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 Electro-Hydraulic Control Module Read Only Memory	Incorrect program/calibrations checksum	=	TRUE	Boolean			>= 5	Fail Counts	One Trip
							Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0601 ECM: None		
Transmission Control Module (TCM)	P0603	Transmission Electro-Hydraulic Control Module Long-Term Memory Reset	Non-volatile memory (static or dynamic) checksum failure at Powerup	=	TRUE	Boolean			Runs Contin ously		One Trip
							Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0603 ECM: None		
Transmission Control Module (TCM)	P0604	Transmission Electro-Hydraulic Control Module Random Access Memory	RAM Read/Write Failure (Single Word)	=	TRUE	Boolean			>= 5	Fail Counts	One Trip
									= 16	Sample Counts	
							Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0604 ECM: None		
Transmission Control Module (TCM)	P062F	Transmission Electro-Hydraulic Control Module Long Term Memory Performance	TCM Non-Volatile Memory bit Incorrect flag at Powerdown	=	TRUE	Boolean			Runs Contin ously		One Trip
							Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P062F ECM: None		
Transmission Control Module (TCM)	P0634	Transmission Electro-Hydraulic Control Module Internal Temperature Too High	Fail Case 1 Substrate Temperature	>=	144	ºC			>= 5	Fail Time (Sec)	One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
			Fail Case 2 Substrate Temperature	>=	50	ºC					>=	2 Fail Time (Sec)	
			Ignition Voltage	>=	18	Volts							
			Note: either fail case can set the DTC										
							Ignition Voltage Lo	>=	9	Volts			
							Ignition Voltage Hi	<=	31.99	Volts			
							Substrate Temp Lo	>=	0	ºC			
							Substrate Temp Hi	<=	240	ºC			
							Substrate Temp Between Temp Range for Time	>=	0.25	Sec			
							P0634 Status is	≠	Test Failed This Key On or Fault Active				
						Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None					
								ECM: None					
High Side Driver 1	P0658	Actuator Supply Voltage Circuit Low	The HWIO reports a low voltage (open or ground short) error flag	=	TRUE	Boolean					>=	3 Fail Counts	One Trip
											out of	5 Sample Counts	
							P0658 Status is not	=	Test Failed This Key On or Fault Active				
							High Side Driver 1 On	=	True	Boolean			
						Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None					
								ECM: None					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS		TIME REQUIRED		MIL ILLUM.
Transmission Control Module (TCM)	P0667	TCM Internal Temp (substrate) Sensor Circuit Range/Performance	If transmission oil temp to substrate temp Δ	> Refer to Table 19 in supporting documents °C						Two Trips
			If TCM substrate temp to power up temp Δ	> Refer to Table 20 in supporting documents °C						
			Both conditions above required to increment fail counter					>= 3000	Fail Counts (100ms loop)	
			Note: table reference temp = to the median temp of trans oil temp, substrate temp and power up temp.					Out of 3750	Sample Counts (100ms loop)	
			Non-continuous (intermittent) fail conditions will delay resetting fail counter until					>= 700	Pass Counts (100ms loop)	
								Out of 875	Sample Counts (100ms loop)	
					Engine Torque Signal Valid	=	TRUE Boolean			
					Accelerator Position Signal Valid	=	TRUE Boolean			
					Ignition Voltage Lo	>=	9 Volts			
					Ignition Voltage Hi	<=	31.99 Volts			
					Engine Speed Lo	>=	400 RPM			
					Engine Speed Hi	<=	7500 RPM			
					Engine Speed is within the allowable limits for	>=	5 Sec			
					Brake torque active	=	FALSE			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					Below describes the brake torque entry criteria					
					Engine Torque	>=	90	N*m		
					Throttle	>=	30	Pct		
					Transmission Input Speed	<=	200	RPM		
					Vehicle Speed	<=	8	Kph		
					Transmission Range	≠	Park			
					Transmission Range	≠	Neutral			
					PTO	=	Not Active			
					Set Brake Torque Active TRUE if above conditions are met for:	>=	7	sec		
					Below describes the brake torque exit criteria					
					Brake torque entry criteria	=	Not Met			
					Clutch hydraulic pressure	≠	Clutch Hydraulic Air Purge Event			
					Clutch used to exit brake torque active	=	CeTFTD_e_C3_Ratl Enbl			
					The above clutch pressure is greater than this value for one loop	>=	600	kpa		
					Set Brake Torque Active FALSE if above conditions are met for:	>=	20	Sec		
					P0667 Status is	≠	Test Failed This Key On or Fault Active			

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: P0658, P0668, P0669, P06AD, P06AE, P0716, P0712, P0713, P0717, P0722, P0723, P0962, P0963, P0966, P0967, P0970, P0971, P215C, P2720, P2721, P2729, P2730 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		
Transmission Control Module (TCM)	P0668	TCM internal temperature (substrate) thermistor failed at a low voltge	Type of Sensor Used	= CeTFTI_e_VoltageInverseProp				Two Trips
			If TCM Substrate Temperature Sensor = Direct Proportional and Temp	<= 254 ºC				
			If TCM Substrate Temperature Sensor = Indirect Proportional and Temp	>= 254 ºC				
			Either condition above will satisfy the fail conditions				>= 60 Fail Timer (Sec)	
					Ignition Voltage Lo	>= 9 Volts		
					Ignition Voltage Hi	<= 31.99 Volts		
					Engine Speed Lo	>= 400 RPM		
					Engine Speed Hi	<= 7500 RPM		
					Engine Speed is within the allowable limits for	>= 5 Sec		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					P0668 Status is	≠ Test Failed This Key On or Fault Active		
				Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: None ECM: None		
Transmission Control Module (TCM)	P0669	TCM internal temperature (substrate) thermistor failed at a high voltage	Type of Sensor Used	= CeTFTI_e_Volt ageInversePro p				Two Trips
			If TCM Substrate Temperature Sensor = Direct Proportional and Temp	>= -254 ℃				
			If TCM Substrate Temperature Sensor = Indirect Proportional and Temp	<= -254 ℃				
			Either condition above will satisfy the fail conditions				>= 60 Fail Timer (Sec)	
					Ignition Voltage Lo	>= 9 Volts		
					Ignition Voltage Hi	<= 31.99 Volts		
					Engine Speed Lo	>= 400 RPM		
					Engine Speed Hi	<= 7500 RPM		
					Engine Speed is within the allowable limits for	>= 5 Sec		
					P0669 Status is	≠ Test Failed This Key On or Fault Active		
					For Hybrids, below conditions must also be met			
					Estimated Motor Power Loss	>= 0 kW		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Estimated Motor Power Loss greater than limit for time	>= 0 Sec		
					Lost Communication with Hybrid Processor Control Module	= FALSE		
					Estimated Motor Power Loss Fault	= FALSE		
				Disable Conditions:	**MIL not Illuminated for DTC's:** TCM: P0716, P0717, P0722, P0723 ECM: None			
Transmission Control Module (TCM)	P06AC	TCM Power-up Temp Sensor Circuit Range/Performance	If TCM power-up temp to substrate temp Δ	> Refer to Table 20 in supporting documents °C				Two Trips
			If transmission oil temp to power up temp Δ	> Refer to Table 18 in supporting documents °C				
			Both conditions above required to increment fail counter Note: table reference temp = to the median temp of trans oil temp, substrate temp and power up temp.				>= 3000 Fail Counts (100ms loop) Out of 3750 Sample Counts (100ms loop)	
			Non-continuous (intermittent) fail conditions will delay resetting fail counter until				>= 700 Pass Counts (100ms loop)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
									Out of 875	Sample Counts (100ms loop)	
					Engine Torque Signal Valid	=	TRUE	Boolean		
					Accelerator Position Signal Valid	=	TRUE	Boolean		
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.99	Volts		
					Engine Speed Lo	>=	400	RPM		
					Engine Speed Hi	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
					Brake torque active	=	FALSE			
					Below describes the brake torque entry criteria					
					Engine Torque	>=	90	N*m		
					Throttle	>=	30	Pct		
					Transmission Input Speed	<=	200	RPM		
					Vehicle Speed	<=	8	Kph		
					Transmission Range	≠	Park			
					Transmission Range	≠	Neutral			
					PTO	=	Not Active			
					Set Brake Torque Active TRUE if above conditions are met for:	>=	7	sec		
					Below describes the brake torque exit criteria					
					Brake torque entry criteria	=	Not Met			
					Clutch hydraulic pressure	≠	Clutch Hydraulic Air Purge Event			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
							Clutch used to exit brake torque active	=	CeTFT D_e_C 3_Ratl Enbl				
							The above clutch pressure is greater than this value for one loop	>=	600	kpa			
							Set Brake Torque Active FALSE if above conditions are met for:	>=	20	Sec			
							P06AC Status is	≠	Test Failed This Key On or Fault Active				
					Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0658, P0668, P0669, P06AD, P06AE, P0716, P0712, P0713, P0717, P0722, P0723, P0962, P0963, P0966, P0967, P0970, P0971, P215C, P2720, P2721, P2729, P2730					
								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					
Transmission Control Module (TCM)	P06AD	TCM power-up thermistor circuit voltage low	Power Up Temp	<=	-254	ºC					>= 60	Fail Time (Sec)	Two Trips
							Ignition Voltage Lo	>=	9	Volts			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
							Ignition Voltage Hi	<=	31.99	Volts		
							Engine Speed Lo	>=	400	RPM		
							Engine Speed Hi	<=	7500	RPM		
							Engine Speed is within the allowable limits for	>=	5	Sec		
							P06AD Status is	≠	Test Failed This Key On or Fault Active			
							For Hybrids, below conditions must also be met					
							Estimated Motor Power Loss	>=	0	kW		
							Estimated Motor Power Loss greater than limit for time	>=	0	Sec		
							Lost Communication with Hybrid Processor Control Module	=	FALSE			
							Estimated Motor Power Loss Fault	=	FALSE			
						Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723				
								ECM: None				
Transmission Control Module (TCM)	P06AE	TCM power-up thermistor circuit voltage high	Power Up Temp	>=	254	°C					>= 60 Fail Time (Sec)	Two Trips
							Ignition Voltage Lo	>=	9	Volts		
							Ignition Voltage Hi	<=	31.99	Volts		
							Engine Speed Lo	>=	400	RPM		
							Engine Speed Hi	<=	7500	RPM		
							Engine Speed is within the allowable limits for	>=	5	Sec		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					P06AE Status is	≠	Test Failed This Key On or Fault Active			
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None ECM: None				
Mode Switch	P071D	Transmission Mode Switch B Circuit	If Sport Mode Switch is Active	= TRUE Boolean					>= 600 Fail Time (Sec)	Special No Trip
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.99	Volts		
					Engine Speed Lo	>=	400	RPM		
					Engine Speed Hi	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P1762 ECM: None				
Transmission Fluid Temperature Sensor (TFT)	P0711	Trans Fluid Temp Sensor Circuit Range/Performance	If transmission oil temp to substrate temp Δ	> Refer to Table 19 in supporting documents °C						Two Trips
			If transmission oil temp to power up temp Δ	> Refer to Table 18 in supporting documents °C						
			Both conditions above required to increment fail counter						>= 3000 Fail Counts (100ms loop)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS		TIME REQUIRED		MIL ILLUM.
			Note: table reference temp = to the median temp of trans oil temp, substrate temp and power up temp.					Out of 3750	Sample Counts (100ms loop)	
			Non-continuous (intermittent) fail conditions will delay resetting fail counter until					>= 700	Pass Counts (100ms loop)	
								Out of 875	Sample Counts (100ms loop)	
					Engine Torque Signal Valid	=	TRUE	Boolean		
					Accelerator Position Signal Valid	=	TRUE	Boolean		
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.99	Volts		
					Engine Speed Lo	>=	400	RPM		
					Engine Speed Hi	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
					Brake torque active	=	FALSE			
					Below describes the brake torque entry criteria					
					Engine Torque	>=	90	N*m		
					Throttle	>=	30	Pct		
					Transmission Input Speed	<=	200	RPM		
					Vehicle Speed	<=	8	Kph		
					Transmission Range	≠	Park			
					Transmission Range	≠	Neutral			
					PTO	=	Not Active			
					Set Brake Torque Active TRUE if above conditions are met for:	>=	7	sec		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS		TIME REQUIRED	MIL ILLUM.
					Below describes the brake torque exit criteria				
					Brake torque entry criteria	=	Not Met		
					Clutch hydraulic pressure	≠	Clutch Hydraulic Air Purge Event		
					Clutch used to exit brake torque active	=	CeTFT D_e_C 3_Ratl Enbl		
					The above clutch pressure is greater than this value for one loop	>=	600 kpa		
					Set Brake Torque Active FALSE if above conditions are met for:	>=	20 Sec		
					P0711 Status is	≠	Test Failed This Key On or Fault Active		

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: P0658, P0668, P0669, P06AD, P06AE, P0716, P0712, P0713, P0717, P0722, P0723, P0962, P0963, P0966, P0967, P0970, P0971, P215C, P2720, P2721, P2729, P2730 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				
Transmission Fluid Temperature Sensor (TFT)	P0712	Transmission fluid temperature thermistor failed at a low voltage	Type of Sensor Used	=	CeTFTI_e_VoltageInverseProp							Two Trips
			If Transmission Fluid Temperature Sensor = Direct Proportional and Temp	<=	254	ºC						
			If Transmission Fluid Temperature Sensor = Indirect Proportional and Temp	>=	254	ºC						
			Either condition above will satisfy the fail conditions								>= 60 Fail Time (Sec)	
							Ignition Voltage Lo	>=	9	Volts		
							Ignition Voltage Hi	<=	31.99	Volts		
							Engine Speed Lo	>=	400	RPM		
							Engine Speed Hi	<=	7500	RPM		
							Engine Speed is within the allowable limits for	>=	5	Sec		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS		TIME REQUIRED	MIL ILLUM.
					P0712 Status is	≠	Test Failed This Key On or Fault Active		
					For Hybrids, below conditions must also be met				
					Estimated Motor Power Loss	>=	0 kW		
					Estimated Motor Power Loss greater than limit for time	>=	0 Sec		
					Lost Communication with Hybrid Processor Control Module	=	FALSE		
					Estimated Motor Power Loss Fault	=	FALSE		
			Disable Conditions:		**MIL not Illuminated for DTC's:**	TCM: P0716, P0717, P0722, P0723 ECM: None			
Transmission Fluid Temperature Sensor (TFT)	P0713	Transmission fluid temperature thermistor failed at a high voltage	Type of Sensor Used	CeTFTI_e_Volt ageInversePro p =					Two Trips
			If Transmission Fluid Temperature Sensor = Direct Proportional and Temp	>= -254 °C					
			If Transmission Fluid Temperature Sensor = Indirect Proportional and Temp	<= -254 °C					
			Either condition above will satisfy the fail conditions					>= 60 Fail Time (Sec)	
					Ignition Voltage Lo Ignition Voltage Hi	>= <=	9 Volts 31.99 Volts		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
							Engine Speed Lo	>=	400	RPM			
							Engine Speed Hi	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
							P0713 Status is	≠	Test Failed This Key On or Fault Active				
				Disable Conditions:			MIL not Illuminated for DTC's:	TCM: P0713, P0716, P0717, P0722, P0723 ECM: None					
Transmission Input Speed Sensor (TISS)	P0716	Input Speed Sensor Performance	Transmission Input Speed Sensor Drops	>=	1350	RPM					>= 0.8	Fail Time (Sec)	One Trip
							Engine Torque is	>=	0	N*m			
							Engine Torque is	<=	8191.9	N*m			
							Engine Speed	>=	400	RPM			
							Engine Speed	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
							Vehicle Speed is	>=	10	Kph			
							Throttle Position is	>=	0	Pct			

							Transmission Input Speed is	>=	0	RPM			
							The previous requirement has been satisfied for	>=	0	Sec			

							The change (loop to loop) in transmission input speed is	<	8191.8	RPM/Loop			
							The previous requirement has been satisfied for	>=	0	Sec			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED			MIL ILLUM.
							Throttle Position Signal Valid	=	TRUE	Boolean				
							Engine Torque Signal Valid	=	TRUE	Boolean				
							Ignition Voltage	>=	9	Volts				
							Ignition Voltage	<=	31.99	Volts				
							P0716 Status is not	=	Test Failed This Key On or Fault Active					
				Disable Conditions:			**MIL not Illuminated for DTC's:**	TCM: P0717, P0752, P0973, P0974						
								ECM: P0101, P0102, P0103, P0121, P0122, P0123						
Transmission Input Speed Sensor (TISS)	P0717	Input Speed Sensor Circuit Low Voltage	<u>Fail Case 1</u> Transmission Input Speed is	<	50	RPM					>= 4.5	Fail Time (Sec)		One Trip
			<u>Fail Case 2</u> When P0722 DTC Status equal to Test Failed and Transmission Input Speed is	<	1000	RPM	Controller uses a single power supply for the speed sensors	=	1	Boolean				
							Engine Torque is	>=	50	N*m				
							Engine Torque is	<=	8191.9	N*m				
							Vehicle Speed	>=	16	Kph				
							Engine Torque Signal Valid	=	TRUE	Boolean				
							Ignition Voltage	>=	9	Volts				
							Ignition Voltage	<=	31.99	Volts				
							Engine Speed	>=	400	RPM				
							Engine Speed	<=	7500	RPM				
							Engine Speed is within the allowable limits for	>=	5	Sec				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
							P0717 Status is not	=	Test Failed This Key On or Fault Active			
				Disable Conditions:			**MIL not Illuminated for DTC's:**	TCM: P0722, P0723				
								ECM: P0101, P0102, P0103				
Transmission Output Speed Sensor (TOSS)	P0722	Output Speed Sensor Circuit Low Voltage	Transmission Output Speed Sensor Raw Speed	<=	35	RPM					>= 4.5 Fail Time (Sec)	One Trip
							P0722 Status is not	=	Test Failed This Key On or Fault Active			
							Transmission Input Speed Check	=	TRUE	Boolean		
							Engine Torque Check	=	TRUE	Boolean		
							Throttle Position	>=	8.0002	Pct		
							Transmission Fluid Temperature	>=	-40	ºC		
							Disable this DTC if the PTO is active	=	1	Boolean		
							Engine Torque Signal Valid	=	TRUE	Boolean		
							Throttle Position Signal Valid	=	TRUE	Boolean		
							Ignition Voltage is	>=	9	Volts		
							Ignition Voltage is	<=	31.99	Volts		
							Engine Speed is	>=	400	RPM		
							Engine Speed is	<=	7500	RPM		
							Engine Speed is within the allowable limits for	>=	5	Sec		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS		TIME REQUIRED	MIL ILLUM.
					Enable_Flags Defined Below				
					The Engine Torque Check is TRUE, if either of the two following conditions are TRUE				
					Engine Torque Condition 1				
					Shift Status is not	=	complete		
					OR				
					Transmission Range is	=	Park or Neutral		
					Engine Torque is	>=	8191.8 N*m		
					Engine Torque is	<=	8191.8 N*m		
					Engine Torque Condition 2				
					Engine Torque is	>=	30 N*m		
					Engine Torque is	<=	8191.8 N*m		

					The Transmission Input Speed (TIS) Check is TRUE, if either of the two following conditions are TRUE				
					TIS Check Condition 1				
					Transmission Input Speed is	>=	1000 RPM		
					Transmission Input Speed is	<=	8191.8 RPM		
					TIS Check Condition 2				
					Engine Speed without the brake applied is	>=	3200 RPM		
					Engine Speed with the brake applied is	>=	3200 RPM		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
							Engine Speed is	<=	8191.8	RPM			
							Controller uses a single power supply for the speed sensors	=	1	Boolean			
							Powertrain Brake Pedal is Valid	=	TRUE	Boolean			
						Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0716, P0717, P0723					
								ECM: P0101, P0102, P0103, P0121, P0122, P0123					
Transmission Output Speed Sensor (TOSS)	P0723	Output Speed Sensor Circuit Intermittent	Raw Output Speed	>=	105	RPM					>= 0	Enable Time (Sec)	One Trip
			Output Speed Delta	<=	8191.75	RPM					>= 0	Enable Time (Sec)	
			Output Speed Drop	>	1000	RPM					>= 3	Output Speed Drop Recover Fail Time (Sec)	
							---------------------- Range_Disable	=	FALSE	See Below			
							OR ----------------------						
							Neutral_Range_Enable	=	TRUE	See Below			
							And						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS		TIME REQUIRED	MIL ILLUM.
					Neutral_Speed_Enable are TURE concurrently ----------------------	=	TRUE	See Below	
					Transmission_Range_Enable	=	TRUE	See Below	
					Transmission_Input_Speed_ Enable	=	TRUE	See Below	
					No Change in Transfer Case Range (High <-> Low) for	>=	5	Seconds	
					P0723 Status is not	=		Test Failed This Key On or Fault Active	
					Disable this DTC if the PTO is active	=	1	Boolean	
					Ignition Voltage is	>=	9	Volts	
					Ignition Voltage is	<=	31.99	Volts	
					Engine Speed is	>=	400	RPM	
					Engine Speed is	<=	7500	RPM	
					Engine Speed is within the allowable limits for	>=	5	Sec	
					Enable_Flags Defined Below				
					Transmission_Input_Speed_ Enable is TRUE when either TIS Condition 1 or TIS Condition 2 is TRUE:				
					TIS Condition 1 is TRUE when both of the following conditions are satsified for	>=	0	Enable Time (Sec)	
					Input Speed Delta	<=	4095	RPM	
					Raw Input Speed	>=	500	RPM	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					TIS Condition 2 is TRUE when ALL of the next three conditions are satisfied					
					Input Speed	=	0	RPM		
					A Single Power Supply is used for all speed sensors	=	TRUE	Boolean		
					Powertrain Brake Pedal Applied is	=	FALSE	Boolean		

					Neutral_Range_Enable is TRUE when any of the next 3 conditions are TRUE					
					Transmission Range is	=	Neutral	ENUM		
					Transmission Range is	=	Reverse/Neutral Transitional	ENUM		
					Transmission Range is	=	Neutral/ Drive Transitional	ENUM		
					And when a drop occurs					
					Loop to Loop Drop of Transmission Output Speed is	>	650	RPM		

					Range_Disable is TRUE when any of the next three conditions are TRUE					
					Transmission Range is	=	Park	ENUM		
					Transmission Range is	=	Park/Reverse Transitonal	ENUM		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					Input Clutch is not	=	ON (Fully Applied)	ENUM		

					Neutral_Speed_Enable is TRUE when All of the next three conditions are satsified for	>	1	Second s		
					Transmission Output Speed	>	100	RPM		
					And the acceleration of the Transmission Output Speed is	<	500	RPM/L oop Rate		
					And the acceleration of the Transmission Output Speed is	>	0	RPM/L oop Rate		

					Transmission_Range_Enable is TRUE when one of the next four conditions is TRUE					
					Transmission Range is	=	Neutral	ENUM		
					Transmission Range is	=	Revers e/Neutr al Transiti onal	ENUM		
					Transmission Range is	=	Neutral/ Drive Transiti onal	ENUM		
					Range Change Delay Timer	>=	5	Sec		

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: P0973, P0974, P0976, P0977 ECM: P0101, P0102, P0103, P0121, P0122, P0123					
Torque Converter Clutch (TCC)	P0741	TCC System Stuck OFF	TCC Pressure	>=	500	Kpa					>= 2	Enable Time (Sec)	Two Trips
			Either Condition (A) or (B) Must be Met										
			(A) TCC Slip Error @ TCC On Mode	>=	Refer to Table 1 in Supporting Documents	RPM					>= 4	Fail Time (Sec)	
			(B) TCC Slip @ Lock On Mode	>=	130	RPM					>= 4	Fail Time (Sec)	
			If Above Conditions Have been Met, and Fail Timer Expired, Increment Fail Counter								>= 5	TCC Stuck Off Fail Counter	
							Ignition Voltage Lo	>=	9	Volts			
							Ignition Voltage Hi	<=	31.99	Volts			
							Engine Speed	>=	400	RPM			
							Engine Speed	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
							Engine Torque Lo	>=	50	N*m			
							Engine Torque Hi	<=	8191.9	N*m			
							Throttle Position Lo	>=	8.0002	Pct			
							Throttle Position Hi	<=	99.998	Pct			
							2nd Gear Ratio Lo	>=	2.7528	Ratio			
							2nd Gear Ratio High	<=	3.1672	Ratio			
							3rd Gear Ratio Lo	>=	1.7762	Ratio			
							3rd Gear Ratio High	<=	2.0437	Ratio			
							4th Gear Ratio Lo	>=	1.3485	Ratio			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					4th Gear Ratio High	<=	1.5515	Ratio		
					5th Gear Ratio Lo	>=	0.9301	Ratio		
					5th Gear Ratio Hi	<=	1.0699	Ratio		
					6th Gear Ratio Lo	>=	0.6975	Ratio		
					6th Gear Ratio High	<=	0.8025	Ratio		
					Transmission Fluid Temperature Lo	>=	-6.656	ºC		
					Transmission Fluid Temperature Hi	<=	130	ºC		
					TCC Command Lock ON or ON mode	=	TRUE	Boolean		
					PTO Not Active	=	TRUE	Boolean		
					Engine Torque Signal Valid	=	TRUE	Boolean		
					Throttle Position Signal Valid	=	TRUE	Boolean		
					Dynamic Mode	=	FALSE	Boolean		
					P0741 Status is	≠	Test Failed This Key On or Fault Active			
				Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0716, P0717, P0722, P0723, P0742, P2763, P2764				
						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				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
Torque Converter Clutch (TCC)	P0742	TCC System Stuck ON	TCC Slip Speed	>=	-50	RPM							One Trip
			TCC Slip Speed	<=	30	RPM							
											>=	1.2 Fail Time (Sec)	
			If Above Conditions Have been Met, and Fail Timer Expired, Increment Fail Counter								>=	5 Fail Counter	
							Run TCC Stuck On Test Enable Criteria:						
							Gear Ratio	<=	4.77	Ratio			
							Gear Ratio	>=	2.4304	Ratio			
							Engine Speed Hi	<=	6500	RPM			
							Engine Speed Lo	>=	500	RPM			
							Vehicle Speed HI	<=	511	KPH			
							Vehicle Speed Lo	>=	11	KPH			
							Stuck On During Upshift Enabled	=	1	Boolean			
							If Stuck On During Upshift is enabled (See Above), Engine Torque Must be	>=	35	Nm			
							Down Shift In Progress	=	FALSE	Boolean			
							Current Gear	≠	1st Gear Locked	Boolean			
							Engine Torque Hi	<=	8191.9	Nm			
							Engine Torque Lo	>=	50	Nm			
							Current Range	≠	Neutral	Range			
							Current Range	≠	Reverse	Range			
							Transmission Sump Temperature	<=	130	ºC			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					Transmission Sump Temperature	>=	-6.656	ºC		
					Throttle Position Hyst High	>=	11	Pct		
					Throttle Position Hyst Low	<=	2.9999	Pct		
					PTO Active	=	FALSE	Boolean		
					Disable if in D1 and value true	=	0	Boolean		
					Disable if in D2 and value true	=	0	Boolean		
					Disable if in D3 and value true	=	0	Boolean		
					Disable if in D4 and value true	=	0	Boolean		
					Disable if in D5 and value true	=	0	Boolean		
					Disable if in MUMD and value true	=	0	Boolean		
					Disable if in TUTD and value true	=	0	Boolean		
					4 Wheel Drive Active	=	FALSE	Boolean		
					Hydraulic Clutch Air Purge Active	=	FALSE	Boolean		
					Ignore Air Purge if value = true	=	0	Boolean		
					TCC Mode	=	OFF			
					Common Enables:					
					Ignition Voltage	>=	9	V		
					Ignition Voltage	<=	31.99	V		
					Vehicle Speed	<=	511	KPH		
					Engine Speed	>=	400	RPM		
					Engine Speed	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
					Engine Torque Signal Valid	=	TRUE	Boolean		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Throttle Position Signal Valid	= TRUE Boolean		
					P0742 Status is	≠ Test Failed This Key On or Fault Active		
				Disable Conditions:	**MIL not Illuminated for DTC's:** TCM: P0716, P0717, P0722, P0723, P0741, P2763, P2764			
						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			
Mode 2 Multiplex Valve	P0751	Shift Solenoid Valve A Stuck Off	Commaned Gear Slip >= 400 RPM					Two Trips
			Commanded Gear = 1st Lock rpm					
			Gear Ratio <= 1.529052734				>= 0.3 Fail Tmr	
			Gear Ratio >= 1.328979492				= 5 Fail Counts	
			If the above parameters are true				≠ 0 Neutral Timer (Sec)	
							>= 0.3 Fail Timer (Sec)	
							>= 8 Counts	
					Ignition Voltage Lo >= 9 Volts			
					Ignition Voltage Hi <= 31.99 Volts			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					Engine Speed Lo	>=	400	RPM		
					Engine Speed Hi	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
					Transmission Fluid Temperature	>=	-6.656	ºC		
					Shift is Complete					
					TPS	>=	0.5005	%		
					OR					
					Output Speed	>=	0	RPM		
					Throttle Position Signal Valid from ECM	=	TRUE	Boolean		
					Engine Torque Signal Valid from ECM, High side driver is enabled	=	TRUE	Boolean		
					High-Side Driver is Enabled	=	TRUE	Boolean		
					Input Speed Sensor fault	=	FALSE	Boolean		
					Output Speed Sensor fault	=	FALSE	Boolean		
					Default Gear Option is not present	=	TRUE			
				Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0716, P0717, P0722, P0723, P182E				
						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				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
Mode 2 Multiplex Valve	P0752	Shift Solenoid Valve A Stuck On	Gear Box Slip	>=	400	Rpm							One Trip
			Commanded Gear	=	3rd	Gear							
			Commanded Gear has Achieved 1st Locked OR 1st Free-Wheel OR 2nd with Mode 2 Sol. Commanded On	=	TRUE	Boolean							
			C456/CBR1 Pressure Switch	=	Pressurized	Boolean							
			C456/CBR1 Pressure Switch Fault	=	FALSE	Boolean							
			If the above parameters are true								Please Refer to Table 16 in Supporting Documents	>=	Neutral Timer (Sec)	
											>= 5	Counts	
							Ignition Voltage Lo	>=	9	Volts			
							Ignition Voltage Hi	<=	31.99	Volts			
							Engine Speed Lo	>=	400	RPM			
							Engine Speed Hi	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
							High-Side Driver is Enabled	=	TRUE	Boolean			
							Throttle Position Signal Valid from ECM	=	TRUE	Boolean			
							Output Speed	>=	0	RPM			
							OR						
							TPS	>=	0.5005	%			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Shift is Complete			
					Transmission Fluid Temperature	>= -6.656 °C		
					Input Speed Sensor fault	= FALSE Boolean		
					Output Speed Sensor fault	= FALSE Boolean		
					Default Gear Option is not present	= TRUE		
					Disable Conditions:	**MIL not Illuminated for DTC's:** TCM: P0716, P0717, P0722, P0723, P182E 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		
Variable Bleed Solenoid (VBS)	P0776	Pressure Control (PC) Solenoid B Stuck Off [C35R]	Fail Case 1 Case: Steady State 3rd Gear Commanded Gear Gearbox Slip Intrusive Test: Command 4th Gear	= 3rd Gear >= 400 Rpm			>= Please Refer to Table 5 in Supporting Documents Neutral Timer (Sec)	One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED		MIL ILLUM.
			If attained Gear=4th gear for Time	>=	Table Based Time Please Refer to Table 3 in supporting documents Enable Time (Sec)					
			It the above condiations are true, Increment 3rd gear fail counter					>= 2	3rd Gear Fail Counts	
									or	
			and C35R Fail counter					>= 14	3-5R Clutch Fail Counts	
			Fail Case 2 Case: Steady State 5th Gear							
			Commanded Gear	=	5th Gear					
			Gearbox Slip	>=	400 Rpm			>=	Please Refer to Table 5 in Supporting Documents Neutral Timer (Sec)	
			Intrusive Test: Command 6th Gear							
			If attained Gear=6th gear Time	>=	Table Based Time Please Refer to Table 3 in supporting documents Enable Time (Sec)					
			It the above condiations are true, Increment 5th gear fail counter					>= 3	5th Gear Fail Counts	
									or	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
			and C35R Fail counter						>= 14 3-5R Clutch Fail Counts	
					PRNDL State defaulted	=	FALSE	Boolean		
					inhibit RVT	=	FALSE	Boolean		
					IMS fault pending indication	=	FALSE	Boolean		
					TPS validity flag	=	TRUE	Boolean		
					Hydraulic System Pressurized	=	TRUE	Boolean		
					Minimum output speed for RVT	>=	0	RPM		
					A OR B					
					(A) Output speed enable	>=	650	RPM		
					(B) Accelerator Pedal enable	>=	0.5005	Pct		
					Common Enable Criteria					
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.99	Volts		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS		TIME REQUIRED	MIL ILLUM.
					Engine Speed Lo	>= 400	RPM		
					Engine Speed Hi	<= 7500	RPM		
					Engine Speed is within the allowable limits for	>= 5	Sec		
					Throttle Position Signal valid	= TRUE	Boolean		
					HSD Enabled	= TRUE	Boolean		
					Transmission Fluid Temperature	>= -6.656	ºC		
					Input Speed Sensor fault	= FALSE	Boolean		
					Output Speed Sensor fault	= FALSE	Boolean		
					Default Gear Option is not present	= TRUE			
					Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0716, P0717, P0722, P0723, P182E		
							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		
Variable Bleed Solenoid (VBS)	P0777	Pressure Control (PC) Solinoid B Stuck On [C35R] (Steady State)	Fail Case 1 Case: Steady State 1st						One Trip
			Attained Gear slip	>= 400 RPM					
			If the Above is True for Time	>= Table Based Time Please Refer to Table 4 in supporting documents Enable Time (Sec)					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED			MIL ILLUM.
			Intrusive test: (CBR1 clutch exhausted)								
			Gear Ratio	<=	2.007324219						
			Gear Ratio	>=	1.744628906						
			If the above parameters are true								
								>=	1.1	Fail Timer (Sec)	
								>=	2	Fail Count in 1st Gear	
										or	
								>=	3	Total Fail Counts	
			Fail Case 2 Case: Steady State 2nd gear								
			Max Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 1 in supporting documents	rpm/sec					
			Min Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 2 in supporting documents	rpm/sec					
			If the Above is True for Time	>=	Table Based Time Please Refer to Table 17 in supporting documents	Sec					
			Intrusive test: (CB26 clutch exhausted)								

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Gear Ratio	<= 2.007324219				
			Gear Ratio	>= 1.744628906				
			If the above parameters are true					
							>= 1.1 Fail Timer (Sec)	
							>= 3 Fail Count in 2nd Gear	
							or	
							>= 3 Total Fail Counts	
			Fail Case 3 Case: Steady State 4th gear					
			Max Delta Output Speed Hysteresis	>= Table Based value Please Refer to 3D Table 1 in supporting documents rpm/sec				
			Min Delta Output Speed Hysteresis	>= Table Based value Please Refer to 3D Table 2 in supporting documents rpm/sec				
			If the Above is True for Time	>= Table Based Time Please Refer to Table 17 in supporting documents Sec				
			Intrusive test: (C1234 clutch exhausted)					
			Gear Ratio	<= 1.069946289				
			Gear Ratio	>= 0.930053711				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED			MIL ILLUM.
			If the above parameters are true					>=	1.1	Fail Timer (Sec)	
								>=	3	Fail Count in 4th Gear	
										or	
								>=	3	Total Fail Counts	
			Fail Case 4 Case: Steady State 6th gear								
			Max Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 1 in supporting documents	rpm/sec					
			Min Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 2 in supporting documents	rpm/sec					
			If the Above is True for Time	>=	Table Based Time Please Refer to Table 17 in supporting documents	Sec					
			Intrusive test: (CB26 clutch exhausted)								
			Gear Ratio	<=	1.069946289				>=	1.1	Fail Timer (Sec)	
			Gear Ratio	>=	0.930053711				>=	3	counts	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
			If the above parameters are true						>= 1.1 Fail Timer (Sec) >= 3 Fail Count in 6th Gear or >= 3 Total Fail Counts	
					PRNDL State defaulted	=	FALSE	Boolean		
					inhibit RVT	=	FALSE	Boolean		
					IMS fault pending indication	=	FALSE	Boolean		
					output speed	>=	0	RPM		
					TPS validity flag	=	TRUE	Boolean		
					HSD Enabled	=	TRUE	Boolean		
					Hydraulic_System_Pressurized	=	TRUE	Boolean		
					Minimum output speed for RVT	>=	0	Nm		
					A OR B					
					(A) Output speed enable	>=	650	Nm		
					(B) Accelerator Pedal enable	>=	0.5005	Nm		
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.99	Volts		
					Engine Speed Lo	>=	400	RPM		
					Engine Speed Hi	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					if Attained Gear=1st FW Accelerator Pedal enable	>=	10.001	Pct		
					if Attained Gear=1st FW Engine Torque Enable	>=	45	Nm		
					if Attained Gear=1st FW Engine Torque Enable	<=	8191.9	Nm		
					Transmission Fluid Temperature	>=	-6.656	°C		
					Input Speed Sensor fault	=	FALSE	Boolean		
					Output Speed Sensor fault	=	FALSE	Boolean		
					Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0716, P0717, P0722, P0723, P182E			
						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				
Variable Bleed Solenoid (VBS)	P0777	Pressure Control (PC) Solenoid B StuckOn [C35R] (Dymanic)	Primary Offgoing Clutch is exhausted (See Table 12 in Supporting Documents for Exhaust Delay Timers)	= TRUE Boolean						One Trip
			Primary Oncoming Clutch Pressure Command Status	= Maximum pressurized						
			Primary Offgoing Clutch Pressure Command Status	= Clutch exhaust command						
			Range Shift Status	≠ Initial Clutch Control						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Attained Gear Slip	<=	40	RPM				
			If the above conditions are true run appropriate Fail 1 Timers Below:							
			fail timer 1 (3-1 shifting with Closed Throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (3-2 shifting with Throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (3-2 shifting with Closed Throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (3-4 shifting with Throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (3-4shifting with Closed Throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (3-5 shifting with Throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (3-5 shifting with Closed Throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (5-3 shifting with Throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (5-3 shifting with Closed Throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (5-4 shifting with Throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (5-4 shifting with Closed Throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (5-6 shifting with Throttle)	>=	0.700195313	Fail Time (Sec)				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
			fail timer 1 (5-6 shifting with Closed Throttle)	>= 0.900390625	Fail Time (Sec)							
			If Attained Gear Slip is Less than Above Cal Increment Fail Timers							Total Fail Time = (Fail 1 + Fail 2) See Enable Timers for Fail Timer 1, and Reference Supporting Table 15 for Fail Timer 2	>= Fail sec	
			If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter									
			3rd gear fail counter						>= 3	3rd gear fail counts		
										OR		
			5th gear fail counter						>= 3	5th gear fail counts		
										OR		
			Total fail counter						>= 5	total fail counts		
						TUT Enable temperature	>= -6.672	ºC				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					Input Speed Sensor fault	=	FALSE	Boolean		
					Output Speed Sensor fault	=	FALSE	Boolean		
					Command / Attained Gear	≠	1st	Boolean		
					High Side Driver ON	=	TRUE	Boolean		
					output speed limit for TUT	>=	200	RPM		
					input speed limit for TUT	>=	200	RPM		
					PRNDL state defaulted	=	FALSE	Boolean		
					IMS Fault Pending	=	FALSE	Boolean		
					Service Fast Learn Mode	=	FALSE	Boolean		
					HSD Enabled	=	TRUE	Boolean		
					Default Gear Option is not present	=	TRUE			
			Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0716, P0717, P0722, P0723, P182E					
					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					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
Transmission Output Speed Sensor (TOSS)	P077C	Output Speed Sensor Circuit Low	TOSS Analog Signal Voltage	<=	0.25	Volts					>= ##### sec	One Trip
			P077C Status is not	=	Test Failed This Key On or Fault Active							
			If the above conditons have been met, increment the P077C Fail Counter									
			DTC P077C Sets when the Fail Counter	>=	75	Counts						
							P077C Enable Calibration	=	1	Boolean		
							Ignition Voltage Lo	>=	9	Volts		
							Ignition Voltage Hi	<=	31.99	Volts		
				Disable Conditions:			MIL not Illuminated for DTC's:	TCM: P077D				
Transmission Output Speed Sensor (TOSS)	P077D	Output Speed Sensor Circuit High	TOSS Analog Signal Voltage	>=	4.75	Volts					>= ##### sec	One Trip
			P077D Status is not	=	Test Failed This Key On or Fault Active							
			If the above conditons have been met, increment the P077D Fail Counter									
			DTC P077D Sets when the Fail Counter	>=	75	Counts						
							P077D Enable Calibration	=	1	Boolean		
							Ignition Voltage Lo	>=	9	Volts		
							Ignition Voltage Hi	<=	31.99	Volts		

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: P077C			
Variable Bleed Solenoid (VBS)	P0796	Pressure Control (PC) Solenoid C Stuck Off [C456] (Steady State)	Fail Case 1 Case: Steady State 4th Gear							Pleas e See Table 5 For Neutr al Time	Neutral Timer (Sec)		One Trip
			Gear slip	>=	400	RPM			>=			
			Intrusive test: commanded 5th gear									
			If attained Gear ≠5th for time	>=	Table Based Time Please Refer to Table 3 in supporting documents	Enable Time (Sec)						
			if the above conditions have been met									
			Increment 4th Gear Fail Counter						>=	2	4th Gear Fail Count	
											OR	
			and C456 Fail Counters						>=	14	C456 Fail Counts	
			Fail Case 2 Case: Steady State 5th Gear							Pleas e See Table 5 For Neutr al Time	Neutral Timer (Sec)		
			Gear slip	>=	400	RPM			>=			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED		MIL ILLUM.
			Intrusive test: commanded 6th gear							
			If attained Gear ≠ 6th for time	>=	Table Based Time Please Refer to Table 3 in supporting documents	Enable Time (Sec)				
			if the above conditions have been met							
			Increment 5th Gear Fail Counter					>=	2	5th Gear Fail Count	
										OR
			and C456 Fail Counters					>=	14	C456 Fail Counts	
			Fail Case 3 Case: Steady State 6th Gear							
			Gear slip	>=	400	RPM			>=	Please See Table 5 For Neutral Time	Neutral Timer (Sec)
			Intrusive test: commanded 5th gear							
			If attained Gear ≠ 5th for time	>=	Table Based Time Please Refer to Table 3 in supporting documents	Enable Time (Sec)				
			if the above conditions have been met							
			Increment 6th Gear Fail Counter and C456 Fail Counter					>=	2	6th Gear Fail Count	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
			and C456 Fail Counter						>= 14	OR C456 Fail Counts	
					PRNDL State defaulted	=	FALSE	Boolean			
					inhibit RVT	=	FALSE	Boolean			
					IMS fault pending indication	=	FALSE	Boolean			
					TPS validity flag	=	TRUE	Boolean			
					Hydraulic System Pressurized	=	TRUE	Boolean			
					Minimum output speed for RVT	>=	0	RPM			
					A OR B						
					(A) Output speed enable	>=	650	RPM			
					(B) Accelerator Pedal enable	>=	0.5005	Pct			
					Common Enable Criteria						
					Ignition Voltage Lo	>=	9	Volts			
					Ignition Voltage Hi	<=	31.99	Volts			
					Engine Speed Lo	>=	400	RPM			
					Engine Speed Hi	<=	7500	RPM			
					Engine Speed is within the allowable limits for	>=	5	Sec			
					Throttle Position Signal valid	=	TRUE	Boolean			
					HSD Enabled	=	TRUE	Boolean			
					Transmission Fluid Temperature	>=	-6.656	ºC			
					Input Speed Sensor fault	=	FALSE	Boolean			
					OutputSpeed Sensor fault	=	FALSE	Boolean			
					Default Gear Option is not present	=	TRUE				

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, P182E 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				
Variable Bleed Solenoid (VBS)	P0797	Pressure Control (PC) Solenoid C Stuck On [C456] (Steady State)	Fail Case 1 Case: Steady State 1st Attained Gear slip If the Above is True for Time Intrusive test: (CBR1 clutch exhausted) Gear Ratio Gear Ratio If the above parameters are true	>= >= <= >=	400 Table Based Time Please Refer to Table 4 in supporting documents 1.529052734 1.328979492	RPM Enable Time (Sec)			>= >=	1.1 2	Fail Timer (Sec) Fail Count in 1st Gear or	One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED		MIL ILLUM.
								>=	3	Total Fail Counts	
			Fail Case 2 Case Steady State 2nd							
			Max Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 1 in supporting documents	rpm/sec				
			Min Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 2 in supporting documents	rpm/sec				
			If the Above is True for Time	>=	Table Based Time Please Refer to Table 17 in supporting documents	Sec				
			Intrusive test: (CB26 clutch exhausted)							
			Gear Ratio	<=	1.529052734					
			Gear Ratio	>=	1.328979492					
			If the above parameters are true							
								>=	1.1	Fail Timer (Sec)	
								>=	3	Fail Count in 2nd Gear	
										or	
								>=	3	Total fail counts	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED		MIL ILLUM.
			Fail Case 3 Case Steady State 3rd							
			Max Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 1 in supporting documents rpm/sec					
			Min Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 2 in supporting documents rpm/sec					
			If the Above is True for Time	>=	Table Based Time Please Refer to Table 17 in supporting documents Sec					
			Intrusive test: (C35R clutch exhausted)							
			Gear Ratio	<=	1.529052734					
			Gear Ratio	>=	1.328979492					
			If the above parameters are true							
								>= 1.1	Fail Timer (Sec)	
								>= 3	Fail Count in 3rd Gear	
								OR		
								>= 3	Total Fail Counts	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					PRNDL State defaulted	=	FALSE	Boolean		
					inhibit RVT	=	FALSE	Boolean		
					IMS fault pending indication	=	FALSE	Boolean		
					output speed	>=	0	RPM		
					TPS validity flag	=	TRUE	Boolean		
					HSD Enabled	=	TRUE	Boolean		
					Hydraulic_System_Pressurized	=	TRUE	Boolean		
					Minimum output speed for RVT	>=	0	Nm		
					A OR B					
					(A) Output speed enable	>=	650	Nm		
					(B) Accelerator Pedal enable	>=	0.5005	Nm		
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.99	Volts		
					Engine Speed Lo	>=	400	RPM		
					Engine Speed Hi	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
					if Attained Gear=1st FW Accelerator Pedal enable	>=	10.001	Pct		
					if Attained Gear=1st FW Engine Torque Enable	>=	45	Nm		
					if Attained Gear=1st FW Engine Torque Enable	<=	8191.9	Nm		
					Transmission Fluid Temperature	>=	-6.656	°C		
					Input Speed Sensor fault	=	FALSE	Boolean		
					Output Speed Sensor fault	=	FALSE	Boolean		
					Default Gear Option is not present	=	TRUE			

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, P182E 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		
Variable Bleed Solenoid (VBS)	P0797	Pressure Control (PC) Solenoid C Stuck On [C456] (Dynamic)	Primary Offgoing Clutch is exhausted (See Table 11 in Supporting Documents for Exhaust Delay Timers)	=	TRUE	Boolean				One Trip
			Primary Oncoming Clutch Pressure Command Status	=	Maximum pressurized					
			Primary Offgoing Clutch Pressure Command Status	=	Clutch exhaust command					
			Range Shift Status	≠	Initial Clutch Control					
			Attained Gear Slip	<=	40	RPM				
			If the above conditions are true increment appropriate Fail 1 Timers Below:							
			fail timer 1 (4-1 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (4-1 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			fail timer 1 (4-2 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (4-2 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (4-3 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (4-3 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (5-3 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (5-3 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (6-2 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (6-2 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			If Attained Gear Slip is Less than Above Cal Increment Fail Timers				Total Fail Time = (Fail 1 + Fail 2) See Enable Timers for >= Fail sec Timer 1, and Reference Supporting Table 15 for Fail Timer 2	
			If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter					
			4th gear fail counter				>= 3 Fail Counter From 4th Gear OR	
			5th gear fail counter				>= 3 Fail Counter From 5th Gear OR	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
			6th gear fail counter						>=	3 Fail Counter From 6th Gear	
			Total fail counter						>=	5 Total Fail Counter	
					OR						
					TUT Enable temperature	>=	-6.672	ºC			
					Input Speed Sensor fault	=	FALSE	Boolean			
					Output Speed Sensor fault	=	FALSE	Boolean			
					Command / Attained Gear	≠	1st	Boolean			
					High Side Driver ON	=	TRUE	Boolean			
					output speed limit for TUT	>=	200	RPM			
					input speed limit for TUT	>=	200	RPM			
					PRNDL state defaulted	=	FALSE	Boolean			
					IMS Fault Pending	=	FALSE	Boolean			
					Service Fast Learn Mode	=	FALSE	Boolean			
					HSD Enabled	=	TRUE	Boolean			

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, P182E			
							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			
Transmission Input Speed Sensor (TISS)	P07BF	Input/Turbine Speed Sensor A Circuit Low	TISS Analog Signal Voltage	<=	0.25 Volts				>= ##### sec	One Trip
			P07BF Status is not	=	Test Failed This Key On or Fault Active					
			If the above conditons have been met, increment the P07BF Fail Counter							
			DTC P07BF Sets when the Fail Counter	>=	75 Counts					
						P07BF Enable Calibration	=	1 Boolean		
						Ignition Voltage Lo	>=	9 Volts		
						Ignition Voltage Hi	<=	31.99 Volts		
				Disable Conditions:		**MIL not Illuminated for DTC's:**				
Transmission Input Speed Sensor (TISS)	P07C0	Input/Turbine Speed Sensor A Circuit High	TISS Analog Signal Voltage	>=	4.75 Volts				>= ##### sec	One Trip
			P07C0 Status is not	=	Test Failed This Key On or Fault Active					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
			If the above conditons have been met, increment the P07C0 Fail Counter									
			DTC P07C0 Sets when the Fail Counter	>=	75	Counts						
							P07C0 Enable Calibration	=	1	Boolean		
							Ignition Voltage Lo	>=	9	Volts		
							Ignition Voltage Hi	<=	31.99	Volts		
						Disable Conditions:	**MIL not Illuminated for DTC's:**					
Tap Up Tap Down Switch (TUTD)	P0815	Upshift Switch Circuit	Fail Case 1 Tap Up Switch Stuck in the Up Position in Range 1 Enabled	=	0	Boolean						Special No Trip
			Tap Up Switch Stuck in the Up Position in Range 2 Enabled	=	0	Boolean						
			Tap Up Switch Stuck in the Up Position in Range 3 Enabled	=	0	Boolean						
			Tap Up Switch Stuck in the Up Position in Range 4 Enabled	=	0	Boolean						
			Tap Up Switch Stuck in the Up Position in Range 5 Enabled	=	0	Boolean						
			Tap Up Switch Stuck in the Up Position in Range 6 Enabled	=	1	Boolean						
			Tap Up Switch Stuck in the Up Position in Neutral Enabled	=	1	Boolean						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED			MIL ILLUM.
			Tap Up Switch Stuck in the Up Position in Park Enabled	=	1	Boolean						
			Tap Up Switch Stuck in the Up Position in Reverse Enabled	=	0	Boolean						
			Tap Up Switch ON	=	TRUE	Boolean			>=	1	Fail Time (Sec)	
			Fail Case 2 Tap Up Switch Stuck in the Up Position in Range 1 Enabled	=	1	Boolean						
			Tap Up Switch Stuck in the Up Position in Range 2 Enabled	=	1	Boolean						
			Tap Up Switch Stuck in the Up Position in Range 3 Enabled	=	1	Boolean						
			Tap Up Switch Stuck in the Up Position in Range 4 Enabled	=	1	Boolean						
			Tap Up Switch Stuck in the Up Position in Range 5 Enabled	=	1	Boolean						
			Tap Up Switch Stuck in the Up Position in Range 6 Enabled	=	1	Boolean						
			Tap Up Switch Stuck in the Up Position in Neutral Enabled	=	0	Boolean						
			Tap Up Switch Stuck in the Up Position in Park Enabled	=	0	Boolean						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Tap Up Switch Stuck in the Up Position in Reverse Enabled	= 0 Boolean				
			Tap Up Switch ON	= TRUE Boolean			>= 600 Fail Time (Sec)	
			NOTE: Both Failcase1 and Failcase 2 Must Be Met					
					Time Since Last Range Change	>= 1 Enable Time (Sec)		
					Ignition Voltage Lo	>= 9 Volts		
					Ignition Voltage Hi	<= 31.99 Volts		
					Engine Speed Lo	>= 400 RPM		
					Engine Speed Hi	<= 7500 RPM		
					Engine Speed is within the allowable limits for	>= 5 Sec		
					P0815 Status is	≠ Test Failed This Key On or Fault Active		
				Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0816, P0826, P182E, P1876, P1877, P1915, P1761		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED			MIL ILLUM.
Tap Up Tap Down Switch (TUTD)	P0816	Downshift Switch Circuit	Fail Case 1 — Tap Down Switch Stuck in the Down Position in Range 1 Enabled	=	0	Boolean						Special No Trip
			Tap Down Switch Stuck in the Down Position in Range 2 Enabled	=	0	Boolean						
			Tap Down Switch Stuck in the Down Position in Range 3 Enabled	=	0	Boolean						
			Tap Down Switch Stuck in the Down Position in Range 4 Enabled	=	0	Boolean						
			Tap Down Switch Stuck in the Down Position in Range 5 Enabled	=	0	Boolean						
			Tap Down Switch Stuck in the Down Position in Range 6 Enabled	=	1	Boolean						
			Tap Down Switch Stuck in the Down Position in Range Neutral Enabled	=	1	Boolean						
			Tap Down Switch Stuck in the Down Position in Range Park Enabled	=	1	Boolean						
			Tap Down Switch Stuck in the Down Position in Range Reverse Enabled	=	0	Boolean						
			Tap Down Switch ON	=	TRUE	Boolean			>=	1	sec	
			Fail Case 2 — Tap Down Switch Stuck in the Down Position in Range 1 Enabled	=	1	Boolean						
			Tap Down Switch Stuck in the Down Position in Range 2 Enabled	=	1	Boolean						
			Tap Down Switch Stuck in the Down Position in Range 3 Enabled	=	1	Boolean						
			Tap Down Switch Stuck in the Down Position in Range 4 Enabled	=	1	Boolean						
			Tap Down Switch Stuck in the Down Position in Range 5 Enabled	=	1	Boolean						
			Tap Down Switch Stuck in the Down Position in Range 6 Enabled	=	1	Boolean						
			Tap Down Switch Stuck in the Down Position in Neutral Enabled	=	0	Boolean						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
			Tap Down Switch Stuck in the Down Position in Park Enabled	=	0	Boolean						
			Tap Down Switch Stuck in the Down Position in Reverse Enabled	=	0	Boolean						
			Tap Down Switch ON	=	TRUE	Boolean						
			NOTE: Both Failcase1 and Failcase 2 Must Be Met								>= 600 sec	
							Time Since Last Range Change	>=	1	Enable Time (Sec)		
							Ignition Voltage Lo	>=	9	Volts		
							Ignition Voltage Hi	<=	31.99	Volts		
							Engine Speed Lo	>=	400	RPM		
							Engine Speed Hi	<=	7500	RPM		
							Engine Speed is within the allowable limits for	>=	5	Sec		
							P0816 Status is	≠		Test Failed This Key On or Fault Active		

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: P0815, P0826, P182E, P1876, P1877, P1915, P1761					
Tap Up Tap Down Switch (TUTD)	P0826	Up and Down Shift Switch Circuit	TUTD Circuit Reads Invalid Voltage	=	TRUE	Boolean					>= 60	Fail Time (Sec)	Special No Trip
							Ignition Voltage Lo	>=	9	Volts			
							Ignition Voltage Hi	<=	31.99	Volts			
							Engine Speed Lo	>=	400	RPM			
							Engine Speed Hi	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
							P0826 Status is	≠	Test Failed This Key On or Fault Active				
				Disable Conditions:			**MIL not Illuminated for DTC's:**	TCM: P1761					
								ECM: None					
Transmission Fluid Pressure Switch	P0872	Transmission Fluid Pressure (TFP) Sensor C Circuit Low Voltage	CB26 Hydraulic pressure	<=	50	KPa							Special No Trip
			Hydraulic Delay Timer (Table Based)	>=	See Table 8 for Delay Timer Cal	Sec							
			Check for Switch to be in Exhausted Position after delay, If so then Increment Fail Counter								>= 8	Fail Counts	
			Note: Subsequent fail counts require CB26 pressure above this value to re-enable fail logic. Results in one fail count per clutch transition	>	50	Kpa							

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
						Transmission Fluid Temperature Lo	>=	-6.656	ºC		
						Transmission Fluid Temperature Hyst Hi (disable above this)	Not >=	120	ºC		
						Transmission Fluid Temperature Hyst Lo (enable below this)	<=	255.99	ºC		
						Ignition Voltage Lo	>=	9	Volts		
						Ignition Voltage Hi	<=	31.99	Volts		
						Engine Speed Lo	>=	400	RPM		
						Engine Speed Hi	<=	7500	RPM		
						Engine Speed is within the allowable limits for	>=	5	Sec		
						Default Gear Action	=	FALSE			
						High Side Driver ON	=	TRUE			
						RVT Status	=	Normal			
						Hydraulic Pressure Available	=	TRUE			
						Engine Speed Min	>=	550	RPM		
					Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0711, P0712, P0713, P0716, P0717, P0722, P0723, P0751, P0742, P0756, P0757, P0973, P0974, P0976, P0977, P1915, P182E ECM: None				
Transmission Fluid Pressure Switch	P0873	Transmission Fluid Pressure (TFP) Sensor C Circuit High Voltage	CB26 Hydraulic Pressure	>=	700 KPa						Special No Trip
			Hydraulic Delay Timer (Table Based)	>=	See Table 8 for Delay Timer Sec Cal						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
			Check for Switch to be in Pressurized Position after delay, If so then Increment Fail Counter						>= 11 Fail Counts	
			Note: Subsequent fail counts require CB26 pressure below this value to re-enable fail logic. Results in one fail count per clutch transition	< 700 kpa						
					Transmission Fluid Temperature Lo	>=	-6.656	°C		
					Transmission Fluid Temperature Hyst Hi (disable above this)	Not >=	120	°C		
					Transmission Fluid Temperature Hyst Lo (enable below this)	<=	255.99	°C		
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.99	Volts		
					Engine Speed Lo	>=	400	RPM		
					Engine Speed Hi	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
					Default Gear Action	=	FALSE			
					High Side Driver ON	=	TRUE			
					RVT Status	=	Normal			
					Hydraulic Pressure Available	=	TRUE			
					Engine Speed Min	>=	550	RPM		

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** TCM: P0711, P0712, **DTC's:** P0713, P0716, P0717, P0722, P0723, P0751, P0742, P0756, P0757, P0973, P0974, P0976, P0977, P1915, P182E ECM: None		
Transmission Fluid Pressure Switch	P0877	Transmission Fluid Pressure (TFP) Sensor D Circuit Low Voltage	C1234 Hydraulic pressure	<= 50 KPa				Special No Trip
			Hydraulic Delay Timer (Table Based)	>= See Table 6 for Delay Timer Sec Cal				
			Check for Switch to be in Exhausted Position after delay, If so then Increment Fail Counter				>= 8 Fail Counts	
			Note: Subsequent fail counts require C1234 pressure above this value to re-enable fail logic. Results in one fail count per clutch transition	> 50 kpa				
					Transmission Fluid Temperature Lo	>= -6.656 ºC		
					Transmission Fluid Temperature Hyst Hi (disable above this)	Not >= 120 ºC		
					Transmission Fluid Temperature Hyst Lo (enable below this)	<= 255.99 ºC		
					Ignition Voltage Lo	>= 9 Volts		
					Ignition Voltage Hi	<= 31.99 Volts		
					Engine Speed Lo	>= 400 RPM		
					Engine Speed Hi	<= 7500 RPM		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED			MIL ILLUM.
							Engine Speed is within the allowable limits for	>=	5	Sec				
							Default Gear Action	=	FALSE					
							High Side Driver ON	=	TRUE					
							RVT Status	=	Normal					
							Hydraulic Pressure Available	=	TRUE					
							Engine Speed Min	>=	550	RPM				
						Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0711, P0712, P0713, P0716, P0717, P0722, P0723, P0751, P0742, P0756, P0757, P0973, P0974, P0976, P0977, P1915, P182E ECM: None						
Transmission Fluid Pressure Switch	P0878	Transmission Fluid Pressure (TFP) Sensor D Circuit High Voltage	C1234 Hydraulic pressure	>=	700	KPa								Special No Trip
			Hydraulic Delay Timer (Table Based)	>=	See Table 6 for Delay Timer Cal	Sec								
			Check for Switch to be in Pressurized Position after delay, If so then Increment Fail Counter								>=	8	Fail Counts	
			Note: Subsequent fail counts require C1234 pressure below this value to re-enable fail logic. Results in one fail count per clutch transition	<	700	Kpa								
							Transmission Fluid Temperature Lo	>=	-6.656	°C				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
							Transmission Fluid Temperature Hyst Hi (disable above this)	Not >=	120	°C			
							Transmission Fluid Temperature Hyst Lo (enable below this)	<=	255.99	°C			
							Ignition Voltage Lo	>=	9	Volts			
							Ignition Voltage Hi	<=	31.99	Volts			
							Engine Speed Lo	>=	400	RPM			
							Engine Speed Hi	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
							Default Gear Action	=	FALSE				
							High Side Driver ON	=	TRUE				
							RVT Status	=	Normal				
							Hydraulic Pressure Available	=	TRUE				
							Engine Speed Min	>=	550	RPM			
					Disable Conditions:		MIL not Illuminated for DTC's:	TCM: P0711, P0712, P0713, P0716, P0717, P0722, P0723, P0751, P0742, P0756, P0757, P0973, P0974, P0976, P0977, P1915, P182E ECM: None					
Variable Bleed Solenoid (VBS)	P0961	Pressure Control (PC) Solenoid A Control Circuit Rationality Test (Line Pressure VBS)	The HWIO reports an invalid voltage (out of range) error flag	=	TRUE	Boolean					>= 4.4 out of 5	Fail Time (Sec) Sample Time (Sec)	Two Trips
							Ignition Voltage	>=	9	Volts			
							Ignition Voltage	<=	31.99	Volts			
							Engine Speed	>=	400	RPM			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					Engine Speed	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
				Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: None ECM: None				
Variable Bleed Solenoid (VBS)	P0962	Pressure Control (PC) Solenoid A Control Circuit Low Voltage (Line Pressure VBS)	The HWIO reports a low voltage (ground short) error flag	= TRUE Boolean					>= 1.5 Fail Time (Sec) out of 1.875 Sample Time (Sec)	One Trip
					Ignition Voltage	>=	9	Volts		
					Ignition Voltage	<=	31.99	Volts		
					Engine Speed	>=	400	RPM		
					Engine Speed	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
				Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: None ECM: None				
Variable Bleed Solenoid (VBS)	P0963	Pressure Control (PC) Solenoid A Control Circuit High Voltage (Line Pressure VBS)	The HWIO reports a high voltage (open or power short) error flag	= TRUE Boolean					>= 4.4 Fail Time (Sec) out of 5 Sample Time (Sec)	Two Trips
					Ignition Voltage	>=	9	Volts		
					Ignition Voltage	<=	31.99	Volts		
					Engine Speed	>=	400	RPM		
					Engine Speed	<=	7500	RPM		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
						Engine Speed is within the allowable limits for	>=	5	Sec			
				Disable Conditions:		**MIL not Illuminated for DTC's:**	TCM: None					
							ECM: None					
Variable Bleed Solenoid (VBS)	P0966	Pressure Control (PC) Solenoid B Control Circuit Low Voltage (C35R VBS)	The HWIO reports a low voltage (ground short) error flag	= TRUE Boolean						>= 0.3	Fail Time (Sec)	One Trip
										out of 0.375	Sample Time (Sec)	
						Ignition Voltage	>=	9	Volts			
						Ignition Voltage	<=	31.99	Volts			
						Engine Speed	>=	400	RPM			
						Engine Speed	<=	7500	RPM			
						Engine Speed is within the allowable limits for	>=	5	Sec			
						P0966 Status is not	=	Test Failed This Key On or Fault Active				
				Disable Conditions:		**MIL not Illuminated for DTC's:**	TCM: None					
							ECM: None					
Variable Bleed Solenoid (VBS)	P0967	Pressure Control (PC) Solenoid B Control Circuit High Voltage (C35R VBS)	The HWIO reports a high voltage (open or power short) error flag	= TRUE Boolean						>= 0.3	Fail Time (Sec)	One Trip
										out of 0.375	Sample Time (Sec)	
						Ignition Voltage	>=	9	Volts			
						Ignition Voltage	<=	31.99	Volts			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
					Engine Speed	>=	400	RPM			
					Engine Speed	<=	7500	RPM			
					Engine Speed is within the allowable limits for	>=	5	Sec			
					P0967 Status is not	=	Test Failed This Key On or Fault Active				
				Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: None					
						ECM: None					
Variable Bleed Solenoid (VBS)	P0970	Pressure Control (PC) Solenoid C Control Circuit Low Voltage (C456/CBR1 VBS)	The HWIO reports a low voltage (ground short) error flag	= TRUE Boolean					>= 0.3 Fail Time (Sec)		One Trip
									out of 0.375 Sample Time (Sec)		
					P0970 Status is not	=	Test Failed This Key On or Fault Active				
					Ignition Voltage	>=	9	Volts			
					Ignition Voltage	<=	31.99	Volts			
					Engine Speed	>=	400	RPM			
					Engine Speed	<=	7500	RPM			
					Engine Speed is within the allowable limits for	>=	5	Sec			
				Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: None					
						ECM: None					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
Variable Bleed Solenoid (VBS)	P0971	Pressure Control (PC) Solenoid C Control Circuit High Voltage (C456/CBR1 VBS)	The HWIO reports a high voltage (open or power short) error flag	= TRUE Boolean					>= 0.3	Fail Time (Sec)	One Trip
									out of 0.375	Sample Time (Sec)	
					P0971 Status is not	=	Test Failed This Key On or Fault Active				
					Ignition Voltage	>=	9	Volts			
					Ignition Voltage	<=	31.99	Volts			
					Engine Speed	>=	400	RPM			
					Engine Speed	<=	7500	RPM			
					Engine Speed is within the allowable limits for	>=	5	Sec			
			Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: None						
					ECM: None						
Shift Solinoid	P0973	Shift Solenoid A Control Circuit Low (Mode 2 Solenoid)	The HWIO reports a low voltage (ground short) error flag	= TRUE Boolean					>= 1.2	Fail Time (Sec)	One Trip
									out of 1.5	Sample Time (Sec)	
					P0973 Status is not	=	Test Failed This Key On or Fault Active				
					Ignition Voltage	>=	9	Volts			
					Ignition Voltage	<=	31.99	Volts			
					Engine Speed	>=	400	RPM			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
							Engine Speed	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
				Disable Conditions:			MIL not Illuminated for DTC's:	TCM: None					
								ECM: None					
Shift Solinoid	P0974	Shift Solenoid A Control Circuit High (Mode 2 Solenoid)	The HWIO reports a high voltage (open or power short) error flag	=	TRUE	Boolean					>= 1.2	Fail Time (Sec)	Two Trips
											out of 1.5	Sample Time (Sec)	
							P0974 Status is not	=	Test Failed This Key On or Fault Active				
							Ignition Voltage	>=	9	Volts			
							Ignition Voltage	<=	31.99	Volts			
							Engine Speed	>=	400	RPM			
							Engine Speed	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
				Disable Conditions:			MIL not Illuminated for DTC's:	TCM: None					
								ECM: None					
Transmission Fluid Pressure Switch	P0989	Transmission Fluid Pressure (TFP) Sensor E Circuit Low Voltage	CBR1/C456 Hydraulic pressure	<=	50	Kpa							Special No Trip
			Hydraulic Delay Timer (Table Based)	>=	See Table 9 for Delay Timer Cal	Sec							

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED			MIL ILLUM.
			Check for Switch to be in Exhausted Position after delay, If so then Increment Fail Counter								>=	15	Fail Counts	
			Note: Subsequent fail counts require C35R pressure above this value to re-enable fail logic. Results in one fail count per clutch transition	>	50	kpa								
							Transmission Fluid Temperature Lo	>=	-6.656	℃				
							Transmission Fluid Temperature Hyst Hi (disable above this)	Not >=	120	℃				
							Transmission Fluid Temperature Hyst Lo (enable below this)	<=	255.99	℃				
							Ignition Voltage Lo	>=	9	Volts				
							Ignition Voltage Hi	<=	31.99	Volts				
							Engine Speed Lo	>=	400	RPM				
							Engine Speed Hi	<=	7500	RPM				
							Engine Speed is within the allowable limits for	>=	5	Sec				
							Default Gear Action	=	FALSE					
							High Side Driver ON	=	TRUE					
							RVT Status	=	Normal					
							Hydraulic Pressure Available	=	TRUE					
							Engine Speed Min	>=	550	RPM				
							Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0711, P0712, P0713, P0716, P0717, P0722, P0723, P0751, P0742, P0756, P0757, P0973, P0974, P0976, P0977, P1915, P182E ECM: None					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED			MIL ILLUM.
Transmission Fluid Pressure Switch	P0990	Transmission Fluid Pressure (TFP) Sensor E Circuit High Voltage	CBR1/C456 Hydraulic pressure	>=	700	Kpa								Special No Trip
			Hydraulic Delay Timer (Table Based)	>=	See Table 9 for Delay Timer Cal	Sec								
			Check for Switch to be in Pressurized Position after delay, If so then Increment Fail Counter								>=	26	Fail Counts	
			Note: Subsequent fail counts require C35R pressure above this value to re-enable fail logic. Results in one fail count per clutch transition	<	700	kpa								
							Transmission Fluid Temperature Lo	>=	-6.656	°C				
							Transmission Fluid Temperature Hyst Hi (disable above this)	Not >=	120	°C				
							Transmission Fluid Temperature Hyst Lo (enable below this)	<=	255.99	°C				
							Ignition Voltage Lo	>=	9	Volts				
							Ignition Voltage Hi	<=	31.99	Volts				
							Engine Speed Lo	>=	400	RPM				
							Engine Speed Hi	<=	7500	RPM				
							Engine Speed is within the allowable limits for	>=	5	Sec				
							Default Gear Action	=	FALSE					
							High Side Driver ON	=	TRUE					
							RVT Status	=	Normal					
							Hydraulic Pressure Available	=	TRUE					
							Engine Speed Min	>=	550	RPM				

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: P0711, P0712, P0713, P0716, P0717, P0722, P0723, P0751, P0742, P0756, P0757, P0973, P0974, P0976, P0977, P1915, P182E ECM: None					
Tap Up Tap Down Switch (TUTD)	P1761	Tap Up and Down switch signal circuit (rolling count)	Rolling count value received from BCM does not match expected value	=	TRUE	Boolean					>= 3 Fail Counter		Special No Trip
											> 10 Sample Timer (Sec)		
							Tap Up Tap Down Message Health	=	TRUE	Boolean			
							Engine Speed Lo	>=	400	RPM			
							Engine Speed Hi	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
				Disable Conditions:			**MIL not Illuminated for DTC's:**	TCM: None ECM: None					
Mode Switch	P1762	Transmission Mode Switch Signal Circuit (rolling count)	Rolling count value received from BCM does not match expected value	=	TRUE	Boolean					>= 3 Fail Counter		Special No Trip
											> 10 Sample Timer (Sec)		
							Pattern Switch Message Health	=	TRUE	Boolean			
							Engine Speed Lo	>=	400	RPM			
							Engine Speed Hi	<=	7500	RPM			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
						Engine Speed is within the allowable limits for	>=	5	Sec			
				Disable Conditions:			**MIL not Illuminated for DTC's:**	TCM: None ECM: None				
Internal Mode Switch (IMS)	P182E	Internal Mode Switch - Circuit A Low Reported as Internal Mode Switch-Invalid Range	Fail Case 1 Current range	=	"Transitional 1"	Range State						One Trip
			Previous range	≠	CeTRGR_e_PRNDL_Drive6	Range State						
			Previous range	≠	CeTRGR_e_PRNDL_Drive5	Range State						
			Either the S1 or S3 Pressure Switch indicates "Pressure Present"	=	TRUE	Boolean						
			Engine Torque	>=	-50	Nm						
			Engine Torque	<=	8191.75	Nm						
			If the above conditions are present Increment Fail Timer							>= 0.225	Fail Seconds	
			If Fail Timer has Expired then Increment Fail Counter							>= 15	Fail Counts	
			Fail Case 2 Current range	=	"Transitional 1"	Range State						
			S3 Pressure Switch indicates "Exhausted"	=	TRUE	Boolean						
			Commanded Gear	=	1st Locked	Gear						
			If the above conditions are present Increment Fail Timer							>= 0.225	Fail Seconds	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
			If Fail Timer has Expired then Increment Fail Counter							>= 15	Fail Counts	
			Fail Case 3									
			Current range	=	"Transitional 13"	Previous range	≠	CeTRGR_e_PRNDL_Drive5				
			Either the S1 or S3 Pressure Switch indicates "Pressure Present"	=	TRUE Boolean	Previous range	≠	CeTRGR_e_PRNDL_Drive5				
			Engine Torque	>=	-8192 Nm	IMS is 7 position configuration	=	1	Boolean			
			Engine Torque	<=	8191.75 Nm	If the "IMS 7 Position config" = 1 then the "previous range" criteria above must also be satsified when the "current range" = "Transitional 13"						
			If the above conditions are present Increment Fail Timer							>= 0.225	Seconds	
			If Fail Timer has Expired then Increment Fail Counter							>= 15	Fail Counts	
			Fail Case 4									
			Current range	=	"Transitional 2" or "Transitional 8"	Disable Fail Case 4 if last positive range was Drive 6 and current range is transitional 8						
			Inhibit bit (see definition)	=	FALSE	Set inihibit bit true if PRNDL = 1100 (rev) or 0100 (Rev-Neu transitional) Set inhibit bit false if PRNDL = 1001 (park)						
			Either the S1 or S3 Pressure Switch indicates "Pressure Present"	=	TRUE Boolean							

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
			Steady State Engine Torque	>=	20	Nm							
			Steady State Engine Torque	<=	8191.75	Nm							
			If the above conditions are present Increment Fail Timer								>= 0.225	Seconds	
			If the above Condtions have been met, Increment Fail Counter								>= 15	Fail Counts	
			Fail Case 5 Current range	=	"Transitional 11"								
			Engine Torque	>=	20	Nm							
			Either the S1 or S3 Pressure Switch indicates "Pressure Present"	=	TRUE	Boolean							
			If the above conditions are present Increment Fail Timer								>= 0.225	Seconds	
			If the above Condtions have been met, Increment Fail Counter								>= 15	Fail Counts	
			Fail Case 6 Current range	=	"Illegal"		A Open Circuit Definition (flag set false if the following conditions are met):						
			and					Current Range	≠	"Transit ional 11"			
			A Open Circuit (See Definition)	=	FALSE	Boolean		or					
								Last positive state	≠	Neutral			
								or					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Previous transitional state	≠ Transitional 8 and Illegal		
					and			
					PRNDL Circuit A	= Open Circuit		
					PRNDL Circuit B	= Closed Circuit		
					PRNDL Circuit C	= Open Circuit		
					PRNDL Circuit P	= Open Circuit		
			If the above Condtions are present, Increment Fail timer				>= 6.25 Seconds	
			Fail Case 7 Current PRNDL State	= PRNDL circuit ABCP = 1101				
			and					
			Previous valid state	= PRNDL circuit ABCP =1111 Range				
			Input Speed	>= 150 RPM				
			Reverse Trans Ratio	<= 2.795898438 ratio				
			Reverse Trans Ratio	>= 3.149047852 ratio				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			If the above Condtions are present, Increment Fail timer				>= 6.25 Seconds	
			P182E will report test fail when any of the above 7 fail cases are met					
					Ignition Voltage Lo	>= 9 Volts		
					Ignition Voltage Hi	<= 31.99 Volts		
					Vehicle Speed Lo	<= 511 KPH		
					Engine Speed Lo	>= 400 RPM		
					Engine Speed Hi	<= 7500 RPM		
					Engine Speed is within the allowable limits for	>= 5 Sec		
					Engine Torque Signal Valid	= TRUE Boolean		
				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		
Tap Up Tap Down Switch (TUTD)	P1876	Tap Up and Down Enable Switch Circuit	Current range	= Park or Reverse or Neutral Range State				Special No Trip
			TUTD Enable Switch is Active	= TRUE Boolean			>= 3 Fail Time (Sec)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
										>= 5	Fail Counts	
						Ignition Voltage Lo	>=	9	Volts			
						Ignition Voltage Hi	<=	31.99	Volts			
						Vehicle Speed Lo	<=	511	KPH			
						Engine Speed Lo	>=	400	RPM			
						Engine Speed Hi	<=	7500	RPM			
						Engine Speed is within the allowable limits for	>=	5	Sec			
						P1876 Status is	≠	Test Failed This Key On or Fault Active				
				Disable Conditions:		MIL not Illuminated for DTC's:	TCM: P0815, P0816, P0826, P1761, P1825, P1877, P1915, U0100					
							ECM: None					
Internal Mode Switch (IMS)	P1915	Internal Mode Switch Does Not Indicate Park/Neutral (P/N) During Start	PRNDL State is	≠ Park or Neutral	Enumeration							One Trip
			The following events must occur Sequentially									
			Initial Engine speed	<= 50	RPM					>= 0.1	Enable Time (Sec)	
			Then									
			Engine Speed Between Following Cals									
			Engine Speed Lo Hist	>= 50	RPM							
			Engine Speed Hi Hist	<= 480	RPM					>= 0.069	Enable Time (Sec)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
			Then Final Engine Speed	>=	500	RPM					>= 1.25	Fail Time (Sec)	
			Final Transmission Input Speed	>=	100	RPM							
							DTC has Ran this Key Cycle?	=	FALSE	Boolean			
							Ignition Voltage Lo	>=	6	V			
							Ignition Voltage Hi	<=	31.99	V			
							Ignition Voltage Hyst High (enables above this value)	>=	6	V			
							Ignition Voltage Hyst Low (disabled below this value)	<=	2	V			
							Transmission Output Speed	<=	90	rpm			
							P1915 Status is	≠	Test Failed This Key On or Fault Active				
					Disable Conditions:		MIL not Illuminated for DTC's:	TCM: P0722, P0723 ECM: None					
Transmission Control Module (TCM)	P2534	Ignition Switch Run/Start Position Circuit Low	Run crank active (based on voltage thresholds below)	=	FALSE						>= 280	Fail Counts (25ms loop)	One Trip
			Ignition Voltage High Hyst (run crank goes true when above this value)		6	Volts							
			Ignition Voltage Low Hyst (run crank goes false when below this value)		2	Volts					Out of 280	Sample Counts (25ms loop)	
							Normal CAN Comm Enabled	=	TRUE	Boolean			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					ECM run/crank active status	= TRUE Boolean		
					Disable Conditions:	**MIL not Illuminated for DTC's:** TCM: None ECM: None		
Variable Bleed Solenoid (VBS)	P2714	Pressure Control (PC) Solenoid D Stuck Off [CB26]	Fail Case 1 Case: Steady State 2nd Gear					One Trip
			Gear slip	>= 400 RPM			>= Please See Table 5 For Neutral Time Cal Neutral Timer (Sec)	
			Intrusive test: commanded 3rd gear					
			If attained Gear = 3rd for Time	>= Table Based Time Please see Table 2 in Supporting Documents Enable Time (Sec)				
			If Above Conditions have been met					
			Increment 2nd gear fail count				>= 3 2nd Gear Fail Count or	
			and CB26 Fail Count				>= 14 CB26 Fail Count	
			Fail Case 2 Case: Steady State 6th Gear					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS		TIME REQUIRED		MIL ILLUM.
			Gear slip	>=	400 RPM				>=	Please See Table 5 For Neutral Time Cal / Neutral Timer (Sec)	
			Intrusive test: commanded 5th gear								
			If attained Gear = 5th For Time	>=	Table Based Time Please see Table 2 in Supporting Documents / Enable Time (Sec)						
			If Above Conditions have been met, Increment 5th gear fail counter						>= 3	5th Gear Fail Count	
			and CB26 Fail Count						>= 14	or / CB26 Fail Count	
						PRNDL State defaulted	=	FALSE Boolean			
						inhibit RVT	=	FALSE Boolean			
						IMS fault pending indication	=	FALSE Boolean			
						TPS validity flag	=	TRUE Boolean			
						Hydraulic System Pressurized	=	TRUE Boolean			
						Minimum output speed for RVT	>=	0 RPM			
						A OR B					
						(A) Output speed enable	>=	650 RPM			
						(B) Accelerator Pedal enable	>=	0.5005 Pct			
						Common Enable Criteria					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.99	Volts		
					Engine Speed Lo	>=	400	RPM		
					Engine Speed Hi	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
					Throttle Position Signal valid	=	TRUE	Boolean		
					HSD Enabled	=	TRUE	Boolean		
					Transmission Fluid Temperature	>=	-6.656	℃		
					Input Speed Sensor fault	=	FALSE	Boolean		
					Output Speed Sensor fault	=	FALSE	Boolean		
					Default Gear Option is not present	=	TRUE			
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723, P182E				
						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				
Variable Bleed Solenoid (VBS)	P2715	Pressure Control (PC) Solenoid D Stuck On [CB26] (Dynamic)	Primary Offgoing Clutch is exhausted (See Table 13 in Supporting Documents for Exhaust Delay Timers)	= TRUE Boolean						One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Primary Oncoming Clutch Pressure Command Status	=	Maximum pressurized					
			Primary Offgoing Clutch Pressure Command Status	=	Clutch exhaust command					
			Range Shift Status	≠	Initial Clutch Control					
			Attained Gear Slip	<=	40	RPM				
			If above coditons are true, increment appropriate Fail 1 Timers Below:							
			fail timer 1 (2-1 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (2-1 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (2-3 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (2-3 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (2-4 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (2-4 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (6-4 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (6-4 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (6-5 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			fail timer 1 (6-5 shifting without throttle)	>= 0.900390625 Fail Time (Sec)				
			If Attained Gear Slip is Less than Above Cal Increment Fail Timers				Total Fail Time = (Fail 1 + Fail 2) See Enable Timers for Fail Timer 1, and Reference Supporting Table 15 for Fail Timer 2 >= Fail sec	
			If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter					
			2nd gear fail counter				>= 3 Fail Counter From 2nd Gear	
							OR	
			6th gear fail counter				>= 3 Fail Counter From 6th Gear	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
			total fail counter						>= 5	OR Total Fail Counter
					TUT Enable temperature	>=	-6.672	ºC		
					Input Speed Sensor fault	=	FALSE	Boolean		
					Output Speed Sensor fault	=	FALSE	Boolean		
					Command / Attained Gear	≠	1st	Boolean		
					High Side Driver ON	=	TRUE	Boolean		
					output speed limit for TUT	>=	200	RPM		
					input speed limit for TUT	>=	200	RPM		
					PRNDL state defaulted	=	FALSE	Boolean		
					IMS Fault Pending	=	FALSE	Boolean		
					Service Fast Learn Mode	=	FALSE	Boolean		
					HSD Enabled	=	TRUE	Boolean		
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723, P182E				
						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				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Variable Bleed Solenoid (VBS)	P2715	Pressure Control (PC) Solenoid D Stuck On [CB26] (Steady State)	Fail Case 1 Case: Steady State 1st Attained Gear slip If the Above is True for Time Intrusive test: (CBR1 clutch exhausted) Gear Ratio Gear Ratio If the above parameters are true	 >= 400 RPM >= Table Based Time Please Refer to Table 4 in supporting documents Enable Time (Sec) <= 3.112670898 >= 2.705322266			 >= 1.1 Fail Timer (Sec) >= 8 Fail Count in 1st Gear or >= 8 Total Fail Counts	One Trip
			Fail Case 2 Case: Steady State 3rd Gear Max Delta Output Speed Hysteresis	 >= Table Based value Please Refer to 3D Table 1 in supporting documents rpm/sec				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED		MIL ILLUM.
			Min Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 2 in supporting documents	rpm/sec				
			If the Above is True for Time	>=	Table Based Time Please Refer to Table 17 in supporting documents	Sec				
			Intrusive test: (C35R clutch exhausted)							
			Gear Ratio	<=	3.112670898					
			Gear Ratio	>=	2.705322266					
			If the above parameters are true							
								>= 1.1	Fail Timer (Sec)	
								>= 3	Fail Count in 3rd Gear	
									or	
								>= 8	Total Fail Counts	
	Fail Case 3		Case: Steady State 4rd Gear							
			Max Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 1 in supporting documents	rpm/sec				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED			MIL ILLUM.
			Min Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 2 in supporting documents	rpm/sec						
			If the Above is True for Time	>=	Table Based Time Please Refer to Table 17 in supporting documents	Sec						
			Intrusive test: (C1234 clutch exhausted)									
			Gear Ratio	<=	0.798217773							
			Gear Ratio	>=	0.693725586							
			If the above parameters are true						>=	1.1	Fail Timer (Sec)	
									>=	3	Fail Count in 4th Gear	
											or	
									>=	8	Total Fail Counts	
		Fail Case 4	Case: Steady State 5th Gear									
			Max Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 1 in supporting documents	rpm/sec						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
			Min Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 2 in supporting documents rpm/sec							
			If the Above is True for Time	>=	Table Based Time Please Refer to Table 17 in supporting documents Sec							
			Intrusive test: (C35R clutch exhausted)									
			Gear Ratio	<=	0.798217773							
			Gear Ratio	>=	0.693725586							
			If the above parameters are true							>=	1.1 Fail Timer (Sec)	
										>=	3 Fail Count in 5th Gear	
											or	
										>=	8 Total Fail Counts	
						PRNDL State defaulted	=	FALSE	Boolean			
						inhibit RVT	=	FALSE	Boolean			
						IMS fault pending indication	=	FALSE	Boolean			
						output speed	>=	0	RPM			
						TPS validity flag	=	TRUE	Boolean			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS		TIME REQUIRED	MIL ILLUM.
					HSD Enabled	=	TRUE	Boolean	
					Hydraulic_System_Pressurized	=	TRUE	Boolean	
					Minimum output speed for RVT	>=	0	Nm	
					A OR B				
					(A) Output speed enable	>=	650	Nm	
					(B) Accelerator Pedal enable	>=	0.5005	Nm	
					Ignition Voltage Lo	>=	9	Volts	
					Ignition Voltage Hi	<=	31.99	Volts	
					Engine Speed Lo	>=	400	RPM	
					Engine Speed Hi	<=	7500	RPM	
					Engine Speed is within the allowable limits for	>=	5	Sec	
					if Attained Gear=1st FW Accelerator Pedal enable	>=	10.001	Pct	
					if Attained Gear=1st FW Engine Torque Enable	>=	45	Nm	
					if Attained Gear=1st FW Engine Torque Enable	<=	8191.9	Nm	
					Transmission Fluid Temperature	>=	-6.656	°C	
					Input Speed Sensor fault	=	FALSE	Boolean	
					Output Speed Sensor fault	=	FALSE	Boolean	
					Default Gear Option is not present	=	TRUE		

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, P182E					
								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					
Variable Bleed Solenoid (VBS)	P2720	Pressure Control (PC) Solenoid D Control Circuit Low (CB26 VBS)	The HWIO reports a low voltage (ground short) error flag	=	TRUE	Boolean					>= 0.3 out of 0.375	Fail Time (Sec) Sample Time (Sec)	One Trip
							P2770 Status is not	=	Test Failed This Key On or Fault Active				
							Ignition Voltage	>=	9	Volts			
							Ignition Voltage	<=	31.99	Volts			
							Engine Speed	>=	400	RPM			
							Engine Speed	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
				Disable Conditions:			**MIL not Illuminated for DTC's:**	TCM: None					
								ECM: None					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Variable Bleed Solenoid (VBS)	P2721	Pressure Control (PC) Solenoid D Control Circuit High (CB26 VBS)	The HWIO reports a high voltage (open or power short) error flag	= TRUE Boolean			>= 0.3 Fail Time (Sec) out of 0.375 Sample Time (Sec)	One Trip
					P2721 Status is not	= Test Failed This Key On or Fault Active		
					Ignition Voltage	>= 9 Volts		
					Ignition Voltage	<= 31.99 Volts		
					Engine Speed	>= 400 RPM		
					Engine Speed	<= 7500 RPM		
					Engine Speed is within the allowable limits for	>= 5 Sec		
				Disable Conditions:	**MIL not Illuminated for DTC's:** TCM: None ECM: None			
Variable Bleed Solenoid (VBS)	P2723	Pressure Control (PC) Solenoid E Stuck Off	Fail Case 1 Case: Steady State 1st Gear Gear slip Intrusive test: commanded 2nd gear	>= 400 RPM			>= Please See Table 5 For Neutral Time Cal Neutral Timer (Sec)	One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED			MIL ILLUM.
			If attained Gear ≠ 2nd for Time	>=	Table based Timer, Please See Table 3 in Supporting Documents	Enable Time (Sec)						
			If Above Conditions have been met, Increment 1st gear fail counter						>=	2	1st Gear Fail Count	
											or	
			and C1234 fail counter						>=	14	C1234 Clutch Fail Count	
			Fail Case 2 Case: Steady State 2nd Gear									
			Gear slip	>=	400	RPM			>=	Please See Table 5 For Neutral Time Cal	Neutral Timer (Sec)	
			Intrusive test: commanded 3rd gear									
			If attained Gear ≠ 3rd for Time	>=	Table based Timer, Please See Table 3 in Supporting Documents	Enable Time (Sec)						
			If Above Conditions have been met, Increment 2nd gear fail counter						>=	2	2nd Gear Fail Count	
											or	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED		MIL ILLUM.
			and C1234 fail counter						>=	14	C1234 Clutch Fail Count	
			Fail Case 3 Case: Steady State 3rd Gear									
			Gear slip	>=	400	RPM			>=	Please See Table 5 For Neutral Time Cal	Neutral Timer (Sec)	
			Intrusive test: commanded 4th gear									
			If attained Gear ≠ 4th for time	>=	Table based Timer, Please See Table 3 in Supporting Documents	Enable Time (Sec)						
			If Above Conditions have been met, Increment 3rd gear fail counter						>=	2	3rd Gear Fail Count	
											or	
			and C1234 fail counter						>=	14	C1234 Clutch Fail Count	
			Fail Case 4 Case: Steady State 4th Gear									

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
			Gear slip	>=	400 RPM					>=	Please See Table 5 For Neutral Time Cal Neutral Timer (Sec)	
			Intrusive test: commanded 5th gear									
			If attained Gear = 5th For Time	>=	Table based Timer, Please See Table 3 in Supporting Documents	Enable Time (Sec)						
			If Above Conditions have been met, Increment 4th gear fail counter							>=	3	4th Gear Fail Count	
											or	
			and C1234 fail counter							>=	14	C1234 Clutch Fail Count	
						PRNDL State defaulted	=	FALSE	Boolean			
						inhibit RVT	=	FALSE	Boolean			
						IMS fault pending indication	=	FALSE	Boolean			
						TPS validity flag	=	TRUE	Boolean			
						Hydraulic System Pressurized	=	TRUE	Boolean			
						Minimum output speed for RVT	>=	0	RPM			
						A OR B						
						(A) Output speed enable	>=	650	RPM			
						(B) Accelerator Pedal enable	>=	0.5005	Pct			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED	MIL ILLUM.
							Common Enable Criteria					
							Ignition Voltage Lo	>=	9	Volts		
							Ignition Voltage Hi	<=	31.99	Volts		
							Engine Speed Lo	>=	400	RPM		
							Engine Speed Hi	<=	7500	RPM		
							Engine Speed is within the allowable limits for	>=	5	Sec		
							Throttle Position Signal valid	=	TRUE	Boolean		
							HSD Enabled	=	TRUE	Boolean		
							Transmission Fluid Temperature	>=	-6.656	°C		
							Input Speed Sensor fault	=	FALSE	Boolean		
							Output Speed Sensor fault	=	FALSE	Boolean		
							Default Gear Option is not present	=	TRUE			
						Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723, P182E				
								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				
Variable Bleed Solenoid (VBS)	P2724	Pressure Control (PC) Solenoid E Stuck On (Dynamic)	Primary Offgoing Clutch is exhausted (See Table 10 in Supporting Documents for Exhaust Delay Timers)	=	TRUE	Boolean						One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE		SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Primary Oncoming Clutch Pressure Command Status	=	Maximum pressurized				
			Primary Offgoing Clutch Pressure Command Status	=	Clutch exhaust command				
			Range Shift Status	≠	Initial Clutch Control				
			Attained Gear Slip	<=	40 RPM				
			If the above conditions are true increment appropriate Fail 1 Timers Below:						
			fail timer 1 (2-6 shifting with throttle)	>=	0.700195313 sec				
			fail timer 1 (2-6 shifting without throttle)	>=	0.900390625 sec				
			fail timer 1 (3-5 shifting with throttle)	>=	0.700195313 sec				
			fail timer 1 (3-5 shifting without throttle)	>=	0.900390625 sec				
			fail timer 1 (4-5 shifting with throttle)	>=	0.700195313 sec				
			fail timer 1 (4-5 shifting without throttle)	>=	0.900390625 sec				
			fail timer 1 (4-6 shifting with throttle)	>=	0.700195313 sec				
			fail timer 1 (4-6 shifting without throttle)	>=	0.900390625 sec				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			If Attained Gear Slip is Less than Above Cal Increment Fail Timers				Total Fail Time = (Fail 1 + Fail 2) See Enable Timers for >= Fail Timer 1, and Reference Supporting Table 15 for Fail Timer 2 sec	
			If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter					
			2nd gear fail counter				>= 3 Fail Counter From 2nd Gear	
			3rd gear fail counter				>= 3 Fail Counter From 3rd Gear	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
			4th gear fail counter						>= 3	Fail Counter From 4th Gear	
			total fail counter						>= 5	Total Fail Counter	
					TUT Enable temperature	>=	-6.672	°C			
					Input Speed Sensor fault	=	FALSE	Boolean			
					Output Speed Sensor fault	=	FALSE	Boolean			
					Command / Attained Gear	≠	1st	Boolean			
					High Side Driver ON	=	TRUE	Boolean			
					output speed limit for TUT	>=	200	RPM			
					input speed limit for TUT	>=	200	RPM			
					PRNDL state defaulted	=	FALSE	Boolean			
					IMS Fault Pending	=	FALSE	Boolean			
					Service Fast Learn Mode	=	FALSE	Boolean			
					HSD Enabled	=	TRUE	Boolean			

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, P182E 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		
Variable Bleed Solenoid (VBS)	P2724	Pressure Control (PC) Solenoid E Stuck On (Steady State)	<u>Fail Case 1</u> Case: 5th Gear						One Trip
			Max Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 1 in supporting documents	rpm/sec			
			Min Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 2 in supporting documents	rpm/sec			
			If the Above is True for Time	>=	Table Based Time Please Refer to Table 17 in supporting documents	Sec			
			Intrusive test: (C35R clutch exhausted)						
			Gear Ratio	<=	1.529052734				
			Gear Ratio	>=	1.328979492				
			If the above parameters are true						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
							>= 1.1 Fail Timer (Sec)	
							>= 3 Fail Count in 5th Gear	
							OR	
							>= 3 Total Fail Counts	
			Fail Case 2 Case: 6th Gear					
			Max Delta Output Speed Hysteresis	>= Table Based value Please Refer to 3D Table 1 in supporting documents rpm/sec				
			Min Delta Output Speed Hysteresis	>= Table Based value Please Refer to 3D Table 2 in supporting documents rpm/sec				
			If the Above is True for Time	>= Table Based Time Please Refer to Table 17 in supporting documents Sec				
			Intrusive test: (CB26 clutch exhausted)					
			Gear Ratio	<= 1.529052734				
			Gear Ratio	>= 1.328979492				
			If the above parameters are true					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS		TIME REQUIRED		MIL ILLUM.
								>= 1.1	Fail Timer (Sec)	
								>= 3	Fail Count in 6th Gear	
									OR	
								>= 3	Total Fail Counts	
					PRNDL State defaulted	=	FALSE Boolean			
					inhibit RVT	=	FALSE Boolean			
					IMS fault pending indication	=	FALSE Boolean			
					output speed	>=	0 RPM			
					TPS validity flag	=	TRUE Boolean			
					HSD Enabled	=	TRUE Boolean			
					Hydraulic_System_Pressurized	=	TRUE Boolean			
					Minimum output speed for RVT	>=	0 Nm			
					A OR B					
					(A) Output speed enable	>=	650 Nm			
					(B) Accelerator Pedal enable	>=	0.5005 Nm			
					Ignition Voltage Lo	>=	9 Volts			
					Ignition Voltage Hi	<=	31.99 Volts			
					Engine Speed Lo	>=	400 RPM			
					Engine Speed Hi	<=	7500 RPM			
					Engine Speed is within the allowable limits for	>=	5 Sec			
					if Attained Gear=1st FW Accelerator Pedal enable	>=	10.001 Pct			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
							if Attained Gear=1st FW Engine Torque Enable	>=	45	Nm			
							if Attained Gear=1st FW Engine Torque Enable	<=	8191.9	Nm			
							Transmission Fluid Temperature	>=	-6.656	ºC			
							Input Speed Sensor fault	=	FALSE	Boolean			
							Output Speed Sensor fault	=	FALSE	Boolean			
							Default Gear Option is not present	=	TRUE				
						Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: P0716, P0717, P0722, P0723, P182E					
								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					
Variable Bleed Solenoid (VBS)	P2729	Pressure Control (PC) Solenoid E Control Circuit Low (C1234 VBS)	The HWIO reports a low voltage (ground short) error flag	=	TRUE	Boolean					>= 0.3 out of 0.375	Fail Time (Sec) Sample Time (Sec)	One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS			TIME REQUIRED		MIL ILLUM.
					P2729 Status is not	=	Test Failed This Key On or Fault Active				
					Ignition Voltage	>=	9	Volt			
					Ignition Voltage	<=	31.99	Volt			
					Engine Speed	>=	400	RPM			
					Engine Speed	<=	7500	RPM			
					Engine Speed is within the allowable limits for	>=	5	Sec			
				Disable Conditions:	**MIL not Illuminated for DTC's:**	TCM: None ECM: None					
Variable Bleed Solenoid (VBS)	P2730	Pressure Control (PC) Solenoid E Control Circuit High (C1234 VBS)	The HWIO reports a high voltage (open or power short) error flag	= TRUE Boolean					>= 0.3 out of 0.375	Fail Time (Sec) Sample Time (Sec)	One Trip
					P2730 Status is not	=	Test Failed This Key On or Fault Active				
					Ignition Voltage	>=	9	Volt			
					Ignition Voltage	<=	31.99	Volt			
					Engine Speed	>=	400	RPM			
					Engine Speed	<=	7500	RPM			
					Engine Speed is within the allowable limits for	>=	5	Sec			

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: None					
Variable Bleed Solenoid (VBS)	P2763	Torque Converter Clutch Pressure High	The HWIO reports a low pressure/high voltage (open or power short) error flag	=	TRUE	Boolean					>=	4.4 Fail Time (Sec)	Two Trips
											out of	5 Sample Time (Sec)	
							P2763 Status is not	=	Test Failed This Key On or Fault Active				
							Ignition Voltage	>=	9	Volt			
							Ignition Voltage	<=	31.99	Volt			
							Engine Speed	>=	400	RPM			
							Engine Speed	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
							High Side Driver Enabled	=	TRUE	Boolean			
					Disable Conditions:		**MIL not Illuminated for DTC's:**	TCM: P0658, P0659					
								ECM: None					
Variable Bleed Solenoid (VBS)	P2764	Torque Converter Clutch Pressure Control Solenoid Control Circuit Low	The HWIO reports a high pressure/low voltage (ground short) error flag	=	TRUE	Boolean					>=	4.4 MPH	One Trip
											out of	5 MPH	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE			SECONDARY PARAMETERS	ENABLE CONDITIONS				TIME REQUIRED		MIL ILLUM.
							P2764 Status is not	=	Test Failed This Key On or Fault Active					
							Ignition Voltage	>=	9	Volt				
							Ignition Voltage	<=	31.99	Volt				
							Engine Speed	>=	400	RPM				
							Engine Speed	<=	7500	RPM				
							Engine Speed is within the allowable limits for	>=	5	Sec				
							High Side Driver Enabled	=	TRUE	Boolean				
					Disable Conditions:		**MIL not Illuminated for DTC's:**	TCM: P0658, P0659 ECM: None						
Communication	U0073	Controller Area Network Bus Communication Error	CAN Hardware Circuitry Detects a Low Voltage Error	=	TRUE	Boolean						>= 62	Fail counts (≈ 10 seconds)	One Trip
			Delay timer	>=	0.1125	sec						Out of 70	Sample Counts (≈ 11 seconds)	
							Stabilization delay	>=	3	sec				
							Power Mode	=	Run					
					Disable Conditions:		**MIL not Illuminated for DTC's:**	TCM: None ECM: None						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Communication	U0100	Lost Communications with ECM (Engine Control Module)	CAN messages from ECM are not received by the TCM	= TRUE Boolean			>= 12 sec	One Trip
					Stabilization delay >= 3 sec			
					Power Mode = Run			
				Disable Conditions:	**MIL not Illuminated for DTC's:** TCM: U0073			
					ECM: None			

2D Tables

Table 1

0.00	64.00	128.00	192.00	256.00	320.00	384.00	448.00	512.00	N*m
100.00	120.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	RPM

Table 2

-6.67	-6.66	40.00	ºC
409.59	2.00	2.00	Sec

Table 3

-6.67	-6.66	40.00	ºC
409.59	3.50	3.50	Sec

Table 4

-6.67	-6.66	40.00	ºC
409.59	2.99	2.00	Sec

Table 5

-6.67	-6.66	40.00	ºC
409.59	3.00	3.00	Sec

Table 6

-7.01	-7.00	40.00	80.00	120.00	ºC
409.00	3.60	1.60	1.40	1.40	Sec

Table 7

-7.01	-7.00	40.00	80.00	120.00	ºC
409.00	3.40	1.40	1.30	1.20	Sec

2D Tables

Table 8

-7.01	-7.00	40.00	80.00	120.00	⁰C
409.00	3.60	1.60	1.50	1.40	Sec

Table 9

-7.01	-7.00	40.00	80.00	120.00	⁰C
409.00	3.30	1.30	1.20	1.10	Sec

Table 10

-40.00	-20.00	0.00	30.00	110.00	⁰C
8.85	3.75	1.31	0.28	0.28	Sec

Table 11

-40.00	-20.00	0.00	30.00	110.00	⁰C
5.00	1.70	0.40	0.25	0.25	Sec

Table 12

-40.00	-20.00	0.00	30.00	110.00	⁰C
8.00	2.20	0.70	0.25	0.25	Sec

Table 13

-40.00	-20.00	0.00	30.00	110.00	⁰C
5.20	1.60	0.50	0.27	0.16	Sec

2D Tables

Table 14

-40.00	-20.00	0.00	30.00	110.00	⁰C
5.00	1.50	0.70	0.25	0.25	Sec

Table 15

-40.00	-30.00	-20.00	-10.00	0.00	10.00	20.00	30.00	40.00	⁰C
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Sec

Table 16

-6.67	-6.66	40.00	⁰C
409.59	1.50	1.50	Sec

Table 17

-6.67	-6.66	40.00	⁰C
0.40	0.35	0.30	Sec

Table 18

-40.10	-40.00	-20.00	0.00	30.00	60.00	100.00	149.00	149.10	⁰C
256.00	50.00	45.00	40.00	34.00	25.00	20.00	20.00	256.00	⁰C

Table 19

-40.10	-40.00	-20.00	0.00	30.00	60.00	100.00	149.00	149.10	⁰C
256.00	50.00	45.00	40.00	34.00	25.00	20.00	20.00	256.00	⁰C

Table 20

-40.10	-40.00	-20.00	0.00	30.00	60.00	100.00	149.00	149.10	⁰C
256.00	10.00	8.00	8.00	8.00	8.00	8.00	8.00	256.00	⁰C

3D Tables

3D_Table 1

X-Axis Calibration	%		0.00	2.00	5.00	25.00	100.00
Y-Axis Calibration	ºC	-6.67	8191.75	8191.75	8191.75	8191.75	8191.75
Table Calibration	RPM/Sec	-6.66	8191.75	8191.75	8191.75	8191.75	8191.75
		40.00	8191.75	8191.75	8191.75	8191.75	8191.75

3D_Table 2

X-Axis Calibration	%		0.00	2.00	5.00	25.00	100.00
Y-Axis Calibration	ºC	-6.67	8191.75	8191.75	8191.75	8191.75	8191.75
Table Calibration	RPM/Sec	-6.66	500.00	500.00	300.00	300.00	300.00
		40.00	500.00	500.00	300.00	300.00	300.00