Source Module & CAN-ID		RCV	Bytes from 0	Byte 0								Byte 1								Byte 2								Byte 3								Byte 4								Byte 5								Byte 6								Byte 7							
			Little Endian Hex	3F	3E	3D	3C	3B	3A	39	38	37	36	35	34	33	32	31	30	2F	2E	2D	2C	2B	2A	29	28	27	26	25	24	23	22	21	20	1F	1E	1D	1C	1B	1A	19	18	17	16	15	14	13	12	11	10	0F	0E	0D	0C	0B	0A	9	8	7	6	5	4	3	2	1	0
			Big Endian Hex	0	1	2	3	4	5	6	7	8	9	0A	0B	0C	0D	0E	0F	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F	30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F
			Big Endian Decimal	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
097 PCM (Spanish)		EngineTorqueForTCM_1		IndEngineTorqueForTCM																EngFrictionTorqueForTCM																ActualEngTorque_TCM																DriverDemandTorque_TCM															
				IndEngineTorqueForTCM Unit:Nm Offset:0;Mult:1;Div:1																EngFrictionTorqueForTCM Unit:Nm Offset:0;Mult:1;Div:1																ActualEngTorque_TCM Unit:Nm Offset:0;Mult:1;Div:1																IndEngineTorqueForTCM Unit:Nm Offset:0;Mult:1;Div:1															
0FC PCM (Spanish)		ABSConfigShtMap							TrbBrkControl 0=Disabled; 1=Enabled		EBD_PCM 0=No;1=Yes																																																																		
120 PCM (Spanish)		EngineTorqueForTCM_2		TransIpIndicatedTorq_TCM																EstEngineTorqueForTCM																																																						
				TransIpIndicatedTorq_TCM Units:Nm Offset:0;Div:1;Mult:1																EstEngineTorqueForTCM Units:Nm Offset:0;Mult:1;Div:1																																																					
12D PCM (Spanish)		EngSpeedThrottleForTCM		CAN_EngineAcceleration								ThrottlePositionForTCM								PedalPosition																EngineSpeedForTCM																																									
				Units:RPM/s Offset=-8256;Mult-1;Div=64								Units=% Offset=0;Mult=1;Div=2								Units=% Offset=0;Mult=1;Div=2								HDC_Status 0=Off;1=On				Units=RPM Offset=1;Mult=1;Div=4																				OBDII_ClrDtcTC 0=No_Request;1=Request				CruiseStatus 0=Cruise_Off;1=Cruise_On; 2=Cruise_Resume;3=Cruise_Active																													
200 PCM		TorqueDataEngineFlags		ActualEngTorque																MinAvailibleTorque																MaxAvailibleTorque																																									
				ActualEngTorque Units:Nm Offset:-512;Mult:1;Div:1																MinAvailibleTorque Units:Nm Offset:-512;Mult:1;Div:1																MaxAvailibleTorque Units:Nm Offset:-512;Mult:1;Div:1																																									
207 PCM	Cruise Warning	EngineRPM_HighRes_HS		RPM_ROC																																Vehicle Speed																																									
				RPM																RPM_RateOfChange Unit:RPM/sec Offset:0, Mult:1, Div:4																Vehicle Speed Unit = KPH Offset=0;Mult=1;Div=128																																									
230 PCM	A/C Compressor Clutch Status A/C Shed Load Speed Control Telltale Engine Coolant Temperature Engine RPM Engine Temperature Warning Engine Type / Cylinder Count Engine Torque ETC Warning Lamp Fuel Usage / Fuel Pulse Log DTC / DTC Logging Enable ODO/Odometer Count Oil Pressure Warning Smartshield Security Codes Smartshield Warning Lamp/Flash Security Warning Throttle Position Transmission Fail / Fault Transmission Gear / PRND Transmission Mode Transmission Overheat Transmission Type / Manual Transmission Vehicle Speed Diagnostics	TransGearTorqueConv_HS		TransGearPosition_HS								TransGearRatio																TorqueConvertor_X_Factor								TransLosses																																									
				0=Blank 1=Forward+Drive_1 2=Fordwar_Drive_2 3=Forward_Drive_3 4=Forward_Drive_4 5=Forward_Drive_5 6=Fprward_Drive_D 10=Reverse_Drive_R 11=reserved 16=Forward_Drive_6 17=Forward_Drive_7 18=Forward_Drive_8 19=Forward_Drive_9 F0=Park_P F1=Neutral_N FF=Inval								Unit=Ratio Offset=0;Mult=0.000061035																Unit=Unitary Offset=0;Mult=1;Div=1																																																	
427 PCM		PowertrainDriverInfo_2_HS	Theory: Are 4XX messages for Cluster?	EngineCoolantTemperature								EngineOilPressure				AC_PressureTransducer												BatteryVoltage_PCM								ODO_Count																																									
				Unit:DegC Offset:-40;Mult:1, Div:1 FF=Invalid								Unit:SED Offset:0;Mult:1, Div:1 0=Sector_D E=Sector_14 F=Invalid				Unit:KPa Offset:-100;Mult:1, Div:1 FF=Invalid												Unit:Volts Offset:0;Mult:1, Div:10 FF=Invalid								Unit:km Offset:0;Mult:0.000201167, Div:1 FF=Invalid								Oil Light on IC (if not out by 4 secs vill beep and flash) Cruise Set on IC ALT_FAILURE_STAT OilPressureWarning OilPressure EngineOverheat OnNormal;1=OverheatWarning OffLockWarning OnLockWarning IdleMode OnNo;1=Yes AC_Compressor OnNo;1=On																																																																										
44D PCM (Spanish)		EngTempBlanePlneForTCM										MIL_FailStatus 0=No_fault;1=MIL_fault																								EngCoolantTempForTCM																																									
																																				Units=DegC Offset=-40;Mult=1;Div=10 FFF=Invalid																																									
4C0 PCM (Spanish)		Odometer		OdometerReading																																																																							
				Units:KM Offset=0;Mult=1;Div=10																																																																						
623 PCM		EngineConfig		EngineDisplacement								NumberOfCylinders				NumberOfValves				AirIndType				FuelTypeAndDelivery				PeakEngineTorque								AuxVehicleID																																									
				Units:Litres Offset:0;Mult:1;Div:10								Units:Cylinders Offset:0;Mult:1;Div:1				Units:Cylinders Offset:0;Mult:1;Div:1				8=unknown 1=normal_asp 2=turbocharged 3=supercharged 4=none				2=petrol_efi 8=LPG_efi C=Petrol_lpg_dual_fuel				Units:NMTorque Offset=0;Mult=4;Div=1				Units= Offset=0;Mult=1;Div=1																		

Source Module & CAN-ID		RCV	Bytes from 0	Byte 0	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7
			Little Endian Hex	3F 3E 3D 3C 3B 3A 39 38	37 36 35 34 33 32 31 30	2F 2E 2D 2C 2B 2A 29 28	27 26 25 24 23 22 21 20	1F 1E 1D 1C 1B 1A 19 18	17 16 15 14 13 12 11 10	0F 0E 0D 0C 0B 0A 9 8	7 6 5 4 3 2 1 0
			Big Endian Hex	0 1 2 3 4 5 6 7	8 9 0A 0B 0C 0D 0E 0F	10 11 12 13 14 15 16 17	18 19 1A 1B 1C 1D 1E 1F	20 21 22 23 24 25 26 27	28 29 2A 2B 2C 2D 2E 2F	30 31 32 33 34 35 36 37	38 39 3A 3B 3C 3D 3E 3F
			Big Endian Decimal	0 1 2 3 4 5 6 7	8 9 10 11 12 13 14 15	16 17 18 19 20 21 22 23	24 25 26 27 28 29 30 31	32 33 34 35 36 37 38 39	40 41 42 43 44 45 46 47	48 49 50 51 52 53 54 55	56 57 58 59 60 61 62 63
640 PCM		PowertrainConfigFor/TCI/TransConfig_HS		FrontWheelDrive 0=No,1=Yes RearWheelDrive 0=No,1=Yes 4WDrive 0=No,1=Yes AWWheelDrive 0=No,1=Yes ManualTrans_HS 0=No,1=Yes AutoTransPCM_Control 0=No,1=Yes AutoTransTCM_Control 0=No,1=Yes	Units=Ratio Offset=0;Mult=0.00012207;Div=1		Units=Ratio Offset=0;Mult=0.00012207;Div=1		Units=Ratio Offset=0;Mult=0.0078125;Div=1	TransConfiguration 0=Bars_o305;1=Copperhead	Units=Gears Offset=0;Mult=1;Div=1
650 PCM (Spanish)		PowertrainConfigFor/TCM		Header_ID 16	NumberOfCylinders Units:Cylinders Offset:0;Mult:1;Div:1 NumberOfValves Units:Cylinders Offset:0;Mult:1;Div:	AirIndType 0=unknown 1=normal_asp 2=turbocharged 3=supercharged 4=none TCM_CalLevel Units:Numeric Offset:0;Mult:1;Div:1					
650 PCM (Spanish)		PowertrainConfigFor/TCM		Header_ID 17	ManualTrans_HS 0=No,1=Yes AutoTransTCM_Control 0=No,1=Yes AutoTransPCM_Control 0=No,1=Yes SelectShiftManual 0=No,1=Yes Drive4Wheel 0=No,1=Yes RearWheelDrive 0=No,1=Yes FrontWheelDrive 0=No,1=Yes						
6F6 PCM		PCM_immob_HS		ImmobTransfer_PCM_1	ImmobTransfer_PCM_2	ImmobTransfer_PCM_3	ImmobTransfer_PCM_4	ImmobTransfer_PCM_5	ImmobTransfer_PCM_6	ImmobTransfer_PCM_7	ImmobTransfer_PCM_8
0C9 TCM (ZF)		TorqueReductionRequest		TorqueReductionRequest Units:Nm Offset=-511;Mult=1;Div=1		TransmissionTorqueLimit Units=Nm Offset=1;Mult=4;Div=1 FF=Invalid	TorqueConvertorSlip	TransmissionInputSpeed Units=n/a Offset=0;Mult=1;Div=1 7F=Invalid		TransmissionOutputSpeed Units=RPM Offset=0;Mult=1;Div=1 0xFFFF = Invalid	
3E9 TCM (ZF)	Transmission Fault Transmission Gear - Selected Tranmissions Gear - Actual Transmission Mode Transmission Temperature	TransGearTempOTC_Status		GearPositionSelected 0=Park 1=Reverse 2=Neutral 3=Drive 4=Fourth 5=Third 6=Second 7=Fifth F=Intermediate GearPositionActual 0=Neutral 1=First 2=Second 3=Third 4=Fourth 5=Fifth 6=Sixth C=Reverse F=Gear_shift_in_progress	TransShiftMap 0=Normal_mode 1=Sports_mode 2=Not_used 3=Hot_mode 4=Gradient_mode 5=Traction_map 6=Manual_mode 7=Cruisemap	TransOilTemperature Unit=DegC Offset=-40;Mult=1;Div=1 FF=Invalid	IdleGearboxLosses OBDII_TCM_ClearAck 0=No,1=Clear codes_cleared TCM_DTC_Status 0=No_fault_codes;1=fault_codes PerModeIndication 0=Off;1=On Reserved 0=Not_in_control 0=Mul_in_progress;1=in_progress GearSelectionFault 0=Normal;1=Fault TorqueConvertorStatus 0=Locked_or_constant_slip TCM_ConfigFlag 0=Required;1=NotRequired TransMalfunction 0=Ok;1=Fault Units=Nm Offset=0;Mult=1;Div=1 FF=Invalid		GearPositionTarget 0(GateSelectionFault 0=NoFault;1=Fault 0=Neutral 1=First 2=Second 3=Third 4=Fourth 5=Fifth 6=Sixth C=Reverse F=Invalid	TorqueConvMult Units=Ratio Offset=0;Mult=1;Div=100
403 BEM	**Ignition Switch Position** **Cabin Temp Sensor** **Sunload Sensor** **Immobilization Codes** **Front Right Door** **Front Left Door** **Rear Right Door** **Rear Left Door** **Boot Lid Door** **Rear Demist** **Low Wash Warning** **Headlamp Fail** **Hazard Request** **Security Warning On**	BEM_Status_HS	Theory: Are 4XX messages for Cluster?	RFD_Ajar_HS 0=No,1=Yes LFD_Ajar_HS 0=No,1=Yes RRD_Ajar_HS 0=No,1=Yes LRD_Ajar_HS 0=No,1=Yes Rear Door or Glass Rear Demist AccessoryIndSwitch_HS 0=Off,1=On IgnitionSwitch_HS 0=Off,1=Acc,2=Run,3=Start NoIdConnected 1=Connected	Lights On Warning Priority_key_Z_HS 0=No,1=Yes Priority_key_1_HS 0=No,1=Yes	CabinTemperature_HS Units:DegC Offset:-40;Mult:1;Div:2 FF=Invalid	SunLoadDriver Units:A/D Reading Offset:0;Mult:1;Div:1	SunLoadPass Units:A/D Reading Offset:0;Mult:1;Div:1			
6F8 BEM		BEM_immob_HS		ImmobTransfer_BEM_1	ImmobTransfer_BEM_2	ImmobTransfer_BEM_3	ImmobTransfer_BEM_4	ImmobTransfer_BEM_5	ImmobTransfer_BEM_6	ImmobTransfer_BEM_7	ImmobTransfer_BEM_8
307 ICC	**Blow/Temp Knob Positions** **Climate Control Push Buttons** **ICC Module Type** **(Call CDU in IC section of Doco)** **Overspeed Active** **Overspeed Mode Switch** **Overspeed Up Switch** **Overspeed Down Switch** **Reset Average Speed** **Reset Average Economy** **Reset Trip Time** **External LCD Illumination On**	ScreensAndSwitches_HS		MCC HVAC Buttons AC_switch_HS 0=Off,1=On RecircSwitch_HS 0=Off,1=On Face_switch_HS 0=Off,1=On Floor_switch_HS 0=Off,1=On Face_Floor_switch_HS 0=Off,1=On Screen_switch_HS 0=Off,1=On Screen_floor_switch_HS 0=Off,1=On	ACC HVAC buttons Air_dist_up_switch_HS 0=Off,1=On Air_dist_down_switch_HS 0=Off,1=On Auto_aac_on_switch_HS 0=Off,1=On ClimateControl_switch_HS 0=Off,1=On FanSpeedUpSwitch_HS 0=Off,1=On FanSpeedDownSwitch_HS 0=Off,1=On Pass TempUpSwitch_HS 0=Off,1=On Pass TempDownSwitch_HS 0=Off,1=On	Driver TempUpSwitch_HS 0=Off,1=On DriverTempDownSwitch_HS 0=Off,1=On	TractionKOC_Switch_HS 0=Off,1=On DiffLockSwitch_HS 0=Off,1=On	ICC Buttons (other) Overspeed Active - Adjust Timer Movespeed Mode - Pulse (On/Off) Overspeed Up Overspeed Down Reset Avg Speed - ACC Reset Average Fuel Reset Trip Timer	TemperaturePosn_HS 00 = Max Cold 01 = Cold 0E = Hot EF=Invalid FF = ACC	blower_pos_HS 00 = Stop 01 = Slow 0E = Fast EF=Invalid FF = ACC	
437 IC (Bench)	*Damped Fuel Level* *Instantaneous Fuel Input* *Fuel Empty* *Fuel Sender Fail* *Park Lamps On* *Park Brake On* *AutoHeadlamps Input* *Battery Voltage level* *Switches/LCD Illumination Level* *Average Speed* *Average Economy Mode* *Average Economy* *Travel Time* *Range / Display DTE* *Instantaneous Economy Mode* *Instananeous Economy* *Odometer* *Odometer Overflow*	FuelAndWarnings_HS	Theory: Are 4XX messages for Cluster?	DampedFuelLevel Units:Litres Offset:;Mult:0.51;Div:1	InstFuelValue Units:Litres Offset:;Mult:0.51;Div:1	Low Fuel = 1 FuelSenderFail 0=OK;1=Fail Park Lights On = 1 ParkBrakeOn_HS 0=Off,1=On MIL_StrategyON 0=Off,1=On	Battery Voltage. 78 = Off (12V) 84 = Running (13.2V)	Illumination Level (Low) Switches Illumination Level 80 Low, B3 Lower Mid, D9 Upper Mid FF Full	Illumination Level (High) ACC Illumination Light Level set gradually from 8000 to FFFF (Bytes fro MCC - set to 00	0 0	MaxLitres Units:Litres Offset:;Mult:0.51;Div:1
500 IC				AVG Speed? Convert to Dec = KM/H	Avg Econ Mode 100=0	Avg Economy L/100km = Convert to Dec / 10	0 0	0 0	0 0	Travel Time Runtime 22.31hr = 0549 Runtime 22.48hr = 0556 Run Time = Minutes in Hex Display = HR:Minutes	
553 IC				RANGE In KM	Inst Econ Mode Litre = 1 L/1000km = 0		Instant Economy L/100km = Convert to Dec / 10	ODOMETER			0 0
353 HIM (bench)	A/C Display Icon A/C max Display icon A/C off Display icon Blower Fan on Manual Drivers Temperature Select Passenger Temperature Select Ambient Temperature Climate Control mode (Auto/Semi/Off) Evaporator Temperature Blower Voltage A/C Clutch Request	HVAC_ClimateStatus_HS		?? AC_Seq_HS 0=Off,1=On Recirc_Seq_HS 0=Off,1=On Fresh_Seq_HS 0=Off,1=On Face_Seq_HS 0=Off,1=On Floor_Seq_HS 0=Off,1=On Screen_Seq_HS 0=Off,1=On Floor_Screen_Seq_HS 0=Off,1=On FanBlade_Seq_HS 0=Off,1=On	Outside Temperature_Seq_HS 0=Off,1=On PassDegC_Seq_HS 0=Off,1=On DriverDegC_Seq_HS 0=Off,1=On Fan_Seq_HS 0=Off,1=On Pass_Seq_HS 0=Off,1=On Driver_Seq_HS 0=Off,1=On Auto_Seq_HS 0=Off,1=On Sent_Seq_HS 0=Off,1=On Off_Seq_HS 0=Off,1=On	PassTemperatureSetting_HS Units=DegC 00=Blank 01=C 02=reading FE=H FF=Blank	DriverTemperatureSetting_HS Units=DegC 00=Blank 01=C 02=reading FE=H FF=Blank	AmbientTemp_HS Units=C Blank=7F	EvapTemperature_HS Units=DegC Offset=-30;Mult=1;Div=3	BlowerVolts_HS Units=Volts Offset=0;Mult=1;Div=10 0=Fault Condition (or blower off)	AC_ClutchRequest_HS 0=Off,1=On AC_MaxRequest_HS 0=Off,1=On BlowerSpeed_HS Units=Segments 1 to 10

Source Module & CAN-ID		RCV	Bytes from 0	Byte 0							Byte 1							Byte 2							Byte 3							Byte 4							Byte 5							Byte 6							Byte 7						
			Little Endian Hex	3F	3E	3D	3C	3B	3A	39	38	37	36	35	34	33	32	31	30	2F	2E	2D	2C	2B	2A	29	28	27	26	25	24	23	22	21	20	1F	1E	1D	1C	1B	1A	19	18	17	16	15	14	13	12	11	10	0F	0E	0D	0C	0B	0A	9	8	7	6	5	4	3	2	1	0
			Big Endian Hex	0	1	2	3	4	5	6	7	8	9	0A	0B	0C	0D	0E	0F	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F	30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F
			Big Endian Decimal	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
210 ABS	ABS Warn (Hardwired on 5.3, CAN on 8.0) EBD Warn (Hardware 5.3, CAN 8.0) DSC Warn HDC Warn	DesiredTorqueBrakeConfig		DesiredTorqueCommand Units:Nm Offset:-512;Mult:1;Div:1																TorqueType 0=Axle;1=Engine	EBD 0=No;1=Yes	ABS 0=No;1=Yes	TCS 0=No;1=Yes	VDC 0=No;1=Yes	ABD 0=No;1=Yes	SpdEBSOvrFastTorqueReq 0=No;1=Yes	ABS_EventInProgress 0=No;1=Yes	EBD_Failed 0=No;1=Yes	ABS_Failed 0=No;1=Yes	TCS_DisabledByUser 0=No;1=Yes	TCS_Event 0=No;1=Yes	TCS_Failed 0=No;1=Yes	VDC_DisabledByUser 0=No;1=Yes	VDC_Event 0=No;1=Yes	VDC_Failed 0=No;1=Yes	HDC_Enabled 0=No;1=Yes	HDC_Active 0=No;1=Yes	HDC_Event 0=No;1=Yes	BTM_ClearEngineOffTimer 0=No;1=Yes	GearShiftInHold 0=No;1=Yes	DesiredTorqueCommandSlow Units:Nm Offset:-512;Mult:1;Div:1																																									
4B0 TCS	Desired Torque Command Wheel Speed TCS Warning	WheelSpeeds	Theory: Are 4XX messages for Cluster?	WheelSpeedFrontLeft Units:km/h Offset:0;Mult:1;Div:100 0xFFFE=Initialization in progress 0xFFFF=Wheel Speed Faulted																WheelSpeedFrontRight Units:km/h Offset:0;Mult:1;Div:100 0xFFFE=Initialization in progress 0xFFFF=Wheel Speed Faulted																WheelSpeedRearLeft Units:km/h Offset:0;Mult:1;Div:100 0xFFFE=Initialization in progress 0xFFFF=Wheel Speed Faulted																WheelSpeedRearRight Units:km/h Offset:0;Mult:1;Div:100 0xFFFE=Initialization in progress 0xFFFF=Wheel Speed Faulted																							
The following are likely to be sensors for ABS/TCM, such as steering sensor, yaw rate sensor																																																																				
070 YAW?	From YAW			00 01 03								Counter (Up)								FD-FF 7E-80 7C-7F								FF FF 00														01 to 04																													0
075 YAW?				00 01								Counter (Up)																																																								
080 SAS				Fine Steering Angle 00-FF through range								Large Steering Angle FF -> EC = Right (EC=Max) 00 = Centre 01 -> 13 = left (13 = max)								Rate of Change																				Counter/CRC																																			