

Drive Cycle

CONTINUOUSLY VARIABLE TRANSMISSION (DIAGNOSTICS)

10. Drive Cycle

A: PROCEDURE

It is possible to complete diagnosis of the DTC by performing the indicated drive cycle. After the repair for the DTC, perform a necessary drive cycle and make sure the function recovers and the DTC is recorded.

1. PREPARATION FOR DRIVE CYCLE

- 1) Check that the battery voltage is 12 V or more and fuel remains approx. half [20 — 40 L (5.3 — 10.6 US gal, 4.4 — 8.8 Imp gal)].
- 2) After performing the diagnostics and Clear Memory Mode, check that no DTC remains. <Ref. to CVT(w/o HEV)(diag)-18, Clear Memory Mode.>

NOTE:

Perform the drive cycle after warming up the engine except when the ATF temperature at engine start is specified.

2. DRIVE CYCLE A

DTC	Item	Condition
P0560	System Voltage	—
P0601	Internal Control Module Memory Checksum Error	Perform the drive cycle A twice.
P0603	Internal Control Module Keep Alive Memory (KAM) Error	—
P0604	Internal Control Module Random Access Memory (RAM) Error	Perform the drive cycle A twice.
P062F	Internal Control Module EEPROM Error	Perform the drive cycle A twice.
P0705	Transmission Range Sensor Circuit (PRNDL Input)	—
P0712	Transmission Fluid Temperature Sensor Circuit Low Input	—
P0842	Secondary Oil Pressure Sensor Circuit (Low)	—
P0843	Secondary Oil Pressure Sensor Circuit (High)	—
P0890	AT Self-Shut Relay Diagnosis (Low)	—
P0962	Secondary Solenoid Circuit (Low)	—
P0963	Secondary Solenoid Circuit (High)	—
P0966	Forward & Reverse Solenoid Circuit (Low)	—
P0967	Forward & Reverse Linear Solenoid Circuit (High)	—
P0B0A	Auxiliary Transmission Fluid Pump Motor Supply Voltage Circuit Low	—
P0B0B	Auxiliary Transmission Fluid Pump Motor Supply Voltage Circuit High	—
P0B0D	Auxiliary Transmission Fluid Pump Motor Control Module	—
P0C21	Auxiliary Transmission Fluid Pump Phase U-V-W Circuit Low	—
P0C22	Auxiliary Transmission Fluid Pump Phase U-V-W Circuit High	—
P160A	Random Access Memory (RAM) Error	Perform the drive cycle A twice.
P172A	Auxiliary Transmission Fluid Pump Reverse Rotation	—
P2530	Ignition Switch Run Position Circuit	—
P2720	Pressure Control Solenoid D Control Circuit Low	—
P2721	Pressure Control Solenoid D Control Circuit High	—
P2763	Lock-Up Duty Solenoid Circuit (High)	Perform the drive cycle A, then perform the drive cycle C.

Diagnostic procedure:

- 1) Start the engine.
- 2) Depress the brake pedal and move the select lever to each range at an interval of five seconds.

NOTE:

Shift the select lever in the order of “P” → “R” → “N” → “D” → “N” → “R” → “P”.

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3. DRIVE CYCLE B

DTC	Item	Condition
P0711	ATF Temp. Sensor Circuit Range/Performance	Perform drive cycle B twice or more.

Diagnostic procedure:

- 1) Start the engine while the ATF temperature is 20°C (68°F) or below.
- 2) Drive in any driving pattern for 20 minutes. (Include driving at a constant legal speed (for 20 seconds) at least once.)

4. DRIVE CYCLE C

DTC	Item	Condition
P0716	Torque Converter Turbine Speed	—
P0717	Input/Turbine Speed Sensor "A" Circuit No Signal	—
P0719	Brake Switch Circuit Low	Perform drive cycle C twelve times.
P0720	Output Speed Sensor Circuit	—
P0721	Output Shaft Speed Sensor Circuit Range/Performance	—
P0724	Brake Switch Circuit High	Perform drive cycle C twelve times.
P0973	Primary Solenoid System A Circuit (Low)	—
P0974	Primary Solenoid System A Circuit (High)	—
P0976	Primary Solenoid System B Circuit (Low)	—
P0977	Primary Solenoid System B Circuit (High)	—
P2750	Sec. Pulley Revolution Speed Sensor Circuit	—
P2751	Intermediate Shaft Speed Sensor "C" Circuit No Signal	—
P2763	Lock-Up Duty Solenoid Circuit (High)	Perform the drive cycle A, then perform the drive cycle C.
P2764	Lock-Up Duty Solenoid Circuit (Low)	—

Diagnostic procedure:

- 1) Start the engine.
- 2) Accelerate slowly to a legal speed, and then decelerate slowly to a stop.

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5. DRIVE CYCLE D

DTC	Item	Condition
P0713	Transmission Fluid Temperature Sensor Circuit High Input	—
P0730	Gearshift Control Performance Abnormal	—
P0746	Pressure Control Solenoid "A" Performance/Stuck Off	Perform the drive cycle D twice.
P0747	Pressure Control Solenoid "A" Stuck On	Perform the drive cycle D twice.
P0751	Shift Solenoid "A" Performance/Stuck Off	Perform the drive cycle D twice.
P0752	Shift Solenoid "A" Stuck On	Perform the drive cycle D twice.
P0756	Shift Solenoid "B" Performance/Stuck Off	Perform the drive cycle D twice.
P0757	Shift Solenoid "B" Stuck On	Perform the drive cycle D twice.
P0776	Pressure Control Solenoid "B" Performance/Stuck Off	Perform the drive cycle D twice.
P0841	Secondary Oil Pressure Sensor Performance	—
P0961	Pressure Control Solenoid "A" Control Circuit Range/Performance	—
P0965	Forward & Reverse Solenoid Function	—
P2714	Pressure Control Solenoid "D" Performance/Stuck Off	—
P2719	Pressure Control Solenoid D Control Circuit Range/Performance	—
P2757	Torque Converter Clutch Pressure Control Solenoid Control Circuit Performance/Stuck Off	Perform the drive cycle D twice.
P2758	Torque Converter Clutch Pressure Control Solenoid Control Circuit Stuck On	Perform the drive cycle D twice.

Diagnostic procedure:

- 1) Start the engine.
- 2) Drive in any driving pattern for 20 minutes. (Include driving at a constant legal speed (for 20 seconds) at least once.)

6. DRIVE CYCLE E

DTC	Item	Condition
U0073	Control Module Communication Bus Off	—
U0075	Control Module Communication Bus "PU-CAN" Off	—
U0100	Lost Communication With ECM/PCM "A"	—
U0110	Lost Communication With Drive Motor Control Module "A"	—
U0122	Lost Communication With Vehicle Dynamics Control Module	—
U0287	Lost Communication With Transmission Fluid Pump Module	—
U0293	Lost Communication With Hybrid Powertrain Control Module	—
U0401	Invalid Data Received From ECM/PCM "A"	—
U0411	Invalid Data Received From Drive Motor Control Module "A"	—
U0416	Invalid Data Received From Vehicle Dynamics Control Module	—
U0588	Invalid Data Received From Transmission Fluid Pump Module	—
U0594	Invalid Data Received From Hybrid Powertrain Control Module	—
U1100	Lost Communication With ECM/PCM PU-CAN	—
U1293	Lost Communication With Hybrid Powertrain Control Module PU-CAN	—
U1401	Invalid Data Received From ECM/PCM PU-CAN	—
U1594	Invalid Data Received From Hybrid Powertrain Control Module PU-CAN	—

Diagnostic procedure:

- 1) Start the engine.

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7. DRIVE CYCLE F

DTC	Item	Condition
P0708	Transmission Range Sensor Circuit (PRNDL Input)	—

Diagnostic procedure:

- 1) Start the engine.
- 2) Shift the select lever at intervals of 15 seconds for each range, while depressing the brake pedal.

NOTE:

Shift the select lever in the order of “P” → “R” → “N” → “D” → “N” → “R” → “P”.

8. DRIVE CYCLE G

DTC	Item	Condition
P0777	Pressure Control Solenoid "B" Stuck On	Perform the drive cycle G three times.
P0C29	Auxiliary Transmission Fluid Pump Driver Current Performance	Perform the drive cycle G three times.
P0C2A	Auxiliary Transmission Fluid Pump Motor Stalled	Perform the drive cycle G three times.
P2797	Auxiliary Transmission Fluid Pump	Perform the drive cycle G three times.

Diagnostic procedure:

- 1) Warm up the engine enough to drive in EV mode.
- 2) While driving at a legal speed, decelerate using EV coasting to a halt, and then stay in Auto Start Stop state for 10 seconds.
- 3) During EV creep driving, gently depress the accelerator pedal to enter motor drive mode.

9. DRIVE CYCLE H

DTC	Item	Condition
P0500	Vehicle Speed Sensor “A”	—

Diagnostic procedure:

- 1) Drive at 10 km/h (6 MPH) or more.
- 2) Stop the vehicle and idle for ten minutes.