Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
TCM, Internal Fault	P0605	ROM checksum or RAM error	Calculated checksum differs from stored	Number of failed calculations: 2	Ignition	ON	Immediately Continuous	Immediately
Lost communication with ECM (Engine)	U0100	Frame missing from ECM	Detect no Status CAN frame from ECM		DS_Active_CAN[1] Ignition Emergency mode	TRUE ON >3sec FALSE	4 sec Continuous	Immediately
Invalid data from ECM	P1895	Engine Torque signal is indicated invalid	Invalid Torque data from ECM		DS_Active_CAN[1] Ignition Emergency mode No DTC set	TRUE ON >3sec FALSE U0100	4 sec Continuous	Immediately
Solenoid S1	P0985 P0986	Circuit continuity check	Short-cut ground Not connected or short-cut Ubatt		DS_Active[2] Emergency mode Time after solenoid output change	TRUE FALSE > 25 ms	500 msec Continuous	Immediately
Solenoid S2	P0973 P0974	Circuit continuity check	Short-cut ground Not connected or short-cut Ubatt		DS_Active[2] Emergency mode Time after solenoid output change	TRUE FALSE > 25 ms	500 msec Continuous	Immediately
Solenoid S3	P0976 P0977	Circuit continuity check	Short-cut ground Not connected or short-cut Ubatt		DS_Active[2] Emergency mode Time after solenoid output change	TRUE FALSE > 25 ms	500 msec Continuous	Immediately
Solenoid S4	P0979 P0980	Circuit continuity check	Short-cut ground Not connected or short-cut Ubatt		DS_Active[2] Emergency mode Time after solenoid output change	TRUE FALSE > 25 ms	500 msec Continuous	Immediately
Solenoid S5	P0982 P0983	Circuit continuity check	Short-cut ground Not connected or short-cut Ubatt		DS_Active[2] Emergency mode Time after solenoid output change	TRUE FALSE > 25 ms	500 msec Continuous	Immediately

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
Torque Converter Clutch Slips	P0741	Comparison of engine speed and transmission input speed	(Engine Speed - Transmission Input Speed)	> 100rpm	No Shifting Control[6]		12 sec	Immediately
					Throttle	> 20%	Continuous	
					abs(1-SpeedABS/Trans Output ~ `	< 10%		
					abs(1-SpeedABS/Trans Input ~ ` ``	< 10%		
					Shift Position	RANGE_D, 4, 3, 2, M (defined)		
					Engine Speed	< 4000 rpm		
					SLU target current	>= 1000mA		
					Time after shifting	> 0,5 sec		
					Battery voltage	> 10,5 V		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					Lock-up	TRUE		
					No DTC set	P0501		
						P0705		
						P0711		
						P0712		
						P0713		
						P0716		
						P0717		
						P0721		
						P0722		
						P0725		
						P0786		
						P0787		
						P0788		
						P0961		
						P0962		
						P0963		
						P0973		
						P0974		
						P0976		
						P0977		
						P0979		
						P0980		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters / Enable Conditions		Time Required	MIL Illumin.
						P0982		
						P0983		
						P0985		
						P0986		
						P1820		
						P1895		
						P1896		
						P2159		
						P2762		
						P2763		
						P2764		
						U0001		
						U0100		
						U0121		
Torque Converter Clutch Stuck On	P0742	Comparison of engine speed and transmission input speed	(Engine Speed - Transmission Input speed)	< 50rpm	Condition A **or** Condition B		12 sec Continuous	Immediately
					ConditionA:			
					EngineTorque	>= Egtrq_LUP_FailMap[5]		
					EngineTorque	<= 240 Nm		
					Trans Input Speed	<= 3000rpm		
					Time after changing to Shift position RANGE_D,L,2,M	>8 0 sec		
					Time after IG ON or a reset of the …	>3 min		
					Time after shifting control	>0 5sec		
					Oil temperature	>= 20°C		
					Shift position	RANGE_D,M,L (defined)		
					Condition B:			
					No Shifting Control[6]			
					Not garage shifting control[7](N-D)			
					Time after with over 5km/h with RANGE_D,L (…) fulfilled	>75 sec		
					Engine Speed	>= 400 rpm		
					IG voltage	>= 10 5 V		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					No DTC set	P0721		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
					P0722			
					P0716			
					P0717			
					P0705			
					P0985			
					P0986			
					P0973			
					P0974			
					P0976			
					P0977			
					P0979			
					P0980			
					P0982			
					P0983			
					P0961			
					P0962			
					P0963			
					P0786			
					P0787			
					P0788			
					P2762			
					P2763			
					P2764			
					U0001			
					U0100			
					P1820			
					P0725			
					P1895			
					P0711			
					P0712			
					P0713			
Pressure solenoid SLU	P2764	Circuit continuity check	Short-cut ground or open		DS_Active[2]	TRUE	12,5 sec	Immediately
			Current	<92 mA	Emergency mode	FALSE	Continuous	
			(AD	< 68)				
	P2762		Terminal short		Emergency mode	FALSE	2,75 sec	Immediately

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
			Error current	> 80 mA	Oil temperature	> 20°C	Continuous	
					System voltage	11 -16 V		
					System voltage change	< 0,2V		
					Output current target	> 835mA and not changed during detection		
					DS_Active[2]	TRUE		
					No DTC set	P0711		
						P0712		
						P0713		
	P2763		Short-cut Ubatt		DS_Active[2]	TRUE	2 sec	Immediately
			Measured Current	> 1356 mA				
			(AD	> 1000)	Emergency mode	FALSE	Continuous	
Pressure solenoid SLT	P0962	Circuit continuity check	Short-cut ground or open		DS_Active[2]	TRUE	12 5 sec	Immediately
			Current	<92 mA				
			(AD	< 68)	Emergency mode	FALSE	Continuous	
	P0961		Terminal short		Emergency mode	FALSE	2 75 sec	Immediately
			Error current	> 80 mA	Oil temp	> 20°C	Continuous	
					System voltage	11 -16 V		
					System voltage change	< 0,2V		
					Output current target	> 835mA and not changed during detection		
					DS_Active[2]	TRUE		
					No DTC set	P0711		
						P0712		
						P0713		
	P0963		Short-cut Ubatt		DS_Active[2]	TRUE	2 sec	Immediately
			Measured Current	> 1356 mA				
			(AD	> 1000)	Emergency mode	FALSE	Continuous	
Timing solenoid SLS	P0787	Circuit continuity check	Short-cut ground or open		DS_Active[2]	TRUE	12 5 sec	Immediately
			Current	<92 mA				
			(AD	< 68)	Emergency mode	FALSE	Continuous	

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
	P0786		Terminal short	Error current > 80 mA	Emergency mode	FALSE	2 75 sec	Immediately
					Oil temp	> 20°C	Continuous	
					System voltage	11 -16 V		
					System voltage change	< 0,2V		
					Output current target	> 835mA and not changed during detection		
					DS_Active[2]	TRUE		
					No DTC set	P0711		
						P0712		
						P0713		
	P0788		Short-cut Ubatt		DS_Active[2]	TRUE	2 sec	Immediately
			Measured Current	> 1356 mA				
			(AD	> 1000)	Emergency mode	FALSE	Continuous	
Shift Malfunction	P0780	Shift time check	Shift time is too long, too short or "tie up" occurs		No Multiplex Shifting[8]		Detected 5 times during DCY	Immediately
					Oil temperature	> 60°C		
					Emergency mode	FALSE		
					DS_Active[2]	TRUE	Continuous	
					Shift position	D, 4, 3, L, or M		
					No DTC set	P0721		
						P0722		
						P0716		
						P0717		
						P0705		
						P0985		
						P0986		
						P0973		
						P0974		
						P0976		
						P0977		
						P0979		
						P0980		
						P0982		
						P0983		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
					P0961			
					P0962			
					P0963			
					P0786			
					P0787			
					P0788			
					P2762			
					P2763			
					P2764			
					U0001			
					U0100			
					P1820			
					P0725			
					P1895			
					P0711			
					P0712			
					P0713			
					P1896			
					P2159			
					P0501			
					U0121			
CAN Bus Off Counter Overrun	U0001	CAN controller continuity check	CAN controller Bus Off is detected		DS_Active_CAN[1]	TRUE	12,7sec (9-5)	Immediately
			Counter reaches	7	Time after Ignition ON or a reset of ..	>3 sec	28sec (9-3) Continuous	
Transmission input speed sensor	P0717	Circuit continuity check	Condition 1 (no pulse) No of pulses from input sensor No of pulses from output sensor	0 3000	No Shifting Control[6] Not garage shifting control[7] (N-D) B1 not released outRpm * GearRatioExpected Shifter position	> 600 rpm D,4,3,2,M Range(defined)	Speed dependent (e g 4 sec at 100 km/h) Continuous	Immediately
			Condition 2 (no pulse) Transmission Input Speed SpeedABS	0 >20km/h	CurrentGear Time since change from P, R or N to .. Time since change from P, R or N to .. DS_Active[2] Emergency mode	>= 2 >10 sec >2,5 sec TRUE FALSE	30sec Continuous	

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
					No DTC set	P0705		
						P0721 (only condition 1)		
						P0722 (only condition 1)		
			Condition 3 (no pulse)		DS_Active[2]	TRUE	30sec	
			NCIM-voltage (AD-value)	AD<45 or AD>545	Emergency mode	FALSE	Continuous	
	P0716		Pulses incorrect		No Shifting Control[6]		10 sec	Immediately
					Not garage shifting control[7] (N-D)		Continuous	
			abs(1-SpeedABS/ Transmission Input Speed)	> 15%	B1 not released			
					LockUp	ON		
					abs(1-outRpmABS/ outRpmSP)	< 5%		
					abs(1-outRpmABS/ outRpmEG)	< 5%		
					Time after shifting control	>8 sec		
					Time after changing to GearSelector RANGE, D 4 3 2	>8 sec		
					Gear	>= 2ND		
					Range	Other than P and N and R		
					EgRpm	> 400rpm		
					Spinning[11]	FALSE		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					SpeedABS	>30km/h		
					No DTC set	P0705		
						P0711		
						P0712		
						P0713		
						P0721		
						P0722		
						P0725		
						P0741		
						P0786		
						P0787		
						P0788		
						P0961		
						P0962		
						P0963		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters / Enable Conditions		Time Required	MIL Illumin.
					P0973			
					P0974			
					P0976			
					P0977			
					P0979			
					P0980			
					P0982			
					P0983			
					P0985			
					P0986			
					P1820			
					P1895			
					P2762			
					P2763			
					P2764			
					U0121			
Invalid signal from ECM	P1820	Accelerator pedal position signal is invalid	Data from ECM indicated as invalid		DS_Active^2	TRUE	4 sec	Immediately
					Time after Ignition ON or reset of	>3 sec	Continuous	
					Emergency mode	FALSE		
					No DTC set	U0100		
Trans Output speed sensor	P0722	Circuit continuity check	Condition 1 (No pulse)		Not in Neutral control[9]		6000 pulses	Immediately
			No of pulses from output sensor	0	No Shifting Control[6]			
			No of pulses from input sensor	6000	Not garage shifting control[7] (N-D)		Continuous	
					DS_Active^2	TRUE		
					Trans Output Speed calculated from	>300rpm		
			Condition 2 (No pulse)		Selected gear	D, 4, 3, 2, M	2 30 sec	Immediately
					Time since change from P, R or N to	>10 sec	Continuous	
					Time since change from P, R or N to	>2,5 sec		
					Emergency mode	FALSE		
			Transmission Output Speed	0				
			SpeedABS	>20km/h	No DTC set	U0121		
						P0705		
						P0716 (only Condition 1)		
						P0717 (only Condition 1)		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
			Short to Ubatt or GND		DS_Active[2]	TRUE	30sec	Immediately
					Emergency mode	FALSE	Continuous	
	P0721		Incorrect rpm abs(1-SpeedABS/ Transmission Output Speed)	> 15 %	B1 not released No Shifting Control[6] Not garage shifting control[7] (N-D)		10 sec Continuous	Immediately
					abs(1-outRpmABS/ outRpmNC)	< 5 %		
					Time after shifting control[6]	>8 sec		
					Time after changing to GearSelector	>8 sec		
					Gear	>= 2ND		
					Range	other than P and N and R		
					EgRpm	> 400rpm		
					Spinning[11]	FALSE		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					SpeedABS	> 30km/h		
					No DTC set	P0716		
						P0717		
						P0705		
						P0985		
						P0986		
						P0973		
						P0974		
						P0976		
						P0977		
						P0979		
						P0980		
						P0982		
						P0983		
						P0741		
						P0961		
						P0962		
						P0963		
						P0786		
						P0788		
						P2762		
						P2763		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters / Enable Conditions		Time Required	MIL Illumin.
					P2764			
					P1820			
					P0725			
					P1895			
					U0121			
					P0711			
					P0712			
					P0713			
Gear error, hydraulic fault	P0730	Rationality, (Calculation of actual gear ratio is not correct)	**Condition 1**		No Shifting Control[6]		12 sec	Immediately
					Not garage shifting control[7] (N-D)			
			Driving on 4th gear and abs(1-GRCurrent/GRExpected)	> 20%	Transmission Output Speed	>= 500rpm		
					Time after changing to Shift position RANGE_D,4,3,2 defined)	>8 0 sec	Continuous	
					Time after shifting control	>0 5 sec		
					Oil temperature	>= 20°C		
					Shift position	RANGE_D,4,3,2(defined)		
					Engine speed	> 400 rpm		
					IG voltage	>= 10 5 V		
					brake	OFF		
					Spinning[11]	FALSE		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
			Condition 2		abs(1 - SpeedABS / SpeedSP)	< 10 %		
					Throttle	> 10 %		
			Driving on 5th gear - gear ratio	1 504 ± 4%				
					No DTC set			
						P0721		
						P0722		
						P0716		
						P0717		
						P0705		
						P0985		
						P0986		
						P0973		
						P0974		
						P0976		
						P0977		
						P0979		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
						P0980		
						P0982		
						P0983		
						P0961		
						P0962		
						P0963		
						P0786		
						P0787		
						P2762		
						P2763		
						P2764		
						U0001		
						U0100		
						P1820		
						P0725		
						P1895		
						P1896		
						P0711		
						P0712		
						P0713		
						P2159		
						P0501		
						U0121		
Transmission range switch	P0705	Check of switch output pattern	Failure combination of signals from Gear Selector range switch		DS_Active^2	TRUE	5 sec Continuous	Immediately
Transmission oil temperature sensor	P0711	Rationality	Oil temperature change less than	Oil temperature at initialization = the highest Oil temperature during 15 min± 5 C	Oil temp sensor Oil temp at initialization Selected gear DS_Active^2 Emergency mode Vehicle speed No DTC set	10< AD < 1000 < 20 ℃ R, D, 4, 3, 2 TRUE FALSE > 40 km/h once P0705	15 min Once / DCY	Two DCY
	P0712	Circuit continuity check	Short-cut ground		DS_Active^2	TRUE	5 min	Two DCY

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters / Enable Conditions		Time Required	MIL Illumin.
			Voltage	< 50 mV				
			(AD	< 10)	Emergency mode	FALSE	Continuous	
	P0713	Circuit continuity check	Short-cut Ubat or open circuit		ECT signal valid		12 sec + 15 min	Two DCY
			AD	> 1000	DS_Active[2]	TRUE	Continuous	
					Emergency mode	FALSE		
					Engine Coolant Temperature	> 50°C		
					Driving time	>15 min		
Gear error, hydraulic fault	P0731	Rationality	(Transmission Input Speed - Transmission Output Speed X GRExpected)	>300rpm	Not garage shifting control[7] (N-D)		10 sec	Immediately
					IG voltage	>= 10 5V	Continuous	
				>100rpm	Engine speed	>(T/M input rev + 150) for 150msec continuously		
			(Transmission Input Speed - Transmission Output Speed X GRExpected(2nd))		InTorqe_noACC[10]	30Nm <= InTorq_noACC < 200Nm		
					T/M input rev	>Table1[4]		
					T/M output rev	>Table1[4]		
					current Gear	1		
					Time after changing to shift position	>8 0sec		
					Time after shifting control[7]	>0 5 sec		
					Oil temperature	>= 20°C		
					Engine speed	>400rpm		
					Shiftposition	RANGE_D,4,3,2(defined) or RANGE_D,4,3,2(undefined) for 75sec		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					No DTC set	P0501		
						P0705		
						P0711		
						P0712		
						P0713		
						P0716		
						P0717		
						P0721		
						P0722		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
						P0725		
						P0786		
						P0787		
						P0788		
						P0961		
						P0962		
						P0963		
						P0973		
						P0974		
						P0976		
						P0977		
						P0979		
						P0980		
						P0982		
						P0983		
						P0985		
						P0986		
						P1820		
						P1895		
						P1896		
						P2159		
						P2762		
						P2763		
						P2764		
						U0001		
						U0100		
						U0121		
	P0732	Rationality	Calculated ratio for 2nd gear difference from expected	>20%	No Shifting Control[6]		12 sec	Immediately
					Not garage shifting control[7] (N-D)		Continuous	
					Throttle	> 10%		
					Current gear	2		
					Time after changing to Shift position RANGE_D,4,3,2(defined)	>8 0 sec		
					Time after shifting control[7]	>0 5 sec		
					Oil temperature	>= 20°C		
					Shift position	RANGE_D,4,3,2(defined)		
					Engine speed	> 400 rpm		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
					IG voltage	>= 10 5 V		
					Brake	OFF		
					Spinning[11]	FALSE		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					abs(1 - SpeedABS / Trans Output	< 10 %		
					Transmission Output Speed	>= 500rpm		
					No DTC set	P0501		
						P0705		
						P0711		
						P0712		
						P0713		
						P0716		
						P0717		
						P0721		
						P0722		
						P0725		
						P0786		
						P0787		
						P0788		
						P0961		
						P0962		
						P0963		
						P0973		
						P0974		
						P0976		
						P0977		
						P0979		
						P0980		
						P0982		
						P0983		
						P0985		
						P0986		
						P1820		
						P1895		
						P1896		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
					P2159			
					P2762			
					P2763			
					P2764			
					U0001			
					U0100			
					U0121			
	P0733	Rationality	Calculated ratio for 3rd gear difference from expected	>20%	No Shifting Control[6]		12 sec Continuous	Immediately
					Not garage shifting control[7] (N-D)			
					Throttle	> 10%		
					Current gear	3		
					Time after changing to Shift position	>8 0 sec		
					Time after shifting control[7]	>0 5 sec		
					Oil temperature	>= 20°C		
					Shift position	RANGE_D,4,3,2(defined)		
					Engine speed	> 400 rpm		
					IG voltage	>= 10 5 V		
					Brake	OFF		
					Spinning[11]	FALSE		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					abs(1 - SpeedABS / Trans Output	< 10 %		
					Transmission Output Speed	>= 500rpm		
					No DTC set	P0501		
						P0705		
						P0711		
						P0712		
						P0713		
						P0716		
						P0717		
						P0721		
						P0722		
						P0725		
						P0786		
						P0787		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
						P0788		
						P0961		
						P0962		
						P0963		
						P0973		
						P0974		
						P0976		
						P0977		
						P0979		
						P0980		
						P0982		
						P0983		
						P0985		
						P0986		
						P1820		
						P1895		
						P1896		
						P2159		
						P2762		
						P2763		
						P2764		
						U0001		
						U0100		
						U0121		
	P0734	Rationality	Calculated ratio for 4th gear differendes from expected	>20%	No Shifting Control[6]		12 sec Continuous	Immediately
					Not garage shifting control[7] (N-D)			
					Throttle	> 10%		
					Current gear	4		
					Time after changing to Shift position [RANGE_D,4,3,2 defined][7]	>8 0 sec		
					Time after shifting control[7]	>0 5 sec		
					Oil temperature	>= 20°C		
					Shift position	RANGE_D,4,3,2(defined)		
					Engine speed	> 400 rpm		
					IG voltage	>= 10 5 V		
					Brake	OFF		
					Spinning[11]	FALSE		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					abs(1 - SpeedABS / Trans Output Speed)	< 10 %		
					Transmission Output Speed	>= 500rpm		
					No DTC set	P0501		
						P0705		
						P0711		
						P0712		
						P0713		
						P0716		
						P0717		
						P0721		
						P0722		
						P0725		
						P0786		
						P0787		
						P0788		
						P0961		
						P0962		
						P0963		
						P0973		
						P0974		
						P0976		
						P0977		
						P0979		
						P0980		
						P0982		
						P0983		
						P0985		
						P0986		
						P1820		
						P1895		
						P1896		
						P2159		
						P2762		
						P2763		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
					P2764			
					U0001			
					U0100			
					U0121			
	P0735	Rationality	Calculated ratio for 5th gear difference from expected	>20%	No Shifting Control[6]		12 sec	Immediately
					Not garage shifting control[7] (N-D)		Continuous	
					Throttle	> 10%		
					Current gear	5		
					Time after changing to Shift position	>8 0 sec		
					Time after shifting control[7]	>0 5 sec		
					Oil temperature	>= 20°C		
					Shift position	RANGE_D,4,3,2(defined)		
					Engine speed	> 400 rpm		
					IG voltage	>= 10 5 V		
					Brake	OFF		
					Spinning[11]	FALSE		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					abs(1 - SpeedABS / Trans Output	< 10 %		
					Transmission Output Speed	>= 500rpm		
					No DTC set	P0501		
						P0705		
						P0711		
						P0712		
						P0713		
						P0716		
						P0717		
						P0721		
						P0722		
						P0725		
						P0786		
						P0787		
						P0788		
						P0961		
						P0962		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
					P0963			
					P0973			
					P0974			
					P0976			
					P0977			
					P0979			
					P0980			
					P0982			
					P0983			
					P0985			
					P0986			
					P1820			
					P1895			
					P1896			
					P2159			
					P2762			
					P2763			
					P2764			
					U0001			
					U0100			
					U0121			
	P0736	Rationality	Calculated ratio for Reverse gear difference from expected	>20%	No Shifting Control[6]		6 sec	Immediately
					Not garage shifting control[7] (N-R)		Continuous	
					abs(1 - SpeedABS / Trans Output Speed)	< 10 %		
					Selected gear	R		
					A/T oil temp	> 20°C		
					Throttle	> 10%		
					Engine speed	> 400 rpm		
					Time after N-R shift	8 sec		
					IG voltage	> 10,5 V		
					Transmission Output Speed	>= 500rpm		
					Brake	OFF		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					No DTC set	P0501		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
						P0705		
						P0711		
						P0712		
						P0713		
						P0716		
						P0717		
						P0721		
						P0722		
						P0725		
						P0786		
						P0787		
						P0788		
						P0961		
						P0962		
						P0963		
						P0973		
						P0974		
						P0976		
						P0977		
						P0979		
						P0980		
						P0982		
						P0983		
						P0985		
						P0986		
						P1820		
						P1895		
						P1896		
						P2159		
						P2762		
						P2763		
						P2764		
						U0001		
						U0100		
						U0121		
Battery voltage	P0562	Voltage low	Battery voltage	< 8,68 V	Emergency mode	FALSE	20 sec	Immediately

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
	P0563	Voltage high	Battery voltage	> 18 V	Transmission input speed	> 800 rpm	Continuous	
					Ignition	ON		
					No DTC set	P0716		
						P0717		
Lockup Mechanical Failure	P1743	Lockup shudder	Transmission Output Amplitude	25rpm	DS_Active[2]	TRUE	400ms	Immediately
					No DTC set	P0705		
						P0711		
						P0712		
						P0713		
						P0716		
						P0717		
						P0721		
						P0722		
						P0780		
						P0786		
						P0787		
						P0788		
						P0961		
						P0962		
						P0963		
						P0973		
						P0974		
						P0976		
						P0977		
						P0979		
						P0980		
						P0982		
						P0983		
						P0985		
						P0986		
						P1895		
						P1896		
						P2762		
						P2763		

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters /	Enable Conditions	Time Required	MIL Illumin.
						P2764		
Lost communication with ABS	U0100	Frame missing from ABS	Detect no Status CAN frame from ABS		DS_Active_CAN[1]	TRUE	4 sec	Immediately
					Ignition	ON >3sec		
					Emergency mode	FALSE	Continuous	
Engine speed signal	P0725	Signal from ECM stated as unreliable	Engine Speed Validity	Invalid	Not lost communication with ECM		4 sec	Immediately
					Ignition	ON > 3 sec		
					DS_Active_CAN[1]	TRUE	Continuous	
					Emergency mode	FALSE		
					Battery voltage	> 10,2 V		

Note: All components/system (DTCs) have a test frequency of 30~60ms

[1] DS_Active_CAN

    DS_Active_CAN = TRUE when the start condition for CAN failure detection is fulfilled for 2.0 sec continously.

    DS_Active_CAN = FALSE when the permission condition for CAN failure detection is not fulfilled.

      Start Condition for CAN failure detection:

        Ignition ON and

        10.2V < Battery Voltage < 15.5V and

        Not in service mode   and

        Reading EEPROM finish

      Permission condition for CAN failure detection:

        Ignition ON   and

        9.0V < Battery Voltage < 16.0V   and

        Not in service mode

[2] DS_Active

    DS_Active = TRUE when the start condition for failure detection is fulfilled for 2.0 sec continously.

    DS_Active = FALSE when the permission condition for failure detection is not fulfilled.

      Start Condition for failure detection:

        Ignition ON and

        10.2V < Battery Voltage < 15.5V and

        Not in service mode   and

        Reading EEPROM finish   and

        Egrpm > 400rpm

Permission condition for failure detection:
    Ignition ON and
    9.0V < Battery Voltage < 16.0V   and
    Not in service mode   and
    Egrpm > 400rpm

[4] Table1:

InTorque(Nm)	<=190	230	>=270
InRpm(Rpm)	400	600	800
OutRpm(Rpm)	200	300	400

[5] Egtrq_LUP_FailMap (Nm)

Trans. In. Speed	1000rpm	1500rpm	2000rpm	2500rpm	3000rpm
TrqConv.(217KII)	41	49	59	80	106
TrqConv.(206KII)	46	56	66	91	121

[6] Shifting Control

    "Shifting Control" is activated when the transmission is in between two gears (undefined gear ratio), until applied pressure has reached to full

[7] "Garage Shifting"

    "Garage Shifting Control" is activated when the range selector changes from N to D or R until appropriate Gear Ratio is detected.

[8] "Multiplex Shifting"

    If "BestGear" changes in shift control, that shift control is stopped and a new shift control is started.
    For example: If "BestGear" changes to 3rd in a 3-4 shift control,the 3-4 shift control is stopped and a 4-3 shift control is started.

[9] "Neutral Control"

    Neutral Control is activated if the vehicle is at stand still and in range D with the brake pressed for 2 seconds until the brake is released.

[10] "InTorque_noACC"

    Engine output torque, acceleration inertia torque not included.

[11] Spinning

    Spinning = 1 if Transversal acceleration > 0.7G (input from ABS signal)
    Spinning = 0 if Transversal acceleration parameter < 0.7G for 2sec. Continously. (input from ABS signal)