

CVT FLUID

PFP:KLE50

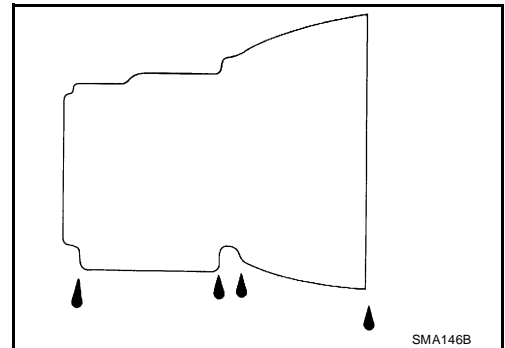
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CVT FLUID

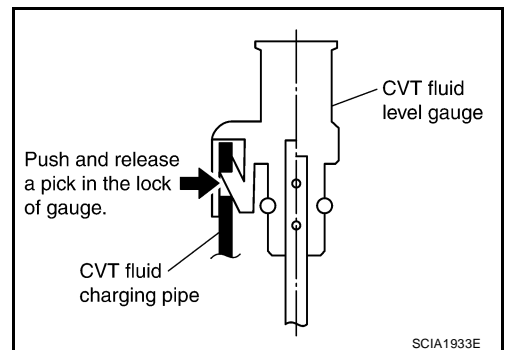
Checking CVT Fluid FLUID LEVEL CHECK

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. With the engine warmed up, drive the vehicle to warm up the CVT fluid. When 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.



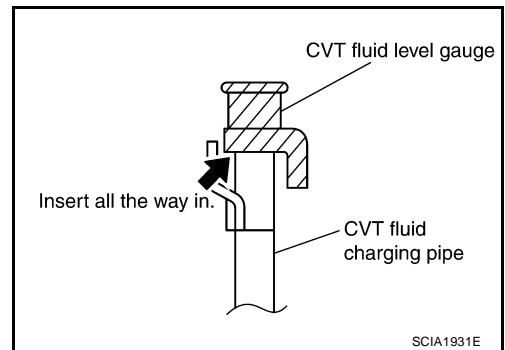
5. Press the tab on the CVT fluid level gauge to release the lock and pull out the CVT fluid level gauge from the CVT fluid charging pipe.



6. Wipe fluid off the CVT fluid level gauge. Then rotate the CVT fluid level gauge 180° and re-insert it into the CVT charging pipe as far as it will go.

CAUTION:

Always use lint free paper towels to wipe fluid off the CVT fluid level gauge.

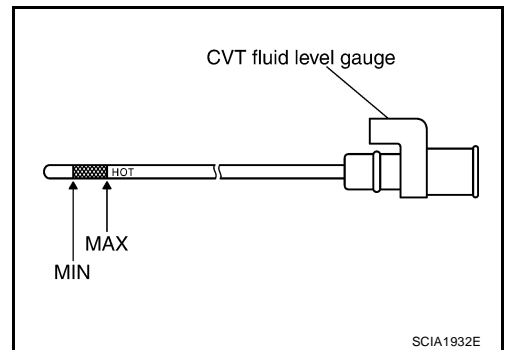


7. Remove the CVT fluid level gauge and check that the fluid level is within the specified range as shown. If the fluid level is at or below the low side of the range, add the necessary specified NISSAN CVT fluid through the CVT charging pipe.

Fluid grade: Refer to [MA-14, "MR20DE"](#).

CAUTION:

- Only use specified NISSAN CVT fluid.
- Do not overfill the CVT.



8. Install the CVT fluid level gauge to the CVT fluid charging pipe until it locks.

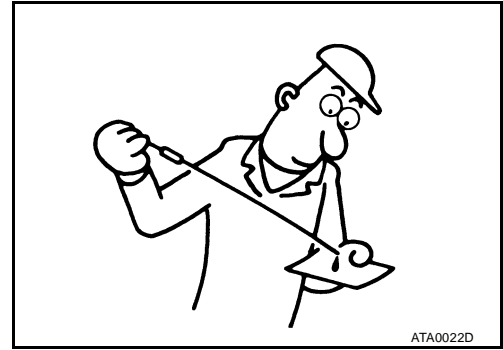
CAUTION:

When CVT fluid level gauge is installed into the CVT fluid charging pipe, make sure that the CVT fluid level gauge is securely locked in place.

CVT FLUID

FLUID CONDITION CHECK

Fluid status	Conceivable cause	Required operation
Varnished (viscous varnish state)	CVT fluid become degraded due to high temperatures.	Replace the CVT fluid and check the CVT main unit and the vehicle for malfunctions (wire harness, cooler pipes, etc.)
Milky white or cloudy	Water in the fluid	Replace the CVT fluid and check for places where water is getting in.
Large amount of metal powder mixed in fluid	Unusual wear of sliding parts within CVT	Replace the CVT fluid and check for improper operation of the CVT.



UCS006Y9

Changing CVT Fluid

1. Remove drain plug, and drain CVT fluid from oil pan.
2. Install drain plug with new gasket to oil pan and tighten to the specified torque.

Drain plug: Refer to [CVT-204, "COMPONENTS"](#) .

CAUTION:

Do not reuse drain plug gasket.

3. Fill CVT fluid from CVT fluid charging pipe to the specified level.

Fluid grade and capacity: Refer to [MA-14, "MR20DE"](#) .

CAUTION:

- Use only Genuine NISSAN CVT Fluid NS-2. Do not mix with other fluid.
 - Using CVT fluid other than Genuine NISSAN CVT Fluid NS-2 will deteriorate in driveability and CVT durability, and may damage the CVT, which is not covered by the warranty.
 - When filling CVT fluid, take care not to scatter fluid on heat generating parts such as exhaust.
 - Sufficiently shake the container of CVT fluid before using.
4. With the engine warmed up, drive the vehicle in an urban area. When 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).
 5. Check CVT fluid level and condition. Refer to [CVT-15, "Checking CVT Fluid"](#) .
 6. Repeat steps 1 through 5 if CVT fluid is contaminated.

CAUTION:

Delete CVT fluid deterioration date with CONSULT-III after changing CVT fluid.

RECOMMENDED FLUIDS AND LUBRICANTS

RECOMMENDED FLUIDS AND LUBRICANTS

PF0:0000

MR20DE

ELS002A9

Description		Capacity (Approximate)			Recommended Fluids/Lubricants
		Liter	US measure	Imp measure	
Fuel		55.0	14 1/2 gal	12 1/8 gal	Unleaded gasoline with an octane rating of at least 87 AKI (RON 91)
Engine oil Drain and refill	With oil filter change	3.8	4 qt	3 3/8 qt	● API Certification Mark *1
	Without oil filter change	3.6	3 7/8 qt	3 1/8 qt	
Dry engine (engine overhaul)		4.4	4 5/8 qt	3 7/8 qt	
Cooling system (with reservoir at max level)		7.0	1 7/8 gal	1 1/2 gal	Genuine NISSAN Long Life Anti-freeze Coolant or equivalent
Manual transaxle fluid (MTF)		2.0	4 1/4 pt	3 1/2 pt	ELF XT4447 M+ 75W-80 or API GL-4, Viscosity SAE 75W-80
CVT fluid		8.3	8 3/4 qt	7 1/4 qt	Genuine NISSAN CVT Fluid NS-2 *2
Brake and clutch fluid		—	—	—	Genuine NISSAN Super Heavy Duty Brake Fluid*3 or equivalent DOT 3 (US FMVSS No. 116)
Multi-purpose grease		—	—	—	NLGI No. 2 (Lithium soap base)
Windshield washer fluid		3.5	3 3/4 qt	3 1/8 qt	Genuine NISSAN Windshield Washer Concentrate Cleaner & Anti-Freeze or equivalent
Air conditioning system refrigerant		0.50 ± 0.05 kg	1.10 ± 0.11 lb	1.10 ± 0.11 lb	HFC-134a (R-134a) *4
Air conditioning system oil		120 mℓ	5.03 fl oz	5.3 fl oz	NISSAN A/C System Lubricant Type S or equivalent *4

*1: For further details, see "SAE Viscosity Number".

*2: **Using transaxle fluid other than Genuine NISSAN CVT Fluid NS-2 will damage the CVT, which is not covered by the NISSAN new vehicle limited warranty.**

*3: Available in mainland U.S.A. through your NISSAN dealer.

*4: For further details, see "Air conditioner specification label".

QR25DE

ELS002DP

Description		Capacity (Approximate)			Recommended Fluids/Lubricants
		Liter	US measure	Imp measure	
Fuel		55.0	14 1/2 gal	12 1/8 gal	Unleaded gasoline with an octane rating of at least 87 AKI (RON 91)
Engine oil Drain and refill	With oil filter change	4.9	5 1/8 qt	4 3/8 qt	● API Certification Mark *1
	Without oil filter change	4.6	4 7/8 qt	4 qt	
Dry engine (engine overhaul)		5.0	5 1/4 qt	4 3/8 qt	
Cooling system (with reservoir at max level)		7.6	2 gal	1 5/8 gal	Genuine NISSAN Long Life Anti-freeze / Coolant or equivalent
Manual transaxle fluid (MTF)		2.0	4 1/4 pt	3 1/2 pt	ELF XT4447 M+ 75W-80 or API GL-4, Viscosity SAE 75W-80
CVT fluid		8.3	8 3/4 qt	7 1/4 qt	Genuine NISSAN CVT Fluid NS-2 *2
Brake and clutch fluids		—	—	—	Genuine NISSAN Super Heavy Duty Brake Fluid or equivalent, DOT 3 (US FMVSS No. 116) *3
Multi-purpose grease		—	—	—	NLGI No. 2 (Lithium soap base)

RECOMMENDED FLUIDS AND LUBRICANTS

Description	Capacity (Approximate)			Recommended Fluids/Lubricants
	Liter	US measure	Imp measure	
Windshield washer fluid	3.5	3 3/4 qt	3 1/8 qt	Genuine NISSAN Windshield Washer Concentrate Cleaner & Anti-freeze or equivalent
Air conditioning system refrigerant	0.50 ± 0.05 kg	1.10 ± 0.11 lb	1.10 ± 0.11 lb	HFC-134a (R-134a) *4
Air conditioning system oil	120 m ℓ	5.03 fl oz	5.3 fl oz	NISSAN A/C System Lubricant Type S or equivalent *4

*1: For further details, see "SAE Viscosity Number".

*2: **Using transaxle fluid other than Genuine NISSAN CVT Fluid NS-2 will damage the CVT, which is not covered by the NISSAN new vehicle limited warranty.**

*3: Available in mainland U.S.A. through your NISSAN dealer.

*4: For further details, see "Air conditioner specification label".

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MA

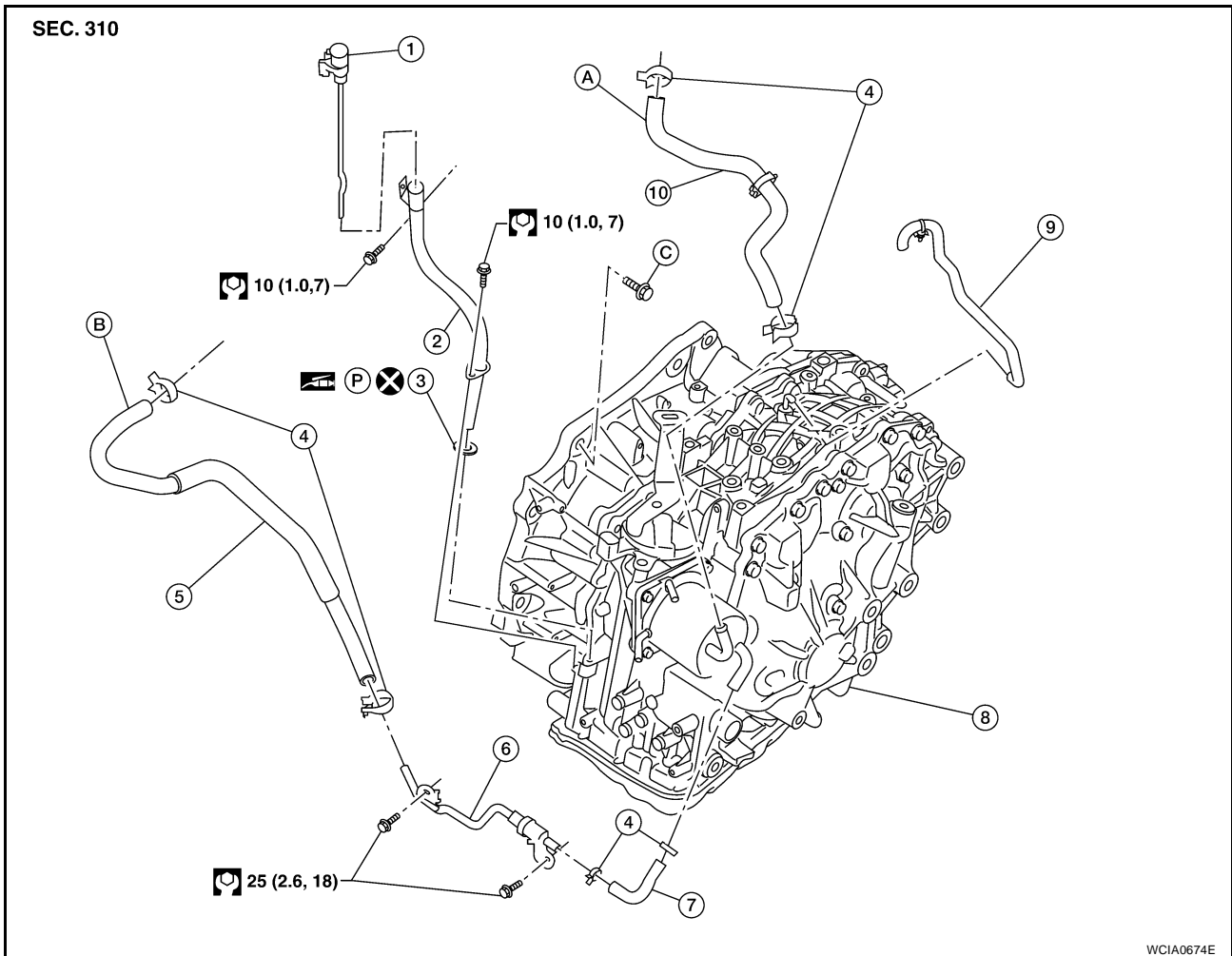
TRANSAXLE ASSEMBLY

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TRANSAXLE ASSEMBLY

Removal and Installation (MR20DE) COMPONENTS

UCS006YQ



- | | | |
|---|-----------------------------|--------------------------|
| 1. CVT fluid level gauge | 2. CVT fluid charging pipe | 3. O-ring |
| 4. Hose clamp | 5. CVT water hose | 6. Water thermostat tube |
| 7. Water hose | 8. Transaxle assembly | 9. Air breather hose |
| 10. CVT water hose | A. To engine coolant outlet | B. To water pump |
| C. Refer to CVT-205, "INSTALLATION" . | | |

REMOVAL

1. Remove the engine and transaxle as an assembly. Refer to [EM-102, "Removal and Installation"](#).
2. Disconnect the electrical connectors from the following:
 - Secondary speed sensor (1)
 - Primary speed sensor (2)
 - CVT unit connector (3)
 - PNP switch (4)
3. Remove the harness from the CVT.

