COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Transmission Control Module (TCM) Read Only Memory (ROM)	P0601	To detect that the value of check sum calculations(stored in ROM memory) executed after Ignition switch is in crank or run position	If there are a difference from the correct check sum value stored in flash ROM, the second calculation is made differences twice detection is criteria	1 time	-	-	1 failure	Type A
Transmission Control Module (TCM) Random Access Memory (RAM)	P0604	To detect that the value of RAM memory executed after Ignition switch is in crank or run position	TCM cannot carry out all RAM from Step 1 to Step 4 in initialize routine.	-Step 1: TCM write 0x5A5A5A5A data in the RAM. -Step 2: TCM read 0x5A5A5A5A data from the RAM. -Step 3: TCM write 0xA5A5A5A5 data in the RAM. -Step 4: TCM read 0xA5A5A5A5 data from the RAM.	-	-	1 failure	Type B
Transmission Range Sensor Circuit Malfunction (No Signal)	P0705	To detect no signal of transmission range sensor circuit.	All switches are OFF	> 2 seconds	A voltage condition Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) Vehicle Speed No active DTC	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec >= 30 km/h TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533	28 seconds continuously	Type B
					A voltage condition Engine Speed	10.2V < Battery voltage < 18.0V for 2sec >400rpm	2 seconds continuously (per 1 failure) 5 failures	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Transmission Range Sensor Circuit Malfunction (Short)	P0706	To detect 2 or more signals of transmission range sensor circuit	more than or equal to 2 switches are ON	> 2 seconds	Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC	ON for 2sec TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533		Type B
Transmission Fluid Temperature (TFT) Sensor Performance		[Detection Case No.1] To detect Transmission Fluid Temperature (TFT) Sensor circuit by Comparision of Sensor Voltage and Input A/D value.	Comparision of Sensor Voltage and Input A/D value	Refer to Flow chart of Attachment#1.1	A voltage condition Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) Input A/D value of TFT No active DTC	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec 10 (0.05V) <= Input A/D value <= 1010 (4.94V) TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 P0705, P0706	1 failure of Detection Case No.1 or No.2 (Refer to Flow chart of Attachments#1 or #2 For details)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
	P0711	[Detection Case No.2] To detect Transmission Fluid Temperature (TFT) Sensor circuit by Comparision of Sensor Voltage and Estimation value.	Comparision of Sensor Voltage and Estimation value	Refer to Flow chart of Attachment#1.2	A voltage condition Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) Input A/D value of TFT No active DTC	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec 10 (0.05V) <= Input A/D value <= 1010 (4.94V) TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 P0717		Type B
Transmission Fluid Temperature (TFT) Sensor Circuit Low Voltage	P0712	This DTC detects a short to ground in Transmission Fluid Temperature (TFT) Sensor circuit	Input A/D value of TFT	< 10 (0.05V)	A voltage condition Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec TCM : U0001 (High Speed CAN Communication Bus)	10 seconds continuously (per 1 failure) 6 failures	Type B

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533		
Transmission Fluid Temperature (TFT) Sensor Circuit High Voltage	P0713	This DTC detects a short to high or open in Transmission Fluid Temperature (TFT) Sensor circuit	Input A/D value of TFT	> 1010 (4.94V)	A voltage condition Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) Drive time (as the following 1 condition) Transmission range sensor No active DTCs	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec > 1 min Except for P or N range for 10min TCM : P0705, P0706 U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533	1 seconds continuously (per 1 failure) 12 failures	Type B
					A voltage condition Engine Speed	10.2V < Battery voltage < 18.0V for 2sec >400rpm	500 failures (1 failure is no pulse of input shaft	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Input Speed Sensor	P0717	To detect Input shaft speed sensor circuit	The pulse of Input shaft speed sensor (while TCM detect 4 pulses of output shaft speed sensor)	No pulse	Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time of selection lever position change from P,R or N range to others Vehicle Speed calculated by output Speed sensor >= 66km/h or TFT>=20deg.C Output Shaft Speed	ON for 2sec TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 P0722 P0705, P0706 >=10sec >=2.5sec >= 600 rpm	speed sensor while TCM detect 4pulses of output shaft speed sensor.)	Type A
					A voltage condition Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec TCM : U0001 (High Speed CAN Communication Bus)	500 failures (1 failure is no pulse of output shaft speed sensor while TCM detect 178pulses of input shaft speed sensor.)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Output Speed Sensor	P0722	To detect Output shaft speed sensor circuit	The pulse of Output shaft speed sensor (while TCM detect 178 pulses of input shaft speed sensor.)	No pulse		U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 P0717 P0705, P0706		Type A
					Not in emergency mode(see the attachment#3) Time of selection lever position change from P,R or N range to others Vehicle Speed calculated by input Speed sensor >= 66km/h or TFT>=20deg.C Input revolution (rpm) / Gear ratio (For Gear ratio information, refer to Attachment#2.1)	>=10sec >=2.5sec >= 300 rpm		
					Refer to CONDITON OF TCC SOLENOID STUCK OFF/ON of attachment#2.2 A voltage condition Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM)	1 failure (Refer to CONDITON OF TCC SOLENOID STUCK OFF/ON of attachment#2.2)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Torque Converter Clutch (TCC) System –Stuck OFF	P0741	Determines if the TCC System is stuck off within the normal operating range	Comparison of Shift Solenoid Voltage and Input/Ouput shaft speed calculation.	Refer to CONDITON OF TCC SOLENOID STUCK OFF/ON of attachment#2.2		P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 P0717, P0722 P0705, P0706 P2769, P2770 P0711, P0712, P0713 ECM : P0101, P0102, P0103, P16F3, P0106 P0107, P0108, P16F3, P0171, P0172 P0201, P0202, P0203, P0204, P0300 P00B7, P0116, P0117, P0118, P0128		Type B
					Time after selection lever position from P,R,N,2,L to D Time after gear changed TCC Solenoid Time after TCC Solenoid frome Disabled to Enabled. Engine Coolant Temperature Transmission Oil Temperature Accelerator Effective Position	4.0sec 2.0 sec Enabled 2.0 sec >= 60 deg >= 20 deg >=10%		
					Refer to CONDITON OF TCC SOLENOID STUCK OFF/ON of attachment#2.2 A voltage condition Engine Speed Ignition switch is in crank or run position	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec	1 failure (Refer to CONDITON OF TCC SOLENOID STUCK OFF/ON of attachment#2.2)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Torque Converter Clutch (TCC) System –Stuck ON	P0742	Determines if the TCC System is stuck on within the normal operating range	Comparison of Shift Solenoid Voltage and Input/Ouput shaft speed calculation.	Refer to CONDITON OF TCC SOLENOID STUCK OFF/ON of attachment#2.2	Not in emergency mode(see the attachment#3) No active DTC Time after selection lever position from P,R,N,2,L to D Time after gear changed TCC Solenoid Time after TCC Solenoid frome Enabled to Disabled. Engine Coolant Temperature Transmission Oil Temperature Accelerator Effective Position	TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 P0717, P0722 P0705, P0706 P2769, P2770 P0711, P0712, P0713 ECM : P0101, P0102, P0103, P16F3, P0106 P0107, P0108, P16F3, P0171, P0172 P0201, P0202, P0203, P0204, P0300 P00B7, P0116, P0117, P0118, P0128 4.0sec 2.0 sec Disabled 2.0 sec >= 60 deg >= 20 deg >=10%		Type B

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Shift Solenoid 1 Performance –Stuck OFF	P0751	Determines if the Shift Solenoid 1 is stuck off within the normal operating range	Compare Shift Solenoid Output and Input/Output Speed Revolution calculation	Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of Attachment #2.1	Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of attachment#2.1 A voltage condition Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time after selection lever position from P,R,N,2,L to D Time after gear changed Vehicle Speed Engine Coolant Temperature Transmission Oil Temperature	 10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 P0717, P0722 P0705, P0706 P0711, P0712, P0713 ECM : P00B7, P0116, P0117, P0118, P0128 >=5.0sec >=2.0 sec >= 20 km/h >= 60 deg >= 20 deg	1 failure (Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of attachment#2.1)	Type B
					Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of attachment#2.1		1 failure	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Shift Solenoid 1 Performance –Stuck ON	P0752	Determines if the Shift Solenoid 1 is stuck on within the normal operating range	Compare Shift Solenoid Output and Input/Output Speed Revolution calculation	Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of Attachment #2.1	A voltage condition Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time after selection lever position from P,R,N,2,L to D Time after gear changed Vehicle Speed Engine Coolant Temperature Transmission Oil Temperature	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 P0717, P0722 P0705, P0706 P0711, P0712, P0713 ECM : P00B7, P0116, P0117, P0118, P0128 >= 5.0sec >= 2.0 sec >= 20 km/h >= 60 deg >= 20 deg	(Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of attachment#2.1)	Type B
					Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of attachment#2.1		1 failure	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Shift Solenoid 2 Performance –Stuck OFF	P0756	Determines if the Shift Solenoid 2 is stuck off within the normal operating range	Shift Solenoid stuck OFF	Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of attachment#2.1	A voltage condition Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time after selection lever position from P,R,N,2,L to D Time after gear changed Vehicle Speed Engine Coolant Temperature Transmission Oil Temperature	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 P0717, P0722 P0705, P0706 P0711, P0712, P0713 ECM : P00B7, P0116, P0117, P0118, P0128 5.0sec 2.0 sec >= 20 km/h >= 60 deg >= 20 deg	(Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of attachment#2.1)	Type B
Shift Solenoid 2 Performance –Stuck ON					Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of attachment#2.1 A voltage condition	10.2V < Battery voltage < 18.0V for 2sec	1 failure (Refer to CONDITION OF SHIFT	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
	P0757	Determines if the Shift Solenoid 2 is stuck on within the normal operating range	Shift Solenoid stuck ON	Refer to CONDITION OF SHIFT SOLENOID MALFUNCTION of attachment#2.1	Engine Speed Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time after selection lever position from P,R,N,2,L to D Time after gear changed Vehicle Speed Engine Coolant Temperature Transmission Oil Temperature	>400rpm ON for 2sec TCM : U0001 (High Speed CAN Communication Bus) U0100 (Lost Communication with ECM) P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 P0717, P0722 P0705, P0706 P0711, P0712, P0713 ECM : P00B7, P0116, P0117, P0118, P0128 5.0sec 2.0 sec >= 20 km/h >= 60 deg >= 20 deg	SOLENOID MALFUNCTION of attachment#2.1)	Type B
Timing Solenoid (ST) Electrical (GND short)					A voltage condition Ignition switch is in crank or run position	10.2V < Battery voltage < 18.0V for 2sec ON for 2sec	3 failures 500ms continuously (per 1 failure)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
	P0787	This DTC detects a short to ground in the Timing Solenoid circuit.	Timing Solenoid Voltage (when TCM command “ON” signal (12V) to timing solenoid.)	=0V (“OFF” signal)	Not in emergency mode(see the attachment#3) No active DTC Time after Shift solenoid output changed	 TCM : P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 25ms		Type A
Timing Solenoid (ST) Electrical (open, IG short)	P0788	This DTC detects a short to high or open in the Timing Solenoid circuit.	Timing Solenoid Voltage (when TCM command “OFF” signal (0V) to timing solenoid.)	=12V (“ON” signal)	A voltage condition Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time after Shift solenoid output changed	10.2V < Battery voltage < 18.0V for 2sec ON for 2sec TCM : P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 25ms	3 failures 500ms continuously (per 1 failure)	Type A
Pressure Control (PC) Solenoid Control Circuit Low Voltage	P0962	This DTC detects a short to ground or open in the Pressure Control Solenoid circuit.	Input A/D value of Pressure Control Solenoid	< 68(0.018V)	A voltage condition Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC	10.2V < Battery voltage < 18.0V for 2sec ON for 2sec TCM : P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533	25 failures 500ms continuously (per 1 failure)	Type A

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Pressure Control (PC) Solenoid Control Circuit High Voltage	P0963	This DTC detects a short to high in thePressure Control Solenoid circuit.	Input A/D value of Pressure Control Solenoid	>= 1000(0.257V)	A voltage condition Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC	10.2V < Battery voltage < 18.0V for 2sec ON for 2sec TCM : P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533	1 failure 500ms continuously (per 1 failure)	Type A
Shift Solenoid 1 Control Circuit Low Voltage	P0973	This DTC detects a short to ground in the Shift Solenoid 1 circuit.	Shift Solenoid 1 Voltage (when TCM command “ON” signal (12V) to shift solenoid 1.)	=0V (“OFF” signal)	A voltage condition Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time after Shift solenoid output changed	10.2V < Battery voltage < 18.0V for 2sec ON for 2sec TCM : P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 25ms	1 failure 500ms continuously (per 1 failure)	Type A
Shift Solenoid 1 Control Circuit High Voltage	P0974	This DTC detects a short to high or open in the Shift Solenoid 1 circuit.	Shift Solenoid 1 Voltage (when TCM command “OFF” signal (0V) to shift solenoid 1.)	=12V (“ON” signal)	A voltage condition Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC	10.2V < Battery voltage < 18.0V for 2sec ON for 2sec TCM :	1 failure 500ms continuously (per 1 failure)	Type A

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533		
					Time after Shift solenoid output changed	25ms		
Shift Solenoid 2 Control Circuit Low Voltage	P0976	This DTC detects a short to ground in the Shift Solenoid 2 circuit.	Shift Solenoid 2 Voltage (when TCM command “ON” signal (12V) to shift solenoid 2.)	=0V (“OFF” signal)	A voltage condition Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time after Shift solenoid output changed	10.2V < Battery voltage < 18.0V for 2sec ON for 2sec TCM : P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 25ms	1 failure 500ms continuously (per 1 failure)	Type A
Shift Solenoid 2 Control Circuit High Voltage	P0977	This DTC detects a short to high or open in the Shift Solenoid 2 circuit.	Shift Solenoid 2 Voltage (when TCM command “OFF” signal (0V) to shift solenoid 2.)	=12V (“ON” signal)	A voltage condition Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time after Shift solenoid output changed	10.2V < Battery voltage < 18.0V for 2sec ON for 2sec TCM : P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 25ms	1 failure 500ms continuously (per 1 failure)	Type A

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
IG Voltage	P2533	This DTC checks the Ignition Voltage circuit for electrical integrity.	Ignition Circuit Voltage	=0V	Not in emergency mode(see the attachment#3) No active DTCs Engine Speed Battery voltage	TCM : U0001 , U0100 P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 > 400 rpm. > 9 V	20 failures 1000 ms continuously (per 1 failure)	Type A
Ignition Accessory Switch Circuit	P2536	This DTC checks the Ignition Accessory Voltage circuit for electrical integrity.	Ignition Accessory Switch Circuit Voltage	=0V	A voltage condition Engine Speed Ignition switch is in crank or run position No active DTCs	10.2V < Battery voltage < 18.0V for 2sec >400rpm ON for 2sec TCM : U0001 , U0100	20 failures 1000 ms continuously (per 1 failure)	Type C
Torque Converter Clutch (TCC) Enable Solenoid Control Circuit Low Voltage	P2769	This DTC detects a short to ground in the TCC Enable Solenoid Control circuit.	TCC Enable Solenoid Voltage (when TCM command “ON” signal (12V) to TCC Enable Solenoid.)	=0V (“OFF” signal)	A voltage condition Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time after TCC Enable solenoid output changed	10.2V < Battery voltage < 18.0V for 2sec ON for 2sec TCM : P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 25ms	1 failure 500ms continuously (per 1 failure)	Type B

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Torque Converter Clutch (TCC) Enable Solenoid Control Circuit High Voltage	P2770	This DTC detects a short to high or open in the TCC Enable Solenoid Control circuit.	TCC Enable Solenoid Voltage (when TCM command “OFF” signal (0V) to TCC Enable Solenoid.)	=12V (“ON” signal)	A voltage condition Ignition switch is in crank or run position Not in emergency mode(see the attachment#3) No active DTC Time after TCC Enable solenoid output changed	10.2V < Battery voltage < 18.0V for 2sec ON for 2sec TCM : P0974, P0973, P0977, P0976, P0788 P0787, P0963, P0962, P0601, P2533 25ms	1 failure 500ms continuously (per 1 failure)	Type B
High Speed CAN Communication Bus	U0001	This DTC monitors for BUS OFF condition	BUS ON/OFF state from CAN Controller	=“BUS OFF”	A voltage condition	10.2V < Battery voltage < 18.0V for 2sec	7 failures (Bus OFF from CAN Controller.)	Type A
Lost Communication with ECM	U0100	This DTC monitors for a loss of communication with ECM	Message(ID 0x0C9 or 0x191 or 0x1A1 or 0x4C1) is not received from ECM for this many seconds	200ms continuously	A voltage condition No active DTC	10.2V < Battery voltage < 18.0V for 2sec TCM : U0001	10 failures 200ms continuously (per 1 failure)	Type A
Lost Communication with Body Control Module (IPC)	U0140	This DTC monitors for a loss of communication with IPC	Message(ID 0x0F1, 0x1F1, 0x1F3) is not received from IPC for this many seconds	200ms continuously	A voltage condition No active DTC	10.2V < Battery voltage < 18.0V for 2sec TCM : U0001	10 failures 200ms continuously (per 1 failure)	Type C