



PURPOSE

This document provides step-by-step instructions for identifying and installing the correct TCM software based on emissions classification: California or Federal. Choosing the wrong version will cause driveability problems, fault codes, and possible transmission failure.

BACKGROUND

There are hundreds of different TCM (Transmission Control Module) software updates for CVT7 applications, particularly in Nissan Sentra and Versa. We will focus on the two main types of software updates: one for California and one for Federal (the other 49-states). The differences are primarily driven by emissions regulations, especially those established by the California Air Resources Board (CARB). Whether using Consult III+ or NERS (Nissan ECU Reprogramming Software), it is essential to understand why selecting the correct software matters, how and where to identify it, and the potential fault codes or performance issues that can result from using the wrong calibration.

WHY IT MATTERS

Nissan CVT-equipped vehicles are built with different TCM calibrations depending on whether the car meets California or Federal emissions standards.

To comply with California's stricter emission regulations, Nissan modified the TCM software that controls the powertrain system. This updated software directly influences how the engine and transmission interact, including how they shift and respond under various loads.

Using the wrong software version causes:

- Harsh or erratic shifting
- Limp mode
- Fault codes and communication errors
- Damage to the transmission

TOOLS REQUIRED

- OBD-II scanner with access to calibration data
- Internet access to Nissan Tech Info site
- Consult III+ or equivalent reprogramming tool

IMPORTANT

STEP 1: IDENTIFY EMISSIONS TYPE

Option 1

Check the emissions label under the hood. It will state either California or Federal emissions.

Option 2

- Use a scanner to check the calibration ID
- Go to *Special Functions*
- Select *Calibrate Data*
- Locate the line labeled *Unit Calibration ID 10*
- If you see *00E0*, it is California emissions
- If you see *00F8*, it is Federal emissions

Option 3

Another way to look up emissions-type information is utilizing online tools. Emission information is usually found in the section of "Vehicle Options". Under this section, confirm the vehicle's emission category of "California" or "Federal" (See Fig 1)

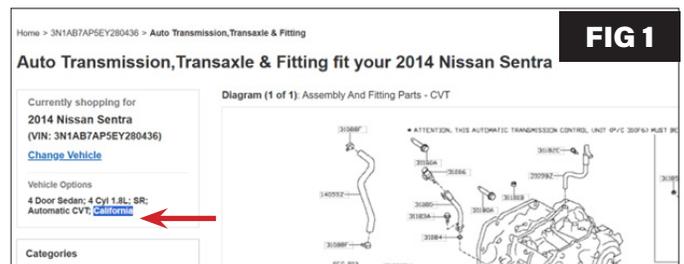


FIG 1

STEP 2: PURCHASE AND DOWNLOAD SOFTWARE FROM NISSAN

Nissan ECU software can be downloaded at <https://www.nissan-techinfo.com/ecm07.aspx> After entering the existing ECU software ID, Nissan Publications will show the new ECU software to purchase/download (See Fig 2)

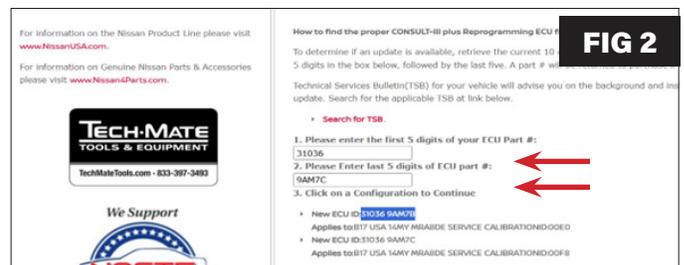


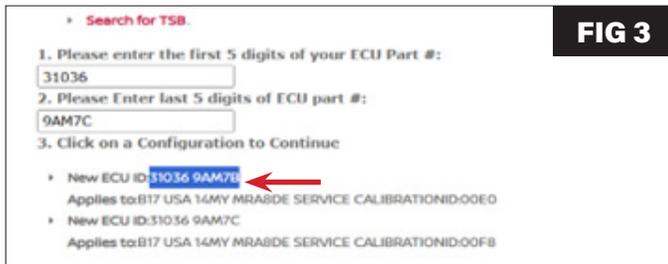
FIG 2

Download the software package (ZIP file).

STEP 3: EXTRACT DOWNLOAD

The ZIP file contains:

- One PDF file with instructions when reprogramming a vehicle
- One .csv or Excel file (Action File) which gives permission to the Consult III+ to write the software
- Two .dat files:
 - E0 = California
 - F8 = Federal



STEP 4: SELECT AND INSTALL THE CORRECT SOFTWARE

- Do not use both .dat files. Use only the one that matches the emissions classification
- Copy the correct .dat file and the .csv file
- Open Consult III+ and follow the reprogramming instructions using only the correct file

When the .zip file is downloaded to your computer, and you open the folder, the only distinguishing feature of the .dat files are two different Service Calibration IDs:

SERVICE CALIBRATIONID:00E0
 SERVICE CALIBRATIONID:00F8

Once you have identified the correct software match to the vehicle's emission, You must copy and paste the correct .dat file and .csv file to your computer drive under the folder name "ReprogProgramming".

In the example from Fig 3, the vehicle is a California emissions ID, and the correct or matching software download will require 31036-9AM7B.

If you decide to paste both .dat files, make sure you select the correct or matching (California 0E or Federal F8) one. Consult III+ will display both or all available files in your C: drive/ReprogProgramming.

If you use the wrong software

- Transmission may go into limp mode
- Harsh engagement or shift hesitation
- RPM flaring or judder
- Communication faults between TCM and ECM
- Common DTCs include: P0700, P17F0 or P17F1, U0101, P0868, P0846, P0776, P0778, P0746, P0965

Common DTCs Triggered by Incorrect Software

| Code | Description |
|-------------------------------|---|
| P0700 | Transmission Control System Malfunction (generic code that indicates TCM fault, often paired with others) |
| P17F0 / P17F1 | CVT Shudder (related to torque converter or step ratio control) |
| P0868 | Secondary Line Pressure Too Low |
| P0776 / P0778 / P0746 / P0965 | Pressure Control Solenoid A/B Performance / Stuck Off |
| U0101 | Lost Communication with TCM (can occur if software versions conflict) |
| P0846 / P0841 | Transmission Fluid Pressure Sensor / Switch Fault |
| P2813 / P2815 | Shift Solenoid D / E Performance |

When symptoms appear

- Often during first startup or first few minutes of driving
- Harsh engagement or limp mode may occur immediately
- Flaring, shudder, or pressure faults can appear within 5 to 10 minutes

FINAL CHECKLIST

- Always confirm California or Federal emissions before download
- Only install the matching .dat and .csv files
- Review for symptoms or codes before delivery to customer

CONTACT

For questions or technical support, visit TDREMAN.com