCMP” (incomplete).

NOTE: If the DTC Confirmation Procedure has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

TESTING CONDITION: Do **NOT** hold engine speed for more than the specified times given below.

1. Turn the ignition switch ON.
2. With C-II, select “DATA MONITOR” mode.
3. Start the engine and then warm it up to operating temperature.
4. Turn the ignition switch OFF and wait for 10 seconds.
5. Start the engine and keep the engine speed between 3,500 and 4,000 RPM for at least one (1) minute under no load.

6. Let the engine idle for one (1) minute.

7. Make sure that “COOLAN TEMP/S” indicates more than 70°C (158°F). See Figure 2 for example.

8. Open the engine hood.

| DATA MONITOR | |
|---------------|----------|
| MONITOR | NO DTC |
| ENG SPEED | 750 rpm |
| COOLAN TEMP/S | 72 °C |
| VHCL SPEED SE | XXX km/h |
| B/FUEL SCHDL | XXX msec |

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Figure 2

9. Select “DTC & SRT CONFIRMATION”, and then “WORK SUPPORT” mode. See Figure 3 for example.

10. Rev the engine to 2,500 – 3,500 RPM, hold it for three (3) consecutive minutes, and then release the accelerator pedal completely.

11. Wait five (5) seconds at idle.

| SRT WORK SUPPORT | |
|------------------|----------|
| CATALYST | INCMP |
| EVAP SYSTEM | INCMP |
| HO2S HTR | CMPLT |
| HO2S | INCMP |
| MONITOR | |
| ENG SPEED | XXX rpm |
| MAS A/F SE-B1 | XXX V |
| B/FUEL SCHDL | XXX msec |
| A/F ALPHA-B1 | XXX V |
| COOLAN TEMP/S | XX °C |
| A/F SEN1 (B1) | XXX V |

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Figure 3

12. Rev the engine up to 2,000 to 3,000 RPM and maintain it until “INCMP” of “CATALYST” changes to “CMPLT” (it will take approximately five (5) minutes).

13. If “INCMP” changes to “CMPLT” (see Figure 4 for example):

- Inspection and repairs in this bulletin are complete.
- **Do NOT** replace the catalytic converter.

| SRT WORK SUPPORT | |
|------------------|----------|
| CATALYST | CMPLT |
| EVAP SYSTEM | INCMP |
| HO2S HTR | CMPLT |
| HO2S | INCMP |
| MONITOR | |
| ENG SPEED | XXX rpm |
| MAS A/F SE-B1 | XXX V |
| B/FUEL SCHDL | XXX msec |
| A/F ALPHA-B1 | XXX V |
| COOLAN TEMP/S | XX °C |
| A/F SEN1 (B1) | XXX V |

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Figure 4

14. If “INCMP” does not change to “CMPLT” (see Figure 5 for example):

- Stop the engine and let it cool down to less than 70°C (158°F), and then retest starting on Page 9, Step 1.

| SRT WORK SUPPORT | |
|------------------|----------|
| CATALYST | INCMP |
| EVAP SYSTEM | INCMP |
| HO2S HTR | CMPLT |
| HO2S | INCMP |
| MONITOR | |
| ENG SPEED | XXX rpm |
| MAS A/F SE-B1 | XXX V |
| B/FUEL SCHDL | XXX msec |
| A/F ALPHA-B1 | XXX V |
| COOLAN TEMP/S | XX °C |
| A/F SEN1 (B1) | XXX V |

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Figure 5

15. If “INCMP” still does not change to “CMPLT”:

- Replace the catalytic converter (exhaust manifold assembly).
 - Refer to the ESM for catalytic converter replacement.
 - Refer to the Nissan Warranty Flat Rate Manual for claims coding.
 - Refer to your Electronic Parts Catalog for correct parts selection.