

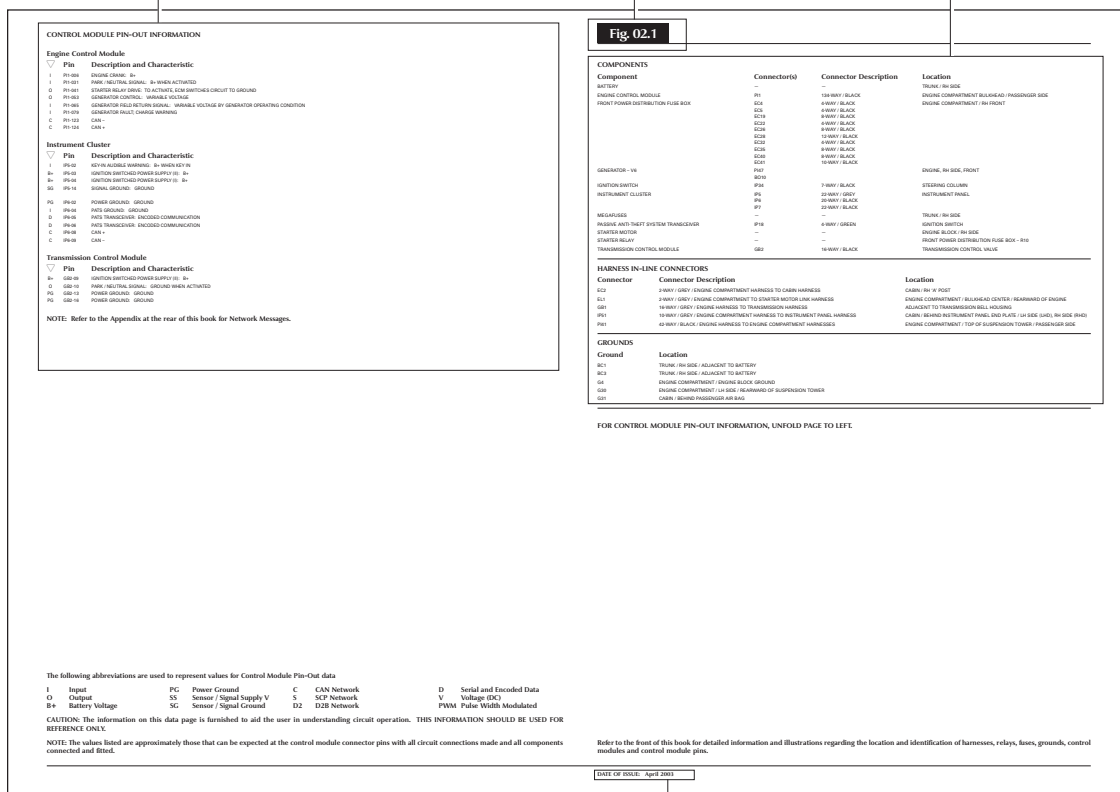


Table of Contents: Figures	2 – 3
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Appendix (SCP and CAN Messages)	follows Figures and Data



FIGURE NUMBER

COMPONENT, CONNECTOR AND GROUND INFORMATION



DATA PAGE

DATE OF ISSUE

FIGURE

MODEL RANGE AND YEAR

TITLE

FIGURE NUMBER

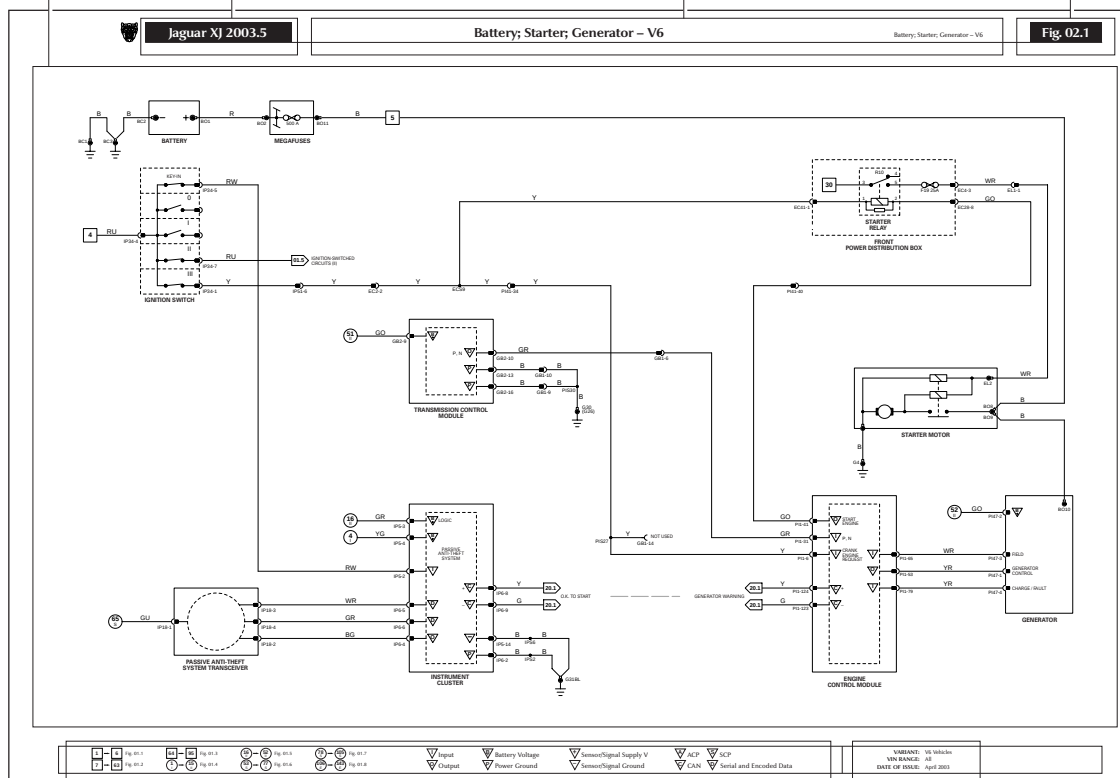
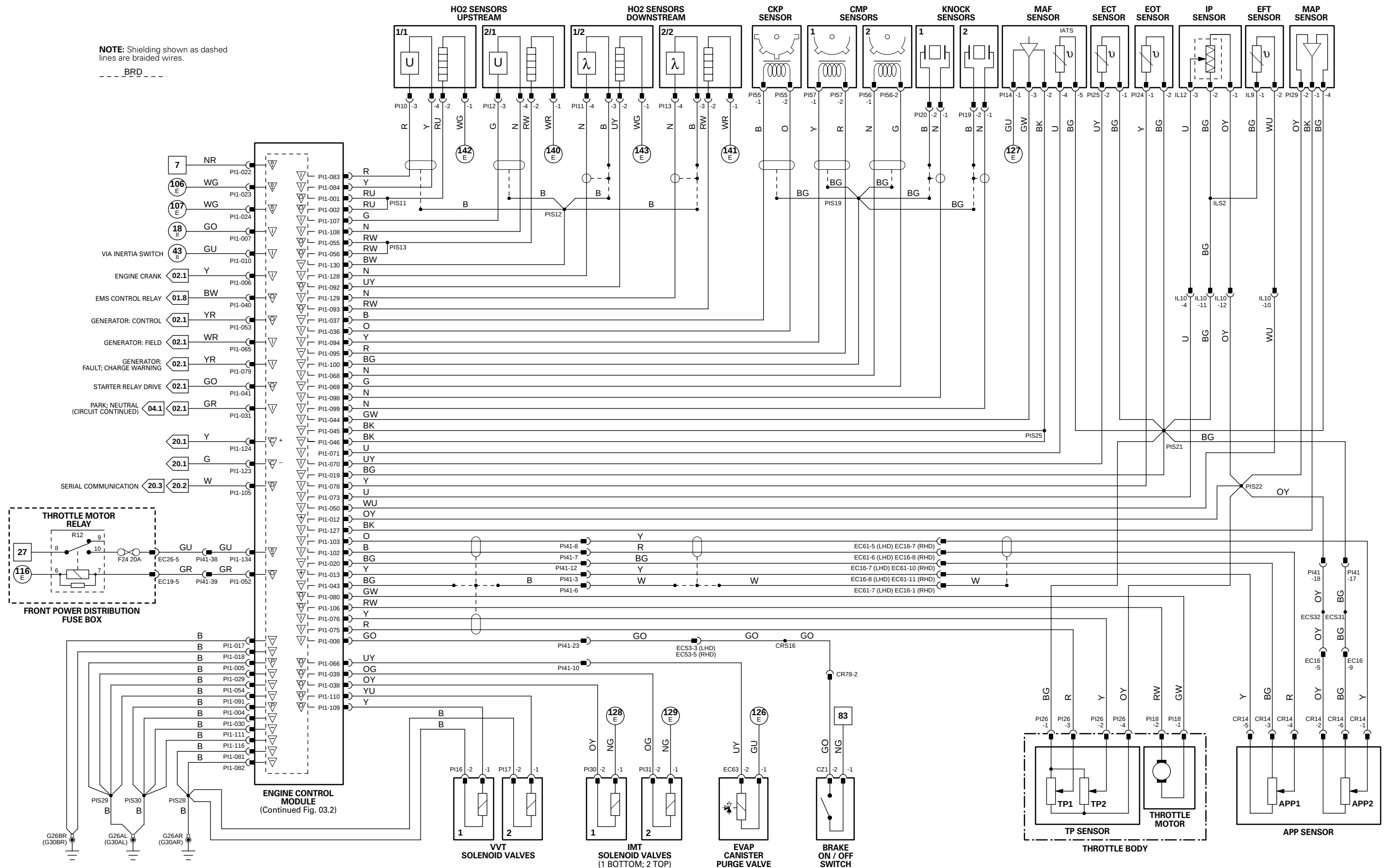
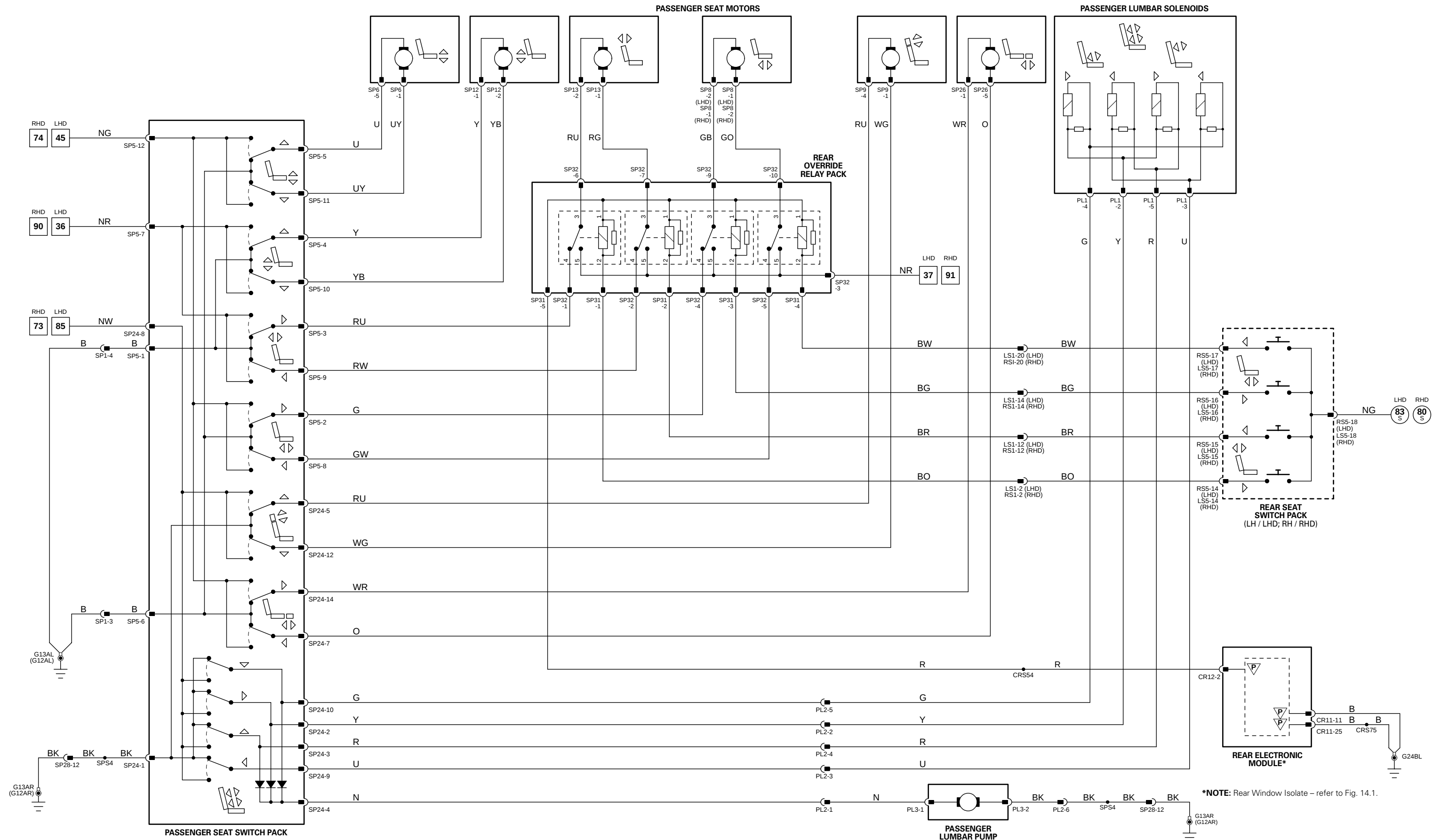


FIGURE PAGE

KEY TO REFERENCE SYMBOLS

**VARIANT, VIN RANGE AND
DATE OF ISSUE**







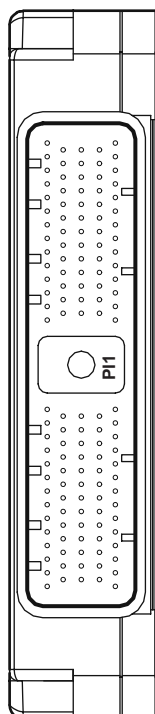
This Appendix contains a listing of SCP and CAN Network messages.

NOTE: Passive Anti-Theft System and Security System messages are not included in this appendix.

The following acronyms and abbreviations are used throughout this section:

A/C	Air Conditioning
ABS	Anti-Lock Braking
ASC	Adaptive Speed Control
ASCM	Adaptive Speed Control Module
ASM	Air Suspension Module
AT CMD	Commands for configuring and controlling telecommunication devices
AUDIO	Audio Unit
CAL	Calibrate
CAN	Controller Area Network
CATS	Adaptive Damping
CCM	Climate Control Module
CID	CAN Identifier
CPM	Cellular Phone Module
D2B	D2B Network
D2B	Fiber Optic Network
D2B OPC	Instructions for translating and routing data for D2B use
DDCM	Driver Door Control module
DDM	Driver Door Module
DSC	Dynamic Stability Control
DSCM	Dynamic Stability Control Module
DSM	Driver Seat Module
DTC	Diagnostic Trouble Code
ECM	Engine Control Module
ECM	Engine Control Module
FEM	Front Electronic Module
Gateway	Device that converts messages between different types of networks
IC	Instrument Cluster
JGM	J-Gate Module
LED	Light Emitting Diode
MIL	Malfunction Indicator Lamp
MSG	Message
NCM	Navigation Control Module
OBD	On Board Diagnostics (OBD II, EOBD)
ODO	Odometer
PBM	Parking Brake Module
PTT	Push to Talk
RCCM	Rear Climate Control Module
REM	Rear Electronic Module
RMM	Rear Memory Module
RPM	Revolutions Per Minute
SCLM	Steering Column Lock Module
SCP	Standard Corporate Protocol Network
SMS	Short Message Service for Mobile Communications
STM	Switch to Test Mode
TCM	Transmission Control Module
TCS	Traction Control System
VAM	Voice Activation Module
WDS	Worldwide Diagnostic System

ENGINE CONTROL MODULE



P11 / BLACK

107	G	108	N	109	Y	110	YU	111	B	112	—	113	BG	114	BK	115	BG	116	B	117	—	118	U	119	BO	120	BR
81	B	82	B	83	R	84	Y	85	—	86	—	87	GU	88	Y	89	YR	90	YR	91	B	92	UY	93	UY	94	RW
55	RW	56	RW	57	—	58	—	59	—	60	—	61	GW	62	GW	63	GR	64	GR	65	WR	66	UY	67	—	68	—
29	B	30	B	31	GR	32	—	33	—	34	—	35	—	36	—	37	—	38	—	39	—	40	—	41	—	42	—
1	RU	2	RU	3	—	4	B	5	B	6	Y	7	GO	8	GO	9	U	10	GU	11	—	12	OY	13	Y	14	—

V6

121	WU	122	—	123	G	124	Y	125	—	126	—	127	BK	128	N	129	N	130	BW	131	GB	132	YB	133	—	134	GU
94	Y	95	R	96	—	97	—	98	N	99	100	101	BG	102	B	103	O	104	—	105	—	106	—	107	—	108	—
68	N	69	G	70	UY	71	U	72	—	73	—	74	—	75	—	76	—	77	—	78	—	79	—	80	—	81	—
42	—	43	—	44	—	45	—	46	—	47	—	48	—	49	—	50	—	51	—	52	—	53	—	54	—	55	—
15	—	16	—	17	—	18	—	19	—	20	—	21	—	22	—	23	—	24	—	25	—	26	—	27	—	28	—

107	G	108	N	109	Y	110	YU	111	B	112	UY	113	BG	114	BK	115	BR	116	B	117	BW	118	U	119	BO	120	BG
81	B	82	B	83	R	84	Y	85	—	86	—	87	GU	88	Y	89	YR	90	YR	91	B	92	UY	93	UY	94	RW
55	RW	56	RW	57	—	58	—	59	—	60	—	61	GW	62	GW	63	GR	64	GR	65	WR	66	UY	67	—	68	—
29	B	30	B	31	GR	32	—	33	—	34	—	35	—	36	—	37	—	38	—	39	—	40	—	41	—	42	—
1	RU	2	RU	3	—	4	B	5	B	6	Y	7	GO	8	GO	9	U	10	GU	11	—	12	OY	13	Y	14	—

V8 N/A

121	WU	122	—	123	G	124	Y	125	—	126	—	127	BK	128	N	129	N	130	BW	131	GB	132	YB	133	—	134	GU
94	Y	95	R	96	—	97	—	98	N	99	100	101	BG	102	B	103	O	104	—	105	—	106	—	107	—	108	—
68	N	69	G	70	UY	71	U	72	—	73	—	74	—	75	—	76	—	77	—	78	—	79	—	80	—	81	—
42	—	43	—	44	—	45	—	46	—	47	—	48	—	49	—	50	—	51	—	52	—	53	—	54	—	55	—
15	—	16	—	17	—	18	—	19	—	20	—	21	—	22	—	23	—	24	—	25	—	26	—	27	—	28	—

107	G	108	N	109	Y	110	YU	111	B	112	UY	113	BG	114	BK	115	BR	116	B	117	BW	118	U	119	BO	120	BG
81	B	82	B	83	R	84	Y	85	—	86	—	87	GU	88	Y	89	YR	90	YR	91	B	92	UY	93	UY	94	RW
55	RW	56	RW	57	—	58	—	59	—	60	—	61	GW	62	GW	63	GR	64	GR	65	WR	66	UY	67	—	68	—
29	B	30	B	31	GR	32	—	33	—	34	—	35	—	36	—	37	—	38	—	39	—	40	—	41	—	42	—
1	RU	2	RU	3	—	4	B	5	B	6	Y	7	GO	8	GO	9	U	10	GU	11	—	12	OY	13	Y	14	—

V8 SC

121	WU	122	—	123	G	124	Y	125	—	126	—	127	BK	128	N	129	N	130	BW	131	GB	132	YB	133	—	134	GU
94	Y	95	R	96	—	97	—	98	N	99	100	101	BG	102	B	103	O	104	—	105	—	106	—	107	—	108	—
68	N	69	G	70	UY	71	U	72	—	73	—	74	—	75	—	76	—	77	—	78	—	79	—	80	—	81	—
42	—	43	—	44	—	45	—	46	—	47	—	48	—	49	—	50	—	51	—	52	—	53	—	54	—	55	—
15	—	16	—	17	—	18	—	19	—	20	—	21	—	22	—	23	—	24	—	25	—	26	—	27	—	28	—

Transmission Control Module

	Pin	Description and Characteristic
C	GB2-2	CAN -
C	GB2-6	CAN +
B+	GB2-9	IGNITION SWITCHED POWER SUPPLY (I1): B+
O	GB2-10	PARK / NEUTRAL SIGNAL: GROUND WHEN ACTIVATED
PG	GB2-13	POWER GROUND: GROUND
B+	GB2-14	BATTERY POWER SUPPLY: B+
PG	GB2-16	POWER GROUND: GROUND

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

Fig. 04.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
IGNITION SWITCH	IP34	7-WAY / BLACK	STEERING COLUMN COWLING
J-GATE MODULE	IP32	16-WAY / BLACK	J-GATE ASSEMBLY
TCM CAPACITOR (V6)	GB17	2-WAY / BLACK	ENGINE COMPARTMENT, BULKHEAD
TCM CAPACITOR (V8)	P159	2-WAY / BLACK	ENGINE COMPARTMENT, BULKHEAD
TRANSMISSION CONTROL MODULE	GB2	16-WAY / BLACK	TRANSMISSION CONTROL VALVE ASSEMBLY

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
GB1	16-WAY / GREY / ENGINE HARNESS TO TRANSMISSION HARNESS	ADJACENT TO TRANSMISSION BELL HOUSING

GROUND

Ground	Location
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER
G30	ENGINE COMPARTMENT / LH SIDE / REARWARD OF SUSPENSION TOWER
G32	CABIN / BEHIND INSTRUMENT CLUSTER

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

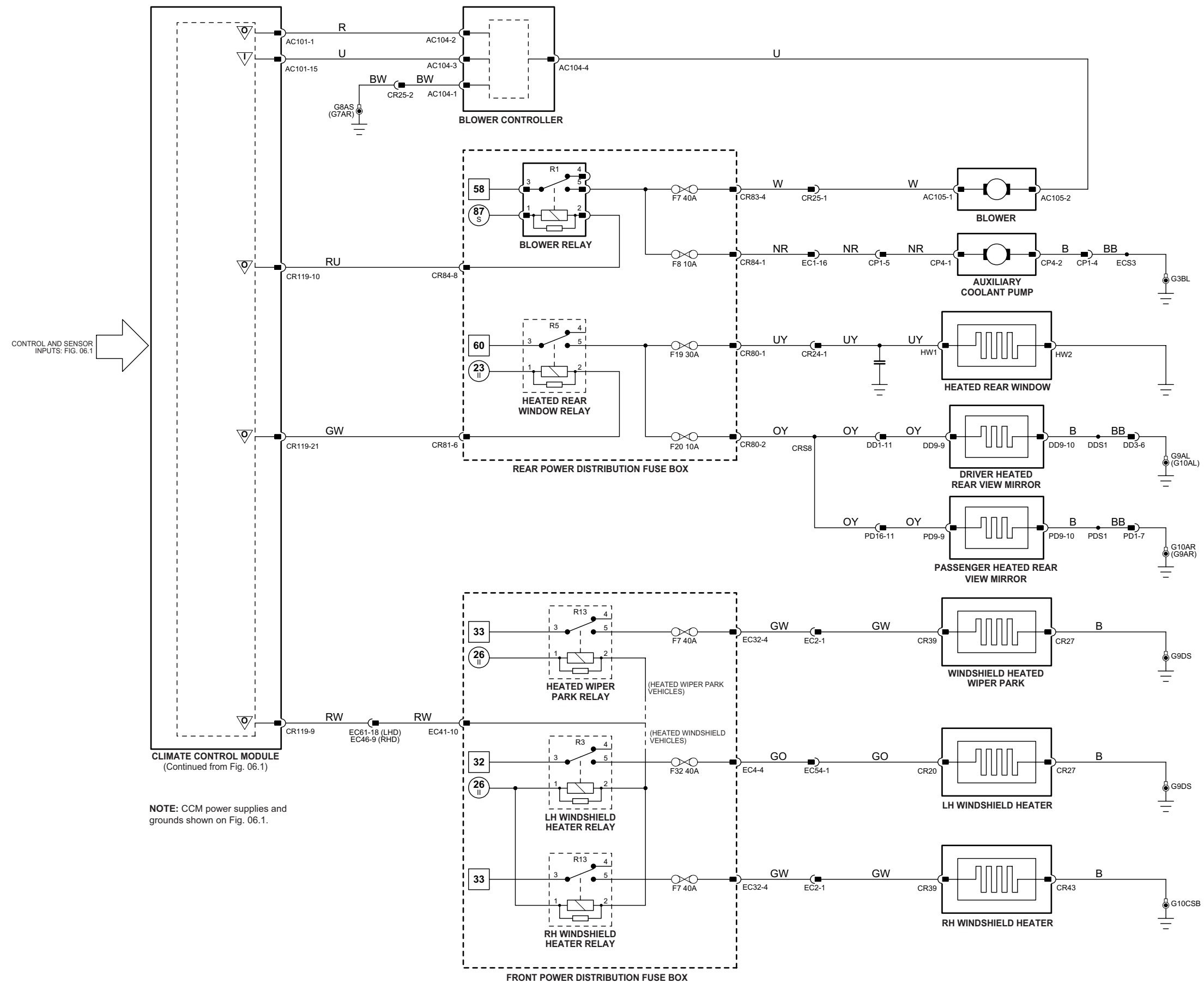
The following abbreviations are used to represent values for Control Module Pin-Out data

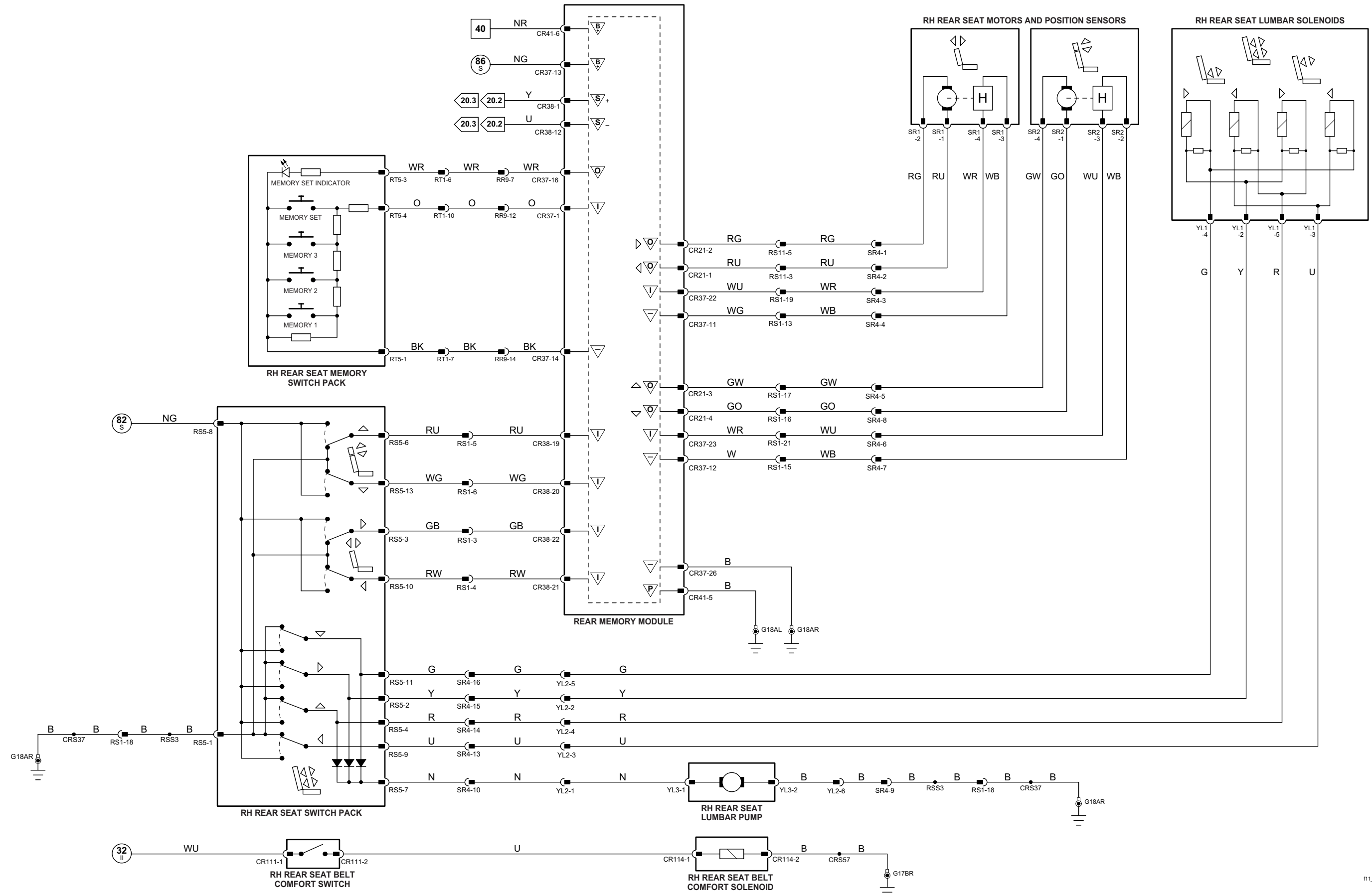
I	Input	PG	Power Ground	C	CAN Network	D	Serial and Encoded Data
O	Output	SS	Sensor / Signal Supply V	S	SCP Network	V	Voltage (DC)
B+	Battery Voltage	SG	Sensor / Signal Ground	D2	D2B Network	PWM	Pulse Width Modulated

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 values 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.

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.





Audio Unit

	Pin	Description and Characteristic
I	CC8-7	TELEPHONE MUTE SIGNAL
I	CC8-18	STEERING WHEEL SWITCHES: STEPPED RESISTANCE
D2	CC21-1	D2B NETWORK TRANSMIT
D2	CC21-2	D2B NETWORK RECEIVE

Cellular Phone Control Module

	Pin	Description and Characteristic
D2	DB3-1	D2B NETWORK RECEIVE
D2	DB3-2	D2B NETWORK TRANSMIT
O	TL7-1	PHONE BATTERY CHARGING SUPPLY
O	TL7-3	PHONE ON / OFF (RESPONSE TO INCOMING AUDIO)
O	TL7-4	MUTE COMMAND
—	TL7-7	TRANSMIT
—	TL7-8	RECEIVE
PG	TL7-9	POWER GROUND: GROUND
SG	TL7-11	MICROPHONE SHIELD: GROUND
B+	TL7-12	BATTERY POWER SUPPLY: B+
B+	TL7-13	BATTERY POWER SUPPLY: B+
B+	TL7-14	IGNITION SWITCHED POWER SUPPLY (I): B+
I	TL7-17	MICROPHONE +
I	TL7-18	MICROPHONE –
D	TL7-20	TELEPHONE SERIAL COMMUNICATIONS DATA
D	TL7-22	TELEPHONE SERIAL COMMUNICATIONS DATA
I	TL7-23	D2B NETWORK WAKE-UP
—	TL7-24	COMPUTER
I	TL7-25	POWER GROUND: GROUND
I	TL7-26	TELEPHONE LOGIC GROUND: GROUND
I	TL7-29	IGNITION SWITCHED POWER SUPPLY (II): B+

Voice Activation Module

	Pin	Description and Characteristic
D2	DB4-1	D2B NETWORK TRANSMIT
D2	DB4-2	D2B NETWORK RECEIVE
I	TL68-1	MICROPHONE +
SG	TL68-2	MICROPHONE SHIELD
O	TL68-3	MICROPHONE +
B+	TL68-6	IGNITION SWITCHED POWER SUPPLY (II) (START / RUN STATUS)
B+	TL68-8	IGNITION SWITCHED POWER SUPPLY (I)
PG	TL68-11	POWER GROUND
I	TL68-12	MICROPHONE –
O	TL68-13	MICROPHONE –
O	TL68-14	D2B NETWORK WAKE UP
SG	TL68-15	MICROPHONE SHIELD
B+	TL68-22	BATTERY POWER SUPPLY

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

Fig. 16.4

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUDIO UNIT	CC8	20-WAY / BLACK	CENTER CONSOLE
	CC9	2-WAY / BLACK	
	CC21	FIBER OPTIC CONNECTOR	
CELLULAR PHONE MODULE	DB3	FIBER OPTIC CONNECTOR	LUGGAGE COMPARTMENT, LH REAR
	TL7	32-WAY / BLACK	
	TL94	2-WAY / BLACK	
HANDSET RECEIVER	PH2	10-WAY / TELEPHONE	CENTER CONSOLE
MICROPHONE	RF3	20-WAY / BLACK	ROOF CONSOLE
NAVIGATION CONTROL MODULE	DB6	FIBER OPTIC CONNECTOR	TRUNK / LH SIDE / MODULE STACK / SECOND FROM TOP
	TL2	20-WAY / BLACK	
	TL29	26-WAY / BLACK	
	TL30	12-WAY / BLACK	
	TL37	2-WAY / BLACK	
	—	—	
STEERING WHEEL AUDIO SWITCHES	—	—	STEERING WHEEL
TELEMATICS DISPLAY	CC12	22-WAY / BLACK	CENTER CONSOLE
	CC13	2-WAY / BLACK	
	CC14	2-WAY / BLACK	
	CC15	2-WAY / BLACK	
	CC16	2-WAY / BLACK	
	TL56	2-WAY / BLACK	
TELEPHONE ANTENNA – NAS	DB4	FIBER OPTIC CONNECTOR	REAR BUMPER, LH SIDE
VOICE ACTIVATION MODULE	DB4	FIBER OPTIC CONNECTOR	TRUNK / LH SIDE / MODULE STACK / SECOND FROM BOTTOM
	TL68	22-WAY / BLACK	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC1	22-WAY GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CC10	22-WAY / GREEN / CENTER CONSOLE HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE (LHD), RH SIDE (RHD)
IP9	8-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / ADJACENT TO HOOD RELEASE
IP55	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER SIDE
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
RF26	8-WAY / BLACK / TELEMATICS HARNESS TO ROOF HARNESS	CABIN / LH 'D' POST
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW CENTER CONSOLE / RH SIDE OF TRANSMISSION TUNNEL

GROUND

Ground	Location
G25	TRUNK / LH SIDE / ADJACENT TO CD AUTOCHANGER

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

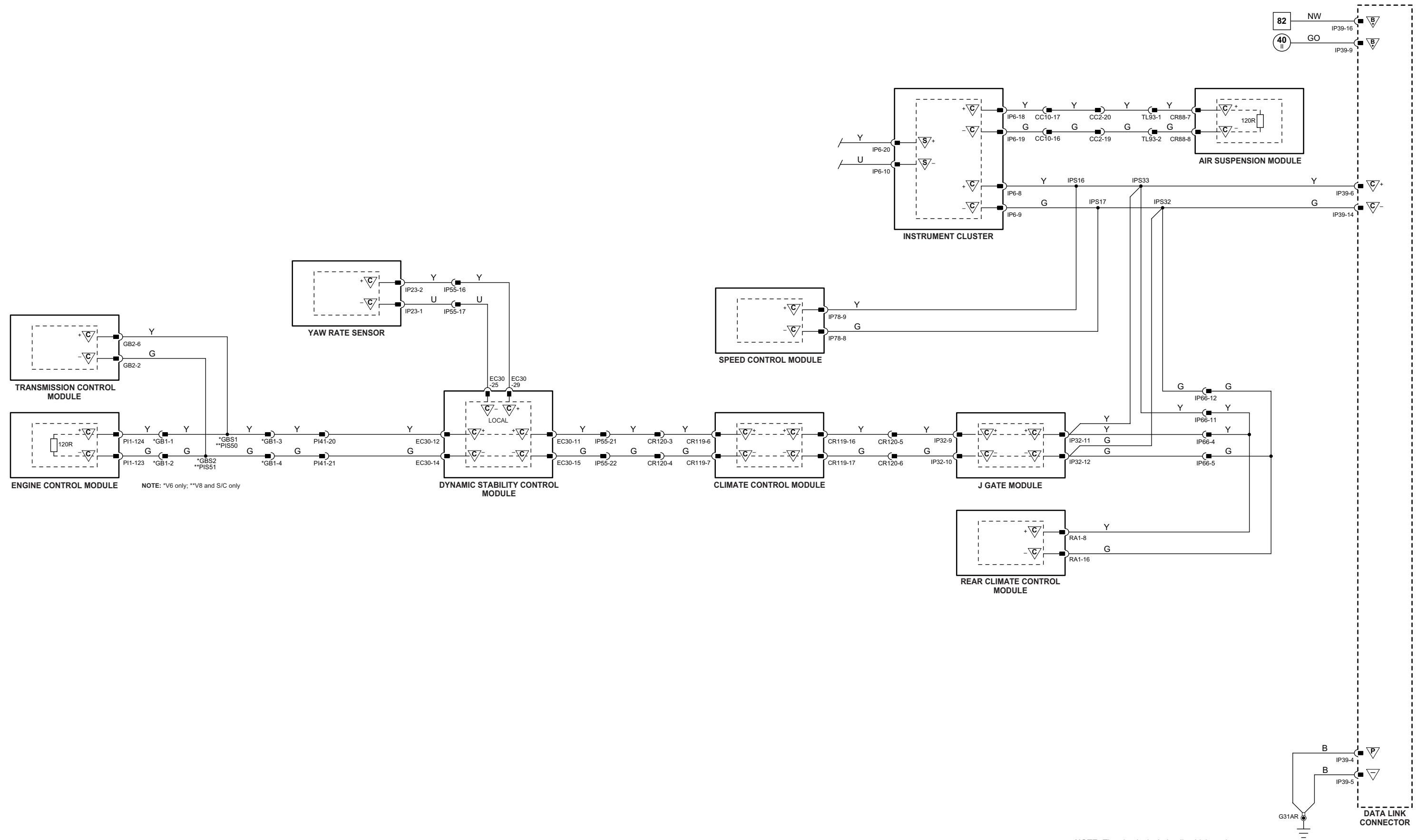
The following abbreviations are used to represent values for Control Module Pin-Out data

I	Input	PG	Power Ground	C	CAN Network	D	Serial and Encoded Data
O	Output	SS	Sensor / Signal Supply V	S	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 values 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.

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.



I20_1_35005

1 → 6	Fig. 01.1	64 → 95	Fig. 01.3	16 → 52	Fig. 01.5	78 → 105	Fig. 01.7
7 → 63	Fig. 01.2	1 → 15	Fig. 01.4	53 → 77	Fig. 01.6	106 → 143	Fig. 01.8

I	Input	B	Battery Voltage	+	Sensor/Signal Supply V	A	ACP	S	SCP
O	Output	P	Power Ground	-	Sensor/Signal Ground	C	CAN	D	Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: September 2004

Wiring Color Codes

N	Brown	O	Orange
B	Black	S	Slate
W	White	L	Light
K	Pink	U	Blue
G	Green	P	Purple
R	Red	BRD	Braid
Y	Yellow	BOF	Black fiber optic (D2B Network)

Code Numbering

When numbering connectors, grounds and splices, Jaguar Engineering uses a three-position format: CA001, CA002, etc. Because space is limited in this Electrical Guide the codes have, in most cases, been shortened. Thus CA001–001 becomes CA1–1, CA002–001 becomes CA2–1, etc.

Resistor Values

The omega symbol often used to represent resistance is not used in this publication.

- Whole-number resistor values below 1000 ohms are suffixed with 'R', for example: 820R.
- Whole-number resistor values above 1000 ohms are suffixed with 'K', for example: 820K.
- Fractional resistors values have 'R' or 'K' inserted at the position of the decimal point, for example: 8R2 represents 8.2 ohms, 1K0 represents 1K ohms.

Grounds

- There may be up to three eyelets on one ground stud.
- A, B and C are used to indicate the position of the eyelet on the stud: A – first (bottom), B – second (middle), C – third (top).
- Two eyelet variations are used: a single eyelet and an eyelet pair. The single eyelet has a single leg, which is identified by an S; the eyelet pair has two legs, identified as L (left) or R (right).

EXAMPLE:



On figures where LHD and RHD circuits are combined and the ground designation differs from LHD to RHD, the RHD ground code is shown in parentheses. If the ground designation is the same for LHD and RHD, only one ground code is used, with no parentheses.

EXAMPLE:



Fig. 01.7

COMPONENTS

Component	Connector(s)	Connector Description	Location
FRONT ELECTRONIC MODULE	CR1	26-WAY / BLACK	CABIN / LH 'A' POST
	CR9	12-WAY / BLACK	
	CR10	17-WAY / BLACK	
	CR85	20-WAY / BLACK	
	EC36	22-WAY / BLACK	
REAR ELECTRONIC MODULE	CR4	20-WAY / BLACK	TRUNK / RH REAR
	CR11	26-WAY / NATURAL	
	CR12	12-WAY / BLACK	
	CR13	22-WAY / BLACK	
	CR71	17-WAY / BLACK	
	CR73	4-WAY / BLACK	
	CR3	4-WAY / BLACK	
	CR5	4-WAY / BLACK	
REAR POWER DISTRIBUTION FUSE BOX	CR68	8-WAY / BLACK	TRUNK / RH REAR
	CR80	4-WAY / BLACK	
	CR81	8-WAY / BLACK	
	CR82	12-WAY / BLACK	
	CR83	4-WAY / BLACK	
	CR84	8-WAY / BLACK	
	CR97	8-WAY / BLACK	
	CR98	10-WAY / BLACK	
	—	—	
	—	—	
SWITCHED SYSTEM POWER RELAY 3	—	—	PASSENGER JUNCTION FUSE BOX – R7A
SWITCHED SYSTEM POWER RELAY 4	—	—	PASSENGER JUNCTION FUSE BOX – R7B
SWITCHED SYSTEM POWER RELAY 5	—	—	PASSENGER JUNCTION FUSE BOX – R8B

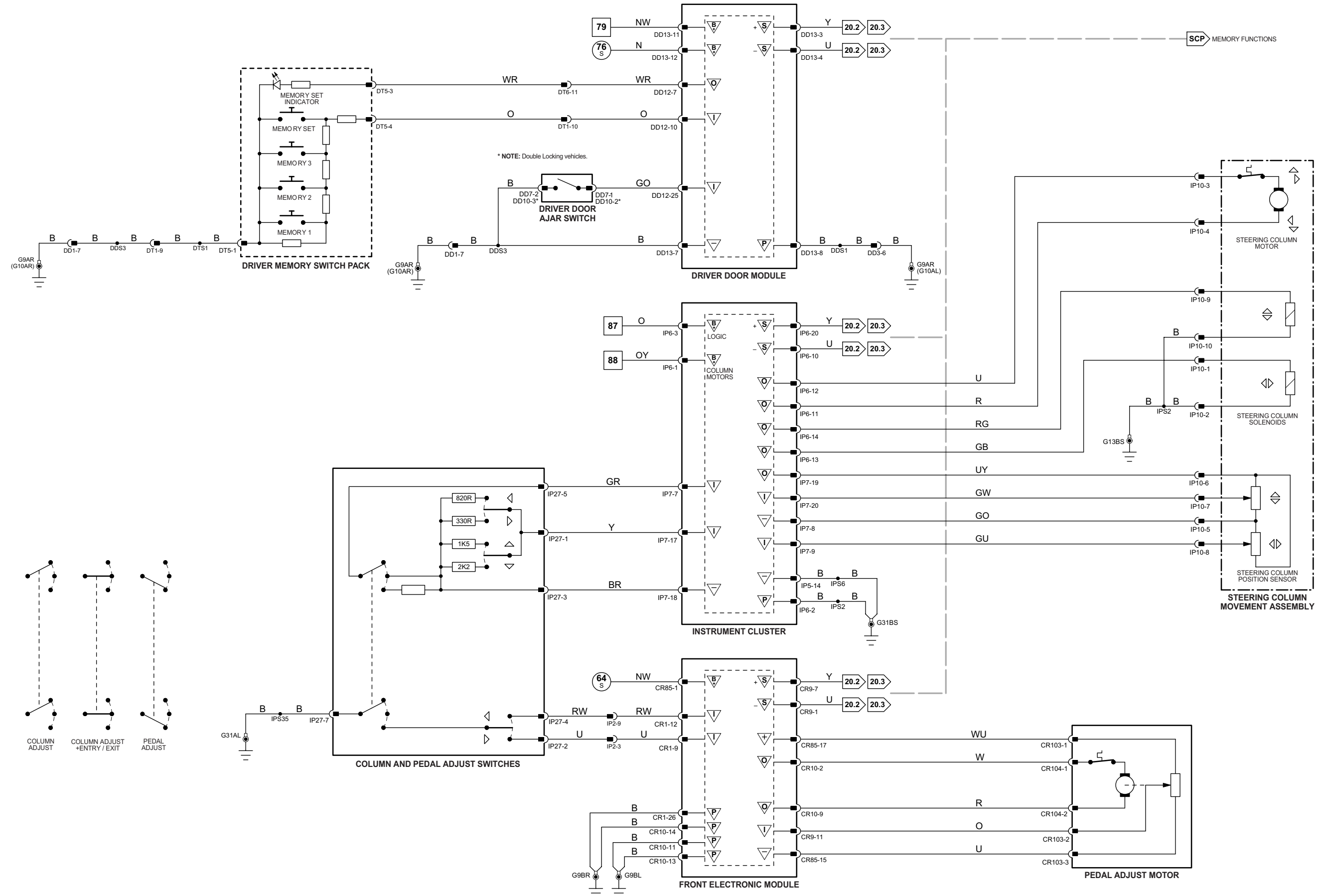
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
BL11	16-WAY / BLACK / CABIN HARNESS TO TRUNK LID HARNESS	TRUNK / BEHIND TRUNK LID LINER
BR1	10-WAY / GREY / CABIN HARNESS TO REAR BUMPER HARNESS	TRUNK / RH SIDE / ADJACENT TO REAR ELECTRONIC MODULE
BT11	16-WAY / GREY / CABIN TO TRUNK LID LINK HARNESS TO TRUNK LID HARNESS	TRUNK / TRUNK LID
LS1	22-WAY / BLACK / CABIN HARNESS TO LH REAR SEAT HARNESS	CABIN / BELOW LH REAR SEAT
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
RS1	22-WAY / BLACK / CABIN HARNESS TO REAR SEAT HARNESS	CABIN / BELOW REAR SEAT / RH SIDE
SD28	20-WAY / BLACK / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT
SP28	20-WAY / BLACK / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT
TL93	8-WAY / BLACK / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW REAR CENTER CONSOLE

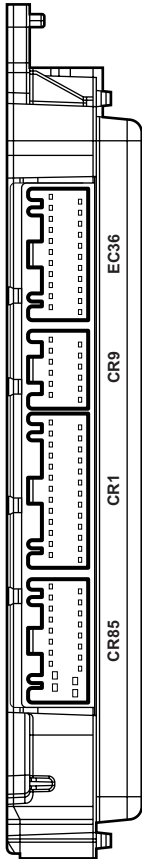
GROUND

Ground	Location
G9	CABIN / UPPER LH 'A' POST
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE

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.



FRONT ELECTRONIC MODULE



CR85 / BLACK

1	2	3	4	5	6	7	8	9	10
NW	B	GO	BW	—	YU	BG	G	YR	WB
11	12	13	14	15	16	17	18	19	20
RW	RW	Y	B	U	YB	WU	RW	W	Y

CR1 / BLACK

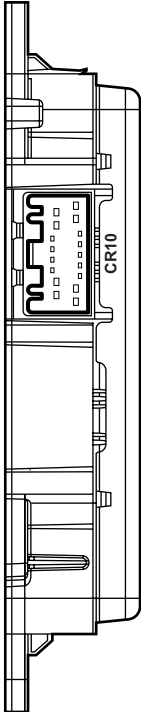
1	2	3	4	5	6	7	8	9	10	11	12	13
GU	GW	R	YB	G	WG	OY	WU	U	—	O	RW	RW
14	15	16	17	18	19	20	21	22	23	24	25	26
R	RU	WG	WG	WB	WB	OG	O	U	OY	OG	UY	B

CR9 / BLACK

1	2	3	4	5	6
U	OG	BW	—	—	NW
7	8	9	10	11	12
Y	N	—	—	O	B

EC36 / BLACK

1	2	3	4	5	6	7	8	9	10	11
BR	U	BW	—	NR	WU	BK	YR	GU	B	—
12	13	14	15	16	17	18	19	20	21	22
—	BR	—	U	BG	BG	UY	BG	GW	RW	BW



CR10 / BLACK

1	2	3	4	5	6	7	8	
OY	W	—	BW	—	B	RU	RU	
9	10	11	12	13	14	15	16	17
R	BR	B	—	B	B	BO	RU	RU