COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
TCM, Internal Fault	P0605	ROM checksum or RAM error	Calculated checksum differs from stored.	Number of failed calculations: 2			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	TRUE FALSE	500 msec Continuous	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Time after solenoid output change	> 25 ms		
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 Speed)	< 10%		
					abs(1-SpeedABS/Trans. Input Speed)	< 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		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0973 P0974 P0976 P0977 P0979 P0980 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	EngineTorque EngineTorque Trans. Input Speed Time after changing to Shift position == RANGE_D,4,3,2,M Time after IG ON or a reset of the controller Time after shifting control Oil temperature No Shifting Control[6] Not garage shifting control[7] (N-D)	>= Egtrq_LUP_FailMap[5] <= 240 Nm <= 3000rpm >8.0 sec >3 min >0.5sec >= 20°C	12 sec Continuous	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					(Shift position	RANGE_D,M,L (defined) **or** >75 sec with over 5km/h and RANDE_D,L (undefined) fulfilled		
					Engine Speed	>= 400 rpm		
					IG voltage	>= 10.5 V		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					No DTC set	P0721		
						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		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P1820 P0725 P1895 P0711 P0712 P0713		
Pressure solenoid SLU	P2764	Circuit continuity check	Short-cut ground or open Current (AD	 <92 mA < 68)	DS_Active[2] Emergency mode	TRUE FALSE	12,5 sec Continuous	Immediately
	P2762		Terminal short Error current	 > 80 mA	Emergency mode Oil temperature System voltage System voltage change Output current target DS_Active[2] No DTC set	FALSE > 20°C 11 -18 V < 0,2V > 853mA and not changed during detection TRUE P0711 P0712 P0713	2,75 sec Continuous	Immediately
	P2763		Short-cut Ubatt Measured Current (AD	 > 1356 mA > 1000)	DS_Active[2] Emergency mode	TRUE FALSE	2 sec Continuous	Immediately
Pressure solenoid SLT	P0962	Circuit continuity check	Short-cut ground or open Current (AD	 <92 mA < 68)	DS_Active[2] Emergency mode	TRUE FALSE	12.5 sec Continuous	Immediately
	P0961		Terminal short Error current	 > 80 mA	Emergency mode Oil temp System voltage	FALSE > 20°C 11 -18 V	2.75 sec Continuous	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					System voltage change	< 0,2V		
					Output current target	> 853mA 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	Emergency mode	FALSE	Continuous	
			(AD	> 1000)				
Timing solenoid SLS	P0787	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)				
	P0786		Terminal short	Error current > 80 mA	Emergency mode	FALSE	2.75 sec	Immediately
					Oil temp	> 20°C	Continuous	
					System voltage	11 -18 V		
					System voltage change	< 0,2V		
					Output current target	> 853mA 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	Emergency mode	FALSE	Continuous	
			(AD	> 1000)				

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
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		
						P0961		
						P0962		
						P0963		
						P0786		
						P0787		
						P0788		
						P2762		
						P2763		
						P2764		
						U0001		
						U0100		
						P1820		
						P0725		
						P1895		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						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 the controller	>3 sec	28sec (9-3)	
							Continuous	
Transmission input speed sensor	P0717	Circuit continuity check	Condition 1 (no pulse)		No Shifting Control[6]		Speed dependent (e.g 4 sec at 100 km/h)	Immediately
			No of pulses from input sensor	0	Not garage shifting control[7] (N-D)			
			No of pulses from output sensor	3000	B1 not released			
					outRpm * GearRatioExpected	> 600 rpm		
					Shifter position	D,4,3,2,M Range(defined)	Continuous	
			Condition 2 (no pulse)		CurrentGear	>= 2	30sec	
			Transmission Input Speed	0	Time since change from P, R or N to others if vehicle speed <= 66km/h and oiltemp. <= 20°C	>10 sec	Continuous	
			SpeedABS	>20km/h	Time since change from P, R or N to others if vehicle speed >66km/h or oiltemp. > 20°C	>2,5 sec		
					DS_Active[2]	TRUE		
					Emergency mode	FALSE		
					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	

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
	P0716 **(only Saab 9-3)**		Pulses incorrect abs(1-SpeedABS/ Transmission Input Speed)	 > 15%	No Shifting Control[6] Not garage shifting control[7] (N-D) B1 not released LockUp abs(1-outRpmABS/ outRpmSP) abs(1-outRpmABS/ outRpmEG) Time after shifting control Time after changing to GearSelector = RANGE_D,4,3,2 Gear Range EgRpm Spinning[11] DS_Active[2] Emergency mode SpeedABS No DTC set	 ON < 5% < 5% >8 sec >8 sec >= 2ND Other than P and N and R > 400rpm FALSE TRUE FALSE >30km/h P0705 P0711 P0712 P0713 P0721 P0722 P0725 P0741 P0786 P0787 P0788 P0961	10 sec Continuous	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0962 P0963 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] Time after Ignition ON or reset of CAN controller. Emergency mode No DTC set	TRUE >3 sec FALSE U0100	4 sec Continuous	Immediately
Trans. Output speed sensor	P0722	Circuit continuity check	Condition 1 (No pulse) No of pulses from output sensor No of pulses from input sensor	 0 6000	Not in Neutral control[9] No Shifting Control[6] Not garage shifting control[7] (N-D) DS_Active[2] Trans.Output Speed calculated from ABS	 TRUE >300rpm (only Condition 1)	6000 pulses Continuous	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			Condition 2 (No pulse)		Selected gear	D, 4, 3, 2, M	30 sec	Immediately
					Time since change from P, R or N to others if vehicle speed <= 66km/h and oiltemp. <= 20°C	>10 sec	Continuous	
					Time since change from P, R or N to others if vehicle speed >66km/h or oiltemp. > 20°C	>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)		
			Short to Ubatt or GND		DS_Active[2]	TRUE	30sec	Immediately
					Emergency mode	FALSE	Continuous	
	P0721 **(only Saab 9-3)**		Incorrect rpm		B1 not released		10 sec	Immediately
			abs(1-SpeedABS/ Transmission Output Speed)	> 15 %	No Shifting Control[6]		Continuous	
					Not garage shifting control[7] (N-D)			
					abs(1-outRpmABS/ outRpmNC)	< 5 %		
					Time after shifting control[6]	>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		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					No DTC set	P0716 P0717 P0705 P0985 P0986 P0973 P0974 P0976 P0977 P0979 P0980 P0982 P0983 P0741 P0961 P0962 P0963 P0786 P0788 P2762 P2763 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] Not garage shifting control[7] (N-D)		12 sec	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			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		
						P0980		
						P0982		
						P0983		
						P0961		
						P0962		
						P0963		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						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	10 (AD value)	Oil temp sensor Oil temp Gear Selector DS_Active[2] Emergency mode Vehicle speed No DTC set	10< AD < 1000 < 20 °C ≠ (P, R or N) TRUE FALSE > 40 km/h once P0705	10 min Continuous	Two DCY
	P0712	Circuit continuity check	Short-cut ground Voltage (AD	 < 50 mV < 10)	DS_Active[2] Emergency mode	TRUE FALSE	5 min Continuous	Two DCY
	P0713	Circuit continuity check	Short-cut Ubat or open circuit		DS_Active[2]	TRUE	12 sec	Two DCY

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
			AD	> 1000	Emergency mode	FALSE	Continuous	
					Driving time	>10 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	
					Engine speed	>(T/M input rev + 150) for 150msec continuously.		
			(Transmission Input Speed - Transmission Output Speed X GRExpected(2nd))	<100rpm	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 == RANGE_D,4,3,2	>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		
						P0725		
						P0786		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						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] Not garage shifting control[7] (N-D) Throttle Current gear Time after changing to Shift position == RANGE_D,4,3,2(defined) Time after shifting control[7] Oil temperature	 > 10% 2 >8.0 sec >0.5 sec >= 20°C	12 sec Continuous	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					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 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		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0983 P0985 P0986 P1820 P1895 P1896 P2159 P2762 P2763 P2764 U0001 U0100 U0121		
	P0733	Rationality	Calculated ratio for 3rd gear difference from expected	>20%	No Shifting Control[6] Not garage shifting control[7] (N-D) Throttle Current gear Time after changing to Shift position == RANGE_D,4,3,2(defined) Time after shifting control[7] Oil temperature Shift position Engine speed IG voltage Brake Spinning[11] DS_Active[2] Emergency mode abs(1 - SpeedABS / Trans. Output Speed) Transmission Output Speed	 > 10% 3 >8.0 sec >0.5 sec >= 20°C RANGE_D,4,3,2(defined) > 400 rpm >= 10.5 V OFF FALSE TRUE FALSE < 10 % >= 500rpm	12 sec Continuous	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					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 P2764 U0001 U0100		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						U0121		
	P0734	Rationality	Calculated ratio for 4th gear differendes from expected.	>20%	No Shifting Control[6]		12 sec	Immediately
					Not garage shifting control[7] (N-D)		Continuous	
					Throttle	> 10%		
					Current gear	4		
					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		
					IG voltage	>= 10.5 V		
					Brake	OFF		
					Spinning[11]	FALSE		
					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		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0788 P0961 P0962 P0963 P0973 P0974 P0976 P0977 P0979 P0980 P0982 P0983 P0985 P0986 P1820 P1895 P1896 P2159 P2762 P2763 P2764 U0001 U0100 U0121		
	P0735	Rationality	Calculated ratio for 5th gear difference from expected	>20%	No Shifting Control[6] Not garage shifting control[7] (N-D) Throttle Current gear Time after changing to Shift position == RANGE_D,4,3,2(defined) Time after shifting control[7] Oil temperature	 > 10% 5 >8.0 sec >0.5 sec >= 20°C	12 sec Continuous	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					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 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		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						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] Not garage shifting control[7] (N-R) abs(1 - SpeedABS / Trans. Output Speed) Selected gear A/T oil temp. Throttle Engine speed Time after N-R shift IG voltage Transmission Output Speed Brake DS_Active[2] Emergency mode No DTC set	< 10 % R > 20°C > 10% > 400 rpm 8 sec > 10,5 V >= 500rpm OFF TRUE FALSE P0501 P0705 P0711 P0712 P0713 P0716	6 sec Continuous	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						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		
	P1731	Rationality	Calculated ratio for Reverse gear difference from expected	>20%	No Shifting Control[6] Mode Selector Shift position A/T oil temp.	 Triptronic mode **or** Shift position Range_L RANGE_D(defined) > 20°C	12 sec Continuous	Immediately

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
					Throttle	0%		
					Engine speed	> 400 rpm		
					Time after shift to D.4.3.2(defined)	8 sec		
					IG voltage	> 10,5 V		
					Transmission Output Speed	1260rpm >= outRpm >= 500rpm		
					Brake	OFF		
					DS_Active[2]	TRUE		
					Time after shifting control	>0,5sec		
					Current gear	1st engine brake		
					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		

COMPONENT/ SYSTEM	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA	THRESHOLD VALUE	SECONDARY PARAMETERS	ENABLE CONDITIONS	TIME REQUIRED	MIL ILLUM.
						P0983 P0985 P0986 P1820 P1895 P1896 P2159 P2762 P2763 P2764 U0001 U0100 U0121		
Engine speed signal	P0725	Signal from ECM stated as unreliable	Engine Speed Validity	Invalid	Not lost communication with ECM Ignition DS_Active_CAN[1] Transmission input speed Emergency mode Battery voltage	 ON > 3 sec TRUE >500rpm (only Saab 9-5) FALSE > 10,2 V	4 sec Continuous	Immediately

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 continuously.

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 < 18V and
Not in service mode and
Reading EEPROM finish

Permission condition for CAN failure detection:

Ignition ON and

9.0V < Battery Voltage < 18V and
Not in service mode

2) DS_Active

DS_Active = TRUE when the start condition for failure detection is fulfilled for 2.0 sec continuously.
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 < 18V and
Not in service mode and
Reading EEPROM finish and
Egrpm > 400rpm

Permission condition for failure detection:

Ignition ON and
9.0V < Battery Voltage < 18V and
Not in service mode and
Egrpm > 400rpm

4) Table1:

InTorque	<=190	230	
InRpm(R	400	600	
OutRpm	200	300	

5) Egtrq_LUP_FailMap (Nm)

Trans. In	1000rpm	1500rpm	2500rpm	3000rpm
TrqConv	41	49	80	106
TrqConv	46	56	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. Continuously. (input from ABS signal)