

NISSAN

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10/13/07
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August 21, 2006

Mr. George Person
Chief, Recall Analysis Division
Office of Defects Investigation
Safety Assurance
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

Ref: 06V-242

Dear Mr. Person:

The enclosed communication is being provided pursuant to 49 CFR Part 573.6(c)(9).

Technical Compliance Department

Encl.



RECALL CAMPAIGN BULLETIN

Reference:

NTB06-051

Date:

August 18, 2006

VOLUNTARY RECALL CAMPAIGN 2003 ALTIMA AND SENTRA WITH QR25DE ENGINE CRANK ANGLE SENSOR / ECM REPROGRAMMING

CAMPAIGN I.D. # R0606
NHTSA #: 06V-242
APPLIED VEHICLES: 2003 Altima (L31) with QR25DE Engine
2003 Sentra (B15) with QR25DE Engine
APPLIED VINS: Altima: 1N4AL11**3C 100000 - 355207
Sentra: 3N1AB51**3L 716572 - 736783

NOTE: Use Service Comm to determine campaign eligibility

INTRODUCTION

Nissan has determined that on some 2003 Altima and Sentra vehicles with the 2.5 liter engine the operation of the crank angle sensor is significantly affected by variations in temperature that occur due to the unique location of the sensor in the engine. Under certain driving conditions, these variations in temperature can be large enough to cause a brief interruption in the signal output from the sensor. If the interruption in the signal from the sensor is so brief that the Electronic Control Module (ECM) logic does not have time to diagnose the condition, the engine may stop running without warning while the vehicle is driven at low speed.

IDENTIFICATION NUMBER

Nissan has assigned identification number R0606 to this campaign. This number must appear on all communications and documentation of any nature dealing with this campaign.

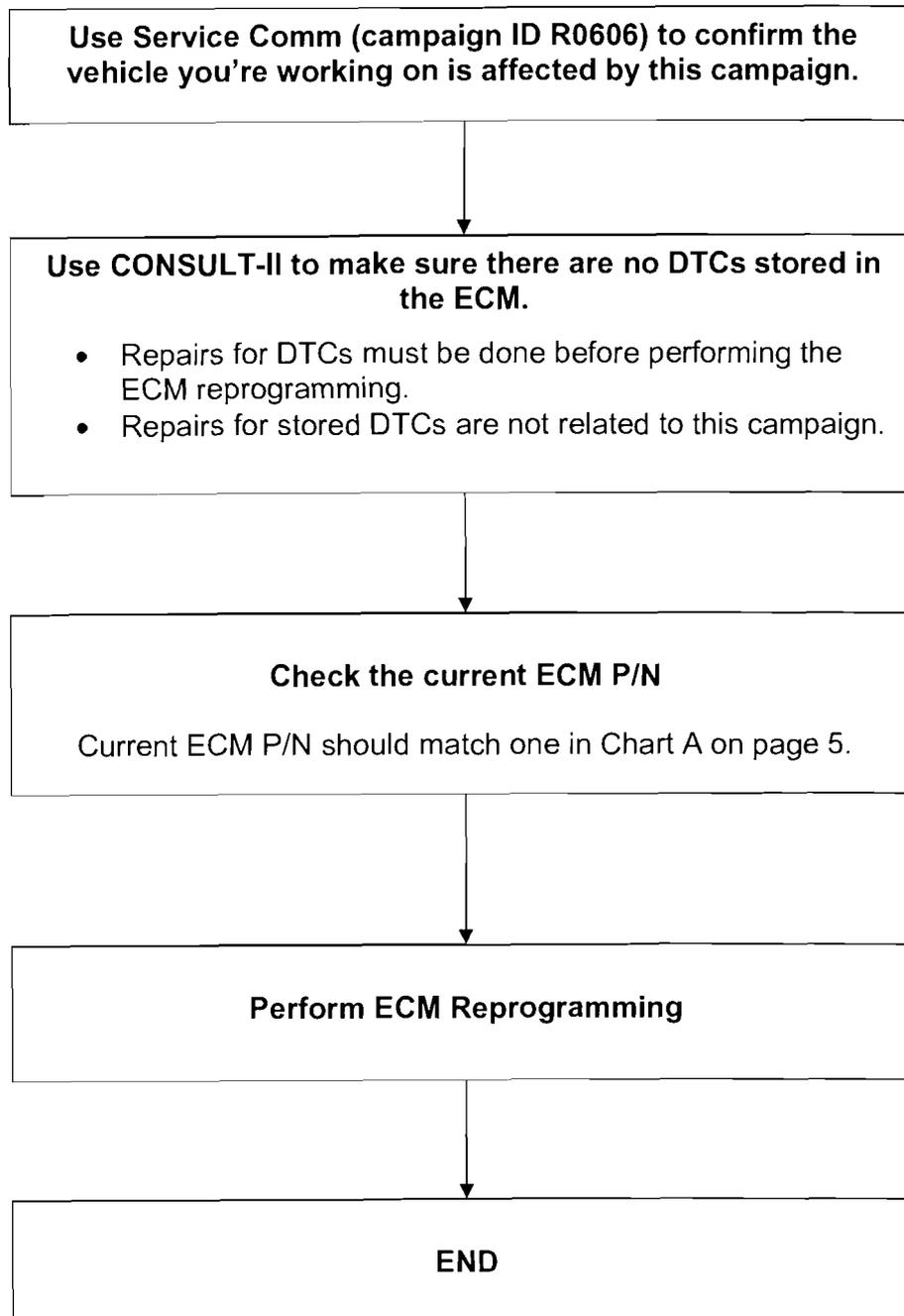
NUMBER OF VEHICLES POTENTIALLY AFFECTED

The number of vehicles potentially affected is approximately 200,500

DEALER RESPONSIBILITY

It is the dealers responsibility to check Service Comm for the campaign status on each vehicle falling within the range of this voluntary safety recall which for any reason enters the service department. This includes vehicles purchased from private parties or presented by transient (tourist) owners and vehicles in a dealer's inventory. **Federal law requires that new vehicles in dealer inventory which are the subject of a safety recall must be corrected prior to sale. Failure to do so can result in civil penalties by the National Highway Traffic Safety Administration.** While federal law applies only to new vehicles, Nissan strongly encourages dealers to correct any used vehicles in their inventory before they are retailed.

REPAIR OVERVIEW



SERVICE PROCEDURE

Before beginning this Service Procedure, use CONSULT-II to make sure there are **no DTCs stored** in the ECM.

Repairs for stored DTCs must be done before performing the ECM reprogramming. Use ASIST for DTC diagnostic and repair information.

Repairs for stored DTCs are not related to this campaign.

Check the Current ECM Part Number (P/N)

1. With the Diagnostic Card (Red/white card) in CONSULT-II and CONSULT-II turned "ON", print the ECM Part Number as follows:

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

2. Attach this printout to the Repair Order.
 - Figure A is an example of the ECM Part Number printout.

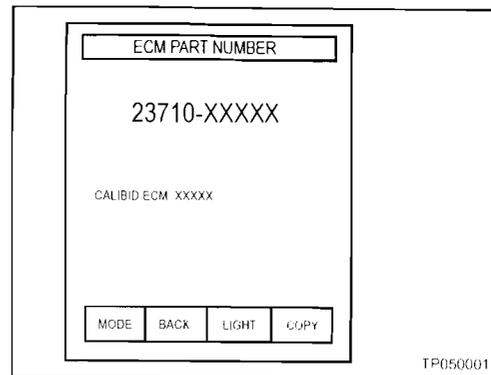


Figure A

3. Using the ECM P/N printout:
 - Compare your vehicle's ECM P/N to those shown under **Current ECM P/N** in Chart A, on the next page.

Chart A

MODEL	Vehicle Configuration	Current ECM P/Ns
2003 Altima (L31) with QR25 Engine	A/T with ASCD	23710-9J000, -9J001, -9J002, -9J003, -9J004, -9J00A
	A/T	23710-9J005, -9J006, -9J007, -9J008, -9J009, -9J03A
	M/T with ASCD	23710-9J010, -9J011, -9J012, -9J013, -9J014, -9J01A
	MT	23710-9J015, -9J016, -9J017, -9J018, -9J019, -9J04A
2003 Sentra (B15) with QR25 engine	A/T	23710-8U500, -8U501, -8U502, -8U503, -8U50A
	5 M/T	23710-8U510, -8U511, -8U512, -8U513, -8U51A
	6 M/T	23710-8U520, -8U521, -8U522, -8U523, -8U52A
	A/T with Immobilizer	23710-8U540, -8U541, -8U542, -8U543, -8U54A
	5 M/T with Immobilizer	23710-8U560, -8U561, -8U562, -8U563, -8U56A
	6 M/T with Immobilizer	23710-8U570, -8U571, -8U572, -8U573, -8U57A

A. If your vehicle's ECM P/N matches one of the Current ECM P/N's in the chart above:

- **Go to Reprogramming the ECM** (next page).

B. If your vehicle's ECM P/N does not match one of the Current ECM P/N's in the chart above:

- This campaign may not apply or has already been done on this vehicle.
- **Recheck Service Comm (campaign ID R0606) to confirm the vehicle you're working on is affected by this campaign.**

REPROGRAMMING THE ECM

Reprogramming should be performed by an OBDII Certified technician.

The reprogramming procedure involves three general steps:

- Setting up
- Download (transfer) data from ASIST into CONSULT-II.
- Download new data from CONSULT-II into the vehicle (Reprogram the ECM).

SETTING UP:

1. Install the Reprogramming Card into CONSULT-II.
 - Make sure CONSULT-II is disconnected from the vehicle and turned OFF.
 - The Reprogramming Software Card is the “orange” Card.
 - Use slot A—top slot (see Figure 1).

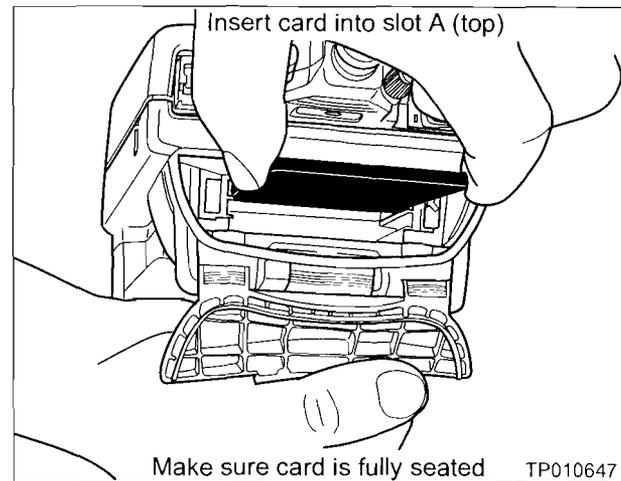


Figure 1

2. Connect the AC power supply to CONSULT-II.
3. Connect CONSULT-II to the ASIST PC with the special Ethernet cable (P/N 02002554 is printed on the cable).
 - A. Connect one end to CONSULT-II at the “PC port”.
 - B. Connect the other end to the ASIST PC at the “Ethernet card” connection port.
4. Confirm the CONSULT-II date and time are correctly set as follows:
(This is necessary to provide a valid print-out for warranty claims.)
 - A. With the Reprogramming card in slot A, turn “ON” CONSULT-II.
 - B. Touch **SUB MODE**.

C. Touch **SET DATE** (see Figure 2).

- 1) If the date is not correct, touch the **MONTH**, **DAY** or **YEAR** as needed. Then adjust it by using arrow keys. Once done, press **SAVE**, press **BACK**, and go to step D.
- 2) If the date is OK, press **BACK** and go to step D.

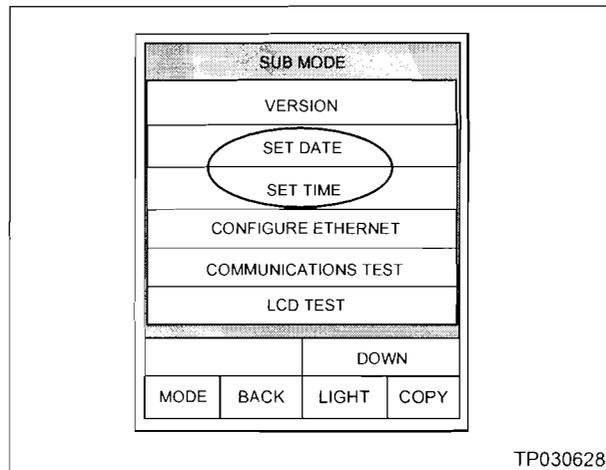


Figure 2

D. Touch **SET TIME** (see Figure 2).

- 1) If time is not correct, touch the **HOUR**, **MINUTE** or **AM/PM** as needed. Then adjust it by using arrow keys. Once done, press **SAVE**, press **BACK** and go to step 5.
- 2) If time is OK, press **BACK** and go to step 5.

IMPORTANT NOTE:

- If your ASIST PC is already being used to perform ECM Reprogramming, proceed to step 5 on the next page.
- If you are unsure whether your ASIST PC has already been set up for ECM Reprogramming, look in ASIST, under “CONSULT Utilities” – “CONSULT-II Info” – “NISSAN” – “ECU Reprogramming”. This will give you instructions for setting the Ethernet (IP) Address of the ASIST PC and CONSULT-II. You will need to do this before performing ECM reprogramming.

DOWNLOAD (TRANSFER) DATA FROM ASIST INTO CONSULT-II

- From the ASIST PC main menu screen, select **"CONSULT UTILITIES"** (see Figure 3).

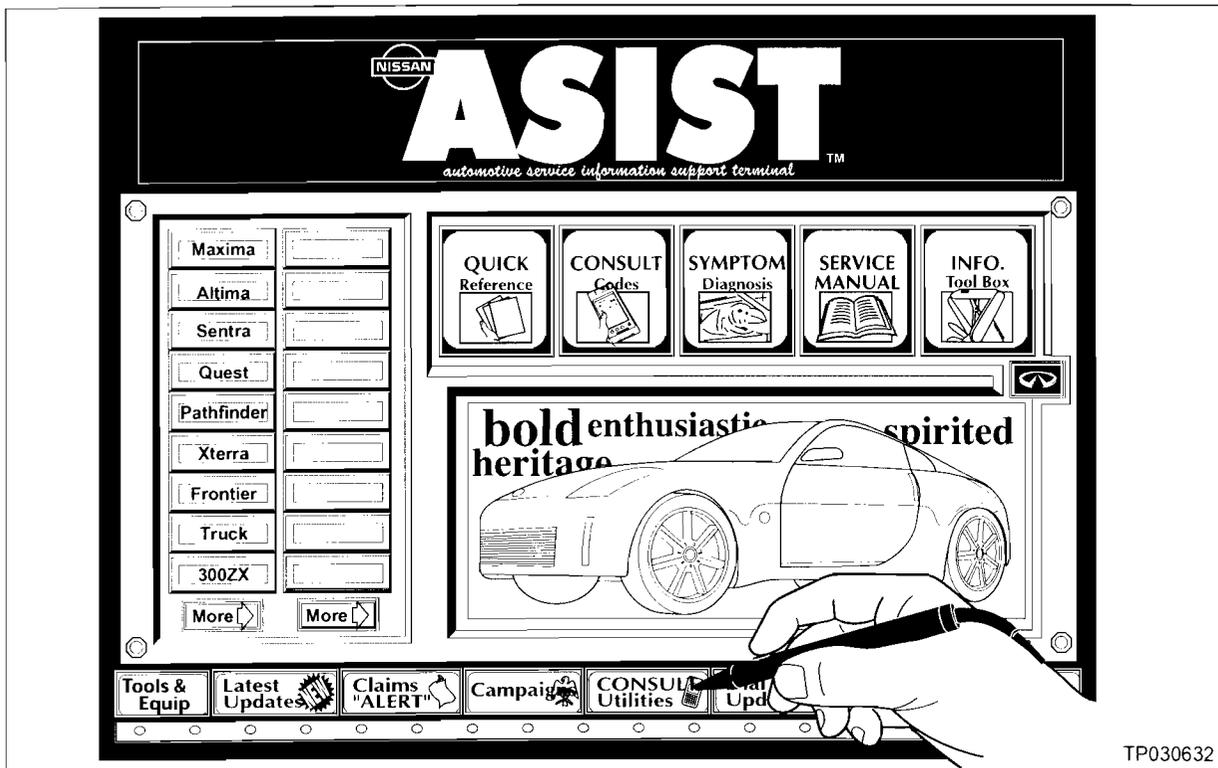


Figure 3

- From the **"CONSULT UTILITIES"** screen, select **"ECM / TCM DATA"** (see Figure 4).

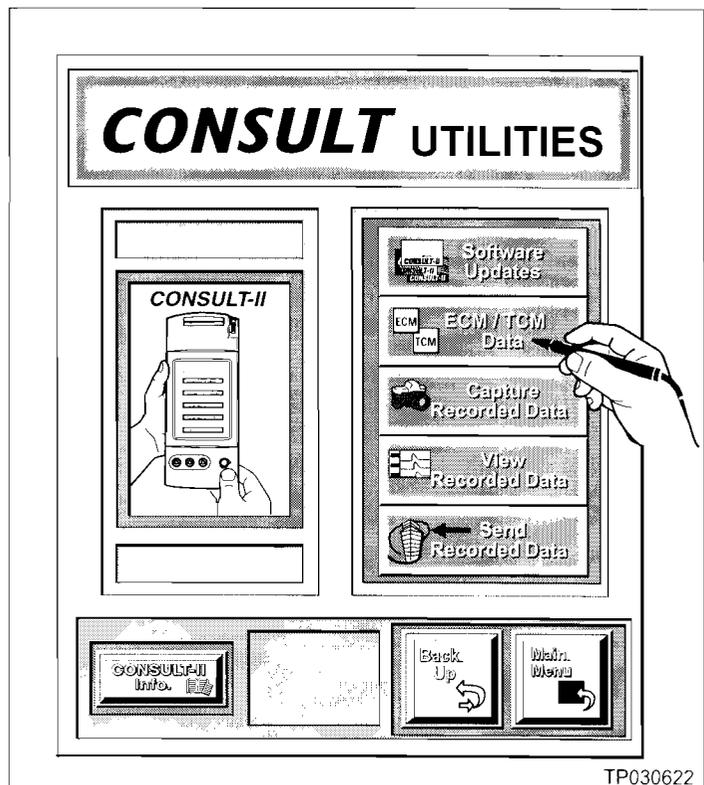


Figure 4

7. Select the "ECU REPROGRAMMING DATA" (see Figure 5) as follows:

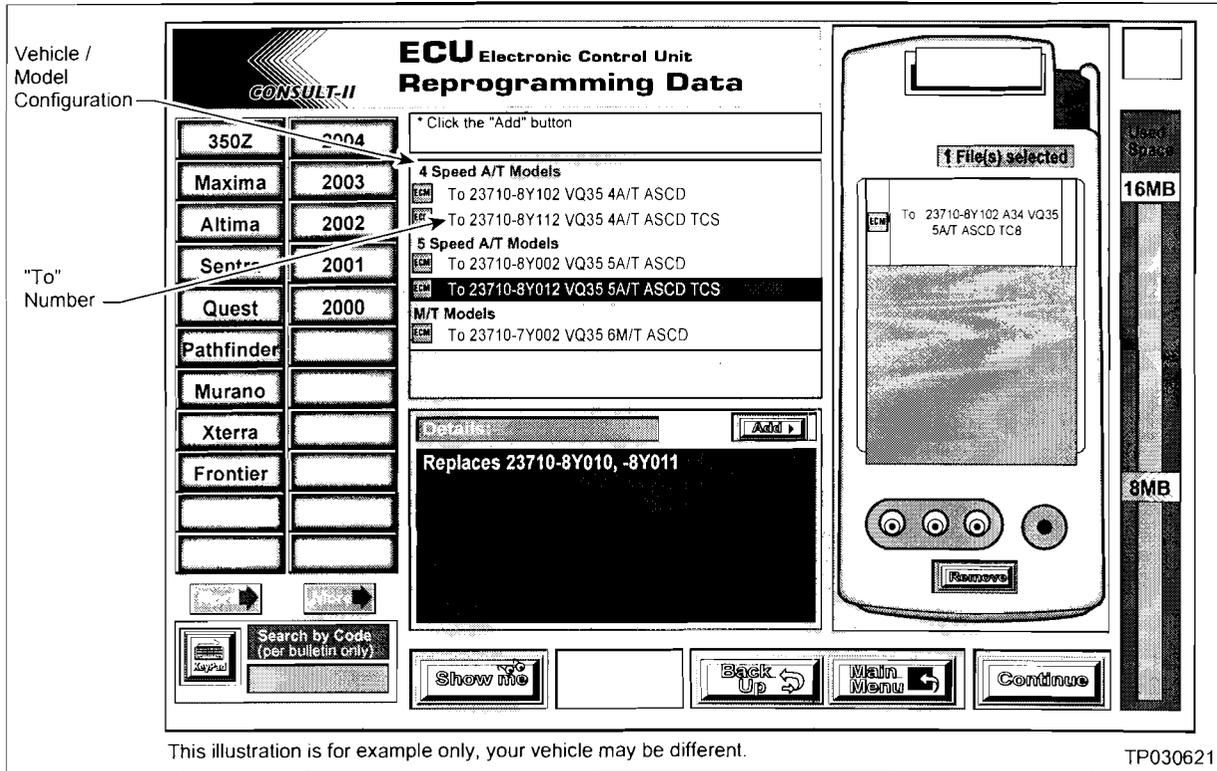


Figure 5

- A. Select vehicle model and model year.
- B. Select the correct reprogramming data:
 - 1) Locate the specific "Model Configuration" (Example: QR25 A/T ASCD).

NOTE:

 - Model Configuration may include items like engine type, transmission type, and vehicle options such as ASCD, TCS, ABS, etc.
 - Vehicle configuration can be verified using the "Current ECM P/N" in Chart A on page 5.
 - 2) Select (click on) the "To" number.

NOTE: The "To" number reads: 23710-XXXXX.
 - 3) Write the "To" number on the Repair Order. You will need it later in the reprogramming process.
- C. Click on the "Add" button to add data to the "File(s) selected" list. This list is on the right side of the screen.
- D. Click the "**CONTINUE**" button to proceed with CONSULT-II setup.

8. Turn "ON" CONSULT-II as shown in Figure 6.

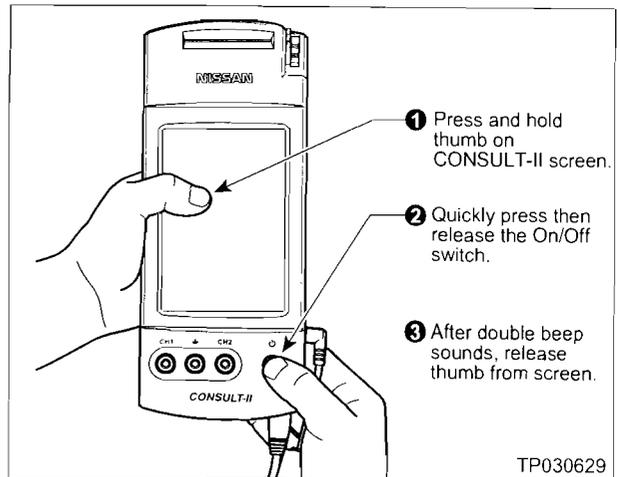


Figure 6

9. Select **Transfer files via LAN** (see Figure 7).

NOTE: If you accidentally choose a menu option other than "Transfer Files via LAN"; turn CONSULT-II "OFF", and then back "ON" as shown in Figure 6 above.

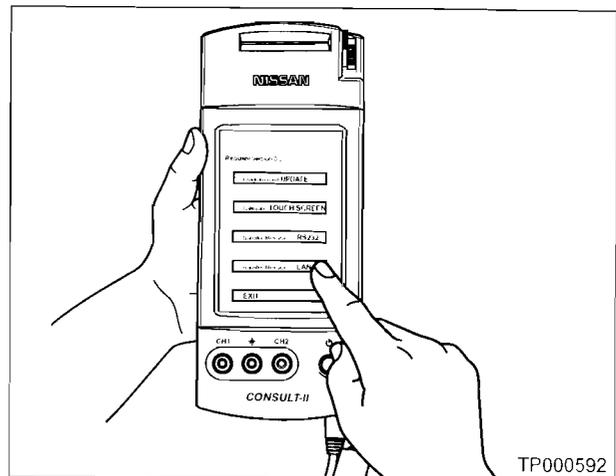


Figure 7

Set the CONSULT-II unit down for now and go to your ASIST PC.

10. Transfer (download) data from ASIST into CONSULT-II.

A. On the ASIST screen, click on "Transfer" (see Figure 8).

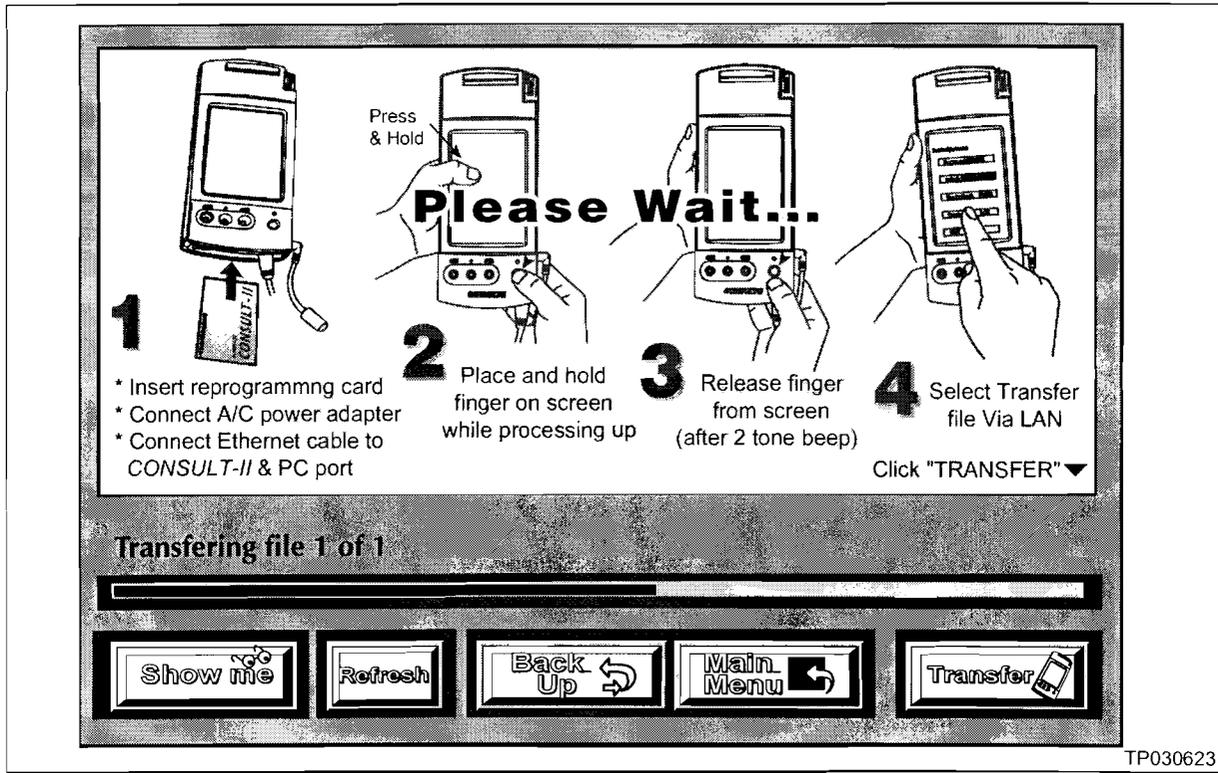


Figure 8

- Data transfer will take about 15 seconds.
- Transfer progress is displayed on the ASIST screen (see Figure 8).

B. Wait until the data transfer is complete (see CAUTION below).

CAUTION: DO NOT DISCONNECT THE ETHERNET CABLE UNTIL "COMPLETE" IS DISPLAYED AS SHOWN IN FIGURE 9 ON THE NEXT PAGE.

- If the cable is disconnected before "Complete" is displayed, you **MUST** restart the transfer (download) procedure; otherwise ECM damage can occur.
- If the cable is disconnected during the transfer; wait for ASIST to display an "error" message, then click on "OK". Select "Backup", then return to step 6 on page 8.

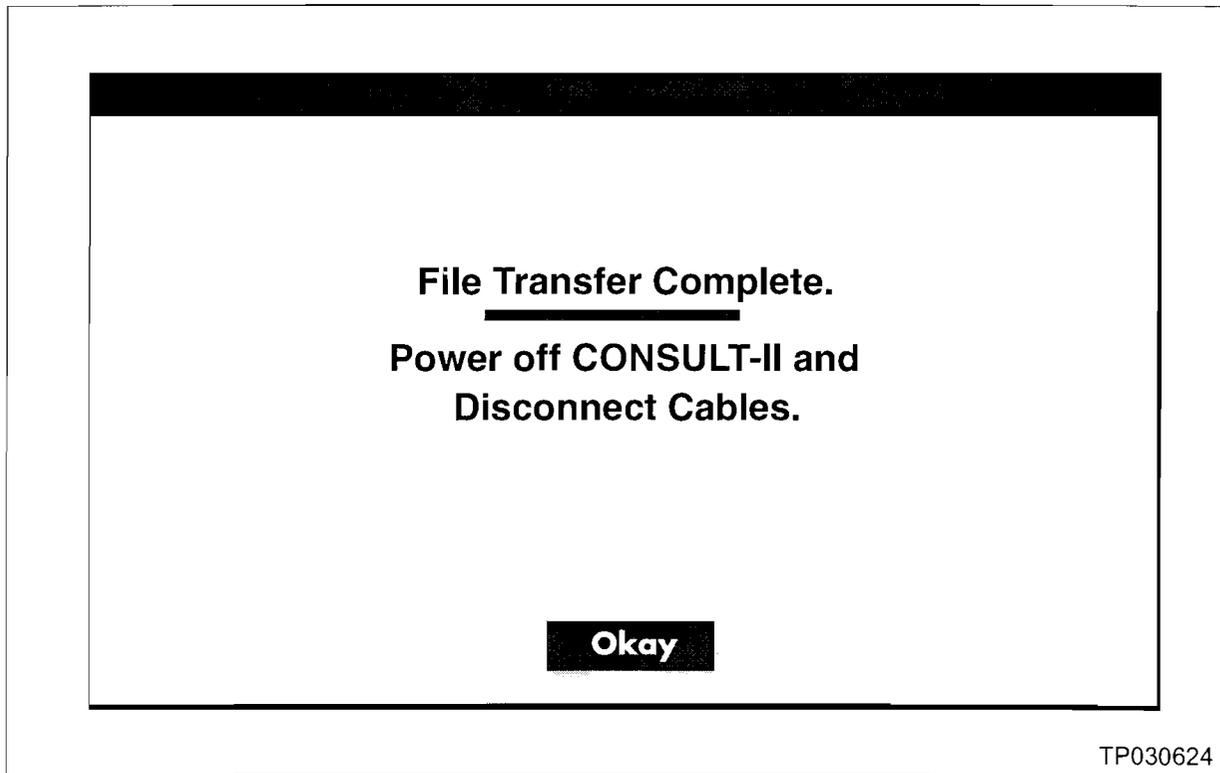


Figure 9

11. When transfer is complete (see Figure 9):

- A. Select (click on) "**Okay**", then "**MAIN MENU**".
- B. Turn "OFF" CONSULT-II.
- C. Disconnect the AC power cord and the Ethernet cable from CONSULT-II.

DOWNLOAD NEW DATA FROM CONSULT-II INTO THE VEHICLE (REPROGRAM ECM)

CAUTION:

- Perform this operation in four (4) sections. DO NOT SKIP any of these sections.
- They must be performed in order, 1 through 4.

Section 1: Connect a battery charger and CONSULT-II to the vehicle.

Section 2: Confirm the vehicle battery voltage and CONSULT-II "Charger Input".

Section 3: Perform ECM Reprogramming.

Section 4: Perform ECM Reprogram Confirmation.

Section 1: Connect a battery charger and CONSULT-II to the vehicle.

12. Confirm the ignition switch is "OFF".

13. Connect a battery charger to the vehicle battery.

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

IMPORTANT

Do not perform ECU Reprogramming without connecting a battery charger to the vehicle's battery. Permanent ECU damage can occur.

Connecting a vehicle battery charger will maintain:

- Proper CONSULT-II power supply during reprogramming—very important if the CONSULT-II battery is low.
- Vehicle battery voltage level—especially on late model vehicles where the cooling fans come on during reprogramming.

14. Connect CONSULT-II to the vehicle using the DLC-II cable with black Converter Box (see Figure 10 on next page).

VERY IMPORTANT:

- Make sure the DLC-II is straight and fully plugged in to the vehicle.
- Make sure all other DLC-II cable connections shown in Figure 10 are connected properly.

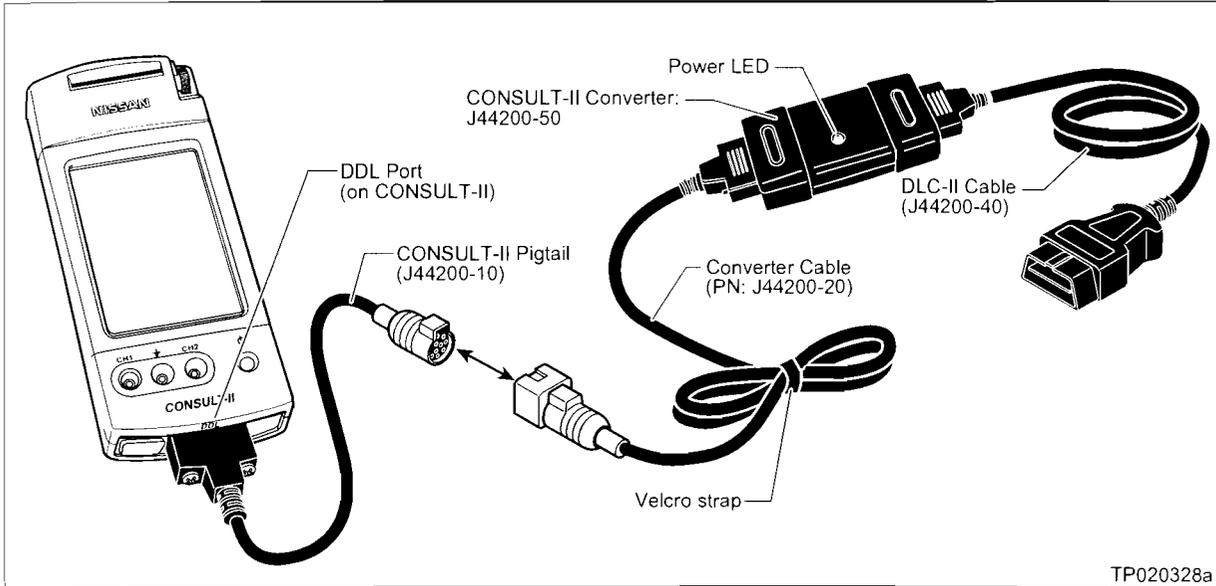


Figure 10

CAUTION

- Nissan requires the use of essential tools shown in Figure 10 when performing ECM reprogramming.
- J44200-10 "Pigtail" should not be removed from the CONSULT-II DDL Port. This "Pigtail" allows use of the stronger "quick disconnect" cable set.
- If cables are very often changed at the DDL Port (base) of the CONSULT-II unit, cable connector pin damage may result.
- If there is connector pin damage, ECM reprogramming may fail. Permanent ECU damage can occur.

15. Turn "ON" the ignition switch (do not start the engine).

- CONSULT-II will turn "ON" automatically (see Figure 11).
- Confirm that all electrical loads* (except for the ignition) are "OFF".

* Headlights, defroster, A/C, Audio (radio), and cellular telephone, etc.

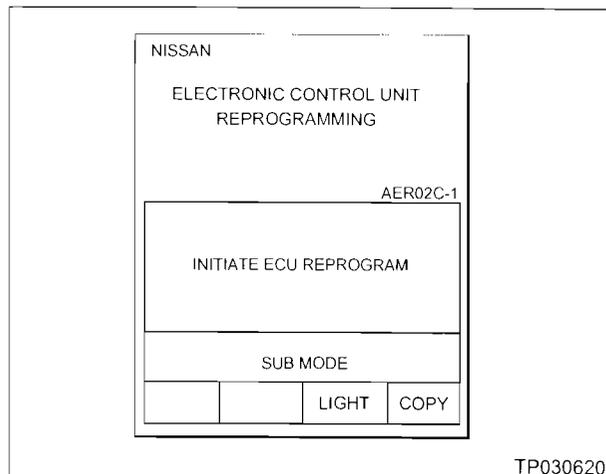


Figure 11

16. Roll down the driver's window part way, exit the vehicle, close the door, and hang the CONSULT II unit on the outside of the window (see Figure 12).

- This step is necessary to ensure the CONSULT-II and DLC-II cable will not be disturbed during reprogramming.

CAUTION: DO NOT connect the CONSULT-II AC power supply for Steps 17, 18 and 19.

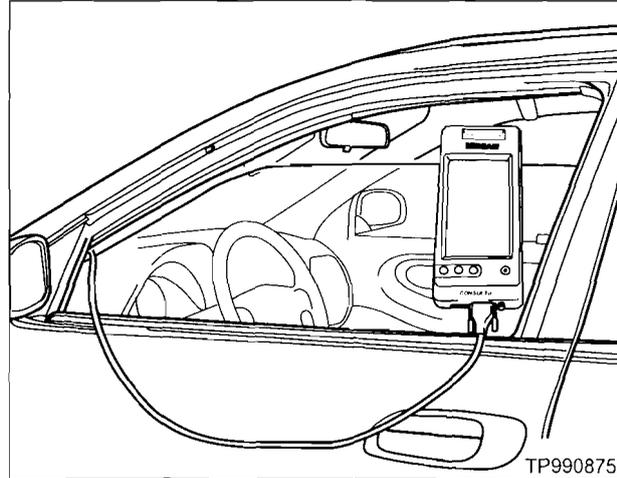


Figure 12

Section 2: Confirm the vehicle's battery voltage and CONSULT-II "Charger Input"

17. Press **SUB MODE** (see Figure 11) then:

- Press **DOWN** 4 times.
- Select **BATTERY CHARGE**.

18. Check the CONSULT-II's "Charger Input" reading (see Figure 13).

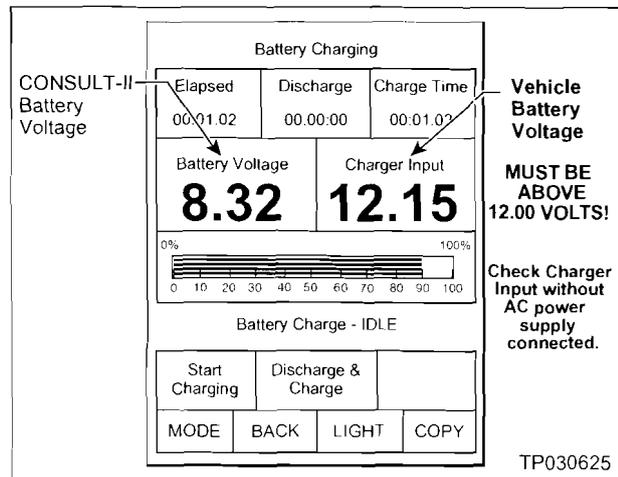


Figure 13

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.).

19. The “Charger Input” reading **MUST** be above 12 volts (see Figure 13 on page 15).

- A reading above 12 volts confirms;
 - a. The DLC-II is properly connected to the vehicle,
 - b. The vehicle battery voltage is sufficient for ECM reprogramming, and
 - c. CONSULT-II has a sufficient power supply to perform ECM reprogramming.

- If the vehicles battery voltage (“Charger Input”) is below 12 volts, one or more of the following may be the cause:
 - a. The battery charger you hooked up in section 1 is not charging the battery (poor connection or it is not working).
 - b. The DLC-II does not have a good connection to the vehicle (not straight).
 - c. The DLC-II cable may have a malfunction (damaged wire or pins).
 - d. The CONSULT-II Converter (J44200-50 / black box) is not working correctly (see Figure 10 on page 14).

CAUTION:

- Do not attempt ECU Reprogramming if the vehicle's battery voltage is below 12 volts.
- Permanent ECU damage can occur if the vehicle battery does not maintain the minimum voltage during ECU Reprogramming.
- If “Charger Input” is above 12 volts, power from the vehicle battery will keep CONSULT-II's power supply at the correct level during reprogramming. (see Figure 13).

Section 3: ECM Reprogramming

20. Press **INITIATE ECU REPROGRAM** (see Figure 14), then

- A. Press **ECM**
- B. Review the precaution
- C. Press **NEXT**

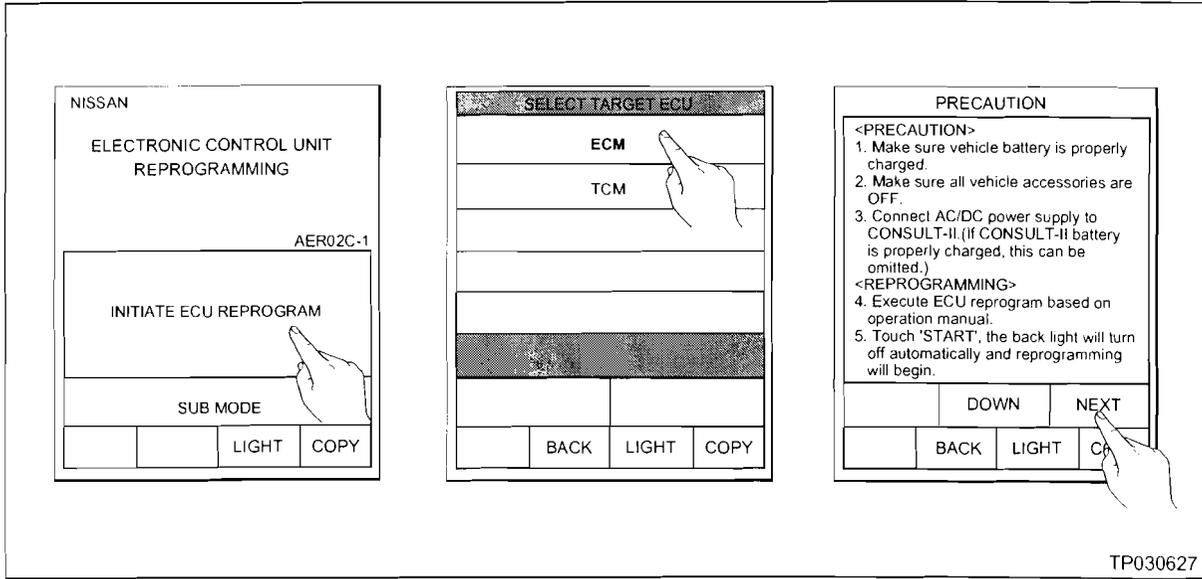


Figure 14

21. Press **CHECK ECM P/N** to “confirm” (take note of) the current ECM part number (see Figure 15).

NOTE: This is the vehicle’s ECM part number BEFORE Reprogramming.

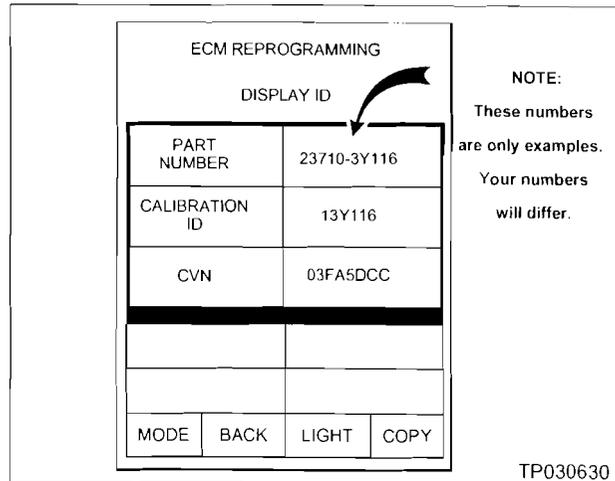


Figure 15

22. Press **COPY** to print the current ECM part number for future reference.

23. Press **BACK** to return to the main menu.

24. Select the ECM program to install (see Figure 16).

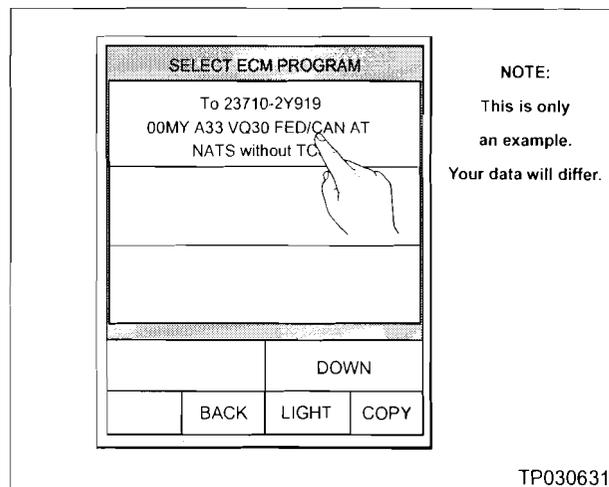


Figure 16

25. The "REPROGRAM START" window should appear (see Figure 17).

- **NOTE:** If you get an error message, refer to the ECU Reprogramming Software Operations Manual.

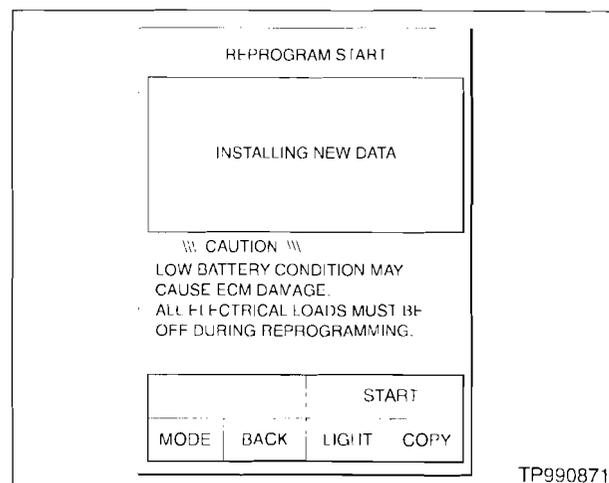


Figure 17

CAUTION DURING REPROGRAMMING:

- Do not unplug CONSULT-II from the vehicle during reprogramming. Permanent ECM damage can occur.
- Do not open any door or the trunk during reprogramming.
- On some vehicles, the cooling fans may come on during reprogramming. This is a normal condition. Do not disconnect the cooling fans. Forgetting to reconnect them may cause severe engine damage. A vehicle battery charger is needed* to maintain the battery voltage level during reprogramming.

* You should have hooked up a battery charger in Section 1

26. Press **START**.

- After a few seconds, the window shown in Figure 18 will appear.
- CONSULT-II will now turn "OFF" its screen backlight.
- When the screen backlight goes "OFF", ECM reprogramming has started.

NOTE: This process will take from 10 to 20 minutes.

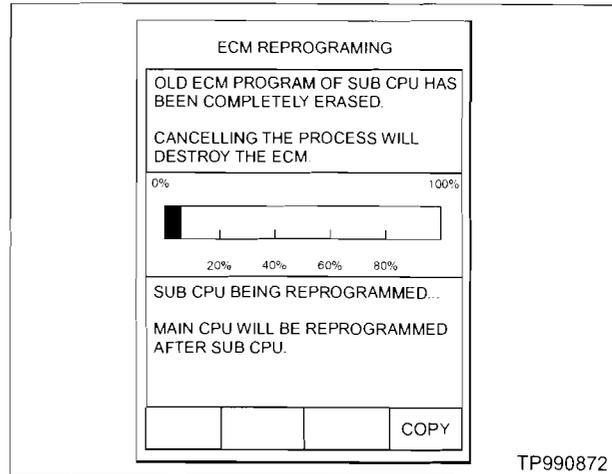


Figure 18

CAUTION: You must leave the vehicle and the CONSULT-II unit "undisturbed" (don't touch) until reprogramming is complete.

NOTE: If CONSULT-II screen gives you an error message "Unmatch of Vehicle Data":

- You tried to reprogram with an incorrect data file, or
- You are trying to reprogram with a file that is already in the ECM.

27. When the Reprogramming is complete, CONSULT-II will "beep", turn the screen backlight back ON and automatically print out a report (see Figure 19).

- Remember it may take up to 20 minutes.
- Attach the print-out to the repair order for future reference.

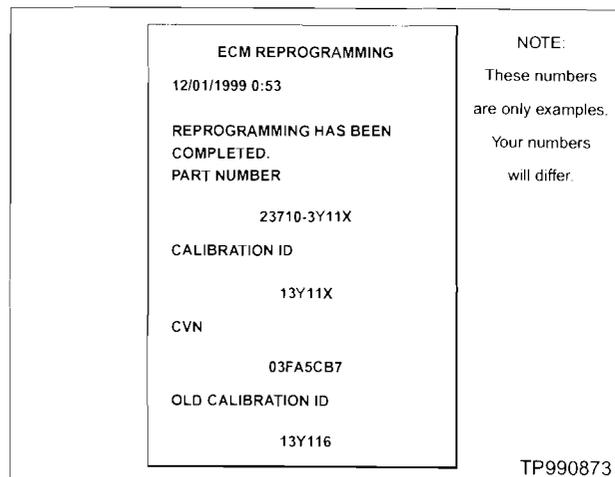


Figure 19

CAUTION

If CONSULT-II prints "REPROGRAMMING UNEXPECTEDLY TERMINATED":

- The ECM has been permanently damaged and will require replacement.
- In this case, perform steps A through G on page 22.

Do not start the engine with the damaged ECM installed.

This chart is provided as a reference to confirm the correct final ECM P/N after reprogramming

		From	To
MODEL	Vehicle Configuration	ECM P/Ns Before Reprogramming	Final / New ECM P/N's
2003 Altima With QR25 Engine	A/T with ASCD	23710-9J000, -9J001, -9J002, -9J003, -9J004, -9J00A	23710-9J00B
	A/T	23710-9J005, -9J006, -9J007, -9J008, -9J009, -9J03A	23710-9J03B
	M/T with ASCD	23710-9J010, -9J011, -9J012, -9J013, -9J014, -9J01A	23710-9J01B
	MT	23710-9J015, -9J016, -9J017, -9J018, -9J019, -9J04A	23710-9J04B
2003 Sentra (B15) with QR25 engine	A/T	23710-8U500, -8U501, -8U502, -8U503, -8U50A	23710-8U50B
	5 M/T	23710-8U510, -8U511, -8U512, -8U513, -8U51A	23710-8U51B
	6 M/T	23710-8U520, -8U521, -8U522, -8U523, -8U52A	23710-8U52B
	A/T with Immobilizer	23710-8U540, -8U541, -8U542, -8U543, -8U54A	23710-8U54B
	5 M/T with Immobilizer	23710-8U560, -8U561, -8U562, -8U563, -8U56A	23710-8U56B
	6 M/T with Immobilizer	23710-8U570, -8U571, -8U572, -8U573, -8U57A	23710-8U57B

NOTE:

- Part numbers for ECM programs are subject to change.
- If a more recent part number is available for any of the ECM data (specified in the Chart above) the latest version should be used to complete this campaign repair.
- ASIST contains the latest version of all ECM data.

28. Press **END** to return to the main menu.

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

30. Wait more than 10 seconds, then turn the ignition switch "ON" for 1 second. Then, turn the ignition switch "OFF" again for 10 seconds (see Figure 20).

- This will reset ECM self learned Data.

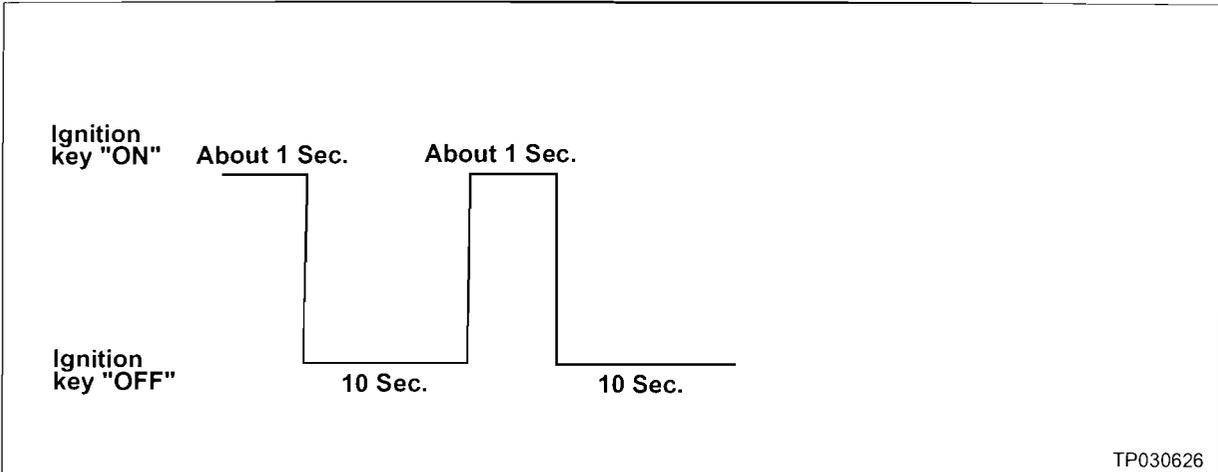


Figure 20

Section 4: Perform ECM Reprogram Confirmation.

31. Start the engine.

32. Check engine idle speed.

- If idle speed is too low, perform IAVL (Idle Air Volume Learning). 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.

33. Confirm the engine is operating normally.

34. Make sure the "Check Engine Light " (MIL) is not "ON".

- If necessary, use CONSULT-II and the Diagnostic (red/white) Card to erase any DTC's that may have stored during the reprogramming procedure.

END

PROGRAMMING UNEXPECTEDLY TERMINATED

(See step 27 on page 19):

- The ECM has been permanently damaged and will require replacement.
- Perform steps A through G below.

CAUTION: Do not start the engine with the damaged ECM installed.

- A. Turn the ignition "OFF", turn CONSULT-II "OFF", and DISCONNECT THE NEGATIVE TERMINAL OF THE VEHICLE BATTERY.
- B. Attach the CONSULT-II print-out to the repair order for future reference.
- C. Replace the damaged ECM.
- D. Reconnect the negative battery cable.
- E. If the vehicle is equipped with NATS:
 - **Some** models will require registration of the NATS keys.
 - See the appropriate TSB(s) or Service Manual (ESM) for NATS information and key registration procedures.
- F. Perform IAVL (Idle Air Volume Learning). See the appropriate Service Manual (ESM) for this procedure.
- G. Check the new ECM's current P/N.
 - 1). Make sure it is the latest (newest) P/N.
 - 2). See step 21 on page 17.

NOTE:

- A new ECM from the parts department may not have the newest program.
- If needed, return to step 5 on page 8 of this procedure and reprogram the new ECM with the latest available P/N. Be careful to follow each step exactly as written.

CLAIMS INFORMATION

Submit a Campaign (CM) line claim using the following claims coding:

“CM” I.D.: R0606

DESCRIPTION	OP CODE	FRT
Reprogram ECM	R06060	0.5 hrs

OWNER'S LETTER

Dear Nissan owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Nissan has decided that a defect which relates to motor vehicle safety exists in some 2003 model year Nissan Altima and Sentra vehicles equipped with the 2.5 liter engine. Our records indicate that you own the Nissan vehicle identified by the Vehicle Identification Number on the cover of this notice.

Reason for Recall

On some 2003 model year Nissan Altima and Sentra vehicles equipped with the 2.5 liter engine, there is a possibility that the engine might stop running while being driven due to an electrical problem between the crank angle sensor and the Electronic Control Module (engine computer). This may also result in the "Service Engine Soon" light coming on. If the engine stops running while driving, this could result in a crash without warning.

What Nissan Will Do

In order to prevent this incident from occurring, your Nissan dealer will reprogram the Electronic Control Module. This free service should take about one hour to complete, but your Nissan dealer may require your vehicle for a longer period of time based upon their work schedule, or parts availability.

What You Should Do

Contact your Nissan dealer at your earliest convenience in order to arrange an appointment to have your vehicle repaired. **If the "Service Engine Soon" light comes on, contact your dealer as soon as possible to have your vehicle inspected.** Please bring this notice with you when you keep your service appointment. Instructions have been sent to your Nissan dealer. If the dealer fails, or is unable to make the necessary repairs free of charge, you may contact the National Consumer Affairs Department, Nissan North America, Inc., P.O. Box 685003, Franklin, TN 37068-5003. The toll free number is 1-800-NISSAN1 (1-800-647-7261). You may also contact the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590; or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153); or go to <http://www.safercar.gov>.

If you have paid to have a crank position sensor replaced prior to this campaign, you may be eligible for reimbursement of the related expense. Contact Nissan Consumer Affairs at the numbers listed above for additional information on how to obtain a reimbursement.

Federal law requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

Thank you for your cooperation. We are indeed sorry for any inconvenience this may cause you.