COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOL	O VALUE	SECONDARY PARAMETERS	ENABLE	COND	ITIONS	TIM	E REQ	UIRED	MIL ILLUM.
Transmission Control Module (TCM)	P0601	Transmission Electro-Hydraulic Control Module Read Only Memory	Incorrect program/calibrations checksum	=	TRUE	Boolean					>=	5	Fail Counts	One Trip
							lgnition Voltage Lo Ignition Voltage Hi	>= <=	9 18	Volts Volts				
						Disable Conditions:		TCM: P0601						
								ECM: None						
Transmission Control Module (TCM)	P0602	Transmission Electro-Hydraulic Control Module Not Programmed	Non-Programmed TECHM Failure		TRUE	Boolean					C	Runs Continu ously		One Trip
							Ignition Voltage Lo	>=	9	Volts				
							Ignition Voltage Hi	<=	18	Volts				
						Disable Conditions:		TCM: P0602						
								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					C	Runs Continu ously		One Trip
							Ignition Voltage Lo	>=	9	Volts				
							Ignition Voltage Hi	<=	18	Volts				
						Disable Conditions:		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	
							lgnition Voltage Lo Ignition Voltage Hi	>= <=	9 18	Volts Volts				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLI	D VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME	REQU	IIRED	MIL ILLUM.
						Disable Conditions:		TCM: P0604						
						Conditions.								
								ECM: None						
Transmission Control		Transmission Electro-Hydraulic	TCM Non-Volati									Runs		One Trip
Module (TCM)		Control Module Long Term Memory Performance	Memory bit Incorrect fla at Powerdov		TRUE	Boolean						ontinu ously		
		memory i enemiance					Ignition Voltage Lo	>=	9	Volts		uo.y		
							Ignition Voltage Hi	<=	18	Volts				
						Disable	MIL not Illuminated for DTC's:	TCM:						
						Conditions:	will not intulmated for D10 3.	P062F						
								ECM:						
								None						
Transmission Control	P0634	Transmission Electro-Hydraulic Control Module Internal	Fail Case 1 Substrate Temperatu	re >=	144	°C					>=	5	Fail Time	One Trip
Module (TCM)		Temperature Too High											(Sec)	
			<u>Fail</u>										Fail	
			Case 2 Substrate Temperatu	re >=	50	°C					>=	2	Time	
			Ignition Volta	je >=	18	Volts							(Sec)	
			Note: either fail case ca	an										
			set the DT	C			Ignition Voltage Lo	>=	9	Volts				
							Ignition Voltage Hi		31.99	Volts				
							Substrate Temp Lo		0	°C				
							Substrate Temp Hi		240	°C				
							Substrate Temp Between Temp Range for Time	>=	0.25	Sec				
									Test Failed					
							D0004 01-1 - 1-1	,	This					
							P0634 Status is	<i>≠</i>	Key On or					
									Fault Active					
									Active					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None ECM: None		
HWIO	P0658	Actuator Supply Voltage Circuit Low	The HWIO reports low voltage (Open or ground short) error flag	= TRUE Boolean		_	>= 3 Fail Counts out 5 Sample of Counts	One Trip
					P0658 Status is not	or Fault		
				Disable Conditions:	High Side Driver 1 On MIL not Illuminated for DTC's:			
						ECM: None		
Transmission Control Module (TCM)	P0667	TCM Internal Temp (substrate) Sensor Circuit Range/Performance	If transmission oil temp to substrate temp Δ	Refer to Table > 21 in supporting °C documents				Two Trips
			If TCM substrate temp to power up temp Δ	Refer to Table > 22 in supporting °C documents				
			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)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE	CONDIT	ΓIONS	TIME REQUI	IRED	MIL ILLUM.
			Non-continuous (intermittent) fail conditions will delay resetting fail counter until		Engine Torque Signal Valid	-	TRUE	Boolean	>= 700 ((S Out 875 (Pass Counts 100ms loop) Sample Counts 100ms loop)	
					Accelerator Position Signal Valid Ignition Voltage Lo Ignition Voltage Hi	>=	TRUE 9 31.99	Boolean Volts Volts			
					Engine Speed Lo Engine Speed Hi Engine Speed is within the allowable limits for	<=	500 7500 5	RPM RPM Sec			
					Brake torque active Below describes the brake torque entry criteria	= 1	FALSE	Ni*ma			
					Engine Torque Throttle Transmission Input Speed Vehicle Speed	>= <=	90 30 200 8	N*m Pct RPM Kph			
					Transmission Range Transmission Range PTO	≠ ≠ 1	Park Neutral Not Active				
					Set Brake Torque Active TRUE if above conditions are met for Below describes the brake torque	>=	7	sec			
					exit criteria Brake torque entry criteria	=	Not Met Clutch				
					Clutch hydraulic pressure	ł ≠	Hydrau lic Air Purge Event				

COMPONENT/ SYSTEM FAULT	T MONITOR STRATEGY E DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Disable Conditions:	Clutch used to exit brake torque active The above clutch pressure is greater than this value for one loop Set Brake Torque Active FALSE if above conditions are met for: P0667 Status is MIL not Illuminated for DTC's:	= 3_Ratl		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Transmission Control Module (TCM)	P0668	TCM internal temperature (substrate) thermistor failed at a low voltage	Type of Sensor Used If TCM Substrate Temperature Sensor = Direct Proportional and Temp If TCM Substrate Temperature Sensor = Indirect Proportional and Temp Either condition above will satisfy the fail	geinverseProp <= 254 °C			Fail >= 60 Timer (Sec)	Two Trips
			Conditions		Ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo Engine Speed Hi Engine Speed is within the allowable limits for	<= 31.99 Volts >= 500 RPM <= 7500 RPM >= 5 Sec Test Failed This	(360)	
				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 If TCM Substrate Temperature Sensor = Direct Proportional and Temp If TCM Substrate Temperature Sensor = Indirect Proportional and	>= -254 °C				Two Trips

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIM	E REQI	JIRED	MIL ILLUM.
			Either condition above will satisfy the fail conditions						>=	60	Fail Timer (Sec)	
					TOSS Speed Toss Speed greater than above	>=	0	RPM				
					cal for	>=	0	Sec				
					TCC Slip TCC Slip greater than above cal	>=	0	RPM Sec				
					for Ignition Voltage Lo	>=	9	Volts				
					Ignition Voltage Hi	<=	31.99	Volts				
					Engine Speed Lo		500	RPM				
					Engine Speed Hi		7500	RPM				
					Engine Speed is within the allowable limits for	>=	5 Test	Sec				
					P0669 Status is	≠	Failed This Key On					
							or Fault Active					
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723						
						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 > 22 in supporting °C documents								Two Trips
			If transmission oil temp to power up temp Δ	Refer to Table > 20 in supporting °C documents								
			Both conditions above required to increment fail counter						>=		Fail Counts (100ms loop)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
			Note: table reference temp = to the median temp of trans oil temp, substrate temp and power up temp.						Out 3750 Samp Of 3750 Coun (100n loop	s Is
			Non-continuous (intermittent) fail conditions will delay resetting fail counter until						>= 700 Coun (100n loop) Out 875 Coun (100n loop) Samp Coun (100n (100n loop)	s s s e s
									loop	
					Engine Torque Signal Valid	=	TRUE			
					Accelerator Position Signal Valid	=	TRUE			
					Ignition Voltage Lo		9	Volts		
					Ignition Voltage Hi	<= >=	31.99 500	Volts RPM		
					Engine Speed Lo Engine Speed Hi	>= <=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
					Brake torque active	=	FALSE			
					Below describes the brake torque entry criteria					
					Engine Torque	>=	90	N*m		
					Throttle		30	Pct		
					Transmission Input Speed	<=	200	RPM		
					Vehicle Speed		8	Kph		
					Transmission Range		Park			
					Transmission Range PTO		Neutral 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	II	Not Met			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Clutch hydraulic pressure	Clutch Hydrau ≠ lic Air Purge Event		
					Clutch used to exit brake torque active			
					The above clutch pressure is greater than this value for one loop	>= 600 kpa		
					Set Brake Torque Active FALSE if above conditions are met for:	>= 20 Sec		
					P06AC Status is	or Fault		
				Disable Conditions:	MIL not Illuminated for DTC's:	P0658, P0101, P0668, P0102,		
						P0669, P0103, P06AD, P0106, P06AE, P0107, P0716, P0108,		
						P0712, P0171, P0713, P0172, P0717, P0174, P0722, P0175,		
						P0723, P0201, P0962, P0202, P0963, P0203, P0966, P0204,		
						P0967, P0205, P0970, P0206, P0971, P0207, P215C, P0208,		
						P2720, P0300, P2721, P0301, P2729, P0302, P2730 P0303,		
						P0304, P0305,		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESH	HOLD V	ALUE	SECONDARY PARAMETERS	ENABL	E COND	ITIONS	TIM	E REQ	UIRED	MIL ILLUM.
										P0306, P0307, 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	<=	31.99	Volts				
								Engine Speed Lo	>=	500	RPM				
								Engine Speed Hi		7500	RPM				
								Engine Speed is within the allowable limits for	>=	5	Sec				
								Toss Speed	>=	0	RPM				
								Toss Fail Timer	>=	0	Sec				
								TCC slip	>=	0	RPM				
								TCC Fail Timer P06AD Status is		0 Test Failed This Key On or	Sec				
							Disable	MIL not Illuminated for DTC's:	TCM:	Fault Active					
							Conditions		P0716, P0717, P0722, P0723						
									ECM: None						
Transmission Control Module (TCM)	P06AE	TCM power-up thermistor circuit voltage high	Power Up Temp	>=	254		°C					>=	60	Fail Time (Sec)	Two Trips
								Ignition Voltage Lo	>=	9	Volts				
								Ignition Voltage Hi	<=	31.99	Volts				
								Engine Speed Lo		500	RPM				
								Engine Speed Hi		7500	RPM				
								Engine Speed is within the allowable limits for	>=	5	Sec				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					P06AE Status is	Test Failed This ≠ Key On or Fault Active		
				Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None ECM: None		
Transmission Fluid Temperature Sensor (TFT)	P0711	Trans Fluid Temp Sensor Circuit Range/Performance	If transmission oil temp to substrate temp Δ	Refer to Table > 21 in supporting °C documents				Two Trips
			If transmission oil temp to power up temp Δ	Refer to Table > 20 in supporting °C documents				
			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 3750 Sample Counts (100ms loop)	
			Non-continuous (intermittent) fail conditions will delay resetting fail counter until				>= 700 Pass Counts (100ms loop)	
							Out 875 (100ms loop)	
					Engine Torque Signal Valid	= TRUE Boolean		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABI	LE CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
					Accelerator Position Signal Valid	=	TRUE	Boolean		
					Ignition Voltage Lo	>=	9	Volts		
					Ignition Voltage Hi	<=	31.99	Volts		
					Engine Speed Lo	>=	500	RPM		
					Engine Speed Hi	<=	7500	RPM		
					Engine Speed is within the allowable limits for	>=	5	Sec		
					Brake torque active	=	FALSE			
					Below describes the brake torque entry criteria					
					Engine Torque		90	N*m		
					Throttle	>=	30	Pct		
					Transmission Input Speed	<=	200	RPM		
					Vehicle Speed	<=	8	Kph		
					Transmission Range		Park			
					Transmission Range	≠	Neutral			
					PTO	=	Not Active			
					Set Brake Torque Active TRUE if above conditions are met for:	>=	7	sec		
					Below describes the brake torque exit criteria					
					Brake torque entry criteria	=	Not Met			
					Clutch hydraulic pressure	≠	Clutch Hydrau lic Air Purge Event			
					Clutch used to exit brake torque active	=	CeTFT D_e_C 3_Ratl Enbl			
					The above clutch pressure is greater than this value for one loop	>=	600	kpa		
					Set Brake Torque Active FALSE if above conditions are met for:	>=	20	Sec		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disable	P0711 Status is	or Fault Active		
				Disable Conditions:	MIL not Illuminated for DTC's:	P0658, P0101, P0668, P0102, P0669, P0103, P06AD, P0106, P0107, P0716, P0108, P0712, P0717, P0717, P0174, P0722, P0175, P0723, P0201, P0962, P0202, P0963, P0203, P0966, P0204, P0967, P0205, P0970, P0206, P0971, P0207, P215C, P0208, P2720, P0300, P2721, P0301, P2729, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0306, P0307, P0308,		
Transmission Fluid	P0712	Transmission fluid temperature	Type of Sensor Used	_ CeTFTI_e_Volta		P0401, P042E		Two Trips
Temperature Sensor (TFT)		thermistor failed at a low voltage	If Transmission Fluid Temperature Sensor = Direct Proportional and Temp If Transmission Fluid Temperature Sensor = Indirect Proportional and	<= 254 °C				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TII	ME RE	EQUIRED	MIL ILLUM.
			Either condition above will satisfy the fail conditions				>=	60	Fail Time (Sec)	
					TOSS TOSS above thresh for					
					TCC slip					
					TCC slip above thresh for					
					Ignition Voltage Lo					
					Ignition Voltage Hi					
					Engine Speed Lo					
					Engine Speed Hi					
					Engine Speed is within the allowable limits for	>= 5 Sec				
					P0712 Status is	Test Failed This				
					FUI 12 Status Is	≠ Key On or Fault Active				
				Disable Conditions:		TCM: P0716, P0717,				
						P0722, P0723				
						ECM:				
Transmission Fluid Temperature Sensor (TFT)	P0713	Transmission fluid temperature thermistor failed at a high voltage	Type of Sensor Used	= CeTFTI_e_Volta geInverseProp		None				Two Trips
			If Transmission Fluid Temperature Sensor = Direct Proportional and Temp	>= -254 °C						
			If Transmission Fluid Temperature Sensor = Indirect Proportional and Temp	<= -254 °C						
			Either condition above will satisfy the fail conditions				>=	60	Fail Time (Sec)	
					Ignition Voltage Lo	>= 9 Volts				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CO	NDITIONS	TIME REQ	UIRED	MIL ILLUM.
				Disable Conditions:		>= 5 Te Fai Th ≠ Key o Fa Act TCM: P0713, P0716, P0717, P0722, P0723 ECM:	00 RPM 00 RPM 5 Sec est led iiis On r ult			
Transmission Input Speed Sensor (TISS)	P0716	Input Speed Sensor Performance	Transmission Input Speed Sensor Drops	>= 1350 RPM	Engine Torque is 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	<= 819 >= 50 <= 75 >= 5 >= 1 >= 0	11.9 N*m 100 RPM 100 RPM 100 Sec 100 Kph 100 Pct 100 RPM 100 Sec 100 RPM 100 Sec 100 RPM 100 Sec	>= 0.8	Fail Time (Sec)	One Trip

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

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	٦	THRESHOL	LD VALUE	SECONDARY PARAMETERS	ENABL	E COND	ITIONS	TIME REQI	UIRED	MIL ILLUM.
						Disable Conditions:	MIL not Illuminated for DTC's:	P0722,	ECM: , P0101, P0102, P0103				
Transmission Output Speed Sensor (TOSS)	P0722	Output Speed Sensor Circuit Low Voltage	Transmission Output Speed Sensor Raw Speed	<=	35	RPM	P0722 Status is not	=	Test Failed This Key On or Fault Active	1	>= 4.5	Fail Time (Sec)	One Trip
							Engine Torque Check Engine Torque Check Throttle Position Transmission Fluid Temperature Disable this DTC if the PTO is active Engine Torque Signal Valid Throttle Position Signal Valid Ignition Voltage is Ignition Voltage is Engine Speed is Engine Speed is Engine Speed is within the allowable limits for	= >= >= = = = >= <= >= <=	TRUE 8.0002 -40 1 TRUE	Boolean Pct °C Boolean Boolean Boolean Volts Volts RPM RPM 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	=	comple te				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Transmission Range is	= Park or Neutral		
					Engine Torque is	>= 8191.8 N*m		
					Engine Torque is			
					Engine Torque Condition 2			
					Engine Torque is			
					Engine Torque is			
					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	<= 8191.9 RPM		
					TIS Check Condition 2			
					Engine Speed without the brake applied is			
					Engine Speed with the brake	>= 2200 DDM		
					applied is Engine Speed is			
					Controller uses a single power			
					supply for the speed sensors	= TRUE Boolean		
					Powertrain Brake Pedal is Valid	= TRUE Boolean		
				Disabl Conditions		P0716, ECM:		
						P0717, P0101, P0102,		
						P0103,		
						P0121, P0122,		
						P0123		
							Enable	One Trip
Transmission Output Speed Sensor (TOSS)	P0723	Output Speed Sensor Circuit Intermittent	Raw Output Speed	>= 105 RPM			>= 0 Time (Sec)	3 .

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRES	SHOLD VALUE	SECONDARY PARAMETERS	ENABLE C	ONDITIONS	TIME	REQUIRED	MIL ILLUM.
			Output Speed Delta	<= 819	02 RPM				>=	Enable 0 Time (Sec) Output	
			Output Speed Drop	> 65	0 RPM				>= 1	Speed Drop	
						Range_Disable OR		ALSE Boolear	ı		
						Neutral_Range_Enable And		RUE Boolear			
						Neutral_Speed_Enable are TRUE concurrently		RUE Boolear			
						Transmission_Range_Enable Transmission_Input_Speed_Enab		RUE Boolear			
						le	- '	RUE Boolear			
						No Change in Transfer Case Range (High <-> Low) for	>=	5 Seconds	;		
						Engine Torque Signal Valid		RUE Boolear			
						Throttle Position Signal Valid P0723 Status is not	= Ke	RUE Boolear Fest ailed Fhis ey On			
						Disable this DTC if the PTO is	F A	or Fault ctive 1 Boolear			
						active Ignition Voltage is		9 Volts			
						Ignition Voltage is		1.99 Volts			
						Engine Speed is		500 RPM			
						Engine Speed is		500 RPM			
						Engine Speed is within the 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_Enab le 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 satisfied for	(Sec)		
					Input Speed Delta Raw Input Speed			
					TIS Condition 2 is TRUE when ALL of the next three conditions are satisfied			
					Input Speed A Single Power Supply is used for all speed sensors	- TDUE Beeleen		
					Powertrain Brake Pedal Applied is	= FALSE Boolean		
					Neutral_Range_Enable is TRUE when any of the next 3 conditions are TRUE			
					Transmission Range is Transmission Range is	Revers e/Neutr = al ENUM Transiti		
					Transmission Range is	onal Neutral /Drive Transiti onal		
					Range_Disable is TRUE when any of the next three conditions are TRUE			
					Transmission Range is Transmission Range is	Park/R		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Input Clutch is not	ON (Fully Applied ENUM)		
					Neutral_Speed_Enable is TRUE when All of the next three conditions are satisfied for	us		
					Transmission Output Speed And the acceleration of the Transmission Output Speed is And the acceleration of the Transmission Output Speed is	RPM/L < 500 oop Rate RPM/L		
					Transmission_Range_Enable is TRUE when one of the next four conditions is TRUE			
					Transmission Range is Transmission Range is	Revers e/Neutr = al ENUM Transiti		
					Transmission Range is	onal		
				Disable Conditions:				
						P0977 ECM: P0101, P0102, P0103, P0121, P0122,		
Torque Converter Clutch (TCC)	P0741	TCC System Stuck OFF	TCC Pressure	>= 340 Kpa		P0122, P0123	Enable >= 2 Time (Sec)	Two Trips

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE (CONDITIONS	TIME REQUIRE	MIL ILLUM.
			Either Condition (A) or (B) Must be Met (A) TCC Slip Error @ TCC On Mode (B) TCC Slip @ Lock On Mode If Above Conditions Have been Met, and Fail Timer Expired, Increment Fail Counter	Documents >= 130 RPM				Fa >= 2.5 Tim (Se Fa >= 2.5 Tim (Se Fa >= 2.5 Tim (Se TC >= 9 Stur Off F Cour	e ;) e e ;) ; k ail
					Ignition Voltage Lo Ignition Voltage Hi Engine Speed Engine Speed Engine Speed is within the allowable limits for Engine Torque Lo Engine Torque Hi Throttle Position Lo Throttle Position Hi 2nd Gear Ratio Lo 2nd Gear Ratio High 3rd Gear Ratio High 4th Gear Ratio Lo 4th Gear Ratio Lo 5th Gear Ratio Hi 6th Gear Ratio Lo 6th Gear Ratio High Transmission Fluid Temperature Lo	>= <= >=	9 Volts 31.99 Volts 500 RPM 7500 RPM 5 Sec 50 N*m 1492 N*m 8.0002 Pct 99.998 Pct 2.7528 Ratio 1.7762 Ratio 1.7762 Ratio 1.3485 Ratio 1.5515 Ratio 1.0699 Ratio 1.0699 Ratio 1.06975 Ratio 1.08025 Ratio		
					Transmission Fluid Temperature Hi TCC Command Lock ON or ON mode PTO Not Active	= 1	130 °C TRUE Boolear TRUE Boolear		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHO	LD VALUE	SECONDARY PARAMETERS	ENABLE	E CONDITIONS	TIME	E REQUIRED	MIL ILLUM.
					Dicable	Engine Torque Signal Valid Throttle Position Signal Valid Dynamic Mode P0741 Status is	= ≠	TRUE Boolean TRUE Boolean FALSE Boolean Test Failed This Key On or Fault Active			
					Disable Conditions:	MIL not Illuminated for DTC's:	P0723, P0742, P2763, P2764	ECM: P0205, P0206, P0102, P0207, P0103, P0300, P0300, P0301, P0301, P0301, P0305, P0306, P0201, P0202, P0202, P0204, P0204, P0204, P042E			
Torque Converter Clutch (TCC)	P0742	TCC System Stuck ON	TCC Slip Speed TCC Slip Speed If Above Conditions Have been Met, and Fail Timer Expired,		RPM RPM				>=	Fail Counte)
			Increment Fail Counter			Run TCC Stuck On Test Enable Criteria: Gear Ratio Gear Ratio Engine Speed Hi Engine Speed Lo Vehicle Speed HI	\= \= \= \= \=	3.1672 Ratio 0.6975 Ratio 6500 RPM 500 RPM 511 KPH			

FAULT	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABI	E COND	DITIONS	TIME REQUIRED	MIL ILLUM.
				Vehicle Speed Lo	>=	16	KPH		
				Stuck On During Upshift Enabled	=	0	Boolean		
				If Stuck On During Upshift is enabled (See Above), Engine Torque Must be Down Shift In Progress	>=	55 FALSE	Nm E Boolean		
				Current Gear		1st Gear Locked	Boolean		
				Engine Torque Hi	<=	1492	Nm		
				Engine Torque Lo	>=	80	Nm		
				Current Range			l Range		
				Current Range	≠	Reverse	e Range		
				Transmission Sump Temperature	<=	130	°C		
				Transmission Sump Temperature	>=	20	°C		
				Throttle Position Hyst High	>=	20	Pct		
				Throttle Position Hyst Low	<=	2.9999) Pct		
				PTO Active			Boolean		
				Disable if in D1 and value true		0	Boolean		
				Disable if in D2 and value true		0	Boolean		
				Disable if in D3 and value true		0	Boolean		
				Disable if in D4 and value true		0	Boolean		
				Disable if in D5 and value true Disable if in MUMD and value true		0	Boolean Boolean		
				Disable if in TUTD and value true	=	0	Boolean		
				4 Wheel Drive Active	=	FALSE	Boolean		
				Hydraulic Clutch Air Purge Active	=	FALSE	Boolean		
				Ignore Air Purge if value = true		0	Boolean		
				TCC Mode	=	OFF			
				Common Enables:					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABL	E COND	ITIONS	TIME	REQU	IRED	MIL ILLUM.
						Disable Conditions:	Ignition Voltage Ignition Voltage Vehicle Speed Engine Speed Engine Speed Engine Speed is within the allowable limits for Engine Torque Signal Valid Throttle Position Signal Valid P0742 Status is	<= <= >= = = =	Test Failed This Key On or Fault Active	Boolean				
						Conditions.		P0717, P0722, P0723, P0741, P2763, P2764	P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203,	P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308,				
Mode 2 Multiplex Valve	P0751	Shift Solenoid Valve A Stuck Off	Commanded Gear Slip Commanded Gear Gear Ratio Gear Ratio If the above parameters are true	= <= >=	200 1st Lock 1.529052734 1.328979492	RPM rpm					>= =	ı	Fail Tmr Fail Counts Neutral Timer (Sec)	Two Trips

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITION	IS TIME REQUIRED	MIL ILLUM.
COMPONENT/ SYSTEM			MALFUNCTION CRITERIA		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, Engine Torque Signal Valid from ECM, High side driver is enabled Input Speed Sensor fault Output Speed Sensor fault Default Gear Option is not present	>= 9 VC <= 31.99 VC >= 500 RF <= 7500 RF <= 7500 RF >= 5 SC >= 0 °C >= 0.5005 °C >= TRUE Boo = TRUE Boo = TRUE Boo = FALSE Boo = TRUE TCM: P0716, ECM: P02 P0717, P0101, P02 P0722, P0102, P02 P0723, P0103, P02	Fail >= 0.3 Timer (Sec) >= 8 Counts Its Its Its IM IM IN	
						P182E P0106, P03 P0107, P03 P0108, P03 P0171, P03 P0174, P03 P0174, P03 P0201, P03 P0202, P03 P0204, P04 P0204, P04	01, 02, 03, 04, 05, 06, 07, 08,	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABI	LE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
Mode 2 Multiplex Valve	P0752	Shift Solenoid Valve A Stuck On	Gear Box Slip	>=	200	Rpm						One Trip
			Commanded Gear Commanded Gear has Achieved 1st Locked OR		3rd	Gear						
			1st Free-Wheel OR 2nd with Mode 2 Sol. Commanded On		TRUE	Boolean						
			C456/CBR1 Pressure Switch C456/CBR1 Pressure	=	Pressurized FALSE	Boolean Boolean						
			Switch Fault If the above parameters are true	_	FALSE	Boolean						
											Please Refer to Table 16 in Timer Support ing Docum ents	
							Ignition Voltage Lo	>=	9	Volts	>= 5 Counts	
							Ignition Voltage Ed	<=	31.99	Volts		
							Engine Speed Lo	>=	500	RPM		
							Engine Speed Hi	<=	7500	RPM		
							Engine Speed is within the allowable limits for	>=	5	Sec		
							High-Side Driver is Enabled	=	TRUE	Boolean		
							Throttle Position Signal Valid from ECM	=	TRUE	Boolean		
							Output Speed	>=	0	RPM		
							OR					
							TPS		0.5005	%		
							Shift is Complete Transmission Fluid Temperature		0	°C		
							Input Speed Sensor fault	=	FALSE	Boolean		
							Output Speed Sensor fault	=	FALSE	Boolean		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disable Conditions:	Default Gear Option is not present MIL not Illuminated for DTC's:	TCM: ECM: P0205, P0716, P0101, P0206, P0717, P0102, P0207, P0722, P0103, P0208, P0302, P0171, P0303, P0172, P0304, P0174, P0305, P0175, P0306, P0201, P0307, P0202, P0308, P0203, P0401, P0203, P0401,		
Variable Bleed Solenoid (VBS)	P0776	Pressure Control (PC) Solenoid B Stuck Off [C35R]	Fail Case: Steady State 3rd Case 1 Gear Commanded Gear Gearbox Slip	= 3rd Gear		P0204, P042E	Please Refer to Table 5 in Timer Support ing Docum	One Trip
			Intrusive Test: Command 4th Gear If attained Gear=4th gear for Time	Table Based Time Please Enable Time			ents	
			It the above conditions are true, Increment 3rd gear fail counter and C35R Fail counter				>= 2	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Fail Case: Steady State 5th Case 2 Gear Commanded Gear				Please	
			Gearbox Slip	>= 200 Rpm			Refer to Table 5 in Timer Support ing (Sec) Docum	
			Intrusive Test: Command 6th Gear				ents	
			If attained Gear=6th gear Time	Time Please Enable Time				
			It the above conditions are true, Increment 5th gear fail counter				5th >= 3 Gear Fail Counts or	
			and C35R Fail counter				3-5R >= 14 Clutch Fail Counts	
					PRNDL State defaulted inhibit RVT IMS fault pending indication	= FALSE Boolean = FALSE Boolean	n n	
					TPS validity flag Hydraulic System Pressurized Minimum output speed for RVT	= TRUE Boolear		
					A OR B (A) Output speed enable (B) Accelerator Pedal enable Common Enable Criteria	>= 650 RPM >= 0.5005 Pct		
					Ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo	>= 9 Volts		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disable Conditions:		>= 5 Sec = TRUE Boolean = TRUE Boolean >= 0 °C = FALSE Boolean = FALSE Boolean = TRUE		
Variable Bleed Solenoid (VBS)	P0777	Pressure Control (PC) Solenoid 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	>= 200 RPM Table Based Time Please Refer to Table 4 in supporting documents = 2.007324219 = 1.744628906				One Trip

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

COMPONENT/ SYSTEM FAUL	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					or Total >= 3 Fail Counts	
	Fail Case: Steady State 4th Case 3 gear Max Delta Output Speed Hysteresis	- Relei to Table Tpill/Sec				
	Min Delta Output Speed	17 in supporting documents Table Based value Please				
	Hysteresis	>= Refer to Table rpm/sec 18 in supporting documents Table Based				
	If the Above is True for Time	Time Please >= Refer to Table Sec 19 in supporting documents				
		<= 1.069946289 >= 0.930053711				
	If the above parameters are true				Fail >= 1 Timer	
					>= 2 (Sec) Fail Count in 4th Gear	
	<u>Fail</u> Case: Steady State 6th				or Total >= 3 Fail Counts	
	<u>Case 4</u> gear					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDIT	IONS	TIME REQUIRED	MIL ILLUM.
			Max Delta Output Speed Hysteresis	, <i>></i> =	Table Based value Please Refer to Table rpm/sec 17 in supporting documents					
			Min Delta Output Speed Hysteresis		Table Based value Please Refer to Table rpm/sec 18 in supporting documents					
			If the Above is True for Time	/=	Table Based Time Please Refer to Table Sec 19 in supporting documents					
			Intrusive test: (CB26 clutch exhausted)	1						
			Gear Ratio	<=	1.069946289				Fail >= 1 Time (Sec	
			Gear Ratio If the above parameters are true	3	0.930053711				>= 2 count	
									Fail >= 1 Time (Sec	
									Fail >= 2 Coun in 6th Geal	
									or Tota >= 3 Fail	
						PRNDL State defaulted	= FALSE	Boolean	Count	<u> </u>
						inhibit RVT				
						IMS fault pending indication			ı	
						output speed TPS validity flag		RPM		
						HSD Enabled			' 1	

COMPONENT/ SYSTEM	FAULT CODE		MALFUNCTION CRITERIA	THRESHOLD) VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
						Hydraulic_System_Pressurized	=	TRUE	Boolean		
						Minimum output speed for RVT	>=	0	Nm		
						A OR B					
						(A) Output speed enable	>=	650	Nm		
						(B) Accelerator Pedal enable	>=	0.5005	Nm		
						Ignition Voltage Lo	>=	9	Volts		
						Ignition Voltage Hi	<=	31.99	Volts		
						Engine Speed Lo	>=	500	RPM		
						Engine Speed Hi	<=	7500	RPM		
						Engine Speed is within the allowable limits for	>=	5	Sec		
						if Attained Gear=1st FW Accelerator Pedal enable	>=	8.0002	Pct		
						if Attained Gear=1st FW Engine Torque Enable	>=	50	Nm		
						if Attained Gear=1st FW Engine Torque Enable	<=	1492	Nm		
						Transmission Fluid Temperature	>=	0	°C		
						Input Speed Sensor fault	=	FALSE	Boolean		
						Output Speed Sensor fault	=	FALSE	Boolean		
					Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0716, P0717, P0722, P0723, P182E	ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201, P0202, P0203, P0204,	P0206, P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0401,		
Variable Bleed Solenoid (VBS)	P0777	Pressure Control (PC) Solenoid B StuckOn [C35R] (Dynamic)	Primary Offgoing Clutch is exhausted (See Table 12 in Supporting Documents for Exhaust Delay Timers)		Boolean						One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Primary Oncoming Clutch Pressure Command Status Primary Offgoing Clutch Pressure Command Status Range Shift Status		Maximum pressurized Clutch exhaust command Initial Clutch Control 40	RPM				
			Attained Gear Slip If the above conditions are true run appropriate Fail 1 Timers Below: fail timer 1 (3-1 shifting with Closed Throttle)			Fail Time (Sec)				
			fail timer 1 (3-2 shifting with Throttle) fail timer 1 (3-2 shifting with Closed Throttle)	>=	0.700195313 0.900390625	Fail Time (Sec) Fail Time (Sec)				
			fail timer 1 (3-4 shifting with Throttle) fail timer 1 (3-4shifting with Closed			Fail Time (Sec) Fail Time (Sec)				
			Throttle) fail timer 1 (3-5 shifting with Throttle) fail timer 1 (3-5 shifting with Closed			Fail Time (Sec) Fail Time (Sec)				
			Throttle) fail timer 1		0.700195313	Fail Time (Sec) Fail Time				
			(5-3 shifting with Closed Throttle) fail timer 1 (5-4 shifting with Throttle)			(Sec) Fail Time (Sec)				
			fail timer 1 (5-4 shifting with Closed Throttle)	>=	0.900390625	Fail Time (Sec)				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			fail timer 1 (5-6 shifting with Throttle) fail timer 1 (5-6 shifting with Closed Throttle)	>= 0.700195313 Fail Time (Sec) >= 0.900390625 Fail Time (Sec)				
			If Attained Gear Slip is Less than Above Cal Increment Fail Timers				Total Fail Time = (Fail 1 + Fail 2) See Enable Timers for Fail >= Timer sec 1, and Referen ce Support ing Table 15 for Fail	
			If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter				Timer 2	
			3rd gear fail counter				3rd gear fail counts OR	
			5th gear fail counter				>= 3 5th gear fail counts OR	
			Total fail counter				>= 5 total fail counts	
					Trans oil temperature Input Speed Sensor fault Output Speed Sensor fault	= FALSE Boolean		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disa Conditio		= TRUE Boolean >= 200 RPM >= 200 RPM >= 0 °C = FALSE Boolean = FALSE Boolean = TRUE Boolean = TRUE		
Variable Bleed Solenoid (VBS)	P0796	Pressure Control (PC) Solenoid C Stuck Off [C456] (Steady State)	Fail Case 1 Case: Steady State 4th Gear Gear slip Intrusive test: commanded 5th gear If attained Gear ≠5th for time	>= 200 RPM Table Based Time Please Selection Table 3 Enable Tire	ne		Please See Table 5 Neutral >= For Timer Neutral (Sec) Time Cal	One Trip

COMPONENT/ SYSTEM FA	FAULT	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			if the above conditions have been met Increment 4th Gear Fail Counter and C456 Fail Counters Fail Case: Steady State 5th				>= 2	
			Case 2 Gear Gear slip Intrusive test: commanded 6th gear	>= 200 RPM			Please See Table 5 Neutral >= For Timer Neutral (Sec) Time Cal	
			If attained Gear ≠ 6th for time if the above conditions have been met Increment 5th Gear Fail Counter	Time Please >= Refer to Table 3 in supporting documents Enable Time (Sec)			5th >= 2 Gear Fail Count OR	
			and C456 Fail Counters Fail Case: Steady State 6th Case 3 Gear Gear slip				>= 14 C456 >= 14 Fail Counts Please See Table 5 Neutral >= For Timer Neutral (Sec) Time Cal	

Table Resease Time Peeder to Table 3 (Rec) Table Resease Table Reseave Table Re	COMPONENT/ SYSTEM FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			time if the above conditions have been met Increment 6th Gear Fail Counter and C456 Fail Counter	Time Please Refer to Table 3 in supporting documents Enable Time (Sec)	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 Throttle Position Signal valid HSD Enabled Transmission Fluid Temperature Input Speed Sensor fault	= FALSE Boolear = FALSE Boolear = TRUE Boolear = TRUE Boolear >= 0 RPM >= 650 RPM >= 0.5005 Pct >= 9 Volts <= 31.99 Volts >= 500 RPM <= 7500 RPM >= 5 Sec = TRUE Boolear = TRUE Boolear = TRUE Boolear = FALSE Boolear	>= 2 Gear Fail Count OR C456 >= 14 Fail Counts	

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: P0205, P0716, P0716, P0101, P0206, P0717, P0102, P0207, P0722, P0103, P0208, P0104, P0300, P0107, P0301, P0108, P0302, P0171, P0303, P0172, P0304, P0174, P0305, P0175, P0306, P0201, P0307, P0202, P0308, P0203, P0401, P0204, P042E		
Variable Bleed Solenoid (VBS)	P0797	Pressure Control (PC) Solenoid C Stuck On [C456] (Steady State)	Eail 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 Fail Case 2 Case Steady State 2nd	>= 200 Table Based Time Please >= Refer to Table 4 in supporting documents <= 1.529052734 >= 1.328979492	RPM Enable Time (Sec)			>= 1 Fail >= 1 Timer (Sec) Fail >= 2 Count in 1st Gear or Total >= 3 Fail Counts	One Trip

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

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABL	E CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Min Delta Output Speed Hysteresis	Table Based value Please >= Refer to Table rpm/sec 18 in supporting documents					
			If the Above is True for Time						
			Intrusive test: (C35R clutch exhausted)						
			Gear Ratio						
			Gear Ratio						
			If the above parameters are true						
								Fail	
								>= 1 Timer	
								(Sec) Fail	
								S= 2 Count	
								in 3rd Gear	
								OR	
								Total	
								>= 3 Fail	
					PRNDL State defaulted	-	FALSE Boolean	Counts	
					inhibit RVT		FALSE Boolean		
					IMS fault pending indication		FALSE Boolean		
					output speed		0 RPM		
					TPS validity flag	=	TRUE Boolean		
					HSD Enabled	=	TRUE Boolean		
					Hydraulic_System_Pressurized	=	TRUE Boolean		
					Minimum output speed for RVT	>=	0 Nm		
					A OR B				
					(A) Output speed enable		650 Nm		
					(B) Accelerator Pedal enable		0.5005 Nm		
					Ignition Voltage Lo	>=	9 Volts		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
					Disable Conditions:		>= >= >= <= >= = = TCM: P0716, P0717, P0722, P0722		Nm Nm °C Boolean Boolean P0205, P0206, P0207, P0208, P0300, P0301, P0302, P03030, P0304, P0305, P0306, P0307, P0308,		
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)		Boolean						One Trip
			Primary Oncoming Clutch Pressure Command Status								

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					
			Range Shift Status Attained Gear Slip		Initial Clutch Control 40	RPM				
			If the above conditions are true increment appropriate Fail 1 Timers Below:							
			fail timer 1 (4-1 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (4-1 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (4-2 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (4-2 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (4-3 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (4-3 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (5-3 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (5-3 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				
			fail timer 1 (6-2 shifting with throttle)	>=	0.700195313	Fail Time (Sec)				
			fail timer 1 (6-2 shifting without throttle)	>=	0.900390625	Fail Time (Sec)				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			If Attained Gear Slip is Less than Above Cal Increment Fail Timers				Total Fail Time = (Fail 1 + Fail 2) See Enable Timers for Fail >= Timer sec 1, and Referen ce Support ing Table 15 for Fail Timer 2	
			If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter				Fail	
			4th gear fail counter				Counter >= 3 From 4th Gear OR Fail	
			5th gear fail counter				>= 3 Counter >= 3 From 5th Gear OR	
			6th gear fail counter				Fail Counter >= 3 From 6th Gear OR	
			Total fail counter				Total >= 5 Fail Counter	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Dis Condit	Trans oil temperature Input Speed Sensor faul Output Speed Sensor faul Command / Attained Gea High Side Driver ON output speed limit for TUT input speed limit for TUT TUT Enable temperature PRNDL state defaulted IMS Fault Pending Service Fast Learn Mode HSD Enabled stable MIL not Illuminated for DTC's	## = FALSE Boolear ## 1st Boolear ## 1st Boolear ## 200 RPM ## >= 200 RPM ## >= 0 °C ## FALSE Boolear ## 5 FALSE Boolear ## 1 FALSE Boolear		
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 the Up Position in Range 2 Enabled Tap Up Switch Stuck in	= 0 Boolean				Special No Trip
			the Up Position in Range 3 Enabled Tap Up Switch Stuck in the Up Position in Range 4 Enabled	= 0 Boolean				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLI	D VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			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			F-9	
			Tap Up Switch ON	=	TRUE	Boolean			>= 1 Fail Time	
			Fail Tap Up Switch Stuck in Case 2 the Up Position in Range 1 Enabled Tap Up Switch Stuck in	=	1	Boolean				
			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	=	1	Boolean				
			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		1	Boolean				
			the Up Position in Neutral Enabled Tap Up Switch Stuck in		0	Boolean				
			the Up Position in Park Enabled Tap Up Switch Stuck in		0	Boolean				
			the Up Position in Reverse Enabled Tap Up Switch ON		0 TRUE	Boolean Boolean				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRE	ESHOLD VALUE	SECONDARY PARAMETERS	ENABL	E COND	ITIONS	TIM	ME REQ	UIRED	MIL ILLUM.
			NOTE: Both Failcase1 and Failcase 2 Must Be Met							>=	600	Fail Time (Sec)	
						Time Since Last Range Change	>=	1	Enable Time (Sec)				
						Ignition Voltage Lo		9	Volts				
						Ignition Voltage Hi		31.99	Volts				
						Engine Speed Lo		500	RPM				
						Engine Speed Hi Engine Speed is within the	<=	7500	RPM				
						allowable limits for	>=	5	Sec				
						P0815 Status is	≠	Test Failed This Key On	ı				
								or Fault Active					
					Disable Conditions:		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	=	0 Boolean								Special No Trip
			Tap Down Switch Stuck in the Down Position in Range 2 Enabled	=	0 Boolean								
			Tap Down Switch Stuck in the Down Position in Range 3 Enabled	=	0 Boolean								
			Tap Down Switch Stuck in the Down Position in Range 4 Enabled	=	0 Boolean								

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 5 Enabled		0	Boolean				
			Tap Down Switch Stuck in the Down Position in Range 6 Enabled	=	0	Boolean				
			Tap Down Switch Stuck in the Down Position in Range Neutral Enabled	=	1	Boolean				
			Tap Down Switch Stuck in the Down Position in Range Park Enabled	=	1	Boolean				
			Tap Down Switch Stuck in the Down Position in Range Reverse Enabled		0	Boolean				
			Tap Down Switch ON	=	TRUE	Boolean			>= 1 sec	
			Fail 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	II	1	Boolean				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLI	D VALUE	SECONDARY PARAMETERS	ENABL	E COND	ITIONS	TIME R	EQUIRED	MIL ILLUM.
			Tap Down Switch Stuck in the Down Position in Neutral Enabled	=	0	Boolean							
			Tap Down Switch Stuck in the Down Position in Park Enabled	=	0	Boolean							
			Tap Down Switch Stuck in the Down Position in Reverse Enabled		0	Boolean							
			Tap Down Switch ON NOTE: Both Failcase1 and Failcase 2 Must Be Met	=	TRUE	Boolean					>= 60) sec	
							Time Since Last Range Change	>=	1	Enable Time (Sec)			-
							Ignition Voltage Lo	>=	9	Volts			
							Ignition Voltage Hi	<=	31.99	Volts			
							Engine Speed Lo		500	RPM			
							Engine Speed Hi		7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
							P0816 Status is	≠	Test Failed This Key On or Fault Active				
						Disable	MIL not Illuminated for DTC's:	TCM:	Active				
						Conditions:		P0815, P0826, P182E, P1876, P1877, P1915, P1761 ECM: None					
Tap Up Tap Down Switch (TUTD)	P0826	Up and Down Shift Switch Circuit	TUTD Circuit Reads Invalid Voltage	=	TRUE	Boolean					>= 60	Fail Time (Sec)	Special No Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE	E CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
					Ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo Engine Speed Hi Engine Speed is within the allowable limits for P0826 Status is	<= >= <= >=	9 31.99 500 7500 5 Test Failed This Key On or Fault Active	Volts Volts RPM RPM Sec		
				Disable Conditions		TCM: P1761 ECM: None				
Transmission Fluid Pressure Switch	P0872	Transmission Fluid Pressure (TFP) Sensor C Circuit Low Voltage	CB26 Hydraulic pressure Hydraulic Delay Timer (Table Based) Check for Switch to be in Exhausted Position after delay, If so then Increment Fail Counter	>= See Table 8 for Delay Timer Cal					>= 18 Fail Coun	Special No Trip
			Note: Subsequent fail counts require CB26 pressure above this value to re-enable fail logic. Results in one fail count per clutch transition							
					Transmission Fluid Temperature Lo Transmission Fluid Temperature Hi Ignition Voltage Lo Ignition Voltage Hi Engine Speed Lo	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	0 110 9 31.99 500	°C °C Volts Volts RPM		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Transmission Fluid Pressure Switch	P0873	Transmission Fluid Pressure (TFP) Sensor C Circuit High Voltage	CB26 Hydraulic Pressure Hydraulic Delay Timer	7- 700 KFa		>= 5 Sec = FALSE = TRUE = Normal = TRUE >= 1100 RPM		Special No Trip
			Check for Switch to be in Pressurized Position after delay, If so then Increment Fail Counter Note: Subsequent fail counts require CB26 pressure below this value to re-enable fail logic. Results in one fail count per clutch transition	Delay Timer Cal	Transmission Fluid Temperature Lo Transmission Fluid Temperature Hi Ignition Voltage Lo	>= 0 %	>= 20 Fail Counts	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	E	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
Transmission Fluid Pressure Switch	P0877	Transmission Fluid Pressure (TFP) Sensor D Circuit Low Voltage	C1234 Hydraulic pressure Hydraulic Delay Timer (Table Based) Check for Switch to be in Exhausted Position after delay, If so then Increment Fail Counter Note: Subsequent fail counts require C1234 pressure above this value to re-enable fail logic. Results in one fail count per clutch transition	<= 50 KPa >= See Table 6 for Delay Timer Cal	Disable iditions:	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:	>= = = = = = TCM: P0711, P0712, P0716, P0717, P0722, P0723,	31.99 500 7500 5 FALSE TRUE Normal TRUE 1100 P0742, P0756, P0757, P0973, P0974, P0976, P1915, P182E	Volts RPM RPM Sec	>= 5 Fail Counts	Special No Trip
						Transmission Fluid Temperature Lo Transmission Fluid Temperature Hi	>= <=	0 110	°C		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD V.	ALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME REQUIRE	D MIL ILLUM.
					Disable Conditions:	Ignition Voltage Lo 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:	<= >= <= >= = = = = TCM: P0711, P0712, P0716, P07177, P0722, P0723,	9 31.99 500 7500 5 FALSE TRUE Normal TRUE 1100 P0742, P0756, P0757, P0973, P0976, P0977, P1915, P182E	Volts Volts RPM RPM Sec		
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 Timer Cal	(Pa Sec	Transmission Fluid Temperature	>=	0	°C	>= 8 Fa	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE	E CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
				Disable Conditions:		<= >= = = = = >=	P0757, P0973, P0974, P0976, P0977, P1915,	°C Volts Volts RPM RPM Sec		
Variable Bleed Solenoid (VBS)	P0962	Pressure Control (PC) Solenoid A Control Circuit Low Voltage	The HWIO reports an low voltage (ground short) error flag	= TRUE Boolean Disable Conditions:	Ignition Voltage Ignition Voltage Engine Speed Engine Speed Engine Speed is within the allowable limits for MIL not Illuminated for DTC's:	<= >= <= >=	9 31.99 500 7500 5	Volts Volts RPM RPM Sec	>= 0.3 Time (Sec) Sample of 0.375 Time (Sec)	One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOL	.D VALUE	SECONDARY PARAMETERS	ENABLE	E CONDI	TIONS	ТІМІ	E REQI	UIRED	MIL ILLUM.
Variable Bleed Solenoid (VBS)	P0963	Pressure Control (PC) Solenoid A Control Circuit High Voltage	The HWIO reports an high voltage (open or power short) error flag	= TRUE	Boolean					at	0.3 0.375	Fail Time (Sec) Sample Time (Sec)	Two Trips
					Disable Conditions:		<= >= <= >=	9 31.99 500 7500 5	Volts Volts RPM RPM Sec				
Variable Bleed Solenoid (VBS)	P0966	Pressure Control (PC) Solenoid B Control Circuit Low Voltage	The HWIO reports an low voltage (ground		Boolean		ECM: None			>=	0.3	Fail Time	One Trip
			short) error flag			Ignition Voltage	>=	9	Volts	out of	0.375	(Sec) Sample Time (Sec)	
						Ignition Voltage Engine Speed Engine Speed	>=	31.99 500 7500	Volts RPM RPM				
						Engine Speed is within the allowable limits for P0966 Status is not	>=	5 Test Failed This Key On or Fault	Sec				
					Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None ECM: None	Active					
Variable Bleed Solenoid (VBS)	P0967	Pressure Control (PC) Solenoid B Control Circuit High Voltage	The HWIO reports an high voltage (open or power short) error flag	= TRUE	Boolean					>=	0.3	Fail Time (Sec)	One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
							out Sample of 0.375 Time (Sec)	
					Ignition Voltage Ignition Voltage Engine Speed Engine Speed Engine Speed is within the allowable limits for	<= 31.99 Volts >= 500 RPM <= 7500 RPM		
				Disable Conditions:		= Key On or Fault Active		
Variable Bleed Solenoid (VBS)	P0970	Pressure Control (PC) Solenoid C Control Circuit Low Voltage	The HWIO reports an low voltage (ground short) error flag	= TRUE Boolean		ECM: None	>= 0.3 Time (Sec) Sample out 0.375 Time of (Sec)	One Trip
					P0970 Status is not Ignition Voltage	or Fault Active	(366)	
				Disable	Ignition Voltage Engine Speed Engine Speed Engine Speed is within the allowable limits for	<= 31.99 Volts >= 500 RPM <= 7500 RPM >= 5 Sec		
				Conditions		None ECM: None		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		ΓHRESHOLI	D VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME	REQUIRED	MIL ILLUM.
Variable Bleed Solenoid (VBS)	P0971	Pressure Control (PC) Solenoid C Control Circuit High Voltage	The HWIO reports an high voltage (open or power short) error flag	=	TRUE	Boolean					>= out of	Fail 0.3 Time (Sec Samp 375 Time (Sec	e) le
							P0971 Status is not	II	Test Failed This Key On or Fault				
							Ignition Voltage	>=	Active 9	Volts			
							Ignition Voltage	<=	31.99	Volts			
							Engine Speed	>=	500	RPM			
							Engine Speed	<=	7500	RPM			
							Engine Speed is within the allowable limits for	>=	5	Sec			
						Disable Conditions:		TCM: None					
								ECM: None					
Shift Solenoid	P0973	Shift Solenoid A Control Circuit Low	The HWIO reports an low voltage (ground short) error flag	=	TRUE	Boolean					4	Fail 1.2 Time (Sec Samp 1.5 Time (Sec) le
							P0973 Status is not	=	Test Failed This Key On or			(800	,
							Ignition Voltage	>=	Fault Active 9	Volts			
							Ignition Voltage		31.99	Volts			
							Engine Speed	>=	500	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	/ALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	ТІМ	E REQ	UIRED	MIL ILLUM.
					Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None						
							ECM: None						
Shift Solenoid	P0974	Shift Solenoid A Control Circuit High	The HWIO reports an high voltage (open or power short) error flag	= TRUE	Boolean					>= out of	1.2	Fail Time (Sec) Sample Time (Sec)	Two Trips
						P0974 Status is not	=	Test Failed This Key On or Fault				(000)	
						Ignition Voltage Ignition Voltage	<=	Active 9 31.99	Volts Volts				
						Engine Speed Engine Speed Engine Speed is within the	>= <=	500 7500	RPM RPM				
					Disable Conditions:	allowable limits for	>=	5	Sec				
							ECM: None						
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							>=	18	Fail Counts	
			Note: Subsequent fail counts require C35R pressure above this value to re-enable fail logic. Results in one fail count per clutch transition		kpa								

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME REQUI	RED	MIL ILLUM.
					Transmission Fluid Temperature	>=	0	°C			
					Transmission Fluid Temperature	<=	110	°C			
					Ignition Voltage Lo	>=	9	Volts			
					Ignition Voltage Hi	<=	31.99	Volts			
					Engine Speed Lo	>=	500	RPM			
					Engine Speed Hi	<=	7500	RPM			
					Engine Speed is within the allowable limits for	>=	5	Sec			
					Default Gear Action	=	FALSE				
					High Side Driver ON	=	TRUE				
					RVT Status		Normal				
					Hydraulic Pressure Available		TRUE				
					Engine Speed Min		1100	RPM			
				Disable Conditions:		P0711, P0712, P0713, P0716, P0717, P0722, P0723,	P0742, P0756, P0757, P0973, P0974, P0976, P0977, P1915, P182E				Special No
Transmission Fluid Pressure Switch	P0990	Transmission Fluid Pressure (TFP) Sensor E Circuit High Voltage	CBR1/C456 Hydraulic pressure Hydraulic Delay Timer	7- 700 Kpa							Trip
			(Table Based)	>= See Table 9 for Delay Timer Cal							
			Check for Switch to be in Pressurized Position after delay, If so then Increment Fail Counter						>= 15 (Fail Counts	
			Note: Subsequent fail counts require C35R pressure above this value to re-enable fail logic. Results in one fail count per clutch transition								

Transmission Fluid Temperature L.C. Transmissio	COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME REC	QUIRED	MIL ILLUM.
Mode 2 Multiplex Valve P1751 Shift valve 1 performance Attained Gear Slip is >= 100 RPM						Transmission Fluid Temperature Lo	>=	0	°C			
Ignition Voltage H <= 31.99 Volts						Transmission Fluid Temperature	<=	110	°C			
Ignition Voltage H <= 31.99 Volts						Ignition Voltage Lo	>=	9	Volts			
Engine Speed H						Ignition Voltage Hi	<=	31.99	Volts			
Engine Speed is within the allowable limits for 2= 5 Sec Default Gear Action = FALSE High Side Driver ON = TRUE RYT Status Normal Hydraulic Pressure Available = TRUE Engine Speed Min 2= 1100 RPM						Engine Speed Lo	>=	500	RPM			
Mode 2 Multiplex Valve P1751 Shift valve 1 performance Attained Gear Slip is Above Call Increment Fall Counter & Sample Counter Co						Engine Speed Hi	<=	7500	RPM			
High Side Driver On RVT Status Hydraulic Pressure Available TRUE Hydraulic Pressure Available TRUE Engine Speed Min State Hydraulic Pressure Available TRUE Hydraulic Pressure Available Hydraulic Pressure Avai						Engine Speed is within the allowable limits for	>=	5	Sec			
RVT Status						Default Gear Action	=	FALSE				
Hydraulic Pressure Available Engine Speed Min September Engine Speed Min September Septemb						High Side Driver ON	=	TRUE				
Engine Speed Min >= 1100 RPM						RVT Status	=	Normal				
Disable Conditions: MIL not Illuminated for DTC's TCM: P0742, P0711, P0756, P0712, P0757, P0713, P0973, P0716, P0974, P0717, P0976, P0712, P0776, P0712, P0977, P0722, P0977, P0722, P0977, P0723, P1915, P0751, P182E ECM: None None Mode 2 Multiplex Valve P1751 Shift valve 1 performance Attained Gear Slip is >= 100 RPM RPM >= 5 Fail Counter Sample Sample of Counts Counter Counter Counter Counter Counts Counter Coun												
Conditions: P0711, P0756, P0712, P0757, P0713, P0973, P0716, P0974, P0717, P0713, P0974, P0717, P0976, P0722, P0977, P0723, P1915, P0751, P182E						Engine Speed Min	>=	1100	RPM			
If Slip is Greater than the Above Cal Increment Fail Counter & Sample Counter Out of Sample of Counts Once this evaluation is complete the system will allow the valve to get back into position by delaying If Slip is Greater than the Above Cal Increment Counts Counts Out of Sample of Counts If Slip is Greater than the Above Cal Increment Counts Out of Sample of Fail Counts If Seconds Sample of Seconds Sample of Seconds					Conditions		P0711, P0712, P0713, P0716, P0717, P0722, P0723, P0751,	P0756, P0757, P0973, P0974, P0976, P0977, P1915,				
the system will allow the valve to = 1 Seconds get back into position by delaying	Mode 2 Multiplex Valve	P1751	Shift valve 1 performance	If Slip is Greater than the Above Cal Increment Fail Counter & Sample						Out 5	Counts Sample	Two Trips
M2 Solenoid is Commanded On = TRUE Boolean						the system will allow the valve to get back into position by delaying the next test for	=					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABL	LE COND	ITIONS	TIME REQUIRED	MIL ILLUM.
					Current Gear ≠ 2nd Gear	≠	2nd Gear	Gear		
					Calculated line pressure is	>=	1200	kPa		
					The test can begin when the M2 valve is verified to be in place because absolute value of attained gear slip and commanded gear slip is	<=	110	RPM		
					Test is delayed by a calibrated amount of time to allow the M2 valve to get into position	=	0.5	Sec		
					Upshift is In Progress	=	FALSE	Boolean		
					Input Speed Sensor Signal Hyst High (enabled above this value)	>=	1200	RPM		
					Input Speed Sensor Signal Hyst Low (disabled below this value)	<=	900	RPM		
					The torque converter clutch has transition from Locked to Unlocked.		TRUE	Boolean		
					TCC Stuck On Enable Criteria:					
					Gear Ratio Gear Ratio		3.1672 0.6975			
					Engine Speed Hi		6500	RPM		
					Engine Speed Lo		500	RPM		
					Vehicle Speed HI	<=	511	KPH		
					Vehicle Speed Lo	>=	16	KPH		
					Stuck On During Upshift Enabled	=	0	Boolean		
					If Stuck On During Upshift is enabled (See Above), Engine Torque Must be	>=	55	Nm		
					Down Shift In Progress	=	FALSE	Boolean		
					Current Gear	≠	1st Gear Locked	Boolean		
					Engine Torque Hi		1492	Nm		
					Engine Torque Lo	>=	80	Nm		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	ITIONS	TIME REQUIRED	MIL ILLUM.
					Current Range	≠	Neutral	Range		
					Current Range	≠	Reverse	Range		
					Transmission Sump Temperature	<=	130	°C		
					Transmission Sump Temperature	>=	20	°C		
					Throttle Position Hyst High	>=	20	Pct		
					Throttle Position Hyst Low	<=	2.9999	Pct		
					PTO Active	=	FALSE	Boolean		
					Disable if in D1 and value true	=	0	Boolean		
					Disable if in D2 and value true	=	0	Boolean		
					Disable if in D3 and value true	=	0	Boolean		
					Disable if in D4 and value true	=	0	Boolean		
					Disable if in D5 and value true	=	0	Boolean		
					Disable if in MUMD and value true	=	0	Boolean		
					Disable if in TUTD and value true	=	0	Boolean		
					4 Wheel Drive Active	=	FALSE	Boolean		
					Air Purge Active	=	FALSE	Boolean		
					Ignore Air Purge if value = true	=	0	Boolean		
					TCC Mode	=	OFF			
					Common Enables:					
					Ignition Voltage	>=	9	V		
					Ignition Voltage	<=	31.99	V		
					Vehicle Speed		511	KPH		
					Engine Speed		500	RPM		
					Engine Speed		7500	RPM		
					Engine Speed is within the allowable limits for		5	Sec		
					Engine Torque Signal Valid	=	TRUE	Boolean		
					Throttle Position Signal Valid	=	TRUE	Boolean		
					P1751 Status is	≠	Test Failed This Key On			

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, P0101, P0206, P0717, P0102, P0102, P0722, P0103, P0208, P0741, P0107, P0301, P0742, P0108, P0302, P2763, P0171, P0303, P2764, P0174, P0305, P0175, P0306, P0201, P0307, P0202, P0308, P0203, P0401, P0204, P042E		
Internal Mode Switch (IMS)	P182E	Internal Mode Switch - Circuit A Low Reported as Internal Mode Switch-Invalid Range	Fail Case 1 Current range	= "Transitional 1'	Range State				One Trip
			Previous range	NDL_DIIVeo	Range State				
			Previous range	!= CeTRGR_e_PF NDL_Drive5	Range State				
			Either the S1 or S3 Pressure Switch indicates "Pressure Present"	= TRUE	Boolean				
			Engine Torque		Nm				
			Engine Torque If the above conditions are present Increment Fail Timer	<= 8191.75	Nm			Fail >= 0.225 Second s	
			If Fail Timer has Expired then Increment Fail Counter					>= 15 Fail Counts	
			<u>Fail</u> <u>Case 2</u> Current range		Range State				
			S3 Pressure Switch indicates "Exhausted"	= TRUE	Boolean				
			Commanded Gear	= 1st Locked	Gear			F-11	
			If the above conditions are present Increment Fail Timer					Fail >= 0.225 Second s	

COMPONENT/ SYSTEM FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
		If Fail Timer has Expired then Increment Fail Counter					>= 15 Fail Counts	
	Fail Case		= "Transitional 13"	ı	Previous range	CeTR GR_e_ != PRND L_Driv e3		
		Either the S1 or S3 Pressure Switch indicates "Pressure Present"	= TRUE	Boolean	Previous range	CeTR GR_e_ != PRND L_Driv e2		
		Engine Torque		Nm	IMS is 7 position configuration If the "IMS 7 Position config" = 1 then the "previous range" criteria			
		Engine Torque	<= 8191.75	Nm	above must also be satisfied when the "current range" = "Transitional 13"			
		If the above conditions are present Increment Fail Timer If Fail Timer has Expired					>= 0.225 Second s	
	Fail	then Increment Fail Counter	"Transitional 2"		Disable Fail Case 4 if last positive		>= 15 Fail Counts	
	<u>Fail</u> <u>Case</u>	£4 Current range Either the S1 or S3	= or "Transitional 8"		range was Drive 6 and current range is transitional 8			
		Pressure Switch indicates "Pressure Present"	= TRUE	Boolean				
		Steady State Engine Torque Steady State Engine	>= 20 <= 8191.75	Nm				
		Torque If the above conditions are present Increment Fail Timer	<= 8191.75	Nm			>= 0.225 Second	
		Fall Timer If the above Conditions have been met, Increment Fail Counter					>= 15 Fail Counts	
	<u>Fail.</u> <u>Case</u>	Current range Engine Torque	11	Nm				

Eller fire St or SS Present Present II the above conditions are present in former former in the above conditions are present increment Fall Counted have been met, increment Fall Counted have been met, increment Fall Counted Fall Case 6 Current range "Illegar" A Open Circuit Definition (flag set false if the following conditions are met): "Transit Counted Fall Case 6 Current Range "Park/Neutral" Outper Range Transitional State of the following conditions are met): "Transit false if the following conditions are met." Transit false if the following conditions are met." Transit false if the following conditions are met. Transit false if the following conditions are met. Transit false if the following conditions are met." Transit false if the following conditions are met. Transit false if t	COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABL	LE CONDITIONS	TIME REQUIRED	MIL ILLUM.
Fail Case B Current range "Illegal" A Open Circuit Definition (flag set false if the following conditions are met): "Transi Current Range # tional 11" ECM Park/Neutral" Message and Message and Park, Neutral, Reverse, Current Range # Transitional 8, or Transitional 111 A Open Circuit (See Definition) A Open Circuit (See Definition) Fail Message and Message a				Pressure Switch indicates "Pressure Present" If the above conditions are present Increment Fail Timer If the above Conditions have been met,	=	TRUE	Boolean				>= 0.225 s >= 15 Fail	
ECM Park/Neutral **Park/Neutral**				<u>Fail</u> <u>Case 6</u> Current range	=	"Illegal"		false if the following conditions are met):	≠			
Reverse, Transitional 8, or Transitional 8 11 A Open Circuit (See Definition) FALSE Boolean FALSE Boolean PRNDL Circuit A PRNDL Circuit B PRNDL Circuit Circuit PRNDL Circuit Circuit PRNDL Circuit Circuit PRNDL Circuit PRNDL Circuit PRNDL Circuit P PRNDL Circuit				ECM Park/Neutral Message	=			or		11"		
and A Open Circuit (See Definition) A Open Circuit (See Definition) FRALSE Boolean PRODE Circuit A = Open Circuit A PRODE Circuit B = Closed Circuit A PRODE Circuit B PRODE Circuit C PRODE Circuit B PRO				Current Range	≠	Reverse, Transitional 8, or Transitional		or		T		
PRNDL Circuit A = Open Circuit PRNDL Circuit B = Closed Circuit PRNDL Circuit C = Open Circuit PRNDL Circuit P = Open Circuit >= 6.25 Second S				A Open Circuit (See		FALSE	Boolean		≠	onal 8 and		
PRNDL Circuit C = Open Circuit PRNDL Circuit P = Open Circuit If the above Conditions are present, Increment Fail timer PRNDL Circuit P = Open Circuit >= 6.25 Second				Definition)		171202	Dooloum	PRNDL Circuit A		Circuit Closed		
are present, Increment Fail timer For a property of the state of the										Open Circuit Open		
Case 7 Current PRNDL State = ABCP = 1101				are present, Increment Fail timer		PRNDL circuit ABCP = 1101					2= n/n	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABL	E COND	ITIONS	TIME REQU	JIRED	MIL ILLUM.
			Previous valid state Input Speed Reverse Trans Ratio Reverse Trans Ratio If the above Conditions are present, Increment Fail timer P182E will report test fail when any of the above 7 fail cases are met	>= <= >=	PRNDL encoded value of ABCP =1111 150 2.795898438 3.149047852	RPM ratio	Ignition Voltage Lo Ignition Voltage Hi Vehicle Speed Lo Engine Speed Hi Engine Speed is within the allowable limits for Engine Torque Signal Valid	>= <= <= >= = TCM: P0722, P0723	ECM: P0101, P0102, P0103, P0106, P0107, P0108, P0171, P0172, P0174, P0175, P0201,	P0207, P0208, P0300, P0301, P0302, P0303, P0304, P0305, P0306, P0307, P0308, P0401,	>= 6.25	Second s	
Internal Mode Switch (IMS)	P1915	Internal Mode Switch Does Not Indicate Park/Neutral (P/N) During Start	PRNDL State is The following events must occur Sequentially		Park or Neutral	Enumeration							One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLI	D VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME REQ	UIRED	MIL ILLUM.
			Initial Engine speed	<=	50	RPM					>= 0.1	Enable Time (Sec)	
			Then Engine Speed Between Following Cals Engine Speed Lo Hist	>=	50	RPM							
			Engine Speed Hi Hist	<=	480	RPM					>= 0.0688	Enable Time (Sec)	
			Then									, ,	
			Final Engine Speed Final Transmission Input		500	RPM						Fail	
			Speed	>=	100	RPM					>= 1.25	Time	
							DTC has Ran this Key Cycle?	=	FALSE				
							Ignition Voltage Lo		6	V			ļ
							Ignition Voltage Hi Ignition Voltage Hyst High (enables above this value)	<= >=	31.99 6	V V			
							Ignition Voltage Hyst Low (disabled below this value)		2	V			
							Transmission Output Speed	<=	90 Test Failed	rpm			
							P1915 Status is	≠	This Key On or Fault Active				
						Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0722, P0723	7.00.70				
								ECM: None					
Transmission Control Module (TCM)	P2534	Ignition Switch Run/Start Position Circuit Low	Run crank active (based on voltage thresholds below)	=	FALSE								One Trip
			Ignition Voltage High Hyst (run crank goes true when above this value)		6	Volts					>= 280	Fail Counts (25ms loop)	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABLE CONDITION	S TIM	ME REQ	UIRED	MIL ILLUM.
			Ignition Voltage Low Hyst (run crank goes false when below this value)		2	Volts			Out of	280	Sample Counts (25ms loop)	
						Disable Conditions:	Normal CAN Comm Enabled ECM run/crank active status MIL not Illuminated for DTC's:	= TRUE Boole				
Variable Bleed Solenoid	P2714	Pressure Control (PC) Solenoid D	Fail Case: Steady State 2nd					ECM: None				One Trip
(VBS)		Stuck Off [CB26]	<u>Case 1</u> Gear Gear slip	>=	200	RPM			>=	For Neutral Time	Neutral Timer (Sec)	
			Intrusive test: commanded 3rd gear If attained Gear = 3rd for Time	7	Table Based Time Please see Table 2 in Supporting Documents	Enable Time (Sec)				Cal		
			If Above Conditions have been met Increment 2nd gear fail count		bocaments				>=	3	2nd Gear Fail Count	
			and CB26 Fail Count Fail Case: Steady State 6th						>=	14	or CB26 Fail Count	
			<u>Case 2</u> Gear Gear slip	>=	200	RPM			>=	For	Neutral Timer (Sec)	

FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABI	LE CONDI	ΓIONS	TIME	E REQI	JIRED	MIL ILLUM.
		Intrusive test: commanded 5th gear If attained Gear = 5th For Time If Above Conditions have been met, Increment 5th gear fail counter and CB26 Fail Count	Table Based Time Please see Table 2 in Supporting Documents Enable Time (Sec)	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 Hiengine Speed Lo Engine Speed Hiengine Speed Hiengine Speed Hiengine Speed Information Signal valid HSD Enabled Transmission Fluid Temperature Input Speed Sensor fault Output Speed Sensor fault		FALSE FALSE FALSE TRUE 0 650 0.5005 9 31.99 500 7500 5 TRUE TRUE 0 FALSE FALSE TRUE	Boolean Boolean Boolean RPM RPM Pct Volts Volts RPM RPM Sec Boolean Boolean	>=	3	5th Gear Fail Count or CB26 Fail Count	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						Disable Conditions:		TCM: P0716, P0101, P0206, P0717, P0102, P0102, P0723, P0103, P0208, P0104, P0300, P0107, P0301, P0108, P0302, P0171, P0303, P0172, P0304, P0174, P0305, P0175, P0306, P0201, P0307, P0202, P0308, P0203, P0401, P0204, P042E		
Variable Bleed Solenoid (VBS)	P2715	Pressure Control (PC) Solenoid D Stuck On [CB26] (Dynamic)	Primary Offgoing Clutch is exhausted (See Table 13 in Supporting Documents for Exhaust Delay Timers) Primary Oncoming Clutch Pressure Command Status Primary Offgoing Clutch Pressure Command Status Range Shift Status Attained Gear Slip	= = ≠	TRUE Maximum pressurized Clutch exhaust command Initial Clutch Control 40	Boolean				One Trip
			If above conditions are true, increment appropriate Fail 1 Timers Below: fail timer 1 (2-1 shifting with throttle) fail timer 1 (2-1 shifting without throttle) fail timer 1 (2-3 shifting with throttle) fail timer 1 (2-3 shifting with throttle)	>= >= >=	0.700195313 0.900390625 0.700195313 0.900390625	Fail Time (Sec) Fail Time (Sec) Fail Time (Sec) Fail Time				

FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
		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)				
		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 sec 1, and Referen ce Support ing Table 15 for Fail Timer 2	
		If fail timer is greater than threshold increment corresponding gear fail counter and total fail counter						
		2nd gear fail counter					Fail Counter >= 3 From 2nd Gear	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			6th gear fail counter total fail counter				>= 3 From 6th Gear OR Total >= 5 Fail Counter	
				Disable Conditions:	Trans oil temperature Input Speed Sensor fault Output Speed Sensor fault Command / Attained Gear High Side Driver ON output speed limit for TUT input speed limit for TUT TUT Enable temperature PRNDL state defaulted IMS Fault Pending Service Fast Learn Mode HSD Enabled MIL not Illuminated for DTC's:	>= 200 RPM >= 200 RPM >= 0 °C = FALSE Boolean = FALSE Boolean = TRUE Boolean		
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	>= 200 RPM				One Trip

AULT ODE	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 4 in supporting documents Table Based Enable Time (Sec)				
		Intrusive test: (CBR1 clutch exhausted) Gear Ratio Gear Ratio	<= 3.112670898				
		If the above parameters are true				Fail >= 1 Timer (Sec) Fail	
						>= 2 Count in 1st Gear or Total	
		<u>Fail</u> Case: Steady State 3rd <u>Case 2</u> Gear	Table Based			>= 3 Fail Counts	
		Max Delta Output Speed Hysteresis	value Please >= Refer to Table rpm/sec 17 in supporting documents Table Based				
		Min Delta Output Speed Hysteresis	value Please				
		If the Above is True for Time Intrusive test:	Time Please >= Refer to Table Sec 19 in supporting documents				
		(C35R clutch exhausted)					

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

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
							or Total >= 3 Fail Counts	
			Fail Case: Steady State 5th Case 4 Gear	Table Based				
			Max Delta Output Speed Hysteresis	value Blacce				
			Min Delta Output Speed Hysteresis	Table Based value Please >= Refer to Table rpm/sec 18 in supporting documents				
			If the Above is True for Time	Table Based Time Please >= Refer to Table Sec 19 in supporting documents				
			Intrusive test: (C35R clutch exhausted)					
			Gear Ratio					
			Gear Ratio If the above parameters	>= 0.693725586				
			are true					
							Fail >= 1 Timer (Sec) Fail	
							>= 2 Count in 5th Gear	
							or Total >= 3 Fail Counts	
					PRNDL State defaulted	= FALSE Boolean	Counts	
					inhibit RVT	= FALSE Boolean		
					IMS fault pending indication	= FALSE Boolean		
					output speed	>= 0 RPM		

COMPONENT/ SYSTEM FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Disable Conditions:	TPS validity flag	= TRUE Boolean = TRUE Boolean >= 0 Nm >= 650 Nm >= 0.5005 Nm >= 9 Volts <= 31.99 Volts >= 500 RPM <= 7500 RPM >= 5 Sec >= 8.0002 Pct >= 50 Nm <= 1492 Nm >= 0 °C = FALSE Boolean = TRUE		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	-	THRESHOLI	O VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME REQ	UIRED	MIL ILLUM.
Variable Bleed Solenoid (VBS)	P2720	Pressure Control (PC) Solenoid D Control Circuit Low	The HWIO reports an low voltage (ground short) error flag	=	TRUE	Boolean					>= 0.3 out of 0.375	Fail Time (Sec) Sample Time (Sec)	One Trip
							P2770 Status is not	=	Test Failed This Key On or Fault				
							Ignition Voltage	>=	Active 9	Volts			
							Ignition Voltage	/-	31.99	Volts			
							Engine Speed	>=	500	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)	P2721	Pressure Control (PC) Solenoid D Control Circuit High	The HWIO reports an high voltage (open or power short) error flag	=	TRUE	Boolean					>= 0.3 out 0.375	Fail Time (Sec) Sample Time (Sec)	One Trip
							P2721 Status is not	=	Test Failed This Key On or Fault			(555)	
									Active				
							Ignition Voltage		9	Volts			
							Ignition Voltage	<=	31.99	Volts			
							Engine Speed	>=	500	RPM			
							Engine Speed Engine Speed is within the allowable limits for	<= >=	7500 5	RPM Sec			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA		THRESHOLD	VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						Disable Conditions:	MIL not Illuminated for DTC's:	TCM: None		
						Conditions.				
								ECM: None		
Variable Bleed Solenoid (VBS)	P2723	Pressure Control (PC) Solenoid E Stuck Off	<u>Fail</u> Case: Steady State 1s <u>Case 1</u> Gea							One Trip
									Please See	
			Gear slip	>=	200	RPM			Table 5 Neutral	
									Neutral (Sec) Time	
			Intrusive test						Cal	
			commanded 2nd gea	П	Table based					
			If attained Gear ≠ 2nd fo	, =	Timer, Please See Table 3 in Supporting	Enable Time				
			Time	-	Supporting Documents	(Sec)				
			If Above Conditions have		Documents				1st	
			been met, Increment 1s gear fail counte						>= 2 Gear Fail	
									Count or	
									C1234 Clutch	
			and C1234 fail counte						>= 14 Fail Count	
			Fail Case: Steady State 2nd Case 2 Gea							-
			Gea						Please	
			O a malin		200	DDM			See Table 5 Neutral	
			Gear slip) >=	200	RPM			>= For Timer Neutral (Sec)	
									Time Cal	
			Intrusive test commanded 3rd gea							
			If attained Occurs 2015		Table based Timer, Please	Enable Time				
			If attained Gear ≠ 3rd fo Time	>=	Timer, Please See Table 3 in Supporting	Enable Time (Sec)				
					Documents					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			If Above Conditions have been met, Increment 2nd gear fail counter				>= 2 Gear Fail Count or	
			and C1234 fail counter				>= 14 Clutch Fail Count	
			Fail Case: Steady State 3rd Case 3 Gear Gear Gear				Please See Table 5 Neutral >= For Timer	
			Intrusive test: commanded 4th gear	Table based			Neutral (Sec) Time Cal	
			If attained Gear ≠ 4th for time If Above Conditions have	>= Timer, Please			3rd	
			been met, Increment 3rd gear fail counter				>= 2 Gear Fail Count or C1234	
			and C1234 fail counter Fail Case: Steady State 4th Case 4 Gear				>= 14 Clutch Fail Count	
			<u>Case 4</u> Gear Gear slip	>= 200 RPM			Please See Table 5 Neutral >= For Timer Neutral (Sec) Time Cal	
			Intrusive test: commanded 5th gear				Ual .	

FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
		If attained Gear = 5th For Time If Above Conditions have been met, Increment 4th	Table based Timer, Please >= See Table 3 in Supporting Documents Table based Enable Time (Sec)			4th Sear	
		gear fail counter and C1234 fail counter				Fail Count or C1234 >= 14 Clutch Fail Count	
				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 Throttle Position Signal valid HSD Enabled	= FALSE Boolea = FALSE Boolea = TRUE Boolea = TRUE Boolea >= 0 RPM >= 650 RPM >= 0.5005 Pct >= 9 Volts <= 31.99 Volts >= 500 RPM <= 7500 RPM >= 5 Sec = TRUE Boolea = TRUE Boolea	n n n	
				Input Speed Sensor fault Output Speed Sensor fault Default Gear Option is not present	= FALSE Boolea		

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, P0101, P0206, P0722, P0723, P182E P182E P0102, P0103, P0106, P0300, P0107, P0301, P0108, P0302, P0171, P0303, P0172, P0304, P0174, P0305, P0175, P0306, P0201, P0307, P0202, P0308, P0203, P0401, P0204 P042E		
Variable Bleed Solenoid (VBS)	P2724	Pressure Control (PC) Solenoid E Stuck On (Dynamic)	Primary Offgoing Clutch is exhausted (See Table 10 in Supporting Documents for Exhaust Delay Timers) 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:	= = = ≠	TRUE Maximum pressurized Clutch exhaust command Initial Clutch Control 40	Boolean				One Trip
			fail timer 1 (2-6 shifting with throttle) fail timer 1 (2-6 shifting without throttle)	>=	0.700195313 0.900390625					
			fail timer 1 fail timer 1 (3-5 shifting with throttle) fail timer 1 (3-5 shifting without throttle)		0.700195313 0.900390625					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			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				
			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 sec 1, and Referen ce Support ing 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 >= 3 From 2nd Gear	
			3rd gear fail counter				Fail Counter >= 3 From 3rd Gear	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			4th gear fail counter				Fail Counter >= 3 From 4th Gear	
			total fail counter				Total >= 5 Fail Counter	
				Disable Conditions:	Trans oil temperature Input Speed Sensor fault Output Speed Sensor fault Command / Attained Gear High Side Driver ON output speed limit for TUT input speed limit for TUT TUT Enable temperature PRNDL state defaulted IMS Fault Pending Service Fast Learn Mode HSD Enabled MIL not Illuminated for DTC's:	= FALSE Boolean = FALSE Boolean ≠ 1st Boolean = TRUE Boolean >= 200 RPM >= 200 RPM >= 0 °C = FALSE Boolean = FALSE Boolean = FALSE Boolean = TRUE Boolean		
Variable Bleed Solenoid (VBS)	P2724	Pressure Control (PC) Solenoid E Stuck On (Steady State)	Fail Case: 5th Gear Max Delta Output Speed Hysteresis	Table Based value Please				One Trip

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Min Delta Output Speed Hysteresis	Table Based value Please >= Refer to Table rpm/sec 18 in supporting documents				
			If the Above is True for Time					
			Intrusive test: (C35R clutch exhausted)					
			Gear Ratio Gear Ratio If the above parameters are true	>= 1.328979492			Fail	
							>= 1 Timer (Sec) Fail	
							Gear OR Total >= 3 Fail	
			<u>Fail</u> Case: 6th Gear				Counts	
			Max Delta Output Speed Hysteresis	Table Based value Please >= Refer to Table rpm/sec 17 in supporting documents				
			Min Delta Output Speed Hysteresis					
			If the Above is True for Time					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Intrusive test: (CB26 clutch exhausted) Gear Ratio Gear Ratio If the above parameters are true		PRNDL State defaulted inhibit RVT IMS fault pending indication output speed TPS validity flag HSD Enabled Hydraulic_System_Pressurized Minimum output speed for RVT A OR B (A) Output speed enable (B) Accelerator Pedal enable Ignition Voltage Hill Engine Speed Lo Engine Speed Hill Engine Speed Hill Engine Speed Hill Engine Speed Hill Engine Speed Is within the allowable limits for if Attained Gear=1st FW Accelerator Pedal enable if Attained Gear=1st FW Engine Torque Enable	= FALSE Boolear = FALSE Boolear >= 0 RPM = TRUE Boolear = TRUE Boolear = TRUE Boolear >= 0 Nm >= 0.5005 Nm >= 9 Volts <= 31.99 Volts >= 500 RPM <= 7500 RPM >= 5 Sec >= 8.0002 Pct >= 50 Nm		
					if Attained Gear=1st FW Engine Torque Enable	<= 1492 Nm		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
				Disable Conditions:		= FALSE Boolean = FALSE Boolean = TRUE		
Variable Bleed Solenoid (VBS)	P2729	Pressure Control (PC) Solenoid E Control Circuit Low	The HWIO reports an low voltage (ground short) error flag			Test Failed This = Key On or Fault Active >= 9 Volt <= 31.99 Volt >= 500 RPM <= 7500 RPM >= 5 Sec	>= 0.3 Time (Sec) Sample out 0.375 Time (Sec)	One Trip

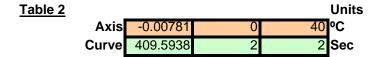
COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD) VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME R	EQUIRED	MIL ILLUM.
Variable Bleed Solenoid (VBS)	P2730	Pressure Control (PC) Solenoid E Control Circuit High	The HWIO reports an high voltage (open or power short) error flag	= TRUE	Boolean					>= 0. out of 0.3	(Sec) Sample	One Trip
						P2730 Status is not	=	Test Failed This Key On or Fault				
						Ignition Voltage Ignition Voltage		Active 9 31.99	Volt Volt			
						Engine Speed	>=	500	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)	= TRUE	Boolean					>= 4. out of	(Sec) Sample	One Trip
						P2763 Status is not	=	Test Failed This Key On or Fault			(666)	
						Ignition Voltage	>=	Active 9	Volt			
						Ignition Voltage		31.99	Volt			
						Engine Speed	>=	500	RPM			
						Engine Speed	<=	7500	RPM			
						Engine Speed is within the allowable limits for	>=	5	Sec			
						High Side Driver Enabled	=	TRUE	Boolean			

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHO	LD VALUE	SECONDARY PARAMETERS	ENABL	E COND	ITIONS	TIM	IE REG	UIRED	MIL ILLUM.
					Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0658, P0659						
							ECM: None						
Variable Bleed Solenoid (VBS)	P2764	Torque Converter Clutch Pressure Control Solenoid Control Circuit Low	The HWIO reports an high pressure/low voltage (ground short) error flag		Boolean		None			>= out	4.4	MPH	Two Trips
						P2764 Status is not	=	Test Failed This Key On or Fault Active	ı	of	5	MPH	
						Ignition Voltage	>=	9	Volt				
						Ignition Voltage	<=	31.99	Volt				
						Engine Speed	>=	500	RPM				
						Engine Speed Engine Speed is within the allowable limits for	<= >=	7500 5	RPM Sec				
						High Side Driver Enabled	=	TRUE	Boolea	n			
					Disable Conditions:	MIL not Illuminated for DTC's:	TCM: P0658, P0659 ECM:						
							None						
Communication	U0073	Controller Area Network Bus Communication Error	CAN Hardware Circuitry Detects a Low Voltage Error		Boolean					>=	250	Fail counts (12.25 ms loop)	One Trip
			Delay timer	>= 0.1125	sec					Out of	253	Sample Counts (12.25 ms loop)	
						Stabilization delay	>=	3	sec			/	
						Power Mode	=	Run					

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABL	E CONDI	TIONS	TIME REQUIRED	MIL ILLUM.
					Ignition Voltage Lo	>=	9	Volt		
					Ignition Voltage Hi	<=	31.99	Volt		
				Disable Conditions:		TCM: None ECM: None				
Communication	U0100	Lost Communications with Engine Control System	Communication Message Invalid From FCM						>= 12 sec	One Trip
			FUM		Stabilization delay	>=	3	sec		
					Power Mode	=	Run			
					Ignition Voltage Lo		9	Volt		
				Disable	Ignition Voltage Hi MIL not Illuminated for DTC's:		31.99	Volt		
				Conditions		U0073 ECM: None				

Supporting Documents

Table 1							Units			Units
	Axis	0	64	128	192	256	320	384	448	512 N *m
	Curve	100	120	150	150	150	150	150	150	150 RPM



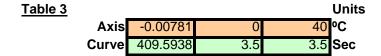


Table 4					Units
	Axis	-0.00781	0	40	٥С
	Curve	409.5938	2	2	Sec

Table 5					Units
	Axis	-0.00781	0	40	٥С
	Curve	409.5938	3	3	Sec

Table 6						Units
	Axis	-40	-0.00781	40	80	120 °C
	Curve	409	409	1.6	1.4	1.4 Sec

Table 7						Units
	Axis	-40	-0.00781	40	80	120 °C
	Curve	409	409	1.4	1.3	1.2 Sec

Table 8							Units			
	Axis	-40	-0.00781	40	80	120				
	Curve	409	409	1.6	1.5	1.4	Sec			
	-						•			
Table 9		10		10	2.0	100	Units			
	Axis	-40 400	-0.00781	40	80	120				
	Curve	409	409	1.3	1.2	1.1	Sec			
Table 10							Units			
	Axis	-40	-20	0	30	110				
	Curve	8.849609	3.75	1.30957	0.280273	0.280273	Sec			
	•			-						
<u>Table 11</u>	آ آ	40	00	0	0.0	110	Units			
	Axis Curve	-40 5	-20 1.700195	0.400391	30 0.25	0.25	Sec			
	Curve	5	1.700195	0.400391	0.25	0.25	Sec			
Table 12							Units			
	Axis	-40	-20	0	30	110				
	Curve	8	2.200195	0.700195	0.25	0.25	Sec			
Table 13							Units			
Table 13	Axis	-40	-20	0	30	110				
		5.200195	1.599609	0.5	0.269531	0.160156				
Table 14			,				Units			
	Axis	-40	-20	0	30	110				
	Curve	5	1.5	0.700195	0.25	0.25	Sec			
Table 15										
1 abic 10	Axis	-40	-30	-20	-10	0		10	20	30
	Curve	0	0	0	0			0	0	0

<u>Table 16</u>					Units
	Axis	-0.00781	0	40	۰C
	Curve	409.5938	1.5	1.5	Sec

 Table 17
 Units

 Axis
 -0.00781
 0
 40
 °C

 Curve
 8191.75
 1676
 1676
 Unknown Unit

 Table 18
 Units

 Axis
 -0.00781
 0
 40
 °C

 Curve
 8191.75
 1200
 1200
 Unknown Unit

 Table 19
 Units

 Axis
 -0.00781
 0
 40
 °C

 Curve
 0.4
 0.35
 0.3
 Sec

Table 20 Units 149.1016 °C -40.1016 -20 30 60 100 Axis -40 149 34 ٥С 40 25 255.9961 50 20 255.9961 Curve 45

Table 21 Units 149.1016 °C -20 30 60 Axis -40.1016 -40 100 149 40 34 25 ٥С Curve 255.9961 50 45 20 20 255.9961

 Table 22

 Axis -40.1016
 -40
 -20
 0
 30
 60
 100
 149
 149.1016
 °C

 Curve
 255.9961
 10
 8
 8
 8
 8
 8
 255.9961
 °C