SERVICE BULLETIN

Classification:	Reference:	Date:
EC04-019	NTB04-069	June 15, 2004

2004-2005 ALTIMA; MIL "ON" WITH DTC P1031, P1051, P1148, P1168, A/F SENSOR HEATER / CLOSED LOOP

APPLIED VEHICLES: 2004 – 2005 Altima (L31)

APPLIED ENGINES: 2004 QR25 (4 cylinder) only
2005 QR25 (4 cylinder) and VQ35 (V6)

IF YOU CONFIRM:

A MIL “ON” with the following DTC(s) stored:

- P1031 / P1051 (A/F Sensor Heater),

  and/or

- P1148 / P1168 (A/F Sensor Closed Loop Control),

ACTIONS:

A. Confirm this bulletin applies:

- Check the Current ECM Part Number (see page 2).
- Compare your Current ECM Part Number to Chart A on page 3.

  If that part number does not match one in Chart A, this bulletin does not apply. Go back to ASIST for further diagnostic and repair information.

B. Reprogram the ECM (see page 4).

C. Perform A/F Sensor test to confirm proper air fuel operation (see page 8).

IMPORTANT: The purpose of "ACTIONS" (above) is to give you a quick idea of the work you will be performing. You MUST closely follow the entire Service Procedure (starting on page 2) as it contains information that is essential to successfully completing this repair.

CLAIMS INFORMATION

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram ECM per TSB	(1)	DE98AA (2)	HD	32	0.8 hrs (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 ECM and perform the A/F Sensor function test. No other diagnostic procedures subsequently required – do NOT claim any Diagnostic Op Codes with this claim.

SERVICE PROCEDURE

Step A: Confirm This Bulletin Applies

1. With CONSULT-II "ON", print the Freeze Frame data as follows:

   START(Nissan) **>> ENGINE >> Self-DIAG Results >> F.F. Data >> PRINT**

2. Attach this printout to the Repair Order.

   - Figure 1 is an example of the F.F. Data printout.
   - The Freeze Frame data that you've printed contains the ECM Part Number (P/N).
   - The ECM part number will be used to see if this bulletin applies or not.

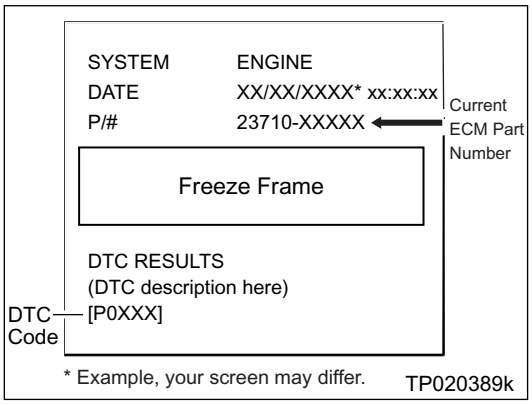

Figure 1

3. Check the ECM Part Number on the printout from Step 1 (Figure 1);

   - Compare your vehicle's ECM P/N to those shown under **Current ECM P/N** in **Chart A**, on the next page:
   - If it's in that column, this bulletin applies.

Chart A

VEHICLE	ENGINE	EMISSION	VEHICLE CONFIGURATION	Current ECM P/N 23710-
2004 Altima	QR25 (4 cylinder)	CAL SULEV*	M/T	9J365
			M/T, ASCD	9J370
			A/T	9J320
			A/T, ASCD	9J360
		50 States (ULEV)**	M/T	9J310, -9J311
			M/T, ASCD	9J315, -9J316
			A/T	9J300, -9J301
			A/T, ASCD	9J305, -9J306
	VQ35 (V6) This TSB does not apply.			
2005 Altima	QR25 (4 cylinder)	50-state	M/T	9J510, -9J511
			M/T, ASCD	9J515, -9J516
			A/T	9J500, -9J501
			A/T, ASCD	9J505 -9J506
		CAL SULEV*	M/T	9J565, -9J566
			M/T, ASCD	9J570, -9J571
			A/T	9J520, -9J521
			A/T, ASCD	9J560, -9J561
	VQ35 (V6)	NAM***	M/T	9J580, -9J581
			M/T, TCS	ZB000, ZB001
			A/T	9J460, -9J461
			A/T, TCS	9J575 -9J576

* California Super Ultra Low Emission Vehicle (CAL SULEV)
** Ultra Low Emission Vehicles (ULEV)
*** North American emission (NAM)

NOTE: States that have traditionally required California emission vehicles may have both 50-state and CAL SULEV vehicles. The easiest way to identify the vehicle's emission is with the current ECM P/N and referring to chart-A above.

A. If your vehicle's ECM P/N **matches** a P/N in the chart above:

   - Perform **ECM Reprogramming** (on the next page)**,** then
   - Perform A/F Sensor Test (see page 8).

B. If your vehicle's ECM P/N **does not match** a P/N in the chart above:

   - **This bulletin does not apply**. Refer to ASIST for further diagnostic and repair information.

Step B: ECM REPROGRAMMING

Vehicle ECM Reprogramming Overview

- There are four basic steps (tasks) under Step B..

1. Download (transfer) reprogramming data from ASIST into CONSULT-II.
2. “Preparation” steps before reprogramming ECM.
3. Reprogram the ECM.
4. “Wrap-up” after ECM reprogramming is finished.

NOTE:

- **If you’re <u>not</u> familiar with the latest ECM reprogramming procedures,** click *here*.

  This will link you to the "ECM Reprogramming For Nissan Vehicles" general procedure. Or, refer to Attachment A in the print copy of this bulletin.

- For those familiar with ECM Reprogramming, please review the following steps and use them as a Quick Reference for ECM reprogramming.

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

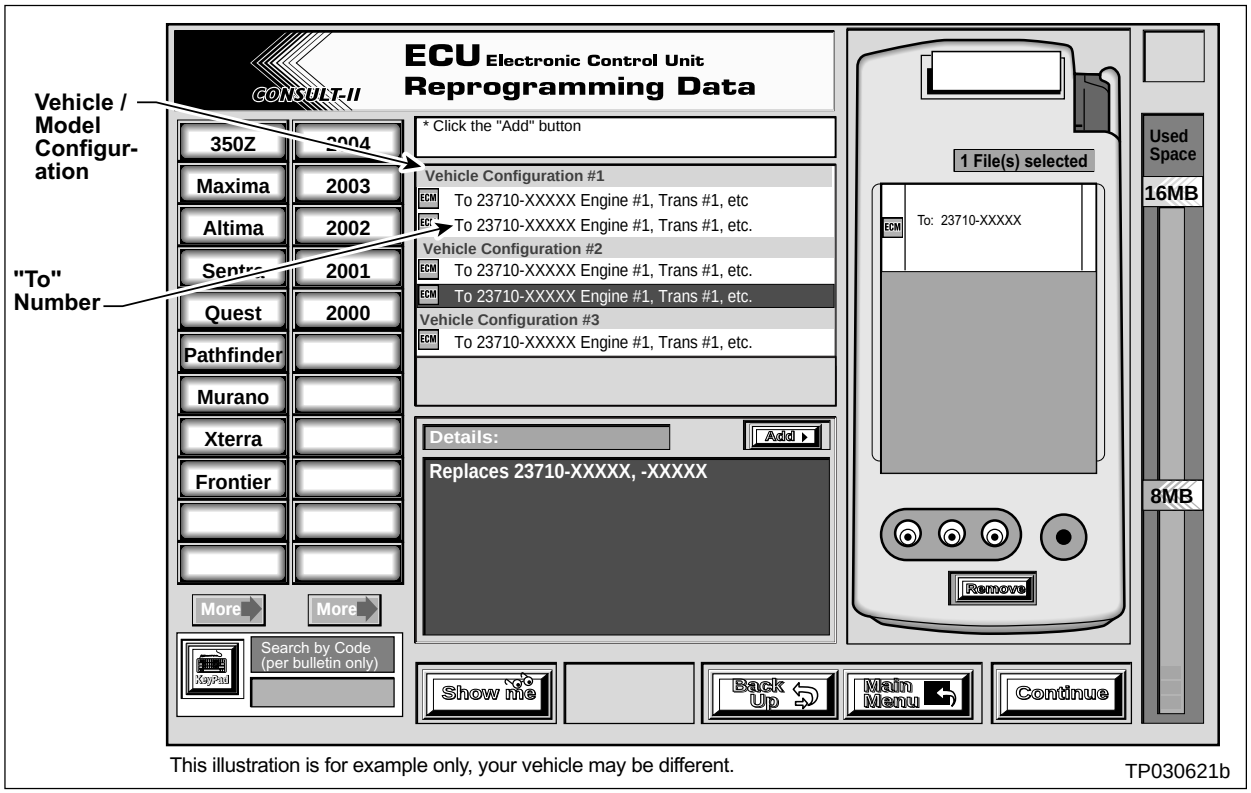

Figure A

1. Select vehicle model and model year (Example: Murano, 2004).

2. Select the correct reprogramming data:

   a. Locate the specific “Model Configuration” (Example: VQ35DE, ASCD).

      NOTE: Model 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.

      NOTE: The “To” number will read: 23710-XXXXX.

3. Click on the “Add” button.

   - This will add the data you selected to the “File(s) Selected” list.

4. Write the “To” number on the Repair Order.

5. Click on “Continue” and follow directions to perform “data transfer” (download) from ASIST into CONSULT-II.

Step Two: Preparation Steps Before Reprogramming ECM

1. Connect a battery charger to the vehicle's battery.

   - Set the charger to a low charge rate (trickle charge).

CAUTION: For step 2 and step 3 on the next page, DO NOT connect the CONSULT-II A/C Power Supply (see Figure B).

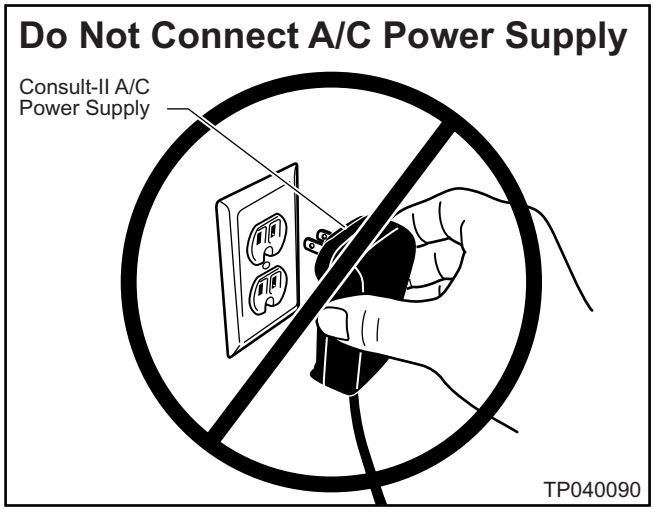

Figure B

2. Press **SUB MODE** (see Figure C) then:

   a. From the listed items, find and select **BATTERY CHARGE**.

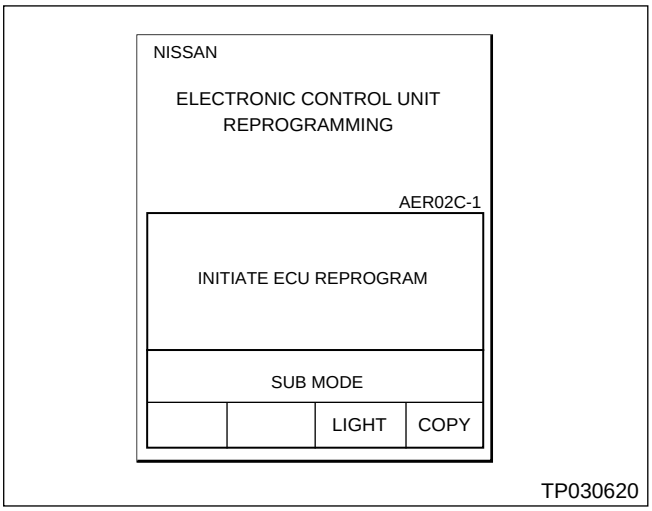

Figure C

3. Check the CONSULT-II's "Charger Input" reading (see Figure D).

NOTE:

- **"Battery Voltage"** is the voltage level of CONSULT-II's battery.

  "Charger Input" is the voltage level of the vehicle's battery. **(It must be above 12 volts.)**

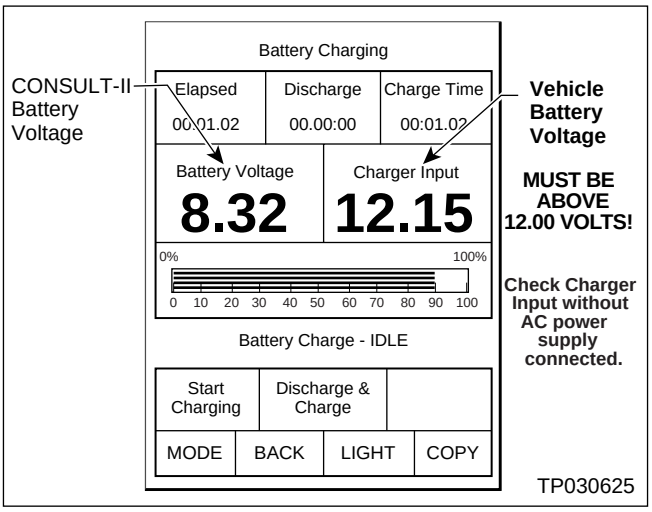

Figure D

CAUTION: If the **"Charger Input"** is <u>below</u> 12 volts:

- <u>A list of items to check when **"Charger Input"** voltage is below 12V</u> is contained in the "ECM Reprogramming For Nissan Vehicles" general procedure. Click *here* to link to it.
- The "ECM Reprogramming For Nissan Vehicles" general procedure can also be found in Attachment A in the print copy of this bulletin.

Step Three: Reprogram the ECM

- If you are <u>not</u> familiar with **ECM** Reprogramming, click *here*:
- This will link you back to a general procedure called "ECM Reprogramming For Nissan Vehicles."
- Or refer to Attachment A in the print copy of this bulletin.

Step Four: "Wrap-up" After Reprogramming is Finished

1. Turn the ignition switch "OFF" and CONSULT-II "OFF".

2. Wait more than 10 seconds, then;

   a. Turn the ignition switch "ON" for 2 second, then

   b. Turn the ignition switch "OFF" again for 10 seconds (see Figure E).

      - This will reset ECM "self learned" Data.

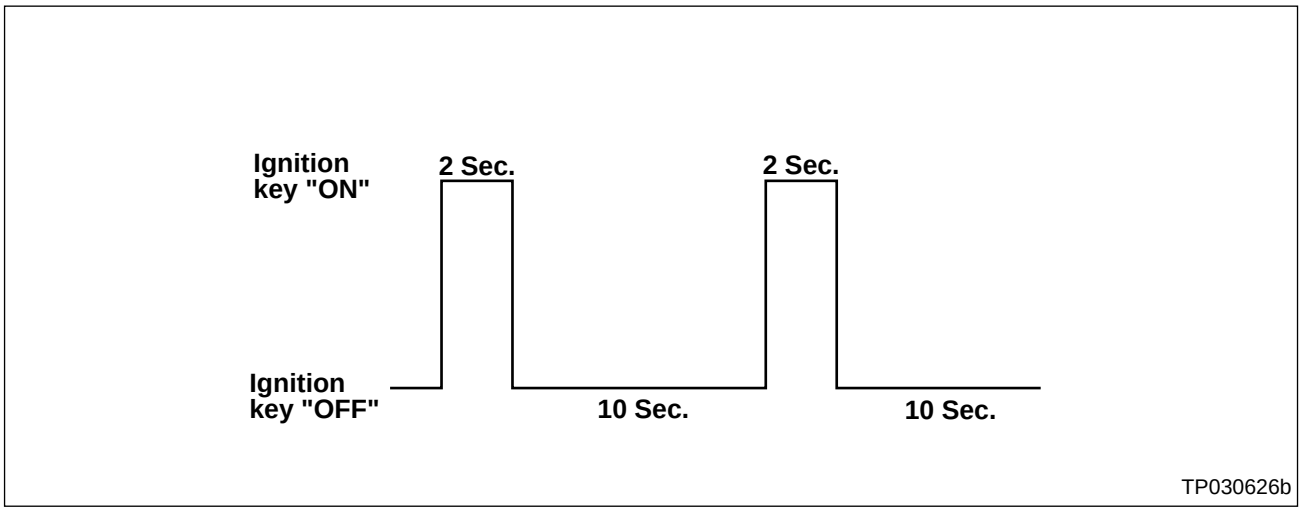

Figure E

3. Start the engine and check the idle speed.

   - If idle speed is too low, perform Idle Air Volume Learning (IAVL). See the appropriate Service Manual (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 the MIL comes ON, use CONSULT-II with the Diagnostic (red/white) Card to erase any DTC's that may have stored during the reprogramming procedure.

Step C: Perform A/F Sensor Test

1. Use CONSULT-II DATA MONITOR to view;
   - Engine Speed, and
   - A/F Sensor voltage (see Figure 2).

2. Hold the engine speed at about 2000 rpm no-load for 2 minutes.
   - This will create a stable condition for step 3 (below).

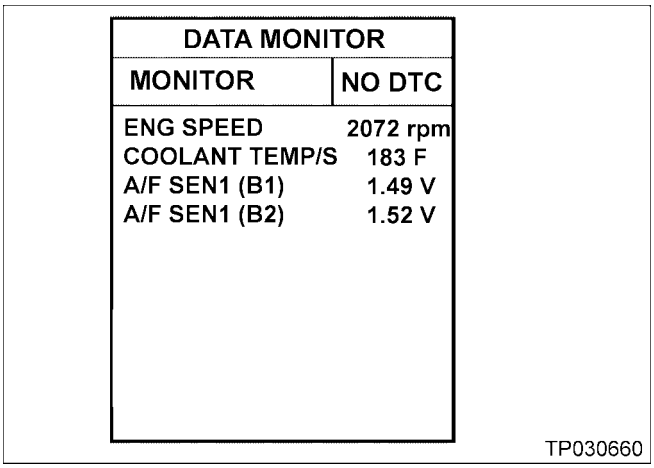

Figure 2

3. Observe A/F SEN1 (B1) and A/F SEN1 (B2) voltage for 30 seconds while holding 2000 rpm no-load.

   a. During most of this test, the A/F sensor voltages should remain between 1.37 and 1.57 volts.
      - If the engine rpm is held constant, voltage will fluctuate (change), but should remain in this range.

   b. If the A/F sensor voltages are out of this range for most of the test:
      - The vehicle has an additional incident.
      - This bulletin does not have repair information for an A/F Sensor or Fuel Management System incident.
      - Go back to ASIST for further diagnostic and repair information for the additional incident.