

Transmission Fluid Check

This procedure checks the transmission fluid level, as well as the condition of the fluid itself.

Notice: Always use the proper automatic transmission fluid listed. Using incorrect automatic transmission fluid may damage the vehicle.

Before checking the fluid level, perform the following:

1. Start the engine and park the vehicle on a level surface. Keep the engine running.
2. Apply the parking brake and place the shift lever in PARK (P).
3. Depress the brake pedal and move the shift lever through each gear range, pausing for about 3 seconds in each range. Then, move the shift lever back to PARK (P).
4. Allow the engine to idle 500-800 RPM for at least 1 minute. Slowly release the brake pedal.
5. Keep the engine running and observe the transmission fluid temperature (TFT) using the Driver Information Center (DIC) or a scan tool.
6. Using the TFT reading, determine and perform the appropriate check procedure. If the TFT reading is not within the required temperature ranges, allow the vehicle to cool, or operate the vehicle until the appropriate TFT is reached.

Cold Check Procedure

Important: Use the cold check procedure only as a reference to determine if the transmission has enough fluid to be operated safely until a hot check procedure can be made. The hot check procedure is the most accurate method to check the fluid level. Perform the hot check procedure at the first opportunity.

Use this cold check procedure to check fluid level when the TFT is between 27-32°C (80-90° F).

1. Start the engine and locate the transmission dipstick at the rear of the engine compartment, on the passenger's side of the vehicle.
2. Flip the handle up, and then pull out the dipstick and wipe the dipstick end with a clean rag or paper towel.
3. Install the dipstick by pushing it back in the dipstick tube all the way, wait three seconds and then pull it back out again.

Important: Always check the fluid level at least twice. Consistent readings are important to maintaining proper fluid level. If inconsistent readings are noted, inspect the transmission vent assembly to ensure it is clean and unclogged.

4. Keep the dipstick pointing down and check both sides of the dipstick, and read the lower level. Repeat the check procedure to verify the reading.
5. Inspect the color of the fluid on the dipstick. Refer to Fluid Condition Inspection in this procedure.
6. If the fluid level is below the COLD check line, add only enough fluid as necessary to bring the level into the COLD line. It does not take much fluid, generally less than one pint (0.5L). Do not overfill.
7. If the fluid level is in the acceptable range, push the dipstick back in all the way, then flip the handle down to lock the dipstick in place.

© 2014 General Motors Corporation. All rights reserved.

8. Perform a hot check at the first opportunity after the transmission reaches a normal operating temperature between 82-93°C (180-200°F).

Hot Check Procedure

Important: Use this procedure to check the transmission fluid level when the TFT is between 82-93°C (180-200°F). The hot check procedure is the most accurate method to check the fluid level. The hot check should be performed at the first opportunity in order to verify the cold check. The fluid level rises as fluid temperature increases, so it is important to ensure the transmission temperature is within range.

1. Start the engine and locate the transmission dipstick at the rear of the engine compartment, on the passenger side of the vehicle.
2. Flip the handle up, and then pull out the dipstick and wipe the dipstick end with a clean rag or paper towel.
3. Install the dipstick by pushing it back in the dipstick tube all the way, wait three seconds and then pull it back out.

Important: Always check the fluid level at least twice. Consistent readings are important to maintaining proper fluid level. If inconsistent readings are noted, inspect the transmission vent assembly to ensure it is clean and unclogged.

4. Keep the dipstick tip pointing down and check both sides of the dipstick. Read the lower level. Repeat the check procedure to verify the reading.
5. Inspect the color of the fluid on the dipstick. Refer to Fluid Condition Inspection.
6. A safe operating fluid level is within the HOT crosshatch band on the dipstick. If the fluid level is not within the HOT band, and the transmission temperature is between 82-93°C (180-200°F), add or drain fluid as necessary to bring the level into the HOT band. If the fluid level is low, add only enough fluid to bring the level into the HOT band.

Important: To assist in reaching the correct temperature range of 82-93°C (180-200°F), drive the vehicle in second gear at no more than 65 mph until the desired temperature is reached.

7. If the fluid level is low, add only enough fluid to bring the level into the HOT band. It does not take much fluid, generally less than one pint (0.5L). Do not overfill. Also, if the fluid level is low, inspect the transmission for leaks. Refer to [Fluid Leak Diagnosis](#).
8. If the fluid level is in the acceptable range, push the dipstick back into the dipstick tube all the way, and then flip the handle down to lock the dipstick in place.
9. If applicable and if the vehicle is equipped, reset the transmission oil life monitor only if the fluid was changed.

Fluid Condition Inspection

Inspect the fluid color. The fluid should be red or dark brown.

- If the fluid color is very dark or black and has a burnt odor, inspect the fluid and inside of the bottom pan for excessive metal particles or other debris. A small amount of "friction" material in the bottom pan is a "normal" condition. If large pieces and/or metal particles are noted in the fluid or bottom pan, flush the oil cooler and cooler lines and overhaul the transmission. If there are no signs of transmission internal damage noted, replace the fluid filter assembly, repair the oil cooler, and flush the cooler lines.
- Fluid that is cloudy or milky or appears to be contaminated with water indicates engine

coolant or water contamination. Refer to [Engine Coolant/Water in Transmission](#) .