COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOL	D VALUE	SECONDARY PARAMETERS	ENABL	E COND	ITIONS	TIME REC	UIRED	MIL ILLUM
Transmission Control Module (TCM)	P0601	Transmission Electro-Hydraulic Control Module Read Only Memory	Incorrect program/calibrations checksum	=	TRUE	Boolean					>=	Fail Counts	one trip
							Ignition Voltage Lo Ignition Voltage Hi	>= <=	9 18	Volts Volts			
						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 Continou sly	I	one trip
							Ignition Voltage Lo Ignition Voltage Hi	>= <=	9 18	Volts Volts			
						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	
							Ignition Voltage Lo Ignition Voltage Hi	>= <=	9 18	Volts Volts			
						Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0604					
								ECM:					
Transmission Control Module (TCM)		Transmission Electro-Hydraulic Control Module Long Term Memory Performance	TCM Non-Volatile Memory bit Incorrect flag at Powerdown	=	TRUE	Boolean		None			Runs Continou sly	I	one trip
							Ignition Voltage Lo Ignition Voltage Hi	>= <=	9 18	Volts Volts			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOL	D VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS of TCM:			TIN	IE REG	QUIRED	MIL ILLUM.
						Disable Conditions:		TCM: P062F						
								ECM: None						
Transmission Control Module (TCM)		Transmission Electro-Hydraulic Control Module Internal Temperature Too High	Fail Case 1 Substrate Temperature	>=	144	°C					>=	5	Fail Time (Sec)	one trip
			Fail Case 2 Substrate Temperature	>=	50	°C					>=	2	Fail Time (Sec)	
			Ignition Voltage	>=	18	Volts								
			Note: either fail case can set the DTC											
			300 000				Ignition Voltage Lo Ignition Voltage Hi Substrate Temp Lo Substrate Temp Hi	>= <= >= <=	9 31.9902 0 240	Volts Volts °C °C				
							Substrate Temp Between Temp Range for Time	>=	0.25	Sec				
							P0634 Status is	≠	Test Failed This Key On or Fault					
						Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None						
								ECM: None						
HWIO	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					
							High Side Driver 1 On	=	True	Boolean				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME RE	QUIRED	MIL ILLUM.
				Disable Conditions:		TCM: None			
						ECM: None			
Transmission Control Module (TCM)	P0667	TCM Internal Temp (substrate) Sensor Circuit Range/Performance	If transmission oil temp to substrate temp Δ If TCM substrate temp to power up temp Δ	supporting documents Refer to Table 20 in					two trips
			Both conditions above required to increment fail counter	documents			>= 3000	(100ms	
			Note: table reference temp = to the median temp of trans oil temp, substrate temp and				Out 3750	loop)	
			Non-continuous (intermittent) fail conditions will delay resetting fail counter until				>= 700	Pass Counts (100ms loop) Sample	
							Out 875 of	Counts (100ms loop)	
					Engine Torque Signal Valid Accelerator Position Signal Valid Ignition Voltage Lo	= TRUE Boolean			
					Ignition Voltage Ed Ignition Voltage Hi Engine Speed Lo Engine Speed Hi Engine Speed is within the	<= 31.9902 Volts >= 400 RPM <= 7500 RPM			
					allowable limits for Brake torque active Below describes the brake torque entry criteria	= FALSE			
					Engine Torque Throttle	>= 90 N*m			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAB	BLE CONDIT	IONS	TIME REQUIRED	MIL ILLUM
					Transmission Input Speed Vehicle Speed Transmission Range Transmission Range PTO Set Brake Torque Active TRUE if above conditions	≠	200 8 Park Neutral Not Active	RPM Kph		
					are met for: Below describes the brake torque exit criteria Brake torque entry criteria Clutch hydraulic pressure	= ≠	Not Met Clutch Hydraulic			
					Clutch used to exit brake torque active The above clutch pressure	=	Air Purge Event CeTFTD_ e_C3_Ra tlEnbl			
					is greater than this value for one loop Set Brake Torque Active FALSE if above conditions are met for:	>=	600 20 Test	kpa Sec		
					P0667 Status is		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,				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						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,		
Transmission Control	P0668	TCM internal temperature		CeTFTI_e_Vol		P0306, P0307, P0308, P0401, P042E		two trips
Module (TCM)		(substrate) thermistor failed at a low voltge	Type of Sensor Used If TCM Substrate Temperature Sensor = Direct Proportional and Temp	= tageInversePr op <= 254 °C				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDIT	TIONS	TIM	IE REQ	UIRED	MIL ILLUM.
			If TCM Substrate Temperature Sensor = Indirect Proportional and Temp	>=	254	°C								
			Either condition above will satisfy the fail conditions								>=	60	Fail Timer (Sec)	
							Ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo Engine Speed Hi Engine Speed is within the allowable limits for	>= <= >= <= >=	9 31.9902 400 7500 5	Volts Volts RPM RPM Sec				
							P0668 Status is	≠	Test Failed This Key On or Fault Active					
						Disable Conditions:		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_Vo tageInversePr op									two trips
			If TCM Substrate Temperature Sensor = Direct Proportional and Temp If TCM Substrate	>=	-254	°C								
			Temperature Sensor = Indirect Proportional and Temp Either condition above	<=	-254	°C							Fail	
			will satisfy the fail conditions				Ignition Voltage Lo	\-	0	Volto	>=	60	Timer (Sec)	
							ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo Engine Speed Hi	>= <= >= <=	9 31.9902 400 7500	Volts Volts RPM RPM				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	within the			TIME REQUIRED	MIL ILLUM.
					Engine Speed is within the allowable limits for	>=	5 Test	Sec		
					P0669 Status is	≠	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			
				Disabl Conditions						
						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						two trips
			If transmission oil temp to power up temp Δ	Refer to Table > 18 in °C supporting documents						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENA	BLE CONDI	TIONS	П	ME REC	UIRED	MIL ILLUM.
			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	<=	31.9902	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 Transmission Input Speed	>= <=	30.0003 200	Pct RPM				
					Vehicle Speed	<=	8	Kph				
					Transmission Range	≠	Park	p				
					Transmission Range	≠	Neutral					
					РТО	=	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 CONDIT	IONS	TIME REQUIRED	MIL ILLUM.
					Below describes the brake torque exit criteria Brake torque entry criteria				
					Clutch hydraulic pressure	Clutch Hydraulic ≠ Air Purge Event			
					Clutch used to exit brake torque active				
					The above clutch pressure is greater than this value for one loop		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:		TCM: P0658, P0668, P0669, P06AD, P06AE, P0716, P0712, P0713, P0717, P0722, P0723, P0962, P0963, P0966, P09971, P215C, P2720, P2721, P2729, P2730			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHO	OLD VALUE	SECONDARY PARAMETERS	ENAB	LE CONDIT	FIONS	TIME RI	EQUIRED	MIL ILLUM.
							ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0307, P0308, P0301, P0308, P0401, P042E					
Transmission Control Module (TCM)	P06AD	TCM power-up thermistor circuit voltage low	Power Up Temp	<= -254	°C					>= 60	Fail Time (Sec)	two trips
						Ignition Voltage Lo	>=	9	Volts			
						Ignition Voltage Hi	<=	31.9902	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	THRESHO	.D VALUE	SECONDARY PARAMETERS	ENAB	LE CONDIT	TIONS	TIME REG	QUIRED	MIL ILLUM.
						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:		TCM: P0716, P0717, P0722, P0723					
							ECM: None					
Transmission Control Module (TCM)		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	<=	31.9902	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	ENA	BLE CONDIT	IONS	TIME	REQUIRED	MIL ILLUM.
							P06AE Status is	≠	Test Failed This Key On or Fault Active				
						Disable Conditions:		TCM: None					
								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								>= 30	Fail Counts (100ms loop)	
			Note: table reference temp = to the median temp of trans oil temp, substrate temp and power up temp.								Out of 37	Sample Counts (100ms loop)	
			Non-continuous (intermittent) fail conditions will delay resetting fail counter until								>= 7(Pass Counts (100ms loop)	
											Out 87	Sample Counts (100ms loop)	
							Engine Torque Signal Valid Accelerator Position Signal Valid	=		Boolean Boolean			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENA	BLE CONDIT	TIONS	TIME REQUIRED	MIL ILLUM.
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.9902	Volts		
					Engine Speed Lo	>=	400	RPM		
					Engine Speed Hi	<=	7500	RPM		
					Engine Speed is within the	>=	5	Sec		
					allowable limits for					
					Brake torque active	=	FALSE			
					Below describes the brake torque entry criteria					
					Engine Torque	>=	90	N*m		
					Throttle	>=	30.0003	Pct		
					Transmission Input Speed	<=	200	RPM		
					Vehicle Speed	<=	8	Kph		
					Transmission Range	≠	Park			
					Transmission Range	≠	Neutral			
					РТО	=	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			
					Brake torque entry criteria	=	Clutch			
							Hydraulic			
					Clutch hydraulic pressure	≠	Air Purge			
							Event			
					Clutch used to exit brake		CeTFTD_			
					torque active	=	e_C3_Ra tlEnbl			
					The above clutch pressure		ULIDI			
					is greater than this value for	>=	600	kpa		
					one loop Set Brake Torque Active					
					FALSE if above conditions	>=	20	Sec		
					are met for:					
							Test			
							Failed This Key			
					P0711 Status is	≠	On or			
							Fault			
							Active			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUN
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM:		
				Conditions:	DICS:	P0658, P0668,		
						P0669,		
						P06AD,		
						P06AE,		
						P0716,		
						P0712,		
						P0713,		
						P0717,		
						P0722, P0723,		
						P0723, P0962,		I
						P0963,		
						P0966,		
						P0967,		
						P0970,		
						P0971,		
						P215C,		
						P2720,		
						P2721, P2729,		
						P2730		
						1 2700		
						ECM:		
						P0101,		
						P0102,		
						P0103,		
						P0106, P0107,		
						P0108,		
						P0171,		
						P0172,		
						P0174,		
						P0175,		
						P0201,		
						P0202,		
						P0203, P0204,		
						P0204, P0205,		
						P0205, P0206,		I
						P0207,		I
						P0208,		I
						P0300,		
						P0301,		I
						P0302,		
						P0303,		
						P0304,		1

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0305, P0306, P0307, P0308, P0401, P042E		
Transmission Fluid Temperature Sensor (TFT)		Transmission fluid temperature thermistor failed at a low voltage	Type of Sensor Used If Transmission Fluid Temperature Sensor = Direct Proportional and Temp If Transmission Fluid Temperature Sensor = Indirect Proportional and Temp	op d = <= 254 °C d = >= 254 °C				two trips
			Either condition above will satisfy the fail conditions	il	Ignition Voltage Lo	>= 9 Volts	>= 60 Fail Time (Sec)	
					Ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo Engine Speed Hi Engine Speed is within the allowable limits for	<= 31.9902 Volts >= 400 RPM <= 7500 RPM >= 5 Sec Test Failed This Koy		
					For Hybrids, below conditions must also be met Estimated Motor Power Loss Estimated Motor Power Loss greater than limit for time Lost Communication with Hybrid Processor Control Module	>= 0 kW >= 0 Sec = FALSE		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disable Conditions:	Estimated Motor Power Loss Fault MIL not Illuminated for DTC's:	TCM:		
						ECM: None		
Transmission Fluid Temperature Sensor (TFT)		Transmission fluid temperature thermistor failed at a high voltage	Type of Sensor Used If Transmission Fluid Temperature Sensor = Direct Proportional and Temp If Transmission Fluid Temperature Sensor = Indirect Proportional and Temp Either condition above will satisfy the fail conditions	op >= -254 °C	Ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo Engine Speed Hi	>= 400 RPM	>= 60 Fail Time (Sec)	two trips
					Engine Speed in Engine Speed in Engine Speed in Engine Speed is within the allowable limits for P0713 Status is	>= 5 Sec Test Failed		

	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE COI	IDITIONS	TIME REQUIRED	MIL ILLUM.
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0713, P0716, P0717, P0722, P0723			
Transmission Input Speed Sensor (TISS)	P0716	Input Speed Sensor Performance	Transmission Input Speed Sensor Drops	>= 1350 RPM		None		>= 0.8 Fail Time (Sec)	one trip
					Engine Torque is Engine Speed Engine Speed Engine Speed is within the allowable limits for Vehicle Speed is Throttle Position is Transmission Input Speed is The previous requirement has been satisfied for The change (loop to loop) in transmission input speed is The previous requirement has been satisfied for Throttle Position Signal Valid Engine Torque Signal Valid Ignition Voltage	<pre><= 8191. >= 400 <= 7500 >= 5 >= 10 >= 0 >= 0 <> 8191. >= 0 = TRU = TRU >= 9</pre>	RPM RPM Sec Kph Pct RPM Sec RPM/Loo p Sec Boolean Boolean Volts Volts		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRE	SHOLD VALUE	SECONDARY PARAMETERS	ENAB	LE CONDI	TIONS	TIN	ME REC	UIRED	MIL ILLUM.
Transmission Input Speed Sensor (TISS)		Input Speed Sensor Circuit Low Voltage	Fail Transmission Input Case 1 Speed is	<	Disable Conditions:		TCM: P0717, P0752, P0973, P0974 ECM: P0101, P0102, P0103, P0121, P0122, P0123			>=	4.5	Fail Time (Sec)	one trip
			Case 2 When P0722 DTC Status equal to Test Failed and Transmission Input Speed is	< 1	000 RPM	Controller uses a single power supply for the speed sensors Engine Torque is	= >=	1 50	Boolean N*m				
						Engline Torque is Engine Torque is Vehicle Speed Engine Torque Signal Valid	<= >=	8191.88 16 TRUE	N*m Kph Boolean				
						Ignition Voltage Ignition Voltage Engine Speed Engine Speed Engine Speed is within the allowable limits for		9 31.9902 400 7500	Volts Volts RPM RPM Sec				
						P0717 Status is not	=	Test Failed This Key On or Fault Active					
					Disable Conditions:								

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHO	LD VALUE	SECONDARY PARAMETERS	ENA	BLE COND	ITIONS	TIME REQUIRED	MIL ILLUM
Transmission Output Speed Sensor (TOSS)	P0722	Output Speed Sensor Circuit Low Voltage	Transmission Output Speed Sensor Raw Speed	<=	35	RPM					>= 4.5 3.5 Fail Time (Sec)	one tri
							P0722 Status is not	=	Test Failed This Key On or Fault Active			
							Transmission Input Speed Check	=	TRUE	Boolean		
							Engine Torque Check Throttle Position	= >=	TRUE 8.00018	Boolean Pct		
							Transmission Fluid Temperature	>=	-40	°C		
							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 Ignition Voltage is Engine Speed is Engine Speed is	>= <= >= <=	9 31.9902 400 7500	Volts Volts RPM RPM		
							Engine Speed is within the allowable limits for	>=	5	Sec		
							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 OR	=	complete			
							Transmission Range is	=	Park or Neutral			
							Engine Torque is Engine Torque is	>= <=	8191.75 8191.75			
							Engine Torque Condition 2 Engine Torque is	>=	30	N*m		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRES	HOLD VALUE	SECONDARY PARAMETERS	ENAI	BLE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
						Engine Torque is	<=	8191.75	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	<=	8191.75	RPM		
						TIS Check Condition 2 Engine Speed without the	>=	3200	RPM		
						brake applied is Engine Speed with the brake					
						applied is Engine Speed is	>= <=	3200 8191.75	RPM RPM		
						Controller uses a single					
						power supply for the speed sensors Powertrain Brake Pedal is	=	1	Boolean		
						Valid	=	TRUE	Boolean		=
					Disable Conditions:		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	>= 10	5 RPM					>= 0 Time (Sec)	one trip
			Output Speed Delta	<= 8191	.75 RPM					Enable >= 0 Time (Sec)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Output Speed Drop	> 1000 RPM			>= 3 Output Speed Drop Recover Fail Time (Sec)	
					 Range_Disable OR	= FALSE Boole	ın	
					Neutral_Range_Enable	= TRUE Boole	ın	
					And Neutral_Speed_Enable are TRUE concurrently	= TRUE Boole	ın	
					Transmission_Range_Enabl	= TRUE Boole	ın	=
					Transmission_Input_Speed_ Enable	= TRUE Boole	n	
					No Change in Transfer Case Range (High <-> Low) for	>= 5 Secon	ds	
					Engine Torque Signal Valid	= TRUE Boole	ın	
					Throttle Position Signal Valid	= TRUE Boole Test	n	
					P0723 Status is not	Failed		
					Disable this DTC if the PTO is active	= 1 Boole	ın	
					Ignition Voltage is	>= 9 Volt:		
					Ignition Voltage is	<= 31.9902 Volts		
					Engine Speed is	>= 400 RPN		
					Engine Speed is Engine Speed is within the	<= 7500 RPM		
					allowable limits for	>= 5 Sec		-
					Enable_Flags Defined Below			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					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 >= 0 Time (Sec)		
					Input Speed Delta	<= 4095 RPM		
					Raw Input Speed	>= 500 RPM		
					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 Transiton al		
					Transmission Range is	Neutral/D rive ENUM Transition al		
					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		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Transmission Range is	Park/Rev = erse ENUM Transiton al		
					Input Clutch is not	= ON (Fully Applied) ENUM		
					Neutral_Speed_Enable is TRUE when All of the next three conditions are satsified for	> 1 Seconds		
					Transmission Output Speed	> 100 RPM		
					And the acceleration of the Transmission Output Speed is			
					And the acceleration of the Transmission Output Speed is	> 0 RPM/Loo p Rate		
					Transmission_Range_Enabl e is TRUE when one of the next four conditions is TRUE			
					Transmission Range is	Reverse/		
					Transmission Range is	= Neutral ENUM Transition al Neutral/D		
					Transmission Range is	= rive ENUM Transition al		
					Range Change Delay Timer	>= 5 Sec		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENAE	LE CONDIT	TIONS	TIN	IE RE	QUIRED	MIL ILLUM.
						Disable Conditions:		TCM: P0973, P0974, P0976, P0977 ECM: P0101, P0102, P0103, P0121, P0122, P0123						
Torque Converter Clutch (TCC)	P0741	TCC System Stuck OFF	TCC Pressure Either Condition (A) or (B) Must be Met		500	Кра					>=	2	Enable Time (Sec)	two trips
			(A) TCC Slip Error @ TCC On Mode	>=	Refer to Table 1 in Supporting Documents	RPM					>=	5	Fail Time (Sec)	
			(B) TCC Slip @ Lock On Mode	>=	130	RPM					>=	5	Fail Time (Sec)	
			If Above Conditions Have been Met, and Fail Timer Expired, Increment Fail Counter								>=	6	TCC Stuck Off Fail Counter	
							Ignition Voltage Lo	>=	9	Volts				
							Ignition Voltage Hi	<=	31.9902	Volts				
							Engine Speed	>=	400	RPM				
							Engine Speed Engine Speed is within the	<= >=	7500 5	RPM Sec				
							allowable limits for Engine Torque Lo	>=	50	N*m				
							Engine Torque Hi	<=	8191.88	N*m				
							Throttle Position Lo	>=	8.00018	Pct				
							Throttle Position Hi	<=	99.9985	Pct				
							2nd Gear Ratio Lo	>=	2.75281	Ratio				
							2nd Gear Ratio High	<=	3.16724	Ratio				
							3rd Gear Ratio Lo	>=	1.77625	Ratio				
							3rd Gear Ratio High	<=	2.0437	Ratio				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAB	LE CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
					4th Gear Ratio Lo	>=	1.34851	Ratio		
					4th Gear Ratio High	<=	1.55151	Ratio		
					5th Gear Ratio Lo	>=	0.93005	Ratio		
					5th Gear Ratio Hi	<=	1.06995	Ratio		
					6th Gear Ratio Lo	>=	0.69751	Ratio		
					6th Gear Ratio High	<=	0.80249	Ratio		
					Transmission Fluid Temperature Lo	>=	-6.65625	°C		
					Transmission Fluid Temperature Hi	<=	130	°C		
					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:		TCM: P0716, P0717, P0722, P0723, P0742, P2763, P2764 ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171,				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THR	ESHOLI) VALUE	SECONDARY PARAMETERS		BLE COND	ITIONS	TIME RI	EQUIRED	MIL ILLUM.
								P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0304, P0308, P0304, P0308,					
Torque Converter Clutch (TCC)	P0742	TCC System Stuck ON	TCC Slip Speed		-50 30	RPM RPM						Fail Time	one trip
			If Above Conditions Have been Met, and Fail Timer Expired, Increment Fail Counter								>= 1.2	(Sec) Fail Counter	
			Souther				Run TCC Stuck On Test Enable Criteria: Gear Ratio Gear Ratio Engine Speed Hi Engine Speed Lo Vehicle Speed Lo Stuck On During Upshift	<= >= <= >= <= >=	3.17151 2.75647 6500 500 511 16	Ratio Ratio RPM RPM KPH			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENA	BLE CONDI	ITIONS	TIME REQUIRED	MIL ILLUM.
					If Stuck On During Upshift is enabled (See Above), Engine Torque Must be	>=	50	Nm		
					Down Shift In Progress	=	FALSE	Boolean		
					Current Gear	≠	1st Gear Locked	Boolean		
					Engine Torque Hi	<=	8191.88	Nm		
					Engine Torque Lo	>=	80	Nm		
					Current Range	≠	Neutral	Range		
					Current Range	≠	Reverse	Range		
					Transmission Sump	<=	130	°C		
					Temperature Transmission Sump					
					Temperature	>=	-6.65625	°C		
					Throttle Position Hyst High	>=	19.9997	Pct		
					Throttle Position Hyst Low	<=	2.99988	Pct		
					PTO Active	=	FALSE	Boolean		
					Disable if in D1 and value	=	0	Boolean		
					true Disable if in D2 and value	=	0	Boolean		
					true Disable if in D3 and value	=	0			
					true Disable if in D4 and value	-		Boolean		
					true	=	0	Boolean		
					Disable if in D5 and value true	=	0	Boolean		
					Disable if in MUMD and	=	0	Boolean		
					value true Disable if in TUTD and value	=	0	Boolean		
					true	=	FALSE			
					4 Wheel Drive Active Hydraulic Clutch Air Purge			Boolean		
					Active Ignore Air Purge if value =	=	FALSE	Boolean		
					true	=	0	Boolean		
					TCC Mode Common Enables:	=	OFF			
					Ignition Voltage	>=	9	V		
					Ignition Voltage	<=	31.9902	V		
					Vehicle Speed	<=	511	KPH		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAB	LE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
COMPONENT/ STSTEM	CODE	DESCRIPTION		Disable Conditions:	Engine Speed Engine Speed Engine Speed is within the allowable limits for Engine Torque Signal Valid Throttle Position Signal Valid P0742 Status is	>= <= >= =	400 7500 5 TRUE TRUE Test Failed This Key On or Fault Active	RPM RPM Sec Boolean Boolean		ILLUM.
						ECM: P0101, P0102, P0103, P0106, P0107, P0107, P0172, P0174, P0175, P0201, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0303, P0304,				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CO	NDITIONS	TIN	/IE REQ	UIRED	MIL ILLUM.
						P0305, P0306, P0307, P0308, P0401, P042E+ W597					
Mode 2 Multiplex Valve	P0751	Shift Solenoid Valve A Stuck Off	Commaned Gear Slip Commanded Gear Gear Ratio Gear Ratio If the above parameters are true	= 1st Lock rpm <= 1.529052734	Ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo Engine Speed Hi Engine Speed is within the allowable limits for Transmission Fluid Temperature Shift is Complete TPS OR Output Speed Throttle Position Signal Valid from ECM	>= 9 <= 31.99 >= 400 <= 7500 >= 5 >= -6.656 >= 0.500 >= TRU	RPM RPM Sec 25 °C 49 % RPM	>= =	0.3 5 0 0.3 8	Fail Tmr Fail Counts Neutral Timer (Sec) Fail Timer (Sec) Counts	two trips

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENA	BLE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
							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	MIL not Illuminated for	TCM:				
Mode 2 Multiplex Valve	P0752	Shift Solenoid Valve A Stuck On	Gear Box Slip	>=	400	Rpm						one trip
			Commanded Gear Commanded Gear has Achieved 1st Locked OR 1st Free-Wheel OR 2nd		3rd TRUE	Gear Boolean						
			with Mode 2 Sol. Commanded On C456/CBR1 Pressure Switch	=	Pressurized	Boolean						
			C456/CBR1 Pressure Switch Fault If the above parameters are true	=	FALSE	Boolean						
			are uue								Please Refer to Table 16 in Timer Supporti ng Docume nts >= 5 Counts	
							Ignition Voltage Lo	>=	9	Volts		
							Ignition Voltage Hi	<=	31.9902	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	ENAE	BLE CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
					High-Side Driver is Enabled	=	TRUE	Boolean		
					Throttle Position Signal Valid	=	TRUE	Boolean		
					from ECM Output Speed		0	RPM		
					OR					
					TPS	>=	0.50049	%		
					Shift is Complete					
					Transmission Fluid Temperature	>=	-6.65625	°C		
					Input Speed Sensor fault		FALSE	Boolean		
					Output Speed Sensor fault		FALSE	Boolean		
					Default Gear Option is not present		TRUE			
				Pi alla	·					
				Disable Conditions:		TCM: P0716,				
						P0717,				
						P0722, P0723,				
						P182E				
						ECM:				
						P0101, P0102,				
						P0103,				
						P0106,				
						P0107, P0108,				
						P0171,				
						P0172, P0174,				
						P0174,				
						P0201,				
						P0202, P0203,				
						P0204,				
						P0205,				
						P0206, P0207,				
						P0208,				
						P0300,				
						P0301, P0302,				
						P0303,				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0304, P0305, P0306, P0307, P0308, P0401, P042E		
Variable Bleed	P0776	Pressure Control (PC) Solenoid B Stuck Off [C35R]	cuso: croudy crare or a					one trip
Solenoid (VBS)		2 o.u.o e [2001.4]	<u>Case 1</u> Gear Commanded Gear	= 3rd Gear			Please	
			Gearbox Slip	>= 400 Rpm			Refer to Table 5 Neutral >= in Timer Supporti ng (Sec) Docume nts	
			Intrusive Test: Command 4th Gear				1110	
			If attained Gear=4th gear for Time					
			It the above condiations are true, Increment 3rd gear fail counter				3rd Gear >= 2 Fail Counts or	
			and C35R Fail counter				3-5R >= 14 Clutch Fail Counts	
			<u>Fail</u> Case: Steady State 5th <u>Case 2</u> Gear					
			Commanded Gear	= 5th Gear			Please Refer to Table 5 Neutral	
			Gearbox Slip	>= 400 Rpm			>= in Timer Supporti ng (Sec) Docume nts	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENA	BLE COND	ITIONS	TIM	E REQI	UIRED	MIL ILLUM.
			Intrusive Test: Command 6th Gear If attained Gear=6th gear Time It the above condiations are true, Increment 5th gear fail counter and C35R Fail counter	Table Based Time Please Refer to Table Enable Time 3 in (Sec) supporting documents	PRNDL State defaulted inhibit RVT	=	FALSE FALSE		>=	3	5th Gear Fail Counts or 3-5R Clutch Fail Counts	
					IMS fault pending indication	=	FALSE	Boolean				
					TPS validity flag	=	TRUE	Boolean				
					Hydraulic System Pressurized Minimum output speed for RVT A OR B	= >=	TRUE 0	Boolean RPM				
					(A) Output speed enable	>=	650	RPM				
					(B) Accelerator Pedal enable Common Enable Criteria	>=	0.50049	Pct				
					Ignition Voltage Lo	>=	9	Volts				
					Ignition Voltage Hi	<=	31.9902	Volts				
					Engine Speed Lo	>=	400	RPM				
					Engine Speed Hi Engine Speed is within the allowable limits for	<= >=	7500 5	RPM Sec				
					Throttle Position Signal valid	=	TRUE	Boolean				
					HSD Enabled	=	TRUE	Boolean				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIO	ONS	TIME REQUIRED	MIL ILLUM.
					Transmission Fluid Temperature	>= -6.65625	°C		
					Input Speed Sensor fault		Boolean		
					Output Speed Sensor fault				
					Default Gear Option is not present				
				Disable Conditions:		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)	P0777	Pressure Control (PC) Solinoid B Stuck On [C35R] (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 Enable Time 4 in (Sec) supporting documents <= 2.007324219 >= 1.744628906			>= 1.1 Timer (Sec) Fail >= 2 Count in 1st Gear or >= 3 Total Fail Counts	
			Fail Case: Steady State 2nd Case 2 gear Max Delta Output Speed Hysteresis Min Delta Output Speed Hysteresis	Table 1 in supporting documents Table Based value Please Refer to 3D				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			If the Above is True for Time	Table Based Time Please Refer to Table 17 in supporting documents				
			Intrusive test: (CB26 clutch exhausted) Gear Ratio Gear Ratio	<= 2.007324219				
			If the above parameters are true				Fail >= 1.1 Timer (Sec)	
							Fail >= 3 Count in 2nd Gear or	
			Fail Case: Steady State 4th				>= 3 Total Fail Counts	-
			Case 3 gear Max Delta Output Speed Hysteresis	Table Based value Please Refer to 3D Table 1 in supporting documents				
			Min Delta Output Speed Hysteresis	Table Based value Please Refer to 3D Table 2 in supporting documents				
			If the Above is True for Time	Table Based Time Please Refer to Table 17 in supporting documents				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Intrusive test: (C1234 clutch exhausted) Gear Ratio Gear Ratio If the above parameters are true				Fail >= 1.1 Timer (Sec) Fail >= 3 Count in 4th Gear or >= 3 Total Fail Counts	
			Fail Case: Steady State 6th Case 4 gear Max Delta Output Speed Hysteresis	Table 1 in supporting documents				
			Min Delta Output Speed Hysteresis	Table Based value Please Refer to 3D Table 2 in supporting documents Table Based				
			If the Above is True for Time Intrusive test:	Time Please				
			(CB26 clutch exhausted) Gear Ratio	<= 1.069946289			Fail >= 1.1 Timer (Sec)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE	CONDITIONS	TII	ME REC	QUIRED	MIL ILLUM.
			Gear Ratio If the above parameters are true		PRNDL State defaulted	= F	ALSE Boolean	>= >= >= >=	3 1.1 3	Fail Timer (Sec) Fail Count in 6th Gear or Total Fail Counts	
					PRINDL State defaulted inhibit RVT IMS fault pending indication output speed TPS validity flag	= F. = F. >=	ALSE Boolean ALSE Boolean O RPM TRUE Boolean				
					HSD Enabled Hydraulic_System_Pressuriz ed Minimum output speed for RVT		RUE Boolean RUE Boolean 0 Nm				
					A OR B (A) Output speed enable (B) Accelerator Pedal enable		650 Nm 50049 Nm				
					lgnition Voltage Lo Ignition Voltage Hi Engine Speed Lo		9 Volts 1.9902 Volts 400 RPM				
					Engine Speed Hi Engine Speed is within the allowable limits for if Attained Gear=1st FW	>=	7500 RPM 5 Sec				
					Accelerator Pedal enable if Attained Gear=1st FW Engine Torque Enable		0.0006 Pct 45 Nm				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAE	BLE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
					if Attained Gear=1st FW Engine Torque Enable	<=	8191.88	Nm		
					Transmission Fluid Temperature	>=	-6.65625	°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				
						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)	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 Primary Offgoing Clutch	=	Maximum pressurized					
			Pressure Command Status	=	Clutch exhaus command Initial Clutch					
			Range Shift Status Attained Gear Slip		Control 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	(Sec)				
			fail timer 1 (3-2 shifting with Throttle) fail timer 1	>=	0.700195313	(Sec)				
			(3-2 shifting with Closed Throttle)	>=	0.900390625	(Sec)				
			fail timer 1 (3-4 shifting with Throttle) fail timer 1		0.700195313	(Sec)				
			(3-4shifting with Closed Throttle) fail timer 1		0.900390625	(Sec)				
			(3-5 shifting with Throttle) fail timer 1	>=	0.700195313	(Sec)				
			(3-5 shifting with Closed Throttle) fail timer 1	>= >=	0.900390625 0.700195313	(Sec) Fail Time				
			(5-3 shifting with Throttle) fail timer 1 (5-3 shifting with Closed Throttle)		0.900390625	(Sec)				
			fail timer 1 (5-4 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 (5-4 shifting with Closed Throttle)	>= 0.900390625 Fail Time (Sec)				
			fail timer 1 (5-6 shifting with Throttle)	>= 0.700195313 Fail Time (Sec)				
			fail timer 1 (5-6 shifting with Closed Throttle)	>= 0.900390625 Fail Time (Sec)			Total Fail	
			If Attained Gear Slip is Less than Above Cal Increment Fail Timers				Time = (Fail 1 + Fail 2) See Enable Timers for Fail Timer 1, and Referenc e Supporti ng Table	
			If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter				15 for Fail 3rd gear	
			3rd gear fail counter 5th gear fail counter				>= 3 fail counts OR 5th gear >= 3 fail counts OR OR OR	
			Total fail counter				>= 5 total fail counts	=
					Trans oil temperature Input Speed Sensor fault Output Speed Sensor fault	> 255.992 °C = FALSE Boolean = FALSE Boolean		
					Command / Attained Gear			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAE	BLE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
					High Side Driver ON	=	TRUE	Boolean		
					output speed limit for TUT	>=	200	RPM		
					input speed limit for TUT	>=	200	RPM		
					TUT Enable temperature	>=	0	°C		
					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,				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABLE C	ONDITIONS	TIME REQUIRED	MIL ILLUM.
								P0303, P0304, P0305, P0306, P0307, P0308, P0401, P042E			
Fransmission Output Speed Sensor TOSS)	P077C	Output Speed Sensor Circuit Low	TOSS Analog Signal Voltage P077C Status is not If the above conditons have been met, increment the P077C Fail Counter DTC P077C Sets when	<= = >=	0.25 Test Failed This Key On o Fault Active	Volts				>= 5.00E-02 sec	one trip
			the Fail Counter			Disable Conditions:		= 9 >= 9 <= 31.8 TCM: P077D			
Fransmission Output Speed Sensor TOSS)		Output Speed Sensor Circuit High	TOSS Analog Signal Voltage P077D Status is not If the above conditons have been met, increment the P077D Fail Counter DTC P077D Sets when the Fail Counter	<= = >=	4.75 Test Failed This Key On o Fault Active	Volts	P077D Enable Calibration Ignition Voltage Lo	=		>= 5.00E-02 sec	one trip

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: Steady State 4th Case 1 Gear				Please See	one trip
			Gear slip	>= 400 RPM			>= Table 5 For Neutral Timer (Sec) Timer Cal	
			Intrusive test: commanded 5th gear If attained Gear ≠5th for	Table Based Time Please				
			time if the above conditions	3 in supporting (Sec) documents				
			have been met Increment 4th Gear Fail Counter				4th Gear >= 2 Fail Count	
			and C456 Fail Counters				OR	
			Fail Case: Steady State 5th Case 2 Gear				Please See	
			Gear slip	>= 400 RPM			>= Table 5 Neutral >= For (Sec) Neutral Timer Cal	
			Intrusive test: commanded 6th gear	Table Based				
			lf attained Gear ≠ 6th for time					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENA	BLE CONDI	TIONS	TIME REC	UIRED	MIL ILLUM
			if the above conditions have been met								
			Increment 5th Gear Fail Counter						>= 2	5th Gear Fail Count	
			and C456 Fail Counters						>= 14	OR C456 Fail Counts	
			Fail Case: Steady State 6th Case 3 Gear						Please	GGuine	
			Gear slip	>= 400 RPM					>= Table 5 For Neutral Time Cal	(Sec)	
			Intrusive test: commanded 5th gear								
			If attained Gear ≠ 5th for time	Table Based Time Please >= Refer to Table 3 in supporting documents Table Based Enable Time (Sec)							
			if the above conditions have been met								
			Increment 6th Gear Fail Counter and C456 Fail Counter						>= 2	6th Gear Fail Count OR	
			and C456 Fail Counter						>= 14	C456 Fail Counts	
					PRNDL State defaulted inhibit RVT	=	FALSE FALSE	Boolean Boolean			
					IMS fault pending indication	=	FALSE	Boolean			
					TPS validity flag Hydraulic System	=	TRUE TRUE	Boolean Boolean			
					Pressurized Minimum output speed for RVT	>=	0	RPM			
					A OR B						
					(A) Output speed enable	>=	650	RPM			

COMPONENT/ SYSTEM FAULT CODE	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CO	NDITIONS	TIME REQUIRED	MIL ILLUM.
	MALFUNCTION CRITERIA	Disable Conditions:	(B) Accelerator Pedal enable Common Enable Criteria Ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo Engine Speed Hi Engine Speed Hi Engine Speed is within the allowable limits for Throttle Position Signal valid HSD Enabled Transmission Fluid Temperature Input Speed Sensor fault OutputSpeed Sensor fault Default Gear Option is not present	>= 0.500 >= 9 <= 31.99 >= 400 <= 750 >= 5 = TRU = TRU >= -6.656 = FALS	Volts Volts RPM Sec Boolean Boolean Boolean Boolean Boolean	TIME REQUIRED	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0401, P042E		
Variable Bleed Solenoid (VBS)		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	>= 400 RPM Table Based Time Please Refer to Table Enable Time				one trip
			Intrusive test: (CBR1 clutch exhausted) Gear Ratio Gear Ratio If the above parameters are true	: > <= 1.529052734 >= 1.328979492			Fail	
							>= 1.1 Timer (Sec)	
			Fail Case Steady State 2nd				Counts	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Max Delta Output Speed Hysteresis Min Delta Output Speed Hysteresis If the Above is True for Time Intrusive test: (CB26 clutch exhausted) Gear Ratio Gear Ratio If the above parameters are true	Table 1 in supporting documents Table Based value Please Refer to 3D Table 2 in supporting documents Table Based Time Please Refer to Table 17 in supporting documents 17 in supporting documents 18 Sec 19 1.529052734 1.328979492			Fail >= 1.1 Timer (Sec) Fail >= 3 Count in 2nd Gear	
			Fail Case Steady State 3rd Case 3 Max Delta Output Speed Hysteresis	Table Based value Please			or >= 3 Total fail counts	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDI	ITIONS	TIME	REQUIRED	MIL ILLUM.
			Min Delta Output Speed Hysteresis If the Above is True for Time Intrusive test: (C35R clutch exhausted) Gear Ratio Gear Ratio If the above parameters are true	Table 2 in supporting documents Table Based Time Please Refer to Table 17 in supporting documents = 1.529052734						F-8	
									(Fail Timer (Sec) Fail Count in 3rd Gea DR Total Fa Counts	r il
					PRNDL State defaulted inhibit RVT IMS fault pending indication output speed TPS validity flag HSD Enabled Hydraulic_System_Pressuriz ed Minimum output speed for RVT A OR B	= = = = = = >= >= >=		Boolean Boolean RPM Boolean Boolean Nm			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
					(B) Accelerator Pedal enable	>=	0.50049	Nm		
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.9902	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	>=	10.0006	Pct		
					if Attained Gear=1st FW Engine Torque Enable	>=	45	Nm		
					if Attained Gear=1st FW Engine Torque Enable	<=	8191.88	Nm		
					Transmission Fluid Temperature	>=	-6.65625	°C		
					Input Speed Sensor fault	=	FALSE	Boolean		
					Output Speed Sensor fault	=	FALSE	Boolean		
					Default Gear Option is not present	=	TRUE			
				Disable Conditions:		TCM: P0716, P0717, P0722, P0723, P182E				
						ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175,				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHO	LD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
							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) Primary Oncoming Clutch Pressure Command Status Primary Offgoing Clutch Pressure Command Status Primary Offgoing Clutch Pressure Command Status Attained Gear Slip If the above conditions are true increment appropriate Fail 1 Timers Below: fail timer 1 (4-1 shifting with throttle)	= TRUE = Maximul pressuriz = Clutch exh commar ≠ Initial Clu Contro	aust d ch RPM Fail Time (Sec)				one trip
			(4-1 shifting with throttle) fail timer 1 (4-1 shifting without throttle) fail timer 1 (4-2 shifting with throttle)		(Sec) 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 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)			Total Fail	
			If Attained Gear Slip is Less than Above Cal Increment Fail Timers				Time = (Fail 1 + Fail 2) See Enable Timers for Fail Timer 1, and Referenc e Supporti	
			If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter				ng Table 15 for Fail Fail	
			4th gear fail counter				>= 3 Counter From 4th Gear OR	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAE	BLE COND	ITIONS	TIIT	ME REC	QUIRED	MIL ILLUM.
			5th gear fail counter						>=	3	Fail Counter From 5th Gear OR	
			6th gear fail counter						>=	3	Fail Counter From 6th Gear OR	
			Total fail counter						>=	5	Total Fail Counter	
					Trans oil temperature	>	255.992	°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				
					TUT Enable temperature		0	°C				
					PRNDL state defaulted IMS Fault Pending		FALSE FALSE	Boolean				
					Service Fast Learn Mode	=	FALSE	Boolean Boolean				
					HSD Enabled		TRUE	Boolean				
					Hob Eliablea		INOL	Boolean				
				Disable Conditions:		TCM: P0716, P0717, P0722, P0723, P182E						
						ECM: P0101, P0102,						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0304, P0305, P0305, P0307, P0308, P0307, P0308, P0307, P0308, P0307, P0308, P0401, P042E		
Transmission Input Speed Sensor (TISS)		Input/Turbine Speed Sensor A Circuit Low	TISS Analog Signal Voltage P07BF Status is not If the above conditons have been met, increment the P07BF Fail Counter DTC P07BF Sets when	Test Failed = This Key On or Fault Active			>= 5.00E-02 sec	one trip
			the Fail Counter		P07BF Enable Calibration Ignition Voltage Lo Ignition Voltage Hi			

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:			
Transmission Input Speed Sensor (TISS)		Input/Turbine Speed Sensor A Circuit High	TISS Analog Signal Voltage P07C0 Status is not If the above conditons have been met, increment the P07C0 Fail	>=	4.75 Test Failed This Key On o Fault Active	Volts			>= 5.00E-02 sec	one trip
			Counter DTC P07C0 Sets when the Fail Counter	>=	75	Counts	P07C0 Enable Calibration Ignition Voltage Lo Ignition Voltage Hi	= 1 Boolean >= 9 Volts <= 31.9902 Volts		
						Disable Conditions:				
Tap Up Tap Down Switch (TUTD)	P0815	Upshift Switch Circuit	Fail Tap Up Switch Stuck in Case 1 the Up Position in Range 1 Enabled Tap Up Switch Stuck in		1	Boolean				Special No Trip
			the Up Position in Range 2 Enabled Tap Up Switch Stuck in the Up Position in Range		1	Boolean Boolean				
			3 Enabled 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 Tap Up Switch Stuck in		1	Boolean				
			the Up Position in Range 6 Enabled Tap Up Switch Stuck in the Up Position in Neutral Enabled		1	Boolean				
			Tap Up Switch Stuck in the Up Position in Park Enabled		1	Boolean				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOL	O VALUE	SECONDARY PARAMETERS	ENAB	LE CONDI	TIONS	TIME	REQUIRED	MIL ILLUM
			Tap Up Switch Stuck in the Up Position in Reverse Enabled	=	1	Boolean							
			Tap Up Switch ON	=	TRUE	Boolean					>=	1 Fail Time (Sec)	Э
			Fail Tap Up Switch Stuck in Case 2 the Up Position in Range 1 Enabled	=	1	Boolean							-
			Tap Up Switch Stuck in the Up Position in Range 2 Enabled Tap Up Switch Stuck in	=	1	Boolean							
			the Up Position in Range 3 Enabled Tap Up Switch Stuck in		1	Boolean							
			the Up Position in Range 4 Enabled Tap Up Switch Stuck in the Up Position in Range		1	Boolean Boolean							
			5 Enabled Tap Up Switch Stuck in the Up Position in Range		1	Boolean							
			6 Enabled Tap Up Switch Stuck in the Up Position in Neutral Enabled		1	Boolean							
			Tap Up Switch Stuck in the Up Position in Park Enabled	=	1	Boolean							
			Tap Up Switch Stuck in the Up Position in Reverse Enabled Tap Up Switch ON		1 TRUE	Boolean							
			NOTE: Both Failcase1 and Failcase 2 Must Be Met	_	INOL	Boolean					>= 6	00 Fail Time (Sec)	Э
							Time Since Last Range Change	>=	1	Enable Time (Sec)			
							Ignition Voltage Lo Ignition Voltage Hi	>= <=	9 31.9902	Volts Volts			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOL	D VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
						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				
							ECM: None				
Tap Up Tap Down Switch (TUTD)	P0816	Downshift Switch Circuit	Fail Tap Down Switch Stuck Case 1 in the Down Position in Range 1 Enabled	= 1	Boolean						Special No Trip
			Tap Down Switch Stuck in the Down Position in Range 2 Enabled		Boolean						
			Tap Down Switch Stuck in the Down Position in Range 3 Enabled		Boolean						
			Tap Down Switch Stuck in the Down Position in Range 4 Enabled		Boolean						
			Tap Down Switch Stuck in the Down Position in Range 5 Enabled		Boolean						
			Tap Down Switch Stuck in the Down Position in Range 6 Enabled		Boolean						
			Tap Down Switch Stuck in the Down Position in Range Neutral Enabled	= 1	Boolean						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	-	THRESHOL	.D VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			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	=	1	Boolean				
			Tap Down Switch ON	=	TRUE	Boolean			>= 1 sec	
			Fail Tap Down Switch Stuck Case 2 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		1	Boolean				
			Tap Down Switch Stuck in the Down Position in Park Enabled	=	1	Boolean				
			Tap Down Switch Stuck in the Down Position in Reverse Enabled		1	Boolean				
			Tap Down Switch ON	=	TRUE	Boolean				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD	VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDI	TIONS	TIM	VIE REC	QUIRED	MIL ILLUM.
			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	<=	31.9902	Volts				
						Engine Speed Lo Engine Speed Hi	>= <=	400 7500	RPM RPM				
						Engine Speed is within the allowable limits for	>=	5	Sec				
						P0816 Status is	≠	Test Failed This Key On or Fault Active					
					Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0815, P0826, P182E, P1876, P1877,						
							P1915, P1761 ECM:						
							None						
Гар Up Тар Down Switch (TUTD)		Up and Down Shift Switch Circuit	TUTD Circuit Reads Invalid Voltage	= TRUE	Boolean					>=	60	Fail Time (Sec)	Special N Trip
						Ignition Voltage Lo	>=	9	Volts				
						Ignition Voltage Hi	<=	31.9902	Volts				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENAB	BLE CONDIT	TIONS	TIM	E REQUIRED	MIL ILLUM.
							Engine Speed Lo Engine Speed Hi Engine Speed is within the allowable limits for	>= <= >=	400 7500 5 Test Failed	RPM RPM Sec			
							P0826 Status is	≠	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
		Vollage	Hydraulic Delay Timer (Table Based)	>=	See Table 8 for Delay Timer 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 CB26 pressure above this										
			value to re-enable fail logic. Results in one fail count per clutch transition	^	50	Кра							
							Transmission Fluid Temperature Lo Transmission Fluid	>=	-6.65625	°C			
							Temperature Hyst Hi (disable above this) Transmission Fluid	Not >=	110	°C			
							Temperature Hyst Lo (enable below this)	<=	100	°C			
							Ignition Voltage Lo	>=	9	Volts			
							Ignition Voltage Hi	<= >=	31.9902 400	Volts			
							Engine Speed Lo Engine Speed Hi		7500	RPM RPM			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD V	ALUE	SECONDARY PARAMETERS	ENA	BLE CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
					Disable Conditions:		>= = = = = = = = = = = = = = = = = = =	5 FALSE TRUE Normal TRUE 550	RPM		
Transmission Fluid Pressure Switch	P0873	Transmission Fluid Pressure (TFP) Sensor C Circuit High Voltage	CB26 Hydraulic Pressure Hydraulic Delay Timer (Table Based) Check for Switch to be in Pressurized Position after delay, If so then Increment Fail Counter	See Table 8 >= for Delay Timer Cal	KPa Sec					>= 11 Fail Counts	Special No Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD	VALUE	SECONDARY PARAMETERS	ENA	BLE CONDIT	TIONS	TIME REQUIRED	MIL ILLUM.
			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 Transmission Fluid	>=	-6.65625	°C		
						Temperature Hyst Hi (disable above this) Transmission Fluid	Not >=	110	°C		
						Temperature Hyst Lo (enable below this) Ignition Voltage Lo	<= >=	100 9	°C Volts		
						Ignition Voltage Hi	<=	31.9902	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 RVT Status	=	TRUE Normal			
						Hydraulic Pressure Available	=	TRUE			
						Engine Speed Min	>=	550	RPM		
					Disable Conditions:		TCM: P0711, P0712, P0713, P0716, P0717, P0722, P0723, P0751, P0742, P0756, P09774, P0976, P09776,				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAB	LE CONDIT	TIONS	TIME REQUIRED	MIL ILLUM.
						P1915, P182E				
						ECM: None				
Transmission Fluid Pressure Switch	P0877	Transmission Fluid Pressure (TFP) Sensor D Circuit Low Voltage	C1234 Hydraulic pressure	Con Table C						Special No Trip
			Hydraulic Delay Timer (Table Based) Check for Switch to be in Exhausted Position after	>= for Delay Sec Timer Cal					>= 12	
			delay, If so then Increment Fail Counter Note: Subsequent fail						Counts	
			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 Transmission Fluid	>=	-6.65625	°C		
					Temperature Hyst Hi (disable above this) Transmission Fluid	Not >=	110	°C		
					Temperature Hyst Lo (enable below this)	<=	100	°C		
					Ignition Voltage Lo	>= <=	9 31.9902	Volts 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 Hydraulic Pressure Available		Normal TRUE			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disz Conditio		r TCM:		
Transmission Fluid Pressure Switch	P0878	Transmission Fluid Pressure (TFP) Sensor D Circuit High Voltage	C1234 Hydraulic pressure Hydraulic Delay Timer (Table Based) Check for Switch to be in Pressurized Position after delay, If so then Increment Fail Counter Note: Subsequent fail counts require C1234 pressure below this value to re-enable fail logic. Results in one fail count per clutch transition	See Table 6 >= for Delay Sec Timer Cal < 700 KPa			>= 12 Fail Counts	Special No Trip
					Transmission Fluic Temperature Lo Transmission Fluic Temperature Hyst H (disable above this	o		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD	VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDI	rions -	TIME R	REQUIRED	MIL ILLUM.
						Transmission Fluid Temperature Hyst Lo (enable below this) Ignition Voltage Lo	<= >=	100 9	°C Volts			
						Ignition Voltage Li	<=	31.9902	Volts			
						Engine Speed Lo	>=	400	RPM			
						Engine Speed Hi Engine Speed is within the	<= >=	7500 5	RPM Sec			
						allowable limits for Default Gear Action	=	FALSE				
						High Side Driver ON	=	TRUE				
						RVT Status	=	Normal				
						Hydraulic Pressure Available	=	TRUE				
						Engine Speed Min	>=	550	RPM			
					Disable Conditions:		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 5	(Sec) Sample	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLI	O VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDI	TIONS	TIME R	EQUIRED	MIL ILLUM.
						Ignition Voltage	>=	9	Volts			
						Ignition Voltage	<=	31.9902	Volts			
						Engine Speed	>=	400	RPM			
						Engine Speed Engine Speed is within the	<=	7500	RPM			
						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)	one trip
										out of 1.87	Sample '5 Time (Sec)	_
						Ignition Voltage	>=	9	Volts			
						Ignition Voltage	<=	31.9902	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		INOTIC			>= 4.4	Fail Time	two trips
										out of 5	Sample Time (Sec)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD	VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDIT	TIONS	ТІМ	IE REQ	UIRED	MIL ILLUM.
						Ignition Voltage	>=	9	Volts				
						Ignition Voltage	<=	31.9902	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)	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	<=	31.9902	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:		TCM: None						
							ECM: None						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOL	O VALUE	SECONDARY PARAMETERS	ENAI	BLE CONDIT	ΓIONS	ті	ME REC	QUIRED	MIL ILLUM.
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					>= out of	0.3	Fail Time (Sec) Sample Time	one trip
							Ignition Voltage	>=	9	Volts	01		(Sec)	
							Ignition Voltage	<=	31.9902	Volts				
							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:		TCM: None ECM:						
Variable Bleed	P0970	Pressure Control (PC) Solenoid						None			-			one trip
Solenoid (VBS)		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 arp
											out of	0.375	Sample Time (Sec)	
							P0970 Status is not	=	Test Failed This Key On or Fault Active					
							Ignition Voltage Ignition Voltage	>= <=	9 31.9902	Volts Volts				
							Engine Speed		400	RPM				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDIT	rions	ТІМ	E REQ	UIRED	MIL ILLUM.
					Engine Speed	<=	7500	RPM				
					Engine Speed is within the allowable limits for	>=	5	Sec				
				Disable Conditions		TCM: None						
						ECM: None						
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	<=	31.9902	Volts				
					Engine Speed	>=	400	RPM				
					Engine Speed	<=	7500	RPM				
					Engine Speed is within the allowable limits for	>=	5	Sec				
				Disable Conditions		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)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	1	THRESHOL	.D VALUE		SECONDARY PARAMETERS	ENA	BLE CONDIT	TIONS	TIM	ME REC	QUIRED	MIL ILLUM.
								P0973 Status is not	=	Test Failed This Key On or Fault Active					
								Ignition Voltage	>=	9	Volts				
								Ignition Voltage	<=	31.9902	Volts				
								Engine Speed	>=	400	RPM				
								Engine Speed	<=	7500	RPM				
								Engine Speed is within the allowable limits for	>=	5	Sec				
						Dis Conditi	able ons:	MIL not Illuminated for DTC's:	TCM: None						
									ECM:						
Shift Solinoid	P0974	Shift Solenoid A Control Circuit	The HWIO reports a high						None						two trips
Orinit Goilliold		High (Mode 2 Solenoid)	voltage (open or power short) error flag		TRUE	Boolean						>= out of	1.2	Fail Time (Sec) Sample Time (Sec)	
								P0974 Status is not	=	Test Failed This Key On or Fault Active					
								Ignition Voltage	>=	9	Volts				
								Ignition Voltage	<=	31.9902	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	ENA	BLE CONDIT	rions	TIME REQUIRED	MIL ILLUM.
						Disable Conditions:						
Transmission Fluid Pressure Switch	P0989	Transmission Fluid Pressure (TFP) Sensor E Circuit Low Voltage	CBR1/C456 Hydraulic pressure	<=	50	Кра						Special No Trip
			Hydraulic Delay Timer (Table Based)	>=	See Table 9 for Delay Timer Cal	Sec						
			Check for Switch to be in Exhausted Position after delay, If so then Increment Fail Counter								>= 17 Fail Counts	
			Note: Subsequent fail counts require C35R pressure above this value to re-enable fail logic. Results in one fail count per clutch		50	kpa						
			transition				Transmission Fluid Temperature Lo	>=	-6.65625	°C		=
							Transmission Fluid Temperature Hyst Hi (disable above this)	Not >=	110	°C		
							Transmission Fluid Temperature Hyst Lo (enable below this)	<=	100	°C		
							Ignition Voltage Lo Ignition Voltage Hi	>= <=	9 31.9902	Volts Volts		
							Engine Speed Lo	>=	400	RPM		
							Engine Speed Hi Engine Speed is within the	<=	7500	RPM		
							allowable limits for	>=	5	Sec		
							Default Gear Action High Side Driver ON	=	FALSE 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	ENAB	LE CONDIT	TIONS	TIM	IE REQ	UIRED	MIL ILLUM.
						Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0711, P0712, P0713, P0716, P0717, P0722, P0723, P0751, P0756, P0757, P0973, P0974, P0976, P0977, P1915, P182E ECM: None						
Transmission Fluid Pressure Switch	P0990	Transmission Fluid Pressure (TFP) Sensor E Circuit High Voltage	CBR1/C456 Hydraulic pressure Hydraulic Delay Timer (Table Based) Check for Switch to be in Pressurized Position after delay, If so then Increment Fail Counter Note: Subsequent fail counts require C35R pressure above this value to re-enable fail logic. Results in one fail count per clutch transition	>=	700 See Table 9 for Delay Timer Cal	Kpa Sec kpa					>=	30	Fail Counts	Special No Trip
							Transmission Fluid Temperature Lo Transmission Fluid Temperature Hyst Hi (disable above this) Transmission Fluid Temperature Hyst Lo (enable below this) Ignition Voltage Lo	>= Not >= <= >=	-6.65625 110 100 9	°C °C Volts				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VAI	LUE	SECONDARY PARAMETERS	ENAB	LE CONDI	TIONS	TIM	E REQUIRE		MIL LUM.
				C	Disable conditions:	Ignition Voltage Hi Engine Speed Lo Engine Speed Hi Engine Speed is within the allowable limits for Default Gear Action High Side Driver ON RVT Status Hydraulic Pressure Available Engine Speed Min MIL not Illuminated for DTC's:	= = =	31.9902 400 7500 5 FALSE TRUE Normal TRUE 550	Volts RPM RPM Sec				
Tap Up Tap Down Switch (TUTD)		Tap Up and Down switch signal circuit (rolling count)	Rolling count value received from BCM does not match expected value		olean	Tap Up Tap Down Message Health Engine Speed Lo Engine Speed Hi	= >=	TRUE 400 7500	Boolean RPM RPM	>=	3 Fa Cou Sam 10 Tin (Sa	ail 1 nter nple ner	cial No Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABL	E CON	DITIONS	TIME REQU	UIRED	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	<u>Fail</u> <u>Case 1</u> Current range	=	"Transitional 1"	Range State							one trip
		range	Previous range	≠	CeTRGR_e_P RNDL_Drive6	Range State							
			Previous range	≠	CeTRGR_e_P RNDL_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	
			<u>Fail</u> Current range <u>Case 2</u>	=	"Transitional 1"	Range State							
			S3 Pressure Switch indicates "Exhausted"	=		Boolean							
			Commanded Gear If the above conditions	=	1st Locked	Gear							
			are present Increment Fail Timer								>= 0.225	Fail Seconds	
			If Fail Timer has Expired then Increment Fail Counter								>= 15	Fail Counts	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENA	BLE CONDITIONS	TIME REQ	UIRED	MIL ILLUM
			<u>Fail</u> <u>Case 3</u> Current range	=	"Transitional 13"		Previous range	≠	CeTRGR _e_PRN DL_Drive 5			
			Either the S1 or S3 Pressure Switch indicates "Pressure Present"		TRUE	Boolean	Previous range	≠	CeTRGR _e_PRN DL_Drive 5			
			Engine Torque	>=	-8192	Nm	IMS is 7 position configuration	=	0 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	= 1001 (pulk)					
			Steady State Engine Torque	>=	20	Nm						
			Steady State Engine Torque If the above conditions are present Increment	<=	8191.75	Nm				>= 0.225	Seconds	
			Fail Timer If the above Condtions have been met, Increment Fail Counter							>= 15	Fail Counts	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD VALUE	SECONDAF PARAMETE		ENA	ABLE CONDITIONS	TIME REQU	JIRED	MIL ILLUM.
			Fail Case 5 Current range	=	"Transitional 11"							
			Engine Torque		20 Nm							
			Either the S1 or S3 Pressure Switch indicates "Pressure	=	TRUE Boolean							
			Present" If the above conditions are present Increment							>= 0.225	Seconds	
			Fail Timer If the above Condtions have been met, Increment Fail Counter							>= 15	Fail Counts	
			Fail Case 6 Current range	=	"Illegal"	A Open Circuit (flag set false if the conditions	following					
			and				ent Range	≠	"Transitio nal 11"			
			A Open Circuit (See Definition)	=	FALSE Boolean		or					
						Last pos	itive state or		Neutral			
						Previous transiti	onal state	≠	Transition al 8 and Illegal			
							and		Open			
						PRNDL	. Circuit A	=	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									

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENAI	BLE COND	ITIONS	TIN	IE REG	QUIRED	MIL ILLUM.
			Previous valid state Input Speed Reverse Trans Ratio Reverse Trans Ratio If the above Condtions are present, Increment Fail timer P182E will report test fail when any of the above 7	>= <=	PRNDL circui ABCP =1111 150 2.795898438 3.149047852	RPM ratio					>=	6.25	Seconds	
			fail cases are met				Ignition Voltage Lo Ignition Voltage Hi Vehicle Speed Lo Engine Speed Lo Engine Speed Hi Engine Speed is within the allowable limits for Engine Torque Signal Valid	>= <= <= >= <= >= =	9 31.9902 511 400 7500 5 TRUE	Volts Volts KPH RPM RPM Sec Boolean				
Tap Up Tap Down	P1876				Park or	Disable Conditions:								Special No
Switch (TUTD)		Switch Circuit	Current range TUTD Enable Switch is Active	=	Reverse or Neutral TRUE	Range State Boolean					>=	3	Fail Time (Sec)	Trip
							Ignition Voltage Lo Ignition Voltage Hi Vehicle Speed Lo Engine Speed Lo	>= <= <= >=	9 31.9902 511 400	Volts Volts KPH RPM	>=	5	Fail Counts	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	O VALUE	SECONDARY PARAMETERS	ENAI	BLE CONDI	TIONS	TIME REQ	UIRED	MIL ILLUM.
						Disable		≠ TCM:	7500 5 Test Failed This Key On or Fault Active	RPM Sec			
						Conditions:	DTC's:	P0815, P0816, P0826, P1761, P1825, P1877, P1915, U0100 ECM: None					
Internal Mode Switch (IMS)		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						Ca abla	
			Engine Speed Hi Hist	<=	480	RPM					>= 0.06875	Enable Time (Sec)	
			Then Final Engine Speed	>=	500	RPM							
			Final Transmission Input Speed	>=	100	RPM					>= 1.25	Fail Time (Sec)	
							DTC has Ran this Key Cycle?	=	FALSE	Boolean			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOL	O VALUE	SECONDARY PARAMETERS	ENA	BLE CONDI	TIONS	TII	ME REQI	UIRED	MIL ILLUM.
Transmission Control Module (TCM)		Ignition Switch Run/Start Position Circuit Low	Run crank active (based on voltage thresholds below) Ignition Voltage High Hyst (run crank goes true when above this value) Ignition Voltage Low Hyst (run crank goes false when below this value)	= FALSE	Disable Conditions: Volts	Ignition Voltage Lo Ignition Voltage Hi Ignition Voltage Hyst High (enables above this value) Ignition Voltage Hyst Low (disabled below this value) Transmission Output Speed P1915 Status is	>= <= >= <= <= # TCM: P0722, P0723 ECM: None	6 31.9902 6 2 90 Test Failed This Key On or Fault Active	V V V V rpm	>= Out of	280	Fail Counts (25ms loop) Sample Counts (25ms loop)	one trip
						ECM run/crank active status	=	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: None		
						ECM: None		
Variable Bleed Solenoid (VBS)	P2714	Pressure Control (PC) Solenoid D Stuck Off [CB26]	<u>Fail</u> Case: Steady State 2nd <u>Case 1</u> Gear					one trip
			Gear slip	>= 400 RPM			Please See Table 5 For Neutral Timer (Sec) Time Cal	
			Intrusive test: commanded 3rd gear					
			If attained Gear = 3rd for Time	Table Based Time Please >= see Table 2 in Supporting Documents Table Based Enable Time (Sec)				
			If Above Conditions have been met					
			Increment 2nd gear fail count				2nd Gear >= 3 Fail Count	
			and CB26 Fail Count				or CB26 >= 14 Fail Count	
			<u>Fail</u> Case: Steady State 6th <u>Case 2</u> Gear				Please	
			Gear slip	>= 400 RPM			See Neutral >= Table 5 Timer For (Sec) Neutral Time Cal	
			Intrusive test: commanded 5th gear					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENA	BLE CONDI	TIONS	TIN	IE REG	QUIRED	MIL ILLUM
			If attained Gear = 5th For Time	Table Based Time Please >= see Table 2 in Supporting Documents Table Based Enable Time (Sec)								
			If Above Conditions have been met, Increment 5th gear fail counter						>=	3	5th Gear Fail Count or	
			and CB26 Fail Count						\	14	CB26 Fail Count	
					PRNDL State defaulted	=	FALSE	Boolean				
					inhibit RVT IMS fault pending indication	=	FALSE FALSE	Boolean Boolean				
					TPS validity flag	=	TRUE	Boolean				
					Hydraulic System Pressurized	=	TRUE	Boolean				
					Minimum output speed for RVT A OR B	>=	0	RPM				
					(A) Output speed enable	>=	650	RPM				
					(B) Accelerator Pedal enable	>=	0.50049	Pct				
					Common Enable Criteria	>=	0	Valta				
					Ignition Voltage Lo Ignition Voltage Hi	>= <=	9 31.9902	Volts Volts				
					Engine Speed Lo	>=	400	RPM				
					Engine Speed Hi Engine Speed is within the allowable limits for	<= >=	7500 5	RPM Sec				
					Throttle Position Signal valid	=	TRUE	Boolean				
					HSD Enabled	=	TRUE	Boolean				
					Transmission Fluid Temperature	>=	-6.65625	°C				
					Input Speed Sensor fault	=		Boolean				
					Output Speed Sensor fault Default Gear Option is not present	=	FALSE 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, P0301, P0302, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0307, P0308, P0307, P0308, P0401, P042E		
Variable Bleed Solenoid (VBS)		Pressure Control (PC) Solenoid D Stuck On [CB26] (Dynamic)	Primary Offgoing Clutch is exhausted (See Table 13 in Supporting Documents for Exhaust Delay Timers) Primary Oncoming Clutch Pressure Command Status	= TRUE Boolean = Maximum				one trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Primary Offgoing Clutch Pressure Command Status	=	Clutch exhaust command	i				
			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)	>=		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)				
			fail timer 1 (6-5 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLI	E CONDITIO	ONS	TIME RE	QUIRED	MIL ILLUM.
			If Attained Gear Slip is Less than Above Cal Increment Fail Timers						Total Far Time = (Fail 1 Fail 2 See Enable Timers for Fai >= Timer and Referer e Suppor ng Tab 15 for Fail	+ + - - - - - - - - - - - - - - - - - -	
			If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter						Timer :	2	
			2nd gear fail counter						>= 3	Fail Counter From 2nd Gear	
			6th gear fail counter						>= 3	OR Fail Counter From 6th Gear OR	
			total fail counter						>= 5	Total Fail Counter	
					Trans oil temperature	> :	255.992	°C			
					Input Speed Sensor fault			Boolean			
i					Output Speed Sensor fault Command / Attained Gear			Boolean Boolean			
					High Side Driver ON			Boolean			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAB	LE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
					output speed limit for TUT	>=	200	RPM		
					input speed limit for TUT	>=	200	RPM		
					TUT Enable temperature	>=	0	°C		
					PRNDL state defaulted	=	FALSE	Boolean		
					IMS Fault Pending	=	FALSE	Boolean		
					Service Fast Learn Mode	=	FALSE	Boolean		
					HSD Enabled	=	TRUE	Boolean		
				Disable Conditions:		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,				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0307, P0308, P0401, P042E		
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 Enable Time 4 in (Sec) supporting documents			Fail >= 1.1 Timer (Sec) Fail >= 8 Count in 1st Gear or >= 8 Total Fail Counts	one trip
			Fail Case: Steady State 3rd Case 2 Gear Max Delta Output Speed Hysteresis Min Delta Output Speed Hysteresis	Table 1 in supporting documents Table Based value Please Refer to 3D				

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

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Intrusive test: (C1234 clutch exhausted) Gear Ratio Gear Ratio If the above parameters are true				Fail >= 1.1 Timer (Sec) Fail >= 3 Count in 4th Gear or >= 8 Total Fail Counts	
			Fail Case: Steady State 5th Case 4 Gear Max Delta Output Speed Hysteresis	Table 1 in supporting documents Table Based				
			Min Delta Output Speed Hysteresis If the Above is True for Time	Table 2 in supporting documents Table Based Time Please Refer to Table 5 Sec 17 in supporting				
			Intrusive test: (C35R clutch exhausted) Gear Ratio Gear Ratio If the above parameters are true	>= 0.693725586				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENA	BLE CONDIT	TIONS	TII	ME REC	QUIRED	MIL ILLUM.
									>= >=	1.1	Fail Timer (Sec) Fail Count in 5th Gear or	
									>=	8	Total Fail Counts	
					PRNDL State defaulted inhibit RVT	=	FALSE	Boolean Boolean				
					IMS fault pending indication output speed	>=	0	Boolean RPM				
					TPS validity flag HSD Enabled	=		Boolean Boolean				
					Hydraulic_System_Pressuriz ed Minimum output speed for RVT	= >=	TRUE 0	Boolean Nm				
					A OR B							
					(A) Output speed enable	>=	650	Nm				
					(B) Accelerator Pedal enable Ignition Voltage Lo	>=	0.50049 9	Nm Volts				
					Ignition Voltage Hi	<=	31.9902	Volts				
					Engine Speed Lo Engine Speed Hi	>= <=	400 7500	RPM RPM				
					Engine Speed is within the allowable limits for	>=	5	Sec				
					if Attained Gear=1st FW Accelerator Pedal enable	>=	10.0006	Pct				
					if Attained Gear=1st FW Engine Torque Enable	>=	45	Nm				
					if Attained Gear=1st FW Engine Torque Enable	<=	8191.88	Nm				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENA	BLE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
					Transmission Fluid Temperature	>=	-6.65625	°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					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOL	D VALUE	SECONDARY PARAMETERS	ENA	BLE CONDIT	TIONS	TI	ME REG	QUIRED	MIL ILLUM.
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	Fail Time (Sec)	one trip
											out of	0.375	Sample Time (Sec)	
							P2770 Status is not	=	Test Failed This Key On or Fault Active					
							Ignition Voltage	>=	9	Volts				
							Ignition Voltage	<=	31.9902	Volts				
							Engine Speed	>=	400	RPM				
							Engine Speed	<=	7500	RPM				
							Engine Speed is within the allowable limits for	>=	5	Sec				
						Disable Conditions:		TCM: None						
								ECM: None						
Variable Bleed Solenoid (VBS)		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)	one trip
											out of	0.375	Sample Time (Sec)	
							P2721 Status is not	=	Test Failed This Key On or Fault Active					
							Ignition Voltage	>=	9	Volts				
							Ignition Voltage	<=	31.9902	Volts				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAB	LE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
					Engine Speed	>=	400	RPM		
					Engine Speed	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
				Disabl Conditions		TCM: None				
						ECM: None				
Variable Bleed Solenoid (VBS)	P2723	Pressure Control (PC) Solenoid E Stuck Off	<u>Fail</u> Case: Steady State 1st <u>Case 1</u> Gear							one trip
			Gear slip	>= 400 RPM					Please See Table 5 For Neutral Timer (Sec) Time Cal	
			Intrusive test: commanded 2nd gear							
			If attained Gear ≠ 2nd for Time	Table based Timer, Please See Table 3 in Supporting Documents						
			If Above Conditions have been met, Increment 1st gear fail counter						1st Gear >= 2 Fail Count	
			and C1234 fail counter						or C1234 >= 14 Clutch Fail Count	
			Fail Case: Steady State 2nd Case 2 Gear Gear Slip						Please See Table 5 For Neutral Timer (Sec) Time Cal	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Intrusive test: commanded 3rd gear					
			lf attained Gear ≠ 3rd for Time	Table based Timer, Please >= See Table 3 in Supporting Documents Table based Enable Time (Sec)				
			If Above Conditions have been met, Increment 2nd gear fail counter				2nd Gear >= 2 Fail Count	
			and C1234 fail counter				or C1234 >= 14 Clutch Fail Count	
			Fail Case: Steady State 3rd Case 3 Gear					
			Gear slip	>= 400 RPM			Please See Table 5 For Neutral Timer (Sec) Time Cal	
			Intrusive test: commanded 4th gear					
			If attained Gear ≠ 4th for time	Table based Timer, Please >= See Table 3 in Supporting Documents Table based Enable Time (Sec)				
			If Above Conditions have been met, Increment 3rd gear fail counter				3rd Gear >= 2 Fail Count or	
			and C1234 fail counter				>= 14 C1234 Clutch Fail Count	
			Fail Case: Steady State 4th Case 4 Gear				Sount	1

FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
		Gear slip Intrusive test: commanded 5th gear If attained Gear = 5th For Time If Above Conditions have been met, Increment 4th gear fail counter and C1234 fail counter	Table based Timer, Please >= See Table 3 in Supporting Documents Table based Enable Time (Sec)			Please See Table 5 For Neutral Time Cal Ath Gear >= 3 Fail Count or C1234 Clutch	
		and C1234 fall counter		PRNDL State defaulted inhibit RVT IMS fault pending indication TPS validity flag Hydraulic System Pressurized Minimum output speed for RVT A OR B (A) Output speed enable (B) Accelerator Pedal enable Common Enable Criteria Ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo Engine Speed Hi Engine Speed Hi Engine Speed is within the allowable limits for	= TRUE Boolean >= 0 RPM >= 650 RPM >= 0.50049 Pct >= 9 Volts <= 31.9902 Volts >= 400 RPM <= 7500 RPM >= 5 Sec	Fail Count	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAB	BLE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
					HSD Enabled	=	TRUE	Boolean		
					Transmission Fluid Temperature	>=	-6.65625	°C		
					Input Speed Sensor fault	=	FALSE			
					Output Speed Sensor fault	=	FALSE	Boolean		
					Default Gear Option is not present	=	TRUE			
				Disable Conditions:		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,				
						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)	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
			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, sec and Referenc e Supporti ng Table 15 for Fail	
			If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter				Timer 2	
			2nd gear fail counter				Fail Counter From 2nd Gear	ſ
			3rd gear fail counter				Fail >= 3 Counter From 3rd Gear	
			4th gear fail counter				Fail >= 3 Counter From 4th Gear	
			total fail counter				>= 5 Total Fail Counter	
					Trans oil temperature Input Speed Sensor fault Output Speed Sensor fault Command / Attained Gear High Side Driver ON			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAB	LE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
				_	output speed limit for TUT input speed limit for TUT		200 200	RPM RPM		
					TUT Enable temperature		0	°C		
					PRNDL state defaulted		FALSE	Boolean		
					IMS Fault Pending	=	FALSE	Boolean		
					Service Fast Learn Mode		FALSE	Boolean		
					HSD Enabled	=	TRUE	Boolean		
				Disable		TCM:				
				Conditions:	DTC's:	P0716,				
						P0717, P0722,				
						P0723,				
						P182E				
						ECM:				
						P0101,				
						P0102,				
						P0103,				
						P0106,				
						P0107, P0108,				
						P0171,				
						P0172,				
						P0174,				
						P0175,				
						P0201, P0202,				
						P0203,				
						P0204,				
						P0205,				
						P0206,				
						P0207, P0208,				
						P0206,				
						P0301,				
						P0302,				
						P0303,				
						P0304, P0305,				
						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)	P2724	Pressure Control (PC) Solenoid E Stuck On (Steady State)	Fail Case 1 Case: 5th Gear					one trip
			Max Delta Output Speed Hysteresis	Table Based value Please Refer to 3D Table 1 in supporting documents				
			Min Delta Output Speed Hysteresis	Table Based value Please				
			If the Above is True for Time	Table Based Time Please Refer to Table 17 in supporting documents				
			Intrusive test: (C35R clutch exhausted)					
			Gear Ratio	<= 1.529052734				
			Gear Ratio If the above parameters are true					
							Fail >= 1.1 Timer (Sec) Fail	
							>= 3 Count in 5th Gear OR	
							>= 3 Total Fail Counts	I
			<u>Fail</u> <u>Case 2</u> Case: 6th Gear					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD VALUE	SECONDARY PARAMETERS	ENAE	BLE COND	ITIONS	TII	ME REC	QUIRED	MIL ILLUM.
			Max Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 1 in supporting documents								
			Min Delta Output Speed Hysteresis	>=	Table Based value Please Refer to 3D Table 2 in supporting documents								
			If the Above is True for Time	>=	Table Based Time Please Refer to Table 17 in supporting documents								
			Intrusive test: (CB26 clutch exhausted)										
			` Gear Ratio	<=	1.529052734								
			Gear Ratio	>=	1.328979492								
			If the above parameters are true										
			are true							>=	1.1	Fail Timer (Sec) Fail Count in 6th Gear	
										>=	3	Total Fail Counts	
						PRNDL State defaulted	=		Boolean				
						inhibit RVT	=		Boolean				
						IMS fault pending indication	=		Boolean				
						output speed TPS validity flag	>=	0 TRUE	RPM Boolean				
						HSD Enabled	=	TRUE	Boolean				
						Hydraulic_System_Pressuriz ed	=	TRUE					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAB	BLE CONDI	ITIONS	TIME REQUIRED	MIL ILLUM.
					Minimum output speed for RVT	>=	0	Nm		
					A OR B		050	NI.		
					(A) Output speed enable	>=	650	Nm		
					(B) Accelerator Pedal enable	>=	0.50049	Nm		
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.9902	Volts		
					Engine Speed Lo Engine Speed Hi	>=	400 7500	RPM RPM		
					Engine Speed is within the	<=				
					allowable limits for	>=	5	Sec		
					if Attained Gear=1st FW Accelerator Pedal enable	>=	10.0006	Pct		
					if Attained Gear=1st FW Engine Torque Enable	>=	45	Nm		
					if Attained Gear=1st FW Engine Torque Enable	<=	8191.88	Nm		
					Transmission Fluid Temperature	>=	-6.65625	°C		
					Input Speed Sensor fault	=	FALSE	Boolean		
					Output Speed Sensor fault	=	FALSE	Boolean		
					Default Gear Option is not present	=	TRUE			
				Disable Conditions:		TCM: P0716, P0717, P0722, P0723, P182E ECM: P0101, P0102, P0103, P0106, P0107, P0108,				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDIT	TIONS	TIME RE	QUIRED	MIL ILLUM.
						P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0304, P0308, P0301, P0308, P0					
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						>= 0.3 out of 0.375	Fail Time (Sec) Sample Time (Sec)	one trip
					P2729 Status is not	=	Test Failed This Key On or Fault Active				
					Ignition Voltage	>=	9	Volt			
					Ignition Voltage	<=	31.9902	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		THRESHOLI	O VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDIT	TIONS	TIME	REQUIRED	MIL ILLUM.
						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					>= (.3 Fail Tin (Sec)	
											out of 0.	Sampl 375 Time (Sec)	
							P2730 Status is not	=	Test Failed This Key On or Fault Active				
							Ignition Voltage	>=	9	Volt			
							Ignition Voltage	<=	31.9902	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)	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 Tin (Sec)	
											out of	Sampl 5 Time (Sec)	
							P2763 Status is not	=	Test Failed This Key On or Fault Active				
							Ignition Voltage	>=	9	Volt			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENAE	LE CONDI	TIONS	TIM	E REQ	UIRED	MIL ILLUM.
					Ignition Voltage	<=	31.9902	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)		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	
					P2764 Status is not	=	Test Failed This Key On or Fault Active					
					Ignition Voltage		9	Volt				
					Ignition Voltage		31.9902	Volt				
					Engine Speed Engine Speed		400 7500	RPM RPM				
					Engine Speed is within the	\-	5	Sec				
					allowable limits for High Side Driver Enabled		TRUE	Boolean				
				Disable Conditions:			1102	Boologii				
						ECM: None						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLI	O VALUE	SECONDARY PARAMETERS	ENAE	BLE CONDIT	TIONS	TII	ME REC	QUIRED	MIL ILLUM.
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					
							Ignition Voltage Lo	>=	9	Volt				
							Ignition Voltage Hi	<=	31.9902	Volt				
						Disable Conditions:		TCM: None ECM: None						
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					
							Ignition Voltage Lo		9	Volt				
							Ignition Voltage Hi	<=	31.9902	Volt				
						Disable Conditions:		TCM: U0073 ECM:						
								None						

2D Tables

Table 1										Units
	Axis	0	64	128	192	256	320	384	448	512 Nm
	Curve	100	120	150	150	150	150	150	150	150 RPM
Table 2				Uni	ite					
Table 2	Axis	-6.67188	-6.65625	40 °C	11.5					
		409.5938	2	2 Sec	C					
	N.									
					_					
Table 3	A	0.07400	0.05005	Uni	its					
	Axis Curve	-6.67188	-6.65625	40 °C	_					
	Curve	409.5938	3.5	3.5 Se d	•					
Table 4				Uni	its					
	Axis	-6.67188	-6.65625	40 °C						
	Curve	409.5938	2.99375	2 Sec	•					
Table 5				Uni	its					
	Axis	-6.67188	-6.65625	40 °C						
	Curve		3	3 Sec	3					
	_									
Table C						11	nits			
Table 6	Axis	-6.65625	-6.65625	40	80	120 °C				
	Curve	409	3.6	1.6	1.4	1.4 Se				
	<u>-</u>	. 30					-			
Table 7		0.0000=		10			iits			
	Axis	-6.65625	-6.65625	40	80	120 °C				
	Curve	409	3.4	1.4	1.3	1.2 Se	·C			

Table 8						Units
	Axis	-6.65625	-6.65625	40	80	120 °C
	Curve	409	3.6	1.6	1.5	1.4 Sec
		•				
Table 9						Units
	Axis	-6.65625	-6.65625	40	80	120 °C
	Curve	409	3.3	1.3	1.2	1.1 Sec
Table 10						Units
	Axis	-40	-20	0	30	110 °C
	Curve	8.849609	3.75	1.30957	0.280273	0.280273 Sec
Table 11						Units
14510 11	Axis	-40	-20	0	30	110 °C
	Curve	5	1.700195	0.400391	0.25	0.25 Sec
		J	00100	01.10000.	0.20	0.20
Table 12						Units
	Axis	-40	-20	0	30	110 °C
	Curve	8	2.200195	0.700195	0.25	0.25 Sec
Table 13	•					Units
	Axis	-40	-20	0	30	110 °C
	Curve	5.200195	1.599609	0.5	0.269531	0.160156 Sec
		•				
<u>Table 14</u>	_					Units
	Axis	-40	-20	0	30	110 °C
	Curve	5	1.5	0.700195	0.25	0.25 Sec

<u>Table 15</u>										Units
	Axis	-40	-30	-20	-10	0	10	20	30	40 °C
	Curve	0	0	0	0	0	0	0	0	0 Sec
Table 16				Uni	te					
Table 10	Axis	-6.67188	-6.65625	40 °C						
		409.5938	1.5	1.5 Se d	;					
	_									
<u> Table 17</u>				Uni	ts					
	Axis	-6.67188	-6.65625	40 °C						
	Curve	0.4	0.35	0.3 Se d	;					
Table 18										Units
	Axis	-40.1016	-40	-20	0	30	60	100	149 149	0.1016 °C
	Curve	255.9961	50	45	40	34	25	20		.9961 °C
<u>Table 19</u>	A *	40.4040	40	00	0	0.0	00	400	4.40	Units
	Axis	-40.1016 255.9961	-40 50	-20 45	0 40	30 34	60 25	100 20		<mark>9.1016</mark> °C 5.9961 °C
	Curve	255.9961	50	45	40	34	25	20	20 253	0.9961
Table 20										Units
	Axis	-40.1016	-40	-20	0	30	60	100	149 149	9.1016 °C
	Curve	255.9961	10	8	8	8	8	8	8 25	5.9961 °C

Supporting Documents - 3D Tables

3D_Table 1

X-Axis Calibration	%
Y-Axis Calibration	°C
Table Calibration	RPM/Sec

	0.00	2.00	5.00	25.00	100.00
-6.67	8191.75	8191.75	8191.75	8191.75	8191.75
-6.66	1125.00	1125.00	850.00	700.00	700.00
40.00	1125.00	1125.00	850.00	700.00	700.00

3D_Table 2

X-Axis Calibration	%
Y-Axis Calibration	°C
Table Calibration	RPM/Sec

	0.00	2.00	5.00	25.00	100.00
-6.67	8191.75	8191.75	8191.75	8191.75	8191.75
-6.66	500.00	500.00	300.00	300.00	300.00
40.00	500.00	500.00	300.00	300.00	300.00

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)	P0815	Upshift Switch Circuit	Fail Tap Up Switch Stuck in Case 1 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	=	0	Boolean				
			Tap Up Switch Stuck in the Up Position in Neutral Enabled	=	1	Boolean				
			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			Fail >= 1 Time (Sec)	
			Fail. Tap Up Switch Stuck in Case 2 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				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLI	O VALUE	SECONDARY PARAMETERS	ENABLE	CONDI	TIONS	TIME REQUII	RED	MIL ILLUM.
			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							
			Tap Up Switch Stuck in the Up Position in Reverse Enabled	=	0	Boolean							
			Tap Up Switch ON NOTE: Both Failcase1 and Failcase 2 Must Be Met	=	TRUE	Boolean					>= 600	Fail Time (Sec)	
							Time Since Last Range	>=	1	Enable			
							Change Ignition Voltage Lo	>=	9	Time (Sec) Volts			
							Ignition Voltage Hi Engine Speed Lo Engine Speed Hi	<= >=	31.99 400 7500	Volts RPM RPM			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOL	LD VALUE	SECONDARY PARAMETERS	ENABL	ENABLE CONDITIONS		TIME REQUIRED	MIL ILLUM.
							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				
								ECM: None				
Tap Up Tap Down Switch (TUTD)	P0816	Downshift Switch Circuit	Fail Tap Down Switch Stuck Case 1 in the Down Position ir Range 1 Enabled	1 =	0	Boolean						Special No Trip
			Tap Down Switch Stuck in the Down Position ir Range 2 Enabled	n =	0	Boolean						
			Tap Down Switch Stuck in the Down Position ir Range 3 Enabled	1 =	0	Boolean						
			Tap Down Switch Stuck in the Down Position ir Range 4 Enabled	1 =	0	Boolean						
			Tap Down Switch Stuck in the Down Position ir Range 5 Enabled	=	0	Boolean						
			Tap Down Switch Stuck in the Down Position ir Range 6 Enabled	1 =	0	Boolean						
			Tap Down Switch Stuck in the Down Position ir Range Neutral Enabled	1 =	1	Boolean						

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOL	D VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM
			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 Tap Down Switch Stuck Case 2 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	=	1	Boolean				
			Tap Down Switch Stuck in the Down Position in Park Enabled	=	1	Boolean				
			Tap Down Switch Stuck in the Down Position in Reverse Enabled	=	1	Boolean				
			Tap Down Switch ON	=	TRUE	Boolean				
			NOTE: Both Failcase1 and Failcase 2 Must Be Met						>= 600 sec	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE C	ONDITION	S TIME REQUIRED	MIL ILLUM.
					Time Since Last Range Change		Enat 1 Tim (Se	e	
					Ignition Voltage Lo	>=	9 Volt	3	
					Ignition Voltage Hi	<= 3	1.99 Vol	3	
					Engine Speed Lo	>= 4	00 RPI	1	
					Engine Speed Hi	<= 7	500 RPI	1	
					Engine Speed is within the allowable limits for	>=	5 Se	:	
					P0816 Status is	Fa T ≠ Ke	est ailed his y On or ault ctive		
				Disable Conditions:	MIL not Illuminated for DTC's:				

Units

2D Tables

<u>rabie 1</u>										Units
	Axis	0	64	128	192	256	320	384	448	512 Nm
	Curve	100	120	150	150	150	150	150	150	150 RPM
Table 0				11:4:	_					
Table 2	Axis	-6.67188	-6.65625	Units 40 ºC	5					
		409.5938	2	2 Sec						
	Ourve	400.0000	2	2 000						
Table 3				Units	S					
	Axis	-6.67188	-6.65625	40 °C						
	Curve	409.5938	3.5	3.5 Sec						
Table 4				l l m i t	_					
Table 4	Axis	-6.67188	-6.65625	Units 40 °C	5					
		409.5938	2.99375	2 Sec						
	Ourve	400.0000	2.00070							
Table 5				Units	8					
	Axis	-6.67188	-6.65625	40 °C						
	Curve	409.5938	3	3 Sec						
Table 6						Un	ite			
Table 0	Axis	-6.65625	-6.65625	40	80	120 °C	แอ			
	Curve	409	3.6	1.6	1.4	1.4 Se	C			
	2 3	.00	0.0				-			
Table 7						Un	its			
	Axis	-6.65625	-6.65625	40	80	120 °C				
	Curve	409	3.4	1.4	1.3	1.2 Se	C			

Table 1

Table 8						Units
	Axis	-6.65625	-6.65625	40	80	120 °C
	Curve	409	3.6	1.6	1.5	1.4 Sec
	•					
Table 9	_					Units
	Axis	-6.65625	-6.65625	40	80	120 °C
	Curve	409	3.3	1.3	1.2	1.1 Sec
<u>Table 10</u>		1				Units
	Axis	-40	-20	0	30	110 °C
	Curve	8.849609	3.75	1.30957	0.280273	0.280273 Sec
Table 44						l luita
<u>Table 11</u>	Avio	40	20	0	20	Units 110 ºC
	Axis Curve	-40 5	-20 1.700195	0.400391	30 0.25	
	Curve	ວ	1.700195	0.400391	0.25	0.25 Sec
Table 12						Units
Table 12	Axis	-40	-20	0	30	110 °C
	Curve		2.200195	0.700195	0.25	0.25 Sec
	Oui Vo	U	2.200100	0.700100	0.20	0.20
Table 13						Units
	Axis	-40	-20	0	30	110 °C
	Curve	5.200195	1.599609	0.5	0.269531	0.160156 Sec
Table 14						Units
	Axis	-40	-20	0	30	110 °C
	Curve	5	1.5	0.700195	0.25	0.25 Sec

Table 15									Units
	Axis -40	-30	-20	-10	0	10	20	30	40 °C
	Curve 0	0	0	0	0	0	0	0	0 Sec
T-11- 40			11*	4 -					
<u>Table 16</u>		-6.65625	Uni 40 ºC	เร					
	Axis -6.67188 Curve 409.5938	1.5	1.5 Sec						
	Curve 409.5936	1.5	1.5 360	•					
Table 17			Uni	ts					
	Axis -6.67188	-6.65625	40 °C						
	Curve 0.4	0.35	0.3 Sec	;					
		•							
<u>Table 18</u>									Units
	Axis -40.1016	-40	-20	0	30	60	100		.1016 °C
	Curve 255.9961	50	45	40	34	25	20	20 255	.9961 °C
Table 19									Units
Table 19	Axis -40.1016	-40	-20	0	30	60	100	149 149	.1016 ℃
	Curve 255.9961	50	45	40	34	25	20		.9961 °C
	200.000 T	30	70	40	04	20	20	20 200	.5501
Table 20									Units
	Axis -40.1016	-40	-20	0	30	60	100	149 149	.1016 °C
	Curve 255.9961	10	8	8	8	8	8	8 255	.9961 ºC

Supporting Documents - 3D Tables

3D_Table 1

X-Axis Calibration	%
Y-Axis Calibration	°C
Table Calibration	RPM/Sec

	0.00	2.00	5.00	25.00	100.00
-6.67	8191.75	8191.75	8191.75	8191.75	8191.75
-6.66	1125.00	1125.00	850.00	700.00	700.00
40.00	1125.00	1125.00	850.00	700.00	700.00

3D_Table 2

X-Axis Calibration	%
Y-Axis Calibration	°C
Table Calibration	RPM/Sec

	0.00	2.00	5.00	25.00	100.00
-6.67	8191.75	8191.75	8191.75	8191.75	8191.75
-6.66	500.00	500.00	300.00	300.00	300.00
40.00	500.00	500.00	300.00	300.00	300.00