Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Required	MIL Illumin.	Extra Prep
System Voltage	P0562	Low Supply	IG voltage	< 8.68 V	Ignition Emergency mode Transmission Input Speed	ON FALSE > 800rpm	20 sec Continuous	2nd	
					No DTC set	P0716 P0717			
	P0563	High Supply	IG voltage	> 18 V	Ignition Emergency mode Transmission Input Speed	ON FALSE > 800rpm	20 sec Continuous	2nd	
					No DTC set	P0716 P0717			<u> </u>
Internal Control Module Memory	P0601	Check Sum Error	Detectin of differences between the result of the checksum calculation executed after IG ON and the correct checksum. If there are differences from the correct checksum value stored in the FLASH ROM, a second calculation is made.		Ignition	OFF->ON (only at Transmission computer initialization function)	2 times	2nd	
Lost communication with ECM (Engine)	U0100	Frame missing from ECM	No CAN status frame from ECM detected		Diagnostic Service "Disable Normal Con	mmunication" not detected	4 sec Continuous	2nd	
					Engine speed	> 400 rpm once within the driving cycle	Continuous		
					Ignition DS Active CAN ²	ON >3 sec TRUE			
CAN Bus Off Counter Overrun	U0001	CAN controller continuity check	Receiving "BUS OFF" state from CAN controller		Ignition DS Active CAN ²	ON >3 sec TRUE	8 times	2nd	
Invalid data from ECM	P1895	Engine Torque signal is indicated invalid	TCM receives Engine Torque Actual Validity	"Invalid"	Diagnostic Service "Disable Normal Con Emergency mode Ignition	FALSE ON >3 sec	4 sec Continuous	2nd	
					DS Active CAN ²	TRUE			
Solenoid S1	P0985	Circuit continuity check	Short-cut ground		No DTC set	U0100 TRUE	500 msec	2nd	
Soleliold S1	P0985	Circuit continuity check	Detected signal of the S1 monitor when S1 driver outputs the "ON"signal (12V)	"OFF" signal (0V)	DS Active ³ Time after solenoid output changed	>10 ms	Continuous	200	
	P0986	-	Not connected or short-cut Ubatt Detected signal of the S1 monitor when S1 driver outputs the	"ON" signal (12V)	Emergency mode	FALSE			
Solenoid S2	P0973	Circuit continuity check	"OFF" signal (0V) Short-cut ground Detected signal of the S2 monitor when S2 driver outputs the	"OFF" signal (0V)	DS Active ³ Time after solenoid output changed	TRUE >10 ms	500 msec Continuous	2nd	
	P0974	-	"ON"signal (12V) Not connected or short-cut Ubatt		Emergency mode	FALSE			
	10974		Detected signal of the S2 monitor when S2 driver outputs the "OFF" signal (0V)	"ON" signal (12V)					
Torque Converter Clutch	P0741	Comparison of engine speed and transmission input speed	Converter is slipping with active lock-up on. (Engine Speed - Transmission Input Speed)	> 100rpm	DS Active ³ Fdetect inh ⁴ Shift position Time after N-D shifting control ⁹ ends	TRUE FALSE RANGE_D(defined) 8 sec	12 sec Continuous	2nd	
					Engine Torque Engine Speed Time after SLU target current (_ir) >= 1000 mA	>= 0 Nm < 4000 rpm 3sec			
					abs(1- SpeedABS / Transmission Output Speed calculated from Transmission Input Speed) Time after shifting control ⁹ ends	< 10 % 0.5 sec			

Component/	Fault	Monitor Strategy	Malfunction	Threshold	Secondary Parameters	Enable Conditions		MIL	Extra
System	Code	Description	Criteria	Value			Required	Illumin.	Prep
					Oil temperature	>= 20°C			
					Lock-up	FALSE			
					r				
					No DTC ant	P2759			
					No DTC set				
						P0716			
						P0717			
						P0721			
						P0722			
	P0742		Abs(EngineSpeed - Transmission Input Speed)	< 30 rpm for 2.0 sec continuously	DS Active ³	TRUE	4sec	2nd	
					Fdetect inh ⁴	FALSE			
					Shift position	RANGE_D (defined)			
					Time after N-D shifting control ⁹ end	1.0 sec			
					Thile after N-D shifting control end	110 500			
					Time of the state of the state	8.0 sec			
					Time after changing to Shift position = $P(A \cap B)$	8.0 sec			
					RANGE_D(defined)				
					Time after shifting control ⁹ ends	0.5 sec			
					EngineTorque noACC8	>= 60Nm			
					Engine Speed	>1000 rpm			
						< 3000 rpm			
					abs(1- SpeedABS / Transmission	<10 %			
					Output Speed calculated from				
					Transmission Input Speed)				
						· 20.ºC			
					Oil temperature	>= 20 °C			
					Time after SLU pressure = 0 kPa	3sec			
					No DTC set	P2759			
						P0716			
						P0717			
						P0721			
						P0722			
essure solenoid SLU	P2764	Circuit continuity check	Short-cut ground or open		D0 4 -: 3	TRUE	500 ms	2nd	
essure solenoid SLU	r 2704	Circuit continuity check	Current	<23 mA	DS Active ³	FALSE	Continuous	2110	
					Emergency mode	FALSE	Continuous		
			(AD	<15)					
					No DTC set	P2763 for 1 sec and over			
	P2762		Terminal short		No Shifting Control ⁹		2,75 sec	2nd	
			Error current	> 80 mA	Emergency mode	FALSE	Continuous		
					Oil temperature	> 20°C			
					System voltage change	< 0,2V			
					System voltage	11 -16 V			
					System vonage				
					CLU O LI LO	. 025 A			
					SLU Output current target	> 835mA and constant.			
					SLU Output current target DS Active ³	> 835mA and constant. TRUE			
					DS Active ³	TRUE P0711			
					DS Active ³	TRUE P0711 P0712			
	P2763		Short-out Ilbatt (+R)		DS Active ³ No DTC set	TRUE P0711 P0712 P0713	500 ms	204	
	P2763		Short-cut Ubatt (+B) Maaumad Currant	> 1222 mA	DS Active ³ No DTC set DS Active ³	TRUE P0711 P0712 P0713 TRUE	500 ms	2nd	
	P2763		Measured Current	> 1,333 mA	DS Active ³ No DTC set	TRUE P0711 P0712 P0713	500 ms Continuous	2nd	
	P2763			> 1,333 mA > 1000)	DS Active ³ No DTC set DS Active ³ Emergency mode	TRUE P0711 P0712 P0713 TRUE FALSE		2nd	
	P2763		Measured Current		DS Active ³ No DTC set DS Active ³	TRUE P0711 P0712 P0713 TRUE		2nd	
			Measured Current (AD		DS Active ³ No DTC set DS Active ³ Emergency mode No DTC set	TRUE P0711 P0712 P0713 TRUE FALSE P2764 for 1 sec and over	Continuous		
	P2763		Measured Current		DS Active ³ No DTC set DS Active ³ Emergency mode	TRUE P0711 P0712 P0713 TRUE FALSE		2nd 2nd	
			Measured Current (AD		DS Active ³ No DTC set DS Active ³ Emergency mode No DTC set IG voltage	TRUE P0711 P0712 P0713 TRUE FALSE P2764 for 1 sec and over	Continuous		
			Measured Current (AD Feed Back Current Stuck(Electrical) sum_ie	> 1000)	DS Active ³ No DTC set DS Active ³ Emergency mode No DTC set IG voltage Input AD value	TRUE P0711 P0712 P0713 TRUE FALSE P2764 for 1 sec and over > 10.5 V < 1000(1333mA)	Continuous		
			Measured Current (AD Feed Back Current Stuck(Electrical) sum_ie "ie" is added to "sum_ie" every 10 msec.	> 1000)	DS Active ³ No DTC set DS Active ³ Emergency mode No DTC set IG voltage Input AD value Emergency mode	TRUE P0711 P0712 P0713 TRUE FALSE P2764 for 1 sec and over > 10.5 V < 1000(1333mA) FALSE	Continuous		
			Measured Current (AD Feed Back Current Stuck(Electrical) sum_ie "ie" is added to "sum_ie" every 10 msec. "ie" : Difference of "ir" and "ifb".	> 1000)	DS Active ³ No DTC set DS Active ³ Emergency mode No DTC set IG voltage Input AD value	TRUE P0711 P0712 P0713 TRUE FALSE P2764 for 1 sec and over > 10.5 V < 1000(1333mA)	Continuous		
			Measured Current (AD Feed Back Current Stuck(Electrical) sum_ie "ie" is added to "sum_ie" every 10 msec. "ie" : Difference of "ir" and "ifb". "ir" : Target current	> 1000)	DS Active ³ No DTC set DS Active ³ Emergency mode No DTC set IG voltage Input AD value Emergency mode DS Active ³	TRUE P0711 P0712 P0713 TRUE FALSE P2764 for 1 sec and over > 10.5 V < 1000(1333mA) FALSE TRUE	Continuous		
			Measured Current (AD Feed Back Current Stuck(Electrical) sum_ie "ie" is added to "sum_ie" every 10 msec. "ie": Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current	> 1000)	DS Active ³ No DTC set DS Active ³ Emergency mode No DTC set IG voltage Input AD value Emergency mode	TRUE P0711 P0712 P0713 TRUE FALSE P2764 for 1 sec and over > 10.5 V < 1000(1333mA) FALSE TRUE P2763	Continuous		
			Measured Current (AD Feed Back Current Stuck(Electrical) sum_ie "ie" is added to "sum_ie" every 10 msec. "ie" : Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current "sum_ie" is cleared as follows:	> 1000)	DS Active ³ No DTC set DS Active ³ Emergency mode No DTC set IG voltage Input AD value Emergency mode DS Active ³	TRUE P0711 P0712 P0713 TRUE FALSE P2764 for 1 sec and over > 10.5 V < 1000(1333mA) FALSE TRUE	Continuous		
			Measured Current (AD Feed Back Current Stuck(Electrical) sum_ie "ie" is added to "sum_ie" every 10 msec. "ie": Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current	> 1000)	DS Active ³ No DTC set DS Active ³ Emergency mode No DTC set IG voltage Input AD value Emergency mode DS Active ³	TRUE P0711 P0712 P0713 TRUE FALSE P2764 for 1 sec and over > 10.5 V < 1000(1333mA) FALSE TRUE P2763	Continuous		

Component/	Fault	Monitor Strategy	Malfunction	Threshold	Secondary Parameters	Enable Conditions	_	MIL	Extra
System	Code	Description	Criteria	Value			Required	Illumin.	Prep
			(2): -50 mA <= ie <= 50 mA						
			(3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >	0mA" ("ie < 0mA").					
Pressure solenoid SLT	P0962	Circuit continuity check	Short-cut ground or open		DS Active ³	TRUE	500 ms	2nd	
			Current	<23 mA	Emergency mode	FALSE	Continuous		
			(AD	<15)					
					No DTC set	P0963 for 1 sec and over			
	P0961		Terminal short		No Shifting Control ⁹		2.75 sec	2nd	
			Error current	> 80 mA	Emergency mode	FALSE	Continuous		
					Oil temperature	> 20°C			
					System voltage change	< 0,2V			
					System voltage	11 -16 V			
					SLT Output current target	> 835mA and constant.			
					· •				
					DS Active ³	TRUE			
					No DTC set	P0711			
						P0712			
						P0713			
	P0963	İ	Short-cut Ubatt (+B)	İ	DS Active ³	TRUE	500 ms	2nd	
			Measured Current	> 1,333 mA	Emergency mode		Continuous		
			(AD	> 1000)					
			x x		No DTC set	P0962 for 1 sec and over			
	P0748		Feed Back Current Stuck(Electrical)		IG voltage	> 10.5 V	1 sec	2nd	
			sum_ie	>20000	Input AD value	< 1000(1333mA)			
			"ie" is added to "sum_ie" every 10 msec.	>20000	Emergency mode	FALSE			
			"ie" : Difference of "ir" and "ifb".		DS Active ³	TRUE			
			"ir": Target current		DS Active	IKOL			
			"ifb": Feedback current		No DTC set	P0962			
					No DTC set	P0962 P0963			
			"sum_ie" is cleared as follows:			P0903			
			(1) or (2) or (3)						
			(1): Detection window = FALSE						
			(2): -50 mA <= ie <= 50 mA						
			(3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >	0mA" ("ie < 0mA").					
Timing solenoid SLC1	P0966	Circuit continuity check	Short-cut ground or open		DS Active ³	TRUE	500 msec	2nd	
			Current	<23 mA	Emergency mode	FALSE	Continuous		
			(AD	<15)					
					No DTC set	P0967 for 1 sec and over			
	R 00 / 7								Ļ
	P0965		Terminal short		No Shifting Control ⁹	I	2.75 sec	2nd	
			Error current	> 80 mA	Emergency mode	FALSE	Continuous		
					Oil temperature	> 20°C			
					System voltage change	< 0,2V			
					System voltage	11 -16 V			
					SLC1 Output current target	> 835mA and constant.			
					DS Active ³	TRUE			
					No DTC set	P0711			
						P0712			
						P0713			
	P0967		Short-cut Ubatt (+B)		DS Active ³	TRUE	500 msec	2nd	
			Measured Current	> 1,333 mA	Emergency mode	FALSE	Continuous		
			(AD	> 1000)					
					No DTC set	P0966 for 1 sec and over			
	D.0.00			-	10.1	10 5 11			
	P0778		Feed Back Current Stuck(Electrical)		IG voltage	> 10.5 V	1 sec	2nd	
			sum_ie	>20000	input AD value	< 1000(1333mA)			
	1		"ie" is added to "sum_ie" every 10 msec.		Emergency mode	FALSE			
			"ie" : Difference of "ir" and "ifb".		DS Active ³	TRUE			

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Required	MIL Illumin.	Extra Prep
			 "ir" : Target current "ifb": Feedback current "sum_ie" is cleared as follows: or (2) or (3) Detection window = FALSE :50 mA <= ie <= 50 mA ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0mA") 	m A" ("ia ∠ (m A"))	No DTC set	P0966 P0967			
Timing solenoid SLC2	P0970	Circuit continuity check	Short-cut ground or open Current (AD	<23 mA <15)	DS Active ³ Emergency mode No DTC set	TRUE FALSE P0971 for 1 sec and over	500 msec Continuous	2nd	
	P0969		Terminal short Error current	> 80 mA	No Shifting Control ⁹ Emergency mode Oil temperature System voltage change System voltage SLC2 Output current target DS Active ³ No DTC set	FALSE > 20°C < 0,2V 11 -16 V > 835mA and constant. TRUE P0711 P0712 P0713	2.75 sec Continuous	2nd	
	P0971		Short-cut Ubatt (+B) Measured Current (AD	> 1,333 mA > 1000)	DS Active ³ Emergency mode No DTC set	TRUE FALSE P0970 for 1 sec and over	500 msec Continuous	2nd	
	P0798		Feed Back Current Stuck(Electrical) sum_ie "ie" is added to "sum_ie" every 10 msec. "ie" : Difference of "ir" and "ifb". "ir" : Target current "ifb": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA	>20000	IG voltage Input AD value Emergency mode DS Active ³ No DTC set	> 10.5 V < 1000(1333mA) FALSE TRUE P0970 P0971	1 sec	2nd	
Fiming solenoid SLC3	P2720	Circuit continuity check	(3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >(Short-cut ground or open Current (AD	mA" ("ie < 0mA"). <23 mA <15)	DS Active ³ Emergency mode No DTC set	TRUE FALSE P2721 for 1 sec and over	500 msec Continuous	2nd	
	P2719		Terminal short Error current	> 80 mA	No Shifting Control ⁹ Emergency mode Oil temperature System voltage change System voltage SLC3 Output current target DS Active ³ No DTC set	FALSE > 20°C < 0.2V 11 - 16 V > 835mA and constant. TRUE P0711 P0712 P0713	2.75 sec Continuous	2nd	
	P2721		Short-cut Ubatt (+B) Measured Current (AD	> 1,333 mA > 1000)	DS Active ³ Emergency mode No DTC set	P0713 TRUE FALSE P2720 for 1 sec and over	500 msec Continuous	2nd	

	Fault	Monitor Strategy	Malfunction	Threshold	Secondary Parameters	Enable Conditions		MIL	Extr
System	Code	Description	Criteria	Value			Required	Illumin.	Pre
	P2716		Feed Back Current Stuck(Electrical)		IG voltage	> 10.5 V	1 sec	2nd	
			sum_ie	>20000	Input AD value	< 1000(1333mA)			
			"ie" is added to "sum_ie" every 10 msec.		Emergency mode	FALSE			
					÷ .				
			"ie" : Difference of "ir" and "ifb".		DS Active ³	TRUE			
			"ir" : Target current						
			"ifb": Feedback current		No DTC set	P2720			
			"sum_ie" is cleared as follows:			P2721			
			(1) or (2) or (3)						
			(1): Detection window = FALSE						
			(2): -50 mA <= ie <= 50 mA						
			(3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0	0mA" ("ie < 0mA").					
iming solenoid SLB1	P2729	Circuit continuity check	Short-cut ground or open		DS Active ³	TRUE	500 msec	2nd	
ining solenoid SEBT	12/2/	Chean communy cheek		-22 4				210	
			Current	<23 mA	Emergency mode	FALSE	Continuous		
			(AD	<15)					
					No DTC set	P2730 for 1 sec and over			
	P2728		Terminal short		No Shifting Control ⁹	•	2.75 sec	2nd	
	12/20			> 90 m A	•	EALSE		210	
			Error current	> 80 mA	Emergency mode	FALSE	Continuous		
					Oil temperature	> 20°C			
					System voltage change	< 0,2V			
					System voltage	11 -16 V			
					SLB1 Output current target	> 835mA and constant.			
					SEBT Output current target	> 855mA and constant.			
					DS Active ³	TRUE			
					No DTC set	P0711			
					No Die set				
						P0712			
						P0713			
	P2730		Short-cut Ubatt (+B)		DS Active ³	TRUE	500 msec	2nd	
			Measured Current	> 1,333 mA	Emergency mode	FALSE	Continuous		
			(AD		Emergency mode	THESE	continuous		
			(AD	> 1000)					
					No DTC set	P2729 for 1 sec and over			
	P2725		Feed Back Current Stuck(Electrical)		IG voltage	> 10.5 V	1 sec	2nd	
			sum_ie	>20000	Input AD value	< 1000(1333mA)			
				>20000					
			"ie" is added to "sum_ie" every 10 msec.		Emergency mode	FALSE			
			"ie" : Difference of "ir" and "ifb".		DS Active ³	TRUE			
			"ie" : Difference of "ir" and "ifb".		DS Active ³	TRUE			
			"ie" : Difference of "ir" and "ifb". "ir" : Target current						
			"ie" : Difference of "ir" and "ifb". "ir" : Target current "ifb": Feedback current		DS Active ³ No DTC set	P2729			
			"ie" : Difference of "ir" and "ifb". "ir" : Target current "ifb": Feedback current "sum_ie" is cleared as follows:						
			"ie" : Difference of "ir" and "ifb". "ir" : Target current "ifb": Feedback current			P2729			
			"ie" : Difference of "ir" and "ifb". "ir" : Target current "ifb": Feedback current "sum_ie" is cleared as follows:			P2729			
			 "ie": Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE 			P2729			
			 "ie": Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA 	- All (E., c. 0- All)		P2729			
			 "ie": Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current "sum_ie" is cleared as follows: or (3) Detection window = FALSE So mA <= ie <= 50 mA ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 	mA" ("ie < 0mA").	No DTC set	P2729			
r error, hydraulic faul	lt P0729	Rationality	 "ie": Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. 	0mA" ("ie < 0mA").	No DTC set No Shifting Control ⁹	P2729	12 sec	2nd	
ır error, hydraulic faul	lt P0729	Rationality	 "ie": Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current "sum_ie" is cleared as follows: or (3) Detection window = FALSE So mA <= ie <= 50 mA ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 	0mA" ("ie < 0mA").	No DTC set No Shifting Control ⁹	P2729	12 sec Continuous	2nd	
ır error, hydraulic faul	lt P0729	Rationality	 "ie": Difference of "ir" and "ifb". "ir": Target current "ib": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA (3): is value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B))mA" ("ie < 0mA").	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰	P2729 P2730		2nd	
r error, hydraulic faul	lt P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ifb": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0mA") to "ie >0mA" Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) 		No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N-	P2729 P2730 R)		2nd	
r error, hydraulic faul	lt P0729	Rationality	 "ie": Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current "sum_je" is cleared as follows: or (2) or (3) Detection window = FALSE : 50 mA <= ie <= 50 mA : ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0mA") to "ie >0mA" Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition A abs(1-GRCurrent/GRExpected))mA" ("ie < 0mA").	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only)	P2729 P2730 R) >= 10%		2nd	
r error, hydraulic faul	lt P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current "sum_ie" is cleared as follows: or (2) or (3) or (2) or (3) (1): Detection window = FALSE : e value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition B 	> 20%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A)	P2729 P2730 >= 10% >= 500rpm		2nd	
r error, hydraulic faui	lt P0729	Rationality	 "ie": Difference of "ir" and "ifb". "ir": Target current "ifb": Feedback current "sum_je" is cleared as follows: or (2) or (3) Detection window = FALSE : 50 mA <= ie <= 50 mA : ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0mA") to "ie >0mA" Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition A abs(1-GRCurrent/GRExpected) 		No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B)	P2729 P2730 R) >= 10%		2nd	
r error, hydraulic faul	it P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ifb": Feedback current "sum_ie" is cleared as follows: or (2) or (3) to cleared as follows: or (2) or (3) (1): Detection window = FALSE : of mA <= ie <= 50 mA : ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. Condition A or Condition B) Condition A abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/4th Gear Ratio) 	> 20%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B)	P2729 P2730 >= 10% >= 500rpm >=250rpm		2nd	
ır error, hydraulic faul	it P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ib": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition B abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/ 4th Gear Ratio) or 	> 20% <4%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B) Current gear	P2729 P2730 R) >= 10% >= 500rpm >=250rpm 6		2nd	
r error, hydraulic faul	It P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ifb": Feedback current "sum_ie" is cleared as follows: or (2) or (3) to cleared as follows: or (2) or (3) (1): Detection window = FALSE : of mA <= ie <= 50 mA : ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. Condition A or Condition B) Condition A abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/4th Gear Ratio) 	> 20%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B) Current gear Engine Torque noACC ⁸ (B only)	P2729 P2730 >= 10% >= 500rpm 6 >=80Nm		2nd	
ır error, hydraulic faul	it P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ib": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition B abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/ 4th Gear Ratio) or 	> 20% <4%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B) Current gear	P2729 P2730 >= 10% >= 500rpm >=250rpm 6 >=80Nm TRUE		2nd	
ur error, hydraulic faul	It P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ib": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition B abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/ 4th Gear Ratio) or 	> 20% <4%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B) Current gear Engine Torque noACC ⁸ (B only) DS Active ³	P2729 P2730 >= 10% >= 500rpm 6 >=80Nm		2nd	
ır error, hydraulic faul	It P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ib": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition B abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/ 4th Gear Ratio) or 	> 20% <4%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B) Current gear Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴	R) >= 10% >= 500rpm >=250rpm 6 >=80Nm TRUE FALSE		2nd	
r error, hydraulic faul	lt P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ib": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition B abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/ 4th Gear Ratio) or 	> 20% <4%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B) Current gear Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position	R) >= 10% >= 500rpm >=250rpm 6 >=80Nm TRUE FALSE RANGE_D(defined)		2nd	
r error, hydraulic faul	lt P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ib": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition B abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/ 4th Gear Ratio) or 	> 20% <4%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B) Current gear Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect 1h ⁴ Shift position Time after changing to Shift position =	R) >= 10% >= 500rpm >=250rpm 6 >=80Nm TRUE FALSE		2nd	
r error, hydraulic faul	it P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ib": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition B abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/ 4th Gear Ratio) or 	> 20% <4%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B) Current gear Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position	R) >= 10% >= 500rpm >=250rpm 6 >=80Nm TRUE FALSE RANGE_D(defined)		2nd	
r error, hydraulic faul	it P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ib": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition B abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/ 4th Gear Ratio) or 	> 20% <4%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B) Current gear Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect 1h ⁴ Shift position Time after changing to Shift position = RANGE_D(defined)	R) >= 10% >= 500rpm >=250rpm 6 >=80Nm TRUE FALSE RANGE_D(defined)		2nd	
r error, hydraulic faul	it P0729	Rationality	 "ie" : Difference of "ir" and "ifb". "ir" : Target current "ib": Feedback current "sum_ie" is cleared as follows: (1) or (2) or (3) (1): Detection window = FALSE (2): -50 mA <= ie <= 50 mA (3): ie value cahnges from "ie < 0mA" ("ie >0mA") to "ie >0 Calculation of actual gear ratio for 6th gear is not correct. (Condition A or Condition B) Condition B abs(1-GRCurrent/GRExpected) Condition B abs(1-Gear Ratio Current/ 4th Gear Ratio) or 	> 20% <4%	No DTC set No Shifting Control ⁹ Not in neutral control ¹⁰ Not garage shifting control ¹¹ (N-D or N- Throttle (A only) Transmission Output Speed (A) Transmission Output Speed (B) Current gear Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect 1h ⁴ Shift position Time after changing to Shift position =	P2729 P2730 >= 10% >= 500rpm >= 250rpm 6 >=80Nm TRUE FALSE RANGE_D(defined) 8.0 sec		2nd	

nponent/	Fault	Monitor Strategy	Malfunction	Threshold	Secondary Parameters	Enable Conditions		MIL	Extr
ystem	Code	Description	Criteria	Value			Required	Illumin.	Pre
					Time after shifting control9 end	0.5 sec			
					Oil temperature	>= 20°C			
					Brake	OFF			
					abs(1-SpeedABS/Trans. Output Speed)	< 10%			
					QS AirSuction ⁵	FALSE			
					Q3 Ansuenon				
					No DTC set	P0703			
					10001000	P0716			
						P0717			
						P0721			
	D0721	Deducation				P0722	12	2 1	
	P0731	Rationality	Calculation of actual gear ratio for 1st gear is not correct.		Not garage shifting control ¹¹ (N-D or N-R	R)	12 sec	2nd	
					Not in neutral control ¹⁰		Continuous		
					No Shifting Control ⁹				
			abs(1 - GRCurrent/2nd GearRatio)	< 4%	Current Gear	GEAR_1ST or			
						GEAR_1STEB			
			or		Transmission Output Speed	1350 rpm >= outRpm >=			
						250 rpm	1		
	1		abs(1 - GRCurrent/ 3rd GearRatio)	<4%	EngineTorque_noACC ⁸	>=100Nm (GEAR_1ST)			1
	1				6 · · · · ·	Í			
			or		EngineTorque_noACC ⁸	>= 80 Nm			
					Engine Forque_nor rec	(GEAR_1STEB)			
			abs(1 - GRCurrent/ 4th GearRatio)	<4%	DS Active ³	TRUE			
			abs(1 Orcarient 4ar Scarrano)	< 470		FALSE			
					Fdetect Inh ⁴				
					Shift position	RANGE_D(defined)			
					Time after changing to Shift position =	8.0 sec			
					RANGE_D(defined)				
					Time after garage shift control ¹¹ end	1.0 sec			
					Time after neutral control ¹⁰ end	1.0 sec			
					Time after shifting control9 end	0.5 sec			
					Oil temperature	>= 20°C			
					Brake	OFF			
					abs(1-SpeedABS/Trans.Output Speed)	< 10%			
					abs(1-SpeedABS/Trans.Output Speed)	< 1070			
						EALOE			
					QS AirSuction ⁵	FALSE			
						20202			
					No DTC set	P0703			
						P0716			
						P0717			
						P0721			
						P0722			
	P0732	Rationality	Calculation of actual gear ratio for 2nd gear is not correct.		No Shifting Control ⁹		12 sec	2nd	
			(Condition A or Condition B)		Not in neutral control ¹⁰		Continuous		
			Condition A		Not garage shifting control ¹¹ (N-D or N-R	3)			
			abs(1-GRCurrent/GRExpected)	>20%	Throttle (A only)	>= 10%			
			Condition B		Transmission Output Speed (A)	>= 500rpm			
	1		abs(1-Gear Ratio Current/ 1st Gear Ratio)	<4%	Transmission Output Speed (R)	>=250rpm			1
	1		or		Current gear	2			1
			abs(1-Gear Ratio Current/ 3rd Gear Ratio)	<4%		2 >=80Nm	1		
	1			\ ∀/0	Engine Torque $noACC^{8}$ (B only)	>=80Nm TRUE			1
			or	-40/			1	1	
	1		abs(1-Gear Ratio Current/ 4th Gear Ratio)	<4%		FALSE			1
	1		or		Shift position	RANGE_D(defined)			1
	1		abs(1-Gear Ratio Current/ 6th Gear Ratio)	<4%	Time after changing to Shift position =	8.0 sec			1
	1				RANGE_D(defined)				
	1				Time after garage shift control ¹¹ end	1.0 sec			1
							1		
	1				Time after neutral control ¹⁰ end	1.0 sec			1
	1				Time after shifting control ⁹ end	0.5 sec			1
		1			This area shifting control chu		1	1	1
					Oil temperature	>= 20°C			

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Required	MIL Illumin.	Ext Pre
System	Code	Description	Criteria	value			Required	mumm.	rre
					Brake	OFF			
					abs(1-SpeedABS/Trans. Output Speed)	< 10%			
					00 1:0 1:5	FALSE			
					QS AirSuction ⁵	TALSE			
					No DTC set	P0703			
						P0716			
						P0717			
						P0721			
						P0722			
	P0733	Rationality	Calculation of actual gear ratio for 3rd gear is not correct.		No Shifting Control ⁹		12 sec	2nd	
		-	(Condition A or Condition B)		Not in neutral control ¹⁰		Continuous		
							continuous		
			Condition A		Not garage shifting control ¹¹ (N-D or N-F				
			abs(1-GRCurrent/GRExpected)	>20%	Throttle (A only)	>= 10%			
			Condition B		Transmission Output Speed (A)	>= 500rpm			
			abs(1-Gear Ratio Current/ 1st Gear Ratio)	<4%	Transmission Output Speed (B)	>=250rpm			
				<#/0		>=2501pm			
			or		Current gear	5			
		1	abs(1-Gear Ratio Current/ 4th Gear Ratio)	<4%	Engine Torque noACC8 (B only)	>=80Nm		1	1
		1	or		DS Active ³	TRUE		1	1
			abs(1-Gear Ratio Current/ 5th Gear Ratio)	<4%		FALSE			
		1	about Ocal Ratio Currente Jul Ocal Ratio)	V. T.				1	1
		1				RANGE_D(defined)		1	
					Time after changing to Shift position =	8.0 sec			
					RANGE_D(defined)				
					T:	1.0 sec			
					Time after garage shift control ¹¹ end	1.0 see			
					Time after neutral control ¹⁰ end	1.0 sec			
					Time after shifting control9 end	0.5 sec			
						>= 20°C			
					Oil temperature				
					Brake	OFF			
					abs(1-SpeedABS/Trans. Output Speed)	< 10%			
					0.0.11.0.1.5	FALSE			
					QS AirSuction ⁵	FALSE			
					No DTC set	P0703			
						P0716			
						P0717			
						P0721			
						P0722			
	P0734	Rationality	Calculation of actual gear ratio for 4th gear is not correct.		No Shifting Control ⁹	•	12 sec	2nd	
			(Condition A or Condition B)		Not in neutral control ¹⁰		Continuous		
							Continuous		
		1	Condition A		Not garage shifting control ¹¹ (N-D or N-F			1	1
		1	abs(1-GRCurrent/GRExpected)	>20%	Throttle (A only)	>= 10%		1	1
		1	Condition B		Transmission Output Speed (A)	>= 500rpm		1	1
		1	abs(1-Gear Ratio Current/ 1st Gear Ratio)	<4%	Transmission Output Speed (B)	>=250rpm		1	1
			austi Jua Rato Curtent 1st Ocal Rato)	NT /0		/		1	1
							1	1	
			or		Current gear	+			
			or abs(1-Gear Ratio Current/ 5th Gear Ratio)	<4%					
				<4%	Engine Torque noACC ⁸ (B only)				
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³	TRUE			
			abs(1-Gear Ratio Current/ 5th Gear Ratio)	<4% <4%	Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴	TRUE FALSE			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position	TRUE FALSE RANGE_D(defined)			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position Time after changing to Shift position =	TRUE FALSE			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position	TRUE FALSE RANGE_D(defined)			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined)	TRUE FALSE RANGE_D(defined) 8.0 sec			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined)	TRUE FALSE RANGE_D(defined)			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Edetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined) Time after garage shift control ¹¹ end	TRUE FALSE RANGE_D(defined) 8.0 sec 1.0 sec			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined)	TRUE FALSE RANGE_D(defined) 8.0 sec 1.0 sec			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined) Time after garage shift control ¹¹ end Time after neutral control ¹⁰ end	TRUE FALSE RANGE_D(defined) 8.0 sec 1.0 sec			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined) Time after garage shift control ¹¹ end Time after neutral control ¹⁰ end Time after shifting control ⁹ end	TRUE FALSE RANGE_D(defined) 8.0 sec 1.0 sec 0.5 sec			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined) Time after garage shift control ¹¹ end Time after neutral control ¹⁰ end Time after shifting control ⁹ end Oil temperature	TRUE FALSE RANGE_D(defined) 8.0 sec 1.0 sec 0.5 sec >= 20°C			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined) Time after garage shift control ¹¹ end Time after neutral control ¹⁰ end Time after shifting control ⁹ end Oil temperature Brake	TRUE FALSE RANGE_D(defined) 8.0 sec 1.0 sec 0.5 sec >= 20°C OFF			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined) Time after garage shift control ¹¹ end Time after neutral control ¹⁰ end Time after shifting control ⁹ end Oil temperature	TRUE FALSE RANGE_D(defined) 8.0 sec 1.0 sec 0.5 sec >= 20°C			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Fdetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined) Time after garage shift control ¹¹ end Time after neutral control ¹⁰ end Time after shifting control ⁹ end Oil temperature Brake	TRUE FALSE RANGE_D(defined) 8.0 sec 1.0 sec 0.5 sec >= 20°C OFF			
			abs(1-Gear Ratio Current/ 5th Gear Ratio) or		Engine Torque noACC ⁸ (B only) DS Active ³ Edetect Inh ⁴ Shift position Time after changing to Shift position = RANGE_D(defined) Time after garage shift control ¹¹ end Time after neutral control ¹⁰ end Time after shifting control ⁹ end Oil temperature Brake abs(1-SpeedABS/Trans. Output Speed)	TRUE FALSE RANGE_D(defined) 8.0 sec 1.0 sec 0.5 sec >= 20°C OFF			

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Required	MIL Illumin.	Extra Prep
-					No DTC set	P0703		1	-
						P0716			
						P0717			
						P0721			
						P0722			
	P0735	Rationality	Calculation of actual gear ratio for 4th gear is not correct.		No Shifting Control ⁹		12 sec	2nd	
		, i i i i i i i i i i i i i i i i i i i	(Condition A or Condition B)		Not in neutral control ¹⁰		Continuous		
			Condition A		Not garage shifting control ¹¹ (N-D or N-H	8)			
			abs(1-GRCurrent/GRExpected)	>20%	Throttle (A only)	>= 10%			
			Condition B		Transmission Output Speed (A)	>= 500rpm			
			abs(1-Gear Ratio Current/ 4th Gear Ratio)	<4%	Transmission Output Speed (B)	>=250rpm			
			or		Current gear	5			
			abs(1-Gear Ratio Current/ 6th Gear Ratio)	<4%	Engine Torque noACC ⁸ (B only)	>=80Nm			
			abs(r com rano current our com rano)		DS Active ³	TRUE			
					Fdetect Inh ⁴	FALSE			
					Shift position	RANGE_D(defined)			
					Time after changing to Shift position =	8.0 sec			
					RANGE_D(defined)				
					Time after garage shift control ¹¹ end	1.0 sec			
	1				Time after neutral control ¹⁰ end	1.0 sec	1		
					Time after shifting control9 end	0.5 sec			
					Oil temperature	>= 20°C			
					Brake	OFF			
					abs(1-SpeedABS/Trans. Output Speed)	< 10%			
					QS AirSuction ⁵	FALSE			
					No DTC set	P0703			
					no bie se	P0716			
						P0717			
						P0721			
						P0721 P0722			
ngine speed signal	P0725	Signal from ECM stated as	Engine Speed Validity	"Invalid"	Diagnostic Service "Disable Normal Cor		4 600	2nd	
ngine speed signal	F0725	unreliable	Eligine Speed Valuity	Invalid	Diagnostic Service Disable Normai Cor	initiation not detected	4 Sec	2110	
		unenable			To a Min a	ON >3 sec	Continuous		
					Ignition DS_Active_CAN ²	TRUE	Continuous		
					Emergency mode	FALSE			
					N. DTC.	U0100			
	D0707	X7-hour from	POST V. Icore POS2 Velcore	+0.127 (AD 1 26) M	No DTC set		200	2 1	
ransmission Range	P0707	Voltage low	POS1 Voltage or POS2 Voltage	< 0.127 (AD value=26) V	Battery voltage	6.0 V < Battery Voltage < 15.5 V	200ms	2nd	
ensor Circuit									
	-		-		Diagnosis Service mode	FALSE			
	P0708	Voltage high	Input POS1 Voltage or Input POS2 Voltage	> 4.87 (AD value=997)V	Diagnosis Service mode	FALSE	200 ms	2nd	
					Battery voltage	6.0 V < Battery Voltage <	Continuous		
						15.5 V			
	P0706	Signal out of range	Input POS1 Voltage + Input POS2 Voltage	<= 5V -0.29V or >= 5V +0.29V	Diagnosis Service mode	FALSE	200 ms	2nd	
					Battery voltage	6.0 V < Battery Voltage < 15.5 V	Continuous		
utput speed sensor rcuit	P0722		No pulse		Not in neutral control ¹⁰		Dependent of	2nd	
icuit			Number of a law from Trans. 1 1 Oct. 10		No Shifting Control ⁹		Speed		
	1		Number of pulses from Transmission Output Speed Sensor	0	Not garage shifting control ¹¹ (N-D)	TDUE	1		
	1		Number of pulses from Transmission Input Speed Sensor	16	DS Active ³	TRUE	1		
	1				Emergency mode	FALSE	1		
	1				Shift position	RANGE_D(defined)	1		
	1				Time since change from P,R or N range		1		
	1				to others if vehicle speed >= 66km/h and		1		
	1				oil temperature >20°C		1		
		1				2.5sec	1	1	1

Component/	Fault	Monitor Strategy	Malfunction	Threshold	Secondary Parameters	Enable Conditions		MIL	Extra
System	Code	Description	Criteria	Value			Required	Illumin.	Prep
					Time since change from P,R or N range to others if vehicle speed < 66km/h and oil temperature <= 20°C				
						10sec			
					SpeedABS	> 300 rpm			
					No DTC set	P0501			
						P0706			
						P0707			
						P0708			
						P0716 P0717			
						P0717 P0748			
						P0778			
						P0798			
						P0961			
						P0962			
						P0963 P0965			
						P0966			
						P0967			
						P0969			
						P0970			
						P0971 P0973			
						P0973 P0974			
						P0985			
						P0986			
						P1895			
						P2159 P2716			
						P2716 P2719			
						P2720			
						P2721			
						P2725			
						P2728			
						P2729 P2730			
						U0001			
						U0121			
	P0721		Range/Performance, wrong pulse	> 15 %	Not garage shifting control ¹¹ (N-D)		10 sec	2nd	
			1-SpeedABS/Transmission Output Speed	> 13 %	No Shifting Control ⁹ CurrentGear	>= 2ND			
					1-SpeedABS/ Trans. Output Speed	< 5%			
					Time after shifting control	8 sec			
					Time after changing to Position	8 sec			
						RANGE_D(defined)			
					Engine speed Speed ABS	> 400rpm >= 30 km/h			
					Spinning ⁶	FALSE			
					DS_Active ³	TRUE			
					Emergency mode	FALSE			
					No DTC set	P0501			
						P0706			
						P0707			
						P0708			
						P0711			
						P0712			
						P0713			

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Required	MIL Illumin.	Extra Prep
						P0741			
						P0742			
						P0748			
						P0778			
						P0798			
						P0961			
						P0962			
						P0963			
						P0965 P0966			
						P0967			
						P0969			
						P0970			
						P0971			
						P0973			
						P0974			
						P0985			
						P0986			
						P1820			
						P1895			
						P2159			
						P2716 P2719			
						P2720			
						P2721			
						P2725			
						P2728			
						P2729			
						P2730			
						P2759			
						P2762			
						P2763			
						P2764			
						U0001			
	DOBIE					U0121			
smission input speed	P0717		No pulse		No Shifting Control ⁹		Dependent of	2nd	
or			No. Contraction Transition I and Contraction		Not garage shifting control ¹¹ (N-D) DS_Active ³	TRUE	Speed		
			No of pulses from Transmission Input Speed Sensor No of pulses from Transmission Output Speed Sensor	24		FALSE			
			No of pulses from fransmission output speed sensor	24	Trans. Output Speed * CurrentGearRatio				
					Thans. Output Speed CurrentGearRand	> 000 ipin			
					Shift position	RANGE_D(defined)			
					CurrentGear	>= 2nd gear			
					Time since change from P,R or N range				
					to others if vehicle speed >= 66km/h and				
					oil temperature >20°C				1
						2.5sec			1
					Time since change from P,R or N range				1
					to others if vehicle speed < 66 km/h and ail term explanation ≤ 20 °C				1
					oil temperature <= 20°C	10			1
					No DTC set	10sec P0501			1
						P0501 P0706			1
						P0708 P0707			1
						P0707 P0708			1
						P0721			1
					1		1		1
						P0722			
						P0722 P0748			
						P0748			

Component/	Fault	Monitor Strategy	Malfunction	Threshold	Secondary Parameters	Enable Conditions		MIL	Extra
System	Code	Description	Criteria	Value	-		Required	Illumin.	Prep
		-				P0962	-		-
						P0963			
						P0965			
						P0966			
						P0967			
						P0969			
						P0970			
						P0971			
						P0973			
						P0974			
						P0985			
						P0986			
						P1895			
						P2159			
						P2716			
						P2719			
						P2720			
						P2721			
		1				P2725			
		1				P2728			
						P2729			
						P2730			
						U0001			
						U0121			
	P0716		Wrong Pulse		No Shifting Control ⁹		10 sec	2nd	
			1-speedABS/Transmission Input Speed	> 15 %	Not garage shifting control ¹¹ (N-D)				
					1-SpeedABS/Trans. Output Speed	< 5 %			
					1-SpeedABS/Engine Speed	< 5 %			
					Time after shifting control	8 sec			
					Time after changing to Position switch =	8 sec			
					RANGE_D				
					Gear	>= 2ND			
					o cui	other than P and N and R			
					Banas				
					Range				
					Engine speed	> 400rpm			
					Spinning ⁶	FALSE			
					DS_Active ³	TRUE			
					LockUpActive	TRUE			
					Emergency mode	FALSE			
					Speed ABS	> 30 km/h			
					Speed ABS No DTC set	U0001			
						U0001 P0501			
						U0001 P0501 P0706			
						U0001 P0501			
						U0001 P0501 P0706 P0707			
						U0001 P0501 P0706 P0707 P0708			
						U0001 P0501 P0706 P0707 P0708 P0711			
						U0001 P0501 P0706 P0707 P0708 P0711 P0712			
						U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0713			
						U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0713 P0721			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0713 P0721 P0722			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0712 P0713 P0721 P0722 P0725			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0713 P0721 P0722 P0725 P0741			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0713 P0713 P0721 P0721 P0725 P0741 P0741 P0742			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0713 P0721 P0722 P0725 P0741 P0742 P0748			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0713 P0721 P0722 P0725 P0725 P0741 P0742 P0748 P0748 P0778			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0713 P0721 P0722 P0725 P0725 P0741 P0742 P0748 P0778 P0778 P0798			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0712 P0721 P0722 P0725 P0724 P0742 P0742 P0748 P0778 P0798 P0798 P09961			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0713 P0712 P0721 P0722 P0725 P0741 P0742 P0748 P0748 P0748 P0778 P0798 P0961 P0962			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0713 P0712 P0721 P0722 P0725 P0741 P0742 P0748 P0748 P0748 P0778 P0798 P0961 P0962			
					No DTC set	U0001 P0501 P0706 P0707 P0708 P0711 P0712 P0712 P0721 P0722 P0725 P0724 P0742 P0742 P0748 P0778 P0798 P0798 P09961			

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Required	MIL Illumin.	Extra Prep
~,						P0966			
						P0967			
						P0969			
						P0970			
						P0971			
						P0973			
						P0974			
						P0985			
						P0986			
						P1820			
						P1820 P1895			
						P2159			
						P2716			
						P2719			
						P2720			
						P2721			
						P2725			
	1					P2728			1
	1					P2729			1
	1					P2730			1
						P2759			
	1					P2762			1
						P2763			
						P2764			
						U0121			
ansmission oil	P0711	Rationality	Oil temperature change less than	Oil Temperature at initialization = the highest oil	Oil temp at initialization	< 50°C	10 min	2nd	
nperature sensor				temperature during 10 min ± 4 (AD value)	Engine coolant temp at initialization	< 70°C			
					AD value of oil temperature	< 1000			
					AD value of oil temperature	> 10			
					Range	D,R(defined)			
					No DTC set	P0706			
						P0707			
						P0708			
	P0712	Circuit continuity check	Short-cut ground		DS_Active ³	TRUE	300sec	2nd	
			AD value of Oil Temp	< 10*1 (More than 200 OC).					
	P0713	Circuit continuity check	Short-cut Ubat or open circuit		DS Active ³	TRUE	12 sec	2nd	
			AD value of Oil temperature	> 1000*1 (-43 OC)	DriveTime	> 15 min			
					Engine CoolantTemperature	> 50°C			
					No DTC set	P0116			
						U0100			
						U0001			
valid signal from ECM	P1820	Accelerator pedal position signal	Accelerator Position Validity	"Invalid"	Diagnostic Service "Disable Normal Co		4 sec	2nd	
	1	is invalid							1
					Ignition	ON > 3sec			1
	1				DS Active CAN ²	TRUE			1
	1				Emergency mode	FALSE			1
					No DTC ant	110100			
eutral condition	P1701		Step 1:		No DTC set Not garage shifting control ¹¹ (N-D or N-	U0100	Step1:	2nd	
			abs(Engine Speed - Transmission Input Speed)	<150rpm	Not in neutral control ¹⁰	<i>x</i> ,	at D range:	-	1
	1		Transmission Input Speed (at D range)	 > Transmission Output Speed x (1st gear ratio at 	No Shifting Control ⁹		3.3 sec if (0		1
			ransmission input speed (at D range)	RANGE_D) +400rpm		TRUE	<= X <=		
	1		The second state of the second state D		DS Active ³		<= A <= 1500)		1
	1		Transmission Input Speed (at R range)	> Transmission Output Speed x (reverse gear ratio at	Fdetect_Inh ⁴	FALSE (except P0966)			1
	1			RANGE_R) +1000rpm			1.3 sec if		1
	1		Step 2:		Oil temperature	>0°C	(1501 <= X		1
	1		Transmission Input Speed	<200rpm	Shift position	RANGE_D or RANGE_R	<= 3000)	1	1
			Engine Speed	>600rpm	r	(defined)	0.8 sec if		

Component/	Fault	Monitor Strategy	Malfunction	Threshold	Secondary Parameters	Enable Conditions		MIL	Extra
System	Code	Description	Criteria	Value			Required	Illumin.	Prep
					Time after changing to shift position = RANGE_D or R(defined)	1.0sec	(3001 <= X)		
					Time after garage shifting end	1.0sec	at R range:		
					Time after neutral control end	1.0sec	1.8 sec if (0		
					Time after shifting control end	0.5sec	<= Y <=		
					Transmission Output Speed	<=500rpm	1500)		
					SpeedABS	<=500rpm	1.3 sec if		
					Lockup	FALSE	(1501 <= Y		
					Current gear	1 or 2 or 3 or 4	<= 3000)		
					QS AirSuction ⁵		0.8 sec if		
					20 mouelon		(3001 <= Y)		
					No DTC set	P0716			
						P0717			
						P0721	X = inRpm -		
							outRpm X (1st		
							gear ratio at		
							RANGE_D)		
							Y = inRpm -		
							outRpm X		
							(reverse gear		
							ratio at		
							RANGE_R)		
							Step 2:		
							0.1sec		
Neutral control	P1704		C1 apply control		DS Active ³	TRUE	0.3sec	2nd	
			Transmission Input Speed	>= (Transmission Input Speed at apply start + 400rpm +	Shift position	RANGE_D(defined)			
				Transmission Output Speed x gear ratio)	Fdetect_Inh ⁴	FALSE			
			C1 pressure	>=3.0kg/cm ²	Oil temperature	>=10°C			
					QS_AirSuction ⁵	FALSE			
					No DTC set	P0716			
						P0717			
						P0721			
						P0722			