ROAD TEST

1. PROBLEM SYMPTOM CONFIRMATION

(a) Based on the result of the customer problem analysis, try to reproduce the symptoms. If the problem is that the transaxle does not shift up, shift down, or the shift point is too high or too low, conduct the following road test referring to the automatic shift schedule and simulate the problem symptoms.

2. ROAD TEST

NOTICE:

Perform the test at the normal operating ATF temperature of 50 to 80°C (122 to 176°F).

(a) D position test

Move the shift lever to D and fully depress the accelerator pedal. Check the following:

(1) Check up-shift operation.

Check that the 1 → 2, 2 → 3 and 3 → O/D up-shifts take place at the shift point shown in the automatic shift schedule (see page SS-19).

HINT:

O/D Gear Up-shift Prohibition Control

- Engine coolant temperature is 60°C (140°F) or less.
- ATF temperature is 10°C (50°F) or less.

O/D and 3rd Gear Lock-up Prohibition Control

- Brake pedal is depressed.
- Accelerator pedal is released.
- Engine coolant temperature is 60°C (140°F) or less.
- ATF temperature is 10°C (50°F) or less.

3rd Gear Lock-up Prohibition Control

- O/D main switch OFF (O/D ON).

(2) Check for shift shock and slip.

Check for shock and slip at the 1 → 2, 2 → 3 and 3 → O/D up-shifts.

(3) Check for abnormal noise and vibration.

While driving the vehicle in the lock-up or O/D gear with the shift lever on D, check for abnormal noises and vibration.

HINT:

The check for the cause of abnormal noise and vibration must be done thoroughly as it could also be due to loss of balance in the differential, torque converter clutch, etc.

(4) Check kick-down operation.

While driving the vehicle in all gears with the shift lever on D, check that the possible kick-down vehicle speed limits for 2 → 1, 3 → 2 and O/D → 3 kick-downs conform to those indicated on the automatic shift schedule (see page SS-19).

(5) Check for abnormal shock and slip at kick-down.

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(6) Check the lock-up mechanism.
- Drive the vehicle in the O/D gear with the shift lever on D. Maintain a steady speed (lock-up ON) of about 60 km/h (37 mph).
- Lightly depress the accelerator pedal and check that the engine speed does not change abruptly.

HINT:
If there is a sudden increase in engine speed, there is no lock-up.

(b) 2 position test
Move the shift lever to 2 and fully depress the accelerator pedal. Check the following:
(1) Check up-shift operation.
Check that the 1 → 2 up-shift takes place and that the shift point conforms to the automatic shift schedule (see page SS-19).
HINT:
There is no O/D up-shift and lock-up when the shift lever on 2.
(2) Check engine braking.
While driving the vehicle in the 2nd gear with the shift lever on 2, release the accelerator pedal and check the engine braking effect.
(3) Check for abnormal noises during acceleration and deceleration, and for shock at up-shift and down-shift.

(c) L position test
Move the shift lever to L and fully depress the accelerator pedal. Check the following:
(1) Check that there is no up-shift.
While driving the vehicle with the shift lever on L, check that there is no up-shift to 2nd gear.
(2) Check engine braking.
While driving the vehicle with the shift lever on L, release the accelerator pedal and check the engine braking effect.
(3) Check for abnormal noises during acceleration and deceleration.

(d) R position test
Move the shift lever to R and lightly depress the accelerator pedal. Check that the vehicle moves backward without any abnormal noise or vibration.
CAUTION:
Before conducting this test, ensure that no people or obstacles are in the test area.

(e) P position test
Stop the vehicle on an incline (more than 5°). Then move the shift lever to P and release the parking brake. Check that the parking lock pawl holds the vehicle in place.