Installation Guide

Thank you for your purchase of a quality TD REMAN CVT Transmission.
The following instructions are to help with a successful installation.

Before Pulling the Transmission

Before pulling your current transmission, please run a full diagnostics scan of the vehicle.

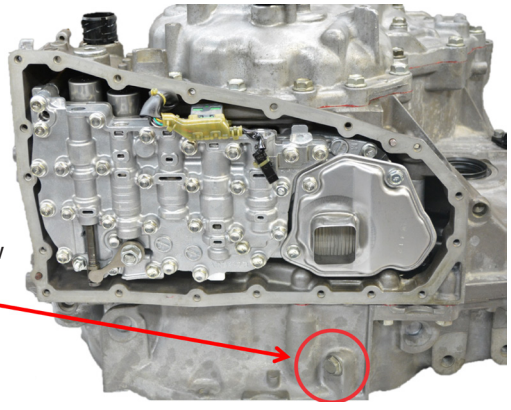
It is important to identify the root cause of the failure. Why is it necessary to do this? Our extensive CVT experience has shown that most installers think just installing and erasing codes is all that is necessary! Nothing is farther from the truth. For example: Engine misfires, mass airflow sensor, ripped air duct hose to the throttle body, crankshaft and cam sensors, ABS, brake lights, brake light switch, brake light assembly, wiring and wrong or defective TCM, can damage your new CVT. At TD REMAN we are here to help you with our dedicated team of tech support, and you can reach us at (954) 543 7724 or via email at techsupport@tdreman.com

Once the transmission is installed, prefill with the correct CVT fluid, then proceed with the following:

Checking CVT-8 Fluid Level

Fluid level should be checked with the fluid warmed up to 50° to 80°C (122° to 176°F).

1. Check for fluid leakage.
2. When the ambient temperature is 20°C (68°F), it takes about 10 minutes for the CVT fluid to warm up to 50 to 80°C (122 to 176°F).
3. Park the vehicle on a level surface and set the parking brake.
4. With engine at idle, while depressing brake pedal, move the selector lever throughout the entire shift range and return it to the "P" position. Leave the engine running.
5. Lift the car and remove the fluid level plug and let the excess fluid run out until it dribbles. If nothing comes out add the correct CVT fluid until it dribbles out. Replace the Overflow Plug and torque to 89 In-lbs.



CAUTION: Only use specified NISSAN CVT fluid. If you use, misuse, or mix fluid other than the specified fluid occurs, original performance cannot be obtained, or it may cause serious malfunctions.

CAUTION: CVT fluid is not reusable. Never reuse CVT fluid.

CAUTION: Do not overfill the CVT.

CAUTION: After filling, always perform CVT fluid leakage check.

6. Check all fluid levels.

Nissan CVT7 / CVT8 Fluid Service Information

All CVT-7 and CVT-8 platforms use Nissan NS-3 fluid. The only exception is the 2012 Versa Sedan which has a CVT7 that uses NS-2 fluid.

CAUTION: Do not use automatic transmission fluid (ATF) or manual transmission fluid in a Nissan CVT, as it may damage the CVT. Damage caused using fluids other than as recommended is not covered under the TD REMAN Warranty.

NS-2 Fluid used mostly in 2012 and earlier, some units up to 2015.

I.E., 2015 Rogue Select with CVT 2 and 2012 Versa with CVT-7 Transmissions

NS-3 Fluid used in CVT-7 and CVT-8 Transmissions 2013 and later.

Preliminary Recommended Fill Chart for Nissan CVT

These fluid levels are approximate fill, please follow the fill procedure.

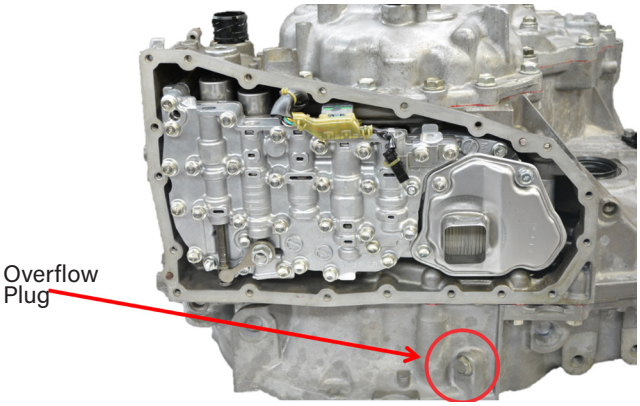
Model	Detail	Year	Engine	Platform	Transmission	Total fill	Service fill	Fluid
Altima		09-12	2.5L	CVT2	RE0F10A	7.7qts	N/A	NS-2
		07-12	3.5L	CVT3	RE0F09B	10.7qts	N/A	NS-2
		13-17	2.5L	CVT2	RE0F10D	7.8 qts	N/A	NS-3
		13-18	3.5L	CVT8	RE0F10E/RE0F10H	8.6 qts	N/A	NS-3
		19-20	2.0 /2.5L	CVT8	RE0F10D	8.7 qts	N/A	NS-3
	Hybrid	07-11	2.5L	CVT8	RE0F01H Hybrid	4.3 qts	N/A	NISSAN MATIC-W
Cube		09-14	1.8L	CVT1	RE0F08B	7.8 qts	N/A	NS-2
Juke		11-17	1.6T	CVT2	RE0F10B	9.1 qts	N/A	NS-2
	Nismo	15-17	1.6T	CVT8	RE0F10D	8.4 qts	N/A	NS-3
Maxima		08-14	3.5L	CVT3	RE0F09B	10.7 qts	N/A	NS-2
		16-21	3.5L	CVT8	RE0F10H	8.6 qts	N/A	NS-3
Murano		03-08	3.5L	CVT3	RE0F09A	10.7 qts	N/A	NS-2
		09-15	3.5L	CVT3	RE0F09B	10.7 qts	N/A	NS-2
		15-19	3.5L	CVT8	RE0F10J	9.3 qts	N/A	NS-3
NV200		11-14	2.0L	CVT2	RE0F10A	8.6 qts	N/A	NS-2
		15-21	2.0L	CVT8	RE0F10D	8.6 qts	N/A	NS-3
Pathfinder		13-14	3.5L	CVT8	RE0F10E	9.3 qts	N/A	NS-3
		15-20	3.5L	CVT8	RE0F10J	9.3 qts	N/A	NS-3
Quest		11-14	3.5L	CVT3	RE0F09B	10.7 qts	N/A	NS-2
		15-17	3.5L	CVT8	RE0F10J	9.3 qts	N/A	NS-3
Rogue		09-15	2.5L	CVT2	RE0F10A	9.1 qts	N/A	NS-2
	AWD	08-15	2.5L	CVT2	RE0F10A	8.5 qts	N/A	NS-2
		14- 20	2.5L	CVT8	RE0F10D	8.4 qts	N/A	NS-3
Sentra		07-12	2.0 /2.5L	CVT2	RE0F10A	7.7 qts	N/A	NS-2
		13-19	1.6L /1.8L	CVT8 /CVT7	RE0F10D / RE0F11A	7.8 qts	N/A	NS-3
Versa		07-11	1.6L /1.8L	CVT1	RE0F08A /B	7.8 qts	N/A	NS-2
		12	1.6L	CVT7	RE0F11A	7.3 qts	N/A	NS-2
	& Note	13-20	1.6L /1.8L	CVT7	RE0F11A	7.3 qts	N/A	NS-3

Service Fill

The recommended Nissan CVT transmission fluid change interval is every 30,000 miles or 24 months, whichever comes first. However, it can vary depending on the make and model of your vehicle. It is important to refer to your owner's manual for specific maintenance recommendations since some vehicles may require a more frequent change interval.

CVT-8 Transmission Fluid Fill

1. Fill with the correct CVT fluid through the charge pipe to the specified level with the engine idling.
2. With engine at idle, while depressing brake pedal, move the selector lever throughout the entire shift range and return it to the "P" position. Leave the engine running.
3. Lift the vehicle.
4. Remove the Overflow Plug and check fluid level by letting the excess fluid drain. If nothing comes out add fluid until it dribbles out. (Engine running)
5. Check that CVT fluid level is within the specified level verifying the fluid temperature at 50 to 80°C (122 to 176°F). Verify fluid temperature with a capable scan tool.
6. Install the overflow plug with its O-ring, torque to 89 In-lbs.



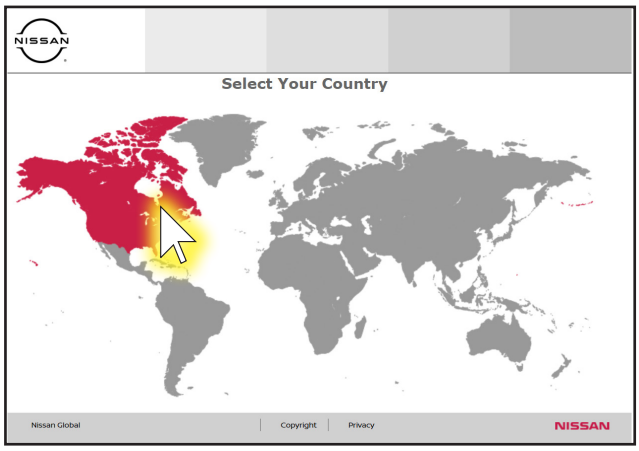
Programming

Now that your transmission is installed and with the correct fluid level, we can move to *Programming*.

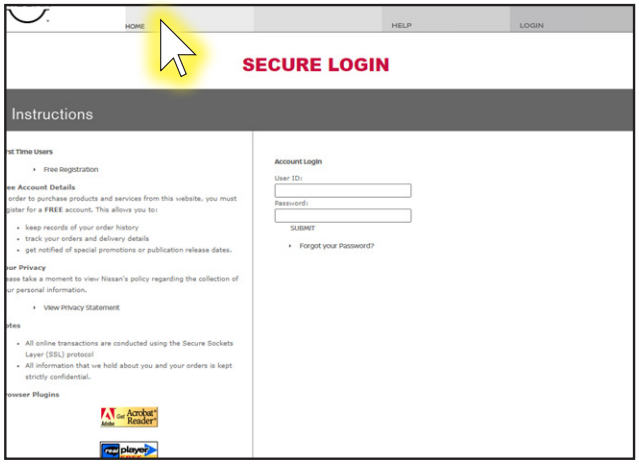
Programming the TCM is usually not necessary with the CVT-1/2/3 models, they are usually "Plug and Play". First, we need to confirm the software in the TCM. To accomplish this, we need to hook up a Consult 3 plus or capable Scan Tool.

Read all the codes and save them for reference, clear all codes and see if any come back. Once you have cleared the codes you need to enter the transmission section and go to ECM or TCM part number. They always start with 31036 prefix, once you find the TCM part number you need to go to Nissan Publications www.nissan-techinfo.com and follow the next steps provided:

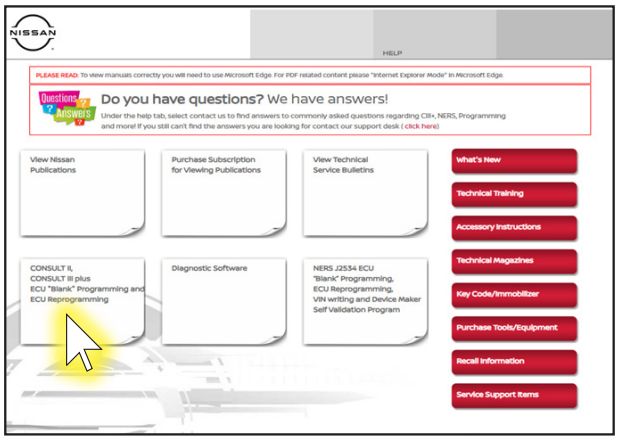
You do not need to register for this website to get the information you need.



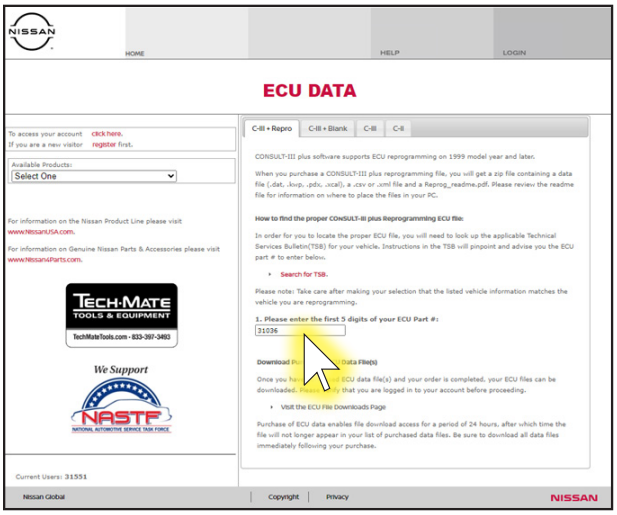
Once you open the Nissan Tech Info page, you need to select your country. Place your cursor on the country. Click to open the next page.



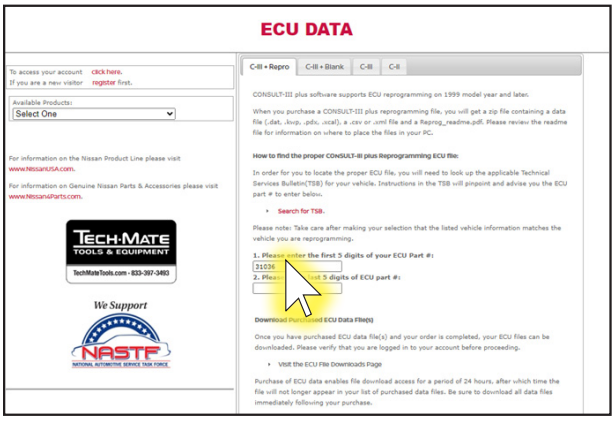
If you have visited the page before and created an account, this page may show up. Just click on the home button as shown above to be directed to the following page.



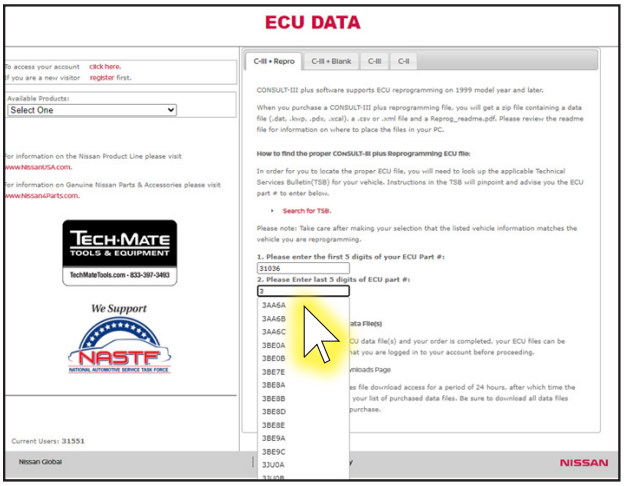
That should bring you to this page, click on the CONSULT II, CONSULT III plus, ECU "Blank" Programming and ECU Reprogramming box highlighted above.



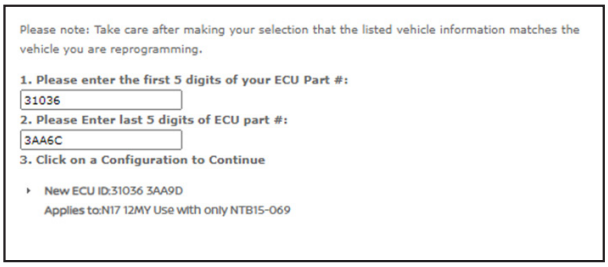
Once you are at the ECU DATA page type in the prefix in the box shown with the cursor to your TCM, it should be 31036. Then click.



Now it should open another box below the first box, this is where you type in the 5 digit suffix.



As you are typing the suffix you will see how many programs there are for your TCM, finish typing your suffix or select your suffix then click enter.



The new ECU ID appears if it needs updating. If your ECU shows it needs updating, it must be done! Verify the model year and download the required NTB (Nissan Technical Bulletin) for additional information if applicable.

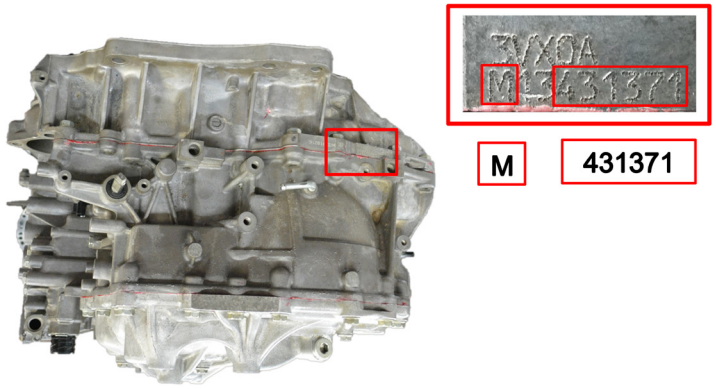
Additional Service When Replacing CVT-8 Transaxle Assembly

Erasing and writing the TCM data

The TCM performs accurate control by retrieving data (inherent characteristic value) of each solenoid. For this reason, after replacing transaxle assembly, it is necessary to erase data stored in TCM and write new data.

Erasing the CVT fluid degradation level data

The TCM records the degradation level of the CVT fluid calculated from the vehicle driving status. Therefore, if the transaxle assembly is replaced, it is necessary to erase the CVT fluid degradation level data recorded by the TCM.



Write down the serial number of the new or factory reman transaxle assembly (See Image Above). If you are installing an Aftermarket Reman it should come with a CD and the Label for the Range Sensor. The serial number on the case may not be valid on a remanufactured unit.

Initialize the TCM CVT-8

Copy the CD into CONSULT 3 plus or capable scan tool.

1. Set the parking brake.
2. Select "ERASE MEMORY DATA".
3. Touch "Start" according to the instructions on the CONSULT 3 plus or capable scan tool screen.
   Is "COMPLETED" displayed?
   If YES= Go to step 4.
   If NO= Turn the ignition switch OFF and wait 10 seconds then perform steps 2 and 3 again.
4. Turn the ignition switch ON ENGINE OFF.
5. Select "Work Support" in the "TRANSMISSION" section.
6. Select "WRITE IP CHARA - REPLACEMENT AT/CVT". Follow the prompts. It will ask you to verify the serial number.
7. If the serial number displayed on CONSULT 3 plus or capable scan tool matches your CD. Follow the prompts until it displays complete. It should display "P" in the dash with a successful write.
8. If the process fails, repeat steps 5 to 7, once completed perform "SELECT LEARNING"

Select Learning CVT-8 Drive / Reverse Timing

(Perform AFTER doing Clutch Point Relearn)

- Set the parking brake
- Start the engine and wait five seconds
- Shift to Neutral, wait two seconds, then shift to Drive, wait for transmission engagement. Repeat ten times.
- Shift to Neutral, wait 2 seconds, then shift to Reverse, wait for transmission engagement. Repeat ten times.
- Shift to Park, shut the engine off and proceed with Fluid Deterioration Reset
- Proceed to step 9

9. Select "Work Support" in the "TRANSMISSION" section
10. Select "CONFORM CVTF DETERIORTN"
11. Click "Clear". It should now display "0"

- Erase any Transmission codes that may have been stored
- Confirm the transmission operates normally

Note: It is normal after installation of the Transmission, when you come to a stop you may feel a double bump on take-off. This is the torque converter relearning, after a few stop-and-go cycles, it will relearn.

Action Items Required After Major Service CVT-7 and CVT-8

ADAPTIVE RELEARNS REQUIRED AFTER MAJOR SERVICE

	Valve Body Replaced		TCM Replaced		Transmission Replaced	
Relearns Needed	**CVT-8**	**CVT-7**	**CVT-8**	**CVT-7**	**CVT-8**	**CVT-7**
IP Characteristics Read	NO	NO	YES	NO	NO	NO
IP Characteristics Write	YES	NO	YES	NO	YES	NO
Erase TCM Memory	NO	YES	NO	NO	NO	YES
Clutch Point Relearn	YES	YES	YES	YES	NO*	NO
Select Learning	YES	NO	YES	NO	YES	NO
G sensor Relearn	NO	NO	YES	YES	NO	NO
Fluid Degradation Reset	YES	YES	NO	NO	YES	YES

* If the CD supplied with the Transmission is missing or damaged, Clutch Point Relearn is required.

NOTE: The CD has the solenoid strategy for the Valve-Body and permits erasing the Judder code. This is not the same as Reprograming the TCM. Reprogramming the TCM changes the firmware that is not adaptive.