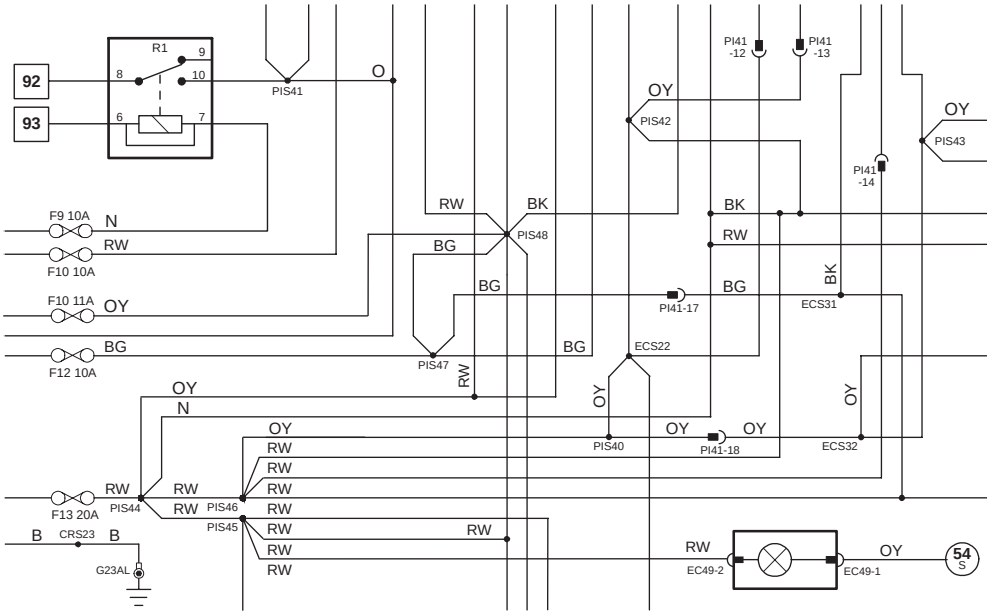
JAGUAR

Electrical Guide



XJ

including LWB
Gasoline and Diesel

2006 Model Year, VIN: G49701 onwards

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While every effort is made to ensure accuracy, design changes to the vehicle may be made in the period between the completion of this publication and the introduction of vehicles.

FIGURES

FIGURES

FIGURES

The following abbreviations and acronyms are used throughout this Electrical Guide:

A/C	Air Conditioning
APP SENSOR	Accelerator Pedal Position Sensor
APP1	Accelerator Pedal Position Sensor Element 1
APP2	Accelerator Pedal Position Sensor Element 2
ASCM	Adaptive Speed Control Module
ASM	Air Suspension Module
AUDIO	Audio Unit
AUTO	Automatic Transmission
B+	Battery Voltage
BANK 1	RH Cylinder Bank
BANK 2	LH Cylinder Bank
CAN	Controller Area Network
CCM	Climate Control Module
CKP SENSOR	Crankshaft Position Sensor
CM	Control Module
CMP SENSOR / 1	Camshaft Position Sensor / RH Bank
CMP SENSOR / 2	Camshaft Position Sensor / LH Bank
CPM	Cellular Phone Module
D2B	D2B Network
DDM	Driver Door Module
DPF	Diesel Particulate Filter
DSC	Dynamic Stability Control
DSCM	Dynamic Stability Control Module
DSM	Driver Seat Module
ECM	Engine Control Module
ECT SENSOR	Engine Coolant Temperature Sensor
EFT SENSOR	Engine Fuel Temperature Sensor
EGR	Exhaust Gas Recirculation
EGT SENSOR	Exhaust Gas Temperature Sensor
EOT SENSOR	Engine Oil Temperature Sensor
EVAP CANISTER CLOSE VALVE	Evaporative Emission Canister Close Valve
EVAP CANISTER PURGE VALVE	Evaporative Emission Canister Purge Valve
FEM	Front Electronic Module
FPDB	Front Power Distribution Box
FTP SENSOR	Fuel Tank Pressure Sensor
GPS	Global Positioning System
HID	High Intensity Discharge
HLM	Headlamp Leveling Module
HO2 SENSOR 1 / 1	Heated Oxygen Sensor – RH Bank / Upstream
HO2 SENSOR 1 / 2	Heated Oxygen Sensor – RH Bank / Downstream
HO2 SENSOR 2 / 1	Heated Oxygen Sensor – LH Bank / Upstream
HO2 SENSOR 2 / 2	Heated Oxygen Sensor – LH Bank / Downstream
IAT SENSOR	Intake Air Temperature Sensor
IC	Instrument Cluster
ICE	In-Car Entertainment
IMT VALVE / 1	Intake Manifold Tuning Valve / Top
IMT VALVE / 2	Intake Manifold Tuning Valve / Bottom
IP SENSOR	Injection Pressure Sensor
JGM	J-Gate Module
KS / 1	Knock Sensor / RH Bank
KS / 2	Knock Sensor / LH Bank
LH	Left-Hand
LHD	Left-Hand Drive
MAF SENSOR	Mass Air Flow Sensor
MAN	Manual Transmission
MAP SENSOR	Manifold Absolute Pressure Sensor
MCP	Multimedia Control Panel
N/A	Normally Aspirated
NAS	North American Specification
NCM	Navigation Control Module
PAM	Parking Aid Module
PATS	Passive Anti-Theft System
PBM	Parking Brake Module
PJB	Passenger (Primary) Junction Box
PWM	Pulse Width Modulated

RCCM	Rear Climate Control Module
RCM	Restraints Control Module
REM	Rear Electronic Module
RH	Right-Hand
RHD	Right-Hand Drive
RMM	Rear Memory Module
ROW	Rest of World
RPDB	Rear Power Distribution Box
SAI	Secondary Air Injection
SC	Supercharged
SCLM	Steering Column Lock Module
SCP	Standard Corporate Protocol
TCM	Transmission Control Module
TP SENSOR	Throttle Position Sensor
TP1	Throttle Position Sensor Element 1
TP2	Throttle Position Sensor Element 2
TPMS	Tire Pressure Monitoring System
TURN	Turn Signal
TV	Television
V6	V6 Engine
V8	V8 Engine
VAM	Voice Activation Module
VICS	Vehicle Information Control System
VVT VALVE / 1	Variable Valve Timing Valve / Bank 1
VVT VALVE / 2	Variable Valve Timing Valve / Bank 2
+ve	Positive
–ve	Negative

Electrical Guide Format

This Electrical Guide is made up of two major sections:

- the first section, at the front of the book, provides general information for and about the use of the book; model-specific information and illustrations to aid in the understanding of the electrical / electronic systems, as well as the location and identification of components.
- the second section includes the Figures, which are the basis of the book. Each Figure is identified by a Figure Number (e.g. Fig. 01.1) and Title. The page adjacent to the Figure contains data information specific to that Figure.

NOTE: Data pages are not available for inclusion in Provisional versions of the Electrical Guide.

It is recommended that the user read through the front section of the book to develop a familiarity with the layout of the book and with the system of symbols and abbreviations used. The Table of Contents should help to guide the user.

Vehicle Identification Numbers (VIN)

VIN ranges are presented throughout the book in the following manner:

› VIN 123456 indicates 'up to VIN 123456'; VIN 123456 › indicates 'from VIN 123456 on'.

Electrical System Architecture

Power Supplies

The electrical system is a supply-side switched system. The ignition switch directly carries much of the ignition switched power supply load.

Power supply is provided via three methods:

- Direct battery power supply;
- Ignition switched power supply;
- Switched system power supply.

The 'Switched System Power Supply' circuit is controlled via the FEM (Front Electronic Module) and the REM (Rear Electronic Module). Refer to Fig. 01.6 for circuit activation details.

Fuse Boxes

The electrical harness incorporates three serviceable power distribution fuse boxes:

- the Front Power Distribution Fuse Box, located in the engine compartment;
- the Rear Power Distribution Fuse Box, located in the trunk.
- the Primary Junction Fuse Box, located in the front right-hand foot well.

All fuses and relays (except the trailer towing accessory kit) are located in the three fuse boxes.

Vehicle Networks

Three different networks are employed:

- CAN (Controller Area Network) for high-speed power train communications;
- SCP (Standard Corporate Protocol) network for slower speed body systems communications;
- D2B (Optical) Network for very high-speed 'real-time' audio data transfer.

NOTE: The D2B Network is a fiber optic network with a gateway to the remaining vehicle networks via the Audio Unit. Technician access to the three networks and the Serial Data Link is via the Data Link Connector.

Ground Studs

Circuit ground connections are made at body studs located throughout the vehicle. There are no separate power and logic grounding systems; however, there are a certain number of components that use unique ground points.

Figure and Data Page Layout

Figure Pages

Each Figure represents a specific electrical system of the vehicle. The Figures are arranged numerically by system (**01 – Power Distribution, 02 – Battery; Starter; Generator**, etc.) with variations in the system identified by a numeral following a decimal point (**01.1, 01.2**, etc.). Refer to the **Table of Contents: Figures** for a complete list of the Figures.

The Figures **01 – Power Distribution** detail the distribution of power to each of the systems. Numbered reference symbols refer the user to a specific Figure and from a specific Figure back to the Power Distribution Figures. This method eliminates the need to include detailed Power Distribution information on each of the Figures. The reference symbols are defined on page 10.

Each Figure appears on a right-hand page with a corresponding Data page to the left. The Figure and Data pages are folding pages. The user must fold out both pages in order to access all the information provided.

Data Pages

The Data page includes information to assist the user in identifying and locating components, connectors and grounds. This information is supplemented by the illustrations in this front section of the book.

Most circuits that incorporate a control module include pinout information. 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. This information is provided to assist the user in understanding circuit operation and should be used FOR REFERENCE ONLY.

CONTROL MODULE PIN OUT INFORMATION

FIGURE NUMBER

COMPONENT, CONNECTOR AND GROUND INFORMATION

Engine Control Module

	Pin	Description and Characteristic
I	P1–6	ENGINE CRANK: B+
I	P1–31	AUTOMATIC – PARK / NEUTRAL SIGNAL: B+ WHEN ACTIVATED MANUAL, ROW – PARK / NEUTRAL SIGNAL: B+ WHEN IGNITION CRANK (III)
		MANUAL, NAS – CLUTCH PEDAL SAFETY SWITCH (PARK / NEUTRAL SIGNAL): B+ WHEN ACTIVATED
O	P1–41	STARTER RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	P1–53	FUEL PUMP 2 DRIVE (TO FUEL PUMP 2 MODULE): PWM, 150 Hz, NORMAL POSITIVE DUTY CYCLE RANGE = 4% – 51%
I	P1–65	GENERATOR FIELD RETURN SIGNAL: VARIABLE VOLTAGE BY GENERATOR OPERATING CONDITION
I	P1–79	GENERATOR FAULT; CHARGE WARNING
C	P1–123	CAN –
C	P1–124	CAN +

Instrument Cluster

	Pin	Description and Characteristic
I	FC14–2	KEY-IN AUDIBLE WARNING: B+ WHEN KEY IN
B+	FC14–3	IGNITION SWITCHED POWER SUPPLY (II): B+
SG	FC14–14	SIGNAL GROUND: GROUND
PG	FC15–2	POWER GROUND: GROUND
B+	FC15–3	BATTERY POWER SUPPLY (LOGIC): B+
I	FC15–4	PATS GROUND: GROUND
D	FC15–5	PATS TRANSCEIVER: ENCODED COMMUNICATION
D	FC15–6	PATS TRANSCEIVER: ENCODED COMMUNICATION
C	FC15–18	CAN +
C	FC15–19	CAN –

Transmission Control Module

	Pin	Description and Characteristic
B+	GB2–9	IGNITION SWITCHED POWER SUPPLY: B+
G	GB2–10	PARK / NEUTRAL SIGNAL: GROUND WHEN ACTIVATED
PG	GB2–13	POWER GROUND: GROUND
PG	GB2–16	POWER GROUND: GROUND

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

Fig. 2.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
BATTERY	—	—	LUGGAGE COMPARTMENT
CLUTCH PEDAL SAFETY SWITCH	CA286	2-WAY / BLACK	TOP OF CLUTCH PEDAL (BOTTOM SWITCH)
ENGINE CONTROL MODULE	P1	134-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
FRONT POWER DISTRIBUTION FUSE BOX	—	—	ENGINE COMPARTMENT, RH SIDE
GENERATOR (V6)	P47	6-WAY / BLACK	ENGINE, RH SIDE, FRONT
	ST7	EYELET	
IGNITION SWITCH	FC18	7-WAY / BLACK	STEERING COLUMN COWLING
INSTRUMENT CLUSTER	FC14	22-WAY / GREY	INSTRUMENT PANEL
	FC15	20-WAY / BLACK	
	FC53	22-WAY / BLACK	
PASSIVE ANTI-THEFT SYSTEM TRANSCEIVER	FC52	4-WAY / GREEN	STEERING COLUMN, IGNITION SWITCH
PRIMARY JUNCTION FUSE BOX	CA2	26-WAY / BLACK	RH 'A' POST
	CA56	8-WAY / BLACK	
	FC37	26-WAY / BLACK	
	FH7	6-WAY / BLACK	
	FH53	10-WAY / BLACK	
STARTER MEGAFUSE	—	—	LUGGAGE COMPARTMENT
STARTER MOTOR	—	—	ENGINE BLOCK, RH SIDE
STARTER RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R20
TRANSMISSION CONTROL MODULE	GB2	16-WAY / BLACK	TRANSMISSION CONTROL VALVE ASSEMBLY

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
FH3	16-WAY / BLUE / CABIN HARNESS TO FRONT HARNESS	LH 'A' POST
GB1	16-WAY / GREY / ENGINE HARNESS TO TRANSMISSION HARNESS	ADJACENT TO TRANSMISSION BELL HOUSING
PH1	42-WAY / BLACK / ENGINE HARNESS TO VEHICLE HARNESSES	ENGINE COMPARTMENT, BULKHEAD, PASSENGER SIDE
PH2	8-WAY / BLACK / ENGINE HARNESS TO FRONT HARNESS	ENGINE COMPARTMENT, BULKHEAD, PASSENGER SIDE
ST4	2-WAY / GREY / FRONT HARNESS TO STARTER LINK	ENGINE COMPARTMENT, REARWARD OF RH WHEEL ARCH

GROUNDS

Ground	Location
FC38	UNDER CENTER OF INSTRUMENT PANEL, ON TRANSMISSION TUNNEL
J81	LUGGAGE COMPARTMENT, BATTERY GROUND
P40 (LHD)	ENGINE COMPARTMENT, BEHIND RH WHEEL ARCH LINER
P40 (RHD)	ENGINE COMPARTMENT, BEHIND LH WHEEL ARCH LINER
ST2	ENGINE COMPARTMENT, BEHIND LH WHEEL ARCH LINER

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 ciruit 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.

DATE OF ISSUE: February 2004

DATA PAGE

DATE OF ISSUE

FIGURE

MODEL RANGE AND YEAR

TITLE

FIGURE NUMBER

Battery; Starter; Generator: V6

Battery; Starter; Generator: V6

Fig. 02.1

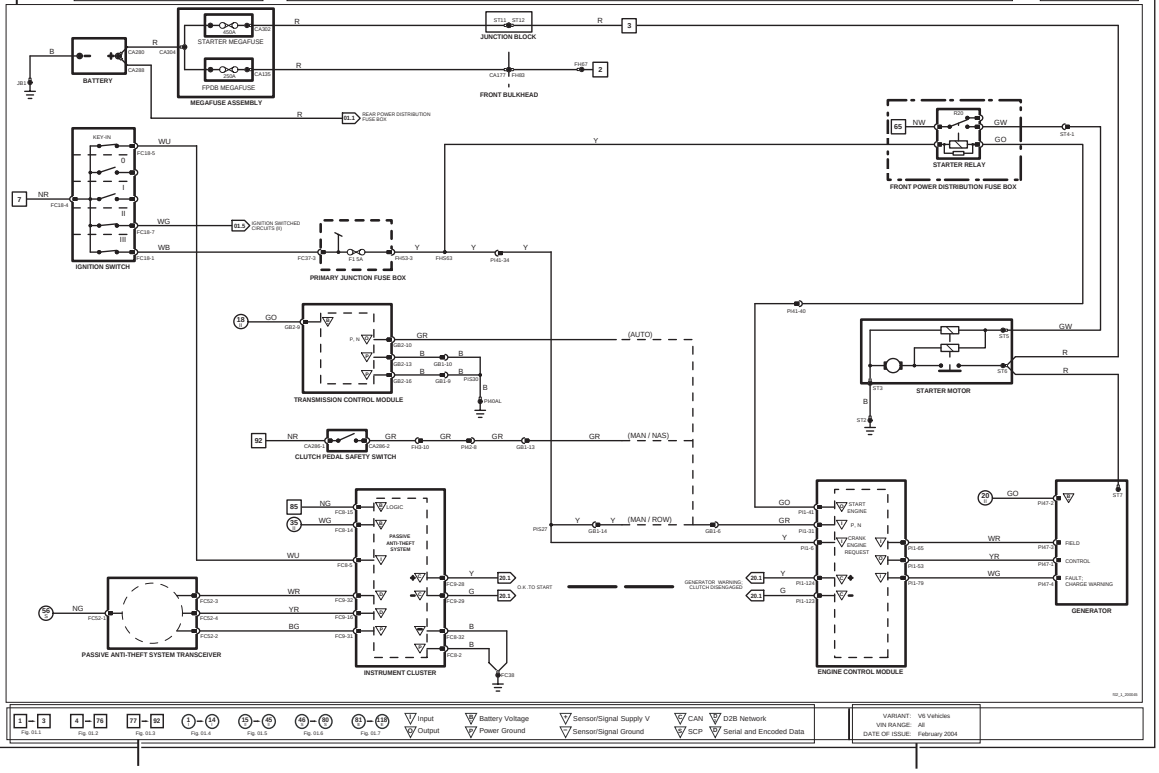


FIGURE PAGE

KEY TO REFERENCE SYMBOLS

VARIANT, VIN RANGE AND DATE OF ISSUE

NOTE: In the examples on this page, an 'X' is used where a number would appear on an actual Figure.

Reference Symbols

- X — Battery power supply
- X I — Ignition switched auxiliary power supply (key I, II)
- X II — Ignition switched power supply (key II, III)
- X S — Switched System Power Supply power supply
- X E — Engine Management System power supply
- XX,X — Figure number reference
- CAN — Controller Area Network
- SCP — Standard Corporate Protocol network
- D2B — D2B network

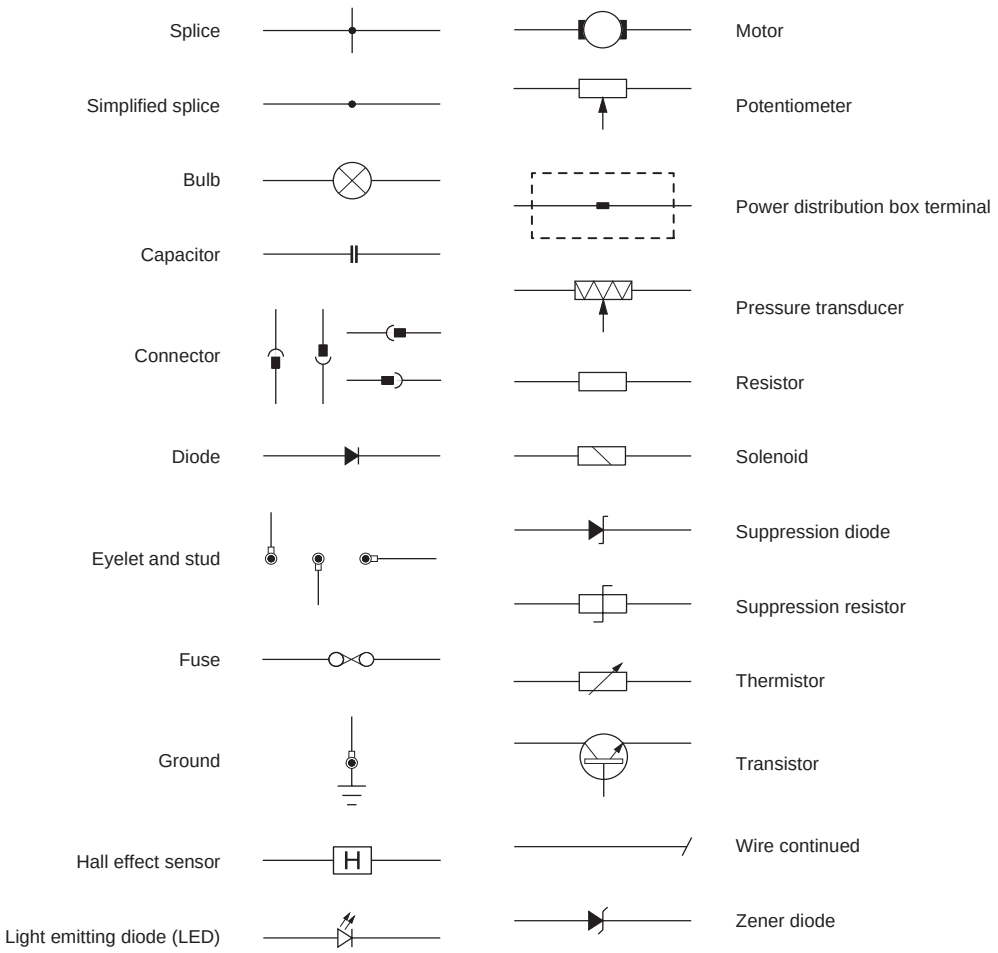
Control Module Pin Symbols

- I — Input
- O — Output
- B+ — Battery voltage
- P — Power ground
- \+ — Sensor / signal supply V *
- – — Sensor / signal ground **
- C — CAN network
- S — SCP network
- D2 — D2B network
- D — Serial and encoded data

* May also indicate Reference Voltage.

** May also indicate Reference Ground or Logic Ground. Refer to Control Module Pin-out Information.

Wiring Symbols



Harness Codes

AC Climate Control Link
BC Battery Ground Harness
BF Front Bumper Harness
BL Cabin to Trunk Lid Harness
BO Battery Harness
BR Rear Bumper Harness
BS Battery Backed Sounder Harness
BT Trunk Lid Harness
CC Center Console Harness
CL Center Console Link Harness
CP Cooling Pump Harness
CR Cabin Harness
CV EVAP Canister Close Valve Link Harness
DB D2B Network Harness
DD Driver Door Harness
DL Driver Seat Lumbar Harness
DT Driver Door Trim Harness
EC Engine Compartment Harness
EL Starter Motor Solenoid Link Harness
FP Fuel Tank Link Harness
GB Transmission Harness
GC Radiator Cooling Fan Harness
IJ Fuel Injector Link
IL Fuel Injector Link
IP Instrument Panel (Fascia) Harness
IS Fuel Injector Link Harness
LL LH Rear Seat Lumbar Harness
LS LH Rear Seat Harness
LT LH Rear Door Trim Harness
PD Passenger Door Harness
PH Telephone Harness
PI Engine Management Harness
PL Passenger Seat Lumbar Harness
PS Passive Security Sounder Harness
PT Passenger Door Trim Harness
RA Rear Air Conditioning Harness
RC Rear In-Car Entertainment Controls Harness
RF Roof Harness
RL LH Rear Door Harness
RR RH Rear Door Harness
RS RH Rear Seat Harness
RT RH Rear Door Trim Harness
SD Driver Seat Harness
SL LH Rear Seat Motor Harness
SP Passenger Seat Harness
SR RH Rear Seat Motor Harness
SW Steering Wheel Harness
TL Telematics Harness
TT Trailer Tow Harness
VL LH Rear Television Harness
VP Voice Activation Pre-Wire Harness
VR RH Rear Television Harness
VX RH Rear Television Link Harness
VY LH Rear Television Link Harness
YL RH Rear Seat Lumbar Harness

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.

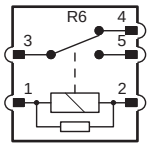
EXAMPLE:

Relays

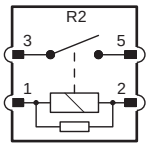
Serviceable Relays:

- are located in all three fuse boxes;
- do not have a separate relay connector (base);
- use the ISO pin numbering system (1, 2, 3, 4, 5);
- are identified by an ‘R’ number unique only to the fuse box in which it is located.

EXAMPLE:



CHANGE-OVER RELAY



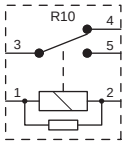
NORMALLY OPEN RELAY

Non-Serviceable Relays:

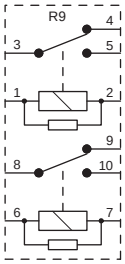
- are located in all three fuse boxes.
- are a component part of the fuse box printed circuit board (PCB) and are arranged in singles or pairs.
- use the ISO pin numbering system – 1, 2, 3, 4, 5 (single relay or top pair relay) and 6, 7, 8, 9, 10 (bottom pair relay).
- are identified by an ‘R’ number unique only to the fuse box in which it is located.

NOTE: Pair relays are normally depicted separately.

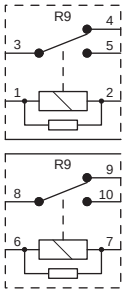
EXAMPLE:



SINGLE
PCB RELAY



PCB
PAIR RELAY

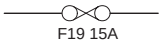


PCB
PAIR RELAY
AS DEPICTED

Fuses

Each fuse is identified by an ‘F’ number unique only to the fuse box in which it is located.

EXAMPLE:

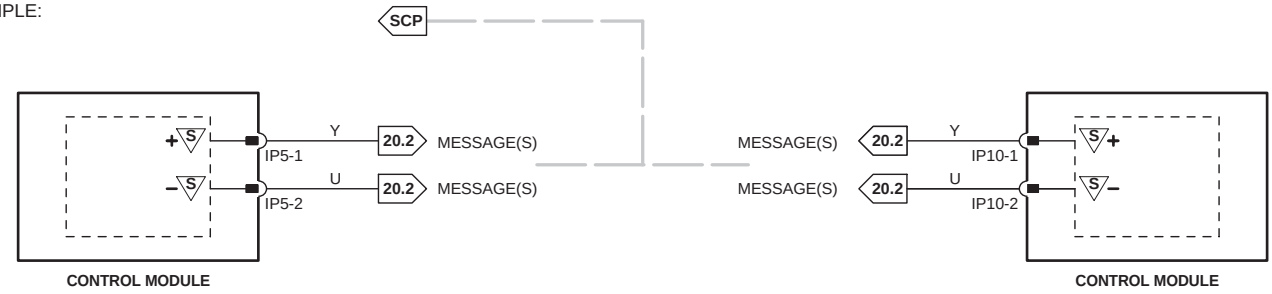


F19 15A

Networks

In most instances, networks are shown as a broken grey line to indicate that there is network communication between the depicted control modules. Refer to Figs. 20 for circuit details.

EXAMPLE:



Component Depictions

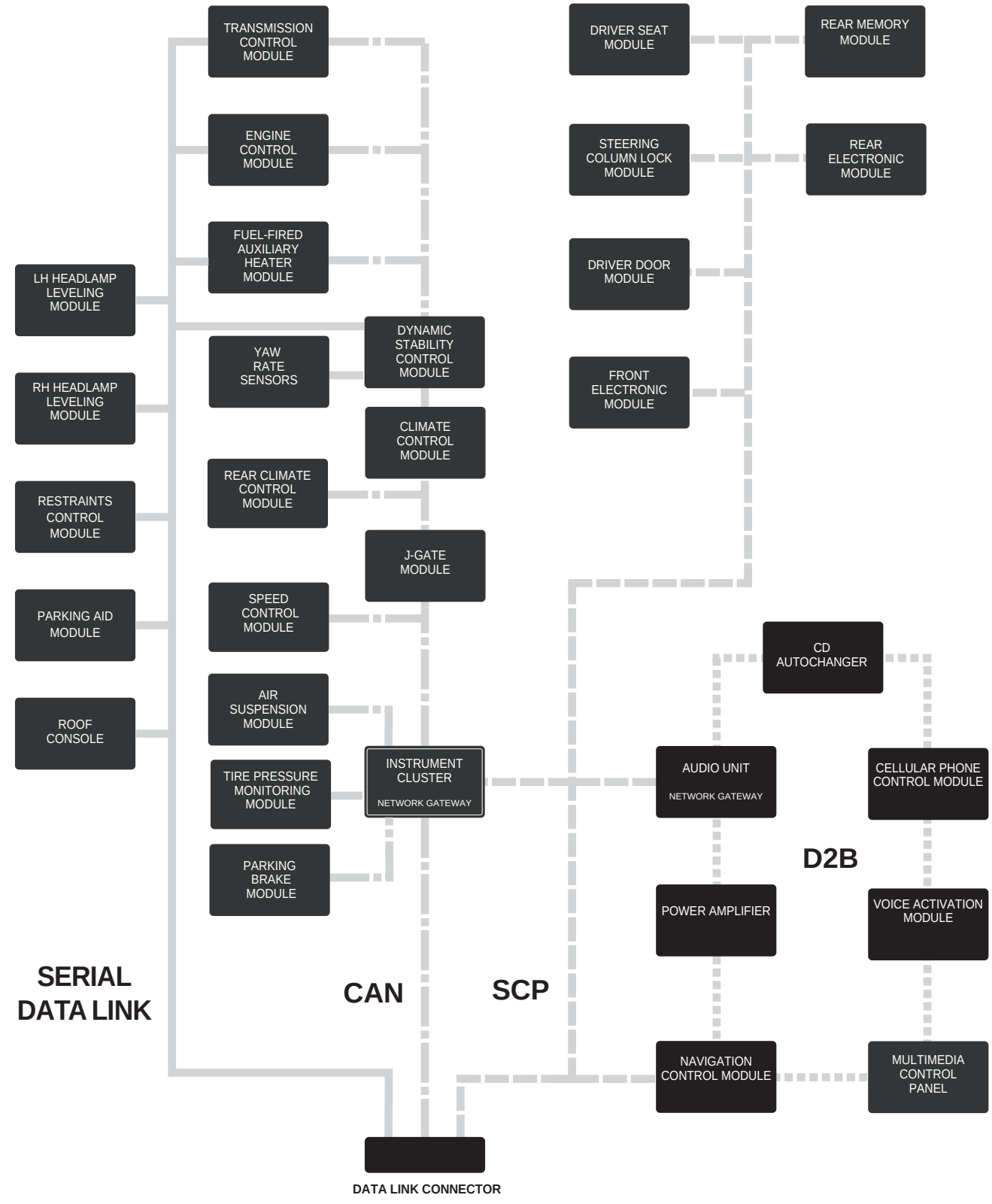
EXAMPLE:

COMPLETE COMPONENTS AND CONTROL MODULES

INCOMPLETE COMPONENTS (EXCEPT CONTROL MODULES)

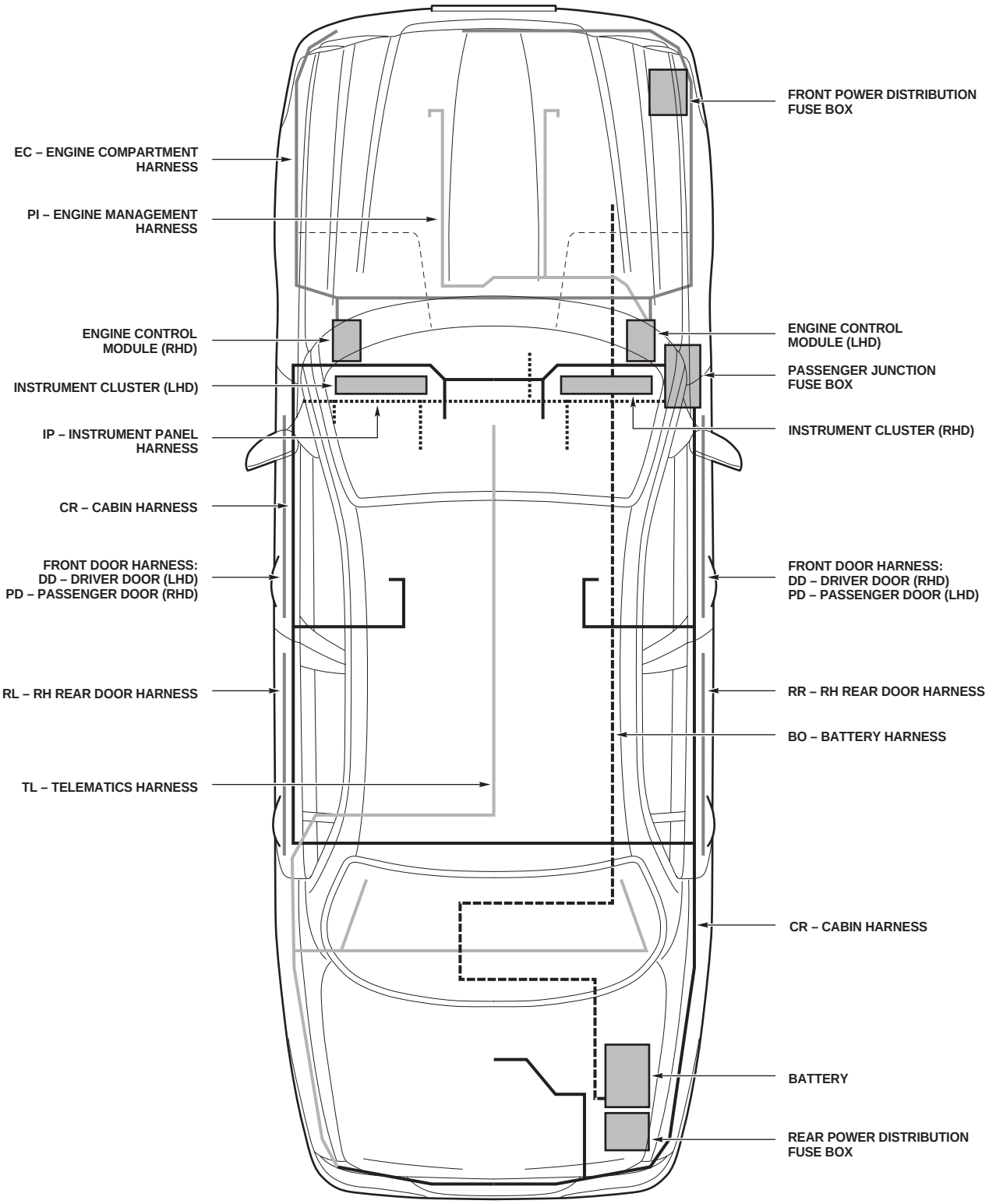
ASSEMBLIES AND POWER DISTRIBUTION FUSE BOXES

COMPONENTS WITH INTERNAL ELECTRONIC CIRCUIT



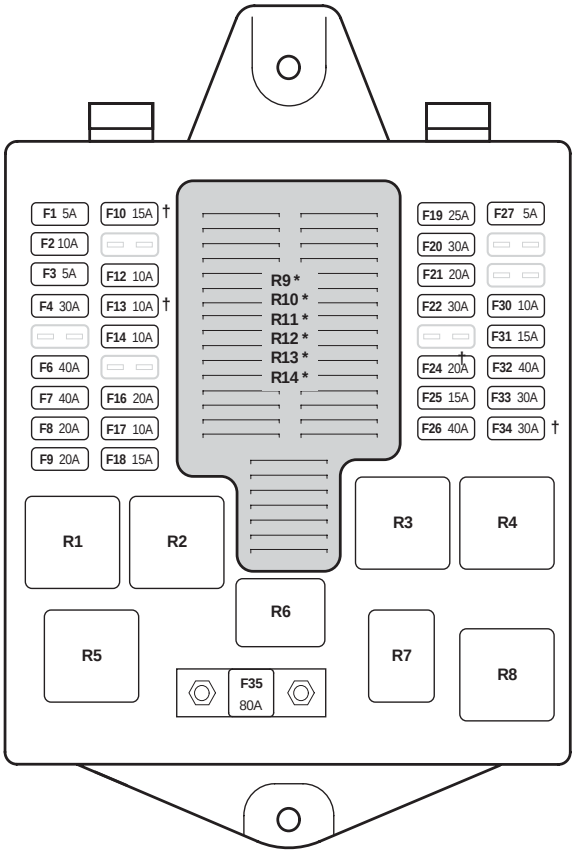
NOTE: TYPICAL XJ RANGE NETWORK CONFIGURATION (FULL OPTION SET). REFER TO FIGURES 20.1, 20.2, 20.3, AND 20.4 FOR CIRCUIT DETAILS.

net_com_35006

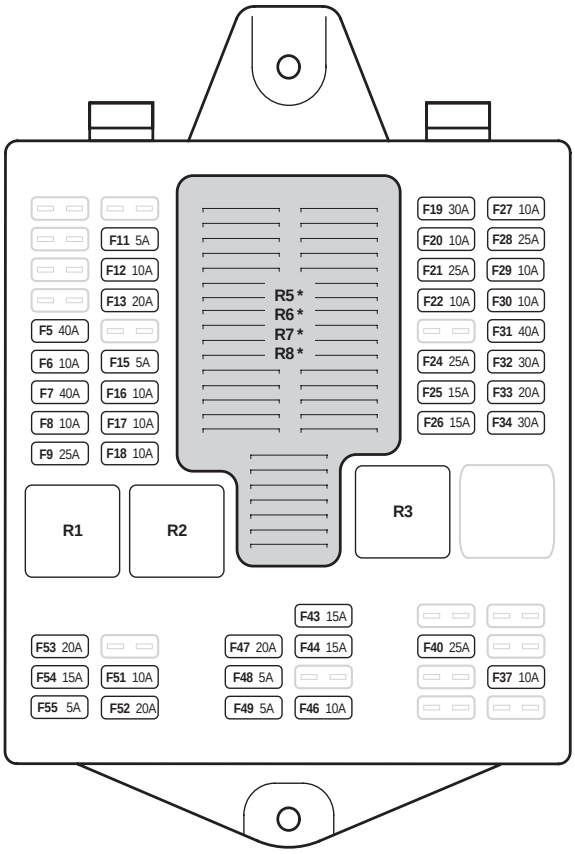


harn_fuse_box_35006

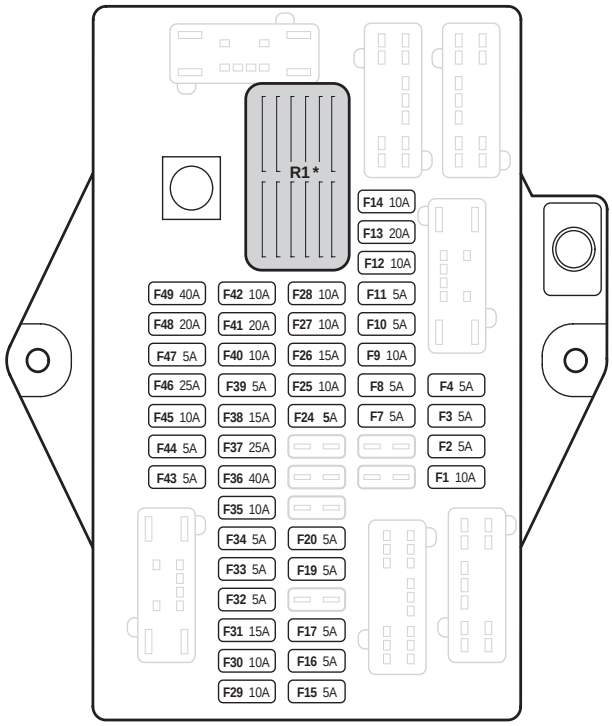
† **NOTE:** DIESEL VEHICLES
F10 = 20A, F13 = 20A, F34 = 10A



FRONT POWER DISTRIBUTION FUSE BOX
*** NON-SERVICEABLE PCB RELAYS**

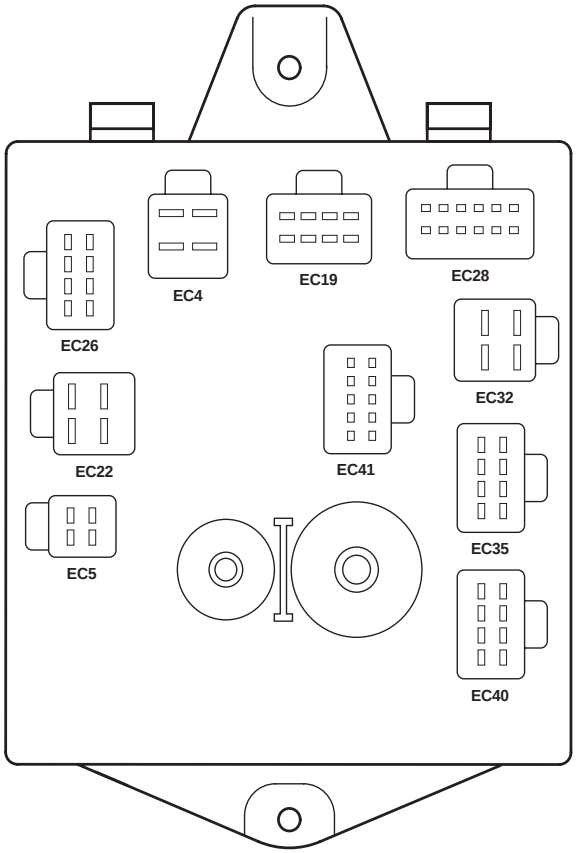


REAR POWER DISTRIBUTION FUSE BOX
*** NON-SERVICEABLE PCB RELAYS**

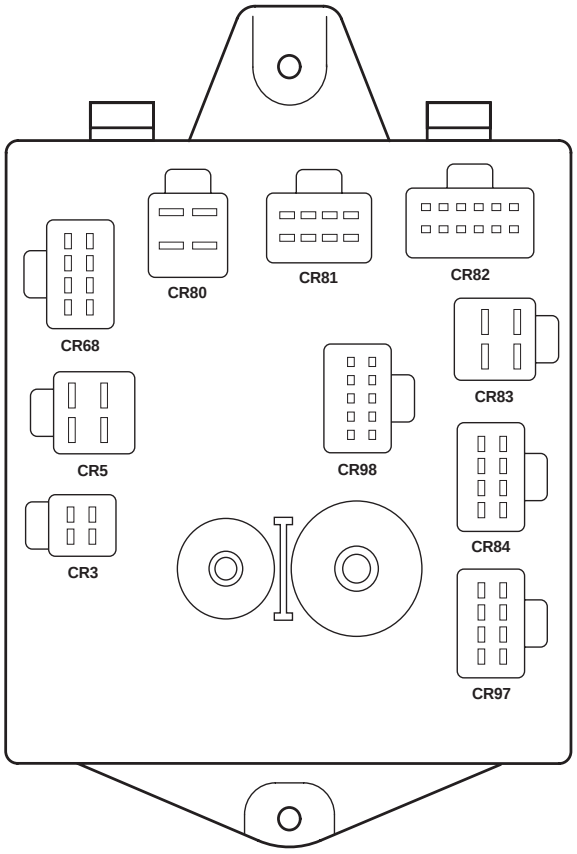


PASSENGER JUNCTION FUSE BOX
*** NON-SERVICEABLE PCB RELAY**

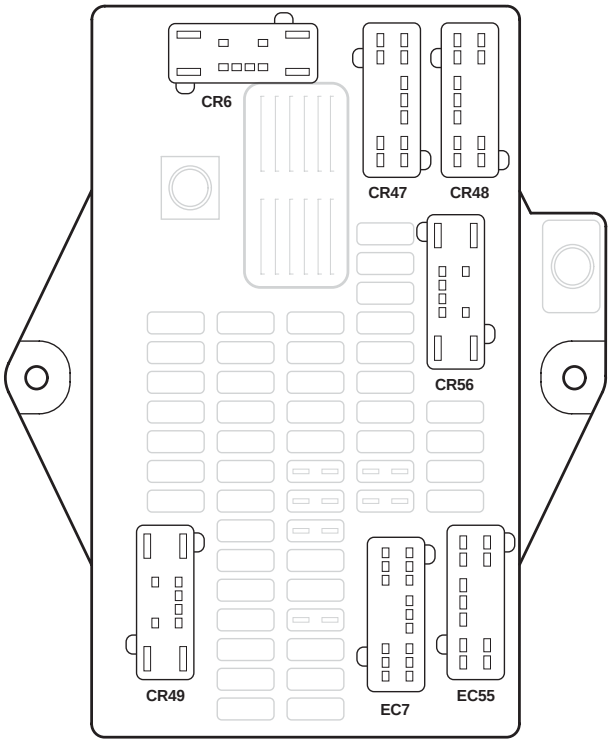
relay_fuse__35006



FRONT POWER DISTRIBUTION FUSE BOX



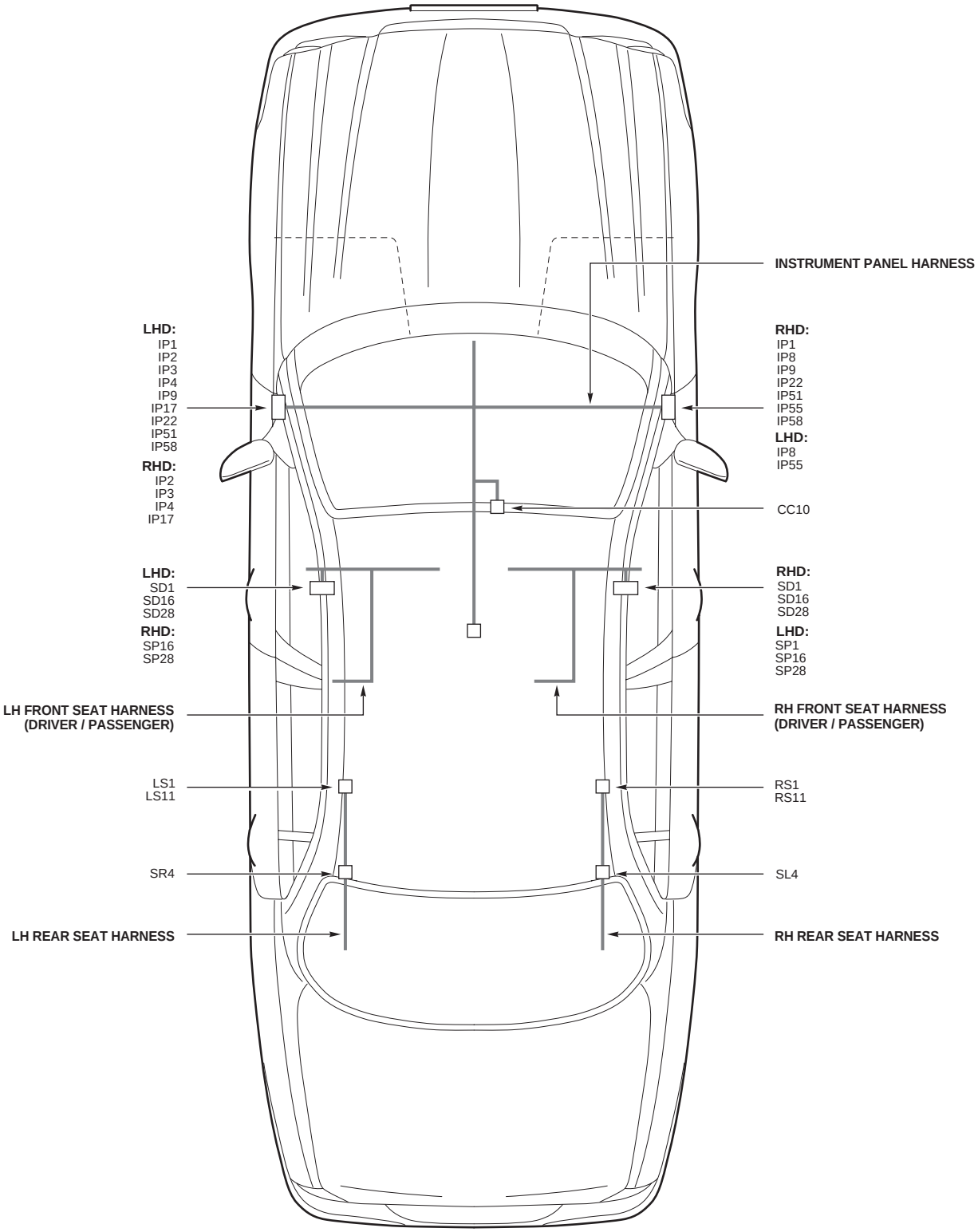
REAR POWER DISTRIBUTION FUSE BOX



PASSENGER JUNCTION FUSE BOX

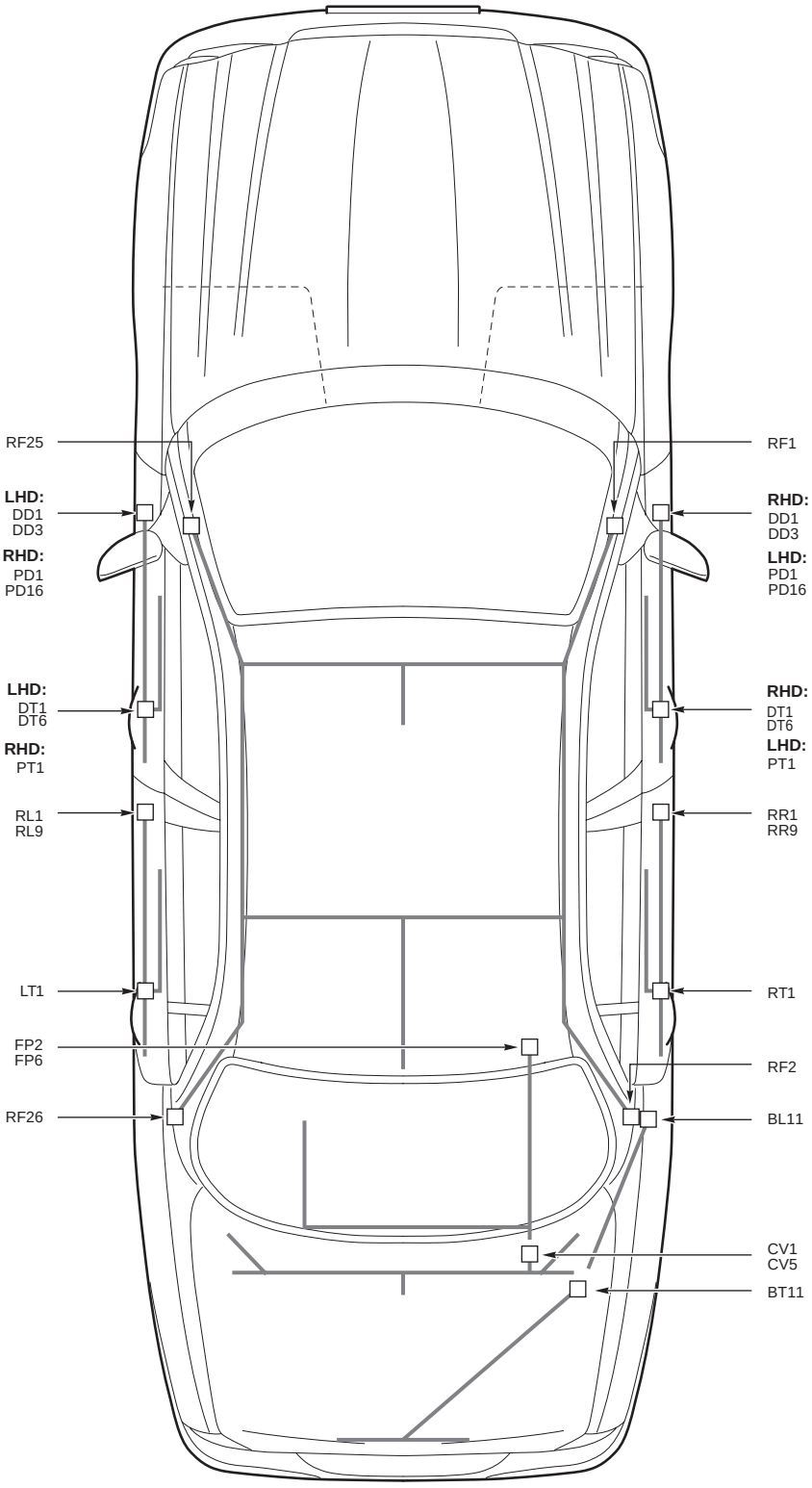
fuse_box_con__35006

Instrument Panel and Seat Harnesses



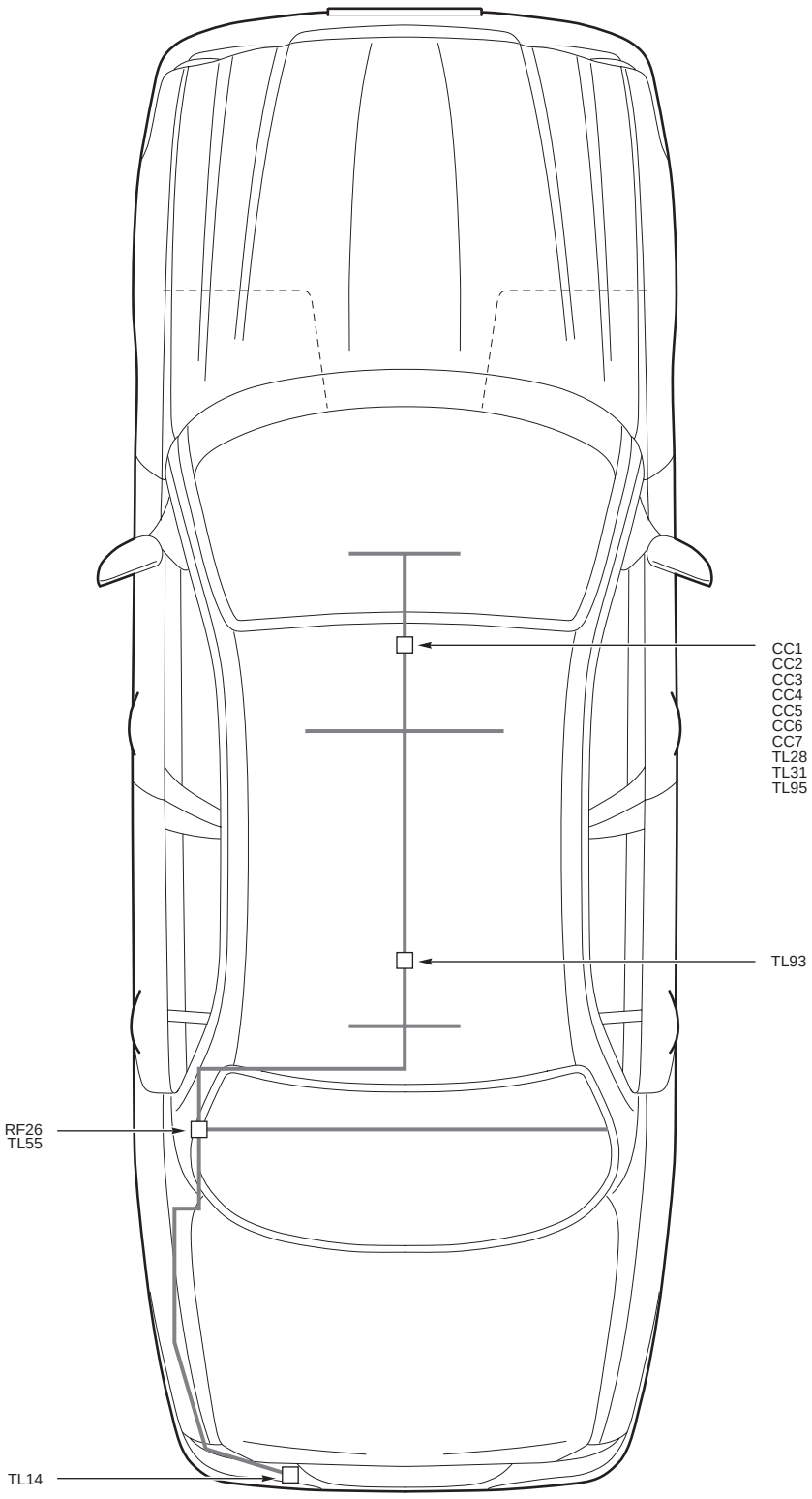
ip_sh_con_35006

Small Harnesses

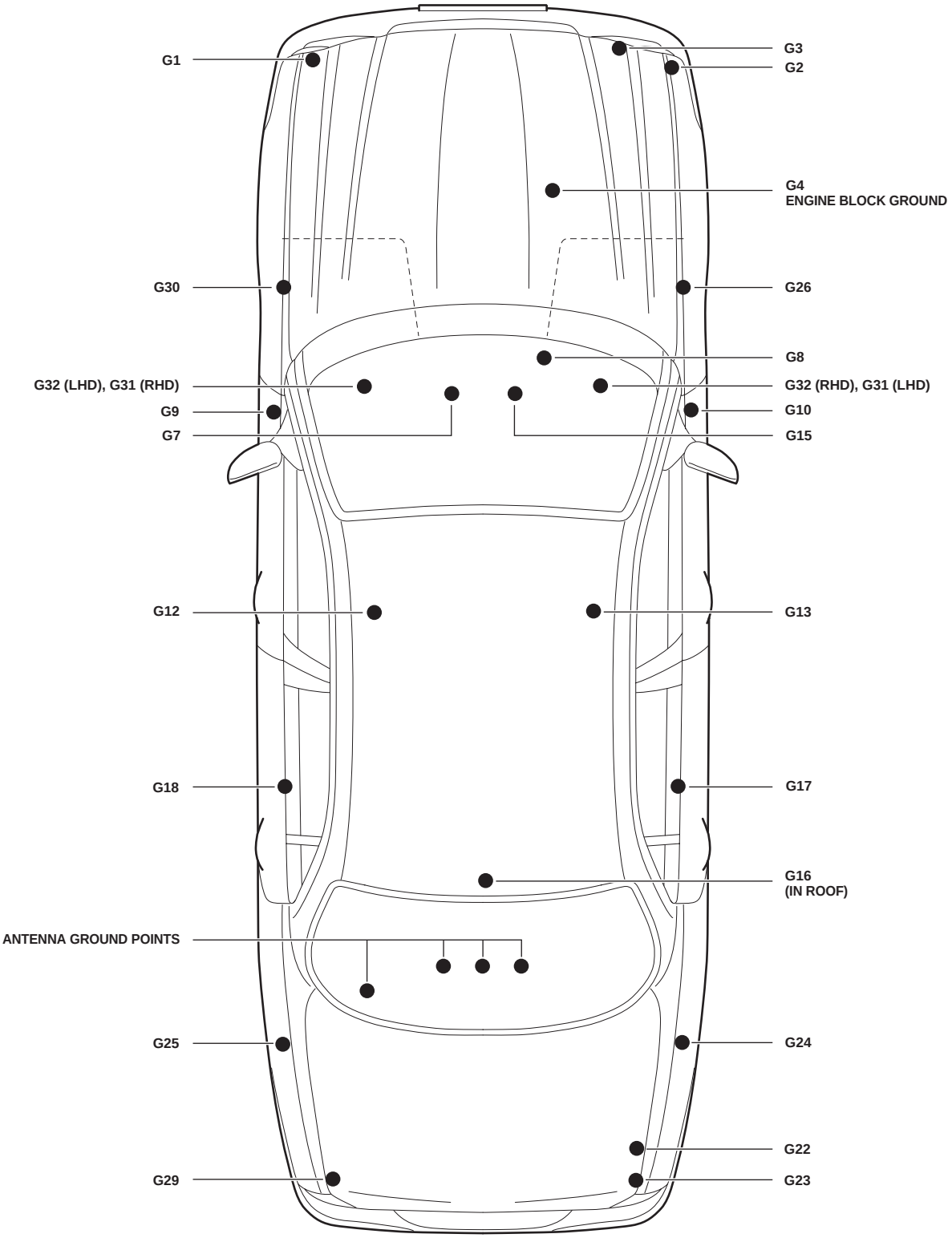


small_harn_35006

Telematics Harness



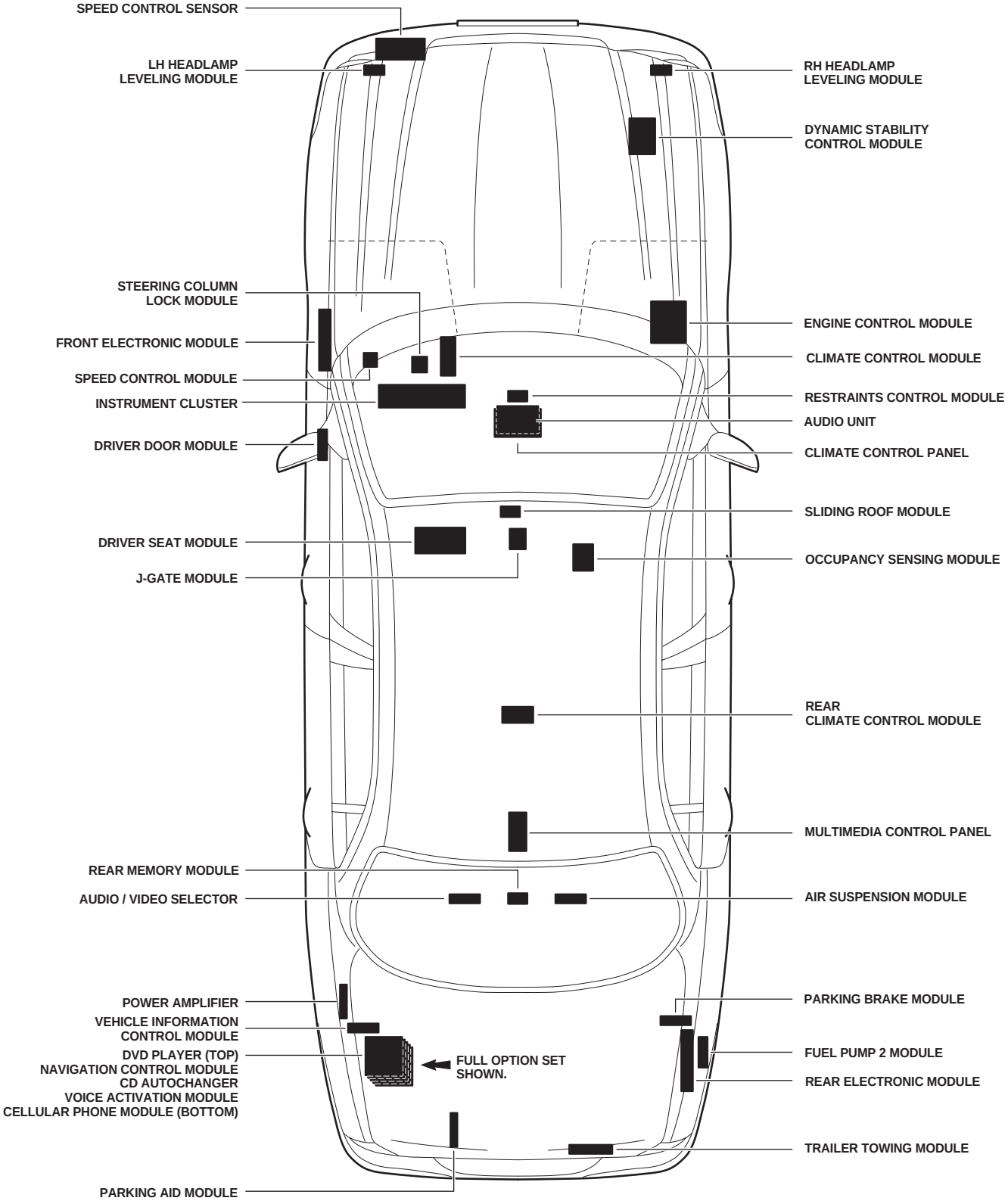
tele-_harn_35006


G1
G3
G2
G4
ENGINE BLOCK GROUND
G30
G26
G8
G32 (LHD), G31 (RHD)
G32 (RHD), G31 (LHD)
G9
G10
G7
G15
G12
G13
G18
G17
G16
(IN ROOF)
ANTENNA GROUND POINTS
G25
G24
G22
G29
G23

gp_loc__35006

LHD

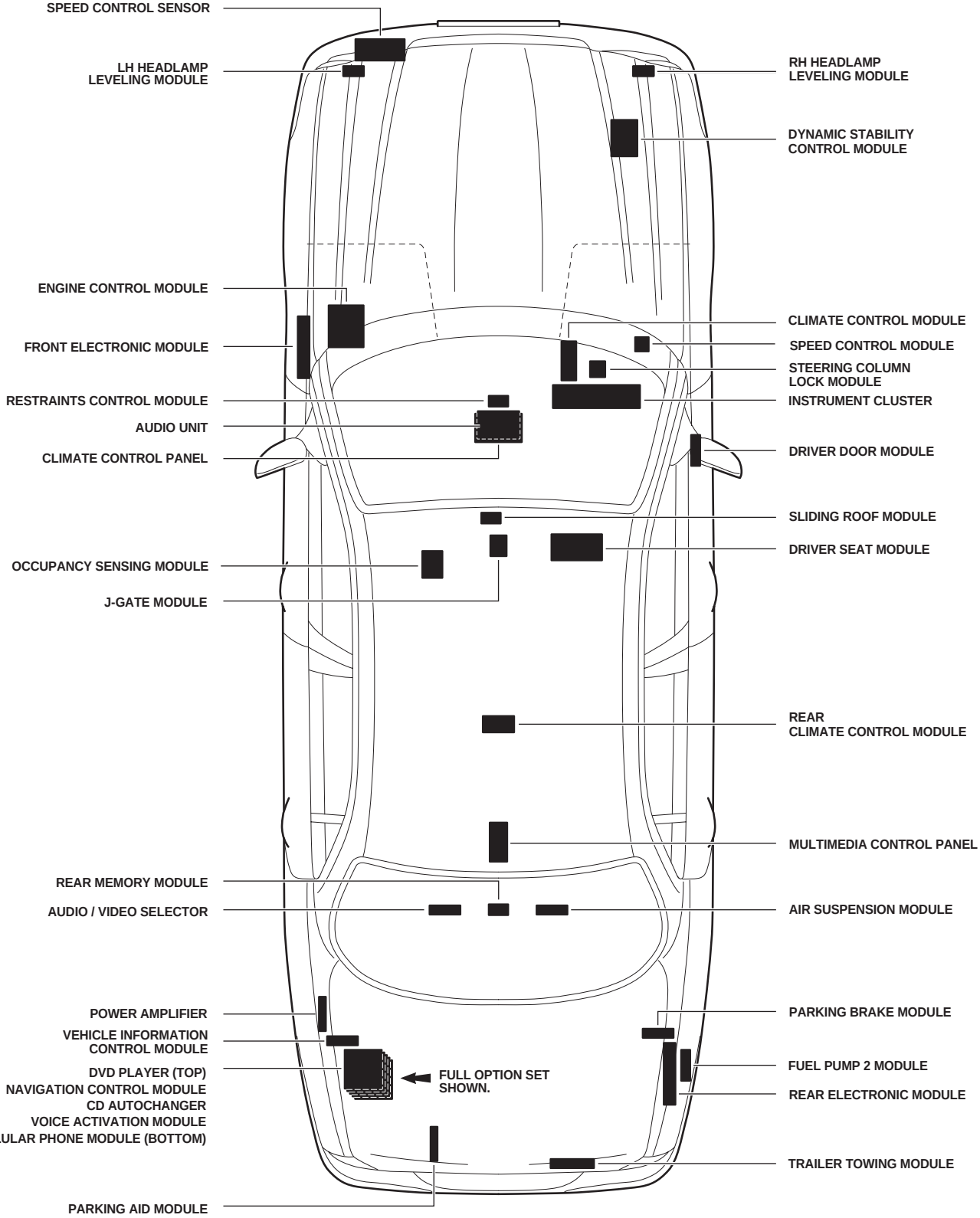
NOTE: THE TRANSMISSION CONTROL MODULE IS CONTAINED WITHIN THE TRANSMISSION.



lhd_cm_loc_35006

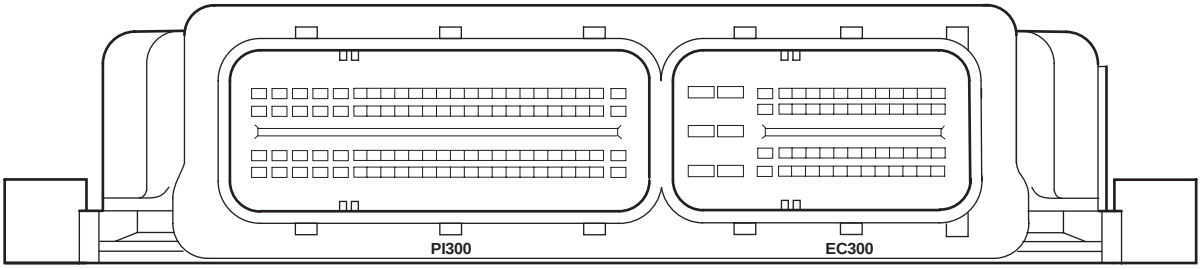
RHD

NOTE: THE TRANSMISSION CONTROL MODULE IS CONTAINED WITHIN THE TRANSMISSION.



rhd_cm_loc_35006

ENGINE CONTROL MODULE



PI300 / BLACK

73 –	74 GW	75 RW	76 RU	77 RW	78 BG	79 BR	80 BK	81 BO	82 BU	83 U	84 BW	85 UY	86 Y	87 YU	88 UY	89 RW	90 OG	91 –	92 UY	93 –	94 NY	95 –	96 YR
49 U	50 YU	51 YR	52 YG	53 YU	54 YR	55 GR	56 GR	57 YR	58 GW	59 Y	60 GW	61 GU	62 GB	63 –	64 YB	65 R	66 U	67 Y	68 UY	69 BK	70 GW	71 U	72 U

25 –	26 G	27 N	28 R	29 Y	30 O	31 –	32 –	33 N	34 Y	35 –	36 –	37 –	38 BK	39 YU	40 N	41 N	42 N	43 N	44 –	45 B	46 YR	47 OY	48 –
1 Y	2 G	3 WR	4 –	5 –	6 B	7 R	8 G	9 –	10 BG	11 BG	12 BG	13 –	14 –	15 BG	16 YR	17 –	18 BK	19 B	20 B	21 –	22 BW	23 Y	24 OW

EC300 / BLACK

5 B	6 WG	46 –	47 –	48 R	49 WU	50 NW	51 GO	52 G	53 –	54 NR	55 BU	56 –	57 –	58 Y
		33 U	34 –	35 YG	36 YR	37 –	38 Y	39 –	40 U	41 GO	42 GU	43 Y	44 –	45 G
3 B	4 WG													
		20 N	21 Y	22 –	23 Y	24 R	25 –	26 –	27 –	28 –	29 –	30 GO	31 –	32 U
1 B	2 B	7 G	8 BG	9 –	10 –	11 –	12 WU	13 Y	14 –	15 GR	16 BW	17 Y	18 –	19 OY

ecm_35006

DIESEL POWERTRAIN CONTROL MODULE

C99 / GREY

M4 BG	L4 GB	K4 BO	H4 YP	G4 WP	F4 NW	E4 WU	D4 WP	C4 WB	B4 WB	A4 WU
M3 BW	L3 GW	K3 SB	H3 NW	G3 NR	F3 NR	E3 WR	D3 —	C3 YR	B3 —	A3 WR
M2 BU	L2 GU	K2 SB	H2 BU	G2 NR	F2 WG	E2 NR	D2 NR	C2 W	B2 U	A2 WR
M1 —	L1 —	K1 BU	H1 GU	G1 YR	F1 WR	E1 W	D1 YG	C1 WG	B1 W	A1 —

C98 / BROWN

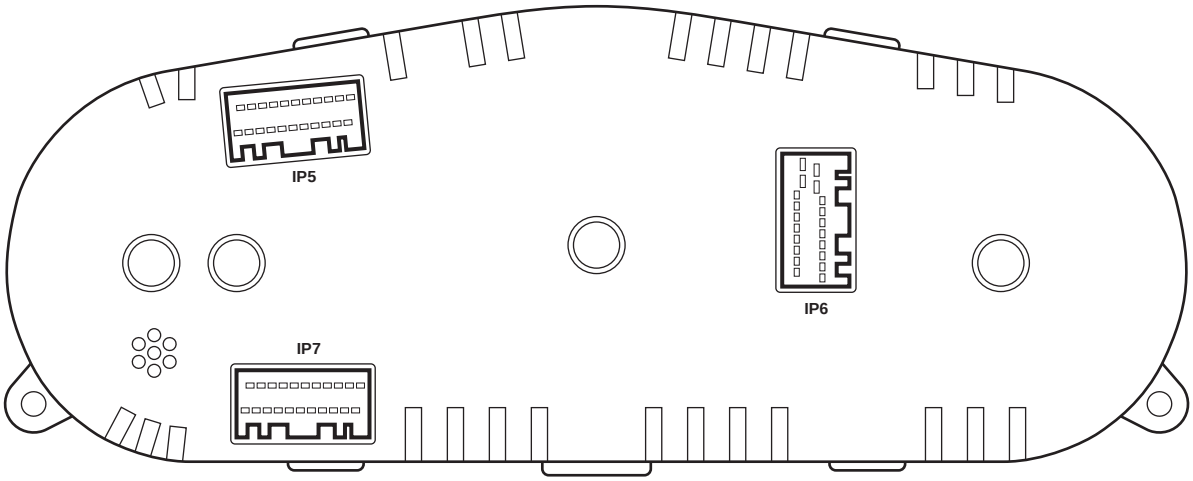
A1 W	B1 WR	C1 —	D1 WG	E1 WU	F1 YU	G1 —	H1 WP	J1 GO	K1 N	L1 BY	M1 BO
A2 —	B2 —	C2 —	D2 YG	E2 NG	F2 NU	G2 —	H2 —	J2 —	K2 —	L2 GY	M2 BR
A3 G	B3 —	C3 —	D3 WR	E3 WG	F3 RB	G3 BY	H3 —	J3 GO	K3 BU	L3 GR	M3 GO
A4 Y	B4 —	C4 NR	D4 NY	E4 WB	F4 —	G4 —	H4 —	J4 BU	K4 BR	L4 —	M4 —

EC66 / BLACK

A1 —	B1 WR	C1 G	D1 R	E1 OY	F1 WK	G1 —	H1 YB	J1 —	K1 —	L1 WG	M1 B
A2 W	B2 BG	C2 Y	D2 U	E2 —	F2 WU	G2 GO	H2 —	J2 —	K2 WU	L2 WG	M2 B
A3 —	B3 OY	C3 —	D3 BG	E3 U	F3 Y	G3 —	H3 —	J3 U	K3 GO	L3 WG	M3 B
A4 —	B4 YG	C4 YR	D4 GR	E4 Y	F4 WU	G4 WR	H4 G	J4 GU	K4 WG	L4 B	M4 B

dies_pcm_35006

INSTRUMENT CLUSTER



IP5 / GREY

22 —	21 —	20 —	19 —	18 —	17 —	16 —	15 —	14 B	13 —	12 GO

11 WB	10 GO	9 Y	8 YR	7 R	6 —	5 OG	4 YG	3 GO	2 RW	1 YU

IP6 / BLACK

11 R	1 OY
12 U	2 B
13 GB	3 O
14 RG	4 BG
15 RW	5 WR
16 W	6 GR
17 WB	7 —
18 Y	8 Y
19 G	9 G
20 Y	10 U

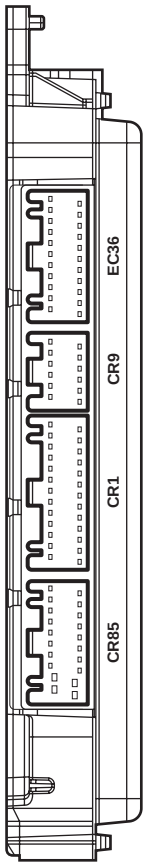
IP7 / BLACK

22 —	21 WB	20 GW	19 UY	18 BR	17 Y	16 NW	15 BO	14 YU	13 WR	12 W

11 BG	10 —	9 GU	8 GO	7 GR	6 YB	5 RW	4 G	3 BW	2 WG	1 O

ic_35006

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

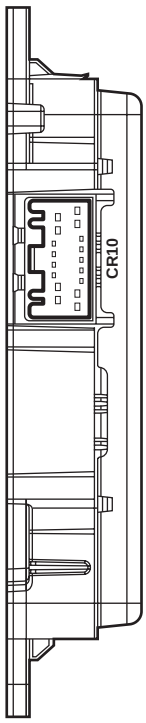
1	2	3	4	5	6
U	OG	BW	—	—	NW

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



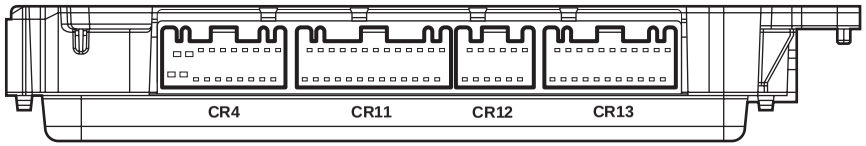
CR10 / BLACK

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

fem_35006

REAR ELECTRONIC MODULE



CR4 / BLACK

1 Y	2 YB	3 NW	4 RW	5 GU	6 OY	7 O	8 WB	9 WB	10 WG
11 YG	12 YG	13 O	14 —	15 WR	16 WU	17 GW	18 —	19 UY	20 RG

CR11 / NATURAL

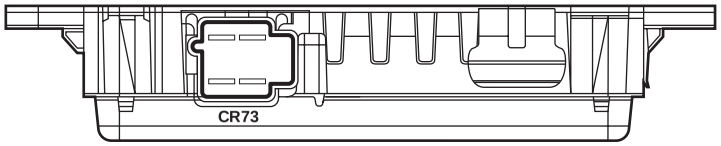
1 —	2 —	3 RU	4 R	5 U	6 YB	7 Y	8 OG	9 GO	10 BO	11 B	12 B	13 WU	
14 —	15 —	16 GW	17 OY	18 OG	19 N	20 —	21 OY	22 RU	23 BK	24 —	25 B	26 B	

CR12 / BLACK

1 YR	2 R	3 —	4 —	5 U	6 OG
7 G	8 GU	9 RG	10 —	11 RW	12 OY

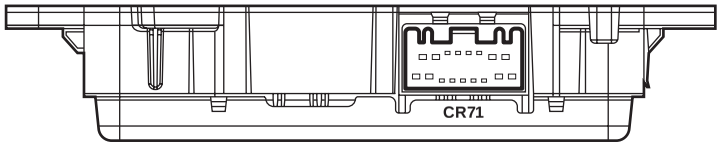
CR13 / BLACK

1 Y	2 U	3 —	4 —	5 —	6 N	7 —	8 GR	9 YG	10 YU	11 —
12 B	13 GO	14 WG	15 OY	16 WR	17 WG	18 —	19 —	20 GR	21 —	22 GW



CR73 / BLACK

1 N	2 B
3 R	4 Y



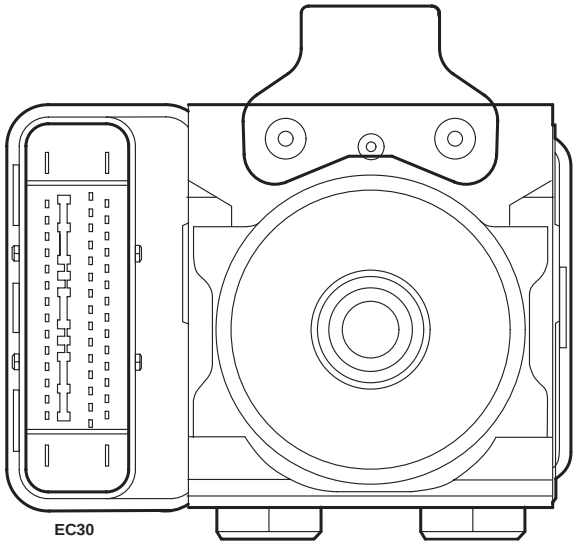
CR71 / BLACK

1 UY	2 —	3 U	4 O	5 GB	6 G	7 RU	8 RU
9 OG	10 UY	11 W	12 O	13 —	14 —	15 B	16 RU	17 RU

DYNAMIC STABILITY CONTROL MODULE

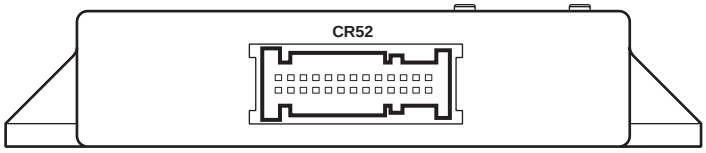
EC30 / BLACK

32 NW		1 NR
	17 —	
33 NG	18 Y	2 N
34 WU	19 U	3 —
35 G	20 —	4 —
36 WR	21 —	5 R
37 NR	22 R	6 U
38 R	23 —	7 UY
39 —	24 —	8 W
40 BK	25 —	9 U
41 Y	26 W	10 W
42 N	27 O	11 Y
43 W	28 —	12 Y
44 —	29 BK	13 G
45 WG	30 Y	14 G
46 NG	31 —	15 —
47 B		16 B



EC30

PARKING AID MODULE

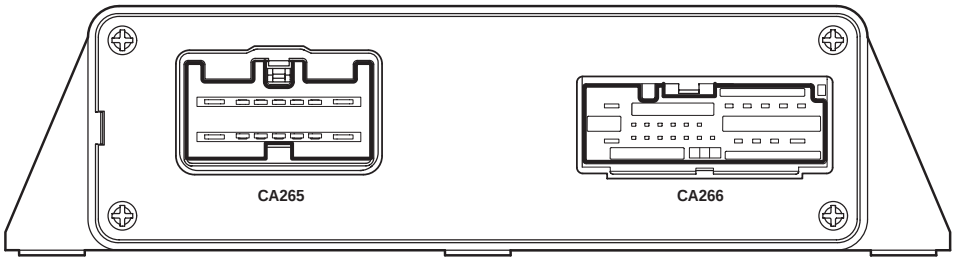


CR52

CR52 / BLACK

1 WR	2 RU	3 B	4 BO	5 W	6 OY	7 GW	8 RG	9 OG	10 WU	11 WG	12 YU	13 YR
14 RU	15 RW	16 BG	17 YR	18 Y	19 GU	20 —	21 —	22 —	23 WR	24 W	25 YB	26 Y

ELECTRONIC PARKING BRAKE MODULE



CA265

CA266

CR50 / GREY

1 —	2 —	3 —	4 —	5 —	6 —	7 GW
8 —	9 —	10 U	11 G	12 Y	13 WU	14 RW

CR32 / BLACK

1 NW	2 R	3 —	4 G	5 Y	6 WU	7 GO	8 —	9 WR	10 YB	11 NW	12 —	
13 B	14 Y	15 GB	16 —	17 —	18 —	19 —	20 RW	21 —	22 —	23 —	24 —	

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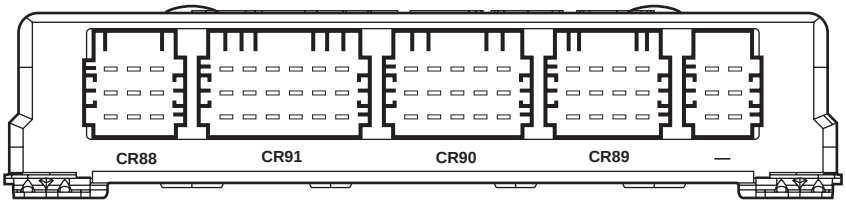
AIR SUSPENSION MODULE



CR88 / BLACK

1 NW	4 —	7 Y
2 N	5 —	8 G
3 B	6 —	9 —

CR91 / BLACK

1 YG	4 —	7 —	10 YU	13 —	16 Y
2 WR	5 WU	8 BO	11 U	14 GO	17 G
3 WB	6 WG	9 —	12 NR	15 —	18 BK

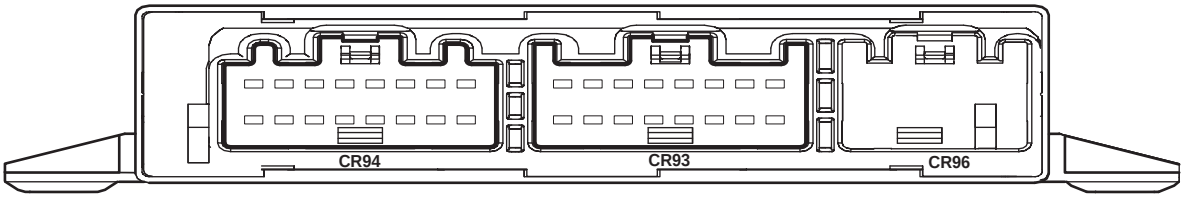
CR90 / BLACK

1 G	4 —	7 BW	10 YR	13 Y
2 GU	5 —	8 BR	11 YG	14 G
3 GB	6 —	9 BK	12 YU	15 BK

CR89 / BLACK

1 BO	4 WR	7 WG	10 BG
2 BK	5 WU	8 WB	11 BG
3 Y	6 —	9 —	12 —

TIRE PRESSURE MONITORING SYSTEM MODULE



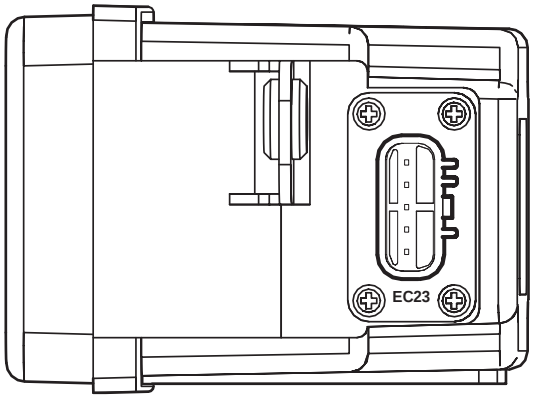
CR94 / BLUE

1 —	2 —	3 —	4 —	5 NR	6 GB	7 GU	8 GO
9 —	10 —	11 —	12 —	13 BO	14 BW	15 BR	16 B

CR93 / GREY

1 —	2 G	3 Y	4 U	5 —	6 —	7 —	8 WU
9 —	10 —	11 —	12 B	13 —	14 —	15 —	16 NW

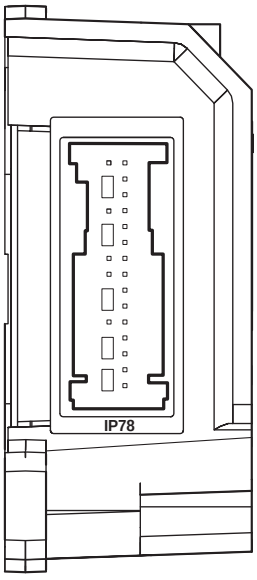
SPEED CONTROL SENSOR



EC23 / BLACK

1 WG
2 B
3 U
4 R
5 NW

SPEED CONTROL MODULE

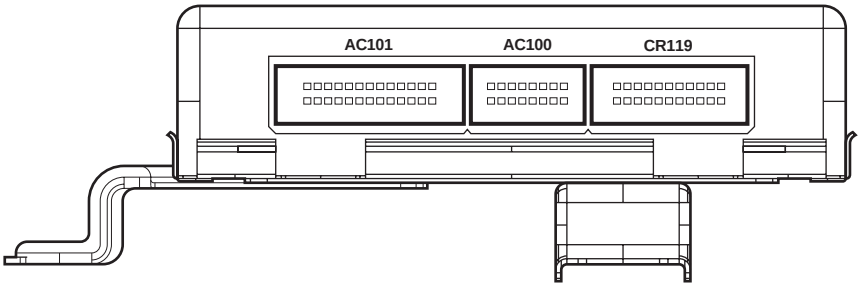


IP78 / YELLOW

15 NW	30 —
14 WG	29 —
13 —	28 —
12 B	27 —
11 —	26 —
10 —	25 —
9 Y	24 —
8 G	23 —
7 —	22 —
6 R	21 —
5 R	20 U
4 —	19 —
3 R	18 —
2 U	17 —
1 —	16 —

asm_ascm_35006

CLIMATE CONTROL MODULE



AC101 / BLACK

13 YR	12 WG	11 YG	10 BR	9 YB	8 N	7 NW	6 RY	5 —	4 RB	3 GY	2 GU	1 U
26 GR	25 BG	24 NB	23 WU	22 UW	21 Y	20 UO	19 WY	18 —	17 K	16 O	15 R	14 BY

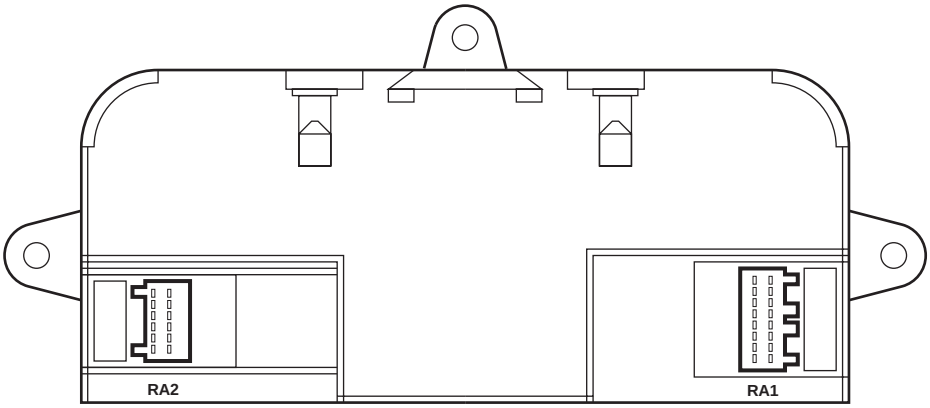
AC100 / BLACK

8 GB	7 UB	6 GB	5 S	4 O	3 UY	2 NR	1 UR
16 WR	15 RG	14 GW	13 G	12 RW	11 WO	10 LG	9 YU

CR119 / BLACK

11 RW	10 RU	9 RW	8 Y	7 G	6 Y	5 B	4 RG	3 WG	2 N	1 —	
22 B	21 GW	20 YG	19 OY	18 BW	17 G	16 Y	15 —	14 —	13 —	12 —	

REAR CLIMATE CONTROL MODULE



RA2 / BLACK

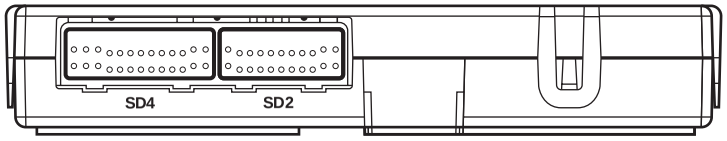
1 NB	7 WR
2 —	8 RB
3 KB	9 —
4 G	10 KW
5 KG	11 W
6 U	12 KU

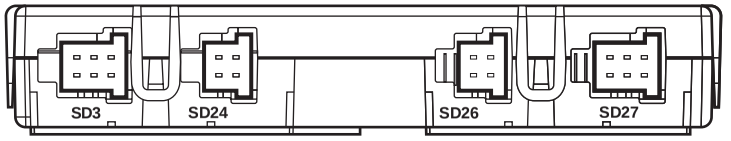
RA1 / BLACK

16 G	8 Y
15 —	7 —
14 GW	6 RW
13 BW	5 —
12 NR	4 —
11 OW	3 YB
10 —	2 YU
9 UR	1 YR

ccm_rccm_35006

DRIVER SEAT MODULE





SD4 / BLACK

13 NG	12 WB	11 WB	10 R	9 WU	8 U	7 O	6 —	5 —	4 —	3 —	2 —	1 —
26 BK	25 WB	24 —	23 WR	22 WU	21 —	20 —	19 —	18 —	17 —	16 —	15 —	14 —

SD2 / BLACK

11 GB	10 RW	9 —	8 —	7 —	6 —	5 UY	4 U	3 —	2 —	1 Y
22 WR	21 O	20 YR	19 N	18 YB	17 Y	16 WG	15 RU	14 —	13 —	12 U

SD3 / BLACK

6 NR	4 —	2 OG
5 B	3 —	1 GO

SD24 / BLACK

4 YR	2 UY
3 RU	1 YU

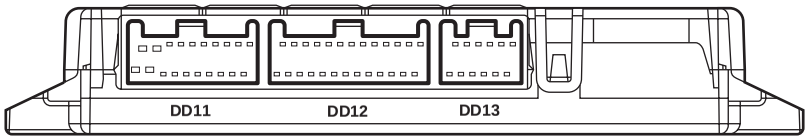
SD26 / BLACK

4 GU	2 —
3 U	1 —

SD27 / BLACK

6 GR	4 GO	2 NG
5 RG	3 GW	1 B

DRIVER DOOR MODULE



DD11 / BLACK

1 OY	2 OG	3 OG	4 GW	5 WU	6 U	7 —	8 YB	9 Y	10 YG
11 —	12 —	13 NR	14 OY	15 O	16 R	17 O	18 R	19 U	20 G

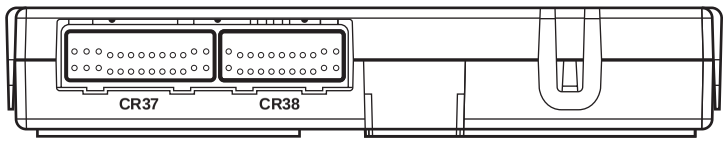
DD12 / BLACK

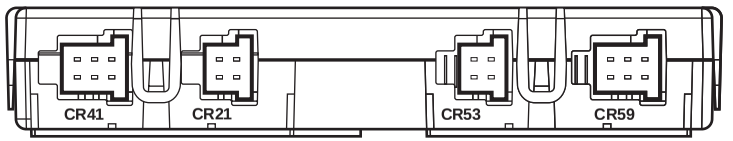
1 —	2 GW	3 GU	4 —	5 —	6 G	7 WR	8 YB	9 —	10 O	11 —	12 UY	13 GW
14 YR	15 Y	16 OY	17 O	18 —	19 —	20 —	21 G	22 BR	23 —	24 —	25 GO	26 —

DD13 / NATURAL

1 —	2 RU	3 Y	4 U	5 R	6 YR
7 B	8 B	9 —	10 OY	11 NW	12 N

REAR MEMORY MODULE





CR37 / BLACK

13 NG	12 WB	11 WG	10 WR	9 WU	8 —	7 —	6 —	5 —	4 —	3 WR	2 O	1 O
26 B	25 WB	24 WB	23 WU	22 WR	21 —	20 —	19 —	18 —	17 —	16 WR	15 BK	14 BK

CR38 / BLACK

11 GB	10 RW	9 —	8 —	7 —	6 —	5 —	4 —	3 —	2 —	1 Y
22 GB	21 RW	20 WG	19 RU	18 —	17 —	16 WG	15 RU	14 —	13 —	12 U

CR41 / BLACK

6 NR	4 —	2 —
5 B	3 —	1 —

CR21 / BLACK

4 GO	2 RG
3 GW	1 RU

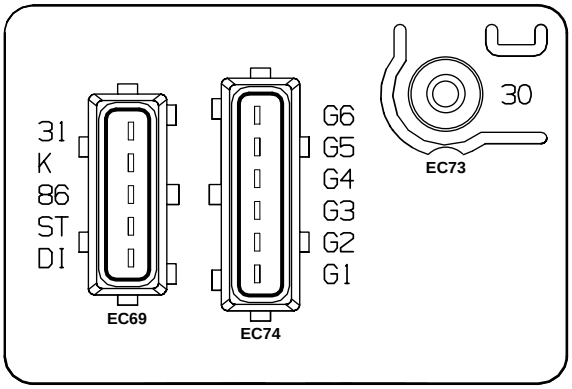
CR53 / BLACK

4 RG	2 —
3 RU	1 —

CR59 / BLACK

6 —	4 GO	2 NG
5 —	3 GW	1 B

GLOW PLUG CONTROL MODULE



EC69 / BLACK

1	B
2	BW
3	NR
4	—
5	WG

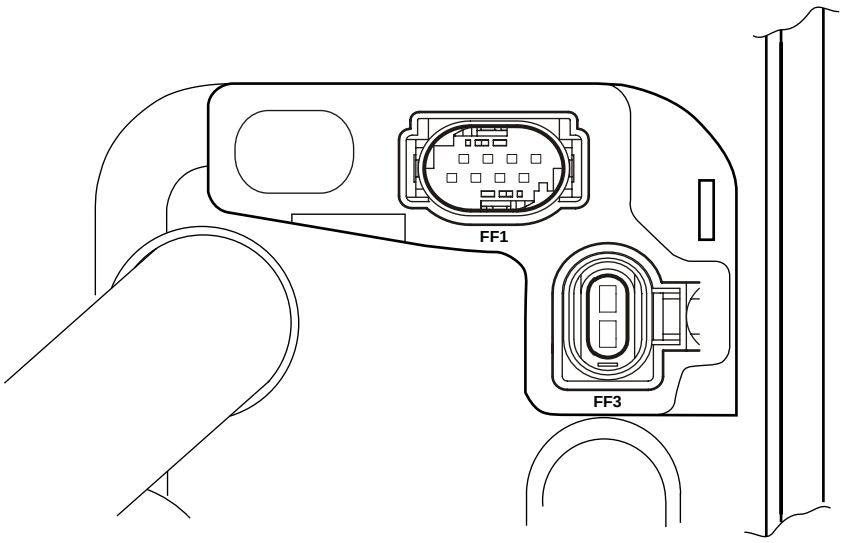
EC74 / BLACK

6	RG
5	RU
4	R
3	RG
2	RU
1	R

EC73

1	B

FUEL-FIRED AUXILIARY HEATER MODULE



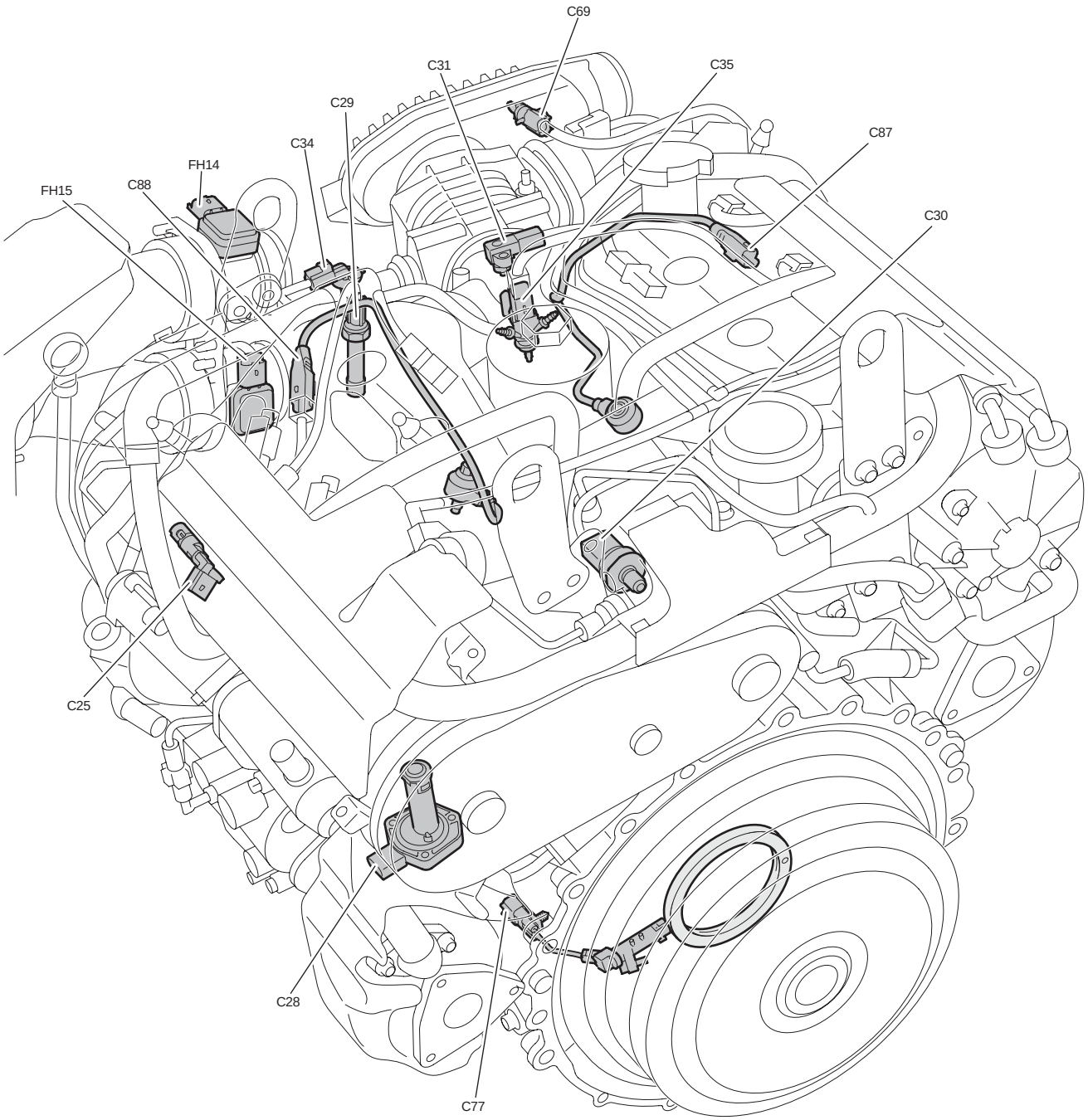
FF1 / BLACK

4 G	3 —	2 W	1 —
8 U	7 Y	6 —	5 G

FF3 / BLACK

2	B
1	YG

gp_ffh_35006



sensors_35006

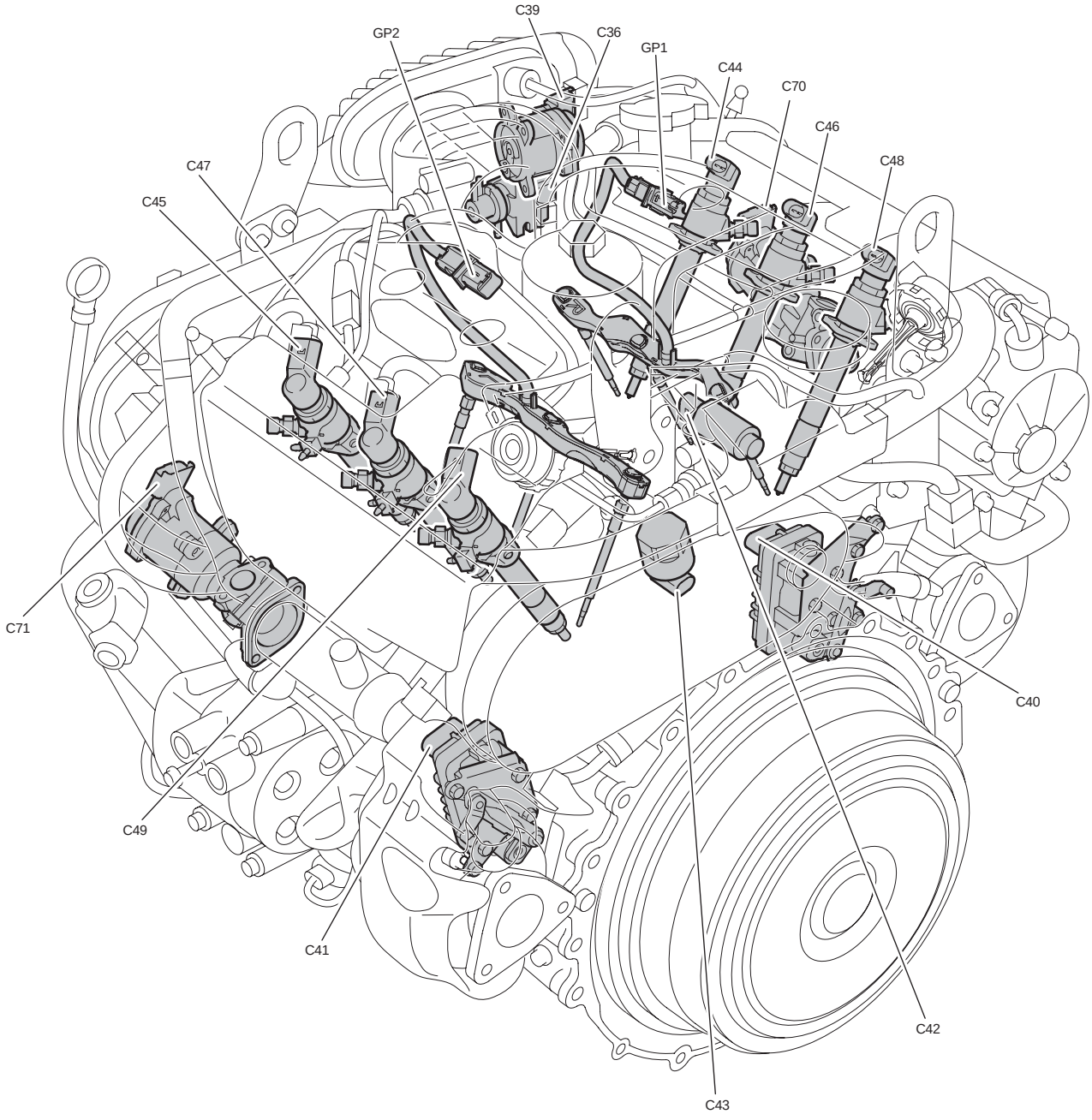


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Fig. 01.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
BATTERY	—	—	TRUNK / RH SIDE
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
IGNITION SWITCH	IP34	7-WAY / BLACK	STEERING COLUMN
MEGAFUSES	—	—	TRUNK / RH SIDE
PASSENGER (PRIMARY) JUNCTION FUSE BOX	CR6	10-WAY / BLACK	CABIN / RH 'A' POST
	CR47	11-WAY / BLACK	
	CR48	11-WAY / BLACK	
	CR49	10-WAY / BLACK	
	CR56	10-WAY / BLACK	
	EC7	15-WAY / BLACK	
	EC55	11-WAY / BLACK	
REAR POWER DISTRIBUTION FUSE BOX	CR3	4-WAY / BLACK	TRUNK / RH REAR
	CR5	4-WAY / BLACK	
	CR68	8-WAY / BLACK	
	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	
TRANSIT ISOLATION RELAY	CR95	2-WAY / WHITE	TRUNK / ADJACENT TO BATTERY

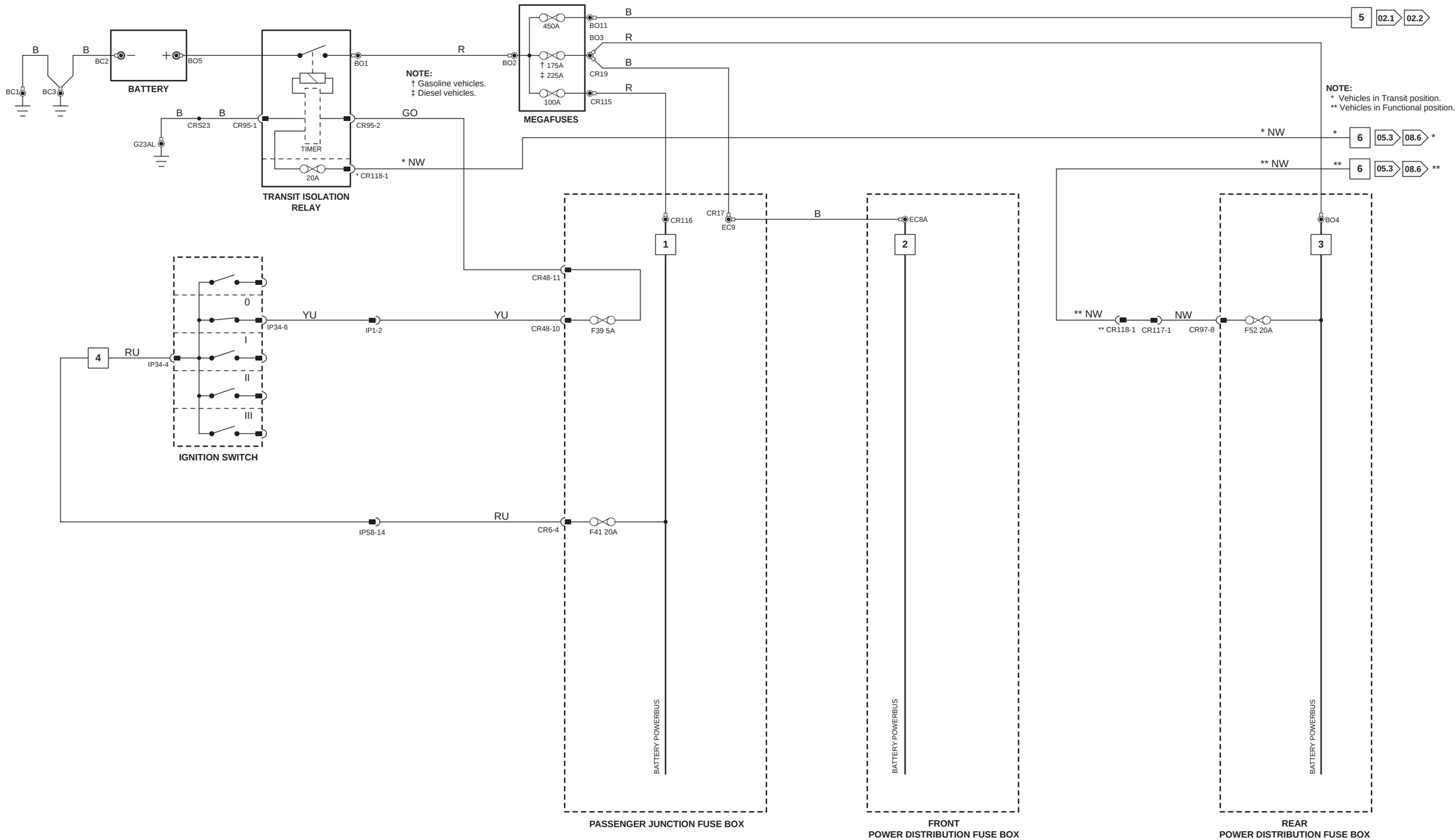
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CR117	2-WAY / GREY / CABIN HARNESS INTERCONNECT	TRUNK / ADJACENT TO BATTERY
IP1	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND DRIVER SIDE INSTRUMENT PANEL END PLATE
IP58	14-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)

GROUNDS

Ground	Location
BC1	TRUNK / RH SIDE / ADJACENT TO BATTERY
BC3	TRUNK / RH SIDE / ADJACENT TO BATTERY
G23	TRUNK / RH SIDE / ADJACENT TO BATTERY

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.



f01_1_35005

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	All Vehicles
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Fig. 01.2

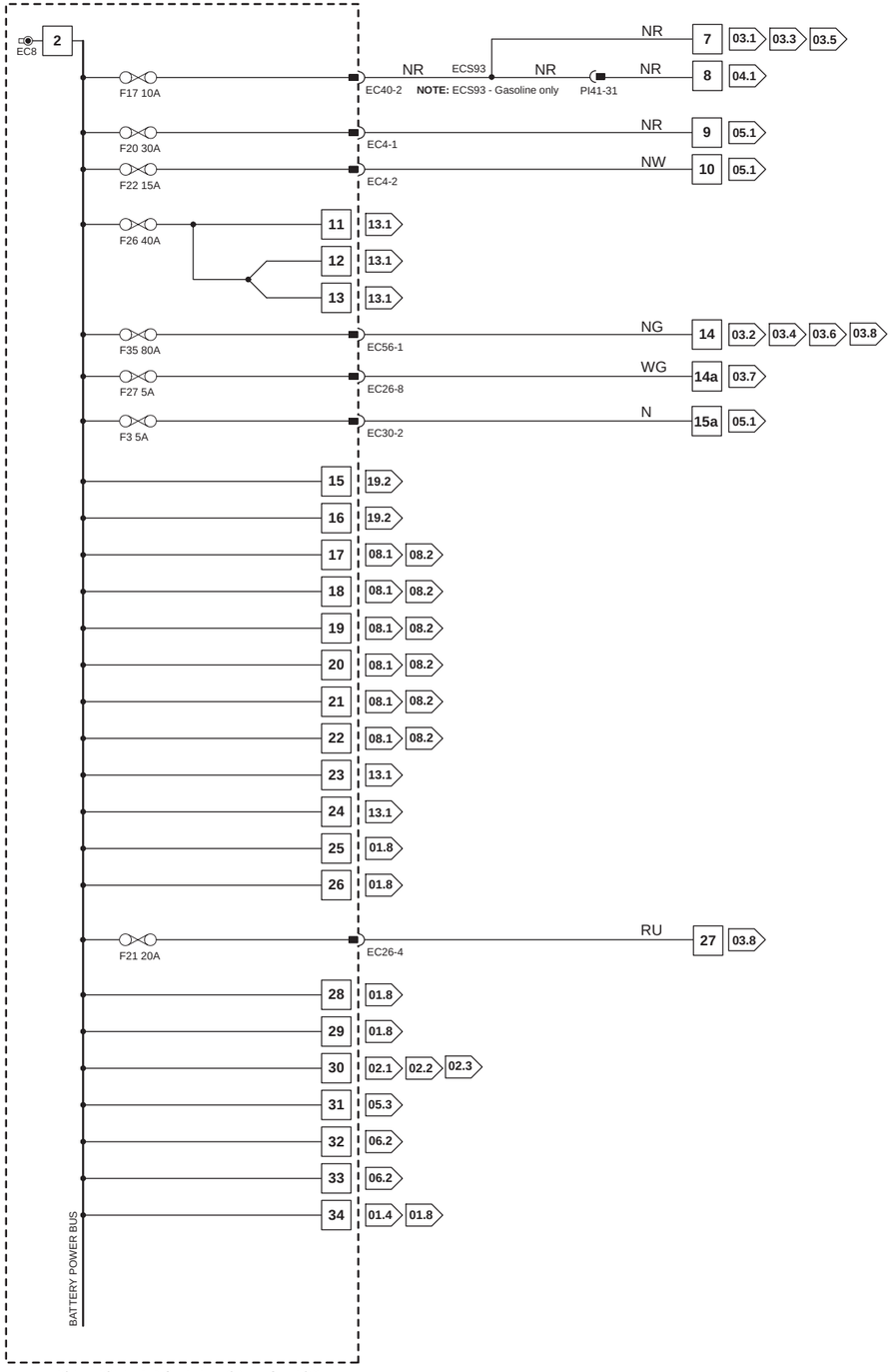
COMPONENTS

Component	Connector(s)	Connector Description	Location
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
REAR POWER DISTRIBUTION FUSE BOX	CR3	4-WAY / BLACK	TRUNK / RH REAR
	CR5	4-WAY / BLACK	
	CR68	8-WAY / BLACK	
	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	

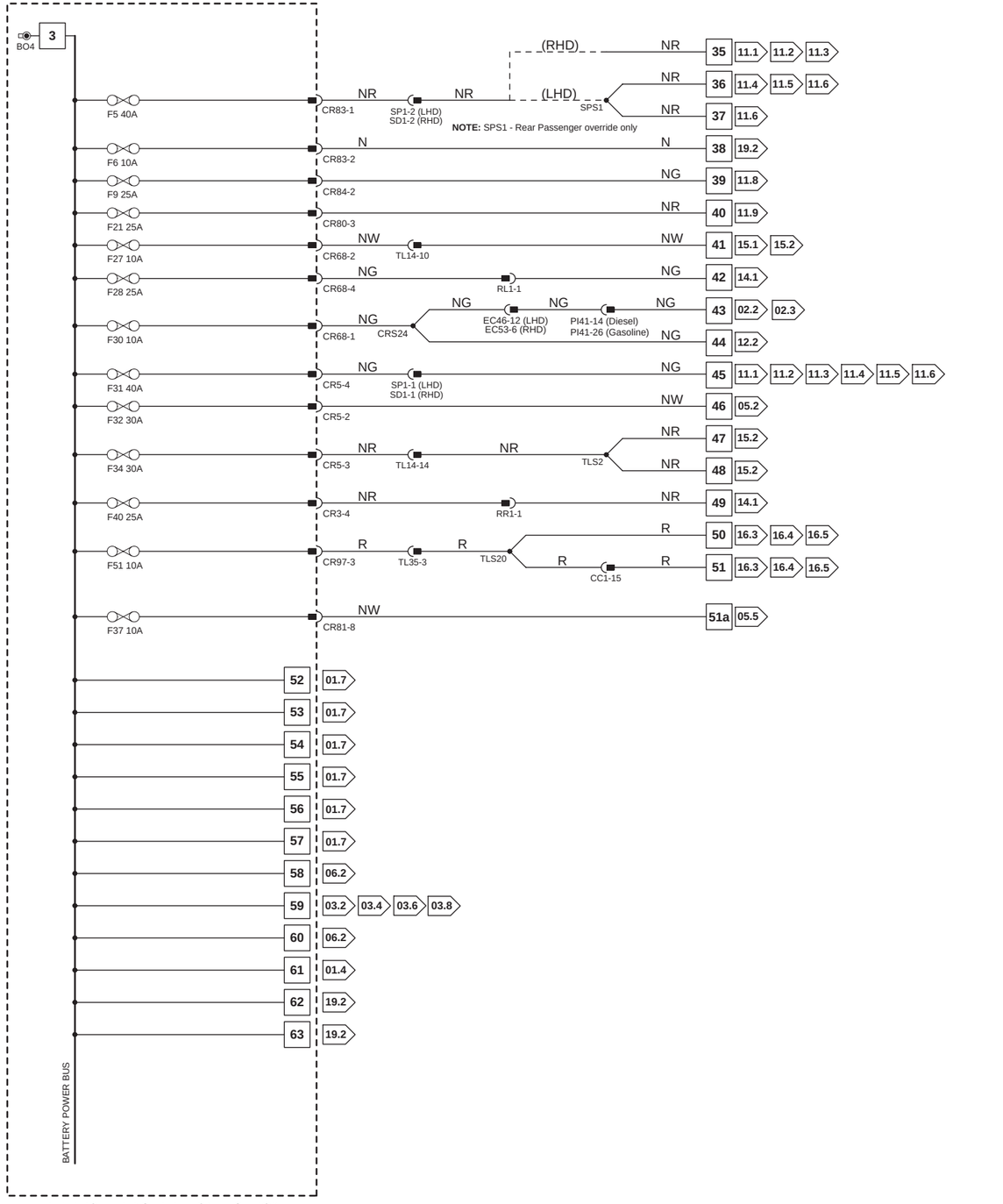
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC1	22-WAY GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER SIDE
RL1	6-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RR1	6-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
SD1	4-WAY / GREY / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT
SP1	4-WAY / GREY / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT
TL14	14-WAY / GREY / CABIN HARNESS TO TELEMATICS HARNESS	TRUNK / LH SIDE / BEHIND CD AUTOCHANGER

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 POWER DISTRIBUTION FUSE BOX



REAR POWER DISTRIBUTION FUSE BOX

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

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 01.3

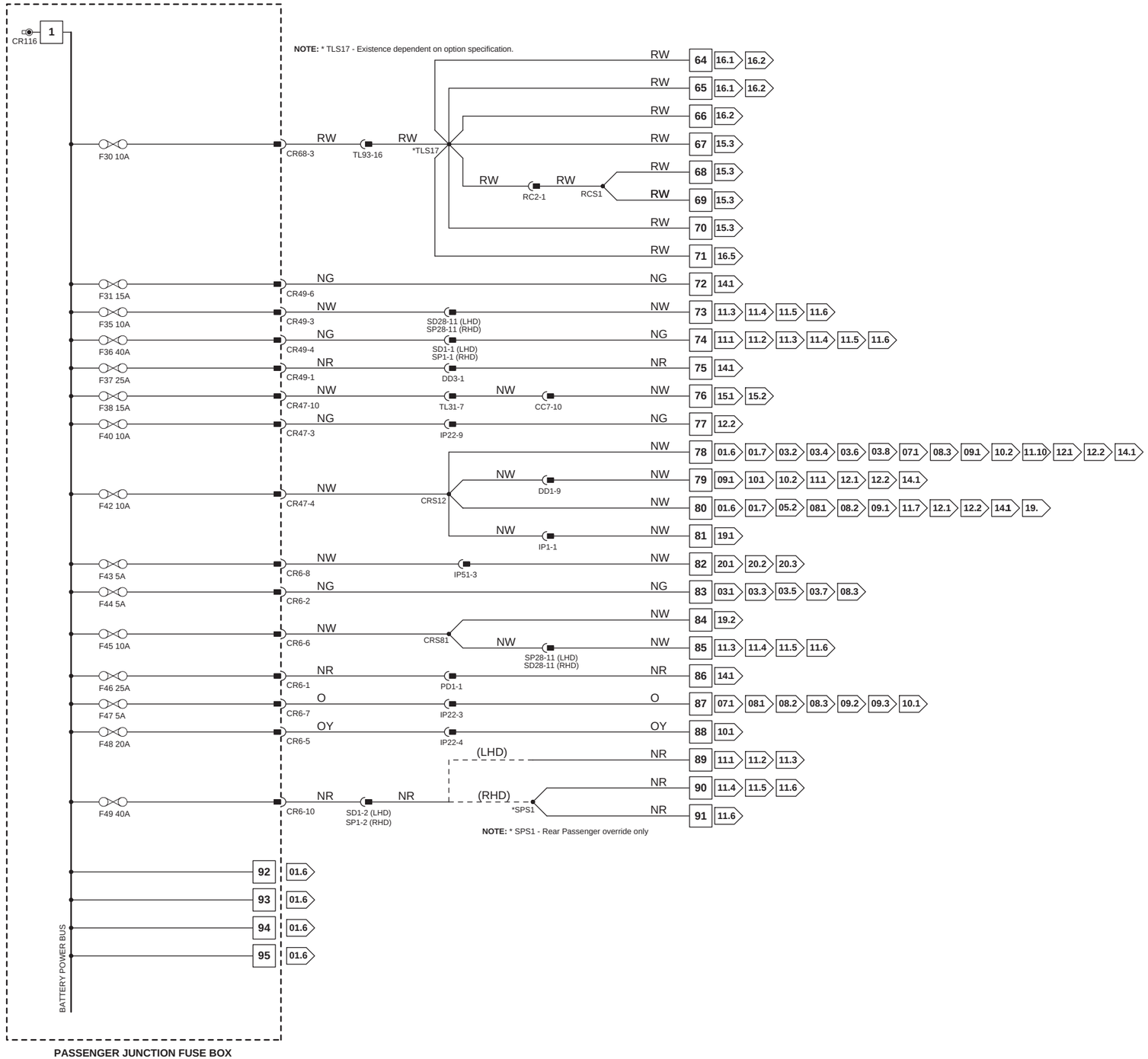
COMPONENTS

Component	Connector(s)	Connector Description	Location
PASSENGER (PRIMARY) JUNCTION FUSE BOX	CR6	10-WAY / BLACK	CABIN / RH 'A' POST
	CR47	11-WAY / BLACK	
	CR48	11-WAY / BLACK	
	CR49	10-WAY / BLACK	
	CR56	10-WAY / BLACK	
	EC7	15-WAY / BLACK	
	EC55	11-WAY / BLACK	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC7	10-WAY / GREY / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
IP1	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND DRIVER SIDE INSTRUMENT PANEL END PLATE
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
IP51	10-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
PD1	14-WAY / BLUE / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
RC2	8-WAY / BLACK / TELEMATICS HARNESS TO REAR IN-CAR ENTERTAINMENT CONTROLS HARNESS	CABIN / BELOW CENTER CONSOLE
SD1	4-WAY / GREY / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT
SD28	20-WAY / BLACK / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT
SP1	4-WAY / GREY / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT
SP28	20-WAY / BLACK / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT
TL31	14-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW CENTER CONSOLE / RH SIDE OF TRANSMISSION TUNNEL
TL93	8-WAY / BLACK / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW REAR CENTER CONSOLE

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.



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

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 01.4

COMPONENTS

Component	Connector(s)	Connector Description	Location
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
IGNITION SWITCH	IP34	7-WAY / BLACK	STEERING COLUMN
PASSENGER (PRIMARY) JUNCTION FUSE BOX	CR6	10-WAY / BLACK	CABIN / RH 'A' POST
	CR47	11-WAY / BLACK	
	CR48	11-WAY / BLACK	
	CR49	10-WAY / BLACK	
	CR56	10-WAY / BLACK	
	EC7	15-WAY / BLACK	
	EC55	11-WAY / BLACK	
REAR IGNITION RELAY	—	—	REAR POWER DISTRIBUTION FUSE BOX – R2
REAR POWER DISTRIBUTION FUSE BOX	CR3	4-WAY / BLACK	TRUNK / RH REAR
	CR5	4-WAY / BLACK	
	CR68	8-WAY / BLACK	
	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	
SLAVE IGNITION RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R9

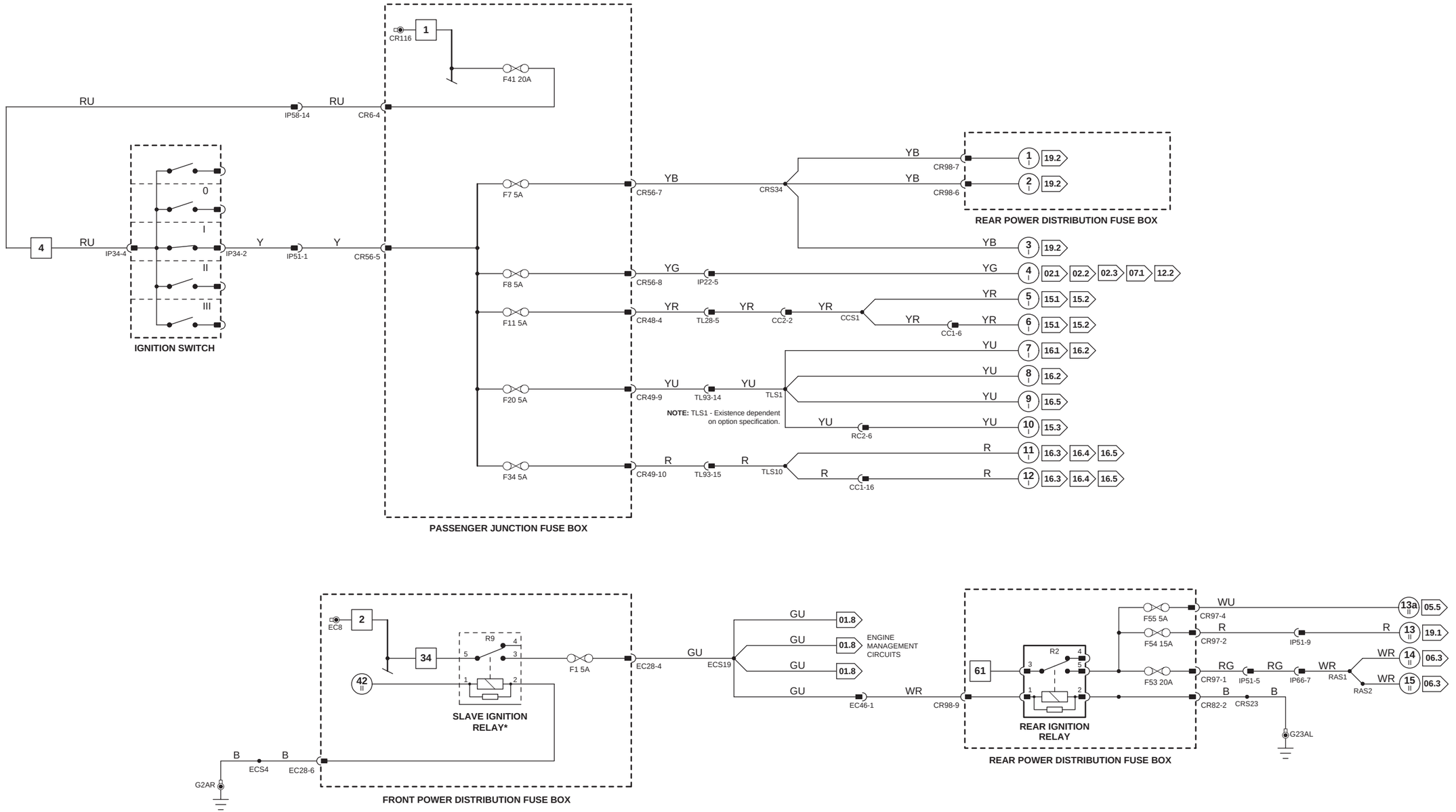
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC1	22-WAY GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CC2	22-WAY / BLACK / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
IP51	10-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
IP58	14-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
IP66	14-WAY / GREY / INSTRUMENT PANEL HARNESS TO REAR AIR CONDITIONING HARNESS	CABIN / BELOW CENTER CONSOLE
RC2	8-WAY / BLACK / TELEMATICS HARNESS TO REAR IN-CAR ENTERTAINMENT CONTROLS HARNESS	CABIN / BELOW CENTER CONSOLE
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW CENTER CONSOLE / RH SIDE OF TRANSMISSION TUNNEL
TL93	8-WAY / BLACK / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW REAR CENTER CONSOLE

GROUNDS

Ground	Location
G2	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G23	TRUNK / RH SIDE / ADJACENT TO BATTERY

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.



***NOTE:** Refer to Fig. 01.8 for complete Slave Ignition Relay circuit details.

f01_4_35006

1 → 6 Fig. 01.1 7 → 63 Fig. 01.2	64 → 95 Fig. 01.3 1 (I) → 15 (II) Fig. 01.4	16 (II) → 52 (II) Fig. 01.5 53 (S) → 77 (S) Fig. 01.6	78 (S) → 105 (S) Fig. 01.7 106 (E) → 143 (E) Fig. 01.8	I Input O Output	B Battery Voltage P Power Ground	+ Sensor/Signal Supply V − Sensor/Signal Ground	A ACP C CAN	S SCP D Serial and Encoded Data	**VARIANT:** All Vehicles **VIN RANGE:** All **DATE OF ISSUE:** April 2006

Fig. 01.5

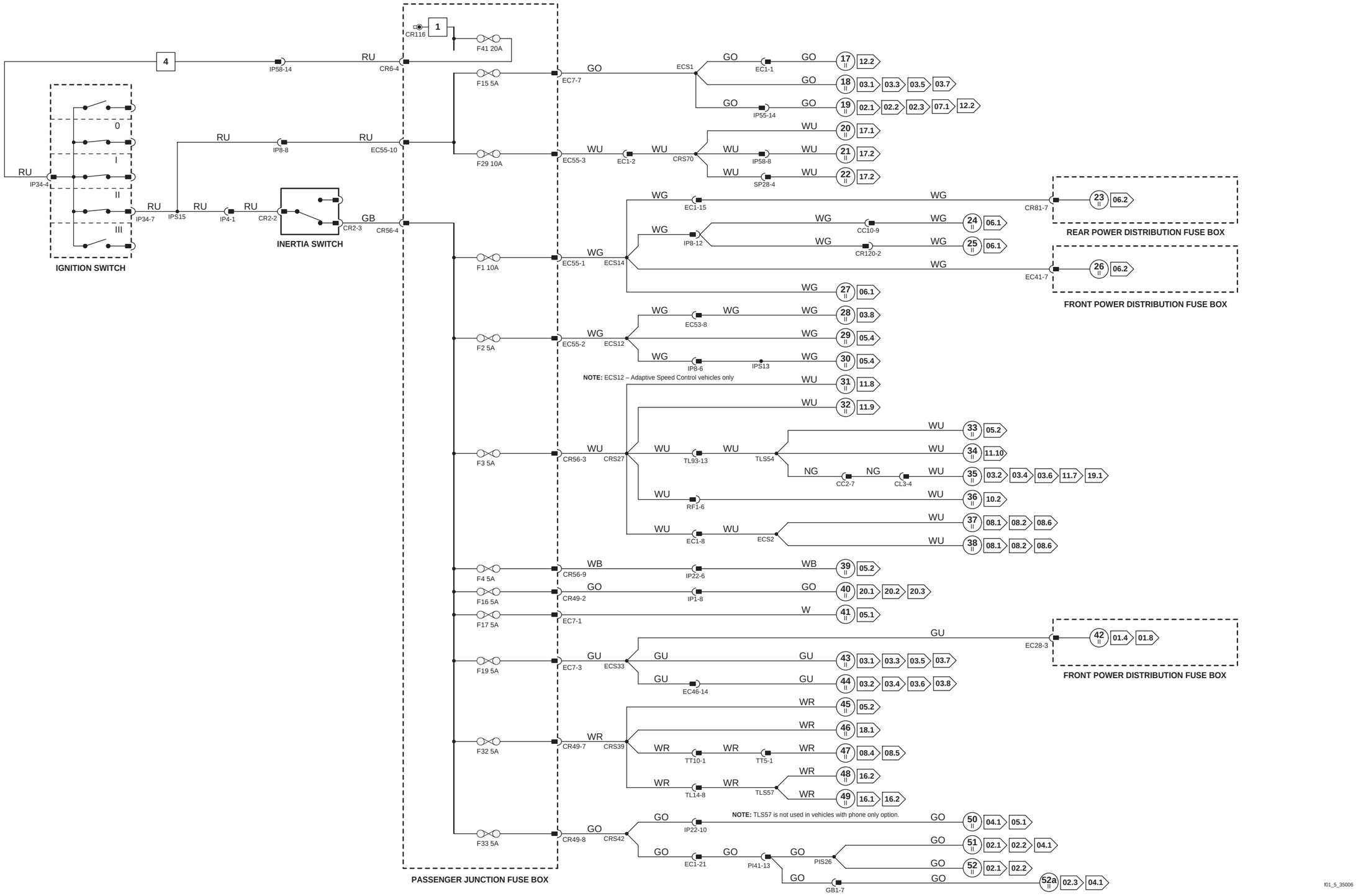
COMPONENTS

Component	Connector(s)	Connector Description	Location
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
IGNITION SWITCH	IP34	7-WAY / BLACK	STEERING COLUMN
INERTIA SWITCH	CR2	3-WAY / GREY	LH 'A' POST
PASSENGER (PRIMARY) JUNCTION FUSE BOX	CR6	10-WAY / BLACK	CABIN / RH 'A' POST
	CR47	11-WAY / BLACK	
	CR48	11-WAY / BLACK	
	CR49	10-WAY / BLACK	
	CR56	10-WAY / BLACK	
	EC7	15-WAY / BLACK	
	EC55	11-WAY / BLACK	
REAR POWER DISTRIBUTION FUSE BOX	CR3	4-WAY / BLACK	TRUNK / RH REAR
	CR5	4-WAY / BLACK	
	CR68	8-WAY / BLACK	
	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	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC2	22-WAY / BLACK / 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)
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
CR120	8-WAY / BLACK / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL / LH SIDE
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
GB1	16-WAY / GREY / ENGINE HARNESS TO TRANSMISSION HARNESS	ADJACENT TO TRANSMISSION BELL HOUSING
IP1	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND DRIVER SIDE INSTRUMENT PANEL END PLATE
IP4	14-WAY / GREEN / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP8	14-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
IP55	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP58	14-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER SIDE
RF1	10-WAY / GREY / CABIN HARNESS TO ROOF HARNESS CABIN / UPPER	CABIN / RH 'A' POST
SP28	20-WAY / BLACK / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT
TL14	14-WAY / GREY / CABIN HARNESS TO TELEMATICS HARNESS	TRUNK / LH SIDE / BEHIND CD AUTOCHANGER
TL93	8-WAY / BLACK / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW REAR CENTER CONSOLE
TT5	DATA NOT AVAILABLE	
TT10	2-WAY / GREY / TRAILER TOWING HARNESS	TRUNK / SPARE WHEEL WELL

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.



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

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 01.6

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	
PASSENGER (PRIMARY) JUNCTION FUSE BOX	CR6	10-WAY / BLACK	CABIN / RH 'A' POST
	CR47	11-WAY / BLACK	
	CR48	11-WAY / BLACK	
	CR49	10-WAY / BLACK	
	CR56	10-WAY / BLACK	
	EC7	15-WAY / BLACK	
	EC55	11-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	
SWITCHED SYSTEM POWER RELAY 1	—	—	PASSENGER JUNCTION FUSE BOX – R1
SWITCHED SYSTEM POWER RELAY 2	—	—	PASSENGER JUNCTION FUSE BOX – R1

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
BF1	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO FRONT BUMPER HARNESS	ENGINE COMPARTMENT / BEHIND RH WHEEL ARCH LINER
CC1	22-WAY GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
IP8	14-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
IP55	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP58	14-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
IP66	14-WAY / GREY / INSTRUMENT PANEL HARNESS TO REAR AIR CONDITIONING HARNESS	CABIN / BELOW CENTER CONSOLE
RF1	10-WAY / GREY / CABIN HARNESS TO ROOF HARNESS	CABIN / UPPER RH 'A' POST
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW CENTER CONSOLE / RH SIDE OF TRANSMISSION TUNNEL

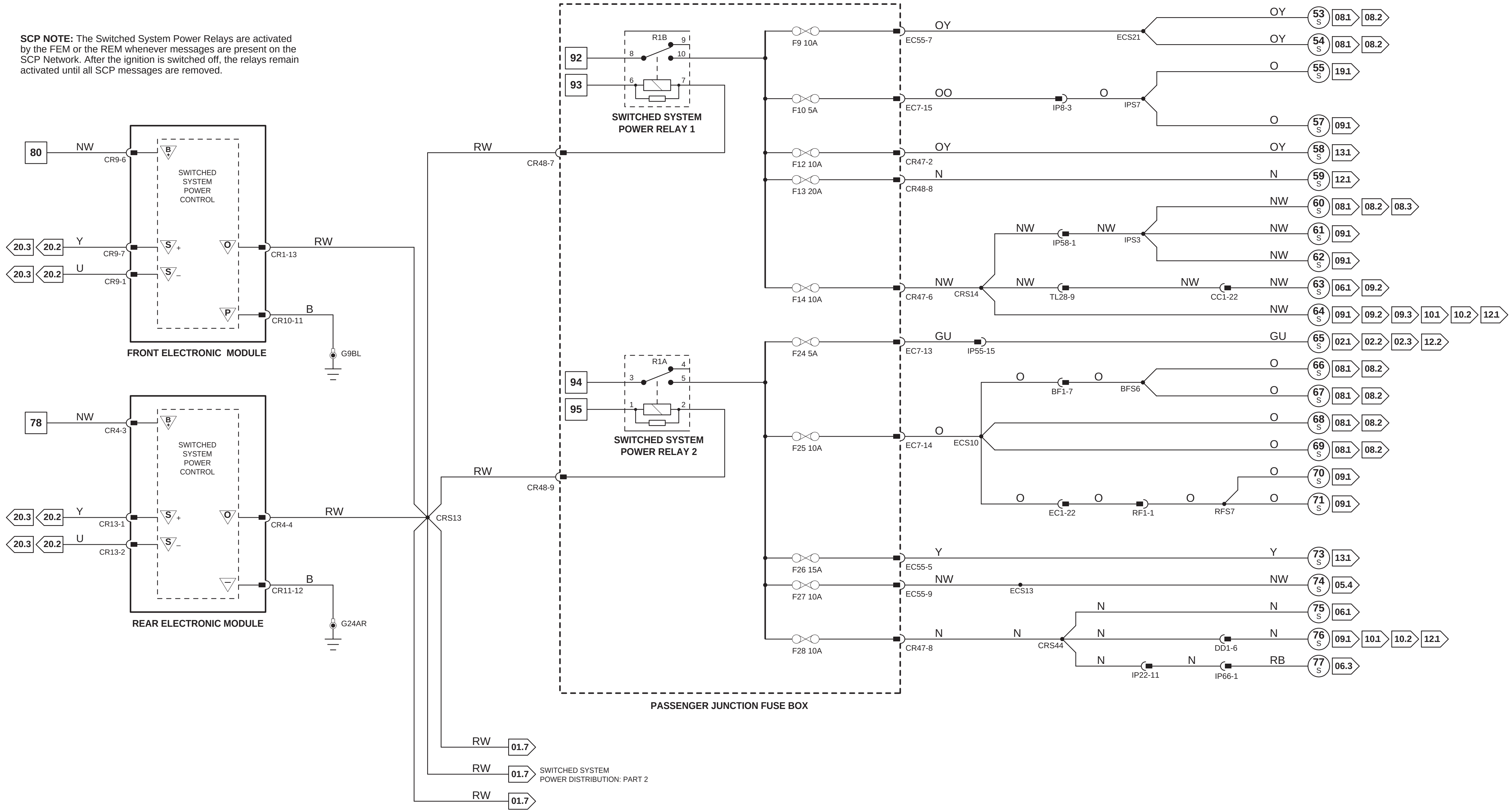
GROUNDS

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.

DATE OF ISSUE: April 2006

SCP NOTE: The Switched System Power Relays are activated by the FEM or the REM whenever messages are present on the SCP Network. After the ignition is switched off, the relays remain activated until all SCP messages are removed.



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

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

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	
REAR POWER DISTRIBUTION FUSE BOX	CR3	4-WAY / BLACK	TRUNK / RH REAR
	CR5	4-WAY / BLACK	
	CR68	8-WAY / BLACK	
	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

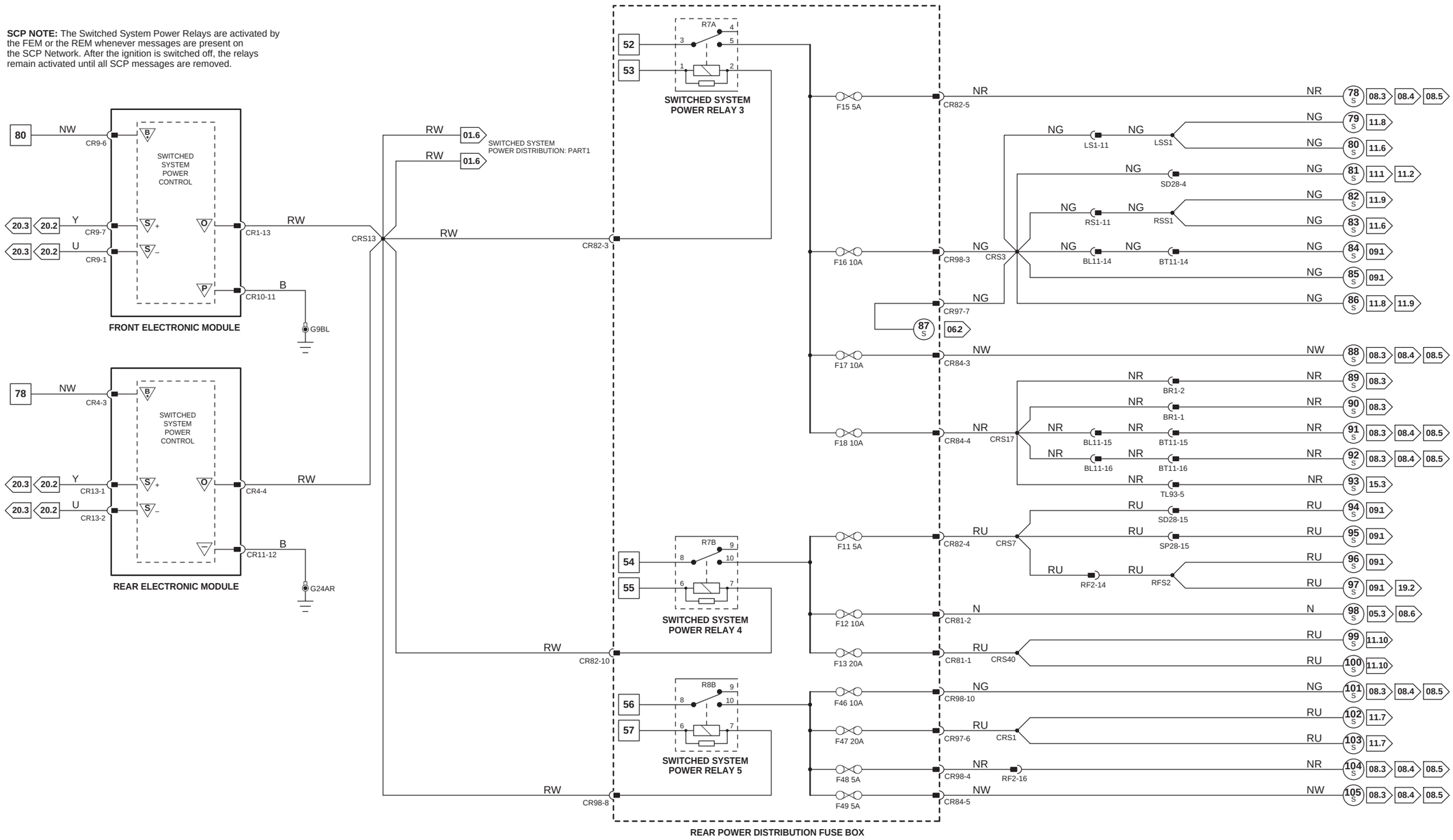
Connector	Connector Description / Location	Location
BL11	16-WAY / BLACK / CABIN HARNESS TO TRUNK LID HARNESS	TRUNK / BEHIND TRUNK LID LINER
BR1	10-WAY / GREY / CABIN HARNESS TO REAR BUMPER HARNESS	TRUNK / RH SIDE / ADJACENT TO REAR ELECTRONIC MODULE
BT11	16-WAY / GREY / CABIN TO TRUNK LID LINK HARNESS 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

GROUNDS

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.

SCP NOTE: The Switched System Power Relays are activated by the FEM or the REM whenever messages are present on the SCP Network. After the ignition is switched off, the relays remain activated until all SCP messages are removed.



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

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Engine Control Module

	Pin	Description and Characteristic
O	EC300–16	EMS CONTROL RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND

Powertrain Control Module

	Pin	Description and Characteristic
O	EC66–J3	EMS CONTROL RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND

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.

Fig. 01.8

COMPONENTS

Component	Connector(s)	Connector Description	Location
EMS CONTROL RELAY (Diesel)	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R5
EMS CONTROL RELAY (Gasoline)	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R11
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	ENGINE COMPARTMENT BULKHEAD / PASSENGER SIDE
	EC300	96-WAY / BLACK	
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
HO2S RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R12
IGNITION COIL RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R7
INTERCOOLER RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R12B
POWERTRAIN CONTROL MODULE	C98	48-WAY / BROWN	ENGINE COMPARTMENT BULKHEAD / PASSENGER SIDE
	C99	48-WAY / GREY	
	EC66	48-WAY / BLACK	
REAR POWER DISTRIBUTION FUSE BOX	CR3	4-WAY / BLACK	TRUNK / RH REAR
	CR5	4-WAY / BLACK	
	CR68	8-WAY / BLACK	
	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	
SLAVE IGNITION RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R9

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CP1	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INTERCOOLER COOLANT PUMP HARNESS	ENGINE COMPARTMENT / ADJACENT TO RADIATOR / RH SIDE
EC21	2-WAY / BLACK / ENGINE HARNESS TO COOLING FAN MODULE	ENGINE COMPARTMENT / ADJACENT TO RADIATOR / RH SIDE
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
IL10	12-WAY / BLACK / ENGINE HARNESS TO FUEL INJECTOR LINK	REAR OF ENGINE
IS5	6-WAY / BLACK / ENGINE HARNESS TO FUEL INJECTOR LINK	ENGINE COMPARTMENT / ENGINE / LH REAR
IS6	6-WAY / BLACK / ENGINE HARNESS TO FUEL INJECTOR LINK	ENGINE COMPARTMENT / ENGINE / RH REAR
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER SIDE

GROUNDS

Ground	Location
G2	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX

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.

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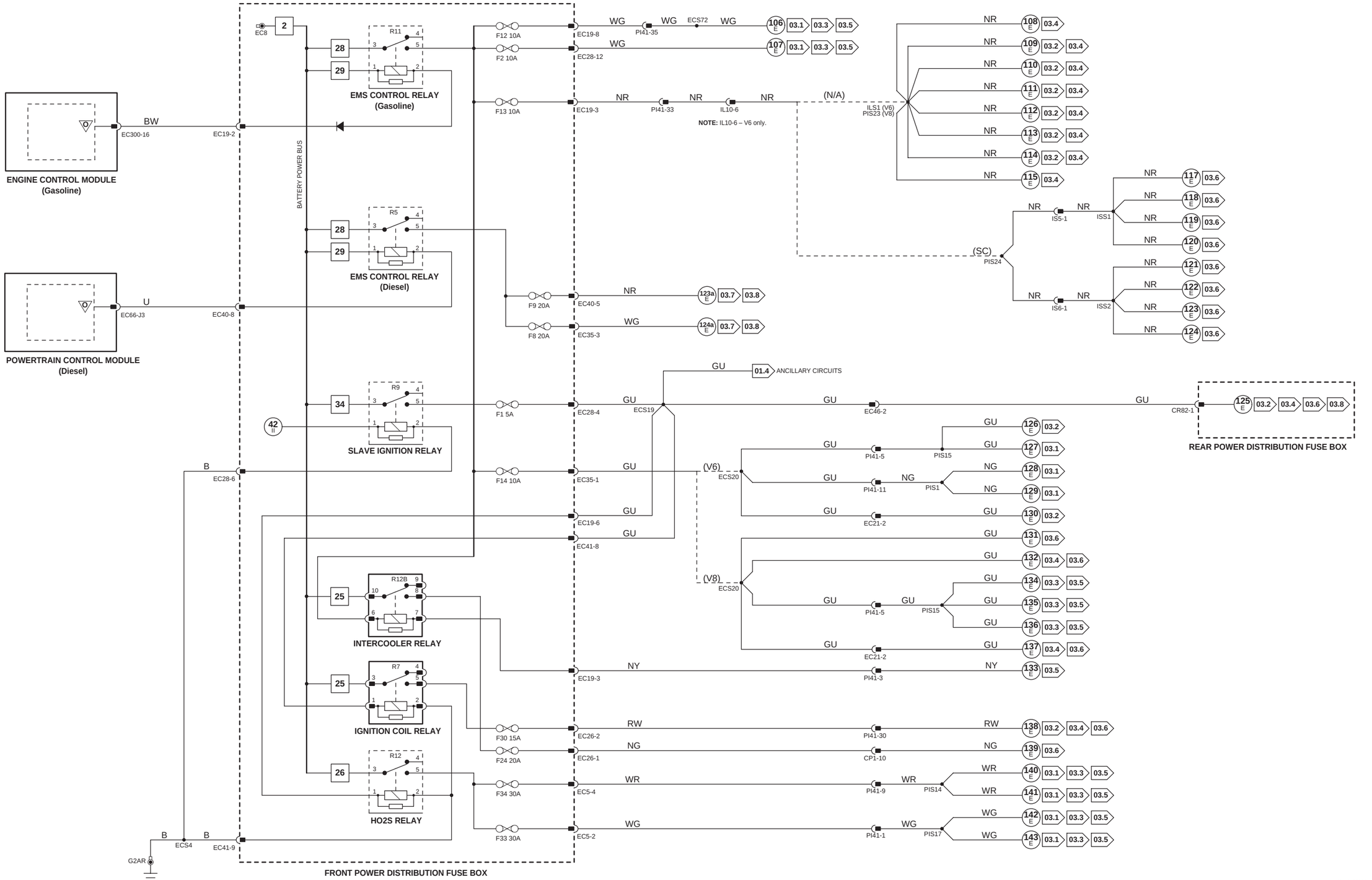

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP, S SCP
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN, D Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Engine Control Module

	Pin	Description and Characteristic
I	EC300-15	PARK / NEUTRAL SIGNAL: B+ WHEN ACTIVATED
I	EC300-17	ENGINE CRANK: B+
C	EC300-45	CAN –
O	EC300-51	STARTER RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
C	EC300-58	CAN +
I	PI300-3	GENERATOR FIELD RETURN SIGNAL: VARIABLE VOLTAGE BY GENERATOR OPERATING CONDITION
I	PI300-16	GENERATOR FAULT; CHARGE WARNING
O	PI300-96	GENERATOR CONTROL: VARIABLE VOLTAGE

Instrument Cluster

	Pin	Description and Characteristic
I	IP5–2	KEY-IN AUDIBLE WARNING: B+ WHEN KEY IN
B+	IP5–3	IGNITION SWITCHED POWER SUPPLY (II): B+
B+	IP5–4	IGNITION SWITCHED POWER SUPPLY (I): B+
SG	IP5–14	SIGNAL GROUND: GROUND
PG	IP6–2	POWER GROUND: GROUND
I	IP6–4	PATS GROUND: GROUND
D	IP6–5	PATS TRANSCEIVER: ENCODED COMMUNICATION
D	IP6–6	PATS TRANSCEIVER: ENCODED COMMUNICATION
C	IP6–8	CAN +
C	IP6–9	CAN –

Transmission Control Module

	Pin	Description and Characteristic
B+	GB2–9	IGNITION SWITCHED POWER SUPPLY (II): B+
O	GB2–10	PARK / NEUTRAL SIGNAL: GROUND WHEN ACTIVATED
PG	GB2–13	POWER GROUND: GROUND
PG	GB2–16	POWER GROUND: GROUND

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.

Fig. 02.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
BATTERY	—	—	TRUNK / RH SIDE
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	ENGINE COMPARTMENT BULKHEAD / PASSENGER SIDE
	PI300	96-WAY / BLACK	
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
GENERATOR	BO10		ENGINE, RH SIDE, FRONT
	PI47	4-WAY / BLACK	
IGNITION SWITCH	IP34	7-WAY / BLACK	STEERING COLUMN
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
MEGAFUSE	—	—	TRUNK / RH SIDE
PASSIVE ANTI-THEFT SYSTEM TRANSCEIVER	IP18	4-WAY / GREEN	IGNITION SWITCH
STARTER MOTOR	—	—	ENGINE BLOCK / RH SIDE
STARTER RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R10
TRANSMISSION CONTROL MODULE	GB2	16-WAY / BLACK	TRANSMISSION CONTROL VALVE

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC2	2-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
IP51	10-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER

GROUNDS

Ground	Location
BC1	TRUNK / RH SIDE / ADJACENT TO BATTERY
BC3	TRUNK / RH SIDE / ADJACENT TO BATTERY
G4	ENGINE COMPARTMENT / ENGINE BLOCK GROUND
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER
G30	ENGINE COMPARTMENT / LH SIDE / REARWARD OF SUSPENSION TOWER
G31	CABIN / BEHIND PASSENGER AIR BAG

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.

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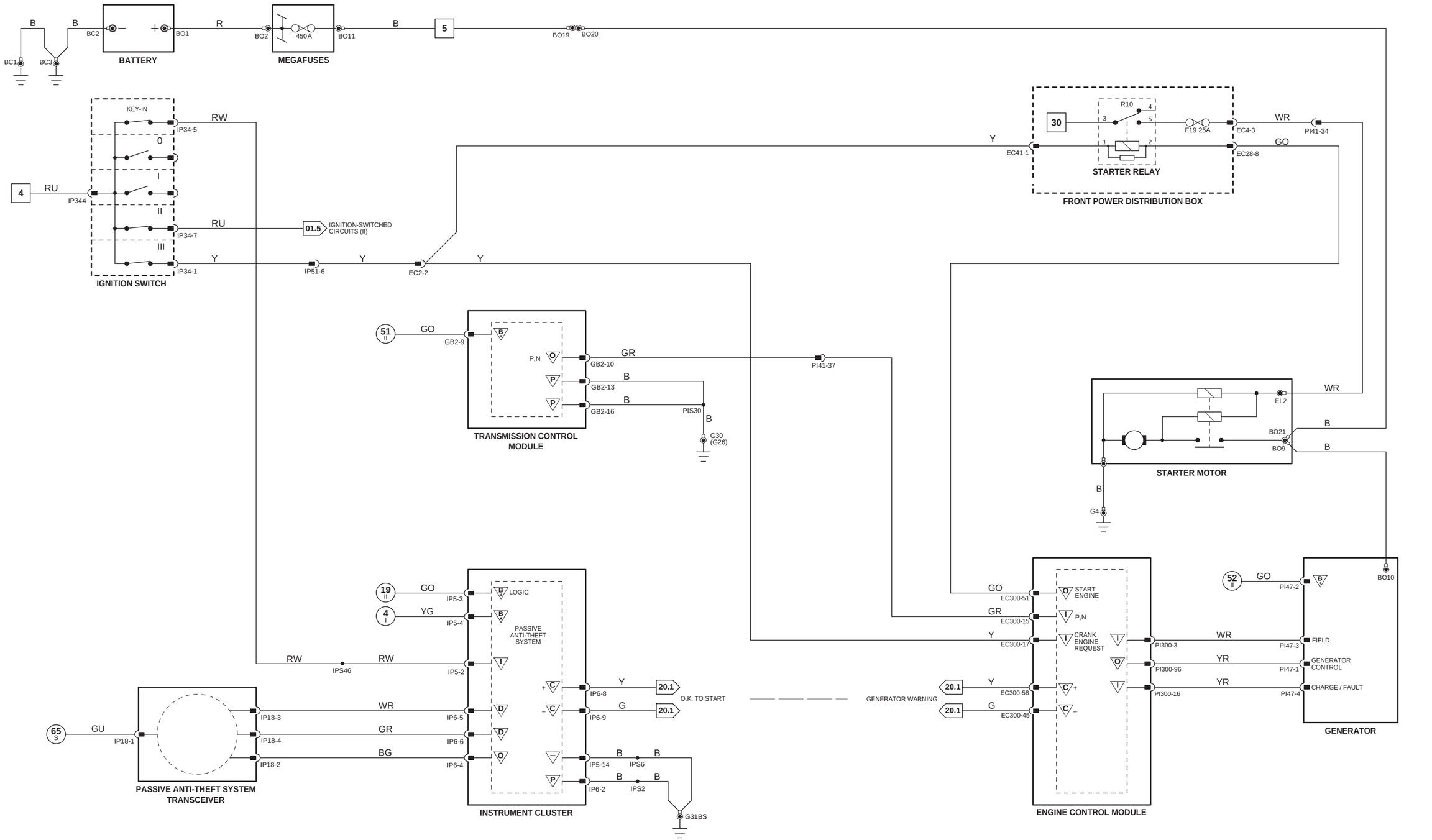

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1 → 6	Fig. 01.1	64 → 95	Fig. 01.3	16 E → 52 E	Fig. 01.5	78 S → 105 S	Fig. 01.7	I	Input	B	Battery Voltage	+	Sensor/Signal Supply V	A	ACP	S	SCP
7 → 63	Fig. 01.2	1 I → 15 E	Fig. 01.4	53 S → 77 S	Fig. 01.6	106 E → 143 E	Fig. 01.8	O	Output	P	Power Ground	–	Sensor/Signal Ground	C	CAN	D	Serial and Encoded Data

VARIANT: V6 Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Engine Control Module

	Pin	Description and Characteristic
I	EC300-15	PARK / NEUTRAL SIGNAL: B+ WHEN ACTIVATED
I	EC300-17	ENGINE CRANK: B+
C	EC300-45	CAN –
O	EC300-51	STARTER RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
C	EC300-58	CAN +
I	PI300-16	GENERATOR FAULT; CHARGE WARNING

Instrument Cluster

	Pin	Description and Characteristic
I	IP5–2	KEY-IN AUDIBLE WARNING: B+ WHEN KEY IN
B+	IP5–3	IGNITION SWITCHED POWER SUPPLY (II): B+
B+	IP5–4	IGNITION SWITCHED POWER SUPPLY (I): B+
SG	IP5–14	SIGNAL GROUND: GROUND
PG	IP6–2	POWER GROUND: GROUND
I	IP6–4	PATS GROUND: GROUND
D	IP6–5	PATS TRANSCEIVER: ENCODED COMMUNICATION
D	IP6–6	PATS TRANSCEIVER: ENCODED COMMUNICATION
C	IP6–8	CAN +
C	IP6–9	CAN –

Transmission Control Module

	Pin	Description and Characteristic
B+	GB2–9	IGNITION SWITCHED POWER SUPPLY (II): B+
O	GB2–10	PARK / NEUTRAL SIGNAL: GROUND WHEN ACTIVATED
PG	GB2–13	POWER GROUND: GROUND
PG	GB2–16	POWER GROUND: GROUND

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.

Fig. 02.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
BATTERY	—	—	LUGGAGE COMPARTMENT
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	ENGINE COMPARTMENT BULKHEAD / PASSENGER SIDE
	PI300	96-WAY / BLACK	
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
GENERATOR	PI48	4-WAY / BLACK	ENGINE, RH SIDE, FRONT
	ST7	EYELET	
IGNITION SWITCH	FC18	7-WAY / BLACK	STEERING COLUMN COWLING
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
MEGAFUSE	—	—	ENGINE COMPARTMENT, RH SIDE
PASSIVE ANTI-THEFT SYSTEM TRANSCEIVER	IP18	4-WAY / GREEN	IGNITION SWITCH
STARTER MOTOR	—	—	ENGINE BLOCK, RH SIDE
STARTER RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R20
TRANSMISSION CONTROL MODULE	GB2	16-WAY / BLACK	TRANSMISSION CONTROL VALVE ASSEMBLY

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC2	2-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
IP51	10-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
PI41	42-WAY / BLACK / ENGINE HARNESS TO VEHICLE HARNESSES	ENGINE COMPARTMENT, BULKHEAD, PASSENGER SIDE

GROUNDS

Ground	Location
BC1	TRUNK / RH SIDE / ADJACENT TO BATTERY
BC3	TRUNK / RH SIDE / ADJACENT TO BATTERY
G4	ENGINE COMPARTMENT / ENGINE BLOCK GROUND
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER
G30	ENGINE COMPARTMENT / LH SIDE / REARWARD OF SUSPENSION TOWER
G31	CABIN / BEHIND PASSENGER AIR BAG

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.

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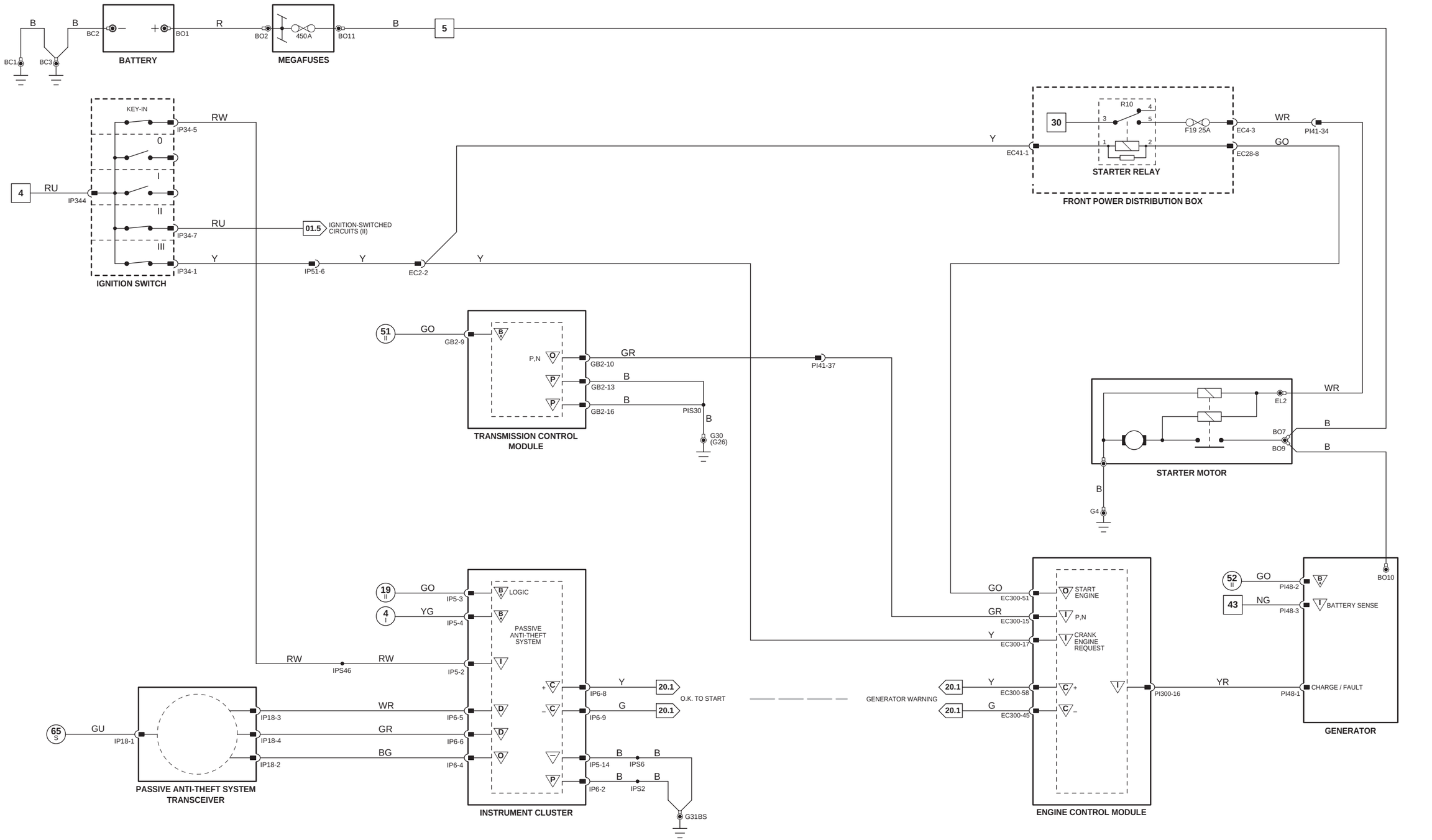

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1 → 6	Fig. 01.1	64 → 95	Fig. 01.3	16 II → 52 II	Fig. 01.5	78 S → 105 S	Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	V8 Vehicles
7 → 63	Fig. 01.2	1 I → 15 II	Fig. 01.4	53 S → 77 S	Fig. 01.6	106 E → 143 E	Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
													DATE OF ISSUE:	April 2006

Powertrain Control Module

	Pin	Description and Characteristic
C	C98-A3	CAN –
C	C98-A4	CAN +
O	C98-H1	GENERATOR COMMAND LINE: PWM
I	C99-F2	GENERATOR MONITOR LINE
O	EC66-B1	STARTER RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
I	EC66-D4	PARK / NEUTRAL SIGNAL: B+ WHEN ACTIVATED
I	EC66-F3	ENGINE CRANK: B+

Instrument Cluster

	Pin	Description and Characteristic
I	IP5–2	KEY-IN AUDIBLE WARNING: B+ WHEN KEY IN
B+	IP5–3	IGNITION SWITCHED POWER SUPPLY (II): B+
B+	IP5–4	IGNITION SWITCHED POWER SUPPLY (I): B+
SG	IP5–14	SIGNAL GROUND: GROUND
PG	IP6–2	POWER GROUND: GROUND
I	IP6–4	PATS GROUND: GROUND
D	IP6–5	PATS TRANSCEIVER: ENCODED COMMUNICATION
D	IP6–6	PATS TRANSCEIVER: ENCODED COMMUNICATION
C	IP6–8	CAN +
C	IP6–9	CAN –

Transmission Control Module

	Pin	Description and Characteristic
B+	GB2–9	IGNITION SWITCHED POWER SUPPLY (II): B+
O	GB2–10	PARK / NEUTRAL SIGNAL: GROUND WHEN ACTIVATED
PG	GB2–13	POWER GROUND: GROUND
PG	GB2–16	POWER GROUND: GROUND

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.

Fig. 02.3

COMPONENTS

Component	Connector(s)	Connector Description	Location
BATTERY	—	—	LUGGAGE COMPARTMENT
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
GENERATOR	C73	3-WAY / BLACK	ENGINE, RH SIDE, FRONT
	BO13	EYELET	
IGNITION SWITCH	FC18	7-WAY / BLACK	STEERING COLUMN COWLING
IN-LINE MEGAFUSE	EC307		
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
MEGAFUSE	—	—	ENGINE COMPARTMENT, RH SIDE
PASSIVE ANTI-THEFT SYSTEM TRANSCEIVER	IP18	4-WAY / GREEN	IGNITION SWITCH
POWERTRAIN CONTROL MODULE	C98	48-WAY / BROWN	ENGINE COMPARTMENT BULKHEAD / PASSENGER SIDE
	C99	48-WAY / GREY	
	EC66	48-WAY / BLACK	
STARTER MOTOR	—	—	ENGINE BLOCK, RH SIDE
STARTER RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R20
TRANSMISSION CONTROL MODULE	GB2	16-WAY / BLACK	TRANSMISSION CONTROL VALVE ASSEMBLY

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC2	2-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
GB1	16-WAY / GREY / ENGINE HARNESS TRO TRANSMISSION HARNESS	ADJACENT TO TRANSMISSION BELL HOUSING
IP51	10-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
PI41	42-WAY / BLACK / ENGINE HARNESS TO VEHICLE HARNESSES	ENGINE COMPARTMENT, BULKHEAD, PASSENGER SIDE

GROUNDS

Ground	Location
BC5	TRUNK / RH SIDE / ADJACENT TO BATTERY
BC6	TRUNK / RH SIDE / ADJACENT TO BATTERY
G4	ENGINE COMPARTMENT / ENGINE BLOCK GROUND
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER
G30	ENGINE COMPARTMENT / LH SIDE / REARWARD OF SUSPENSION TOWER
G31	CABIN / BEHIND PASSENGER AIR BAG

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.

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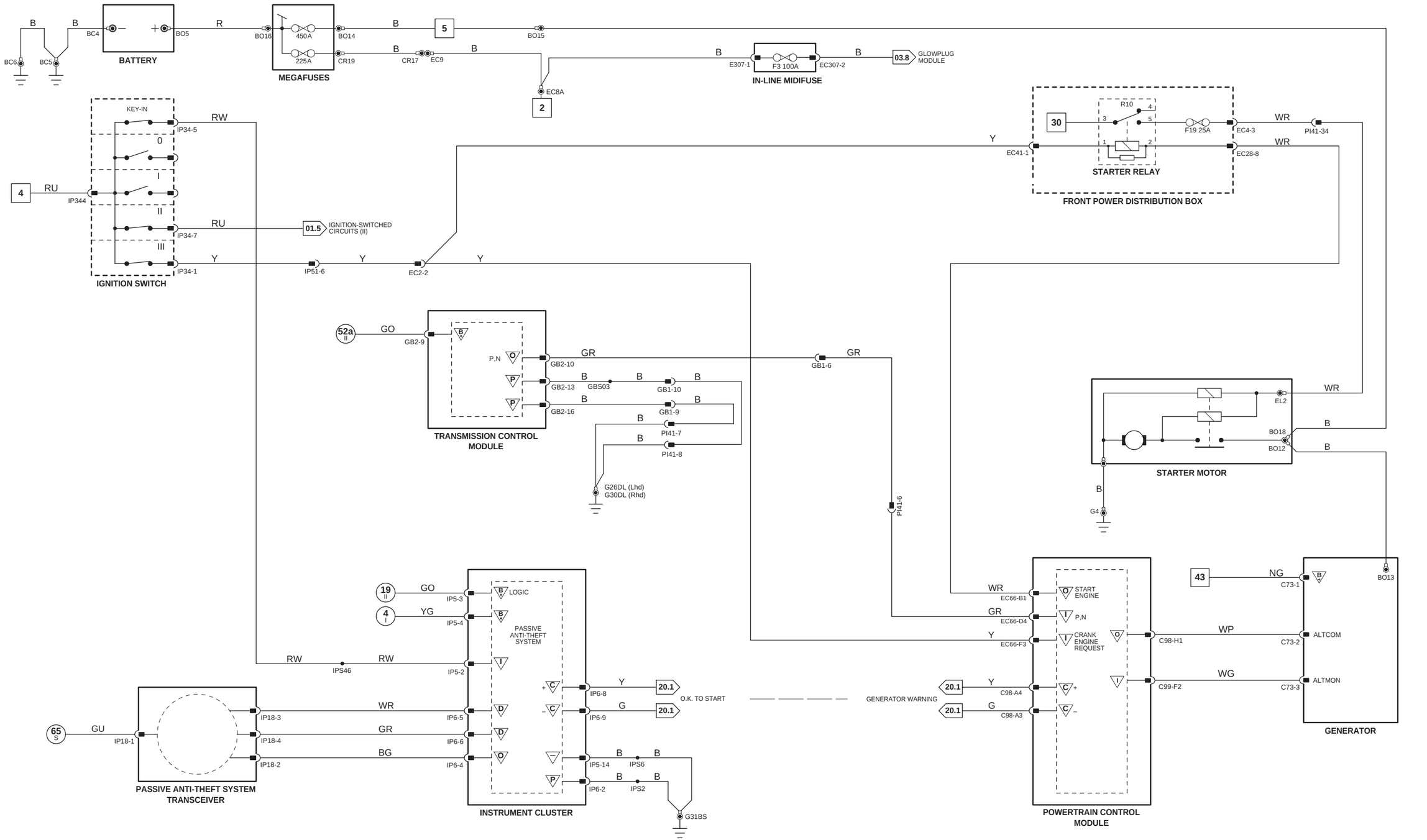

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	Diesel 2.7V6
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Engine Control Module

	Pin	Description and Characteristic
SG	EC300–01	SMALL SIGNAL GROUND 1: GROUND
PG	EC300–02	POWER GROUND 1: GROUND
PG	EC300–03	POWER GROUND 2: GROUND
B+	EC300–04	EMS SWITCHED POWER SUPPLY 1: B+
PG	EC300–05	POWER GROUND 3: GROUND
B+	EC300–06	EMS SWITCHED POWER SUPPLY 2: B+
SG	EC300–07	SENSOR GROUND 1: GROUND
SG	EC300–08	SENSOR GROUND 2: GROUND
I	EC300–15	AUTOMATIC – PARK / NEUTRAL SIGNAL: B+ WHEN ACTIVATED MANUAL, ROW – PARK / NEUTRAL SIGNAL: B+ WHEN IGNITION CRANK (III)
O	EC300–16	EMS CONTROL RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
I	EC300–17	ENGINE CRANK: B+
SS	EC300–19	SENSOR POWER SUPPLY 2: NOMINAL 5 V
I	EC300–24	ACCELERATOR PEDAL POSITION SENSOR 1 SIGNAL: FOOT OFF = 0.75 V; FULLY DEPRESSED = 3.40 V (AUTO) 3.20 V (MAN)
I	EC300–30	IGNITION ON: B+
SS	EC300–32	SENSOR POWER SUPPLY 1: NOMINAL 5 V
I	EC300–38	ACCELERATOR PEDAL POSITION SENSOR 2 SIGNAL: FOOT OFF = 3.38 V; FULLY DEPRESSED = 2.05 V (AUTO) 2.14 V (MAN)
I	EC300–41	BRAKE ON / OFF SWITCH: NORMALLY OPEN / B+ WHEN ACTIVATED
I	EC300–42	INERTIA SWITCH: NORMALLY CLOSED / OPEN CIRCUIT WHEN ACTIVATED
O	EC300–51	STARTER RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
B+	EC300–54	BATTERY POWER SUPPLY: B+
C	PI300–01	CAN +
C	PI300-02	CAN –
I	PI300–03	GENERATOR FIELD RETURN SIGNAL: VARIABLE VOLTAGE BY GENERATOR OPERATING CONDITION
SG	PI300–06	CRANKSHAFT SENSOR SIGNAL GROUND: GROUND
SG	PI300–07	BANK 1 CAMSHAFT SENSOR GROUND: GROUND
SG	PI300–08	BANK 2 CAMSHAFT SENSOR GROUND: GROUND
SG	PI300–10	SENSOR GROUND: GROUND
SG	PI300–11	THROTTLE POSITION SENSOR GROUND: GROUND
SG	PI300–12	SENSOR GROUND: GROUND
SG	PI300–15	SENSOR GROUND: GROUND
I	PI300–16	GENERATOR FAULT; CHARGE WARNING
SG	PI300–18	MASS AIR FLOW SENSOR GROUND: GROUND
SG	PI300–19	BANK 1 KNOCK SENSOR GROUND: GROUND
SG	PI300–20	BANK 2 KNOCK SENSOR GROUND: GROUND
SG	PI300–22	HO2 SENSORS 1/2 SHIELD: GROUND
I	PI300–23	ENGINE OIL TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
SS	PI300–24	SENSOR POWER SUPPLY: NOMINAL 5V
I	PI300–26	HO2 SENSOR 2/1 SIGNAL: VARIABLE CURRENT
I	PI300–27	HO2 SENSOR 2/1 SIGNAL: CONSTANT CURRENT
I	PI300–28	HO2 SENSOR 1/1 SIGNAL: VARIABLE CURRENT
I	PI300–29	HO2 SENSOR 1/1 SIGNAL: CONSTANT CURRENT
I	PI300–30	CRANKSHAFT SENSOR SIGNAL: PULSED SIGNAL, 70 PULSES PER ENGINE CYCLE
I	PI300–33	BANK 2 CAMSHAFT SENSOR SIGNAL: PULSED SIGNAL, 4 PULSES PER ENGINE CYCLE
I	PI300–34	BANK 1 CAMSHAFT SENSOR SIGNAL: PULSED SIGNAL, 4 PULSES PER ENGINE CYCLE
I	PI300–40	HO2 SENSOR 1/2 SIGNAL, NOMINAL 1 V SWING: 0.1 – 0.9 V SWING
I	PI300–41	HO2 SENSOR 2/2 SIGNAL, NOMINAL 1 V SWING: 0.1 – 0.9 V SWING
I	PI300–42	BANK 1 KNOCK SENSOR SIGNAL: VARIABLE VOLTAGE DEPENDENT ON ENGINE VIBRATION
I	PI300–43	BANK 2 KNOCK SENSOR SIGNAL: VARIABLE VOLTAGE DEPENDENT ON ENGINE VIBRATION
SG	PI300–45	HO2 SENSORS 2/2 SHIELD: GROUND
I	PI300–46	ENGINE FUEL TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
SS	PI300–47	SENSOR POWER SUPPLY: NOMINAL 5V
I	PI300–65	THROTTLE POSITION SENSOR 1 SIGNAL: IDLE = 0.60 V; FULL THROTTLE = 4.30 V
I	PI300–66	INTAKE AIR TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	PI300–67	THROTTLE POSITION SENSOR 2 SIGNAL: IDLE = 1.48 V; FULL THROTTLE = 4.40 V
I	PI300–68	ENGINE COOLANT TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	PI300–69	MAP SENSOR SIGNAL, NOMINAL 0 – 5 V: VOLTAGE INCREASES AS MANIFOLD ABSOLUTE PRESSURE INCREASES
I	PI300–70	MASS AIR FLOW SENSOR SIGNAL: NOMINAL 0 – 5 V BY ENGINE OPERATING CONDITION
I	PI300–71	INJECTION PRESSURE SENSOR SIGNAL, NOMINAL 0 – 5 V: POTENTIOMETER – VOLTAGE INCREASES AS PRESSURE INCREASES
SS	PI300–72	THROTTLE POSITION SENSOR POWER SUPPLY: NOMINAL 5 V
O	PI300–74	THROTTLE MOTOR GROUND: GROUND
O	PI300–75	THROTTLE MOTOR DRIVE: B+ TO ACTIVATE MOTOR
O	PI300–76	HO2 SENSOR HEATER CONTROL – 1/1: PWM, 1 CYCLE PER 128 mS, VARIABLE DUTY CYCLE
O	PI300–77	HO2 SENSOR HEATER CONTROL – 2/1: PWM, 1 CYCLE PER 128 mS, VARIABLE DUTY CYCLE
O	PI300–84	INTAKE MANIFOLD TUNING VALVE SOLENOID DRIVE – 1 / TOP: GROUND WHEN ACTIVATED
O	PI300–86	BANK 1 VVT SOLENOID VALVE: PWM, 300 Hz, POSITIVE DUTY CYCLE RANGE 0% – 100%
O	PI300–87	BANK 2 VVT SOLENOID VALVE: PWM, 300 Hz, POSITIVE DUTY CYCLE RANGE 0% – 100%
O	PI300–88	HO2 SENSOR HEATER CONTROL – 1/2: PWM, 1 CYCLE PER 256 mS, POSITIVE DUTY CYCLE RANGE 0 mS = 0%, 77 mS = 30%, 256 mS = 100%
O	PI300–89	HO2 SENSOR HEATER CONTROL – 2/2: PWM, 1 CYCLE PER 256 mS, POSITIVE DUTY CYCLE RANGE 0 mS = 0%, 77 mS = 30%, 256 mS = 100%
O	PI300–90	INTAKE MANIFOLD TUNING VALVE SOLENOID DRIVE – 2 / BOTTOM: GROUND WHEN ACTIVATED
O	PI300–92	EVAP CANISTER PURGE VALVE DRIVE: PWM, 10 Hz, POSITIVE DUTY CYCLE RANGE 7% – 100%
O	PI300–96	GENERATOR CONTROL: VARIABLE VOLTAGE

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.

Fig. 03.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
APP SENSOR	CR14	6-WAY / BLACK	TOP OF ACCELERATOR PEDAL
BRAKE ON / OFF SWITCH	CR78	2-WAY / BLACK	TOP OF BRAKE PEDAL
CKP SENSOR	PI21	2-WAY / BLACK	ENGINE TIMING COVER, CRANKSHAFT PULLEY
CMP SENSOR 1	PI23	2-WAY / BLACK	BANK 1 (RH) CAMSHAFT COVER, FRONT
CMP SENSOR 2	PI22	2-WAY / BLACK	BANK 2 (LH) CAMSHAFT COVER, FRONT
ECT SENSOR	PI25	2-WAY / BLACK	ENGINE VEE, COOLANT OUTLET CASTING
EFT SENSOR	IL9	2-WAY / BLACK	FUEL RAIL, FRONT
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
	PI300	96-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
EOT SENSOR	PI24	2-WAY / BLACK	ADJACENT TO OIL FILTER
EVAP CANISTER PURGE VALVE	PI363	2-WAY / BLACK	ENGINE COMPARTMENT, LH SIDE, ADJACENT TO SUSPENSION TURRET
HO2 SENSOR DOWNSTREAM 1/2	PI11	4-WAY / BLACK	RH EXHAUST, CATALYST CENTER
HO2 SENSOR DOWNSTREAM 2/2	PI13	4-WAY / BLACK	LH EXHAUST, CATALYST CENTER
HO2 SENSOR UPSTREAM 1/1	PI10	4-WAY / BLACK	RH EXHAUST, TOP OF CATALYST
HO2 SENSOR UPSTREAM 2/1	PI12	4-WAY / BLACK	LH EXHAUST, TOP OF CATALYST
IMT SOLENOID VALVE 1	PI30	2-WAY / BLACK	INTAKE MANIFOLD, REAR
IMT SOLENOID VALVE 2	PI31	2-WAY / BLACK	INTAKE MANIFOLD, REAR
IP SENSOR	IL12	3-WAY / BLACK	FUEL RAIL, REAR
KNOCK SENSOR 1	PI60	2-WAY / BLACK	ENGINE VEE, TOWARD FRONT, BANK 2 (FRONT SENSOR)
KNOCK SENSOR 2	PI61	2-WAY / BLACK	ENGINE BLOCK, REAR, BANK 1 (REAR SENSOR)
MAF SENSOR	PI14	5-WAY / BLACK	ENGINE AIR INTAKE, ADJACENT TO AIR CLEANER
MAP SENSOR	PI29	4-WAY / BLACK	INTAKE MANIFOLD, UPPER REAR
THROTTLE BODY	PI26		ENGINE AIR INTAKE, FRONT
THROTTLE MOTOR	—	—	THROTTLE BODY
TP SENSOR	—	—	THROTTLE BODY
VVT SOLENOID VALVE 1	PI16	2-WAY / BLACK	RH CYLINDER HEAD, FRONT
VVT SOLENOID VALVE 2	PI17	2-WAY / BLACK	LH CYLINDER HEAD, FRONT

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC16	12-WAY / GREY / ENGINE HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC61	22-WAY / NATURAL / ENGINE HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST
IL10	12-WAY / BLACK / ENGINE HARNESS TO FUEL INJECTOR LINK	REAR OF ENGINE

GROUNDS

Ground	Location
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER
G30	ENGINE COMPARTMENT / LH SIDE / REARWARD OF SUSPENSION TOWER

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.

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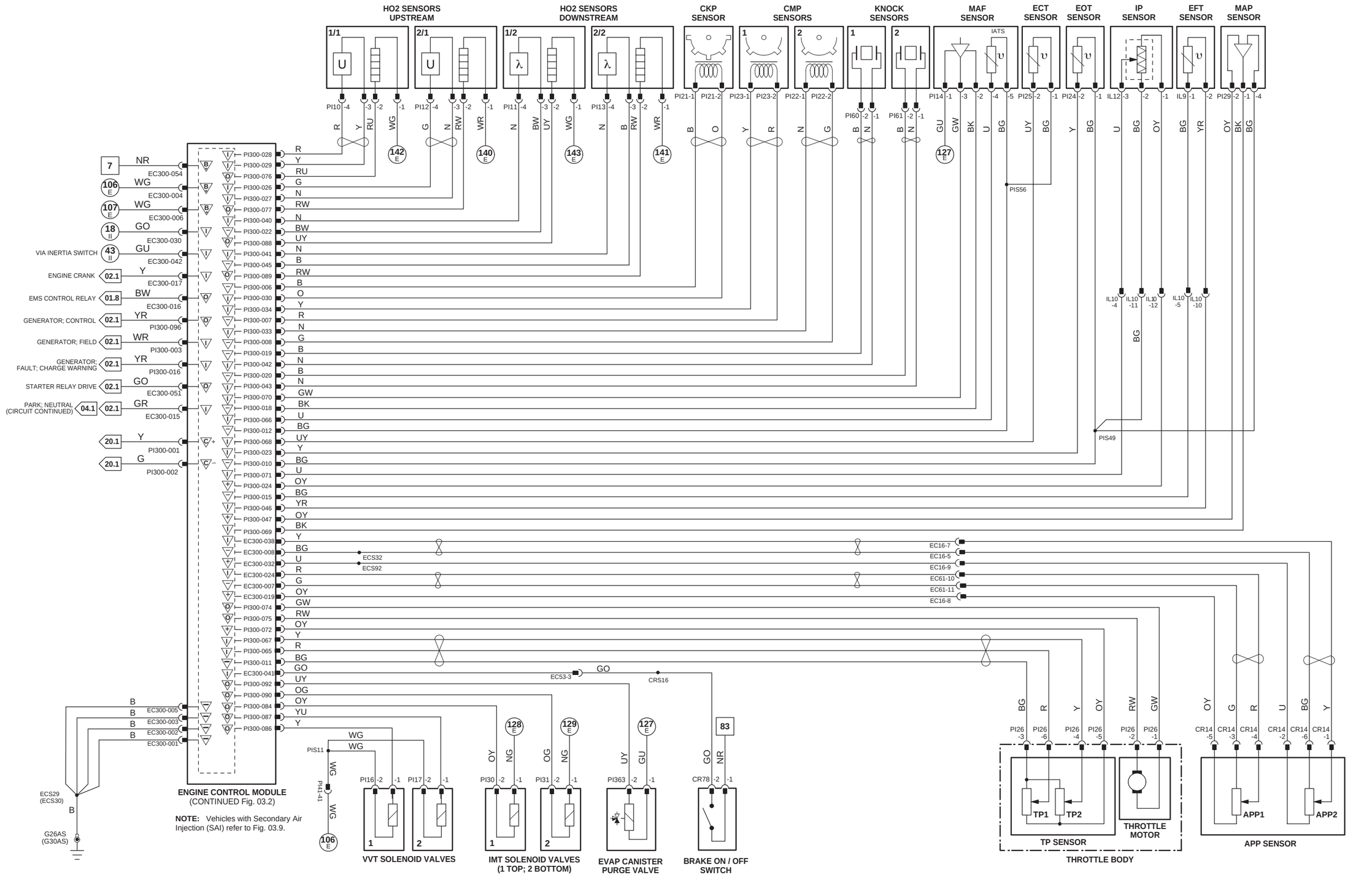

1 → 6	Fig. 01.1	64 → 95	Fig. 01.3	16 E → 52 E	Fig. 01.5	78 S → 105 S	Fig. 01.7	I	Input	B	Battery Voltage	+	Sensor/Signal Supply V	A	ACP	S	SCP		
7 → 63	Fig. 01.2	1 I → 15 E	Fig. 01.4	53 S → 77 S	Fig. 01.6	106 E → 143 E	Fig. 01.8	O	Output	P	Power Ground	–	Sensor/Signal Ground	C	CAN	D	Serial and Encoded Data		

VARIANT: V6 Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 03.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
AIR CONDITIONING PRESSURE SENSOR	EC11	3-WAY / BLACK	ADJACENT TO RADIATOR / LH SIDE
ASL SWITCH	CL1	8-WAY / BLACK	CABIN, CENTRE CONSOLE
	CL2	8-WAY / BLACK	CABIN, CENTRE CONSOLE
BRAKE CANCEL SWITCH	CR77	2-WAY / BLACK	TOP OF BRAKE PEDAL
COOLING FAN MODULE	EC20	2-WAY / GREY	ENGINE COMPARTMENT, RH FRONT, REARWARD OF RADIATOR
	GC1	2-WAY / GREY	
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
	PI300	96-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
FUEL INJECTOR 1	IL3	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 2	IL6	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 3	IL4	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 4	IL7	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 5	IL5	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 6	IL8	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL TANK	FP8	6-WAY / BLACK	FUEL TANK, RH SIDE
FUEL PUMP RELAY	—	—	REAR POWER DISTRIBUTION FUSE BOX – R6
IGNITION CAPACITOR	PI54	2-WAY / BLACK	LH CYLINDER HEAD, REAR
IGNITION MODULE AND COIL 1	PI2	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 2	PI6	4-WAY / BLACK	LH CYLINDER HEAD
IGNITION MODULE AND COIL 3	PI3	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 4	PI7	4-WAY / BLACK	LH CYLINDER HEAD
IGNITION MODULE AND COIL 5	PI4	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 6	PI8	4-WAY / BLACK	LH CYLINDER HEAD
LEAK DETECTION UNIT	CV9	4-WAY / BLACK	ABOVE FUEL TANK
REAR ELECTRONIC MODULE	CR4	20-WAY / BLACK	LUGGAGE COMPARTMENT, RH REAR
	CR11	26-WAY / NATURAL	
	CR12	12-WAY / BLACK	
	CR13	22-WAY / BLACK	
	CR73	4-WAY / BLACK	
REAR POWER DISTRIBUTION FUSE BOX	CR5	4-WAY / BLACK	LUGGAGE COMPARTMENT
	CR82	12-WAY / BLACK	
STEERING WHEEL SPEED CONTROL SWITCHES	—	—	STEERING WHEEL

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC1	22-WAY GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CC7	10-WAY / GREY / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
CV1	8-WAY / GREY / FUEL PUMP LINK HARNESS TO PARKING BRAKE MOTOR HARNESS	REAR OF FUEL TANK / RH SIDE
CV5	12-WAY / GREY / FUEL PUMP LINK HARNESS TO EVAP CANISTER CLOSE VALVE LINK HARNESS	ABOVE REAR AXLE / CENTER
EC17		ENGINE COMPARTMENT / REAR RH SIDE
EC21	2-WAY / BLACK / ENGINE HARNESS TO COOLING FAN MODULE	ENGINE COMPARTMENT / ADJACENT TO RADIATOR / RH SIDE
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST
FP2	6-WAY / GREY / CABIN HARNESS TO FUEL PUMP HARNESS	CABIN / BELOW REAR SEAT CUSHION / RH SIDE
FP6	22-WAY / NATURAL / CABIN HARNESS TO FUEL PUMP HARNESS	TOP OF FUEL TANK / RH SIDE
IL10	12-WAY / BLACK / ENGINE HARNESS TO FUEL INJECTOR LINK	REAR OF ENGINE
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE
IP55	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP9	8-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / ADJACENT TO HOOD RELEASE
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN/BELOW CENTER CONSOLE/RH SIDE OF TRANSMISSION TUNNEL

GROUNDS

Ground	Location
G3	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION BOX
G9	CABIN / UPPER LH 'A' POST
G10	CABIN / RH A POST
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G23	TRUNK / RH SIDE / ADJACENT TO BATTERY
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
PI51	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER

FOR CONTROL MODULE PIN-OUT INFORMATION, UNFOLD PAGE

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.

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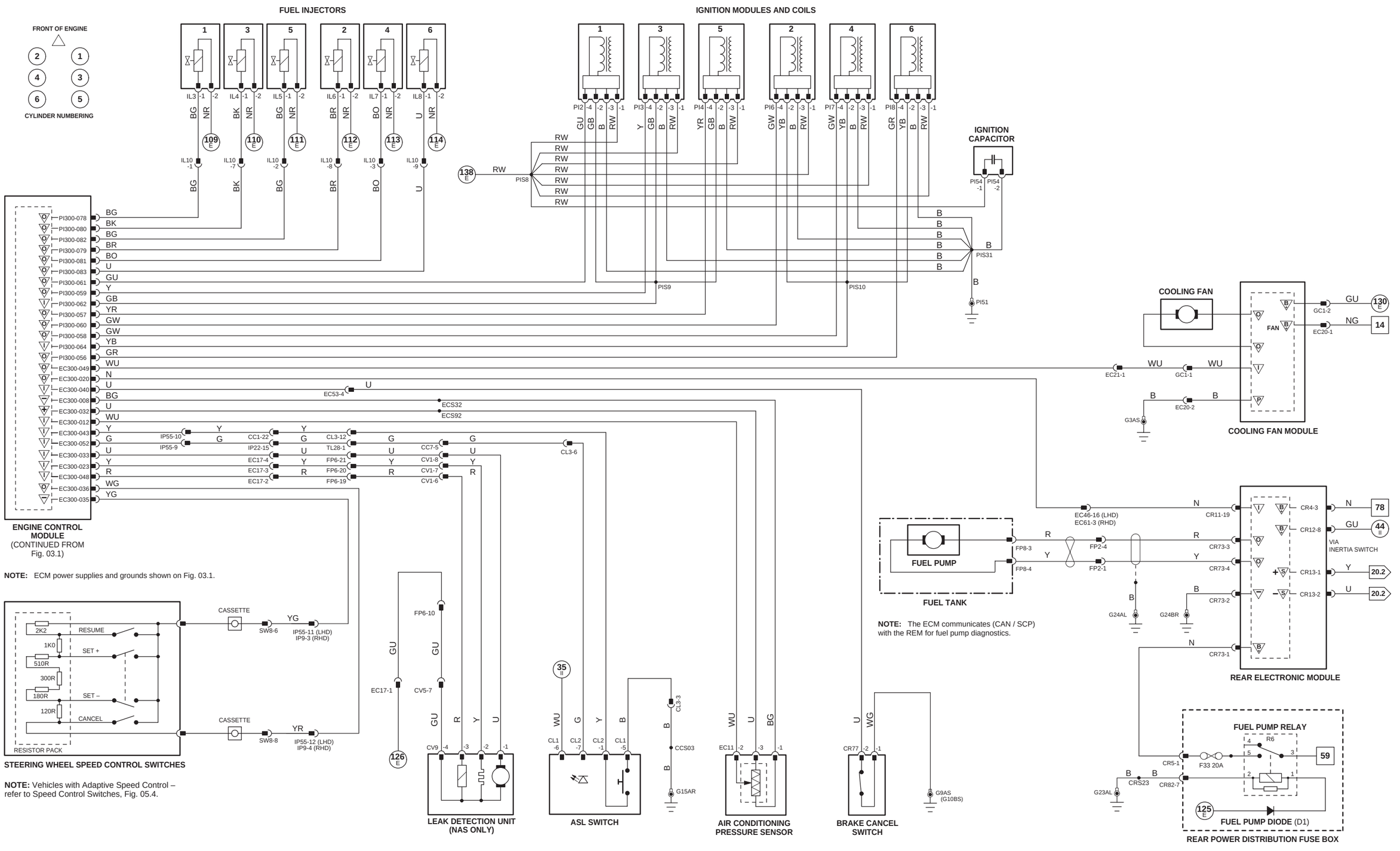

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 E → 52 E Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:** V6 Vehicles
7 → 63 Fig. 01.2	1 I → 15 E Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:** All
									DATE OF ISSUE: April 2006

Engine Control Module

	Pin	Description and Characteristic
SG	EC300–01	SMALL SIGNAL GROUND 1: GROUND
PG	EC300–02	POWER GROUND 1: GROUND
PG	EC300–03	POWER GROUND 2: GROUND
B+	EC300–04	EMS SWITCHED POWER SUPPLY 1: B+
PG	EC300–05	POWER GROUND 3: GROUND
B+	EC300–06	EMS SWITCHED POWER SUPPLY 2: B+
SG	EC300–07	SENSOR GROUND 1: GROUND
SG	EC300–08	SENSOR GROUND 2: GROUND
I	EC300–15	AUTOMATIC – PARK / NEUTRAL SIGNAL: B+ WHEN ACTIVATED MANUAL, ROW – PARK / NEUTRAL SIGNAL: B+ WHEN IGNITION CRANK (III)
O	EC300–16	EMS CONTROL RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
I	EC300–17	ENGINE CRANK: B+
SS	EC300–19	SENSOR POWER SUPPLY 2: NOMINAL 5 V
I	EC300–24	ACCELERATOR PEDAL POSITION SENSOR 1 SIGNAL: FOOT OFF = 0.75 V; FULLY DEPRESSED = 3.40 V (AUTO) 3.20 V (MAN)
I	EC300–30	IGNITION ON: B+
SS	EC300–32	SENSOR POWER SUPPLY 1: NOMINAL 5 V
I	EC300–38	ACCELERATOR PEDAL POSITION SENSOR 2 SIGNAL: FOOT OFF = 3.38 V; FULLY DEPRESSED = 2.05 V (AUTO) 2.14 V (MAN)
I	EC300–41	BRAKE ON / OFF SWITCH: NORMALLY OPEN / B+ WHEN ACTIVATED
I	EC300–42	INERTIA SWITCH: NORMALLY CLOSED / OPEN CIRCUIT WHEN ACTIVATED
O	EC300–51	STARTER RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
B+	EC300–54	BATTERY POWER SUPPLY: B+
C	PI300-01	CAN +
C	PI300-02	CAN –
SG	PI300–06	CRANKSHAFT SENSOR SIGNAL GROUND: GROUND
SG	PI300–07	BANK 1 CAMSHAFT SENSOR GROUND: GROUND
SG	PI300–08	BANK 2 CAMSHAFT SENSOR GROUND: GROUND
SG	PI300–10	SENSOR GROUND: GROUND
SG	PI300–11	THROTTLE POSITION SENSOR GROUND: GROUND
SG	PI300–12	SENSOR GROUND: GROUND
SG	PI300–15	SENSOR GROUND: GROUND
I	PI300–16	GENERATOR FAULT; CHARGE WARNING
SG	PI300–18	MASS AIR FLOW SENSOR GROUND: GROUND
SG	PI300–19	BANK 1 KNOCK SENSOR GROUND: GROUND
SG	PI300–20	BANK 2 KNOCK SENSOR GROUND: GROUND
SG	PI300–22	HO2 SENSORS 1/2 SHIELD: GROUND
I	PI300–23	ENGINE OIL TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
SS	PI300–24	SENSOR POWER SUPPLY: NOMINAL 5V
I	PI300–26	HO2 SENSOR 2/1 SIGNAL: VARIABLE CURRENT
I	PI300–27	HO2 SENSOR 2/1 SIGNAL: CONSTANT CURRENT
I	PI300–28	HO2 SENSOR 1/1 SIGNAL: VARIABLE CURRENT
I	PI300–29	HO2 SENSOR 1/1 SIGNAL: CONSTANT CURRENT
I	PI300–30	CRANKSHAFT SENSOR SIGNAL: PULSED SIGNAL, 70 PULSES PER ENGINE CYCLE
I	PI300–33	BANK 2 CAMSHAFT SENSOR SIGNAL: PULSED SIGNAL, 4 PULSES PER ENGINE CYCLE
I	PI300–34	BANK 1 CAMSHAFT SENSOR SIGNAL: PULSED SIGNAL, 4 PULSES PER ENGINE CYCLE
I	PI300–40	HO2 SENSOR 1/2 SIGNAL, NOMINAL 1 V SWING: 0.1 – 0.9 V SWING
I	PI300–41	HO2 SENSOR 2/2 SIGNAL, NOMINAL 1 V SWING: 0.1 – 0.9 V SWING
I	PI300–42	BANK 1 KNOCK SENSOR SIGNAL: VARIABLE VOLTAGE DEPENDENT ON ENGINE VIBRATION
I	PI300–43	BANK 2 KNOCK SENSOR SIGNAL: VARIABLE VOLTAGE DEPENDENT ON ENGINE VIBRATION
SG	PI300–45	HO2 SENSORS 2/2 SHIELD: GROUND
I	PI300–46	ENGINE FUEL TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
SS	PI300–47	SENSOR POWER SUPPLY: NOMINAL 5V
O	PI300–50	EGR DRIVE 4: B+; EGR DRIVE 1, 2, 3, 4 ARE OPERATED IN TURN
O	PI300–51	EGR DRIVE 3: B+; EGR DRIVE 1, 2, 3, 4 ARE OPERATED IN TURN
O	PI300–52	EGR DRIVE 2: B+; EGR DRIVE 1, 2, 3, 4 ARE OPERATED IN TURN
O	PI300–53	EGR DRIVE 1: B+; EGR DRIVE 1, 2, 3, 4 ARE OPERATED IN TURN
I	PI300–65	THROTTLE POSITION SENSOR 1 SIGNAL: IDLE = 0.60 V; FULL THROTTLE = 4.30 V
I	PI300–66	INTAKE AIR TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	PI300–67	THROTTLE POSITION SENSOR 2 SIGNAL: IDLE = 1.48 V; FULL THROTTLE = 4.40 V
I	PI300–68	ENGINE COOLANT TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	PI300–69	MAP SENSOR SIGNAL, NOMINAL 0 – 5 V: VOLTAGE INCREASES AS MANIFOLD ABSOLUTE PRESSURE INCREASES
I	PI300–70	MASS AIR FLOW SENSOR SIGNAL: NOMINAL 0 – 5 V BY ENGINE OPERATING CONDITION
I	PI300–71	INJECTION PRESSURE SENSOR SIGNAL, NOMINAL 0 – 5 V: POTENTIOMETER – VOLTAGE INCREASES AS PRESSURE INCREASES
SS	PI300–72	THROTTLE POSITION SENSOR POWER SUPPLY: NOMINAL 5 V
O	PI300–74	THROTTLE MOTOR GROUND: GROUND
O	PI300–75	THROTTLE MOTOR DRIVE: B+ TO ACTIVATE MOTOR
O	PI300–76	HO2 SENSOR HEATER CONTROL – 1/1: PWM, 1 CYCLE PER 128 mS, VARIABLE DUTY CYCLE
O	PI300–77	HO2 SENSOR HEATER CONTROL – 2/1: PWM, 1 CYCLE PER 128 mS, VARIABLE DUTY CYCLE
O	PI300–86	BANK 1 VVT SOLENOID VALVE: PWM, 300 Hz, POSITIVE DUTY CYCLE RANGE 0% – 100%
O	PI300–87	BANK 2 VVT SOLENOID VALVE: PWM, 300 Hz, POSITIVE DUTY CYCLE RANGE 0% – 100%
O	PI300–88	HO2 SENSOR HEATER CONTROL – 1/2: PWM, 1 CYCLE PER 256 mS, POSITIVE DUTY CYCLE RANGE 0 mS = 0%, 77 mS = 30%, 256 mS = 100%
O	PI300–89	HO2 SENSOR HEATER CONTROL – 2/2: PWM, 1 CYCLE PER 256 mS, POSITIVE DUTY CYCLE RANGE 0 mS = 0%, 77 mS = 30%, 256 mS = 100%
O	PI300–92	EVAP CANISTER PURGE VALVE DRIVE: PWM, 10 Hz, POSITIVE DUTY CYCLE RANGE 7% – 100%

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.

Fig. 03.3

COMPONENTS

Component	Connector(s)	Connector Description	Location
APP SENSOR	CR14	6-WAY / BLACK	TOP OF ACCELERATOR PEDAL
BRAKE ON / OFF SWITCH	CR78	2-WAY / BLACK	TOP OF BRAKE PEDAL
CKP SENSOR	PI21	2-WAY / BLACK	ENGINE UNDER SIDE, FORWARD OF BELL HOUSING
CMP SENSOR 1	PI23	2-WAY / BLACK	BANK 1 (RH) CAMSHAFT COVER, REAR
CMP SENSOR 2	PI22	2-WAY / BLACK	BANK 2 (LH) CAMSHAFT COVER, REAR
ECT SENSOR	PI25	2-WAY / BLACK	ENGINE VEE, COOLANT OUTLET CASTING
EFT SENSOR	PI27	2-WAY / BLACK	FUEL RAIL, RH REAR
EGR VALVE	PI15	6-WAY / BLACK	INTAKE MANIFOLD, RH FRONT
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
	PI300	96-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
EOT SENSOR	PI24	2-WAY / BLACK	ADJACENT TO OIL FILTER
EVAP CANISTER PURGE VALVE	EC63	2-WAY / BLACK	ENGINE COMPARTMENT / BEHIND RH WHEEL ARCH LINER
HO2 SENSOR DOWNSTREAM 1/2	PI11	4-WAY / BLACK	RH EXHAUST, CATALYST CENTER
HO2 SENSOR DOWNSTREAM 2/2	PI13	4-WAY / BLACK	LH EXHAUST, CATALYST CENTER
HO2 SENSOR UPSTREAM 1/1	PI10	4-WAY / BLACK	RH EXHAUST, TOP OF CATALYST
HO2 SENSOR UPSTREAM 2/1	PI12	4-WAY / BLACK	LH EXHAUST, TOP OF CATALYST
IAT SENSOR 2	PI43	2-WAY / BLACK	INTAKE MANIFOLD, RH SIDE, REAR
IP SENSOR	PI28	3-WAY / BLACK	FUEL RAIL, RH FRONT
KNOCK SENSORS	PI19	4-WAY / BLACK	ENGINE VEE
MAF SENSOR	PI14	5-WAY / BLACK	ENGINE AIR INTAKE, ADJACENT TO AIR CLEANER
MAP SENSOR	PI29	4-WAY / BLACK	INTAKE MANIFOLD, REAR, BELOW THROTTLE ASSEMBLY
THROTTLE BODY	PI26	—	ENGINE AIR INTAKE, REAR
THROTTLE MOTOR			THROTTLE BODY
TP SENSOR			THROTTLE BODY, THROTTLE SHAFT
VVT SOLENOID VALVE 1	PI16	2-WAY / BLACK	RH CYLINDER HEAD, FRONT
VVT SOLENOID VALVE 2	PI17	2-WAY / BLACK	LH CYLINDER HEAD, FRONT

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC16	12-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST

GROUNDS

Ground	Location
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER
G30	ENGINE COMPARTMENT / LH SIDE / REARWARD OF SUSPENSION TOWER

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.

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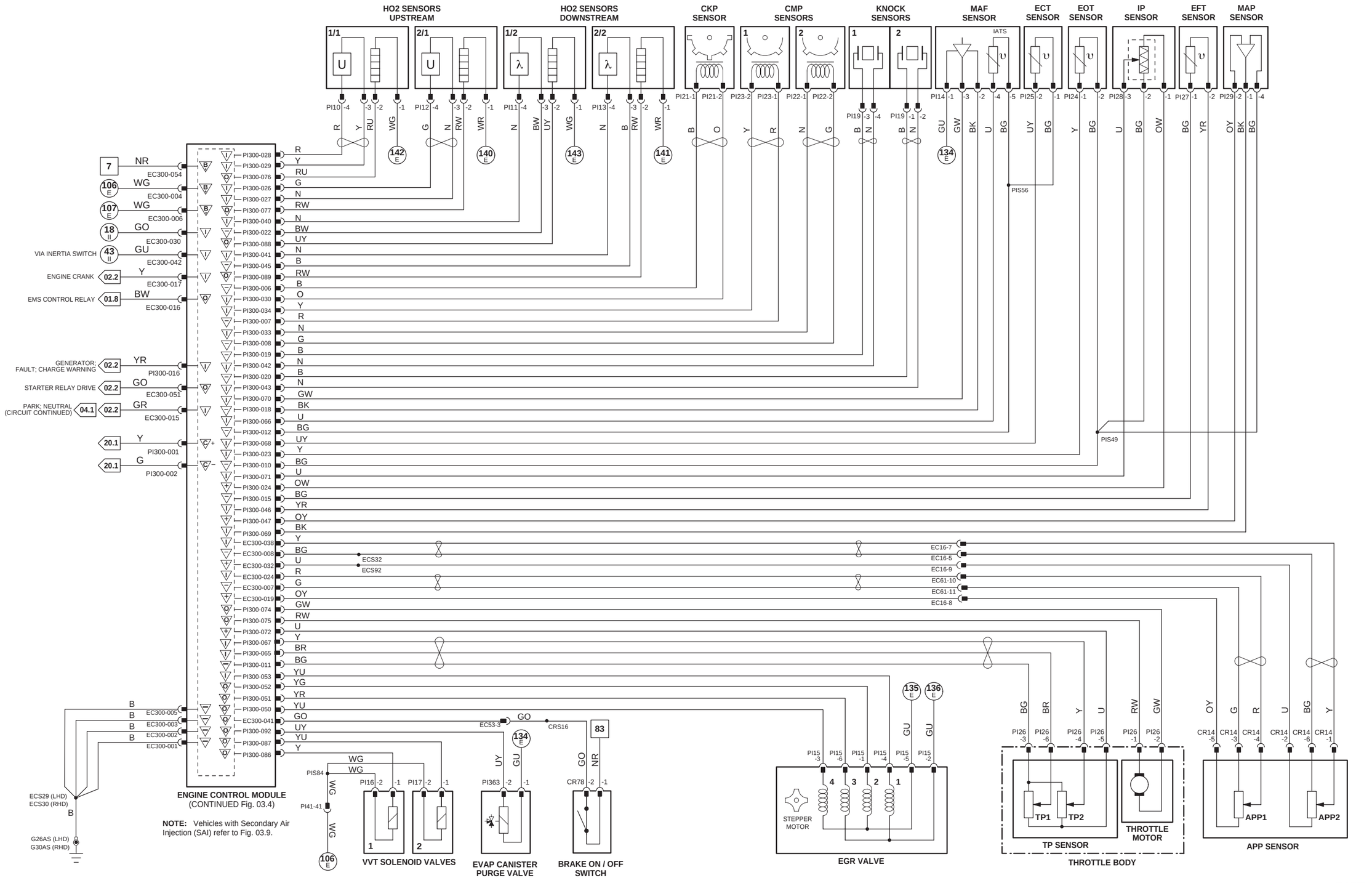

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 E → 52 E Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP, S SCP
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN, D Serial and Encoded Data

VARIANT: V8 N/A Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Engine Control Module

	Pin	Description and Characteristic
SG	EC300-08	SENSOR GROUND 1: GROUND
I	EC300-12	AIR CONDITIONING PRESSURE SENSOR SIGNAL, NOMINAL 0 – 5 V: TRANSDUCER – VOLTAGE INCREASES AS PRESSURE INCREASES
O	EC300-20	FUEL PUMP DRIVE SIGNAL (TO REM): PWM, 150 Hz, NORMAL POSITIVE DUTY CYCLE RANGE = 4% – 51%
O	EC300-23	LEAK DETECTION HEATER CONTROL
SS	EC300-32	SENSOR POWER SUPPLY 1: NOMINAL 5 V
O	EC300-33	LEAK DETECTION PUMP CONTROL
I	EC300-35	SPEED CONTROL SWITCHES SIGNAL GROUND: GROUND
SS	EC300-36	SPEED CONTROL SWITCH REQUEST: STEPPED RESISTANCE
I	EC300-40	BRAKE CANCEL SWITCH: NORMALLY CLOSED / GROUND WHEN ACTIVATED
I	EC300-43	ASL MASTER SWITCH
O	EC300-48	LEAK DETECTION VALVE CONTROL
O	EC300-49	COOLING FAN MODULE CONTROL: PWM, 140 Hz, POSITIVE DUTY CYCLE RANGE 7% – 95%
I	EC300-52	ASL LED
O	PI300-54	IGNITION COIL ACTIVATE – CYLINDER 8: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-55	IGNITION COIL ACTIVATE – CYLINDER 7: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-56	IGNITION COIL ACTIVATE – CYLINDER 6: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-57	IGNITION COIL ACTIVATE – CYLINDER 5: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-58	IGNITION COIL ACTIVATE – CYLINDER 4: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-59	IGNITION COIL ACTIVATE – CYLINDER 3: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-60	IGNITION COIL ACTIVATE – CYLINDER 2: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-61	IGNITION COIL ACTIVATE – CYLINDER 1: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
I	PI300-62	IGNITION MONITOR BANK 1: PULSED SIGNAL, 3 PULSES PER ENGINE CYCLE
I	PI300-64	IGNITION MONITOR BANK 2: PULSED SIGNAL, 3 PULSES PER ENGINE CYCLE
O	PI300-78	FUEL INJECTOR DRIVE – CYLINDER 1: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-79	FUEL INJECTOR DRIVE – CYLINDER 2: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-80	FUEL INJECTOR DRIVE – CYLINDER 3: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-81	FUEL INJECTOR DRIVE – CYLINDER 4: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-82	FUEL INJECTOR DRIVE – CYLINDER 5: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-83	FUEL INJECTOR DRIVE – CYLINDER 6: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-84	FUEL INJECTOR DRIVE – CYLINDER 7: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-85	FUEL INJECTOR DRIVE – CYLINDER 8: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND

Rear Electronic Module

	Pin	Description and Characteristic
B+	CR4–3	BATTERY POWER SUPPLY (LOGIC): B+
I	CR11–19	FUEL PUMP (1) DRIVE SIGNAL: PWM, 150 Hz, NORMAL POSITIVE DUTY CYCLE RANGE = 4% – 51%
B+	CR12–8	IGNITION SWITCHED POWER SUPPLY (II) (FUEL PUMP CONTROL): B+
S	CR13–1	SCP NETWORK +
S	CR13–2	SCP NETWORK –
B+	CR73–1	FUEL PUMP POWER SUPPLY: B+ WHEN FUEL PUMP RELAY ACTIVATED
PG	CR73–2	POWER GROUND (FUEL PUMP): GROUND
O	CR73–3	FUEL PUMP GROUND: GROUND, PWM
O	CR73–4	FUEL PUMP B+: B+

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.

Fig. 03.4

COMPONENTS

Component	Connector(s)	Connector Description	Location
AIR CONDITIONING PRESSURE SENSOR	EC11	4-WAY / BLACK	ADJACENT TO RADIATOR / LH SIDE
ASL SWITCH	CL1	8-WAY / BLACK	CABIN, CENTRE CONSOLE
	CL2	8-WAY / BLACK	CABIN, CENTRE CONSOLE
BRAKE CANCEL SWITCH	CR77	2-WAY / BLACK	TOP OF BRAKE PEDAL
COOLING FAN MODULE AND MOTOR	EC20	2-WAY / GREY	RADIATOR COOLING FAN
	GC1	2-WAY / GREY	
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
	PI300	96-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
FUEL INJECTOR 1	PI32	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 2	PI36	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 3	PI33	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 4	PI37	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 5	P34	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 6	PI38	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 7	PI35	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 8	PI39	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL PUMP	FP8	4-WAY / BLACK	FUEL TANK, RH SIDE
FUEL PUMP RELAY	—	—	REAR POWER DISTRIBUTION FUSE BOX – R6
IGNITION CAPACITOR	PI54	2-WAY / BLACK	LH CYLINDER HEAD, REAR
IGNITION MODULE AND COIL 1	PI2	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 2	PI6	4-WAY / BLACK	LH CYLINDER HEAD
IGNITION MODULE AND COIL 3	PI3	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 4	PI7	4-WAY / BLACK	LH CYLINDER HEAD
IGNITION MODULE AND COIL 5	PI4	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 6	PI8	4-WAY / BLACK	LH CYLINDER HEAD
IGNITION MODULE AND COIL 7	PI5	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 8	PI9	4-WAY / BLACK	LH CYLINDER HEAD
LEAK DETECTION UNIT	CV9	4-WAY / BLACK	ABOVE FUEL TANK
REAR ELECTRONIC MODULE	CR4	20-WAY / BLACK	TRUNK, RH REAR
	CR11	26-WAY / NATURAL	
	CR12	12-WAY / BLACK	
	CR13	22-WAY / BLACK	
	CR73	4-WAY / BLACK	
REAR POWER DISTRIBUTION FUSE BOX	CR5	4-WAY / BLACK	TRUNK
	CR82	12-WAY / BLACK	
STEERING WHEEL SPEED CONTROL SWITCHES	—	—	STEERING WHEEL

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC1	22-WAY GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CC7	10-WAY / GREY / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
CV1	8-WAY / GREY / FUEL PUMP LINK HARNESS TO PARKING BRAKE MOTOR HARNESS	REAR OF FUEL TANK / RH SIDE
CV5	12-WAY / GREY / FUEL PUMP LINK HARNESS TO EVAP CANISTER CLOSE VALVE LINK HARNESS	ABOVE REAR AXLE / CENTER
EC17		ENGINE COMPARTMENT / REAR RH SIDE
EC21	2-WAY / BLACK / ENGINE HARNESS TO COOLING FAN MODULE	ENGINE COMPARTMENT / ADJACENT TO RADIATOR / RH SIDE
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST
FP2	6-WAY / GREY / CABIN HARNESS TO FUEL PUMP HARNESS	CABIN / BELOW REAR SEAT CUSHION / RH SIDE
FP6	22-WAY / NATURAL / CABIN HARNESS TO FUEL PUMP HARNESS	TOP OF FUEL TANK / RH SIDE
IP9	8-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / ADJACENT TO HOOD RELEASE
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE
IP55	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN/BELOW CENTER CONSOLE/RH SIDE OF TRANSMISSION TUNNEL

GROUNDS

Ground	Location
G3	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION BOX
G9	CABIN / UPPER LH 'A' POST
G10	CABIN / RH A POST
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G23	TRUNK / RH SIDE / ADJACENT TO BATTERY
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
PI51	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER

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.

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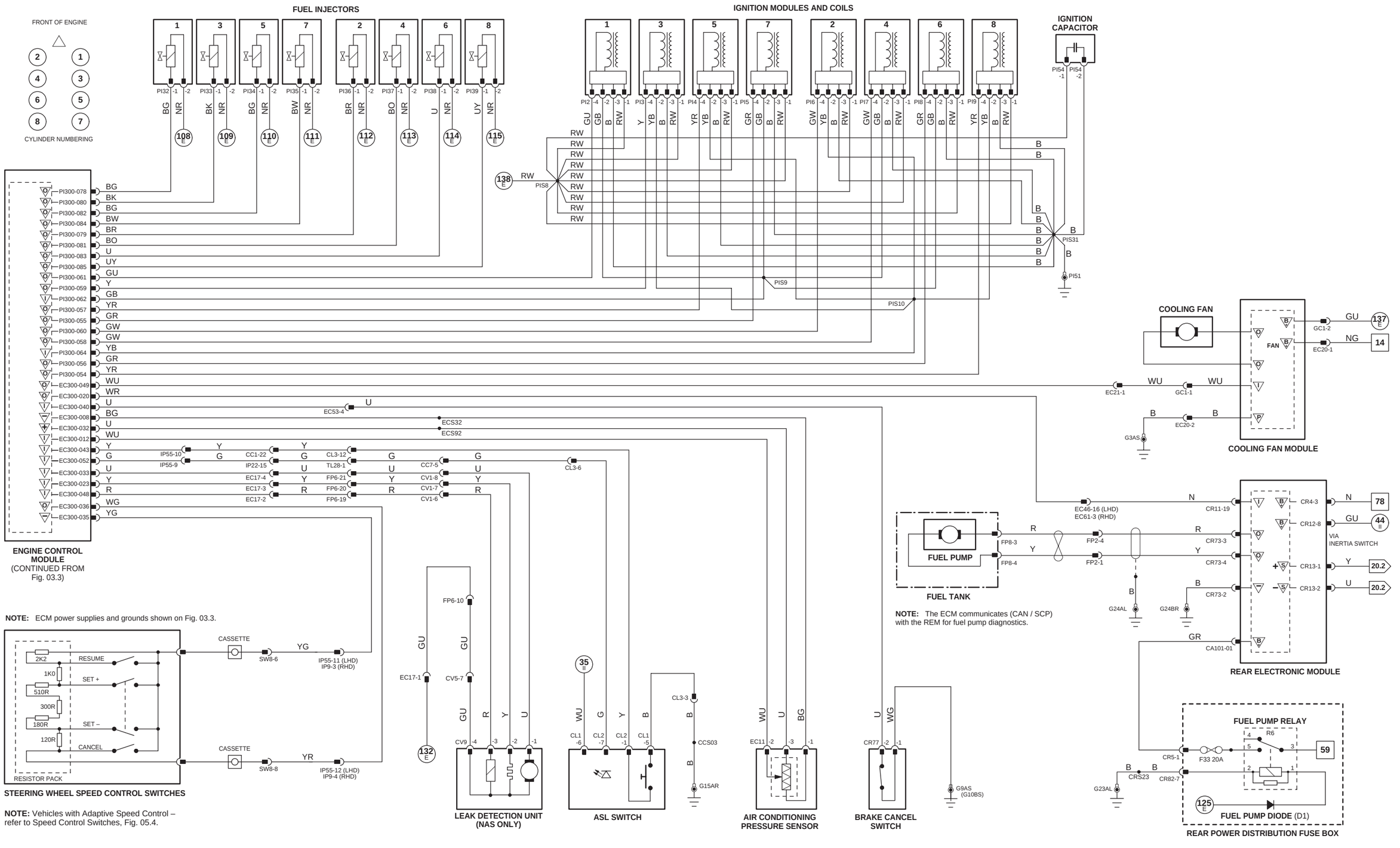

1 → 6	Fig. 01.1	64 → 95	Fig. 01.3	16 II → 52 II	Fig. 01.5	78 S → 105 S	Fig. 01.7	I	Input	B	Battery Voltage	+	Sensor/Signal Supply V	A	ACP	S	SCP	**VARIANT:**	V8 N/A Vehicles
7 → 63	Fig. 01.2	1 I → 15 II	Fig. 01.4	53 S → 77 S	Fig. 01.6	106 E → 143 E	Fig. 01.8	O	Output	P	Power Ground	−	Sensor/Signal Ground	C	CAN	D	Serial and Encoded Data	**VIN RANGE:**	All
																		DATE OF ISSUE:	April 2006

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Engine Control Module

	Pin	Description and Characteristic
SG	EC300–01	SMALL SIGNAL GROUND 1: GROUND
PG	EC300–02	POWER GROUND 1: GROUND
PG	EC300–03	POWER GROUND 2: GROUND
B+	EC300–04	EMS SWITCHED POWER SUPPLY 1: B+
PG	EC300–05	POWER GROUND 3: GROUND
B+	EC300–06	EMS SWITCHED POWER SUPPLY 2: B+
SG	EC300–07	SENSOR GROUND 1: GROUND
SG	EC300–08	SENSOR GROUND 2: GROUND
I	EC300–15	AUTOMATIC – PARK / NEUTRAL SIGNAL: B+ WHEN ACTIVATED MANUAL, ROW – PARK / NEUTRAL SIGNAL: B+ WHEN IGNITION CRANK (III)
O	EC300–16	EMS CONTROL RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
I	EC300–17	ENGINE CRANK: B+
SS	EC300–19	SENSOR POWER SUPPLY 2: NOMINAL 5 V
I	EC300–24	ACCELERATOR PEDAL POSITION SENSOR 1 SIGNAL: FOOT OFF = 0.75 V; FULLY DEPRESSED = 3.40 V (AUTO) 3.20 V (MAN)
I	EC300–30	IGNITION ON: B+
SS	EC300–32	SENSOR POWER SUPPLY 1: NOMINAL 5 V
I	EC300–38	ACCELERATOR PEDAL POSITION SENSOR 2 SIGNAL: FOOT OFF = 3.38 V; FULLY DEPRESSED = 2.05 V (AUTO) 2.14 V (MAN)
I	EC300–41	BRAKE ON / OFF SWITCH: NORMALLY OPEN / B+ WHEN ACTIVATED
I	EC300–42	INERTIA SWITCH: NORMALLY CLOSED / OPEN CIRCUIT WHEN ACTIVATED
O	EC300–51	STARTER RELAY DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
B+	EC300–54	BATTERY POWER SUPPLY: B+
C	PI300-01	CAN +
C	PI300-02	CAN –
SG	PI300–06	CRANKSHAFT SENSOR SIGNAL GROUND: GROUND
SG	PI300–07	BANK 1 CAMSHAFT SENSOR GROUND: GROUND
SG	PI300–08	BANK 2 CAMSHAFT SENSOR GROUND: GROUND
SG	PI300–10	SENSOR GROUND: GROUND
SG	PI300–11	THROTTLE POSITION SENSOR GROUND: GROUND
SG	PI300–12	SENSOR GROUND: GROUND
SG	PI300–15	SENSOR GROUND: GROUND
I	PI300–16	GENERATOR FAULT; CHARGE WARNING
SG	PI300–18	MASS AIR FLOW SENSOR GROUND: GROUND
SG	PI300–19	BANK 1 KNOCK SENSOR GROUND: GROUND
SG	PI300–20	BANK 2 KNOCK SENSOR GROUND: GROUND
SG	PI300–22	HO2 SENSORS 1/2 SHIELD: GROUND
I	PI300–23	ENGINE OIL TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
SS	PI300–24	SENSOR POWER SUPPLY: NOMINAL 5V
I	PI300–26	HO2 SENSOR 2/1 SIGNAL: VARIABLE CURRENT
I	PI300–27	HO2 SENSOR 2/1 SIGNAL: CONSTANT CURRENT
I	PI300–28	HO2 SENSOR 1/1 SIGNAL: VARIABLE CURRENT
I	PI300–29	HO2 SENSOR 1/1 SIGNAL: CONSTANT CURRENT
I	PI300–30	CRANKSHAFT SENSOR SIGNAL: PULSED SIGNAL, 70 PULSES PER ENGINE CYCLE
I	PI300–33	BANK 2 CAMSHAFT SENSOR SIGNAL: PULSED SIGNAL, 4 PULSES PER ENGINE CYCLE
I	PI300–34	BANK 1 CAMSHAFT SENSOR SIGNAL: PULSED SIGNAL, 4 PULSES PER ENGINE CYCLE
I	PI300-38	THROTTLE BODY (THR) SENSOR SIGNAL, NOMINAL 0 – 5 V: VOLTAGE INCREASES AS PRESSURE INCREASES
I	PI300-39	TMAP SENSOR TEMPERATURE SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	PI300–40	HO2 SENSOR 1/2 SIGNAL, NOMINAL 1 V SWING: 0.1 – 0.9 V SWING
I	PI300–41	HO2 SENSOR 2/2 SIGNAL, NOMINAL 1 V SWING: 0.1 – 0.9 V SWING
I	PI300–42	BANK 1 KNOCK SENSOR SIGNAL: VARIABLE VOLTAGE DEPENDENT ON ENGINE VIBRATION
I	PI300–43	BANK 2 KNOCK SENSOR SIGNAL: VARIABLE VOLTAGE DEPENDENT ON ENGINE VIBRATION
SG	PI300–45	HO2 SENSORS 2/2 SHIELD: GROUND
I	PI300–46	ENGINE FUEL TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
SS	PI300–47	SENSOR POWER SUPPLY: NOMINAL 5V
O	PI300–50	EGR DRIVE 4: B+; EGR DRIVE 1, 2, 3, 4 ARE OPERATED IN TURN
O	PI300–51	EGR DRIVE 3: B+; EGR DRIVE 1, 2, 3, 4 ARE OPERATED IN TURN
O	PI300–52	EGR DRIVE 2: B+; EGR DRIVE 1, 2, 3, 4 ARE OPERATED IN TURN
O	PI300–53	EGR DRIVE 1: B+; EGR DRIVE 1, 2, 3, 4 ARE OPERATED IN TURN
I	PI300–65	THROTTLE POSITION SENSOR 1 SIGNAL: IDLE = 0.60 V; FULL THROTTLE = 4.30 V
I	PI300–66	INTAKE AIR TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	PI300–67	THROTTLE POSITION SENSOR 2 SIGNAL: IDLE = 1.48 V; FULL THROTTLE = 4.40 V
I	PI300–68	ENGINE COOLANT TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	PI300–69	MAP SENSOR SIGNAL, NOMINAL 0 – 5 V: VOLTAGE INCREASES AS MANIFOLD ABSOLUTE PRESSURE INCREASES
I	PI300–70	MASS AIR FLOW SENSOR SIGNAL: NOMINAL 0 – 5 V BY ENGINE OPERATING CONDITION
I	PI300–71	INJECTION PRESSURE SENSOR SIGNAL, NOMINAL 0 – 5 V: POTENTIOMETER – VOLTAGE INCREASES AS PRESSURE INCREASES
SS	PI300–72	THROTTLE POSITION SENSOR POWER SUPPLY: NOMINAL 5 V
O	PI300–74	THROTTLE MOTOR GROUND: GROUND
O	PI300–75	THROTTLE MOTOR DRIVE: B+ TO ACTIVATE MOTOR
O	PI300–76	HO2 SENSOR HEATER CONTROL – 1/1: PWM, 1 CYCLE PER 128 mS, VARIABLE DUTY CYCLE
O	PI300–77	HO2 SENSOR HEATER CONTROL – 2/1: PWM, 1 CYCLE PER 128 mS, VARIABLE DUTY CYCLE
O	PI300–86	BANK 1 VVT SOLENOID VALVE: PWM, 300 Hz, POSITIVE DUTY CYCLE RANGE 0% – 100%
O	PI300–87	BANK 2 VVT SOLENOID VALVE: PWM, 300 Hz, POSITIVE DUTY CYCLE RANGE 0% – 100%
O	PI300–88	HO2 SENSOR HEATER CONTROL – 1/2: PWM, 1 CYCLE PER 256 mS, POSITIVE DUTY CYCLE RANGE 0 mS = 0%, 77 mS = 30%, 256 mS = 100%
O	PI300–89	HO2 SENSOR HEATER CONTROL – 2/2: PWM, 1 CYCLE PER 256 mS, POSITIVE DUTY CYCLE RANGE 0 mS = 0%, 77 mS = 30%, 256 mS = 100%
O	PI300–92	EVAP CANISTER PURGE VALVE DRIVE: PWM, 10 Hz, POSITIVE DUTY CYCLE RANGE 7% – 100%
O	PI300-94	INTERCOOLER PUMP RELAY DRIVE

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.

Fig. 03.5

COMPONENTS

Component	Connector(s)	Connector Description	Location
APP SENSOR	CR14	6-WAY / BLACK	TOP OF ACCELERATOR PEDAL
BRAKE ON / OFF SWITCH	CR78	2-WAY / BLACK	TOP OF BRAKE PEDAL
CKP SENSOR	PI21	2-WAY / BLACK	ENGINE UNDER SIDE, FORWARD OF BELL HOUSING
CMP SENSOR 1	PI23	2-WAY / BLACK	BANK 1 (RH) CAMSHAFT COVER, FRONT
CMP SENSOR 2	PI22	2-WAY / BLACK	BANK 2 (LH) CAMSHAFT COVER, FRONT
ECT SENSOR	PI25	2-WAY / BLACK	ENGINE VEE, COOLANT OUTLET CASTING
EFT SENSOR	PI27	2-WAY / BLACK	FUEL RAIL, RH REAR
EGR VALVE	PI15	6-WAY / BLACK	INTAKE MANIFOLD, REAR
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
	PI300	96-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
EOT SENSOR	PI24	2-WAY / BLACK	ADJACENT TO OIL FILTER
EVAP CANISTER PURGE VALVE	FH111	2-WAY / BLACK	ENGINE COMPARTMENT, LH SIDE, ADJACENT TO SUSPENSION TURRET
HO2 SENSOR DOWNSTREAM 1/2	PI11	4-WAY / BLACK	RH EXHAUST, CATALYST CENTER
HO2 SENSOR DOWNSTREAM 2/2	PI13	4-WAY / BLACK	LH EXHAUST, CATALYST CENTER
HO2 SENSOR UPSTREAM 1/1	PI10	4-WAY / BLACK	RH EXHAUST, TOP OF CATALYST
HO2 SENSOR UPSTREAM 2/1	PI12	4-WAY / BLACK	LH EXHAUST, TOP OF CATALYST
IP SENSOR	PI28	3-WAY / BLACK	FUEL RAIL, LH REAR
KNOCK SENSORS	PI19	4-WAY / BLACK	ENGINE VEE
MAF SENSOR	PI14	5-WAY / BLACK	ENGINE AIR INTAKE, ADJACENT TO AIR CLEANER
THR SENSOR	PI301	4-WAY / BLACK	ENGINE, RH REAR
THROTTLE BODY	PI26	6-WAY / BLACK	ENGINE AIR INTAKE, REAR
THROTTLE MOTOR	—	—	THROTTLE BODY
TMAP SENSOR	PI310	4-WAY / BLACK	INTAKE MANIFOLD, REAR, BELOW THROTTLE ASSEMBLY
TP SENSOR	—	—	THROTTLE BODY, THROTTLE SHAFT
VVT SOLENOID VALVE 1	PI16	2-WAY / BLACK	RH CYLINDER HEAD, FRONT
VVT SOLENOID VALVE 2	PI17	2-WAY / BLACK	LH CYLINDER HEAD, FRONT

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC16	12-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER SIDE

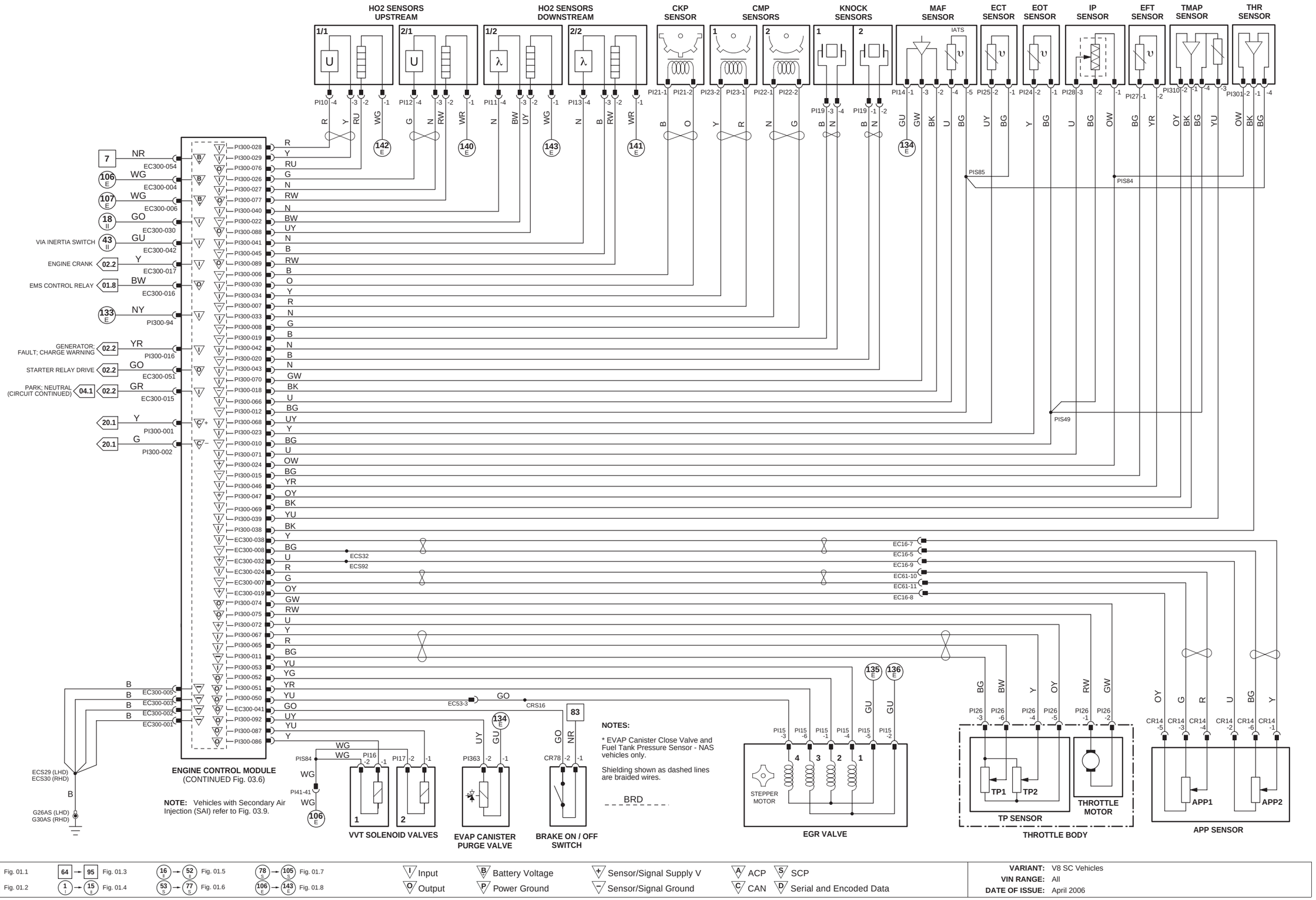
GROUNDS

Ground	Location
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER
G30	ENGINE COMPARTMENT / LH SIDE / REARWARD OF SUSPENSION TOWER

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: April 2006



1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 E → 52 E Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP, S SCP
7 → 63 Fig. 01.2	1 I → 15 E Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN, D Serial and Encoded Data

VARIANT: V8 SC Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Engine Control Module

	Pin	Description and Characteristic
SG	EC300-08	SENSOR GROUND 1: GROUND
I	EC300-12	AIR CONDITIONING PRESSURE SENSOR SIGNAL, NOMINAL 0 – 5 V: TRANSDUCER – VOLTAGE INCREASES AS PRESSURE INCREASES
O	EC300-20	FUEL PUMP DRIVE SIGNAL (TO REM): PWM, 150 Hz, NORMAL POSITIVE DUTY CYCLE RANGE = 4% – 51%
I	EC300-21	FUEL PUMP MONITOR
O	EC300-23	LEAK DETECTION HEATER CONTROL
SS	EC300-32	SENSOR POWER SUPPLY 1: NOMINAL 5 V
O	EC300-33	LEAK DETECTION PUMP CONTROL
I	EC300-35	SPEED CONTROL SWITCHES SIGNAL GROUND: GROUND
SS	EC300-36	SPEED CONTROL SWITCH REQUEST: STEPPED RESISTANCE
I	EC300-40	BRAKE CANCEL SWITCH: NORMALLY CLOSED / GROUND WHEN ACTIVATED
I	EC300-43	ASL MASTER SWITCH
O	EC300-48	LEAK DETECTION VALVE CONTROL
O	EC300-49	COOLING FAN MODULE CONTROL: PWM, 140 Hz, POSITIVE DUTY CYCLE RANGE 7% – 95%
I	EC300-52	ASL LED
O	PI300-49	AIR CLEANER SOLENOID VALVE DRIVE: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-54	IGNITION COIL ACTIVATE – CYLINDER 8: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-55	IGNITION COIL ACTIVATE – CYLINDER 7: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-56	IGNITION COIL ACTIVATE – CYLINDER 6: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-57	IGNITION COIL ACTIVATE – CYLINDER 5: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-58	IGNITION COIL ACTIVATE – CYLINDER 4: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-59	IGNITION COIL ACTIVATE – CYLINDER 3: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-60	IGNITION COIL ACTIVATE – CYLINDER 2: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-61	IGNITION COIL ACTIVATE – CYLINDER 1: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
I	PI300-62	IGNITION MONITOR BANK 1: PULSED SIGNAL, 3 PULSES PER ENGINE CYCLE
I	PI300-64	IGNITION MONITOR BANK 2: PULSED SIGNAL, 3 PULSES PER ENGINE CYCLE
O	PI300-78	FUEL INJECTOR DRIVE – CYLINDER 1: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-79	FUEL INJECTOR DRIVE – CYLINDER 2: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-80	FUEL INJECTOR DRIVE – CYLINDER 3: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-81	FUEL INJECTOR DRIVE – CYLINDER 4: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-82	FUEL INJECTOR DRIVE – CYLINDER 5: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-83	FUEL INJECTOR DRIVE – CYLINDER 6: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-84	FUEL INJECTOR DRIVE – CYLINDER 7: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND
O	PI300-85	FUEL INJECTOR DRIVE – CYLINDER 8: TO ACTIVATE, ECM SWITCHES CIRCUIT TO GROUND

Rear Electronic Module

	Pin	Description and Characteristic
B+	CR4–3	BATTERY POWER SUPPLY (LOGIC): B+
B+	CR12–8	IGNITION SWITCHED POWER SUPPLY (II) (FUEL PUMP CONTROL): B+
S	CR13–1	SCP NETWORK +
S	CR13–2	SCP NETWORK –
B+	CR73–1	FUEL PUMP POWER SUPPLY: B+ WHEN FUEL PUMP RELAY ACTIVATED
PG	CR73–2	POWER GROUND (FUEL PUMP): GROUND

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.

Fig. 03.6

COMPONENTS

Component	Connector(s)	Connector Description	Location
AIR CLEANER SOLENOID VALVE	EC37	2-WAY / BLACK	AIR CLEANER HOUSING
AIR CONDITIONING PRESSURE SENSOR	EC11	3-WAY / BLACK	ADJACENT TO RADIATOR / LH SIDE
ASL SWITCH	CL1	8-WAY / BLACK	CABIN, CENTRE CONSOLE
	CL2	8-WAY / BLACK	CABIN, CENTRE CONSOLE
BRAKE CANCEL SWITCH	CR77	2-WAY / BLACK	TOP OF BRAKE PEDAL
COOLING FAN MODULE AND MOTOR	EC20	2-WAY / GREY	RADIATOR COOLING FAN
	GC1	2-WAY / GREY	
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
	PI300	96-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
FUEL INJECTOR 1 (V8 SC)	IS1	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 2 (V8 SC)	IS7	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 3 (V8 SC)	IS2	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 4 (V8 SC)	IS8	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 5 (V8 SC)	IS3	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 6 (V8 SC)	IS9	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 7 (V8 SC)	IS4	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL INJECTOR 8 (V8 SC)	IS10	2-WAY / BLACK	FUEL RAIL / INTAKE MANIFOLD
FUEL PUMP	FP8	4-WAY / BLACK	FUEL TANK, RH SIDE
FUEL PUMP MODULE	FP26	6-WAY / BLACK	ABOVE FUEL TANK
FUEL PUMP RELAY	—	—	REAR POWER DISTRIBUTION FUSE BOX – R6
IGNITION CAPACITOR	PI54	2-WAY / BLACK	LH CYLINDER HEAD, REAR
IGNITION MODULE AND COIL 1	PI2	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 2	PI6	4-WAY / BLACK	LH CYLINDER HEAD
IGNITION MODULE AND COIL 3	PI3	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 4	PI7	4-WAY / BLACK	LH CYLINDER HEAD
IGNITION MODULE AND COIL 5	PI4	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 6	PI8	4-WAY / BLACK	LH CYLINDER HEAD
IGNITION MODULE AND COIL 7	PI5	4-WAY / BLACK	RH CYLINDER HEAD
IGNITION MODULE AND COIL 8	PI9	4-WAY / BLACK	LH CYLINDER HEAD
INTERCOOLER PUMP	CP2	2-WAY / BLACK	ENGINE COMPARTMENT, RH SIDE, ADJACENT TO RADIATOR
LEAK DETECTION UNIT	CV9	4-WAY / BLACK	ABOVE FUEL TANK
REAR ELECTRONIC MODULE	CR4	20-WAY / BLACK	TRUNK / RH REAR
	CR12	12-WAY / BLACK	
	CR13	22-WAY / BLACK	
	CR73	4-WAY / BLACK	
REAR POWER DISTRIBUTION FUSE BOX	CR5	4-WAY / BLACK	TRUNK / RH REAR
	CR68	8-WAY / BLACK	
	CR82	12-WAY / BLACK	
STEERING WHEEL SPEED CONTROL SWITCHES	—	—	STEERING WHEEL

HARNESS IN-LINE CONNECTORS

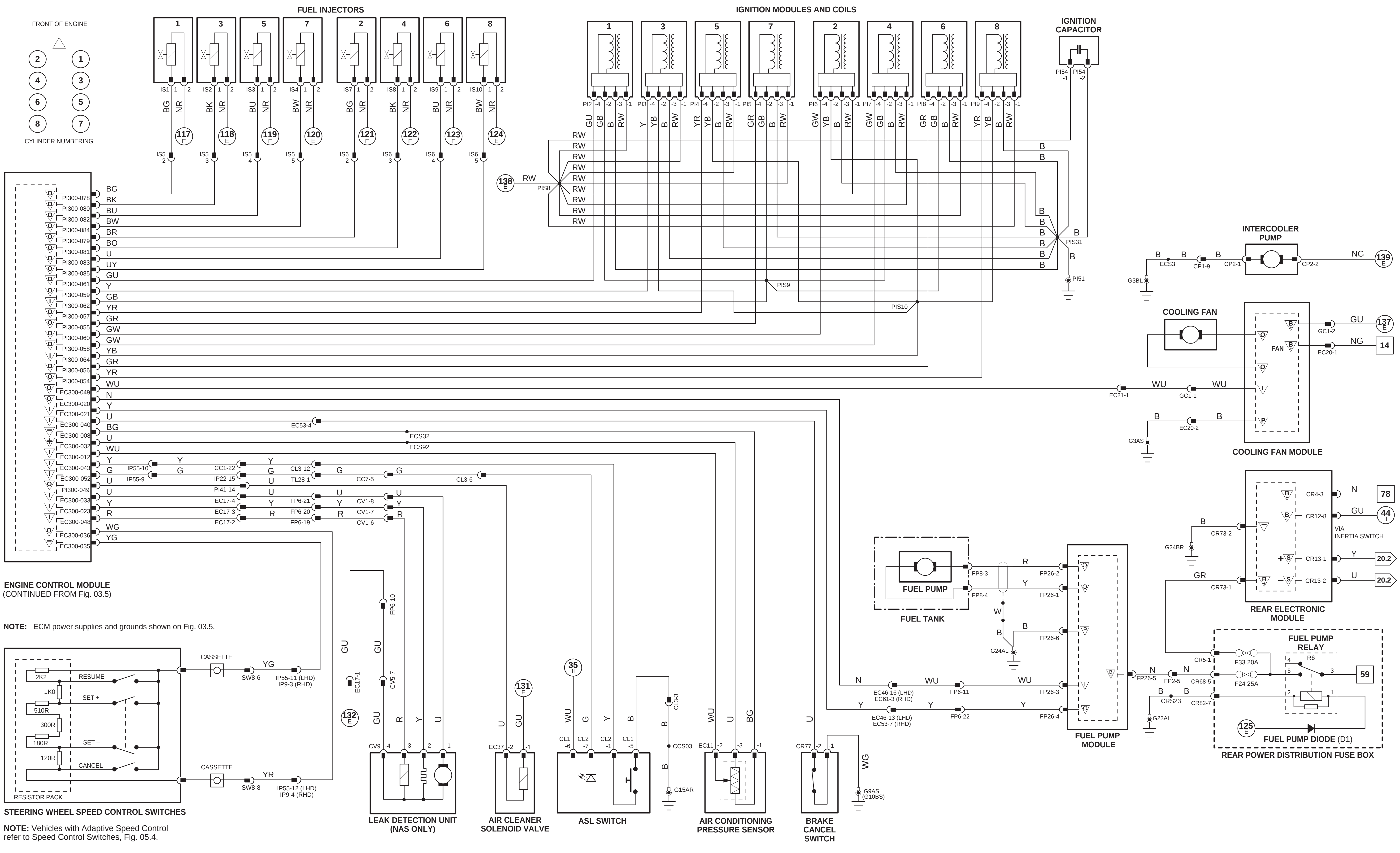
Connector	Connector Description / Location	Location
CC10	22-WAY GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CC7	10-WAY / GREY / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
CP1	10-WAY / BLACK / INTERCOOLER PUMP LINK LEAD	ENGINE COMPARTMENT, RH FRONT, ADJACENT TO RADIATOR
CV1	8-WAY / GREY / FUEL PUMP LINK HARNESS TO PARKING BRAKE MOTOR HARNESS	REAR OF FUEL TANK / RH SIDE
CV5	12-WAY / GREY / FUEL PUMP LINK HARNESS TO EVAP CANISTER CLOSE VALVE LINK HARNESS	ABOVE REAR AXLE / CENTER
EC17		ENGINE COMPARTMENT / REAR RH SIDE
EC21	2-WAY / BLACK / ENGINE HARNESS TO COOLING FAN MODULE	ENGINE COMPARTMENT / ADJACENT TO RADIATOR / RH SIDE
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST
FP2	6-WAY / GREY / CABIN HARNESS TO FUEL PUMP HARNESS	CABIN / BELOW REAR SEAT CUSHION / RH SIDE
FP6	22-WAY / NATURAL / CABIN HARNESS TO FUEL PUMP HARNESS	TOP OF FUEL TANK / RH SIDE
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE
IP55	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP9	8-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / ADJACENT TO HOOD RELEASE
IS5	6-WAY / BLACK / ENGINE HARNESS TO FUEL INJECTOR LINK	ENGINE, LH REAR
PI41	42-WAY / BLACK / ENGINE HARNESS TO VEHICLE HARNESS	ENGINE COMPARTMENT, BULKHEAD, PASSENGER SIDE
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN/BELOW CENTER CONSOLE/RH SIDE OF TRANSMISSION TUNNEL

GROUNDS

Ground	Location
G3	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION BOX
G23	TRUNK / RH SIDE / ADJACENT TO BATTERY
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
PI51	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER

FOR CONTROL MODULE PIN-OUT INFORMATION AND GROUNDS, 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.



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

VARIANT: V8 SC Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Engine Control Module

	Pin	Description and Characteristic
I	C98–A1	EOT SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
C	C98–A3	CAN –-
C	C98–A4	CAN +
I	C98–C4	KNOCK SENSOR 2 SIGNAL: DIFFERENTIAL –ve. VOLTAGE DEPENDENT ON ENGINE VIBRATION
I	C98–D1	FRP SENSOR SIGNAL, NOMINAL 0 – 5 V: VOLTAGE INCREASES AS PRESSURE INCREASES
SS	C98–D2	FRP SENSOR POWER SUPPLY: NOMINAL 5 V
I	C98–D3	KNOCK SENSOR 2 SIGNAL: DIFFERENTIAL +ve. VOLTAGE DEPENDENT ON ENGINE VIBRATION
I	C98–D4	KNOCK SENSOR 1 SIGNAL: DIFFERENTIAL –ve. VOLTAGE DEPENDENT ON ENGINE VIBRATION
I	C98–E1	EGR THROTTLE POSITION SENSOR SIGNAL: NOMINAL 0 – 5 V
SG	C98–E2	FRP SENSOR GROUND: GROUND
I	C98–E4	KNOCK SENSOR 1 SIGNAL: DIFFERENTIAL +ve. VOLTAGE DEPENDENT ON ENGINE VIBRATION
SS	C98–F1	EGR THROTTLE POSITION SENSOR POWER SUPPLY: NOMINAL 5 V
SG	C98–F2	EGR THROTTLE POSITION SENSOR GROUND: GROUND
I	C98–F3	INERTIA SWITCH: NORMALLY CLOSED / OPEN CIRCUIT WHEN ACTIVATED
SG	C98–K1	EOT SENSOR GROUND (EGR VALVE POSITION SENSOR 1): GROUND
O	C98–K4	INLET PORT DEACTIVATION SOLENOID: PWM, 250 Hz
I	C99–A2	EGR VALVE POSITION SENSOR 2: NOMINAL 0 – 5 V
I	C99–A3	EGR VALVE POSITION SENSOR 1: NOMINAL 0 – 5 V
I	C99–B1	ACT SENSOR SIGNAL: NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	C99–B2	EFT SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
O	C99–B4	ROTARY ELECTRONIC ACTUATOR 2:
I	C99–C1	MAP SENSOR SIGNAL, NOMINAL 0 – 5 V: VOLTAGE INCREASES AS MANIFOLD ABSOLUTE PRESSURE INCREASES
I	C99–C2	ECT SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
SS	C99–C3	EGR VALVE POSITION SENSORS POWER SUPPLY: NOMINAL 5 V
O	C99–C4	ROTARY ELECTRONIC ACTUATOR 1:
SS	C99–D1	MAP SENSOR / ACTUATORS POWER SUPPLY: NOMINAL 5 V
SG	C99–D2	EGR VALVE POSITION SENSOR 1 / ACTUATOR 2 GROUND: GROUND
	C99–D3	DPF PRESSURE SENSOR SIGNAL:
SG*	C99–E2	ECT SENSOR GROUND (MAP SENSOR): GROUND
SG*	C99–E2	MAP SENSOR GROUND (ECT SENSOR): GROUND
I	C99–F1	CKP SENSOR SIGNAL: PULSED SIGNAL, 70 PULSES PER ENGINE CYCLE
I	C99–F2	GENERATOR FAULT; CHARGE WARNING
SS	C99–G1	CKP SENSOR POWER SUPPLY: NOMINAL 5 V
SG	C99–G2	CKP SENSOR SIGNAL GROUND: GROUND
SG*	C99–G3	ACT SENSOR GROUND (EGR VALVE 2, EFT SENSOR, ACTUATOR 1): GROUND
SG*	C99–G3	EGR VALVE POSITION SENSOR 2 GROUND (ACT SENSOR, EFT SENSOR, ACTUATOR 1): GROUND
SG*	C99–G3	EFT SENSOR GROUND (ACT SENSOR, EGR VALVE POSITION SENSOR 2, ACTUATOR 1): GROUND
SG*	C99–G3	ACTUATOR 1 GROUND (ACT SENSOR, EGR VALVE POSITION SENSOR 2, EFT SENSOR): GROUND
I	C99–G4	CMP SENSOR SIGNAL: PULSED SIGNAL, 4 PULSES PER ENGINE CYCLE
O	C99–H1	EGR VALVE 1: +ve PWM
O	C99–H2	EGR VALVE 1: –ve PWM
SG	C99–H3	CMP SENSOR GROUND: GROUND
SS	C99–H4	CMP SENSOR POWER SUPPLY: NOMINAL 5 V
O	C99–J1	EGR VALVE 2: +ve PWM
O	C99–J2	ROTARY ELECTRONIC ACTUATOR 1:
O	C99–J3	ROTARY ELECTRONIC ACTUATOR 2:
O	C99–J4	EGR THROTTLE MOTOR DRIVE: +ve PWM
O	C99–K1	EGR VALVE 2: –ve PWM
O	C99–K2	ROTARY ELECTRONIC ACTUATOR 1:
O	C99–K3	ROTARY ELECTRONIC ACTUATOR 2:
O	C99–K4	EGR THROTTLE MOTOR DRIVE: –ve PWM
SG	EC66–A2	APP SENSOR SHIELD: GROUND
O	EC66–B1	STARTER RELAY DRIVE: TO ACTIVATE, PCM SWITCHES CIRCUIT TO GROUND
SG	EC66–B2	APP SENSOR 2 GROUND: GROUND
SG	EC66–C1	APP SENSOR 1 GROUND: GROUND
I	EC66–C2	APP SENSOR 2 SIGNAL: NEGATIVE-GOING VOLTAGE SLOPE, TYPICAL IDLE VOLTAGE = 3.445V TO 3.305V; TYPICAL FULL PEDAL VOLTAGE = 2.05 V
I	EC66–D1	APP SENSOR 1 SIGNAL: POSITIVE-GOING VOLTAGE SLOPE, TYPICAL IDLE VOLTAGE = 0.61V TO 0.89V; TYPICAL FULL PEDAL VOLTAGE = 3.4 V
SS	EC66–D2	APP SENSOR 2 POWER SUPPLY: NOMINAL 5 V
I	EC66–D4	AUTOMATIC – PARK / NEUTRAL SIGNAL: B+ WHEN ACTIVATED
SS	EC66–E1	APP SENSOR 1 POWER SUPPLY: NOMINAL 5 V
I	EC66–F1	IAT SENSOR (INTEGRAL TO MAF SENSOR) SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	EC66–F3	ENGINE CRANK: B+
I	EC66–F4	MAF SENSOR 1 SIGNAL: TIME PERIOD (FREQUENCY) SIGNAL, PROPORTIONAL TO AIR FLOW
I	EC66–G2	BRAKE ON / OFF SWITCH: NORMALLY OPEN / B+ WHEN ACTIVATED
I	EC66–G4	MAF SENSOR 2 SIGNAL: TIME PERIOD (FREQUENCY) SIGNAL, PROPORTIONAL TO AIR FLOW
O	EC66–J3	EMS CONTROL RELAY DRIVE: TO ACTIVATE, PCM SWITCHES CIRCUIT TO GROUND
B+	EC66–K3	IGNITION SWITCHED POWER (RUN): PJB, F4, 5A
B+	EC66–K4	BATTERY POWER SUPPLY: B+
B+	EC66–L1	EMS SWITCHED POWER SUPPLY 1: FPDB, F20, 30A
B+	EC66–L2	EMS SWITCHED POWER SUPPLY 2: FPDB, F20, 30A
B+	EC66–L3	EMS SWITCHED POWER SUPPLY 3: FPDB, F20, 30A
SG	EC66–L4	MAF (INTEGRAL IAT) SENSORS GROUND: GROUND
PG	EC66–M1	POWER GROUND: GROUND
PG	EC66–M2	POWER GROUND: GROUND
PG	EC66–M3	POWER GROUND: GROUND
PG	EC66–M4	POWER GROUND: GROUND

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.

Fig. 03.7

COMPONENTS

Component	Connector(s)	Connector Description	Location
ACT SENSOR	C69	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
APP SENSOR	CR14	6-WAY / BLACK	TOP OF ACCELERATOR PEDAL
BRAKE ON / OFF SWITCH	CR78	2-WAY / BLACK	TOP OF BRAKE PEDAL
CKP SENSOR	C77	3-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
CMP SENSOR	C25	3-WAY / GREY	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
DPF PRESSURE SENSOR	EC65		
ECT SENSOR	C34	2-WAY / GREY	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
EFT SENSOR	C35	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
EGR THROTTLE BODY	C39	6-WAY / GREY	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
EGR VALVE 1	C70	6-WAY / GREY	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
EGR VALVE 2	C71	6-WAY / GREY	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
EOT SENSOR	C28	3-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
FRP SENSOR	C30	3-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
INLET PORT DEACTIVATION SOLENOID	C36	4-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
KNOCK SENSOR 1	C87	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
KNOCK SENSOR 2	C88	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
MAF SENSOR 1	EC67	4-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
MAF SENSOR 2	EC68	4-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
MAP SENSOR	C31	3-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
POWERTRAIN CONTROL MODULE	C98	48-WAY / BROWN	FRONT BULKHEAD, PASSENGER SIDE
	C99	48-WAY / GREY	
	EC66	48-WAY / BLACK	
ROTARY ELECTRONIC ACTUATOR 1	C40	5-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
ROTARY ELECTRONIC ACTUATOR 2	C41	5-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC16	12-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER SIDE

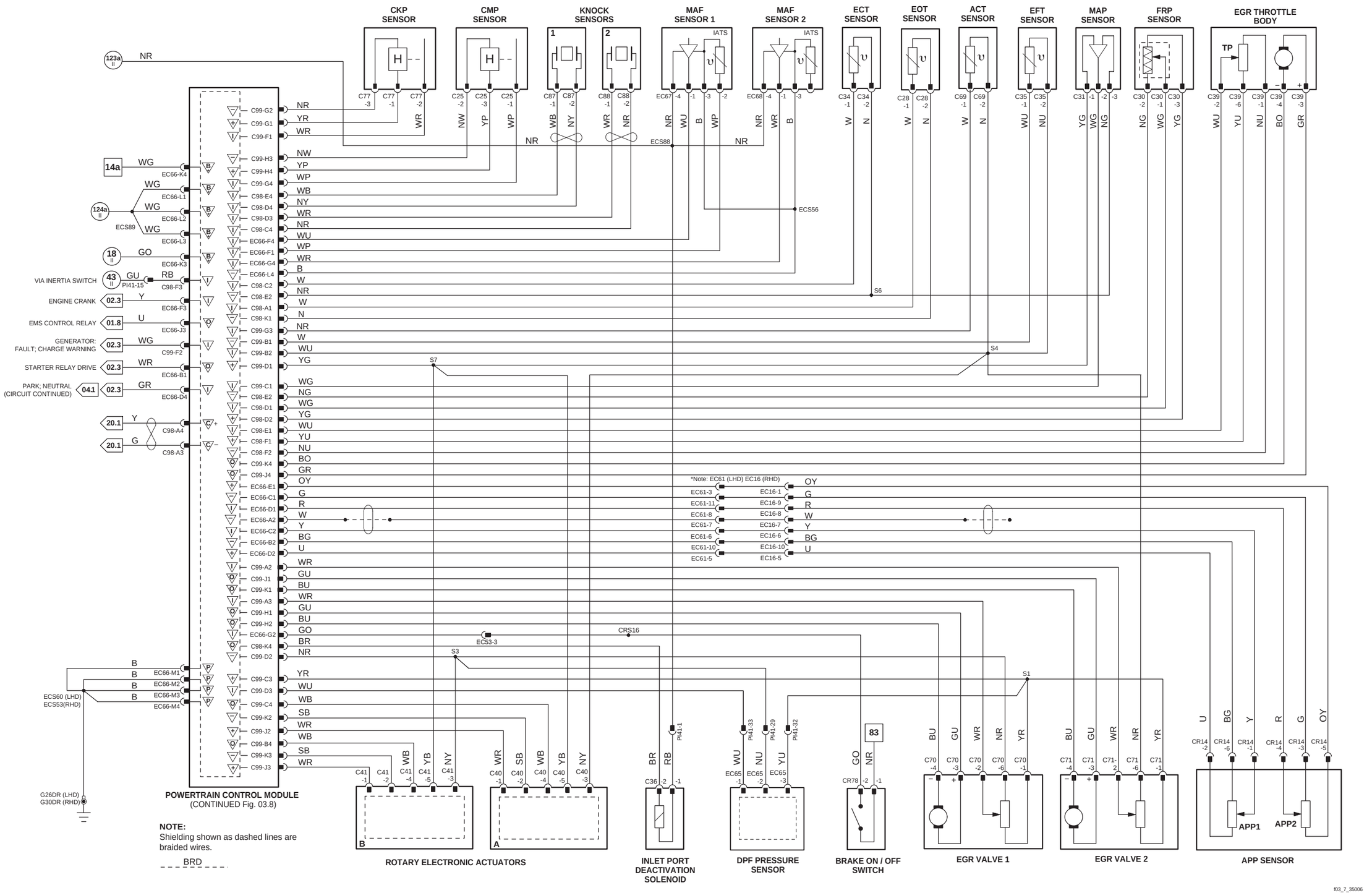
GROUNDS

Ground	Location
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER
G30	ENGINE COMPARTMENT / LH SIDE / REARWARD OF SUSPENSION TOWER

FOR CONTROL MODULE PIN-OUT, UNFOLD PAGE TO THE 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: April 2006



1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 (F) → 52 (F) Fig. 01.5	78 (S) → 105 (S) Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	Diesel 2.7V6
7 → 63 Fig. 01.2	1 (I) → 15 (I) Fig. 01.4	53 (S) → 77 (S) Fig. 01.6	106 (E) → 143 (E) Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Engine Control Module

	Pin	Description and Characteristic
SS	C98–B1	CATALYTIC CONVERTER TEMPERATURE SENSOR - BANK 1 UPSTREAM SIGNAL:
I	C98–E3	GLOW PLUG CONTROL MODULE LOGIC MONITOR
O	C98–G3	GLOW PLUG CONTROL MODULE DRIVE: PWM, 100% = 0N, 0% = OFF
O	C98–J4	FUEL PUMP, VOLUMETRIC CONTROL VALVE: PWM, 200 Hz
O	C98–K3	FUEL PUMP, PRESSURE CONTROL VALVE: PWM, 350 Hz
O	C98–L1	FUEL INJECTOR DRIVE – CYLINDER 4: TO ACTIVATE, PCM SWITCHES CIRCUIT TO GROUND
+	C98–L2	FUEL INJECTOR POWER SUPPLY – CYLINDER 4:
+	C98–L3	FUEL INJECTOR POWER SUPPLY – CYLINDER 5:
O	C98–M1	FUEL INJECTOR DRIVE – CYLINDER 5: TO ACTIVATE, PCM SWITCHES CIRCUIT TO GROUND
O	C98–M2	FUEL INJECTOR DRIVE – CYLINDER 6: TO ACTIVATE, PCM SWITCHES CIRCUIT TO GROUND
+	C98–M3	FUEL INJECTOR POWER SUPPLY – CYLINDER 6:
SS	C99–A4	CATALYTIC CONVERTER TEMPERATURE SENSOR - BANK 2 UPSTREAM SIGNAL:
SS	C99–D4	DPF TEMPERATURE SENSOR SIGNAL:
SS	C99–E3	CATALYTIC CONVERTER TEMPERATURE SENSOR - BANK 1 DOWNSTREAM SIGNAL:
SS	C99–E4	CATALYTIC CONVERTER TEMPERATURE SENSOR - BANK 2 DOWNSTREAM SIGNAL:
SG	C99–F3	SIGNAL GROUND FOR CATALYTIC CONVERTER TEMPERATURE SENSORS - BANK 2 AND DPF SENSOR: GROUND
SG	C99–F4	SIGNAL GROUND FOR CATALYTIC CONVERTER TEMPERATURE SENSORS - BANK 1: GROUND
+	C99–L2	FUEL INJECTOR POWER SUPPLY – CYLINDER 2:
+	C99–L3	FUEL INJECTOR POWER SUPPLY – CYLINDER 1:
+	C99–L4	FUEL INJECTOR POWER SUPPLY – CYLINDER 3:
O	C99–M2	FUEL INJECTOR DRIVE – CYLINDER 2: TO ACTIVATE, PCM SWITCHES CIRCUIT TO GROUND
O	C99–M3	FUEL INJECTOR DRIVE – CYLINDER 1: TO ACTIVATE, PCM SWITCHES CIRCUIT TO GROUND
O	C99–M4	FUEL INJECTOR DRIVE – CYLINDER 3: TO ACTIVATE, PCM SWITCHES CIRCUIT TO GROUND
SG	EC66–B3	AIR CONDITIONING PRESSURE SENSOR GROUND
SG	EC66–B4	SPEED CONTROL SWITCHES SIGNAL GROUND: GROUND
I	EC66–C4	SPEED CONTROL SWITCH REQUEST: STEPPED RESISTANCE
SS	EC66–D3	AIR CONDITIONING PRESSURE SENSOR POWER SUPPLY: NOMINAL 5 V
I	EC66–E3	BRAKE CANCEL SWITCH: NORMALLY CLOSED / GROUND WHEN ACTIVATED
I	EC66-E4	ASL MASTER SWITCH
I	EC66–F2	AIR CONDITIONING PRESSURE SENSOR SIGNAL, NOMINAL 0 – 5 V: TRANSDUCER – VOLTAGE INCREASES AS PRESSURE INCREASES
O	EC66-H1	ACTIVE ENGINE MOUNT
I	EC66-H4	ASL LED
O	EC66–J4	FUEL LIFT PUMP DRIVE SIGNAL (TO FUEL LIFT PUMP RELAY): TO ACTIVATE, PCM SWITCHES CIRCUIT TO GROUND
O	EC66–K2	COOLING FAN MODULE CONTROL: PWM, 140 Hz, POSITIVE DUTY CYCLE RANGE 7% – 95%

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.

Fig. 03.8

COMPONENTS

Component	Connector(s)	Connector Description	Location
ACTIVE ENGINE MOUNT 1	C74		
ACTIVE ENGINE MOUNT 3	C75		
AIR CONDITIONING PRESSURE SENSOR	EC101	3-WAY / BLACK	ENGINE COMPARTMENT, LH SIDE, HIGH PRESSURE REFRIGERANT LINE, BETWEEN COMPRESSOR AND CONDENSER
ASL SWITCH	CL1		
	CL2		
BRAKE CANCEL SWITCH	CR77	2-WAY / GREY	TOP OF BRAKE PEDAL
CATALYTIC CONVERTER TEMPERATURE SENSOR - BANK 1 DOWNSTREAM	GB7		RH CATALYTIC CONVERTER
CATALYTIC CONVERTER TEMPERATURE SENSOR - BANK 1 UPSTREAM	GB9		RH CATALYTIC CONVERTER
CATALYTIC CONVERTER TEMPERATURE SENSOR - BANK 2 DOWNSTREAM	GB6		LH CATALYTIC CONVERTER
CATALYTIC CONVERTER TEMPERATURE SENSOR - BANK 2 UPSTREAM	GB8		LH CATALYTIC CONVERTER
COOLING FAN MODULE	EC72	4-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT, REARWARD OF RADIATOR
DOSING PUMP	FP27	2-WAY / BLACK	FUEL TANK, RH SIDE, ABOVE FUEL FILLER HOSE
DPF TEMPERATURE SENSOR	GB10		DPF INLET
FUEL INJECTOR 1	C44	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
FUEL INJECTOR 2	C46	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
FUEL INJECTOR 3	C48	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
FUEL INJECTOR 4	C45	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
FUEL INJECTOR 5	C47	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
FUEL INJECTOR 6	C49	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
FUEL LIFT PUMP	—	—	FUEL TANK
FUEL LIFT PUMP RELAY	—	—	REAR POWER DISTRIBUTION FUSE BOX – R15
FUEL TANK CONNECTOR	FP13	6-WAY / BLACK	FUEL TANK, RH SIDE
FUEL-FIRED AUXILIARY HEATER MODULE	FF1	8-WAY / BLACK	BELOW LH HEADLAMP ASSEMBLY
	FF2	2-WAY / BLACK	
	FF3		
GLOW PLUG CONTROL MODULE	EC69	5-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT, BRACKET, DSC MODULE
	EC73	EYELET	
	EC74	6-WAY	
GLOW PLUGS (BANK 1)	EC76	3-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
GLOW PLUGS (BANK 2)	EC77	3-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
POWERTRAIN CONTROL MODULE	C98	48-WAY / BROWN	FRONT BULKHEAD, PASSENGER SIDE
	C99	48-WAY / GREY	
	EC66	48-WAY / BLACK	
PRESSURE CONTROL VALVE (FUEL PUMP)	C43	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36
REAR ELECTRONIC MODULE	—	—	LUGGAGE COMPARTMENT, RH REAR
REAR POWER DISTRIBUTION FUSE BOX	—	—	LUGGAGE COMPARTMENT
STEERING WHEEL SPEED CONTROL SWITCHES	SQ2	6-WAY / BLACK	STEERING WHEEL
VOLUMETRIC CONTROL VALVE (FUEL PUMP)	C42	2-WAY / BLACK	REFER TO SENSORS AND ACTUATORS, PAGE 35 OR 36

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC7	10-WAY / GREY / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CC10	22-WAY GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC130	8-WAY / GREY / CABIN HARNESS TO FUEL FIRED HEATER LINK HARNESS	LOWER FRONT RIGHT
FH3	16-WAY / BLUE / CABIN HARNESS TO FRONT HARNESS	LH 'A' POST
FP2	6-WAY / GREY / CABIN HARNESS TO FUEL PUMP HARNESS	CABIN / BELOW REAR SEAT CUSHION / RH SIDE
GB11	12-WAY / GREY / ENGINE HARNESS TO GEARBOX HARNESS	ENGINE, REAR
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE
IP55	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP9	8-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / ADJACENT TO HOOD RELEASE
PI41	42-WAY / BLACK / ENGINE HARNESS TO VEHICLE HARNESS	ENGINE COMPARTMENT, BULKHEAD, PASSENGER SIDE
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN/BELOW CENTER CONSOLE/RH SIDE OF TRANSMISSION TUNNEL

GROUNDS

Ground	Location
G1	ENGINE COMPARTMENT / BEHIND LH HEADLAMP ASSEMBLY
G2	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION BOX
G3	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION BOX
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER

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.

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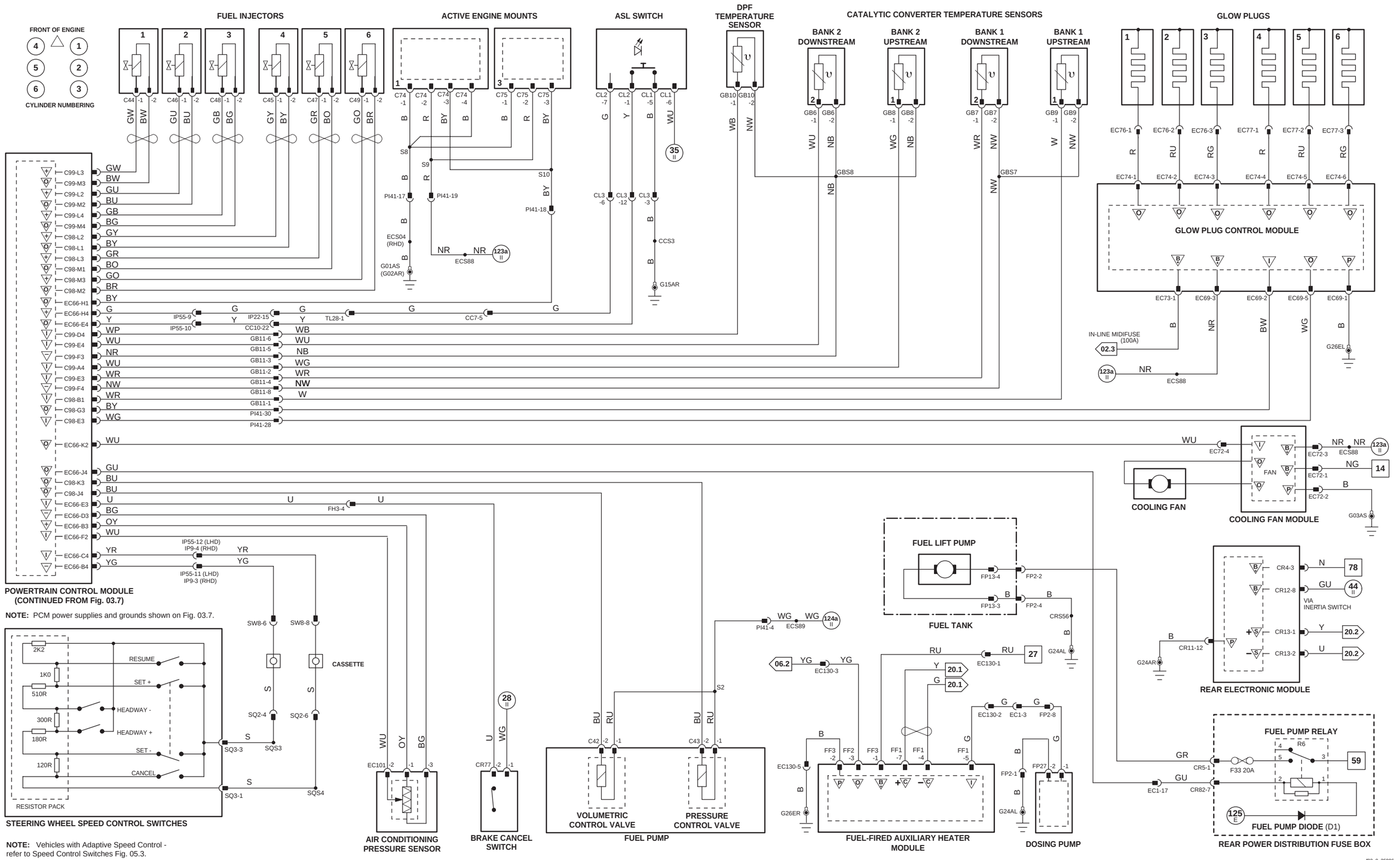

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 → 52 Fig. 01.5	78 → 105 Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	Diesel 2.7V6
7 → 63 Fig. 01.2	1 → 15 Fig. 01.4	53 → 77 Fig. 01.6	106 → 143 Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Engine Control Module

	Pin	Description and Characteristic
SG	EC300–07	SENSOR GROUND 1: GROUND
SG	EC300–08	SENSOR GROUND 2: GROUND
I	EC300-13	SAI MAP SENSOR SIGNAL:
SS	EC300–19	SENSOR POWER SUPPLY 2: NOMINAL 5 V
I	EC300–24	ACCELERATOR PEDAL POSITION SENSOR 1 SIGNAL: FOOT OFF = 0.75 V; FULLY DEPRESSED = 3.40 V (AUTO) 3.20 V (MAN)
SS	EC300–32	SENSOR POWER SUPPLY 1: NOMINAL 5 V
I	EC300–38	ACCELERATOR PEDAL POSITION SENSOR 2 SIGNAL: FOOT OFF = 3.38 V; FULLY DEPRESSED = 2.05 V (AUTO) 2.14 V (MAN)
O	EC300-50	SAI RELAY DRIVE:
O	EC300-55	SAI VACUUM SOLENOID DRIVE:

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.

Fig. 03.9

COMPONENTS

Component	Connector(s)	Connector Description	Location
APP SENSOR	CR14	6-WAY / BLACK	TOP OF ACCELERATOR PEDAL
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
	PI300	96-WAY / BLACK	
FRONT POWER DISTRIBUTION FUSE BOX	—	—	ENGINE COMPARTMENT, RH SIDE
IN-LINE FUSE	EC306	MIDIFUSE ASSEMBLY	ENGINE COMPARTMENT, FRONT RH SIDE
SAI MAP SENSOR	EC120	3-WAY / BLACK	TO BE CONFIRMED
SAI PUMP	EC93	2-WAY / GREY	BEHIND RH SIDE OF FRONT BUMPER COVER
SAI RELAY	EC305	9-WAY / BLACK	ENGINE COMPARTMENT, LOWER FRONT RH SIDE
VACUUM SOLENOID	PI90	2-WAY / BLACK	ENGINE REAR

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC16	12-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER SIDE

GROUNDS

Ground	Location
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER

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.

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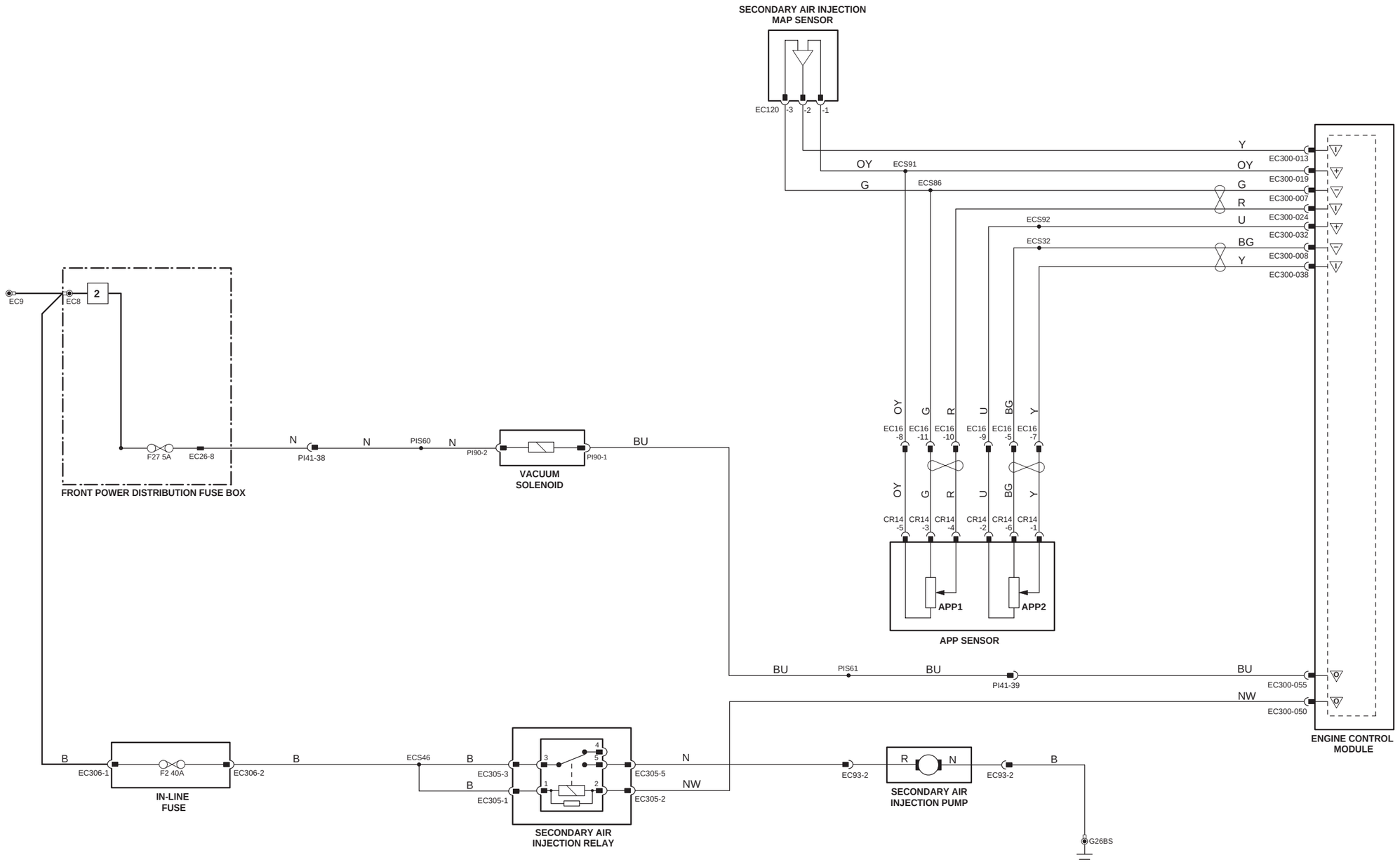

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	NAS Gasoline Vehicles
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	September 2004

Transmission Control Module

	Pin	Description and Characteristic
C	GB2–2	CAN –
C	GB2–6	CAN +
B+	GB2–9	IGNITION SWITCHED POWER SUPPLY (II): 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

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 (Diesel)	GB17	2-WAY / BLACK	ENGINE COMPARTMENT, BULKHEAD
TCM CAPACITOR (Gasoline)	PI59	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

GROUNDS

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.

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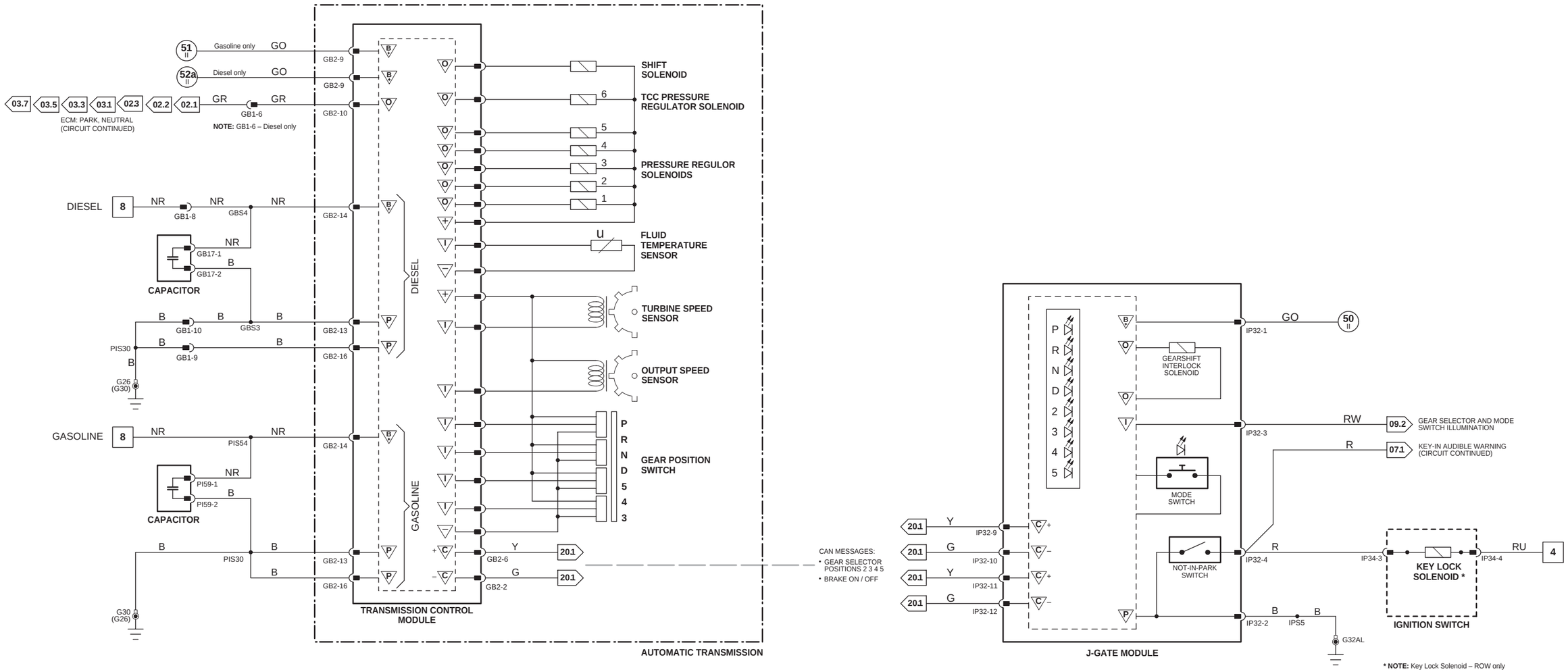

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1 → 6 Fig. 01.1
7 → 63 Fig. 01.2
64 → 95 Fig. 01.3
1 (I) → 15 (II) Fig. 01.4
16 (II) → 52 (II) Fig. 01.5
53 (S) → 77 (S) Fig. 01.6
78 (S) → 105 (S) Fig. 01.7
106 (E) → 143 (E) Fig. 01.8

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

VARIANT: Automatic Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Dynamic Stability Control Module

	Pin	Description and Characteristic
B+	EC30–1	BATTERY POWER SUPPLY – PUMP: B+
B+	EC30–2	BATTERY POWER SUPPLY – ECU: B+
SS	EC30–5	STEERING ANGLE SENSORS SUPPLY VOLTAGE: B+
I	EC30–6	BRAKE FLUID LEVEL SENSOR SIGNAL: BRAKE FLUID LEVEL LOW = GROUND
SG	EC30–7	BRAKE FLUID LEVEL SENSOR SIGNAL GROUND: GROUND
B+	EC30–8	IGNITION SWITCHED POWER SUPPLY (II): B+
I	EC30–9	STEERING ANGLE SENSOR SIGNAL (B): PULSED SIGNAL
O	EC30-10	K-LINE DATA
C	EC30–11	CAN +
C	EC30–12	CAN +
C	EC30–13	CAN –
C	EC30–14	CAN –
PG	EC30–16	POWER GROUND – VALVES: GROUND
C	EC30–18	CAN + (LOCAL)
C	EC30–19	CAN – (LOCAL)
SS	EC30–22	YAW RATE SENSOR CLUSTER SUPPLY VOLTAGE: B+
SS	EC30–26	VACUUM SENSORS SUPPLY VOLTAGE: B+
SG	EC30–27	VACUUM SENSOR GROUND: GROUND
SG	EC30–29	YAW RATE SENSOR CLUSTER GROUND: GROUND
I	EC30–30	VACUUM SENSOR SIGNAL 2:
B+	EC30–32	BATTERY POWER SUPPLY – VALVES: B+
I	EC30–33	RH FRONT WHEEL SPEED SENSOR SIGNAL: 46 PULSES PER WHEEL REVOLUTION
SG	EC30–34	RH FRONT WHEEL SPEED SENSOR SIGNAL GROUND: GROUND
O	EC30–35	VEHICLE SPEED SIGNAL (SLIDING ROOF THRESHOLD): < 62 KM/H (38.5 MPH) = GROUND; > 62 KM/H (38.5 MPH) = B+
I	EC30–36	LH REAR WHEEL SPEED SENSOR SIGNAL: 46 PULSES PER WHEEL REVOLUTION
SG	EC30–37	LH REAR WHEEL SPEED SENSOR SIGNAL GROUND: GROUND
I	EC30–38	VACUUM SENSOR SIGNAL 1:
SG	EC30–40	SENSOR GROUND – STEERING ANGLE SENSORS: GROUND
—	EC30–41	STEERING ANGLE SENSOR SIGNAL (A): PULSED SIGNAL
SG	EC30–42	RH REAR WHEEL SPEED SENSOR SIGNAL GROUND: GROUND
I	EC30–43	RH REAR WHEEL SPEED SENSOR SIGNAL: 46 PULSES PER WHEEL REVOLUTION
SG	EC30–45	LH FRONT WHEEL SPEED SENSOR SIGNAL GROUND: GROUND
I	EC30–46	LH FRONT WHEEL SPEED SENSOR SIGNAL: 46 PULSES PER WHEEL REVOLUTION
PG	EC30–47	POWER GROUND – PUMP: GROUND

Fig. 05.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
BRAKE FLUID RESERVOIR	EC52	2-WAY / BLACK	BRAKE BOOSTER
DYNAMIC STABILITY CONTROL MODULE	EC30	47-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT
J-GATE MODULE	IP32	16-WAY / BLACK	J-GATE ASSEMBLY
STEERING ANGLE SENSOR	IP37	4-WAY / GREY	STEERING COLUMN
WHEEL SPEED SENSOR – LH FRONT	EC44	2-WAY / BLACK	LH FRONT WHEEL HUB
WHEEL SPEED SENSOR – LH REAR	CV6	2-WAY / BLACK	LH REAR WHEEL HUB
WHEEL SPEED SENSOR – RH FRONT	EC15	2-WAY / BLACK	RH FRONT WHEEL HUB
WHEEL SPEED SENSOR – RH REAR	CV8	2-WAY / BLACK	RH REAR WHEEL HUB
VACUUM SENSOR	EC95	4-WAY / BLACK	ENGINE COMPARTMENT, VACUUM BRAKE BOOSTER
YAW RATE AND LATERAL ACCELERATION SENSORS CLUSTER	IP23	6-WAY / BLACK	CENTER CONSOLE / REARWARD OF J-GATE

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CV5	12-WAY / GREY / FUEL PUMP LINK HARNESS TO EVAP CANISTER CLOSE VALVE LINK HARNESS	ABOVE REAR AXLE / CENTER
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
FP6	22-WAY / NATURAL / CABIN HARNESS TO FUEL PUMP HARNESS	TOP OF FUEL TANK / RH SIDE
IP8	14-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP55	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST

GROUNDS

Ground	Location
G2	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
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

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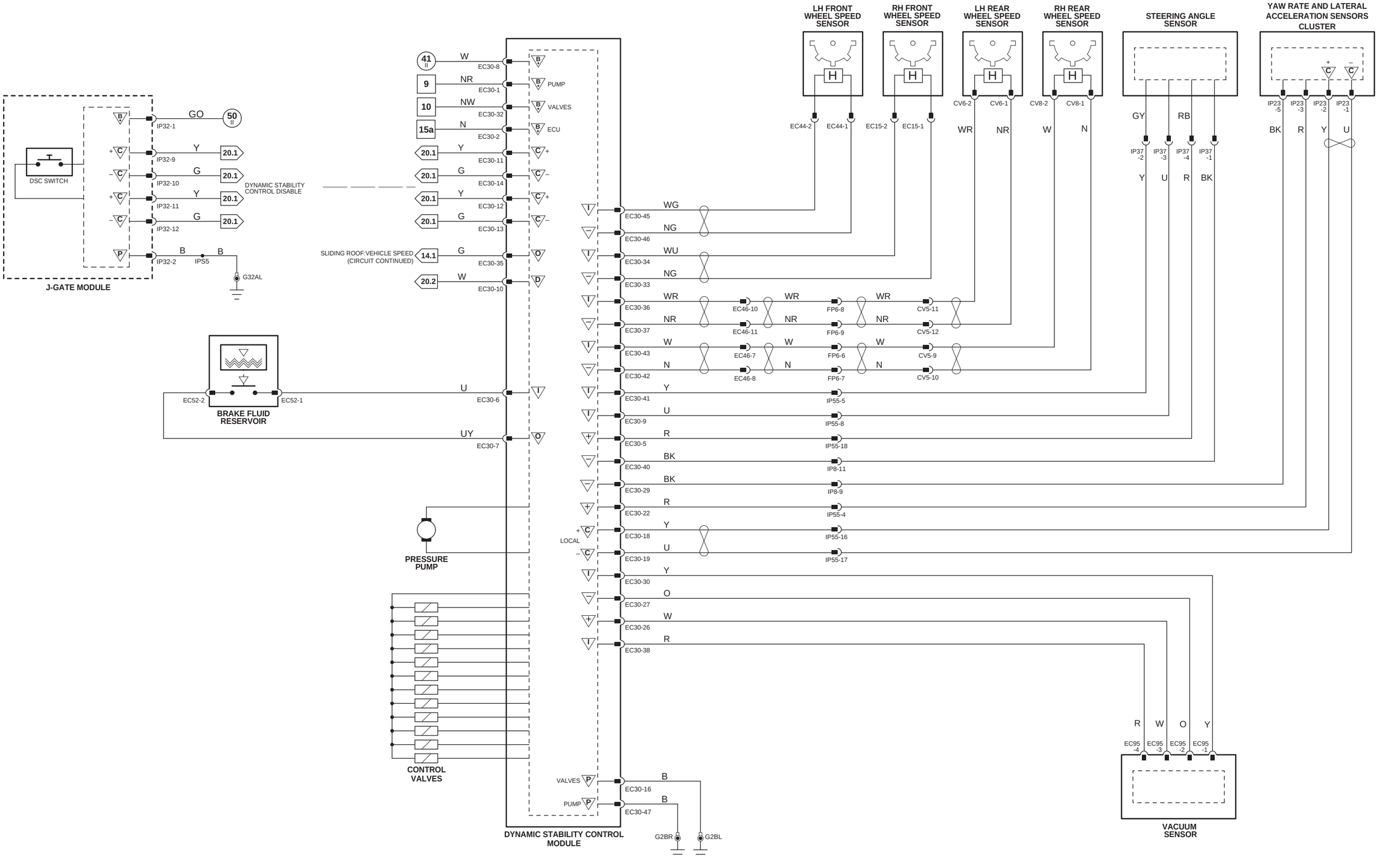

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 → 52 Fig. 01.5	78 → 105 Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	All Vehicles
7 → 63 Fig. 01.2	1 → 15 Fig. 01.4	53 → 77 Fig. 01.6	106 → 143 Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Instrument Cluster

	Pin	Description and Characteristic
PG	IP6–2	POWER GROUND: GROUND
S	IP6–10	SCP –
O	IP6–15	VAPS – DRIVE
O	IP6–16	VAPS + DRIVE
B+	IP6–17	IGNITION SWITCHED POWER SUPPLY (VAPS): B+
S	IP6–20	SCP +

Parking Brake Module

	Pin	Description and Characteristic
B+	CR32–1	BATTERY POWER SUPPLY: B+
I	CR32–2	EPB SECONDARY APPLY SWITCH
S	CR32–4	SCP –
S	CR32–5	SCP +
SG	CR32–6	EPB SWITCH GROUND
I	CR32–7	BRAKE SWITCH INPUT
B+	CR32–9	IGNITION SUPPLY
SS	CR32–10	PARKING BRAKE MOTOR POSITION SENSOR FEEDBACK SIGNAL: VARIABLE VOLTAGE
SS	CR32–11	LOGIC BATTERY POSITIVE INPUT
PG	CR32–13	POWER GROUND: GROUND
I	CR32–14	EPB SECONDARY RELEASE SWITCH
I	CR32–20	PRIMARY KEY SWITCH
O	CR50–7	PARKING BRAKE MOTOR ENGAGE: ACTIVATE = B+
I	CR50–10	PARKING BRAKE SWITCH – APPLY: CHANGE IN RESISTANCE
I	CR50–11	PARKING BRAKE SWITCH – RELEASE: CHANGE IN RESISTANCE
SS	CR50–12	SIGNAL SUPPLY VOLTAGE: NOMINAL 5 V
SG	CR50–13	SIGNAL GROUND: GROUND
O	CR50–14	PARKING BRAKE MOTOR DISENGAGE: ACTIVATE = B+

Fig. 05.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
BRAKE ON / OFF SWITCH	CR78	2-WAY / BLACK	TOP OF BRAKE PEDAL
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
PARKING BRAKE MODULE	CR32	12-WAY / GREY	LUGGAGE COMPARTMENT, RH REAR
	CR50	4-WAY / BLACK	
PARKING BRAKE MOTOR	CV7	6-WAY / BLACK	REAR SUSPENSION SUB FRAME
PARKING BRAKE SWITCH	TL82	8-WAY / BLACK	CENTER CONSOLE / REARWARD OF J-GATE
VARIABLE ASSIST STEERING ACTUATOR	EC33	2-WAY / BLACK	STEERING RACK PINION HOUSING

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CV1	6-WAY / GREY / FUEL PUMP LINK HARNESS TO PARKING BRAKE MOTOR HARNESS	REAR OF FUEL TANK / RH SIDE
FP2	6-WAY / GREY / CABIN HARNESS TO FUEL PUMP HARNESS	CABIN / BELOW REAR SEAT CUSHION / RH SIDE
FP6	22-WAY / NATURAL / CABIN HARNESS TO FUEL PUMP HARNESS	TOP OF FUEL TANK / RH SIDE
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
TL35	22-WAY / GREY /TELEMATICS HARNESS TO CABIN HARNESS	TRUNK, LH REAR

GROUNDS

Ground	Location
G18	CABIN / BELOW REAR SEAT / LH SIDE
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
G31	CABIN / BEHIND PASSENGER AIR BAG

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

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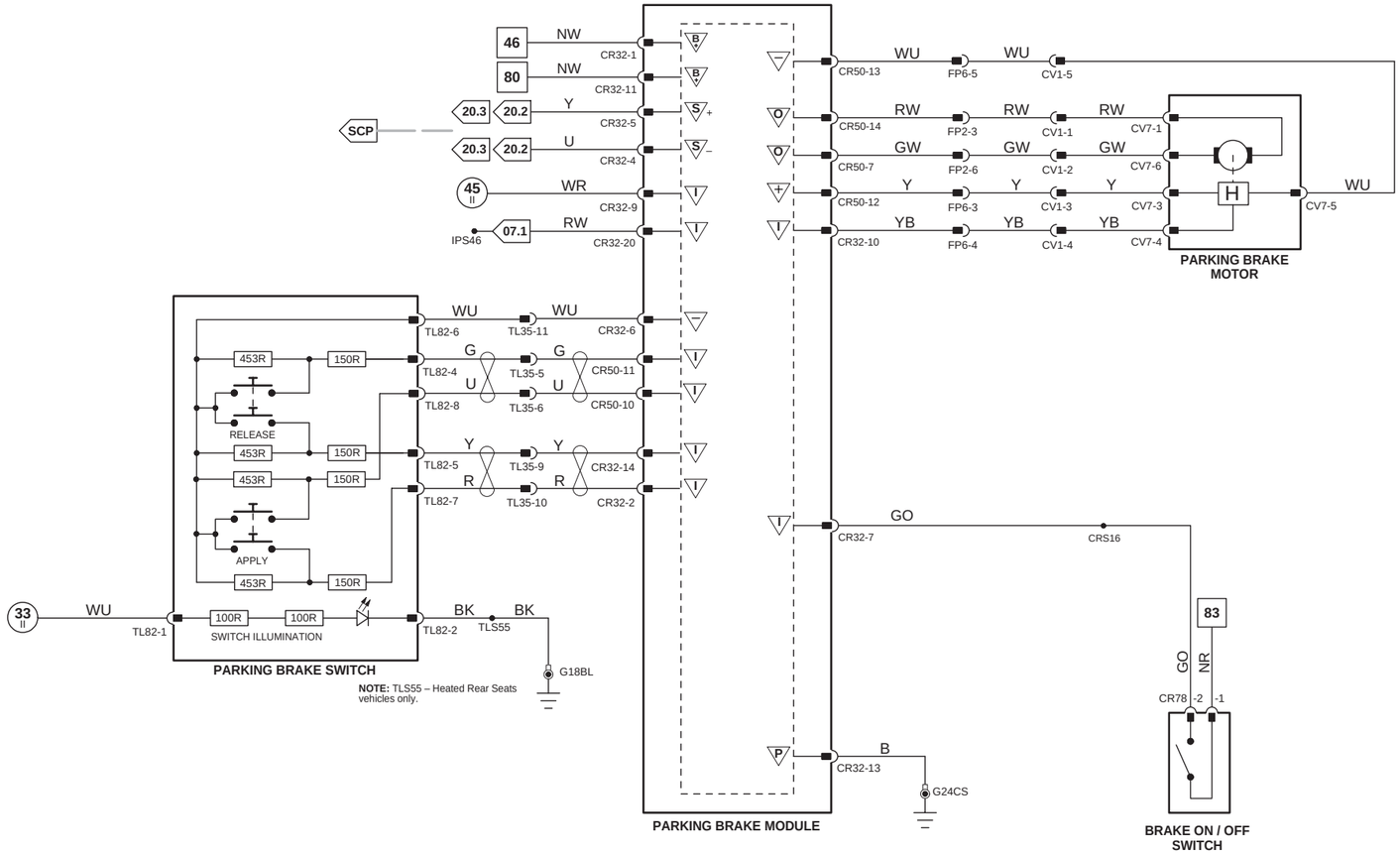

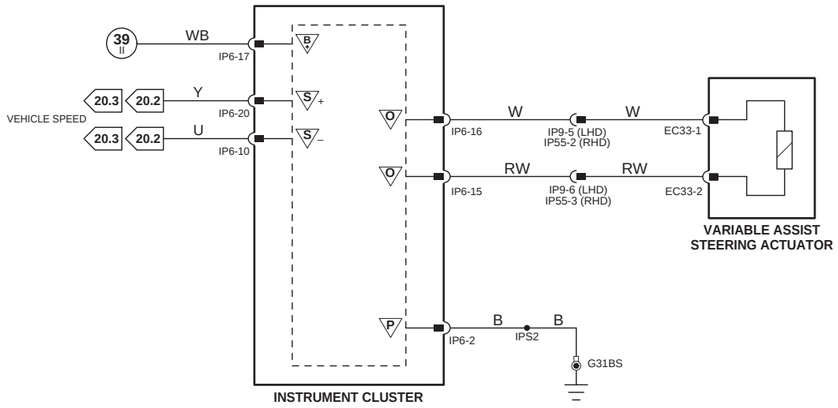

ELECTRONIC PARKING BRAKE

VARIABLE ASSIST POWER STEERING

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1 → 6	Fig. 01.1	64 → 95	Fig. 01.3	16 I → 52 E	Fig. 01.5	78 S → 105 S	Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	All Vehicles
7 → 63	Fig. 01.2	1 ↑ → 15 E	Fig. 01.4	53 S → 77 S	Fig. 01.6	106 E → 143 E	Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
													DATE OF ISSUE:	April 2006

Dynamic Stability Control Module

	Pin	Description and Characteristic
B+	CR88–1	BATTERY POWER SUPPLY: B+
B+	CR88–2	SWITCHED SYSTEM POWER SUPPLY (WAKE UP): B+
PG	CR88–3	POWER GROUND: GROUND
C	CR88–7	CAN +
C	CR88–8	CAN –
O	CR89–1	LH FRONT DAMPER ACTUATOR DRIVE –: PWM –
O	CR89–2	LH REAR DAMPER ACTUATOR DRIVE –: PWM –
O	CR89–3	HEADLAMP LEVELING SENSOR: PWM
O	CR89–4	LH FRONT DAMPER ACTUATOR DRIVE +: PWM +
O	CR89–5	RH FRONT DAMPER ACTUATOR DRIVE +: PWM +
O	CR89–7	LH REAR DAMPER ACTUATOR DRIVE +: PWM +
O	CR89–8	RH REAR DAMPER ACTUATOR DRIVE +: PWM +
O	CR89–10	RH FRONT DAMPER ACTUATOR DRIVE –: PWM –
O	CR89–11	RH REAR DAMPER ACTUATOR DRIVE –: PWM –
SS	CR90–1	LH FRONT HEIGHT SENSOR SIGNAL SUPPLY VOLTAGE: NOMINAL 5 V
I	CR90–2	LH FRONT HEIGHT SENSOR SIGNAL: VARIABLE VOLTAGE 0 – 5 V
SG	CR90–3	LH FRONT HEIGHT SENSOR SIGNAL GROUND: GROUND
SS	CR90–7	LH REAR HEIGHT SENSOR SIGNAL SUPPLY VOLTAGE: NOMINAL 5 V
I	CR90–8	LH REAR HEIGHT SENSOR SIGNAL: VARIABLE VOLTAGE 0 – 5 V
SG	CR90–9	LH REAR HEIGHT SENSOR SIGNAL GROUND: GROUND
SS	CR90–10	RH REAR HEIGHT SENSOR SIGNAL SUPPLY VOLTAGE: NOMINAL 5 V
I	CR90–11	RH REAR HEIGHT SENSOR SIGNAL: VARIABLE VOLTAGE 0 – 5 V
SG	CR90–12	RH REAR HEIGHT SENSOR SIGNAL GROUND: GROUND
SS	CR90–13	PRESSURE SENSOR SIGNAL SUPPLY VOLTAGE: NOMINAL 5 V
I	CR90–14	PRESSURE SENSOR SIGNAL: VARIABLE VOLTAGE 0 – 5 V
SG	CR90–15	PRESSURE SENSOR SIGNAL GROUND: GROUND
B+	CR91–1	AIR SPRING SOLENOID VALVES POWER SUPPLY: PWM +
O	CR91–2	LH FRONT AIR SPRING SOLENOID VALVE DRIVE: PWM –
O	CR91–3	RH FRONT AIR SPRING SOLENOID VALVE DRIVE: PWM –
O	CR91–5	LH REAR AIR SPRING SOLENOID VALVE DRIVE: PWM –
O	CR91–6	RH REAR AIR SPRING SOLENOID VALVE DRIVE: PWM –
O	CR91–8	RESERVOIR SOLENOID VALVE DRIVE: PWM –
B+	CR91–10	COMPRESSOR VENT VALVE POWER SUPPLY: PWM +
O	CR91–11	COMPRESSOR VENT VALVE DRIVE: PWM –
O	CR91–12	AIR SUSPENSION RELAY ACTIVATE: PWM –
I	CR91–14	REAR VERTICAL ACCELEROMETER SIGNAL: VARIABLE VOLTAGE 0 – 5 V
SS	CR91–16	ACCELEROMETER SIGNAL SUPPLY VOLTAGE: NOMINAL 5 V
I	CR91–17	FRONT VERTICAL ACCELEROMETER SIGNAL: VARIABLE VOLTAGE 0 – 5 V
SG	CR91–18	ACCELEROMETER SIGNAL GROUND: GROUND

Instrument Cluster

	Pin	Description and Characteristic
S	IP6–10	SCP –
C	IP6–18	CAN +
C	IP6–19	CAN –
S	IP6–20	SCP +

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.

Fig. 05.3

COMPONENTS

Component	Connector(s)	Connector Description	Location
AIR SUSPENSION COMPRESSOR	EC60	2-WAY / BLACK	LH FRONT OF VEHICLE / REARWARD OF FRONT BUMPER BEAM
AIR SUSPENSION MODULE	CR88	9-WAY / BLACK	CABIN REAR BULKHEAD / BEHIND REAR SEAT BACK / RH SIDE
	CR89	12-WAY / BLACK	
	CR90	15-WAY / BLACK	
	CR91	18-WAY / BLACK	
AIR SUSPENSION PRESSURE SENSOR	CR92	3-WAY / BLACK	TRUNK / UNDER SPARE WHEEL / AIR SUSPENSION VALVE BLOCK
AIR SUSPENSION RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R1
AIR SUSPENSION VALVE BLOCK	CR22	6-WAY / BLACK	TRUNK / UNDER SPARE WHEEL
AIR SUSPENSION VENT SOLENOID	EC62	2-WAY / BLACK	AIR SUSPENSION COMPRESSOR ASSEMBLY
DAMPER ACTUATOR – LH FRONT	EC47	2-WAY / BLACK	LH FRONT DAMPER / TOP
DAMPER ACTUATOR – LH REAR	TL33	2-WAY / BLACK	LH REAR DAMPER / TOP
DAMPER ACTUATOR – RH FRONT	EC12	2-WAY / BLACK	RH FRONT DAMPER / TOP
DAMPER ACTUATOR – RH REAR	CR23	2-WAY / BLACK	RH REAR DAMPER / TOP
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
HEIGHT SENSOR – LH FRONT	EC45	6-WAY / BLACK	FRONT SUSPENSION SUB FRAME / LH SIDE
HEIGHT SENSOR – LH REAR	CV3	6-WAY / BLACK	REAR SUSPENSION SUB FRAME / LH SIDE
HEIGHT SENSOR – RH REAR	CV4	6-WAY / BLACK	REAR SUSPENSION SUB FRAME / RH SIDE
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
VERTICAL ACCELEROMETER – FRONT	EC13	3-WAY / GREY	RH FRONT WHEEL ARCH
VERTICAL ACCELEROMETER – REAR	TL34	3-WAY / GREY	TRUNK / RH SIDE / FORWARD OF CONTROL MODULES

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CV5	12-WAY / GREY / FUEL PUMP LINK HARNESS TO EVAP CANISTER CLOSE VALVE LINK HARNESS	ABOVE REAR AXLE / CENTER
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC16	12-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST
FP6	22-WAY / NATURAL / CABIN HARNESS TO FUEL PUMP HARNESS	TOP OF FUEL TANK / RH SIDE
TL93	8-WAY / BLACK / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW REAR CENTER CONSOLE

GROUNDS

Ground	Location
G1	ENGINE COMPARTMENT / BEHIND LH HEADLAMP ASSEMBLY
G2	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G17	CABIN / BELOW REAR SEAT / RH SIDE

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

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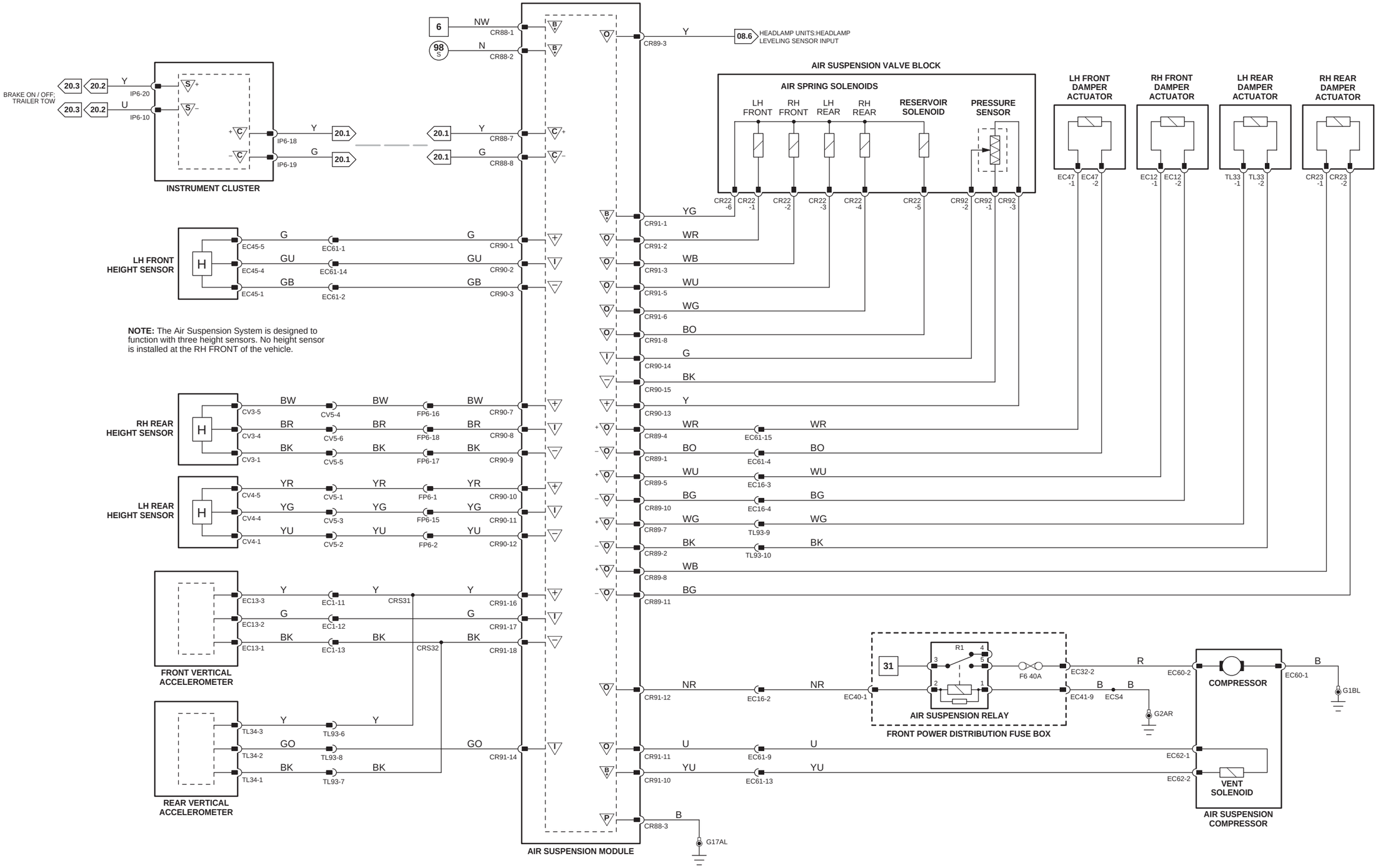

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 → 52 Fig. 01.5	78 → 105 Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	All Vehicles
7 → 63 Fig. 01.2	1 → 15 Fig. 01.4	53 → 77 Fig. 01.6	106 → 143 Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Dynamic Stability Control Module

	Pin	Description and Characteristic
C	EC30–11	CAN +
C	EC30–12	CAN +
C	EC30–13	CAN –
C	EC30–14	CAN –

Engine Control Module

	Pin	Description and Characteristic
SS	EC300-30	SPEED CONTROL SWITCH REQUEST: STEPPED RESISTANCE
I	EC300-35	SPEED CONTROL SWITCHES SIGNAL GROUND: GROUND
C	PI300-1	CAN +
C	PI300-2	CAN –

Instrument Cluster

	Pin	Description and Characteristic
C	IP6–8	CAN +
C	IP6–9	CAN –
C	IP6–18	CAN +
C	IP6–19	CAN –

Powertrain Control Module

	Pin	Description and Characteristic
C	C98-A3	CAN –
C	C98-A4	CAN +
I	EC66-B4	SPEED CONTROL SWITCHES SIGNAL GROUND: GROUND
SS	EC66-C4	SPEED CONTROL SWITCH REQUEST: STEPPED RESISTANCE

Transmission Control Module

	Pin	Description and Characteristic
C	GB2–2	CAN –
C	GB2–6	CAN +

Speed Control Module

	Pin	Description and Characteristic
C	IP78–2	CAN – (LOCAL)
C	IP78–3	CAN + (LOCAL)
O	IP78–5	FORWARD ALERT INDICATOR DRIVE
O	IP78–6	CHIME MODULE DRIVE: CHIME ACTIVATE
C	IP78–8	CAN –
C	IP78–9	CAN +
PG	IP78–12	POWER GROUND: GROUND
B+	IP78–14	IGNITION SWITCHED POWER SUPPLY (II): B+
B+	IP78–15	SWITCHED SYSTEM POWER SUPPLY: B+
I	IP78–20	FORWARD ALERT SWITCH

Fig. 05.4

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUXILIARY LIGHTING SWITCH	IP50	10-WAY / GREY	INSTRUMENT PANEL / OUTBOARD OF STEERING COLUMN
DYNAMIC STABILITY CONTROL MODULE	EC30	47-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
	PI300	96-WAY / BLAVK	FRONT BULKHEAD, PASSENGER SIDE
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	GREY INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
POWERTRAIN CONTROL MODULE	C98	48-WAY / BROWN	FRONT BULKHEAD, PASSENGER SIDE
	C99	48-WAY / GREY	
	EC66	48-WAY / BLACK	
SPEED CONTROL CHIME MODULE	IP11	4-WAY / BLACK	INSTRUMENT PANEL, LH SIDE
SPEED CONTROL MODULE	IP78	30-WAY / YELLOW	INSTRUMENT PANEL, DRIVER SIDE
SPEED CONTROL SENSOR	EC23	5-WAY / BLACK	BELOW LH FRONT BUMPER
STEERING WHEEL SPEED CONTROL SWITCHES	—	—	STEERING WHEEL
TRANSMISSION CONTROL MODULE	GB2	16-WAY / BLACK	TRANSMISSION CONTROL VALVE ASSEMBLY

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
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

GROUNDS

Ground	Location
G1	ENGINE COMPARTMENT / BEHIND LH HEADLAMP ASSEMBLY
G31	CABIN / BEHIND PASSENGER AIR BAG

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.

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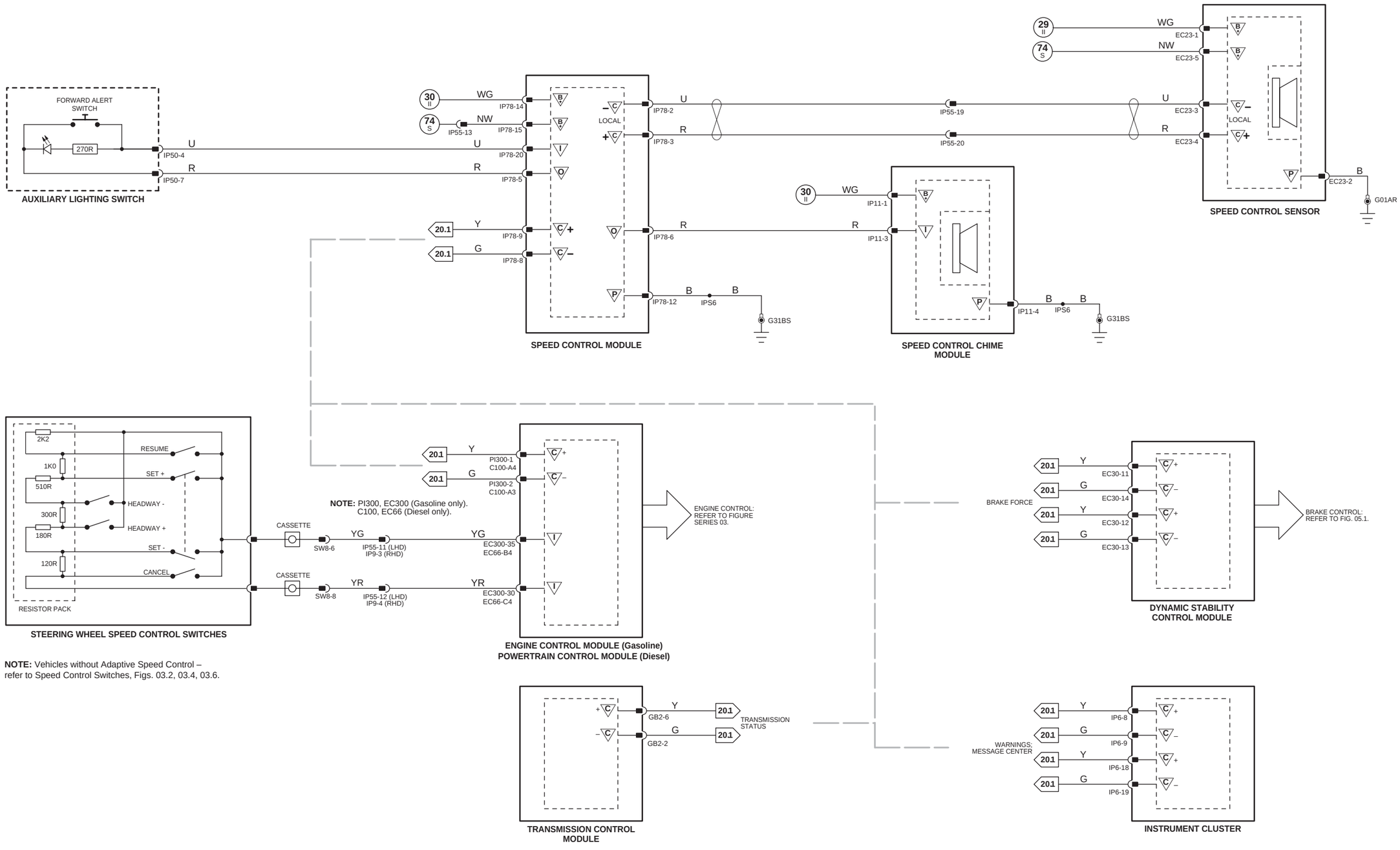

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 → 52 Fig. 01.5	78 → 105 Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	Adaptive Speed Control Vehicles
7 → 63 Fig. 01.2	1 → 15 Fig. 01.4	53 → 77 Fig. 01.6	106 → 143 Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Dynamic Stability Control Module

	Pin	Description and Characteristic
C	CR93–2	CAN –
C	CR93–3	CAN +
B+	CR93–8	IGNITION SWITCHED POWER SUPPLY (II): B+
PG	CR93–12	POWER GROUND: GROUND
B+	CR93–16	BATTERY POWER SUPPLY: B+
O	CR94–5	REAR LH TPMS INITIATOR: RF 125kHz +
O	CR94–6	REAR LH TPMS INITIATOR: RF 125kHz –
O	CR94–7	REAR RH TPMS INITIATOR: RF 125kHz +
O	CR94–8	REAR RH TPMS INITIATOR: RF 125kHz –
O	CR94–13	FRONT LH TPMS INITIATOR: RF 125kHz +
O	CR94–14	FRONT LH TPMS INITIATOR: RF 125kHz –
O	CR94–15	FRONT RH TPMS INITIATOR: RF 125kHz +
O	CR94–16	FRONT RH TPMS INITIATOR: RF 125kHz –
I	CR96-1	TPMS ANTENNA SIGNAL
I	CR96-2	TPMS ANTENNA GROUND SHIELD: GROUND

Fig. 05.5

COMPONENTS

Component	Connector(s)	Connector Description	Location
FRONT LH TIRE PRESSURE SENSOR			FRONT LH WHEEL
FRONT LH TPMS INITIATOR	EC83	2-WAY / GREY	FRONT LH WHEEL ARCH
FRONT RH TIRE PRESSURE SENSOR			FRONT RH WHEEL
FRONT RH TPMS INITIATOR	EC84	2-WAY / GREY	FRONT RH WHEEL ARCH
REAR LH TIRE PRESSURE SENSOR			REAR LH WHEEL
REAR LH TPMS INITIATOR	BR8	2-WAY / GREY	REAR LH WHEEL ARCH
REAR RH TIRE PRESSURE SENSOR			REAR RH WHEEL
REAR RH TPMS INITIATOR	BR9	2-WAY / GREY	REAR RH WHEEL ARCH
SPARE TIRE PRESSURE SENSOR			SPARE WHEEL
TIRE PRESSURE MONITORING SYSTEM ANTENNA			
TIRE PRESSURE MONITORING SYSTEM MODULE	CR93	16-WAY / GREY	LUGGAGE COMPARTMENT, RH REAR
	CR94	16-WAY / BLUE	
	CR96	SMB RF COAX CONNECTOR	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC17		ADJACENT TO FRONT RH WHEEL ARCH
CR99		HEADLINER, CLOSE TO ROOF CONSOLE
BR1	10-WAY / SLATE / CABIN HARNESS TO REAR BUMPER HARNESS	ADJACENT TO REAR LH WHEEL ARCH

GROUNDS

Ground	Location
G29	BEHIND REAR SEAT BACK, RH SIDE

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.

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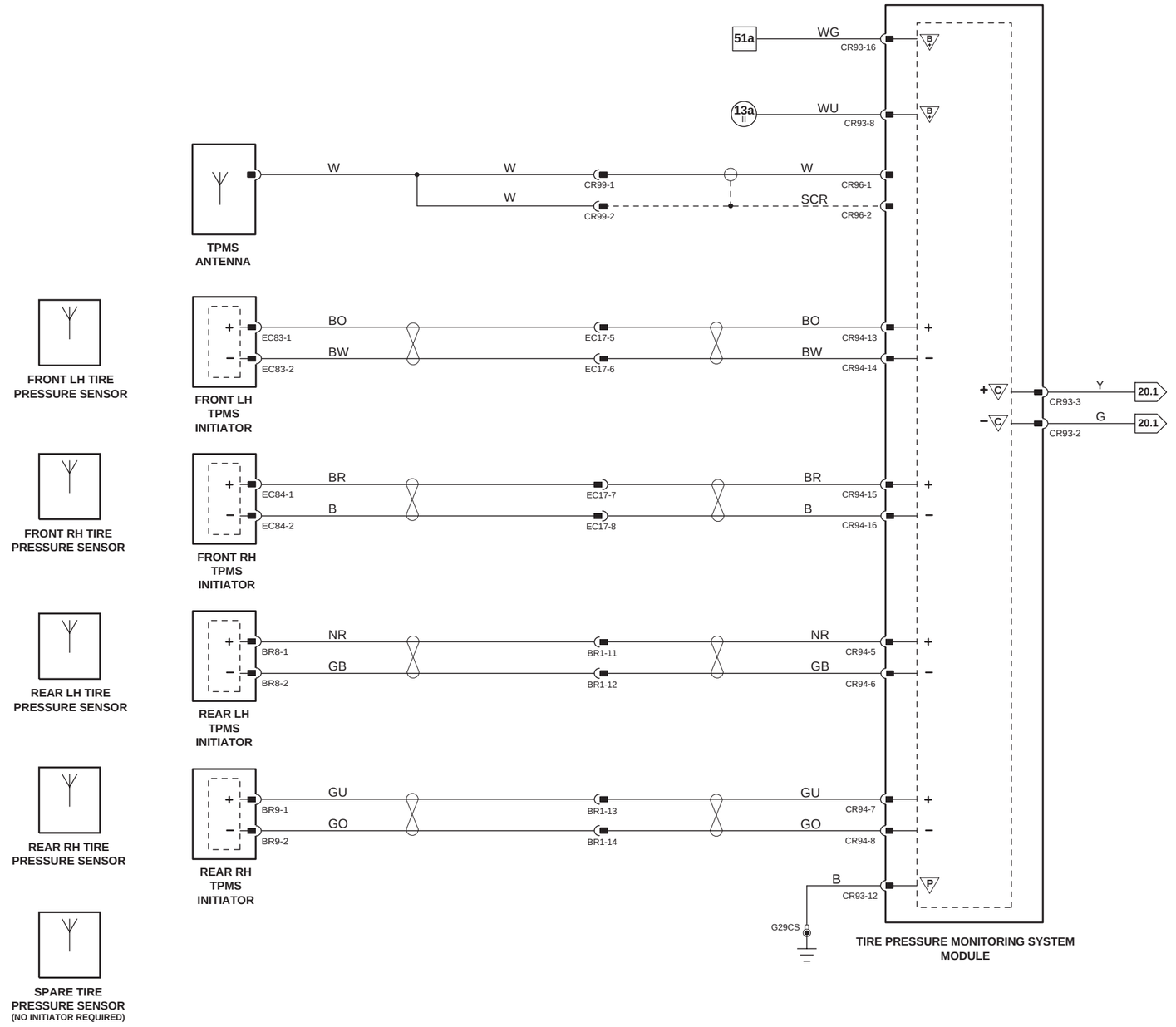

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	Tire Pressure Monitoring Vehicles
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Climate Control Module

	Pin	Description and Characteristic
I	AC100–1	IN-CAR TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	AC100–2	EVAPORATOR TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	AC100–3	DUAL SOLAR SENSOR SIGNAL – LH: VOLTAGE DECREASES A LIGHT INCREASES
I	AC100–4	DUAL SOLAR SENSOR SIGNAL – RH: VOLTAGE DECREASES A LIGHT INCREASES
I	AC100–5	RH AIR MIX SERVO POSITION SENSOR SIGNAL, NOMINAL 0 – 5 V: CLOSED DIRECTION = LOWER VOLTAGE; OPEN DIRECTION = HIGHER VOLTAGE
I	AC100–6	RH MODE SERVO POSITION SENSOR SIGNAL, NOMINAL 0 – 5 V: CLOSED DIRECTION = LOWER VOLTAGE; OPEN DIRECTION = HIGHER VOLTAGE
I	AC100–7	RH COOL AIR BYPASS / DEFROST SERVO POSITION SENSOR SIGNAL, NOMINAL 0 – 5 V: CLOSED DIRECTION = LOWER VOLTAGE; OPEN DIRECTION = HIGHER VOLTAGE
SS	AC100–8	SENSOR SIGNAL SUPPLY VOLTAGE: NOMINAL 5 V
O	AC100–9	PANEL ILLUMINATION: SIGNAL FROM RCCM TO PANEL FOR ILLUMINATION REQUIREMENTS
I	AC100–10	LH OUTLET AIR TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	AC100–11	RH OUTLET AIR TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	AC100–12	AIR INTAKE SERVO POSITION SENSOR SIGNAL, NOMINAL 0 – 5 V: CLOSED DIRECTION = LOWER VOLTAGE; OPEN DIRECTION = HIGHER VOLTAGE
I	AC100–13	LH AIR MIX SERVO POSITION SENSOR SIGNAL, NOMINAL 0 – 5 V: CLOSED DIRECTION = LOWER VOLTAGE; OPEN DIRECTION = HIGHER VOLTAGE
I	AC100–14	LH MODE SERVO POSITION SENSOR SIGNAL, NOMINAL 0 – 5 V: CLOSED DIRECTION = LOWER VOLTAGE; OPEN DIRECTION = HIGHER VOLTAGE
I	AC100–15	LH COOL AIR BYPASS / DEFROST SERVO POSITION SENSOR SIGNAL, NOMINAL 0 – 5 V: CLOSED DIRECTION = LOWER VOLTAGE; OPEN DIRECTION = HIGHER VOLTAGE
SG	AC100–16	SENSOR SIGNAL GROUND: GROUND
O	AC101–2	PANEL COMMUNICATION CLOCK: SYNCHRONIZATION PULSES: 1 KHZ, 50% DUTY
D	AC101–3	PANEL COMMUNICATION SWITCH DATA: INDICATES SWITCH BEING PRESSED
I	AC101–4	PANEL COMMUNICATION BLANK: INDICATES TO CCM TO MAKE PANEL BLANK DURING CRANK
I	AC101–6	PANEL BUZZER: INDICATES TO CCM TO MAKE AUDIO BEEP
O	AC101–7	RH AIR MIX SERVO DRIVE –: B+ WHEN ACTIVATED
O	AC101–8	LH AIR MIX SERVO DRIVE –: B+ WHEN ACTIVATED
O	AC101–9	AIR INTAKE SERVO DRIVE +: B+ WHEN ACTIVATED
O	AC101–10	RH MODE SERVO DRIVE +: B+ WHEN ACTIVATED
O	AC101–11	LH MODE SERVO DRIVE +: B+ WHEN ACTIVATED
O	AC101–12	RH COOL AIR BYPASS / DEFROST SERVO DRIVE –: B+ WHEN ACTIVATED
O	AC101–13	LH COOL AIR BYPASS / DEFROST SERVO DRIVE –: B+ WHEN ACTIVATED
I	AC101–14	HUMIDITY SENSOR SIGNAL: 0.7 VOLTS = 10% HUMIDITY (DRY); 2.5 VOLTS = 60% HUMIDITY (TYPICAL); 3.0 VOLTS = 90% HUMIDITY (DAMP)
D	AC101–16	PANEL COMMUNICATION DATA: INDICATES TO PANEL WHICH LCD SEGMENTS OR LEDS ARE TO BE ILLUMINATED
O	AC101–17	PANEL COMMUNICATION STX: SYNCHRONIZATION PULSES: 30 HZ, 3% DUTY
SG	AC101–18	PANEL SHIELD: GROUND
O	AC101–19	PANEL BACK LIGHTING: CCM INDICATES TO PANEL TO BACKLIGHT LCD
O	AC101–20	RH AIR MIX SERVO DRIVE +: B+ WHEN ACTIVATED
O	AC101–21	LH AIR MIX SERVO DRIVE +: B+ WHEN ACTIVATED
O	AC101–22	AIR INTAKE SERVO DRIVE –: B+ WHEN ACTIVATED
O	AC101–23	RH MODE SERVO DRIVE –: B+ WHEN ACTIVATED
O	AC101–24	LH MODE SERVO DRIVE –: B+ WHEN ACTIVATED
O	AC101–25	RH COOL AIR BYPASS / DEFROST SERVO DRIVE +: B+ WHEN ACTIVATED
O	AC101–26	LH COOL AIR BYPASS / DEFROST SERVO DRIVE +: B+ WHEN ACTIVATED
B+	CR119–2	SWITCHED SYSTEM POWER SUPPLY: B+
B+	CR119–3	IGNITION SWITCHED POWER SUPPLY (II): B+
O	CR119–4	COMPRESSOR CLUTCH DRIVE +: B+ WHEN ACTIVATED
O	CR119–5	COMPRESSOR CLUTCH DRIVE –: GROUND WHEN ACTIVATED
C	CR119–6	CAN +
C	CR119–7	CAN –
I	CR119–8	SMOG SENSOR HC SIGNAL: RESISTANCE TO SENSOR GROUND (CR119–18) VARIES WITH HYDROCARBON / CO CONCENTRATION
I	CR119–11	DIMMER CONTROLLED ILLUMINATION: PWM, 80Hz, GROUND = 0% DUTY CYCLE, B+ = 100% DUTY CYCLE
C	CR119–16	CAN +
C	CR119–17	CAN –
SG	CR119–18	AMBIENT AIR; SMOG SENSOR SIGNAL GROUND: GROUND
I	CR119–19	AMBIENT AIR TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
I	CR119–20	SMOG SENSOR NOX SIGNAL: RESISTANCE TO SENSOR GROUND (CR119–18) VARIES WITH NOX CONCENTRATION
PG	CR119–22	POWER GROUND: GROUND

Engine Control Module

	Pin	Description and Characteristic
SG	EC300-8	SENSOR GROUND 1: GROUND
I	EC300-12	AIR CONDITIONING PRESSURE SENSOR SIGNAL, NOMINAL 0 – 5 V: TRANSDUCER – VOLTAGE INCREASES AS PRESSURE INCREASES
SS	EC300-32	SENSOR POWER SUPPLY 1: NOMINAL 5 V
C	PI300–1	CAN +
C	PI300–2	CAN –

Instrument Cluster

	Pin	Description and Characteristic
C	IP6–8	CAN +
C	IP6–9	CAN –
S	IP6–10	SCP –
S	IP6–20	SCP +

Powertrain Control Module

	Pin	Description and Characteristic
C	C98-A3	CAN –
C	C98-A4	CAN +
SS	EC66-B3	SENSOR POWER SUPPLY 1: NOMINAL 5 V
SG	EC66-D3	SENSOR GROUND 1: GROUND
I	EC66-F2	AIR CONDITIONING PRESSURE SENSOR SIGNAL, NOMINAL 0 – 5 V: TRANSDUCER – VOLTAGE INCREASES AS PRESSURE INCREASES

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.

Fig. 06.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
AIR CONDITIONING COMPRESSOR CLUTCH	PI49	2-WAY / BLACK	LOWER LH SIDE OF ENGINE
AIR CONDITIONING PRESSURE SENSOR (GASOLINE)	EC11	3-WAY / BLACK	ADJACENT TO RADIATOR / LH SIDE
AIR CONDITIONING PRESSURE SENSOR (DIESEL 2.7V6)	EC101	3-WAY / BLACK	ADJACENT TO RADIATOR / LH SIDE
AIR INTAKE SERVO	AC103	7-WAY / BLACK	CLIMATE CONTROL UNIT AIR INTAKE
AIR MIX SERVO – LH	AC8	7-WAY / BLACK	CLIMATE CONTROL UNIT / LH SIDE
AIR MIX SERVO – RH	AC9	7-WAY / BLACK	CLIMATE CONTROL UNIT / RH SIDE
AMBIENT TEMPERATURE SENSOR	EC48	2-WAY / BLACK	BEHIND FRONT BUMPER / CENTER RIGHT
CLIMATE CONTROL MODULE	AC100	16-WAY / BLACK	CLIMATE CONTROL UNIT / DRIVER SIDE
	AC101	26-WAY / BLACK	
	CR119	22-WAY / BLACK	
CLIMATE CONTROL PANEL	CC20	12-WAY / BLACK	CENTER CONSOLE
COOL AIR BYPASS / DEFROST SERVO – LH	AC4	7-WAY / BLACK	CLIMATE CONTROL UNIT / LH SIDE
COOL AIR BYPASS / DEFROST SERVO – RH	AC5	7-WAY / BLACK	CLIMATE CONTROL UNIT / RH SIDE
DUAL SOLAR SENSOR	IP45	3-WAY / NATURAL	INSTRUMENT PANEL / FRONT CENTER
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
	PI300	96-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
EVAPORATOR TEMPERATURE SENSOR	AC1	2-WAY / BLACK	CLIMATE CONTROL UNIT / EVAPORATOR
HUMIDITY SENSOR	IP48	4-WAY / NATURAL	CLIMATE CONTROL UNIT / DRIVER SIDE
IN-CAR TEMPERATURE SENSOR	IP48	4-WAY / NATURAL	CLIMATE CONTROL UNIT / DRIVER SIDE
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
MODE SERVO – LH	AC6	7-WAY / BLACK	CLIMATE CONTROL UNIT / LH SIDE
MODE SERVO – RH	AC7	7-WAY / BLACK	CLIMATE CONTROL UNIT / RH SIDE
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	
OUTLET AIR TEMPERATURE SENSOR – LH	AC2	2-WAY / BLACK	CLIMATE CONTROL UNIT / LH OUTLET
OUTLET AIR TEMPERATURE SENSOR – RH	AC3	2-WAY / BLACK	CLIMATE CONTROL UNIT / RH OUTLET
POWERTRAIN CONTROL MODULE	C98	48-WAY / BROWN	FRONT BULKHEAD, PASSENGER SIDE
	C99	48-WAY / GREY	
	EC66	48-WAY / BLACK	
SMOG SENSOR	EC42	6-WAY / GREY	ENGINE COMPARTMENT / FORWARD OF COOLING PACK / CENTER

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC10	22-WAY / GREEN / CENTER CONSOLE HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE (LHD), RH SIDE (RHD)
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC16	12-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST
IP20	16-WAY / BLUE / AIR CONDITIONING HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / LH SIDE TO CLIMATE CONTROL UNIT
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER SIDE

GROUNDS

Ground	Location
G7	CABIN / LH SIDE OF TRANSMISSION TUNNEL
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL

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.

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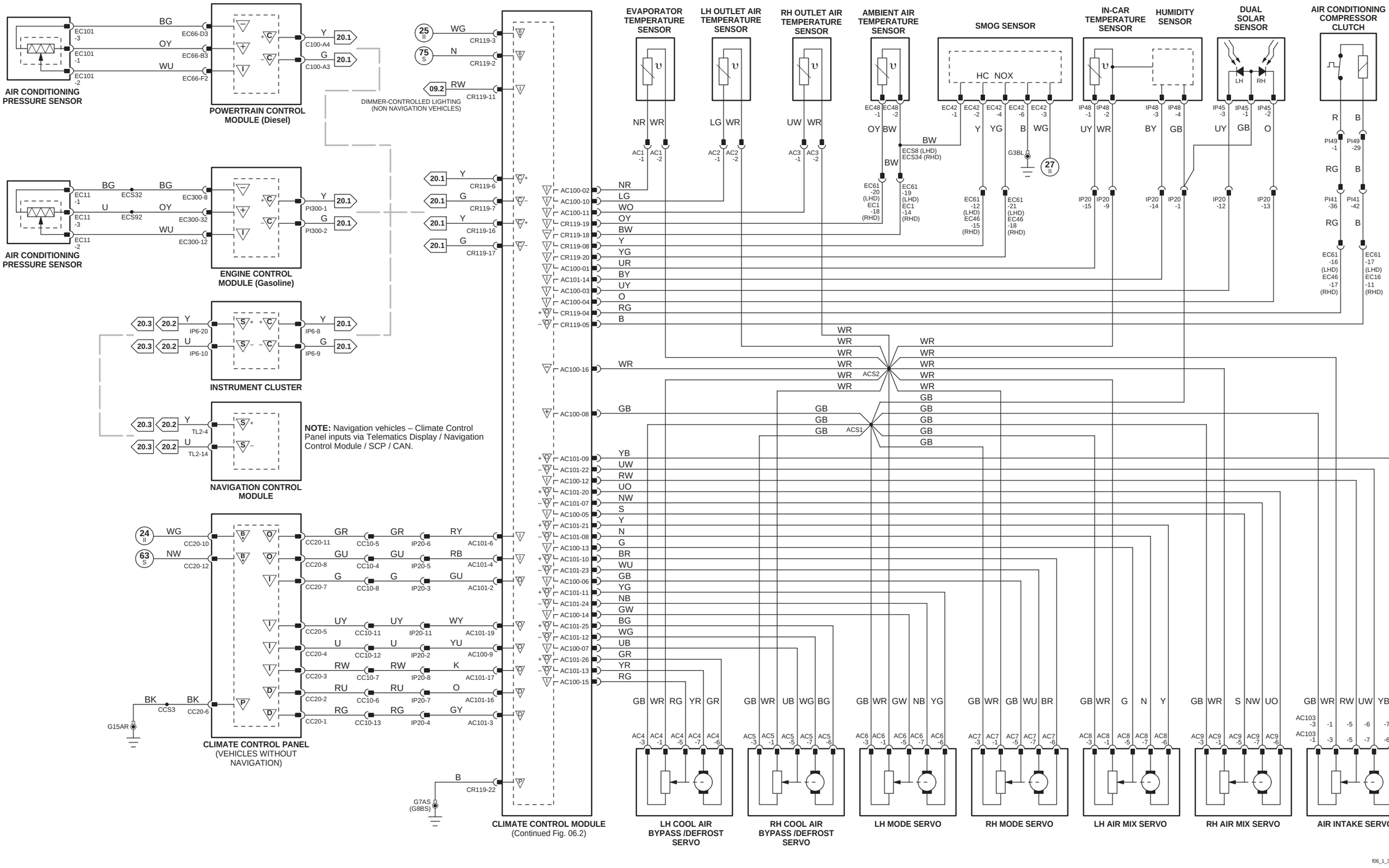

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP, S SCP
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN, D Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Climate Control Module

	Pin	Description and Characteristic
O	AC101–1	LOWER MOTOR DRIVE SIGNAL: HIGH BLOWER = HIGH VOLTAGE; LOW BLOWER = LOW VOLTAGE
I	AC101–15	BLOWER MOTOR SPEED SIGNAL: 0 VOLTS WHEN RELAY IS OPEN; WHEN RELAY CLOSED LOWER VOLTAGE INDICATES MORE BLOWER VOLTAGE
O	CR119–9	HEATED WIPER PARK; HEATED WINDSHIELD RELAY(S) ACTIVATE: TO ACTIVATE, CCM SWITCHES CIRCUIT TO GROUND
O	CR119–10	BLOWER RELAY ACTIVATE: TO ACTIVATE, CCM SWITCHES CIRCUIT TO GROUND
O	CR119–21	HEATED REAR WINDOW RELAY ACTIVATE: TO ACTIVATE, CCM SWITCHES CIRCUIT TO GROUND

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.

Fig. 06.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUXILIARY COOLANT PUMP (Gasoline)	CP4	2-WAY / BLACK	ENGINE COMPARTMENT / RH SIDE / REARWARD OF COOLING PACK
AUXILIARY COOLANT PUMP (Diesel)	CP5	2-WAY / BLACK	ENGINE COMPARTMENT / RH SIDE / REARWARD OF COOLING PACK
AUXILIARY COOLANT PUMP RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R12a
BLOWER	AC105	2-WAY / BLACK	CLIMATE CONTROL UNIT / BETWEEN AIR INTAKE AND MAIN UNIT
BLOWER CONTROLLER	AC104	4-WAY / BLACK	CLIMATE CONTROL UNIT / BETWEEN AIR INTAKE AND MAIN UNIT / TOP
BLOWER RELAY	—	—	REAR POWER DISTRIBUTION FUSE BOX – R1
CLIMATE CONTROL MODULE	AC100	16-WAY / BLACK	CLIMATE CONTROL UNIT / DRIVER SIDE
	AC101	26-WAY / BLACK	
	CR119	22-WAY / BLACK	
FRONT POWER DISTRIBUTION FUSE BOX	—	—	ENGINE COMPARTMENT / RH FRONT
HEATED REAR VIEW MIRROR – DRIVER	DD9	22-WAY / BLACK	DRIVER DOOR
HEATED REAR VIEW MIRROR – PASSENGER	PD9	22-WAY / BLACK	PASSENGER DOOR
HEATED REAR WINDOW	HW1	1-WAY / BLACK	CABIN / BEHIND REAR SEAT BACK / LH SIDE (CONNECTOR LOCATION)
	HW2	1-WAY / BLACK	CABIN / BEHIND REAR SEAT BACK / LH SIDE (CONNECTOR LOCATION)
HEATED REAR WINDOW RELAY	—	—	REAR POWER DISTRIBUTION FUSE BOX – R5
HEATED WIPER PARK RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R13
REAR POWER DISTRIBUTION FUSE BOX	—	—	TRUNK / RH REAR
WINDSHIELD HEATED WIPER PARK	CR27	1-WAY / BLACK	CABIN / LH UPPER 'A' POST (CONNECTOR LOCATION)
	CR39	1-WAY / BLACK	CABIN / RH UPPER 'A' POST (CONNECTOR LOCATION)
WINDSHIELD HEATER – LH	CR20	1-WAY / BLACK	CABIN / LH UPPER 'A' POST (CONNECTOR LOCATION)
	CR27	1-WAY / BLACK	CABIN / LH UPPER 'A' POST (CONNECTOR LOCATION)
WINDSHIELD HEATER – RH	CR39	1-WAY / BLACK	CABIN / RH UPPER 'A' POST (CONNECTOR LOCATION)
	CR43	1-WAY / BLACK	CABIN / RH UPPER 'A' POST (CONNECTOR LOCATION)
WINDSHIELD HEATER RELAY – LH	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R3
WINDSHIELD HEATER RELAY – RH	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R13

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CP1	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INTERCOOLER COOLANT PUMP HARNESS	ENGINE COMPARTMENT / ADJACENT TO RADIATOR RH SIDE
CP7	4-WAY / GREY / CABIN HARNESS TO AUXILIARY COOLING PUMP	FRONT RIGHT LOWER
CR24	2-WAY / BLACK / CABIN HARNESS TO HEATED REAR WINDOW HARNESS	CABIN / BEHIND REAR SEAT BACK / LH SIDE
CR25	2-WAY / NATURAL / CABIN HARNESS TO AIR CONDITIONING HARNESS	CABIN / ADJACENT TO BLOWER MOTOR
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC2	2-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC54	2-WAY / GREY / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST
PD1	14-WAY / BLUE / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
PD16	22-WAY / BLACK / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST

GROUNDS

Ground	Location
G2	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G3	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G7	CABIN / LH SIDE OF TRANSMISSION TUNNEL
G8	CABIN / ABOVE RH SIDE OF TRANSMISSION TUNNEL
G9	CABIN / UPPER LH A POST
G10	CABIN / RH A POST

NOTE: 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.

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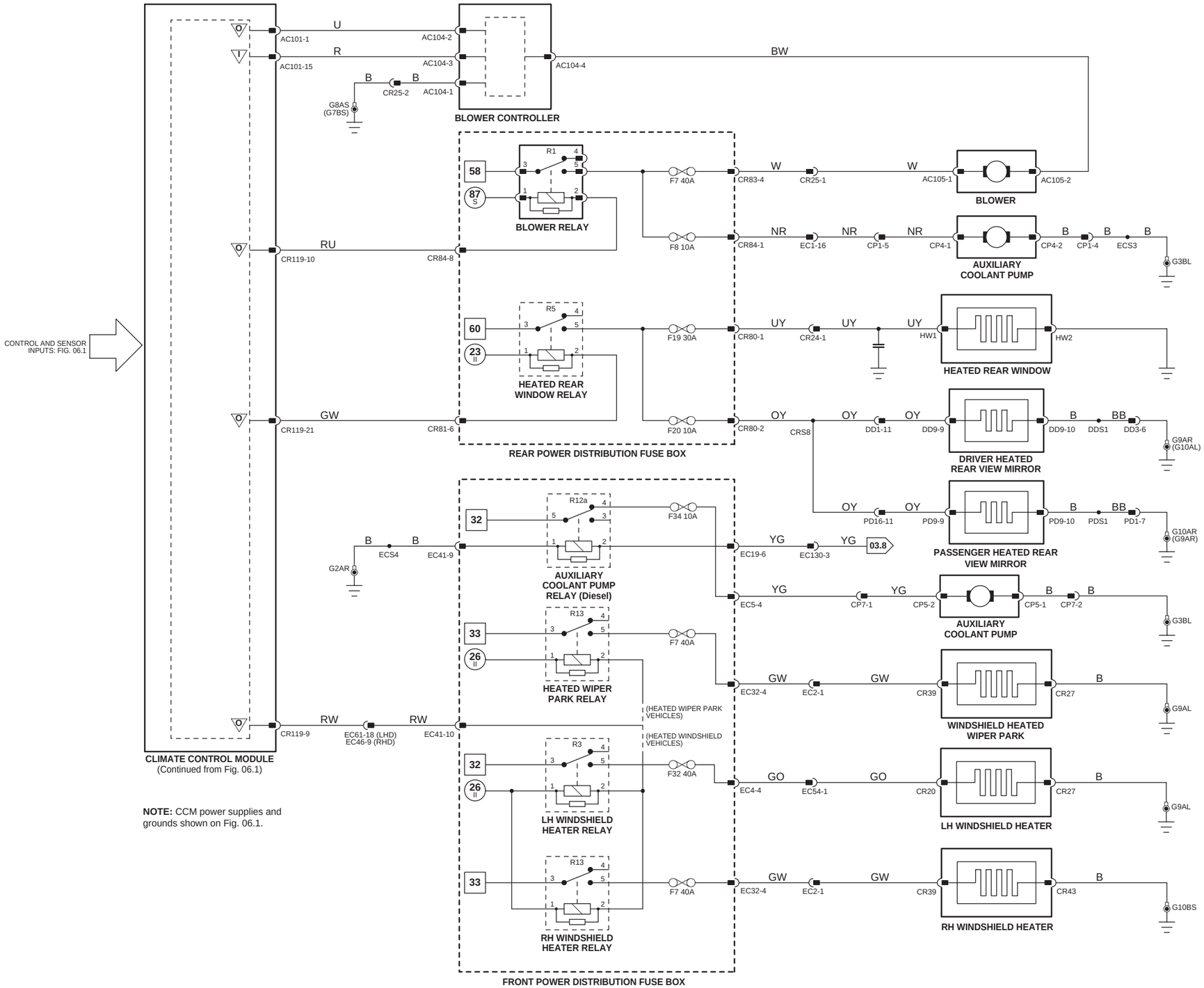

NOTE: CCM power supplies and grounds shown on Fig. 06.1.

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 E Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:** All Vehicles
7 → 63 Fig. 01.2	1 I → 15 E Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:** All
									DATE OF ISSUE: April 2006

Rear Climate Control Module

	Pin	Description and Characteristic
I	RA1–1	REAR MODE SERVO POSITION SENSOR SIGNAL, NOMINAL 0 – 5 V: CLOSED DIRECTION = LOWER VOLTAGE; OPEN DIRECTION = HIGHER VOLTAGE
I	RA1–2	LH REAR AIR MIX SERVO POSITION SENSOR SIGNAL, NOMINAL 0 – 5 V: CLOSED DIRECTION = LOWER VOLTAGE; OPEN DIRECTION = HIGHER VOLTAGE
I	RA1–3	RH REAR AIR MIX SERVO POSITION SENSOR SIGNAL, NOMINAL 0 – 5 V: CLOSED DIRECTION = LOWER VOLTAGE; OPEN DIRECTION = HIGHER VOLTAGE
O	RA1–6	MAGNETIC VALVE OUTPUT SIGNAL
C	RA1–8	CAN +
I	RA1–9	REAR EVAPORATOR TEMPERATURE SENSOR SIGNAL, NOMINAL 0 – 5 V: NTC SENSOR – VOLTAGE DECREASES AS TEMPERATURE INCREASES
SS	RA1–11	SENSOR SIGNAL SUPPLY VOLTAGE: NOMINAL 5 V
SG	RA1–12	SENSOR SIGNAL GROUND: GROUND
I	RA1–13	BLOWER MOTOR SPEED SIGNAL: HIGH BLOWER = HIGH VOLTAGE; LOW BLOWER = LOW VOLTAGE
O	RA1–14	BLOWER MOTOR DRIVE SIGNAL: 0 VOLTS WHEN RELAY IS OPEN; WHEN RELAY CLOSED, LOWER VOLTAGE INDICATES MORE BLOWER VOLTAGE
C	RA1–16	CAN –
PG	RA2–1	POWER GROUND: GROUND
I	RA2–3	DIMMER CONTROLLED LIGHTING: B+ PWM
O	RA2–4	REAR MODE SERVO DRIVE +: B+ WHEN ACTIVATED
O	RA2–5	REAR MODE SERVO DRIVE –: B+ WHEN ACTIVATED
O	RA2–6	LH REAR AIR MIX SERVO DRIVE +: B+ WHEN ACTIVATED
B+	RA2–7	IGNITION SWITCHED POWER SUPPLY (II): B+
B+	RA2–8	SWITCHED SYSTEM POWER SUPPLY: B+
O	RA2–10	RH REAR AIR MIX SERVO DRIVE –: B+ WHEN ACTIVATED
O	RA2–11	RH REAR AIR MIX SERVO DRIVE +: B+ WHEN ACTIVATED
O	RA2–12	LH REAR AIR MIX SERVO DRIVE –: B+ WHEN ACTIVATED

Fig. 06.3

COMPONENTS

Component	Connector(s)	Connector Description	Location
MAGNETIC VALVE	RA11	UNKNOWN	REAR CLIMATE CONTROL UNIT
REAR AIR MIX SERVO – LH	RA7	5-WAY / BLACK	REAR CLIMATE CONTROL UNIT / LH SIDE / TOP
REAR AIR MIX SERVO – RH	RA8	5-WAY / BLACK	REAR CLIMATE CONTROL UNIT / RH SIDE / TOP
REAR BLOWER	RA4	2-WAY / BLACK	REAR CLIMATE CONTROL UNIT / FRONT
REAR BLOWER CONTROLLER	RA3	4-WAY / BLACK	REAR CLIMATE CONTROL UNIT / LH SIDE / FRONT
REAR CLIMATE CONTROL MODULE	RA1	16-WAY / BLACK	REAR CENTER CONSOLE
	RA2	12-WAY / BLACK	
REAR EVAPORATOR TEMPERATURE SENSOR	RA10	2-WAY / BLACK	REAR CLIMATE CONTROL UNIT / EVAPORATOR
REAR MODE SERVO	RA9	5-WAY / BLACK	REAR CLIMATE CONTROL UNIT / LH SIDE / BOTTOM

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
IP66	14-WAY / GREY / INSTRUMENT PANEL HARNESS TO REAR AIR CONDITIONING HARNESS	CABIN / BELOW CENTER CONSOLE

GROUNDS

Ground	Location
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.

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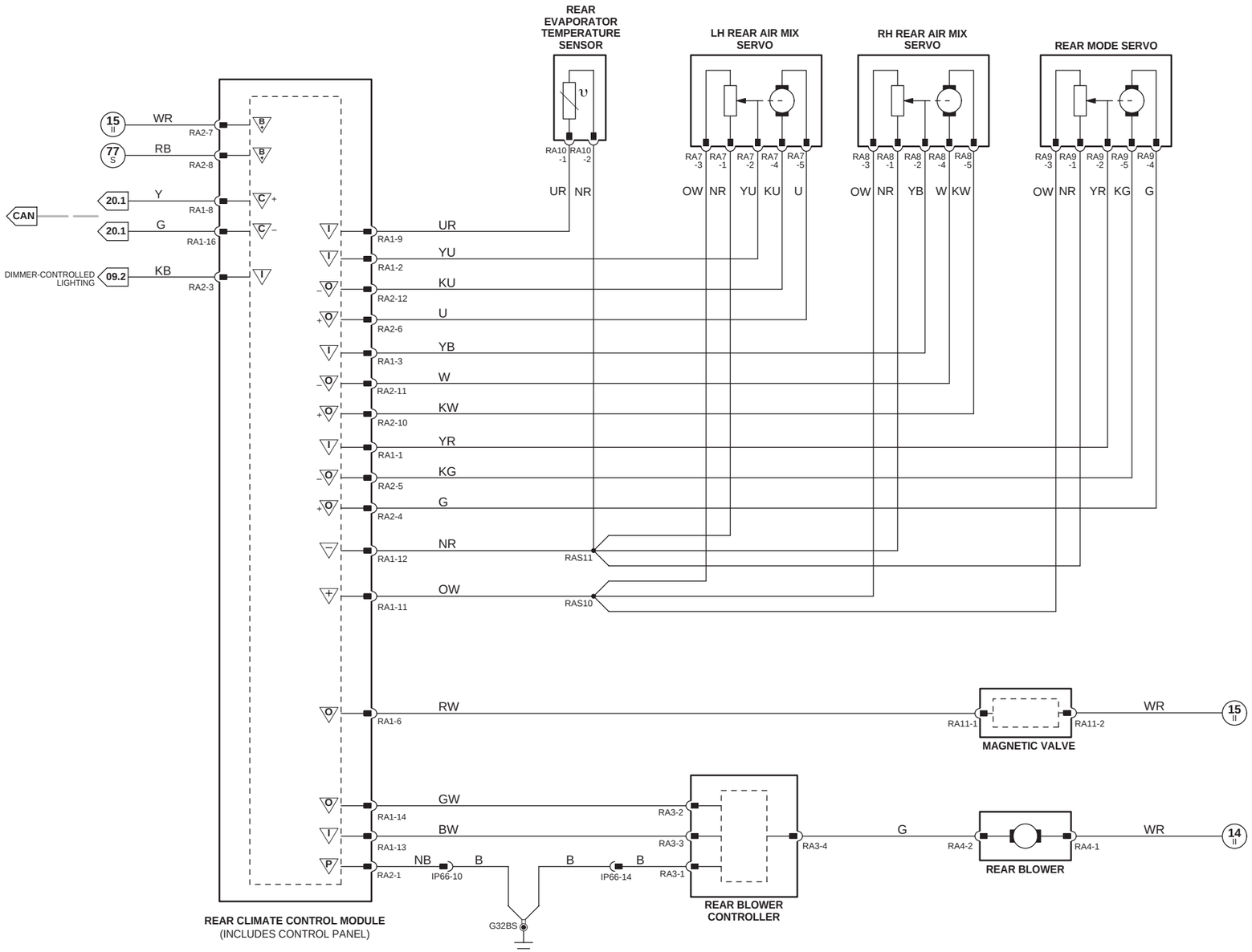

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:** Rear Climate Control Vehicles
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:** All
									DATE OF ISSUE: April 2006

Instrument Cluster

	Pin	Description and Characteristic
I	IP5–1	AIR BAG WARNING: HARD WIRED TO AIR BAG INDICATOR
I	IP5–2	KEY-IN AUDIBLE WARNING: B+ WHEN KEY IN
B+	IP5–3	IGNITION SWITCHED POWER SUPPLY (II): B+
B+	IP5–4	IGNITION SWITCHED POWER SUPPLY (I): B+
I	IP5–5	LOW ENGINE COOLANT LEVEL WARNING: GROUND WHEN COOLANT LEVEL LOW
I	IP5–7	KEY-IN AUDIBLE WARNING (J-GATE): GROUND WHEN NOT-IN-PARK
I	IP5–8	SEAT BELT AUDIBLE WARNING REQUEST: AUDIBLE WARNING REQUEST ACTIVE = GROUND
B+	IP5-12	AIR BAG WARNING POWER SUPPLY
SG	IP5–14	SIGNAL GROUND: GROUND
PG	IP6–2	POWER GROUND: GROUND
B+	IP6–3	BATTERY POWER SUPPLY (LOGIC): B+
C	IP6–8	CAN +
C	IP6–9	CAN –
S	IP6–10	SCP –
C	IP6–18	CAN +
C	IP6–19	CAN –
S	IP6–20	SCP +
SG	IP7–3	MAIN LIGHTING SWITCH SIGNAL GROUND: GROUND
I	IP7–4	TRIP COMPUTER – MESSAGE CENTER SIGNALS: VARIABLE RESISTANCE
I	IP7–11	ENGINE OIL PRESSURE SWITCH SIGNAL: GROUND WHEN ACTIVATED
I	IP7–14	TRIP CYCLE SWITCH – MESSAGE CENTER SIGNAL: VARIABLE RESISTANCE
SG	IP7–15	AUXILIARY LIGHTING SWITCH SIGNAL GROUND: GROUND

Rear Electronic Module

	Pin	Description and Characteristic
B+	CR4–3	BATTERY POWER SUPPLY (LOGIC): B+
I	CR4–15	RH SIDE FUEL LEVEL SENSOR SIGNAL: VARIABLE RESISTANCE
I	CR4–16	LH SIDE FUEL LEVEL SENSOR SIGNAL: VARIABLE RESISTANCE
PG	CR11–11	POWER GROUND: GROUND
SG	CR11–23	FUEL LEVEL SENSORS SIGNAL GROUND: GROUND
SG	CR11–25	LOGIC GROUND: GROUND
S	CR13–1	SCP +
S	CR13–2	SCP –

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.

Fig. 07.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUXILIARY LIGHTING SWITCH	IP50	10-WAY / GREY	INSTRUMENT PANEL / OUTBOARD OF STEERING COLUMN
ENGINE COOLANT LEVEL SWITCH	CP3	2-WAY / BLACK	ENGINE COOLANT EXPANSION TANK / BOTTOM
ENGINE OIL PRESSURE SWITCH (Gasoline)	PI46	1-WAY / BLACK	ENGINE BLOCK / ADJACENT TO OIL FILTER
ENGINE OIL PRESSURE SWITCH (Diesel)	C29	1-WAY / BLACK	ENGINE BLOCK / ADJACENT TO OIL FILTER
FUEL LEVEL SENSOR – LH (N/A)	FP7	4-WAY / BLACK	FUEL TANK / LH SIDE
FUEL LEVEL SENSOR – LH (SC)	FP3	4-WAY / BLACK	FUEL TANK / LH SIDE
FUEL LEVEL SENSOR – RH	FP4	4-WAY / BLACK	FUEL TANK / RH SIDE
IGNITION SWITCH	IP34	7-WAY / BLACK	STEERING COLUMN
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
MAIN LIGHTING SWITCH (COLUMN SWITCHGEAR)	IP26	6-WAY / BLACK	STEERING COLUMN / LH SIDE
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	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CP1	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INTERCOOLER COOLANT PUMP HARNESS	ENGINE COMPARTMENT / ADJACENT TO RADIATOR / RH SIDE
CP7	4-WAY / GREY / CABIN HARNESS TO AUXILIARY COOLING PUMP	FRONT RIGHT LOWER
FP6	22-WAY / NATURAL / CABIN HARNESS TO FUEL PUMP HARNESS	TOP OF FUEL TANK / RH SIDE
IP8	14-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP17	16-WAY / GREEN / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER SIDE

GROUNDS

Ground	Location
G2	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
G31	CABIN / BEHIND PASSENGER AIR BAG

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.

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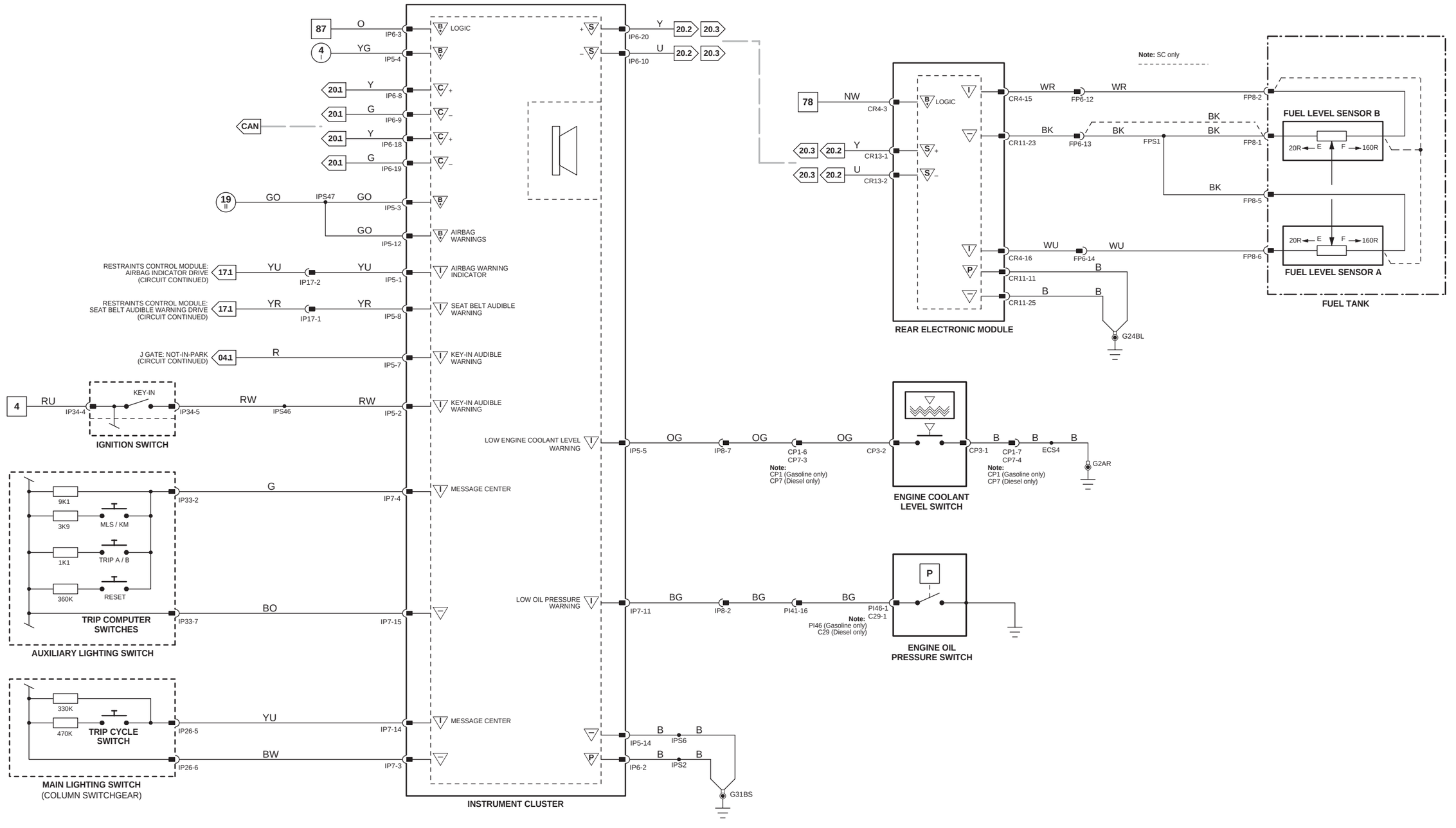

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 (I) → 52 (I) Fig. 01.5	78 (S) → 105 (S) Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	VARIANT:	All Vehicles
7 → 63 Fig. 01.2	1 (I) → 15 (I) Fig. 01.4	53 (S) → 77 (S) Fig. 01.6	106 (E) → 143 (E) Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	VIN RANGE:	All
									DATE OF ISSUE:	April 2006

Front Electronic Module

	Pin	Description and Characteristic
PG	CR1–26	POWER GROUND: GROUND
S	CR9–1	SCP –
B+	CR9–6	BATTERY POWER SUPPLY: LOGIC: B+
S	CR9–7	SCP +
SG	CR9–12	LOGIC GROUND: GROUND
O	CR10–4	LH TURN SIGNAL ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	CR10–10	RH TURN SIGNAL ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
PG	CR10–11	POWER GROUND: GROUND
PG	CR10–13	POWER GROUND: GROUND
PG	CR10–14	POWER GROUND: GROUND
O	CR10–15	SIDE MARKER LAMPS ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
PG	CR85–2	POWER GROUND: GROUND
O	EC36–7	LH TURN SIGNAL REPEATER ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–13	LH SIDE LAMP ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–15	HEADLAMP DIP BEAM RELAY ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–18	FRONT FOG LAMP RELAY ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–19	RH TURN SIGNAL REPEATER ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–21	HEADLAMP MAIN BEAM RELAY ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–22	RH SIDE LAMP ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND

Instrument Cluster

	Pin	Description and Characteristic
O	IP5–9	HAZARD INDICATOR: PULSED B+
I	IP5–11	AUTOLAMP SENSOR SIGNAL: VARIABLE RESISTANCE
SG	IP5–14	SIGNAL GROUND: GROUND
PG	IP6–2	POWER GROUND: GROUND
B+	IP6–3	BATTERY POWER SUPPLY (LOGIC): B+
S	IP6–10	SCP –
S	IP6–20	SCP +
I	IP7–1	MAIN LIGHTING SWITCH SIGNALS: TURN SIGNALS; HAZARD WARNING: TURN = VARIABLE RESISTANCE; HAZARD = GROUND
I	IP7–2	MAIN LIGHTING SWITCH SIGNALS: EXIT DELAY: VARIABLE RESISTANCE
SG	IP7–3	MAIN LIGHTING SWITCH SIGNAL GROUND: GROUND
I	IP7–6	FOG LAMPS SWITCH SIGNAL: VARIABLE RESISTANCE
I	IP7–12	MAIN LIGHTING SWITCH SIGNALS: MAIN; FLASH: VARIABLE RESISTANCE
I	IP7–13	MAIN LIGHTING SWITCH SIGNALS: OFF; SIDE; DIP; AUTOLAMP: VARIABLE RESISTANCE
SG	IP7–15	AUXILIARY LIGHTING SWITCH SIGNAL GROUND: GROUND

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.

Fig. 08.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUTO LAMP SENSOR	IP36	6-WAY / BLACK	INSTRUMENT PANEL / CENTER FRONT
AUXILIARY LIGHTING SWITCH	IP33	12-WAY / BLACK	INSTRUMENT PANEL / LH SIDE
CENTER CONSOLE SWITCH PACK	CL1	8-WAY / BLACK	CENTER CONSOLE
	CL2	8-WAY / BLACK	
DIP BEAM RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R5
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	
FRONT FOG LAMP – LH	BF9	2-WAY / BLACK	FRONT BUMPER / LH SIDE
FRONT FOG LAMP – RH	BF8	2-WAY / BLACK	FRONT BUMPER / RH SIDE
FRONT FOG LAMP RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R6
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
FRONT SIDE MARKER LAMP – LH	BF7	2-WAY / BLACK	FRONT BUMPER / LH SIDE
FRONT SIDE MARKER LAMP – RH	BF6	2-WAY / BLACK	FRONT BUMPER / RH SIDE
HEADLAMP UNIT – LH	EC57	9-WAY / BLACK	ENGINE COMPARTMENT / LH FRONT
HEADLAMP UNIT – RH	EC6	9-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
MAIN BEAM RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R2
MAIN LIGHTING SWITCH (COLUMN SWITCHGEAR)	IP26	6-WAY / BLACK	STEERING COLUMN / LH SIDE
TURN SIGNAL REPEATER – LH	EC49	2-WAY / BLACK	LH FRONT FENDER
TURN SIGNAL REPEATER – RH	EC31	2-WAY / BLACK	RH FRONT FENDER

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
BF1	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO FRONT BUMPER HARNESS	ENGINE COMPARTMENT / BEHIND RH WHEEL ARCH LINER
CC10	22-WAY / GREEN / CENTER CONSOLE HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE (LHD), RH SIDE (RHD)
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST

GROUNDS

Ground	Location
G1	ENGINE COMPARTMENT / BEHIND LH HEADLAMP ASSEMBLY
G2	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G3	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G9	CABIN / UPPER LH 'A' POST
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G31	CABIN / BEHIND PASSENGER AIR BAG

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

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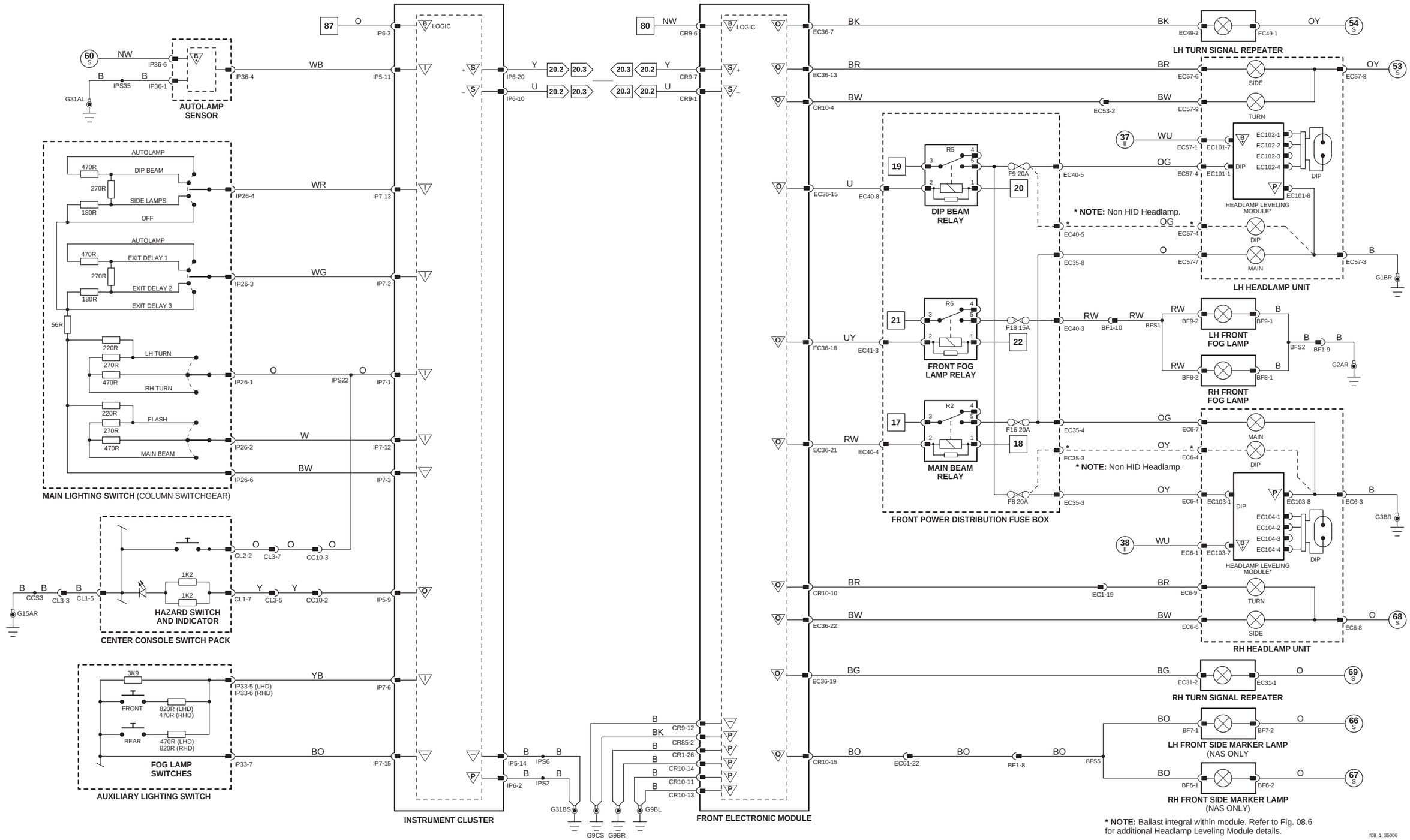

1 → 6 Fig. 01.1
7 → 63 Fig. 01.2
64 → 95 Fig. 01.3
1 I → 15 II Fig. 01.4
16 II → 52 II Fig. 01.5
53 S → 77 S Fig. 01.6
78 S → 105 S Fig. 01.7
106 E → 143 E Fig. 01.8

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

VARIANT: Gasoline Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Front Electronic Module

	Pin	Description and Characteristic
PG	CR1–26	POWER GROUND: GROUND
S	CR9–1	SCP –
B+	CR9–6	BATTERY POWER SUPPLY: LOGIC: B+
S	CR9–7	SCP +
SG	CR9–12	LOGIC GROUND: GROUND
O	CR10–4	LH TURN SIGNAL ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	CR10–10	RH TURN SIGNAL ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
PG	CR10–11	POWER GROUND: GROUND
PG	CR10–13	POWER GROUND: GROUND
PG	CR10–14	POWER GROUND: GROUND
O	CR10–15	SIDE MARKER LAMPS ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
PG	CR85–2	POWER GROUND: GROUND
O	EC36–7	LH TURN SIGNAL REPEATER ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–13	LH SIDE LAMP ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–15	HEADLAMP DIP BEAM RELAY ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–18	FRONT FOG LAMP RELAY ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–19	RH TURN SIGNAL REPEATER ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–21	HEADLAMP MAIN BEAM RELAY ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–22	RH SIDE LAMP ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND

Instrument Cluster

	Pin	Description and Characteristic
O	IP5–9	HAZARD INDICATOR: PULSED B+
I	IP5-11	AUTOLAMP SENSOR SIGNAL: VARIABLE RESISTANCE
SG	IP5–14	SIGNAL GROUND: GROUND
PG	IP6–2	POWER GROUND: GROUND
B+	IP6–3	BATTERY POWER SUPPLY (LOGIC): B+
S	IP6–10	SCP –
S	IP6–20	SCP +
I	IP7–1	MAIN LIGHTING SWITCH SIGNALS: TURN SIGNALS; HAZARD WARNING: TURN = VARIABLE RESISTANCE; HAZARD = GROUND
I	IP7–2	MAIN LIGHTING SWITCH SIGNALS: EXIT DELAY: VARIABLE RESISTANCE
SG	IP7–3	MAIN LIGHTING SWITCH SIGNAL GROUND: GROUND
I	IP7–6	FOG LAMPS SWITCH SIGNAL: VARIABLE RESISTANCE
I	IP7–12	MAIN LIGHTING SWITCH SIGNALS: MAIN; FLASH: VARIABLE RESISTANCE
I	IP7–13	MAIN LIGHTING SWITCH SIGNALS: OFF; SIDE; DIP; AUTOLAMP: VARIABLE RESISTANCE
SG	IP7–15	AUXILIARY LIGHTING SWITCH SIGNAL GROUND: GROUND

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.

Fig. 08.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUTO LAMP SENSOR	IP36	6-WAY / BLACK	INSTRUMENT PANEL / CENTER FRONT
AUXILIARY LIGHTING SWITCH	IP33	12-WAY / BLACK	INSTRUMENT PANEL / LH SIDE
CENTER CONSOLE SWITCH PACK	CL1	8-WAY / BLACK	CENTER CONSOLE
	CL2	8-WAY / BLACK	
DIP BEAM RELAY - LH	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R11a
DIP BEAM RELAY - RH	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R9b
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	
FRONT FOG LAMP – LH	BF9	2-WAY / BLACK	FRONT BUMPER / LH SIDE
FRONT FOG LAMP – RH	BF8	2-WAY / BLACK	FRONT BUMPER / RH SIDE
FRONT FOG LAMP RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R6
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
FRONT SIDE MARKER LAMP – LH	BF7	2-WAY / BLACK	FRONT BUMPER / LH SIDE
FRONT SIDE MARKER LAMP – RH	BF6	2-WAY / BLACK	FRONT BUMPER / RH SIDE
HEADLAMP UNIT – LH	EC57	9-WAY / BLACK	ENGINE COMPARTMENT / LH FRONT
HEADLAMP UNIT – RH	EC6	9-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
MAIN BEAM RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R2
MAIN LIGHTING SWITCH (COLUMN SWITCHGEAR)	IP26	6-WAY / BLACK	STEERING COLUMN / LH SIDE
TURN SIGNAL REPEATER – LH	EC49	2-WAY / BLACK	LH FRONT FENDER
TURN SIGNAL REPEATER – RH	EC31	2-WAY / BLACK	RH FRONT FENDER

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
BF1	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO FRONT BUMPER HARNESS	ENGINE COMPARTMENT / BEHIND RH WHEEL ARCH LINER
CC10	22-WAY / GREEN / CENTER CONSOLE HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE (LHD), RH SIDE (RHD)
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC61	22-WAY / NATURAL / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / LH UPPER 'A' POST

GROUNDS

Ground	Location
G1	ENGINE COMPARTMENT / BEHIND LH HEADLAMP ASSEMBLY
G2	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G3	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G9	CABIN / UPPER LH 'A' POST
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G31	CABIN / BEHIND PASSENGER AIR BAG

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.

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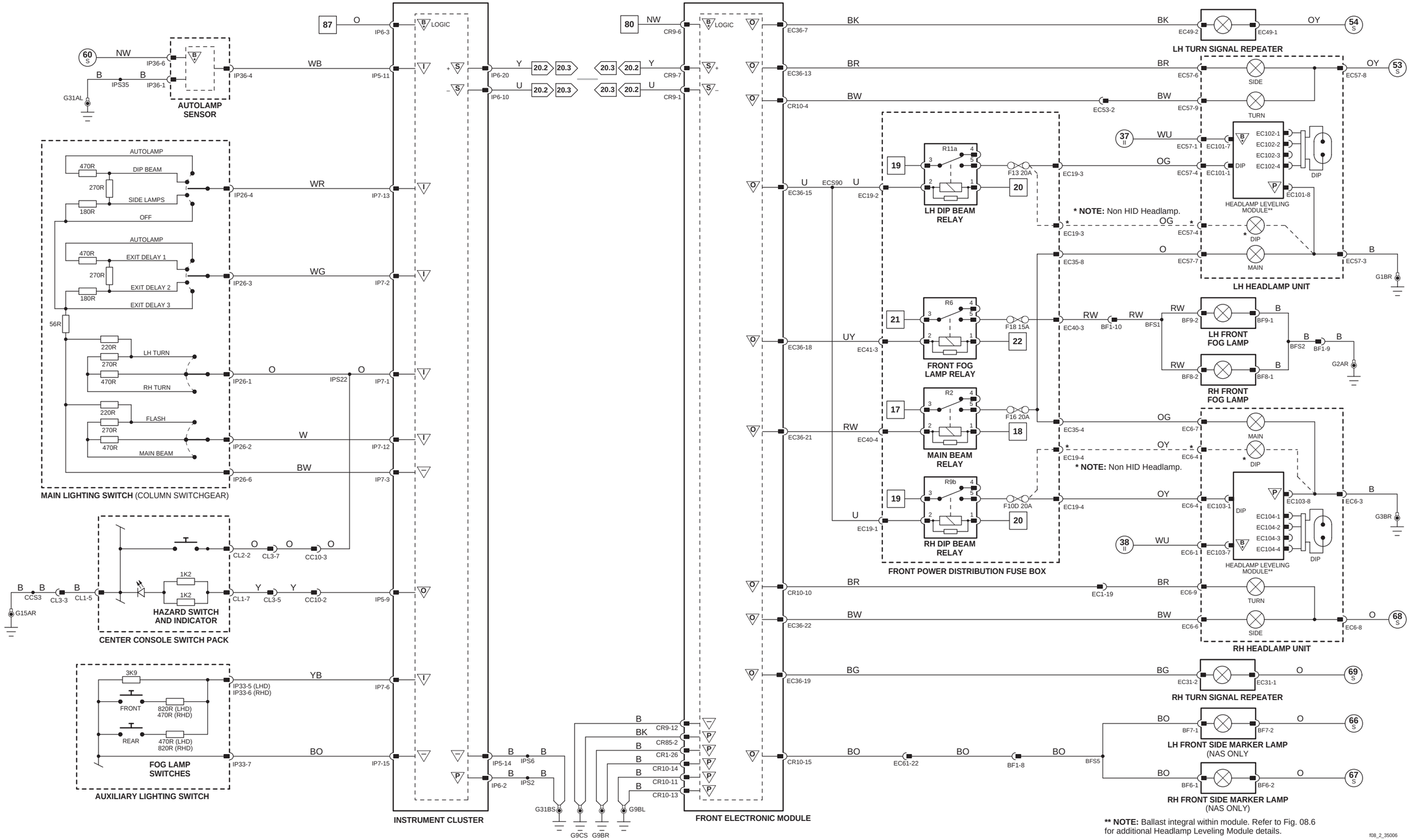

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP, S SCP
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN, D Serial and Encoded Data

VARIANT: Diesel Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Instrument Cluster

	Pin	Description and Characteristic
O	IP5–9	HAZARD INDICATOR: PULSED B+
I	IP5–11	AUTOLAMP SENSOR SIGNAL: VARIABLE RESISTANCE
SG	IP5–14	SIGNAL GROUND: GROUND
PG	IP6–2	POWER GROUND: GROUND
B+	IP6–3	BATTERY POWER SUPPLY (LOGIC): B+
S	IP6–10	SCP –
S	IP6–20	SCP +
I	IP7–1	MAIN LIGHTING SWITCH SIGNALS: TURN SIGNALS; HAZARD WARNING: TURN = VARIABLE RESISTANCE; HAZARD = GROUND
I	IP7–2	MAIN LIGHTING SWITCH SIGNALS: EXIT DELAY: VARIABLE RESISTANCE
SG	IP7–3	MAIN LIGHTING SWITCH SIGNAL GROUND: GROUND
I	IP7–6	FOG LAMPS SWITCH SIGNAL: VARIABLE RESISTANCE
I	IP7–12	MAIN LIGHTING SWITCH SIGNALS: MAIN; FLASH: VARIABLE RESISTANCE
I	IP7–13	MAIN LIGHTING SWITCH SIGNALS: OFF; SIDE; DIP; AUTOLAMP: VARIABLE RESISTANCE
SG	IP7–15	AUXILIARY LIGHTING SWITCH SIGNAL GROUND: GROUND

Rear Electronic Module

	Pin	Description and Characteristic
B+	CR4–3	BATTERY POWER SUPPLY (LOGIC): B+
PG	CR11–11	POWER GROUND: GROUND
SG	CR11–12	LOGIC GROUND: GROUND
SG	CR11–25	LOGIC GROUND: GROUND
SG	CR11–26	LOGIC GROUND: GROUND
O	CR12–5	LICENSE PLATE LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR12–6	LH REAR SIDE MARKER LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR12–12	RH REAR SIDE MARKER LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
S	CR13–1	SCP +
S	CR13–2	SCP –
I	CR13–13	BRAKE ON / OFF SWITCH SIGNAL: B+ WHEN ACTIVATED
O	CR71–3	LH REAR TURN SIGNAL ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–4	RH REAR TURN SIGNAL ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–5	RH TAIL LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–6	LH TAIL LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–9	REVERSE LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–10	REAR FOG LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–11	RH STOP LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–12	LH STOP LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
SG	CR71–15	LOGIC GROUND: GROUND
PG	CR73–2	POWER GROUND (FUEL PUMP): GROUND

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.

Fig. 08.3

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUTO LAMP SENSOR	IP36	6-WAY / BLACK	INSTRUMENT PANEL / CENTER FRONT
AUXILIARY LIGHTING SWITCH	IP33	12-WAY / BLACK	INSTRUMENT PANEL / LH SIDE
BRAKE ON / OFF SWITCH	CR78	2-WAY / BLACK	TOP OF BRAKE PEDAL
CENTER CONSOLE SWITCH PACK	CL1	8-WAY / BLACK	CENTER CONSOLE
	CL2	8-WAY / BLACK	
HIGH-MOUNTED STOP LAMP	RF27	2-WAY / BLACK	PARCEL SHELF / CENTER
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
LICENSE PLATE LAMP – LH	BT7	2-WAY / BLACK	TRUNK LID
LICENSE PLATE LAMP – RH	BT6	2-WAY / BLACK	TRUNK LID
MAIN LIGHTING SWITCH (COLUMN SWITCHGEAR)	IP26	6-WAY / BLACK	STEERING COLUMN / LH SIDE
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	
REAR SIDE MARKER LAMP – LH	BR7	2-WAY / BLACK	REAR BUMPER / LH SIDE
REAR SIDE MARKER LAMP – RH	BR6	2-WAY / BLACK	REAR BUMPER / RH SIDE
TAIL LAMP UNIT – LH	CR8	7-WAY / BLACK	TRUNK / LH REAR
TAIL LAMP UNIT – RH	CR7	7-WAY / BLACK	TRUNK / RH REAR

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
CC10	22-WAY / GREEN / CENTER CONSOLE HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE (LHD), RH SIDE (RHD)
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH ‘D’ POST

GROUNDS

Ground	Location
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
G31	CABIN / BEHIND PASSENGER AIR BAG

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

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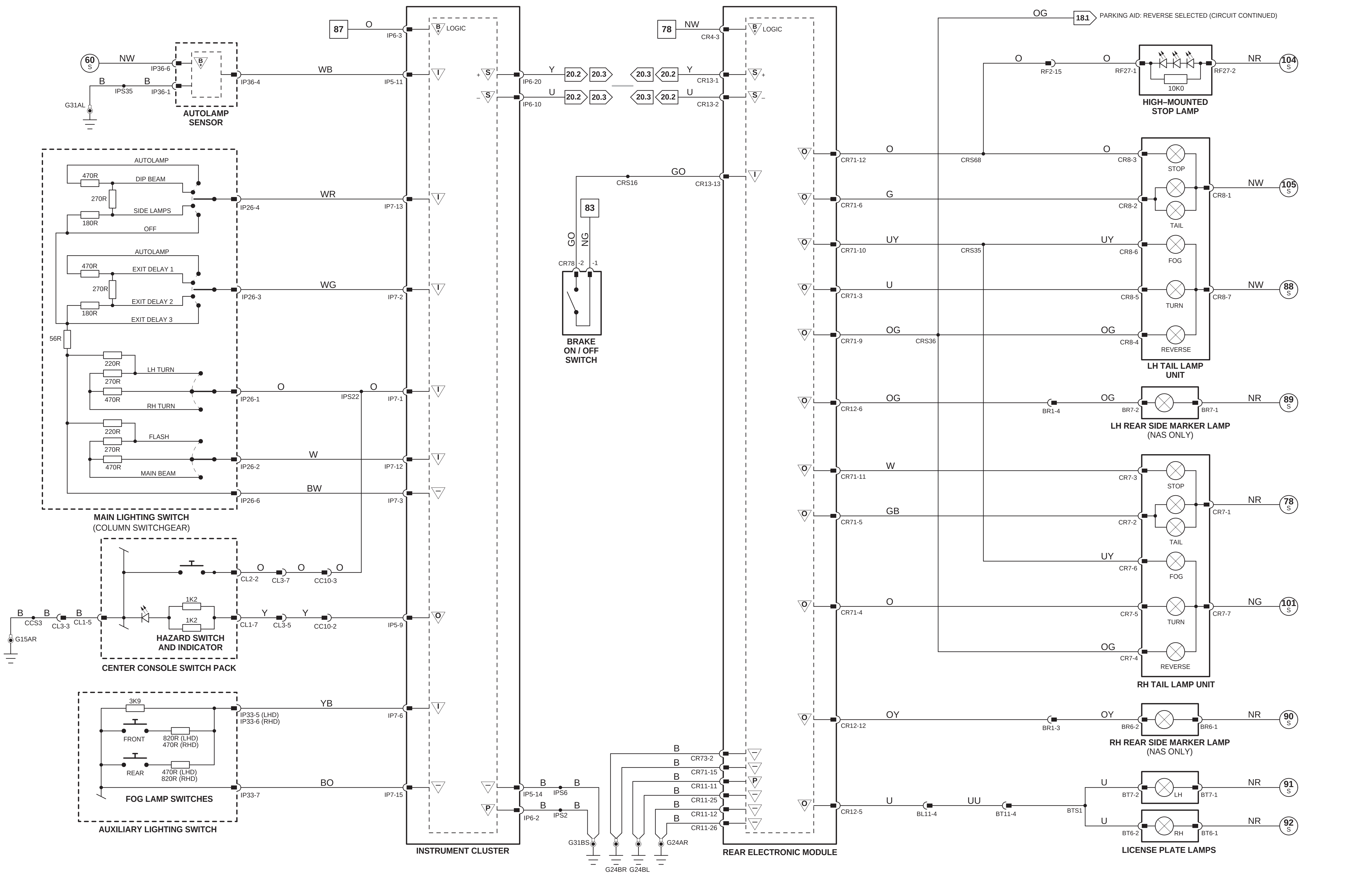

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 → 52 Fig. 01.5	78 → 105 Fig. 01.7
7 → 63 Fig. 01.2	1 → 15 Fig. 01.4	53 → 77 Fig. 01.6	106 → 143 Fig. 01.8

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Rear Electronic Module

	Pin	Description and Characteristic
O	CR4–20	TRAILER CONNECTED SIGNAL: GROUND = TRAILER CONNECTED
O	CR12–5	LICENSE PLATE LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–3	LH REAR TURN SIGNAL ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–4	RH REAR TURN SIGNAL ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–5	RH TAIL LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–6	LH TAIL LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–9	REVERSE LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–10	REAR FOG LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–11	RH STOP LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–12	LH STOP LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND

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.

Fig. 08.4

COMPONENTS

Component	Connector(s)	Connector Description	Location
BATTERY	—	—	TRUNK / RH SIDE
HIGH-MOUNTED STOP LAMP	RF27	2-WAY / BLACK	PARCEL SHELF / CENTER
LICENSE PLATE LAMP – LH	BT7	2-WAY / BLACK	TRUNK LID
LICENSE PLATE LAMP – RH	BT6	2-WAY / BLACK	TRUNK LID
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	
TAIL LAMP UNIT – LH	TT1	7-WAY / BLACK	TRUNK / LH REAR
TAIL LAMP UNIT – RH	TT2	7-WAY / BLACK	TRUNK / RH REAR
TRAILER TOWING CONNECTOR	TT8	DATA NOT AVAILABLE	
	TT18	DATA NOT AVAILABLE	
TRAILER TOWING JUNCTION FUSE BOX	TT22	DATA NOT AVAILABLE	
	TT23	DATA NOT AVAILABLE	
	TT24	DATA NOT AVAILABLE	
TRAILER TOWING MODULE	TT15	DATA NOT AVAILABLE	
	TT16	DATA NOT AVAILABLE	
	TT17	DATA NOT AVAILABLE	
TRAILER TOWING RELAY	TT9	DATA NOT AVAILABLE	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
BL11	16-WAY / BLACK / CABIN HARNESS TO TRUNK LID HARNESS	TRUNK / BEHIND TRUNK LID LINER
BT11	16-WAY / GREY / CABIN TO TRUNK LID LINK HARNESS TO TRUNK LID HARNESS	TRUNK / TRUNK LID
CR106	8-WAY / BLACK / TRAILER TOWING HARNESS	TRUNK / RH SIDE
CR107	8-WAY / BLACK / TRAILER TOWING HARNESS	TRUNK / RH SIDE
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
TT10	2-WAY / GREY / TRAILER TOWING HARNESS	TRUNK / SPARE WHEEL WELL

GROUNDS

Ground	Location
BC1	TRUNK / RH SIDE / ADJACENT TO BATTERY
BC3	TRUNK / RH SIDE / ADJACENT TO BATTERY
G29	TRUNK / SPARE WHEEL WELL

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

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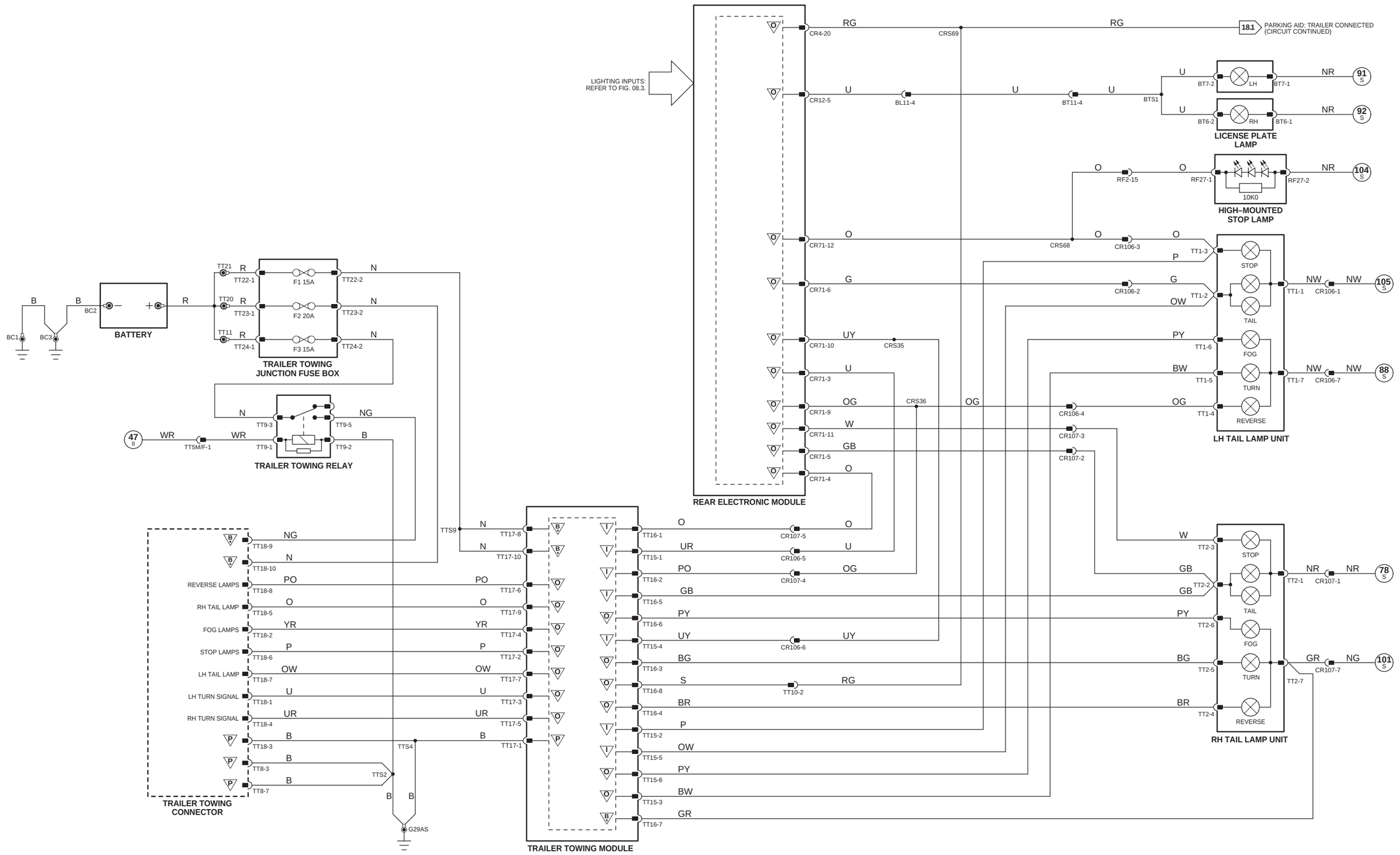

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	European Trailer Towing Vehicles
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Rear Electronic Module

	Pin	Description and Characteristic
O	CR4–20	TRAILER CONNECTED SIGNAL: GROUND = TRAILER CONNECTED
O	CR12–5	LICENSE PLATE LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–3	LH REAR TURN SIGNAL ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–4	RH REAR TURN SIGNAL ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–5	RH TAIL LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–6	LH TAIL LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–9	REVERSE LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–10	REAR FOG LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–11	RH STOP LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–12	LH STOP LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND

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.

Fig. 08.5

COMPONENTS

Component	Connector(s)	Connector Description	Location
BATTERY	—	—	TRUNK / RH SIDE
HIGH-MOUNTED STOP LAMP	RF27	2-WAY / BLACK	PARCEL SHELF / CENTER
LICENSE PLATE LAMP – LH	BT7	2-WAY / BLACK	TRUNK LID
LICENSE PLATE LAMP – RH	BT6	2-WAY / BLACK	TRUNK LID
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	
TAIL LAMP UNIT – LH	TT1	7-WAY / BLACK	TRUNK / LH REAR
TAIL LAMP UNIT – RH	TT2	7-WAY / BLACK	TRUNK / RH REAR
TRAILER TOWING CONNECTOR	TT7	DATA NOT AVAILABLE	
	TT8	DATA NOT AVAILABLE	
TRAILER TOWING JUNCTION FUSE BOX	TT22	DATA NOT AVAILABLE	
	TT23	DATA NOT AVAILABLE	
	TT24	DATA NOT AVAILABLE	
TRAILER TOWING MODULE	TT15	DATA NOT AVAILABLE	
	TT16	DATA NOT AVAILABLE	
	TT17	DATA NOT AVAILABLE	
TRAILER TOWING RELAY	TT9	DATA NOT AVAILABLE	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
BL11	16-WAY / BLACK / CABIN HARNESS TO TRUNK LID HARNESS	TRUNK / BEHIND TRUNK LID LINER
BT11	16-WAY / GREY / CABIN TO TRUNK LID LINK HARNESS TO TRUNK LID HARNESS	TRUNK / TRUNK LID
CR106	8-WAY / BLACK / TRAILER TOWING HARNESS	TRUNK / RH SIDE
CR107	8-WAY / BLACK / TRAILER TOWING HARNESS	TRUNK / RH SIDE
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
TT3	DATA NOT AVAILABLE	TRAILER TOWING HARNESS
TT10	2-WAY / GREY / TRAILER TOWING HARNESS	TRUNK / SPARE WHEEL WELL
TT20	DATA NOT AVAILABLE	TRAILER TOWING HARNESS

GROUNDS

Ground	Location
BC1	TRUNK / RH SIDE / ADJACENT TO BATTERY
BC3	TRUNK / RH SIDE / ADJACENT TO BATTERY
G29	TRUNK / SPARE WHEEL WELL

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

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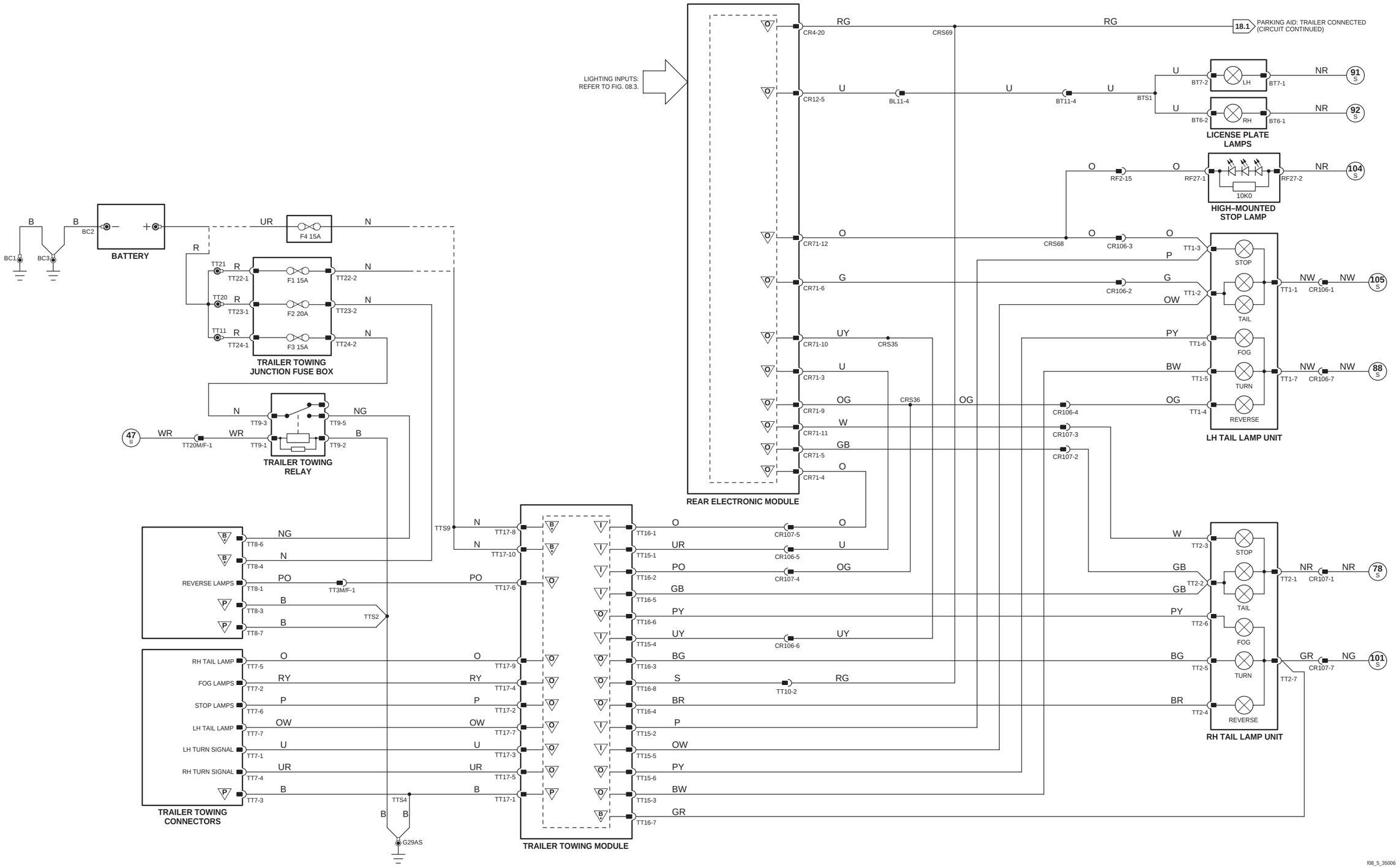

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1 → 6 Fig. 01.1 7 → 63 Fig. 01.2	64 → 95 Fig. 01.3 1 (I) → 15 (H) Fig. 01.4	16 (I) → 52 (E) Fig. 01.5 53 (S) → 77 (S) Fig. 01.6	78 (S) → 105 (S) Fig. 01.7 106 (E) → 143 (E) Fig. 01.8	I Input O Output	B Battery Voltage P Power Ground	+ Sensor/Signal Supply V – Sensor/Signal Ground	A ACP C CAN	S SCP D Serial and Encoded Data	**VARIANT:** U.K. Trailer Towing Vehicles **VIN RANGE:** All **DATE OF ISSUE:** April 2006

Air Suspension Module

	Pin	Description and Characteristic
B+	CR88–1	BATTERY POWER SUPPLY: B+
B+	CR88–2	SWITCHED SYSTEM POWER SUPPLY (WAKE UP): B+
PG	CR88–3	POWER GROUND: GROUND
O	CR89–3	HEADLAMP LEVELING SENSOR: PWM

Fig. 08.6

COMPONENTS

Component	Connector(s)	Connector Description	Location
AIR SUSPENSION MODULE	CR88	9-WAY / BLACK	CABIN REAR BULKHEAD / BEHIND REAR SEAT BACK / RH SIDE
	CR89	12-WAY / BLACK	
	CR90	15-WAY / BLACK	
	CR91	18-WAY / BLACK	
HID HEADLAMP UNIT – LH	EC57	9-WAY / BLACK	ENGINE COMPARTMENT / LH FRONT
HID HEADLAMP UNIT – RH	EC6	9-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST

GROUNDS

Ground	Location
G1	ENGINE COMPARTMENT / BEHIND LH HEADLAMP ASSEMBLY
G3	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G17	CABIN / BELOW REAR SEAT / RH SIDE

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.

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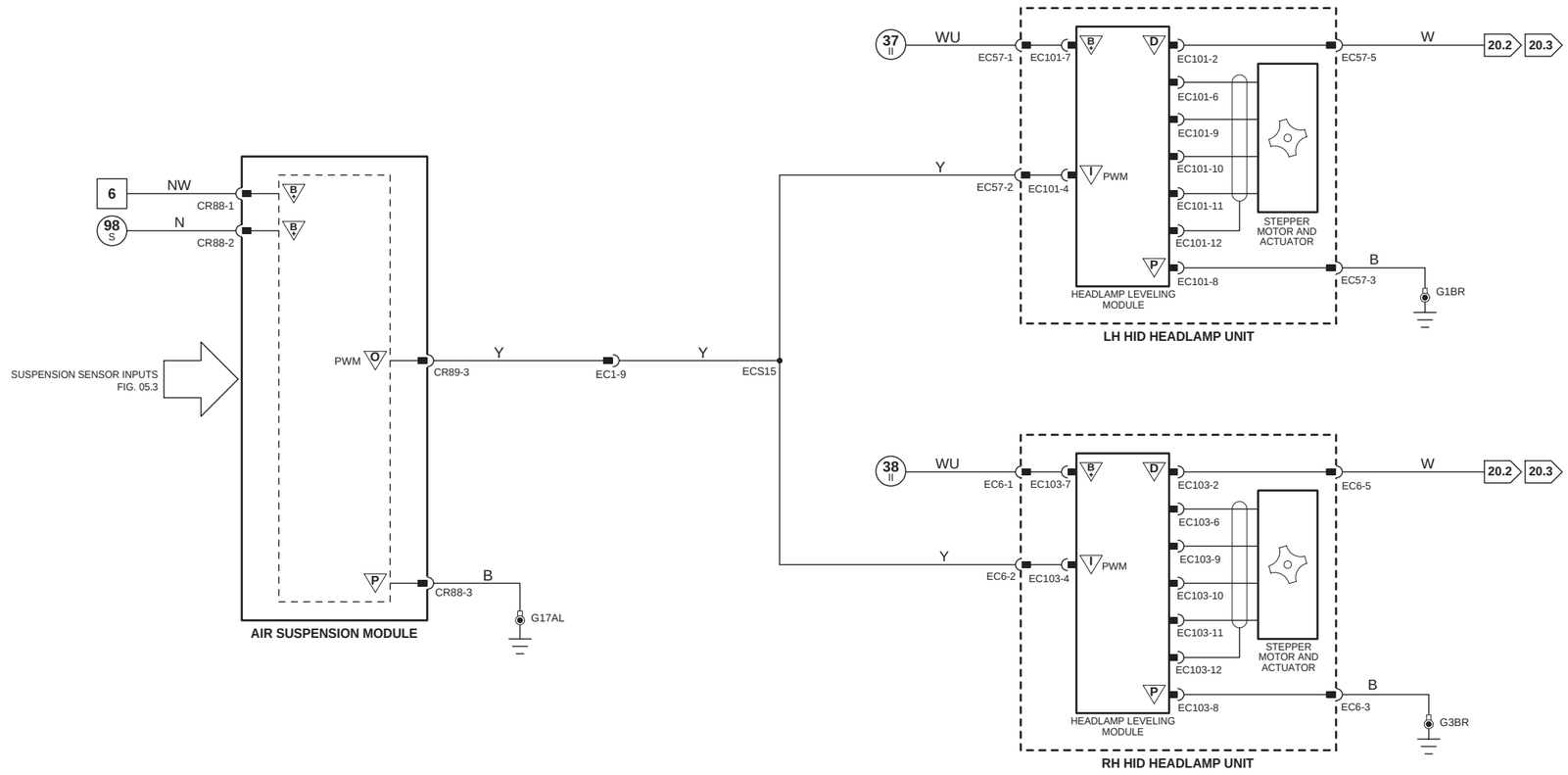

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1 → 6	Fig. 01.1	64 → 95	Fig. 01.3	16 II → 52 II	Fig. 01.5	78 S → 105 S	Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP							
7 → 63	Fig. 01.2	1 I → 15 II	Fig. 01.4	53 S → 77 S	Fig. 01.6	106 E → 143 E	Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data							

VARIANT: HID Headlamp Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Driver Door Module

	Pin	Description and Characteristic
O	DD12–13	DRIVER DOOR PUDDLE LAMP ACTIVATE: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
O	DD12–21	DRIVER APPROACH LAMP ACTIVATE: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
I	DD12–25	DRIVER DOOR AJAR SWITCH SIGNAL: GROUND WHEN DOOR IS AJAR
S	DD13–3	SCP NETWORK +
S	DD13–4	SCP NETWORK –
SG	DD13–7	LOGIC GROUND: GROUND
PG	DD13–8	POWER GROUND: GROUND
B+	DD13–11	BATTERY POWER SUPPLY: LOGIC: B+
B+	DD13–12	SWITCHED SYSTEM POWER SUPPLY: B+

Front Electronic Module

	Pin	Description and Characteristic
I	CR1–1	PASSENGER DOOR AJAR SWITCH SIGNAL: GROUND WHEN ACTIVATED
O	CR1–2	PASSENGER DOOR PUDDLE LAMP ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO B+
I	CR1–3	MASTER LIGHTING SWITCH SIGNAL: GROUND WHEN ACTIVATED
O	CR1–5	PASSENGER DOOR APPROACH LAMP ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO B+
S	CR9–1	SCP –
B+	CR9–6	BATTERY POWER SUPPLY (LOGIC): B+
S	CR9–7	SCP +
SG	CR9–12	LOGIC GROUND: GROUND
O	CR10–6	FRONT FOOTWELL LAMPS ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
PG	CR10–11	POWER GROUND: GROUND
PG	CR10–13	POWER GROUND: GROUND
B+	CR85–1	SWITCHED SYSTEM POWER SUPPLY: B+

Rear Electronic Module

	Pin	Description and Characteristic
B+	CR4–3	BATTERY POWER SUPPLY (LOGIC): B+
I	CR4–17	RH REAR DOOR AJAR SWITCH SIGNAL: GROUND WHEN DOOR IS AJAR
SG	CR11–10	TRUNK LATCH SIGNAL GROUND: GROUND
PG	CR11–11	POWER GROUND: GROUND
I	CR11–16	LH REAR DOOR AJAR SWITCH SIGNAL: GROUND WHEN DOOR IS AJAR
SG	CR11–25	LOGIC GROUND: GROUND
O	CR12–11	TRUNK LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
S	CR13–1	SCP NETWORK +
S	CR13–2	SCP NETWORK –
I	CR13–14	TRUNK AJAR SWITCH SIGNAL: GROUND (SIGNAL) WHEN TRUNK IS AJAR
O	CR13–20	LH REAR DOOR PUDDLE LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
O	CR13–22	RH REAR DOOR PUDDLE LAMP ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
O	CR71–1	REAR COURTESY LAMPS ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND

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.

Fig. 09.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
APPROACH LAMP – DRIVER DOOR	DD9	22-WAY / BLACK	DRIVER DOOR MIRROR
APPROACH LAMP – PASSENGER DOOR	PD9	22-WAY / BLACK	PASSENGER DOOR MIRROR
COURTESY LAMP – LH REAR	RF21	3-WAY / BLACK	LH REAR ASSIST HANDLE
COURTESY LAMP – RH REAR	RF22	3-WAY / BLACK	RH REAR ASSIST HANDLE
DOOR AJAR SWITCH – DRIVER	DD7	2-WAY / BLACK	DRIVER DOOR
	DD10	3-WAY / BLACK	
DOOR AJAR SWITCH – LH REAR	RL7	2-WAY / BLACK	LH REAR DOOR
	RL10	3-WAY / BLACK	
DOOR AJAR SWITCH – PASSENGER	PD7	2-WAY / BLACK	PASSENGER DOOR
	PD10	3-WAY / BLACK	
DOOR AJAR SWITCH – RH REAR	RR7	2-WAY / BLACK	RH REAR DOOR
	RR10	3-WAY / BLACK	
FOOTWELL LAMP – LH FRONT	IP13	2-WAY / WHITE	INSTRUMENT PANEL / LH SIDE / UNDER
FOOTWELL LAMP – LH REAR	SD23	2-WAY / WHITE	LH FRONT SEAT / LOWER REAR
FOOTWELL LAMP – RH FRONT	IP14	2-WAY / WHITE	INSTRUMENT PANEL / RH SIDE / UNDER
FOOTWELL LAMP – RH REAR	SP23	2-WAY / WHITE	RH FRONT SEAT / LOWER REAR
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	
GLOVE BOX LAMP	IP28	2-WAY / GREY	GLOVE BOX
GLOVE BOX LAMP SWITCH	IP29	2-WAY / GREY	GLOVE BOX
MAP LAMP – LH REAR	RF21	3-WAY / BLACK	LH REAR ASSIST HANDLE
MAP LAMP – RH REAR	RF22	3-WAY / BLACK	RH REAR ASSIST HANDLE
PUDDLE LAMP – DRIVER DOOR	DT2	2-WAY / WHITE	DRIVER DOOR TRIM
PUDDLE LAMP – LH REAR DOOR	LT2	2-WAY / WHITE	LH REAR DOOR TRIM
PUDDLE LAMP – PASSENGER DOOR	PT2	2-WAY / WHITE	PASSENGER DOOR TRIM
PUDDLE LAMP – RH REAR DOOR	RT2	2-WAY / WHITE	RH REAR DOOR TRIM
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	
ROOF CONSOLE	RF3	20-WAY / BLACK	CABIN ROOF
TRUNK LAMP	CR18	2-WAY / BLACK	TRUNK / CENTER FRONT
TRUNK LATCH	BT2	8-WAY / BLACK	TRUNK LID
TRUNK LID LAMP	BT3	2-WAY / BLACK	TRUNK LID
VANITY MIRROR LAMP – LH	RF4	2-WAY / BLACK	LH SUN VISOR
VANITY MIRROR LAMP – RH	RF5	2-WAY / BLACK	RH SUN VISOR

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
BL11	16-WAY / BLACK / CABIN HARNESS TO TRUNK LID HARNESS	TRUNK / BEHIND TRUNK LID LINER
BT11	16-WAY / GREY / CABIN TO TRUNK LID LINK HARNESS TO TRUNK LID HARNESS	TRUNK / TRUNK LID
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
DT6	16-WAY / BLUE / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
IP2	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
LT1	12-WAY / GREY / LH REAR DOOR HARNESS TO LH REAR DOOR TRIM HARNESS	CABIN / LH REAR DOOR TRIM
PD1	14-WAY / BLUE / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
PD16	22-WAY / BLACK / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
PT1	12-WAY / GREY / PASSENGER DOOR HARNESS TO PASSENGER DOOR TRIM HARNESS	CABIN / BEHIND PASSENGER DOOR TRIM
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
RF25	8-WAY / BLACK / CABIN HARNESS TO ROOF HARNESS	CABIN / UPPER LH 'A' POST
RL1	6-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RL9	16-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RR1	6-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
RR9	16-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
RT1	12-WAY / GREY / RH REAR DOOR HARNESS TO RH REAR DOOR TRIM HARNESS	CABIN / RH REAR DOOR TRIM
SD28	20-WAY / BLACK / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT

GROUNDS

Ground	Location
G9	CABIN / UPPER LH A POST
G10	CABIN / RH A POST
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT
G17	CABIN / BELOW REAR SEAT / RH SIDE
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
G32	CABIN / BEHIND INSTRUMENT CLUSTER

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.

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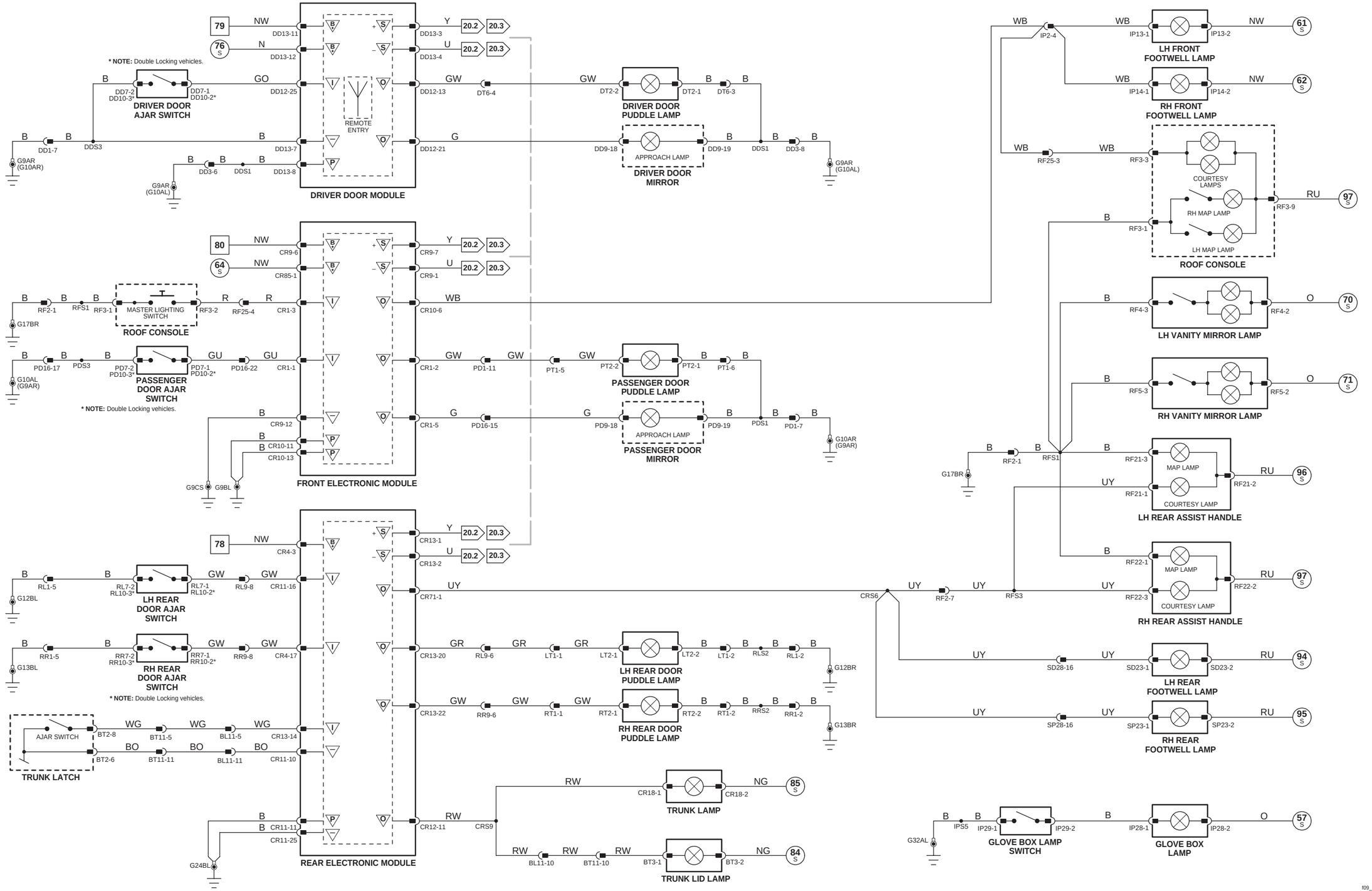

1 → 6 Fig. 01.1	7 → 63 Fig. 01.2	64 → 95 Fig. 01.3	1 I → 15 II Fig. 01.4	16 II → 52 II Fig. 01.5	53 S → 77 S Fig. 01.6	78 S → 105 S Fig. 01.7	106 E → 143 E Fig. 01.8	I Input	O Output	B Battery Voltage	P Power Ground	+ Sensor/Signal Supply V	− Sensor/Signal Ground	A ACP	C CAN	S SCP	D Serial and Encoded Data	**VARIANT:**	All Vehicles
																		VIN RANGE:	All
																		DATE OF ISSUE:	April 2006

Climate Control Module – Panel

	Pin	Description and Characteristic
O	AC101–19	PANEL BACK LIGHTING: CCM INDICATES TO PANEL TO BACKLIGHT LCD
I	CR119–11	DIMMER CONTROLLED ILLUMINATION: PWM, 80Hz, GROUND = 0% DUTY CYCLE, B+ = 100% DUTY CYCLE

Front Electronic Module

	Pin	Description and Characteristic
S	CR9–1	SCP –
S	CR9–7	SCP +
SG	CR9–12	LOGIC GROUND: GROUND
PG	CR10–11	POWER GROUND: GROUND
PG	CR10–13	POWER GROUND: GROUND
B+	CR85–1	SWITCHED SYSTEM POWER SUPPLY: B+
O	CR85–11	BULB BACK LIGHTING ACTIVATE: B+ PWM
O	CR85–12	LED BACK LIGHTING ACTIVATE: B+ PWM

Instrument Cluster

	Pin	Description and Characteristic
SG	IP5–14	SIGNAL GROUND: GROUND
B+	IP6–3	BATTERY POWER SUPPLY (LOGIC): B+
S	IP6–10	SCP –
S	IP6–20	SCP +
I	IP7–5	DIMMER SIGNAL: VARIABLE VOLTAGE
SG	IP7–15	AUXILIARY LIGHTING SWITCH SIGNAL GROUND: GROUND
SS	IP7–16	DIMMER SUPPLY VOLTAGE: B+

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.

Fig. 09.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUDIO / VIDEO SELECTOR	TL20	20-WAY / BLACK	CABIN REAR BULKHEAD / BEHIND REAR SEAT BACK / LH SIDE
	TL85	20-WAY / BLACK	
	TL86	20-WAY / BLACK	
	TL87	20-WAY / BLACK	
AUDIO UNIT	CC8	20-WAY / BLACK	CENTER CONSOLE
	CC9	2-WAY / BLACK	
	CC21	FIBER OPTIC CONNECTOR	
AUXILIARY LIGHTING SWITCH	IP33	12-WAY / BLACK	INSTRUMENT PANEL / LH SIDE
CENTER CONSOLE SWITCH PACK	CL1	8-WAY / BLACK	CENTER CONSOLE
	CL2	8-WAY / BLACK	
CIGAR LIGHTER – FRONT	TL69	3-WAY / BLACK	CENTER CONSOLE
CIGAR LIGHTER – REAR	TL70	3-WAY / BLACK	REAR CENTER CONSOLE
CLIMATE CONTROL MODULE	AC100	16-WAY / BLACK	CLIMATE CONTROL UNIT / DRIVER SIDE
	AC101	26-WAY / BLACK	
	CR119	22-WAY / BLACK	
CLIMATE CONTROL PANEL	CC20	12-WAY / BLACK	CENTER CONSOLE
CLOCK	IP19	6-WAY / BLACK	INSTRUMENT PANEL / CENTER VENT
FASCIA VENT – CENTER	IP57	2-WAY / BLACK	INSTRUMENT PANEL / CENTER
FASCIA VENT – LH	IP52	2-WAY / BLACK	INSTRUMENT PANEL / LH SIDE
FASCIA VENT – RH	IP54	2-WAY / BLACK	INSTRUMENT PANEL / RH SIDE
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	
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
J-GATE MODULE	IP32	16-WAY / BLACK	J GATE ASSEMBLY
MULTIMEDIA CONTROL PANEL	RC1	8-WAY / BLACK	REAR SEAT ARM REST OR REAR FLOOR CONSOLE
	RC3	20-WAY / BLACK	
	RC5	FIBER OPTIC CONNECTOR	
POWER POINT – FRONT	IP21	3-WAY / BLACK	FRONT CENTER CONSOLE GLOVE BOX
POWER POINT – REAR	TL72	3-WAY / BLACK	REAR CENTER CONSOLE
REAR CENTER CONSOLE SWITCH PACK	TL89	8-WAY / BLACK	REAR CENTER CONSOLE
REAR CLIMATE CONTROL MODULE	RA1	16-WAY / BLACK	REAR CENTER CONSOLE
	RA2	12-WAY / BLACK	
REAR VENTS	TL23	2-WAY / BLACK	BELOW CENTER CONSOLE
STEERING WHEEL LIGHTING	—	—	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	
TRUNK AND FUEL FLAP RELEASE SWITCH PACK	IP50	10-WAY / BLACK	INSTRUMENT PANEL / OUTBOARD OF STEERING COLUMN

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC2	22-WAY / BLACK / 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)
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
IP2	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP17	16-WAY / GREEN / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP20	16-WAY / BLUE / AIR CONDITIONING HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / LH SIDE TO CLIMATE CONTROL UNIT
IP66	14-WAY / GREY / INSTRUMENT PANEL HARNESS TO REAR AIR CONDITIONING HARNESS	CABIN / BELOW CENTER CONSOLE
RC2	8-WAY / BLACK / TELEMATICS HARNESS TO REAR IN-CAR ENTERTAINMENT CONTROLS HARNESS	CABIN / BELOW CENTER CONSOLE
TL93	8-WAY / BLACK / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW REAR CENTER CONSOLE

GROUNDS

Ground	Location
G9	CABIN / UPPER LH A POST
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G18	CABIN / BELOW REAR SEAT / LH SIDE
G31	CABIN / BEHIND PASSENGER AIR BAG
G32	CABIN / BEHIND INSTRUMENT CLUSTER

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.

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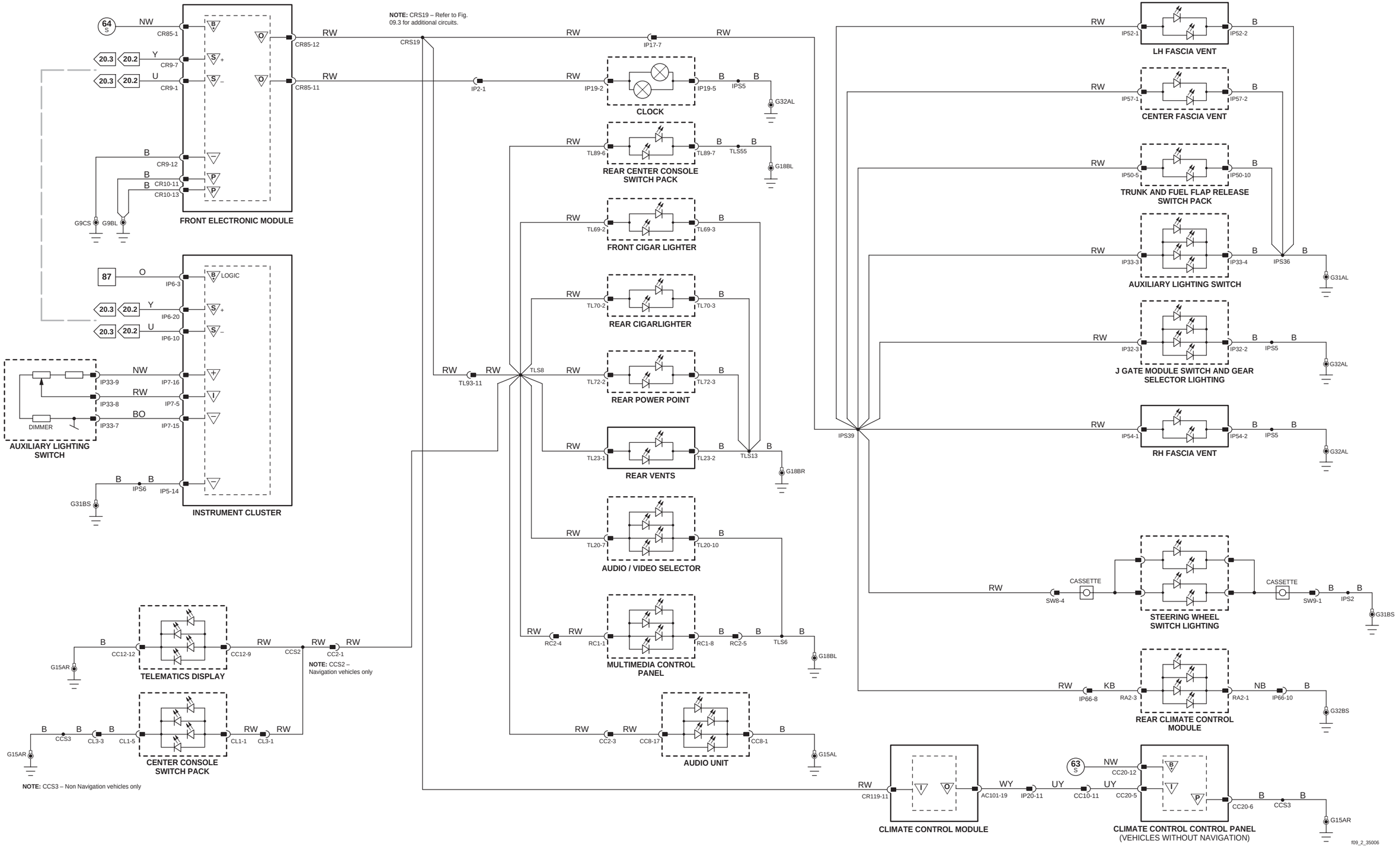

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 → 52 Fig. 01.5	78 → 105 Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	All Vehicles
7 → 63 Fig. 01.2	1 → 15 Fig. 01.4	53 → 77 Fig. 01.6	106 → 143 Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Front Electronic Module

	Pin	Description and Characteristic
S	CR9–1	SCP –
S	CR9–7	SCP +
SG	CR9–12	LOGIC GROUND: GROUND
PG	CR10–11	POWER GROUND: GROUND
PG	CR10–13	POWER GROUND: GROUND
B+	CR85–1	SWITCHED SYSTEM POWER SUPPLY: B+
O	CR85–12	LED BACK LIGHTING ACTIVATE: B+ PWM

Instrument Cluster

	Pin	Description and Characteristic
SG	IP5–14	SIGNAL GROUND: GROUND
B+	IP6–3	BATTERY POWER SUPPLY (LOGIC): B+
S	IP6–10	SCP –
S	IP6–20	SCP +
I	IP7–5	DIMMER SIGNAL: VARIABLE VOLTAGE
SG	IP7–15	AUXILIARY LIGHTING SWITCH SIGNAL GROUND: GROUND
SS	IP7–16	DIMMER SUPPLY VOLTAGE: B+

Rear Electronic Module

	Pin	Description and Characteristic
PG	CR11–11	POWER GROUND: GROUND
SG	CR11–25	LOGIC GROUND: GROUND
O	CR12–2	REAR WINDOW ISOLATE: TO ISOLATE, REM INTERRUPTS GROUND SUPPLY

Rear Memory Module

	Pin	Description and Characteristic
SG	CR37–14	REAR SEAT MEMORY SWITCH PACK REFERENCE GROUND: GROUND
SG	CR37–15	REAR SEAT MEMORY SWITCH PACK REFERENCE GROUND: GROUND
SG	CR37–26	SIGNAL GROUND: GROUND

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.

Fig. 09.3

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUXILIARY LIGHTING SWITCH	IP50	10-WAY / GREY	INSTRUMENT PANEL / OUTBOARD OF STEERING COLUMN
DOOR SWITCH PACK – DRIVER	DT4	20-WAY / BLACK	DRIVER DOOR TRIM
DOOR SWITCH PACK – LH REAR	LT3	8-WAY / BLACK	LH REAR DOOR TRIM
DOOR SWITCH PACK – PASSENGER	PT4	8-WAY / BLACK	PASSENGER DOOR TRIM
DOOR SWITCH PACK – RH REAR	RT3	8-WAY / BLACK	RH REAR DOOR TRIM
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	
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
MEMORY SWITCH PACK – DRIVER	DT5	8-WAY / BLACK	DRIVER DOOR TRIM
MEMORY SWITCH PACK – LH REAR	LT5	8-WAY / BLACK	LH REAR DOOR TRIM
MEMORY SWITCH PACK – RH REAR	RT5	8-WAY / BLACK	RH REAR DOOR TRIM
REAR ASSIST HANDLE – LH	RF14	2-WAY / BLACK	CABIN ROOF / LH SIDE
REAR ASSIST HANDLE – RH	RF15	2-WAY / BLACK	CABIN ROOF / LH SIDE
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	
REAR MEMORY MODULE	CR21	4-WAY / BLACK	REAR BULKHEAD / BEHIND REAR SEAT BACK
	CR37	26-WAY / BLACK	
	CR38	22-WAY / BLACK	
	CR41	6-WAY / BLACK	
	CR53	4-WAY / BLACK	
	CR59	6-WAY / BLACK	
ROOF CONSOLE	RF3	20-WAY / BLACK	CABIN ROOF

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
DT1	16-WAY / GREEN / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
LT1	12-WAY / GREY / LH REAR DOOR HARNESS TO LH REAR DOOR TRIM HARNESS	CABIN / LH REAR DOOR TRIM
PD1	14-WAY / BLUE / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
PD16	22-WAY / BLACK / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
PT1	12-WAY / GREY / PASSENGER DOOR HARNESS TO PASSENGER DOOR TRIM HARNESS	CABIN / BEHIND PASSENGER DOOR TRIM
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
RF25	8-WAY / BLACK / CABIN HARNESS TO ROOF HARNESS	CABIN / UPPER LH 'A' POST
RL9	16-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RR9	16-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
RT1	12-WAY / GREY / RH REAR DOOR HARNESS TO RH REAR DOOR TRIM HARNESS	CABIN / RH REAR DOOR TRIM

GROUNDS

Ground	Location
G9	CABIN / UPPER LH 'A' POST
G10	CABIN / RH 'A' POST
G17	CABIN / BELOW REAR SEAT / RH SIDE
G18	CABIN / BELOW REAR SEAT / LH SIDE
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
G31	CABIN / BEHIND PASSENGER AIR BAG

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.

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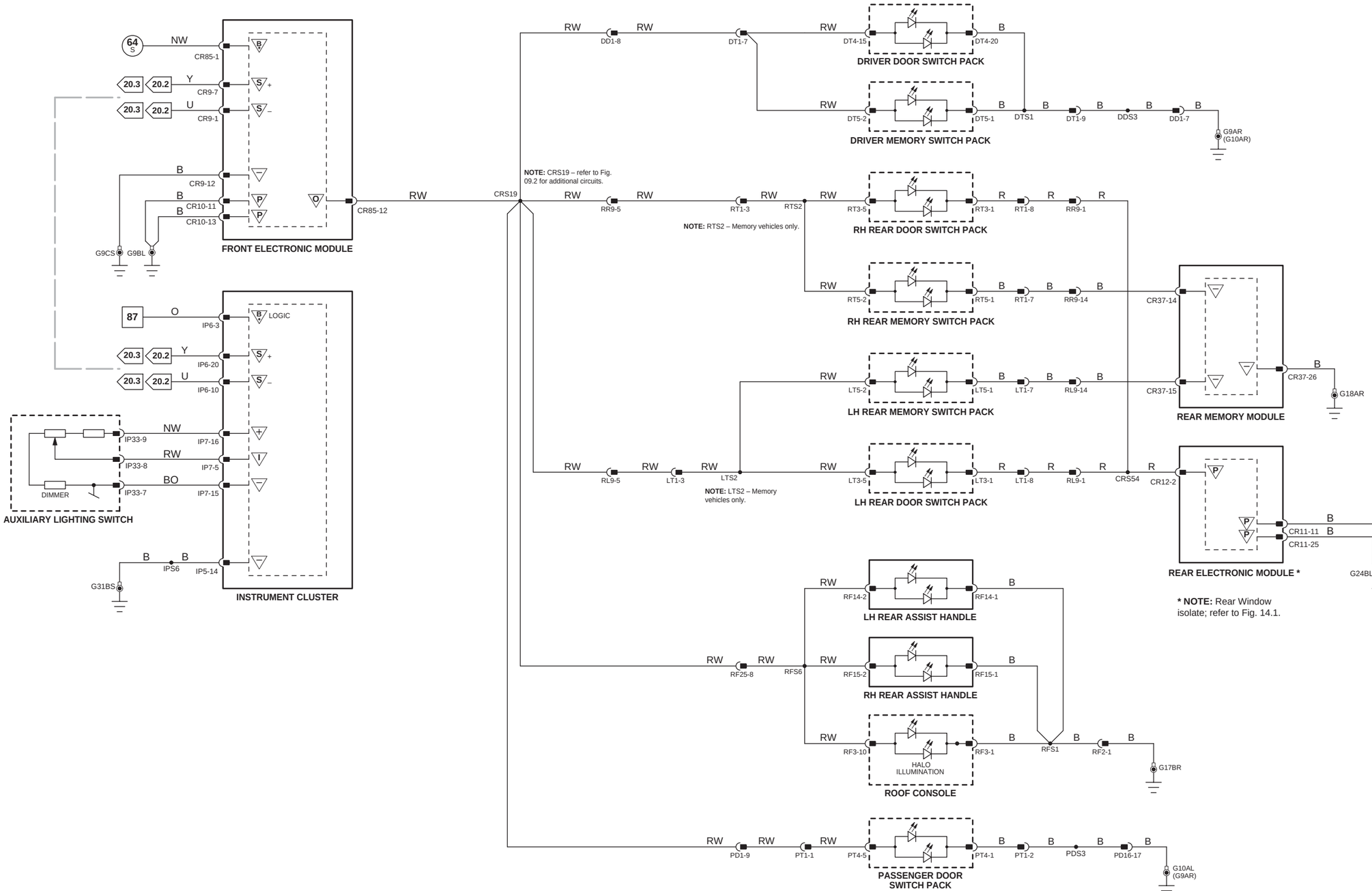

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 → 52 Fig. 01.5	78 → 105 Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	VARIANT:	All Vehicles
7 → 63 Fig. 01.2	1 → 15 Fig. 01.4	53 → 77 Fig. 01.6	106 → 143 Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	VIN RANGE:	All
									DATE OF ISSUE:	April 2006

Driver Door Module

	Pin	Description and Characteristic
O	DD12–7	MEMORY SET INDICATOR ACTIVATE: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
I	DD12–10	MEMORY 1, 2, 3, SET INPUT SIGNAL: VARIABLE RESISTANCE
I	DD12–25	DRIVER DOOR AJAR SWITCH SIGNAL: GROUND WHEN DOOR IS AJAR
S	DD13–3	SCP NETWORK +
S	DD13–4	SCP NETWORK –
SG	DD13–7	LOGIC GROUND: GROUND
PG	DD13–8	POWER GROUND: GROUND
B+	DD13–11	BATTERY POWER SUPPLY: LOGIC: B+
B+	DD13–12	SWITCHED SYSTEM POWER SUPPLY: B+

Front Electronic Module

	Pin	Description and Characteristic
I	CR1–9	PEDAL ADJUST SWITCH OUT SIGNAL: GROUND WHEN ACTIVATED
I	CR1–12	PEDAL ADJUST SWITCH IN SIGNAL: GROUND WHEN ACTIVATED
PG	CR1–26	POWER GROUND: GROUND
S	CR9–1	SCP –
S	CR9–7	SCP +
SG	CR9–11	PEDAL ADJUST MOTOR POSITION SENSOR SIGNAL: VARIABLE VOLTAGE 0 – 5 V
O	CR10–2	PEDAL ADJUST MOTOR DRIVE – OUT: TO ACTIVATE, FEM SWITCHES CIRCUIT TO B+
O	CR10–9	PEDAL ADJUST MOTOR DRIVE – IN: TO ACTIVATE, FEM SWITCHES CIRCUIT TO B+
PG	CR10–11	POWER GROUND: GROUND
PG	CR10–13	POWER GROUND: GROUND
PG	CR10–14	POWER GROUND: GROUND
B+	CR85–1	SWITCHED SYSTEM POWER SUPPLY: B+
SG	CR85–15	PEDAL ADJUST MOTOR POSITION SENSOR SIGNAL GROUND: GROUND
SS	CR85–17	PEDAL ADJUST MOTOR POSITION SENSOR SIGNAL SUPPLY VOLTAGE: NOMINAL 5 V

Instrument Cluster

	Pin	Description and Characteristic
SG	IP5–14	SIGNAL GROUND: GROUND
B+	IP6–1	BATTERY POWER SUPPLY (COLUMN MOTOR): B+
PG	IP6–2	POWER GROUND: GROUND
B+	IP6–3	BATTERY POWER SUPPLY (LOGIC): B+
S	IP6–10	SCP –
O	IP6–11	STEERING COLUMN MOTOR DRIVE – DOWN / OUT: B+ WHEN ACTIVATED
O	IP6–12	STEERING COLUMN MOTOR DRIVE – UP / IN: B+ WHEN ACTIVATED
O	IP6–13	STEERING COLUMN IN / OUT FUNCTION SOLENOID DRIVE: B+ WHEN ACTIVATED
O	IP6–14	STEERING COLUMN UP / DOWN FUNCTION SOLENOID DRIVE: B+ WHEN ACTIVATED
S	IP6–20	SCP +
I	IP7–7	FUNCTION SELECT SIGNAL: VARIABLE RESISTANCE
SG	IP7–8	STEERING COLUMN POSITION FEEDBACK POTENTIOMETERS SIGNAL GROUND: GROUND
I	IP7–9	STEERING COLUMN IN / OUT POSITION FEEDBACK POTENTIOMETER SIGNAL: VARIABLE VOLTAGE
I	IP7–17	STEERING COLUMN MOVEMENT SWITCH SIGNAL: VARIABLE VOLTAGE
SG	IP7–18	STEERING COLUMN MOVEMENT / SELECT SIGNAL GROUND: GROUND
O	IP7–19	STEERING COLUMN POSITION FEEDBACK POTENTIOMETERS SUPPLY VOLTAGE: B+
I	IP7–20	STEERING COLUMN UP / DOWN POSITION FEEDBACK POTENTIOMETER SIGNAL: VARIABLE VOLTAGE

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.

Fig. 10.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
COLUMN AND PEDAL ADJUST SWITCH	IP27	8-WAY / BLACK	STEERING COLUMN COWLING
DOOR AJAR SWITCH – DRIVER	DD7	2-WAY / BLACK	DRIVER DOOR
	DD10	3-WAY / BLACK	
DRIVER DOOR MODULE	DD11	20-WAY / BLACK	DRIVER DOOR
	DD12	26-WAY / BLACK	
	DD13	26-WAY / NATURAL	
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	
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
MEMORY SWITCH PACK – DRIVER	DT5	8-WAY / BLACK	DRIVER DOOR TRIM
PEDAL ADJUST MOTOR	CR103	3-WAY / BLACK	DRIVER PEDAL ASSEMBLY
	CR104	2-WAY / BLACK	
STEERING COLUMN MOVEMENT ASSEMBLY	IP10	10-WAY / BLACK	UPPER STEERING COLUMN

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
DT1	16-WAY / GREEN / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
DT6	16-WAY / BLUE / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
IP2	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE

GROUNDS

Ground	Location
G9	CABIN / UPPER LH 'A' POST
G10	CABIN / RH 'A' POST
G31	CABIN / BEHIND PASSENGER AIR BAG

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.

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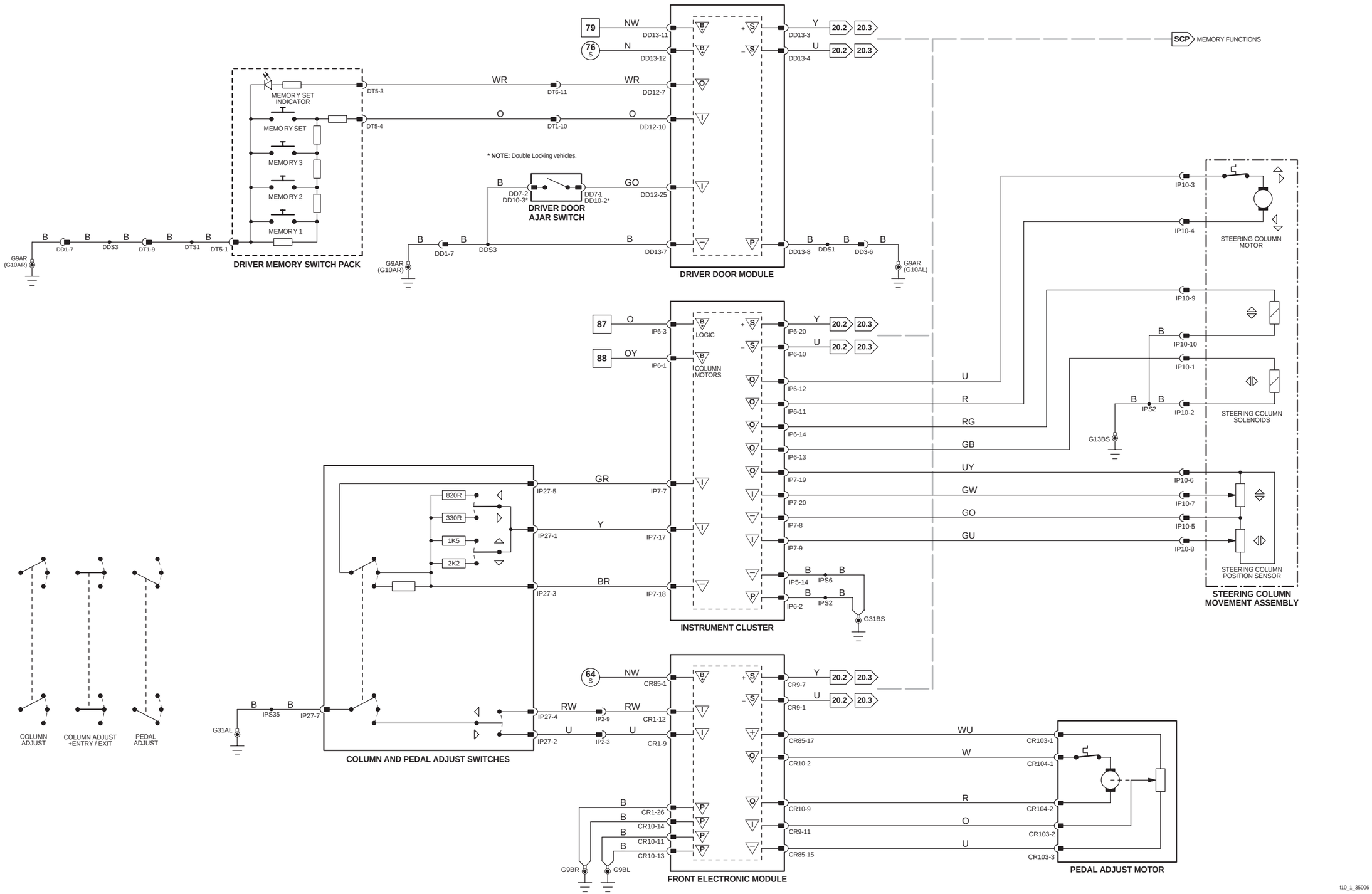

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 → 52 Fig. 01.5	78 → 105 Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:** All Vehicles
7 → 63 Fig. 01.2	1 → 15 Fig. 01.4	53 → 77 Fig. 01.6	106 → 143 Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:** All **DATE OF ISSUE:** April 2006

Driver Door Module

	Pin	Description and Characteristic
O	DD11–1	DRIVER DOOR MIRROR DRIVE – LEFT: TO ACTIVATE, DDCM SWITCHES CIRCUIT TO B+
O	DD11–2	DRIVER DOOR MIRROR DRIVE – RIGHT: TO ACTIVATE, DDCM SWITCHES CIRCUIT TO B+
O	DD11–3	DRIVER DOOR MIRROR DRIVE – UP: TO ACTIVATE, DDCM SWITCHES CIRCUIT TO B+
O	DD11–4	DRIVER DOOR MIRROR DRIVE – DOWN: TO ACTIVATE, DDCM SWITCHES CIRCUIT TO B+
SS	DD11–5	DRIVER DOOR MIRROR POSITION SENSORS SIGNAL SUPPLY VOLTAGE: B+
I	DD11–14	DRIVER DOOR MIRROR LEFT / RIGHT POSITION FEEDBACK SIGNAL: VARIABLE VOLTAGE
I	DD11–15	DRIVER DOOR MIRROR UP / DOWN POSITION FEEDBACK SIGNAL: VARIABLE VOLTAGE
SG	DD11–19	DRIVER DOOR MIRROR POSITION SENSORS SIGNAL GROUND: GROUND
I	DD12–2	RH MIRROR MOVEMENT SELECT SIGNAL: GROUND WHEN SELECTED
I	DD12–3	LH MIRROR MOVEMENT SELECT SIGNAL: GROUND WHEN SELECTED
O	DD12–7	MEMORY SET INDICATOR ACTIVATE: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
I	DD12–8	MIRROR FOLD FLAT SWITCH SIGNAL: GROUND WHEN SELECTED
I	DD12–10	MEMORY 1, 2, 3, SET INPUT SIGNAL: VARIABLE RESISTANCE
I	DD12–14	MIRROR UP SWITCH SIGNAL: GROUND WHEN SELECTED
I	DD12–15	MIRROR DOWN SWITCH SIGNAL: GROUND WHEN SELECTED
I	DD12–16	MIRROR LEFT SWITCH SIGNAL: GROUND WHEN SELECTED
I	DD12–17	MIRROR RIGHT SWITCH SIGNAL: GROUND WHEN SELECTED
S	DD13–3	SCP NETWORK +
S	DD13–4	SCP NETWORK –
O	DD13–5	DRIVER DOOR MIRROR FOLD FLAT: IN-TO-OUT: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
O	DD13–6	DRIVER DOOR MIRROR FOLD FLAT: OUT-TO-IN: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
SG	DD13–7	LOGIC GROUND: GROUND
PG	DD13–8	POWER GROUND: GROUND
B+	DD13–11	BATTERY POWER SUPPLY: LOGIC: B+
B+	DD13–12	SWITCHED SYSTEM POWER SUPPLY: B+

Front Electronic Module

	Pin	Description and Characteristic
I	CR1–7	PASSENGER DOOR MIRROR LEFT / RIGHT POSITION FEEDBACK SIGNAL: VARIABLE VOLTAGE
SS	CR1–8	PASSENGER DOOR MIRROR POSITION SENSORS SIGNAL SUPPLY VOLTAGE: B+
I	CR1–11	PASSENGER DOOR MIRROR UP / DOWN POSITION FEEDBACK SIGNAL: VARIABLE VOLTAGE
O	CR1–20	PASSENGER DOOR MIRROR DRIVE – UP: TO ACTIVATE, FEM SWITCHES CIRCUIT TO B+
O	CR1–21	PASSENGER DOOR MIRROR DRIVE – DOWN: TO ACTIVATE, FEM SWITCHES CIRCUIT TO B+
SG	CR1–22	PASSENGER DOOR MIRROR POSITION SENSORS SIGNAL GROUND: GROUND
O	CR1–23	PASSENGER DOOR MIRROR DRIVE – LEFT: TO ACTIVATE, FEM SWITCHES CIRCUIT TO B+
O	CR1–24	PASSENGER DOOR MIRROR DRIVE – RIGHT: TO ACTIVATE, FEM SWITCHES CIRCUIT TO B+
PG	CR1–26	POWER GROUND: GROUND
S	CR9–1	SCP –
S	CR9–7	SCP +
PG	CR10–11	POWER GROUND: GROUND
PG	CR10–13	POWER GROUND: GROUND
PG	CR10–14	POWER GROUND: GROUND
B+	CR85–1	SWITCHED SYSTEM POWER SUPPLY: B+

Rear Electronic Module

	Pin	Description and Characteristic
B+	CR4–3	BATTERY POWER SUPPLY (LOGIC): B+
SG	CR11–12	LOGIC GROUND: GROUND
O	CR11–18	REVERSE GEAR SIGNAL (DIM REQUEST): TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
S	CR13–1	SCP –
S	CR13–2	SCP +

Fig. 10.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
DOOR MIRROR – DRIVER	DD9	22-WAY / BLACK	DRIVER DOOR
DOOR MIRROR – PASSENGER	PD9	22-WAY / BLACK	PASSENGER DOOR
DOOR SWITCH PACK – DRIVER	DT4	20-WAY / BLACK	DRIVER DOOR TRIM
DRIVER DOOR MODULE	DD11	20-WAY / BLACK	DRIVER DOOR
	DD12	26-WAY / BLACK	
	DD13	26-WAY / NATURAL	
ELECTROCHROMIC REAR VIEW MIRROR AND COMPASS	RF7	8-WAY / BLACK	FORWARD OF ROOF CONSOLE
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	
MEMORY SWITCH PACK – DRIVER	DT5	8-WAY / BLACK	DRIVER DOOR TRIM
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	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
DT1	16-WAY / GREEN / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
DT6	16-WAY / BLUE / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
PD1	14-WAY / BLUE / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
PD16	22-WAY / BLACK / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
RF1	10-WAY / GREY / CABIN HARNESS TO ROOF HARNESS	CABIN / UPPER RH 'A' POST
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST

GROUNDS

Ground	Location
G9	CABIN / UPPER LH 'A' POST
G10	CABIN / RH 'A' POST
G17	CABIN / BELOW REAR SEAT / RH SIDE
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE

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.

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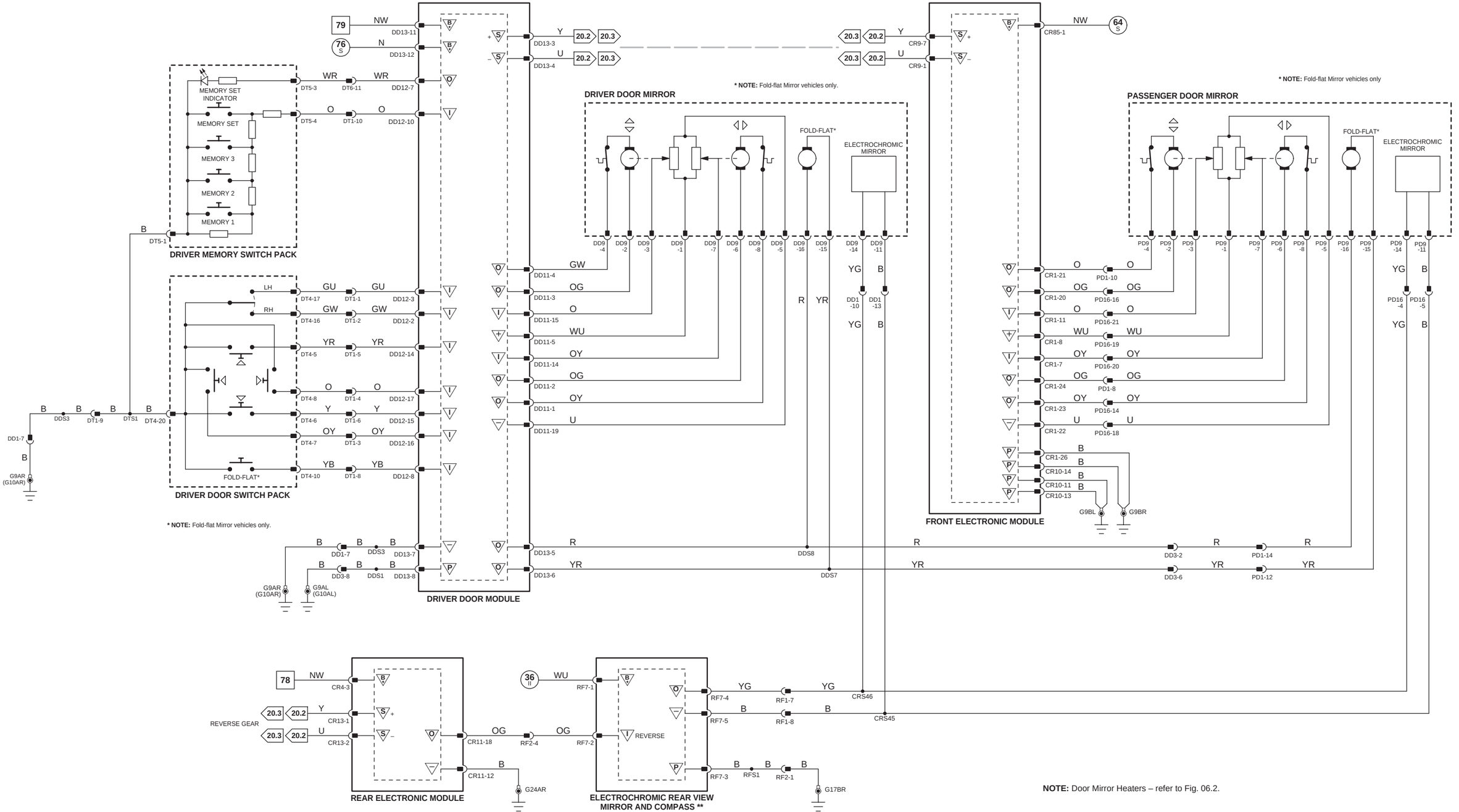

NOTE: Door Mirror Heaters – refer to Fig. 06.2.

** **NOTE:** Includes Compass, when fitted.

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1 → 6	Fig. 01.1	64 → 95	Fig. 01.3	16 (I) → 52 (I)	Fig. 01.5	78 (S) → 105 (S)	Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	All Vehicles
7 → 63	Fig. 01.2	1 (I) → 15 (I)	Fig. 01.4	53 (S) → 77 (S)	Fig. 01.6	106 (E) → 143 (E)	Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
													DATE OF ISSUE:	April 2006

Driver Door Module

	Pin	Description and Characteristic
O	DD12–7	MEMORY SET INDICATOR ACTIVATE: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
I	DD12–10	MEMORY 1, 2, 3, SET INPUT SIGNAL: VARIABLE RESISTANCE
S	DD13–3	SCP NETWORK +
S	DD13–4	SCP NETWORK –
O	DD13–8	POWER GROUND: GROUND
B+	DD13–11	BATTERY POWER SUPPLY: LOGIC: B+

Driver Seat Module

	Pin	Description and Characteristic
S	SD2–1	SCP+
I	SD2–4	SEAT CUSHION FRONT RAISE REQUEST: ACTIVE = B+
I	SD2–5	SEAT CUSHION FRONT LOWER REQUEST: ACTIVE = B+
I	SD2–10	SEAT BACK RECLINE REARWARD REQUEST: ACTIVE = B+
I	SD2–11	SEAT BACK RECLINE FORWARD REQUEST: ACTIVE = B+
S	SD2–12	SCP –
I	SD2–15	HEAD REST RAISE REQUEST: ACTIVE = B+
I	SD2–16	HEADREST LOWER REQUEST: ACTIVE = B+
I	SD2–17	SEAT RAISE REQUEST: ACTIVE = B+
I	SD2–18	SEAT LOWER REQUEST: ACTIVE = B+
I	SD2–19	SEAT FORWARD REQUEST: ACTIVE = B+
I	SD2–20	SEAT REARWARD REQUEST: ACTIVE = B+
O	SD3–1	SEAT HEIGHT MOTOR DRIVE – RAISE: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD3–2	SEAT HEIGHT MOTOR DRIVE – LOWER: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
PG	SD3–5	POWER GROUND: GROUND
B+	SD3–6	BATTERY POWER SUPPLY: B+
I	SD4–7	SEAT CUSHION FRONT POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
I	SD4–8	SEAT HEIGHT POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
I	SD4–9	HEADREST POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
I	SD4–10	SEAT BACK RECLINE POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
SG	SD4–11	SIGNAL GROUND: GROUND
B+	SD4–13	BATTERY POWER SUPPLY – LOGIC: B+
I	SD4–22	SEAT POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
SG	SD4–25	SIGNAL GROUND: GROUND
SG	SD4–26	LOGIC GROUND: GROUND
O	SD24–1	SEAT POSITION MOTOR DRIVE – FORWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD24–2	SEAT POSITION MOTOR DRIVE – REARWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD26–3	SEAT BACK RECLINE MOTOR DRIVE – REARWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD26–4	SEAT BACK RECLINE MOTOR DRIVE – FORWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
PG	SD27–1	POWER GROUND: GROUND
B+	SD27–2	BATTERY POWER SUPPLY: B+
O	SD27–3	HEADREST POSITION MOTOR DRIVE – RAISE: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD27–4	HEADREST POSITION MOTOR DRIVE – LOWER: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD27–5	SEAT CUSHION FRONT MOTOR DRIVE – RAISE: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD27–6	SEAT CUSHION FRONT MOTOR DRIVE – LOWER: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+

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.

Fig. 11.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
DRIVER DOOR MODULE	DD11	20-WAY / BLACK	DRIVER DOOR
	DD12	26-WAY / BLACK	
	DD13	26-WAY / NATURAL	
DRIVER SEAT MODULE	SD2	22-WAY / BLACK	UNDER DRIVER SEAT
	SD3	6-WAY / BLACK	
	SD4	6-WAY / BLACK	
	SD24	4-WAY / BLACK	
	SD26	4-WAY / BLACK	
	SD27	6-WAY / BLACK	
MEMORY SWITCH PACK – DRIVER	DT5	8-WAY / BLACK	DRIVER DOOR TRIM
SEAT CUSHION FRONT RAISE / LOWER MOTOR AND POSITION SENSOR – DRIVER	SD6	5-WAY / BLACK	DRIVER SEAT CUSHION / UNDER
SEAT CUSHION REAR RAISE / LOWER MOTOR AND POSITION SENSOR – DRIVER	SD12	5-WAY / BLACK	DRIVER SEAT CUSHION / UNDER
SEAT FORE / AFT MOTOR AND POSITION SENSOR – DRIVER	SD8	5-WAY / BLACK	DRIVER SEAT CUSHION / UNDER
SEAT HEADREST MOTOR AND POSITION SENSOR – DRIVER	SD9	5-WAY / BLACK	DRIVER SEAT BACK / UPPER
SEAT INCLINE / RECLINE MOTOR AND POSITION SENSOR – DRIVER	SD13	5-WAY / BLACK	DRIVER SEAT BACK / LOWER
SEAT LUMBAR PUMP – 12-WAY SEAT – DRIVER	DL4	6-WAY / BLACK	DRIVER SEAT BACK / LOWER
SEAT SWITCH PACK – DRIVER	SD5	12-WAY / BLACK	DRIVER SEAT / OUTBOARD
	SD29	14-WAY / BLACK	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
DL2	6-WAY / BLACK / DRIVER SEAT HARNESS TO DRIVER SEAT LUMBAR HARNESS	CABIN / BEHIND DRIVER SEAT BACK
DT1	16-WAY / GREEN / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
DT6	16-WAY / BLUE / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
SD1	4-WAY / GREY / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT
SD28	20-WAY / BLACK / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT

GROUNDS

Ground	Location
G9	CABIN / UPPER LH A POST
G10	CABIN / RH 'A' POST
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT

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.

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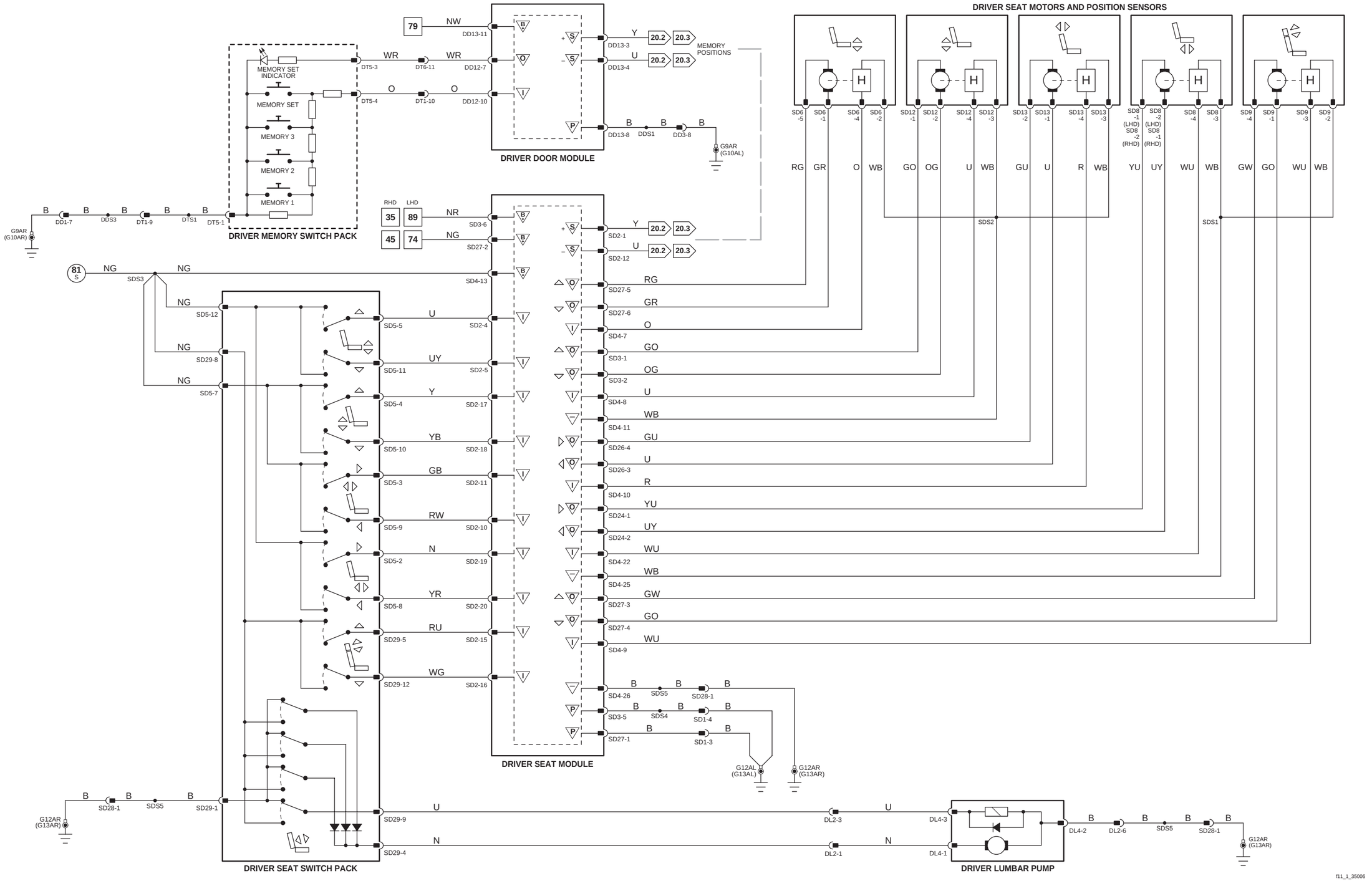

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 (I) → 52 (I) Fig. 01.5	78 (S) → 105 (S) Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	12-way Driver Seat Memory Vehicles
7 → 63 Fig. 01.2	1 (I) → 15 (I) Fig. 01.4	53 (S) → 77 (S) Fig. 01.6	106 (E) → 143 (E) Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Driver Seat Module

	Pin	Description and Characteristic
S	SD2–1	SCP+
I	SD2–4	SEAT CUSHION FRONT RAISE REQUEST: ACTIVE = B+
I	SD2–5	SEAT CUSHION FRONT LOWER REQUEST: ACTIVE = B+
I	SD2–10	SEAT BACK RECLINE REARWARD REQUEST: ACTIVE = B+
I	SD2–11	SEAT BACK RECLINE FORWARD REQUEST: ACTIVE = B+
S	SD2–12	SCP –
I	SD2–15	HEAD REST RAISE REQUEST: ACTIVE = B+
I	SD2–16	HEADREST LOWER REQUEST: ACTIVE = B+
I	SD2–17	SEAT RAISE REQUEST: ACTIVE = B+
I	SD2–18	SEAT LOWER REQUEST: ACTIVE = B+
I	SD2–19	SEAT FORWARD REQUEST: ACTIVE = B+
I	SD2–20	SEAT REARWARD REQUEST: ACTIVE = B+
I	SD2–21	SEAT CUSHION EXTEND REARWARD REQUEST: ACTIVE = B+
I	SD2–22	SEAT CUSHION EXTEND FORWARD REQUEST: ACTIVE = B+
O	SD3–1	SEAT HEIGHT MOTOR DRIVE – RAISE: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD3–2	SEAT HEIGHT MOTOR DRIVE – LOWER: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
PG	SD3–5	POWER GROUND: GROUND
B+	SD3–6	BATTERY POWER SUPPLY: B+
I	SD4–7	SEAT CUSHION FRONT POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
I	SD4–8	SEAT HEIGHT POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
I	SD4–9	HEADREST POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
I	SD4–10	SEAT BACK RECLINE POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
SG	SD4–11	SIGNAL GROUND: GROUND
SG	SD4–12	SIGNAL GROUND: GROUND
B+	SD4–13	BATTERY POWER SUPPLY – LOGIC: B+
I	SD4–22	SEAT POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
I	SD4–23	SEAT CUSHION EXTEND POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
SG	SD4–25	SIGNAL GROUND: GROUND
SG	SD4–26	LOGIC GROUND: GROUND
O	SD24–1	SEAT POSITION MOTOR DRIVE – FORWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD24–2	SEAT POSITION MOTOR DRIVE – REARWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD24–3	SEAT CUSHION EXTEND MOTOR DRIVE – REARWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD24–4	SEAT CUSHION EXTEND MOTOR DRIVE – FORWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD26–3	SEAT BACK RECLINE MOTOR DRIVE – REARWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD26–4	SEAT BACK RECLINE MOTOR DRIVE – FORWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
PG	SD27–1	POWER GROUND: GROUND
B+	SD27–2	BATTERY POWER SUPPLY: B+
O	SD27–3	HEADREST POSITION MOTOR DRIVE – RAISE: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD27–4	HEADREST POSITION MOTOR DRIVE – LOWER: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD27–5	SEAT CUSHION FRONT MOTOR DRIVE – RAISE: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	SD27–6	SEAT CUSHION FRONT MOTOR DRIVE – LOWER: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+

Fig. 11.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
DRIVER SEAT MODULE	SD2	22-WAY / BLACK	UNDER DRIVER SEAT
	SD3	6-WAY / BLACK	
	SD4	26-WAY / BLACK	
	SD24	4-WAY / BLACK	
	SD26	4-WAY / BLACK	
	SD27	6-WAY / BLACK	
SEAT CUSHION EXTEND MOTOR AND POSITION SENSOR – DRIVER	SD7	5-WAY / BLACK	DRIVER SEAT CUSHION / UNDER
SEAT CUSHION FRONT RAISE / LOWER MOTOR AND POSITION SENSOR – DRIVER	SD6	5-WAY / BLACK	DRIVER SEAT CUSHION / UNDER
SEAT CUSHION REAR RAISE / LOWER MOTOR AND POSITION SENSOR – DRIVER	SD12	5-WAY / BLACK	DRIVER SEAT CUSHION / UNDER
SEAT FORE / AFT MOTOR AND POSITION SENSOR – DRIVER	SD8	5-WAY / BLACK	DRIVER SEAT CUSHION / UNDER
SEAT HEADREST MOTOR AND POSITION SENSOR – DRIVER	SD9	5-WAY / BLACK	DRIVER SEAT BACK / UPPER
SEAT INCLINE / RECLINE MOTOR AND POSITION SENSOR – DRIVER	SD13	5-WAY / BLACK	DRIVER SEAT BACK / LOWER
SEAT LUMBAR PUMP – 16-WAY SEAT – DRIVER	DL3	2-WAY / BLACK	DRIVER SEAT BACK / LOWER
SEAT LUMBAR SOLENOIDS – DRIVER	DL1	6-WAY / BLACK	DRIVER SEAT BACK / UPPER
SEAT SWITCH PACK – DRIVER	SD5	12-WAY / BLACK	DRIVER SEAT / OUTBOARD
	SD29	14-WAY / BLACK	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
DL2	6-WAY / BLACK / DRIVER SEAT HARNESS TO DRIVER SEAT LUMBAR HARNESS	CABIN / BEHIND DRIVER SEAT BACK
SD1	4-WAY / GREY / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT
SD28	20-WAY / BLACK / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT

GROUNDS

Ground	Location
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT

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.

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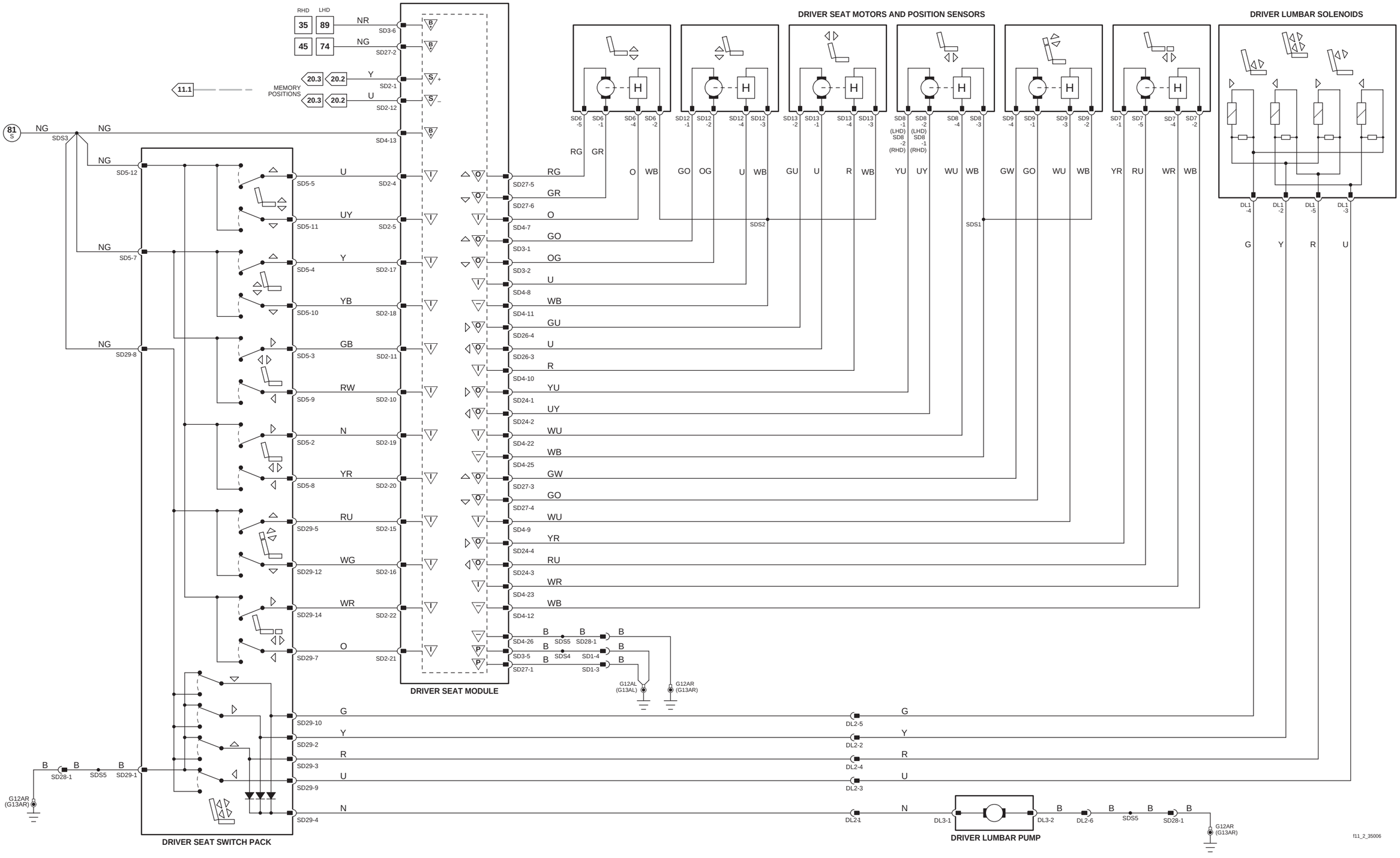


1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	16-way Driver Seat Memory Vehicles
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Fig. 11.3

COMPONENTS

Component	Connector(s)	Connector Description	Location
SEAT CUSHION FRONT RAISE / LOWER MOTOR – DRIVER	SD6	5-WAY / BLACK	DRIVER SEAT CUSHION / UNDER
SEAT CUSHION REAR RAISE / LOWER MOTOR – DRIVER	SD12	5-WAY / BLACK	DRIVER SEAT CUSHION / UNDER
SEAT FORE / AFT MOTOR – DRIVER	SD8	5-WAY / BLACK	DRIVER SEAT CUSHION / UNDER
SEAT HEADREST MOTOR – DRIVER	SD9	5-WAY / BLACK	DRIVER SEAT BACK / UPPER
SEAT INCLINE / RECLINE MOTOR – DRIVER	SD13	5-WAY / BLACK	DRIVER SEAT BACK / LOWER
SEAT LUMBAR PUMP – DRIVER	DL4	3-WAY / BLACK	LOWER SEAT BACK
SEAT SWITCH PACK – DRIVER	SD5	12-WAY / BLACK	DRIVER SEAT / OUTBOARD
	SD18	14-WAY / BLACK	

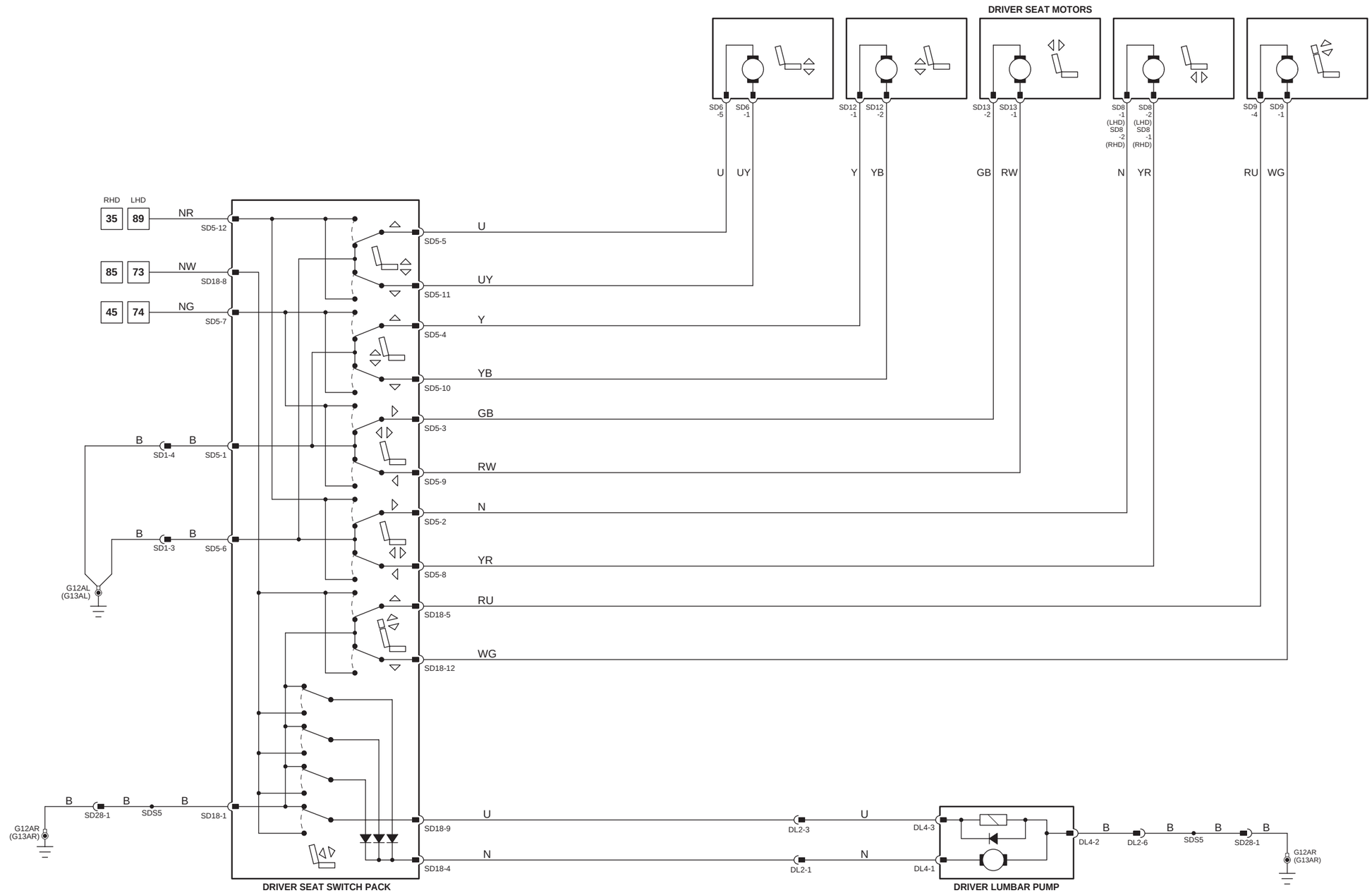
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
DL2	6-WAY / BLACK / DRIVER SEAT HARNESS TO DRIVER SEAT LUMBAR HARNESS	CABIN / BEHIND DRIVER SEAT BACK
SD1	4-WAY / GREY / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT
SD28	20-WAY / BLACK / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT

GROUNDS

Ground	Location
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT

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.



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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 (I) → 52 (I) Fig. 01.5	78 (S) → 105 (S) Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	Non Memory Driver Seat Vehicles
7 → 63 Fig. 01.2	1 (I) → 15 (E) Fig. 01.4	53 (S) → 77 (S) Fig. 01.6	106 (E) → 143 (E) Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Fig. 11.4

COMPONENTS

Component	Connector(s)	Connector Description	Location
SEAT CUSHION FRONT RAISE / LOWER MOTOR – PASSENGER	SP6	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT CUSHION REAR RAISE / LOWER MOTOR – PASSENGER	SP12	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT FORE / AFT MOTOR – PASSENGER	SP8	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT HEADREST MOTOR – PASSENGER	SP9	5-WAY / BLACK	PASSENGER SEAT BACK / UPPER
SEAT INCLINE / RECLINE MOTOR – PASSENGER	SP13	5-WAY / BLACK	PASSENGER SEAT BACK / LOWER
SEAT LUMBAR PUMP – 12-WAY SEAT – PASSENGER	PL4	6-WAY / BLACK	PASSENGER SEAT BACK / LOWER
SEAT SWITCH PACK – PASSENGER	SP5	12-WAY / BLACK	PASSENGER SEAT / OUTBOARD
	SP24	14-WAY / BLACK	

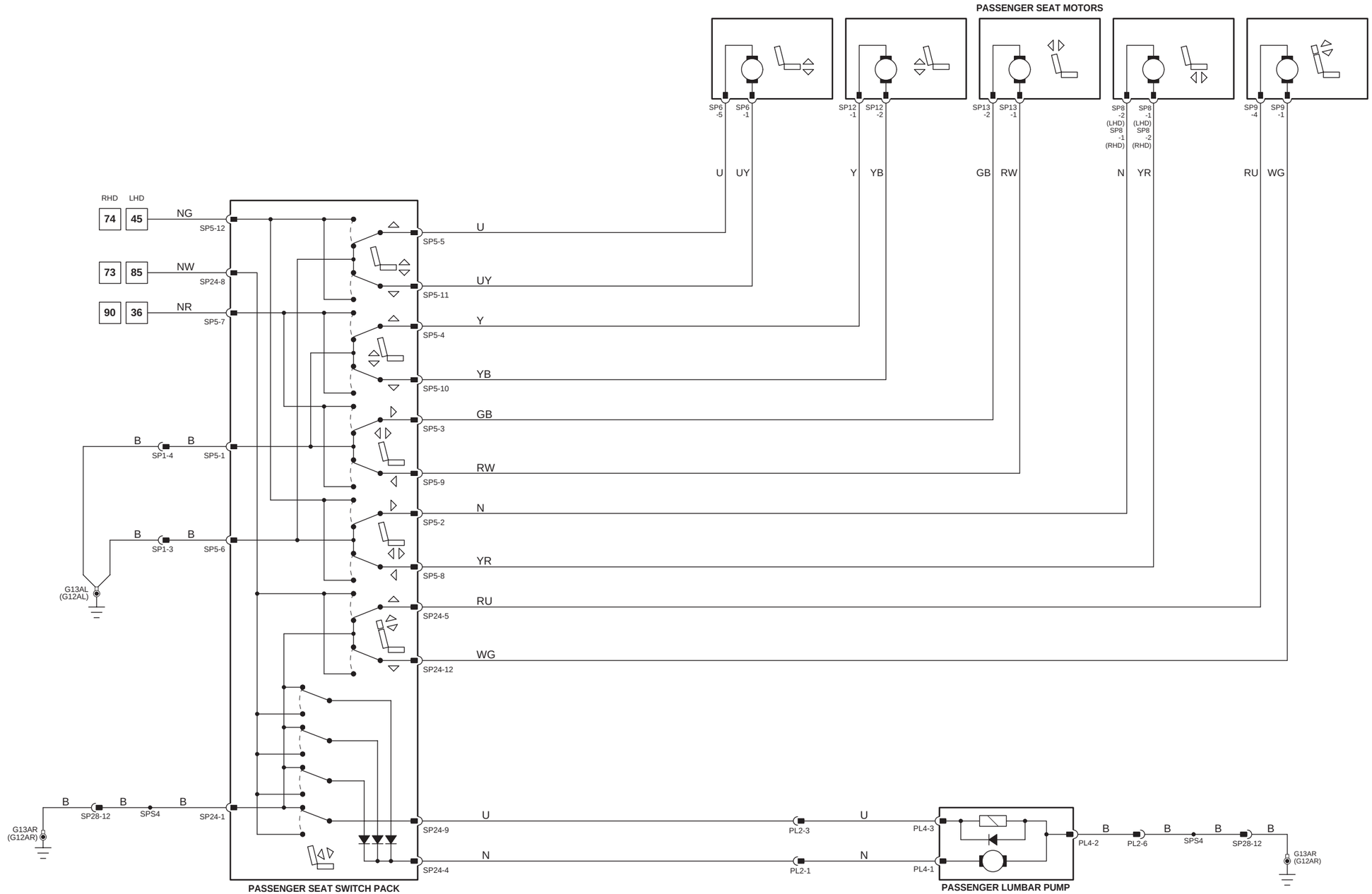
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
PL2	6-WAY / BLACK / PASSENGER SEAT HARNESS TO PASSENGER SEAT LUMBAR HARNESS	CABIN / BEHIND PASSENGER SEAT BACK
SP1	4-WAY / GREY / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT
SP28	20-WAY / BLACK / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT

GROUNDS

Ground	Location
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT

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.



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1 → 6	Fig. 01.1	64 → 95	Fig. 01.3	16 (F) → 52 (E)	Fig. 01.5	78 (S) → 105 (S)	Fig. 01.7	I	Input	B	Battery Voltage	+	Sensor/Signal Supply V	A	ACP	S	SCP	**VARIANT:**	12-way Passenger Seat Vehicles
7 → 63	Fig. 01.2	1 (I) → 15 (F)	Fig. 01.4	53 (S) → 77 (S)	Fig. 01.6	106 (E) → 143 (E)	Fig. 01.8	O	Output	P	Power Ground	–	Sensor/Signal Ground	C	CAN	D	Serial and Encoded Data	**VIN RANGE:**	All
																		DATE OF ISSUE:	April 2006

Fig. 11.5

COMPONENTS

Component	Connector(s)	Connector Description	Location
SEAT CUSHION EXTEND MOTOR – PASSENGER	SP26	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT CUSHION FRONT RAISE / LOWER MOTOR – PASSENGER	SP6	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT CUSHION REAR RAISE / LOWER MOTOR – PASSENGER	SP12	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT FORE / AFT MOTOR – PASSENGER	SP8	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT HEADREST MOTOR – PASSENGER	SP9	5-WAY / BLACK	PASSENGER SEAT BACK / UPPER
SEAT INCLINE / RECLINE MOTOR – PASSENGER	SP13	5-WAY / BLACK	PASSENGER SEAT BACK / LOWER
SEAT LUMBAR PUMP – PASSENGER (16-WAY)	PL3	2-WAY / BLACK	LOWER SEAT BACK
SEAT LUMBAR SOLENOIDS – PASSENGER	PL1	6-WAY / BLACK	UPPER SEAT BACK
SEAT SWITCH PACK – PASSENGER	SP5	12-WAY / BLACK	PASSENGER SEAT / OUTBOARD
	SP24	14-WAY / BLACK	

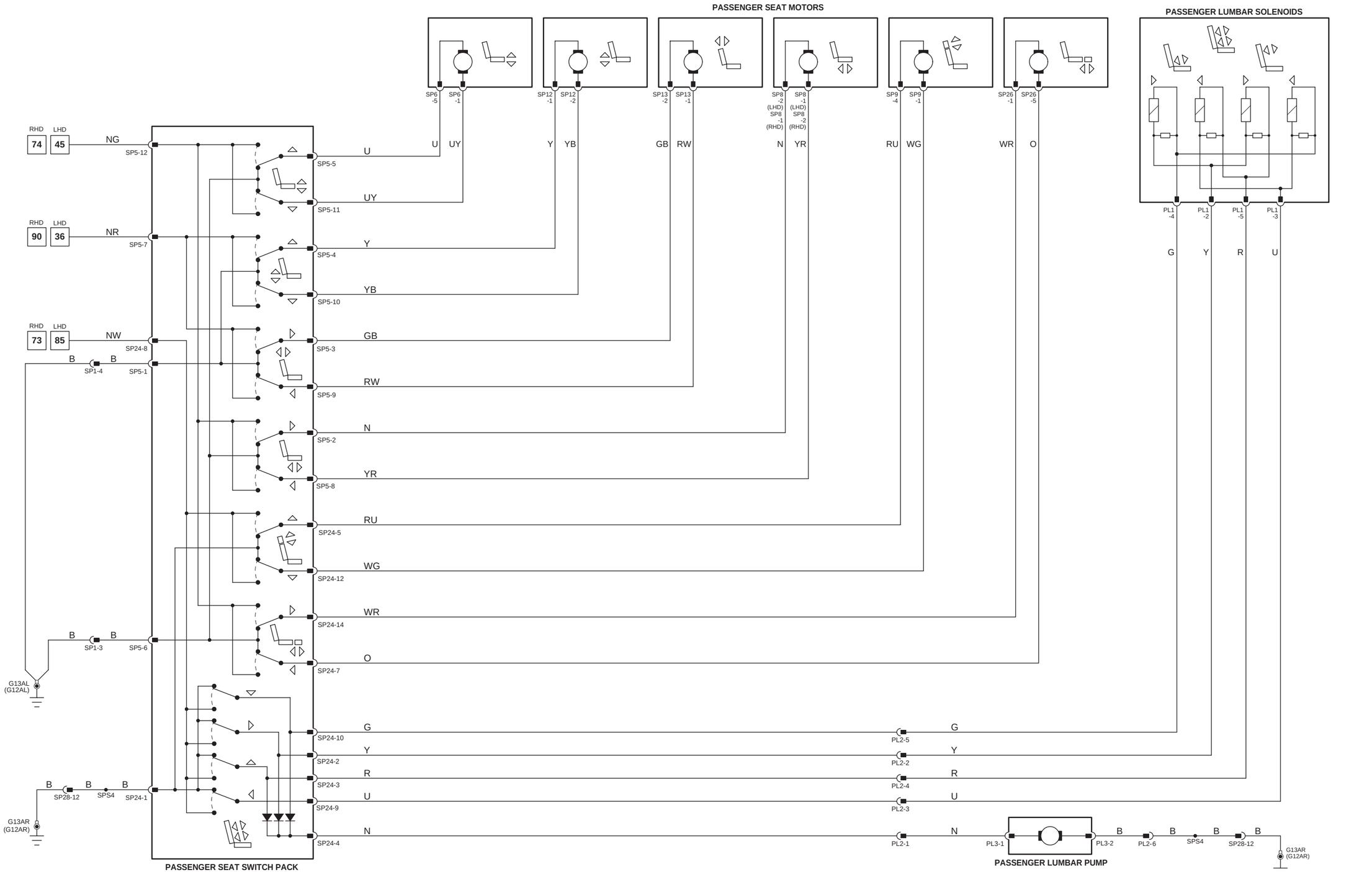
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
PL2	6-WAY / BLACK / PASSENGER SEAT HARNESS TO PASSENGER SEAT LUMBAR HARNESS	CABIN / BEHIND PASSENGER SEAT BACK
SP1	4-WAY / GREY / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT
SP28	20-WAY / BLACK / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT

GROUNDS

Ground	Location
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT

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.



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

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

VARIANT: 16-way Passenger Seat Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Rear Electronic Module

	Pin	Description and Characteristic
PG	CR11–11	POWER GROUND: GROUND
SG	CR11–25	LOGIC GROUND: GROUND
O	CR12–2	REAR WINDOW ISOLATE: TO ISOLATE, REM INTERRUPTS GROUND SUPPLY

Fig. 11.6

COMPONENTS

Component	Connector(s)	Connector Description	Location
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	
REAR OVERRIDE RELAY PACK	SP31	8-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
	SP32	8-WAY / BLACK	
REAR SEAT SWITCH PACK – LH	LS5	22-WAY / BLACK	LH REAR SEAT CUSHION / OUTBOARD
REAR SEAT SWITCH PACK – RH	RS5	22-WAY / BLACK	RH REAR SEAT CUSHION / OUTBOARD
SEAT CUSHION EXTEND MOTOR – PASSENGER	SP26	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT CUSHION FRONT RAISE / LOWER MOTOR – PASSENGER	SP6	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT CUSHION REAR RAISE / LOWER MOTOR – PASSENGER	SP12	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT FORE / AFT MOTOR – PASSENGER	SP8	5-WAY / BLACK	PASSENGER SEAT CUSHION / UNDER
SEAT HEADREST MOTOR – PASSENGER	SP9	5-WAY / BLACK	PASSENGER SEAT BACK / UPPER
SEAT INCLINE / RECLINE MOTOR – PASSENGER	SP13	5-WAY / BLACK	PASSENGER SEAT BACK / LOWER
SEAT LUMBAR PUMP – PASSENGER (16-WAY)	PL3	2-WAY / BLACK	LOWER SEAT BACK
SEAT LUMBAR SOLENOIDS – PASSENGER	PL1	6-WAY / BLACK	UPPER SEAT BACK
SEAT SWITCH PACK – PASSENGER	SP5	12-WAY / BLACK	PASSENGER SEAT / OUTBOARD
	SP24	14-WAY / BLACK	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
LS1	22-WAY / BLACK / CABIN HARNESS TO LH REAR SEAT HARNESS	CABIN / BELOW LH REAR SEAT
PL2	6-WAY / BLACK / PASSENGER SEAT HARNESS TO PASSENGER SEAT LUMBAR HARNESS	CABIN / BEHIND PASSENGER SEAT BACK
RS1	22-WAY / BLACK / CABIN HARNESS TO REAR SEAT HARNESS	CABIN / BELOW REAR SEAT / RH SIDE
SP1	4-WAY / GREY / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT
SP28	20-WAY / BLACK / PASSENGER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW PASSENGER SEAT

GROUNDS

Ground	Location
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE

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.

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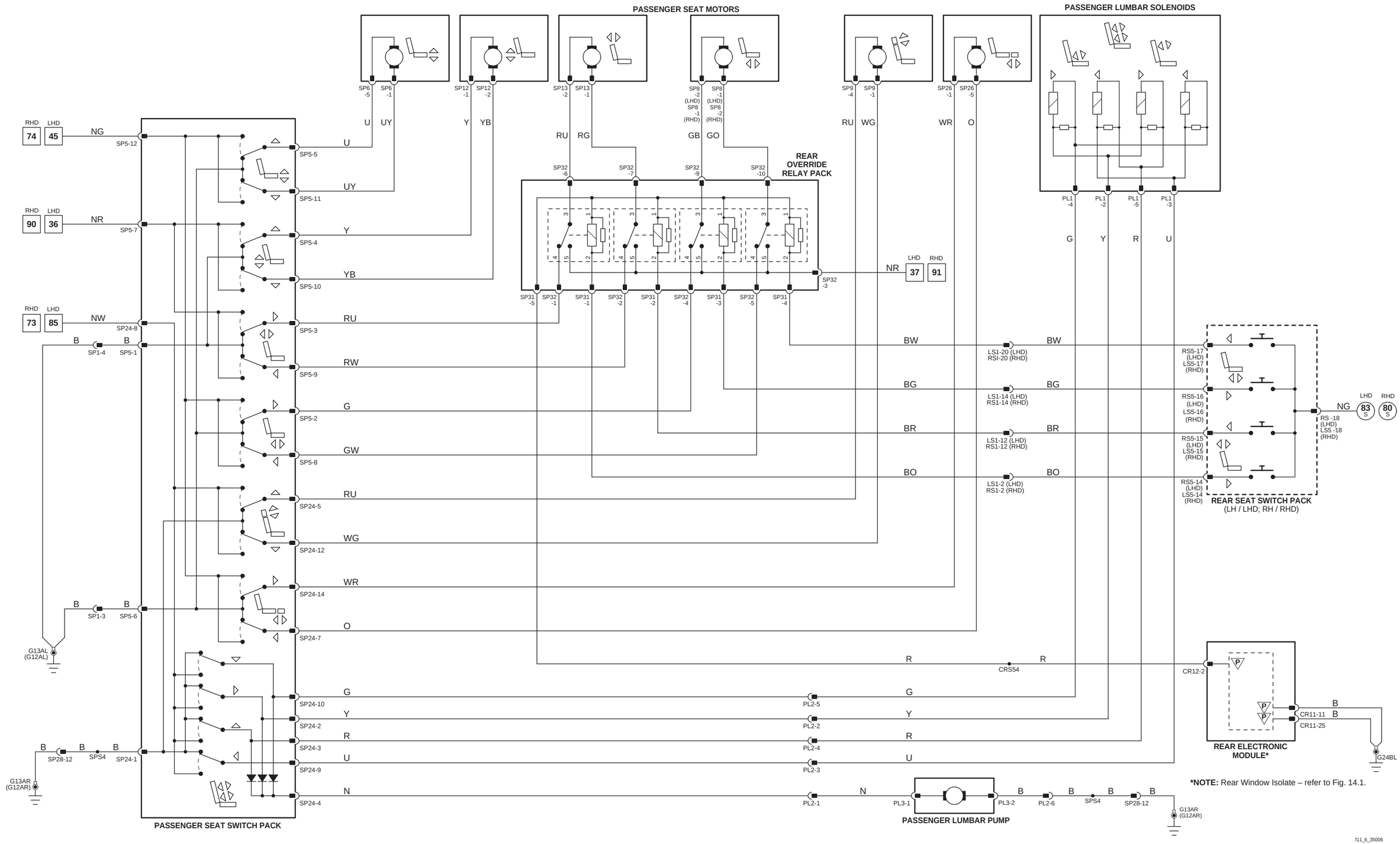


1 → 6 Fig. 01.1 7 → 63 Fig. 01.2	64 → 95 Fig. 01.3 1 (I) → 15 (I) Fig. 01.4	16 (I) → 52 (I) Fig. 01.5 53 (S) → 77 (S) Fig. 01.6	78 (S) → 105 (S) Fig. 01.7 106 (E) → 143 (E) Fig. 01.8	I Input O Output	B Battery Voltage P Power Ground	+ Sensor/Signal Supply V – Sensor/Signal Ground	A ACP C CAN	S SCP D Serial and Encoded Data	

VARIANT: Powered Rear Seats Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 11.7

COMPONENTS

Component	Connector(s)	Connector Description	Location
CENTER CONSOLE SWITCH PACK	CL1	8-WAY / BLACK	CENTER CONSOLE
	CL2	8-WAY / BLACK	
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	
SEAT BACK HEATER – DRIVER	SD15	2-WAY / BLACK	DRIVER SEAT BACK
SEAT BACK HEATER – PASSENGER	SP15	2-WAY / BLACK	PASSENGER SEAT BACK
SEAT CUSHION HEATERS – DRIVER	SD14	4-WAY / BLACK	DRIVER SEAT CUSHION
SEAT CUSHION HEATERS – PASSENGER	SP14	4-WAY / BLACK	PASSENGER SEAT CUSHION

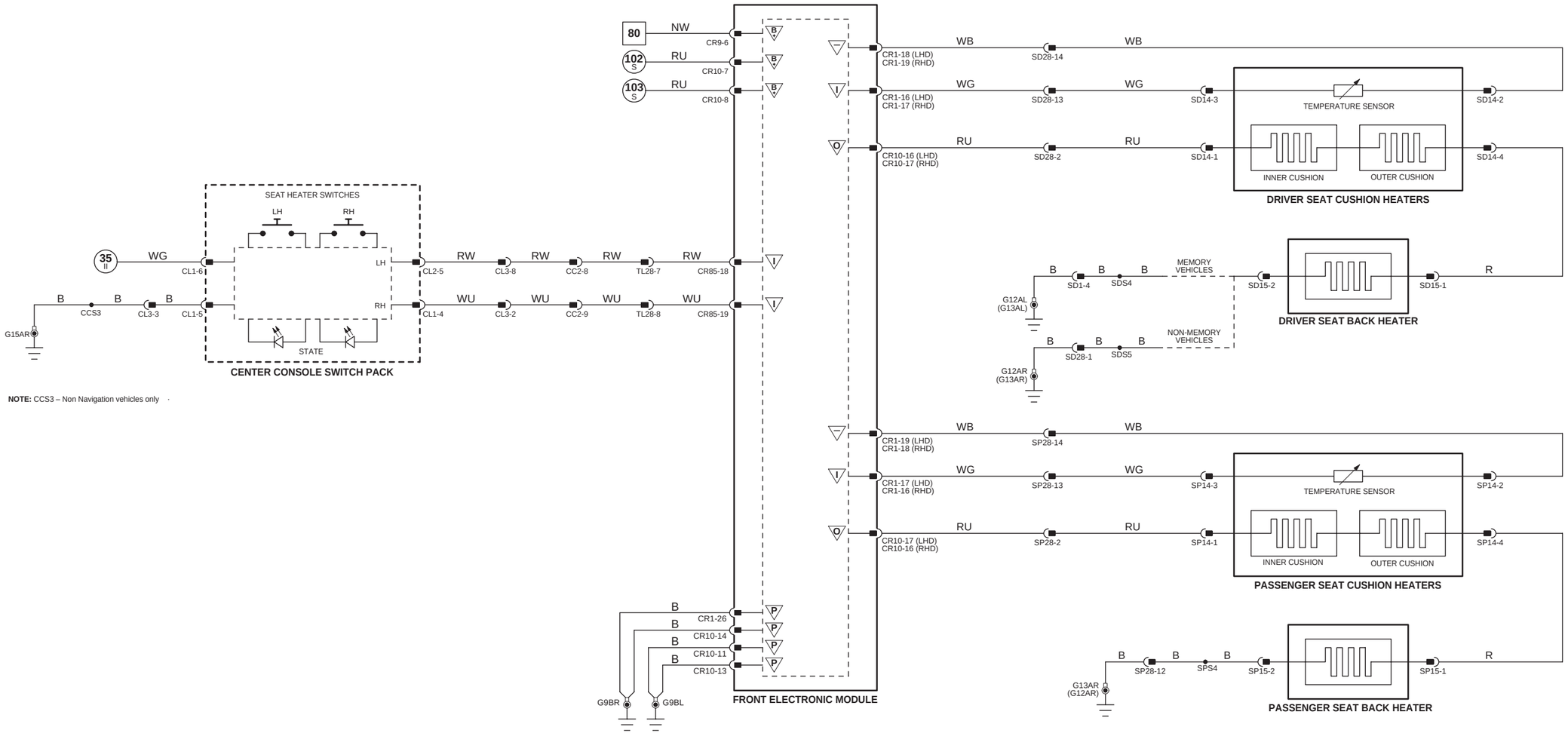
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC2	22-WAY / BLACK / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
SD1	4-WAY / GREY / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT
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
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW CENTER CONSOLE / RH SIDE OF TRANSMISSION TUNNEL

GROUNDS

Ground	Location
G9	CABIN / UPPER LH 'A' POST
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL

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.



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1 → 6 Fig. 01.1 7 → 63 Fig. 01.2	64 → 95 Fig. 01.3 1 I → 15 II Fig. 01.4	16 I → 52 II Fig. 01.5 53 S → 77 S Fig. 01.6	78 S → 105 S Fig. 01.7 106 E → 143 E Fig. 01.8	I Input O Output	B Battery Voltage P Power Ground	+ Sensor/Signal Supply V – Sensor/Signal Ground	A ACP C CAN	S SCP D Serial and Encoded Data	**VARIANT:** Heated Front Seats Vehicles **VIN RANGE:** All **DATE OF ISSUE:** April 2006						

Rear Memory Module

	Pin	Description and Characteristic
I	CR37–2	MEMORY 1, 2, 3, SET INPUT SIGNAL: VARIABLE RESISTANCE
O	CR37–3	MEMORY SET INDICATOR ACTIVATE: TO ACTIVATE, RMM SWITCHES CIRCUIT TO B+
I	CR37–9	SEAT POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
I	CR37–10	SEAT POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
B+	CR37–13	SWITCHED SYSTEM POWER SUPPLY (LOGIC): B+
SG	CR37–15	REAR SEAT MEMORY SWITCH PACK REFERENCE GROUND: GROUND
SG	CR37–24	SIGNAL GROUND: GROUND
SG	CR37–25	SIGNAL GROUND: GROUND
SG	CR37-26	SIGNAL GROUND: GROUND
S	CR38–1	SCP +
I	CR38–10	SEAT BACK RECLINE REARWARD REQUEST: ACTIVE = B+
I	CR38–11	SEAT BACK RECLINE FORWARD REQUEST: ACTIVE = B+
S	CR38–12	SCP –
I	CR38–15	HEAD REST RAISE REQUEST: ACTIVE = B+
I	CR38–16	HEADREST LOWER REQUEST: ACTIVE = B+
O	CR53–3	SEAT BACK RECLINE MOTOR DRIVE – REARWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	CR53–4	SEAT BACK RECLINE MOTOR DRIVE – FORWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
PG	CR59-1	POWER GROUND (LH SEAT): GROUND
B+	CR59–2	BATTERY POWER SUPPLY (LH SEAT): B+
O	CR59–3	HEADREST POSITION MOTOR DRIVE – RAISE: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	CR59–4	HEADREST POSITION MOTOR DRIVE – LOWER: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+

Fig. 11.8

COMPONENTS

Component	Connector(s)	Connector Description	Location
REAR MEMORY MODULE	CR21	4-WAY / BLACK	REAR BULKHEAD / BEHIND REAR SEAT BACK
	CR37	26-WAY / BLACK	
	CR38	22-WAY / BLACK	
	CR41	6-WAY / BLACK	
	CR53	4-WAY / BLACK	
	CR59	6-WAY / BLACK	
REAR SEAT BACK INCLINE / RECLINE MOTOR AND POSITION SENSOR – LH	SL1	5-WAY / BLACK	LH REAR SEAT BACK / UPPER
REAR SEAT BELT COMFORT SOLENOID – LH	CR112	3-WAY / BLACK	LH REAR SEAT BELT TENSIONER
REAR SEAT BELT COMFORT SWITCH – LH	CR109	2-WAY / BLACK	LH REAR SEAT BELT BUCKLE
REAR SEAT HEADREST MOTOR AND POSITION SENSOR – LH	SL2	5-WAY / BLACK	LH REAR SEAT BACK / UPPER
REAR SEAT LUMBAR PUMP – LH	LL3	2-WAY / BLACK	LH REAR SEAT BACK / UPPER
REAR SEAT LUMBAR SOLENOIDS – LH	LL1	5-WAY / BLACK	LH REAR SEAT BACK / UPPER
REAR SEAT MEMORY SWITCH PACK – LH	LT5	8-WAY / BLACK	LH REAR DOOR TRIM
REAR SEAT SWITCH PACK – LH	LS5	22-WAY / BLACK	LH REAR SEAT CUSHION / OUTBOARD

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
LL2	6-WAY / BLACK / LH REAR SEAT HARNESS TO LH REAR SEAT LUMBAR HARNESS	CABIN / BEHIND REAR SEAT BACK / LH SIDE
LS1	22-WAY / BLACK / CABIN HARNESS TO LH REAR SEAT HARNESS	CABIN / BELOW LH REAR SEAT
LS11	6-WAY / GREY / CABIN HARNESS TO LH REAR SEAT MOTOR HARNESS	CABIN / BELOW LH REAR SEAT
LT1	12-WAY / GREY / LH REAR DOOR HARNESS TO LH REAR DOOR TRIM HARNESS	CABIN / LH REAR DOOR TRIM
RL9	16-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
SL4	20-WAY / BLACK / LH REAR SEAT HARNESS TO LH REAR SEAT MOTOR HARNESS	CABIN / BELOW REAR SEAT / RH SIDE

GROUNDS

Ground	Location
G17	CABIN / BELOW REAR SEAT / RH SIDE
G18	CABIN / BELOW REAR SEAT / LH SIDE

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.

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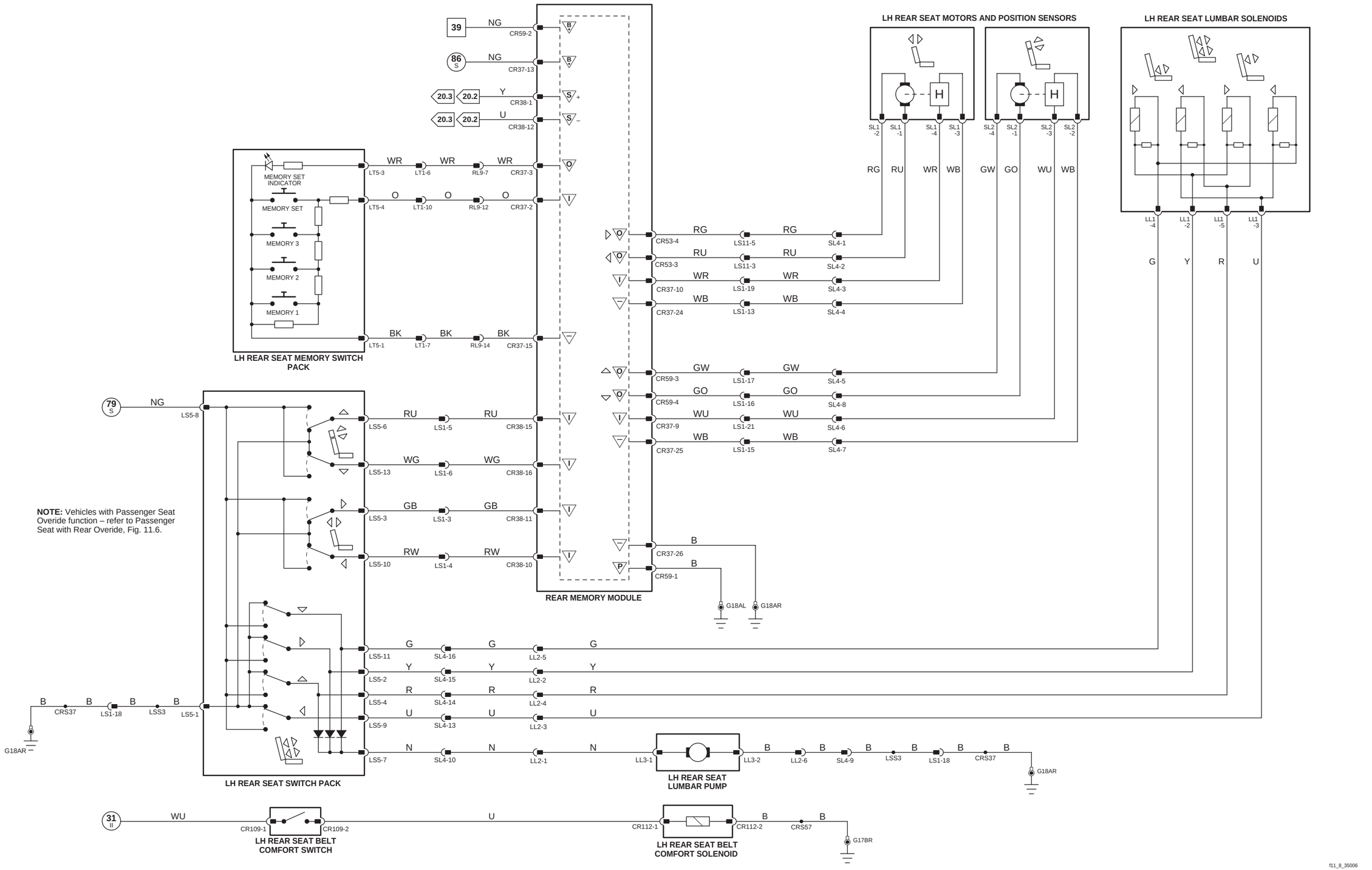

1 → 6 Fig. 01.1
7 → 63 Fig. 01.2
64 → 95 Fig. 01.3
1 I → 15 II Fig. 01.4
16 II → 52 II Fig. 01.5
53 S → 77 S Fig. 01.6
78 S → 105 S Fig. 01.7
106 E → 143 E Fig. 01.8

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

VARIANT: Powered Rear Seats Vehicles
VIN RANGE: All
DATE OF ISSUE: Sep 2004

Rear Memory Module

	Pin	Description and Characteristic
O	CR21–1	SEAT BACK RECLINE MOTOR DRIVE – REARWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	CR21–2	SEAT BACK RECLINE MOTOR DRIVE – FORWARD: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	CR21–3	HEADREST POSITION MOTOR DRIVE – RAISE: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
O	CR21–4	HEADREST POSITION MOTOR DRIVE – LOWER: TO ACTIVATE, DSCM SWITCHES CIRCUIT TO B+
I	CR37–1	MEMORY 1, 2, 3, SET INPUT SIGNAL: VARIABLE RESISTANCE
SG	CR37–11	SIGNAL GROUND: GROUND
SG	CR37–12	SIGNAL GROUND: GROUND
B+	CR37–13	SWITCHED SYSTEM POWER SUPPLY (LOGIC): B+
SG	CR37–14	REAR SEAT MEMORY SWITCH PACK REFERENCE GROUND: GROUND
O	CR37–16	MEMORY SET INDICATOR ACTIVATE: TO ACTIVATE, RMM SWITCHES CIRCUIT TO B+
I	CR37–22	SEAT POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
I	CR37–23	SEAT POSITION SENSOR SIGNAL: 5 V PULSED SIGNAL
SG	CR37–26	SIGNAL GROUND: GROUND
S	CR38–1	SCP +
S	CR38–12	SCP –
I	CR38–19	HEAD REST RAISE REQUEST: ACTIVE = B+
I	CR38–20	HEADREST LOWER REQUEST: ACTIVE = B+
I	CR38–21	SEAT BACK RECLINE REARWARD REQUEST: ACTIVE = B+
I	CR38–22	SEAT BACK RECLINE FORWARD REQUEST: ACTIVE = B+
PG	CR41–5	POWER GROUND (RH SEAT): GROUND
B+	CR41–6	BATTERY POWER SUPPLY (RH SEAT): B+

Fig. 11.9

COMPONENTS

Component	Connector(s)	Connector Description	Location
REAR MEMORY MODULE	CR21	4-WAY / BLACK	REAR BULKHEAD / BEHIND REAR SEAT BACK
	CR37	26-WAY / BLACK	
	CR38	22-WAY / BLACK	
	CR41	6-WAY / BLACK	
	CR53	4-WAY / BLACK	
	CR59	6-WAY / BLACK	
REAR SEAT BACK INCLINE / RECLINE MOTOR AND POSITION SENSOR – RH	SR1	5-WAY / BLACK	RH REAR SEAT BACK / UPPER
REAR SEAT BELT COMFORT SOLENOID – RH	CR114	3-WAY / BLACK	RH REAR SEAT BELT TENSIONER
REAR SEAT BELT COMFORT SWITCH – RH	CR111	2-WAY / BLACK	RH REAR SEAT BELT BUCKLE
REAR SEAT HEADREST MOTOR AND POSITION SENSOR – RH	SR2	5-WAY / BLACK	RH REAR SEAT BACK / UPPER
REAR SEAT LUMBAR PUMP – RH	YL3	2-WAY / BLACK	RH REAR SEAT BACK / UPPER
REAR SEAT LUMBAR SOLENOIDS – RH	YL1	5-WAY / BLACK	RH REAR SEAT BACK / UPPER
REAR SEAT MEMORY SWITCH PACK – RH	RT5	8-WAY / BLACK	RH REAR DOOR TRIM
REAR SEAT SWITCH PACK – RH	RS5	22-WAY / BLACK	RH REAR SEAT CUSHION / OUTBOARD

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
RR9	16-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
RS1	22-WAY / BLACK / CABIN HARNESS TO REAR SEAT HARNESS	CABIN / BELOW REAR SEAT / RH SIDE
RS11	6-WAY / GREY / CABIN HARNESS TO REAR SEAT HARNESS	CABIN / BELOW REAR SEAT / RH SIDE
RT1	12-WAY / GREY / RH REAR DOOR HARNESS TO RH REAR DOOR TRIM HARNESS	CABIN / RH REAR DOOR TRIM
SR4	20-WAY / BLACK / RH REAR SEAT HARNESS TO RH REAR SEAT MOTOR HARNESS	CABIN / BELOW REAR SEAT / LH SIDE
YL2	6-WAY / BLACK / RH REAR SEAT HARNESS TO RH REAR SEAT LUMBAR HARNESS	CABIN / BEHIND REAR SEAT BACK / RH SIDE

GROUNDS

Ground	Location
G17	CABIN / BELOW REAR SEAT / RH SIDE
G18	CABIN / BELOW REAR SEAT / LH SIDE

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.

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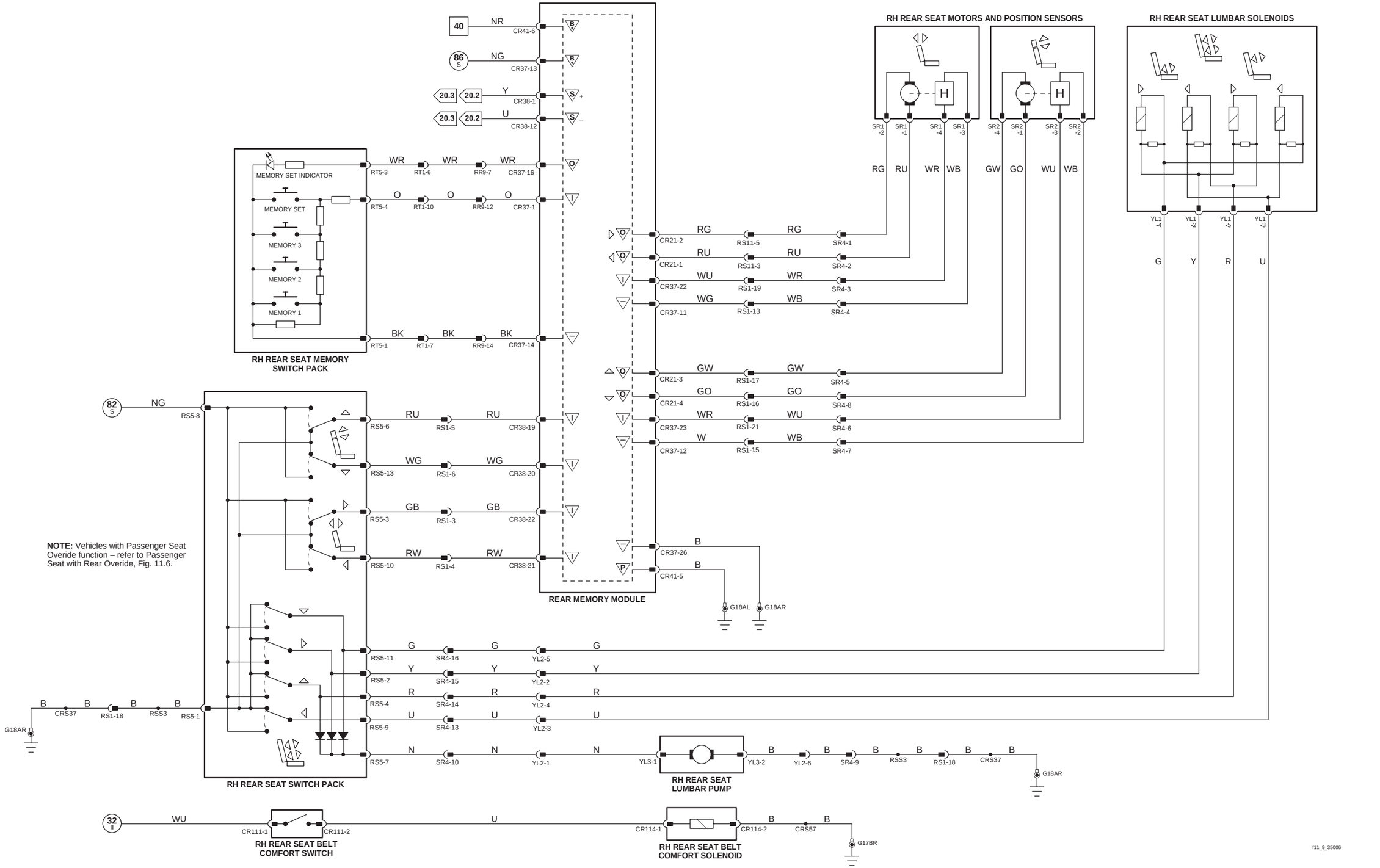

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78 S → 105 S Fig. 01.7
106 E → 143 E Fig. 01.8

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

VARIANT: Powered Rear Seats Vehicles
VIN RANGE: All
DATE OF ISSUE: Sep 2004

Rear Electronic Module

	Pin	Description and Characteristic
B+	CR4-3	BATTERY POWER SUPPLY (LOGIC): B+
O	CR4-8	RIGHT REAR SEAT HEAT SENSOR RETURN
O	CR4-9	LEFT REAR SEAT HEAT SENSOR RETURN
I	CR4-10	LEFT REAR SEAT HEATER SWITCH PWM
PG	CR11-11	POWER GROUND (RH SEAT): GROUND
I	CR11-13	RIGHT REAR SEAT HEATER SWITCH PWM
I	CR13-16	RIGHT REAR SEAT HEAT SENSOR INPUT
I	CR13-17	LEFT REAR SEAT HEAT SENSOR INPUT
B+	CR71-7	VB3 - SEAT HEATERS POWER INPUT
B+	CR71-8	VB3 - SEAT HEATERS POWER INPUT
O	CR71-16	LEFT REAR SEAT HEATER PWM OUTPUT
O	CR71-17	RIGHT REAR SEAT HEATER PWM OUTPUT

Fig. 11.10

COMPONENTS

Component	Connector(s)	Connector Description	Location
REAR CENTER CONSOLE SWITCH PACK	TL89	8-WAY / BLACK	REAR CENTER CONSOLE
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	
REAR SEAT BACK HEATER – LH	SL3	2-WAY / BLACK	LH REAR SEAT SQUAB
REAR SEAT BACK HEATER – RH	SR3	2-WAY / BLACK	RH REAR SEAT SQUAB
REAR SEAT CUSHION HEATERS – LH	LS4	4-WAY / BLACK	LH REAR SEAT CUSHION
REAR SEAT CUSHION HEATERS – RH	RS4	4-WAY / BLACK	RH REAR SEAT CUSHION

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
LS11	6-WAY / GREY / CABIN HARNESS TO LH REAR SEAT MOTOR HARNESS	CABIN / BELOW LH REAR SEAT
RS11	6-WAY / GREY / CABIN HARNESS TO REAR SEAT HARNESS	CABIN / BELOW REAR SEAT / RH SIDE
SL4	20-WAY / BLACK / LH REAR SEAT HARNESS TO LH REAR SEAT MOTOR HARNESS	CABIN / BELOW REAR SEAT / RH SIDE
SR4	20-WAY / BLACK / RH REAR SEAT HARNESS TO RH REAR SEAT MOTOR HARNESS	CABIN / BELOW REAR SEAT / LH SIDE
TL35	22-WAY / GREY / CABIN HARNESS TO REAR CENTRE CONSOLE	TRUNK / LH REAR

GROUNDS

Ground	Location
G17	CABIN / BELOW REAR SEAT / RH SIDE
G18	CABIN / BELOW REAR SEAT / RH SIDE
G24	TRUNK / RH REAR / REAR ELECTRONIC MODULE

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.

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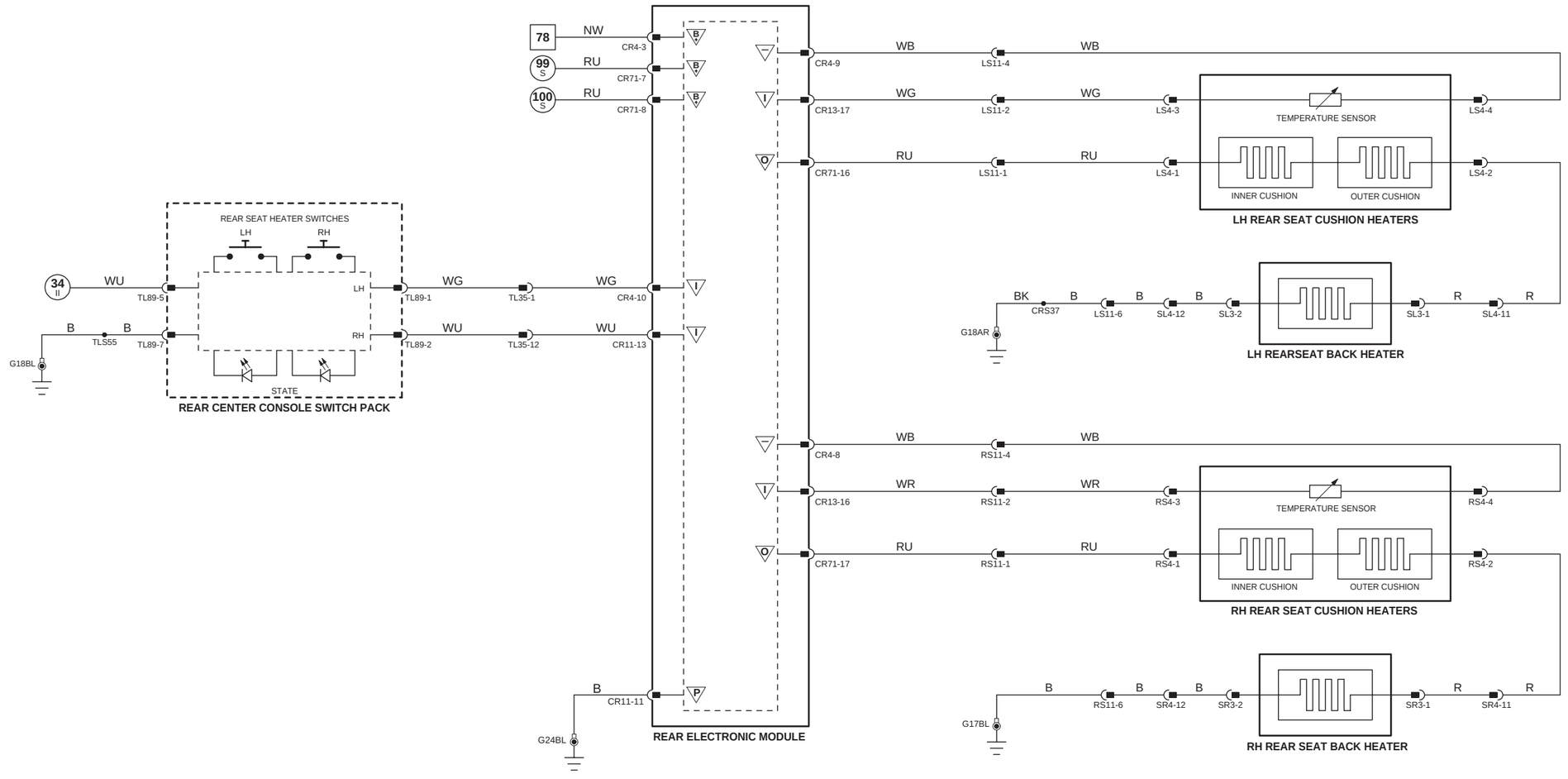

f11_10_35006

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

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

VARIANT: Heated Rear Seats Vehicles
VIN RANGE: All
DATE OF ISSUE: Sep 2004

Driver Door Module

	Pin	Description and Characteristic
O	DD11–6	REMOTE KEYLESS ENTRY MODULE POWER SUPPLY: B+
O	DD11–8	LOCK DRIVE: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
O	DD11–9	UNLOCK DRIVE: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
O	DD11–10	DOUBLE LOCK DRIVE: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
D	DD11–13	REMOTE KEYLESS ENTRY MODULE SIGNAL: ENCODED COMMUNICATIONS
I	DD11–16	DRIVER DOOR ALARM SET / LOCK SWITCH (NORMALLY OPEN): OPEN CIRCUIT / GROUND
I	DD11–17	DRIVER DOOR ALARM RESET / UNLOCK SWITCH (NORMALLY OPEN): OPEN CIRCUIT / GROUND
D	DD11–18	REMOTE KEYLESS ENTRY MODULE SIGNAL: ENCODED COMMUNICATIONS
D	DD11–20	REMOTE KEYLESS ENTRY RETURN
I	DD12–25	DRIVER DOOR AJAR SWITCH SIGNAL: GROUND WHEN DOOR IS AJAR
I	DD13–2	DRIVER UNLOCK STATUS SWITCH SIGNAL: GROUND WHEN ACTIVATED
S	DD13–3	SCP NETWORK +
S	DD13–4	SCP NETWORK –
SG	DD13–7	LOGIC GROUND: GROUND
PG	DD13–8	POWER GROUND: GROUND
I	DD13–10	DRIVER LOCK STATUS SWITCH SIGNAL: GROUND WHEN ACTIVATED
B+	DD13–11	BATTERY POWER SUPPLY: LOGIC: B+
B+	DD13–12	SWITCHED SYSTEM POWER SUPPLY: B+

Front Electronic Module

	Pin	Description and Characteristic
I	CR1–1	PASSENGER DOOR AJAR SWITCH SIGNAL: GROUND WHEN ACTIVATED
S	CR9–1	SCP –
B+	CR9–6	BATTERY POWER SUPPLY (LOGIC): B+
S	CR9–7	SCP +
I	CR9–8	GLOBAL OPEN / CLOSE SWITCH SIGNAL: GROUND WHEN ACTIVATED
SG	CR9–12	LOGIC GROUND: GROUND
B+	CR85–1	SWITCHED SYSTEM POWER SUPPLY: B+
I	CR85–6	VALET SWITCH SIGNAL: GROUND WHEN ACTIVATED
I	EC36–5	FUEL FLAP RELEASE SWITCH SIGNAL: GROUND WHEN ACTIVATED
I	EC36–8	TRUNK RELEASE SWITCH SIGNAL: GROUND WHEN ACTIVATED

Rear Electronic Module

	Pin	Description and Characteristic
O	CR4–1	UNLOCK MOTOR DRIVE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
O	CR4–2	LOCK MOTOR DRIVE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
I	CR4–7	TRUNK CLOSE SWITCH SIGNAL: GROUND (SIGNAL) WHEN TRUNK IS AJAR
O	CR4–11	DOUBLE LOCK MOTOR DRIVE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
O	CR4–12	DOUBLE LOCK MOTOR DRIVE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
O	CR11–3	FUEL FILLER FLAP MOTOR ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
O	CR11–4	TRUNK RELEASE MOTOR ACTIVATE: OPEN / CLOSE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
O	CR11–5	TRUNK RELEASE MOTOR ACTIVATE: CLOSE / OPEN: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
O	CR11–6	LOCK MOTOR DRIVE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
O	CR11–7	UNLOCK MOTOR DRIVE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
I	CR11–8	TRUNK RELEASE MOTOR OPEN STATUS SIGNAL: GROUND (SIGNAL) WHEN ACTIVATED
SG	CR11–10	TRUNK LATCH SIGNAL GROUND: GROUND
PG	CR11–11	POWER GROUND: GROUND
SG	CR11–12	LOGIC GROUND: GROUND
I	CR11–21	PASSENGER DOOR LATCH LOCK STATUS SWITCH SIGNAL: GROUND WHEN ACTIVATED
I	CR11–22	PASSENGER DOOR LATCH UNLOCK STATUS SWITCH SIGNAL: GROUND WHEN ACTIVATED
SG	CR11–25	LOGIC GROUND: GROUND
I	CR12–9	EXTERNAL TRUNK RELEASE SWITCH SIGNAL: GROUND WHEN ACTIVATED
S	CR13–1	SCP +
S	CR13–2	SCP –
I	CR13–14	TRUNK AJAR SWITCH SIGNAL: GROUND (SIGNAL) WHEN TRUNK IS AJAR
I	CR13–15	TRUNK RELEASE MOTOR CLOSED STATUS SIGNAL: GROUND (SIGNAL) WHEN ACTIVATED

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.

Fig. 12.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUXILIARY LIGHTING SWITCH	IP33	12-WAY / BLACK	INSTRUMENT PANEL / LH SIDE
CENTER CONSOLE SWITCH PACK	CL1	8-WAY / BLACK	CENTER CONSOLE
	CL2	8-WAY / BLACK	
DOOR AJAR SWITCH – DRIVER	DD7	2-WAY / BLACK	DRIVER DOOR
	DD10	3-WAY / BLACK	
DOOR AJAR SWITCH – PASSENGER	PD7	2-WAY / BLACK	PASSENGER DOOR
	PD10	3-WAY / BLACK	
DOOR LATCH – DRIVER	DD2	8-WAY / BLACK	DRIVER DOOR TRIM
DRIVER DOOR MODULE	DD11	20-WAY / BLACK	DRIVER DOOR
	DD12	26-WAY / BLACK	
	DD13	12-WAY / BLACK	
EXTERNAL TRUNK RELEASE SWITCH	BT5	2-WAY / BLACK	LUGGAGE COMPARTMENT LID
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	
FUEL FILLER FLAP MOTOR	CR15	2-WAY / BLACK	TRUNK / RH SIDE
REAR DOOR LOCK MOTOR – DRIVER	RL2	8-WAY / BLACK	DRIVER REAR DOOR
	RR2	8-WAY / BLACK	DRIVER REAR DOOR
REAR DOOR LOCK MOTOR – PASSENGER	RL2	8-WAY / BLACK	PASSENGER REAR DOOR
	RR2	8-WAY / BLACK	PASSENGER REAR DOOR
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	
REMOTE KEYLESS ENTRY MODULE	IP60	4-WAY / BLACK	BEHIND INSTRUMENT PANEL / DRIVER SIDE
TRUNK AND FUEL FLAP RELEASE SWITCH PACK	IP50	10-WAY / BLACK	INSTRUMENT PANEL / LH SIDE
TRUNK LATCH	BT2	8-WAY / BLACK	TRUNK LID

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
BL11	16-WAY / BLACK / CABIN HARNESS TO TRUNK LID HARNESS	TRUNK / BEHIND TRUNK LID LINER
BT11	16-WAY / GREY / CABIN TO TRUNK LID LINK HARNESS TO TRUNK LID HARNESS	TRUNK / TRUNK LID
CC2	22-WAY / BLACK / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
IP3	14-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP9	8-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / ADJACENT TO HOOD RELEASE
IP17	16-WAY / GREEN / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
PD16	22-WAY / BLACK / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
RL9	16-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RR9	16-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW CENTER CONSOLE / RH SIDE OF TRANSMISSION TUNNEL

GROUNDS

Ground	Location
G9	CABIN / UPPER LH A POST
G10	CABIN / RH A POST
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
G31	CABIN / BEHIND PASSENGER AIR BAG

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

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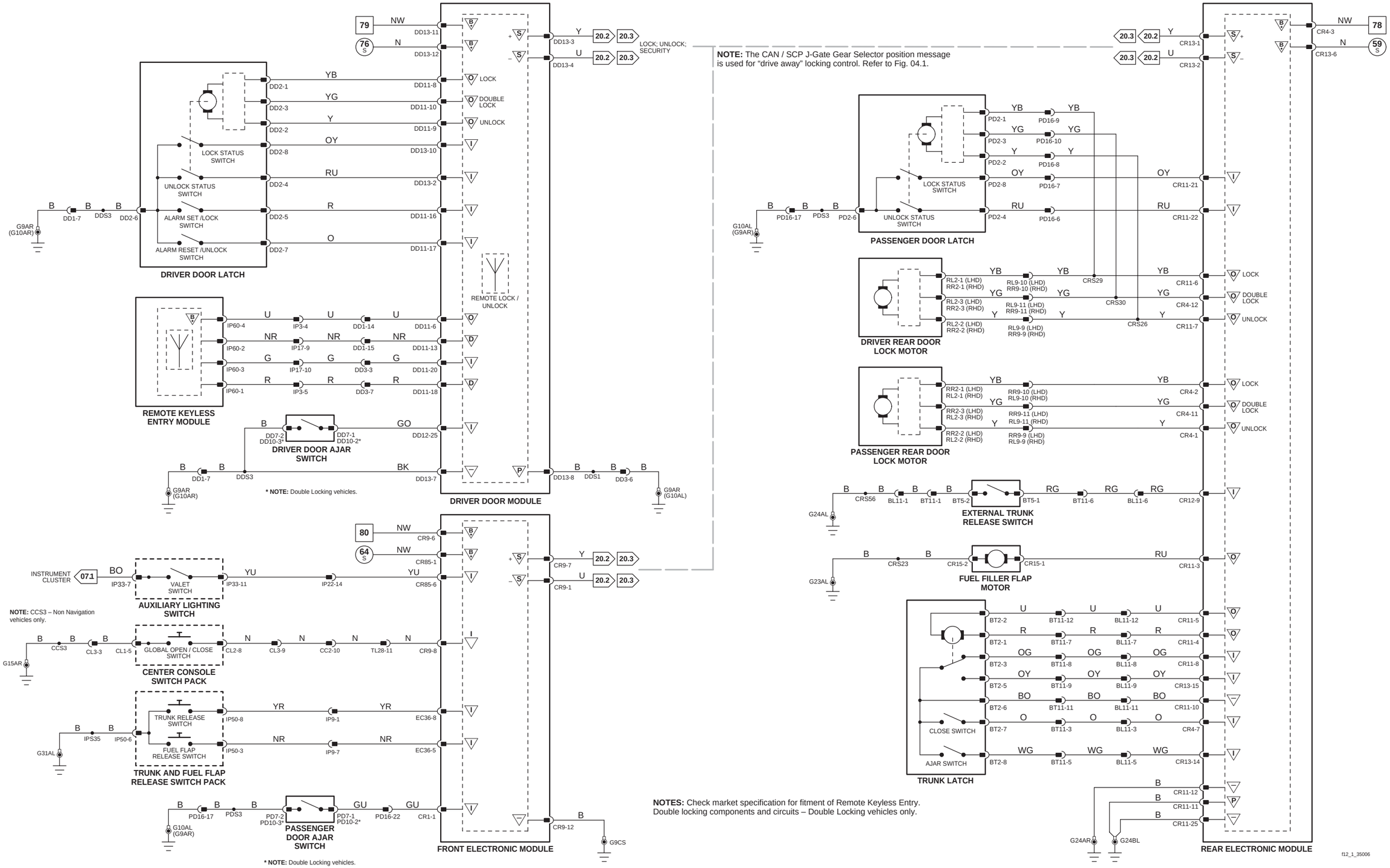

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53 S → 77 S Fig. 01.6
78 S → 105 S Fig. 01.7
106 E → 143 E Fig. 01.8

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Driver Door Module

	Pin	Description and Characteristic
O	DD11–6	REMOTE KEYLESS ENTRY MODULE POWER SUPPLY: B+
D	DD11–13	REMOTE KEYLESS ENTRY MODULE SIGNAL: ENCODED COMMUNICATIONS
I	DD11–16	DRIVER DOOR ALARM SET / LOCK SWITCH (NORMALLY OPEN): OPEN CIRCUIT / GROUND
I	DD11–17	DRIVER DOOR ALARM RESET / UNLOCK SWITCH (NORMALLY OPEN): OPEN CIRCUIT / GROUND
D	DD11–18	REMOTE KEYLESS ENTRY MODULE SIGNAL: ENCODED COMMUNICATIONS
D	DD11–20	REMOTE KEYLESS ENTRY RETURN
O	DD12–6	DDM SECURITY: DDM GROUND
I	DD12–25	DRIVER DOOR AJAR SWITCH SIGNAL: GROUND WHEN DOOR IS AJAR
S	DD13–3	SCP NETWORK +
S	DD13–4	SCP NETWORK –
SG	DD13–7	LOGIC GROUND: GROUND
PG	DD13–8	POWER GROUND: GROUND
B+	DD13–11	BATTERY POWER SUPPLY: LOGIC: B+

Engine Control Module

	Pin	Description and Characteristic
C	PI1–123	CAN +
C	PI1–124	CAN –

Front Electronic Module

	Pin	Description and Characteristic
I	CR1–1	PASSENGER DOOR AJAR SWITCH SIGNAL: GROUND WHEN ACTIVATED
PG	CR1–25	FEM SECURITY SYSTEM GROUND SENSING: GROUND WHEN FEM IS INSTALLED
S	CR9–1	SCP –
I	CR9–3	TELEMATICS DISPLAY SECURITY GROUND SENSING: OPEN CIRCUIT IF TELEMATICS DISPLAY IS REMOVED
B+	CR9–6	BATTERY POWER SUPPLY: LOGIC: B+
S	CR9–7	SCP +
SG	CR9–12	LOGIC GROUND: GROUND
O	CR10–4	LH TURN SIGNAL ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	CR10–10	RH TURN SIGNAL ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
B+	CR85–3	IGNITION SWITCHED POWER SUPPLY (II): B+
I	CR85–6	VALET SWITCH SIGNAL: GROUND WHEN ACTIVATED
I	CR85–7	AUDIO UNIT SECURITY GROUND SENSING: OPEN CIRCUIT IF AUDIO UNIT IS REMOVED
P	CR85–14	STEERING COLUMN LOCK MODULE GROUND: GROUND
I	EC36–2	HOOD AJAR SWITCH SIGNAL: GROUND WHEN ACTIVATED
I	EC36–8	TRUNK RELEASE SWITCH SIGNAL: GROUND WHEN ACTIVATED
O	EC36–20	HORN RELAY ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND

Instrument Cluster

	Pin	Description and Characteristic
I	IP5–2	KEY-IN AUDIBLE WARNING: B+ WHEN KEY IN
B+	IP5–3	IGNITION SWITCHED POWER SUPPLY (II): B+
B+	IP5–4	IGNITION SWITCHED POWER SUPPLY (I): B+
O	IP5–10	SEAT BELT AUDIBLE WARNING REQUEST: AUDIBLE WARNING REQUEST ACTIVE = GROUND
SG	IP5–14	SIGNAL GROUND: GROUND
PG	IP6–2	POWER GROUND: GROUND
I	IP6–4	PATS GROUND: GROUND
D	IP6–5	PATS TRANSCEIVER: ENCODED COMMUNICATION
D	IP6–6	PATS TRANSCEIVER: ENCODED COMMUNICATION
C	IP6–8	CAN +
C	IP6–9	CAN –
S	IP6–10	SCP –
S	IP6–20	SCP +

Rear Electronic Module

	Pin	Description and Characteristic
B+	CR4–3	BATTERY POWER SUPPLY (LOGIC): B+
O	CR4–5	ACTIVE SECURITY SOUNDER ACTIVATE: ENCODED COMMUNICATION
I	CR4–6	INTRUSION SENSOR SIGNAL: GROUND (PULSED)
I	CR4–7	TRUNK CLOSE SWITCH SIGNAL: GROUND (SIGNAL) WHEN TRUNK IS AJAR
I	CR4–17	RH REAR DOOR AJAR SWITCH SIGNAL: GROUND WHEN DOOR IS AJAR
I	CR4–19	FEM SECURITY SYSTEM GROUND SENSING: GROUND WHEN FEM IS INSTALLED
I	CR11–9	INCLINATION SENSOR SIGNAL
SG	CR11–10	TRUNK LATCH SIGNAL GROUND: GROUND
PG	CR11–11	POWER GROUND: GROUND
I	CR11–16	LH REAR DOOR AJAR SWITCH SIGNAL: GROUND WHEN DOOR IS AJAR
SG	CR11–25	LOGIC GROUND: GROUND
O	CR12–1	SCLM POWER SUPPLY: B+
I	CR12–7	DDM SECURITY SYSTEM GROUND SENSING: GROUND WHEN DDM IS INSTALLED
S	CR13–1	SCP +
S	CR13–2	SCP –
O	CR13–8	PASSIVE SECURITY SOUNDER ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO B+
O	CR13–9	INCLINATION SENSOR POWER SUPPLY: B+
O	CR13–10	INTRUSION SENSOR POWER SUPPLY: B+
PG	CR13–12	ACTIVE SECURITY SOUNDER GROUND SUPPLY: GROUND
I	CR13–14	TRUNK AJAR SWITCH SIGNAL: GROUND (SIGNAL) WHEN TRUNK IS AJAR
O	CR71–3	LH REAR TURN SIGNAL ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND
O	CR71–4	RH REAR TURN SIGNAL ACTIVATE: TO ACTIVATE, REM SWITCHES CIRCUIT TO GROUND

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.

Fig. 12.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUDIO UNIT	CC8	20-WAY / BLACK	CENTER CONSOLE
	CC9	2-WAY / BLACK	
	CC21	FIBER OPTIC CONNECTOR	
AUTO LAMP SENSOR	IP36	6-WAY / BLACK	INSTRUMENT PANEL / CENTER FRONT
AUXILIARY LIGHTING SWITCH	IP33	12-WAY / BLACK	INSTRUMENT PANEL / LH SIDE
CENTER CONSOLE SWITCH PACK	CL1	8-WAY / BLACK	CENTER CONSOLE
	CL2	8-WAY / BLACK	
DOOR AJAR SWITCH – DRIVER	DD7	2-WAY / BLACK	DRIVER DOOR
	DD10	3-WAY / BLACK	
DOOR AJAR SWITCH – LH REAR	RL7	2-WAY / BLACK	LH REAR DOOR
	RL10	3-WAY / BLACK	
DOOR AJAR SWITCH – PASSENGER	PD7	2-WAY / BLACK	PASSENGER DOOR
	PD10	3-WAY / BLACK	
DOOR AJAR SWITCH – RH REAR	RR7	2-WAY / BLACK	RH REAR DOOR
	RR10	3-WAY / BLACK	
DOOR LATCH – DRIVER	DD2	8-WAY / BLACK	DRIVER DOOR TRIM
DRIVER DOOR MODULE	DD11	20-WAY / BLACK	DRIVER DOOR / BEHIND TRIM
	DD12	26-WAY / BLACK	
	DD13	12-WAY / BLACK	
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	
HOOD AJAR SWITCH	EC14	2-WAY / BLACK	ENGINE COMPARTMENT / BEHIND RH HEADLAMP UNIT
IGNITION SWITCH	IP34	7-WAY / BLACK	STEERING COLUMN
INCLINATION SENSOR	CR28	6-WAY / BLACK	TRUNK / LH REAR
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
PASSIVE ANTI-THEFT SYSTEM TRANSCEIVER	IP18	4-WAY / GREEN	IGNITION SWITCH
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	
REMOTE KEYLESS ENTRY MODULE	IP60	4-WAY / BLACK	BEHIND INSTRUMENT PANEL / DRIVER SIDE
ROOF CONSOLE	RF3	20-WAY / BLACK	CABIN ROOF
SECURITY SOUNDER – ACTIVE	BS1	3-WAY / BLACK	TRUNK / RH SIDE / FORWARD
SECURITY SOUNDER – PASSIVE	PS1	1-WAY / BLACK	TRUNK / RH SIDE / FORWARD
	PS2	1-WAY / BLACK	
STEERING COLUMN LOCK MODULE	IP24	4-WAY / BLACK	UPPER STEERING COLUMN
TELEMATICS DISPLAY	CC12	22-WAY / BLACK	CENTER CONSOLE
TRUNK AND FUEL FLAP RELEASE SWITCH PACK	IP50	10-WAY / BLACK	INSTRUMENT PANEL / OUTBOARD OF STEERING COLUMN
TRUNK LATCH	BT2	8-WAY / BLACK	TRUNK LID

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
BL11	16-WAY / BLACK / CABIN HARNESS TO TRUNK LID HARNESS	TRUNK / BEHIND TRUNK LID LINER
BT11	16-WAY / GREY / CABIN TO TRUNK LID LINK HARNESS TO TRUNK LID HARNESS	TRUNK / TRUNK LID
CC1	22-WAY / GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CC2	22-WAY / BLACK / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CR45	6-WAY / BLACK / CABIN HARNESS TO BATTERY BACKED SOUNDER HARNESS	ENGINE COMPARTMENT / BEHIND RH WHEEL ARCH LINER
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
IP1	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND DRIVER SIDE INSTRUMENT PANEL END PLATE
IP3	14-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP9	8-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / ADJACENT TO HOOD RELEASE
IP17	16-WAY / GREEN / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INST PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
PD16	22-WAY / BLACK / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
RL1	6-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RL9	16-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RR1	6-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
RR9	16-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW CENTER CONSOLE / RH SIDE OF TRANSM TUNNEL

GROUNDS

Ground	Location
G1	ENGINE COMPARTMENT / BEHIND LH HEADLAMP ASSEMBLY
G9	CABIN / UPPER LH A POST
G10	CABIN / RH A POST
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT
G17	CABIN / BELOW REAR SEAT / RH SIDE
G23	TRUNK / RH SIDE / ADJACENT TO BATTERY
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE
G31	CABIN / BEHIND PASSENGER AIR BAG

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.

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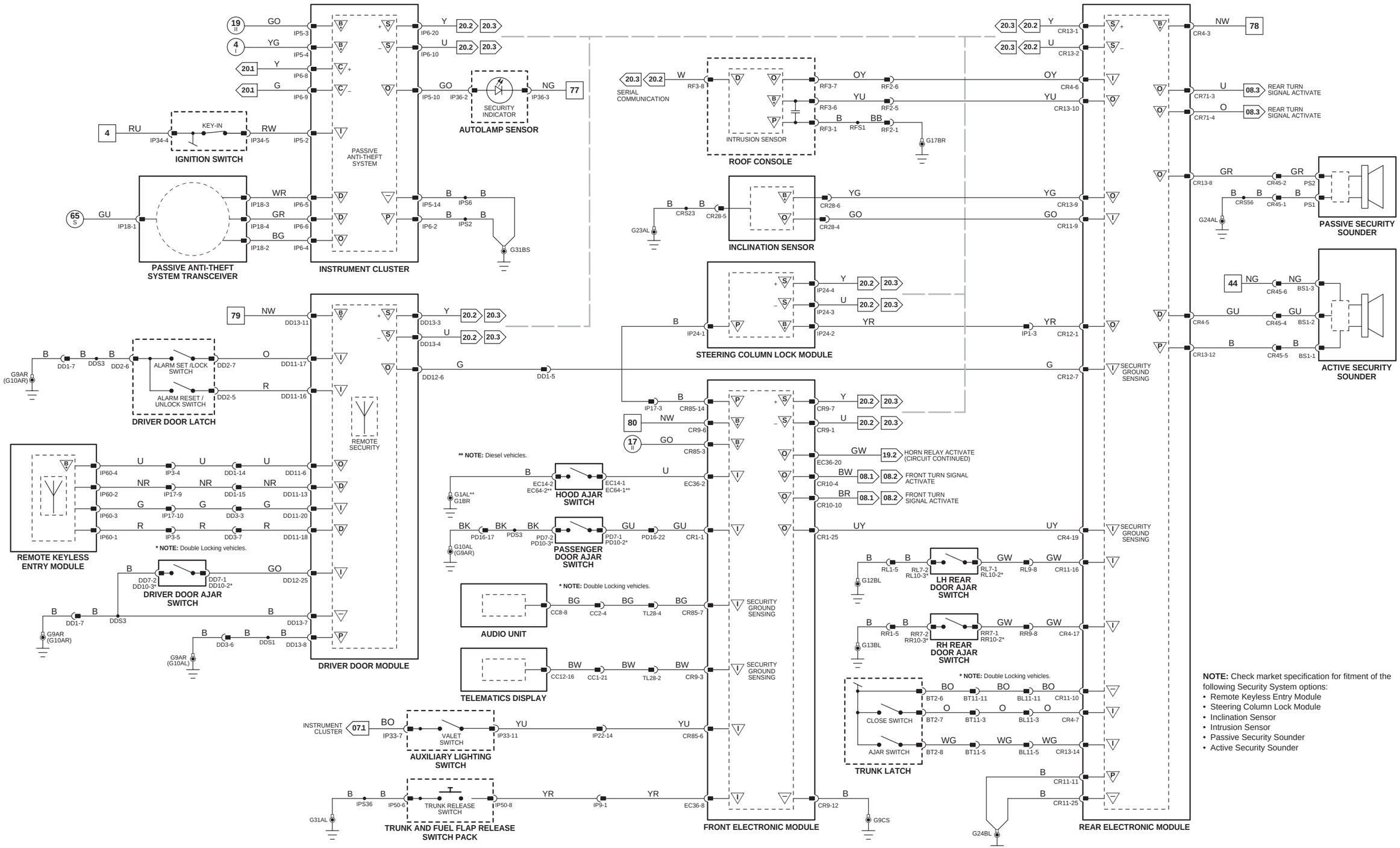

NOTE: Check market specification for fitment of the following Security System options:
- Remote Keyless Entry Module
- Steering Column Lock Module
- Inclination Sensor
- Intrusion Sensor
- Passive Security Sounder
- Active Security Sounder

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	All Vehicles
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Front Electronic Module

	Pin	Description and Characteristic
I	CR1–4	RAIN SENSING MODULE SIGNAL: PULSED SIGNAL
O	CR1–6	RAIN SENSING MODULE POWER SUPPLY: B+
PG	CR1–26	POWER GROUND: GROUND
SG	CR9–12	LOGIC GROUND: GROUND
B+	CR10–1	SWITCHED SYSTEM POWER SUPPLY: B+
PG	CR10–11	POWER GROUND: GROUND
PG	CR10–13	POWER GROUND: GROUND
PG	CR10–14	POWER GROUND: GROUND
PG	CR85–2	POWER GROUND: GROUND
O	CR85–4	WINDSHIELD WASHER PUMP DRIVE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
SG	CR85–8	WIPE / WASH SWITCHES SIGNAL GROUND: GROUND
I	CR85–9	MOMENTARY WIPE SWITCH SIGNAL: VARIABLE RESISTANCE
I	CR85–10	WASH / WIPE SWITCH SIGNAL: VARIABLE RESISTANCE
I	CR85–13	INTERMITTENT WIPE SWITCH SIGNAL: VARIABLE RESISTANCE
I	CR85–16	WIPER MASTER SWITCH SIGNAL: VARIABLE RESISTANCE
O	EC36–1	WIPER ON / OFF RELAY ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
I	EC36–3	WIPERS PARKED SIGNAL: GROUND = PARKED
I	EC36–6	WASHER FLUID LEVEL SIGNAL: GROUND WHEN ACTIVATED
PG	EC36–10	RAIN SENSING MODULE POWER GROUND: GROUND
O	EC36–16	POWER WASH RELAY ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND
O	EC36–17	WIPER FAST / SLOW RELAY ACTIVATE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO GROUND

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.

Fig. 13.1

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	
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
POWER WASH PUMP	WS1		
POWER WASH RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R11
RAIN SENSING MODULE	RF6	3-WAY / BLACK	CABIN / WINDSHIELD CENTER
WASHER FLUID LEVEL SWITCH	WS3		
WINDSHIELD WASHER PUMP	WS2		
WIPE / WASH COLUMN SWITCH	IP40	6-WAY / BLACK	STEERING COLUMN
WIPER FAST / SLOW RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R8
WIPER MOTOR	EC27	4-WAY / BLACK	ENGINE COMPARTMENT, BULKHEAD
WIPER ON / OFF RELAY	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R4

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
EC53	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / ABOVE LH FOOTWELL
EC70		
IP3	14-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP4	14-WAY / GREEN / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
RF25	8-WAY / BLACK / CABIN HARNESS TO ROOF HARNESS	CABIN / UPPER LH 'A' POST

GROUNDS

Ground	Location
G1	ENGINE COMPARTMENT / BEHIND LH HEADLAMP ASSEMBLY
G2	ENGINE COMPARTMENT / BELOW FRONT POWER DISTRIBUTION FUSE BOX
G9	CABIN / UPPER LH 'A' POST
G26	ENGINE COMPARTMENT / RH SIDE / REARWARD OF SUSPENSION TOWER
G30	ENGINE COMPARTMENT / LH SIDE / REARWARD OF SUSPENSION TOWER

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.

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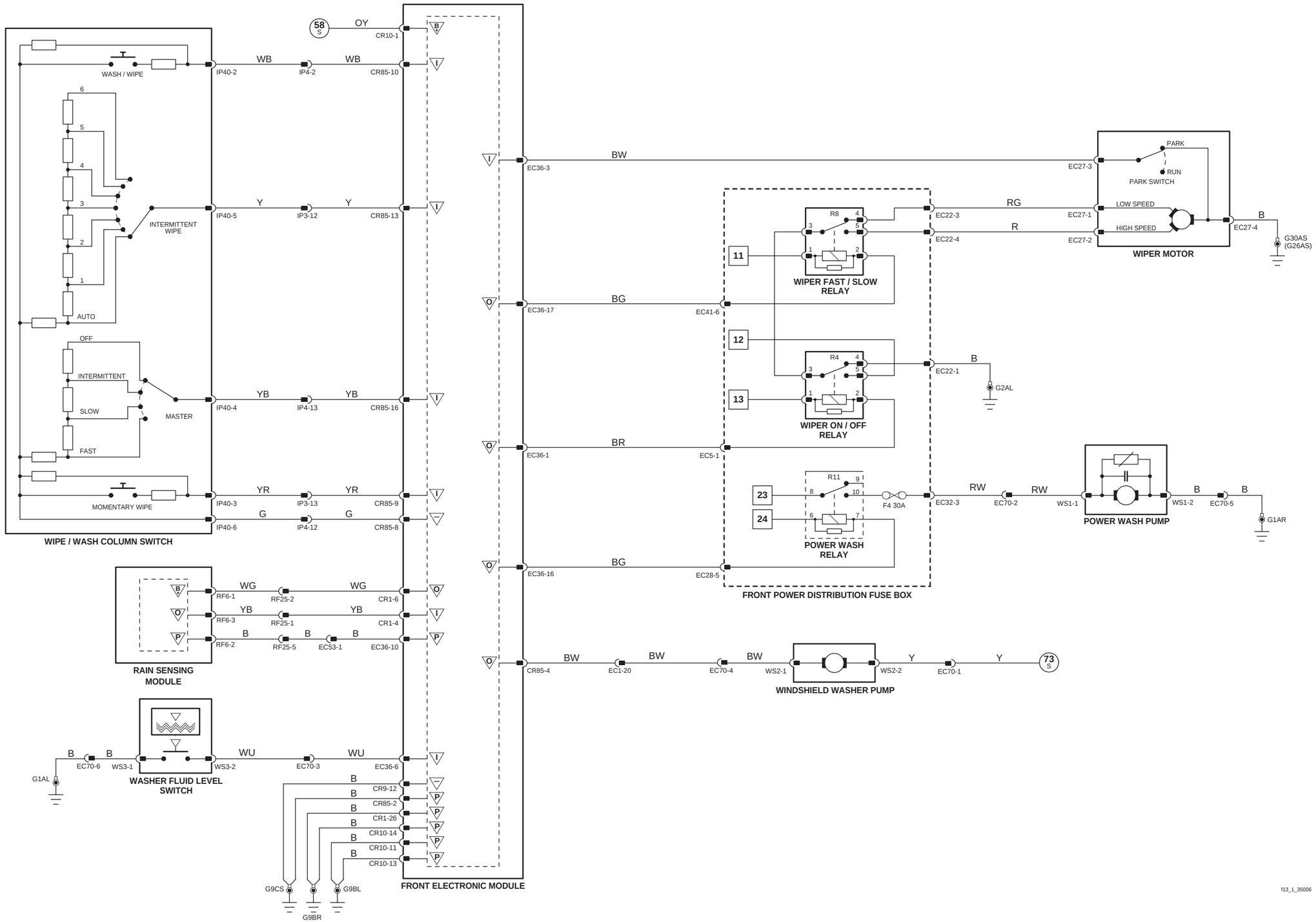

1 → 6 Fig. 01.1
7 → 63 Fig. 01.2
64 → 95 Fig. 01.3
1 I → 15 II Fig. 01.4
16 II → 52 II Fig. 01.5
53 S → 77 S Fig. 01.6
78 S → 105 S Fig. 01.7
106 E → 143 E Fig. 01.8

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Driver Door Module

	Pin	Description and Characteristic
I	DD11–16	DRIVER DOOR ALARM SET / LOCK SWITCH (NORMALLY OPEN): OPEN CIRCUIT / GROUND
I	DD11–17	DRIVER DOOR ALARM RESET / UNLOCK SWITCH (NORMALLY OPEN): OPEN CIRCUIT / GROUND
O	DD12–12	REAR WINDOW ISOLATE STATUS LED ACTIVATE: TO ACTIVATE, DDM SWITCHES CIRCUIT TO B+
I	DD12–22	REAR WINDOW ISOLATE SWITCH SIGNAL: NORMALLY CLOSED SWITCH, OPEN CIRCUIT WHEN SELECTED
S	DD13–3	SCP NETWORK +
S	DD13–4	SCP NETWORK –
SG	DD13–7	LOGIC GROUND: GROUND
B+	DD13–11	BATTERY POWER SUPPLY: LOGIC: B+

Front Electronic Module

	Pin	Description and Characteristic
O	CR1–14	POWER WINDOWS ENABLE: TO ACTIVATE, FEM SWITCHES CIRCUIT TO B+
O	CR1–15	GLOBAL CLOSE SIGNAL: 20 ms PULSED SIGNAL
S	CR9–1	SCP –
B+	CR9–6	BATTERY POWER SUPPLY (LOGIC): B+
S	CR9–7	SCP +
I	CR9–8	GLOBAL OPEN / CLOSE SWITCH SIGNAL: GROUND WHEN ACTIVATED
SG	CR9–12	LOGIC GROUND: GROUND

Rear Electronic Module

	Pin	Description and Characteristic
B+	CR4–3	BATTERY POWER SUPPLY (LOGIC): B+
PG	CR11–11	POWER GROUND: GROUND
SG	CR11–25	LOGIC GROUND: GROUND
O	CR12–2	REAR WINDOW ISOLATE: TO ISOLATE, REM INTERRUPTS GROUND SUPPLY
S	CR13–1	SCP +
S	CR13–2	SCP –

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.

Fig. 14.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
CENTER CONSOLE SWITCH PACK	CL1	8-WAY / BLACK	CENTER CONSOLE
	CL2	8-WAY / BLACK	
DOOR LATCH – DRIVER	DD2	8-WAY / BLACK	DRIVER DOOR TRIM
DOOR SWITCH PACK – DRIVER	DT4	20-WAY / BLACK	DRIVER DOOR TRIM
DOOR SWITCH PACK – LH REAR	LT3	8-WAY / BLACK	LH REAR DOOR TRIM
DOOR SWITCH PACK – PASSENGER	PT4	8-WAY / BLACK	PASSENGER DOOR TRIM
DOOR SWITCH PACK – RH REAR	RT3	8-WAY / BLACK	RH REAR DOOR TRIM
DRIVER DOOR MODULE	DD11	20-WAY / BLACK	DRIVER DOOR
	DD12	26-WAY / BLACK	
	DD13	26-WAY / NATURAL	
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	
ROOF CONSOLE	RF3	22-WAY / BLACK	ROOF HEADLINER
SLIDING ROOF MODULE	CR30	10-WAY / GREY	ABOVE ROOF CONSOLE
WINDOW MOTOR ASSEMBLY – DRIVER	DD6	8-WAY / GREY	DRIVER DOOR
WINDOW MOTOR ASSEMBLY – LH REAR	RL6	8-WAY / GREY	PASSENGER DOOR
WINDOW MOTOR ASSEMBLY – PASSENGER	PD6	8-WAY / GREY	LH REAR DOOR
WINDOW MOTOR ASSEMBLY – RH REAR	RR6	8-WAY / GREY	RH REAR DOOR

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC1	22-WAY / GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
DT1	16-WAY / GREEN / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
DT6	16-WAY / BLUE / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
EC1	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
LT1	12-WAY / GREY / LH REAR DOOR HARNESS TO LH REAR DOOR TRIM HARNESS	CABIN / LH REAR DOOR TRIM
PD1	14-WAY / BLUE / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
PD16	22-WAY / BLACK / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
PT1	12-WAY / GREY / PASSENGER DOOR HARNESS TO PASSENGER DOOR TRIM HARNESS	CABIN / BEHIND PASSENGER DOOR TRIM
RF1	10-WAY / GREY / CABIN HARNESS TO ROOF HARNESS	CABIN / UPPER RH 'A' POST
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
RL1	6-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RL9	16-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RR1	6-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
RR9	16-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
RT1	12-WAY / GREY / RH REAR DOOR HARNESS TO RH REAR DOOR TRIM HARNESS	CABIN / RH REAR DOOR TRIM

GROUNDS

Ground	Location
G9	CABIN / UPPER LH A POST
G10	CABIN / RH 'A' POST
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G17	CABIN / BELOW REAR SEAT / RH SIDE
G24	TRUNK / RH SIDE / REAR ELECTRONIC MODULE

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.

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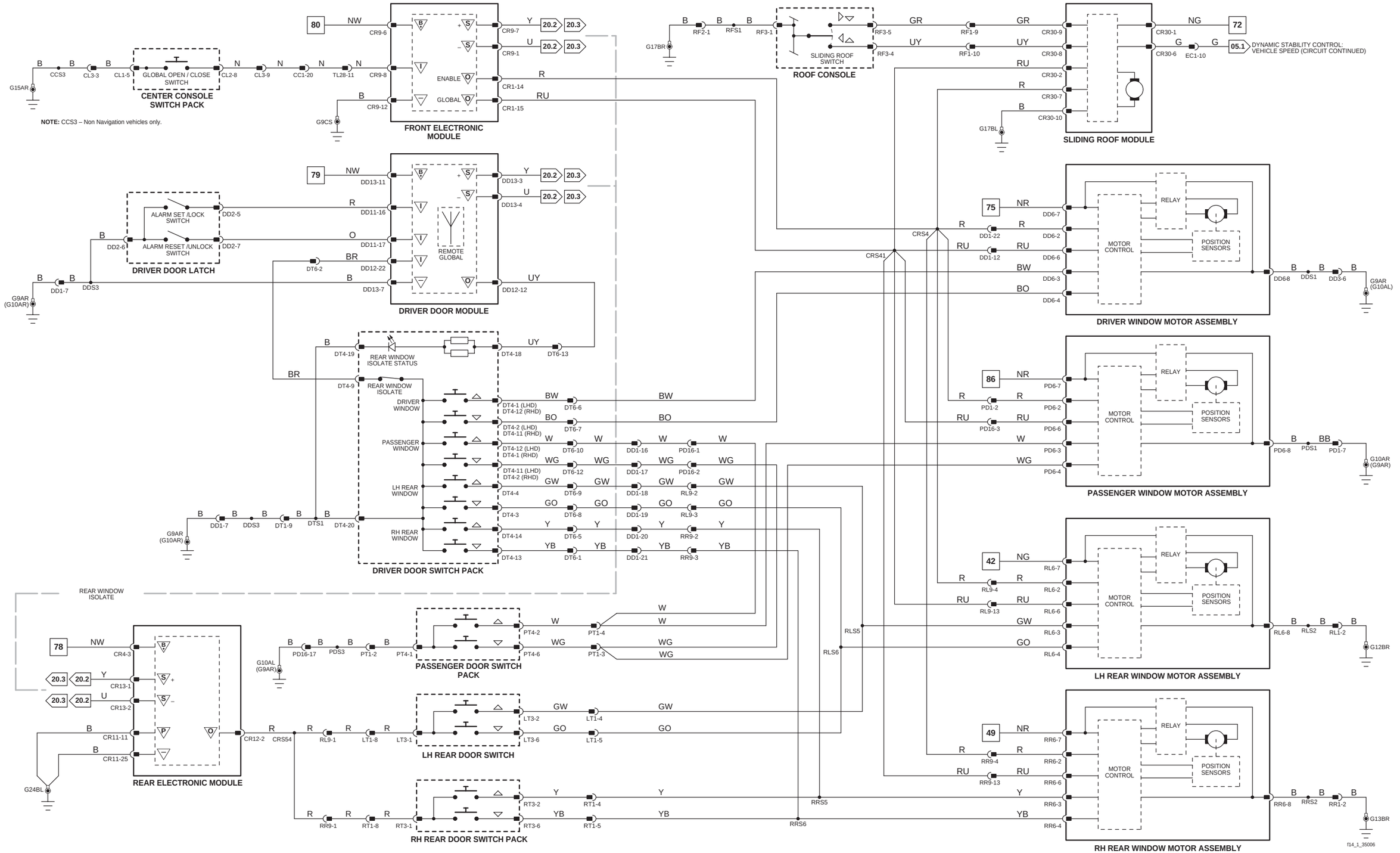

1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 → 52 Fig. 01.5	78 → 105 Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	All Vehicles
7 → 63 Fig. 01.2	1 → 15 Fig. 01.4	53 → 77 Fig. 01.6	106 → 143 Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Audio Unit – Premium

	Pin	Description and Characteristic
PG	CC8–1	POWER GROUND: GROUND
B+	CC8–2	IGNITION SWITCHED POWER SUPPLY (I): B+
O	CC8–3	LH REAR AUDIO +
O	CC8–4	LH REAR AUDIO –
O	CC8–5	RH REAR AUDIO +
O	CC8–6	RH REAR AUDIO –
I	CC8–7	TELEPHONE MUTE SIGNAL
O	CC8–8	SECURITY SYSTEM GROUND SENSING: GROUND WHEN AUDIO UNIT INSTALLED
S	CC8–9	SCP +
S	CC8–10	SCP –
B+	CC8–11	BATTERY POWER SUPPLY: B+
O	CC8–13	LH FRONT AUDIO –
O	CC8–14	LH REAR AUDIO +
O	CC8–15	RH FRONT AUDIO –
O	CC8–16	RH REAR AUDIO +
I	CC8–17	DIMMER-CONTROLLED ILLUMINATION: PWM, 80 Hz, GROUND = 0% DUTY CYCLE, B+ = 100% DUTY CYCLE
I	CC8–18	STEERING WHEEL SWITCHES: STEPPED RESISTANCE
O	CC8–19	D2B NETWORK WAKE-UP
I	CC9–1	ANTENNA
SG	CC9–2	ANTENNA SHIELD
D2	CC21–1	D2B NETWORK TRANSMIT
D2	CC21–2	D2B NETWORK RECEIVE

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.

Fig. 15.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
AM / FM ANTENNA AMPLIFIER	TL11	3-WAY / BLACK	CABIN / LH 'D' POST
	TL26	2-WAY / BLACK	
AUDIO UNIT	CC8	20-WAY / BLACK	CENTER CONSOLE
	CC9	2-WAY / BLACK	
	CC21	FIBER OPTIC CONNECTOR	
CD AUTOCHANGER	DB2	FIBER OPTIC CONNECTOR	TRUNK / LH SIDE / MODULE STACK / THIRD FROM TOP
	TL5	3-WAY / BLACK	
HEATED REAR WINDOW	HW1	1-WAY / BLACK	CABIN / BEHIND REAR SEAT BACK / LH SIDE (CONNECTOR LOCATION)
	HW2	1-WAY / BLACK	CABIN / BEHIND REAR SEAT BACK / LH SIDE (CONNECTOR LOCATION)
MID-BASS SPEAKER – LH FRONT	DD4	2-WAY / WHITE	LH FRONT DOOR
	PD4	2-WAY / WHITE	
MID-BASS SPEAKER – LH REAR	RL4	2-WAY / WHITE	LH REAR DOOR
MID-BASS SPEAKER – RH FRONT	DD4	2-WAY / WHITE	
	PD4	2-WAY / WHITE	RH FRONT DOOR
MID-BASS SPEAKER – RH REAR	RR4	2-WAY / WHITE	RH REAR DOOR
STEERING WHEEL AUDIO SWITCHES	—	—	STEERING WHEEL
TWEETER SPEAKER – LH FRONT	DT3	2-WAY / WHITE	LH FRONT DOOR
	PT3	2-WAY / WHITE	
TWEETER SPEAKER – LH REAR	LT4	2-WAY / WHITE	LH REAR DOOR
TWEETER SPEAKER – RH FRONT	DT3	2-WAY / WHITE	
	PT3	2-WAY / WHITE	RH FRONT DOOR
TWEETER SPEAKER – RH REAR	RT4	2-WAY / WHITE	RH REAR DOOR

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC7	10-WAY / GREY / 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)
CC19	2-WAY / BLACK / AUDIO UNIT ANTENNA	CABIN / BEHIND CENTER CONSOLE
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
DT1	16-WAY / GREEN / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
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
LT1	12-WAY / GREY / LH REAR DOOR HARNESS TO LH REAR DOOR TRIM HARNESS	CABIN / LH REAR DOOR TRIM
PD1	14-WAY / BLUE / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
PT1	12-WAY / GREY / PASSENGER DOOR HARNESS TO PASSENGER DOOR TRIM HARNESS	CABIN / BEHIND PASSENGER DOOR TRIM
RL1	6-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RR1	6-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
RT1	12-WAY / GREY / RH REAR DOOR HARNESS TO RH REAR DOOR TRIM HARNESS	CABIN / RH REAR DOOR TRIM
TL31	14-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW CENTER CONSOLE / RH SIDE OF TRANSMISSION TUNNEL

GROUNDS

Ground	Location
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G25	TRUNK / LH SIDE / ADJACENT TO CD AUTOCHANGER

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.

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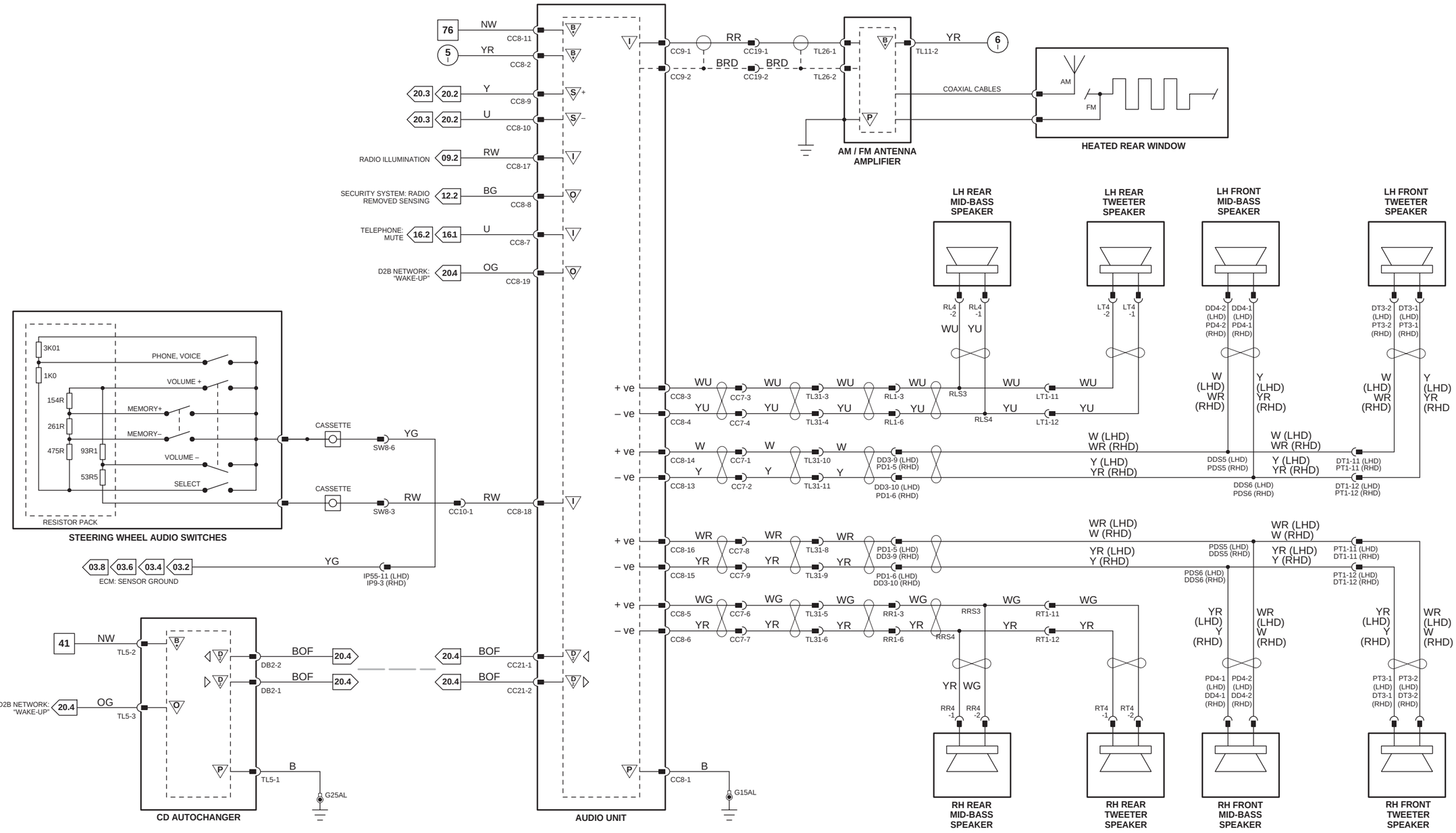

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 (I) → 52 (I) Fig. 01.5	78 (S) → 105 (S) Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	Premium ICE Vehicles
7 → 63 Fig. 01.2	1 (I) → 15 (I) Fig. 01.4	53 (S) → 77 (S) Fig. 01.6	106 (E) → 143 (E) Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Audio Unit – Audiophile

	Pin	Description and Characteristic
PG	CC8–1	POWER GROUND: GROUND
B+	CC8–2	IGNITION SWITCHED POWER SUPPLY (I): B+
I	CC8–7	TELEPHONE MUTE SIGNAL
O	CC8–8	SECURITY SYSTEM GROUND SENSING: GROUND WHEN AUDIO UNIT INSTALLED
S	CC8–9	SCP +
S	CC8–10	SCP –
B+	CC8–11	BATTERY POWER SUPPLY: B+
I	CC8–17	DIMMER-CONTROLLED ILLUMINATION: PWM, 80 Hz, GROUND = 0% DUTY CYCLE, B+ = 100% DUTY CYCLE
I	CC8–18	STEERING WHEEL SWITCHES: STEPPED RESISTANCE
O	CC8–19	D2B NETWORK WAKE-UP
I	CC9–1	ANTENNA
SG	CC9–2	ANTENNA SHIELD
D2	CC21–1	D2B NETWORK TRANSMIT
D2	CC21–2	D2B NETWORK RECEIVE

Power Amplifier

	Pin	Description and Characteristic
D2	DB7–1	D2B NETWORK TRANSMIT
D2	DB7–2	D2B NETWORK RECEIVE
PG	TL9–2	POWER GROUND: GROUND
B+	TL9–3	BATTERY POWER SUPPLY: B+
O	TL9–5	D2B NETWORK WAKE-UP
PG	TL9–8	POWER GROUND: GROUND
B+	TL9–9	BATTERY POWER SUPPLY: B+
O	TL10–2	RH SUBWOOFER AUDIO +
O	TL10–3	LH SUBWOOFER AUDIO –
O	TL10–4	LH REAR AUDIO +
O	TL10–5	LH FRONT AUDIO +
O	TL10–6	RH FRONT AUDIO –
O	TL10–7	LH FASCIA AUDIO +
O	TL10–8	RH FASCIA AUDIO –
O	TL10–10	RH SUBWOOFER AUDIO –
O	TL10–11	LH SUBWOOFER AUDIO +
O	TL10–12	LH REAR AUDIO –
O	TL10–13	RH REAR AUDIO –
O	TL10–14	RH REAR AUDIO +
O	TL10–15	LH FRONT AUDIO –
O	TL10–16	RH FRONT AUDIO +
O	TL10–17	LH FASCIA AUDIO –
O	TL10–18	RH FASCIA AUDIO +

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.

Fig. 15.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
AM / FM ANTENNA AMPLIFIER	TL11	3-WAY / BLACK	CABIN / LH 'D' POST
	TL26	2-WAY / BLACK	
AUDIO UNIT	CC8	20-WAY / BLACK	CENTER CONSOLE
	CC9	2-WAY / BLACK	
	CC21	FIBER OPTIC CONNECTOR	
CD AUTOCHANGER	DB2	FIBER OPTIC CONNECTOR	TRUNK / LH SIDE / MODULE STACK / THIRD FROM TOP
	TL5	3-WAY / BLACK	
HEATED REAR WINDOW	HW1	1-WAY / BLACK	CABIN / BEHIND REAR SEAT BACK / LH SIDE (CONNECTOR LOCATION)
	HW2	1-WAY / BLACK	CABIN / BEHIND REAR SEAT BACK / LH SIDE (CONNECTOR LOCATION)
MID-BASS SPEAKER – LH FRONT	DD4	2-WAY / WHITE	LH FRONT DOOR
	PD4	2-WAY / WHITE	
MID-BASS SPEAKER – LH REAR	RL4	2-WAY / WHITE	LH REAR DOOR
MID-BASS SPEAKER – RH FRONT	DD4	2-WAY / WHITE	
	PD4	2-WAY / WHITE	RH FRONT DOOR
MID-BASS SPEAKER – RH REAR	RR4	2-WAY / WHITE	RH REAR DOOR
MID-RANGE SPEAKER – LH FASCIA	IP25	2-WAY / WHITE	INSTRUMENT PANEL / LH SIDE
MID-RANGE SPEAKER – RH FASCIA	IP30	2-WAY / WHITE	INSTRUMENT PANEL / RH SIDE
POWER AMPLIFIER	TL9	12-WAY / WHITE	LUGGAGE COMPARTMENT, LH REAR
	TL10	18-WAY / WHITE	
	DB7	FIBER OPTIC CONNECTOR	
STEERING WHEEL AUDIO SWITCHES	—	—	STEERING WHEEL
SUBWOOFER – LH	TL3	2-WAY / WHITE	PARCEL SHELF, LH SIDE
SUBWOOFER – RH	TL61	2-WAY / WHITE	PARCEL SHELF, RH SIDE
TWEETER SPEAKER – LH FRONT	DT3	2-WAY / WHITE	LH FRONT DOOR
	PT3	2-WAY / WHITE	
TWEETER SPEAKER – LH REAR	LT4	2-WAY / WHITE	LH REAR DOOR
TWEETER SPEAKER – RH FRONT	DT3	2-WAY / WHITE	
	PT3	2-WAY / WHITE	RH FRONT DOOR
TWEETER SPEAKER – RH REAR	RT4	2-WAY / WHITE	RH REAR DOOR

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC2	22-WAY / BLACK / 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)
CC19	2-WAY / BLACK / AUDIO UNIT ANTENNA	CABIN / BEHIND CENTER CONSOLE
DD3	10-WAY / GREY / DRIVER DOOR HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / DRIVER SIDE 'A' POST
DT1	16-WAY / GREEN / DRIVER DOOR HARNESS TO DRIVER DOOR TRIM HARNESS	CABIN / BEHIND DRIVER DOOR TRIM
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
LT1	12-WAY / GREY / LH REAR DOOR HARNESS TO LH REAR DOOR TRIM HARNESS	CABIN / LH REAR DOOR TRIM
PD1	14-WAY / BLUE / CABIN HARNESS TO PASSENGER DOOR HARNESS	CABIN / PASSENGER SIDE 'A' POST
PT1	12-WAY / GREY / PASSENGER DOOR HARNESS TO PASSENGER DOOR TRIM HARNESS	CABIN / BEHIND PASSENGER DOOR TRIM
RL1	6-WAY / GREY / LH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / LH 'B/C' POST
RR1	6-WAY / GREY / RH REAR DOOR HARNESS TO CABIN HARNESS	CABIN / RH 'B/C' POST
RT1	12-WAY / GREY / RH REAR DOOR HARNESS TO RH REAR DOOR TRIM HARNESS	CABIN / RH REAR DOOR TRIM
TL31	14-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW CENTER CONSOLE / RH SIDE OF TRANSMISSION TUNNEL

GROUNDS

Ground	Location
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G25	TRUNK / LH SIDE / ADJACENT TO CD AUTOCHANGER

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.

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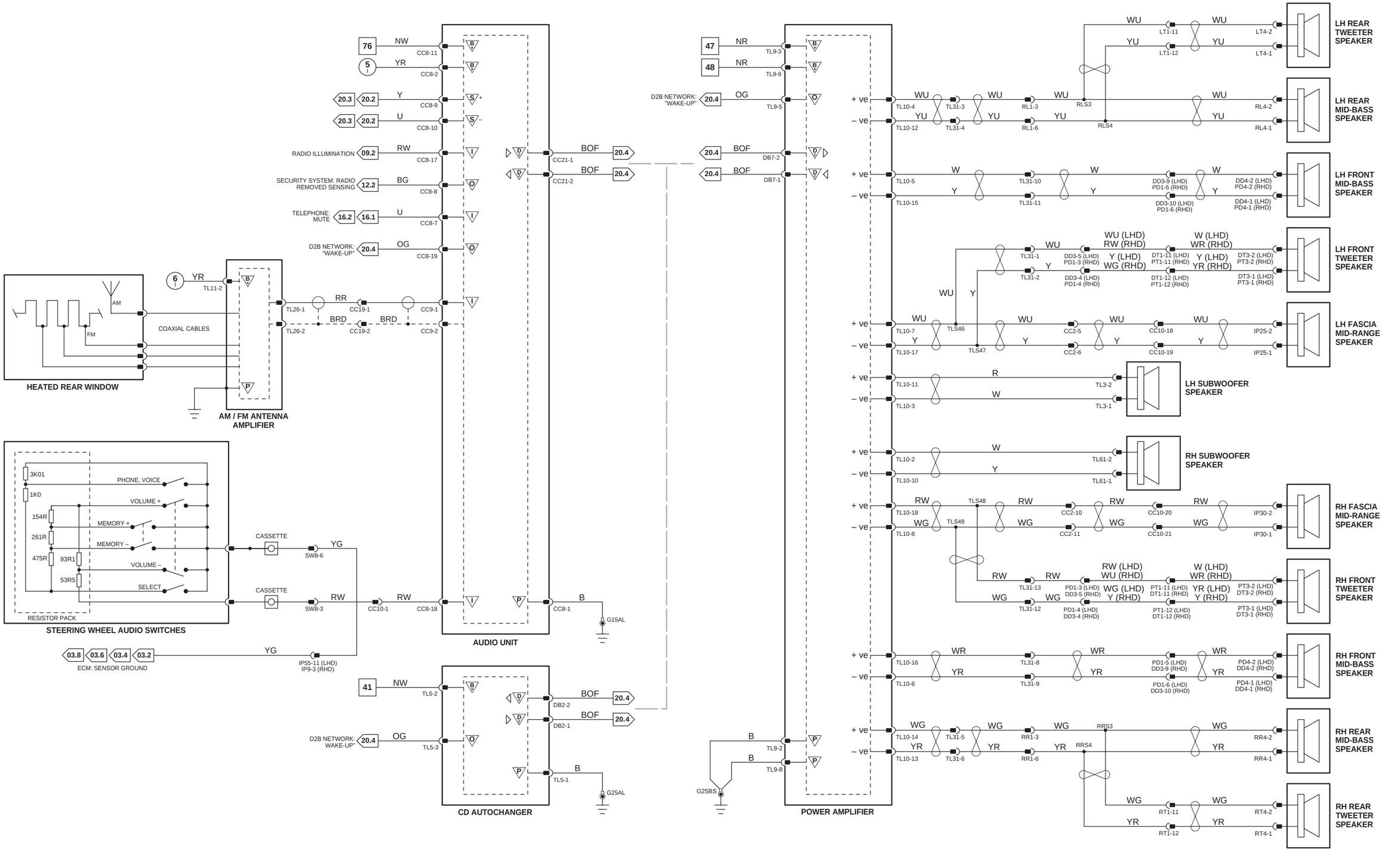


1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 (F) → 52 (F) Fig. 01.5	78 (S) → 105 (S) Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	Audiophile ICE Vehicles
7 → 63 Fig. 01.2	1 (I) → 15 (F) Fig. 01.4	53 (S) → 77 (S) Fig. 01.6	106 (E) → 143 (E) Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Fig. 15.3

COMPONENTS

Component	Connector(s)	Connector Description	Location
ARMREST LID SWITCH	RC7	3-WAY / BLACK	REAR SEAT ARMREST
AUDIO / VIDEO SELECTOR	TL20	20-WAY / BLACK	CABIN REAR BULKHEAD / BEHIND REAR SEAT BACK / LH SIDE
	TL85	20-WAY / BLACK	
	TL86	20-WAY / BLACK	
	TL87	20-WAY / BLACK	
DVD PLAYER	TL32	4-WAY / NATURAL	TRUNK / LH SIDE / MODULE STACK / TOP
	TL47	13-WAY / BLACK	
MULTIMEDIA CONTROL PANEL	RC1	8-WAY / BLACK	REAR SEAT ARM REST OR REAR FLOOR CONSOLE
	RC3	20-WAY / BLACK	
	RC5	FIBER OPTIC CONNECTOR	
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	
TELEMATICS DISPLAY	CC11	12-WAY / BLACK	CENTER CONSOLE
	CC12	22-WAY / BLACK	
	CC13	2-WAY / BLACK	
	CC14	2-WAY / BLACK	
	CC15	2-WAY / BLACK	
	CC16	2-WAY / BLACK	
TELEVISION SCREEN – LH REAR	VL1	20-WAY / GREEN	LH FRONT SEAT HEAD REST
TELEVISION SCREEN – RH REAR	VR1	20-WAY / GREEN	RH FRONT SEAT HEAD REST

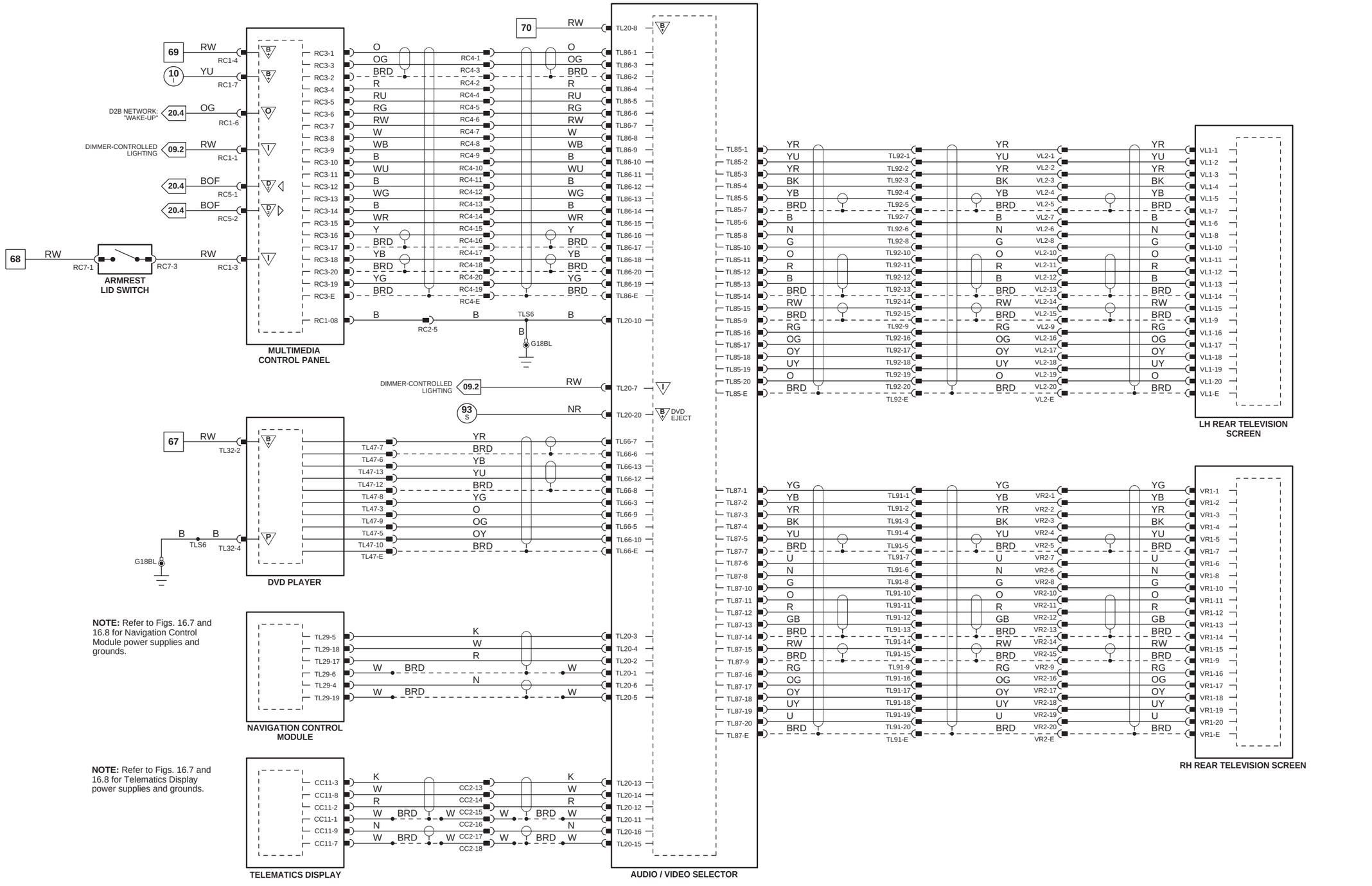
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC2	22-WAY / BLACK / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
RC4	20-WAY / BLACK / TELEMATICS HARNESS TO REAR IN-CAR ENTERTAINMENT CONTROLS HARNESS	CABIN / BELOW CENTER CONSOLE
TL91	20-WAY / BLACK / TELEMATICS HARNESS TO RH REAR TELEVISION HARNESS	CABIN / BELOW RH FRONT SEAT
TL92	20-WAY / GREEN / TELEMATICS HARNESS TO LH REAR TELEVISION HARNESS	CABIN / BELOW LH FRONT SEAT
VL2	21-WAY / BLACK / TELEMATICS HARNESS TO LH REAR TELEVISION HARNESS	CABIN / BEHIND LH FRONT SEAT BACK FINISHER
VR2	21-WAY / BLACK / TELEMATICS HARNESS TO RH REAR TELEVISION HARNESS	CABIN / BEHIND RH FRONT SEAT BACK FINISHER

GROUNDS

Ground	Location
G18	CABIN / BELOW REAR SEAT / LH SIDE

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.



NOTE: Refer to Figs. 16.7 and 16.8 for Navigation Control Module power supplies and grounds.

NOTE: Refer to Figs. 16.7 and 16.8 for Telematics Display power supplies and grounds.

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 → 52 Fig. 01.5	78 → 105 Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP, S SCP
7 → 63 Fig. 01.2	1 → 15 Fig. 01.4	53 → 77 Fig. 01.6	106 → 143 Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN, D Serial and Encoded Data

VARIANT: Rear ICE Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Audio Unit

	Pin	Description and Characteristic
I	CC8–7	TELEPHONE MUTE SIGNAL

Cellular Phone 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	TL7-2	HANDS FREE AUDIO TO PHONE
O	TL7–3	PHONE ON / OFF (RESPONSE TO INCOMING AUDIO)
O	TL7–4	MUTE COMMAND
O	TL7-6	PHONE BATTERY VOLTAGE
PG	TL7–9	POWER GROUND: GROUND
SG	TL7-10	ANALOG 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
SG	TL7-21	TELEPHONE SHIELD: GROUND
D	TL7–22	TELEPHONE SERIAL COMMUNICATIONS DATA
I	TL7–23	D2B NETWORK WAKE-UP
I	TL7–25	POWER GROUND: GROUND
I	TL7–26	TELEPHONE LOGIC GROUND: GROUND
I	TL7–29	IGNITION SWITCHED POWER SUPPLY (II): B+

Fig. 16.1

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	TL48	10-WAY / GREY	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	
TELEMATICS DISPLAY	CC12	22-WAY / BLACK	CENTER CONSOLE
	CC13	2-WAY / BLACK	
	CC14	2-WAY / BLACK	
	CC15	2-WAY / BLACK	
	CC16	2-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
RF26	8-WAY / BLACK / TELEMATICS HARNESS TO ROOF HARNESS	CABIN / LH 'D' POST

GROUNDS

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.

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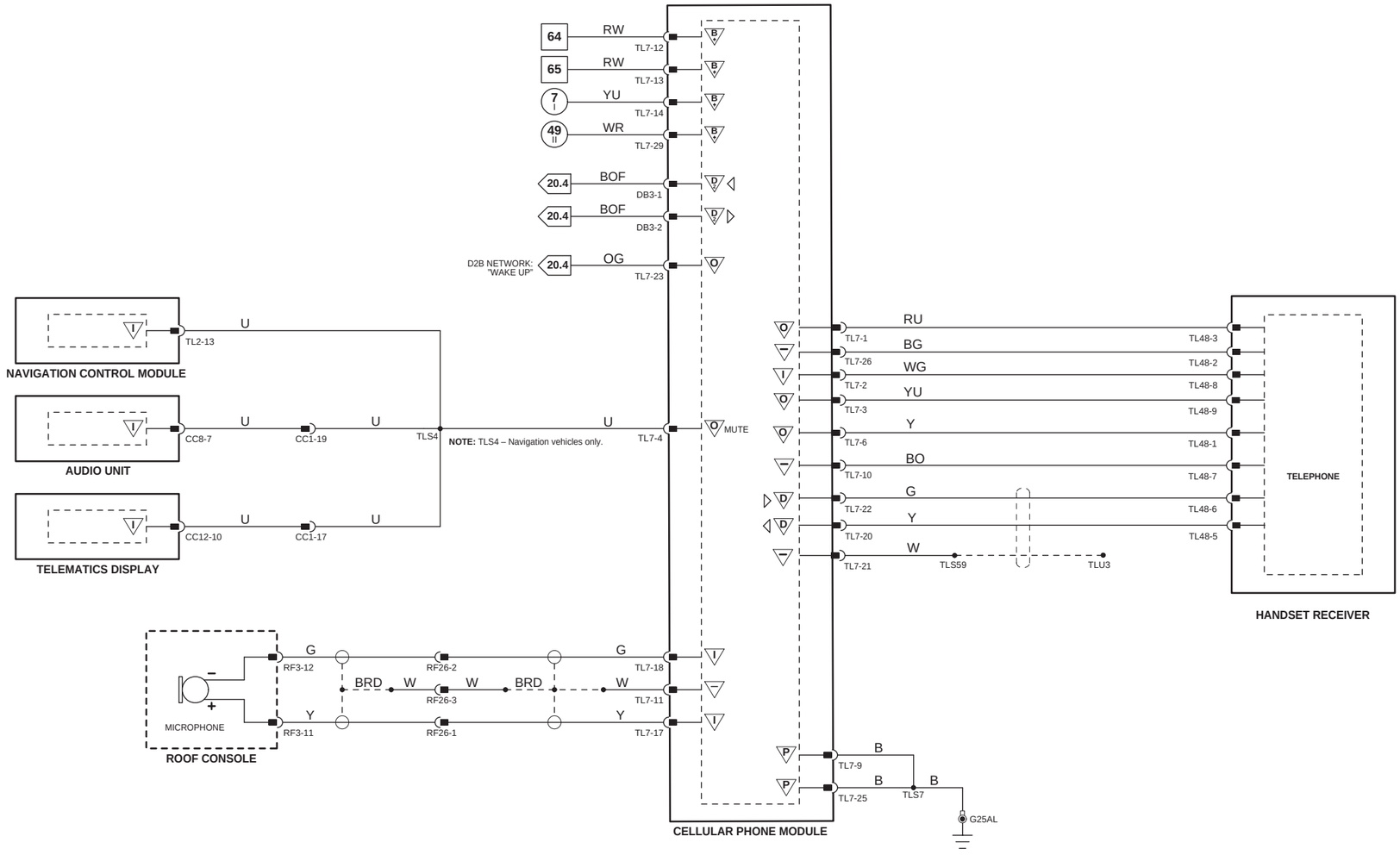

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1 → 6 Fig. 01.1
7 → 63 Fig. 01.2
64 → 95 Fig. 01.3
1 (I) → 15 (II) Fig. 01.4
16 (II) → 52 (II) Fig. 01.5
53 (S) → 77 (S) Fig. 01.6
78 (S) → 105 (S) Fig. 01.7
106 (E) → 143 (E) Fig. 01.8

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

VARIANT: Telephone only Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

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	TL7–2	HANDS FREE AUDIO TO PHONE
O	TL7–3	PHONE ON / OFF (RESPONSE TO INCOMING AUDIO)
O	TL7–4	MUTE COMMAND
I	**TL7–6**	PHONE BATTERY VOLTAGE
PG	**TL7–9**	**POWER GROUND: GROUND**
SG	**TL7–10**	**ANALOG 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	TL7–21	TELEPHONE SERIAL COMMUNICATIONS DATA
D	TL7–22	TELEPHONE SERIAL COMMUNICATIONS DATA
I	TL7–23	D2B NETWORK WAKE-UP
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)
SG	TL68–7	MICROPHONE SHIELD
B+	TL68–8	IGNITION SWITCHED POWER SUPPLY (I)
SG	TL68–9	MICROPHONE SHIELD
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
I	TL68–18	MICROPHONE +
I	TL68–19	MICROPHONE –
I	TL68–20	MICROPHONE +
I	TL68–21	MICROPHONE –
B+	TL68–22	BATTERY POWER SUPPLY

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.

Fig. 16.2

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	TL48	10-WAY / GREY	CENTER CONSOLE
MICROPHONE	RF3	20-WAY / BLACK	ROOF CONSOLE
MICROPHONE – LH REAR	RF23	2-WAY	ROOF / LH REAR
MICROPHONE – RH REAR	RF24	2-WAY	ROOF / RH REAR
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	
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
RF26	8-WAY / BLACK / TELEMATICS HARNESS TO ROOF HARNESS	CABIN / LH 'D' POST
TL55	4-WAY / BLACK / TELEMATICS HARNESS TO REAR MICROPHONES	CABIN/ LH REAR SEAT BACK

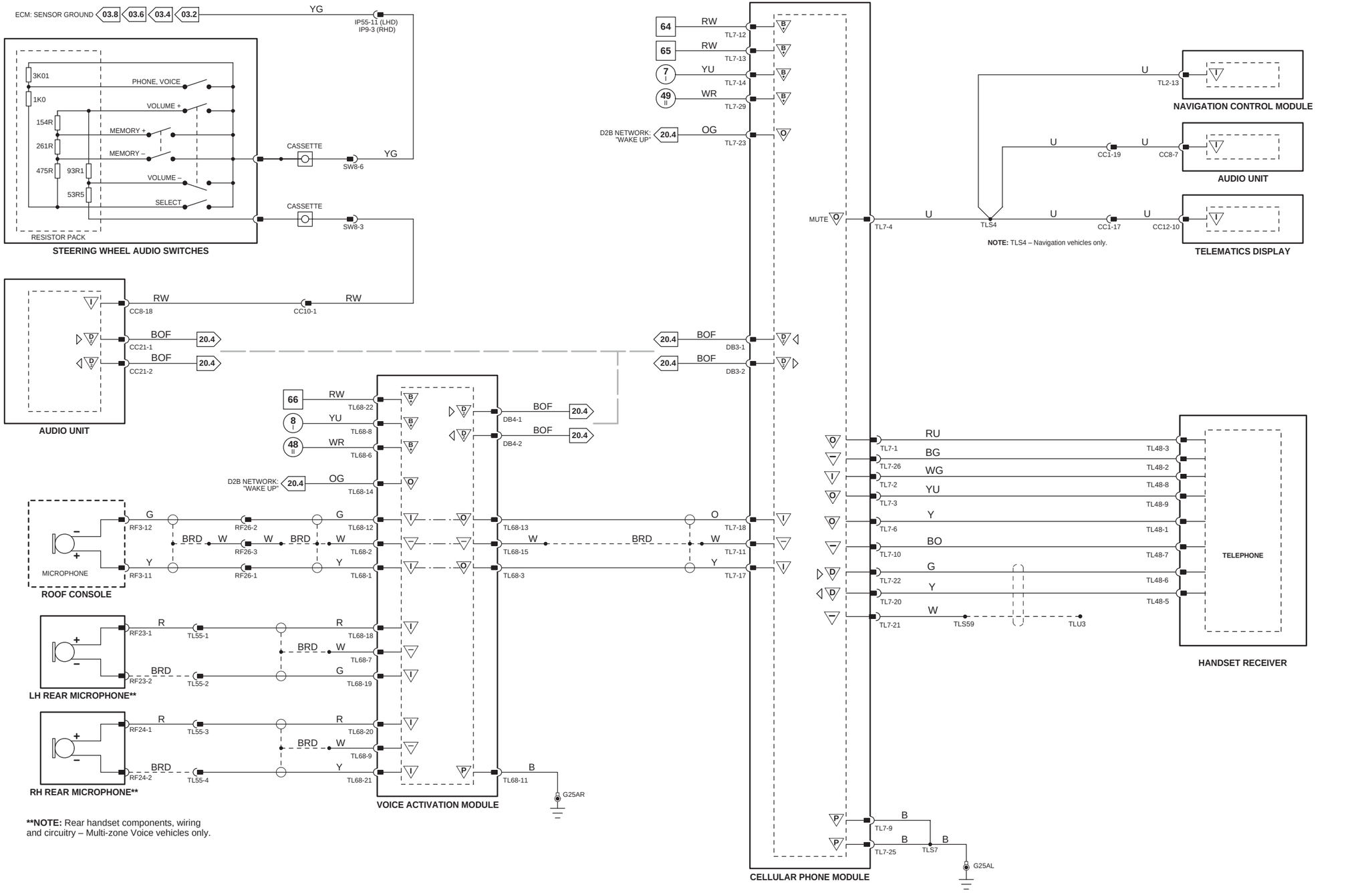
GROUNDS

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

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: April 2006



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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP, S SCP
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN, D Serial and Encoded Data

VARIANT: Telephone with Voice Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 16.3

COMPONENTS

Component	Connector(s)	Connector Description	Location
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	
NAVIGATION GPS ANTENNA	TL8	2-WAY / BLACK	PARCEL SHELF
TELEMATICS DISPLAY	CC12	22-WAY / BLACK	CENTER CONSOLE
	CC13	2-WAY / BLACK	
	CC14	2-WAY / BLACK	
	CC15	2-WAY / BLACK	
	CC16	2-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

GROUNDS

Ground	Location
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G25	TRUNK / LH SIDE / ADJACENT TO CD AUTOCHANGER

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

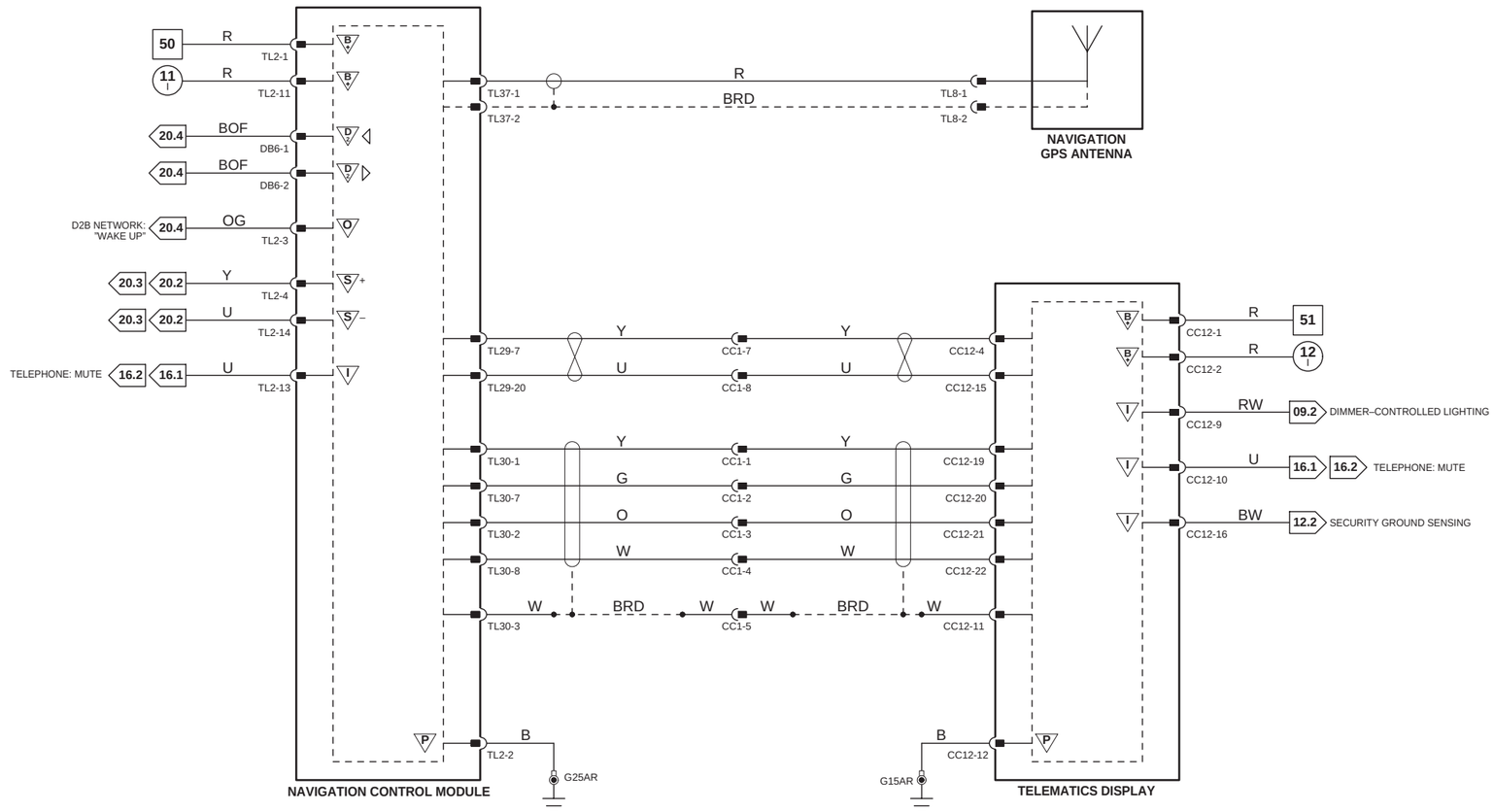
I	Input	PG	Power Ground	C	CAN Network	D	Serial and Encoded Data
O	Output	SS	Sensor / Signal Supply V	S	SCP Network	V	Voltage (DC)
B+	Battery Voltage	SG	Sensor / Signal Ground	D2	D2B Network	PWM	Pulse Width Modulated

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.

DATE OF ISSUE: April 2006



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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:** Navigation Vehicles (except Japan)
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:** All
									DATE OF ISSUE: April 2006

Fig. 16.4

COMPONENTS

Component	Connector(s)	Connector Description	Location
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	
NAVIGATION GPS ANTENNA	TL8	2-WAY / BLACK	PARCEL SHELF
TELEMATICS DISPLAY	CC12	22-WAY / BLACK	CENTER CONSOLE
	CC13	2-WAY / BLACK	
	CC14	2-WAY / BLACK	
	CC15	2-WAY / BLACK	
	CC16	2-WAY / BLACK	
TELEVISION ANTENNA 1	—	—	PARCEL SHELF
TELEVISION ANTENNA 2	—	—	PARCEL SHELF
TELEVISION ANTENNA 3	—	—	RH 'B/C' POST / UPPER
TELEVISION ANTENNA 4	—	—	RH 'B/C' POST / UPPER
TV ANTENNA AMPLIFIER 1	TL51	2-WAY / BLACK	PARCEL SHELF
TV ANTENNA AMPLIFIER 2	TL52	2-WAY / BLACK	PARCEL SHELF
TV ANTENNA AMPLIFIER 3	TL53	2-WAY / BLACK	RH 'B/C' POST / UPPER
TV ANTENNA AMPLIFIER 4	TL54	2-WAY / BLACK	RH 'B/C' POST / UPPER

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC1	22-WAY GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CC5	8-WAY BLACK / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE

GROUNDS

Ground	Location
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G25	TRUNK / LH SIDE / ADJACENT TO CD AUTOCHANGER

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.

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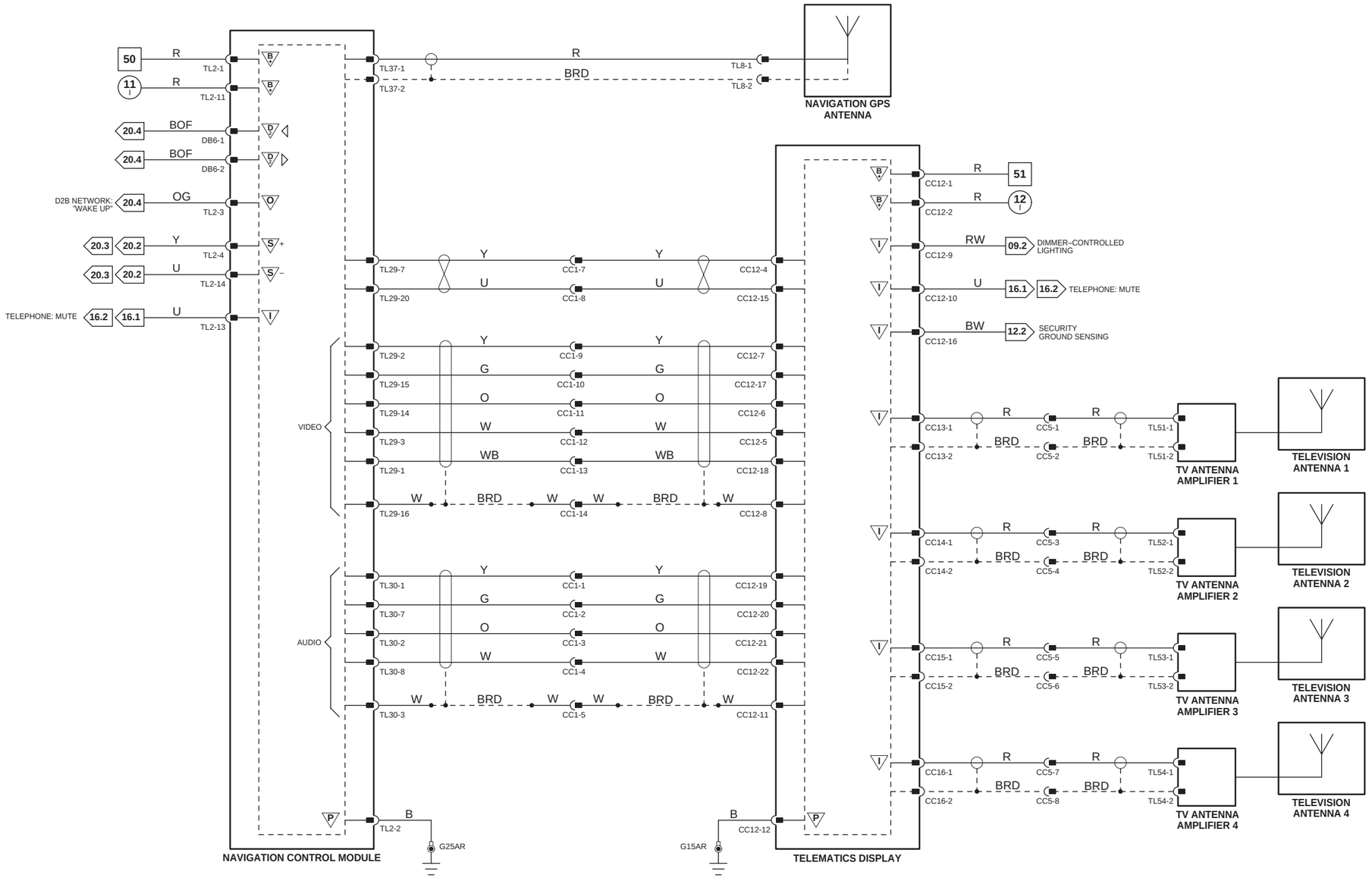

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1 → 6 Fig. 01.1
7 → 63 Fig. 01.2
64 → 95 Fig. 01.3
1 → 15 Fig. 01.4
16 → 52 Fig. 01.5
53 → 77 Fig. 01.6
78 → 105 Fig. 01.7
106 → 143 Fig. 01.8

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

VARIANT: Navigation + Television Vehicles (Except Japan)
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 16.5

COMPONENTS

Component	Connector(s)	Connector Description	Location
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	
NAVIGATION GPS ANTENNA	TL8	2-WAY / BLACK	PARCEL SHELF
TELEMATICS DISPLAY	CC12	22-WAY / BLACK	CENTER CONSOLE
	CC13	2-WAY / BLACK	
	CC14	2-WAY / BLACK	
	CC15	2-WAY / BLACK	
	CC16	2-WAY / BLACK	
TELEVISION ANTENNA 1	—	—	PARCEL SHELF
TELEVISION ANTENNA 2	—	—	PARCEL SHELF
TELEVISION ANTENNA 3	—	—	RH 'B/C' POST / UPPER
TELEVISION ANTENNA 4	—	—	RH 'B/C' POST / UPPER
TV ANTENNA AMPLIFIER 1	TL51	2-WAY / BLACK	PARCEL SHELF
TV ANTENNA AMPLIFIER 2	TL52	2-WAY / BLACK	PARCEL SHELF
TV ANTENNA AMPLIFIER 3	TL53	2-WAY / BLACK	RH 'B/C' POST / UPPER
TV ANTENNA AMPLIFIER 4	TL54	2-WAY / BLACK	RH 'B/C' POST / UPPER
VEHICLE INFORMATION ANTENNA	TL63	2-WAY / BLACK	INSTRUMENT PANEL / LH SIDE
VEHICLE INFORMATION CONTROL MODULE	TL16	10-WAY / NATURAL	TRUNK / LH SIDE / FORWARD OF MODULE STACK
	TL36	2-WAY / BLACK	
	TL64	2-WAY / BLACK	
VEHICLE INFORMATION SENSOR	CR108	2-WAY / BLACK	UPPER LF 'A' POST

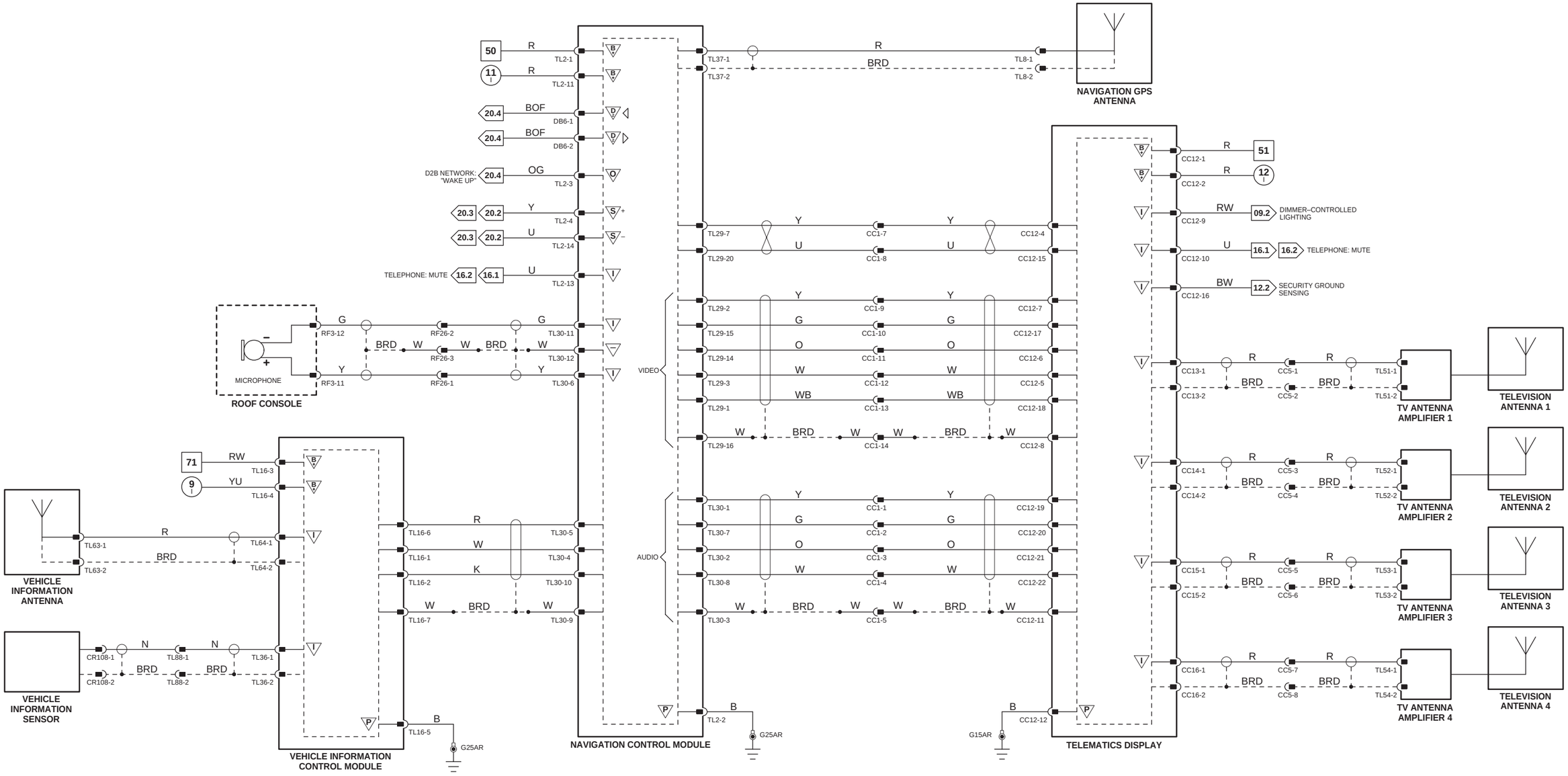
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC1	22-WAY / GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CC5	8-WAY / BLACK / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
RF26	8-WAY / BLACK / TELEMATICS HARNESS TO ROOF HARNESS	CABIN / LH 'D' POST
TL88	2-WAY / BLACK / CABIN HARNESS TO TELEMATICS HARNESS	CABIN / BELOW LH FRONT SEAT

GROUNDS

Ground	Location
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G25	TRUNK / LH SIDE / ADJACENT TO CD AUTOCHANGER

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.



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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 II → 52 II Fig. 01.5	78 S → 105 S Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:** Japan Navigation Vehicles
7 → 63 Fig. 01.2	1 I → 15 II Fig. 01.4	53 S → 77 S Fig. 01.6	106 E → 143 E Fig. 01.8	O Output	P Power Ground	– Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:** All
									DATE OF ISSUE: April 2006

Fig. 17.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
CURTAIN AIR BAG IGNITER – DRIVER	CR62	2-WAY / YELLOW	HEADLINER, DRIVER SIDE
CURTAIN AIR BAG IGNITER – PASSENGER	CR33	2-WAY / YELLOW	HEADLINER, PASSENGER SIDE
DRIVER SEAT POSITION SWITCH	SD20	2-WAY / GREY	DRIVER SEAT TRACK, LH SIDE
DUAL AIR BAG IGNITERS – DRIVER	SW11	2-WAY / BLACK	STEERING WHEEL
	SW12	2-WAY / BLACK	
FRONT IMPACT SENSOR	EC50	2-WAY / BLACK	FRONT CROSS MEMBER, CENTER
RESTRAINTS CONTROL MODULE	CR86	24-WAY / BLACK	TRANSMISSION TUNNEL, UNDER CENTER CONSOLE
	CR87	40-WAY / BLACK	
SEAT BELT PRETENSIONER IGNITER – CENTER REAR	CR65	2-WAY / YELLOW	SEAT BELT RETRACTOR
SEAT BELT PRETENSIONER IGNITER – DRIVER	SD19	4-WAY / GREY	SEAT BELT BUCKLE
SEAT BELT PRETENSIONER IGNITER – DRIVER SIDE REAR	CR64	2-WAY / YELLOW	SEAT BELT RETRACTOR
SEAT BELT PRETENSIONER IGNITER – PASSENGER	SP19	4-WAY / GREY	SEAT BELT BUCKLE
SEAT BELT PRETENSIONER IGNITER – PASSENGER SIDE REAR	CR66	2-WAY / YELLOW	SEAT BELT RETRACTOR
SEAT BELT SWITCH – DRIVER	SD19	4-WAY / GREY	SEAT BELT BUCKLE
SIDE AIR BAG IGNITER – DRIVER	SD17	2-WAY / YELLOW	DRIVER SEAT, SEAT BACK
SIDE AIR BAG IGNITER – PASSENGER	SP17	2-WAY / YELLOW	PASSENGER SEAT, SEAT BACK
SIDE IMPACT SENSOR – DRIVER	CR60	2-WAY / BLACK	DRIVER SIDE 'B/C' POST, LOWER
SIDE IMPACT SENSOR – DRIVER REAR	CR61	2-WAY / BLACK	DRIVER SIDE 'D' POST, LOWER
SIDE IMPACT SENSOR – PASSENGER	CR35	2-WAY / BLACK	PASSENGER SIDE 'B/C' POST, LOWER
SIDE IMPACT SENSOR – PASSENGER REAR	CR51	2-WAY / BLACK	PASSENGER SIDE 'D' POST, LOWER

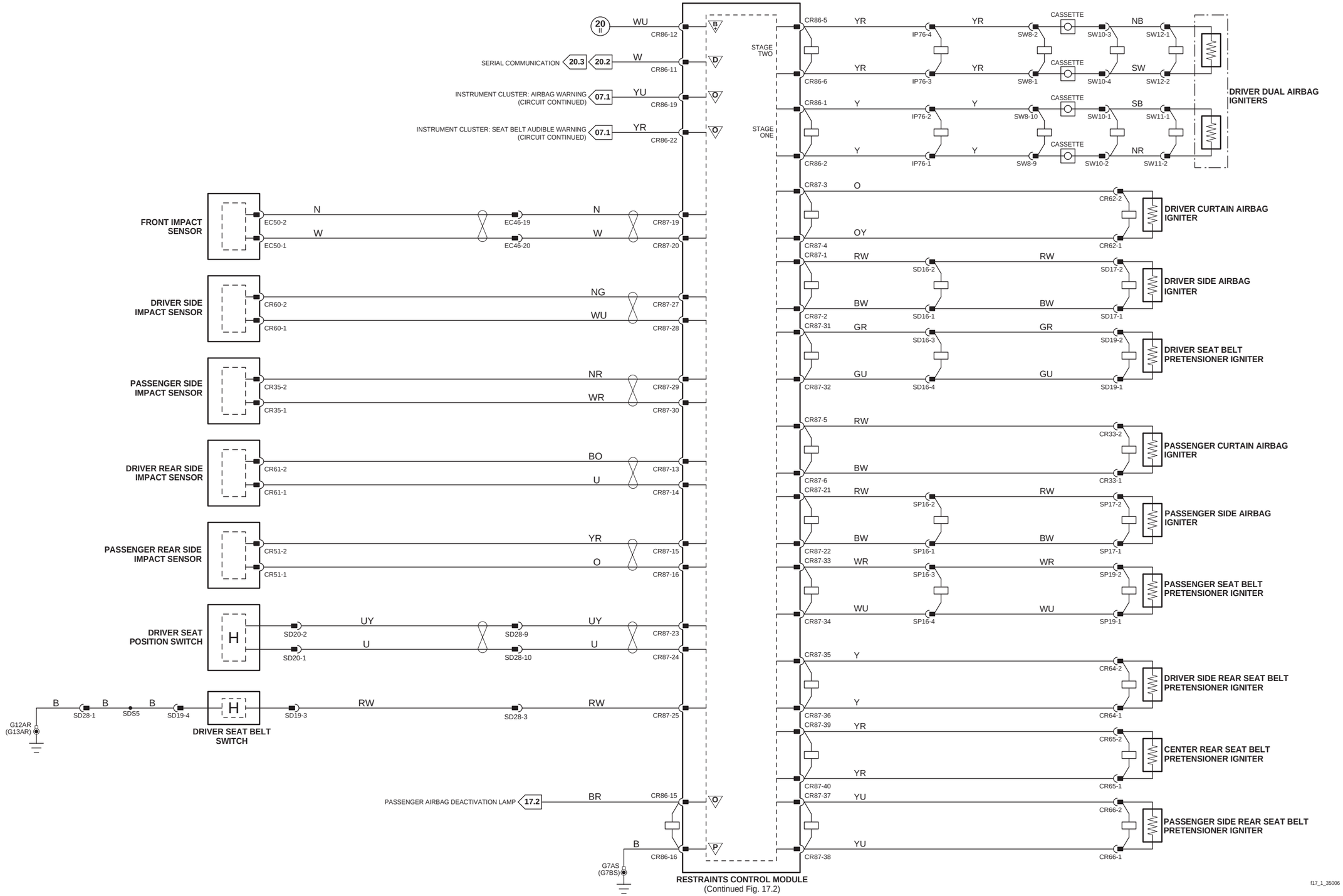
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
SD28	20-WAY / BLACK / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT

GROUNDS

Ground	Location
G7	CABIN / LH SIDE OF TRANSMISSION TUNNEL
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT

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.



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

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 17.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
DUAL AIR BAG IGNITERS – PASSENGER	IP15	2-WAY / BLACK	INSTRUMENT PANEL
	IP56	2-WAY / BLACK	
OCCUPANCY SENSING MODULE	SP30	26-WAY / BLACK	UNDER PASSENGER SEAT
PASSENGER AIR BAG DEACTIVATED INDICATOR LAMP	IP68	3-WAY / BLACK	INSTRUMENT PANEL / PASSENGER SIDE
PASSENGER SEAT WEIGHT PRESSURE SENSOR	SP3	3-WAY / BLACK	PASSENGER SEAT
PASSENGER SEAT WEIGHT SENSING MODULE	SP2	10-WAY / BLACK	UNDER PASSENGER SEAT
RESTRAINTS CONTROL MODULE	CR86	24-WAY / BLACK	TRANSMISSION TUNNEL, UNDER CENTER CONSOLE
	CR87	40-WAY / BLACK	
SEAT BELT SWITCH – PASSENGER	SP19	4-WAY / GREY	SEAT BELT BUCKLE
SEAT BELT TENSION SENSOR – PASSENGER	SP33	4-WAY / GREY	UNDER PASSENGER SEAT
SPATIAL SENSOR – CENTER CONSOLE (LHD)	CL6	2-WAY / BLACK	
SPATIAL SENSOR – CENTER CONSOLE (RHD)	CL7	2-WAY / BLACK	CENTER CONSOLE
SPATIAL SENSOR – HEADLINER INNER	RF16	2-WAY / BLACK	HEADLINER, ABOVE FRONT PASSENGER
SPATIAL SENSOR – HEADLINER OUTER	RF18	2-WAY / BLACK	HEADLINER, ABOVE FRONT PASSENGER
SPATIAL SENSOR – PASSENGER 'A' POST	CR105	2-WAY / BLACK	PASSENGER SIDE 'A' POST / UPPER

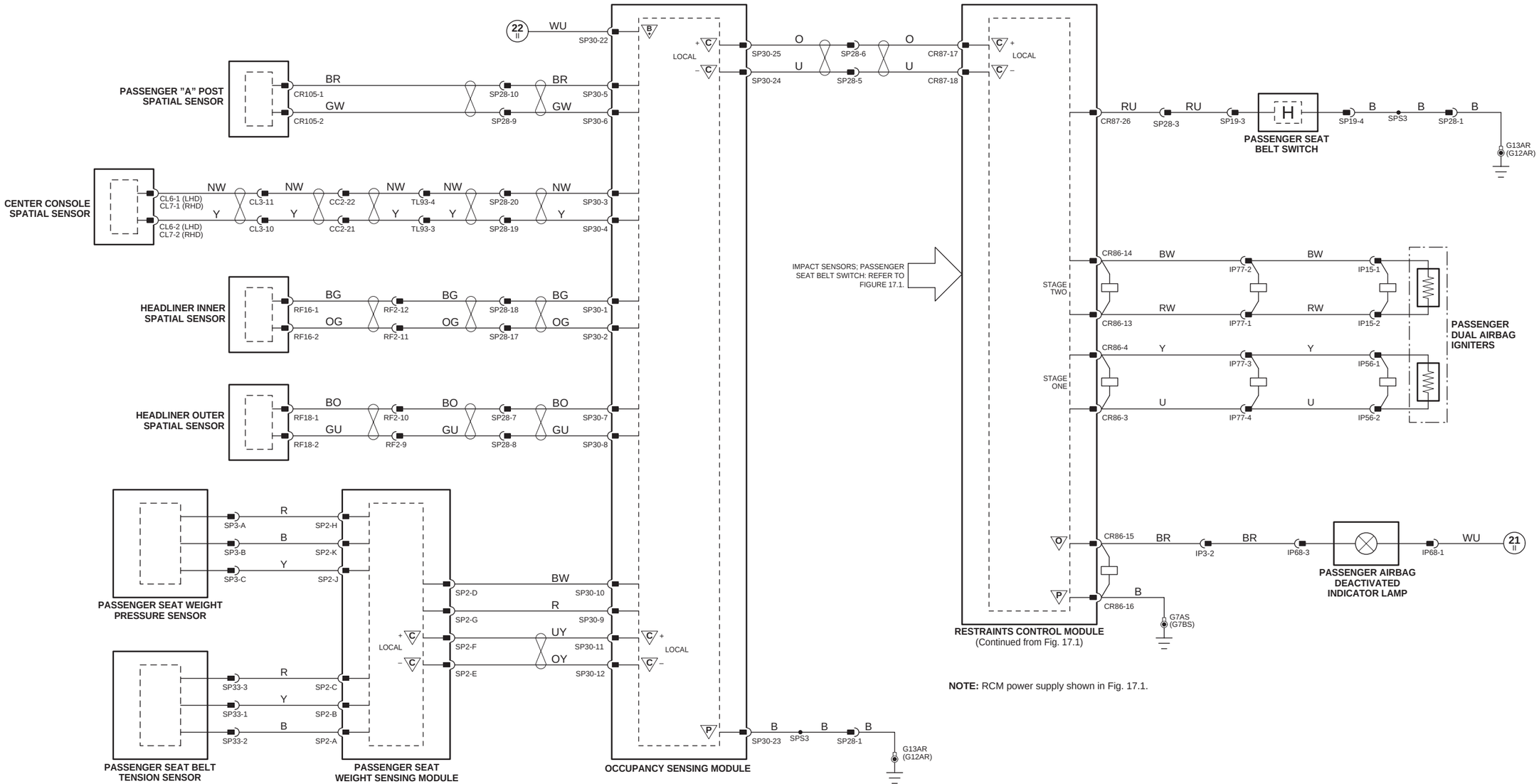
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC2	22-WAY / BLACK / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
IP3	14-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
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

GROUNDS

Ground	Location
G7	CABIN / LH SIDE OF TRANSMISSION TUNNEL
G12	CABIN / BELOW DRIVER SEAT
G13	CABIN / BELOW PASSENGER SEAT

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.



NOTE: RCM power supply shown in Fig. 17.1.

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1 → 6 Fig. 01.1	64 → 95 Fig. 01.3	16 (I) → 52 (I) Fig. 01.5	78 (S) → 105 (S) Fig. 01.7	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A ACP	S SCP	**VARIANT:**	All Vehicles
7 → 63 Fig. 01.2	1 (I) → 15 (I) Fig. 01.4	53 (S) → 77 (S) Fig. 01.6	106 (E) → 143 (E) Fig. 01.8	O Output	P Power Ground	− Sensor/Signal Ground	C CAN	D Serial and Encoded Data	**VIN RANGE:**	All
									DATE OF ISSUE:	April 2006

Instrument Cluster

	Pin	Description and Characteristic
C	IP6–8	CAN +
C	IP6–9	CAN –
S	IP6–10	SCP –
S	IP6–20	SCP +

Parking Aid Module

	Pin	Description and Characteristic
B+	CR52–1	IGNITION SWITCHED POWER SUPPLY (II): B+
SS	CR52–2	FRONT SENSOR SIGNAL SUPPLY VOLTAGE: B+
PG	CR52–3	POWER GROUND: GROUND
SG	CR52–4	REAR SENSOR SIGNAL GROUND: GROUND
D	CR52–5	SERIAL DATA LINK
I	CR52–6	CHIME INHIBIT SIGNAL: B+ = DRIVE OR REVERSE @ 0-15KPH
I	CR52–7	PARKING AID SWITCH SIGNAL: GROUND WHEN SWITCH IS PRESSED
I	CR52–8	TRAILER CONNECTED STATUS: GROUND = TRAILER CONNECTED
I	CR52–9	REVERSE LAMPS STATUS: B+ = REVERSE LAMPS OFF
D	CR52–10	REAR LH CENTER SENSOR SIGNAL DATA: APPROX 9V
D	CR52–11	REAR LH SENSOR SIGNAL DATA: APPROX 9V
D	CR52–12	FRONT LH CENTER SENSOR SIGNAL DATA: APPROX 9V
D	CR52–13	FRONT LH SENSOR SIGNAL DATA: APPROX 9V
O	CR52–14	PARKING AID SOUNDERS +
SS	CR52–15	REAR SENSOR SIGNAL SUPPLY VOLTAGE: B+
SG	CR52–16	REAR SENSOR SIGNAL GROUND: GROUND
O	CR52–17	REAR PARKING AID SOUNDER: B+ INACTIVE, 7.9V ACTIVE (CONSTANT TONE)
O	CR52–18	FRONT PARKING AID SOUNDER: B+ INACTIVE, 7.9V ACTIVE (CONSTANT TONE)
O	CR52–19	PARKING AID STATUS LED ACTIVATE: TO ACTIVATE, PAM SWITCHES CIRCUIT TO B+
D	CR52–23	REAR RH CENTER SENSOR SIGNAL DATA: APPROX 9V
D	CR52–24	REAR RH SENSOR SIGNAL DATA: APPROX 9V
D	CR52–25	FRONT RH CENTER SENSOR SIGNAL DATA: APPROX 9V
D	CR52–26	FRONT RH SENSOR SIGNAL DATA: APPROX 9V

Rear Electronic Module

	Pin	Description and Characteristic
O	CR11–17	PARKING AID CHIME INHIBIT SIGNAL
S	CR13–1	SCP +
S	CR13–2	SCP –

Fig. 18.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
FRONT LH CENTER SENSOR	BF4	3-WAY / BLACK	FRONT BUMPER, LH, CENTER
FRONT LH SENSOR	BF5	3-WAY / BLACK	FRONT BUMPER, LH
FRONT RH CENTER SENSOR	BF3	3-WAY / BLACK	FRONT BUMPER, RH CENTER
FRONT RH SENSOR	BF2	3-WAY / BLACK	FRONT BUMPER, RH
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
PARKING AID MODULE	CR52	12-WAY / BLACK	LUGGAGE COMPARTMENT, LH REAR
PARKING AID SOUNDER, FRONT	IP46	2-WAY / BLACK	INSTRUMENT PANEL / DRIVER SIDE
PARKING AID SOUNDER, REAR	TL6	2-WAY / BLACK	PARCEL SHELF / RH SIDE
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	
REAR LH CENTER SENSOR	BR4	3-WAY / BLACK	REAR BUMPER, LH, CENTER
REAR LH SENSOR	BR5	3-WAY / BLACK	REAR BUMPER, LH
REAR RH CENTER SENSOR	BR3	3-WAY / BLACK	REAR BUMPER, RH CENTER
REAR RH SENSOR	BR2	3-WAY / BLACK	REAR BUMPER, RH
ROOF CONSOLE	RF3	20-WAY / BLACK	CABIN ROOF

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
BF1	10-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO FRONT BUMPER HARNESS	ENGINE COMPARTMENT / BEHIND RH WHEEL ARCH LINER
BR1	10-WAY / GREY / CABIN HARNESS TO REAR BUMPER HARNESS	BEHIND REAR BUMPER, RH SIDE
EC46	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO CABIN HARNESS	CABIN / RH 'A' POST
IP1	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS CABIN / BEHIND	DRIVER SIDE INSTRUMENT PANEL END PLATE
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
TL35	22-WAY / GREY / CABIN HARNESS TO REAR CENTRE CONSOLE	TRUNK / LH REAR

GROUNDS

Ground	Location
G17	CABIN / BELOW REAR SEAT / RH SIDE
G29	TRUNK / SPARE WHEEL WELL

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

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

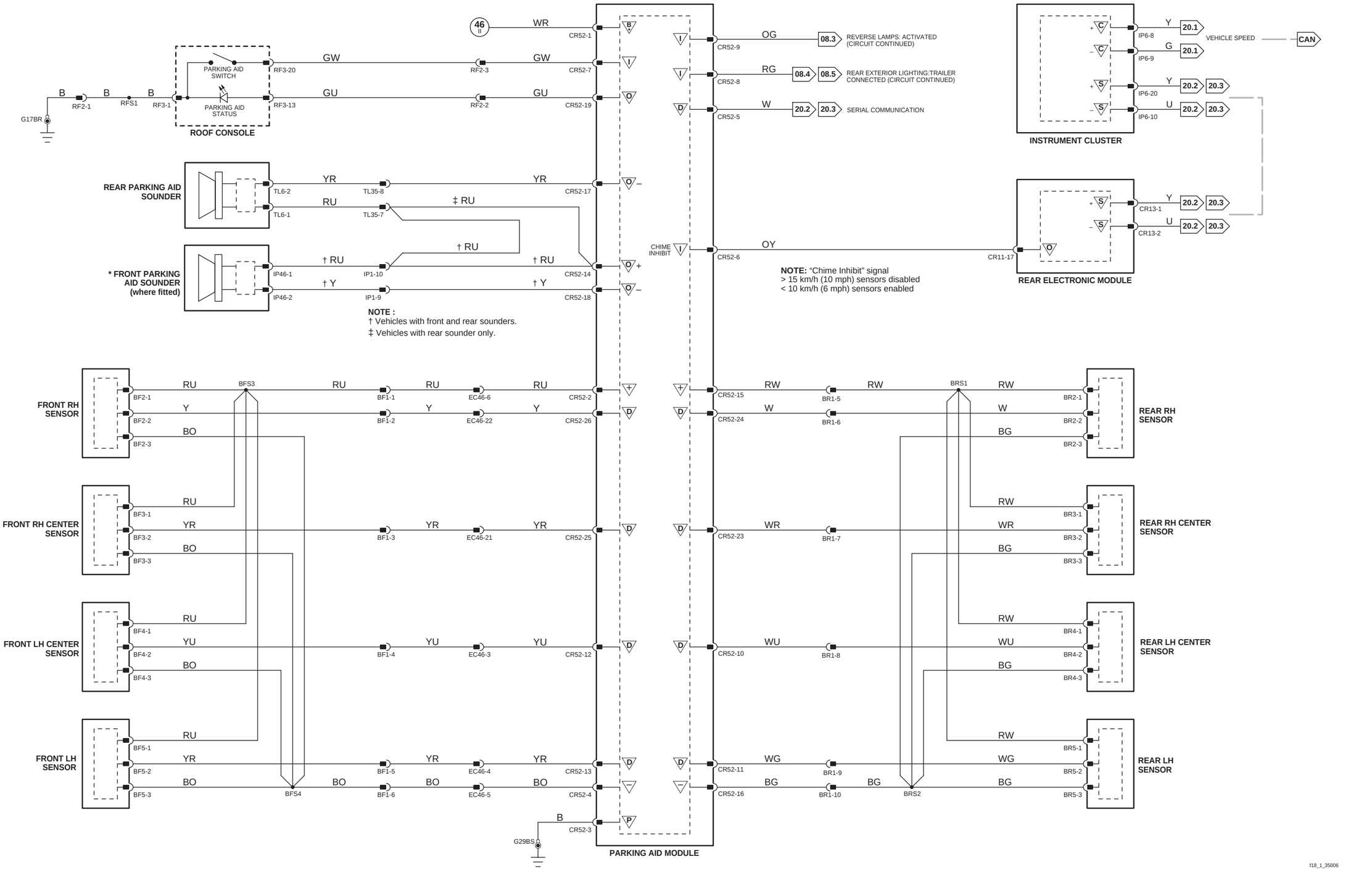
I	**Input**	**PG**	**Power Ground**	**C**	**CAN Network**	**D**	**Serial and Encoded Data**
O	**Output**	**SS**	**Sensor / Signal Supply V**	**S**	**SCP Network**	**V**	**Voltage (DC)**
B+	**Battery Voltage**	**SG**	**Sensor / Signal Ground**	**D2**	**D2B Network**	**PWM**	**Pulse Width Modulated**

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.

DATE OF ISSUE: April 2006


46 II
WR
CR52-1
B
G17BR
B
RF2-1
B
RFS1
B
RF3-1
PARKING AID SWITCH
PARKING AID STATUS
RF3-20
RF3-13
ROOF CONSOLE
GW
GU
RF2-3
RF2-2
CR52-7
CR52-19
REVERSE LAMPS: ACTIVATED (CIRCUIT CONTINUED)
08.3
OG
CR52-9
REAR EXTERIOR LIGHTING:TRAILER CONNECTED (CIRCUIT CONTINUED)
08.4
08.5
RG
CR52-8
SERIAL COMMUNICATION
20.2
20.3
W
CR52-5
INSTRUMENT CLUSTER
IP6-8
IP6-9
IP6-20
IP6-10
VEHICLE SPEED
CAN
20.1
REAR PARKING AID SOUNDER
TL6-2
TL6-1
TL35-8
TL35-7
YR
RU
‡ RU
CR52-17
* FRONT PARKING AID SOUNDER (where fitted)
IP46-1
IP46-2
IP1-10
IP1-9
† RU
† Y
CR52-14
CR52-18
NOTE :
† Vehicles with front and rear sounders.
‡ Vehicles with rear sounder only.
CHIME INHIBIT
OY
CR52-6
CR11-17
NOTE: “Chime Inhibit” signal
> 15 km/h (10 mph) sensors disabled
< 10 km/h (6 mph) sensors enabled
REAR ELECTRONIC MODULE
CR13-1
CR13-2
FRONT RH SENSOR
BF2-1
BF2-2
BF2-3
BFS3
BF1-1
BF1-2
EC46-6
EC46-22
CR52-2
CR52-26
RU
Y
BO
RW
W
BG
CR52-15
CR52-24
BR1-5
BR1-6
BRS1
BR2-1
BR2-2
BR2-3
REAR RH SENSOR
FRONT RH CENTER SENSOR
BF3-1
BF3-2
BF3-3
BF1-3
EC46-21
CR52-25
CR52-23
BR1-7
BR3-1
BR3-2
BR3-3
REAR RH CENTER SENSOR
FRONT LH CENTER SENSOR
BF4-1
BF4-2
BF4-3
BF1-4
EC46-3
CR52-12
CR52-10
BR1-8
BR4-1
BR4-2
BR4-3
REAR LH CENTER SENSOR
FRONT LH SENSOR
BF5-1
BF5-2
BF5-3
BF1-5
BF1-6
EC46-4
EC46-5
CR52-13
CR52-4
CR52-11
CR52-16
BR1-9
BR1-10
BFS4
BRS2
BR5-1
BR5-2
BR5-3
REAR LH SENSOR
B
CR52-3
G29BS
PARKING AID MODULE
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A ACP
C CAN
S SCP
D Serial and Encoded Data
1 → 6 Fig. 01.1
7 → 63 Fig. 01.2
64 → 95 Fig. 01.3
1 → 15 Fig. 01.4
16 → 52 Fig. 01.5
53 → 77 Fig. 01.6
78 → 105 Fig. 01.7
106 → 143 Fig. 01.8
VARIANT: Parking Aid Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006
f18_1_35006

Front Electronic Module

	Pin	Description and Characteristic
PG	CR1–26	POWER GROUND: GROUND
I	CR9-2	GLOVE BOX SWITCH SIGNAL
B+	CR9–6	BATTERY POWER SUPPLY: LOGIC: B+
PG	CR10–11	POWER GROUND: GROUND
PG	CR10–13	POWER GROUND: GROUND
PG	CR10–14	POWER GROUND: GROUND
I	CR85–18	LH FRONT SEAT HEATER SWITCH SIGNAL: PWM
I	CR85–19	RH FRONT SEAT HEATER SWITCH SIGNAL: PWM
O	CR85–20	SEAT HEATERS SWITCHED ON SIGNAL: B+ WHEN ACTIVATED
O	EC36–9	GLOVE BOX RELEASE ACTIVATE

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.

Fig. 19.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
CENTER CONSOLE SWITCH PACK	CL1	8-WAY / BLACK	CENTER CONSOLE
	CL2	8-WAY / BLACK	
CLOCK	IP19	6-WAY / BLACK	INSTRUMENT PANEL / CENTER VENT
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	
GLOVE BOX MOTOR	IP16	3-WAY / BLACK	GLOVE BOX
GLOVE BOX SWITCH	IP12	2-WAY / BLACK	GLOVE BOX
STEERING WHEEL	SW7	4-WAY / BLACK	STEERING WHEEL
STEERING WHEEL HEATER MODULE	SW5	4-WAY / BLACK	STEERING WHEEL

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC2	22-WAY / BLACK / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
CL3	16-WAY / GREY / CENTER CONSOLE HARNESS TO CENTER CONSOLE LINK HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE
IP2	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP9	8-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / ADJACENT TO HOOD RELEASE
IP17	16-WAY / GREEN / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
TL28	16-WAY / GREY / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW CENTER CONSOLE / RH SIDE OF TRANSMISSION TUNNEL

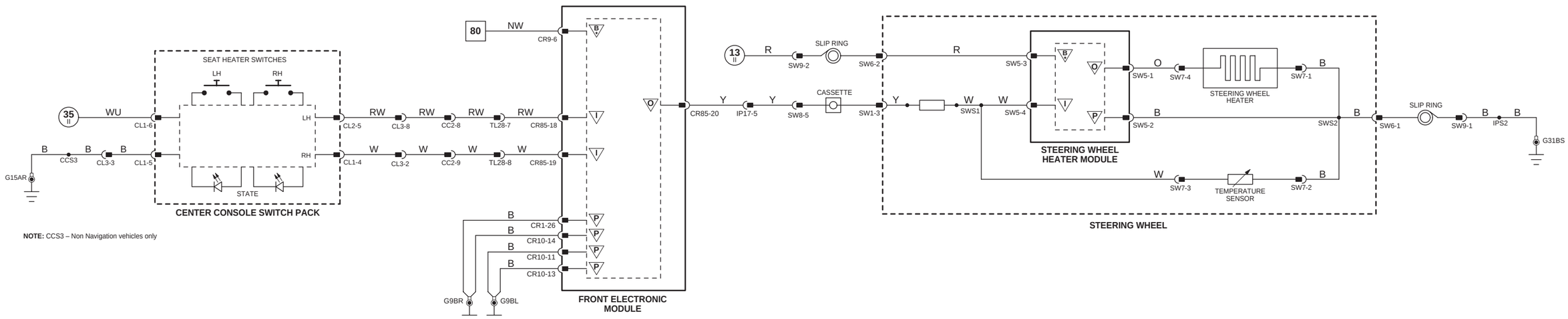
GROUNDS

Ground	Location
G9	CABIN / UPPER LH A POST
G15	CABIN / RH SIDE OF TRANSMISSION TUNNEL
G31	CABIN / BEHIND PASSENGER AIR BAG
G32	CABIN / BEHIND INSTRUMENT CLUSTER

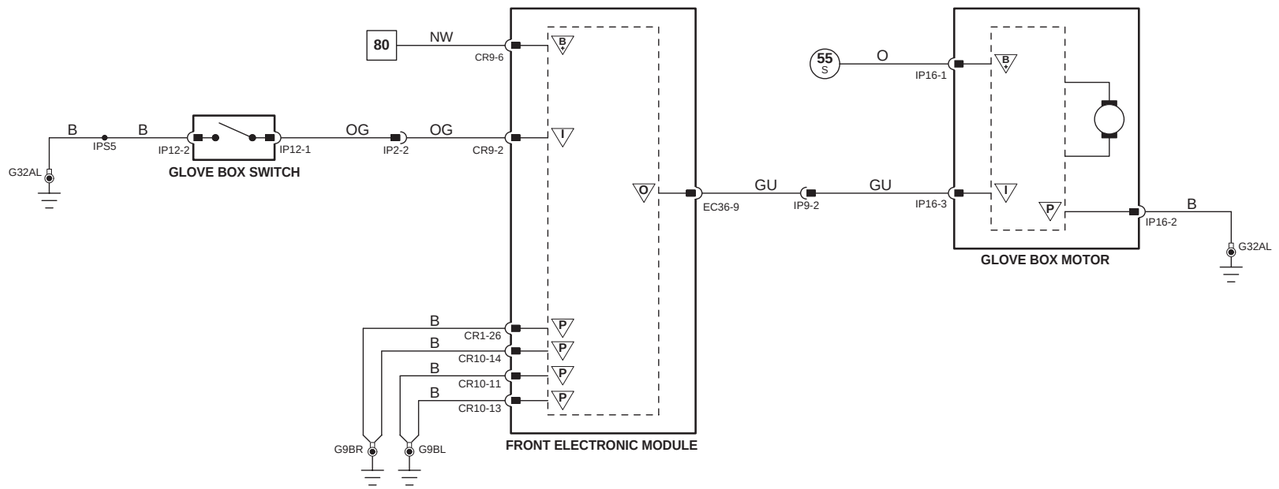
FOR CONTROL MODULE PIN-OUT INFORMATION, UNFOLD PAGE TO LEFT.

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.

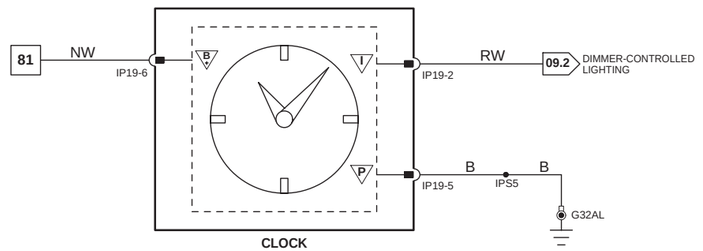
DATE OF ISSUE: April 2006



STEERING WHEEL HEATER



GLOVE BOX DOOR



CLOCK

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1 → 6	Fig. 01.1	64 → 95	Fig. 01.3	16 II → 52 II	Fig. 01.5	78 S → 105 S	Fig. 01.7	I	Input	B	Battery Voltage	+	Sensor/Signal Supply V	A	ACP	S	SCP	**VARIANT:**	All Vehicles
7 → 63	Fig. 01.2	1 I → 15 II	Fig. 01.4	53 S → 77 S	Fig. 01.6	106 E → 143 E	Fig. 01.8	O	Output	P	Power Ground	−	Sensor/Signal Ground	C	CAN	D	Serial and Encoded Data	**VIN RANGE:**	All
																		DATE OF ISSUE:	April 2006

Fig. 19.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
ACCESSORY RELAY	—	—	REAR POWER DISTRIBUTION FUSE BOX – R3
AUXILIARY RELAY	—	—	REAR POWER DISTRIBUTION FUSE BOX – R8
CIGAR LIGHTER – FRONT	TL69	3-WAY / BLACK	CENTER CONSOLE
CIGAR LIGHTER – REAR	TL70	3-WAY / BLACK	REAR CENTER CONSOLE
ELECTRONIC ROAD PRICING MODULE	CR121	2-WAY / BLACK	INSTRUMENT PANEL
FRONT POWER DISTRIBUTION FUSE BOX	EC4	4-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
	EC5	4-WAY / BLACK	
	EC19	8-WAY / BLACK	
	EC22	4-WAY / BLACK	
	EC26	8-WAY / BLACK	
	EC28	12-WAY / BLACK	
	EC32	4-WAY / BLACK	
	EC35	8-WAY / BLACK	
	EC40	8-WAY / BLACK	
	EC41	10-WAY / BLACK	
HORN RELAY (DIESEL)	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R14
HORN RELAY (GASOLINE)	—	—	FRONT POWER DISTRIBUTION FUSE BOX – R9B
HORN SWITCH	—	—	STEERING WHEEL
HORNS	EC58	2-WAY / BLACK	BEHIND FRONT BUMPER / LH SIDE
POWER POINT – FRONT	IP21	3-WAY / BLACK	FRONT CENTER CONSOLE GLOVE BOX
POWER POINT – REAR	TL72	3-WAY / BLACK	REAR CENTER CONSOLE
REAR ACCESSORY CONNECTOR	CR40	3-WAY / BLACK	TRUNK / RH REAR
REAR POWER DISTRIBUTION FUSE BOX	CR3	4-WAY / BLACK	TRUNK / RH REAR
	CR5	4-WAY / BLACK	
	CR68	8-WAY / BLACK	
	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	
ROOF CONSOLE	RF3	20-WAY / BLACK	CABIN ROOF
SUN SHADE MOTOR	CR70	4-WAY / GREY	REAR WINDOW

HARNESS IN-LINE CONNECTORS

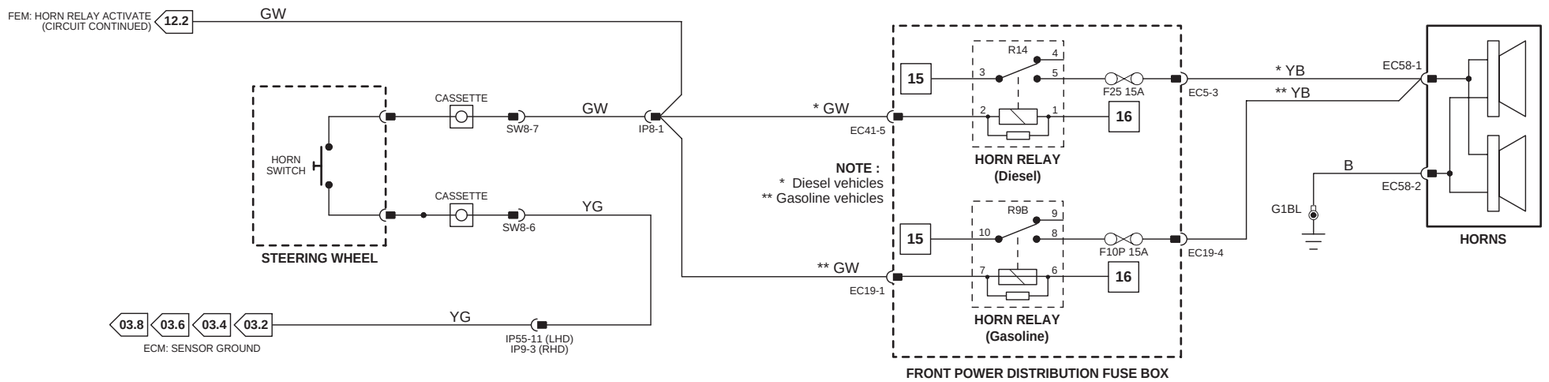
Connector	Connector Description / Location	Location
IP8	14-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP9	8-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / ADJACENT TO HOOD RELEASE
IP51	10-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
IP55	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
RF1	10-WAY / GREY / CABIN HARNESS TO ROOF HARNESS	CABIN / UPPER RH 'A' POST
RF2	16-WAY / BLUE / CABIN HARNESS TO ROOF HARNESS	CABIN / RH 'D' POST
TL14	14-WAY / GREY / CABIN HARNESS TO TELEMATICS HARNESS	TRUNK / LH SIDE / BEHIND CD AUTOCHANGER

GROUNDS

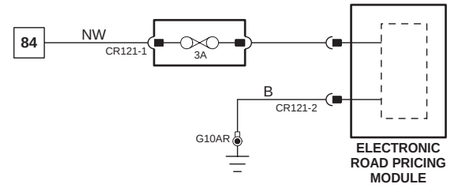
Ground	Location
G1	ENGINE COMPARTMENT / BEHIND LH HEADLAMP ASSEMBLY
G10	CABIN / RH A POST
G17	CABIN / BELOW REAR SEAT / RH SIDE
G18	CABIN / BELOW REAR SEAT / LH SIDE
G23	TRUNK / RH SIDE / ADJACENT TO BATTERY
G32	CABIN / BEHIND INSTRUMENT CLUSTER

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.

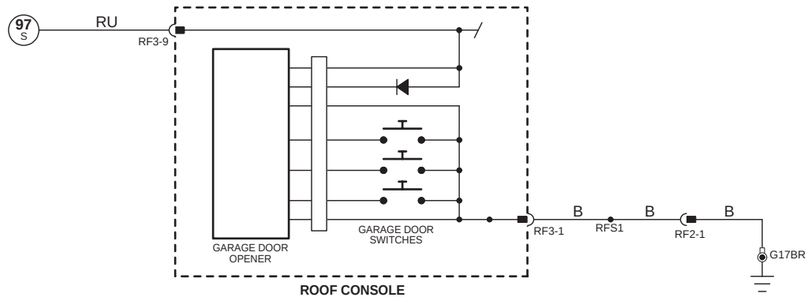
HORNS



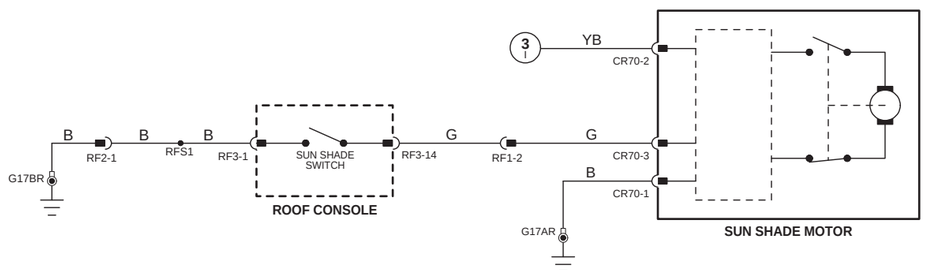
ELECTRONIC ROAD PRICING



GARAGE DOOR OPENER



SUN SHADE



CIGAR LIGHTERS, POWER POINTS, ACCESSORY CONNECTOR

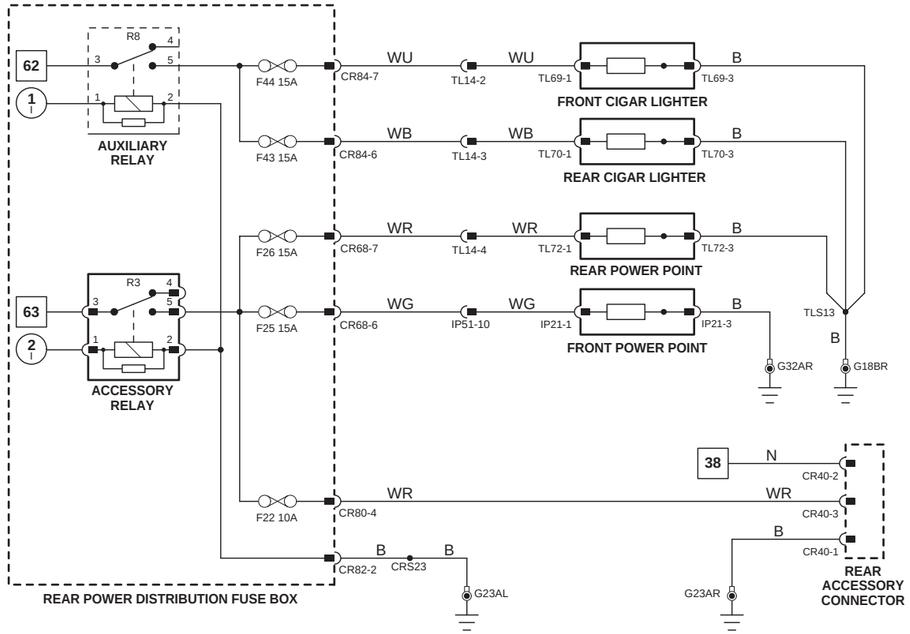


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Fig. 20.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
AIR SUSPENSION MODULE	CR88	9-WAY / BLACK	CABIN REAR BULKHEAD / BEHIND REAR SEAT BACK / RH SIDE
	CR89	12-WAY / BLACK	
	CR90	15-WAY / BLACK	
	CR91	18-WAY / BLACK	
CLIMATE CONTROL MODULE	AC100	16-WAY / BLACK	CLIMATE CONTROL UNIT / DRIVER SIDE
	AC101	26-WAY / BLACK	
	CR119	22-WAY / BLACK	
DATA LINK CONNECTOR	IP39	DATA LINK CONNECTOR	TRANSMISSION TUNNEL / DRIVER SIDE
DYNAMIC STABILITY CONTROL MODULE	EC30	47-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT
ELECTRIC PARK BRAKE	CR32	12-WAY / GREY	LUGGAGE COMPARTMENT, RH REAR
	CR50	4-WAY / BLACK	
ENGINE CONTROL MODULE	EC300	58-WAY / BLACK	FRONT BULKHEAD, PASSENGER SIDE
	PI300	96-WAY / BLACK	
FUEL-FIRED AUXILIARY HEATER MODULE	FF1	8-WAY / BLACK	BELOW LH HEADLAMP ASSEMBLY
	FF2	2-WAY / BLACK	
	FF3		
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
J-GATE MODULE	IP32	16-WAY / BLACK	J-GATE ASSEMBLY
POWERTRAIN CONTROL MODULE	C98	48-WAY / BROWN	FRONT BULKHEAD, PASSENGER SIDE
	C99	48-WAY / GREY	
	EC066	48-WAY / BLACK	
REAR CLIMATE CONTROL MODULE	RA1	16-WAY / BLACK	REAR CENTER CONSOLE
	RA2	12-WAY / BLACK	
SPEED CONTROL MODULE	IP78	30-WAY YELLOW	BEHIND INSTRUMENT PANEL, DRIVER SIDE
TRANSMISSION CONTROL MODULE	GB2	16-WAY / BLACK	TRANSMISSION CONTROL VALVE ASSEMBLY
TIRE PRESSURE MONITORING SYSTEM MODULE	CR93	16-WAY / GREY	LUGGAGE COMPARTMENT, RH REAR
	CR94	16-WAY / BLUE	
	CR96	SMB RF COAX CONNECTOR	
YAW RATE SENSOR	IP23	6-WAY / BLACK	CENTER CONSOLE / REARWARD OF J GATE

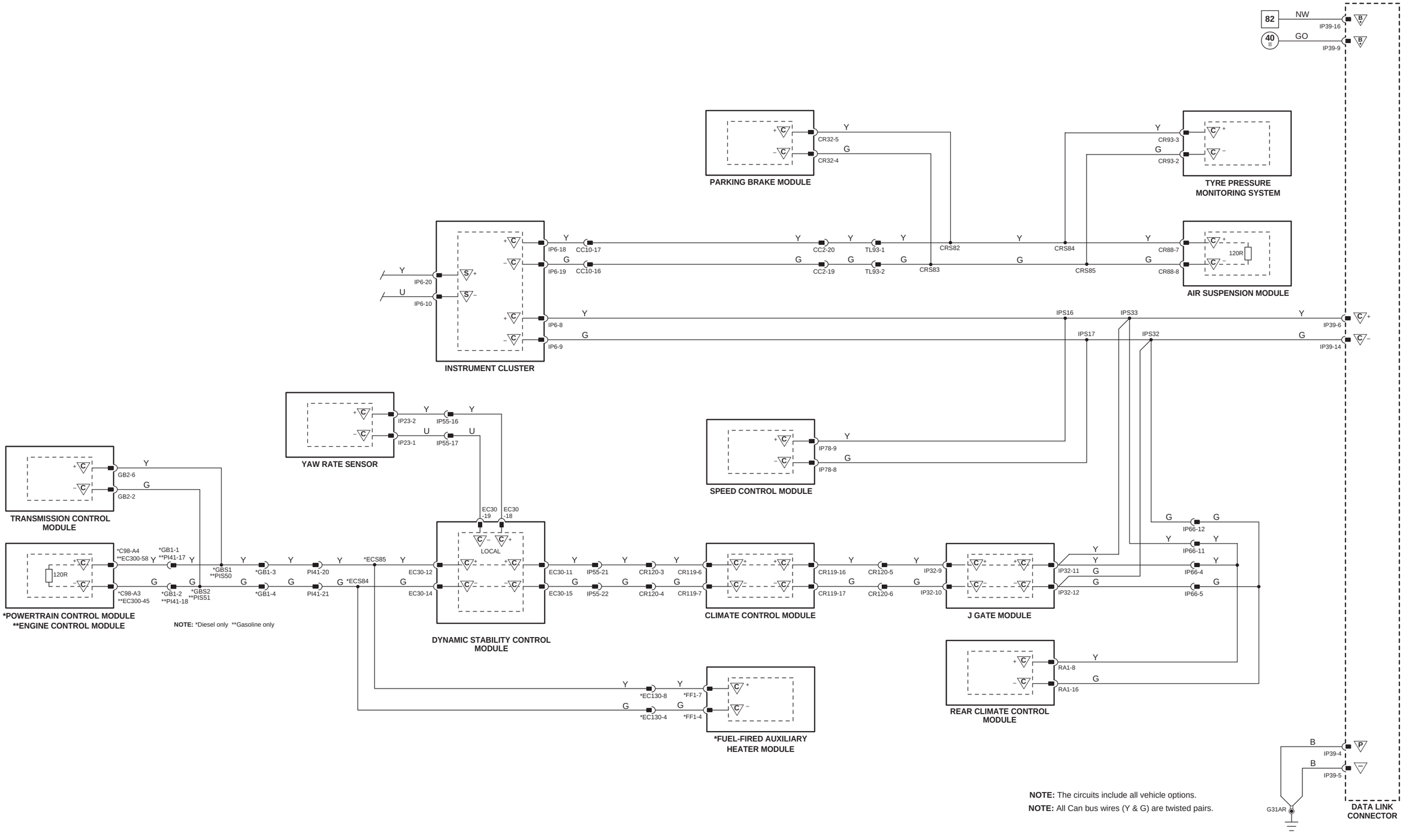
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC2	22-WAY / BLACK / 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)
CR120	8-WAY / BLACK / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL / LH SIDE
EC130	8-WAY / GREY / CABIN HARNESS TO FUEL FIRED HEATER LINK HARNESS	LOWER FRONT RIGHT
GB1	16-WAY / GREY / ENGINE HARNESS TO TRANSMISSION HARNESS	ADJACENT TO TRANSMISSION BELL HOUSING
IP55	22-WAY / BLACK / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP66	14-WAY / GREY / INSTRUMENT PANEL HARNESS TO REAR AIR CONDITIONING HARNESS	CABIN / BELOW CENTER CONSOLE
PI41	42-WAY / BLACK / ENGINE HARNESS TO ENGINE COMPARTMENT HARNESSES	ENGINE COMPARTMENT / TOP OF SUSPENSION TOWER / PASSENGER SIDE
TL93	8-WAY / BLACK / CENTER CONSOLE HARNESS TO TELEMATICS HARNESS	CABIN / BELOW REAR CENTER CONSOLE

GROUNDS

Ground	Location
G31	CABIN / BEHIND PASSENGER AIR BAG

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.



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

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 20.2

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUDIO UNIT	CC8	20-WAY / BLACK	CENTER CONSOLE
	CC9	2-WAY / BLACK	
	CC21	FIBER OPTIC CONNECTOR	
DATA LINK CONNECTOR	IP39	16-WAY / BLACK	TRANSMISSION TUNNEL / DRIVER SIDE
DRIVER DOOR MODULE	DD11	20-WAY / BLACK	DRIVER DOOR
	DD12	26-WAY / BLACK	
	DD13	26-WAY / NATURAL	
DRIVER SEAT MODULE	SD2	22-WAY / BLACK	UNDER DRIVER SEAT
	SD3	6-WAY / BLACK	
	SD4	6-WAY / BLACK	
	SD24	4-WAY / BLACK	
	SD26	4-WAY / BLACK	
	SD27	6-WAY / BLACK	
DYNAMIC STABILITY CONTROL MODULE	EC30	47-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT
FRONT ELECTRONIC MODULE	CR1	26-WAY / BLACK	CABIN / LH 'A' POST
	CR9	12-WAY / BLACK	
	CR10	17-WAY / BLACK	
	CR85	20-WAY / BLACK	
FUEL-FIRED AUXILIARY HEATER MODULE	FF1	8-WAY / BLACK	BELOW LH HEADLAMP ASSEMBLY
	FF2	2-WAY / BLACK	
	FF3		
HID HEADLAMP UNIT – LH	EC57	9-WAY / BLACK	ENGINE COMPARTMENT / LH FRONT
HID HEADLAMP UNIT – RH	EC6	9-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
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	
PARKING AID MODULE	CR52	26-WAY / BLACK	TRUNK / SPARE WHEEL WELL
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	
REAR MEMORY MODULE	CR21	4-WAY / BLACK	REAR BULKHEAD / BEHIND REAR SEAT BACK
	CR37	26-WAY / BLACK	
	CR38	22-WAY / BLACK	
	CR41	6-WAY / BLACK	
	CR53	4-WAY / BLACK	
	CR59	6-WAY / BLACK	
RESTRAINTS CONTROL MODULE	CR86	24-WAY / BLACK	TRANSMISSION TUNNEL, UNDER CENTER CONSOLE
	CR87	40-WAY / BLACK	
ROOF CONSOLE	RF3	20-WAY / BLACK	ROOF HEADLINER
STEERING COLUMN LOCK MODULE	IP24	4-WAY / BLACK	UPPER STEERING COLUMN

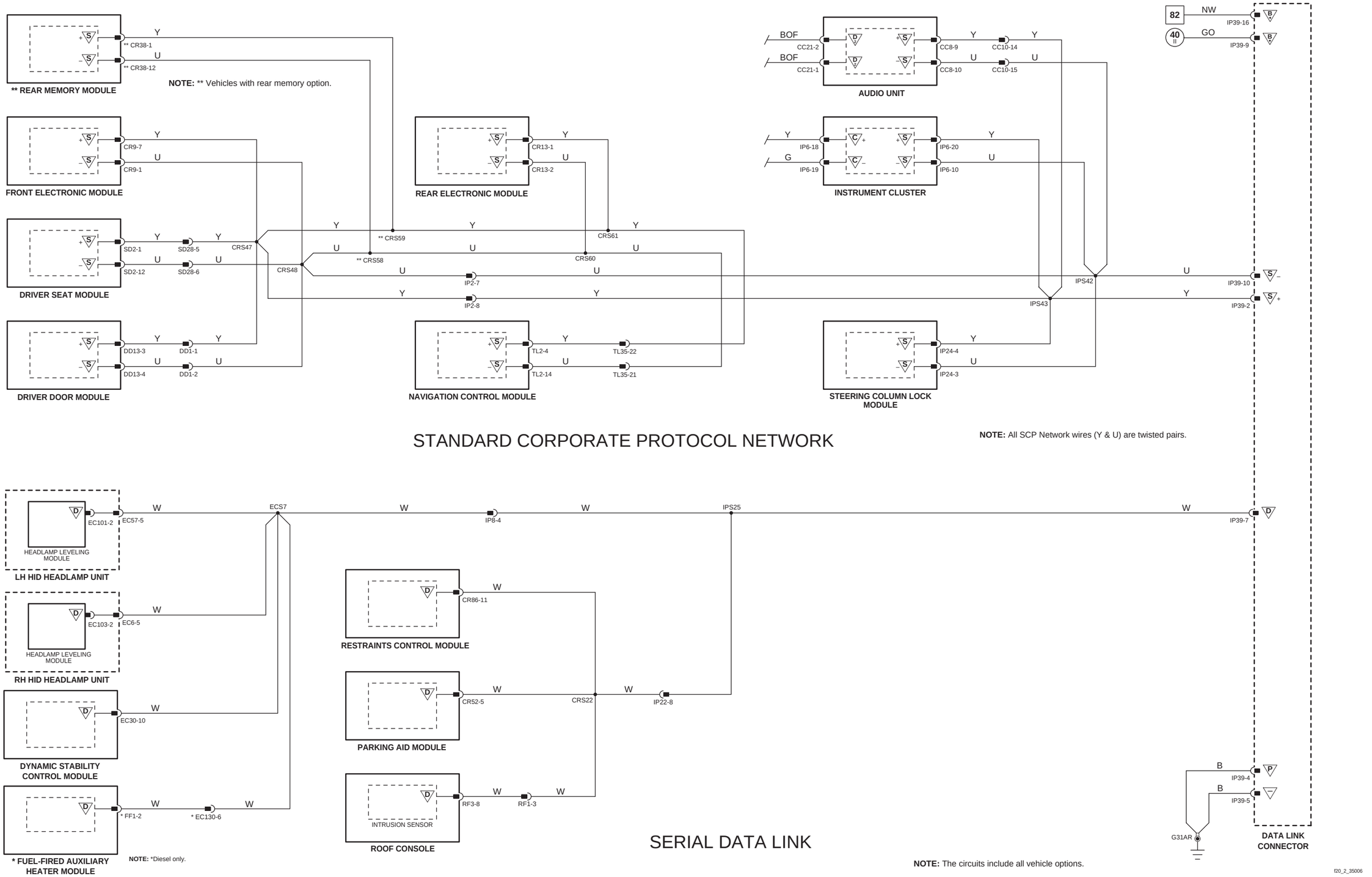
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC10	22-WAY / GREEN / CENTER CONSOLE HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE (LHD), RH SIDE (RHD)
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
EC130	8-WAY / GREY / CABIN HARNESS TO FUEL FIRED HEATER LINK HARNESS	LOWER FRONT RIGHT
IP2	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP8	14-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
RF1	10-WAY / GREY / CABIN HARNESS TO ROOF HARNESS	CABIN / UPPER RH 'A' POST
SD28	20-WAY / BLACK / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT
TL35	22-WAY / GREY / CABIN HARNESS TO REAR CENTRE CONSOLE	TRUNK / LH REAR

GROUNDS

Ground	Location
G31	CABIN / BEHIND PASSENGER AIR BAG

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.



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

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

VARIANT: LHD Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 20.3

COMPONENTS

Component	Connector(s)	Connector Description	Location
AUDIO UNIT	CC8	20-WAY / BLACK	CENTER CONSOLE
	CC9	2-WAY / BLACK	
	CC21	FIBER OPTIC CONNECTOR	
DATA LINK CONNECTOR	IP39	16-WAY / BLACK	TRANSMISSION TUNNEL / DRIVER SIDE
DRIVER DOOR MODULE	DD11	20-WAY / BLACK	DRIVER DOOR
	DD12	26-WAY / BLACK	
	DD13	26-WAY / NATURAL	
DRIVER SEAT MODULE	SD2	22-WAY / BLACK	UNDER DRIVER SEAT
	SD3	6-WAY / BLACK	
	SD4	6-WAY / BLACK	
	SD24	4-WAY / BLACK	
	SD26	4-WAY / BLACK	
	SD27	6-WAY / BLACK	
DYNAMIC STABILITY CONTROL MODULE	EC30	47-WAY / BLACK	ENGINE COMPARTMENT, RH FRONT
FRONT ELECTRONIC MODULE	CR1	26-WAY / BLACK	CABIN / LH 'A' POST
	CR9	12-WAY / BLACK	
	CR10	17-WAY / BLACK	
	CR85	20-WAY / BLACK	
FUEL-FIRED AUXILIARY HEATER MODULE	FF1	8-WAY / BLACK	BELOW LH HEADLAMP ASSEMBLY
	FF2	2-WAY / BLACK	
	FF3		
HID HEADLAMP UNIT – LH	EC57	9-WAY / BLACK	ENGINE COMPARTMENT / LH FRONT
HID HEADLAMP UNIT – RH	EC6	9-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT
INSTRUMENT CLUSTER	IP5	22-WAY / GREY	INSTRUMENT PANEL
	IP6	20-WAY / BLACK	
	IP7	22-WAY / BLACK	
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	
PARKING AID MODULE	CR52	26-WAY / BLACK	TRUNK / SPARE WHEEL WELL
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	
REAR MEMORY MODULE	CR21	4-WAY / BLACK	REAR BULKHEAD / BEHIND REAR SEAT BACK
	CR37	26-WAY / BLACK	
	CR38	22-WAY / BLACK	
	CR41	6-WAY / BLACK	
	CR53	4-WAY / BLACK	
	CR59	6-WAY / BLACK	
RESTRAINTS CONTROL MODULE	CR86	24-WAY / BLACK	TRANSMISSION TUNNEL, UNDER CENTER CONSOLE
	CR87	40-WAY / BLACK	
ROOF CONSOLE	RF3	20-WAY / BLACK	ROOF HEADLINER
STEERING COLUMN LOCK MODULE	IP24	4-WAY / BLACK	UPPER STEERING COLUMN

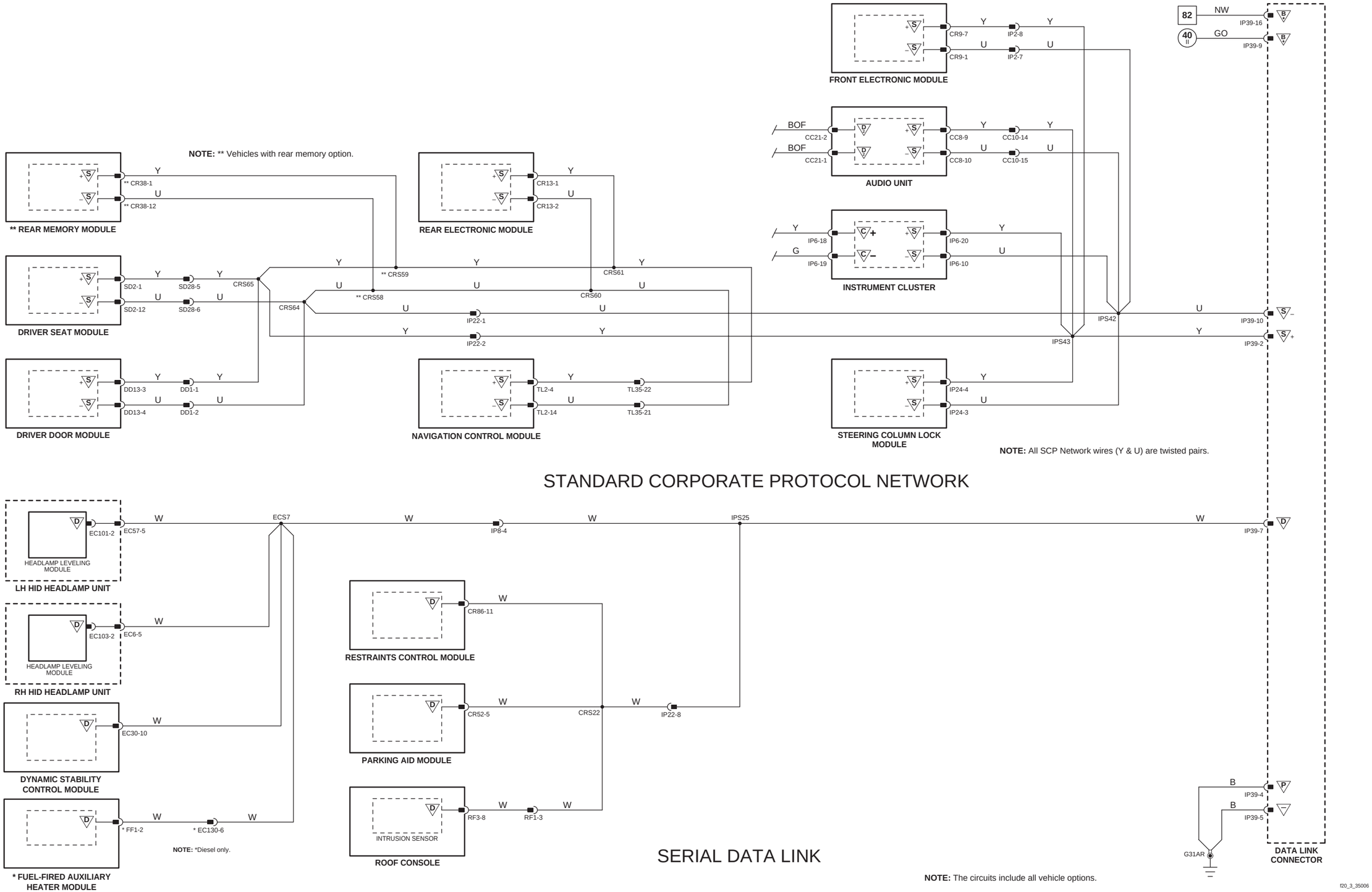
HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC10	22-WAY / GREEN / CENTER CONSOLE HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BELOW CENTER CONSOLE / LH SIDE (LHD), RH SIDE (RHD)
DD1	22-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	CABIN / DRIVER SIDE 'A' POST
EC130	8-WAY / GREY / CABIN HARNESS TO FUEL FIRED HEATER LINK HARNESS	LOWER FRONT RIGHT
IP2	10-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND LH SIDE INSTRUMENT PANEL END PLATE
IP8	14-WAY / GREY / ENGINE COMPARTMENT HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / RH 'A' POST
IP22	16-WAY / BLUE / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	CABIN / BEHIND INSTRUMENT PANEL END PLATE / LH SIDE (LHD), RH SIDE (RHD)
RF1	10-WAY / GREY / CABIN HARNESS TO ROOF HARNESS	CABIN / UPPER RH 'A' POST
SD28	20-WAY / BLACK / DRIVER SEAT HARNESS TO CABIN HARNESS	CABIN / BELOW DRIVER SEAT
TL35	22-WAY / GREY / CABIN HARNESS TO REAR CENTRE CONSOLE	TRUNK / LH REAR

GROUNDS

Ground	Location
G31	CABIN / BEHIND PASSENGER AIR BAG

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.



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

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

VARIANT: RHD Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

Fig. 20.4

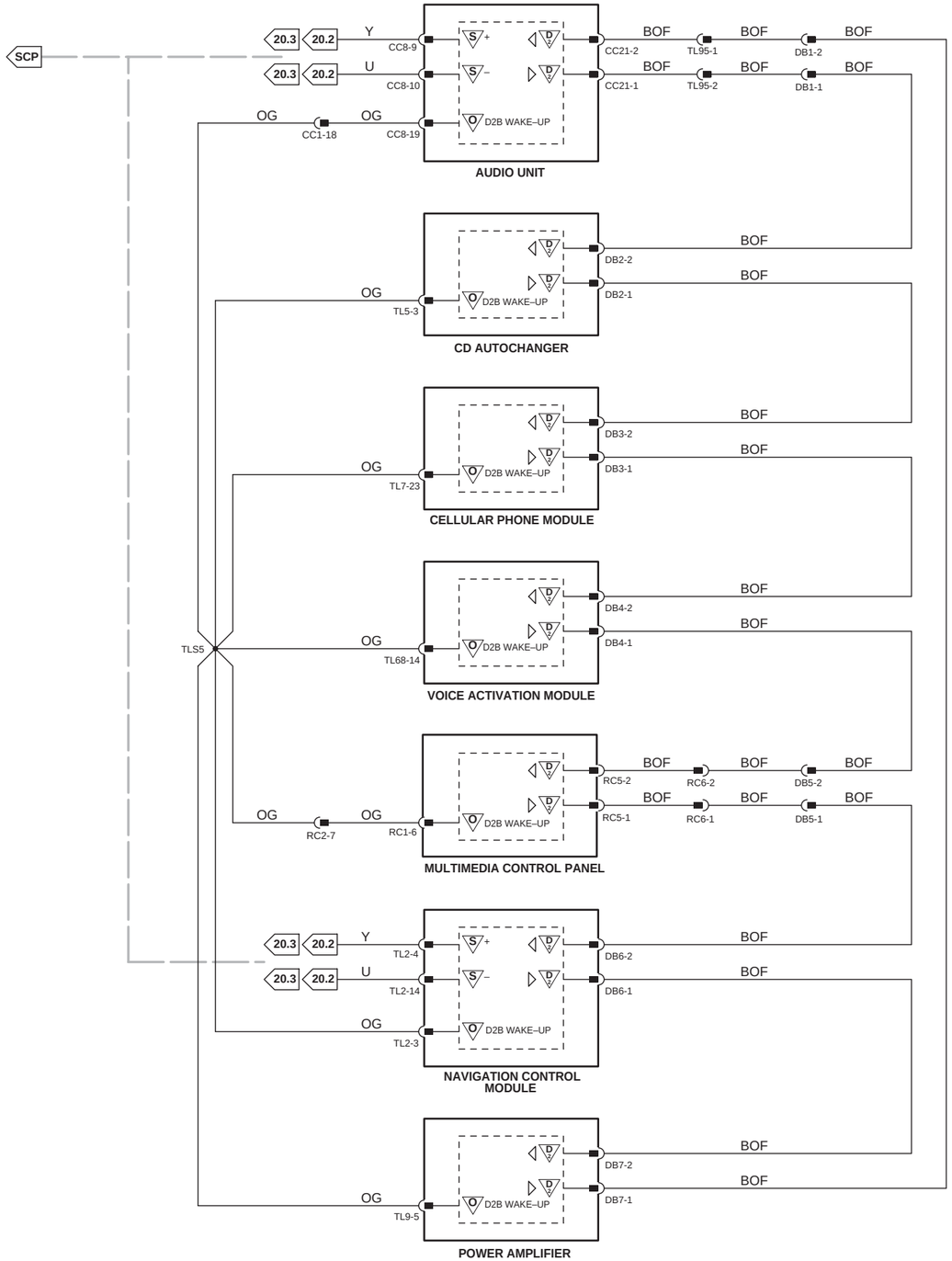
COMPONENTS

Component	Connector(s)	Connector Description	Location
AUDIO UNIT	CC8	20-WAY / BLACK	CENTER CONSOLE
	CC9	2-WAY / BLACK	
	CC21	FIBER OPTIC CONNECTOR	
CD AUTOCHANGER	DB2	FIBER OPTIC CONNECTOR	TRUNK / LH SIDE / MODULE STACK / THIRD FROM TOP
	TL5	3-WAY / BLACK	
CELLULAR PHONE CONTROL MODULE	DB3	FIBER OPTIC CONNECTOR	TRUNK / LH SIDE / MODULE STACK / BOTTOM
	TL7	32-WAY / BLACK	
	TL94	2-WAY / BLACK	
MULTIMEDIA CONTROL PANEL	RC1	8-WAY / BLACK	REAR SEAT ARM REST OR REAR FLOOR CONSOLE
	RC3	20-WAY / BLACK	
	RC5	FIBER OPTIC CONNECTOR	
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	
POWER AMPLIFIER	DB7	FIBER OPTIC CONNECTOR	TRUNK / LH SIDE
	TL9	12-WAY / WHITE	
	TL10	18-WAY / WHITE	
VOICE ACTIVATION MODULE	DB4	FIBER OPTIC CONNECTOR	TRUNK / LH SIDE / MODULE STACK / SECOND FROM BOTTOM
	TL68	22-WAY / GREY	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CC1	22-WAY GREEN / TELEMATICS HARNESS TO CENTER CONSOLE HARNESS	CABIN / BELOW CENTER CONSOLE
DB1	2-WAY / BLACK / TELEMATICS HARNESS TO D2B NETWORK HARNESS	TRUNK / LH SIDE
DB5	2-WAY / BLACK / D2B NETWORK HARNESS TO REAR IN-CAR ENTERTAINMENT CONTROLS HARNESS	TRUNK / LH SIDE
RC2	8-WAY / BLACK / TELEMATICS HARNESS TO REAR IN-CAR ENTERTAINMENT CONTROLS HARNESS	CABIN / BELOW CENTER CONSOLE
RC6	2-WAY / BLACK / D2B NETWORK HARNESS TO REAR IN-CAR ENTERTAINMENT CONTROLS HARNESS	CABIN / BELOW CENTER CONSOLE
TL95	2-WAY / BLACK / CENTER CONSOLE HARNESS TO D2B NETWORK HARNESS	CABIN / BELOW REAR CENTER CONSOLE

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.



NOTES:

The 7-module D2B network shown depicts the greatest number of modules available. D2B networks containing less than 7 modules are always connected in the sequence shown from top to bottom.
Audio Unit – Master Module

1 – CD Autochanger
2 – Cellular Phone Module
3 – Voice Activation Module
4 – Multimedia Control Panel
5 – Navigation Control Module
6 – Power Amplifier

When modules are not fitted to the vehicle, the fiber optic cables and the connectors are deleted. Therefore, each network containing less than 7 modules has a unique fiber optic and "wake up" circuit.

For D2B network diagnostics via SCP – refer to Figs. 20.2 and 20.3.

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

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

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: April 2006

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