2001 3.0L (L81) V-car Catera

4L30-E TRANSMISSION DIAGNOSTIC PARAMETERS

P code	Fault name	DTC type	Failure enabling conditions	Failure major conditions	Action	Recovery	Pass enabling conditions	Pass major conditions	Monitoring time length (ms) (1 MLT = 15ms)
P 0218	Oil temperature excessive	D	none	oil temperature > KATFHOT (165°C)	Use backup temperature value KOILMLF (130°C)	If pass	none	oil temp. <= KATFHOT (165°C) for a time > 3.825 sec.	(MLT+1)x KMODMLF (9+1)x1,995 s = 19.95s
P 0560	Low supply voltage	B	no hysteresis range (9.5 V - 9 V)	Ubatt <= Batter_1 (9V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	Ubatt > 9.5V	149+1 MLT = 2.25s
P 0560	High supply voltage	B	no hysteresis range (15.5V - 16V)	Ubatt >= Batter_5 (16V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	Ubatt < 15.5V	149+1 MLT = 2.25s
P 0601	EPROM failure	B	none	calculated checksum different from EPROM checksum	Safety mode	Next ignition cycle	none	calculated checksum = EPROM checksum	[(DFF0h/30h)=1194 MLT]* (1+1) (38.76s) & (20 times faster during initialization : 1.8s)
P 0602	invalid data to select project / seed key	B	1 time after power on reset	wrong seed key	No action (only TML)	Tech 2 programming	none	none	Immediate
P 0602	EEPROM bad programming	B	Ignition off (at that time the EEPROM is updated).	read bytes not equal to written bytes	Safety mode	Next ignition cycle	Same as failure enabling conditions	read bytes = written bytes	Immediate
P 0703	Brake switch open (CAN)	D	output speed > BRAKE_NAB (192rpm)	no change in brake switch information (F_BS) for a time > BRAKE_TIME (20 min.).	No action	Next ignition cycle	Same as failure enabling conditions	change in brake switch information before 20 min.	BRAKE_TIME (20 min.)
P 0705	Mode switch failure - Electrical failure	B	none	Switch decodes electrical failure (flags Z+E)	Safety mode	Next ignition cycle	none	Switch decodes no electrical failure (flags Z+E)	(MLT+1)x KMODMLF (9+1)x1,995 s = 19.95s
P 0705	Mode switch failure - Illegal position	B	none	Switch decodes undefined state (flag Z)	Safety mode	Next ignition cycle	none	Switch decodes no undefined state (flag Z)	(MLT+1)x KMODMLF (9+1)x1,995 s = 19.95s
P 0706	Mode switch in N, R or P	D	1. For N and P : - position N or P detected - no DKI (Throttle) fault memorized 2. For R : position R detected	1. ES > N_DKGPWM (500rpm) Throttle > KNPMLFTHR (34%) ES <= KNPMLFES (3008rpm) after KNPMLF (3.8s) 2. OS > KRMLFOS (8160rpm)	Assume "D" mode	7 MLT (210 ms) for "Assume D" or Next ignition cycle	Same as failure enabling conditions Remark : For this diagnostic the real position is used and not the one given through back up.	1. ES > N_DKGPWM (500rpm) Throttle > KNPMLFTHR (34%) ES > KNPMLFES (3008rpm) after KNPMLF (3.8s) 2. OS <= KRMLFOS	(MLT+1)xKNPMLF (0+1)x3.795 s = 3.795s

								(8160rpm)	
P 0712	Oil temperature sensor short to ground	**C**	none	Analog voltage < KTEMPVL (98 mV)	Freeze adapts Use backup temperature value KOILMLF (130°C)	If pass	none	Analog voltage >= (KTEMPVL - KTEMPVL_H) = 157 mV during 3.825s.	(MLT+1)x KMODMLF (9+1)x1,995 s = 19.95s
P 0713	Oil temperature sensor short to battery	**C**	none	Analog voltage > KTEMPVH (4.35 V)	Freeze adapts Use backup temperature value KOILMLF (130°C)	If pass	none	Analog voltage <= (KTEMPVH - KTEMPVH_H) = 4.94 V during 3.825s.	(MLT+1)x KMODMLF (9+1)x1,995 s = 19.95s
P 0722	Output speed input sensor no signal	**B**	- position not equal to P, R, N or Z - ES > KVSHLFNE (3008rpm)	Output speed = 0	Safety mode	Next ignition cycle	Same as failure enabling conditions	OS > 0	255+1 MLT = 3.84s
P 0725	Engine speed no signal (CAN)	**B**	- position not equal to P, R, N or Z - Throttle > KNEMLFTH (12%) - OS > KNEMLFVS (1024rpm)	N_MOT <= 112rpm	Safety mode	Next ignition cycle	Same as failure enabling conditions	N_MOT > 112rpm	255+1 MLT = 3.84s
P 0727	Engine speed unrel. (CAN)	**B**	none	- CAN information VALID_ESPEED = 1 or 2 or 3	Safety mode	Next ignition cycle	none	- CAN information VALID_ESPEED = 0	66+1 MLT = 1s
P 0730	Gear error - trans. component slipping	**B**	position not equal to P, R, N or Z - No Safety Mode - only in main loop - static conditions - enable conditions met or set for code P0757, Fail case 1 1. ES > ES_LIM (3488rpm) 2. 3rd gear, ES > OS > OS_LIM (2976rpm)	1. abs(OS - N_ABsoll) > SCHLUPF characteristic line f(gear) : Absolute slippage > Gear 1 : SCHLUPF[0] (352rpm) Gear 2 : SCHLUPF[1] (576rpm) Gear 3 : SCHLUPF[2] (896rpm) Gear 4 : SCHLUPF[3] (1216rpm) 2. ES < OS - SCHLUPF2	Safety mode	Next ignition cycle	Same as failure enabling conditions	1. Absolute slippage <= Gear 1 : SCHLUPF[0] (352rpm) Gear 2 : SCHLUPF[1] (576rpm) Gear 3 : SCHLUPF[2] (896rpm) Gear 4 : SCHLUPF[3] (1216rpm) 2. ES >= OS - 992rpm	225+1 MLT = 3.39s

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				(992rpm)					
P 0742	TCC stuck on	**B**	- TCC mode = OFF - GEAR <> FIRST - Eng. running status set - HCCU_FP (18.18%) < Throttle < HCCO_FP (100%) - Selector = D - MCCU_MM (50Nm) < Engine torque < MCCO_MM (200Nm) - NCCU_ES (1000rpm) < ES < NCCO_ES (3488rpm) - NCCU_VS (25Kph) < Veh. Spd < NCCO_VS (120Kph) - No Throttle, OS, ES and TCC codes	NCCU_FSS (-20rpm) < SLIP < NCC)_FSS (64rpm) for a time >= TCC_FSS (3s.) If conditions are met, increment "Fail counter". To fail "Fail counter" >= 2	Safety mode	Next ignition cycle	Same as failure enabling conditions	NCCU_PSS (200rpm) < SLIP < NCCO_PSS (1200rpm) for a time >= TCC_PSS (2s.) If pass, reset "Fail counter".	depend on fail detection (minimum 6s.)
P 0743	TCC solenoid short to ground	**B**	- TCC solenoid commanded off - FET driver closed	- (TCC) Feedback voltage < UCG_KM (2,45V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- (TCC) Feedback voltage >= UCG_KM	11+1 MLT = 180ms
P 0743	TCC solenoid open	**B**	- TCC solenoid commanded off - FET driver closed	- UCG_KM (2,45V) <= (TCC) Feedback voltage < UCG_UBR (3,53V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- UCG_KM > (TCC) Feedback voltage <= UCG_UBR	11+1 MLT = 180ms
P 0743	TCC solenoid short to battery	**B**	- TCC solenoid commanded on - FET driver closed	- (TCC) Feedback voltage > UCG_KP (4,02V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- (TCC) Feedback voltage <= UCG_KP	11+1 MLT = 180ms
P 0748	Force motor open (pin 5 or 52) or short to ground (pin 5)	**B**	- FET driver closed - Force motor on. - IWERT > (DR_PB=f(TEMPG,UBATT))	- No falling edge on feedback line (Pin 2 of Asic CG202) during 2ms - Feedback Voltage is low	Safety mode	Next ignition cycle	Same as failure enabling conditions	- Feedback Voltage is normal	35+1 MLT = 540ms
P 0748	Force motor short to battery (pin 5)	**B**	- FET driver closed - Force motor on.	- No falling edge on feedback line (Pin 2 of Asic CG202) during 2ms - Feedback Voltage is high	Safety mode	Next ignition cycle	Same as failure enabling conditions	- Feedback Voltage is normal	35+1 MLT = 540ms

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P0751	Shift solenoid 1-2/3-4 stuck off (1-1-4-4)	**B**	- Range = D4 - No 705, 722, 753, 758, 1600, 1625, 1743, 1890 codes set. <u>Fail case 1</u> : - Commanded gear = 2 for a time >= TSP_F_CG[2] (0,7s.) - Throttle (pedal) >= HSPS_FTP[2] (30,8%) - NSPU_FES[2] (3104rpm) <= ES <= NSPO_FES[2] (3904rpm) - OS >= NSPS_FOS[2] (992rpm) - Torque >= MSPS_FMM[2] (50Nm) (if all conditions resets Pass case 1) <u>Fail case 2 :</u> - Commanded gear = 3 for a time >= TSP_F_CG[4] (0,7s.) - Throttle (pedal) >= HSPS_FTP[4] (24.9%) - NSPU_FES[4] (1216rpm) <= ES <= NSPO_FES[4] (2016rpm) - OS >= NSPS_FOS[4] (2016rpm) - Torque >= MSPS_FMM[4] (50Nm) (if all conditions met, resets Pass case 2) - TCC is commanded on	1) - Fail case 1 - NSPU_FSS[2] (1400rpm) <= TCC slip <= NSPO_FSS[2] (2000rpm) for a time >= TSP_FC[2] (0,9s.) 2) - Fail case 2 - NSPU_FSS[4] (-1000rpm) <= TCC slip <= NSPO_FSS[4] (-100rpm) for a time >= TSP_FC[4] (3s.) If case 1) and 2) are met, increment Fail counter. Fail counter >= 2	Safety mode	Next ignition cycle	- Range = D4 - No 705, 722, 753, 758, 1600, 1625, 1743, 1890 codes set. <u>Pass case 1</u> : - Commanded gear = 2 - Throttle (pedal) >= HSPS_PTP[2] (9,8%) - NSPU_PES[2] (1792rpm) <= ES <= NSPO_PES[2] (2304rpm) - OS >= NSPS_POS[2] (800rpm) - Torque >= MSPS_PMM[2] (50Nm) (if all conditions met, resets Fail case 1) <u>Pass case 2 :</u> - Commanded gear = 3 - Throttle (pedal) >= HSPS_PTP[3] (9,8%) - NSPU_PES[3] (2016rpm) <= ES <= NSPO_PES[3] (2496rpm) - OS >= NSPS_POS[3] (1696rpm) - Torque >= MSPS_PMM[3] (50Nm) (if all conditions met, resets Fail case 2)	1) - Pass case 1 - NSPU_PSS[2] (400rpm) <= TCC slip <= NSPO_PSS[2] (750rpm) for a time >= TSP_PC[2] (1s.) 2) - Pass case 2 - NSPU_PSS[3] (-32rpm) <= TCC slip <= NSPO_PSS[3] (32rpm) for a time >= TSP_PC[3] (3s.) If 1) and 2) are met, code Pass.	Depend on gear shift
P0752	Shift solenoid 1-2/3-4 stuck on (2-2-3-3)	**B**	- Range = D4 - No 705, 722, 753, 758, 1600, 1625, 1743, 1890 codes set. <u>Fail case 1</u> : - Commanded gear = 1 for a time >= TSP_F_CG[0] (1,5s.) - Throttle (pedal) >= HSPS_FTP[0] (41,1%) - NSPU_FES[0] (2400rpm) <= ES <= NSPO_FES[0] (3008rpm)	1) - Fail case 1 - NSPU_FSS[0] (-711rpm) <= TCC slip <= NSPO_FSS[0] (350rpm) for a time >= TSP_FC[0] (0,6s.) 2) - Fail case 2 - NSPU_FSS[6] (666rpm) <= TCC slip <= NSPO_FSS[6] (1000rpm) for a time >= TSP_FC[6] (5s.)	Safety mode	Next ignition cycle	- Range = D4 - No 705, 722, 753, 758, 1600, 1625, 1743, 1890 codes set. <u>Pass case 1</u> : - Commanded gear = 1 - Throttle (pedal) >= HSPS_PTP[0] (9,8%) - NSPU_PES[0] (992rpm) <= ES <= NSPO_PES[0] (2400rpm)	1) - Pass case 1 - NSPU_PSS[0] (450rpm) <= TCC slip <= NSPO_PSS[0] (1500rpm) for a time >= TSP_PC[0] (1s.) 2) - Pass case 2 - NSPU_PSS[4] (-32rpm) <= TCC slip <= NSPO_PSS[4] (32rpm) for a time >= TSP_PC[4] (3s.)	Depend on gear shift

			- OS >= NSPS_FOS[0] (704rpm) - Torque >= MSPS_FMM[0] (50Nm) (if all conditions resets Pass case 1) Fail case 2 : - Commanded gear = 4 for a time >= TSP_F_CG[6] (0,5s.) - Throttle (pedal) >= HSPS_FTP[6] (15%) - NSPU_FES[6] (1696rpm) <= ES <= NSPO_FES[6] (4992rpm) - OS >= NSPS_FOS[6] (1696rpm) - Torque >= MSPS_FMM[6] (50Nm) (if all conditions met, resets Pass case 2) - TCC is commanded on	If case 1) and 2) are met, increment Fail counter. Fail counter >= 2			- OS >= NSPS_POS[0] (192rpm) - Torque >= MSPS_PMM[0] (50Nm) (if all conditions met, resets Fail case 1) Pass case 2 : - Commanded gear = 4 - Throttle (pedal) >= HSPS_PTP[4] (9,8%) - NSPU_PES[4] (1696rpm) <= ES <= NSPO_PES[4] (3488rpm) - OS >= NSPS_POS[4] (2400rpm) - Torque >= MSPS_PMM[4] (50Nm) (if all conditions met, resets Fail case 2)	If 1) and 2) are met, code Pass.	
P 0753	Shift solenoid 1-2/3-4 short to ground	**B**	- Shift solenoid 1-2/3-4 commanded off - FET driver closed	- (1-2/3-4) Feedback voltage < UCG_KM (2,45V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- (1-2/3-4) Feedback voltage >= UCG_KM (2,45V)	11+1 MLT = 180ms
P 0753	Shift solenoid 1-2/3-4 open	**B**	- Shift solenoid 1-2/3-4 commanded off - FET driver closed	- UCG_KM (2,45V) <= (1-2/3-4) Feedback voltage < UCG_UBR (3,53V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- UCG_KM (2,45V) > (1-2/3-4) Feedback voltage >= UCG_UBR (3,53V)	11+1 MLT = 180ms
P 0753	Shift solenoid 1-2/3-4 short to battery	**B**	- Shift solenoid 1-2/3-4 commanded on - FET driver closed	- (1-2/3-4) Feedback voltage > UCG_KP (4,02V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- (1-2/3-4) Feedback voltage <= UCG_KP (4,02V)	11+1 MLT = 180ms
P0756	Shift solenoid 2-3 stuck off (4-3-3-4)	**B**	- Range = D4 - No 705, 722, 753, 758, 1600, 1625, 1743, 1890 codes set. Fail case 1 : - Commanded gear = 1 for a time >= TSP_F_CG[1] (1,5s.) - Throttle (pedal) >= HSPS_FTP[1] (41,1%) - NSPU_FES[1] (2400rpm) <= ES <= NSPO_FES[1] (3008rpm)	1) - Fail case 1 - NSPU_FSS[1] (-3000rpm) <= TCC slip <= NSPO_FSS[1] (100rpm) for a time >= TSP_FC[1] (1,5s.) 2) - Fail case 2 - NSPU_FSS[3] (-500rpm) <= TCC slip <= NSPO_FSS[3] (400rpm) for a time >= TSP_FC[3] (1,5s.)	Safety mode	Next ignition cycle	- Range = D4 - No 705, 722, 753, 758, 1600, 1625, 1743, 1890 codes set. Pass case 1 : - Commanded gear = 1 - Throttle (pedal) >= HSPS_PTP[1] (9,8%) - NSPU_PES[1] (992rpm) <= ES <= NSPO_PES[1] (2400rpm)	1) - Pass case 1 - NSPU_PSS[1] (450rpm) <= TCC slip <= NSPO_PSS[1] (1500rpm) for a time >= TSP_PC[1] (1s.) 2) - Pass case 2 - NSPU_PSS[2] (400rpm) <= TCC slip <= NSPO_PSS[2] (750rpm) for a time >= TSP_PC[2] (1s.)	Depend on gear shift

			- OS >= NSPS_FOS[1] (704rpm) - Torque >= MSPS_FMM[1] (50Nm) (if all conditions resets Pass case 1) <u>Fail case 2 :</u> - Commanded gear = 2 for a time >= TSP_F_CG[3] (0,7s.) - Throttle (pedal) >= HSPS_FTP[3] (41.8%)	If case 1) and 2) are met, increment Fail counter. Fail counter >= 2			- OS >= NSPS_POS[1] (192rpm) - Torque >= MSPS_PMM[1] (50Nm) (if all conditions met, resets Fail case 1) <u>Pass case 2 :</u> - Commanded gear = 2 - Throttle (pedal) >= HSPS_PTP[2] (9,8%)	If 1) and 2) are met, code Pass.	
			- NSPU_FES[3] (2592rpm) <= ES <= NSPO_FES[3] (3008rpm) - OS >= NSPS_FOS[3] (1408rpm) - Torque >= MSPS_FMM[3] (50Nm) (if all conditions met, resets Pass case 2)				- NSPU_PES[2] (1792rpm) <= ES <= NSPO_PES[2] (2304rpm) - OS >= NSPS_POS[2] (800rpm) - Torque >= MSPS_PMM[2] (50Nm) (if all conditions met, resets Fail case 2)		
P0757	Shift solenoid 2-3 stuck on (1-2-2-1)	**B**	- Range = D4 - No 705, 722, 753, 758, 1600, 1625, 1743, 1890 codes set. <u>Fail case 1</u> : - Commanded gear = 3 for a time >= TSP_F_CG[5] (0,7s.) - Throttle (pedal) >= HSPS_FTP[5] (26,4%) - NSPU_FES[5] (3104rpm) <= ES <= NSPO_FES[5] (4192rpm) - OS >= NSPS_FOS[5] (1088rpm) - Torque >= MSPS_FMM[5] (50Nm) (if all conditions resets Pass case 1) <u>Fail case 2 :</u> - Commanded gear = 4 for a time >= TSP_F_CG[7] (0,5s.) - Throttle (pedal) >= HSPS_FTP[7] (13,8%)	1) - Fail case 1 - NSPU_FSS[5] (1200rpm) <= TCC slip <= NSPO_FSS[5] (1800rpm) for a time >= TSP_FC[5] (3s.) 2) - Fail case 2 - NSPU_FSS[7] (2000rpm) <= TCC slip <= NSPO_FSS[7] (6000rpm) for a time >= TSP_FC[7] (1,3s.) If case 1) and 2) are met, increment Fail counter. Fail counter >= 1	Safety mode	Next ignition cycle	- Range = D4 - No 705, 722, 753, 758, 1600, 1625, 1743, 1890 codes set. <u>Pass case 1</u> : - Commanded gear = 3 - Throttle >= HSPS_PTP[3] (9,8%) - NSPU_PES[3] (2016rpm) <= ES <= NSPO_PES[3] (2496rpm) - OS >= NSPS_POS[3] (1696rpm) - Torque >= MSPS_PMM[3] (50Nm) (if all conditions met, resets Fail case 1) <u>Pass case 2 :</u> - Commanded gear = 4 - Throttle >= HSPS_PTP[4] (9,8%)	1) - Pass case 1 - NSPU_PSS[3] (-32rpm) <= TCC slip <= NSPO_PSS[3] (32rpm) for a time >= TSP_PC[3] (3s.) 2) - Pass case 2 - NSPU_PSS[4] (-32rpm) <= TCC slip <= NSPO_PSS[4] (32rpm) for a time >= TSP_PC[4] (3s.) If 1) and 2) are met, code Pass.	Depend on gear shift

			- NSPU_FES[7] (3008rpm) <= ES <= NSPO_FES[7] (6016rpm) - OS >= NSPS_FOS[7] (1216rpm) - Torque >= MSPS_FMM[7] (0Nm) (if all conditions met, resets Pass case 2)				- NSPU_PES[4] (1696rpm) <= ES <= NSPO_PES[4] (3488rpm) - OS >= NSPS_POS[4] (2400rpm) - Torque >= MSPS_PMM[4] (50Nm) (if all conditions met, resets Fail case 2)		
P 0758	Shift solenoid 2-3 short to ground	**B**	- Shift solenoid 2-3 commanded off - FET driver closed	- (2-3) Feedback voltage < UCG_KM (2,45V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- (2-3) Feedback voltage >= UCG_KM (2,45V)	11+1 MLT = 180ms
P 0758	Shift solenoid 2-3 open	**B**	- Shift solenoid 2-3 commanded off - FET driver closed	- UCG_KM (2,45V) <= (2-3) Feedback voltage < UCG_UBR (3,53V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- UCG_KM (2,45V) > (2-3) Feedback voltage <= UCG_UBR (3,53V)	11+1 MLT = 180ms
P 0758	Shift solenoid 2-3 short to battery	**B**	- Shift solenoid 2-3 commanded on - FET driver closed	- (2-3) Feedback voltage > UCG_KP (4,02V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- (2-3) Feedback voltage <= UCG_KP (4,02V)	11+1 MLT = 180ms
P 1600	Power control relay watchdog failure	**B**	- Only initialization - FET driver open (all outputs OFF) - UBATT > UBAT_LIM - Watchdog not released	PCR closes although no Watchdog pulses are present	Safety mode	Next ignition cycle	Same as failure enabling conditions	PCR closes as Watchdog pulses are present	Immediate
P 1621	EEPROM defect	**B**	1 time after power on reset	no EEPROM acknowledge to the TCM at first read cycle	Safety mode	Next ignition cycle	Same as failure enabling conditions	EEPROM acknowledge at first read cycle received by theTCM)	Immediate
P 1625	Power control relay short to ground	**B**	Initialization	pin 53 high although PCR off by software and all solenoids off	Safety mode	Next ignition cycle	Same as failure enabling conditions	pin 53 low as PCR off by software and all solenoids off	Immediate
P 1625	Power control relay short to battery	**B**	Initialization	pin 53 high although Force Motor released	Safety mode	Next ignition cycle	Same as failure enabling conditions	pin 53 low as Force Motor released	Immediate
P 1740	Torque control failure recognized by ECM	**C**	none	CAN torque information bit TRQ_RED_REQ_FAIL = 1	Max. pressure Freeze adapts Inhibit torque control	Next ignition cycle	none	CAN torque information bit TRQ_RED_REQ_FAIL = 0	66+1 MLT = 1s
P 1760	Permanent supply disconnected	**D**	Power on.	Test pattern in buffered RAM has changed.	Restore values from EEPROM	Next ignition cycle	Same as failure enabling conditions	Test pattern in buffered RAM has not changed.	Immediate
P 1781	Engine torque unrel. (CAN)	**C**	none	CAN torque information VALID_IND_ETORQUE = 1 or 2 or 3	No action	If Pass	none	CAN torque information VALID_IND_ETORQUE = 0 for a time >	66+1 MLT = 1s

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								3.825 sec.	
P 1792	Engine coolant temp. (CAN)	**D**	none	CAN coolant information VALID_TCOOL = 1 or 2 or 3	No action	If pass	none	CAN coolant information VALID_TCOOL = 0	66+1 MLT = 1s
P 1800	Solenoid supply (pin 52/53) disconnected	**B**	No codes short to ground or open P0753, P0758, P1850, P0743	Multiple solenoid faults can be caused by the pin 52/53 disconnection. A test pattern is applied to solenoids to confirm Solenoid supply (pin 52/53) is disconnected.	Safety mode	Next ignition cycle	none	pin 52/53 not disconnected	7+1 MLT = 120ms
P 1835	Kickdown switch (CAN)	**D**	- no Throttle code - Throttle < KKDLTHR (89%)	CAN information KICK_DOWN = 1	Enable kickdown with throttle limit	If pass	Same as failure enabling conditions	CAN information KICK_DOWN = 0 for a time > 3.825 sec.	75*10ms = 750ms
P 1850	Band apply short to ground	**B**	- Shift solenoid band commanded off - FET driver closed	- (Band) Feedback voltage < UCG_KM (2,45V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- (Band) Feedback voltage >= UCG_KM (2,45V)	11+1 MLT = 180ms
P 1850	Band apply open	**B**	- Shift solenoid band commanded off - FET driver closed	- UCG_KM (2,45V) <= (Band) Feedback voltage < UCG_UBR (3,53V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- UCG_KM (2,45V) > (Band) Feedback voltage <= UCG_UBR (3,53V)	11+1 MLT = 180ms
P 1850	Band apply short to battery	**B**	- Shift solenoid band commanded on - FET driver closed	- (Band) Feedback voltage > UCG_KP (4,02V)	Safety mode	Next ignition cycle	Same as failure enabling conditions	- (Band) Feedback voltage <= UCG_KP (4,02V)	11+1 MLT = 180ms
P 1870	Trans. component slipping (TCC stuck off)	**B**	- position not equal to P, R, N or Z - No Safety Mode - TCC commanded on - only in main loop - static conditions - No P0730 code - enable conditions met or set for codes : P0751, Fail Case 1 & FC2 P0752, FC1 & FC2 P0757, FC1 & FC2	Absolute slippage (Engine speed - calculated turbine speed) > NDIS_WKZU (288rpm)	Safety mode	Next ignition cycle	- position not equal to P, R, N or Z - No Safety Mode - TCC commanded on - only in main loop - static conditions - ES < NMO_WKZU (3000rpm) - M (Engine Torque) > MDIS_WKZU (100Nm)	Absolute slippage (Engine speed - calculated turbine speed) < NDIS_WKZU (288rpm)	255+1 MLT = 3.825s
P 1890	Accel. pos. failure recognized by ECU (CAN)	**B**	none	CAN throttle information VALID_ACCEL_POS = 1	Safety mode	Next ignition cycle	none	CAN throttle information VALID_ACCEL_POS = 0	66+1 MLT = 1s
P 1890	Throttle angle (CAN)	**B**	none	CAN throttle information VALID_ACT_THROTTLE_ANGLE = 1	Safety mode	Next ignition cycle	none	CAN throttle information VALID_ACT_THROTT	66+1 MLT = 1s

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								LE_ANGLE = 0	
U 2100	CAN bus off	**B**	none	CAN driver signals bus off	Safety mode	Next ignition cycle	none	valid signal	66+1 MLT = 1s
U 2104	CAN bus reset counter overrun	**B**	none	NWM counter ZCN_DLL >= 40h	Safety mode	Next ignition cycle	none	NWM counter ZCN_DLL < 40h	66+1 MLT = 1s
U 2105	CAN time-out ECU	**B**	none	No CAN messages from ECU	Safety mode	Next ignition cycle	none	CAN messages from ECU	66+1 MLT = 1s
U 2105	CAN node ECU not in config list	**B**	none	No CAN messages from ECU	Safety mode	Next ignition cycle	none	CAN messages from ECU	2+1 MLT = 1s
U 2108	CAN time-out ABS	**D**	none	No CAN messages from ABS	No action	Next ignition cycle	none	CAN messages from ABS	66+1 MLT = 1s
U 2108	CAN node ABS not in config list	**D**	none	No CAN messages from ABS	No action	Next ignition cycle	none	CAN messages from ABS	2+1 MLT = 1s