

09 OBDG11 TRANS Diagnostics

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Transmission Control Module (TCM)	P0601	Transmission Control Module Read Only Memory (ROM)	Incorrect program/calibrations checksum	= TRUE	None	None	> 5 Rom Test Fail Counter	One Trip
Transmission Control Module (TCM)	P0602	Transmission Control Module Not Programmed	Non-Programmed TECHM Failure	= TRUE	None	None		One Trip
Transmission Control Module (TCM)	P0603	Transmission Control Module Long-Term Memory Reset	Non-volatile memory (static or dynamic) checksum failure	= TRUE	None	None		One Trip
Transmission Control Module (TCM)	P0604	Transmission Control Module Random Access Memory	RAM Read/Write Failure (Single Word)	= TRUE	None	None	>= 5 Count	One Trip
Transmission Control Module (TCM)	P062F	Transmission Control Module Long Term Memory Performance	TCM Non-Volatile Memory bit Incorrect flag	= TRUE	None	None		One Trip

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Transmission Fluid Temperature Sensor (TFT)	P0711	Trans Fluid Temp Sensor Circuit Range/Performance	<u>Fail Case 1</u> TFT Delta from Startup	<= 2 C°	Vehicle Speed >= 8 Kph Vehicle Speed Above min for >= 300 Sec TCC Slip >= 120 RPM TCC Slip above min for >= 300 Sec Transmission Fluid Temperature Lo >= -39 C° Transmission Fluid Temperature High <= 20 C° Engine Coolant Temp >= 70 C° Engine Coolant Temp Delta >= 55 C°		>= 80 Fail Time (Sec)	Special No Trip
			<u>Fail Case 2</u> TFT Delta from startup	< 2 C°	Vehicle Speed >= 8 Kph Vehicle Speed Above min for >= 300 Sec TCC Slip >= -20 RPM TCC Slip above min for >= 0 Sec Transmission Fluid Temperature >= 129 C° Transmission Fluid Temperature <= 149 C° Engine Coolant Temp >= 70 C° Engine Coolant Temp Delta from startup >= 55 C°		>= 80 Fail Time (Sec)	
			<u>Fail Case 3</u>	TFT Delta >= 20 C°			>= 14 Fail Counts (100ms loop) < 7 Sample Time (Sec)	
			<u>Fail Case 4</u> Transmission Fluid Temperature	<= 20 C°	Engine Torque Lo >= 50 N*m Engine Torque Hi <= 1492 N*m Throttle Position Lo >= 8.0002 Pct Throttle Position Hi <= 89.999 Pct Vehicle Speed Lo >= 8 Kph Vehicle Speed Hi <= 511 Kph Engine Speed Lo >= 500 RPM Engine Speed Hi <= 6500 RPM	>= Refer to Table 1	Fail Time (Sec)	

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					Engine Coolant Lo Engine Coolant Hi Engine Torque Signal Valid Throttle Position Signal Valid Engine Speed Status Valid	>= -39 C° <= 149 C° = TRUE = TRUE = TRUE		
					P0711 Common Enable Conditions Transmission Fluid Temperature Lo Transmission Fluid Temperature Hi Ignition Voltage Ignition Voltage Engine speed Engine speed above min for Engine speed above min for Engine Speed Engine Speed Engine speed between min/max for Engine Speed Status Valid Engine Coolant Sensor Signal Valid	>= -39 C° <= 149 C° >= 8 V <= 18 V Refer to RPM Table 4 Refer to Sec Table 5 >= 5 Sec >= 500 RPM <= 6500 RPM >= 5 Sec = TRUE = TRUE Boolean		
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723, P0742, ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0116, P0117.		

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.	
						P0118, P0125, P0128, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E			
Transmission Fluid Temperature Sensor (TFT)	P0712	Transmission fluid temperature thermistor failed at a high temperature (short to ground).	TFT resistance	<= 48 Ω			>= 12	Fail Time (Sec)	Special No Trip
					Ignition Voltage Ignition Voltage Engine Speed Engine Speed Engine speed between min/max for Engine Speed Status Valid	>= 8 V <= 18 V >= 500 RPM <= 6500 RPM >= 5 Sec = TRUE			

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.	
					Disable Conditions: MIL not Illuminated for DTC's:	TCM: None ECM: P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391			
Transmission Fluid Temperature Sensor (TFT)	P0713	Transmission fluid temperature thermistor failed at a low temperature (open or short to power).	TFT resistance	>= 97292 Ω			>= 80	Fail Time (Sec)	Special No Trip
					Output Speed >= 70 RPM Output Speed above min for >= 200 Sec TCC Slip speed >= 120 RPM TCC Slip Speed above min for >= 200 sec Ignition Voltage >= 8 V Ignition Voltage <= 18 V Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE				
					Disable Conditions: MIL not Illuminated for DTC's:	TCM: P0716, P0717 ECM: P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391			
Transmission Input Speed Sensor (TISS)	P0716	Input Speed Sensor Performance	Input speed drop Δ	>= 1000 RPM		Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM	>= 3.25 sec	Two Trips	

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Engine Speed Engine speed between min/max for Engine Speed Status Valid Engine Torque Engine Torque Engine Torque Signal Valid Vehicle Speed Input Speed min Input Speed above min for Positive ISS Δ Positive ISS Δ less than min for Throttle Throttle Position Signal Valid	<= 6500 RPM >= 5 Sec = TRUE >= 50 N*m <= 1492 N*m = TRUE >= 16 KPH > 1050 RPM >= 2 Sec < 500 RPM >= 2 Sec >= 8.0002 Pct = TRUE		
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0717, P0722, P0723, P0752, P0973, P0974 ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302,		

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E		
Transmission Input Speed Sensor (TISS)	P0717	Input Speed Sensor Circuit Low Voltage	input speed	< 50 RPM	Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE Engine Torque >= 50 N*m Engine Torque <= 1492 N*m Engine Torque Signal Valid = TRUE Vehicle Speed >= 16 Kph		>= 4.5 Sec	Two Trips

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0722, P0723 ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E		
Transmission Output Speed Sensor (TOSS)	P0722	Output Speed Sensor Circuit Low Voltage	TOSS	<= 50 rpm	Ignition Voltage Ignition Voltage	>= 8 volts <= 18 volts	>= 4.5 Sec	Two Trips

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.	
					Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE Engine Torque min & Range= R or D >= 50 N*m Engine Torque max & Range= R or D <= 1492 N*m Engine Torque min & Range= P/N >= 1492 N*m Engine Torque max & Range= P/N <= 1492 N*m Engine Torque Signal Valid = TRUE Throttle Position >= 8.0002 % Throttle Position Signal Valid = TRUE Input Speed >= 1500 RPM Input Speed <= 6500 RPM TCC Slip >= -20 RPM Trans Temp >= -40 C	Disable Conditions: MIL not illuminated for DTC's:	TCM: P0716, P0717, P0722 ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207,		

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E		
Transmission Output Speed Sensor (TOSS)	P0723	Output Speed Sensor Circuit Intermittent	Output Speed Drop Δ	> 420 RPM	Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE Range Change Timer >= 6 Sec 4WD Range Timer >= 6 Sec Input Speed Δ < 500 RPM Input Speed Δ <max for >= 2 Sec Raw Output Speed min > 350 RPM Raw Output Speed > min for >= 2 Sec Positive Output Speed Δ <= 175 RPM Positive Output Speed Δ <max for >= 2 Sec		>= 3.25 Sec	Two Trips

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0974 ECM: P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391		
Torque Converter Clutch (TCC)	P0741	TCC System Stuck OFF	TCC Slip Error	>= Refer to table 3 RPM			>= 8 Sec >= 2 Count	Two Trips
					Ignition Voltage >= 8 V Ignition Voltage <= 18 V Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE Engine Torque >= 50 N*m Engine Torque <= 1492 N*m Throttle Position >= 8.0002 % Throttle Position <= 89.999 % 2nd Gear Ratio >= 1.458 Ratio 2nd Gear Ratio <= 1.678 Ratio 3rd Gear Ratio >= 0.9301 Ratio 3rd Gear Ratio <= 1.0699 Ratio 4th Gear Ratio >= 0.656 Ratio 4th Gear Ratio <= 0.754 Ratio TFT >= 20 C TFT <= 130 C TCC Capacity >= 64.999 % TCC Capacity Timer >= 2 sec TCC Mode = On or Lock PTO Active = FALSE Engine Torque Status Valid = TRUE Throttle Position Signal Valid = TRUE If 4L80E Cmd Gear ≠ 4th			

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				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723, P0742, P0842, P0843, P2763, P2764, P2769, P2770 ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336,		

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0346, P0365, P0366, P0390, P0391, P0401, P042E		
Torque Converter Clutch (TCC)	P0742	TCC System Stuck ON	TCC Slip Speed	>= -20 RPM			>= 6 Sec	Two Trips
			TCC Slip Speed	<= 20 RPM		= 3 Count		
					Ignition Voltage >= 8 V Ignition Voltage <= 18 V Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE Engine Torque >= 50 N*m Engine Torque <= 1492 N*m TFT >= 20 C TFT <= 130 C Throttle Position >= 8.0002 % Throttle Position <= 89.999 % Vehicle Speed >= 16 KPH Vehicle Speed <= 511 KPH Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Gear Ratio >= 0.656 Ratio Gear Ratio <= 1.678 Ratio Commanded Gear ≠ 1st Gear TCC Mode = Off Engine Torque Status Valid = TRUE Throttle Position Signal Valid = TRUE PTO Active = FALSE			

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723, P0741, P2762, P2763, P2764, P2769, P2770 ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340,		

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						P0365, P0366, P0390, P0391, P0401, P042E			
Shift solenoid A Performance	P0751	Shift Solenoid Valve A Stuck Off 2-2-3-3	Fail Case 1	1st gear low ratio multiplier	>= 0.949951172 Pct			= 2 Sec	Two Trips
				1st gear high ratio multiplier	<= 1.050048828 Pct				
			Fail Case 2	4th gear low ratio multiplier	>= 0.949951172 Pct			= 2 Sec	
				4th gear high ratio multiplier	<= 1.050048828 Pct				
							= 2 counts		
					Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE Gear Slip >= 150 RPM Gear Slip Fail Time >= 0.5 Sec Throttle >= 8.0002 Pct Engine Torque >= 50 N*m Output Speed >= 50 RPM Input Speed >= 50 RPM 4WD Range Timer >= 6 Sec Range Change Timer >= 6 Sec PTO Active = FALSE Trans Temp >= 20 C Trans Temp <= 130 C Engine Torque Signal Valid = TRUE Throttle Position Signal Valid = TRUE				

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				<p>Disable Conditions:</p>	<p>MIL not Illuminated for DTC's:</p>	<p>TCM: P0716, P0717, P0722, P0723, P0973, P0974, P0976, P0977, P1915, P182A, P182C, P182D, P182E, P182F, P0741, P0742, P2763, P2764, P2769, P2770</p> <p>ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, -----</p>		

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						P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E			
Shift solenoid A Performance	P0752	Shift Solenoid Valve A Stuck On 1-1-4-4	Fail Case 1	2nd gear low ratio multiplier	>= 0.949951172 Pct			= 2 Sec	Two Trips
				2nd gear high ratio multiplier	<= 1.050048828 Pct				
			Fail Case 2	3rd gear low ratio multiplier	>= 0.949951172 Pct			= 2 Sec	
				3rd gear high ratio multiplier	<= 1.050048828 Pct				
							= 2 counts		
					Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE Gear Slip >= 150 RPM Gear Slip Fail Time >= 0.5 Sec Throttle >= 8.0002 Pct Engine Torque >= 50 N*m Output Speed >= 50 RPM Input Speed >= 50 RPM 4WD Range Timer >= 6 Sec Range Change Timer >= 6 Sec PTO Active = FALSE Trans Temp >= 20 C Trans Temp <= 130 C Engine Torque Signal Valid = TRUE Throttle Position Signal Valid = TRUE				

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				<p>Disable Conditions:</p>	<p>MIL not Illuminated for DTC's:</p>	<p>TCM: P0716, P0717, P0722, P0723, P0973, P0974, P0976, P0977, P1915, P182A, P182C, P182D, P182E, P182F, P0741, P0742, P2763, P2764, P2769, P2770</p> <p>ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301,</p>		

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						P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E			
Shift solenoid B Performance	P0756	Shift Solenoid Valve B Stuck On 4-3-3-4	Fail Case 1	1st gear low ratio multiplier	>= 0.949951172 Pct			= 2 Sec	One Trip
				1st gear high ratio multiplier	<= 1.050048828 Pct				
			Fail Case 2	2nd gear low ratio multiplier	>= 0.949951172 Pct			= 2 Sec	
				2nd gear high ratio multiplier	<= 1.050048828 Pct				
							= 2 counts		
					Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE Gear Slip >= 150 RPM Gear Slip Fail Time >= 0.5 Sec Throttle >= 8.0002 Pct Engine Torque >= 50 N*m Output Speed >= 50 RPM Input Speed >= 50 RPM 4WD Range Timer >= 6 Sec Range Change Timer >= 6 Sec PTO Active = FALSE Trans Temp >= 20 C Trans Temp <= 130 C Engine Torque Signal Valid = TRUE Throttle Position Signal Valid = TRUE				

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				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723, P0973, P0974, P0976, P0977, P1915, P182A, P182C, P182D, P182E, P182F, P0741, P0742, P2763, P2764, P2769, P2770 ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301,		

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						P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E			
Shift solenoid B Performance	P0757	Shift Solenoid Valve B Stuck Off 1-2-2-1	<u>Fail Case 1</u>	3rd gear low ratio multiplier	>= 0.949951172 Pct			= 2 Sec	One Trip
				3rd gear high ratio multiplier	<= 1.050048828 Pct				
			<u>Fail Case 2</u>	4th gear low ratio multiplier	>= 0.949951172 Pct			= 2 Sec	
				4th gear high ratio multiplier	<= 1.050048828 Pct				
							= 2 counts		
					Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE Gear Slip >= 150 RPM Gear Slip Fail Time >= 0.5 Sec Throttle >= 8.0002 Pct Engine Torque >= 50 N*m Output Speed >= 50 RPM Input Speed >= 50 RPM 4WD Range Timer >= 6 Sec Range Change Timer >= 6 Sec PTO Active = FALSE Trans Temp >= 20 C Trans Temp <= 130 C Engine Torque Signal Valid = TRUE Throttle Position Signal Valid = TRUE				

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				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723, P0973, P0974, P0976, P0977, P1915, P182A, P182C, P182D, P182E, P182F, P0741, P0742, P2763, P2764, P2769, P2770 ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, -----		

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						P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E		
Transmission Fluid Pressure Switch	P0842	TCC release switch circuit low voltage	TCC release switch state = Closed				>= 10 Sec >= 2 count	Two Trips
					Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for TFT >= 5 Sec TFT >= 20 C TFT <= 130 C Vehicle Speed >= 16 KPH Vehicle Speed <= 511 KPH Engine Torque >= 50 Nm Engine Torque <= 1492 Nm TCC Slip >= 100 RPM TCC Mde = OFF Torque Validity Flag = Valid Engine Speed Status Valid = TRUE			

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				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0741, P0742, P0843, P0894, P2763, P2764, P2769, P2770 ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340,		

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						P0365, P0366, P0390, P0391, P0401, P042E		
Transmission Fluid Pressure Switch	P0843	TCC release switch circuit high voltage	TCC release switch state	=	Open		>= 6 Sec	Two Trips
						>= 2 count		
					Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for TFT >= 5 Sec TFT >= 20 C TFT <= 130 C TCC Pressure >= 125 Kpa TCC Pressure <= 830 Kpa Engine Torque >= 50 Nm Engine Torque <= 1492 Nm TCC Slip >= -20 RPM TCC Slip <= 60 RPM TCC Mde = On or Lock Engine Torque Status Valid = TRUE Engine Speed Status Valid = TRUE			
				Disable Conditions:	MIL not illuminated for DTC's:	TCM: P0716, P0717, P0741, P0742, P0843, P0894, P2763, P2764, P2769, P2770 ECM: P0101, P0102, P0103,		

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.	
						P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E			
Shift Solenoid	P0973	Shift Solenoid A Control Circuit Low Voltage	hardware circuitry detects open or short to ground	= TRUE			>= 44	Fail Count (100ms loop)	Two Trips
							Out of 50	Sample Counts (100ms loop)	

09 OBDG11 TRANS Diagnostics

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.	
					Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE	= TRUE Disable Conditions: MIL not Illuminated for DTC's: TCM: None ECM: P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391			
Shift Solenoid	P0974	Shift Solenoid A Control Circuit High Voltage	hardware circuitry detects a short to voltage	= TRUE			>= 44	Fail Count (100ms loop)	Two Trips
							Out of 50	Sample Counts (100ms loop)	
					Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE				

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.	
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None ECM: P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391			
Shift Solenoid	P0976	Shift Solenoid B Control Circuit Low Voltage	hardware circuitry detects open or short to ground	= TRUE			>= 44	Fail Count (100ms loop)	One Trip
							Out of 50	Sample Counts (100ms loop)	
					Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE	Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None ECM: P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391	

09 OBDG11 TRANS Diagnostics

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.	
Shift Solenoid	P0977	Shift Solenoid B Control Circuit High Voltage	hardware circuitry detects a short to voltage	= TRUE			>= 44	Fail Count (100ms loop)	One Trip
							Out of 50	Sample Counts (100ms loop)	
					Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for Engine Speed Status Valid = TRUE				
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None ECM: P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391			
Internal Mode Switch (IMS)	P182A	Internal Mode Switch-Circuit A	IMS circuit A low	= TRUE			>= 8 sec		Two Trips
							>= 1 count		
					Engine Torque >= 50 N*m Engine Torque <= 1492 N*m Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for Engine Speed Status Valid = TRUE Engine Torque Signal Valid = TRUE Range = Park for >= 1 sec				

09 OBDG11 TRANS Diagnostics

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Disable Conditions: MIL not Illuminated for DTC's:	TCM: None ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E		
Internal Mode Switch (IMS)	P182C	Internal Mode Switch-Circuit B	IMS circuit B High	= TRUE			>= 8 sec >= 1 count	Two Trips
					Engine Torque	>= 50 N*m		

09 OBDG11 TRANS Diagnostics

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Engine Torque Ignition Voltage Ignition Voltage Engine Speed Engine Speed Engine speed between min/max for Engine Speed Status Valid Engine Torque Signal Valid Range = Park for	<= 1492 N*m >= 8 volts <= 18 volts >= 500 RPM <= 6500 RPM >= 5 Sec = TRUE = TRUE >= 1 sec		
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346,		

09 OBDG11 TRANS Diagnostics

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0365, P0366, P0390, P0391, P0401, P042E		
Internal Mode Switch (IMS)	P182D	Internal Mode Switch-Circuit P	IMS circuit P Low	= TRUE			>= 8 sec >= 1 count	Two Trips
						Engine Torque >= 50 N*m Engine Torque <= 1492 N*m Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for >= 5 Sec Engine Speed Status Valid = TRUE Engine Torque Signal Valid = TRUE Range = Park for >= 1 sec	Disable Conditions: MIL not illuminated for DTC's: TCM: None ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302,	

09 OBDG11 TRANS Diagnostics

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0303, P0304, P0305, P0306, P0307, P0308, P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391, P0401, P042E		
Internal Mode Switch (IMS)	P182E	Internal Mode Switch-Invalid	IMS Range Illegal	= TRUE			>= 8 sec	Two Trips
					Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Engine Speed >= 500 RPM Engine Speed <= 6500 RPM Engine speed between min/max for Engine Speed Status Valid >= 5 Sec = TRUE	Disable Conditions: MIL not Illuminated for DTC's: TCM: None ECM: P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391		
Internal Mode Switch (IMS)	P182F	Internal Mode Switch-Circuit C	IMS circuit C High	= TRUE			>= 8 sec	Two Trips
					Engine Torque >= 50 N*m Engine Torque Signal Valid = TRUE Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts Vehicle Speed >= 16 kph	>= 1 count		

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					1st gear ratio low >= 2.717 Ratio 1st gear ratio High <= 3.125 Ratio 2nd gear ratio low >= 1.458 Ratio 2nd gear ratio High <= 1.678 Ratio 3rd gear ratio low >= 0.9301 Ratio 3rd gear ratio High <= 1.0699 Ratio 4th gear ratio low >= 0.656 Ratio 4th gear ratio High <= 0.754 Ratio			
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0722, P0723 ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0401, P042E		
Internal Mode Switch (IMS)	P1915	Internal Mode Switch-Start in Wrong Range	Range= Park or Neutral	= FALSE TRUE			>= 2 sec	Two Trips
					Ignition Voltage >= 8 volts Ignition Voltage <= 18 volts			

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.	
					Engine Speed Power Mode Crank request	>= 560 RPM = Crank <= 409 Sec			
					Disable Conditions: MIL not Illuminated for DTC's:	TCM: None ECM: None			
Ignition 1 Circuit Low Voltage	P2534	No Ignition Voltage at the TCM	Ignition 1 (run/crank) input	<= 2 volt			>= 200 Out of 220 Fail Count (25ms loop) Sample Count (25ms loop)	One Trip	
						Engine running state from ECM Power Mode			= Running = Acc or Run
TCC PWM Solenoid	P2763	TCC PWM Solenoid circuit high voltage	Hardware circuitry detects a short to voltage	= TRUE			>= 44 Out of 50 Fail Count (100ms loop) Sample Counts (100ms loop)	Two Trips	
					Ignition Voltage Ignition Voltage Engine Speed	>= 8 V <= 18 V >= 500 RPM			

09 OBDG11 TRANS Diagnostics

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.	
					Engine Speed Engine speed between min/max for Engine Speed Status Valid TCC PWM command	<= 6500 RPM >= 5 Sec = TRUE = ON			
					Disable Conditions: MIL not Illuminated for DTC's:	TCM: None ECM: P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391			
TCC PWM Solenoid	P2764	TCC PWM Solenoid circuit low voltage	Hardware circuitry detects open or short to ground	= TRUE			>= 44	Fail Count (100ms loop)	Two Trips
							Out of 50	Sample Counts (100ms loop)	
					Ignition Voltage Ignition Voltage Engine Speed Engine Speed Engine speed between min/max for Engine Speed Status Valid TCC PWM command	>= 8 V <= 18 V >= 500 RPM <= 6500 RPM >= 5 Sec = TRUE = OFF			

09 OBDG11 TRANS Diagnostics

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.	
					Disable Conditions: MIL not Illuminated for DTC's:	TCM: None ECM: P0335, P0336, P0340, P0345, P0346, P0365, P0366, P0390, P0391			
Communication	U0073	Controller Area Network Bus Communication Error	CAN Bus Detects Invalid Message Error	= TRUE Boolean			>= 5 Out of 5	Fail Count (1000ms loop) Sample Counts (1000ms loop)	Two Trips
					Ignition On Disable Conditions: MIL not Illuminated for DTC's:	TCM: None ECM: None			
Communication	U0100	Lost Communications with Engine Control System	Comm. Message Invalid Between ECU and TCM	= TRUE Boolean			>= 12 Out of 12	Fail Count (1000ms loop) Sample Counts (1000ms loop)	Two Trips
					Ignition Voltage Low Ignition Voltage High Power Mode	>= 11 Volt <= 18 Volt = Run			

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COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				<p align="center">Disable Conditions:</p>	<p>MIL not Illuminated for DTC's:</p>	<p>TCM: U0073</p> <p>ECM: None</p>		

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Supporting Tables

Table 1

Axis	-40	-25	-10	5	20	Units Deg C
Curve	1900	1000	800	520	200	Sec

Table 2

Axis	0	6.248474	12.49695	18.74542	24.9939	31.24237	37.49084	43.73932	49.98779	56.23627	62.48474	68.73322	74.98169	81.23016	87.47864	93.72711	99.97559	Units PCT
Curve	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624	624	Kpa

Table 3

Axis	0	64	128	192	256	320	384	448	512	Units Nm
Curve	125	125	125	125	125	125	125	125	125	RPM

Table 4

Axis	-40	-16.25	7.5	31.25	55	78.75	102.5	126.25	150	Units Deg C
Curve	600	400	400	400	400	400	400	400	400	RPM

Table 5

Axis	-40	7.5	55	102.5	150	Units Deg C
Curve	0.1	0.15	0.2	0.3	0.3	Sec