



# SERVICE BULLETIN

Classification: EC04-006a	Reference: NTB04-028a	Date: March 24, 2004
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## 2004 MAXIMA & QUEST (5 SPEED A/T ONLY); MIL "ON" WITH DTC P1031, P1051, P1148, P1168 A/F SENSOR HEATER / CLOSED LOOP

This version of NTB04-028 amends Chart A in the Service Procedure.  
Please discard all paper copies of the earlier version.

**APPLIED VEHICLES:** 2004 Maxima (A34) with 5 speed A/T only  
2004 Quest (V42) with 5 speed A/T only

NOTE: Models with 4 speed A/T or 6 speed M/T are not covered by this TSB. For those vehicles, refer to NTB04-024

### 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 (Page 2).
- Compare your Current ECM Part Number to Chart A (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. Perform reprogramming by "special ID lookup"—a special process for this TSB only (Page 4).

C. Perform A/F Sensor test to confirm proper air/fuel ratio (Page 10).

**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.

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 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

1. 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.
2. Reference the final CONSULT-II print out and use the indicated new ECM P/N as the PFP.

### AND, if required

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram TCM		JE99AA			0.6 hrs

## 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 Freeze Frame Data printout.
- The Freeze Frame data that you’ve printed contains the ECM Part Number (P/N).
- You’ll use the ECM P/N to see if this bulletin applies.

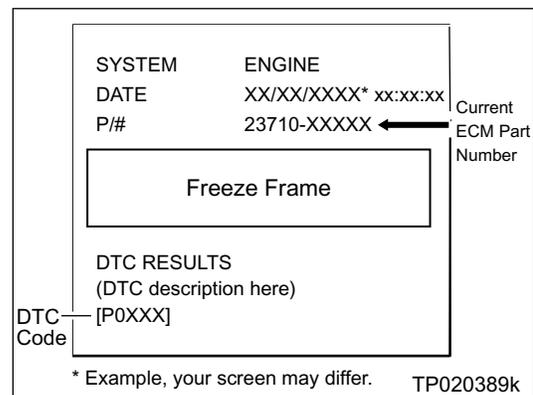


Figure 1

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 below:
- If it's in that column, this bulletin applies.

**IMPORTANT:** To get the correct reprogramming data for this DTC incident, **you must:**

1) Match your vehicle to the Vehicle Configuration

**AND**

Current ECM Part Number

2) Then select the correct ID code

Chart A

Vehicle	Vehicle Configuration	Current ECM Part Number : 23710-	ASIST ECM Data ID Code
Maxima	5 speed A/T	8Y000, -8Y001, -8Y002, -8Y003,	020401
		-8Y004, -8Y006	020402
	5 speed A/T with TCS	8Y010, -8Y011, -8Y012, -8Y013,	020403
		-8Y014, -8Y016	020404
	4 speed A/T with TCS	This TSB does not apply. See NTB04-024	—
	6 speed M/T	This TSB does not apply. See NTB04-024	—
6 speed M/T with TCS	This TSB does not apply. See NTB04-024	—	
Quest	5 speed A/T	CK010, -CK011, -CK012,	020406
		CK013	020407
	4 speed A/T	This TSB does not apply. See NTB04-024	—

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

- This bulletin applies. **Go to step B, Perform Reprogramming** (next page).

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 the appropriate TSB or Electronic Service Manual (ESM) for further diagnostic and repair information.

## Step B: Perform Reprogramming by Special ID Lookup

1. Perform **reprogramming using the special “ASIST ECM DATA ID CODE” (ECM ID Code)** from Chart A on page 3.

### IMPORTANT:

- a. You must use the ID Code to get the reprogramming data for this incident.
- b. This incident may require reprogramming for both **ECM and TCM**.
- c. For this incident, ASIST will give you only the data needed for your vehicle when you enter the ECM ID Code.
  - If ASIST only gives you ECM data, perform reprogramming for ECM only.
  - If ASIST gives you both ECM and TCM data, you must perform reprogramming for both.

## ECU REPROGRAMMING PROCEDURES; ECM and (if needed) TCM

### Vehicle ECU Reprogramming Overview for This Incident

- There are six basic steps.
  1. Download reprogramming data (transfer it) from ASIST into CONSULT-II.
  2. “Preparation” steps before reprogramming.
  3. Reprogram the vehicle ECM.
  4. ECM reprogramming “Wrap-up”.
  5. Reprogram the TCM (if needed).
    - This is needed only if ASIST gives you TCM data when the I.D. code is entered.
  6. TCM reprogramming “Wrap-up”
    - This is needed only if ASIST gives you TCM data when the I.D. code is entered.
- ◆ If you are familiar with special ECM and TCM reprogramming using ECM I.D. Code entry:
  - Review the following steps—starting on page 5.
  - Use them as a “Quick Reference” for ECM and—if needed—TCM reprogramming.
- ◆ If you are not familiar with special **ECM** Reprogramming, click here:
  - This will link you to the "SPECIAL ECM REPROGRAMMING PROCEDURE FOR ECM I.D. ENTRY " general procedure.
  - Or refer to it in the print copy of this bulletin.
- ◆ If you are not familiar with special **TCM** Reprogramming, click here:
  - This will link you to the "SPECIAL TCM REPROGRAMMING PROCEDURE FOR I.D. ENTRY " general procedure.
  - Or refer to it in the print copy of this bulletin.

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

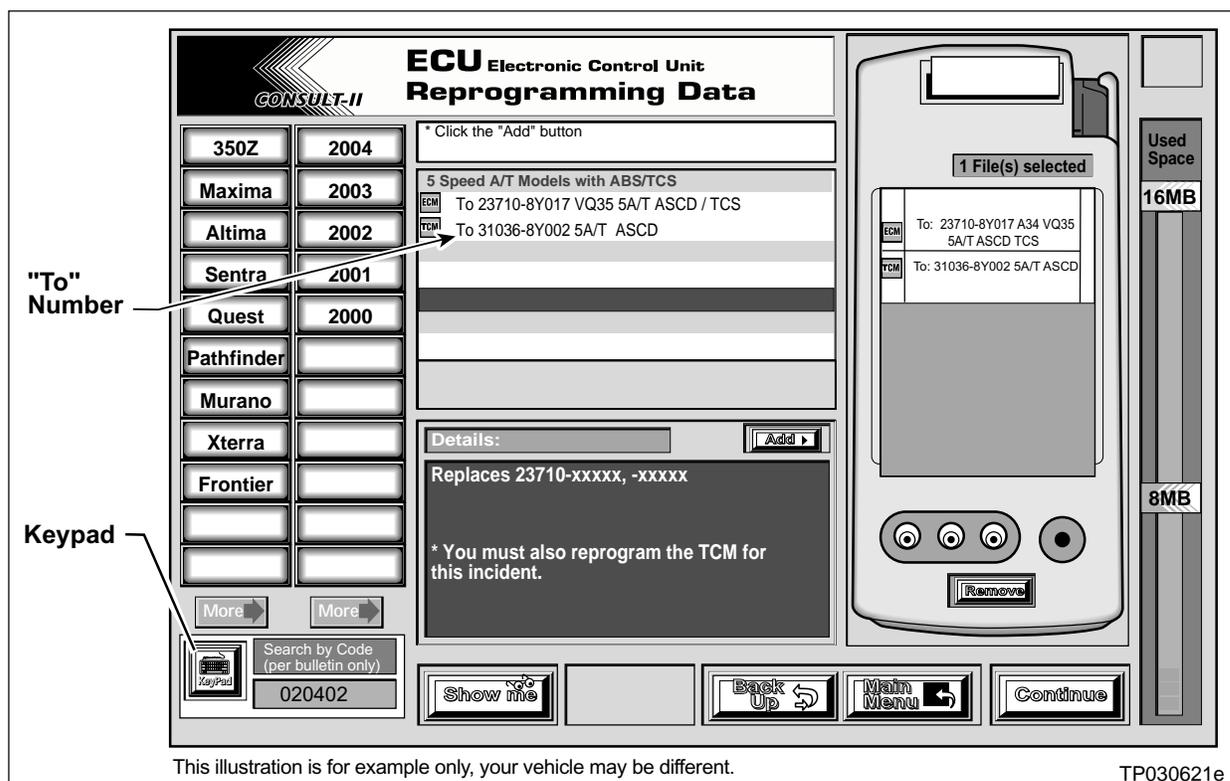


Figure A

1. Click on the Keypad button (see Figure A).
    - A Keypad will pop up, left side of screen.
  2. Using the digit keys on the keypad, enter the correct **ASIST ECM DATA ID CODE**.
    - Go back to Chart A on page 3 of this bulletin.
  3. Then click the "Continue" button on the keypad.
    - Data will appear in the middle of the ASIST screen.
  4. Now you'll add this reprogramming data to the "File(s) selected" list. This list is on the right side of the ASIST screen (Figure A, above).
    - A. Click on the "To" number (it's in the center of the ASIST screen).
    - B. Then click on the "Add" button.
- IMPORTANT:**
- ASIST will display only the data you need for this incident.
  - It may give you ECM data only, or both ECM and TCM data.
  - You must add all data that appears in step 3 above to the "File(s) selected" list.
5. Write the "To" number(s) on the Repair Order. You will need this later in the reprogramming process.
  6. Click the "**CONTINUE**" button to start the CONSULT-II setup.

## Step Two: Preparation for 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 **CONSULT-II AC** power supply.

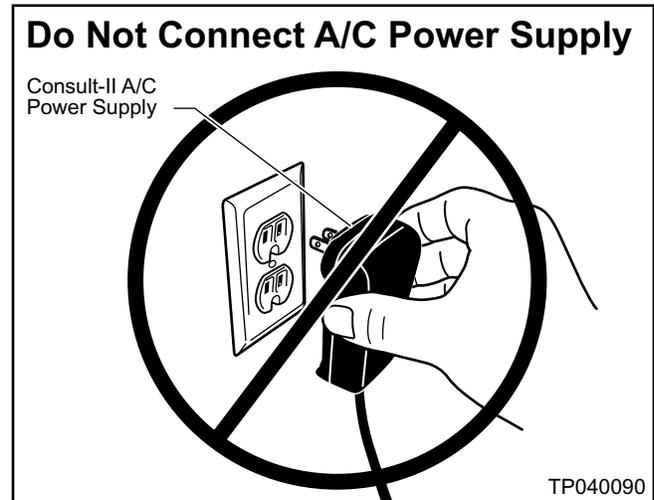


Figure B

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

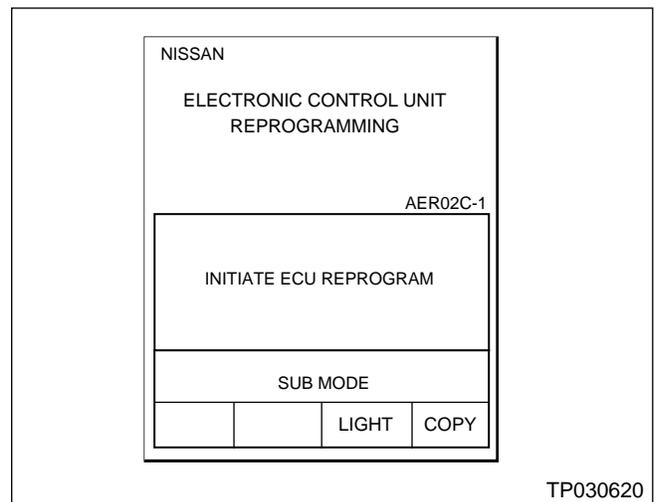


Figure C

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.)**

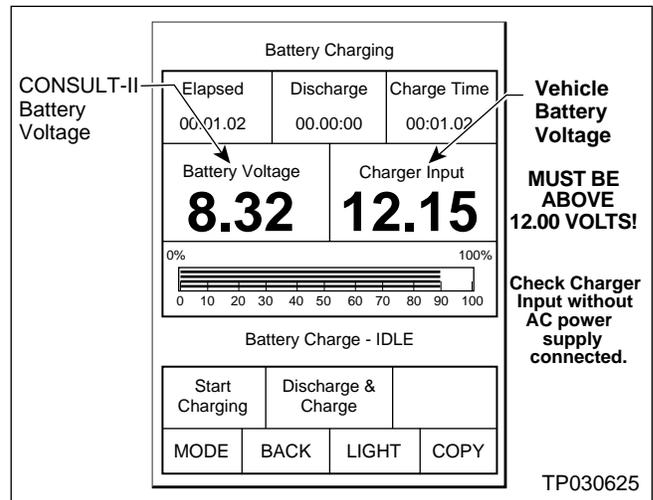


Figure D

**CAUTION:** If the **"Charger Input"** is below 12 volts:

- A list of items to check when "Charger Input" voltage is below 12V is contained in the "Special ECM Reprogramming Procedure For ECM ID Entry" general procedure. Click here to link to it.
- Or refer to it in the print copy of this bulletin.

**Step Three: Reprogram the Vehicle ECM**

- If you are not familiar with special **ECM** Reprogramming, click here:
- This will link you back to a general procedure called "SPECIAL ECM REPROGRAMMING PROCEDURE FOR ECM I.D. ENTRY."
- Or refer to it in the print copy of this bulletin.

### Step Four: ECM Reprogramming “Wrap-up”

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 D).
    - This will reset ECM “self learned” Data.

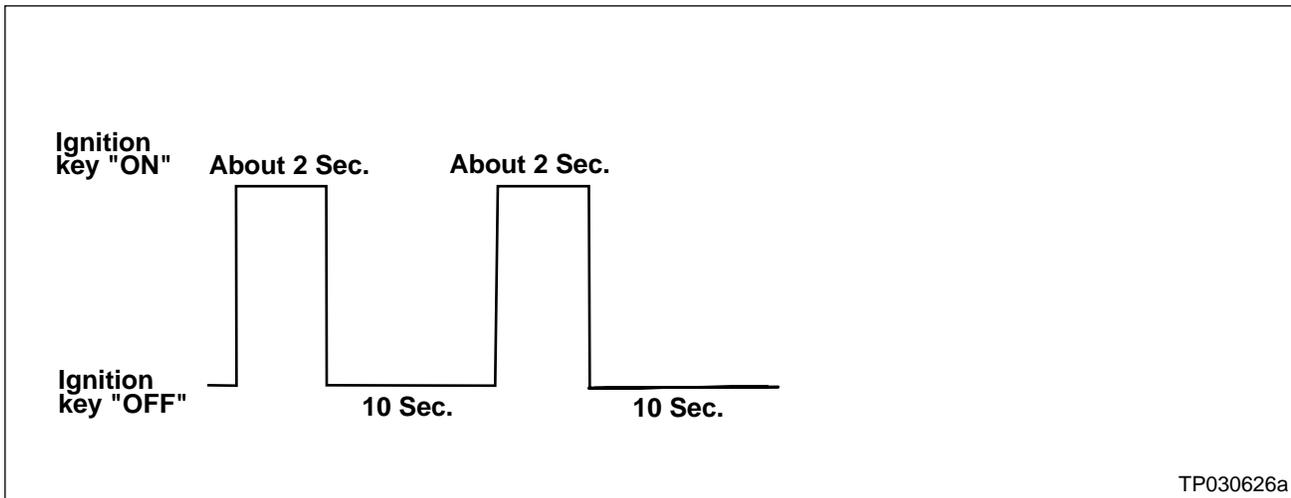


Figure E

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 it's still ON, use CONSULT-II with the Diagnostic (red/white) Card to erase any DTC's that may have stored during the reprogramming procedure.

### **Step Five: Reprogram the Vehicle TCM (if needed)**

- This is needed only if ASIST gave you TCM data when the I.D. code was entered.
- You're ready to do TCM reprogramming when you completed steps **One** and **Two**.
- If you are not familiar with special **TCM** Reprogramming, click [here](#). It will link you to a general procedure called "SPECIAL TCM REPROGRAMMING PROCEDURE FOR I.D. ENTRY." Or you can refer to it in the print copy of this bulletin.

### **Step Six: TCM Reprogramming "Wrap-up"**

1. Turn the ignition and CONSULT-II OFF.
2. Disconnect CONSULT-II from the vehicle.
3. Start the Engine and make sure the MIL is OFF.
  - If it's still ON, use CONSULT-II with the Diagnostic (red/white) Card to erase any DTC's that may have stored during the reprogramming procedure.
4. Test-drive the vehicle and make sure the transmission operates correctly in all modes.
  - See the AT section of the appropriate Service Manual for shift schedule specifications.

### Step C: Perform A/F Sensor Test.

- This is to make sure the A/F sensor and Fuel Management System are functioning correctly.

1. Use CONSULT-II DATA MONITOR to view the following:

- 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.

DATA MONITOR	
MONITOR	NO DTC
ENG SPEED	2072 rpm
COOLANT TEMP/S	183 F
A/F SEN1 (B1)	1.49 V
A/F SEN1 (B2)	1.52 V

TP030660

Figure 2

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

a. A/F sensor voltages should remain (most of the time) between 1.37 and 1.57 volts.

- If the engine rpm is held constant, voltage will fluctuate, but should remain in this range.

b. If, most of the time, the A/F sensor voltages are out of this range:

- The vehicle has an **additional** incident.
- This bulletin does not have repair information for an A/F sensor or Fuel Management System incident.
- Go to ASIST for further diagnostic and repair information.

