Title:
# TRANSMISSION FLUID LEVEL
Models:
## '07 Tundra (6 Speed [AB60] Only)

TSB

REVISED
TC009-07
TRANSMISSION & CLUTCH

**TSB REVISION NOTICE:**
- **September 28, 2007: The Introduction, Applicable Vehicles, and Inspection Procedure have been updated to clarify that this TSB applies ONLY to vehicles with 6 speed (AB60) transmission.**

**Previous versions of this TSB should be discarded.**

**Introduction**

This bulletin provides information on the proper automatic transmission fluid fill and level check procedures for 2007 model year Tundra vehicles equipped with 6 speed (AB60) transmission. Use the procedures below when checking automatic transmission fluid level.

**NOTE:**

**Failure to properly adjust transmission fluid can cause transmission shifting issues or damage to the automatic transmission.**

**Applicable Vehicles**

- **2007** model year **Tundra** vehicles equipped with **6 speed (AB60) transmission.**

**Parts Information**

| PREVIOUS PART NUMBER | CURRENT PART NUMBER | PART NAME | QTY |
|---|---|---|---|
| 00289–ATFWS | Same | ATF WS | As Needed |

**Warranty Information**

| OP CODE | DESCRIPTION | TIME | OFP | T1 | T2 |
|---|---|---|---|---|---|
| N/A | Not Applicable to Warranty | – | – | – | – |

**Required Tools & Equipment**

| REQUIRED EQUIPMENT | SUPPLIER | PART NUMBER | QTY |
|---|---|---|---|
| **TIS Techstream***  NOTE: Software version 2.10.016 or later is required. | ADE | TSPKG1 | 1 |

* Essential SST.

**NOTE:**
- **Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1–800–368–6787.**
- **The Toyota Diagnostic Tester and CAN Interface Module may also be used to perform the service procedures listed in this bulletin.**

| SPECIAL SERVICE TOOLS (SSTs) | PART NUMBER | QTY | DRW** |
|---|---|---|---|
| **Transmission Fill System*** NOTE: All components from this kit/set are required.  | 00002–11100–02 | 1 | – |

* Essential SST.

** Drawer number in SST Storage System.

**NOTE:**

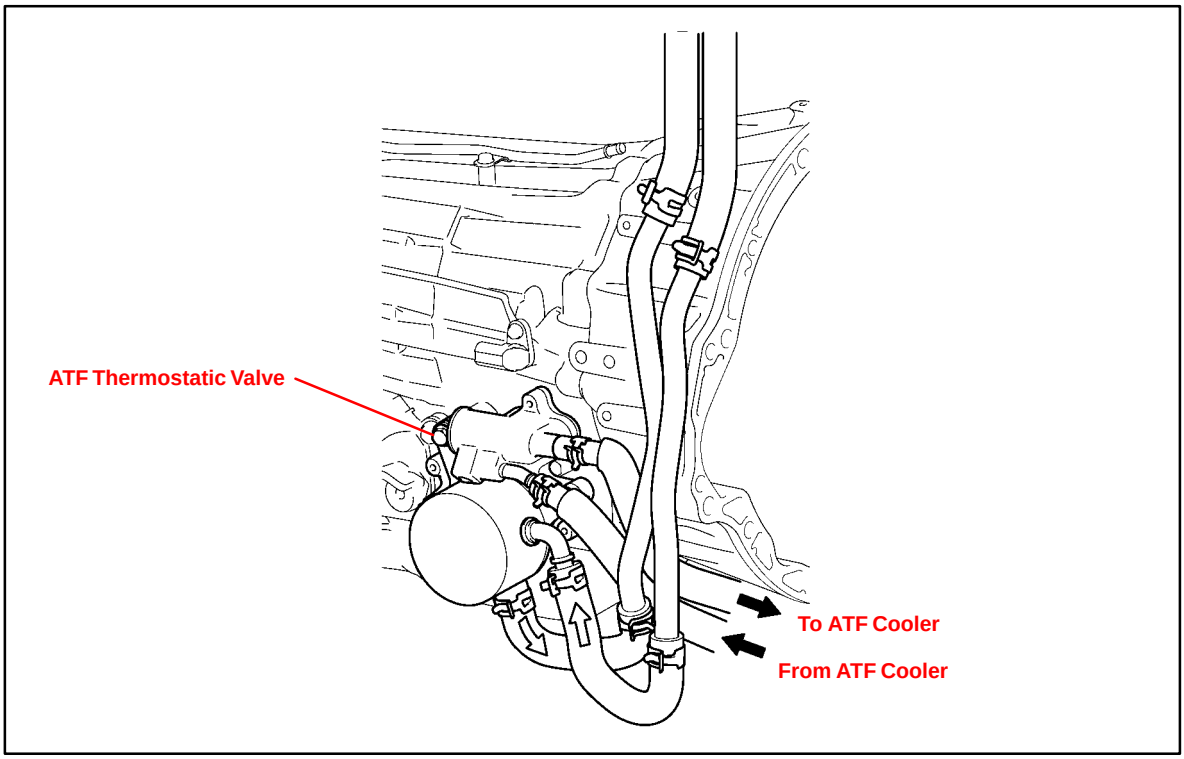
**Additional SSTs may be ordered by calling SPX/OTC at 1-800-933-8335.**

**Inspection Procedure**

**NOTE:**
**This TSB applies ONLY to vehicles equipped with 6 speed (AB60) transmission.**

1. Confirm if vehicle is equipped with the optional towing package.

   Vehicles equipped with the optional towing package are also equipped with a separate transmission oil cooler and transmission fluid thermostatic valve located on the right side of the transmission adjacent to the ATF warmer (see illustration below for location).



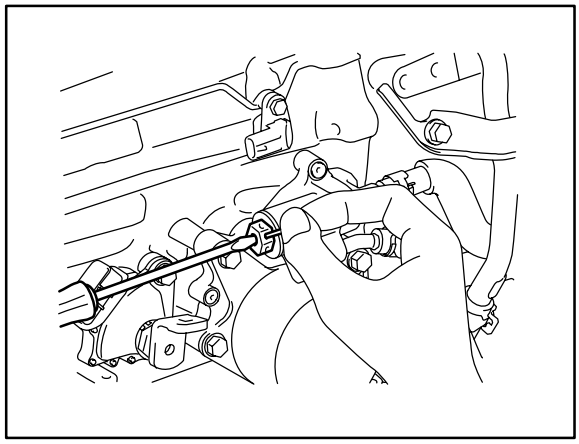

- If the vehicle is equipped with the optional towing package, go to step 2, *"w/Towing Package: Lock the thermostatic valve in the open position"*.
- If the vehicle is NOT equipped with the towing package, skip step 2 and go to step 3, *"Check the ATF temperature"*.

2. **w/Towing Package:**
   Lock the thermostatic valve in the open position.

   A. Push in the shaft of the thermostat.

      a. Using compressed air, etc., blow dust off of the thermostat's cap to clean it.

      b. Using a screwdriver, push in the shaft of the thermostat.



**HINT:**
**Push in the shaft 5.5 to 7.0 mm (0.217 to 0.276 in.) until it stops.**

**Inspection Procedure** (Continued)

B. With the shaft of the thermostat pressed in, push a pin (diameter 1.0 to 1.8 mm [0.04 to 0.07 in.]) into the hole on the side of the thermostat's cap. Insert the pin until it passes through the hole on the other side of the thermostat's cap to hold the shaft in place.

**Pin diameter: 1.0 to 1.8 mm (0.04 to 0.07 in.)**

**NOTE:**
**Failure to depress and lock the shaft of the thermostatic valve in the open position will cause an incorrect automatic transmission fluid level adjustment.**

3. Check the ATF temperature.
   A. Turn the ignition switch ON, engine OFF.
   B. Using TIS Techstream, check the ATF temperature with the following menus:
      *System Select / ECT / Data List / AT Oil Temp 2*

**NOTE:**
**Check that electrical systems such as the air conditioning system, audio system, and lighting system are OFF.**

- If the fluid temperature is between 115 – 133°F (46 – 56°C), proceed to step 4.

  **Recommended ATF temperature: 115°F (46°C) or less**

- If the fluid temperature is ABOVE 133°F (56°C), see Note below.

**NOTE:**
**If the fluid temperature is 133°F (56°C) or MORE, turn the ignition switch OFF and wait until the fluid temperature drops below 133°F (56°C).**

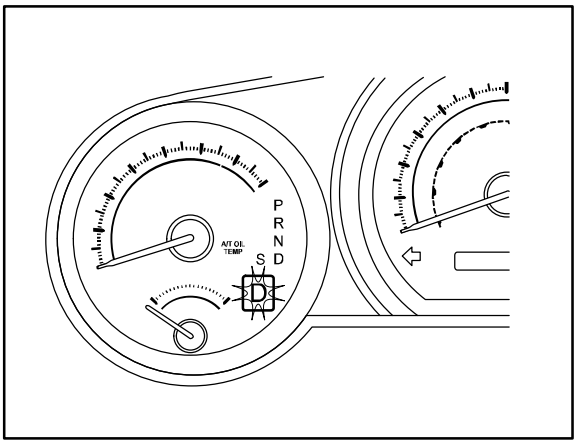
4. Activate the fluid temperature detection mode.
   A. Using TIS Techstream, perform TC and TE1 Active Test with the following menus:
      *System Select / Engine / Active Test / Connect TC & TE1.*
      Use the arrows to turn TC and TE1 Active Test *ON*.

**HINT:**
**The "Check Engine", "ABS", "VSC OFF", "AIRBAG", and "CRUISE" lights will flash when the TC and TE1 Active Test is ON.**

   B. Depress and hold down the brake pedal.
   C. Start the engine.
   D. Slowly move the shift lever from "P" to "R" to "N" to "D," then back to "P," allowing each gear to fully engage prior to moving to the next gear position.

**Inspection Procedure** (Continued)

E. While observing the “D” shift indicator on the combination meter, move the shift lever back and forth between “N” and “D” at an interval of 1.5 seconds for 6 seconds or more.




**NOTE:**

**Do NOT pause for more than 1.5 seconds.**

**NOTE:**

**Performing this operation will cause the vehicle to enter the fluid temperature detection mode.**

F. Confirm that the “D” shift indicator comes on for 2 seconds in Neutral.

**HINT:**

- **When the fluid temperature detection mode is activated, the “D” shift indicator on the combination meter comes on for 2 seconds in Neutral.**
- **If the “D” shift indicator does NOT come on for 2 seconds, return to step 3A where terminal TC is first turned on and perform the procedure again.**

G. Move the shift lever from “N” to “P”.

H. Release the brake pedal.

I. On Techstream, press the arrow button to turn TC and TE1 Active Test *OFF.*

**NOTE:**

**Be sure to turn terminals TC and TE1 OFF. If the terminals are ON, the fluid level CANNOT be precisely adjusted due to fluctuations in idle speed.**

**HINT:**

- **Turning terminals TC and TE1 OFF activates the engine idle speed control mode.**
- **Even after terminals TC and TE1 are turned OFF, the fluid temperature detection mode is active until the ignition switch is turned OFF.**

**Inspection Procedure** (Continued)

5. Warm up the ATF to fluid check temperature.

   With the engine idling in Park, allow the transmission to reach the fluid check temperature of 115 to 133°F (46 to 56°C).

| BELOW FLUID CHECK TEMPERATURE | FLUID CHECK TEMPERATURE | ABOVE FLUID CHECK TEMPERATURE |
|---|---|---|
| 115°F or less (46°C or less) | 115 to 133°F (46 to 56°C) | 133°F or more (56°C or more) |

**NOTE:**

- **If the fluid temperature is within the fluid check temperature range, immediately proceed to step 6, *"Check the ATF fluid level"*.**
- **If the fluid temperature is 133°F (56°C) or more, turn OFF the engine and wait until the fluid temperature drops to 115°F (46°C) or less, and then perform steps 3 and 4 again from the beginning.**

**HINT:**

**In the fluid temperature detection mode, the "D" shift indicator comes ON, goes OFF, or blinks depending on the fluid temperature.**

| BELOW FLUID CHECK TEMPERATURE | FLUID CHECK TEMPERATURE | ABOVE FLUID CHECK TEMPERATURE |
|---|---|---|
| 115°F or less (46°C or less) | 115 to 133°F (46 to 56°C) | 133°F or more (56°C or more) |
| OFF | ON | Blinks |

6. Check the ATF fluid level.

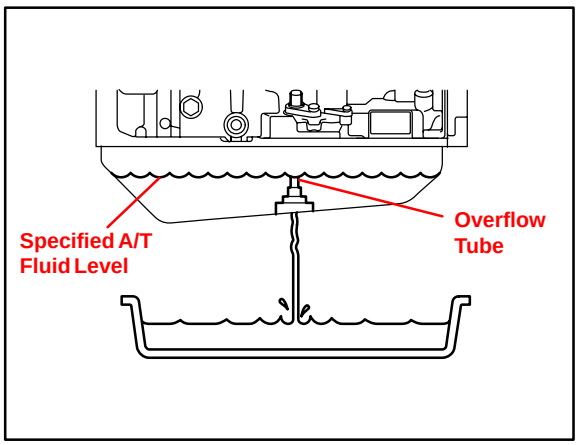
**NOTE:**

**The fluid temperature MUST be between 115 and 133°F (46 and 56°C) to accurately check the fluid level.**

A. Remove the overflow plug with the engine idling (A/C OFF).

**HINT:**

**Removing the overflow plug before reaching fluid check temperature makes it easier to confirm when fluid starts coming out at a steady rate.**



**Inspection Procedure** (Continued)

B. Check that the fluid comes out of the overflow tube.
   - If fluid does NOT come out, proceed to step 7, *"Refill Transmission"*.
   - If fluid comes out, wait until the overflow slows to a trickle and proceed to step 8, *"Complete the transmission fluid level Inspection Procedure".*

**HINT:**
**A small amount of fluid will come out as the overflow plug is removed. Do NOT confuse this for proper fluid level. A slow steady drip from the overflow tube is NOT a trickle and does NOT mean fluid is at proper level.**

7. Refill the transmission.
   A. Remove the overflow plug and gasket.
   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" procedure in step 8.

8. Complete the transmission fluid level Inspection Procedure.
   A. Install the overflow plug with a NEW gasket.
   B. Stop the engine.
   C. Install the refill plug with a NEW gasket.
   D. Remove the pin from the thermostatic valve (w/towing package ONLY).

**NOTE:**
**Make sure the shaft of the thermostat is protruding from the hole of the cap.**

