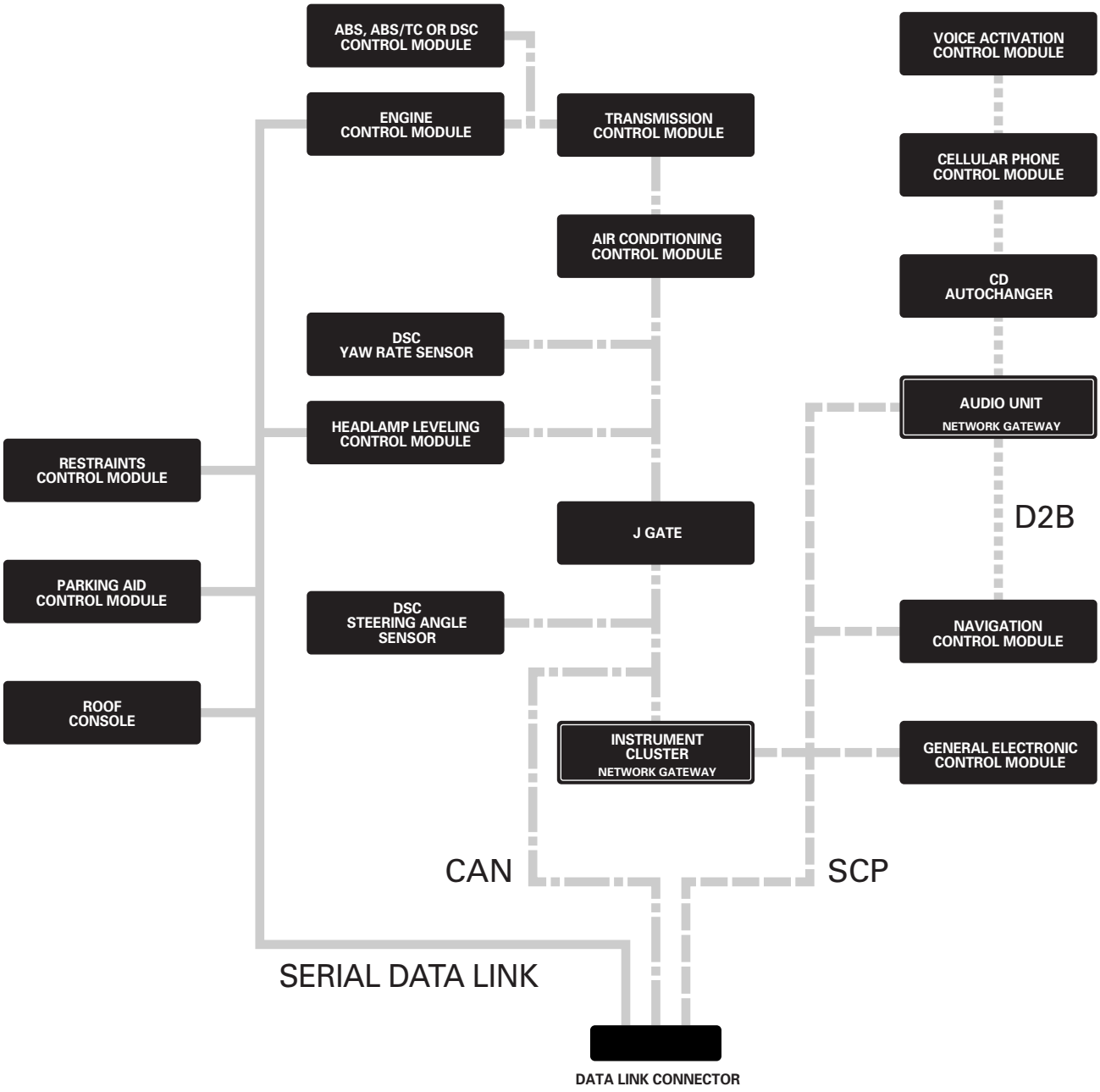
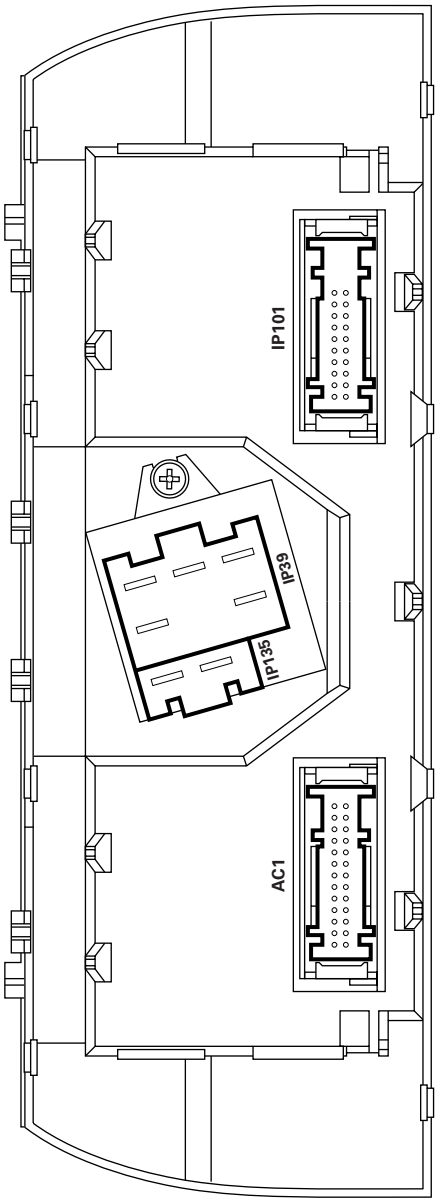


NOTE: TYPICAL NETWORK CONFIGURATION.
REFER TO FIGURES 20.1, 20.2, 20.3 AND 20.4 FOR CIRCUIT DETAILS.

AIR CONDITIONING CONTROL MODULE (MANUAL, PANEL)



IP101 / 26-WAY / YELLOW

14	1	2	3	4	5	6	7	8	9	10
U	OY	WR	B	B	—	—	BW	—	Y	G

15	16	17	18	19	20	21	22	23
B	—	—	—	—	O	—	Y	G

IP39 / 6-WAY / GREY

1	2	3	4	6
GB	BO	BR	BK	BG

IP135 / 2-WAY / GREEN

1	2
BW	B

AC1 / 26-WAY / YELLOW

1	2	3	4	5	6	7	8	9	10	11	12	13
—	—	—	GW	U	GR	GO	RU	R	WB	W	Y	R

14	15	16	17	18	19	20	21	22	23	24	25	26
G	UY	B	—	—	—	GU	GB	OG	O	RW	RG	OY

CONTROL MODULE PIN-OUT INFORMATION

Air Conditioning Control Module: Manual

▽	Pin	Description and Characteristic
O	AC1-04	FRESH / RECIRCULATION FLAP ACTUATOR DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO B+ OR TO GROUND
O	AC1-05	FRESH / RECIRCULATION FLAP ACTUATOR DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO B+ OR TO GROUND
O	AC1-06	DEFROST DOOR ACTUATOR STEPPER COIL 1 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-07	DEFROST DOOR ACTUATOR STEPPER COIL 2 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-08	PANEL / FLOOR ACTUATOR STEPPER COIL 1 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-09	PANEL / FLOOR ACTUATOR STEPPER COIL 2 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-10	AIR TEMPERATURE BLEND ACTUATOR STEPPER COIL 1 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-11	AIR TEMPERATURE BLEND ACTUATOR STEPPER COIL 2 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-12	AIR TEMPERATURE BLEND ACTUATOR POWER SUPPLY: B+
O	AC1-13	DEFROST DOOR ACTUATOR POWER SUPPLY: B+
I	AC1-14	EVAPORATOR TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	AC1-15	DISCHARGE TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
SG	AC1-16	SENSOR GROUND: GROUND
O	AC1-20	DEFROST DOOR ACTUATOR STEPPER COIL 3 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-21	DEFROST DOOR ACTUATOR STEPPER COIL 4 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-22	PANEL / FLOOR ACTUATOR STEPPER COIL 3 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-23	PANEL / FLOOR ACTUATOR STEPPER COIL 4 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-24	AIR TEMPERATURE BLEND ACTUATOR STEPPER COIL 3 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-25	AIR TEMPERATURE BLEND ACTUATOR STEPPER COIL 4 DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	AC1-26	PANEL / FLOOR ACTUATOR POWER SUPPLY: B+
B+	IP101-01	BATTERY SAVER POWER SUPPLY: B+
B+	IP101-02	IGNITION SWITCHED POWER SUPPLY: B+
O	IP101-03	WINDSHIELD HEATER RELAY DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	IP101-04	HEATED REAR WINDOW RELAY DRIVE: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
I	IP101-07	BLOWER SPEED SENSE: B+ WHEN BLOWER OFF, 0 V WHEN BLOWER RUNNING
C	IP101-09	CAN +
C	IP101-10	CAN –
B+	IP101-14	BATTERY POWER SUPPLY: B+
PG	IP101-15	POWER GROUND: GROUND
I	IP101-20	DIMMER CONTROLLED ILLUMINATION: PWM, 80Hz, GROUND = 0% DUTY CYCLE, B+ = 100% DUTY CYCLE
C	IP101-22	CAN +
C	IP101-23	CAN –
O	IP135-1	BLOWER SPEED CONTROL 1: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
PG	IP135-2	BLOWER GROUND: GROUND
O	IP39-1	BLOWER SPEED CONTROL 6: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	IP39-2	BLOWER SPEED CONTROL 4: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	IP39-3	BLOWER SPEED CONTROL 2: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	IP39-4	BLOWER SPEED CONTROL 3: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND
O	IP39-6	BLOWER SPEED CONTROL 5: TO ACTIVATE, A/CCM SWITCHES CIRCUIT TO GROUND

NOTE: Refer to the Appendix at the rear of this book for Network Messages.

The following abbreviations are used to represent values for Control Module Pin-Out data

I	**Input**	**PG**	**Power Ground**	**CAN**	**CAN Network**	**D**	**Serial and Encoded Data**
O	**Output**	**SS**	**Sensor / Signal Supply V**	**SCP**	**SCP Network**	**V**	**Voltage (DC)**
B+	**Battery Voltage**	**SG**	**Sensor / Signal Ground**	**D2**	**D2B Network**	**PWM**	**Pulse Width Modulated**

CAUTION: The information on this data page is furnished to aid the user in understanding circuit operation. THIS INFORMATION SHOULD BE USED FOR REFERENCE ONLY.

NOTE: The characteristics listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted.

Fig. 06.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
AIR CONDITIONING BLOWER RELAY	—	—	CENTRAL JUNCTION FUSE BOX R20
AIR CONDITIONING CONTROL MODULE (MANUAL, PANEL)	AC1	26-WAY / YELLOW	BEHIND CLIMATE CONTROL PANEL
	IP39	6-WAY / GREY	
	IP101	26-WAY / YELLOW	
	IP135	2-WAY / GREY	
AIR TEMPERATURE BLEND ACTUATOR	AC2	6-WAY / BLACK	RH SIDE OF AIR DISTRIBUTION UNIT
BLOWER (MANUAL)	IP58	2-WAY / GREY	BEHIND INSTRUMENT PANEL, RH SIDE / LHD, LH SIDE / RHD
BLOWER SERIES RESISTOR	IP121	6-WAY / GREY	ADJACENT TO BLOWER MOTOR
CENTRAL JUNCTION FUSE BOX	CA75	8-WAY / GREY	PASSENGER COMPARTMENT, FRONT BULKHEAD LH SIDE
	CA76	16-WAY / GREEN	
	CA77	2-WAY / GREY	
	CA78	16-WAY / GREY	
	IP1	14-WAY / GREEN	
	IP2	16-WAY / GREY	
	IP3	2-WAY / GREY	
	IP4	14-WAY / GREY	
	JB50	4-WAY / GREY	
	JB51	16-WAY / BLUE	
	JB52	2-WAY / BLACK	
DEFROST DOOR ACTUATOR	AC4	6-WAY / BLACK	RH SIDE OF AIR DISTRIBUTION UNIT
DISCHARGE TEMPERATURE SENSOR	AC6	2-WAY / BLACK	RH SIDE OF AIR DISTRIBUTION UNIT
DOOR MIRROR – LH	FL5	22-WAY / BLACK	LH FRONT DOOR
DOOR MIRROR – RH	FR4	22-WAY / BLACK	RH FRONT DOOR
EVAPORATOR TEMPERATURE SENSOR	AC5	2-WAY / BLACK	RH SIDE OF AIR DISTRIBUTION UNIT
FRESH / RECIRCULATION FLAP ACTUATOR	AC7	4-WAY / BLACK	LH SIDE OF AIR DISTRIBUTION UNIT (LHD) RH SIDE OF AIR DISTRIBUTION UNIT (RHD)
HEATED REAR WINDOW	ZA1	—	REAR WINDOW
	ZA10	—	
HEATED REAR WINDOW RELAY	—	—	CENTRAL JUNCTION FUSE BOX R19
PANEL / FLOOR ACTUATOR	AC3	6-WAY / BLACK	RH SIDE OF AIR DISTRIBUTION UNIT
POWER DISTRIBUTION FUSE BOX	—	—	ENGINE COMPARTMENT LH SIDE
WINDSHIELD HEATER – LH	JB95	2-WAY / BLACK	WINDSHIELD
WINDSHIELD HEATER – RH	JB96	2-WAY / BLACK	WINDSHIELD
WINDSHIELD HEATER RELAY	—	—	POWER DISTRIBUTION FUSE BOX R2

HARNESS IN-LINE CONNECTORS

Connector	Connector Description	Location
CA15	20-WAY / BLACK / DOOR HARNESS TO CABIN HARNESS	DRIVER SIDE A POST
CA20	20-WAY / BLACK / DOOR HARNESS TO CABIN HARNESS	DRIVER SIDE A POST
CA127	2-WAY / GREY / CABIN HARNESS TO HEATED REAR WINDOW	BEHIND LH E POST TRIM

GROUNDS

Ground	Location
G3	PASSENGER COMPARTMENT / LH E POST
G4	PASSENGER COMPARTMENT / RH LOWER A POST
G14	ENGINE COMPARTMENT / REARWARD OF POWER DISTRIBUTION FUSE BOX
G15	PASSENGER COMPARTMENT / LH LOWER A POST
G36	PASSENGER COMPARTMENT / RH CROSS CAR BEAM
G37	PASSENGER COMPARTMENT / LH CROSS CAR BEAM

FOR CONTROL MODULE PIN-OUT INFORMATION, UNFOLD PAGE TO LEFT.

Refer to the front of this book for detailed information and illustrations regarding the location and identification of harnesses, relays, fuses, grounds, control modules and control module pins.

DATE OF ISSUE: December 2001

CAN Message Matrix

No.	Message Name	Usage	Source	Receivers											
				ABSCM	ABS/TCCM	DSCCM	ECM	TCM	IC	A/CCM	HLCM	JGM	SWS	YRS	DIAG
020h	CAN REFLASH WDS ECM	Flash reprogramming command	DIAG				X								
030h	CAN REFLASH ECM WDS	Confirms flash reprogramming	ECM												X
040h	CAN PATS SEQUENCE IC	Defines security clearance stage	IC				X								
040h	CAN IGNITION OFF TIMER	Rolling time ignition has been in position I or 0	IC				X								
040h	CAN PATS DATA IC	Security system IC data	IC				X								
046h	CAN PATS SEQUENCE ECM	Defines security clearance stage	ECM						X						
046h	CAN PATS DATA ECM	Security system ECM data	ECM						X						
065h	CAN ENGINE TORQUE REQUEST	Torque reduction request: throttle control	ABSCM				X								
065h	CAN ENGINE TORQUE REQUEST	Torque reduction request: throttle control	ABS/TCCM				X								
065h	CAN ENGINE TORQUE REQUEST	Torque reduction request: throttle control	DSCCM				X								
065h	CAN TEMPORARY TORQUE REQUEST	Torque reduction request: ignition timing, fuel cutoff	ABSCM				X								
065h	CAN TEMPORARY TORQUE REQUEST	Torque reduction request: ignition timing, fuel cutoff	ABS/TCCM				X								
065h	CAN TEMPORARY TORQUE REQUEST	Torque reduction request: ignition timing, fuel cutoff	DSCCM				X								
070h	CAN YRS TEST MODE	YRS test data	YRS			X									
070h	CAN YRS POS TM BIT	YRS test data	YRS			X									
070h	CAN YRS ERROR BIT	YRS test data	YRS			X									
070h	CAN YRS TEMP ERROR BIT	YRS test data	YRS			X									
070h	CAN YRS CAL RESPONSE	YRS response to CAN YRS CAL message	YRS			X									
070h	CAN YRS IDB RESPONSE	YRS response to CAN YRS IDB message	YRS			X									
070h	CAN YAW RATE SIGNAL	Yaw rate value	YRS			X									
070h	CAN LATERAL ACCEL SIGNAL	Lateral acceleration value	YRS			X									
075h	CAN YRS STM	YRS, switch to test mode command	DSCCM											X	
075h	CAN YRS CAL	Calibration information	DSCCM											X	
075h	CAN YRS IDB	YRS identification byte	DSCCM											X	
080h	CAN STEERING WHEEL ANGLE	Steering wheel angle value	SWS			X									
080h	CAN STEERING WHEEL SPEED	Steering wheel rotation speed	SWS			X									
080h	CAN STEERING WHEEL STATUS	Validates SWS	SWS			X									
080h	CAN SWS MSG COUNT	Confirms SWS messages received	SWS			X									
080h	CAN SWS CHECKSUM	Validates SWS messages	SWS			X									

CAN Message Matrix

No.	Message Name	Usage	Source	Receivers											
				ABSCM	ABS/TCCM	DSCCM	ECM	TCM	IC	A/CCM	HLCM	JGM	SWS	YRS	DIAG
097h	CAN INDICATED ENGINE TORQUE	Estimated available torque: current engine speed, load, ignition timing and fuelling intervention not included	ECM	X	X	X		X							
097h	CAN ENGINE FRICTION TORQUE	Estimated torque loss caused by: engine friction, engine driven accessories	ECM	X	X	X		X							
097h	CAN ACTUAL ENGINE TORQUE	Estimated available torque: current engine speed, load ignition timing and fuelling	ECM	X	X	X		X							
097h	CAN DRIVER DEMAND TORQUE	Estimated available torque: current throttle pedal position, no intervention included	ECM	X	X	X		X							
0C9h	CAN TORQUE REDUCTION REQUEST	Torque reduction requested for shift energy management (uses ignition intervention only)	TCM				X								
0C9h	CAN TRANSMISSION TORQUE LIMIT	Engine torque limit with current transmission fault	TCM				X								
0C9h	CAN TORQUE CONVERTER SLIP	Percentage of torque converter slip	TCM	X	X	X	X								
0C9h	CAN TRANSMISSION INPUT SPEED	Transmission input shaft RPM	TCM				X								
0C9h	CAN TRANSMISSION OUTPUT SPEED	Transmission output shaft RPM	TCM				X								
0FBh	CAN TRACTION SHIFT MAP	Use Traction Shift Map	ABSCM					X							
0FBh	CAN TRACTION SHIFT MAP	Use Traction Shift Map	ABS/TCCM					X							
0FBh	CAN TRACTION SHIFT MAP	Use Traction Shift Map	DSCCM					X							
0FBh	CAN OBD II ABS CLEAR ACK	Confirms ABS OBD II DTCs cleared	ABSCM				X								
0FBh	CAN OBD II ABS CLEAR ACK	Confirms ABS OBD II DTCs cleared	ABS/TCCM				X								
0FBh	CAN OBD II ABS CLEAR ACK	Confirms DSC OBD II DTCs cleared	DSCCM				X								
0FBh	CAN ABS FAULT CODE MIL STATUS	Indicates flagged DTC requires MIL illumination	ABSCM				X								
0FBh	CAN ABS FAULT CODE MIL STATUS	Indicates flagged DTC requires MIL illumination	ABS/TCCM				X								
0FBh	CAN ABS FAULT CODE MIL STATUS	Indicates flagged DTC requires MIL illumination	DSCCM				X								
0FBh	CAN ABS STATUS	Indicates when ABS system is functioning	ABSCM												
0FBh	CAN ABS STATUS	Indicates when ABS system is functioning	ABS/TCCM												
0FBh	CAN ABS STATUS	Indicates when ABS system is functioning	DSCCM												
0FBh	CAN VEHICLE REFERENCE SPEED	Vehicle speed (reference wheel circumference X wheel rotation speed)	ABSCM				X	X	X	X					
0FBh	CAN VEHICLE REFERENCE SPEED	Vehicle speed (reference wheel circumference X wheel rotation speed)	ABS/TCCM				X	X	X	X					
0FBh	CAN VEHICLE REFERENCE SPEED	Vehicle speed (reference wheel circumference X wheel rotation speed)	DSCCM				X	X	X	X					
0FBh	CAN ABS FAULT CODES	Indicates ABS DTCs to store in the ECM	ABSCM				X								
0FBh	CAN ABS FAULT CODES	Indicates ABS DTCs to store in the ECM	ABS/TCCM				X								
0FBh	CAN ABS FAULT CODES	Indicates ABS DTCs to store in the ECM	DSCCM				X								

CAN Message Matrix

No.	Message Name	Usage	Source	Receivers											
				ABSCM	ABS/TCCM	DSCCM	ECM	TCM	IC	A/CCM	HLCM	JGM	SWS	YRS	DIAG
0FBh	CAN ODO ROLLING COUNT	Rolling count of distance vehicle has travelled	ABSCM						X						
0FBh	CAN ODO ROLLING COUNT	Rolling count of distance vehicle has travelled	ABS/TCCM						X						
0FBh	CAN ODO ROLLING COUNT	Rolling count of distance vehicle has travelled	DSCCM						X						
0FBh	CAN ABS MALFUNCTION	ABS and brakes malfunction data, also activates IC warnings	ABSCM				X		X						
0FBh	CAN ABS MALFUNCTION	ABS/TC and brakes malfunction data, also activates IC warnings	ABS/TCCM				X		X						
0FBh	CAN ABS MALFUNCTION	ABS, DSC and brakes malfunction data, also activates IC warnings	DSCCM				X		X						
0FBh	CAN ABS FLAGS	ABS and brake systems status and flag information	ABSCM				X	X	X						
0FBh	CAN ABS FLAGS	ABS/TC and brake systems status and flag information	ABS/TCCM				X	X	X						
0FBh	CAN ABS FLAGS	ABS, DSC and brake systems status and flag information	DSCCM				X	X	X						
120h	CAN TRANS INPUT INDICATED TORQUE	Engine torque input to transmission, includes interventions	ECM	X	X	X		X							
12Dh	CAN ENGINE ACCELERATION	Rate of engine speed increase	ECM	X	X	X									
12Dh	CAN THROTTLE POSITION	Target throttle valve position	ECM	X	X	X		X							
12Dh	CAN PEDAL POSITION	Accelerator pedal position, driver throttle demand	ECM	X	X	X		X							
12Dh	CAN ENGINE SPEED	Engine speed in RPM	ECM	X	X	X		X	X	X					
12Dh	CAN ALTERNATOR STATUS	Alternator status: fault or OK	ECM						X						
12Dh	CAN CRUISE STATUS	Cruise control status: Override switch active, Cruise ON, enabled, resuming	ECM					X	X						
12Dh	CAN OBD II CLEAR FAULT CODES	Request ABS and TCM to clear OBD DTCs	ECM	X	X	X		X							
12Dh	CAN BRAKE PEDAL PRESSED	Brake switch status	ECM				X	X			X				
12Dh	CAN CRANK IN PROGRESS	Engine cranking in progress	ECM	X	X	X		X	X	X					
12Dh	CAN TRACTION ACKNOWLEDGE	Confirms torque reduction in progress, can / cannot achieve, unable to respond	ECM	X	X	X									
12Dh	CAN FUEL CAP WARNING	Display Check Fuel Cap warning	ECM						X						
1F5h	CAN BRAKE FLUID LOW	Display Brake Fluid Level Low	IC	X	X	X									
1F5h	CAN PARK BRAKE STATUS	Parking brake: OFF / ON	IC	X	X	X	X								
1F5h	CAN DIPPED BEAM STATUS	Headlight dipped beam: OFF / ON	IC				X			X	X				
1F5h	CAN REV GEAR MAN SELECTED	Manual transmission only, reverse gear selected	IC				X								
1F5h	CAN OIL PRESSURE LOW	Engine oil pressure below specification	IC				X								
1F5h	CAN RESTRICT RCC BLOWERS	Restrict climate control blower speed	IC							X					
1F5h	CAN FUEL LEVEL DAMPED	Damped fuel level (fuel gauge signal)	IC				X								

No.	Message Name	Usage	Source	Receivers												
				ABSCM	ABS/TCCM	DSCCM	ECM	TCM	IC	A/CCM	HLCM	JGM	SWS	YRS	DIAG	
1F5h	CAN FUEL LEVEL RAW 1	Fuel level sender 1 signal (before signal conditioning)	IC				X									
1F5h	CAN FUEL LEVEL RAW 2	Fuel level sender 2 signal (before signal conditioning)	IC				X									
3E9h	CAN GEAR POSITION ACTUAL	Transmission gear positions: N, 1, 2, 3, 4, 5, R, or shift in progress	TCM	X	X	X	X		X							
3E9h	CAN GEAR POSITION SELECTED	Transmission rotary switch positions: P, R N, D, 4, 3, 2, or selector between positions signals	TCM				X		X			X				
3E9h	CAN TRANSMISSION SHIFT MAP	TCM shift map in use signal: Normal, Sport, Hot, Gradient, Traction, Manual, or Cruise	TCM	X	X	X	X									
3E9h	CAN TRANSMISSION OIL TEMPERATURE	Transmission fluid temperature –40 °C to 214 °C. Note: will not exceed 150 °C	TCM				X		X							
3E9h	CAN TRANSMISSION MALFUNCTION	Transmission malfunction data, also activate transmission warning signals	TCM	X	X	X	X		X							
3E9h	CAN TCM CONFIG FLAG	TCM PECUS programmed YES / NO	TCM						X							
3E9h	CAN TORQUE CONVERTER STATUS	Torque converter clutch disengaged, engaged or constant slip	TCM	X	X	X	X									
3E9h	CAN GEAR SELECTION FAULT	CAN GEAR POSITION SELECTED signal validity	TCM				X		X			X				
3E9h	CAN IDLE NEUTRAL CONTROL	Idle neutral control in / not in progress	TCM				X									
3E9h	CAN PERFORMANCE MODE INDICATION	Switch Performance Mode LED ON / OFF	TCM									X				
3E9h	CAN TCM FAULT CODE MIL STATUS	Indicates flagged DTC requires MIL illumination	TCM				X									
3E9h	CAN OBD II TCM CLEAR ACK	Confirms transmission OBD DTCs cleared	TCM				X									
3E9h	CAN TRANSMISSION FAULT CODES	Indicates transmission fault codes to store ECM	TCM	X	X	X	X									
3E9h	CAN GEAR POSITION TARGET	Next actual transmission gear position (for traction control)	TCM	X	X	X	X									
41Ah	CAN PRESSURE TRANSDUCER	A/C refrigerant pressure, for fan control and diagnostics	TCM							X						
41Ah	CAN ENGINE INTAKE TEMPERATURE	Engine intake air temperature: 40 °C to 80 °C (40 °F to 176 °F)	ECM							X						
41Ah	CAN A/C CLUTCH INHIBIT STATUS	Confirms A/C compressor clutch ON / OFF	ECM							X						
41Ah	CAN ELECTRICAL LOAD MANAGEMENT	Inhibit: heated rear window, windshield, wiper park area, automatic heated windshield.	ECM							X						
41Ah	CAN COOLING FAN FEEDBACK	Actual cooling fan speed. Response to COOLING FAN REQUEST message	ECM							X						
441h	CAN AMBIENT TEMPERATURE	Outside air temperature 40 °C to 80 °C (40 °F to 176 °F)	A/CCM				X		X							
441h	CAN COMPRESSOR TORQUE	Predicted A/C compressor torque in 100 ms	A/CCM				X									
441h	CAN A/C COMMANDS	Request A/C compressor ON / OFF. Maximum heat required: YES / NO	A/CCM				X									
441h	CAN A/C STATUS	Indicates: windshield, rear door mirrors, and windshield wiper park area heater ON / OFF and blower speed	A/CCM				X									

CAN Message Matrix

No.	Message Name	Usage	Source	Receivers											
				ABSCM	ABS/TCCM	DSCCM	ECM	TCM	IC	A/CCM	HLCM	JGM	SWS	YRS	DIAG
441h	CAN COOLING FAN REQUEST	Request climate control fan speed and offset, and fan run on at ignition OFF	A/CCM				X								
44Dh	CAN FUEL USED	Data for trip computer calculations	ECM						X						
44Dh	CAN ENGINE OBD II MIL	Switch CHECK ENGINE MIL ON / OFF	ECM						X						
44Dh	CAN THROTTLE MALFUNCTION RED	Switch red warning light OFF (defaults to ON) — Display: Restricted throttle / performance, Limp home / idle mode, Engine shut down messages	ECM	X	X	X			X						
44Dh	CAN THROTTLE MALFUNCTION AMBER	Switch amber warning light OFF (defaults to ON) — Display: Cruise inhibited, Redundancy mode, OBD engine overspeed fuel cutoff messages	ECM	X	X	X			X						
44Dh	CAN ECM FAULT CODE MIL STATUS	Indicates flagged DTC requires MIL illumination	ECM	X	X	X		X	X						
44Dh	CAN ECM CONFIG FLAG	ECM PECUS programming status: programmed YES / NO	ECM						X						
44Dh	CAN ENGINE FAULT CODES	Indicates engine fault codes to store ECM	ECM						X						
44Dh	CAN ENGINE COOLANT TEMPERATURE	Engine coolant temperature (°C). Note: Will not exceed 140 °C (284 °F)	ECM					X	X	X					
44Dh	CAN ENGINE OIL TEMPERATURE	Engine oil temperature 40 to 214 °C (40 to 417 °F)	ECM					X							
44Dh	CAN BAROMETRIC PRESSURE	Barometric pressure as % of 1 standard atmosphere (0 to 125%)	ECM					X							
4BOh	CAN FL WHEEL SPEED	Front left wheel speed	ABSCM				X	X			X				
4BOh	CAN FL WHEEL SPEED	Front left wheel speed	ABS/TCCM				X	X			X				
4BOh	CAN FL WHEEL SPEED	Front left wheel speed	DSCCM				X	X			X				
4BOh	CAN FR WHEEL SPEED	Front right wheel speed	ABSCM				X	X			X				
4BOh	CAN FR WHEEL SPEED	Front right wheel speed	ABS/TCCM				X	X			X				
4BOh	CAN FR WHEEL SPEED	Front right wheel speed	DSCCM				X	X			X				
4BOh	CAN RL WHEEL SPEED	Rear left wheel speed	ABSCM				X	X			X				
4BOh	CAN RL WHEEL SPEED	Rear left wheel speed	ABS/TCCM				X	X			X				
4BOh	CAN RL WHEEL SPEED	Rear left wheel speed	DSCCM				X	X			X				
4BOh	CAN RR WHEEL SPEED	Rear right wheel speed	ABSCM				X	X			X				
4BOh	CAN RR WHEEL SPEED	Rear right wheel speed	ABS/TCCM				X	X			X				
4BOh	CAN RR WHEEL SPEED	Rear right wheel speed	DSCCM				X	X			X				
4COh	CAN ODOMETER READING	Odometer distance travelled for DTCs and diagnostics	IC				X			X					
694h	CAN VOICE AIRCON COMMAND	SCP to CAN gateway message	IC							X					
695h	CAN AIRCON VOICE STATUS	CAN to SCP gateway message	A/CCM						X						
696h	CAN DISPLAY AIRCON COMMAND	SCP to CAN gateway command message	IC							X					

CAN Message Matrix

No.	Message Name	Usage	Source	Receivers										
				ABSCM	ABS/TCCM	DSCCM	ECM	TCM	IC	A/CCM	HLCM	JGM	SWS	YRS	DIAG
697h	CAN AIRCON DISPLAY STATUS	CAN to SCP gateway message	A/CCM						X						
6A0h	CAN POWERTRAIN CONFIGURATION	Network management	ECM	X	X	X		X							
6F1h	CAN SWS COMMAND CODE WORD	Steering Angle Sensor calibration instructions	DSCCM										X		
6F1h	CAN SWS CID	CAN identifier for message transmission	DSCCM										X		
7C4h	CAN DIAGNOSTIC DATA IN RCC	A/CCM diagnostics message	DIAG							X					
7C5h	CAN DIAGNOSTIC DATA OUT RCC	A/CCM diagnostics data out. Only in response to message #7C4h	A/CCM												X
7E8h	CAN DIAGNOSTIC DATA IN ECM	ECM diagnostics message	DIAG				X								
7E9h	CAN DIAGNOSTIC DATA IN TCM	TCM diagnostics message	DIAG					X							
7Eah	CAN DIAGNOSTIC DATA IN IC	IC diagnostics message	DIAG						X						
7Ebh	CAN DIAGNOSTIC DATA IN ABS	ABSCM diagnostics message	DIAG	X	X	X									
7Ech	CAN DIAGNOSTIC DATA OUT ECM	ECM diagnostics data out. Only in response to message #7E8h	ECM												X
7Edh	CAN DIAGNOSTIC DATA OUT TCM	TCM diagnostics data out. Only in response to message #7E9h	TCM												X
7Eeh	CAN DIAGNOSTIC DATA OUT IC	IC diagnostics data out. Only in response to message #7EAh	IC												X
7Efh	CAN DIAGNOSTIC DATA OUT ABS	ABSCM diagnostics data out. Only in response to message #7EBh	ABSCM												X
7Efh	CAN DIAGNOSTIC DATA OUT ABS	ABSCM diagnostics data out. Only in response to message #7EBh	ABS/TCCM												X
7Efh	CAN DIAGNOSTIC DATA OUT ABS	DSCCM diagnostics data out. Only in response to message #7EBh	DSCCM												X