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Shift Quality Issues in a 9-Speed A/T? Check the ATF Level

AFFECTED VEHICLES

2016−17 Pilot Touring and Elite

In a 9-speed A/T, the ATF level is *critical*. If it's too high, the transmission could shift hard. If it's too low, the transmission could slip. This transmission also doesn't use a dipstick. To check the ATF level, you need to run a special procedure. Although it's covered in the service information, we're including it in this article along with some tips to help ensure you're doing the job right.

Before You Start

1. Connect the i-HDS. Go to the **A/T Data List**, and scroll down to **ATF Temperature**.
2. Raise the vehicle on a lift, remove the engine undercovers (if needed), and slightly loosen the level plug.

Enter VSA Maintenance Mode

NOTE: You **must** enter this mode to complete the ATF level check; it disables the VSA and TCS functions. Be sure to complete all of the following steps within **30 seconds**, or you'll need to start over.

1. Turn the ignition to ON.
2. Press and hold the brake pedal, and release the parking brake.
3. Press and hold the VSA OFF switch until the VSA OFF indicator comes on. Then, press the switch again until the indicator goes out.
4. Release the brake pedal, and set the parking brake.
5. Press and hold the VSA OFF switch until the VSA OFF indicator comes on. Then, press the switch again until the indicator goes out.
6. Press and hold the brake pedal.
7. Press the VSA OFF switch. If the VSA OFF indicator comes on, press the switch again and release it. If successful, the VSA OFF indicator starts blinking and the VSA indicator comes on. You are now in VSA maintenance mode. To exit this mode, either turn the ignition switch to OFF or quickly press and release the VSA OFF switch, making sure the VSA OFF and VSA indicators go out.

Check the ATF Level

1. Start the engine, and wait for the transmission temperature to reach **90°F**.

   NOTE: If the temperature is more than **115°F** (the vehicle may have been recently driven), shut off the engine and let the transmission cool down before continuing.
2. Shift to Drive, then press the D/S button again to enter sequential mode.
3. Using the paddle shifters, shift to **1st**, **2nd**, **3rd**, then **4th** gear. Then, shift back to **3rd**, **2nd**, and **1st** gear.

   IMPORTANT: Do not shift past **4th** gear with the vehicle on the lift; you could damage the transmission.
4. Apply the brakes to stop the wheels from spinning, then shift to Park.

5. Raise the engine speed to **2,000 rpm** for about **5 seconds**, then release the accelerator pedal. Repeat this until the transmission temperature reaches about **100°F**, then wait for the temperature to reach **104 to 115°F**.

   NOTE: The ideal temperature for checking the ATF level is **104°F**. If it's more than **115°F**, shut off the engine, let the transmission cool down, and start over again.

6. With the engine running, remove the level plug.

   IMPORTANT: With the level plug removed, you **must** keep the engine running. If you shut it off, the ATF will pour out of the transmission.

   - If a small amount of ATF trickles out of the level plug hole and keeps doing so, the level is OK. Install a new level plug, and torque it to **35 N·m (26 lb-ft).**
   - If no ATF comes out, install a new level plug and lower the vehicle. Remove the fill plug, and add the appropriate amount of ATF Type 3.1 through the fill plug hole. Then, install a new fill plug, and check the ATF level again by removing the level plug. Be sure to monitor the ATF temperature while doing this. When you're done, install the level plug, then torque the level and fill plugs to **35 N·m (26 lb-ft).**

7. Turn the ignition to OFF.
8. Install the engine undercovers (if removed).

To Learn More

If you would like to see this procedure in action, be sure to check out the *Tech2Tech*® video "Fluid Level in 9-Speed A/Ts Is Critical to Proper Operation."
