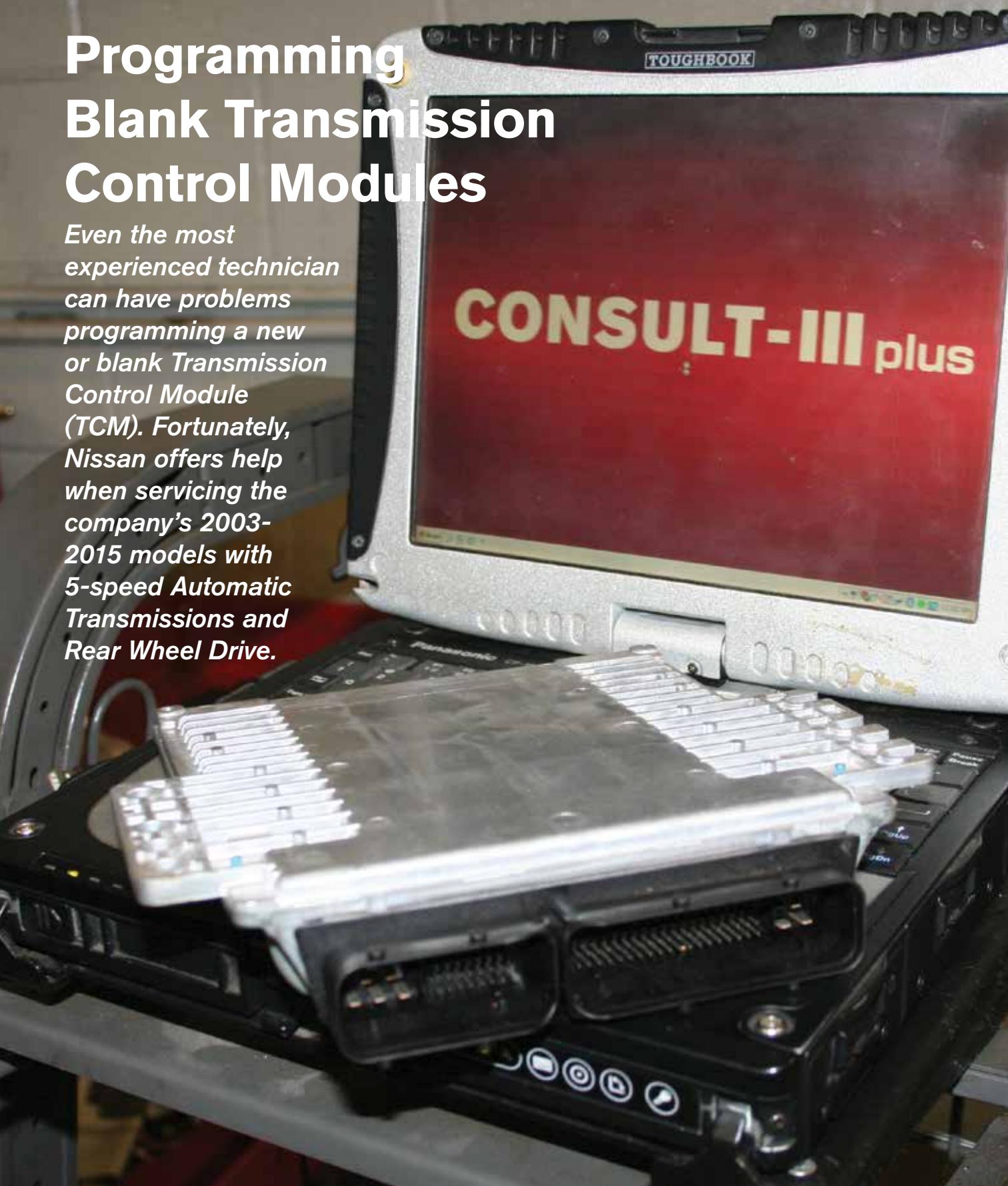


Department

Programming Blank Transmission Control Modules

Even the most experienced technician can have problems programming a new or blank Transmission Control Module (TCM). Fortunately, Nissan offers help when servicing the company's 2003-2015 models with 5-speed Automatic Transmissions and Rear Wheel Drive.



Nissan technical experts often receive questions regarding programming blank TCMs on rear wheel drive vehicles with automatic transmissions. The company has developed a Technical Service Bulletin that guides you through the entire process.

Nissan notes that all replacement 5-speed rear wheel drive automatic transmission (A/T) assemblies and replacement control valves now are delivered with blank TCMs. That is to say, they **do not** have software and must first be programmed (not **re**programmed) and configured after installation before they will function.

This article will get you started and direct you to the TSB where all your questions will be answered. For the sake of clarity, we will only be addressing the following Nissan vehicles with 5-speed A/T and RWD:

The TSB can be found on the Nissan TechInfo website at www.nissan-techinfo.com. The bulletin, number NTB14-033a, is titled "Nissan; Programming Blank TCMs." By entering any of the above models and model years, you can search any of the keywords: "Programming" or "TCMs" and the document will appear below the search section. Simply click on the correctly numbered document to view.

The bulletin contains details for:

- Saving and copying information from the old (current) TCM and applying it to the new (replacement) TCM.

- Obtaining the newest TCM P/N in WIN FAST (or other electronics parts catalogs) when not able to access the TCM with CONSULT-III plus (C-III plus).
- Obtaining and installing program information into the new A/T or valve body's blank TCM when it cannot be copied from the old TCM.

- 2002-2015 NV
- 2003-2008 350Z
- 2004-2009 350Z Roadster
- 2004-2015 Armada
- 2004-2015 Titan
- 2005-2012 Pathfinder
- 2005-2015 Frontier
- 2005-2015 XTerra

Blank TCM Programming Procedure Summary

The following is a summary of the steps for blank TCM programming. For complete details, go the website and follow all steps and procedures.

NOTE: Erase any stored Diagnostic Trouble Codes (DTCs) and perform DTC-related repairs before starting the programming procedure in the bulletin.

For vehicles where the old/current TCM can be accessed (TCM P/N can be read) with Consult III plus (C-III plus):

- Connect and launch C-III plus:
 - From the C-III plus home page, select **Re/Programming, Configuration** (Fig. A).
 - Proceed to **Re/Programming**.

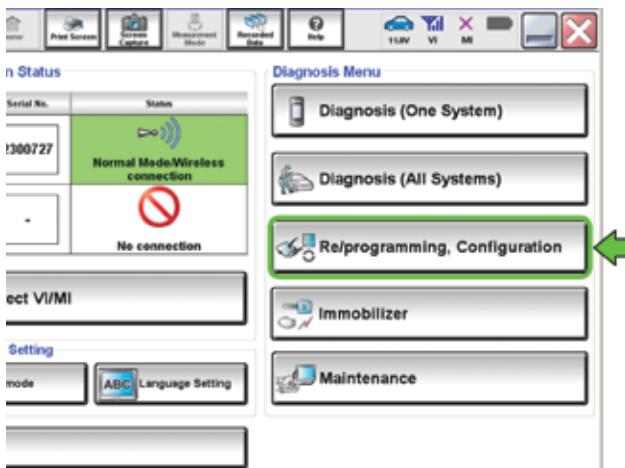


Fig. A: Select **Re/Programming, Configuration**.

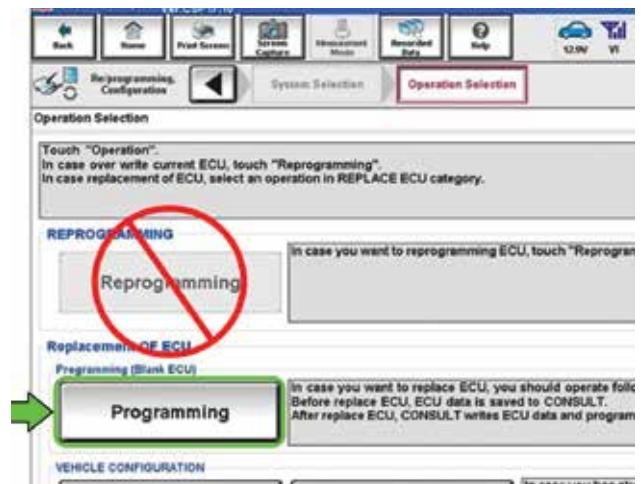


Fig. B: Select **Programming**. Do not select **Reprogramming**.

- Select **Programming** (Fig. B).
- b. Select **Before Replace ECU** (Fig. C).
- c. Save the current TCM P/N and Vehicle Identification Number (VIN).
- d. Replace the 5-speed rear wheel drive automatic transmission assembly or control valve with a new one that contains a blank TCM.
- e. Select vehicle model & year, then select confirm.
- f. Select **After Replace ECU** (Fig. D).
- g. Select **Start** (to begin programming).
- h. Once programming has completed, configure the new TCM and erase DTCs.
- i. Close C-III plus.

For vehicles where the old/current TCM cannot be accessed (TCM P/N can be read) with Consult III plus (C-III plus):

- a. Replace the 5-speed rear wheel drive automatic transmission assembly or control valve with a new one that contains a blank TCM.
- b. Obtain the TCM software P/N by using the VIN in the electronic parts catalog to look up the part number for the transmission assembly (A/T).
NOTE: When ordering a replacement A/T or control valve, the electronic parts catalog (WIN FAST or eStore) will list the software (P/N) for a blank TCM under the A/T only.
- c. Connect C-III plus, go to the screen that shows the selection **Programming**, and then select **Programming**.
- d. Select **After Replace ECU**.
- e. Select the P/N from the list that matches the

- one from the parts catalog. Double-check to make sure the correct P/N has been selected.
- f. Select **Start** (to begin programming).
- g. Once programming has completed, configure the new TCM and erase DTCs.
- h. Close C-III plus.

Parts Ordering

When ordering a replacement A/T or control valve, the electronic parts catalog (WIN FAST or eStore) will list the software (P/N) for a blank TCM under the A/T only.

Always enter the VIN when ordering or looking up a replacement A/T assembly or control valve (Fig. E).

Pre-Programming Preparation

When connecting the C-III plus Vehicle Interface (VI) to the vehicle, make sure you have the correct VI for the C-III plus (**plus VI**) (Fig. F).

Make sure the VI is securely connected to the DLC. If the VI connection is loose during

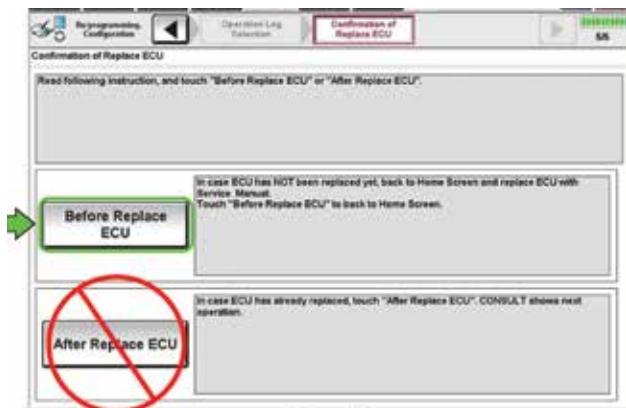


Fig. C: Select **Before Replace ECU**.



Fig. D: Select **After Replace ECU**.

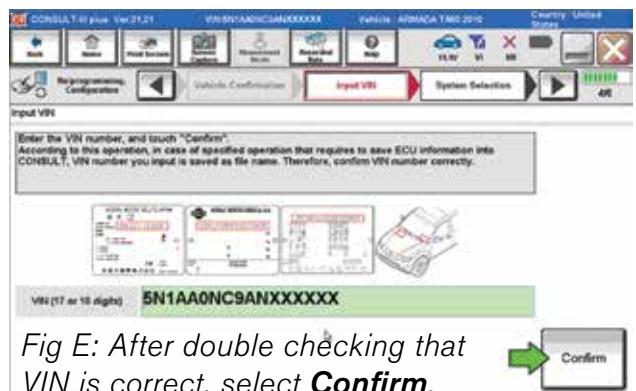


Fig E: After double checking that VIN is correct, select **Confirm**.

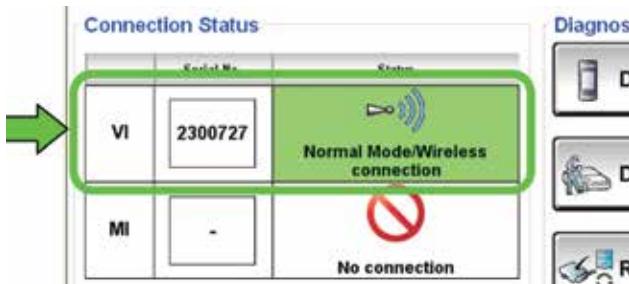


Fig. F: The serial number will display when the plus VI is recognized.

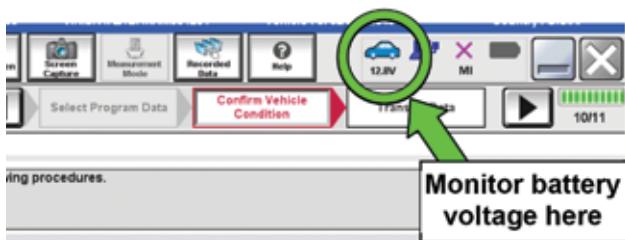
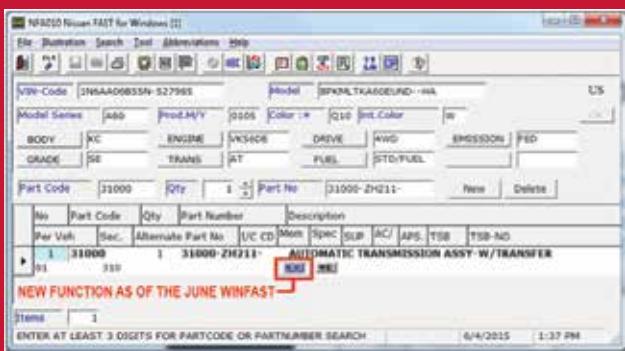


Fig. G: The voltage level is displayed at the top of the screen. It must stay between 12.0 V and 15.5V to avoid damage to the TCM.

New MEMO Icon

Nissan has added a new Memo icon button to the WIN FAST screen to aid in ordering the correct control valve part or software. To use it, you must upgrade your system to the most recent edition of FAST, dated June, 2015. It will show you a path to choose the correct part for your VIN. It will then also tell you how to find the program data you may need for CONSULT programming. Please make sure read any information that pops up and follow any instructions noted.



programming, the process will be interrupted and the TCM may be damaged.

Be sure to connect the AC Adapter to the CONSULT PC. If the CONSULT PC voltage drops during programming, the process will be interrupted and the TCM may be damaged.

Connect a battery charger to the vehicle. When using the GR-8 Battery and Electrical Diagnosis Station, set to "Power Supply." Be sure the battery charger is connected securely to the battery and the voltage stays between 12.0 V and 15.5V. The voltage level is displayed at the top of the screen. If the voltage goes out of range during programming, the process will be interrupted and the TCM may be damaged (Fig. G).

Turn off all external Bluetooth devices (cell phones, printers, etc.) within range of the CONSULT PC and the plus VI. If Bluetooth signal waves are within range of the CONSULT PC and plus VI during programming, the process will be interrupted and the TCM may be damaged.

Turn the vehicle ignition ON (Engine OFF). The engine must not start or run during the programming procedure.

Turn OFF all vehicle electrical loads. These include exterior light, interior lights, HVAC, blower fan, rear defogger, audio, NAVI, seat heater, steering wheel heater, etc.

Programming

To determine if the old TCM can be accessed with a C-III plus Select Diagnosis (One System) > Transmission, then read the TCM P/N.

Do not replace or install the new A/T or valve body with a blank TCM until instructed to do so in the SERVICE PROCEDURE.

You can obtain the programming file from the website. Be sure to review the readme file that comes with the download and place the programming files in the correct location.

This brief article on the intricacies of programming blank TCMs is merely a summary of the entire subject. To perform blank TCM programming properly and completely, log onto the Nissan TechInfo website at www.nissan-techinfo.com and follow the step-by-step procedures outlined in Technical Service Bulletin NTB14-033a. |