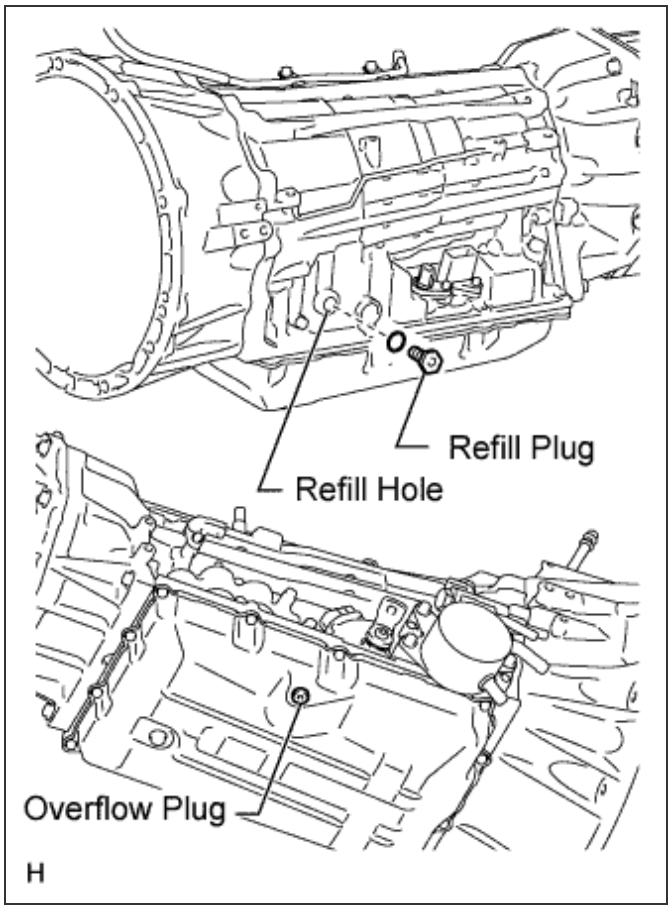
AUTOMATIC TRANSMISSION FLUID ADJUSTMENT

1. BEFORE FILLING TRANSMISSION

- This transmission requires Toyota Genuine ATF WS transmission fluid.
- After servicing the transmission, you must refill the transmission with the correct amount of fluid.
- Keep the vehicle level while adjusting the fluid level.
- Proceed to the "Transmission Pan Fill" procedures if you replaced the entire transmission, transmission pan, drain plug, valve body and/or torque converter.
- Proceed to the "Transmission Fill" procedures after removing the refill plug if you replaced the transmission hose and/or output shaft oil seal.

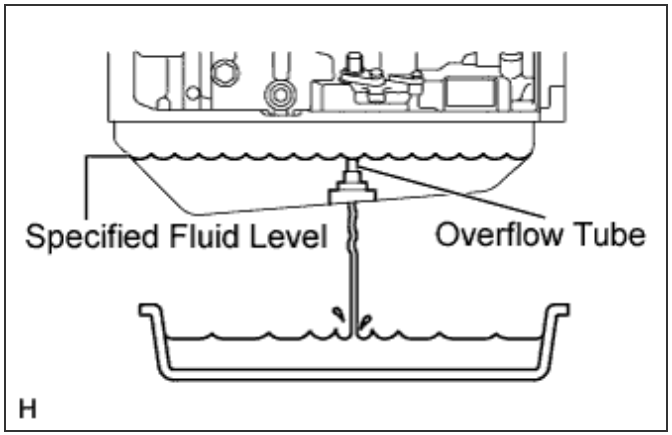


2. TRANSMISSION PAN FILL

a. Remove the refill plug and overflow plug.

b. Fill the transmission through the refill hole until fluid begins to trickle out of the overflow tube.

c. Reinstall the overflow plug.

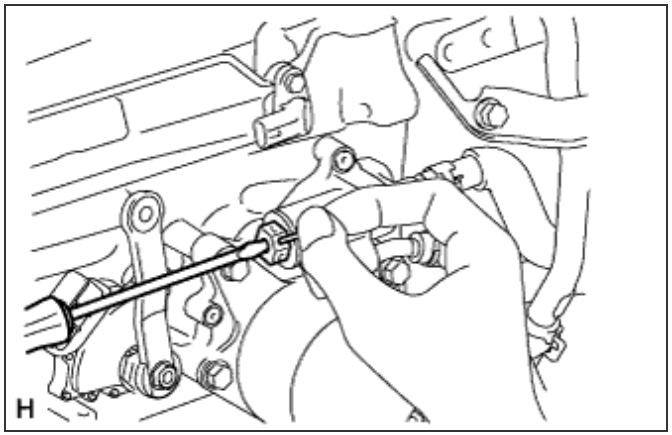


3. TRANSMISSION FILL

a. Push the shaft of the thermostat and fix it in place.

i. By using compressed air, etc., blow dust off of the thermostat cap to clean it.

ii. Using a screwdriver, push the shaft of the thermostat.



Tech Tips

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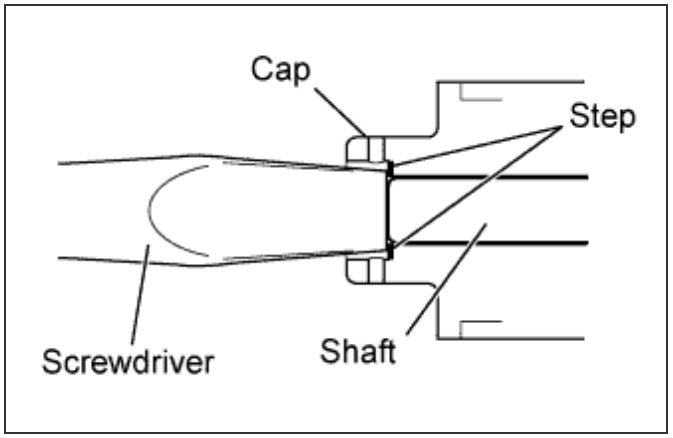
- Pushed amount: 5.5 to 7.0 mm (0.217 to 0.276 in.)
- Push the shaft until the screwdriver contacts the inside step of the cap.



iii. With the shaft of the thermostat pressed, push a pin (diameter: 1.0 to 1.8 mm (0.0394 to 0.0709 in.)) into a hole on the side of the thermostat cap. Insert the pin until it passes through the hole on the other side of the thermostat cap to fix the shaft in place.

b. Fill the transmission with the amount of fluid listed in the table below.

Standard Capacity

Repair	Fill Amount
Transmission pan and drain plug removal	2.1 liters (2.2 US qts., 1.9 Imp. qts.)
Transmission valve body removal	4.7 liters (5.0 US qts., 4.1 Imp. qts.)
Torque converter removal	6.1 liters (6.4 US qts., 5.4 Imp. qts.)

c. Reinstall the refill plug to prevent the fluid from splashing.

Tech Tips

If you cannot add the listed amount of fluid, do the following:

i. Install the refill plug.

ii. Allow the engine to idle with the air conditioning OFF.

iii. Move the shift lever through the entire gear range to circulate fluid.

iv. Wait for 30 seconds with the engine idling.

v. **Stop the engine.**

vi. **Remove the refill plug and add fluid.**

vii. **Reinstall the refill plug.**

4. **ADJUST FLUID TEMPERATURE**

Note

The fluid temperature can be confirmed by checking the indicator light in the meter or by using the GTS. When using the GTS, it is necessary to change to temperature detection mode in order to idle the vehicle appropriately.

a. **When using the GTS:**

i. **Turn the engine switch off.**

ii. **Connect the GTS to the DLC3.**

iii. **Turn the engine switch on (IG).**

iv. **Enter the following menus: Powertrain / Engine and ECT / Active Test / Connect the TC and TE1.**

v. **Enter the following menus: Powertrain / Engine and ECT / Data List / A/T Oil Temperature 1.**

vi. **Check the ATF temperature.**

Note

- The ATF temperature must be between 43 to 48°C (109 to 118°F).
- If the ATF temperature is not between 43 to 48°C (109 to 118°F), turn the ignition switch off and wait until the fluid temperature drops between 43 to 48°C (109 to 118°F).

vii. **According to the display on the GTS, perform the Active Test "Connect the TC and TE1".**

Tech Tips

Indicator lights of the combination meter blink to output DTCs when TC and TE1 are connected.

viii. **Start the engine.**

Note

Check that electrical systems such as the air conditioning system, audio system and lighting system are off.

b. **When not using the GTS:**

i. **Using SST, connect terminals 13 (TC) and 4 (CG) of the DLC3.**

SST
09843-18040

ii. **Start the engine.**

Note

Check that electrical systems such as the air conditioning system, audio system and lighting system are off.

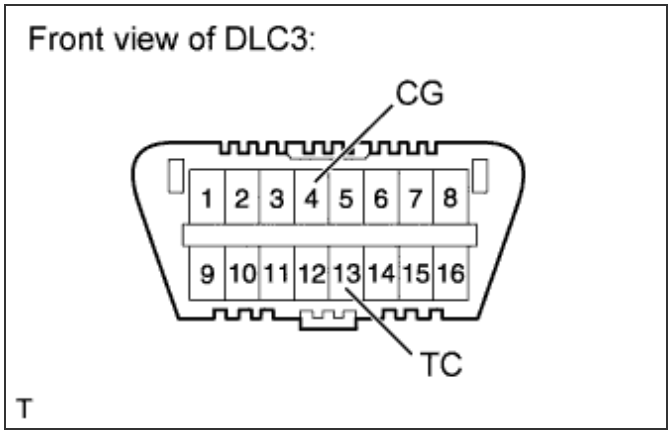
Tech Tips

Indicator lights of the meter blink to output DTCs when terminals TC and CG are connected.

c. Slowly move the shift lever from P to S, then change the gears from 1st to 6th. Then return the shift lever to P.

Tech Tips

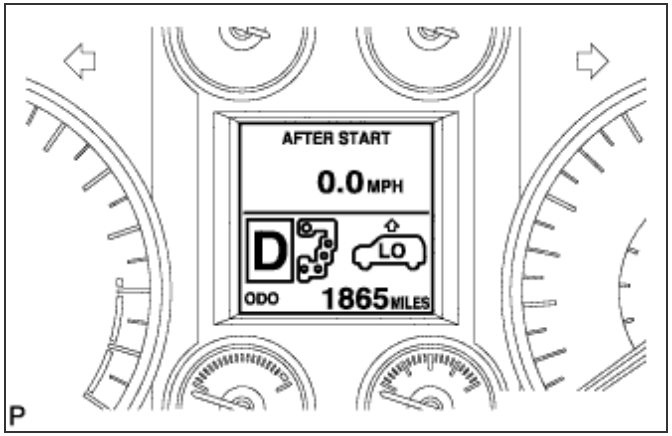
Slowly move the shift lever to circulate the fluid through each part of the transmission.



d. Move the shift lever to D, and quickly move back and forth between N and D (once within 1.5 seconds) for at least 6 seconds. This will activate the fluid temperature detection mode.

Standard condition

Indicator light (D) remains illuminated for 2 seconds and then turns off.



e. When using the GTS:

i. Return the shift lever to P and press OFF on the Active Test display.

f. When not using the GTS:

i. Return the shift lever to P and disconnect terminals 13 (TC) and 4 (CG).

g. Allow the engine to idle until the fluid temperature reaches 43 to 48°C (109 to 118°F).

h. The indicator (D) will come on again when the fluid temperature reaches 43°C (109°F) and will blink when it exceeds 48°C (118°F).

Indicator Indication of ATF Temperature

Below Proper Temperature	Proper Temperature	Higher than Proper Temperature
Data List [A/T Oil Temperature 1] 43°C (109°F) or less	Data List [A/T Oil Temperature 1] 43 to 48°C (109 to 118°F)	Data List [A/T Oil Temperature 1] 48°C (118°F) or higher

Below Proper Temperature	Proper Temperature	Higher than Proper Temperature
Indicator light (D) Turn off	Indicator light (D) Turn on	Indicator light (D) Blinking

Note

Perform the fluid level inspection while the indicator light is on.

5. FLUID LEVEL CHECK

Note

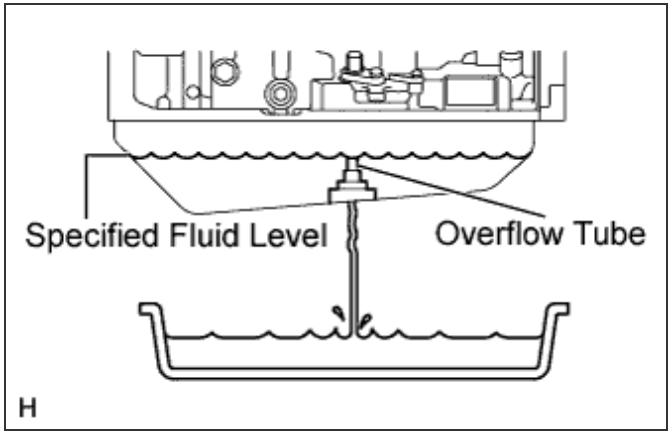
The fluid temperature must be between 43 to 48°C (109 to 118°F) to accurately check the fluid level.

a. Remove the overflow plug with the engine idling.

b. Check that fluid comes out of the overflow tube.

If fluid does not come out, proceed to the "Transmission Refill" procedures.

If fluid comes out, wait until the overflow slows to a trickle and proceed to the "Complete" procedures.



6. TRANSMISSION REFILL

a. Remove the overflow plug.

b. Remove the refill plug and gasket.

c. Add ATF into the refill hole until ATF flows from the overflow tube.

d. Wait until the overflow slows to a trickle and proceed to the "Complete" procedures.

7. COMPLETE

a. Install a new gasket and the overflow plug.

Torque:
20 N*m { 204 kgf*cm, 15 ft.*lbf }

b. Stop the engine.

c. Install a new gasket and the refill plug.

Torque:
39 N*m { 400 kgf*cm, 29 ft.*lbf }

d. Remove the pin.

Note

- Make sure the shaft of the thermostat is protruding from the hole of the cap.
- Check that there is no ATF leaking from the cap hole.