

# **OPEN FIRST**

**Important Documents Enclosed**

**PLEASE OPEN THE POD AND INSPECT  
THIS UNIT FOR DAMAGES PRIOR TO  
SIGNING FOR THE SHIPMENT**

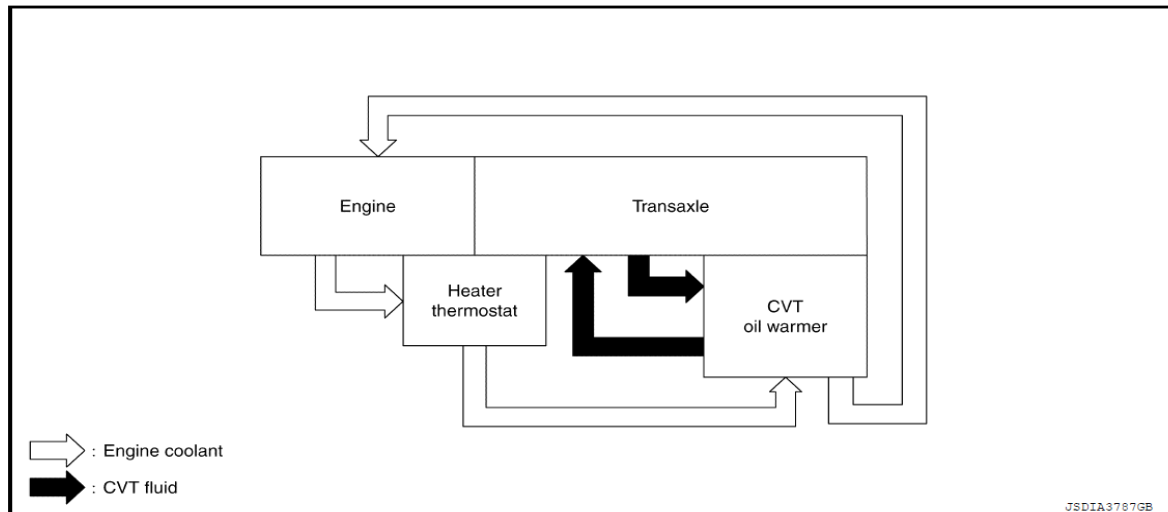
**In order to obtain a warranty certificate, you must  
register your transmission at**

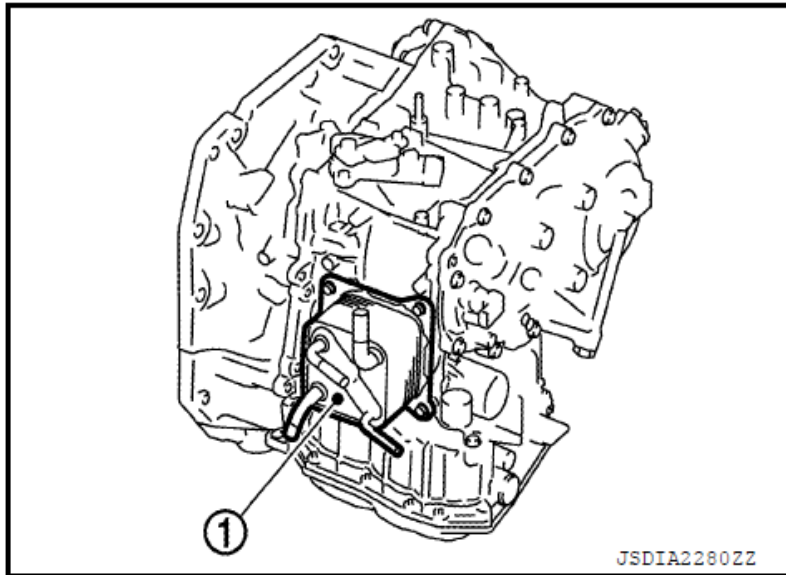
**[www.transtarcts.com/warranty-center](http://www.transtarcts.com/warranty-center)**

## CVT Warmer/Cooler Flushing

Metal debris and friction material may become trapped in the radiator, cooling hoses, bypass valve or external CVT fluid cooler. This debris can contaminate the newly serviced transmission, control valve or torque converter. In severe cases this debris can block or restrict flow and may cause damage to the newly serviced CVT. When a CVT, control valve, or torque converter is replaced, the CVT transmission fluid cooler must be flushed.

The CVT oil warmer/cooler has two closed loops to exchange heat between the CVT and the engine. After starting the vehicle, the engine helps warm the CVT fluid to operating temperature. During extended operation, the exchange provides a cooling effect as heat from the CVT is exchanged into the engine coolant.





To prevent the CVT from overheating, inspect the engine coolant and replace the engine coolant if it is degraded. Per the Nissan service manual engine coolant must be replaced at 105,000 miles or 84 months, whichever comes earlier. Make sure the engine coolant lines are not obstructed and coolant can freely flow into the CVT warmer/cooler. It is also important to inspect the engine air filter and replace it if dirty or obstructed. Excess engine temperature will overheat the CVT fluid and may cause premature failure.

The CVT fluid should also be inspected every 30,000 miles and replaced if burnt, contaminated, or otherwise degraded. Replace CVT fluid with NS-3 rated fluid only.

#### Flushing Radiator based CVT Transmission Fluid Cooler

**IMPORTANT:** the CVT fluid cooler hoses will be flushed in both directions in the following procedure.

1. Place the vehicle on a lift.
2. Place an oil drain pan under the CVT Warmer.

3. Disconnect the CVT fluid cooler inlet and outlet rubber hoses from the CVT Fluid warmer and discard spring clamps.  
NOTE: If rubber material from a cooler hose remains on the steel tube or fitting, replace the rubber hose and clean steel tube.
4. Allow any transmission fluid that remains in the CVT fluid cooler hoses to drain into the oil drain pan. NOTE: The two hoses that have been removed from the CVT fluid warmer will be flushed first in one direction and then the other.  
CAUTION: Wear safety glasses and rubber gloves when spraying the Transmission Cooler Cleaner. Spray Cooler Cleaner only in areas with adequate ventilation. Avoid contact with eyes and skin. Do not breathe vapors or mist from spray.
5. Insert the “extension adapter hose”, from a can of Transmission Cooler Cleaner (Nissan P/N 999MP-AM006P), into one or the other of the disconnected CVT fluid cooler hoses
6. Flush CVT fluid cooler (radiator based) and hoses:
  - a. Hold the hose and can as high as possible.
  - b. Spray Transmission Cooler Cleaner, in a continuous stream, into the CVT fluid cooler inlet hose.
  - c. Spray fluid until it flows out of the other hose for 5 seconds.
7. Slide a piece of 5/8 inch hose (16 mm) over the end of the CVT fluid cooler hose that was used as the flush inlet.
8. Insert the tip of an air gun into the end of 5/8 inch (16 mm) hose.
9. Blow compressed air, regulated to 5-9 kg/cm<sup>2</sup> (70 – 130 PSI), through the CVT fluid cooler hose for 10 seconds to force out any remaining fluid.
10. Repeat steps 5 through 9 one additional time and then proceed to step 11.
11. Now reverse the direction that the hoses are being flushed and repeat steps 5 through 9 twice. When completed proceed to step 12.
12. Reassemble the CVT fluid cooler hoses to the CVT warmer with new spring clamps in the reverse order of disassembly.

### CVT Fluid Type and Fill Level

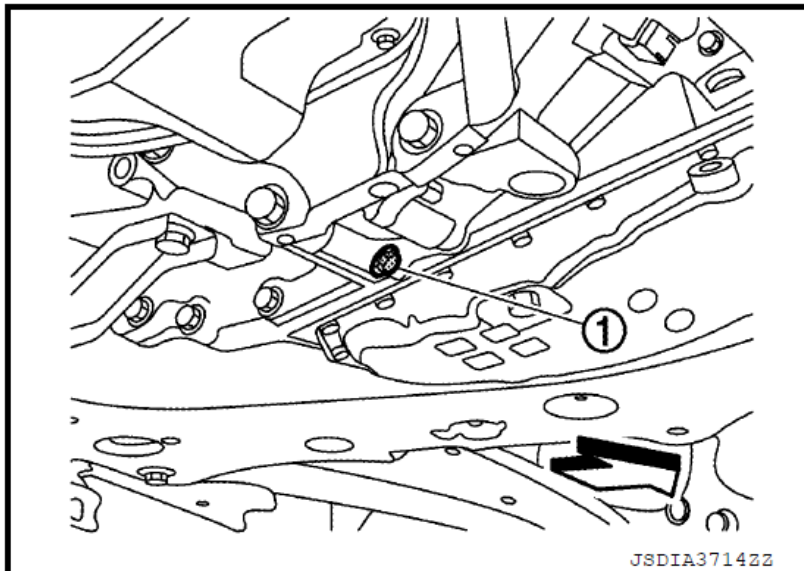
NOTE: The fluid change interval for the JF016E CVT is every 60,000 miles. If the vehicle has been driven over 60,000 miles on a Transmaxx CVT, maintenance records showing proof of fluid change(s) at 60,000 mile or earlier intervals must be provided in order to ensure warranty coverage.

NOTE: For Nissan Altima model years 2013 and newer, Nissan NS-3 rated fluid should be used. Nissan NS-3 is NOT interchangeable with NS-2. The use of the incorrect fluid will lead to premature wear and overheating of the CVT and will invalidate the warranty coverage.

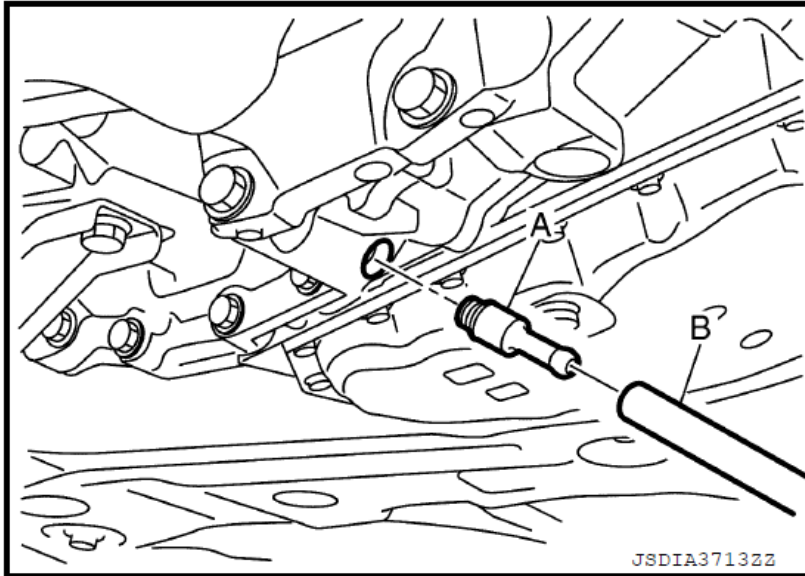
After the CVT has been installed in the vehicle, the CVT should be filled with fluid from the drain plug at the side of case by the bell housing. The volume of the CVT fluid is dependent on temperature, and when filling or adjusting CVT fluid level, the fluid temperature should be 35C - 45C (95 to 113°F).

#### CVT Fluid Fill Instructions

1. Engage the parking brake and lift up the vehicle.
2. Check that there is no CVT fluid leakage.
3. Remove the drain plug from the CVT oil pan.
4. After fluid has drained, reinstall drain plug.
5. Remove the overflow plug from the converter housing



6. Install the charging pipe set (KV311039S0) (A) into the overflow hole.



7. Tighten the charging pipe by hand.
8. Install the ATF changer hose to the charging pipe. Press the ATF changer hose all the way onto the charging pipe until it stops.
9. Fill approximately 3 liters (3.2 US qt) of NS-3 CVT fluid.
10. Remove the ATF changing hose and changing pipe, then install the overflow plug.
11. Lift down the vehicle.
12. Start the engine.
13. While depressing the brake pedal, shift the selector lever to the entire position from "P" to "DS", and shift it to the "P" position. Hold the lever at each position for 5 seconds.
14. Check the scan tool to ensure the fluid temperature is 35°C (95°F) to 45°C (113°F).
15. Lift up the vehicle.
16. Remove the drain plug and then drain CVT fluid from the oil pan.
17. Repeat steps 6-16 one time
18. Tighten the drain plug to the specified torque
19. Remove the overflow plug
20. Install the changing pipe set into the overflow plug hold. Tighten the changing pipe by hand.
21. Install ATF changer hose and charging pipe, then install the overflow plug. Perform this quickly because the CVT fluid will leak.
22. Lift down the vehicle and start the engine.

23. While depressing the brake pedal, shift the selector lever to the entire position from "P" to "DS", and shift it to the "P" position. Hold the lever at each position for 5 seconds.
24. Check the scan tool to ensure the fluid temperature is 35°C (95°F) to 45°C (113°F).
25. Remove the overflow plug and confirm the CVT fluid is drained from the overflow plug hole. Perform this while the vehicle is idling. If the fluid does not drain, adjust the fluid level by adding ½ liter to the overflow hole with the ATF filling tube, or through the oil filler pipe on the top of the transmission.
26. When the flow of the CVT fluid from the overflow plug hole slows to a drip, tighten the overflow plug.
27. Lift down the vehicle.
28. Using a scan tool, reset CVT Fluid Deterioration in the TCM
29. Stop the engine.

#### Alternative Fluid Level Check Procedure

The fluid level of the transmission can be checked through the oil filler pipe with a J-51155 tool (red handle) or 23 ⅛ dipstick.

1. Park the vehicle on level ground (engine running, parking brake set).
2. Using CONSULT III plus (C-III plus), ensure that the CVT fluid operating temperature is within the range of 170°F-180°F (77°C-82°C).
3. Shift the transmission into REVERSE for 5 seconds.
4. Shift the transmission into DRIVE for 5 seconds.
5. Shift the transmission into REVERSE for 5 seconds.
6. Shift the transmission into PARK.
7. Remove the plastic cap from the filler tube and insert the J-51155 tool or 23 ⅛ dipstick
8. The fluid level should be 23mm-30mm (1 15/16 inch to 1 3/16 inch)

#### TCM Reprogramming

The vehicle does not require programming unless the TCM software is affected by a service bulletin or the TCM has a stored Judder Code DTC (P17F0 or P17F1). To check the TCM software see instructions below:

First, find TCM Part Number with Scan Tool. The TCM hardware is a computer chip with identical hardware and the part number represents the software the TCM is programmed with. The TCM part number will start with 31036-XXXX.

If the TCM part number is any of the ones on the table below, or if you have a Judder Code, the TCM needs to be reprogrammed with updated software. This can be done with a Consult 3+ scanner and programmer (available at Nissan dealerships). TCM programming requires Nissan ECU Reprogramming Software (NERS). You must have an active NERS subscription, use a Consult 3+ or approved scan tool (table below), and be

familiar with NERS programming before attempting to program the TCM. At the time of writing (December 2019) the DrewTech RAP Kit is not able to do TCM programming on the JF016E and JF017E CVTs.

<b>Manufacturer</b>	<b>Models</b>
Actia	PassThru +XS
Autel	MaxiFlash Elite (with firmware v3.01)
Bosch	Mastertech VCI (SFP v5.11.9)
Dearborn Group	VSI-2534
Drew Technologies	CarDAQ Plus, CarDAQ M, Mongoose ISO/CAN
Hella Gutmann Solutions	Mega Macs 42 SE (DT VCI), Mega Macs 66 (DT66)



Texa	TEXA Navigator TXTs Series
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If you take the vehicle to a dealership for programming you will most likely be asked to provide a calibration CD with the programming file. Transmaxx's reman CVT does not come with this CD. The dealership can identify and download the correct programming file using the QR code on the range switch (park-neutral safety switch).

NOTE: If there are any diagnostic trouble codes (DTC) the transmission may not program. Clear all DTCs before proceeding with programming. If there are persistent DTCs, these must be addressed and cleared before programming can proceed.

### Reprogram List

**Table B**

MODEL	MODEL YEAR	CURRENT TCM PART NUMBER BEFORE REPROGRAMMING: 31036 -
Altima (4-cyl engine only)	2013	3TA0A 3TA4A, 3TA4B, 3TA4C 3TA9C 3TY0A, 3TY0B, 3TY0C, 3TY0D, 3TY0E 3TY1A, 3TY1B, 3TY1C, 3TY1D, 3TY1E
	2014-2015	9HM0A, 9HM0C, 9HM0D, 9HM0E 9HM3A, 9HM3B, 9HM3C
	2016	3TE0C, 3TE0D, 3TE2C, 3TE2D 3TH0A, 3TH0B, 3TH2A, 3TH2B
	2017	9HS4A, 9HS6A
Rogue	2014	4BA0A, 4BA0B, 4BA5A, 4BA5B, 4BA8A 4BA9A, 4BA9B, 4BA9C, 4BA9D
	2015	5HA0A, 5HA0B, 5HA0C 5HA5A, 5HA9A 9TA0A, 9TA0B, 9TA0C, 9TA0D 9TA5A, 9TA9A
	2016	5HJ0A, 5HJ0B, 5HJ0C, 5HJ0D 5HJ9A, 6FJ0A, 6FJ0B, 6FJ0C, 6FJ0D, 6FJ9A, 6FK0A
	2017	5HK0A, 5HK0B, 5HK1A, 5HK1B 6FL0A, 6FL0B, 6FL1A, 6FL1B

To check the most recent list of programming updates, go to <https://www.nissan-techinfo.com/ecm07.aspx> and enter 30136 in the first ECU part number search box. Enter the next 5 characters of the ECU part number and click on the Nissan dropdown in ALL CAPS

vehicle you are reprogramming.

1. Please enter the first 5 digits of your ECU Part #:

31036

2. Please Enter last 5 digits of ECU part #:

9hm3b

9HM3B



## TEST DRIVE AND TRANSMISSION CALIBRATION

After the transmission has been installed use a scan tool to verify the vehicle does not have any diagnostic trouble codes. If there are codes from the previous transmission, clear them with a scan tool and check if they return. If the vehicle does not have any codes, proceed with the clutch point relearn (below), and test drive the vehicle for an additional 15 - 20 minutes to allow the TCM to self-calibrate. Do not drive the vehicle if it has any DTCs the cannot be cleared before the test drive.

The test drive should cover a range of speeds in both forward and reverse. The vehicle may shift abnormally at the beginning of the test drive but should normalize in 20 minutes or less. If the MIL / check engine light illuminates during the test drive, do not continue driving. Re-scan the vehicle after the test drive to ensure there are no DTCs.

Source material: Nissan CVT manuals and TSBs