



SERVICE CAMPAIGN BULLETIN

NTB05-050

Reference:

June 22, 2005

Date:

VOLUNTARY SERVICE CAMPAIGN 2005 PATHFINDER VEHICLE DYNAMIC CONTROL (VDC)

CAMPAIGN I.D.:	P5219
APPLIED VEHICLE:	2005 Pathfinder (R51) – 2WD & 4WD
APPLIED VINS:	2WD: 5N1AR18U*5C700000 - 761171
	4WD: 5N1AR18W*5C700001 - 761174

NOTE: Use Service Comm to confirm campaign eligibility.

INTRODUCTION

In mid-May, 2005, Nissan implemented a product improvement at the factory by reprogramming the Vehicle Dynamic Control (VDC) system installed on all Pathfinder models. With this Service Campaign, Nissan is providing the same product improvement free of charge to owners of 2005 Pathfinder vehicles built prior to mid-May.

IDENTIFICATION NUMBER

Nissan has assigned identification number P5219 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 55,000.

DEALER RESPONSIBILITY

It is the Nissan dealer's responsibility to check Service Comm for the campaign status on each vehicle falling within the range of this Voluntary Service Campaign (P5219) that enters the service department. This includes vehicles purchased from private parties or presented by transient (tourist) owners and vehicles in a Nissan dealer's inventory.

SERVICE PROCEDURE

There are three parts to this service procedure:

- Part 1: Download special R51 VDC Reprogramming Data from ASIST onto your standard <u>8 MB (orange)</u> Reprogramming Card.
 - Do <u>NOT</u> use the 16 MB (orange) "QR25 Campaign ECM Software" Card (#J-44200-ECMR-16). If you use this card, it will be reformatted to an 8 MB card.
 - Go to page 3 for this part of the service procedure.
- **Part 2:** Reprogram the VDC Control Unit with the <u>8 MB (orange)</u> Reprogramming Card (that now contains the downloaded VDC reprogramming data from ASIST).
 - Go to page 9 for this part of the service procedure.
- **Part 3:** Re-program the 8 MB (orange) Reprogramming Card <u>back to its original format</u> so it can be used for standard ECU reprogramming.
 - Refer to page 19 for this part of the service procedure.

NOTES:

- These procedures should be performed in order by an OBD-II certified Technician.
- This "Special Reprogramming Procedure" must be used for this Service Campaign ONLY.



Part 1: Download special R51 VDC Reprogramming Data from ASIST onto your standard <u>8 MB (orange)</u> Reprogramming Card.

This part of the procedure involves two general steps:

- Setting up
- Download (transfer) data from ASIST into CONSULT-II (8 MB orange Reprogramming card).

Before starting this procedure, use CONSULT-II and the 16 MB (red/white) <u>Diagnostic Card</u> to retrieve any stored DTC(s). Additional repairs may be necessary if there are DTC(s) not associated with this special reprogramming procedure. Refer to the appropriate TSB or Service Manual.

SETTING UP:

- 1. Install the standard **8 MB (orange)** Reprogramming Card into CONSULT-II.
 - Use slot A—top slot (see Figure 1).

CAUTION: Do <u>NOT</u> use the 16 MB (orange) "QR25 Campaign ECM Software" Card (#J-44200-ECMR-16). If you use this card, it will be reformatted to an 8 MB card.

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 8 MB (orange) 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.





- 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. After you are done, press **SAVE**, press **BACK** and go to step 5, next page.
 - 2) If time is OK, press **BACK** and go to step 5, next page.

IMPORTANT NOTE

- If your ASIST PC has already been set up to perform ECU reprogramming, proceed to step 5 on the next page.
- If you are unsure whether your ASIST PC has already been set up for ECU 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 ECU reprogramming.

DOWNLOAD (TRANSFER) DATA FROM ASIST INTO CONSULT-II (8 MB Orange Card)

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



Figure 3

- 6. From the **"CONSULT UTILITIES"** screen, select **"ECU Reprog. Data"** (see Figure 4).
 - After you select "ECU Reprog. Data", the "ECU Reprogramming Data" screen will be displayed (see Figure 5, next page).



Figure 4

NOTE:

- This is a special VDC reprogram that uses an ID Code FOR THIS INCIDENT ONLY!
- Step 7 (below) is different from the typical ECU Reprogramming procedure.
- 7. Select the new VDC Control Unit data as follows:
 - a. Click on the Keypad button (see Figure 5).



Figure 5

b. A Keypad will appear (see Figure 6)



Figure 6

- c. Using the digit keys on the keypad, enter ID Code 050601.
- d. Then click the "Continue" button on the keypad.
 - After you click "Continue", the "CAUTION" screen will appear (see Figure 7, next page).

e. Read the "CAUTION" screen carefully (see Figure 7). Then click "Okay".

R51 VDC REPROGRAMMING SERVI	CE CAMPAIGN SOFTWARE	
This will update the STANDARD (8 MB) represent software (and data) for the R51 VDC service reprogrammed, you must update the card aga use. (Search by code 050602)	ogramming card with SPECIAL campaign. After the vehicle is ain for standard ECU reprogramming	

Figure 7

- 8. Prepare CONSULT-II as follows:
 - a. Make sure:
 - CONSULT-II is "OFF".
 - The <u>8 MB (orange)</u> Reprogramming Card is inserted into CONSULT-II (see Figure 8).
 - The A/C Power Adapter is securely connected to CONSULT-II (see Figure 8).
 - The Ethernet Cable is securely connected to CONSULT-II and the PC port (see Figure 8).
 - b. Turn CONSULT-II "ON" (see Figure 8).
 - c. Select "Transfer Files via LAN" (see Figure 8).

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 8.

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





CAUTION: DO NOT DISCONNECT THE ETHERNET CABLE UNTIL THE DATA TRANSFER IS COMPLETE (SEE FIGURE 10 BELOW).

- If the cable is disconnected before the data transfer is complete, you **MUST** restart the transfer (download) procedure; otherwise VDC damage can occur.
- If this happens accidentally; wait for ASIST to display an "error" message, then click on "OK". Select "Backup", then return to step 6 on page 5.
- 9. Transfer (download) data from ASIST into CONSULT-II.
 - a. On the ASIST screen, click on "OKAY" (see Figure 8, previous page).
 - b. Verify CONSULT-II IP Address (see Figure 9). Then click on "OK".
 - Your IP address may differ based on the network configuration.
 - After you click on "OK", an ASIST screen will appear that shows the data transfer progress (see Figure 10 below).

Connection 🔀				
Please verify CONSULT-II's IP Address:				
192 168 1 2				
Use alternate network card (if available)				
Cancel				
Note: Your IP address may differ				
based on the network configuration. TP050435a				
Figure 0				

Figure 9

12%		Currently	2 of 16		Cancel	
L F ^{File Inform}	ation]
Awaiting	response from BURN					
100%			Bytes Transferred:	52	4288 Bytes	

Figure 10

- c. Wait until the data transfer is complete (see the CAUTION at the top of this page).
 - When the data transfer is complete, CONSULT-II will shut off automatically.
- d. Disconnect the A/C power cord and the Ethernet cable from CONSULT-II.

Part 2: Reprogram VDC Control Unit with <u>8 MB (orange)</u> Reprogramming Card

CAUTION:

- Perform this operation in five (5) sections. DO NOT SKIP any of these sections.
- The sections must be performed in order, 1 through 5.

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

Section 2: Check all systems in "SELF-DIAG RESULTS" and erase any DTC(s).

Section 3: Confirm the vehicle battery voltage and CONSULT-II "Charger Input".

Section 4: Perform VDC Control Unit Reprogramming.

Section 5: Again, perform a check of all systems in "SELF-DIAG RESULTS" and erase any <u>newly</u> stored DTC(s).

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

- 1. Confirm the ignition switch is "OFF".
- 2. Connect a battery charger to the vehicle battery.
 - Set the charger at a low charge rate (2-amp "trickle charge").

IMPORTANT

You must connect a battery changer to the vehicle battery when performing VDC reprogramming. Permanent VDC damage can occur if you don't. 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.
- 3. Connect CONSULT-II to the vehicle using the DLC-II cable with black Converter Box (see Figure 11).

VERY IMPORTANT:

- Make sure the DLC-II is pushed in straight and fully plugged in to the vehicle connector.
- Make sure all other DLC-II cable connections (as shown in Figure 11) are connected properly.



Figure 11

CAUTION

- Nissan requires the use of essential tools shown in Figure 11 when performing VDC 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, VDC reprogramming may fail. Permanent damage to the VDC system can occur.
- 4. Continue with Section 2 on the next page.

Section 2: Check all systems in "SELF-DIAG RESULTS" and erase any DTC(s).

CAUTION: It is essential that you check all systems in "**SELF-DIAG RESULTS**" and erase any DTC(s) <u>before</u> performing the remaining sections of this procedure.

- 1. Remove the R51 VDC Reprogramming Card (8 MB orange card) from CONSULT-II.
- Install the 16 MB (red/white) <u>Diagnostic</u> <u>Card</u> into Slot A (top slot) of CONSULT-II (see Figure 12).
- 3. Press START (Nissan BASED VHCL).
- 4. In "SELF-DIAG RESULTS", check and erase any DTC(s) that are stored in the following vehicle systems:
 - ENGINE
 - A/T
 - ABS
 - AIR BAG
 - IPDM E/R
 - BCM
 - METER
 - AUTO DRIVE POS. (if applicable)
 - ALL MODE AWD/4WD (if applicable)
- 5. Turn the ignition switch to the "OFF" position and then turn CONSULT-II "OFF".
- 6. Remove the red/white Diagnostic Card and insert the R51 VDC Reprogramming Card (8 MB orange card) into CONSULT-II.
- 7. Turn the ignition switch "ON" (do not start the engine).
 - CONSULT-II will turn "ON" automatically (see Figure 13).
 - Confirm that all electrical loads* (except for the ignition) are "<u>OFF</u>".
 - * Headlights, defroster, A/C, Audio (radio), and cellular telephone, etc.



Figure 13



- 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 14).
- This step is necessary to make sure the CONSULT-II and DLC-II cable will not be disturbed during reprogramming.

CAUTION: <u>DO NOT</u> connect the CONSULT-II AC power supply for Steps 1, 2, and 3 in Section 3.

9. Continue with Section 3 below.



Figure 14

Section 3: Confirm the vehicle's battery voltage and CONSULT-II "Charger Input"

- 1. Press **SUB MODE**, then select **BATTERY CHARGE**.
- 2. Check the CONSULT-II's "Charger Input" reading (see Figure 15).



Figure 15

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 <u>above</u> 12 volts.)

- 3. As mentioned, the "Charger Input" reading <u>MUST</u> be above 12 volts (see Figure 15, previous page).
 - A reading above 12 volts confirms;
 - a. The DLC-II is properly connected to the vehicle,
 - b. The vehicle battery voltage is sufficient for VDC reprogramming, and
 - c. CONSULT-II has a sufficient power supply to perform VDC reprogramming.
 - If the vehicle's 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 11).

CAUTION:

- Do not attempt VDC reprogramming if the vehicle's battery voltage is below 12 volts.
- Permanent VDC damage can occur if the vehicle battery does not maintain the minimum voltage during VDC 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 15).
- 4. Continue with Section 4 on the next page.

Section 4: Perform VDC Control Unit Reprogramming

- 1. Press **BACK** two times.
- 2. Press INITIATE ECU REPROGRAM (see Figure 16), then
 - a. Press VDC
 - b. Review <u>all</u> precautions.
 - c. Press **NEXT**



Figure 16

- 3. Select the applicable VDC program to install (see Figure 17):
 - If you're working on a "SE 4x4-OFF ROAD" model, select the lower box: "47660-EA50A"
 - For all other models, select the upper box: "47660-EA600 / 47660-EA602 / 47660-EA604"





4. The **"REPROGRAM START"** window should appear (see Figure 18).

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

* This is found in ASIST under: CONSULT Utilities, CONSULT-II info.

	REPROGF	RAM START		
READY PRE				
\\\ CAUTION \\ LOW BATTERY CONDITION MAY CAUSE ECU DAMAGE. ALL ELECTRICAL LOADS MUST BE OFF DURING REPROGRAMMING.				
START				
MODE	BACK	LIGHT	COPY	
				TP050440

Figure 18

CAUTION DURING REPROGRAMMING:

- Do not unplug CONSULT-II from the vehicle during reprogramming. Permanent VDC damage can occur.
- Do not open any door or the trunk during reprogramming.
- On some vehicles, the cooling fans may come on during reprogramming. <u>This is a normal condition.</u> 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

- 5. Press **START**. See Figure 18, previous page.
- After a few seconds, the window shown in Figure 19 will appear.
- The screen backlight in CONSULT-II will now turn "OFF".
- When the screen backlight goes "OFF", VDC reprogramming has started.

REPROGRAMMING	
TRANSFERING	
	TP050441
Figure 19	

NOTE: This process will take from 4 to 5 minutes.

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 incorrect reprogramming data, or
- You are trying to reprogram with the same file that is already in the VDC.

For your reference, the old and new VDC Control Unit part numbers are listed below.

VDC CONTROL UNIT PART NUMBERS

APPLICATION	OLD	NEW
SE 4x4-OFF ROAD Model	47660-EA50A	47660-ZP20C
All other models	47660-EA600 47660-EA602 47660-EA604	47660-ZP40C 47660-ZP41C 47660-ZP42C

- 6. When VDC Reprogramming is complete:
 - a. CONSULT-II will display the screen shown in Figure 20.
 - You'll need to turn the ignition key "OFF" for at least <u>one full second</u> and then turn the key back "ON". Then press "OK" on the CONSULT-II screen.



Figure 20

- b. CONSULT-II will automatically print out a report (see Figure 21).
 - Attach the print-out report to the Repair Order for future reference.



Figure 21

- 7. Press **END** two times to return to the main menu.
- 8. Turn the ignition switch "OFF" and CONSULT-II "OFF".
- 9. Continue with Section 5 on the next page.

Section 5: Again, perform a check of all systems in "SELF-DIAG RESULTS" and erase any <u>newly</u> stored DTC(s).

- 1. Remove the R51 VDC Reprogramming Card (8 MB orange card) from CONSULT-II.
- 2. Install the red/white Diagnostic Card into Slot A (top slot) of CONSULT-II.
- 3. Turn the ignition switch "ON" (do not start the engine).
 - CONSULT-II will turn "ON" automatically.
 - Confirm that all electrical loads* (except for the ignition) are "OFF".
 - * Headlights, defroster, A/C, Audio (radio), and cellular telephone, etc.

4. Press START (Nissan BASED VHCL).

5. In "SELF-DIAG RESULTS", check and erase any DTC(s) in the below noted vehicle systems:

IMPORTANT: You <u>MUST</u> press "ERASE" and "OK" in all systems (shown below) whether a DTC is displayed or not. This will ensure that <u>all</u> DTC(s) are deleted and it is also required to complete the VDC reprogramming procedure.

- ENGINE
- A/T
- ABS
- AIR BAG
- IPDM E/R
- BCM
- METER
- AUTO DRIVE POS. (if applicable)
- ALL MODE AWD/4WD (if applicable)
- 6. After <u>all</u> DTC(s) are erased:
 - Turn the ignition switch "OFF".
 - Disconnect CONSULT-II and the CAN Cable from the vehicle connector.
 - Disconnect the battery charger from the vehicle.
 - Start the engine and make sure it runs properly and that there are NO warning lights illuminated in the instrument panel.
- 7. Continue with **Part 3** on the next page.

- Part 3: Re-program the 8 MB (orange) Reprogramming Card <u>back to its original</u> <u>format</u> so it can be used for standard ECU reprogramming. Use ID Code 050602 to do this.
- 1. Remove the red/white diagnostic card from CONSULT-II and insert the R51 Reprogramming Card (8 MB orange card).
- 2. Go to the ASIST terminal.
- 3. Use ID Code 050602 to download (transfer) data from ASIST to CONSULT-II.
 - This will re-program the **8 MB (orange)** card to its original format so it can be used for standard ECU reprogramming.
 - Refer to **Part 1** of this bulletin for the downloading procedure.

END

CLAIMS INFORMATION

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

"CM" I.D.: P5219

DESCRIPTION	OP CODE	FRT
Reprogram VDC Control Unit	P52190	0.5 hrs

OWNER'S LETTER

Dear Nissan Owner:

Nissan has decided to provide all owners of 2005 Pathfinders with a product improvement to the Vehicle Dynamic Control (VDC) system.

REASON FOR SERVICE ACTION

During recent dynamic maneuvering tests done by the U.S. government, Nissan discovered that the VDC system could be improved to address an unexpected result caused by the severe nature of the testing. Under certain test conditions, the Pathfinder "tipped up" because the VDC did not operate as expected. The cause has been identified, and we have determined that reprogramming the VDC will improve its operation. This improvement has been included in new Pathfinders now being built and is being offered to owners of recently purchased vehicles to assure your continued satisfaction.

WHAT NISSAN WILL DO

Your Nissan dealer will reprogram the VDC control unit with the improvement **free of charge.**

WHAT YOU SHOULD DO

Contact your Nissan dealer at your earliest convenience in order to arrange an appointment to have the VDC control unit reprogrammed. It is essential that you have an **appointment before bringing your vehicle to the dealer in order to ensure that the dealer will be able to take your vehicle that day.** 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 complete the reprogramming free of charge, you may contact the National Consumer Affairs Office, Nissan North America, Inc. at P.O. Box 191, Gardena, California 90248-0191. The toll free number is 1-800-NISSAN1 (1-800-647-7261).

Thank you for your cooperation. We encourage you to take advantage of this offer and are sorry for any inconvenience this may cause you.