**DTC Table** 

**NOTE** 

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# • There are two types of OBD system depending on the vehicle specification. For identification, refer to "Precaution on On-Board Diagnostic (OBD) System in Section 1A".

- With the CAN communication OBD generic scan tool, DTC No. with delta (△) mark in the following table can not be read.
- A: Driving cycles when MIL lighting and storing DTC in TCM memory for Euro OBD model.
- B: Driving cycles when transmission warning light lighting and storing DTC in TCM memory for non-Euro-OBD model.
- 1 driving cycle: MIL or transmission warning light lights up when DTC is detected during 1 driving cycle.
- 2 driving cycles: MIL or transmission warning light lights up when the same DTC is detected also in the next driving cycle after DTC is detected and stored temporarily in the first driving cycle.
- Driving cycle with (\*): MIL or transmission warning light does not light up but TCM detects and stores DTC.

DTC No.	Detecting item	Detecting condition (DTC will set when detecting:)	Α	В
ℱ △P0602	Control Module Programming Error	Data programming error	_	_
☞ P0705	Transmission Range Sensor Circuit Malfunction (P R N D L Input)	Multiple signals are inputted simultaneously from transmission range sensor for 10 seconds or more.	1 driving cycle	1 driving cycle
≈ P0707	Transmission Range Sensor Circuit Low	Transmission range sensor signal (P, R, N, D, 2, or L) is not inputted for more than 30 seconds when vehicle speed is higher than 30 km/h (19 mile/h).	2 driving cycles	2 driving cycles
≈ P0711	Transmission Fluid Temperature Sensor "A" Circuit Range/Performance	Transmission fluid temperature is no change and less than 20 °C (68 °F) while vehicle is running at 40 km/h (25 mile/h) or more for 10 minutes or more.	2 driving cycles	2 driving cycles*
☞ P0712	Transmission Fluid Temperature Sensor "A" Circuit Low	Transmission fluid temperature sensor signal voltage is less than specified value for more than 5 minutes while engine is running.	1 driving cycle	1 driving cycle
☞ P0713	Transmission Fluid Temperature Sensor "A" Circuit High	Transmission fluid temperature sensor signal voltage is higher than specified value for 12 minutes while vehicle is running.	1 driving cycle	1 driving cycle
☞ P0717	Input Speed Sensor "A" Circuit No Signal	Pulse signals of input shaft speed sensor are not input although pulse signals of output shaft speed sensor are input while vehicle is running.	1 driving cycle	1 driving cycle
☞ P0722	Output Speed Sensor Circuit No Signal	Pulse signals of output shaft speed sensor are not input although pulse signals of input shaft speed sensor are input while vehicle is running.	1 driving cycle	1 driving cycle
☞ P0741	Torque Converter Clutch Circuit Performance or Stuck Off	Difference between engine speed and input shaft speed is larger than specification while TCC solenoid valve is turned ON.	2 driving cycles	2 driving cycles*
☞ P0742	Torque Converter Clutch Circuit Stuck On	Difference between engine speed and input shaft speed is smaller than specification while TCC solenoid valve is turned OFF.	2 driving cycles	2 driving cycles*
☞ P0751	Shift Solenoid "A" Performance or Stuck Off	Actual gear position is different from commanded gear position of TCM (Shift solenoid valve – A does not turn ON).	2 driving cycles	2 driving cycles*
☞ P0752	Shift Solenoid "A" Stuck On	Actual gear position is different from commanded gear position of TCM (Shift solenoid valve – A does not turn OFF).	2 driving cycles	2 driving cycles*

	For Evaluation Only.				
DTC No.	Detecting item	Detecting condition (DTC will set when detecting:)	Α	В	
☞ P0756	Shift Solenoid "B" Performance or Stuck Off	Actual gear position is different from commanded gear position of TCM (Shift solenoid valve – B does not turn ON).	2 driving cycles	2 driving cycles*	
☞ P0757	Shift Solenoid "B" Stuck On	Actual gear position is different from commanded gear position of TCM (Shift solenoid valve – B does not turn OFF).	2 driving cycles	2 driving cycles*	
☞ P0961	Pressure Control Solenoid "A" Control Circuit Range/ Performance	Difference between actual current of pressure control solenoid valve and current of pressure control solenoid valve calculated by TCM is more than specification.	1 driving cycle	1 driving cycle	
☞ P0962	Pressure Control Solenoid "A" Control Circuit Low	Value of pressure control solenoid valve output current is too low for 12.5 seconds or more.	1 driving cycle	1 driving cycle	
☞ P0963	Pressure Control Solenoid "A" Control Circuit High	Value of pressure control solenoid valve output current is too high for 12.5 seconds or more.	1 driving cycle	1 driving cycle	
☞ P0973	Shift Solenoid "A" Control Circuit Low	Difference between command signal and monitor signal of shift solenoid valve – A (shift solenoid valve – A circuit is shorted to ground).	1 driving cycle	1 driving cycle	
☞ P0974	Shift Solenoid "A" Control Circuit High	Difference between command signal and monitor signal of shift solenoid valve – A (shift solenoid valve – A circuit is open or shorted to power supply circuit).	1 driving cycle	1 driving cycle	
☞ P0976	Shift Solenoid "B" Control Circuit Low	Difference between command signal and monitor signal of shift solenoid valve – B (shift solenoid valve – B circuit is shorted to ground).	1 driving cycle	1 driving cycle	
☞ P0977	Shift Solenoid "B" Control Circuit High	Difference between command signal and monitor signal of shift solenoid valve – B (shift solenoid valve – B circuit is open or shorted to power supply circuit).	1 driving cycle	1 driving cycle	
☞ P1702	Internal Control Module Memory Check Sum Error	Data write error or check sum error.	1 driving cycle	1 driving cycle	
ℱ △P1723	Range Select Switch Malfunction	"3" position switch ON signal is inputted although transmission range sensor signal is inputted P, R, N or L range.	1 driving cycle*	1 driving cycle*	
☞ P2763	Torque Converter Clutch Pressure Control Solenoid Control Circuit High	Difference between command signal and monitor signal of TCC lock-up solenoid valve (TCC lock-up solenoid valve circuit is open or shorted to power supply circuit).	1 driving cycle	1 driving cycle	
☞ P2764	Torque Converter Clutch Pressure Control Solenoid Control Circuit Low	Difference between command signal and monitor signal of TCC lock-up solenoid valve (TCC lock-up solenoid valve circuit is shorted to ground).	1 driving cycle	1 driving cycle	
ℱ U0073	Control Module Communication Bus Off	Transmission error that is inconsistent between transmission data and transmission monitor (CAN bus monitor) data is detected more than 30 times continuously.	1 driving cycle	1 driving cycle	
☞ U0100	Lost Communication With ECM / PCM "A"	Reception error of communication data for ECM is detected for longer than specified time continuously.	1 driving cycle	1 driving cycle	

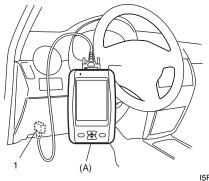
## **DTC Check**

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- There are two types of OBD system depending on the vehicle specification.
   For identification, refer to "Precaution on On-Board Diagnostic (OBD) System in Section 1A".
- For Euro OBD model, the MIL is turned on when the ECM and/or TCM detect malfunction(s). Each control module stores diagnostic information as the diagnostic trouble code (DTC) in its memory and outputs the DTC to the scan tool. Therefore, check both of the control modules for any DTC with the SUZUKI scan tool because the DTC stored in ECM and TCM is not read and displayed at a time. However, each of the control modules needs not to be checked with the CAN communication OBD generic scan tool because the DTC stored in ECM and TCM is read and displayed at a time. In case using CAN communication OBD generic scan tool, refer to "DTC Table in Section 1A".
- 1) Prepare CAN communication OBD generic scan tool or SUZUKI scan tool.
- 2) Turn ignition switch to OFF position.
- 3) Connect scan tool to data link connector (DLC) (1).

# Special tool

(A): SUZUKI scan tool (SUZUKI-SDT)



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- 4) Turn ignition switch to ON position.
- 5) Read DTC, pending DTC and freeze frame data according to instructions displayed on scan tool and print it down. Refer to scan tool operator's manual for further details.
  - If communication between scan tool and TCM is not possible, go to "Troubleshooting for Communication Error with Scan Tool Using CAN in Section 1A".
- 6) After completing the check, turn ignition switch off and disconnect scan tool from DLC.

#### **DTC Clearance**

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### **A WARNING**

When performing a driving test, select a safe place where there is neither any traffic nor any traffic accident possibility and be very careful during testing to avoid occurrence of an accident.

After repair or replace malfunction part(s), clear all DTCs by performing the following procedure.

- 1) Connect SUZUKI scan tool to data link connector in the same manner as when making this connection for "DTC Check".
- 2) Turn ignition switch to ON position.
- 3) Erase DTC and pending DTC according to instructions displayed on scan tool. Refer to scan tool operator's manual for further details.
- 4) After completing the clearance, turn ignition switch OFF and disconnect scan tool from DLC.

#### **NOTE**

DTC and freeze frame data stored in TCM memory are also cleared in the following cases. Be careful not to clear them before keeping their record.

 When the same malfunction (DTC) is not detected again during 40 engine warm-up cycles.

# Fail Safe Table

S6RW0C5104007

This function is provided by the safe mechanism that assures safe driveability even when the solenoid valve, sensor or its circuit fails. The following table shows the fail safe function for each fail condition of sensor, solenoid, TCM or its circuit.

DTC No.	Trouble area	Fail safe operation
		TCM assumes position of transmission range sensor to be the following
☞ P0705	Circuit Malfunction (P R N D	order of priority depending on input signals.
		N>R>L>2>3>D>P
☞ P0707	Transmission Range Sensor	TCM assumes shift position to be D range.
	Circuit Low	TOW assumes shift position to be Dirange.

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DTC No.	Trouble area	Fail safe operation			
☞ P0712	Transmission Fluid Temperature Sensor "A" Circuit Low	TCM assumes transmission fluid temperature to be 200 °C (392 °F) and			
☞ P0713	Transmission Fluid Temperature Sensor "A" Circuit High	controls transaxle.			
☞ P0717	Input Speed Sensor "A" Circuit No Signal	Line pressure is controlled to maximum pressure, lock-up function is inhibited and gear position is fixed according to select lever position as follows.			
☞ P0722	Output Speed Sensor Circuit No Signal	<ul> <li>D range: Fixed to 4th gear position</li> <li>3 range: Fixed to 4th gear position</li> <li>2 range: Fixed to 3rd gear position</li> <li>L range: Fixed to 1st gear position</li> </ul>			
☞ P0961	Pressure Control Solenoid "A" Control Circuit Range/ Performance	j i			
☞ P0962	Pressure Control Solenoid "A" Control Circuit Low	Line proceure is controlled to maximum proceure. look up function is			
☞ P0963	Pressure Control Solenoid "A" Control Circuit High	Line pressure is controlled to maximum pressure, lock-up function is inhibited and gear position is fixed according to select lever position as follows.			
☞ P0973	Shift Solenoid "A" Control Circuit Low	D range: Fixed to 4th gear position			
☞ P0974	Shift Solenoid "A" Control Circuit High	<ul><li> 3 range: Fixed to 4th gear position</li><li> 2 range: Fixed to 3rd gear position</li></ul>			
☞ P0976	Shift Solenoid "B" Control Circuit Low	L range: Fixed to 1st gear position			
☞ P0977	Shift Solenoid "B" Control Circuit High				
☞ P1702	Internal control module memory check sum error				
☞ P2763	Torque Converter Clutch Pressure Control Solenoid Control Circuit High	TCM is controlled as follows.  • Gear position is fixed in 1st gear when vehicle speed is 10 km/h (6 mile/h) or less.			
☞ P2764	Torque Converter Clutch Pressure Control Solenoid Control Circuit Low	Up shifting to 4th gear is inhibited when transmission fluid temperature is 150 °C (302 °F) or more.			
☞ U0073	Control Module Communication Bus Off	<ul> <li>TCM is controlled as follows.</li> <li>Line pressure is controlled to maximum pressure.</li> <li>TCM assumes throttle position signal to be 0%.</li> <li>TCM assumes engine speed to be 0 RPM.</li> <li>After 15 minutes pass from detecting malfunction, TCM assumes engine coolant temperature to be 90 °C (194 °F).</li> <li>Gear position is fixed according to select lever position as follows. <ul> <li>D range: Fixed to 4th gear position</li> <li>3 range: Fixed to 4th gear position</li> </ul> </li> </ul>			

- 2 range: Fixed to 3rd gear position - L range: Fixed to 1st gear position