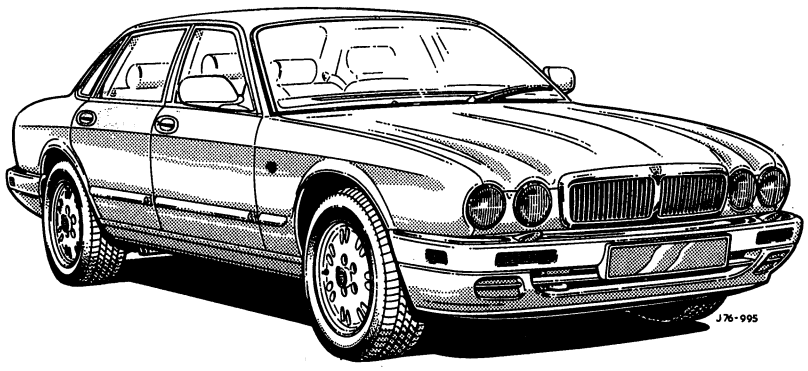
JAGUAR

Sedan Range 1996
Electrical Guide



Publication number S 96/SED

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. Included are a Table of Contents, a Component Index, a description of the layout of the book, definitions of symbols and abbreviations used, and illustrations which identify the type and location of common vehicle components.

The second section includes the Figures, which are the basis of the book. Each Figure is identified by a Figure Number (i.e. Fig. 01.1) and Title, and is accompanied by a page of data containing information specific to that Figure.

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 on the following pages should help to guide the user.

Standard Abbreviations

The following abbreviations are used throughout this Electrical Guide:

DI	Direction Indicator
LH	Left-Hand
LHD	Left-Hand Drive
LWB	Long Wheelbase
NA	Normally Aspirated
NAS	North American Specification
RH	Right-Hand
RHD	Right-Hand Drive
ROW	Rest of World
SC	Super Charged
SRS	Supplementary Restraint System
SWB	Short Wheelbase
VIN	Vehicle Identification Number

Refer to the vehicle Service Manual for a glossary of standard terms and their abbreviations.

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".

Market Variants

⚠ This Electrical Guide includes information for all market variants and specifications of the 1996 Sedan Range. The user must be certain to refer to the appropriate Figure (Fig.) in order to ensure that the information is specific to the particular vehicle. Market variants are detailed in the Table of Contents.

Vehicle Features – ROW

⚠ This Electrical Guide includes all new / revised features for vehicles manufactured from VIN 746613 on (1995.75 Model Year). Some of the new / revised features were not introduced until VIN 754304 (1996 Model Year).

Vehicle Features – NAS

⚠ This Electrical Guide includes all new / revised features for vehicles manufactured from VIN 746613 on (1996 Model Year). Thirty percent of NAS AJ16 NA vehicles will be equipped with On-board Vapor Recovery Systems. Figure 04.1 includes this system. On AJ16 NA vehicles without On-board Vapor Recovery, the Canister Close Valve and the Fuel Tank Pressure Sensor are deleted. The basic EMS (PI) wiring harness is identical for both vehicles.

FIGURES

FIGURES

FIGURES

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 – Ground Distribution**, 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 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 eliminates the need to include detailed Power Distribution information on each of the Figures. Similarly, the Figures **02 – Ground Distribution** detail the vehicle ground distribution. The reference symbols are defined on page 15.

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.

In addition, where circuits include a Control Module, Pin Out information is provided with values for "active" and "inactive" states. 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. "Active" means a load is applied or a switch is ON; "inactive" means a load is not applied or a switch is OFF. This information is provided to assist the user in understanding circuit operation and should be used FOR REFERENCE ONLY.

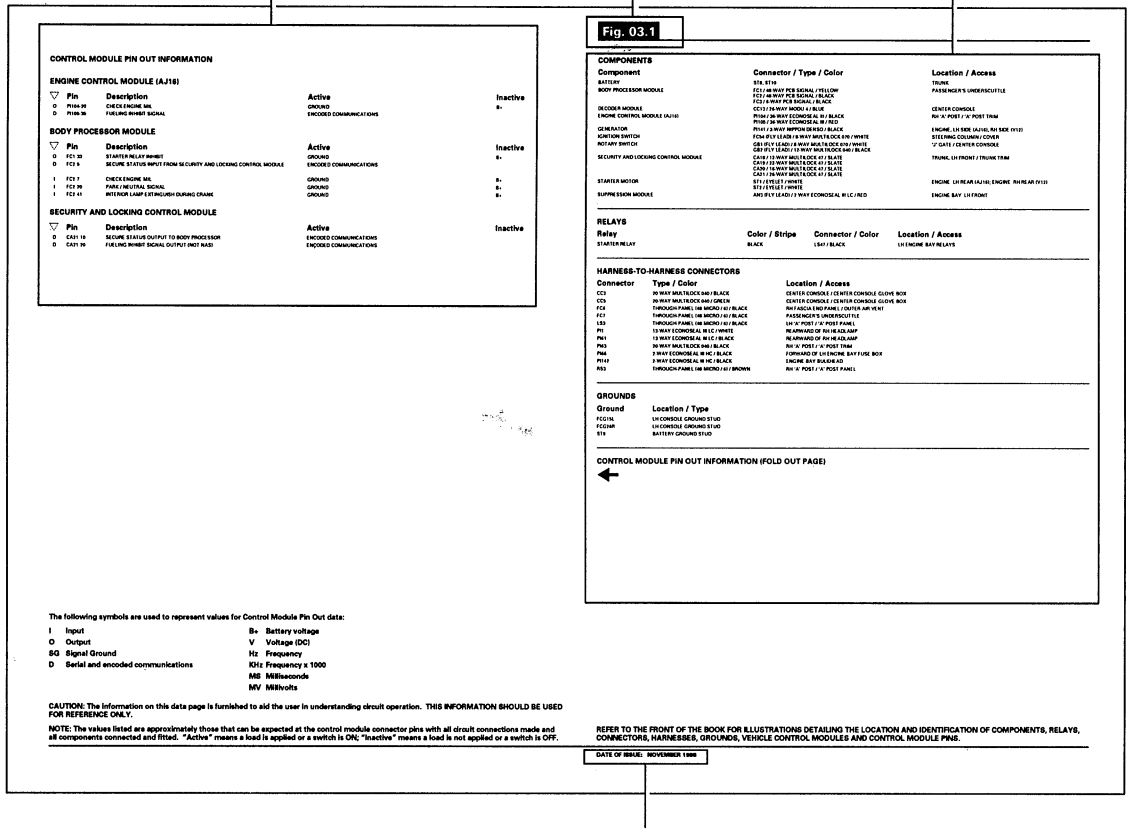
Samples of the Figure and Data pages are shown on the following page.

CONTROL MODULE PIN OUT INFORMATION

FIGURE NUMBER

COMPONENT, RELAY, CONNECTOR AND GROUND INFORMATION

DATA PAGE



CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (AJ16)

▽	Pin	Description	Active	Inactive
O	P1104-30	CHECK ENGINE MIL	GROUND	B+
O	P1105-36	FUELING INHIBIT SIGNAL	ENCODED COMMUNICATIONS	

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1 33	STARTER RELAY INHIBIT	GROUND	B+
D	FC2 5	SECURE STATUS INPUT FROM SECURITY AND LOCKING CONTROL MODULE	ENCODED COMMUNICATIONS	
I	FC1 7	CHECK ENGINE MIL	GROUND	B+
I	FC1 39	PARK / NEUTRAL SIGNAL	GROUND	B+
I	FC2 41	INTERIOR LAMP LEFTHUSH DURING CRANK	GROUND	B+

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	CA21 10	SECURE STATUS OUTPUT TO BODY PROCESSOR	ENCODED COMMUNICATIONS	
D	CA21 20	FUELING INHIBIT SIGNAL OUTPUT (NOT RASS)	ENCODED COMMUNICATIONS	

Fig. 03.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
BATTERY	STA, ST10	TRUNK
BODY PROCESSOR MODULE	FC1 / 60 WAY PCB SIGNAL / YELLOW FC2 / 48 WAY PCB SIGNAL / BLACK FC3 / 8 WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
DECODER MODULE	CC13 / 26 WAY MODU-L / BLUE	CENTER CONSOLE
ENGINE CONTROL MODULE (AJ16)	P1104 / 36 WAY ECOMOSEAL III / BLACK P1105 / 36 WAY ECOMOSEAL III / RED	RH 'A' POST / 'A' POST TRIM
GENERATOR	PH41 / 3 WAY NIPPON DENSO / BLACK	ENGINE, LH SIDE (AJ16), RH SIDE (V12)
IGNITION SWITCH	FC34 (FLY LEAD) / 6 WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
ROTARY SWITCH	GB1 (FLY LEAD) / 4 WAY MULTILOCK 070 / WHITE GB7 (FLY LEAD) / 12 WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12 WAY MULTILOCK 47 / SLATE CA19 / 12 WAY MULTILOCK 47 / SLATE CA20 / 16 WAY MULTILOCK 47 / SLATE CA21 / 20 WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
STARTER MOTOR	ST1 / EYELET / WHITE ST2 / EYELET / WHITE	ENGINE, LH REAR (AJ16) ENGINE RH REAR (V12)
SUPPRESSION MODULE	AM2 (FLY LEAD) / 2 WAY ECOMOSEAL III LC / RED	ENGINE BAY LH FRONT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
STARTER RELAY	BLACK	LS47 / BLACK	LH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC3	30 WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	30 WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC4	THROUGH-PANEL (48 MICRO / 60 / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 60 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 60 / BLACK	LH 'A' POST / 'A' POST PANEL
PH1	13 WAY ECOMOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PH3	13 WAY ECOMOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PH5	30 WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
PH6	3 WAY ECOMOSEAL III HC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
PH10	3 WAY ECOMOSEAL III HC / BLACK	ENGINE BAY BULKHEAD
RS3	THROUGH-PANEL (48 MICRO / 60 / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
FCG10L	LH CONSOLE GROUND STUD
FCG10R	LH CONSOLE GROUND STUD
G19	BATTERY GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

The following symbols are used to represent values for Control Module Pin Out data:

I	Input	B+	Battery voltage
O	Output	V	Voltage (DC)
SG	Signal Ground	Hz	Frequency
D	Serial and encoded communications	KHz	Frequency x 1000
		MS	Milliseconds
		MV	Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: NOVEMBER 1995

DATE OF ISSUE

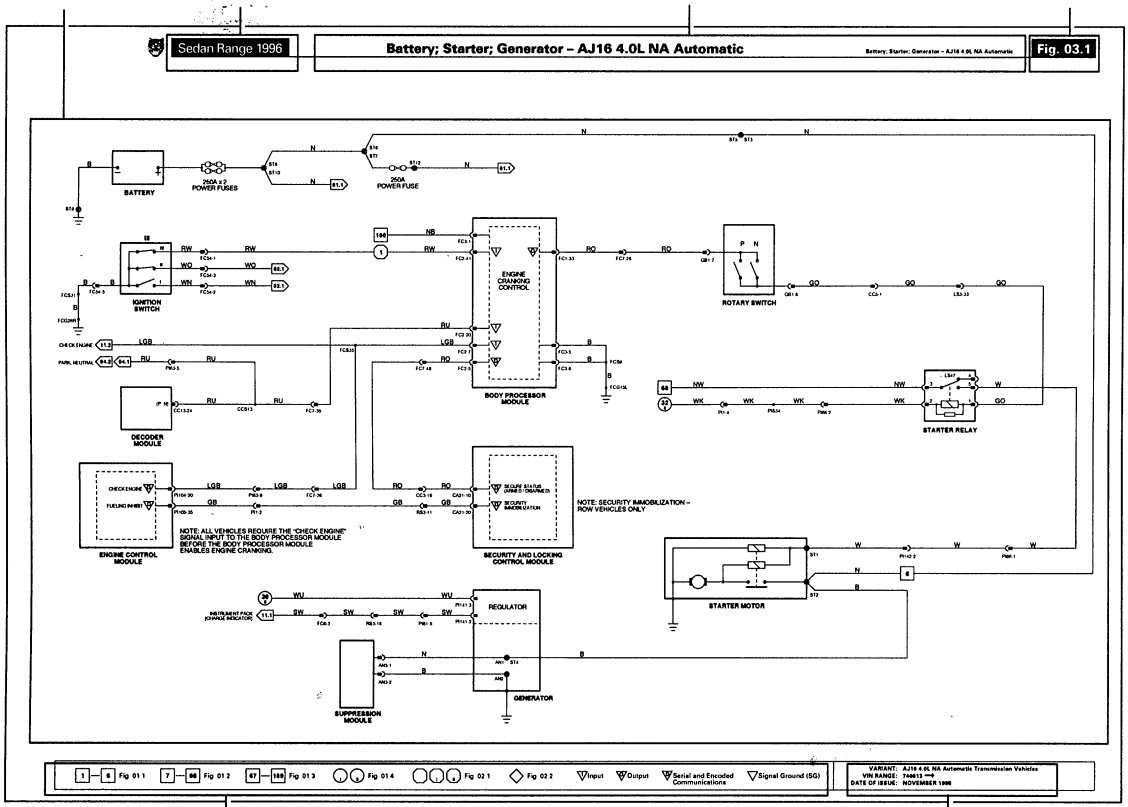
FIGURE

MODEL RANGE AND YEAR

TITLE

FIGURE NUMBER

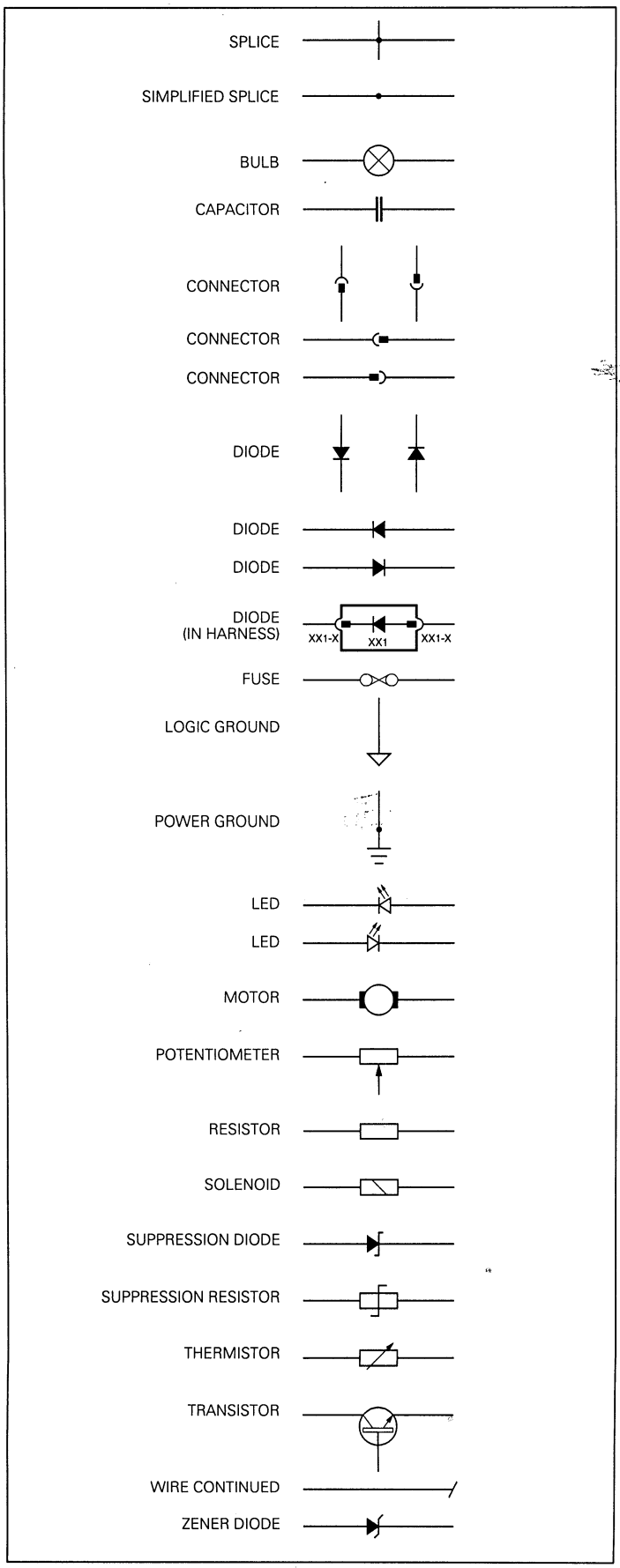
FIGURE PAGE



KEY TO REFERENCE SYMBOLS

VARIANT, VIN RANGE AND DATE OF ISSUE

Wiring Symbols



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		

When a wire has two or more color code letters, the first letter indicates the main color and the subsequent letter(s) indicate the tracer color(s).

Wiring Harness Codes

Code	Description
AB	Air bag
AN	Generator suppression
BB	Rear powered seat
BL	Front bumper – left
BR	Front bumper – right
BS	Rear seat
BT	Boot (trunk)
CA	Cabin
CC	Center console
CF	Cooling fan link
CL	Air bag impact sensor link – left
CR	Air bag impact sensor link – right
CS	Clutch shorting link
CV	Canister valve
DD	Driver door
DL	Non dead locking shorting link
EL	Evaporation pressure sensor link
FC	Facia
FU	Fuel pump
GB	Automatic transmission
GI	Glove box link
IC	In-car entertainment
LL	Variable steering converter
LS	Left forward
ML	Manual seat link
OL	Octane select link
PD	Passenger door – front
PI	Engine management
PL	Powered seat link
RD	Rear door (suffix L – left, suffix R – right)
RF	Roof security
RS	Right forward
RT	Radio telephone
SA	Starter solenoid
SH	Front screen (windshield) heater
SL	Starter solenoid link
SM	Memory seat
SR	Side marker link (rear)
TL	Tail lamps
TS	Traction shorting link

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

Harness Component Numbers

Connectors

HARNESS CODE + CONNECTOR NUMBER + PIN NUMBER

EXAMPLE: FC7-24 (pin number is separated by a dash)

NOTE: Door harnesses use common connector numbers with D, P, L or R added to indicate the door – Driver, Passenger, Left rear, Right rear.

Splices

HARNESS CODE + S + IDENTIFICATION NUMBER

EXAMPLE: CAS3 (no dash is used)

NOTE: In order to avoid unnecessary circuit complication, multiple splices (more than two wires) within components, in wires leading from input components to multiple circuits and in harness 'ground' sides are simplified so as not to show wires from other circuits.

EXAMPLE:

Grounds

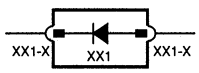
HARNESS CODE + G + IDENTIFICATION NUMBER

EXAMPLE: BTG14 (no dash is used)

NOTE: Ground identifications that include 'L' or 'R' after the number indicate that the eyelet has two 'legs'. The 'L' or 'R' identifies the particular leg of the eyelet to which the wire is connected.

Diodes

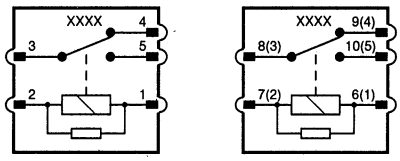
Harness diodes occur at connectors and are depicted as components and identified by a connector number.

EXAMPLE: 

Relay Connectors

Relay connector numbers are shown within the relay. The harness code is shown in the upper portion of the relay; the pin (terminal) number is shown adjacent to the pin.

NOTE: Certain relays are paired and share a modular connector. In this instance, the relay terminal code is included in parentheses.

EXAMPLE: 

Reference Symbols

Reference symbols are used for three purposes:

- to allow the user to complete the individual system circuit to power supply or ground
- to refer the user to a related circuit
- to identify control module inputs, outputs and signal grounds

[X] Battery Power Supply

This symbol represents a direct battery power supply and refers the user to Figure 01.1, 01.2 or 01.3.

(XX I) (XX II) Ignition Switched Power Supply

This symbol represents ignition switched power supply and refers the user to Figure 01.4.

The suffix I indicates auxiliary power. Power is supplied in ignition switch key positions I (AUXILIARY) and II (IGNITION).

The suffix II indicates ignition power. Power is supplied in ignition switch key positions II (IGNITION) and III (ENGINE CRANK).

(XX) (XX I) (XX II) Ignition Switched Ground

This symbol represents an ignition switched ground and refers the user to Figure 02.1.

No suffix indicates CRANK. Ground is completed in ignition switch key position III (ENGINE CRANK).

The suffix I indicates auxiliary ground. Ground is completed in ignition switch key positions I (AUXILIARY) and II (IGNITION).

The suffix II indicates ignition ground. Ground is completed in ignition switch key positions II (IGNITION) and III (ENGINE CRANK).

<X> Logic Ground

This symbol represents a logic ground and refers the user to Figure 02.2.

XX.X BPM Figure Number Reference Flag

This symbol refers the reader to a figure number only. It does not refer to a flag with the same number on a different figure.

As used in Figures 01.1 through 02.2, the reference flag refers the user to a continuation of the circuit. In this instance, the user matches the number to a Power Supply or Ground symbol to trace the circuit.

In most other cases, it is not necessary to refer to another figure for completion of a circuit, as the reference flags are used to indicate parallel circuits and circuits that share components. Most of the circuits where this situation occurs are overlapped to avoid the necessity for cross-referencing to another figure. Exceptions to this rule are instances where signals are transmitted to or received from other system circuits.

BPM Because the Body Processor Module appears numerous times, the abbreviation BPM is used in the reference flag on Figure 01.3 in order to conserve space.

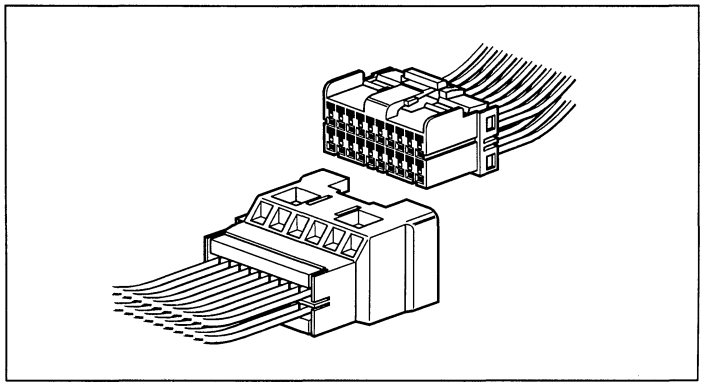
Control Module Input, Output, Data Line and Signal Ground

I Input O Output D Serial and Encoded Communications Signal Ground (SG)

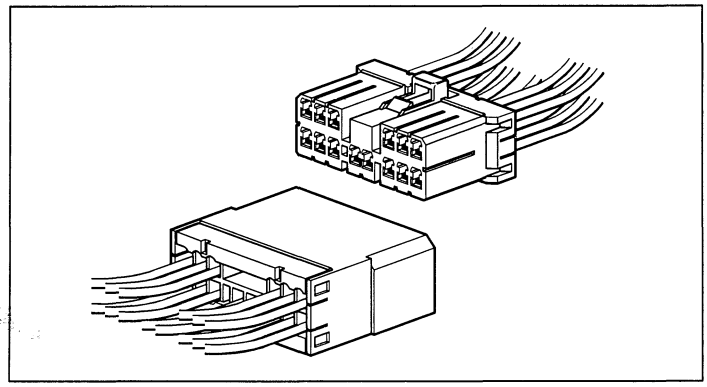
These four symbols are employed to assist the user in visualizing the 'logic' of circuits containing control modules. The symbols identify control module input, output, data line and signal ground pins. These symbols are also employed on the corresponding data page.

The following connectors are the common harness-to-harness connectors used throughout the vehicle.

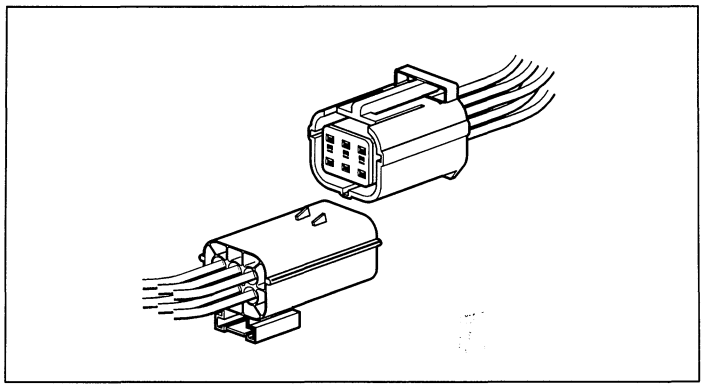
Multilock 040
Low current (used as harness and 'direct' connection connector).



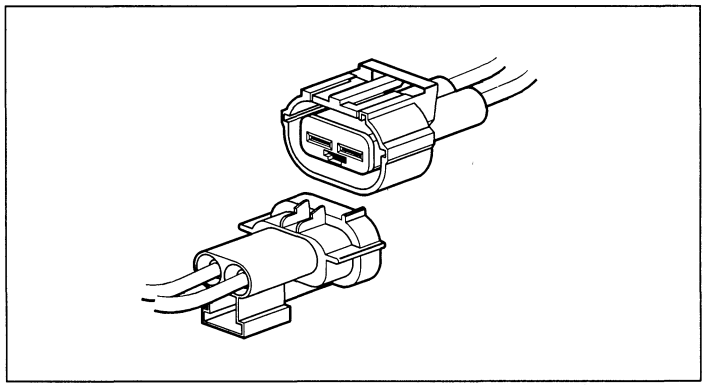
Multilock 070
High current (used as harness and 'direct' connection connector).



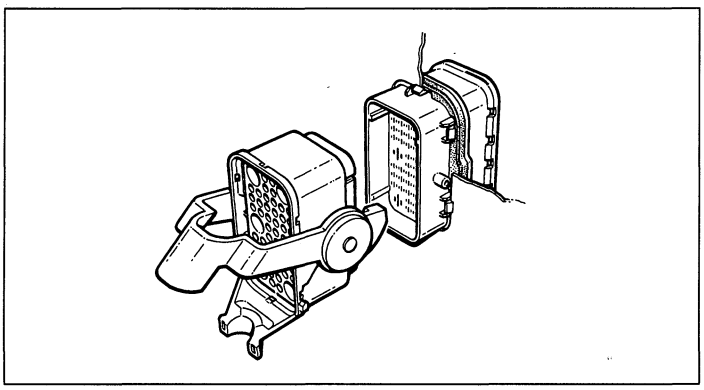
Econoseal III LC
Low current sealed connector.



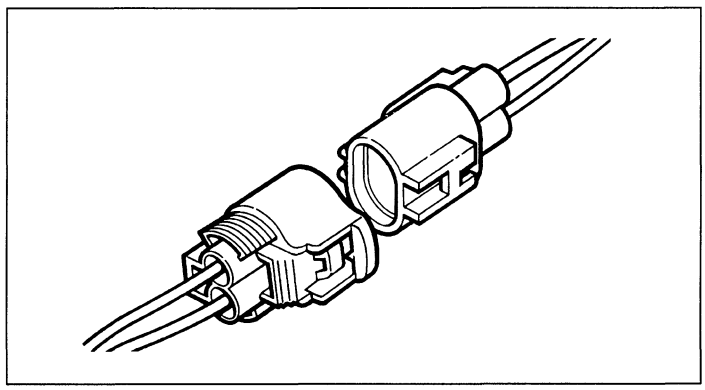
Econoseal III HC
High current sealed connector.



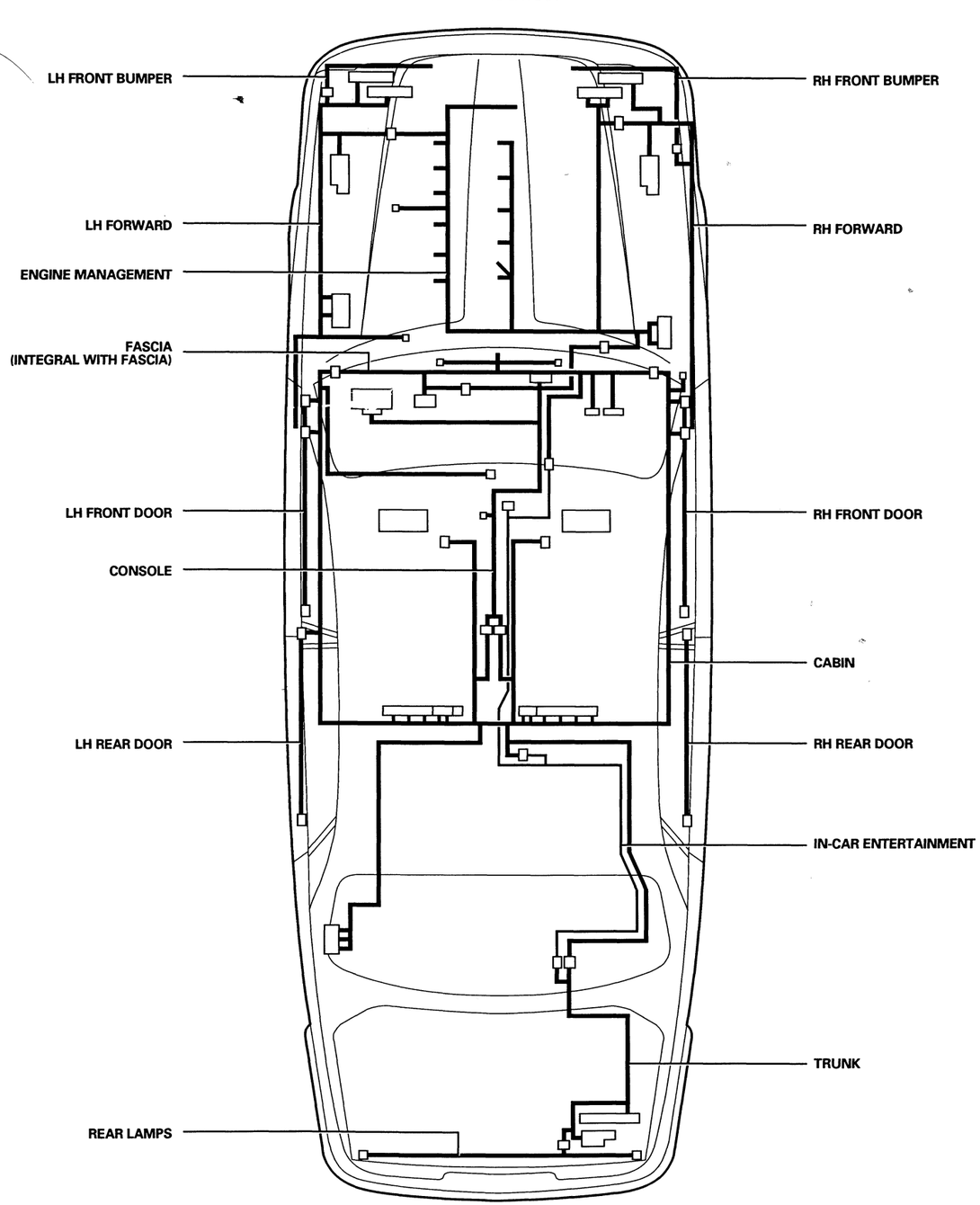
Through-Panel
48 low-current pins / 6 high-current pins.



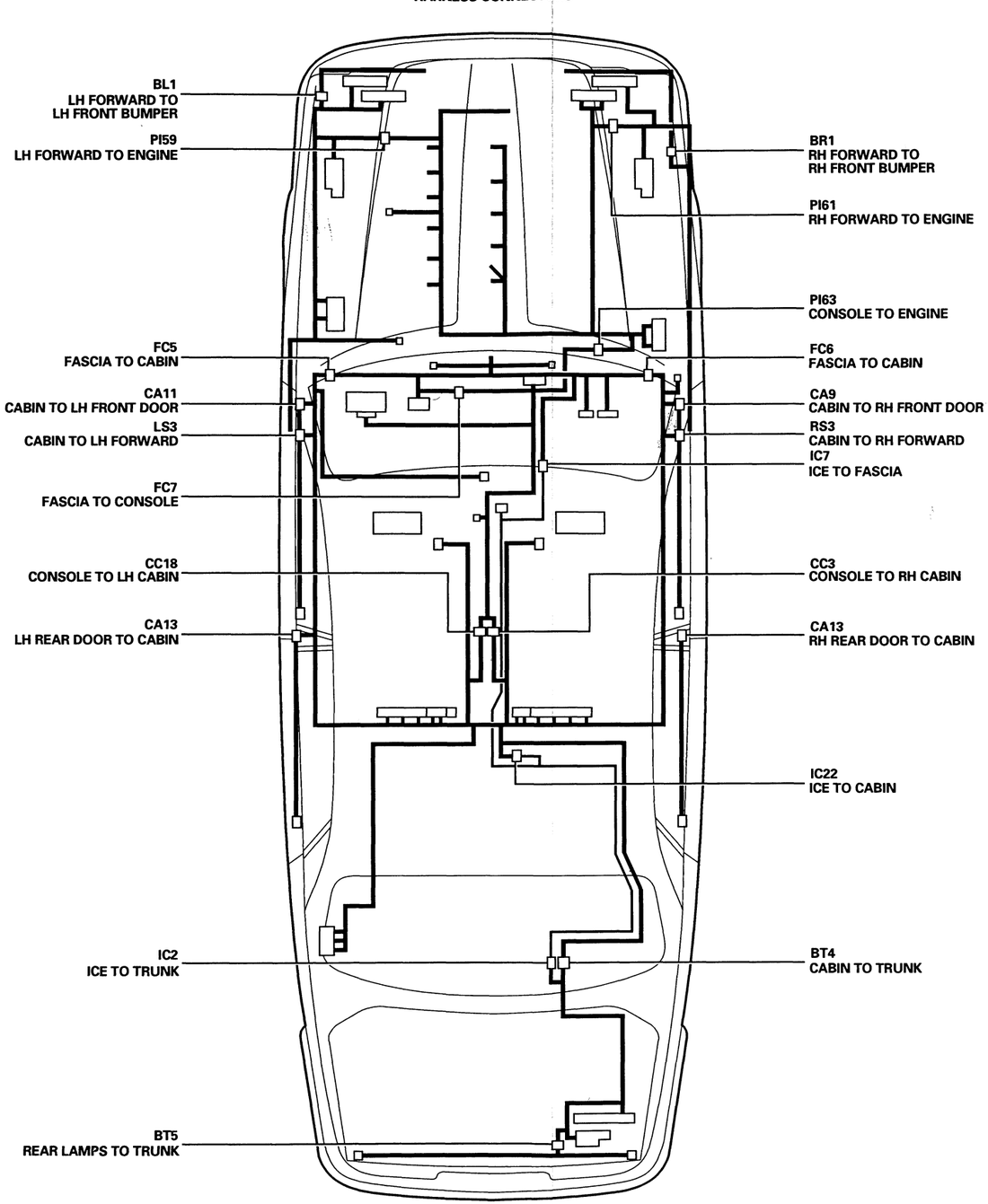
Ford Card
Used for SRS only.



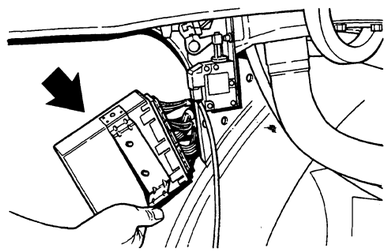
HARNESS LAYOUT



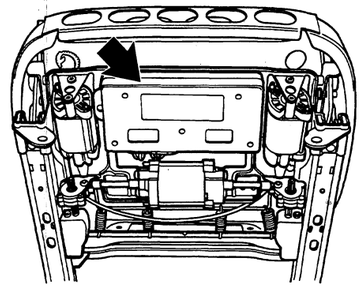
HARNESS CONNECTORS



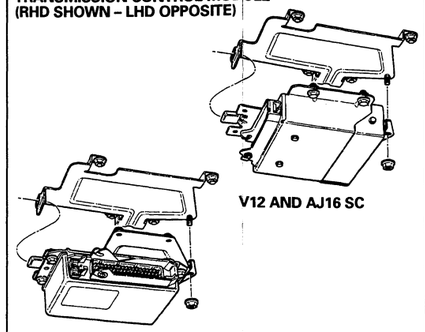
SECURITY AND LOCKING CONTROL MODULE



SEAT CONTROL MODULE – DRIVER, LHD; PASSENGER, RHD



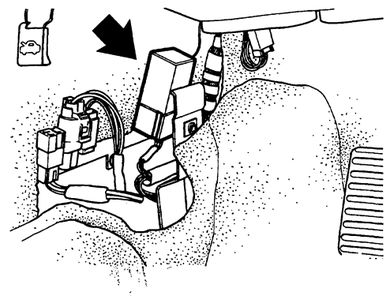
TRANSMISSION CONTROL MODULE (RHD SHOWN – LHD OPPOSITE)



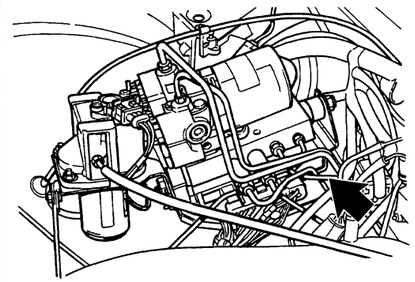
V12 AND AJ16 SC

AJ16 NA

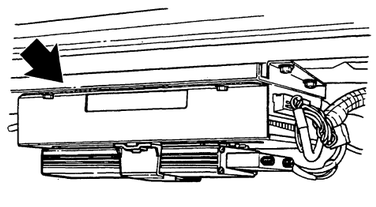
VARIABLE STEERING CONTROL MODULE

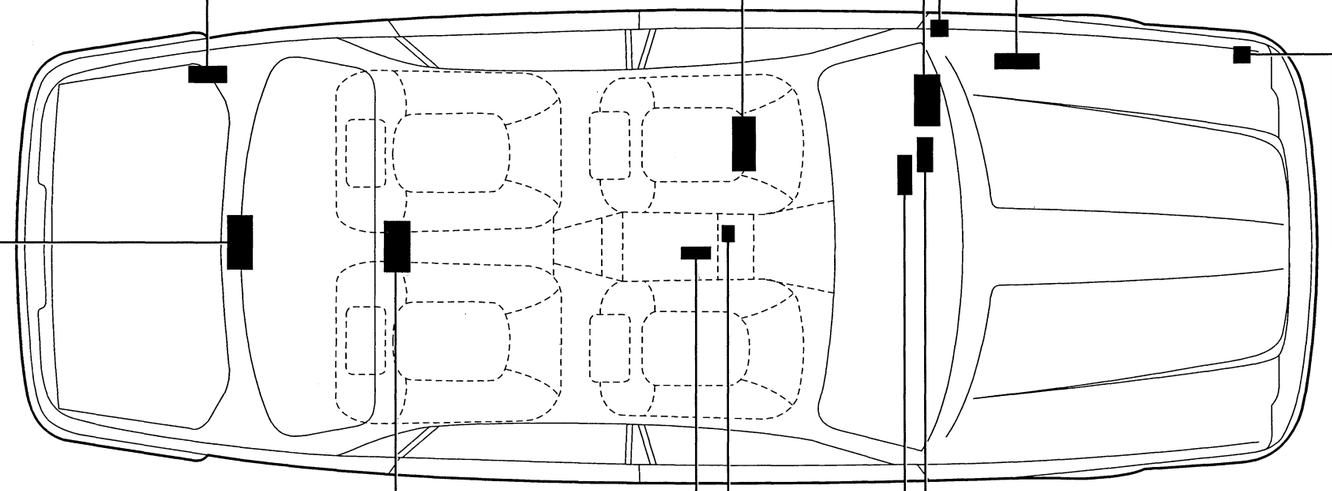


ABS / TRACTION CONTROL CONTROL MODULE (RHD SHOWN – LHD OPPOSITE)

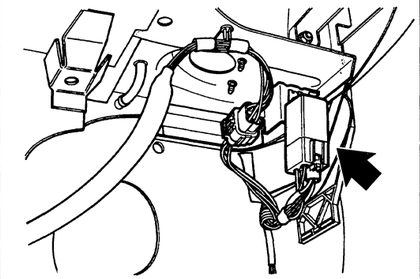


POWER AMPLIFIER

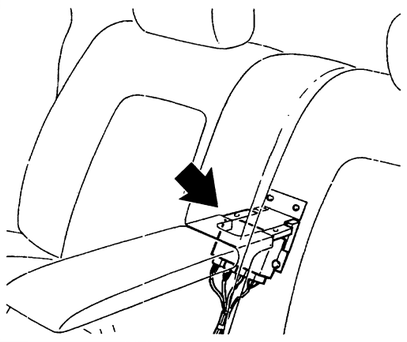




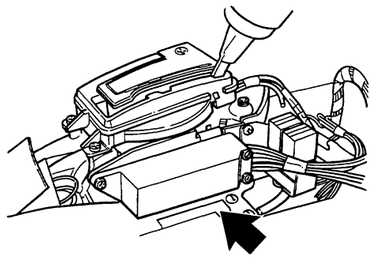
FAN CONTROL RELAY MODULE



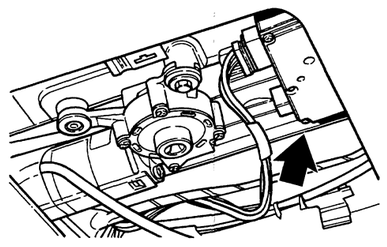
REAR SEAT CONTROL MODULE



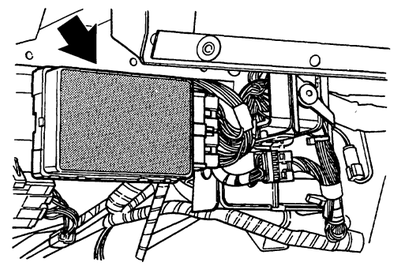
DECODER MODULE



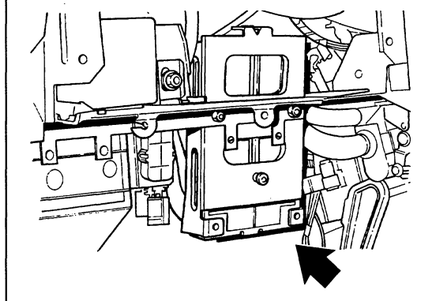
SLIDING ROOF CONTROL MODULE



SRS DIAGNOSTIC MONITOR (RHD SHOWN – LHD OPPOSITE)

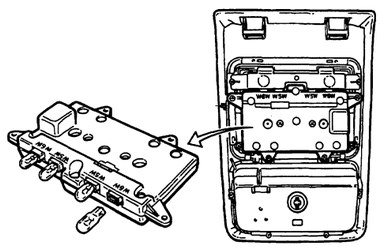


BODY PROCESSOR MODULE (RHD SHOWN – LHD OPPOSITE)

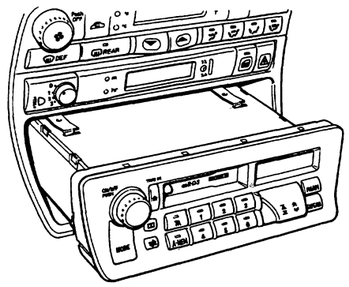


Electronic Control Module Identification and Location

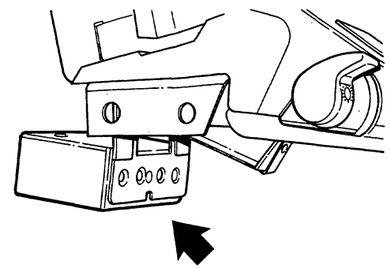
UNIVERSAL GARAGE DOOR OPENER



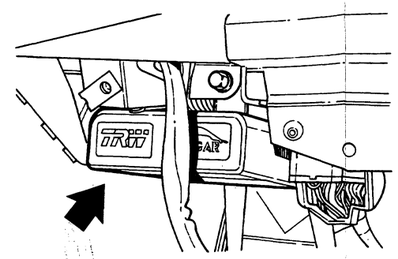
RADIO CASSETTE



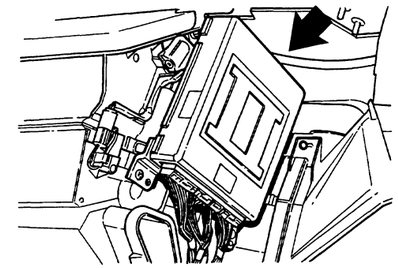
READER / EXCITER CONTROL MODULE (RHD SHOWN – LHD OPPOSITE)

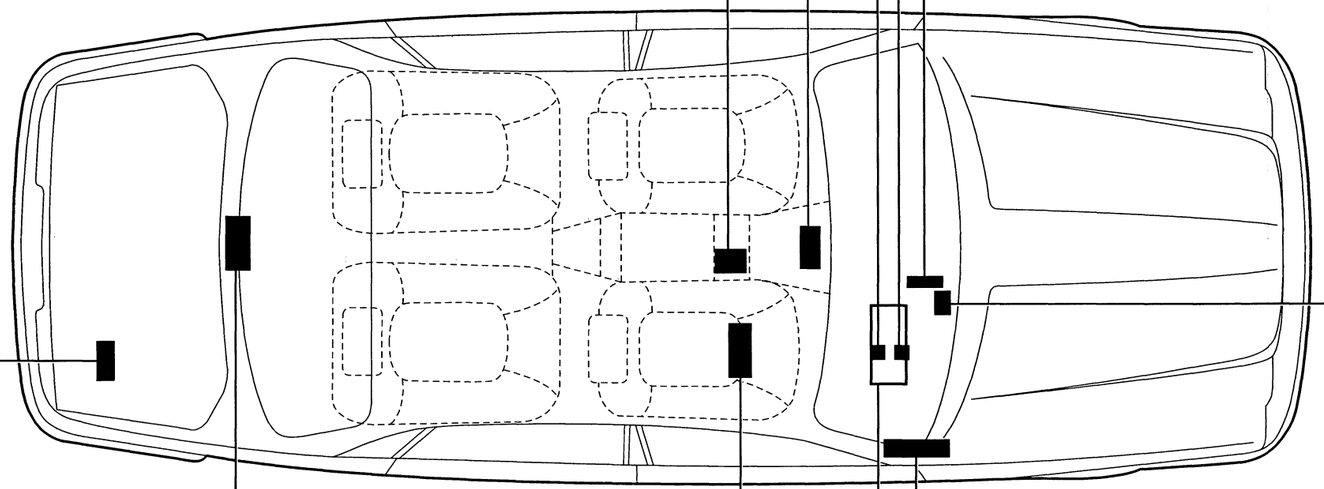


COLUMN / MIRROR MOVEMENT CONTROL MODULE (RHD SHOWN – LHD OPPOSITE)

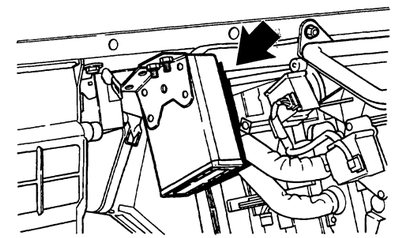


AIR CONDITIONING CONTROL MODULE

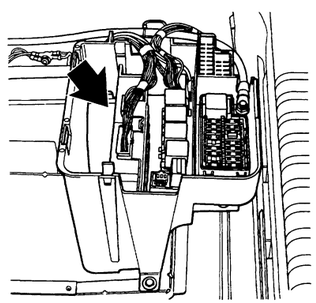




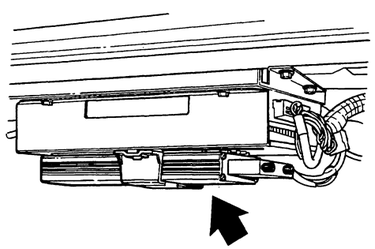
SPEED CONTROL CONTROL MODULE (RHD SHOWN – LHD OPPOSITE)



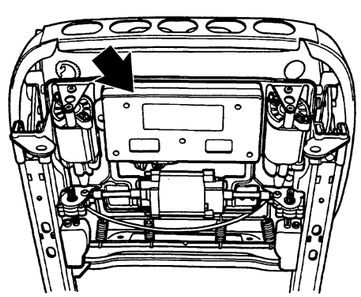
LAMP CONTROL MODULE



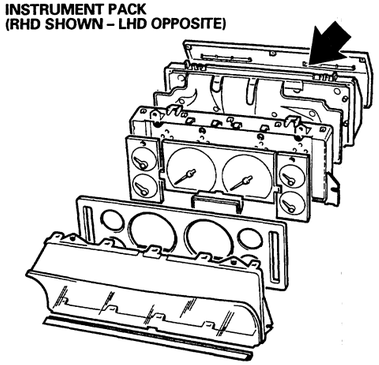
TELEPHONE TRANSCEIVER (BENEATH POWER AMPLIFIER)



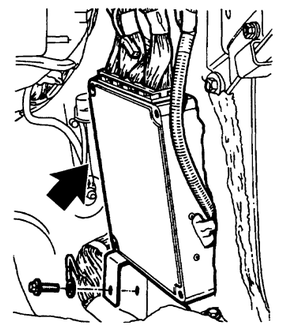
SEAT CONTROL MODULE – DRIVER, RHD; PASSENGER, LHD



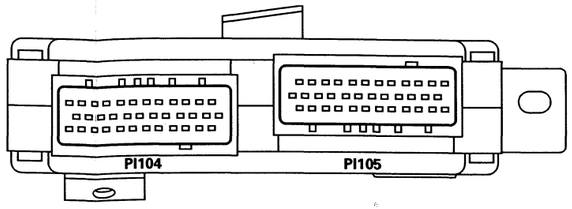
INSTRUMENT PACK (RHD SHOWN – LHD OPPOSITE)



ENGINE CONTROL MODULE (V12 SHOWN – AJ16 SAME LOCATION)



ENGINE CONTROL MODULE – AJ16



PI104 / 36-WAY / BLACK (AJ16 NA FEDERAL)

12 B	11 LGP	10 LGU	9 LGO	8 LGS	7 GB	6 LGK	5 LGR	4 UK	3 OY	2 BU	1 B
24 BLG	23 W	22 PY	21 RY	20 LGB	19 KN	18 NP	17 KR	16 OB	15 BS	14 BG	13 BR
36 B	35 GR	34 PG	33 PW	32 GN	31 OG	30 UN	29 OG	28 OR	27 BO	26 O	25 BP

PI105 / 36-WAY / RED (AJ16 NA FEDERAL)

25 —	26 SU	27 RU	28 UP	29 KS	30 BG	31 BN	32 W	33 WK	34 NG	35 GB	36 UN
13 —	14 UY	15 RK	16 U	17 BLG	18 R	19 N	20 BW	21 R	22 —	23 —	24 GU
1 UB	2 ULG	3 RN	4 GK	5 RG	6 G	7 BG	8 UP	9 U	10 O	11 UW	12 GY

PI104 / 36-WAY / BLACK (AJ16 NA ROW)

12 B	11 LGP	10 LGU	9 LGO	8 LGS	7 GB	6 LGK	5 LGR	4 UK	3 OY	2 BU	1 B
24 BLG	23 W	22 PY	21 RY	20 LGB	19 KN	18 NP	17 KR	16 OB	15 BS	14 BG	13 BR
36 B	35 —	34 PG	33 PW	32 GN	31 —	30 —	29 OG	28 OR	27 BO	26 O	25 BP

PI105 / 36-WAY / RED (AJ16 NA ROW)

25 —	26 SU	27 RU	28 UP	29 KS	30 BG	31 BN	32 W	33 WK	34 NG	35 GB	36 UN
13 —	14 UY	15 —	16 U	17 BLG	18 R	19 —	20 BW	21 R	22 —	23 —	24 GU
1 UB	2 ULG	3 —	4 GK	5 —	6 —	7 BG	8 UP	9 U	10 O	11 UW	12 GY

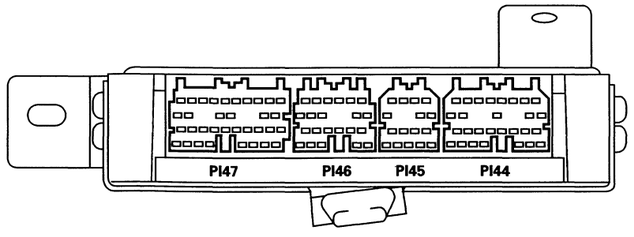
PI104 / 36-WAY / BLACK (AJ16 SC)

12 B	11 LGP	10 LGU	9 LGO	8 LGS	7 GB	6 LGK	5 LGR	4 UK	3 OY	2 BU	1 B
24 BLG	23 W	22 PY	21 RY	20 LGB	19 KN	18 NP	17 KR	16 OB	15 BS	14 BG	13 BR
36 B	35 GR	34 PG	33 PW	32 GN	31 —	30 UN	29 OG	28 OR	27 BO	26 O	25 BP

PI105 / 36-WAY / RED (AJ16 SC)

25 —	26 SU	27 RU	28 UP	29 KS	30 BG	31 BN	32 W	33 WK	34 NG	35 GB	36 UN
13 —	14 UY	15 RK	16 U	17 BLG	18 R	19 N	20 BW	21 R	22 —	23 —	24 GU
1 UB	2 ULG	3 RN	4 GK	5 —	6 G	7 BG	8 UP	9 U	10 O	11 UW	12 GY

ENGINE CONTROL MODULE – V12



PI47 / 34-WAY / SLATE

10 BU	9 BS	8 BN	7 BY	6 BLG	5 BO	4 OR	3 OG	2 OY	1 OB
16 B	15 B		14 B	13 B			12 KB	11 SB	
26 B	25 —	24 —	23 B	22 RN	21 UN	20 GN	19 YN	18 PN	17 ON
34 PG	33 PN	32 —	31 —		30 —	29 KN	28 B	27 B	

PI46 / 22-WAY / SLATE

6 PU	5 PS	4 PR	3 PO	2 —	1 —
11 B	10 B	9 —		8 W	7 GO
17 GB	16 RY	15 —	14 R	13 G	12 O
22 B	21 SG	20 SLG		19 U	18 N

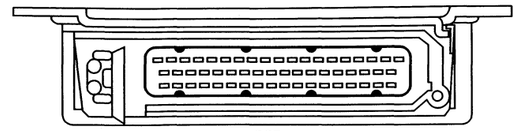
PI45 / 16-WAY / SLATE

4 GY	3 OY	2 RW	1 RG
7 UW		6 UP	5 UY
11 R	10 G	9 U	8 N
16 BG	15 BP	14 B	13 PB	12 WO

PI44 / 28-WAY / SLATE

8 —	7 SB	6 SU	5 UG	4 GN	3 PW	2 LGB	1 KR
13 UN	12 ULG		11 —			10 PY	9 —
21 BW	20 —	19 —	18 RU	17 —	16 —	15 —	14 GB
28 B	27 —	26 P	25 WO		24 NO	23 O	22 K

TRANSMISSION CONTROL MODULE – AJ16 NA

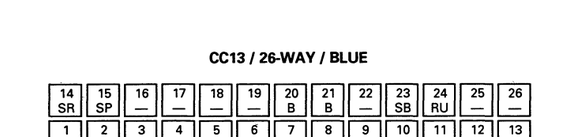


CC7

CC7 / 55-WAY / BLACK

1 WS	2 R	3 PY	4 RW	5 YB	6 OG	7 B	8 —	9 —	10 —	11 —	12 —	13 —	14 LGP	15 K	16 S	17 —	18 —	19 RY
20 BRD	21 PW	22 —	23 —	24 YP	25 —	26 B	27 —	28 —	29 RP	30 —	31 —	32 SU	33 LGW	34 —	35 —	36 —	37 —	
38 U	39 —	40 —	41 BS	42 YU	43 —	44 BG	45 —	46 YG	47 GN	48 —	49 GU	50 LGB	51 O	52 —	53 —	54 —	55 —	

TRANSMISSION CONTROL MODULE – V12 AND AJ16 SC



CC48

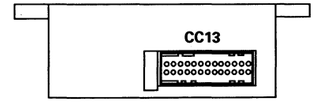
CC48 / 55-WAY / BLACK (AJ16 SC)

1 —	2 —	3 OK	4 OU	5 RW	6 P	7 SU	8 —	9 —	10 —	11 GN	12 PW	13 —	14 BU	15 —	16 K	17 —	18 —	19 —
20 —	21 —	22 ON	23 RP	24 BS	25 PU	26 OY	27 —	28 —	29 —	30 PY	31 —	32 —	33 —	34 —	35 —	36 U	37 G	
38 —	39 OR	40 S	41 GU	42 OW	43 OP	44 —	45 O	46 —	47 —	48 —	49 OS	50 N	51 R	52 OB	53 WS	54 B	55 NR	

CC48 / 55-WAY / BLACK (V12)

1 —	2 —	3 OK	4 OU	5 RW	6 P	7 SU	8 —	9 —	10 —	11 GN	12 PW	13 —	14 BU	15 —	16 K	17 —	18 —	19 —
20 —	21 —	22 ON	23 RP	24 BS	25 PU	26 OY	27 —	28 —	29 —	30 PY	31 —	32 —	33 —	34 SB	35 —	36 U	37 G	
38 —	39 OR	40 S	41 GU	42 OW	43 OP	44 —	45 O	46 —	47 —	48 —	49 OS	50 N	51 R	52 OB	53 WS	54 B	55 NR	

DECODER MODULE

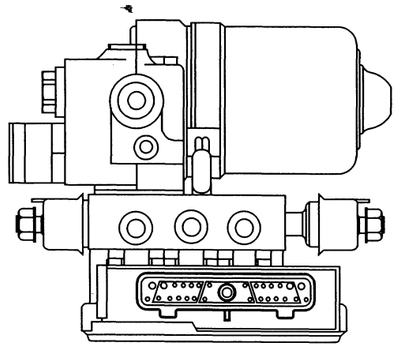


CC13 / 26-WAY / BLUE

14 SR	15 SP	16 —	17 —	18 —	19 —	20 B	21 B	22 —	23 SB	24 RU	25 —	26 —	
1 SW	2 SU	3 SG	4 SY	5 —	6 —	7 —	8 —	9 —	10 WS	11 LGP	12 LGW	13 LGB	

Control Module Connector Pin Identification and Location

ABS / TRACTION CONTROL CONTROL MODULE

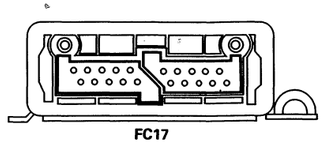


LHD – RS27; RHD – LS27

RS27, LS27 / 28-WAY / SLATE

14 B	13 B	12 BS	11 BW	10 BK	9 BR	8 BY	7 BO	6 BG	5 BU	4 SR	3 RP	2 NO	1 NS
28 O	27 P	26 U	25 Y	24 GK	23 RG	22 B	21 RB	20 PU	19 —	18 RN	17 N	16 S	15 WR

SPEED CONTROL CONTROL MODULE

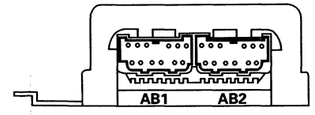


FC17

FC17 / 20-WAY / BLACK

1 WU	2 —	3 PG	4 —	5 —	6 UP	7 —	8 —	9 SR	10 UR
11 B	12 PY	13 —	14 UG	15 PU	16 —	17 SU	18 SB	19 —	20 UY

SRS DIAGNOSTIC MONITOR



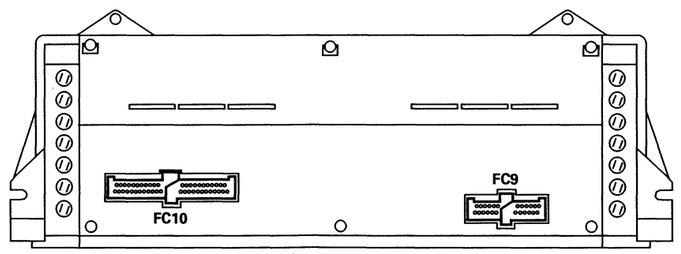
AB1 / 12-WAY / SLATE

6 YU	5 B	4 YW				3 B	2 ON	1 LGS			
12 KG	11 KU		10 RG	9 RN		8 —	7 RW				

AB2 / 12-WAY / BLACK

6 YG	5 RP	4 KN							3 KP	2 RP	1 —
12 —	11 YP		10 —	9 OW					8 OP	7 —	

INSTRUMENT PACK



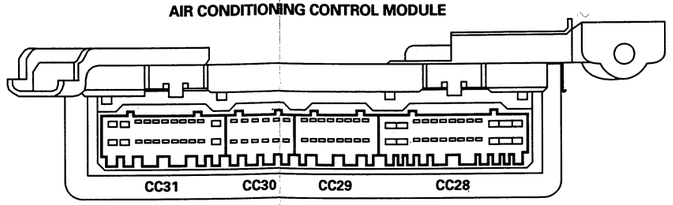
FC10 / 48-WAY / BLACK

1 —	2 U	3 UP	4 SU	5 —	6 —	7 —	8 —	9 SW	10 BY	11 —	12 O	13 OR	14 GU	15 SP	16 RY	17 OY	18 Y	19 —	20 —	21 —	22 LGB	23 UR	24 UP
25 —	26 —	27 —	28 —	29 —	30 —	31 —	32 —	33 —	34 —	35 RG	36 Y	37 OP	38 RLG	39 —	40 YP	41 YG	42 R	43 KS	44 S	45 YW	46 G	47 P	48 —

FC9 / 24-WAY / BLACK

1 KR	2 WO	3 B	4 B	5 NR	6 LGS		7 RB	8 —	9 —	10 RO	11 —	12 —
13 O	14 K	15 GK	16 —	17 —	18 —		19 OK	20 BW	21 OS	22 SG	23 —	24 PY

AIR CONDITIONING CONTROL MODULE



CC31 / 22-WAY / SLATE

12 WR	13 B	14 B	15 GW	16 UP	17 UB	18 LGW	19 BW	20 BK	21 O	22 —
1 WP	2 GY	3 WN	4 WU	5 NY	6 PY	7 —	8 P	9 UN	10 K	11 PW

CC30 / 12-WAY / SLATE (AJ16 NA)

7 SY	8 SR	9 —	10 B	11 UB	12 KU
1 ULG	2 S	3 SG	4 —	5 OY	6 UG

CC30 / 12-WAY / SLATE (AJ16 SC)

7 SY	8 SR	9 —	10 W	11 UB	12 KU
1 ULG	2 S	3 SG	4 —	5 OY	6 UG

CC30 / 12-WAY / SLATE (V12)

7 SY	8 SR	9 —	10 —	11 UB	12 KU
1 ULG	2 S	3 SG	4 SB	5 OY	6 UG

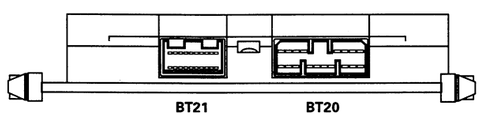
CC29 / 16-WAY / SLATE

9 OU	10 OR	11 YG	12 UY	13 —	14 —	15 UK	16 GP
1 OP	2 RG	3 YW	4 —	5 SU	6 SG	7 US	8 GO

CC28 / 26-WAY / SLATE

14 KR	15 KS	16 LGN	17 RW	18 LGP	19 RU	20 SR	21 Y	22 NR	23 —	24 —	25 UR	26 GU
1 RLG	2 U	3 UY	4 PS	5 KW	6 RY	7 PR	8 PY	9 RB	10 —	11 —	12 UW	13 UO

LAMP CONTROL MODULE



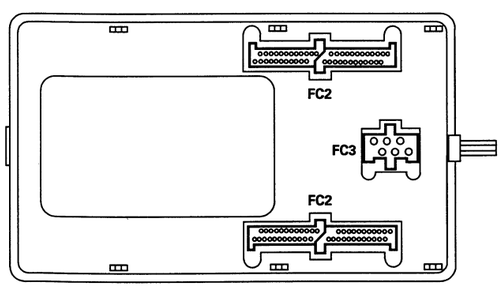
BT21 / 20-WAY / BLACK

10 PG	9 RG	8 UG	7 PW	6 KR	5 YU	4 —	3 YO	2 YG	1 YK
20 RK	19 WS	18 KU	17 R	16 KG	15 YS	14 PU	13 KS	12 SLG	11 RU

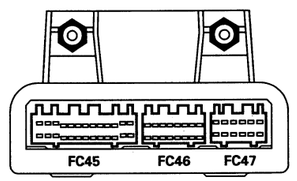
BT20 / 18-WAY / WHITE

8 GO	7 GU	6 NY	5 NG									4 Y	3 GP	2 GY	1 PY		
18 NP	17 NO	16 G			15 GW	14 U	13 B	12 NLG			11 NK	10 GN	9 NU				

BODY PROCESSOR MODULE



COLUMN / MIRROR MOVEMENT CONTROL MODULE



FC45 / 26-WAY / SLATE

13 OG	12 PLG	11 ON	10 OB	9 SN	8 OR	7 YN	6 YR	5 SK	4 PU	3 —	2 PR	1 PN
26 BS	25 PG	24 WU	23 WN	22 UR	21 —	20 KS	19 UN	18 UP	17 US	16 WG	15 BP	14 BR

FC46 / 16-WAY / SLATE

8 US	7 YB	6 SLG	5 PS	4 YO	3 OK	2 YK	1 OU
16 —	15 —	14 —	13 —	12 —	11 KN	10 PG	9 OY

FC47 / 12-WAY / SLATE

6 NO	5 O	4 K	3 —	2 B	1 NB
12 —	11 —	10 —	9 —	8 —	7 —

FC2 / 48-WAY / BLACK (LHD)

1 RY	2 SK	3 ULG	4 UP	5 RO	6 PO	7 LGB	8 —	9 —	10 KR	11 —	12 OY		13 —	14 LGY	15 —	16 US	17 —	18 YU	19 —	20 RU	21 —	22 OR	23 —	24 SG
25 BO	26 LGP	27 YR	28 YLG	29 GR	30 P	31 WY	32 RY	33 PR	34 KG	35 PU	36 —		37 PG	38 OP	39 LGG	40 OLG	41 RW	42 KU	43 RLG	44 KU	45 PLG	46 YN	47 LGR	48 UR

FC2 / 48-WAY / BLACK (RHD)

1 RY	2 SK	3 ULG	4 UP	5 RO	6 PO	7 LGB	8 —	9 —	10 KR	11 —	12 OP		13 —	14 LGY	15 —	16 US	17 —	18 YU	19 —	20 RU	21 —	22 OR	23 —	24 SG
25 BO	26 LGP	27 YR	28 YLG	29 GR	30 P	31 WY	32 RY	33 PR	34 KG	35 PU	36 —		37 PG	38 OY	39 LGG	40 OLG	41 RW	42 KU	43 RLG	44 KU	45 PLG	46 YN	47 LGR	48 UR

FC3 / 6-WAY / BLACK

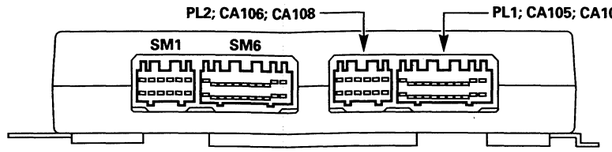
1 NB	2 —	3 O
4 K	5 B	6 B

FC1 / 48-WAY / YELLOW

1 —	2 —	3 —	4 —	5 —	6 —	7 —	8 —	9 —	10 —	11 —	12 OU		13 W	14 R	15 OP	16 GY	17 YS	18 RO	19 YU	20 —	21 GR	22 GB	23 OW	24 RLG
25 RW	26 SP	27 YP	28 OG	29 UK	30 UO	31 BU	32 UP	33 RO	34 LGY	35 US	36 YB		37 BN	38 YP	39 *	40 LGN	41 *	42 OW	43 —	44 —	45 RU	46 Y	47 RU	48 —

Control Module Connector Pin Identification and Location

FRONT SEAT CONTROL MODULE



SM1-D / 12-WAY / WHITE

6 KO	5 KS	4 UO	3 US	2 RO	1 RS
12 GO	11 GS	10 R	9 B	8 PS	7 PO

SM6-D / 22-WAY / WHITE

11 GN	10 PY	9 PW	8 RY	7 WU	6 WO	5 WY	4 WR	3 WP	2 WB	1 W
22 —	21 —	20 RW	19 UW	18 UY	17 KW	16 KY	15 GW	14 GY	13 —	12 —

PL2-D, CA106 / 12-WAY / BLUE

6 NLG	5 B	4 NG	3 B	2 K	1 O
12 NS	11 —	10 —	9 B	8 —	7 NO

PL1-D, CA105 / 22-WAY / BLUE

11 WP	10 OW	9 YB	8 UG	7 —	6 US	5 UP	4 UN	3 WN	2 OB	1 —
22 PG	21 KS	20 —	19 —	18 PU	17 B	16 BO	15 UR	14 OY	13 US	12 KN

SM1-P / 12-WAY / WHITE

6 KO	5 KS	4 UO	3 US	2 RO	1 RS
12 GO	11 GS	10 R	9 B	8 PS	7 PO

SM6-P / 22-WAY / WHITE

11 GN	10 PY	9 PW	8 RY	7 WU	6 WO	5 WY	4 WR	3 WP	2 WB	1 W
22 RK	21 —	20 RW	19 UW	18 UY	17 KW	16 KY	15 GW	14 GY	13 —	12 —

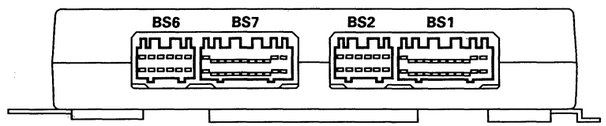
PL2-P, CA108 / 12-WAY / BLUE

6 NLG	5 B	4 NG	3 B	2 K	1 O
12 NS	11 —	10 —	9 B	8 —	7 NO

PL1-P, CA107 / 22-WAY / BLUE

11 WP	10 OW	9 YB	8 UG	7 —	6 US	5 UP	4 UN	3 WN	2 OB	1 RK
22 UO	21 KS	20 —	19 —	18 PU	17 B	16 BO	15 UR	14 OY	13 US	12 KN

REAR SEAT CONTROL MODULE



BS6 / 12-WAY / WHITE

6 GO	5 GS	4 PO	3 PS	2 OU	1 OS
12 GR	11 GW	10 OW	9 —	8 PW	7 PR

BS7 / 22-WAY / WHITE

11 —	10 PW	9 PY	8 RY	7 —	6 —	5 —	4 —	3 —	2 —	1 —
22 —	21 —	20 RW	19 UW	18 UY	17 KW	16 KY	15 GW	14 GY	13 —	12 —

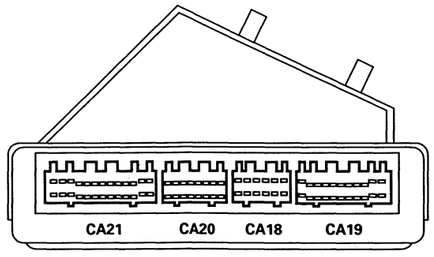
BS2 / 12-WAY / BLUE

6 NW	5 B	4 NK	3 B	2 —	1 —
12 NW	11 —	10 B	9 B	8 —	7 —

BS1 / 22-WAY / BLUE

11 SY	10 —	9 —	8 —	7 —	6 —	5 —	4 —	3 —	2 —	1 —
22 W	21 —	20 —	19 —	18 —	17 —	16 —	15 —	14 —	13 —	12 W

SECURITY AND LOCKING CONTROL MODULE



CA21 / 26-WAY / SLATE

13 WB	12 NU	11 PW	10 RO	9 LGP	8 UP	7 OY	6 YO	5 U	4 —	3 —	2 PLG	1 OW
26 WO	25 B	24 GU	23 SK	22 YLG	21 UN	20 GB	19 S	18 —	17 —	16 —	15 OY	14 OR

CA20 / 16-WAY / SLATE

8 O	7 BRD	6 SY	5 RW	4 R	3 UW	2 BRD	1 —
16 K	15 WN	14 B	13 RB	12 U	11 UB	10 BRD	9 —

CA18 / 12-WAY / SLATE

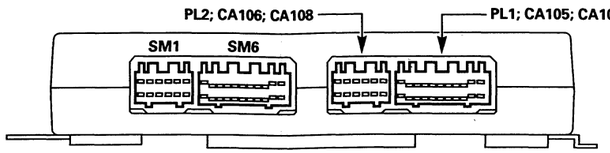
6 OU	5 —	4 YB	3 US	2 RG	1 UO
12 OY	11 —	10 YR	9 SW	8 WN	7 G

CA19 / 22-WAY / SLATE

11 SR	10 GP	9 UW	8 PG	7 LGS	6 YW	5 —	4 —	3 —	2 —	1 R
22 PO	21 G	20 RY	19 SG	18 UR	17 WO	16 —	15 —	14 —	13 PO	12 KN

Control Module Connector Pin Identification and Location

FRONT SEAT CONTROL MODULE



SM1-D / 12-WAY / WHITE

6 KO	5 KS	4 UO	3 US	2 RO	1 RS
12 GO	11 GS	10 R	9 B	8 PS	7 PO

SM6-D / 22-WAY / WHITE

11 GN	10 PY	9 PW	8 RY	7 WU	6 WO	5 WY	4 WR	3 WP	2 WB	1 W
22 —	21 —	20 RW	19 UW	18 UY	17 KW	16 KY	15 GW	14 GY	13 —	12 —

PL2-D, CA106 / 12-WAY / BLUE

6 NLG	5 B	4 NG	3 B	2 K	1 O
12 NS	11 —	10 —	9 B	8 —	7 NO

PL1-D, CA105 / 22-WAY / BLUE

11 WP	10 OW	9 YB	8 UG	7 —	6 US	5 UP	4 UN	3 WN	2 OB	1 —
22 PG	21 KS	20 —	19 —	18 PU	17 B	16 BO	15 UR	14 OY	13 US	12 KN

SM1-P / 12-WAY / WHITE

6 KO	5 KS	4 UO	3 US	2 RO	1 RS
12 GO	11 GS	10 R	9 B	8 PS	7 PO

SM6-P / 22-WAY / WHITE

11 GN	10 PY	9 PW	8 RY	7 WU	6 WO	5 WY	4 WR	3 WP	2 WB	1 W
22 RK	21 —	20 RW	19 UW	18 UY	17 KW	16 KY	15 GW	14 GY	13 —	12 —

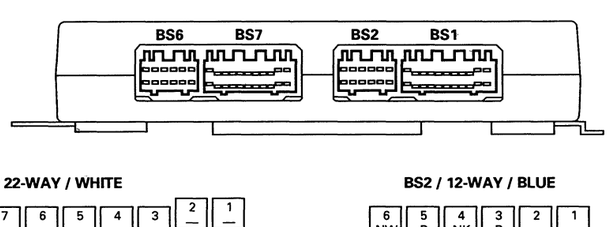
PL2-P, CA108 / 12-WAY / BLUE

6 NLG	5 B	4 NG	3 B	2 K	1 O
12 NS	11 —	10 —	9 B	8 —	7 NO

PL1-P, CA107 / 22-WAY / BLUE

11 WP	10 OW	9 YB	8 UG	7 —	6 US	5 UP	4 UN	3 WN	2 OB	1 RK
22 UO	21 KS	20 —	19 —	18 PU	17 B	16 BO	15 UR	14 OY	13 US	12 KN

REAR SEAT CONTROL MODULE



BS6 / 12-WAY / WHITE

6 GO	5 GS	4 PO	3 PS	2 OU	1 OS
12 GR	11 GW	10 OW	9 —	8 PW	7 PR

BS7 / 22-WAY / WHITE

11 —	10 PW	9 PY	8 RY	7 —	6 —	5 —	4 —	3 —	2 —	1 —
22 —	21 —	20 RW	19 UW	18 UY	17 KW	16 KY	15 GW	14 GY	13 —	12 —

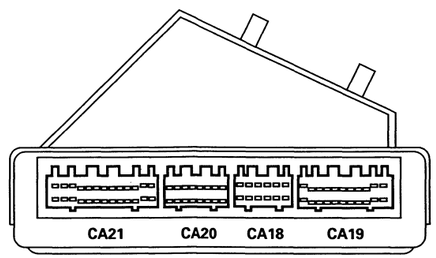
BS2 / 12-WAY / BLUE

6 NW	5 B	4 NK	3 B	2 —	1 —
12 NW	11 —	10 B	9 B	8 —	7 —

BS1 / 22-WAY / BLUE

11 SY	10 —	9 —	8 —	7 —	6 —	5 —	4 —	3 —	2 —	1 —
22 W	21 —	20 —	19 —	18 —	17 —	16 —	15 —	14 —	13 —	12 W

SECURITY AND LOCKING CONTROL MODULE



CA21 / 26-WAY / SLATE

13 WB	12 NU	11 PW	10 RO	9 LGP	8 UP	7 OY	6 YO	5 U	4 —	3 —	2 PLG	1 OW
26 WO	25 B	24 GU	23 SK	22 YLG	21 UN	20 GB	19 S	18 —	17 —	16 —	15 OY	14 OR

CA20 / 16-WAY / SLATE

8 O	7 BRD	6 SY	5 RW	4 R	3 UW	2 BRD	1 —
16 K	15 WN	14 B	13 RB	12 U	11 UB	10 BRD	9 —

CA18 / 12-WAY / SLATE

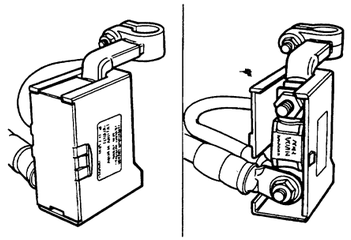
6 OU	5 —	4 YB	3 US	2 RG	1 UO
12 OY	11 —	10 YR	9 SW	8 WN	7 G

CA19 / 22-WAY / SLATE

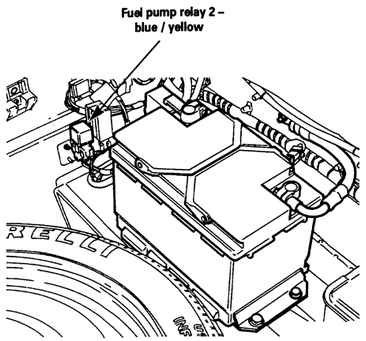
11 SR	10 GP	9 UW	8 PG	7 LGS	6 YW	5 —	4 —	3 —	2 —	1 R
22 PO	21 G	20 RY	19 SG	18 UR	17 WO	16 —	15 —	14 —	13 PO	12 KN

NOTE: RELAY COLORS ARE WRITTEN AS CASE COLOR (STRIPE) / CONNECTOR COLOR. FOR EXAMPLE, BLACK (BLUE) / BLUE INDICATES A RELAY HAVING A BLACK CASE WITH A BLUE STRIPE AND A BLUE CONNECTOR. IF THERE IS NO COLOR SHOWN IN PARENTHESES, THE RELAY CASE DOES NOT HAVE A STRIPE.

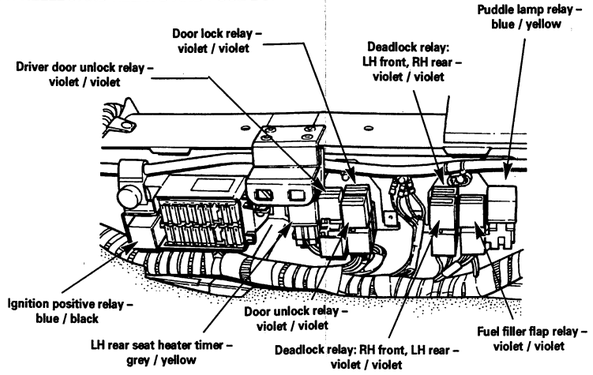
500A POWER FUSE



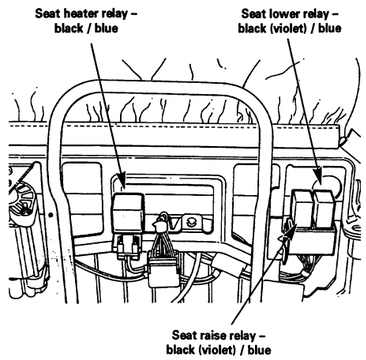
FUEL PUMP RELAY 2



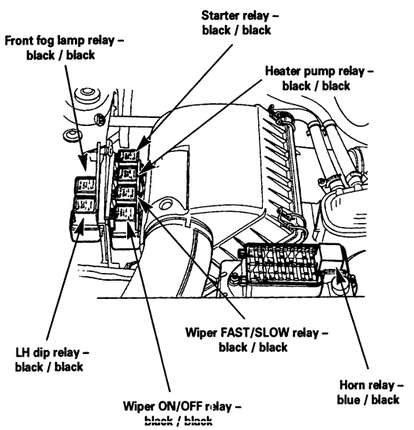
LH HEELBOARD RELAYS AND FUSE BOX



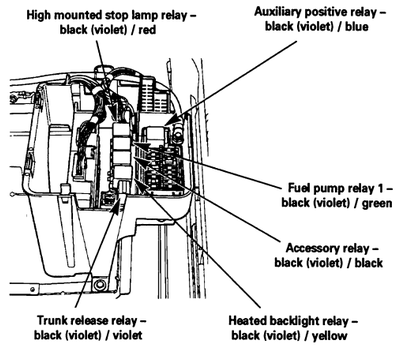
LH SEAT RELAYS

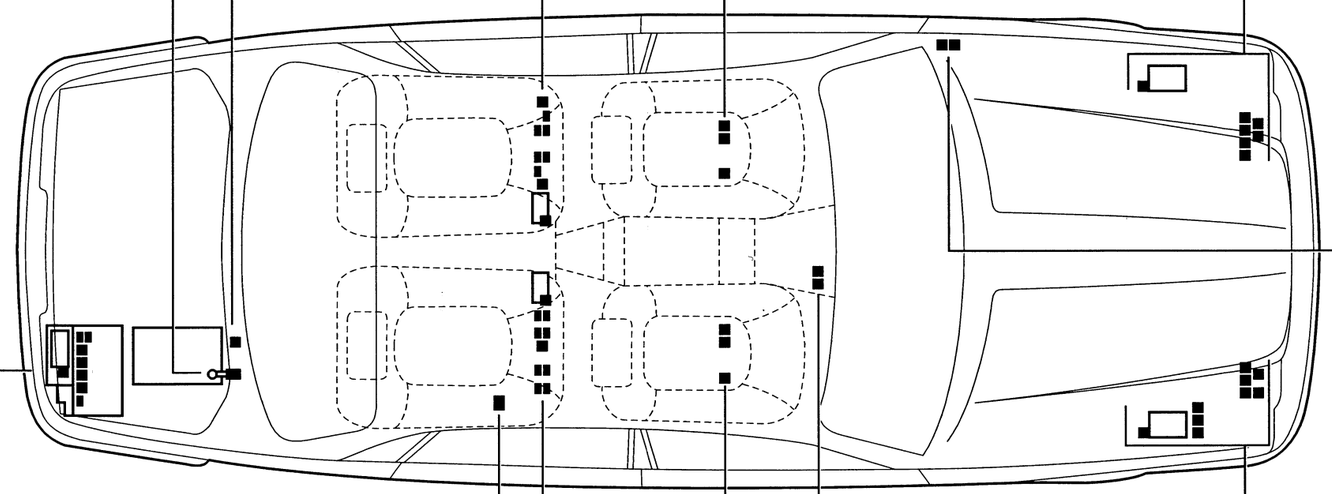


LH ENGINE BAY RELAYS AND FUSE BOX

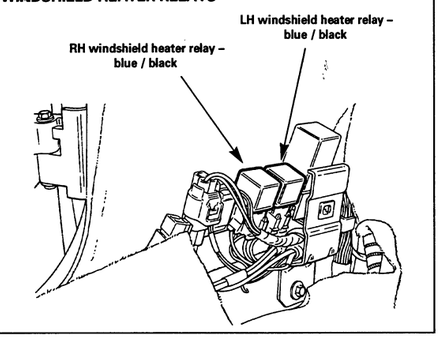


TRUNK RELAYS AND FUSE BOX

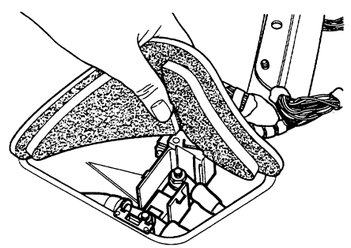




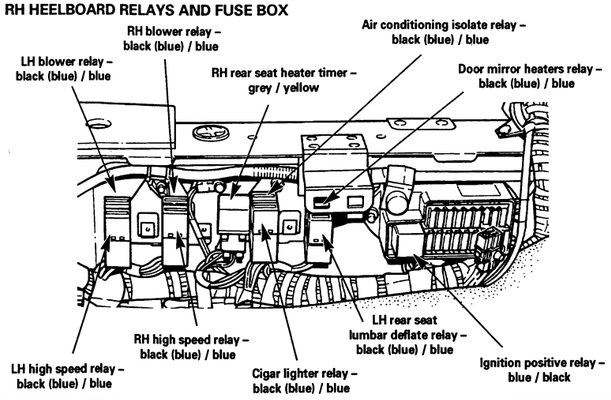
WINDSHIELD HEATER RELAYS



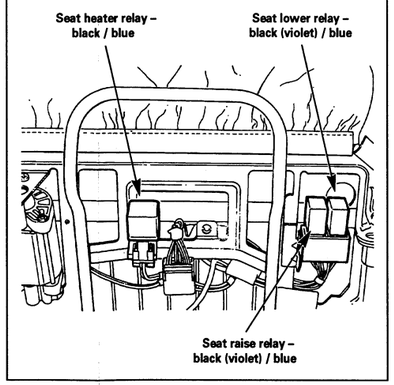
250A POWER FUSE



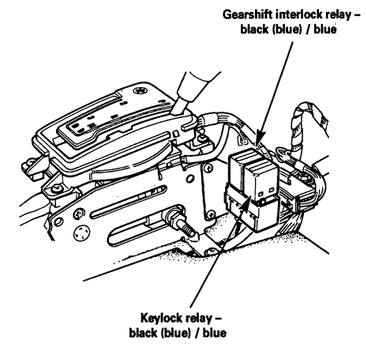
RH HEELBOARD RELAYS AND FUSE BOX



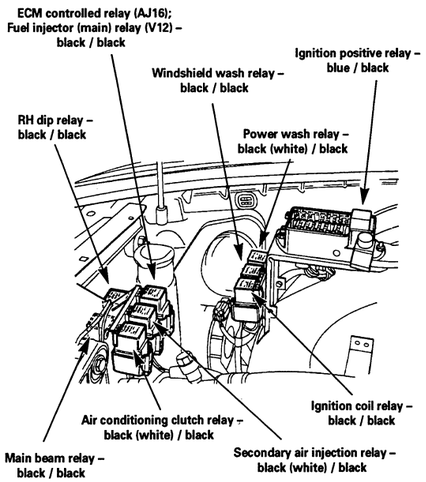
RH SEAT RELAYS



GEARSHIFT AND KEYLOCK RELAYS

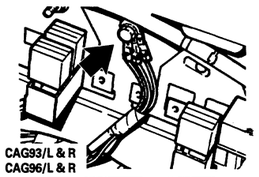


RH ENGINE BAY RELAYS AND FUSE BOX



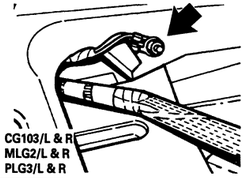
Ground Point Identification and Location

LH HEELBOARD GROUND SCREW



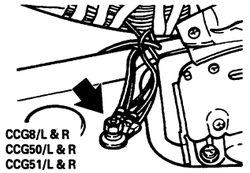
CAG93/L & R
CAG96/L & R

LH SEAT GROUND STUD



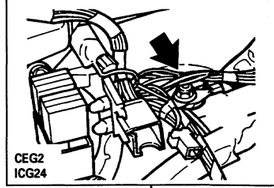
CG103/L & R
MLG2/L & R
PLG3/L & R

CENTER CONSOLE GROUND STUD



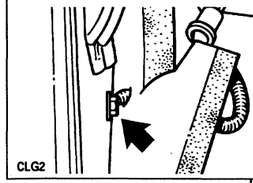
CCG8/L & R
CCG50/L & R
CCG51/L & R

RADIO GROUND STUD



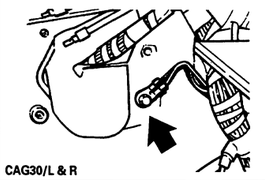
CEG2
ICG24

AIR BAG GROUND SCREW



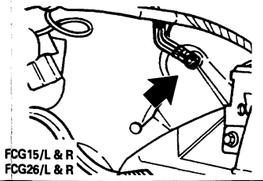
CLG2

LH 'A' POST GROUND SCREW



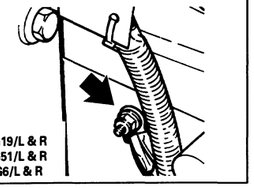
CAG30/L & R

LH CONSOLE GROUND STUD



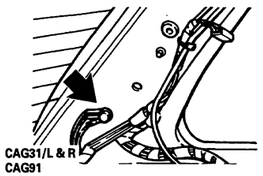
FCG15/L & R
FCG26/L & R

LH BULKHEAD GROUND STUD



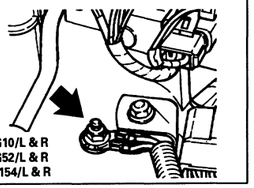
LSG19/L & R
LSG51/L & R
SHG6/L & R

PARCEL SHELF GROUND SCREW



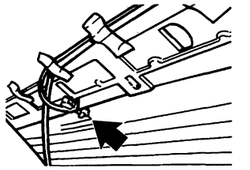
CAG31/L & R
CAG91

LEFT FORWARD GROUND STUD

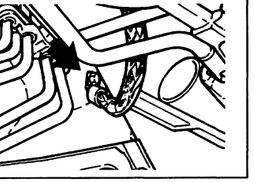


LSG10/L & R
LSG52/L & R
PIG154/L & R

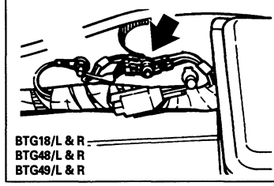
SECURITY ANTENNA GROUND STUD



ENGINE GROUND

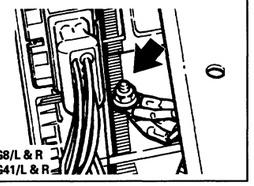


REAR TRUNK GROUND STUD



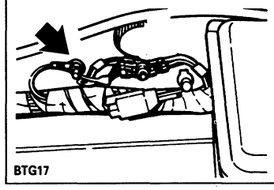
BTG18/L & R
BTG48/L & R
BTG49/L & R

RIGHT FORWARD GROUND STUD



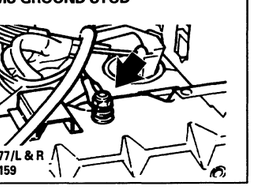
RSG8/L & R
RSG41/L & R

LOGIC GROUND STUD



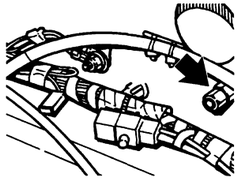
BTG17

RIGHT FORWARD EMS GROUND STUD

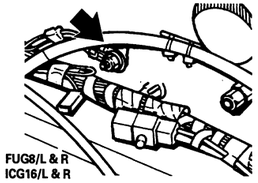


PIG77/L & R
PIG159

BATTERY GROUND STUD

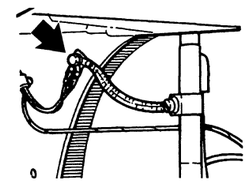


FRONT TRUNK GROUND STUD

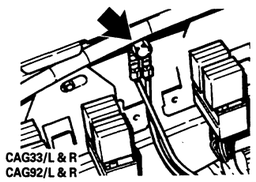


FUG8/L & R
ICG16/L & R

RADIO ANTENNA GROUND SCREW

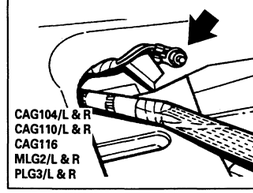


RH HEELBOARD GROUND SCREW



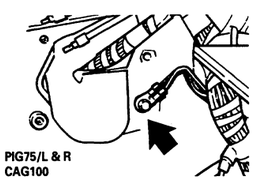
CAG33/L & R
CAG92/L & R

RH SEAT GROUND STUD



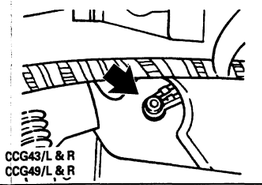
CAG104/L & R
CAG110/L & R
CAG116
MLG2/L & R
PLG3/L & R

RH 'A' POST GROUND STUD



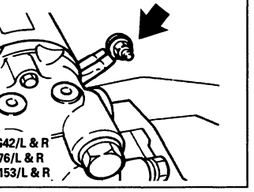
PIG75/L & R
CAG100

RH CONSOLE GROUND STUD



CCG43/L & R
CCG49/L & R

RH BULKHEAD GROUND STUD



RSG42/L & R
PIG76/L & R
PIG153/L & R

Fig. 01.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
BATTERY	ST8, ST10	TRUNK
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
FUSE BOX – LH ENGINE BAY	LS1 / 10-WAY UTA / BLACK LS37 / 10-WAY UTA / BLACK	ENGINE BAY, LH FRONT
FUSE BOX – RH ENGINE BAY	RS1 / 10-WAY UTA / BLACK RS6 / 10-WAY UTA / BLACK	ENGINE BAY, RH FRONT
FUSE BOX – LH HEELBOARD	CA1 / 10-WAY UTA / NATURAL CA2 / 10-WAY UTA / BLACK	LH HEELBOARD
FUSE BOX – RH HEELBOARD	CA36 / 10-WAY UTA / NATURAL CA44 / 10-WAY UTA / BLACK	RH HEELBOARD
FUSE BOX – TRUNK	BT9 / 10-WAY UTA / BLACK BT35 / 10-WAY UTA / NATURAL	TRUNK ELECTRICAL CARRIER

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
AUXILIARY POSITIVE RELAY (TRUNK FUSE BOX)	BLACK / VIOLET	— / BLUE	TRUNK FUSE BOX
HORN RELAY (LH ENGINE BAY FUSE BOX)	BLUE	— / BLACK	LH ENGINE BAY FUSE BOX
IGNITION POSITIVE RELAY (LH HEELBOARD FUSE BOX)	BLUE	— / BLACK	LH HEELBOARD FUSE BOX
IGNITION POSITIVE RELAY (RH HEELBOARD FUSE BOX)	BLUE	— / BLACK	RH HEELBOARD FUSE BOX
IGNITION POSITIVE RELAY (RH ENGINE BAY FUSE BOX)	BLUE	— / BLACK	RH ENGINE BAY FUSE BOX
TRANSIT ISOLATION DEVICE	—	BT37 / —	BATTERY POSITIVE POST

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT

GROUNDS

Ground	Location / Type
FCG15L	LH CONSOLE GROUND STUD
ST9	BATTERY GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-13	TRANSIT ISOLATION DEVICE	GROUND	B+
I	FC2-31	IGNITION SWITCHED GROUND	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

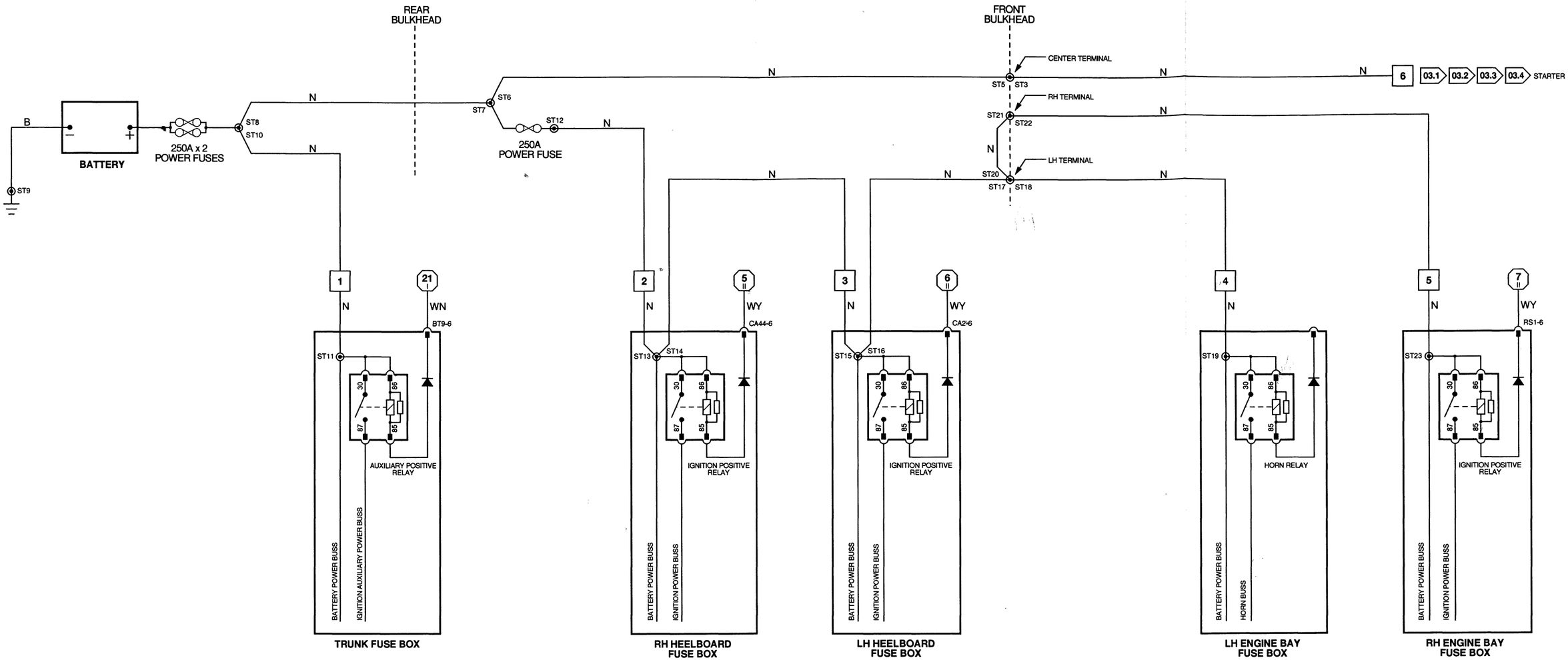
I	**Input**	**B+**	**Battery voltage**
O	**Output**	**V**	**Voltage (DC)**
SG	**Signal Ground**	**Hz**	**Frequency**
D	**Serial and encoded communications**	**KHz**	**Frequency x 1000**
		MS	**Milliseconds**
		MV	**Millivolts**

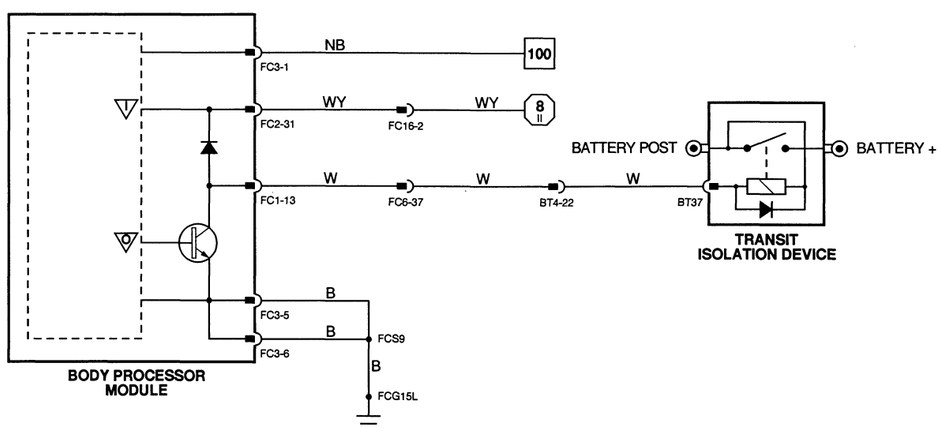
CAUTION: The information on this data page is furnished to aid the user in understanding circuit operation. THIS INFORMATION SHOULD BE USED FOR REFERENCE ONLY.

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

Battery Power Distribution – Main

Fig. 01.1





1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 →
DATE OF ISSUE: NOVEMBER 1995

Fig. 01.2

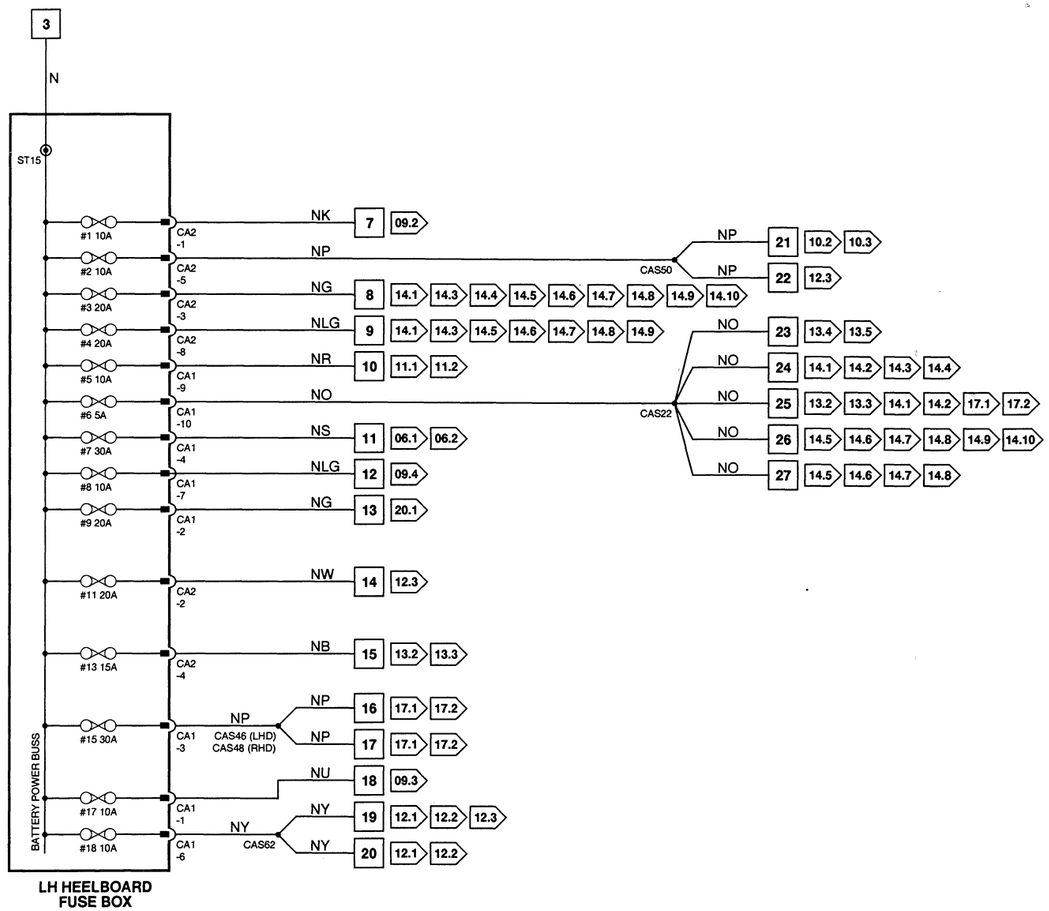
COMPONENTS

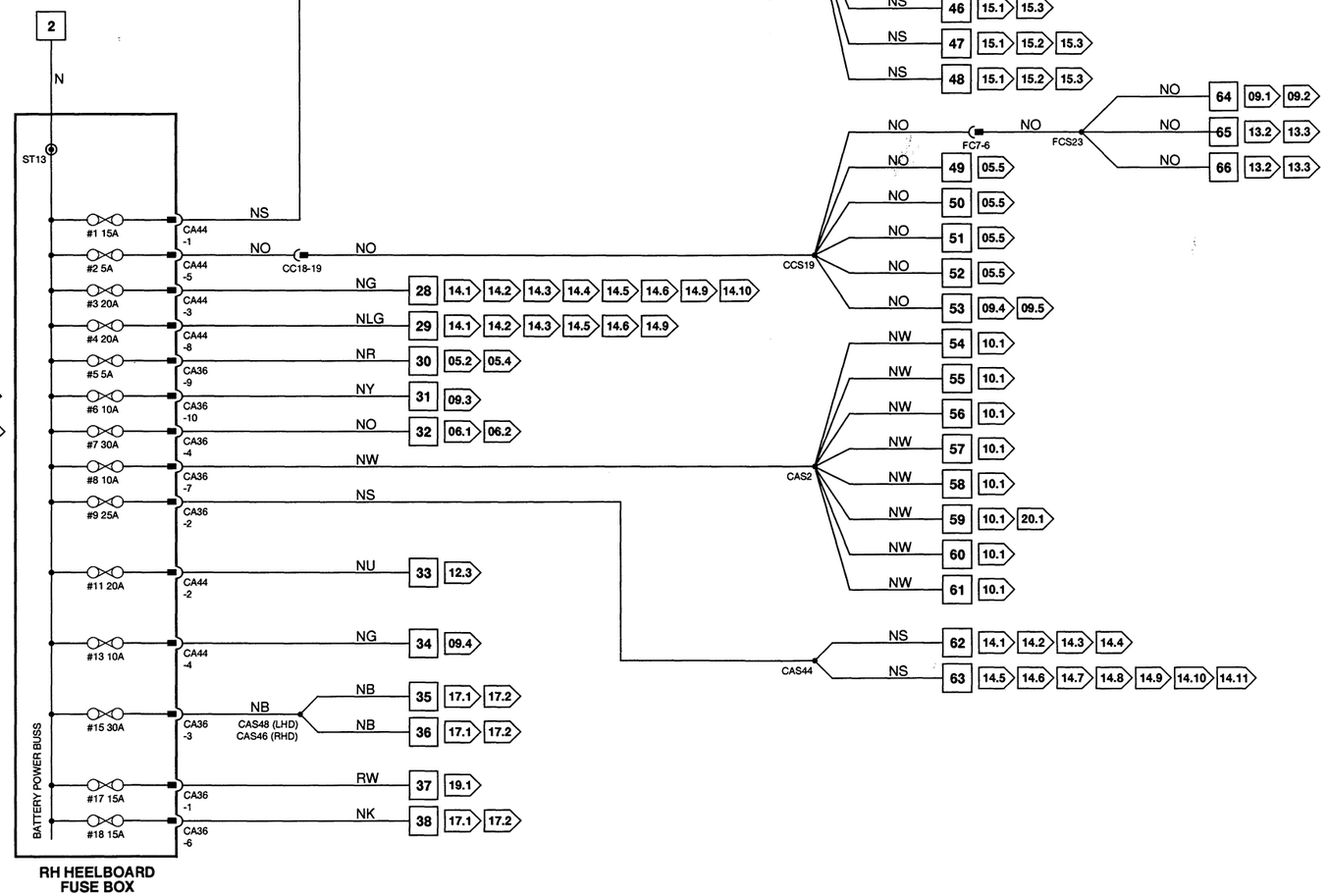
Component	Connector / Type / Color	Location / Access
FUSE BOX – LH HEELBOARD	CA1 / 10-WAY UTA / NATURAL CA2 / 10-WAY UTA / BLACK	LH HEELBOARD
FUSE BOX – RH HEELBOARD	CA36 / 10-WAY UTA / NATURAL CA44 / 10-WAY UTA / BLACK	RH HEELBOARD

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.





1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 01.3

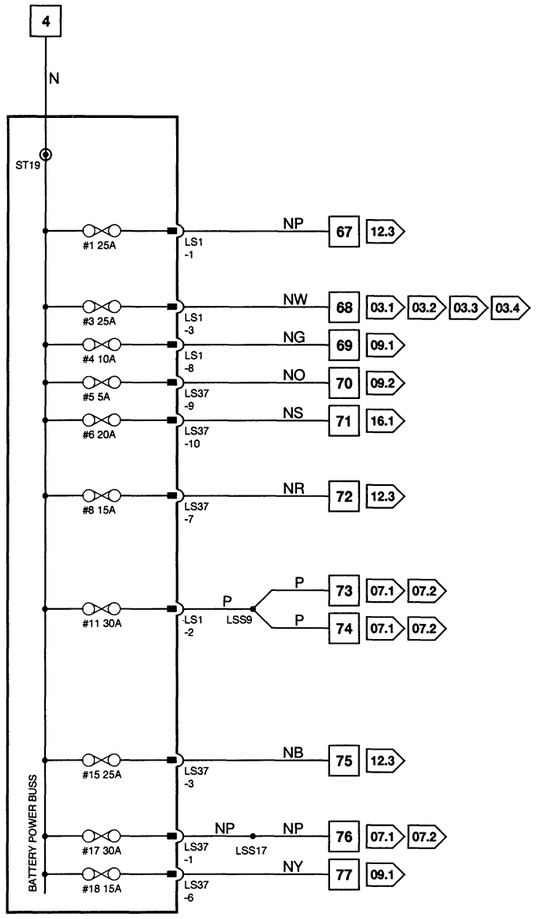
COMPONENTS

Component	Connector / Type / Color	Location / Access
FUSE BOX – LH ENGINE BAY	LS1 / 10-WAY UTA / BLACK LS37 / 10-WAY UTA / BLACK	ENGINE BAY, LH FRONT
FUSE BOX – RH ENGINE BAY	RS1 / 10-WAY UTA / BLACK RS6 / 10-WAY UTA / BLACK	ENGINE BAY, RH FRONT
FUSE BOX – TRUNK	BT9 / 10-WAY UTA / BLACK BT35 / 10-WAY UTA / NATURAL	TRUNK ELECTRICAL CARRIER

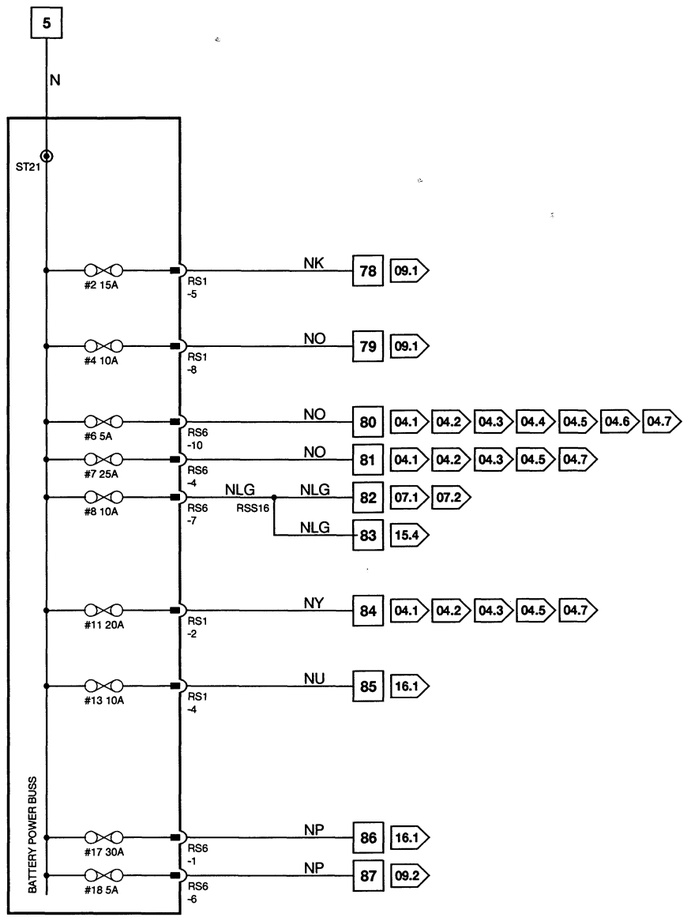
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

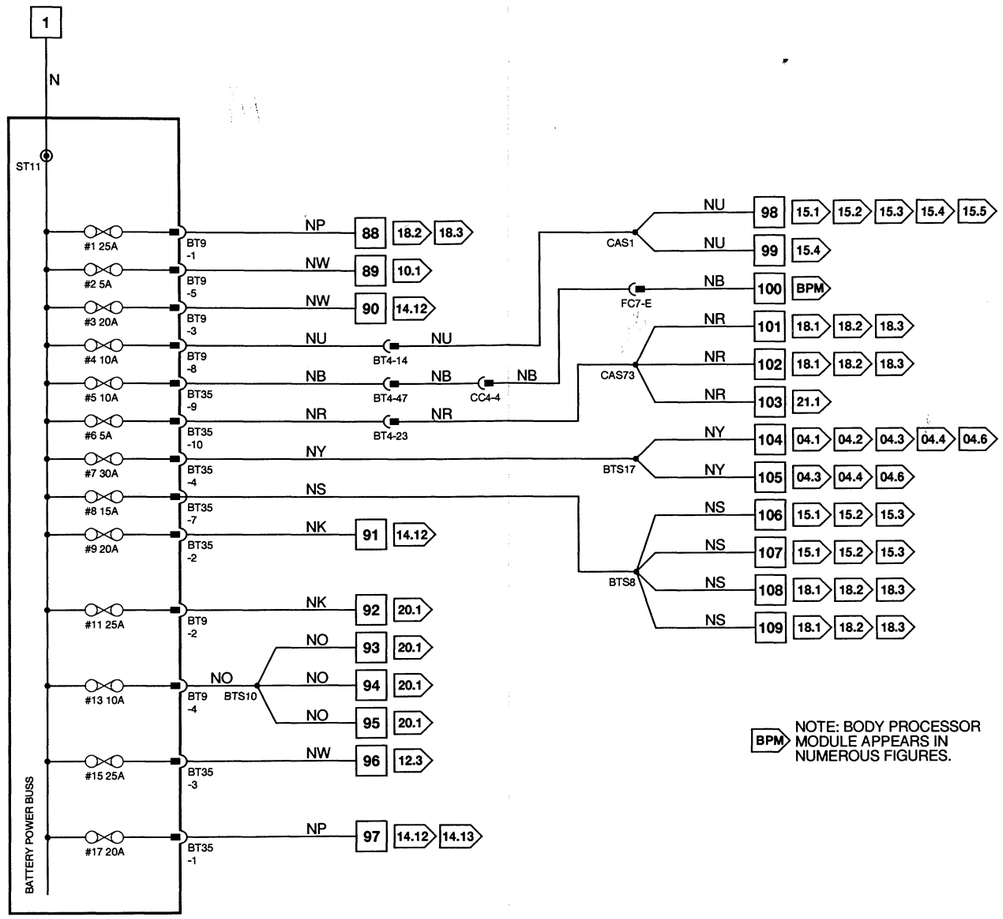
REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



LH ENGINE BAY FUSE BOX



RH ENGINE BAY FUSE BOX



TRUNK FUSE BOX

BPM NOTE: BODY PROCESSOR MODULE APPEARS IN NUMEROUS FIGURES.

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 01.4

COMPONENTS

Component	Connector / Type / Color	Location / Access
FUSE BOX – RH ENGINE BAY	RS1 / 10-WAY UTA / BLACK RS6 / 10-WAY UTA / BLACK	ENGINE BAY, RH FRONT
FUSE BOX – LH HEELBOARD	CA1 / 10-WAY UTA / NATURAL CA2 / 10-WAY UTA / BLACK	LH HEELBOARD
FUSE BOX – RH HEELBOARD	CA36 / 10-WAY UTA / NATURAL CA44 / 10-WAY UTA / BLACK	RH HEELBOARD
FUSE BOX – TRUNK	BT9 / 10-WAY UTA / BLACK BT35 / 10-WAY UTA / NATURAL	TRUNK ELECTRICAL CARRIER

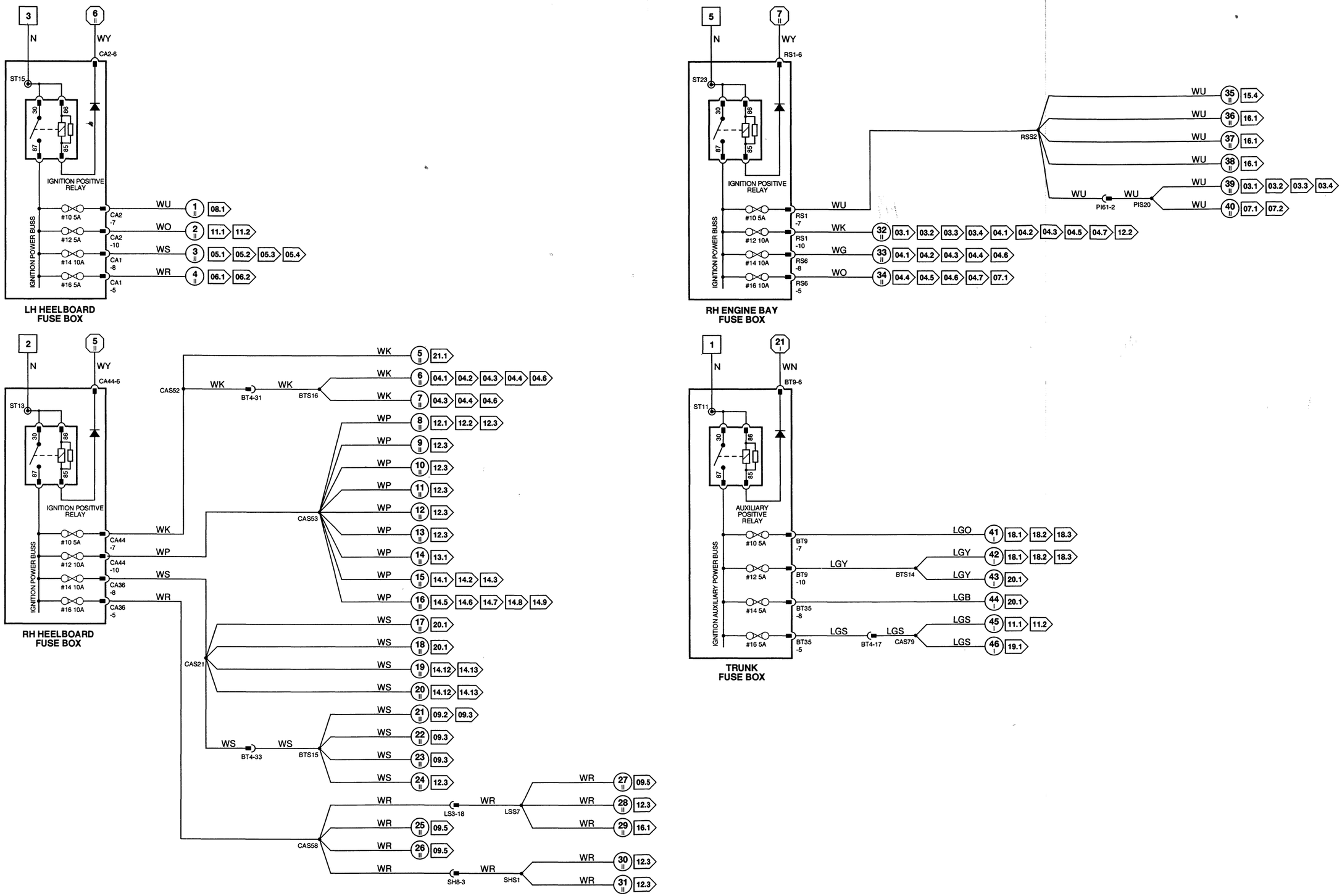
RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
AUXILIARY POSITIVE RELAY (TRUNK FUSE BOX)	BLACK / VIOLET	— / BLUE	TRUNK FUSE BOX
IGNITION POSITIVE RELAY (LH HEELBOARD FUSE BOX)	BLUE	— / BLACK	LH HEELBOARD FUSE BOX
IGNITION POSITIVE RELAY (RH HEELBOARD FUSE BOX)	BLUE	— / BLACK	RH HEELBOARD FUSE BOX
IGNITION POSITIVE RELAY (RH ENGINE BAY FUSE BOX)	BLUE	— / BLACK	RH ENGINE BAY FUSE BOX

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
SH8	4-WAY MULTILOCK 070 / WHITE	LH 'A' POST / 'A' POST PANEL

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 02.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
INERTIA SWITCH	CA6 / 3-WAY ECONOSEAL III LC / BLACK	RH 'A' POST

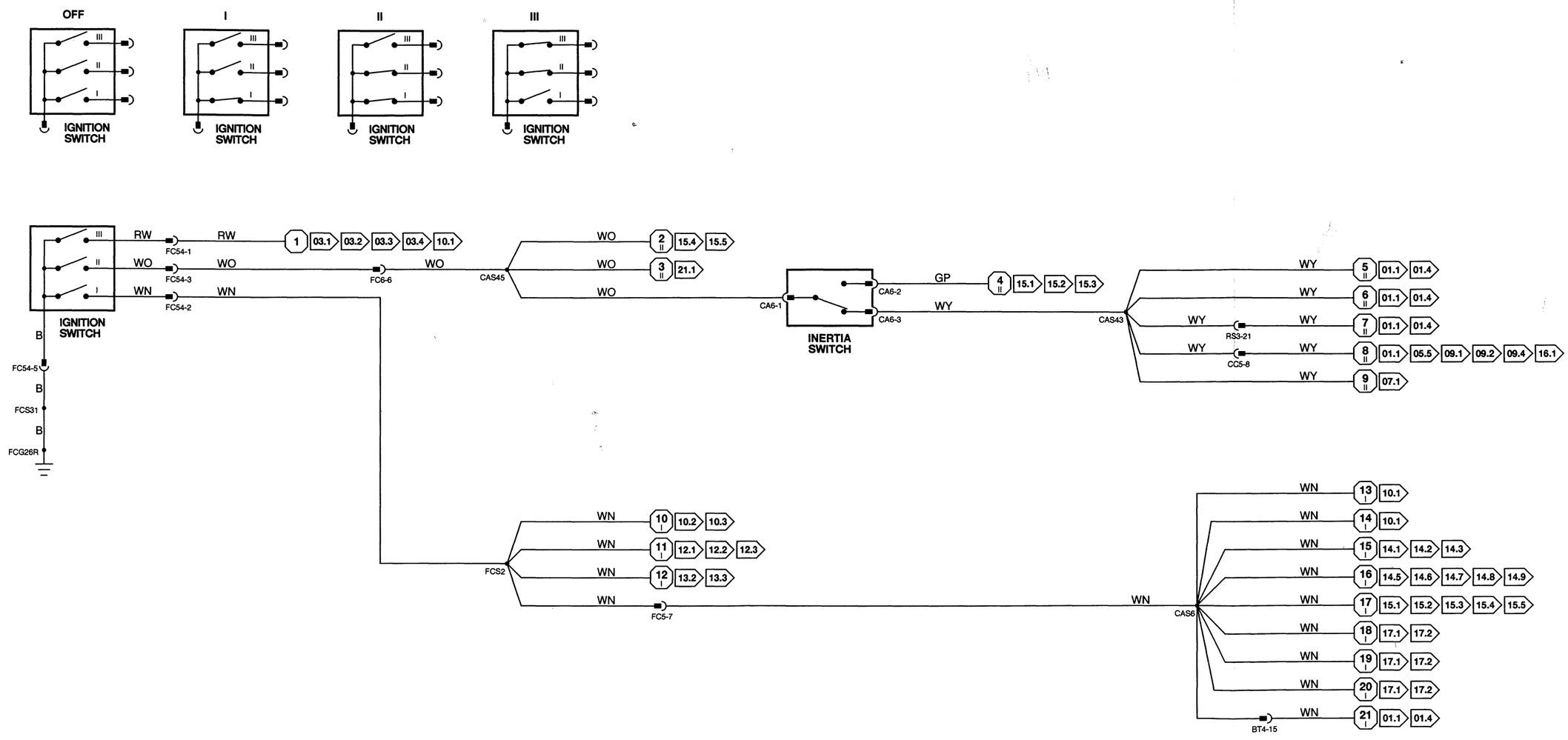
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
FCG26R	LH CONSOLE GROUND STUD

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | I II Fig. 01.4 | I II Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 02.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
BATTERY	ST8, ST10	TRUNK

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
BTG17	LOGIC GROUND STUD

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

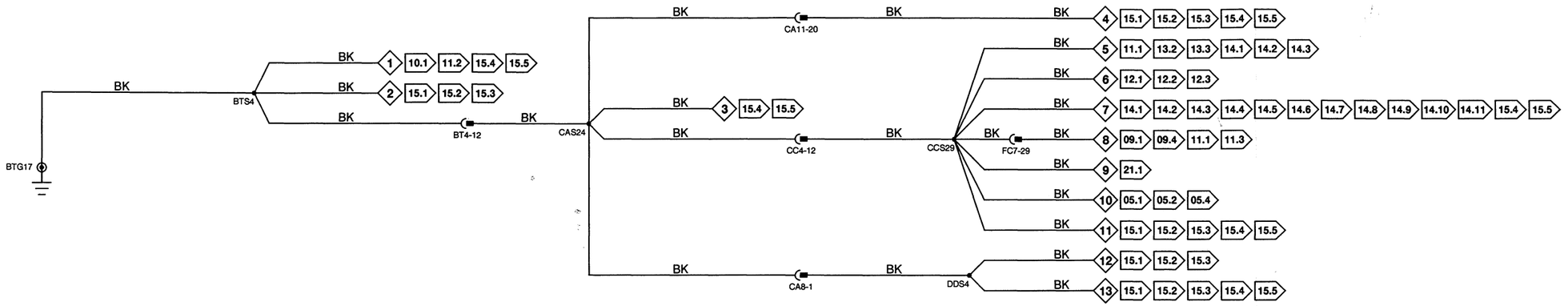

BTG17
BK
BTS4
BK 1 10.1 11.2 15.4 15.5
BK 2 15.1 15.2 15.3
BK
BT4-12
BK
CAS24
BK
CA11-20
BK
BK 4 15.1 15.2 15.3 15.4 15.5
BK 3 15.4 15.5
BK
CC4-12
BK
CCS29
BK
FC7-29
BK 5 11.1 13.2 13.3 14.1 14.2 14.3
BK 6 12.1 12.2 12.3
BK 7 14.1 14.2 14.3 14.4 14.5 14.6 14.7 14.8 14.9 14.10 14.11 15.4 15.5
BK 8 09.1 09.4 11.1 11.3
BK 9 21.1
BK 10 05.1 05.2 05.4
BK 11 15.1 15.2 15.3 15.4 15.5
BK 12 15.1 15.2 15.3
BK 13 15.1 15.2 15.3 15.4 15.5
BK
CA8-1
BK
DDS4

Fig. 03.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
BATTERY	ST8, ST10	TRUNK
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
DECODER MODULE	CC13 / 26-WAY MODU 4 / BLUE	CENTER CONSOLE
ENGINE CONTROL MODULE (AJ16)	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 / 36-WAY ECONOSEAL III / RED	RH 'A' POST / 'A' POST TRIM
GENERATOR	PI141 / 3-WAY NIPPON DENSO / BLACK	ENGINE, LH SIDE (AJ16), RH SIDE (V12)
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
ROTARY SWITCH	GB1 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE GB2 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
STARTER MOTOR	ST1 / EYELET / WHITE ST2 / EYELET / WHITE	ENGINE, LH REAR (AJ16); ENGINE, RH REAR (V12)
SUPPRESSION MODULE	AN3 (FLY LEAD) / 2-WAY ECONOSEAL III LC / RED	ENGINE BAY, LH FRONT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
STARTER RELAY	BLACK	LS47 / BLACK	LH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
PI66	2-WAY ECONOSEAL III HC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
PI142	2-WAY ECONOSEAL III HC / BLACK	ENGINE BAY BULKHEAD
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
ST9	BATTERY GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (AJ16)

▽	Pin	Description	Active	Inactive
O	PI104-20	CHECK ENGINE MIL	GROUND	B+
D	PI105-35	FUELING INHIBIT SIGNAL	ENCODED COMMUNICATIONS	

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-33	STARTER RELAY INHIBIT	GROUND	B+
D	FC2-5	SECURE STATUS INPUT FROM SECURITY AND LOCKING CONTROL MODULE	ENCODED COMMUNICATIONS	
I	FC2-7	CHECK ENGINE MIL	GROUND	B+
I	FC2-20	PARK / NEUTRAL SIGNAL	GROUND	B+
I	FC2-41	INTERIOR LAMP EXTINGUISH DURING CRANK	GROUND	B+

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
D	CA21-10	SECURE STATUS OUTPUT TO BODY PROCESSOR	ENCODED COMMUNICATIONS	
D	CA21-20	FUELING INHIBIT SIGNAL OUTPUT (NOT NAS)	ENCODED COMMUNICATIONS	

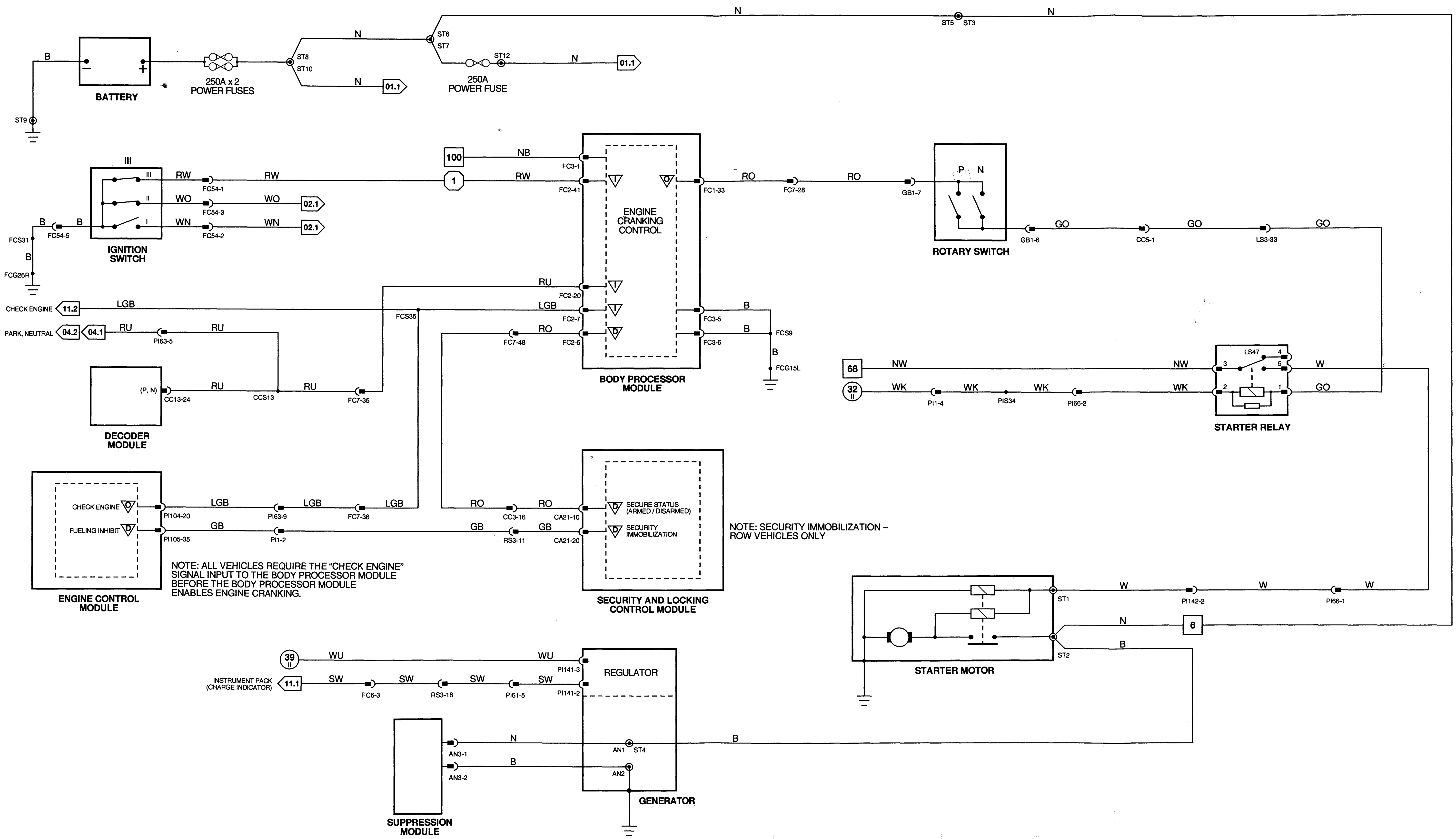
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: AJ16 4.0L NA Automatic Transmission Vehicles
VIN RANGE: 746613 →
DATE OF ISSUE: NOVEMBER 1995

Fig. 03.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
BATTERY	ST8, ST10	TRUNK
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
ENGINE CONTROL MODULE (AJ16)	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 / 36-WAY ECONOSEAL III / RED	RH 'A' POST / 'A' POST TRIM
GENERATOR	PI141 / 3-WAY NIPPON DENSO / BLACK	ENGINE, LH SIDE (AJ16), RH SIDE (V12)
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
LINEAR GEAR POSITION SWITCHES	CC21 / 20-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
STARTER MOTOR	ST1 / EYELET / WHITE ST2 / EYELET / WHITE	ENGINE, LH REAR (AJ16); ENGINE, RH REAR (V12)
SUPPRESSION MODULE	AN3 (FLY LEAD) / 2-WAY ECONOSEAL III LC / RED	ENGINE BAY, LH FRONT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
STARTER RELAY	BLACK	LS47 / BLACK	LH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
PI66	2-WAY ECONOSEAL III HC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
PI142	2-WAY ECONOSEAL III HC / BLACK	ENGINE BAY BULKHEAD
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CCG51R	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
ST9	BATTERY GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (AJ16)

▽	Pin	Description	Active	Inactive
O	PI104-20	CHECK ENGINE MIL	GROUND	B+
D	PI105-35	FUELING INHIBIT SIGNAL	ENCODED COMMUNICATIONS	

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-33	STARTER RELAY INHIBIT	GROUND	B+
D	FC2-5	SECURE STATUS INPUT FROM SECURITY AND LOCKING CONTROL MODULE	ENCODED COMMUNICATIONS	
I	FC2-7	CHECK ENGINE MIL	GROUND	B+
I	FC2-20	PARK / NEUTRAL SIGNAL	GROUND	B+
I	FC2-41	INTERIOR LAMP EXTINGUISH DURING CRANK	GROUND	B+

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
D	CA21-10	SECURE STATUS OUTPUT TO BODY PROCESSOR	ENCODED COMMUNICATIONS	
D	CA21-20	FUELING INHIBIT SIGNAL OUTPUT (NOT NAS)	ENCODED COMMUNICATIONS	

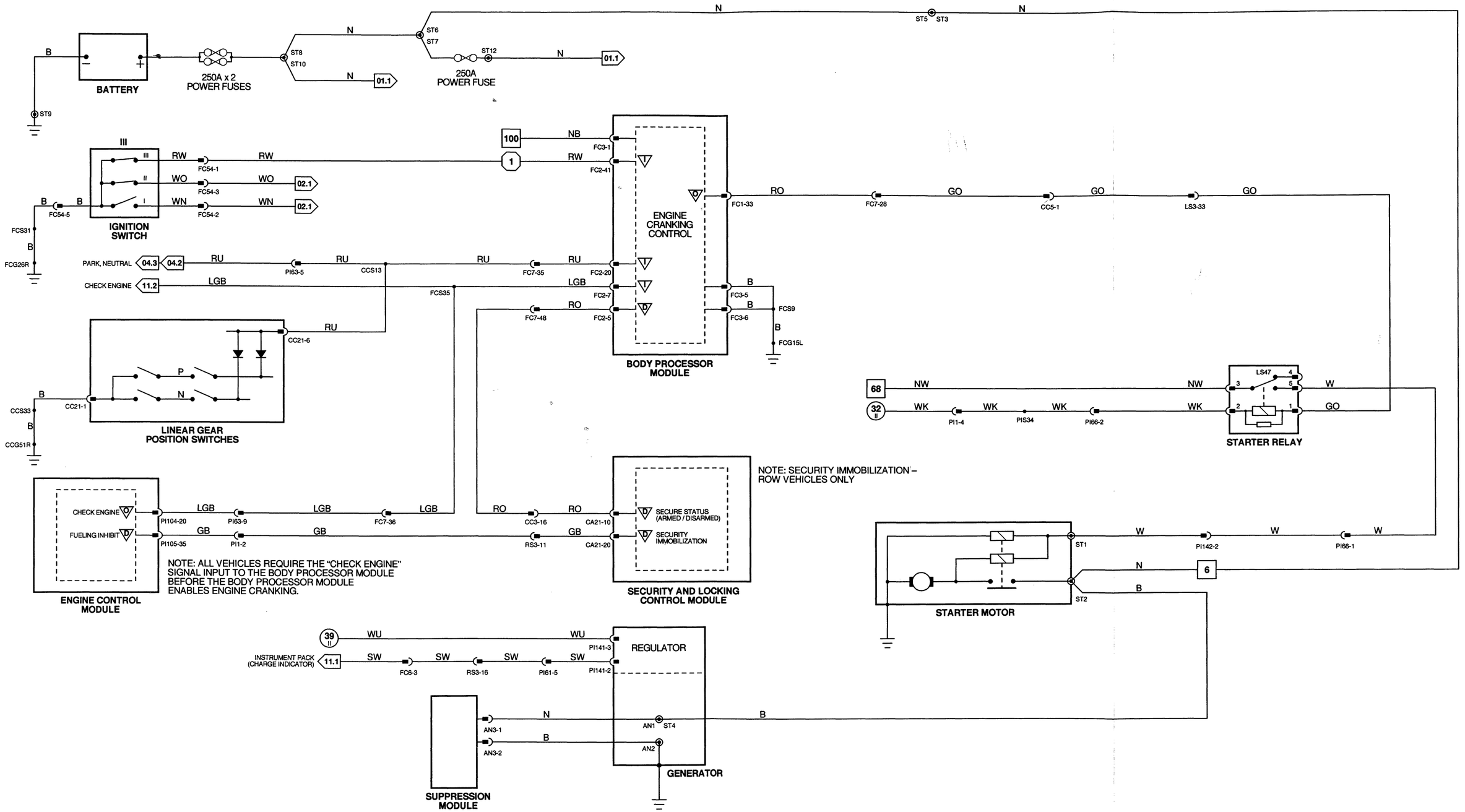
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: AJ16 4.0L SC and 3.2L Automatic Transmission Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 03.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
BATTERY	ST8, ST10	TRUNK
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
ENGINE CONTROL MODULE (AJ16)	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 / 36-WAY ECONOSEAL III / RED	RH 'A' POST / 'A' POST TRIM
GENERATOR	PI141 / 3-WAY NIPPON DENSO / BLACK	ENGINE, LH SIDE (AJ16), RH SIDE (V12)
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
STARTER MOTOR	ST1 / EYELET / WHITE ST2 / EYELET / WHITE	ENGINE, LH REAR (AJ16); ENGINE, RH REAR (V12)
SUPPRESSION MODULE	AN3 (FLY LEAD) / 2-WAY ECONOSEAL III LC / RED	ENGINE BAY, LH FRONT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
STARTER RELAY	BLACK	LS47 / BLACK	LH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
PI66	2-WAY ECONOSEAL III HC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
PI142	2-WAY ECONOSEAL III HC / BLACK	ENGINE BAY BULKHEAD
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
ST9	BATTERY GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

←

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (AJ16)

▽	Pin	Description	Active	Inactive
O	PI104-20	CHECK ENGINE MIL	GROUND	B+
D	PI105-35	FUELING INHIBIT SIGNAL	ENCODED COMMUNICATIONS	

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-33	STARTER RELAY INHIBIT	GROUND	B+
D	FC2-5	SECURE STATUS INPUT FROM SECURITY AND LOCKING CONTROL MODULE	ENCODED COMMUNICATIONS	
I	FC2-7	CHECK ENGINE MIL	GROUND	B+
I	FC2-20	PARK / NEUTRAL SIGNAL	GROUND	B+
I	FC2-41	INTERIOR LAMP EXTINGUISH DURING CRANK	GROUND	B+

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
D	CA21-10	SECURE STATUS OUTPUT TO BODY PROCESSOR	ENCODED COMMUNICATIONS	
D	CA21-20	FUELING INHIBIT SIGNAL OUTPUT (NOT NAS)	ENCODED COMMUNICATIONS	

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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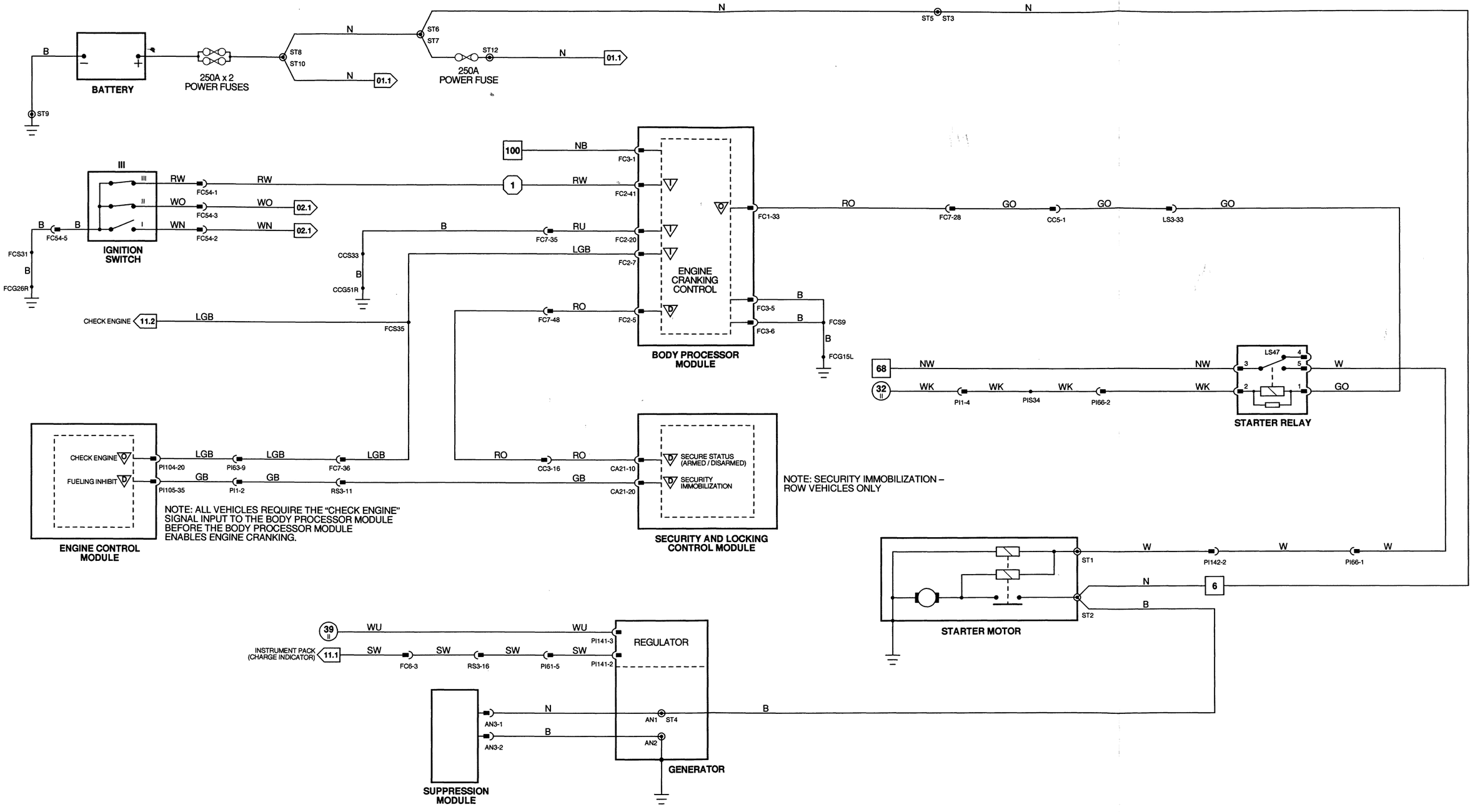

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: Manual Transmission Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 03.4

COMPONENTS

Component	Connector / Type / Color	Location / Access
BATTERY	ST8, ST10	TRUNK
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 / SLATE PI45 / 16-WAY MULTILOCK 040 / SLATE PI46 / 22-WAY MULTILOCK 040 / SLATE PI47 / 34-WAY MULTILOCK 040 / SLATE	RH 'A' POST / 'A' POST TRIM
GENERATOR	PI141 / 3-WAY NIPPON DENSO / BLACK	ENGINE, LH SIDE (AJ16), RH SIDE (V12)
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
LINEAR GEAR POSITION SWITCHES	CC21 / 20-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
STARTER MOTOR	ST1 / EYELET / WHITE ST2 / EYELET / WHITE	ENGINE, LH REAR (AJ16); ENGINE, RH REAR (V12)
SUPPRESSION MODULE	AN3 (FLY LEAD) / 2-WAY ECONOSEAL III LC / RED	ENGINE BAY, LH FRONT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
STARTER RELAY	BLACK	LS47 / BLACK	LH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
PI66	2-WAY ECONOSEAL III HC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
PI142	2-WAY ECONOSEAL III HC / BLACK	ENGINE BAY BULKHEAD
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CCG51R	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
ST9	BATTERY GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (V12)

▽	Pin	Description	Active	Inactive
O	PI44-2	CHECK ENGINE MIL	GROUND	B+
D	PI44-14	START INHIBIT	GROUND	B+

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-33	STARTER RELAY INHIBIT	GROUND	B+
D	FC2-5	SECURE STATUS INPUT FROM SECURITY AND LOCKING CONTROL MODULE	ENCODED COMMUNICATIONS	
I	FC2-7	CHECK ENGINE MIL	GROUND	B+
I	FC2-20	PARK / NEUTRAL SIGNAL	GROUND	B+
I	FC2-41	INTERIOR LAMP EXTINGUISH DURING CRANK	GROUND	B+

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
D	CA21-10	SECURE STATUS OUTPUT TO BODY PROCESSOR	ENCODED COMMUNICATIONS	
D	CA21-20	FUELING INHIBIT SIGNAL OUTPUT (NOT NAS)	ENCODED COMMUNICATIONS	

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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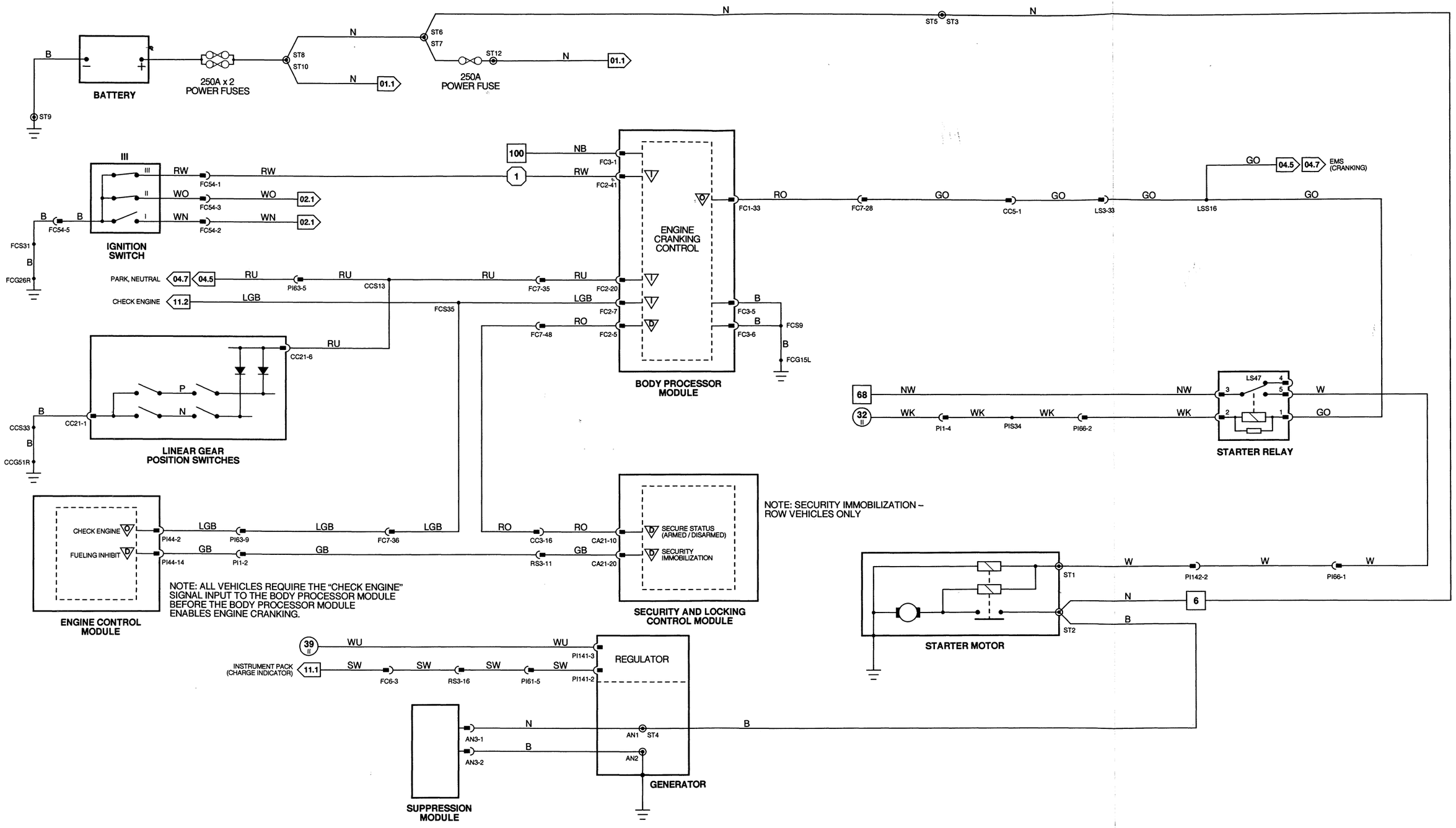


1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: V12 Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 04.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
CAMSHAFT POSITION SENSOR (AJ16)	PI112 / 3-WAY JUNIOR TIMER / BLACK	ENGINE RH SIDE
CANISTER CLOSE VALVE	CV2 (FLY LEAD) / 2-WAY YAZAKI 090 / BLACK	RH REAR UNDER FLOOR PANEL
CRANKSHAFT POSITION SENSOR	PI111 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE TIMING COVER
DIODE (PI81) – AIRP SOLENOID SUPPRESSION	PI81 / DIODE / BLACK	EMS HARNESS / SECONDARY AIR INJECTION PUMP
EGR TEMPERATURE SENSOR	PI110 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	INTAKE MANIFOLD
EGR VALVE	PI117 / 5-WAY PACKARD / BLACK	INTAKE MANIFOLD
ENGINE CONTROL MODULE (AJ16)	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 / 36-WAY ECONOSEAL III / RED	RH 'A' POST / 'A' POST TRIM
ENGINE COOLANT TEMPERATURE SENSOR (AJ16)	PI107 / 2-WAY JUNIOR TIMER / BLACK	ENGINE THERMOSTAT HOUSING
EVAPORATIVE EMISSION CONTROL VALVE (AJ16)	PI130 / 2-WAY JUNIOR TIMER / BLACK	BELOW LH FRONT RELAYS
FUEL INJECTOR (AJ16 1)	PI120 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 2)	PI121 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 3)	PI122 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 4)	PI123 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 5)	PI124 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 6)	PI125 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL PUMP (1)	BT6 (FLY LEAD) / 4-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
FUEL TANK PRESSURE SENSOR	EL1 / 3-WAY SUMITOMO 90 / BLACK	FUEL TANK EVAPORATIVE FLANGE
HEATED OXYGEN SENSOR (AJ16 – 1,2,3 DOWNSTREAM)	PI126 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 – 4,5,6 DOWNSTREAM)	PI127 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 – 1,2,3 UPSTREAM)	PI128 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, UPSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 – 4,5,6 UPSTREAM)	PI129 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, UPSTREAM OF PRIMARY CATALYST
IDLE AIR CONTROL VALVE (AJ16)	PI113 / 4-WAY PACKARD / BLACK	THROTTLE BODY
IGNITION COIL (AJ16 1)	PI131 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 2)	PI132 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 3)	PI133 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 4)	PI134 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 5)	PI135 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 6)	PI136 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
INTAKE AIR TEMPERATURE SENSOR (AJ16)	PI106 / 2-WAY JUNIOR TIMER / BLACK	ENGINE AIR INTAKE ELBOW
KNOCK SENSOR (A)	PI108 / 2-WAY JUNIOR TIMER / BLACK	ENGINE BLOCK, LH FRONT
KNOCK SENSOR (B)	PI109 / 2-WAY JUNIOR TIMER / BLACK	ENGINE BLOCK, LH REAR
MASS AIR FLOW SENSOR	PI116 / 3-WAY JUNIOR TIMER / BLACK	ENGINE AIR INTAKE
SECONDARY AIR INJECTION PUMP	PI115 / 3-WAY PACKARD / BLACK	ENGINE, LH FRONT
THROTTLE POSITION SENSOR (AJ16)	PI118 / 3-WAY JUNIOR TIMER / BLACK	THROTTLE BODY

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
ECM CONTROLLED RELAY (AJ16)	BLACK	PI119 / BLACK	RH ENGINE BAY RELAYS
FUEL PUMP RELAY (1)	BLACK / VIOLET	BT26 / GREEN	TRUNK ELECTRICAL CARRIER
SECONDARY AIR INJECTION RELAY (AJ16)	BLACK / WHITE	PI146 / BLACK	RH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CV1	6-WAY MULTILOCK 070 / WHITE	LH REAR INNER FENDER / TRUNK TRIM
CV3	3-WAY METRIPACK 150 / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
PI16	16-WAY MULTILOCK 070 / WHITE	RH 'A' POST / 'A' POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG100	RH 'A' POST GROUND STUD
FUG8L	FRONT TRUNK GROUND STUD
PIG153L	RH BULKHEAD GROUND STUD
PIG153R	RH BULKHEAD GROUND STUD
PIG154R	LEFT FORWARD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

←

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (AJ16)

▽	Pin	Description	Active	Inactive
O	PI104-2	INJECTOR 1	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-3	IDLE SPEED CONTROL 1	12 V, 0 V	8 V (NOT MOVING)
O	PI104-4	DOWNSTREAM HO2S HEATERS	0.4-13 V, 10 Hz @ IDLE	
O	PI104-5	IGNITION COIL 4	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-6	IGNITION COIL 3	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-7	SECONDARY AIR INJECTION RELAY	GROUND	B+
O	PI104-8	IGNITION COIL 2	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-9	IGNITION COIL 5	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-10	IGNITION COIL 1	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-11	IGNITION COIL 6	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-13	INJECTOR 4	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-14	INJECTOR 3	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-15	INJECTOR 2	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-16	IDLE SPEED CONTROL 4	12 V, 0 V	8 V (NOT MOVING)
O	PI104-17	FUEL USED	GROUND PULSE, 6 Hz @ IDLE	
O	PI104-18	ECM CONTROLLED RELAY	GROUND	B+
O	PI104-19	FUEL PUMP RELAY 1	GROUND	B+
O	PI104-20	CHECK ENGINE MIL	GROUND	B+
O	PI104-21	AIR CONDITIONING CLUTCH RELAY	GROUND	B+
O	PI104-22	ENGINE SPEED SIGNAL	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
I	PI104-23	CRANKSHAFT POSITION SENSOR	GROUND @ 1000 RPM = 900 Hz, 2000 RPM = 1800 Hz	
O	PI104-25	INJECTOR 6	GROUND PULSE, 2.8 MS @ IDLE	B+
SG	PI104-26	CRANKSHAFT POSITION SENSOR GROUND	GROUND	GROUND
O	PI104-27	INJECTOR 5	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-28	IDLE SPEED CONTROL 3	12 V, 0 V	8 V (NOT MOVING)
O	PI104-29	IDLE SPEED CONTROL 2	12 V, 0 V	8 V (NOT MOVING)
O	PI104-30	UPSTREAM HO2S HEATERS	0.4-13 V, 10 Hz @ IDLE	
O	PI104-31	CANISTER CLOSE VALVE	0V	B+
O	PI104-32	THROTTLE POSITION	1.25 V @ IDLE	4.9 V @ FULL THROTTLE
O	PI104-33	ENGINE TORQUE	10.4 V (NO LOAD), DECREASING WITH LOAD INCREASE	
O	PI104-34	EVAPORATIVE EMISSION CONTROL VALVE	B+	GROUND
O	PI104-35	EGR VALVE SOLENOID	0.1 – 9 V	
I	PI105-1	INTAKE AIR TEMPERATURE SENSOR	0.98 V @ 10° C, INCREASING WITH TEMPERATURE	
I	PI105-2	ELECTRICAL LOAD: HEATED WINDSHIELD, HEATED BACKLIGHT, OR BLOWERS ON HIGH SPEED	B+	GROUND
I	PI105-3	EGR TEMPERATURE SENSOR	4.9 V @ IDLE (NO EGR), DECREASES WITH EGR FLOW INCREASE	
I	PI105-4	MASS AIR FLOW SENSOR	1.2 V @ IDLE, INCREASES WITH RPM INCREASE	
O	PI105-5	FUEL TANK PRESSURE SENSOR FEEDBACK	4.9V = LOW PRESSURE 0.2V = HIGH PRESSURE	
I	PI105-6	UPSTREAM H02S FEEDBACK – CYLINDERS 1, 2, 3	0.1 – 4.7 V @ IDLE (SWING)	
SG	PI105-7	SENSOR COMMON REFERENCE GROUND	GROUND	GROUND
SG	PI105-8	HO2S COMMON SIGNAL GROUND	GROUND	GROUND
SG	PI105-9	KNOCK SENSORS COMMON REFERENCE GROUND	GROUND	GROUND
D	PI105-10	SERIAL COMMUNICATION (BI-DIRECTIONAL)		
O	PI105-11	SENSOR COMMON REFERENCE VOLTAGE	5 V	5 V
I	PI105-12	THROTTLE POSITION SENSOR FEEDBACK	0.6 V @ IDLE	4.9 V = FULL THROTTLE
I	PI105-14	ENGINE COOLANT TEMPERATURE SENSOR	0.41 V @ 90° C, INCREASING WITH TEMPERATURE INCREASE	
I	PI105-15	EGR VALVE POSITION FEEDBACK	0.7 V @ IDLE (NO EGR)	5 V = MAXIMUM EGR
I	PI105-16	DOWNSTREAM HO2S FEEDBACK – CYLINDERS 1, 2, 3	0.1 – 4.7 V @ IDLE (SWING)	
I	PI105-18	DOWNSTREAM HO2S FEEDBACK – CYLINDERS 4, 5, 6	0.1 – 4.7 V @ IDLE (SWING)	
I	PI105-19	UPSTREAM H02S FEEDBACK – CYLINDERS 4, 5, 6	0.1 – 4.7 V @ IDLE (SWING)	
I	PI105-20	LOW FUEL LEVEL	GROUND	B+
I	PI105-21	KNOCK SENSOR – A BANK	0 Hz = NO KNOCK, 2 – 20 Hz = KNOCK	
O	PI105-24	CAMSHAFT POSITION SENSOR SUPPLY	B+	B+
I	PI105-26	TORQUE REDUCTION REQUEST	GROUND PULSE @ SHIFT	9.4 V @ IDLE
I	PI105-27	PARK / NEUTRAL	GROUND	B+
I	PI105-28	VEHICLE SPEED	GROUND PULSE @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
SG	PI105-29	MASS AIR FLOW SENSOR GROUND	GROUND	GROUND
SG	PI105-30	SENSOR COMMON SIGNAL GROUND	GROUND	GROUND
SG	PI105-31	ENGINE COOLANT TEMPERATURE SENSOR GROUND	GROUND	GROUND
I	PI105-32	KNOCK SENSOR – B BANK	0 Hz = NO KNOCK, 2 – 20 Hz = KNOCK	
I	PI105-34	CAMSHAFT POSITION SENSOR SIGNAL	1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
D	PI105-35	FUELING INHIBIT SIGNAL	ENCODED COMMUNICATIONS	
I	PI105-36	AIR CONDITIONING REQUEST	GROUND	B+

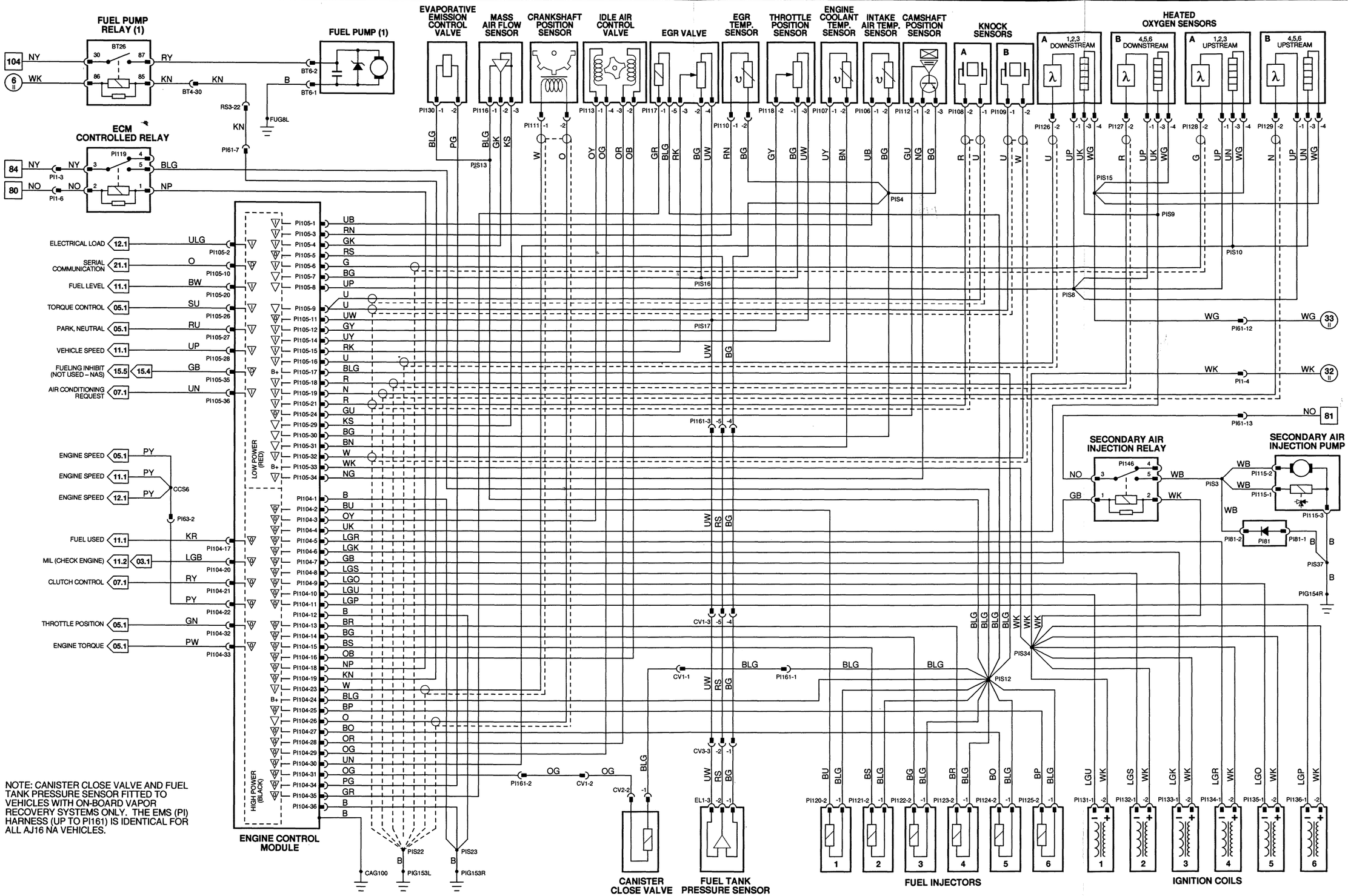
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



NOTE: CANISTER CLOSE VALVE AND FUEL TANK PRESSURE SENSOR FITTED TO VEHICLES WITH ON-BOARD VAPOR RECOVERY SYSTEMS ONLY. THE EMS (PI) HARNESS (UP TO PI161) IS IDENTICAL FOR ALL AJ16 NA VEHICLES.

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: AJ16 NA Federal Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 04.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
CAMSHAFT POSITION SENSOR (AJ16)	PI112 / 3-WAY JUNIOR TIMER / BLACK	ENGINE RH SIDE
CATALYST SWITCHING MODULE	PI155 / 8-WAY MULTILOCK 070 / WHITE	RH 'A' POST, ECM / 'A' POST TRIM
CATALYST THERMOCOUPLES	PI156 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	REAR OF ENGINE
CRANKSHAFT POSITION SENSOR	PI111 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE TIMING COVER
DIODE (PI81) – AIRP SOLENOID SUPPRESSION	PI81 / DIODE / BLACK	EMS HARNESS / SECONDARY AIR INJECTION PUMP
ENGINE CONTROL MODULE (AJ16)	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 / 36-WAY ECONOSEAL III / RED	RH 'A' POST / 'A' POST TRIM
ENGINE COOLANT TEMPERATURE SENSOR (AJ16)	PI107 / 2-WAY JUNIOR TIMER / BLACK	ENGINE THERMOSTAT HOUSING
EVAPORATIVE EMISSION CONTROL VALVE (AJ16)	PI130 / 2-WAY JUNIOR TIMER / BLACK	BELOW LH FRONT RELAYS
FUEL INJECTOR (AJ16 1)	PI120 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 2)	PI121 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 3)	PI122 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 4)	PI123 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 5)	PI124 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 6)	PI125 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL PUMP (1)	BT6 (FLY LEAD) / 4-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
HEATED OXYGEN SENSOR (AJ16 – 1,2,3)	PI126 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 – 4,5,6)	PI127 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
IDLE AIR CONTROL VALVE (AJ16)	PI113 / 4-WAY PACKARD / BLACK	THROTTLE BODY
IGNITION COIL (AJ16 1)	PI131 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 2)	PI132 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 3)	PI133 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 4)	PI134 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 5)	PI135 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 6)	PI136 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
INTAKE AIR TEMPERATURE SENSOR (AJ16)	PI106 / 2-WAY JUNIOR TIMER / BLACK	ENGINE AIR INTAKE ELBOW
KNOCK SENSOR (A)	PI108 / 2-WAY JUNIOR TIMER / BLACK	ENGINE BLOCK, LH FRONT
KNOCK SENSOR (B)	PI109 / 2-WAY JUNIOR TIMER / BLACK	ENGINE BLOCK, LH REAR
MASS AIR FLOW SENSOR	PI116 / 3-WAY JUNIOR TIMER / BLACK	ENGINE AIR INTAKE
SECONDARY AIR INJECTION PUMP	PI115 / 3-WAY PACKARD / BLACK	ENGINE, LH FRONT
THROTTLE POSITION SENSOR (AJ16)	PI118 / 3-WAY JUNIOR TIMER / BLACK	THROTTLE BODY

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
ECM CONTROLLED RELAY (AJ16)	BLACK	PI119 / BLACK	RH ENGINE BAY RELAYS
FUEL PUMP RELAY (1)	BLACK / VIOLET	BT26 / GREEN	TRUNK ELECTRICAL CARRIER
SECONDARY AIR INJECTION RELAY (AJ16)	BLACK / WHITE	PI146 / BLACK	RH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG100	RH 'A' POST GROUND STUD
FUG8L	FRONT TRUNK GROUND STUD
PIG153L	RH BULKHEAD GROUND STUD
PIG153R	RH BULKHEAD GROUND STUD
PIG154L	LEFT FORWARD GROUND STUD
PIG154R	LEFT FORWARD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (AJ16)

▽	Pin	Description	Active	Inactive
O	PI104-2	INJECTOR 1	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-3	IDLE SPEED CONTROL 1	12 V, 0 V	8 V (NOT MOVING)
O	PI104-4	HO2S HEATERS	0.4 – 13 V, 10 Hz @ IDLE	
O	PI104-5	IGNITION COIL 4	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-6	IGNITION COIL 3	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-7	SECONDARY AIR INJECTION RELAY	GROUND	B+
O	PI104-8	IGNITION COIL 2	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-9	IGNITION COIL 5	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-10	IGNITION COIL 1	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-11	IGNITION COIL 6	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-13	INJECTOR 4	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-14	INJECTOR 3	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-15	INJECTOR 2	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-16	IDLE SPEED CONTROL 4	12 V, 0 V	8 V (NOT MOVING)
O	PI104-17	FUEL USED	GROUND PULSE, 6 Hz @ IDLE	
O	PI104-18	ECM CONTROLLED RELAY	GROUND	B+
O	PI104-19	FUEL PUMP RELAY 1	GROUND	B+
O	PI104-20	CHECK ENGINE MIL	GROUND	B+
O	PI104-21	AIR CONDITIONING CLUTCH RELAY	GROUND	B+
O	PI104-22	ENGINE SPEED SIGNAL	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
I	PI104-23	CRANKSHAFT POSITION SENSOR	GROUND @ 1000 RPM = 900 Hz, 2000 RPM = 1800 Hz	
O	PI104-25	INJECTOR 6	GROUND PULSE, 2.8 MS @ IDLE	B+
SG	PI104-26	CRANKSHAFT POSITION SENSOR GROUND	GROUND	GROUND
O	PI104-27	INJECTOR 5	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-28	IDLE SPEED CONTROL 3	12 V, 0 V	8 V (NOT MOVING)
O	PI104-29	IDLE SPEED CONTROL 2	12 V, 0 V	8 V (NOT MOVING)
O	PI104-32	THROTTLE POSITION	1.25 V @ IDLE	4.9 V @ FULL THROTTLE
O	PI104-33	ENGINE TORQUE	10.4 V (NO LOAD), DECREASING WITH LOAD INCREASE	
O	PI104-34	EVAPORATIVE EMISSION CONTROL VALVE	B+	GROUND
I	PI105-1	INTAKE AIR TEMPERATURE SENSOR	0.98 V @ 10° C, INCREASING WITH TEMPERATURE	
I	PI105-2	ELECTRICAL LOAD: HEATED WINDSHIELD, HEATED BACKLIGHT, OR BLOWERS ON HIGH SPEED	B+	GROUND
I	PI105-4	MASS AIR FLOW SENSOR	1.2 V @ IDLE, INCREASES WITH RPM INCREASE	
SG	PI105-7	SENSOR COMMON REFERENCE GROUND	GROUND	GROUND
SG	PI105-8	HO2S COMMON SIGNAL GROUND	GROUND	GROUND
SG	PI105-9	KNOCK SENSORS COMMON REFERENCE GROUND	GROUND	GROUND
D	PI105-10	SERIAL COMMUNICATION (BI-DIRECTIONAL)		
O	PI105-11	SENSOR COMMON REFERENCE VOLTAGE	5 V	5 V
I	PI105-12	THROTTLE POSITION SENSOR FEEDBACK	0.6 V @ IDLE	4.9 V = FULL THROTTLE
I	PI105-14	ENGINE COOLANT TEMPERATURE SENSOR	0.41 V @ 90° C, INCREASING WITH TEMPERATURE INCREASE	
I	PI105-16	HO2S FEEDBACK – CYLINDERS 1, 2, 3	0.1 – 4.7 V @ IDLE (SWING)	
I	PI105-18	HO2S FEEDBACK – CYLINDERS 4, 5, 6	0.1 – 4.7 V @ IDLE (SWING)	
I	PI105-20	LOW FUEL LEVEL	GROUND	B+
I	PI105-21	KNOCK SENSOR – A BANK	0 Hz = NO KNOCK, 2 – 20 Hz = KNOCK	
O	PI105-24	CAMSHAFT POSITION SENSOR SUPPLY	B+	B+
I	PI105-26	TORQUE REDUCTION REQUEST	GROUND PULSE @ SHIFT	9.4 V @ IDLE
I	PI105-27	PARK / NEUTRAL	GROUND	B+
I	PI105-28	VEHICLE SPEED	GROUND PULSE @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
SG	PI105-29	MASS AIR FLOW SENSOR GROUND	GROUND	GROUND
SG	PI105-30	SENSOR COMMON SIGNAL GROUND	GROUND	GROUND
SG	PI105-31	ENGINE COOLANT TEMPERATURE SENSOR GROUND	GROUND	GROUND
I	PI105-32	KNOCK SENSOR – B BANK	0 Hz = NO KNOCK, 2 – 20 Hz = KNOCK	
I	PI105-34	CAMSHAFT POSITION SENSOR SIGNAL	1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
D	PI105-35	FUELING INHIBIT SIGNAL	ENCODED COMMUNICATIONS	
I	PI105-36	AIR CONDITIONING REQUEST	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

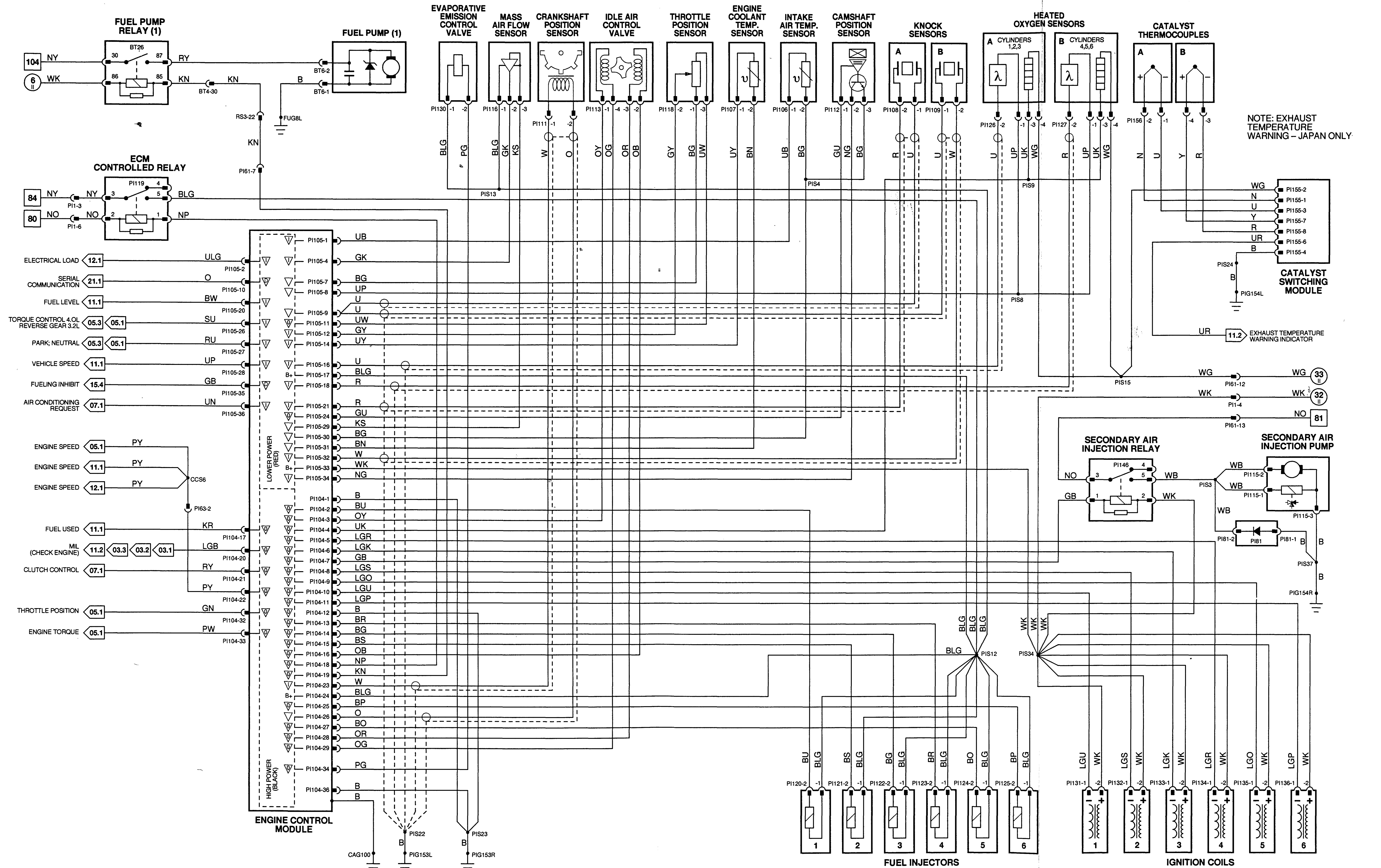
I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

AJ16 NA ROW Engine Management



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	Fig. 01.4	Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications

Signal Ground (SG)

VARIANT: AJ16 4.0L and 3.2L NA ROW Vehicles
VIN RANGE: 746613 →
DATE OF ISSUE: NOVEMBER 1995

Fig. 04.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
CAMSHAFT POSITION SENSOR (AJ16)	PI112 / 3-WAY JUNIOR TIMER / BLACK	ENGINE RH SIDE
CRANKSHAFT POSITION SENSOR	PI111 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE TIMING COVER
DIODE (PI81) – AIRP SOLENOID SUPPRESSION	PI81 / DIODE / BLACK	EMS HARNESS / SECONDARY AIR INJECTION PUMP
EGR TEMPERATURE SENSOR	PI110 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	INTAKE MANIFOLD
EGR VALVE	PI117 / 5-WAY PACKARD / BLACK	INTAKE MANIFOLD
ENGINE CONTROL MODULE (AJ16)	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 / 36-WAY ECONOSEAL III / RED	RH 'A' POST / 'A' POST TRIM
ENGINE COOLANT TEMPERATURE SENSOR (AJ16)	PI107 / 2-WAY JUNIOR TIMER / BLACK	ENGINE THERMOSTAT HOUSING
EVAPORATIVE EMISSION CONTROL VALVE (AJ16)	PI130 / 2-WAY JUNIOR TIMER / BLACK	BELOW LH FRONT RELAYS
FUEL INJECTORS (AJ16 1)	PI120 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTORS (AJ16 2)	PI121 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTORS (AJ16 3)	PI122 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 4)	PI123 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 5)	PI124 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 6)	PI125 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL PUMP (1)	BT6 (FLY LEAD) / 4-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
FUEL PUMP (2)	BT6 (FLY LEAD) / 4-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
FUEL PUMP CONTROL MODULE	FU3 / RELAY CONNECTOR / BLACK	TRUNK, RH FRONT / TRUNK TRIM
HEATED OXYGEN SENSOR (AJ16 – 1,2,3 DOWNSTREAM)	PI126 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 – 4,5,6 DOWNSTREAM)	PI127 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 – 1,2,3 UPSTREAM)	PI128 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, UPSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 – 4,5,6 UPSTREAM)	PI129 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, UPSTREAM OF PRIMARY CATALYST
IDLE AIR CONTROL VALVE (AJ16)	PI113 / 4-WAY PACKARD / BLACK	THROTTLE BODY
IGNITION COIL (AJ16 1)	PI131 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 2)	PI132 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 3)	PI133 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 4)	PI134 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 5)	PI135 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 6)	PI136 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
INTAKE AIR TEMPERATURE SENSOR (AJ16)	PI106 / 2-WAY JUNIOR TIMER / BLACK	ENGINE AIR INTAKE ELBOW
KNOCK SENSOR (A)	PI108 / 2-WAY JUNIOR TIMER / BLACK	ENGINE BLOCK, LH FRONT
KNOCK SENSOR (B)	PI109 / 2-WAY JUNIOR TIMER / BLACK	ENGINE BLOCK, LH REAR
MASS AIR FLOW SENSOR	PI116 / 3-WAY JUNIOR TIMER / BLACK	ENGINE AIR INTAKE
SECONDARY AIR INJECTION PUMP	PI115 / 3-WAY PACKARD / BLACK	ENGINE, LH FRONT
THROTTLE POSITION SENSOR (AJ16)	PI118 / 3-WAY JUNIOR TIMER / BLACK	THROTTLE BODY

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
FUEL PUMP RELAY (1)	BLACK / VIOLET	BT26 / GREEN	TRUNK ELECTRICAL CARRIER
FUEL PUMP RELAY (2)	BLUE	FU2/ YELLOW	BATTERY COVER
ECM CONTROLLED RELAY (AJ16)	BLACK	PI119 / BLACK	RH ENGINE BAY RELAYS
SECONDARY AIR INJECTION RELAY (AJ16)	BLACK / WHITE	PI146 / BLACK	RH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FU1	6-WAY MULTILOCK 070 / WHITE	FUEL TANK TRIM / BATTERY COVER
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG100	RH 'A' POST GROUND STUD
FUG8L	FRONT TRUNK GROUND STUD
FUG8R	FRONT TRUNK GROUND STUD
PIG153L	RH BULKHEAD GROUND STUD
PIG153R	RH BULKHEAD GROUND STUD
PIG159	RIGHT FORWARD EMS GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

←

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (AJ16)

▽	Pin	Description	Active	Inactive
O	PI104-2	INJECTOR 1	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-3	IDLE SPEED CONTROL 1	12 V, 0 V	8 V (NOT MOVING)
O	PI104-4	DOWNSTREAM HO2S HEATERS	0.4 – 13 V, 10 Hz @ IDLE	
O	PI104-5	IGNITION COIL 4	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-6	IGNITION COIL 3	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-7	SECONDARY AIR INJECTION RELAY	GROUND	B+
O	PI104-8	IGNITION COIL 2	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-9	IGNITION COIL 5	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-10	IGNITION COIL 1	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-11	IGNITION COIL 6	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI104-13	INJECTOR 4	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-14	INJECTOR 3	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-15	INJECTOR 2	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-16	IDLE SPEED CONTROL 4	12 V, 0 V	8 V (NOT MOVING)
O	PI104-17	FUEL USED	GROUND PULSE, 6 Hz @ IDLE	
O	PI104-18	ECM CONTROLLED RELAY	GROUND	B+
O	PI104-19	FUEL PUMP RELAY 1	GROUND	B+
O	PI104-20	CHECK ENGINE MIL	GROUND	B+
O	PI104-21	AIR CONDITIONING CLUTCH RELAY	GROUND	B+
O	PI104-22	ENGINE SPEED SIGNAL	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
I	PI104-23	CRANKSHAFT POSITION SENSOR	GROUND @ 1000 RPM = 900 Hz, 2000 RPM = 1800 Hz	
O	PI104-25	INJECTOR 6	GROUND PULSE, 2.8 MS @ IDLE	B+
SG	PI104-26	CRANKSHAFT POSITION SENSOR GROUND	GROUND	GROUND
O	PI104-27	INJECTOR 5	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-28	IDLE SPEED CONTROL 3	12 V, 0 V	8 V (NOT MOVING)
O	PI104-29	IDLE SPEED CONTROL 2	12 V, 0 V	8 V (NOT MOVING)
O	PI104-30	UPSTREAM HO2S HEATERS	0.4 – 13 V, 10 Hz @ IDLE	
O	PI104-32	THROTTLE POSITION	1.25 V @ IDLE	4.9 V @ FULL THROTTLE
O	PI104-33	ENGINE TORQUE	10.4 V (NO LOAD), DECREASING WITH LOAD INCREASE	
O	PI104-34	EVAPORATIVE EMISSION CONTROL VALVE	B+	GROUND
O	PI104-35	EGR VALVE SOLENOID	0.1 – 9 V	
I	PI105-1	INTAKE AIR TEMPERATURE SENSOR	0.98 V @ 10° C, INCREASING WITH TEMPERATURE	
I	PI105-2	ELECTRICAL LOAD: HEATED WINDSHIELD, HEATED BACKLIGHT, OR BLOWERS ON HIGH SPEED	B+	GROUND
I	PI105-3	EGR TEMPERATURE SENSOR	4.9 V @ IDLE (NO EGR), DECREASES WITH EGR FLOW INCREASE	
I	PI105-4	MASS AIR FLOW SENSOR	1.2 V @ IDLE, INCREASES WITH RPM INCREASE	
I	PI105-6	UPSTREAM H02S FEEDBACK – CYLINDERS 1, 2, 3	0.1 – 4.7 V @ IDLE (SWING)	
SG	PI105-7	SENSOR COMMON REFERENCE GROUND	GROUND	GROUND
SG	PI105-8	HO2S COMMON SIGNAL GROUND	GROUND	GROUND
SG	PI105-9	KNOCK SENSORS COMMON REFERENCE GROUND	GROUND	GROUND
D	PI105-10	SERIAL COMMUNICATION (BI-DIRECTIONAL)		
O	PI105-11	SENSOR COMMON REFERENCE VOLTAGE	5 V	5 V
I	PI105-12	THROTTLE POSITION SENSOR FEEDBACK	0.6 V @ IDLE	4.9 V = FULL THROTTLE
I	PI105-14	ENGINE COOLANT TEMPERATURE SENSOR	0.41 V @ 90° C, INCREASING WITH TEMPERATURE INCREASE	
I	PI105-15	EGR VALVE POSITION FEEDBACK	0.7 V @ IDLE (NO EGR)	5 V = MAXIMUM EGR
I	PI105-16	DOWNSTREAM HO2S FEEDBACK – CYLINDERS 1, 2, 3	0.1 – 4.7 V @ IDLE (SWING)	
I	PI105-18	DOWNSTREAM HO2S FEEDBACK – CYLINDERS 4, 5, 6	0.1 – 4.7 V @ IDLE (SWING)	
I	PI105-19	UPSTREAM H02S FEEDBACK – CYLINDERS 4, 5, 6	0.1 – 4.7 V @ IDLE (SWING)	
I	PI105-20	LOW FUEL LEVEL	GROUND	B+
I	PI105-21	KNOCK SENSOR – A BANK	0 Hz = NO KNOCK, 2 – 20 Hz = KNOCK	
O	PI105-24	CAMSHAFT POSITION SENSOR SUPPLY	B+	B+
I	PI105-26	TORQUE REDUCTION REQUEST	GROUND PULSE @ SHIFT	9.4 V @ IDLE
I	PI105-27	PARK / NEUTRAL	GROUND	B+
I	PI105-28	VEHICLE SPEED	GROUND PULSE @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
SG	PI105-29	MASS AIR FLOW SENSOR GROUND	GROUND	GROUND
SG	PI105-30	SENSOR COMMON SIGNAL GROUND	GROUND	GROUND
SG	PI105-31	ENGINE COOLANT TEMPERATURE SENSOR GROUND	GROUND	GROUND
I	PI105-32	KNOCK SENSOR – B BANK	0 Hz = NO KNOCK, 2 – 20 Hz = KNOCK	
I	PI105-34	CAMSHAFT POSITION SENSOR SIGNAL	1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
D	PI105-35	FUELING INHIBIT SIGNAL	ENCODED COMMUNICATIONS	
I	PI105-36	AIR CONDITIONING REQUEST	GROUND	B+

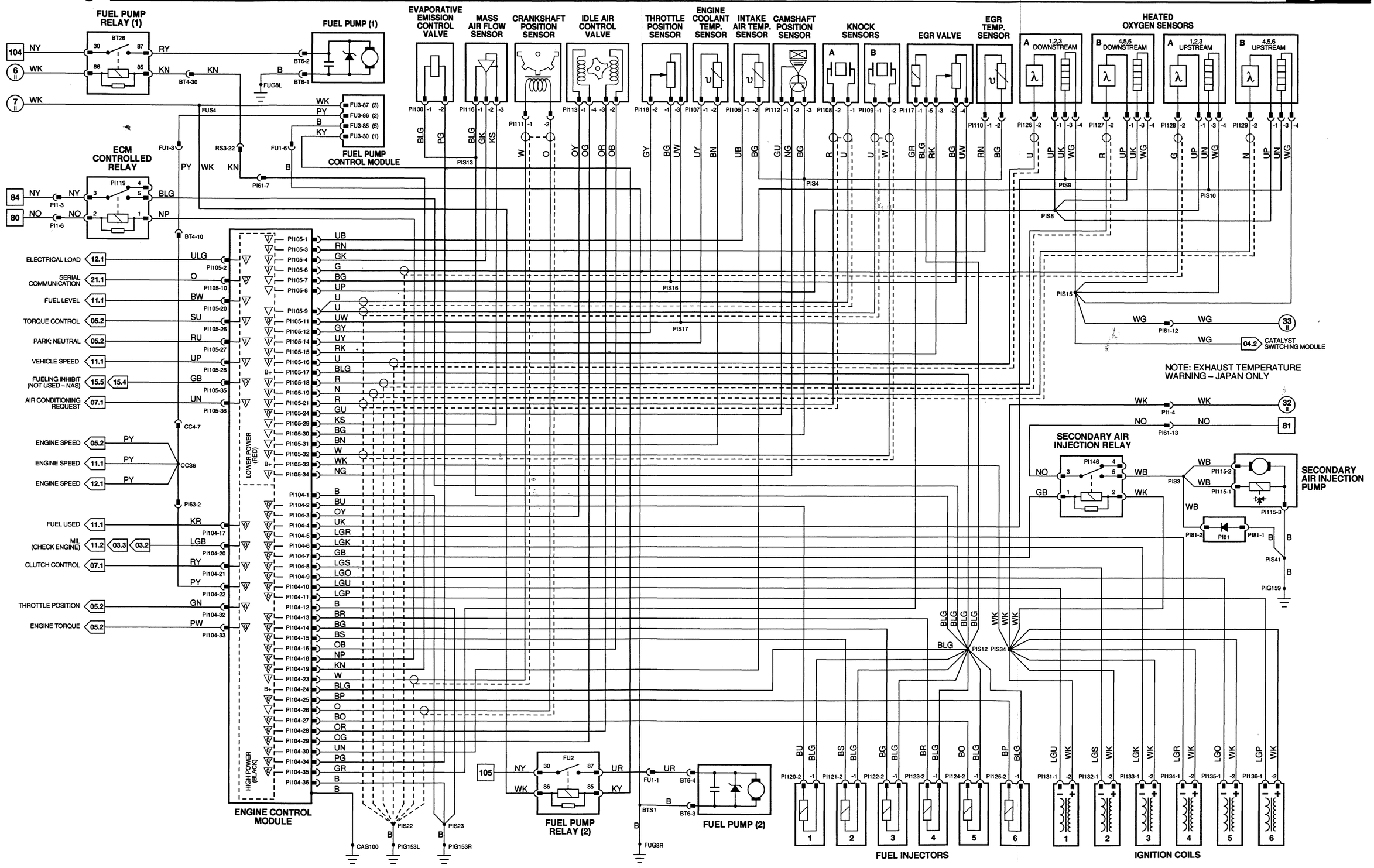
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	Fig. 01.4	Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)	VARIANT: XJR Vehicles VIN RANGE: 746613 ⟶ DATE OF ISSUE: NOVEMBER 1995	

Fig. 04.4

COMPONENTS

Component	Connector / Type / Color	Location / Access
CAMSHAFT POSITION SENSOR (V12)	PI3 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	A BANK CAMSHAFT COVER
CRANKSHAFT POSITION SENSOR	PI2 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE TIMING COVER
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 / SLATE PI45 / 16-WAY MULTILOCK 040 / SLATE PI46 / 22-WAY MULTILOCK 040 / SLATE PI47 / 34-WAY MULTILOCK 040 / SLATE	RH 'A' POST/ 'A' POST TRIM
ENGINE COOLANT TEMPERATURE SENSOR (V12)	PI5 / 2-WAY ECONOSEAL J / SLATE	B BANK THERMOSTAT HOUSING
ENGINE SPEED SENSOR	PI23 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE VEE, REAR
FUEL PUMP (1)	BT6 (FLY LEAD) / 4-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
FUEL PUMP (2)	BT6 (FLY LEAD) / 4-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
HEATED OXYGEN SENSOR (V12 A DOWNSTREAM)	CA98 (FLY LEAD) / 4-WAY YAZAKI / WHITE	A BANK EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (V12 A UPSTREAM)	PI25 (FLY LEAD) / 4-WAY SUMITOMO 90 / SLATE	A BANK EXHAUST, UPSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (V12 B DOWNSTREAM)	CA99 (FLY LEAD) / 4-WAY YAZAKI / WHITE	B BANK EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (V12 B UPSTREAM)	PI27 (FLY LEAD) / 4-WAY SUMITOMO 90 / SLATE	B BANK EXHAUST, UPSTREAM OF PRIMARY CATALYST
IDLE AIR CONTROL VALVE (V12 A BANK)	PI29 / 3-WAY SUMITOMO 90/ SLATE	A BANK THROTTLE BODY
IDLE AIR CONTROL VALVE (V12 B BANK)	PI30 / 3-WAY SUMITOMO 90/ SLATE	B BANK THROTTLE BODY
INTAKE AIR TEMPERATURE SENSOR (V12)	PI6 / 2-WAY JUNIOR TIMER / BLACK	A BANK AIR INTAKE
MANIFOLD ABSOLUTE PRESSURE SENSOR (V12 A BANK)	PI9 / 3-WAY SUMITOMO 90 / BLACK	A BANK INTAKE MANIFOLD, REAR
MANIFOLD ABSOLUTE PRESSURE SENSOR (V12 B BANK)	PI50 / 3-WAY SUMITOMO 90 / BLACK	B BANK INTAKE MANIFOLD, REAR
THROTTLE POSITION SENSOR (V12)	PI7 / 4-WAY ECONOSEAL J / BLACK	THROTTLE TURNTABLE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
FUEL PUMP RELAY (1)	BLACK / VIOLET	BT26 / GREEN	TRUNK ELECTRICAL CARRIER
FUEL PUMP RELAY (2)	BLUE	FU2/ YELLOW	BATTERY COVER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
FU1	6-WAY MULTILOCK 070 / WHITE	FUEL TANK TRIM / BATTERY COVER
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI73	2-WAY MULTILOCK 070 / YELLOW	RH 'A' POST/ 'A' POST TRIM
PI74	8-WAY MULTILOCK 070 / YELLOW	RH "A" POST, ECM / 'A' POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST/ 'A' POST PANEL

GROUNDS

Ground	Location / Type
FUG8L	FRONT TRUNK GROUND STUD
FUG8R	FRONT TRUNK GROUND STUD
PIG75L	RH 'A' POST GROUND STUD
PIG75R	RH 'A' POST GROUND STUD
PIG76L	RH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (V12)

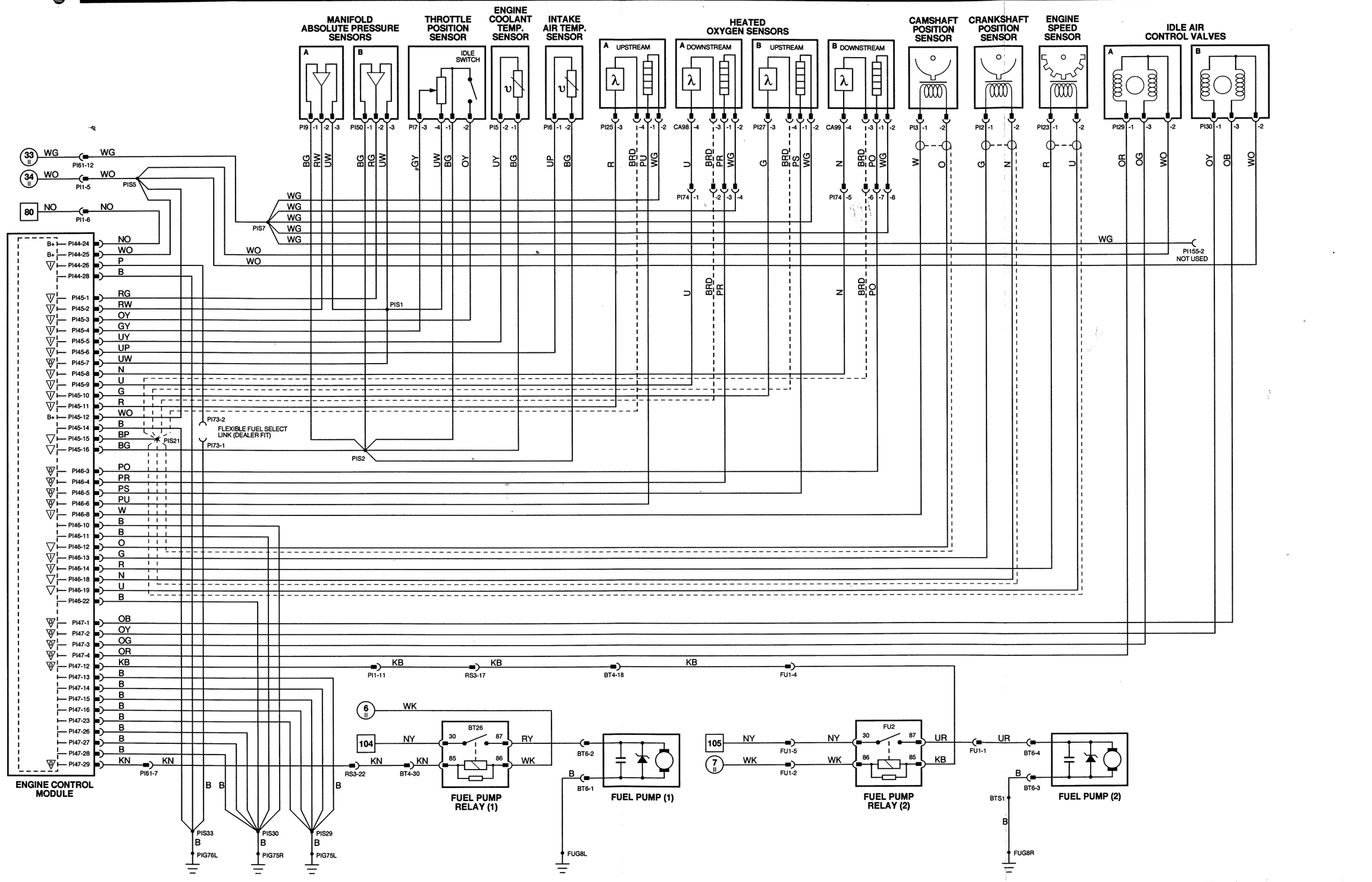
▽	Pin	Description	Active	Inactive
I	PI44-26	FLEXIBLE FUEL SELECT LINK (DEALER FIT)	GROUND (FITTED)	B+
I	PI45-1	MAP SENSOR FEEDBACK – B BANK	1.7 V @ IDLE, INCREASING WITH MANIFOLD ABSOLUTE PRESSURE	
I	PI45-2	MAP SENSOR FEEDBACK – A BANK	1.7 V @ IDLE, INCREASING WITH MANIFOLD ABSOLUTE PRESSURE	
I	PI45-3	IDLE SWITCH	GROUND	B+
I	PI45-4	THROTTLE POSITION SENSOR FEEDBACK VOLTAGE	0.58 V @ IDLE, 4.75 V @ FULL THROTTLE	
I	PI45-5	COOLANT TEMPERATURE SENSOR	0.41 V @ 90° C, INCREASING WITH TEMPERATURE	
I	PI45-6	INTAKE AIR TEMPERATURE SENSOR	0.59 V @ 10° C, INCREASING WITH TEMPERATURE	
O	PI45-7	COMMON SENSOR REFERENCE VOLTAGE	5 V	5 V
I	PI45-8	DOWNSTREAM HO2S FEEDBACK – B BANK	0.1 – 0.8 V (SWING)	
I	PI45-9	DOWNSTREAM HO2S FEEDBACK – A BANK	0.1 – 0.8 V (SWING)	
I	PI45-10	UPSTREAM HO2S FEEDBACK – B BANK	0.1 – 0.8 V (SWING)	
I	PI45-11	UPSTREAM HO2S FEEDBACK – A BANK	0.1 – 0.8 V (SWING)	
SG	PI45-15	COMMON SENSOR SHIELD GROUND	GROUND	GROUND
SG	PI45-16	COMMON SENSOR REFERENCE GROUND	GROUND	GROUND
O	PI46-3	DOWNSTREAM HO2S HEATER GROUND – B BANK	GROUND	B+
O	PI46-4	DOWNSTREAM HO2S HEATER GROUND – A BANK	GROUND	B+
O	PI46-5	UPSTREAM HO2S HEATER GROUND – B BANK	GROUND	B+
O	PI46-6	UPSTREAM HO2S HEATER GROUND – A BANK	GROUND	B+
I	PI46-8	CAMSHAFT POSITION SENSOR	GROUND PULSE @ 1000 RPM = 8 Hz, 2000 RPM = 16 Hz	
SG	PI46-12	CAMSHAFT POSITION SENSOR	GROUND	GROUND
I	PI46-13	CRANKSHAFT POSITION SENSOR	GROUND PULSE @ 1000 RPM = 15 Hz, 2000 RPM = 30 Hz	
I	PI46-14	ENGINE SPEED SENSOR	GROUND PULSE @ 1000 RPM = 175 Hz, 2000 RPM = 350 Hz	
SG	PI46-18	CRANKSHAFT POSITION SENSOR	GROUND	GROUND
SG	PI46-19	ENGINE SPEED SENSOR	GROUND	
O	PI47-1	IDLE AIR CONTROL VALVE CLOSE – B BANK	4.8 V @ IDLE	
O	PI47-2	IDLE AIR CONTROL VALVE OPEN – B BANK	9.8 V @ IDLE	
O	PI47-3	IDLE AIR CONTROL VALVE CLOSE – A BANK	4.8 V @ IDLE	
O	PI47-4	IDLE AIR CONTROL VALVE OPEN – A BANK	9.8 V @ IDLE	
O	PI47-12	FUEL PUMP RELAY 2	GROUND	B+
O	PI47-29	FUEL PUMP RELAY 1	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

I	**Input**	**B+**	**Battery voltage**
O	**Output**	**V**	**Voltage (DC)**
SG	**Signal Ground**	**Hz**	**Frequency**
D	**Serial and encoded communications**	**KHz**	**Frequency x 1000**
		MS	**Milliseconds**
		MV	**Millivolts**

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1—6 Fig. 01.1 | 7—66 Fig. 01.2 | 67—109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: V12 Federal Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 04.5

COMPONENTS

Component	Connector / Type / Color	Location / Access
DIODE (PI81) – AIRP SOLENOID SUPPRESSION	PI81 / DIODE / BLACK	EMS HARNESS / SECONDARY AIR INJECTION PUMP
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 / SLATE PI45 / 16-WAY MULTILOCK 040 / SLATE PI46 / 22-WAY MULTILOCK 040 / SLATE PI47 / 34-WAY MULTILOCK 040 / SLATE	RH 'A' POST/ 'A' POST TRIM
EVAPORATIVE EMISSION CONTROL VALVE (V12 A BANK)	PI18 / 2-WAY JUNIOR TIMER / BLACK	BELOW LH FRONT RELAYS
EVAPORATIVE EMISSION CONTROL VALVE (V12 B BANK)	PI19 / 2-WAY JUNIOR TIMER / BLACK	BELOW LH FRONT RELAYS
FUEL INJECTOR (V12 A BANK 1)	PI32 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 2)	PI33 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 3)	PI34 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 4)	PI35 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 5)	PI36 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 6)	PI37 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 1)	PI38 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 2)	PI39 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 3)	PI40 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 4)	PI41 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 5)	PI42 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 6)	PI43 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
IGNITION COIL (V12 A BANK)	PI12 / 4-WAY SUB-MINIATURE / BLACK	ENGINE VEE
IGNITION COIL (V12 B BANK)	PI13 / 4-WAY SUB-MINIATURE / BLACK	ENGINE VEE
IGNITION MODULE (V12 A BANK)	PI10 / 8-WAY SUMITOMO 90 / SLATE	ENGINE BAY, RH INNER FENDER
IGNITION MODULE (V12 B BANK)	PI11 / 8-WAY SUMITOMO 90 / SLATE	ENGINE BAY, RH INNER FENDER
POWER STEERING PRESSURE SWITCH	PI68 / 2-WAY JUNIOR TIMER / BLACK	POWER STEERING PUMP
SECONDARY AIR INJECTION CLUTCH	PI21 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	SECONDARY AIR INJECTION PUMP
SECONDARY AIR INJECTION SWITCHING VALVE	PI22 / 2-WAY DENSO / BLUE	A BANK INTAKE MANIFOLD / REAR

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
FUEL INJECTOR RELAY (MAIN RELAY) (V12)	BLACK	PI20 / BLACK	RH ENGINE BAY RELAYS
SECONDARY AIR INJECTION RELAY (V12)	BLACK / WHITE	PI52 / BLACK	RH ENGINE BAY RELAYS
IGNITION COIL RELAY (V12)	BLACK	PI53 / BLACK	RH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI59	13-WAY ECONOSEAL III LC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST/ 'A' POST TRIM
PI73	2-WAY MULTILOCK 070 / YELLOW	RH 'A' POST/ 'A' POST TRIM

GROUNDS

Ground	Location / Type
PIG75L	RH 'A' POST GROUND STUD
PIG75R	RH 'A' POST GROUND STUD
PIG76L	RH BULKHEAD GROUND STUD
PIG77R	RIGHT FORWARD EMS GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (V12)

▽	Pin	Description	Active	Inactive
O	PI44-1	FUEL USED	GROUND PULSE, 10 Hz @ IDLE	
O	PI44-2	CHECK ENGINE MIL	GROUND	B+
O	PI44-3	ENGINE TORQUE SIGNAL	11.5 V @ IDLE, DECREASING WITH TORQUE INCREASE	
O	PI44-4	THROTTLE POSITION	1.4 V @ IDLE, 9 V @ FULL THROTTLE	
O	PI44-5	LOAD INHIBIT SIGNAL	GROUND	B+
I	PI44-6	TORQUE REDUCTION	GROUND PULSE @ SHIFT	11.5 V @ IDLE
I	PI44-7	VEHICLE SPEED	GROUND	B+
O	PI44-10	ENGINE SPEED	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
I	PI44-12	ELECTRICAL LOAD: HEATED WINDSHIELD, HEATED BACKLIGHT, OR BLOWERS ON HIGH SPEED	GROUND	B+
I	PI44-13	AIR CONDITIONING REQUEST	B+	GROUND
D	PI44-14	FUELING INHIBIT SIGNAL	ENCODED COMMUNICATIONS	
I	PI44-18	PARK / NEUTRAL	GROUND	B+
I	PI44-21	FUEL LEVEL	B+	GROUND
D	PI44-22	SERIAL COMMUNICATION INPUT		
D	PI44-23	SERIAL COMMUNICATION OUTPUT		
I	PI44-26	FLEXIBLE FUEL SELECT LINK (DEALER FIT)	GROUND (FITTED)	B+
I	PI45-13	POWER STEERING PRESSURE SWITCH	GROUND	B+
I	PI46-7	CRANK SIGNAL	GROUND	B+
O	PI46-16	AIR CONDITIONING CLUTCH RELAY	GROUND	B+
O	PI46-17	SECONDARY AIR INJECTION RELAY	GROUND	B+
I	PI46-20	IGNITION FAILURE – B BANK	B+	1.7 V
I	PI46-21	IGNITION FAILURE – A BANK	B+	1.7 V
O	PI47-5	FUEL INJECTORS 3 & 5 – B BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-6	FUEL INJECTORS 2 & 4 – A BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-7	FUEL INJECTORS 1 & 4 – B BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-8	FUEL INJECTORS 3 & 6 – A BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-9	FUEL INJECTORS 2 & 6 – B BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-10	FUEL INJECTORS 1 & 5 – A BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-11	SECONDARY AIR VACUUM SOLENOID VALVE	B+	GROUND
O	PI47-17	IGNITION MODULE NEGATIVE – 3B	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-18	IGNITION MODULE NEGATIVE – 2B	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-19	IGNITION MODULE NEGATIVE – 1B	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-20	IGNITION MODULE NEGATIVE – 3A	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-21	IGNITION MODULE NEGATIVE – 2A	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-22	IGNITION MODULE NEGATIVE – 1A	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-33	EVAP VALVE – B BANK	B+	GROUND
O	PI47-34	EVAP VALVE – A BANK	B+	GROUND

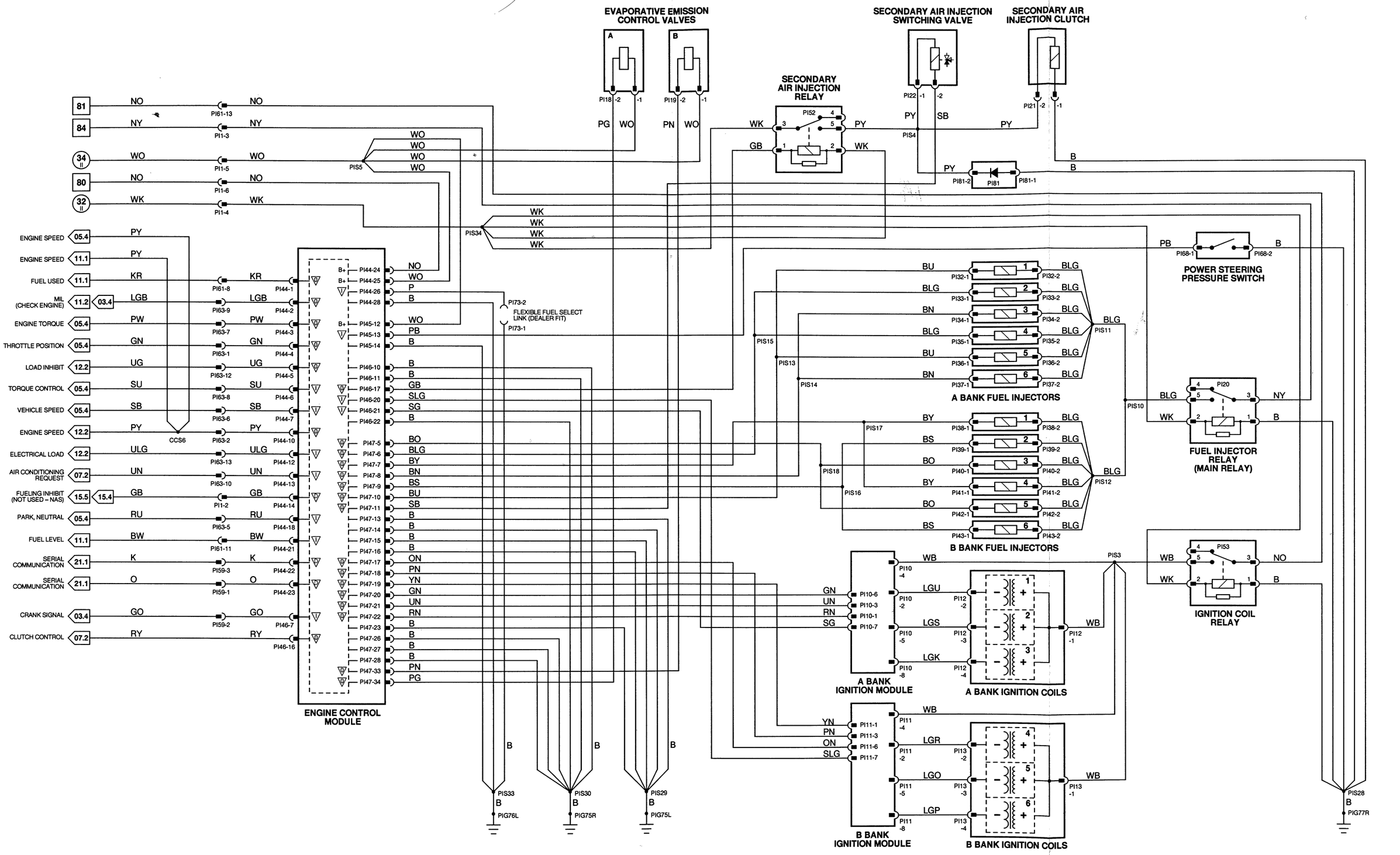
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: V12 Federal Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 04.6

COMPONENTS

Component	Connector / Type / Color	Location / Access
CAMSHAFT POSITION SENSOR (V12)	PI3 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	A BANK CAMSHAFT COVER
CATALYST SWITCHING MODULE	PI155 / 8-WAY MULTILOCK 070 / WHITE	RH 'A' POST, ECM / 'A' POST TRIM
CATALYST THERMOCOUPLES	PI156 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	REAR OF ENGINE
CRANKSHAFT POSITION SENSOR	PI2 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE TIMING COVER
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 / SLATE PI45 / 16-WAY MULTILOCK 040 / SLATE PI46 / 22-WAY MULTILOCK 040 / SLATE PI47 / 34-WAY MULTILOCK 040 / SLATE	RH 'A' POST/ 'A' POST TRIM
ENGINE COOLANT TEMPERATURE SENSOR (V12)	PI5 / 2-WAY ECONOSEAL J / SLATE	B BANK THERMOSTAT HOUSING
ENGINE SPEED SENSOR	PI23 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE VEE, REAR
FUEL PUMP (1)	BT6 (FLY LEAD) / 4-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
FUEL PUMP (2)	BT6 (FLY LEAD) / 4-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
HEATED OXYGEN SENSOR (V12 A BANK)	PI25 (FLY LEAD) / 4-WAY SUMITOMO 90 / SLATE	A BANK EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (V12 B BANK)	PI27 (FLY LEAD) / 4-WAY SUMITOMO 90 / SLATE	B BANK EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
IDLE AIR CONTROL VALVE (V12 A BANK)	PI29 / 3-WAY SUMITOMO 90/ SLATE	A BANK THROTTLE BODY
IDLE AIR CONTROL VALVE (V12 B BANK)	PI30 / 3-WAY SUMITOMO 90/ SLATE	B BANK THROTTLE BODY
INTAKE AIR TEMPERATURE SENSOR (V12)	PI6 / 2-WAY JUNIOR TIMER / BLACK	A BANK AIR INTAKE
MANIFOLD ABSOLUTE PRESSURE SENSOR (V12 A BANK)	PI9 / 3-WAY SUMITOMO 90 / BLACK	A BANK INTAKE MANIFOLD, REAR
MANIFOLD ABSOLUTE PRESSURE SENSOR (V12 B BANK)	PI50 / 3-WAY SUMITOMO 90 / BLACK	B BANK INTAKE MANIFOLD, REAR
THROTTLE POSITION SENSOR (V12)	PI7 / 4-WAY ECONOSEAL J / BLACK	THROTTLE TURNTABLE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
FUEL PUMP RELAY (1)	BLACK / VIOLET	BT26 / GREEN	TRUNK ELECTRICAL CARRIER
FUEL PUMP RELAY (2)	BLUE	FU2/ YELLOW	BATTERY COVER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
FU1	6-WAY MULTILOCK 070 / WHITE	FUEL TANK TRIM / BATTERY COVER
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI73	2-WAY MULTILOCK 070 / YELLOW	RH 'A' POST/ 'A' POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST/ 'A' POST PANEL

GROUNDS

Ground	Location / Type
FUG8L	FRONT TRUNK GROUND STUD
FUG8R	FRONT TRUNK GROUND STUD
PIG75L	RH 'A' POST GROUND STUD
PIG75R	RH 'A' POST GROUND STUD
PIG76L	RH BULKHEAD GROUND STUD
PIG76R	RH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (V12)

▽	Pin	Description	Active	Inactive
I	PI44-26	FLEXIBLE FUEL SELECT LINK (DEALER FIT)	GROUND (FITTED)	B+
I	PI45-1	MAP SENSOR FEEDBACK – B BANK	1.7 V @ IDLE, INCREASING WITH MANIFOLD ABSOLUTE PRESSURE	
I	PI45-2	MAP SENSOR FEEDBACK – A BANK	1.7 V @ IDLE, INCREASING WITH MANIFOLD ABSOLUTE PRESSURE	
I	PI45-3	IDLE SWITCH	GROUND	B+
I	PI45-4	THROTTLE POSITION SENSOR FEEDBACK VOLTAGE	0.58 V @ IDLE, 4.75 V @ FULL THROTTLE	
I	PI45-5	COOLANT TEMPERATURE SENSOR	0.41 V @ 90° C, INCREASING WITH TEMPERATURE	
I	PI45-6	INTAKE AIR TEMPERATURE SENSOR	0.59 V @ 10° C, INCREASING WITH TEMPERATURE	
O	PI45-7	COMMON SENSOR REFERENCE VOLTAGE	5 V	5 V
I	PI45-10	UPSTREAM HO2S FEEDBACK – B BANK	0.1 – 0.8 V (SWING)	
I	PI45-11	UPSTREAM HO2S FEEDBACK – A BANK	0.1 – 0.8 V (SWING)	
SG	PI45-15	COMMON SENSOR SHIELD GROUND	GROUND	GROUND
SG	PI45-16	COMMON SENSOR REFERENCE GROUND	GROUND	GROUND
O	PI46-5	UPSTREAM HO2S HEATER GROUND – B BANK	GROUND	B+
O	PI46-6	UPSTREAM HO2S HEATER GROUND – A BANK	GROUND	B+
I	PI46-8	CAMSHAFT POSITION SENSOR	GROUND PULSE @ 1000 RPM = 8 Hz, 2000 RPM = 16 Hz	
SG	PI46-12	CAMSHAFT POSITION SENSOR	GROUND	GROUND
I	PI46-13	CRANKSHAFT POSITION SENSOR	GROUND PULSE @ 1000 RPM = 15 Hz, 2000 RPM = 30 Hz	
I	PI46-14	ENGINE SPEED SENSOR	GROUND PULSE @ 1000 RPM = 175 Hz, 2000 RPM = 350 Hz	
SG	PI46-18	CRANKSHAFT POSITION SENSOR	GROUND	GROUND
SG	PI46-19	ENGINE SPEED SENSOR	GROUND	
O	PI47-1	IDLE AIR CONTROL VALVE CLOSE – B BANK	4.8 V @ IDLE	
O	PI47-2	IDLE AIR CONTROL VALVE OPEN – B BANK	9.8 V @ IDLE	
O	PI47-3	IDLE AIR CONTROL VALVE CLOSE – A BANK	4.8 V @ IDLE	
O	PI47-4	IDLE AIR CONTROL VALVE OPEN – A BANK	9.8 V @ IDLE	
O	PI47-12	FUEL PUMP RELAY 2	GROUND	B+
O	PI47-29	FUEL PUMP RELAY 1	GROUND	B+

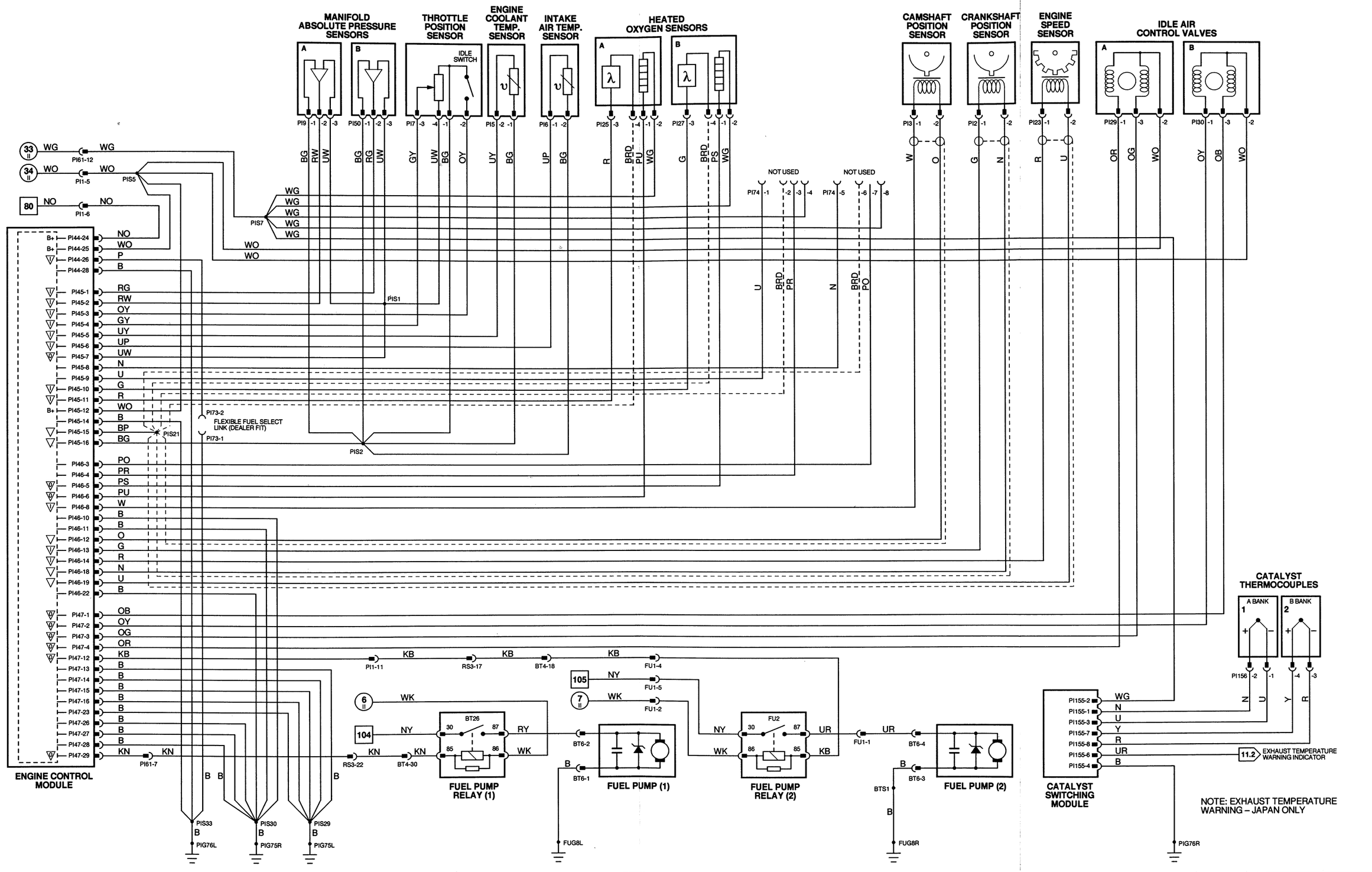
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: V12 ROW Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 04.7

COMPONENTS

Component	Connector / Type / Color	Location / Access
DIODE (PI81) – AIRP SOLENOID SUPPRESSION	PI81 / DIODE / BLACK	EMS HARNESS / SECONDARY AIR INJECTION PUMP
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 / SLATE PI45 / 16-WAY MULTILOCK 040 / SLATE PI46 / 22-WAY MULTILOCK 040 / SLATE PI47 / 34-WAY MULTILOCK 040 / SLATE	RH 'A' POST/ 'A' POST TRIM
EVAPORATIVE EMISSION CONTROL VALVE (V12 A BANK)	PI18 / 2-WAY JUNIOR TIMER / BLACK	BELOW LH FRONT RELAYS
EVAPORATIVE EMISSION CONTROL VALVE (V12 B BANK)	PI19 / 2-WAY JUNIOR TIMER / BLACK	BELOW LH FRONT RELAYS
FUEL INJECTOR (V12 A BANK 1)	PI32 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 2)	PI33 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 3)	PI34 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 4)	PI35 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 5)	PI36 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 6)	PI37 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 1)	PI38 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 2)	PI39 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 3)	PI40 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 4)	PI41 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 5)	PI42 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 6)	PI43 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
IGNITION COIL (V12 A BANK)	PI12 / 4-WAY SUB-MINIATURE / BLACK	ENGINE VEE
IGNITION COIL (V12 B BANK)	PI13 / 4-WAY SUB-MINIATURE / BLACK	ENGINE VEE
IGNITION MODULE (V12 A BANK)	PI10 / 8-WAY SUMITOMO 90 / SLATE	ENGINE BAY, RH INNER FENDER
IGNITION MODULE (V12 B BANK)	PI11 / 8-WAY SUMITOMO 90 / SLATE	ENGINE BAY, RH INNER FENDER
POWER STEERING PRESSURE SWITCH	PI68 / 2-WAY JUNIOR TIMER / BLACK	POWER STEERING PUMP
SECONDARY AIR INJECTION CLUTCH	PI21 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	SECONDARY AIR INJECTION PUMP
SECONDARY AIR INJECTION SWITCHING VALVE	PI22 / 2-WAY DENSO / BLUE	A BANK INTAKE MANIFOLD / REAR

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
FUEL INJECTOR RELAY (MAIN RELAY) (V12)	BLACK	PI20 / BLACK	RH ENGINE BAY RELAYS
IGNITION COIL RELAY (V12)	BLACK	PI53 / BLACK	RH ENGINE BAY RELAYS
SECONDARY AIR INJECTION RELAY (V12)	BLACK / WHITE	PI52 / BLACK	RH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI59	13-WAY ECONOSEAL III LC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST/ 'A' POST TRIM
PI73	2-WAY MULTILOCK 070 / YELLOW	RH 'A' POST/ 'A' POST TRIM

GROUNDS

Ground	Location / Type
PIG75L	RH 'A' POST GROUND STUD
PIG75R	RH 'A' POST GROUND STUD
PIG76L	RH BULKHEAD GROUND STUD
PIG77R	RIGHT FORWARD EMS GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (V12)

▽	Pin	Description	Active	Inactive
O	PI44-1	FUEL USED	GROUND PULSE, 10 Hz @ IDLE	
O	PI44-2	CHECK ENGINE MIL	GROUND	B+
O	PI44-3	ENGINE TORQUE SIGNAL	11.5 V @ IDLE, DECREASING WITH TORQUE INCREASE	
O	PI44-4	THROTTLE POSITION	1.4 V @ IDLE, 9 V @ FULL THROTTLE	
O	PI44-5	LOAD INHIBIT SIGNAL	GROUND	B+
I	PI44-6	TORQUE REDUCTION	GROUND PULSE @ SHIFT	11.5 V @ IDLE
I	PI44-7	VEHICLE SPEED	GROUND	B+
O	PI44-10	ENGINE SPEED	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
I	PI44-12	ELECTRICAL LOAD: HEATED WINDSHIELD, HEATED BACKLIGHT, OR BLOWERS ON HIGH SPEED	GROUND	B+
I	PI44-13	AIR CONDITIONING REQUEST	B+	GROUND
D	PI44-14	FUELING INHIBIT SIGNAL	ENCODED COMMUNICATIONS	
I	PI44-18	PARK / NEUTRAL	GROUND	B+
I	PI44-21	FUEL LEVEL	B+	GROUND
D	PI44-22	SERIAL COMMUNICATION INPUT		
D	PI44-23	SERIAL COMMUNICATION OUTPUT		
I	PI44-26	FLEXIBLE FUEL SELECT LINK (DEALER FIT)	GROUND (FITTED)	B+
I	PI45-13	POWER STEERING PRESSURE SWITCH	GROUND	B+
I	PI46-7	CRANK SIGNAL	GROUND	B+
O	PI46-16	AIR CONDITIONING CLUTCH RELAY	GROUND	B+
O	PI46-17	SECONDARY AIR INJECTION RELAY	GROUND	B+
I	PI46-20	IGNITION FAILURE – B BANK	B+	1.7 V
I	PI46-21	IGNITION FAILURE – A BANK	B+	1.7 V
O	PI47-5	FUEL INJECTORS 3 & 5 – B BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-6	FUEL INJECTORS 2 & 4 – A BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-7	FUEL INJECTORS 1 & 4 – B BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-8	FUEL INJECTORS 3 & 6 – A BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-9	FUEL INJECTORS 2 & 6 – B BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-10	FUEL INJECTORS 1 & 5 – A BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-11	SECONDARY AIR VACUUM SOLENOID VALVE	B+	GROUND
O	PI47-17	IGNITION MODULE NEGATIVE – 3B	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-18	IGNITION MODULE NEGATIVE – 2B	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-19	IGNITION MODULE NEGATIVE – 1B	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-20	IGNITION MODULE NEGATIVE – 3A	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-21	IGNITION MODULE NEGATIVE – 2A	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-22	IGNITION MODULE NEGATIVE – 1A	GROUND PULSE, 1000 RPM = 15 Hz	
O	PI47-33	EVAP VALVE – B BANK	B+	GROUND
O	PI47-34	EVAP VALVE – A BANK	B+	GROUND

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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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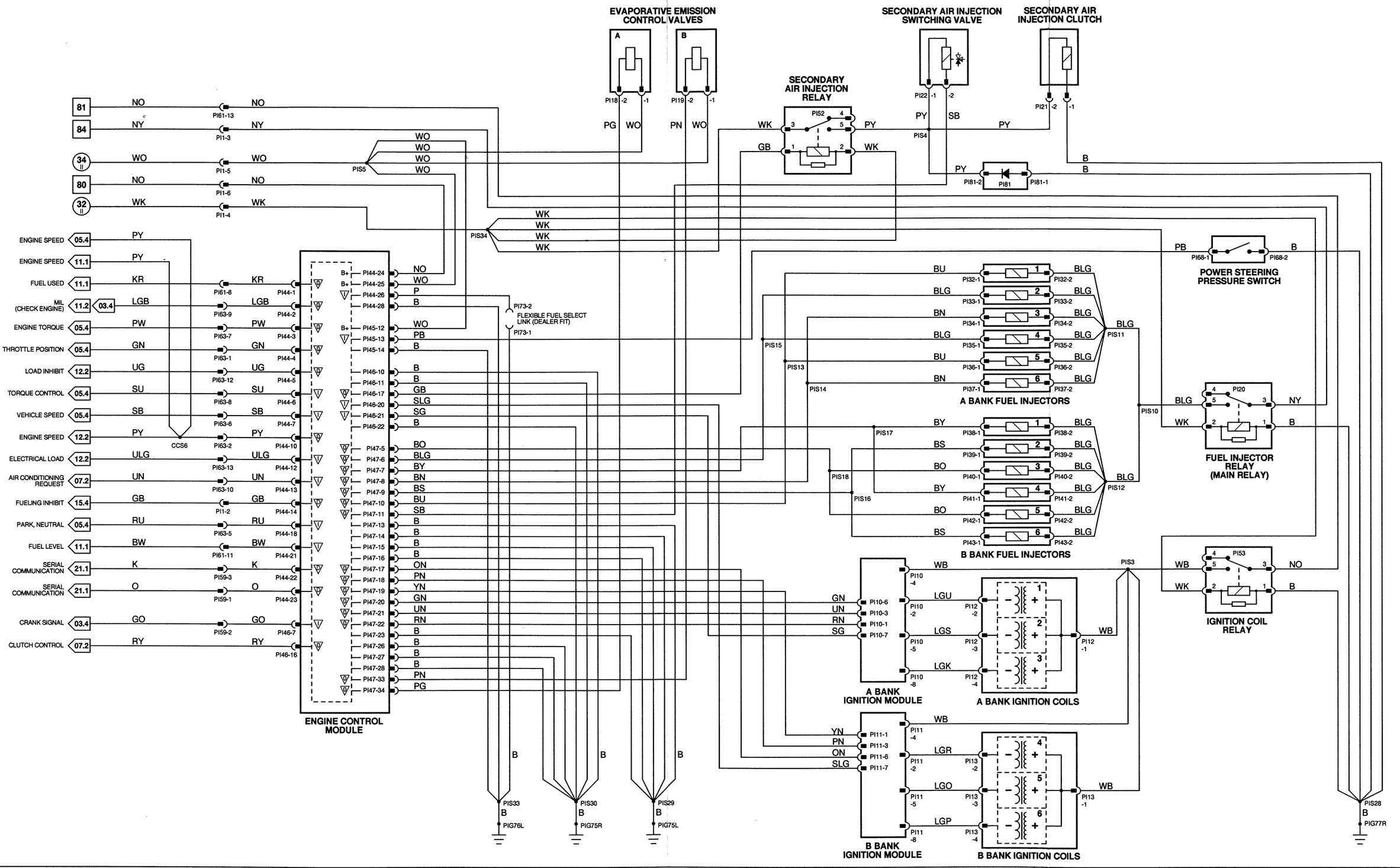

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: V12 ROW Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 05.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
DECODER MODULE	CC13 / 26-WAY MODU 4 / BLUE	CENTER CONSOLE
FLUID TEMPERATURE SENSOR	GB3 / 9-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
GEAR SELECTOR INDICATOR MODULE (AJ16 4.0L)	CC14 / 12-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
KICKDOWN SWITCH	CA74 (RHD) (FLY LEAD) / 3-WAY MULTILOCK 070 / SLATE CC54 (LHD) (FLY LEAD) / 3-WAY MULTILOCK 070 / SLATE	UNDER ACCELERATOR
MODE SWITCH	CC11 / 6-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
OUTPUT SHAFT SENSOR	GB3 / 9-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION
PRESSURE REGULATOR	GB3 / 9-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
ROTARY SWITCH	GB1 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE GB2 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
TRANSMISSION CONTROL MODULE (AJ16 NA)	CC7 / 55-WAY BOSCH / BLACK	PASSENGER'S UNDERSCUTTLE
TRANSMISSION SOLENOID VALVES	GB3 / 9-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM

GROUNDS

Ground	Location / Type
CCG8L	CENTER CONSOLE GROUND STUD
CCG8R	CENTER CONSOLE GROUND STUD
CCG51R	CENTER CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

DECODER MODULE

▽	Pin	Description	Active	Inactive
O	CC13-1	GEAR POSITION 3	GROUND	5 V
O	CC13-2	GEAR POSITION 2	GROUND	5 V
O	CC13-3	GEAR POSITION 'R'	GROUND	5 V
O	CC13-4	GEAR POSITION 'D'	GROUND	5 V
I	CC13-11	GEAR POSITION 'Y'	GROUND = R, N, D, 3	2 V = P, 2
I	CC13-12	GEAR POSITION 'Z'	GROUND = D, 3, 2	2 V = P, R, N
I	CC13-13	GEAR POSITION 'X'	GROUND = P, R, 3, 2	2 V = N, D
O	CC13-14	GEAR SELECTOR 'NEUTRAL' ILLUMINATION	GROUND = N	5 V = P, R, D, 3, 2
O	CC13-15	GEAR SELECTOR 'PARK' ILLUMINATION	GROUND = P	5 V = R, N, D, 3, 2
O	CC13-23	SPEED CONTROL INHIBIT	GROUND = D, 3, 2	B+ = P, R, N
O	CC13-24	PARK, NEUTRAL OUTPUT	GROUND = P, N	B+ = R, D, 3, 2

TRANSMISSION CONTROL MODULE (AJ16 NA)

▽	Pin	Description	Active	Inactive
I	CC7-2	OUTPUT SHAFT SPEED SENSOR	1.51 V @ 10 MPH (16 KPH) = 280 Hz, 20 MPH (32 KPH) = 560 Hz	
I	CC7-3	ENGINE SPEED SENSOR	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
I	CC7-4	MODE SWITCH SELECTION	GROUND = NORMAL	B+ = SPORT
O	CC7-5	SHIFT SOLENOID 1 (MV1)	GROUND = 2, 3	B+ = P, N, D, 1, 4
O	CC7-6	PRESSURE REGULATOR	9.5V @ IDLE, DECREASING WITH PRESSURE INCREASE	
I	CC7-14	POSITION CODE 'Y'	GROUND = R, N, D, 3	2 V = P, 2
D	CC7-15	SERIAL COMMUNICATION INPUT		
O	CC7-16	TRANSMISSION MIL	GROUND	9.4 V
O	CC7-19	PRESSURE REGULATOR / SHIFT SOLENOIDS SUPPLY	B+	B+
I	CC7-21	ENGINE TORQUE	10.4 V = NO LOAD, DECREASING WITH ENGINE LOAD	
O	CC7-24	SHIFT SOLENOID 2 (MV2)	GROUND = P, N, D, 2, 1	B+ = 3, 4
I	CC7-29	TRACTION ACTIVE	GROUND PULSE	B+
O	CC7-32	TORQUE REDUCTION REQUEST	GROUND PULSE @ SHIFT (7.8 V)	9.4 V @ IDLE
I	CC7-33	POSITION CODE 'Z'	GROUND = D, 3, 2	B+ = P, R, N
SG	CC7-38	OUTPUT SHAFT SPEED SENSOR	GROUND	GROUND
I	CC7-41	KICK DOWN SWITCH	GROUND	B+
O	CC7-42	LOCK UP SOLENOID (MV3)	GROUND	B+
SG	CC7-44	FLUID TEMPERATURE SENSOR	1.31 V	
I	CC7-46	FLUID TEMPERATURE SENSOR	1.15 V @ 90° C	
I	CC7-47	THROTTLE POSITION SENSOR FEEDBACK VOLTAGE	1.31 V @ IDLE, 4.9 V = FULL THROTTLE	
O	CC7-49	SPORT MODE INDICATOR	GROUND	B+
I	CC7-50	POSITION CODE 'X'	GROUND = P, R, 3, 2	2 V = D, N
D	CC7-51	SERIAL COMMUNICATION OUTPUT		

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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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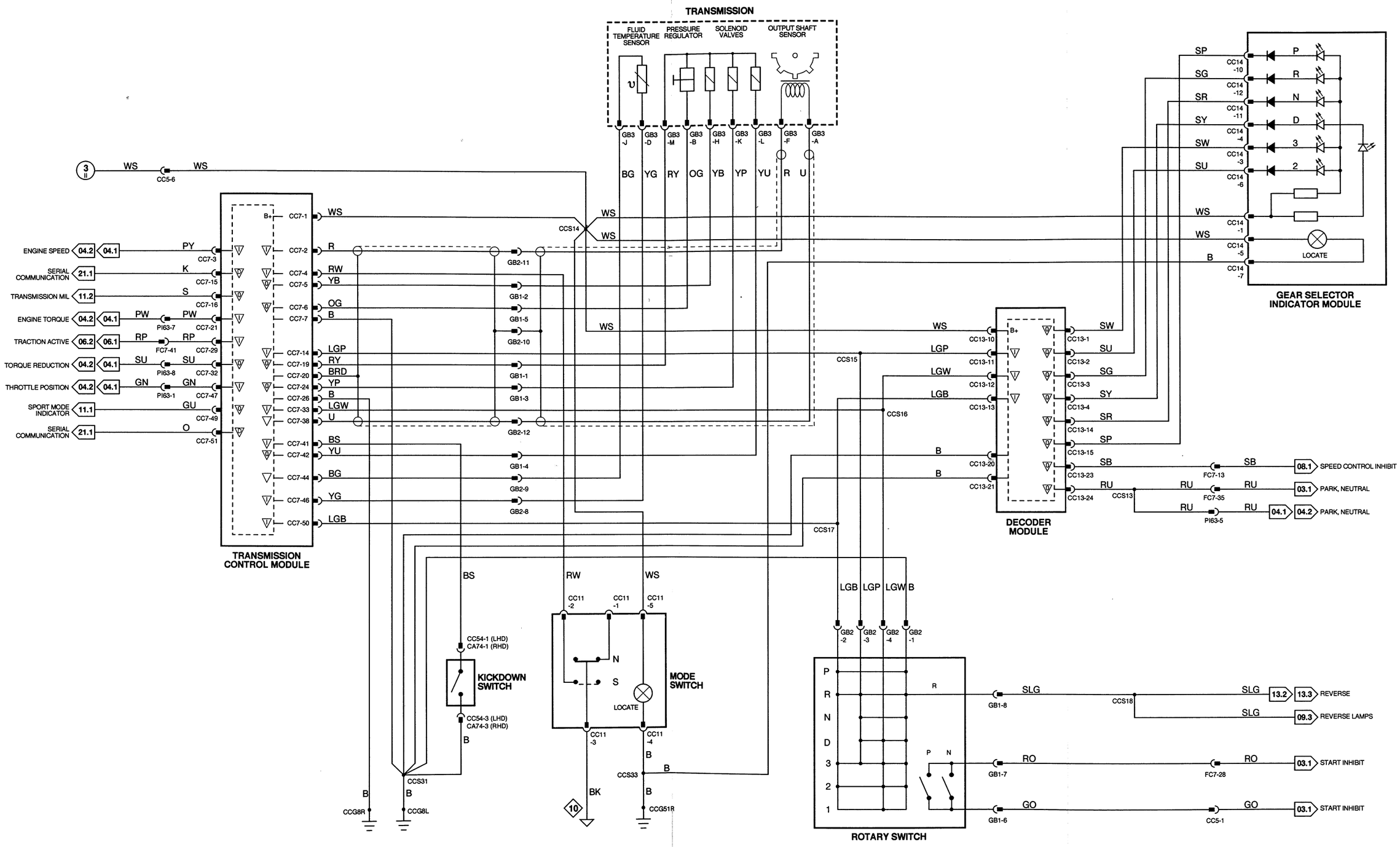

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | I II Fig. 01.4 | I II Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: AJ16 4.0L NA Automatic Transmission Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 05.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
GEAR SELECTOR INDICATOR MODULE (AJ16 3.2L, 4.0L SC; V12)	GB11 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
INPUT SPEED SENSOR	GB14 (FLY LEAD) / 3-WAY PACKARD / BLACK	TRANSMISSION, LH SIDE
KICKDOWN SWITCH	CA74 (RHD) (FLY LEAD) / 3-WAY MULTILOCK 070 / SLATE CC54 (LHD) (FLY LEAD) / 3-WAY MULTILOCK 070 / SLATE	UNDER ACCELERATOR
LINEAR GEAR POSITION SWITCHES	CC21 / 20-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
MODE SWITCH	CC11 / 6-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
OUTPUT SPEED SENSOR	GB13 (FLY LEAD) / 3-WAY PACKARD / BLACK	TRANSMISSION, LH SIDE
PRESSURE SWITCH MANIFOLD	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
SHIFT SOLENOID (A)	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
SHIFT SOLENOID (B)	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
TORQUE CONVERTER CLUTCH SOLENOID	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
TRANSMISSION CONTROL MODULE (V12 & AJ16 SC)	CC48 / 55-WAY AMP 55 / BLACK	PASSENGER'S UNDERSCUTTLE
TRANSMISSION TEMPERATURE SENSOR	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
VARIABLE FORCE MOTOR	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC38	2-WAY MULTILOCK 070 / YELLOW	PASSENGER'S UNDERSCUTTLE
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
GB10	12-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE 'J' GATE / LH SIDE
GB15	8-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE 'J' GATE / LH SIDE
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM

GROUNDS

Ground	Location / Type
CAG30R	LH 'A' POST GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CCG51R	CENTER CONSOLE GROUND STUD
CCG8L	CENTER CONSOLE GROUND STUD
CCG8R	CENTER CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

←

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

TRANSMISSION CONTROL MODULE (AJ16 SC)

▽	Pin	Description	Active	Inactive
I	CC48-3	PRESSURE SWITCH MANIFOLD	B+	B+
I	CC48-4	PRESSURE SWITCH MANIFOLD	B+	B+
I	CC48-5	MODE SWITCH	GROUND = SPORT	B+ = NORMAL
I	CC48-6	CALIBRATION SELECT LINK (DEALER FIT)	GROUND = (FITTED)	B+
O	CC48-7	TORQUE REDUCTION	GROUND PULSE @ SHIFT	11.5 V @ IDLE
I	CC48-11	THROTTLE POSITION	1.4 V @ IDLE	9 V @ FULL THROTTLE
I	CC48-12	ENGINE TORQUE	11.5 V @ IDLE, DECREASING WITH TORQUE INCREASE	
SG	CC48-14	TRANSMISSION TEMPERATURE SENSOR	GROUND	GROUND
D	CC48-16	SERIAL COMMUNICATION INPUT		
I	CC48-22	PRESSURE SWITCH MANIFOLD	GROUND	GROUND
I	CC48-23	TRACTION ACTIVE	GROUND	B+
I	CC48-24	KICK DOWN SWITCH	GROUND	B+
I	CC48-25	BRAKE SWITCH	GROUND	B+
I	CC48-26	TRANSMISSION TEMPERATURE SENSOR	1.93 V @ 90° C	
I	CC48-30	ENGINE SPEED SIGNAL	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
SG	CC48-36	OUTPUT SPEED SENSOR	GROUND	GROUND
SG	CC48-37	INPUT SPEED SENSOR	GROUND	GROUND
O	CC48-39	SHIFT SOLENOID 'A'	GROUND = 1, 4	B+ = 2, 3
O	CC48-40	TRANSMISSION MIL	GROUND	B+
O	CC48-41	SPORT MODE INDICATOR LAMP	GROUND	B+
O	CC48-42	TORQUE CONVERTER CLUTCH SOLENOID	GROUND	B+
O	CC48-43	SHIFT SOLENOID 'B'	GROUND = 3, 4	B+ = 1, 2
D	CC48-45	SERIAL COMMUNICATION OUTPUT		
O	CC48-49	VARIABLE FORCE MOTOR	1.3 V @ IDLE, DECREASING WITH PRESSURE INCREASE	
I	CC48-50	INPUT SPEED SENSOR	GROUND @ 1000 RPM = 450 Hz, 2000 RPM = 900 Hz	
I	CC48-51	OUTPUT SPEED SENSOR	GROUND @ 10 MPH (16 KPH) = 300 Hz, 20 MPH (32 KPH) = 600 Hz	
O	CC48-52	VARIABLE FORCE MOTOR	7.7 V @ IDLE, DECREASING WITH PRESSURE INCREASE	

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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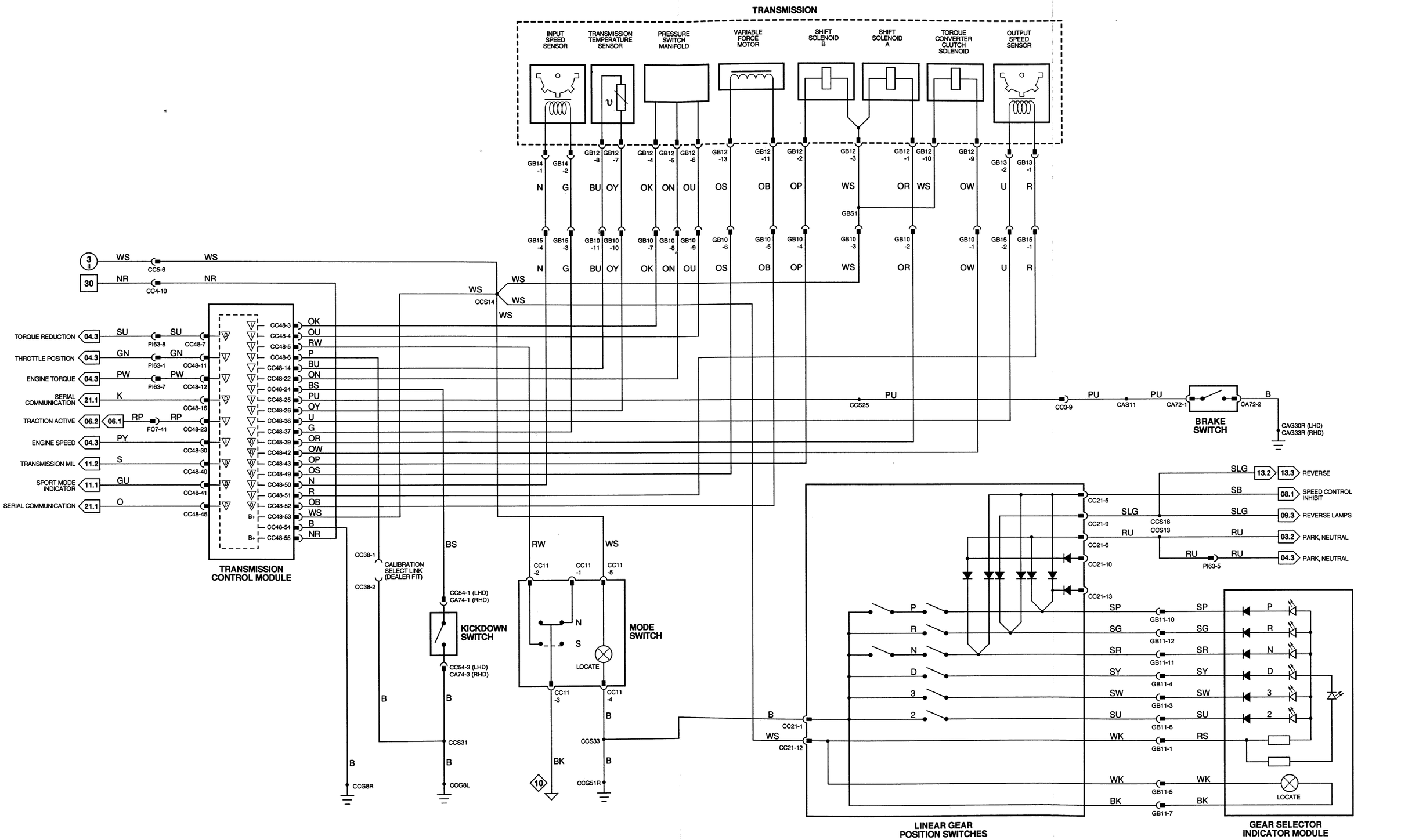


1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | I II Fig. 01.4 | I II Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: XJR Automatic Transmission Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 05.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
LINEAR GEAR POSITION SWITCHES	CC21 / 20-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
GEAR SELECTOR INDICATOR MODULE (AJ16 3.2L, 4.0L SC; V12)	GB11 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE

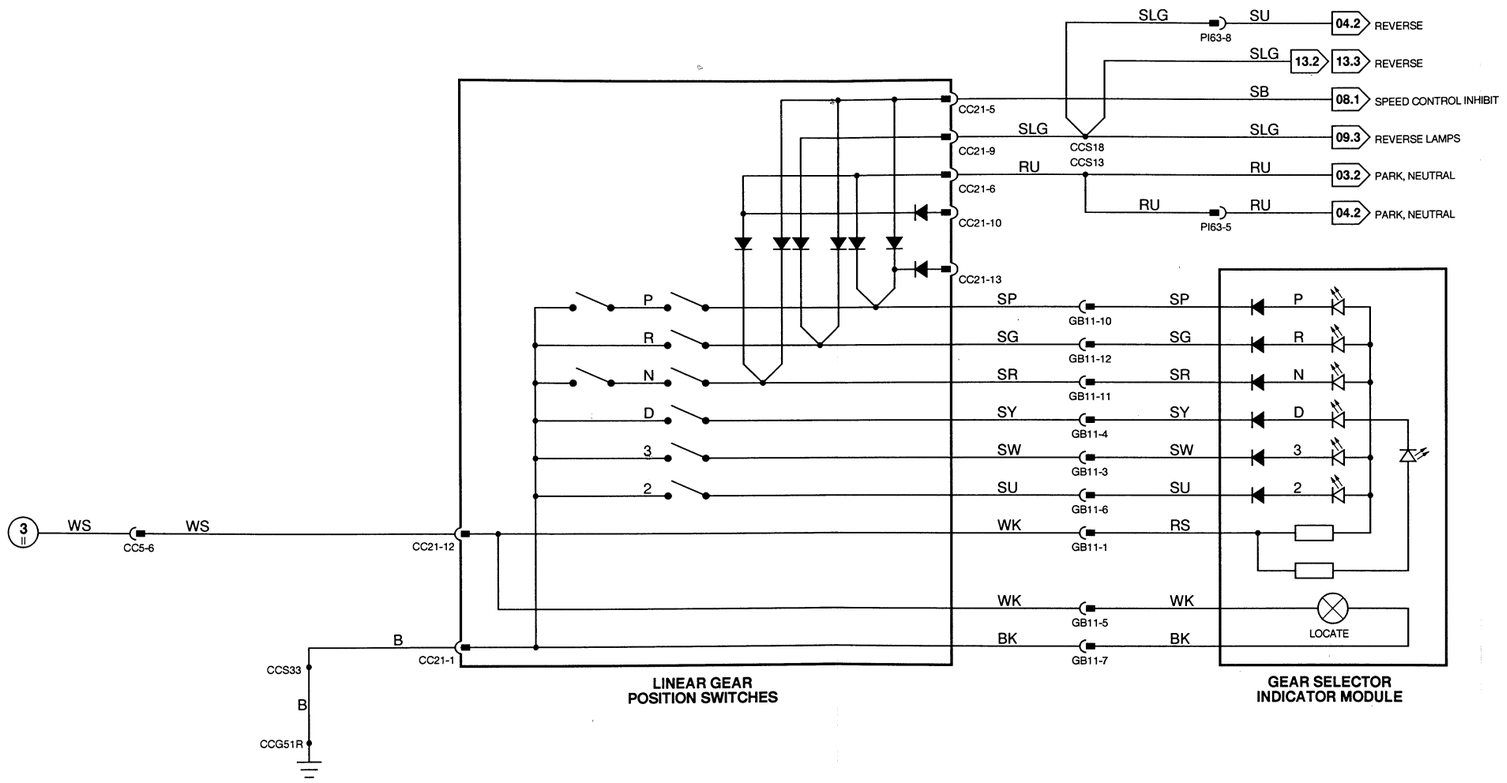
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM

GROUNDS

Ground	Location / Type
CCG51R	CENTER CONSOLE GROUND STUD

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: AJ16 3.2L Automatic Transmission Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 05.4

COMPONENTS

Component	Connector / Type / Color	Location / Access
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
GEAR SELECTOR INDICATOR MODULE (AJ16 3.2L, 4.0L SC; V12)	GB11 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
INPUT SPEED SENSOR	GB14 (FLY LEAD) / 3-WAY PACKARD / BLACK	TRANSMISSION, LH SIDE
KICKDOWN SWITCH	CA74 (RHD) (FLY LEAD) / 3-WAY MULTILOCK 070 / SLATE CC54 (LHD) (FLY LEAD) / 3-WAY MULTILOCK 070 / SLATE	UNDER ACCELERATOR
LINEAR GEAR POSITION SWITCHES	CC21 / 20-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
MODE SWITCH	CC11 / 6-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
OUTPUT SPEED SENSOR	GB13 (FLY LEAD) / 3-WAY PACKARD / BLACK	TRANSMISSION, LH SIDE
PRESSURE SWITCH MANIFOLD	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
SHIFT SOLENOID (A)	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
SHIFT SOLENOID (B)	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
TORQUE CONVERTER CLUTCH SOLENOID	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
TRANSMISSION CONTROL MODULE (V12 & AJ16 SC)	CC48 / 55-WAY AMP 55 / BLACK	PASSENGER'S UNDERSCUTTLE
TRANSMISSION TEMPERATURE SENSOR	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP
VARIABLE FORCE MOTOR	GB12 / 12-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC38	2-WAY MULTILOCK 070 / YELLOW	PASSENGER'S UNDERSCUTTLE
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
GB10	12-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE 'J' GATE / LH SIDE
GB15	8-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE 'J' GATE / LH SIDE
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM

GROUNDS

Ground	Location / Type
CAG30R	LH 'A' POST GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CCG51R	CENTER CONSOLE GROUND STUD
CCG8L	CENTER CONSOLE GROUND STUD
CCG8R	CENTER CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

TRANSMISSION CONTROL MODULE (V12)

▽	Pin	Description	Active	Inactive
I	CC48-3	PRESSURE SWITCH MANIFOLD	B+	B+
I	CC48-4	PRESSURE SWITCH MANIFOLD	B+	B+
I	CC48-5	MODE SWITCH	GROUND = SPORT	B+ = NORMAL
I	CC48-6	CALIBRATION SELECT LINK (DEALER FIT)	GROUND = (FITTED)	B+
O	CC48-7	TORQUE REDUCTION	GROUND PULSE @ SHIFT	11.5 V @ IDLE
I	CC48-11	THROTTLE POSITION	1.4 V @ IDLE	9 V @ FULL THROTTLE
I	CC48-12	ENGINE TORQUE	11.5 V @ IDLE, DECREASING WITH TORQUE INCREASE	
SG	CC48-14	TRANSMISSION TEMPERATURE SENSOR	GROUND	GROUND
D	CC48-16	SERIAL COMMUNICATION INPUT		
I	CC48-22	PRESSURE SWITCH MANIFOLD	GROUND	GROUND
I	CC48-23	TRACTION ACTIVE	GROUND	B+
I	CC48-24	KICK DOWN SWITCH	GROUND	B+
I	CC48-25	BRAKE SWITCH	GROUND	B+
I	CC48-26	TRANSMISSION TEMPERATURE SENSOR	1.93 V @ 90° C	
I	CC48-30	ENGINE SPEED SIGNAL	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
O	CC48-34	VEHICLE SPEED SIGNAL	GROUND	B+
SG	CC48-36	OUTPUT SPEED SENSOR	GROUND	GROUND
SG	CC48-37	INPUT SPEED SENSOR	GROUND	GROUND
O	CC48-39	SHIFT SOLENOID 'A'	GROUND = 1, 4	B+ = 2, 3
O	CC48-40	TRANSMISSION MIL	GROUND	B+
O	CC48-41	SPORT MODE INDICATOR LAMP	GROUND	B+
O	CC48-42	TORQUE CONVERTER CLUTCH SOLENOID	GROUND	B+
O	CC48-43	SHIFT SOLENOID 'B'	GROUND = 3, 4	B+ = 1, 2
D	CC48-45	SERIAL COMMUNICATION OUTPUT		
O	CC48-49	VARIABLE FORCE MOTOR	1.3 V @ IDLE, DECREASING WITH PRESSURE INCREASE	
I	CC48-50	INPUT SPEED SENSOR	GROUND @ 1000 RPM = 450 Hz, 2000 RPM = 900 Hz	
I	CC48-51	OUTPUT SPEED SENSOR	GROUND @ 10 MPH (16 KPH) = 300 Hz, 20 MPH (32 KPH) = 600 Hz	
O	CC48-52	VARIABLE FORCE MOTOR	7.7 V @ IDLE, DECREASING WITH PRESSURE INCREASE	

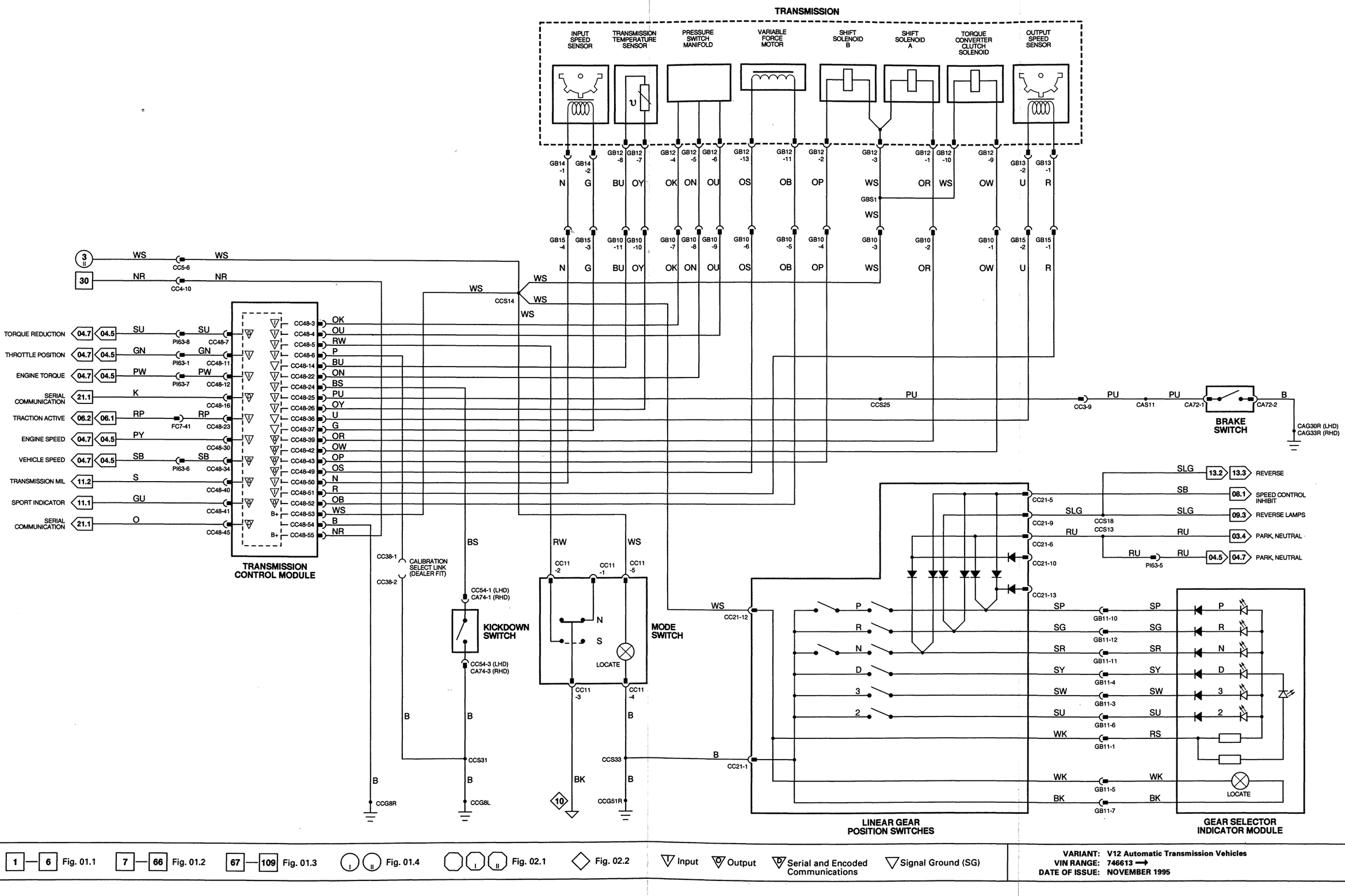
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: V12 Automatic Transmission Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 05.5

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
GEARSHIFT INTERLOCK SOLENOID	CC12 / MULTILOCK 070 / WHITE	'J' GATE / CENTER CONSOLE
KEYLOCK SOLENOID (COLUMN SWITCHGEAR)	SC6 / 2-WAY MULTILOCK 040 / BLUE	STEERING COLUMN / COVER
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
GEARSHIFT INTERLOCK RELAY	BLUE	CC23 / BLUE	CENTER CONSOLE
KEYLOCK SOLENOID RELAY	BLACK / BLUE	CC23 / BLUE	CENTER CONSOLE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
FC8	12-WAY MULTILOCK 040 / BLACK	DRIVER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30R	LH 'A' POST GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
CCG51R	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-25	KEY LOCK SOLENOID RELAY	GROUND	B+
O	FC1-28	GEARSHIFT INTERLOCK RELAY	GROUND	B+
I	FC2-16	NOT IN PARK MICRO SWITCH	GROUND	B+
I	FC2-31	IGNITION SWITCHED GROUND	GROUND	B+
I	FC2-35	BRAKE SWITCH	GROUND	B+

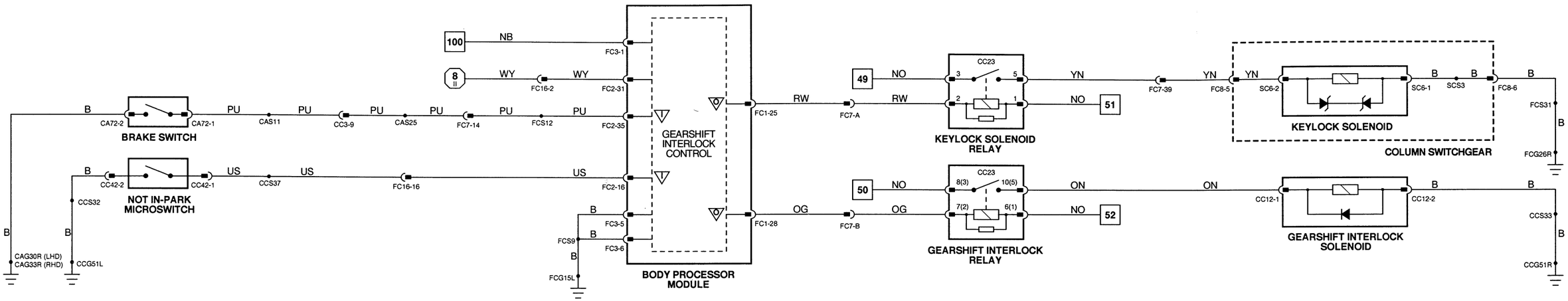
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	I II Fig. 01.4	I II Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)

VARIANT: All Automatic Transmission Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 06.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
ABS / TRACTION CONTROL CONTROL MODULE (LHD)	RS27 / 28-WAY FORD GTE / SLATE	ENGINE BAY / RH REAR
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
FASCIA SWITCH PACK	FC18 / 16-WAY MULTILOCK 040 / BLACK	STEERING COLUMN / DRIVER'S UNDERSCUTTLE
TRACTION CONTROL ACTUATOR (LHD)	RS39 (FLY LEAD) / 2-WAY FORD / BLACK RS50 / 3-WAY JUNIOR TIMER / BLACK	ENGINE BAY, LH REAR
WHEEL SPEED SENSOR – LH FRONT	LS34 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL
WHEEL SPEED SENSOR – LH REAR	CA48 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	LH REAR WHEEL
WHEEL SPEED SENSOR – RH FRONT	RS28 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	RH FRONT WHEEL
WHEEL SPEED SENSOR – RH REAR	CA47 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	RH REAR WHEEL

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC57	12-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG30R	LH 'A' POST GROUND SCREW
FCG26L	LH CONSOLE GROUND STUD
RSG41L	RIGHT FORWARD GROUND STUD
RSG41R	RIGHT FORWARD GROUND STUD
RSG42L	RH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

←

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ABS / TRACTION CONTROL CONTROL MODULE (LHD)

▽	Pin	Description	Active	Inactive
O	RS27-3	TRACTION CONTROL ACTIVE SIGNAL TO TCM	GROUND	B+
O	RS27-4	SPEED CONTROL INHIBIT REQUEST	GROUND	B+
I	RS27-5	LH FRONT WHEEL SPEED SENSOR	2.5 V @ 10 MPH (16 KPH) = 100 Hz; 20 MPH (32 KPH) = 200 Hz	
SG	RS27-6	LH FRONT WHEEL SPEED SENSOR GROUND	2.5 V (AT REST)	2.5 V
I	RS27-7	RH FRONT WHEEL SPEED SENSOR	2.5 V @ 10 MPH (16 KPH) = 100 Hz; 20 MPH (32 KPH) = 200 Hz	
SG	RS27-8	RH FRONT WHEEL SPEED SENSOR GROUND	2.5 V (AT REST)	2.5 V
I	RS27-9	LH REAR WHEEL SPEED SENSOR	2.5 V @ 10 MPH (16 KPH) = 100 Hz; 20 MPH (32 KPH) = 200 Hz	
SG	RS27-10	LH REAR WHEEL SPEED SENSOR GROUND	2.5 V (AT REST)	2.5 V
I	RS27-11	RH REAR WHEEL SPEED SENSOR	2.5 V @ 10 MPH (16 KPH) = 100 Hz; 20 MPH (32 KPH) = 200 Hz	
SG	RS27-12	RH REAR WHEEL SPEED SENSOR GROUND	2.5 V (AT REST)	2.5 V
O	RS27-16	TRACTION CONTROL ACTUATOR MOTOR	GROUND	7 V
O	RS27-17	TRACTION CONTROL ACTUATOR MOTOR	GROUND	7 V
I	RS27-18	TRACTION CONTROL INHIBIT SWITCH	GROUND	B+
I	RS27-20	BRAKE SWITCH INPUT	GROUND	B+
O	RS27-21	ABS FAILURE LAMP	GROUND	2.3 V
O	RS27-23	TRACTION INDICATOR LAMP	B+	FAILURE = GROUND TRACTION OFF = 4 Hz GROUND PULSE
O	RS27-24	VEHICLE SPEED SIGNAL	B+ @ 10 MPH (16 KPH) = 200 Hz; 20 MPH (32 KPH) = 400 Hz	
O	RS27-25	ACTUATOR POTENTIOMETER REFERENCE VOLTAGE	5 V	5 V
I	RS27-26	ACTUATOR POTENTIOMETER FEEDBACK	0 - 5 V (FLUCTUATING)	0.47 V (AT REST)
SG	RS27-27	ACTUATOR POTENTIOMETER REFERENCE GROUND	GROUND	GROUND
D	RS27-28	SERIAL COMMUNICATION (BI-DIRECTIONAL)		

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
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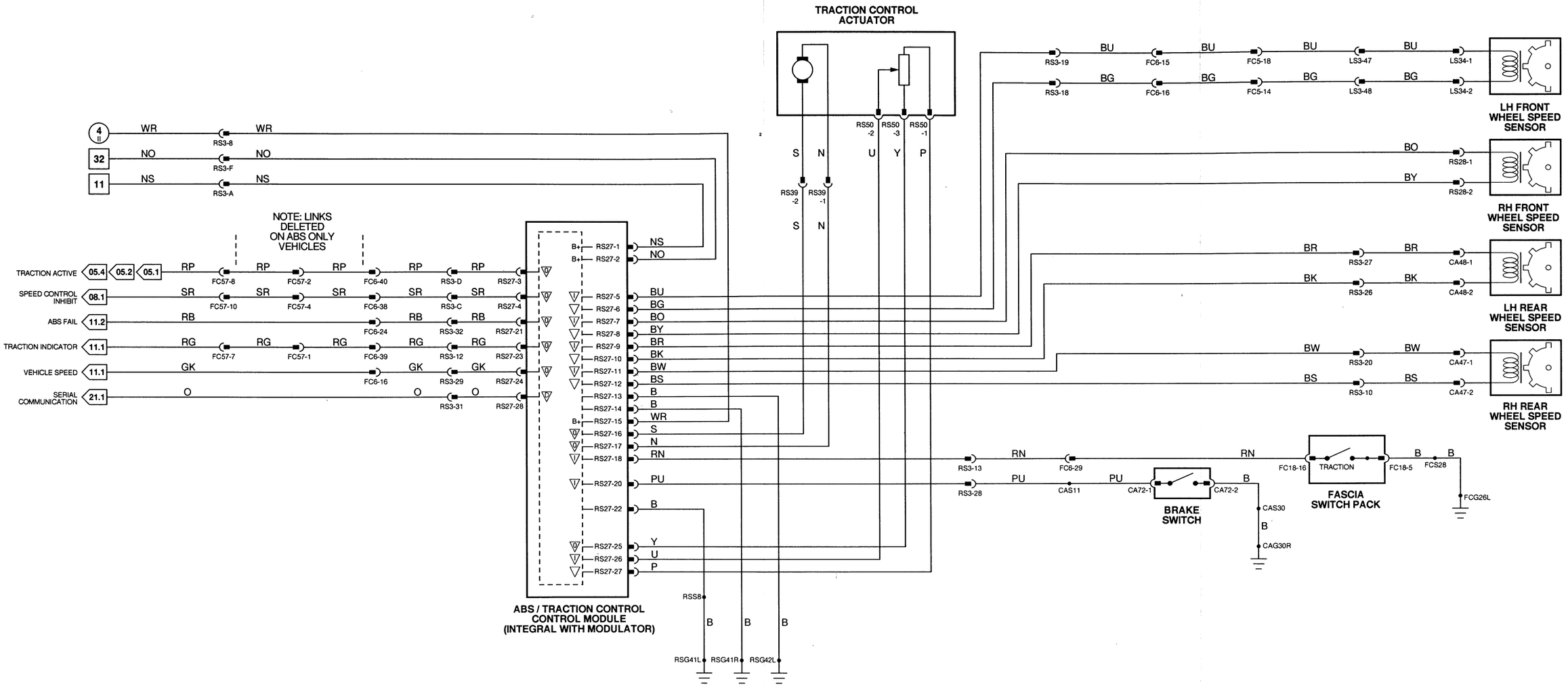

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: LHD Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 06.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
ABS / TRACTION CONTROL CONTROL MODULE (RHD)	LS27 / 28-WAY FORD GTE / SLATE	ENGINE BAY / LH REAR
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
FASCIA SWITCH PACK	FC18 / 16-WAY MULTILOCK 040 / BLACK	STEERING COLUMN / DRIVER'S UNDERSCUTTLE
TRACTION CONTROL ACTUATOR (RHD)	LS39 (FLY LEAD) / 2-WAY FORD / BLACK LS50 / 3-WAY JUNIOR TIMER / BLACK	ENGINE BAY, RH REAR
WHEEL SPEED SENSOR – LH FRONT	LS34 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL
WHEEL SPEED SENSOR – LH REAR	CA48 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	LH REAR WHEEL
WHEEL SPEED SENSOR – RH FRONT	RS28 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	RH FRONT WHEEL
WHEEL SPEED SENSOR – RH REAR	CA47 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	RH REAR WHEEL

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC57	12-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG33R	RH HEELBOARD GROUND SCREW
FCG26L	LH CONSOLE GROUND STUD
LSG10R	LEFT FORWARD GROUND STUD
LSG19R	LH BULKHEAD GROUND STUD
LSG51L	LH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ABS / TRACTION CONTROL CONTROL MODULE (RHD)

▽	Pin	Description	Active	Inactive
O	LS27-3	TRACTION CONTROL ACTIVE SIGNAL TO TCM	GROUND	B+
O	LS27-4	SPEED CONTROL INHIBIT REQUEST	GROUND	B+
I	LS27-5	LH FRONT WHEEL SPEED SENSOR	2.5 V @ 10 MPH (16 KPH) = 100 Hz; 20 MPH (32 KPH) = 200 Hz	
SG	LS27-6	LH FRONT WHEEL SPEED SENSOR GROUND	2.5 V (AT REST)	2.5 V
I	LS27-7	RH FRONT WHEEL SPEED SENSOR	2.5 V @ 10 MPH (16 KPH) = 100 Hz; 20 MPH (32 KPH) = 200 Hz	
SG	LS27-8	RH FRONT WHEEL SPEED SENSOR GROUND	2.5 V (AT REST)	2.5 V
I	LS27-9	LH REAR WHEEL SPEED SENSOR	2.5 V @ 10 MPH (16 KPH) = 100 Hz; 20 MPH (32 KPH) = 200 Hz	
SG	LS27-10	LH REAR WHEEL SPEED SENSOR GROUND	2.5 V (AT REST	2.5 V
I	LS27-11	RH REAR WHEEL SPEED SENSOR	2.5 V @ 10 MPH (16 KPH) = 100 Hz; 20 MPH (32 KPH) = 200 Hz	
SG	LS27-12	RH REAR WHEEL SPEED SENSOR GROUND	2.5 V (AT REST)	2.5 V
O	LS27-16	TRACTION CONTROL ACTUATOR MOTOR	GROUND	7 V
O	LS27-17	TRACTION CONTROL ACTUATOR MOTOR	GROUND	7 V
I	LS27-18	TRACTION CONTROL INHIBIT SWITCH	GROUND	B+
I	LS27-20	BRAKE SWITCH INPUT	GROUND	B+
O	LS27-21	ABS FAILURE LAMP	GROUND	2.3V
O	LS27-23	TRACTION INDICATOR LAMP	B+	FAILURE = GROUND TRACTION OFF = 4 Hz GROUND PULSE
O	LS27-24	VEHICLE SPEED SIGNAL	B+ @ 10 MPH (16 KPH) = 200 Hz; 20 MPH (32 KPH) = 400 Hz	
O	LS27-25	ACTUATOR POTENTIOMETER REFERENCE VOLTAGE	5 V	5 V
I	LS27-26	ACTUATOR POTENTIOMETER FEEDBACK	0 – 5 V (FLUCTUATING)	0.47 V (AT REST)
SG	LS27-27	ACTUATOR POTENTIOMETER REFERENCE GROUND	GROUND	GROUND
D	LS27-28	SERIAL COMMUNICATION (BI-DIRECTIONAL)		

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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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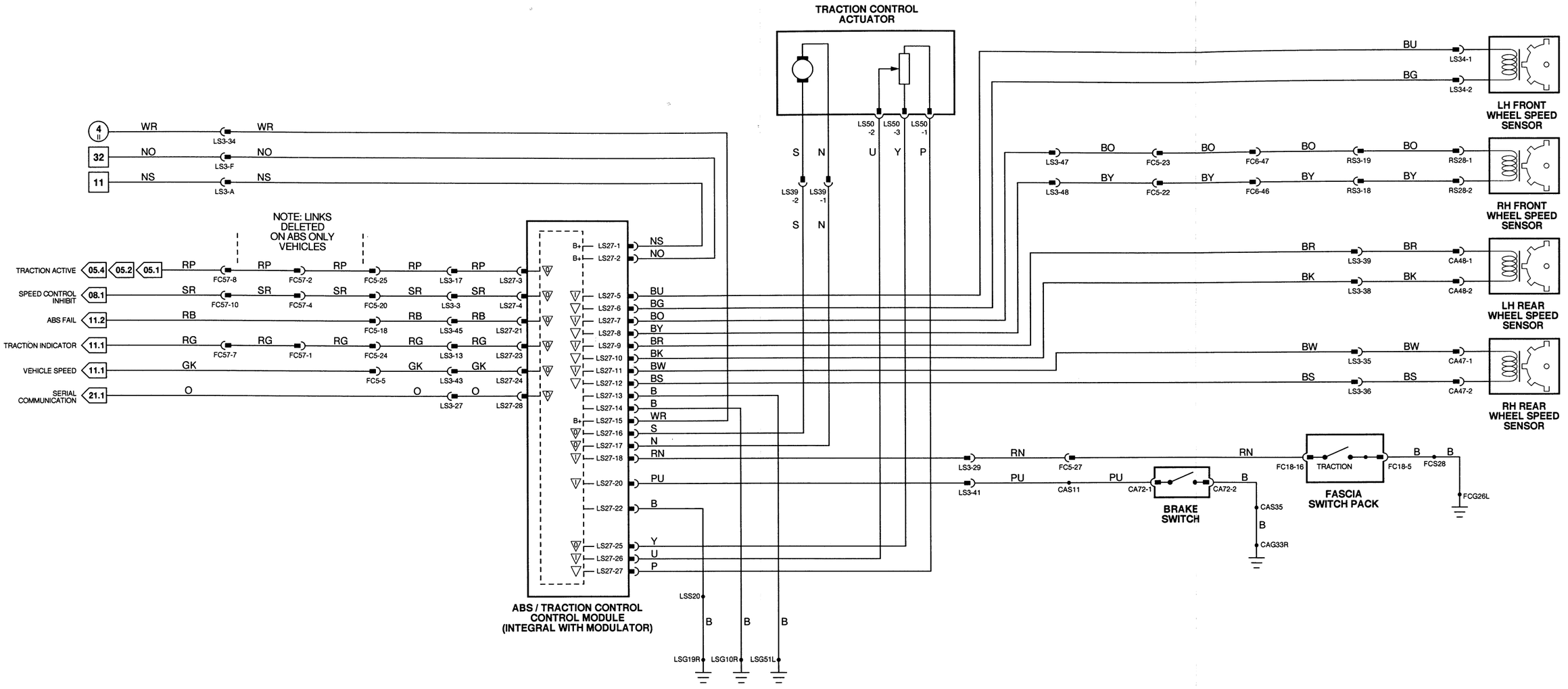


1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | I II Fig. 01.4 | I II Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: RHD Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 07.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING COMPRESSOR CLUTCH	PI138/ 3-WAY JUNIOR TIMER / BLACK	A/C COMPRESSOR
AIR CONDITIONING CONTROL MODULE	CC28 / 26-WAY MULTILOCK 47 / SLATE CC29 / 16-WAY MULTILOCK 47 / SLATE CC30 / 12-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 47 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
ENGINE CONTROL MODULE (AJ16)	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 / 36-WAY ECONOSEAL III / RED	RH 'A' POST / 'A' POST TRIM
FAN CONTROL RELAY MODULE	LS18 / 8-WAY TRW / BLACK	BELOW LH HEADLAMPS
RADIATOR COOLING FAN (LH)	CF1 / 2-WAY REINSHAGEN / BLACK	ENGINE BAY, FRONT
RADIATOR COOLING FAN (RH)	CF2 / 2-WAY REINSHAGEN / BLACK	ENGINE BAY, FRONT
RADIATOR THERMOSTATIC SWITCH	LS12 /3-WAY JUNIOR TIMER / BLACK	RADIATOR, LOWER LH SIDE
REFRIGERANT SINGLE PRESSURE SWITCH	PI102 (FLY LEAD) / 2-WAY ECONOSEAL III LC / WHITE	ENGINE BAY, RH REAR
REFRIGERANT TRIPLE PRESSURE SWITCH	PI103 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	ENGINE BAY, RH REAR
SUPERCHARGER INTERCOOLER COOLANT PUMP	PI143 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE BAY, LH FRONT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
AIR CONDITIONING CLUTCH RELAY	BLACK / WHITE	PI145 / BLACK	RH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
LS11	4-WAY ECONOSEAL III HC / BLACK	SPOILER, LH SIDE / SPOILER
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI59	13-WAY ECONOSEAL III LC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
LSG10L	LEFT FORWARD GROUND STUD
LSG10R	LEFT FORWARD GROUND STUD
LSG51R	LH BULKHEAD GROUND STUD
LSG52R	LEFT FORWARD GROUND STUD
PIG153R	RH BULKHEAD GROUND STUD
PIG154L	LEFT FORWARD GROUND STUD
PIG154R	LEFT FORWARD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

AIR CONDITIONING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CC28-1	COMPRESSOR CLUTCH ON SIGNAL	B+	GROUND
O	CC31-9	COMPRESSOR CLUTCH REQUEST	GROUND	B+
I	CC31-17	REFRIGERANT TRIPLE PRESSURE SWITCH – 4.0L REFRIGERANT DUAL PRESSURE SWITCH – V12	GROUND	B+

ENGINE CONTROL MODULE (AJ16)

▽	Pin	Description	Active	Inactive
O	PI104-21	AIR CONDITIONING CLUTCH RELAY	GROUND	B+
I	PI105-36	AIR CONDITIONING REQUEST	GROUND	B+

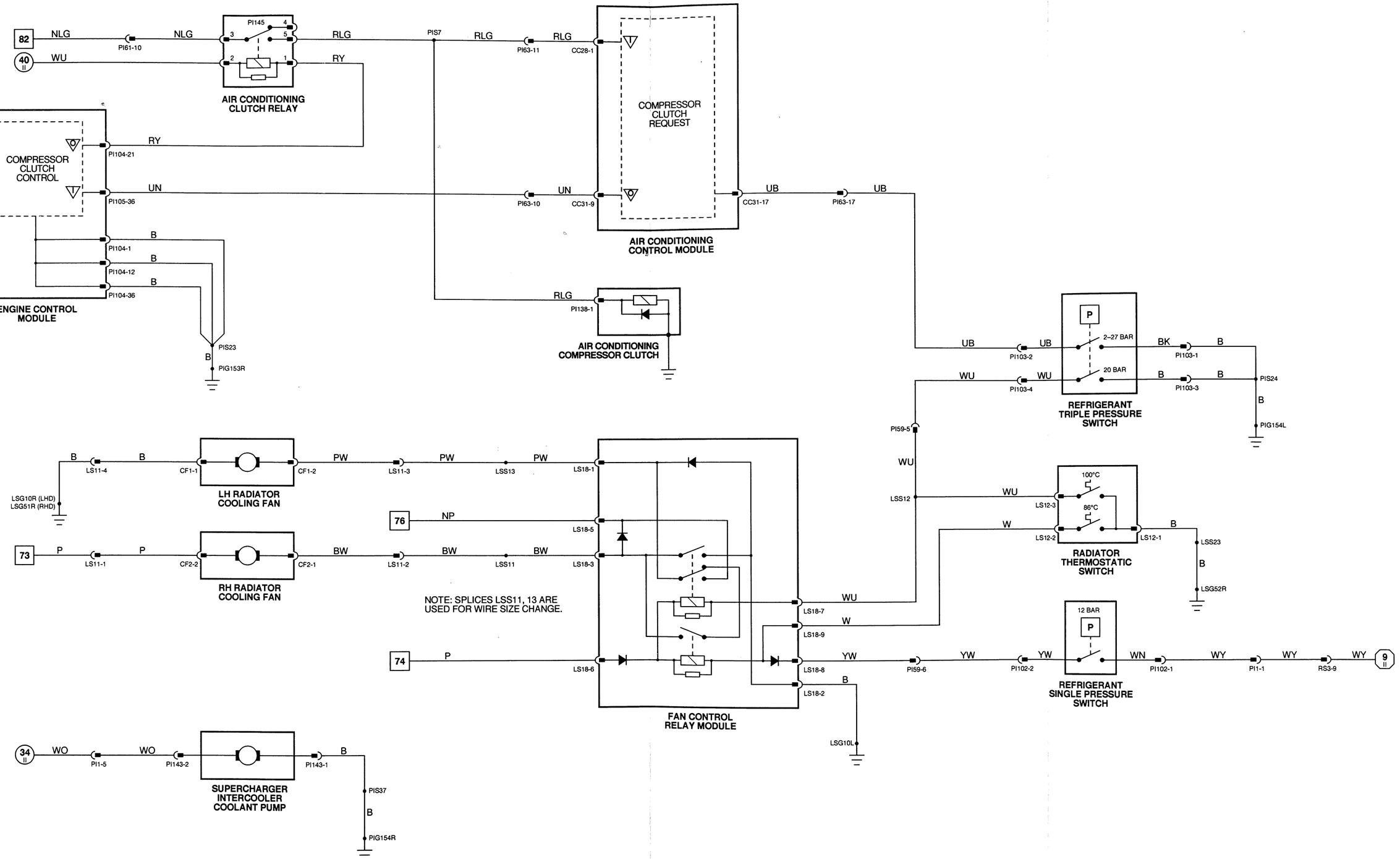
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: AJ16 Vehicles
VIN RANGE: 746613 →
DATE OF ISSUE: NOVEMBER 1995

Fig. 07.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING COMPRESSOR CLUTCH	PI16/ 3-WAY JUNIOR TIMER / BLACK	A/C COMPRESSOR
AIR CONDITIONING CONTROL MODULE	CC28 / 26-WAY MULTILOCK 47 / SLATE CC29 / 16-WAY MULTILOCK 47 / SLATE CC30 / 12-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 47 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 / SLATE PI45 / 16-WAY MULTILOCK 040 / SLATE PI46 / 22-WAY MULTILOCK 040 / SLATE PI47 / 34-WAY MULTILOCK 040 / SLATE	RH 'A' POST / 'A' POST TRIM
FAN CONTROL RELAY MODULE	LS18 / 8-WAY TRW / BLACK	BELOW LH HEADLAMPS
RADIATOR COOLING FAN (LH)	CF1 / 2-WAY REINSHAGEN / BLACK	ENGINE BAY, FRONT
RADIATOR COOLING FAN (RH)	CF2 / 2-WAY REINSHAGEN / BLACK	ENGINE BAY, FRONT
RADIATOR THERMOSTATIC SWITCH	LS12 /3-WAY JUNIOR TIMER / BLACK	RADIATOR, LOWER LH SIDE
REFRIGERANT DUAL PRESSURE SWITCH	PI54 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE BAY, RH REAR

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
AIR CONDITIONING CLUTCH RELAY	BLACK / WHITE	PI17 / BLACK	RH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
LS11	4-WAY ECONOSEAL III HC / BLACK	SPOILER, LH SIDE / SPOILER
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM

GROUNDS

Ground	Location / Type
LSG10L	LEFT FORWARD GROUND STUD
LSG10R	LEFT FORWARD GROUND STUD
LSG51R	LH BULKHEAD GROUND STUD
LSG52R	LEFT FORWARD GROUND STUD
PIG75R	RH 'A' POSTGROUND STUD
PIG77R	RIGHT FORWARD EMS GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

AIR CONDITIONING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CC28-1	COMPRESSOR CLUTCH ON SIGNAL	B+	GROUND
O	CC31-9	COMPRESSOR CLUTCH REQUEST	GROUND	B+
I	CC31-17	REFRIGERANT TRIPLE PRESSURE SWITCH - 4.0L REFRIGERANT DUAL PRESSURE SWITCH - V12	GROUND	B+

ENGINE CONTROL MODULE (V12)

▽	Pin	Description	Active	Inactive
I	PI44-13	AIR CONDITIONING REQUEST	B+	GROUND
O	PI46-16	AIR CONDITIONING CLUTCH RELAY	GROUND	B+

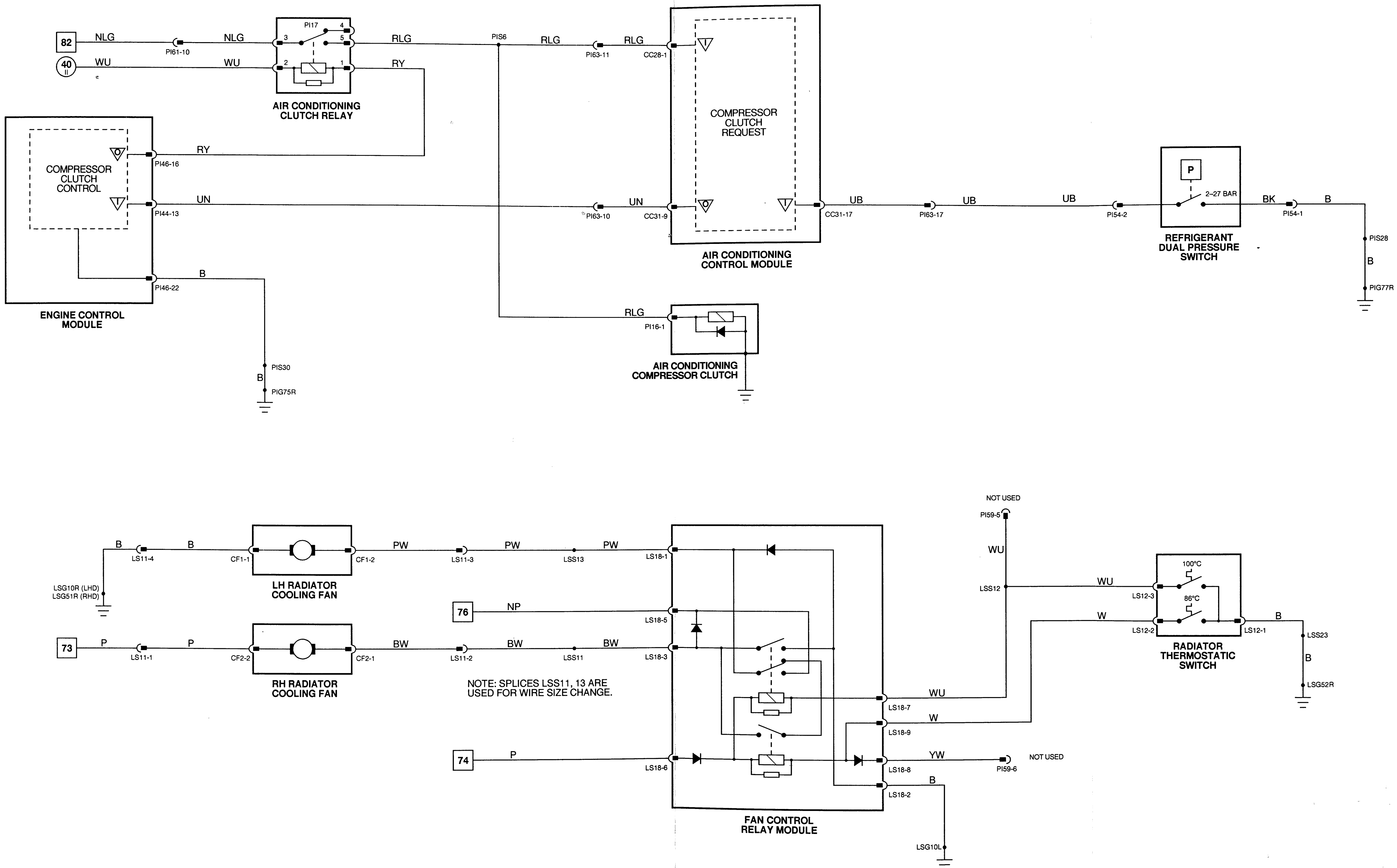
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 7 — 66 Fig. 01.2 67 — 109 Fig. 01.3 (I) (II) Fig. 01.4 Fig. 02.1 Fig. 02.2 Input Output Serial and Encoded Communications Signal Ground (SG)

VARIANT: V12 Vehicles
VIN RANGE: 746613 →
DATE OF ISSUE: NOVEMBER 1995

Fig. 08.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CLUTCH SWITCH (MANUAL TRANSMISSION)	CA73 / 2-WAY MULTILOCK 070 / YELLOW	ABOVE CLUTCH PEDAL
CLUTCH SWITCH LINK (AUTOMATIC TRANSMISSION)	CA73 / 2-WAY MULTILOCK 070 / YELLOW	DRIVER'S UNDERSCUTTLE
DUMP VALVE	LS22 / 2-WAY ECONOSEAL III LC / BLACK	BELOW LH FRONT RELAYS
SPEED CONTROL CONTROL MODULE	FC17 / 20-WAY PCB / BLACK	DRIVER'S UNDERSCUTTLE
SPEED CONTROL BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
SPEED CONTROL SWITCHES	FC18 / 16-WAY MULTILOCK 040 / BLACK	FASCIA SWITCH PACK
VACUUM PUMP AND CONTROL VALVE	LS23 / 3-WAY SPEED CONTROL / BLACK	ENGINE BAY, LH FRONT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG30R	LH 'A' POST GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
FCG26L	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

SPEED CONTROL CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	FC17-3	DUMP VALVE, VACUUM PUMP & CONTROL VALVE POWER FEED	B+	B+
I	FC17-6	VEHICLE SPEED INPUT	GROUND @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
I	FC17-9	ANTI-LOCK / TRACTION ACTIVE INHIBIT	GROUND	B+
O	FC17-10	CONTROL VALVE GROUND	GROUND	GROUND
I	FC17-12	SPEED CONTROL BRAKE / CLUTCH SWITCH	B+	GROUND
O	FC17-14	DUMP VALVE GROUND	GROUND	B+
I	FC17-15	BRAKE LIGHT SWITCH	GROUND	B+
I	FC17-17	SET / ACCELERATE / RESUME SWITCH	SET / ACCELERATE = 2.7 V, RESUME / COAST = 5.5 V	
I	FC17-18	PARK / NEUTRAL SPEED CONTROL INHIBIT	GROUND = D, 3, 2	B+ = P, R, N
O	FC17-20	VACUUM PUMP GROUND	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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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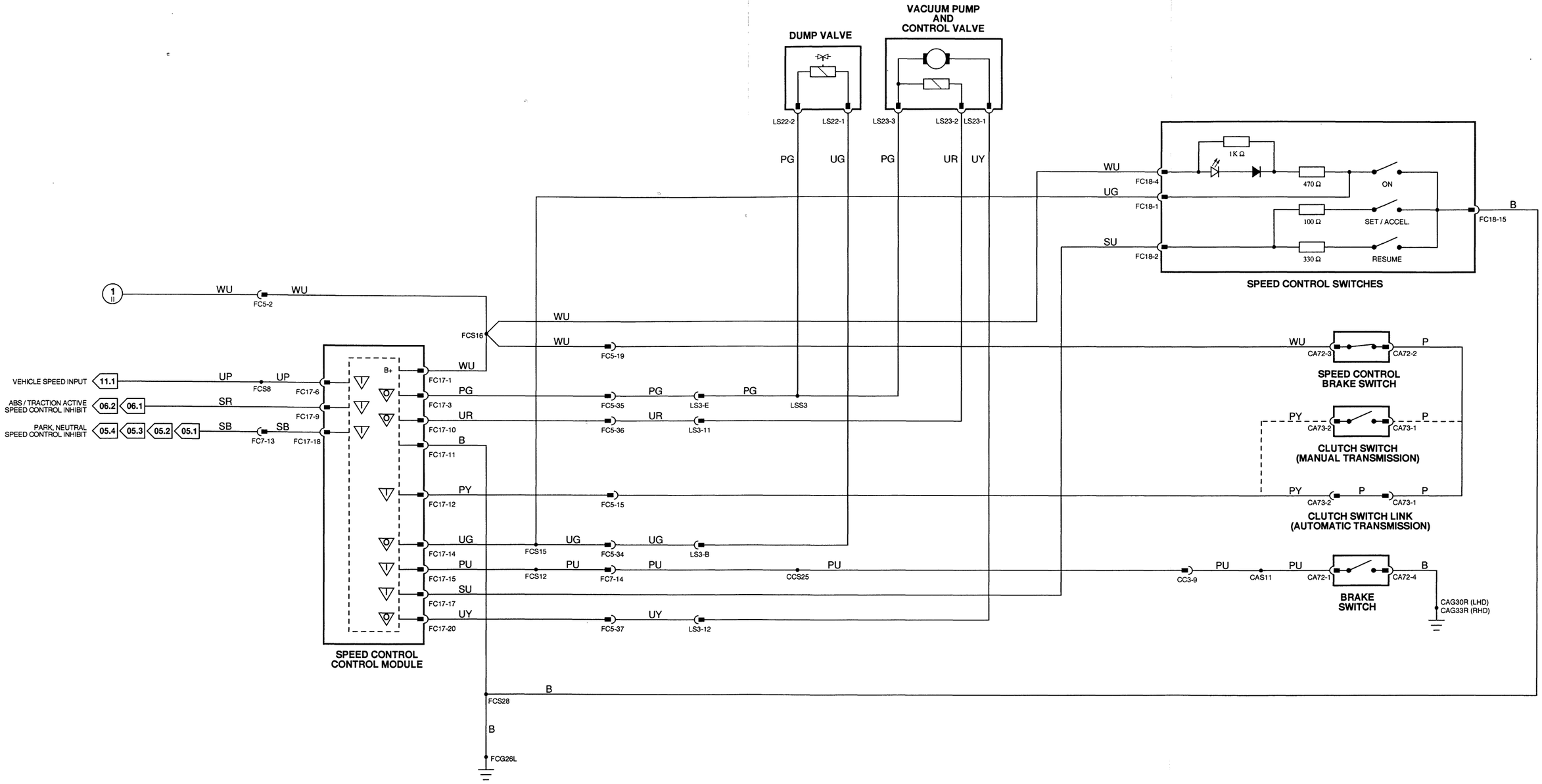

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | I II Fig. 01.4 | I II Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 09.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
FOG LAMP – LH	BL4 / 2-WAY JUNIOR TIMER / BLACK	LH REAR LAMP UNIT
FOG LAMP – RH	BR4 / 2-WAY JUNIOR TIMER / BLACK	RH REAR LAMP UNIT
HEADLAMP FLASH SWITCH (COLUMN SWITCHGEAR)	SC3 / 6-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
HEADLAMP – LH	LS38 / 6-WAY ECONOSEAL III LC / BLACK	LH HEADLAMP
HEADLAMP – RH	RS38 / 6-WAY ECONOSEAL III LC / BLACK	RH HEADLAMP
LIGHTING SWITCHES	FC12 / 16-WAY MULTILOCK 040 / BLUE	FASCIA SWITCH PACK
SIDE MARKER LAMP – LH (NAS ONLY)	BL5 / 2-WAY JUNIOR TIMER / BLACK	LH FRONT LAMP UNIT
SIDE MARKER LAMP – RH (NAS ONLY)	BR5 / 2-WAY JUNIOR TIMER / BLACK	RH FRONT LAMP UNIT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
DIP RELAY – LH	BLACK	LS54 / BLACK	ENGINE BAY, LH FRONT
DIP RELAY – RH	BLACK	RS47 / BLACK	ENGINE BAY, RH FRONT
FRONT FOG LAMP RELAY	BLACK	LS55 / BLACK	ENGINE BAY, LH FRONT
MAIN BEAM RELAY	BLACK	RS46 / BLACK	ENGINE BAY, RH FRONT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BL1	13-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
BR1	15-WAY ECONOSEAL III LC / BLACK	RH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
FC4	20-WAY MULTILOCK 040 / BLUE	DRIVER'S UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST/ 'A' POST PANEL
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI59	13-WAY ECONOSEAL III LC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST/ 'A' POST PANEL

GROUNDS

Ground	Location / Type
FCG15L	LH CONSOLE GROUND STUD
LSG52L	LEFT FORWARD GROUND STUD
RSG8R	RIGHT FORWARD GROUND STUD
RSG41R	RIGHT FORWARD GROUND STUD
RSG42R	RH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-18	FRONT FOG LAMPS AND STATE LAMP ON	GROUND	B+
O	FC1-29	LH DIPPED BEAM ON	GROUND	B+
O	FC1-32	HEADLAMP MAIN BEAM INDICATOR	GROUND	B+
O	FC1-39	RH DIPPED BEAM ON	GROUND	B+
O	FC1-41	MAIN BEAM ON	GROUND	B+
I	FC2-3	SIDE LAMPS ON	GROUND	B+
I	FC2-6	HEADLAMP CONVENIENCE	GROUND PULSE	B+
I	FC2-31	IGNITION SWITCHED GROUND	GROUND	B+
I	FC2-37	HEADLAMP FLASH SWITCH	GROUND	B+
I	FC2-40	HEADLAMPS ON	GROUND	B+
I	FC2-43	FRONT FOG LAMPS	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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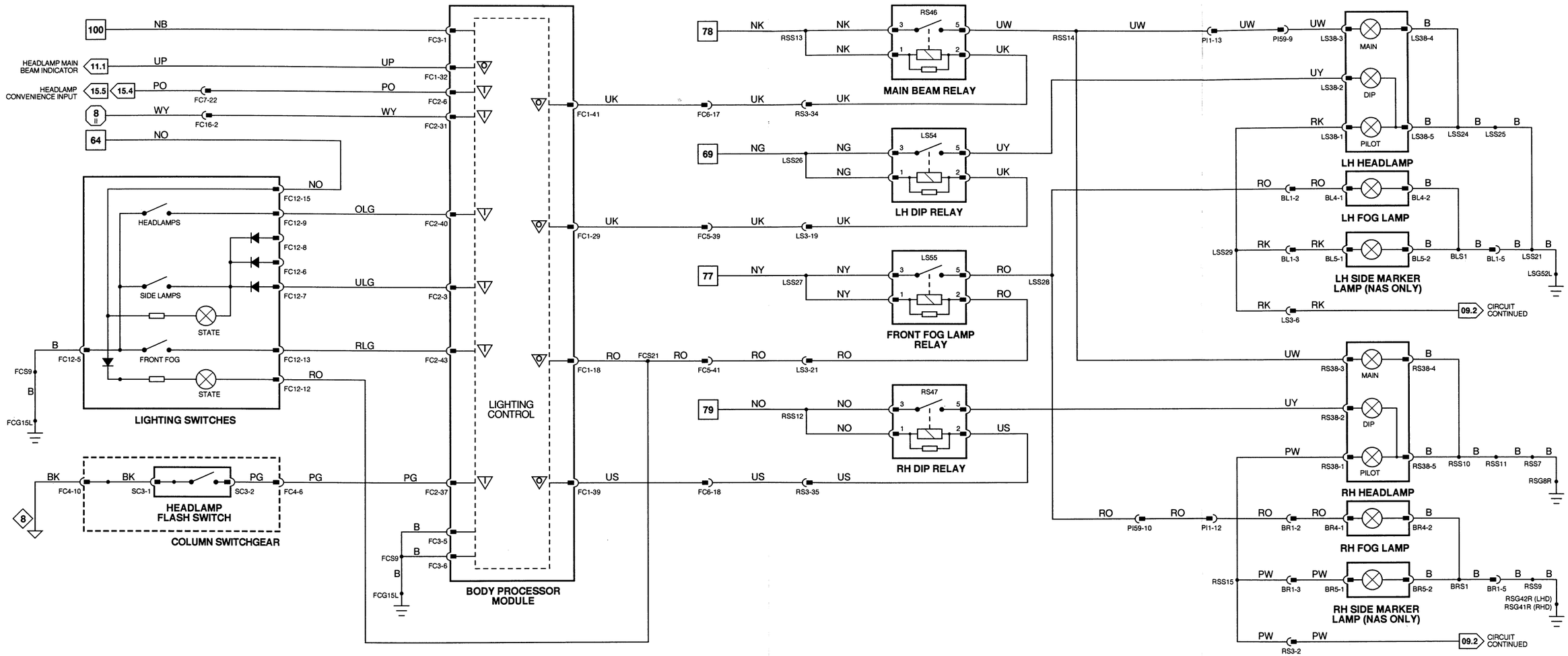

NOTE: DAYTIME RUNNING LAMPS – BPM CONTROLLED (PECUS)

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: NAS Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 09.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
LAMP CONTROL MODULE	BT20 / 18-WAY MULTILOCK 070 / WHITE BT21 / 20-WAY MULTILOCK 040 / BLACK	TRUNK ELECTRICAL CARRIER
LIGHTING SWITCHES	FC12 / 16-WAY MULTILOCK 040 / BLUE	FASCIA SWITCH PACK
NUMBER PLATE LAMP – LH	BT27 / 2-WAY POSILOCK / BLACK	TRUNK LID / TRUNK LID TRIM
NUMBER PLATE LAMP – RH	BT11 / 2-WAY POSILOCK / BLACK	TRUNK LID / TRUNK LID TRIM
SIDE MARKER LAMP – LH	SR1-L / 2-WAY JUNIOR TIMER / BLACK	LH FRONT LAMP UNIT
SIDE MARKER LAMP – RH	SR1-R / 2-WAY JUNIOR TIMER / BLACK	RH FRONT LAMP UNIT
TAIL LAMP UNIT – LH	TL4 / 7-WAY JUNIOR TIMER / BLACK	LH REAR / TRUNK TRIM
TAIL LAMP UNIT – RH	TL3 / 7-WAY JUNIOR TIMER / BLACK	RH REAR / TRUNK TRIM

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
BT50	18-WAY MULTILOCK 070 / WHITE	ADJACENT TO TRUNK FUSE BOX
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST
TL5	2-WAY MULTILOCK 040 / GREEN	ADJACENT TO RH TAIL LAMP CLUSTER
TL6	2-WAY MULTILOCK 040 / GREEN	ADJACENT TO LH TAIL LAMP CLUSTER

GROUNDS

Ground	Location / Type
BTG48L	REAR TRUNK GROUND STUD
BTG49L	REAR TRUNK GROUND STUD
FCG15L	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-14	LH PILOT BEAM, SIDE LAMPS AND TAIL LAMPS ON	GROUND	B+
O	FC1-47	REAR FOG LAMPS AND STATE LAMP ON	GROUND	B+
I	FC2-3	SIDE LAMPS ON	GROUND	B+
I	FC2-31	IGNITION SWITCHED GROUND	GROUND	B+
I	FC2-45	REAR FOG GUARD LAMP REQUEST	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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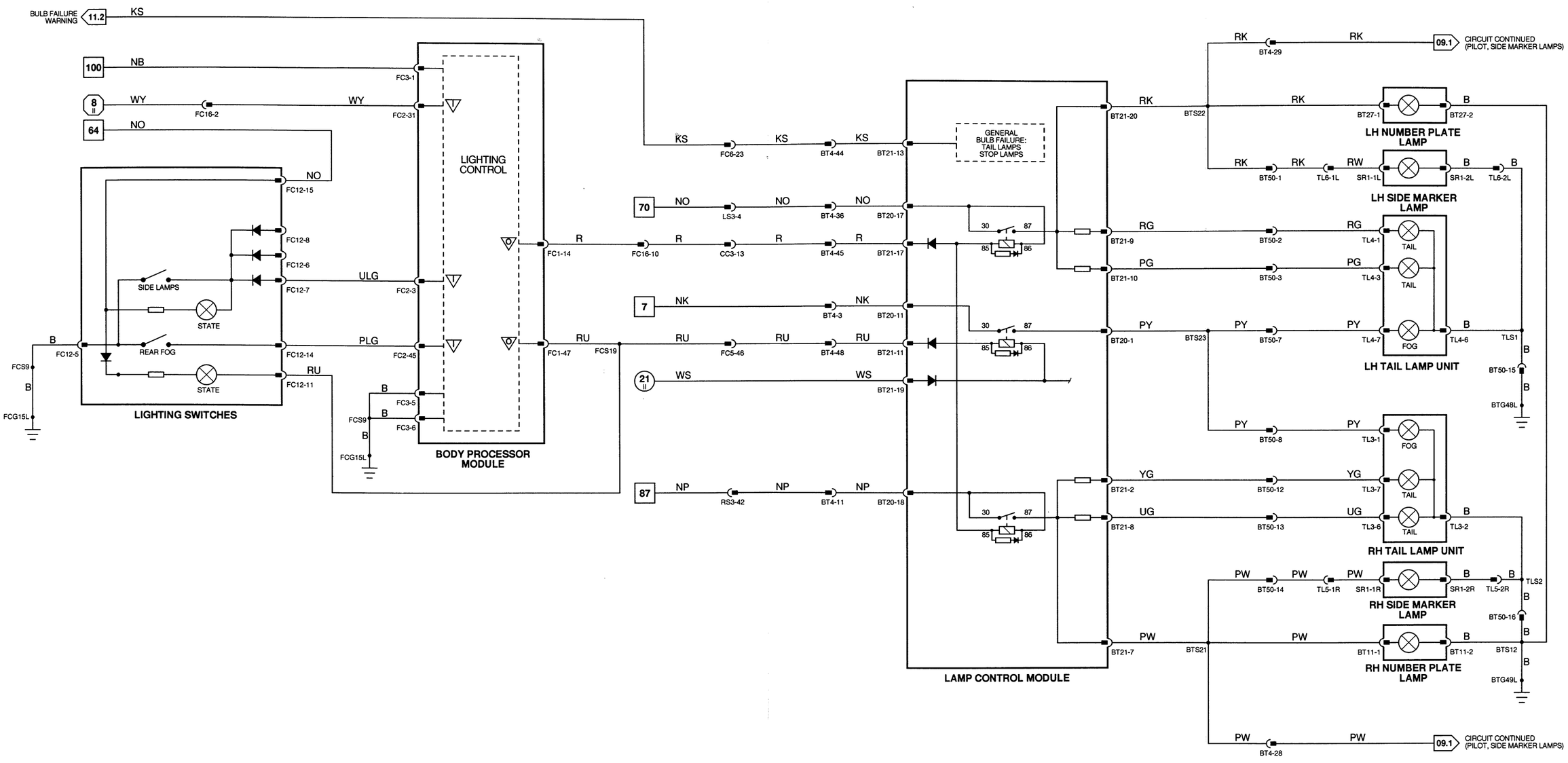


1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 09.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
DIODE (BT51) – HIGH MOUNTED STOP LAMP	BT51 / DIODE / BLACK	TRUNK HARNESS, ADJACENT TO BATTERY / RH FLOOR PANEL
HIGH MOUNTED STOP LAMP	CA35 / 3-WAY MT EDGE / SLATE	BACKLIGHT
LAMP CONTROL MODULE	BT20 / 18-WAY MULTILOCK 070 / WHITE BT21 / 20-WAY MULTILOCK 040 / BLACK	TRUNK ELECTRICAL CARRIER
LINEAR GEAR POSITION SWITCHES	CC21 / 20-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
REVERSE SWITCH (AJ16 MANUAL)	CC45 / 2-WAY SUMITOMO / WHITE	TRANSMISSION TUNNEL / CENTER CONSOLE
ROTARY SWITCH	GB1 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE GB2 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
TAIL LAMP UNIT – LH	TL4 / 7-WAY JUNIOR TIMER / BLACK	LH REAR / TRUNK TRIM
TAIL LAMP UNIT – RH	TL3 / 7-WAY JUNIOR TIMER / BLACK	RH REAR / TRUNK TRIM

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
HIGH MOUNTED STOP LAMP RELAY	BLACK / VIOLET	BT13 / RED	TRUNK ELECTRICAL CARRIER

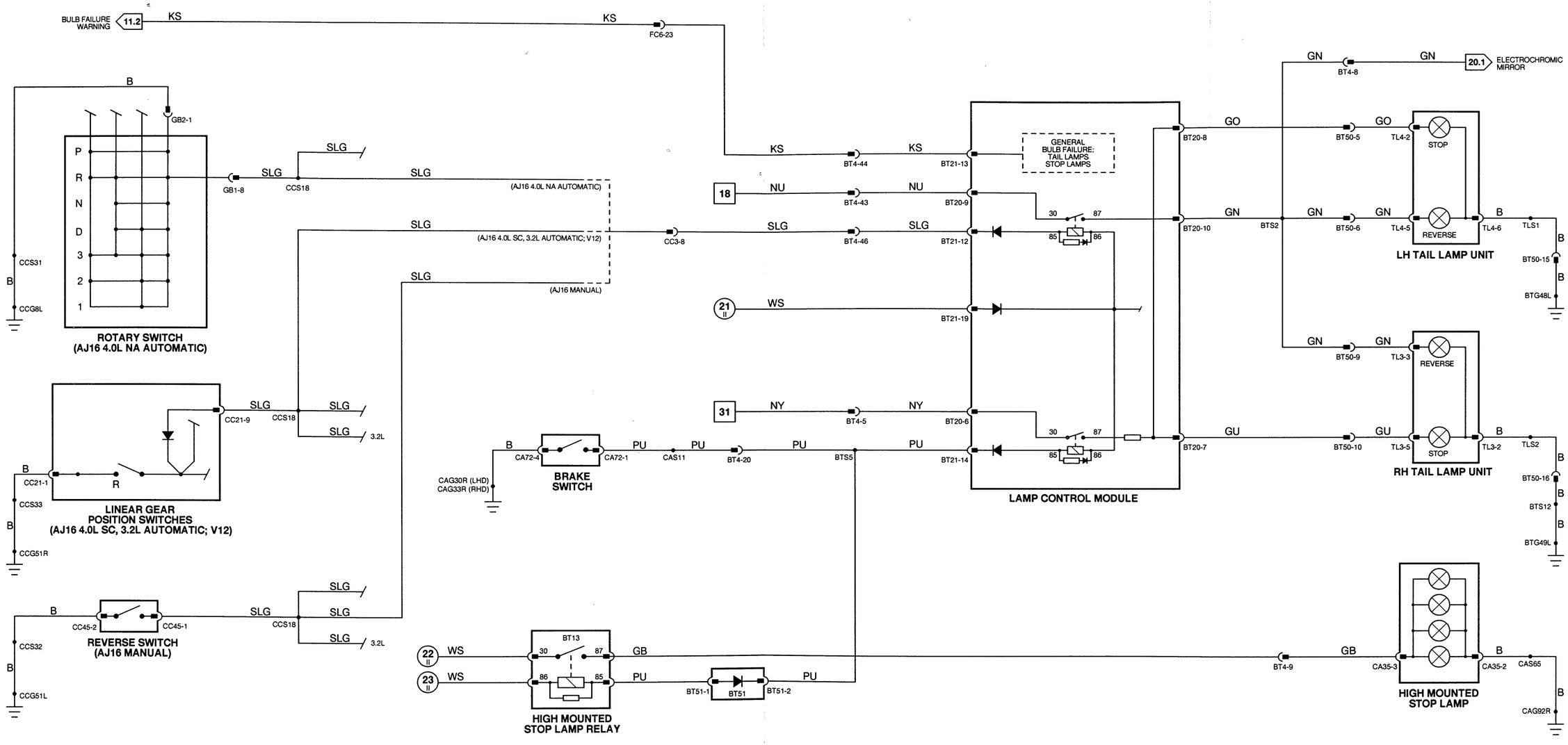
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
BT50	18-WAY MULTILOCK 070 / WHITE	ADJACENT TO TRUNK FUSE BOX
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT

GROUNDS

Ground	Location / Type
BTG18L	REAR TRUNK GROUND STUD
BTG49L	REAR TRUNK GROUND STUD
CAG30R	LH 'A' POST GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
CCG51R	CENTER CONSOLE GROUND STUD
CCG8L	CENTER CONSOLE GROUND STUD

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 09.4

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DIODE (FC59) – RH DI INDICATOR	FC59 / DIODE / BLACK	FASCIA HARNESS / INSTRUMENT PACK
DIODE (FC60) – LH DI INDICATOR	FC60 / DIODE / BLACK	FASCIA HARNESS / INSTRUMENT PACK
DIRECTION INDICATOR SWITCHES (COLUMN SWITCHGEAR)	SC3 / 6-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
DIRECTION INDICATORS – LH FRONT	BL2 / 3-WAY JUNIOR TIMER / BLACK	LH FRONT / SPOILER
DIRECTION INDICATORS – RH FRONT	BR2 / 3-WAY JUNIOR TIMER / BLACK	RH FRONT / SPOILER
LAMP CONTROL MODULE	BT20 / 18-WAY MULTILOCK 070 / WHITE BT21 / 20-WAY MULTILOCK 040 / BLACK	TRUNK ELECTRICAL CARRIER
REPEATER – LH FRONT	LS17 / 2-WAY JUNIOR TIMER / BLACK	LH FRONT FENDER
REPEATER – RH FRONT	RS12 / 2-WAY JUNIOR TIMER / BLACK	RH FRONT FENDER
TAIL LAMP UNIT – LH	TL4 / 7-WAY JUNIOR TIMER / BLACK	LH REAR / TRUNK TRIM
TAIL LAMP UNIT – RH	TL3 / 7-WAY JUNIOR TIMER / BLACK	RH REAR / TRUNK TRIM

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BL1	13-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
BR1	15-WAY ECONOSEAL III LC / BLACK	RH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
BT50	18-WAY MULTILOCK 070 / WHITE	ADJACENT TO TRUNK FUSE BOX
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
FC4	20-WAY MULTILOCK 040 / BLUE	DRIVER'S UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST/ 'A' POST PANEL
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST/ 'A' POST PANEL

GROUNDS

Ground	Location / Type
BTG48L	REAR TRUNK GROUND STUD
BTG48R	REAR TRUNK GROUND STUD
BTG49L	REAR TRUNK GROUND STUD
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
LSG19R	LH BULKHEAD GROUND STUD
LSG52L	LEFT FORWARD GROUND STUD
RSG41R	RIGHT FORWARD GROUND STUD
RSG42R	RH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-17	LH DI INDICATOR	GROUND PULSE	B+
O	FC1-19	RH DI INDICATOR	GROUND PULSE	B+
O	FC1-38	HAZARD WARNING STATE LAMP	GROUND PULSE	B+
O	FC1-46	DI BULB FAIL WARNING LAMP	GROUND	B+
I	FC2-10	LH DI BULB FAILURE	GROUND	B+
I	FC2-18	RH DI REQUEST	GROUND	B+
I	FC2-27	HAZARD LAMPS REQUEST	GROUND	B+
I	FC2-31	IGNITION SWITCHED GROUND	GROUND	B+
I	FC2-34	RH DI FAILURE	GROUND	B+
I	FC2-42	RH GROUND DISCONNECT LOOP	GROUND	B+
I	FC2-44	LH GROUND DISCONNECT LOOP	GROUND	B+
I	FC2-46	LH DI REQUEST	GROUND	B+

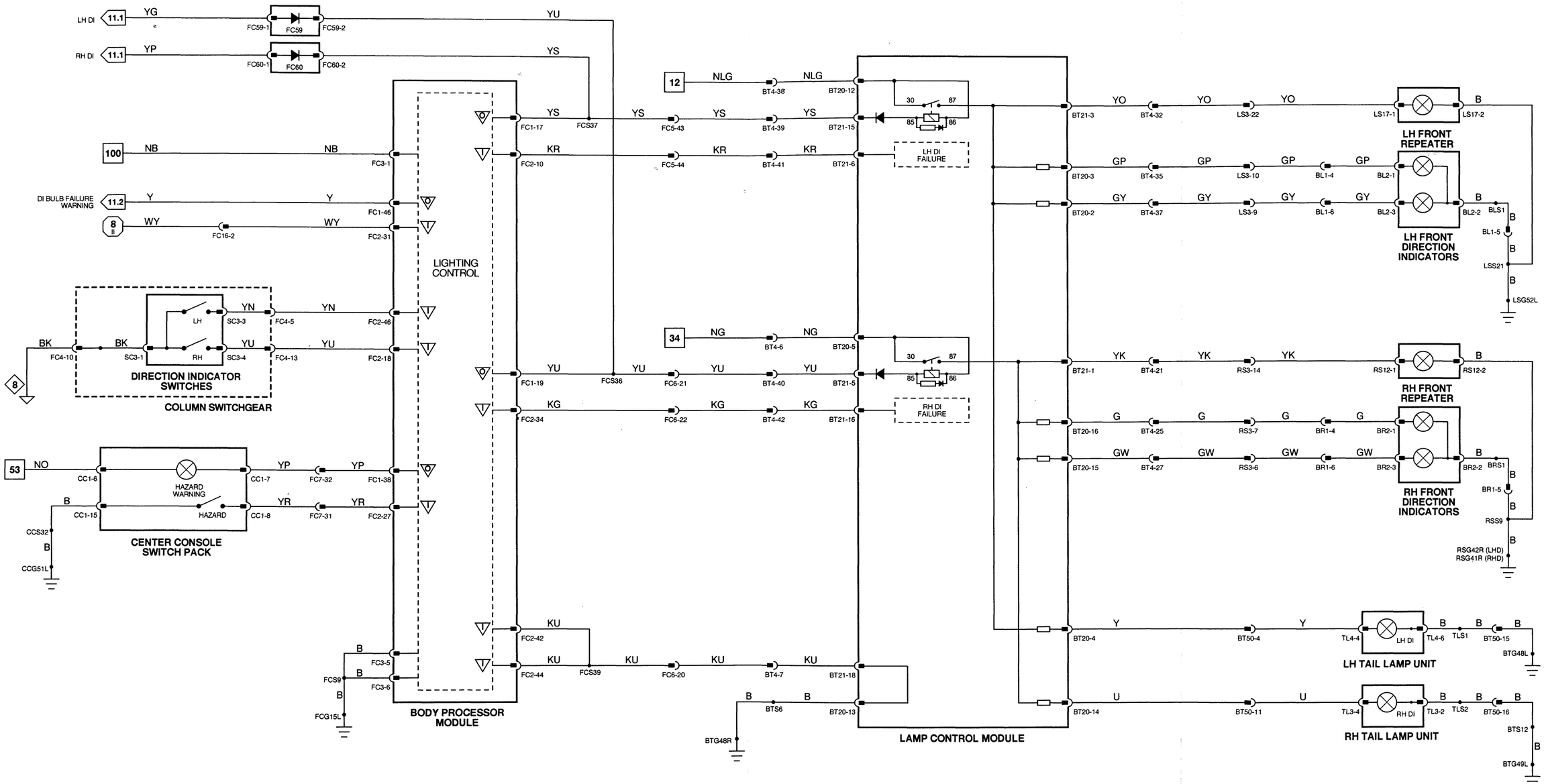
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 09.5

COMPONENTS

Component	Connector / Type / Color	Location / Access
CENTER CONSOLE SWITCH PACK AND CLOCK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
HEADLAMP LEVELING ACTUATOR – LH	LS41 / 3-WAY GROTE AND HARTMAN / BLACK	LH HEADLAMP, REAR
HEADLAMP LEVELING ACTUATOR – RH	RS22 / 3-WAY GROTE AND HARTMAN / BLACK	RH HEADLAMP, REAR

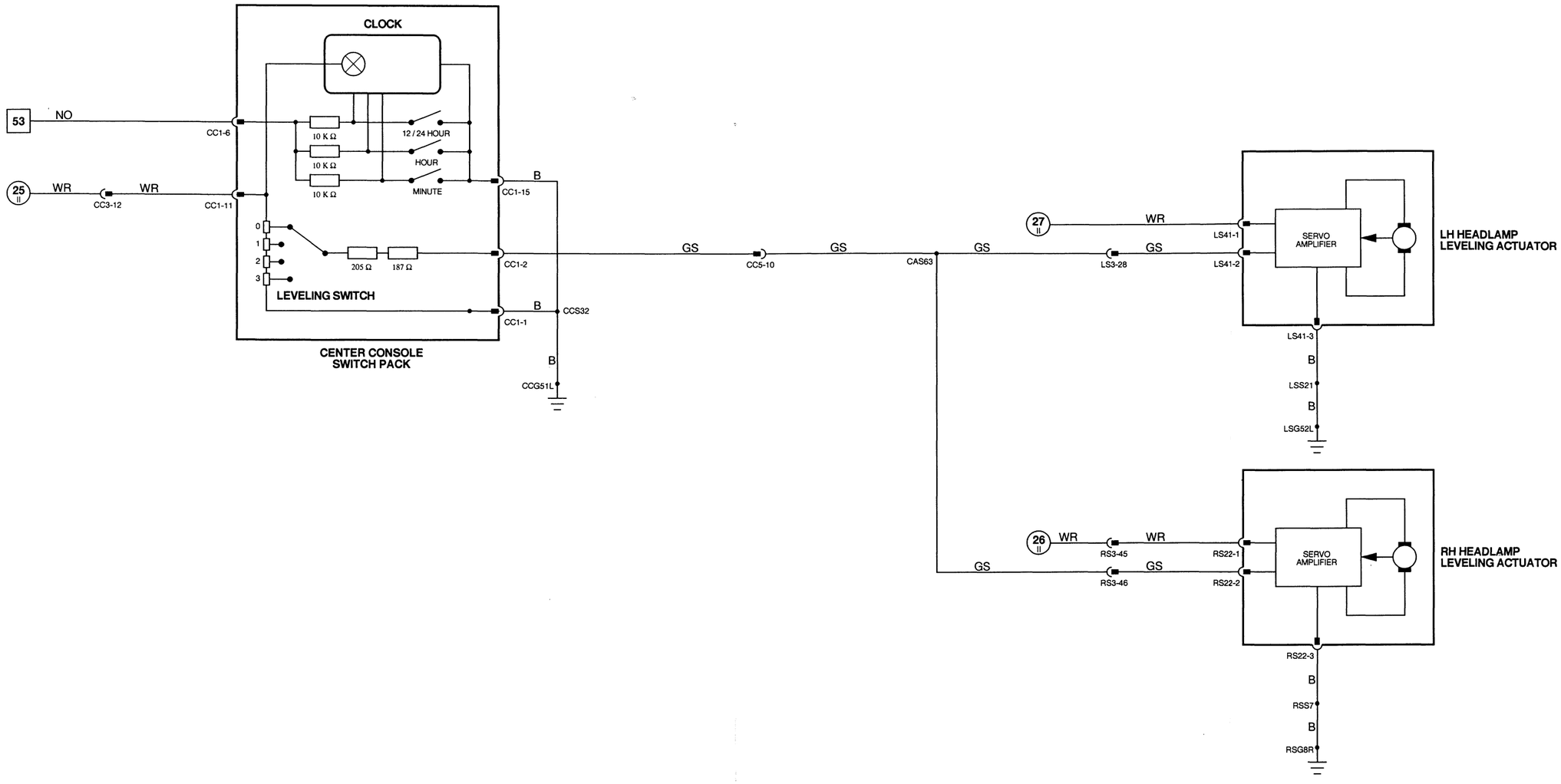
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CCG51L	CENTER CONSOLE GROUND STUD
LSG52L	LEFT FORWARD GROUND STUD
RSG8R	RIGHT FORWARD GROUND

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 10.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
DOOR SWITCH PACK - DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
DOOR SWITCH PACK - LH REAR	RD1-L / 12-WAY MULTILOCK 070 / WHITE	DOOR CASING
DOOR SWITCH PACK - PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
DOOR SWITCH PACK - RH REAR	RD1-R / 12-WAY MULTILOCK 070 / WHITE	DOOR CASING
DOOR SWITCH - DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH - LH REAR	RD3-L / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH - PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH - RH REAR	RD3-R / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
E-POST LAMP - LH	CA89 / 4-WAY MULTILOCK 040 / BLACK	'E' POST LAMP
E-POST LAMP - RH	CA90 / 4-WAY MULTILOCK 040 / BLACK	'E' POST LAMP
GLOVE BOX LAMP	GI1 / LUCAR / WHITE GI2 / LUCAR / WHITE	GLOVE BOX GLOVE BOX
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
INTERIOR / MAP LAMPS CONSOLE	CA83 / 8-WAY MULTILOCK / BLACK	ROOF CONSOLE
PUDDLE LAMP - DRIVER DOOR	DD14 / 2-WAY JUNIOR TIMER / BLACK	DOOR CASING
PUDDLE LAMP - LH REAR DOOR	RD7L / LUCAR / WHITE RD8L / LUCAR / WHITE	DOOR CASING
PUDDLE LAMP - PASSENGER DOOR	PD14 / 2-WAY JUNIOR TIMER / BLACK	DOOR CASING
PUDDLE LAMP - RH REAR DOOR	RD7R / LUCAR / WHITE RD8R / LUCAR / WHITE	DOOR CASING
SUNVISOR LAMP - LH	CA69 / 2-WAY MULTILOCK 040 / BLACK	LH SUNVISOR
SUNVISOR LAMP - RH	CA70 / 2-WAY MULTILOCK 040 / BLACK	RH SUNVISOR
TRUNK LAMP - LH	BT46 / 2-WAY JUNIOR TIMER / BLACK	TRUNK, LH SIDE, REAR
TRUNK LAMP - RH	BT47 / 2-WAY JUNIOR TIMER / BLACK	TRUNK ,RH SIDE, REAR
TRUNK SWITCH	BT15 / 2-WAY FORD DIAGNOSTIC / BLACK	TRUNK LID / TRUNK LID TRIM

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
PUDDLE LAMP RELAY - DRIVER	BLUE	CA53 / YELLOW	LH HEELBOARD

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA14	2-WAY MULTILOCK 070 / WHITE	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CA16	2-WAY MULTILOCK 040 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC53	2-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG30R	LH 'A' POST GROUND SCREW
CAG31R	PARCEL SHELF GROUND SCREW
CAG33L	RH HEELBOARD GROUND SCREW
CAG92L	RH HEELBOARD GROUND SCREW
CAG93R	LH HEELBOARD GROUND SCREW
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-12	RH TRUNK LAMP	GROUND	B+
O	FC1-15	LH TRUNK LAMP	GROUND	B+
O	FC1-24	INTERIOR AND COURTESY LAMPS	GROUND	B+
O	FC1-30	PUDDLE LAMP RELAY	GROUND	B+
I	FC2-2	INTERIOR LAMPS ON	GROUND	B+
I	FC2-29	CONSOLE INTERIOR LAMP SWITCH	GROUND	B+
I	FC2-30	PASSENGER DOOR AJAR	GROUND	B+
I	FC2-32	TRUNK AJAR	GROUND	B+
I	FC2-33	DRIVER DOOR AJAR	GROUND	B+
I	FC2-41	INTERIOR LAMP EXTINGUISH DURING CRANK	GROUND	B+
I	FC2-48	KEY IN IGNITION SWITCH	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

NOTE: "CRANK" INPUT IS USED TO SWITCH OFF INTERIOR LIGHTS DURING ENGINE CRANKING.

100 NB FC3-1
1 RW FC2-41
UR FC2-48
RY FC2-32
SK FC2-2
PR FC2-33
P FC2-30
GR FC2-29

INTERIOR LIGHTING CONTROL

BODY PROCESSOR MODULE

B FCS31 FC54-5 KEY IN UR FC54-4 UR FCS3
B FCG26R
IGNITION SWITCH

BK BT15-2 TRUNK SWITCH BT15-1 RY BT4-16 RY CAS27 RY FC6-4 RY FCS18 RY

INTERIOR LIGHTS ON 15.5 15.4 SK SK CC3-7 SK FC7-2 SK

PR FC5-5 (LHD) FC6-38 (RHD) PR

P CC5-16 P FC7-37 P FCS11 P

GR CC3-19 GR FC7-4 GR

B FC3-5 B FC3-6 B FCS9 B FCG15L

OU FC1-12 OU FC16-11 OU CC5-9 OU BT4-2 OU BT47-1 RH TRUNK LAMP BT47-2 NW BTS20 NW 89

OP FC1-15 OP FC16-5 OP CC5-2 OP BT4-1 OP BT46-1 LH TRUNK LAMP BT46-2

RLG FC1-24 RLG FC7-38 RLG CC18-20 RLG CAS99 RLG CA90-2 COURTESY MAP CA90-1 NW 55 CA90-3 WN 13
RH E-POST LAMP

UO FC1-30 UO FC7-26 UO CC4-11 UO

RLG CA89-2 COURTESY MAP CA89-1 NW 54 CA89-3 WN 14
LH E-POST LAMP

RLG CA83-3 INTERIOR
GR CA83-2 INTERIOR
MAP DRIVER MAP LAMP
MAP PASSENGER MAP LAMP
INTERIOR LAMPS
NW CA83-8 59
B CA83-4 CAS88 B CAG31R
INTERIOR / MAP LAMPS CONSOLE

B CA70-2 NW CA70-1 57
RH SUNVISOR LAMP

CAS30 B CA69-2 NW CA69-1 58
B CAG30R
LH SUNVISOR LAMP

B CA10-2 B DDS1 B DD3-7 DRIVER DOOR SWITCH DD3-6 G DDS3 G DD1-9 PR DD1-8 CA8-2 DD1-10 GP DD1-4 DRIVER DOOR SWITCH PACK
B CAG30L (LHD) CAG33L (RHD)

GP DD14-2 DRIVER DOOR PUDDLE LAMP DD14-1 UY CA9-3 UY CAS3 UY CA53 87 30 86 85 NW 60 UO
NW 61
PUDDLE LAMP RELAY

B CA12-2 B PDS1 B PD3-7 PASSENGER DOOR SWITCH PD3-6 GW PD1-16 P PD1-18 CA11-5 P PD1-19 GP PD1-20 PASSENGER DOOR SWITCH PACK CAS4
B CAG92L (LHD) CAG30L (RHD)

GP PD14-2 PASSENGER DOOR PUDDLE LAMP PD14-1 UY CA11-3 UY

B CA16-2R B RDS1R B RD3-6R RH REAR DOOR SWITCH RD3-5R G RDS2R G RD1-7R P RD1-6R P CA15-4R GP RD1-10R RH REAR DOOR SWITCH PACK
B CAG92L

GP RD8R RH REAR DOOR PUDDLE LAMP RD7R UY CA15-12R UY

B CA14-2L B RDS1L B RD3-6L LH REAR DOOR SWITCH RD3-5L G RDS2L G RD1-7L P RD1-6L P CA13-4L GP RD1-10L LH REAR DOOR SWITCH PACK
B CAG93R

GP RD8L LH REAR DOOR PUDDLE LAMP RD7L UY CA13-12L UY

B FCS9 B FC12-5 SIDE LAMPS (FIG. 09.1, 09.2) LIGHTING SWITCHES FC12-6 PB FC16-7 PB CC53-2 PB GI2 GLOVE BOX LAMP GI1 NW CC53-1 NW CC3-11 NW 56
FCG15L

1—6 Fig. 01.1 | 7—66 Fig. 01.2 | 67—109 Fig. 03.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 10.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING CONTROL MODULE	CC28 / 26-WAY MULTILOCK 47 / SLATE CC29 / 16-WAY MULTILOCK 47 / SLATE CC30 / 12-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 47 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
AIR CONDITIONING CONTROL PANEL	CC2 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
CIGAR LIGHTER - FRONT	CC9 / 2-WAY SERIES 250 / BLACK CC10 / LUCAR / BLACK	CENTER CONSOLE
CIGAR LIGHTER - REAR	CC16 / 2-WAY SERIES 250 / BLACK CC17 / LUCAR / BLACK	CENTER CONSOLE
DIMMER MODULE (COLUMN SWITCHGEAR)	SC1 / 8-WAY MULTILOCK 040 / WHITE	STEERING COLUMN / COVER
DIMMER CONTROL (COLUMN SWITCHGEAR)	NO CODE / 6-WAY MULTILOCK 040 / NO COLOR	STEERING COLUMN / COVER
DOOR SWITCH PACK - DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
DOOR SWITCH PACK - LH REAR	RD1-L / 12-WAY MULTILOCK 070 / WHITE	DOOR CASING
DOOR SWITCH PACK - PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
DOOR SWITCH PACK - RH REAR	RD1-R / 12-WAY MULTILOCK 070 / WHITE	DOOR CASING
FASCIA SWITCH PACK	FC18 / 16-WAY MULTILOCK 040 / BLACK	STEERING COLUMN / DRIVER'S UNDERSCUTTLE
INSTRUMENT PACK	FC9 / 24-WAY IDC / BLACK FC10 / 48-WAY IDC / BLACK	INSTRUMENT PACK
INTERIOR / MAP LAMPS CONSOLE	CA83 / 8-WAY MULTILOCK / BLACK	ROOF CONSOLE
LIGHTING SWITCHES	FC12 / 16-WAY MULTILOCK 040 / BLUE	FASCIA SWITCH PACK
RADIO	IC1 / 20-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA14	2-WAY MULTILOCK 070 / WHITE	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CA16	2-WAY MULTILOCK 040 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC4	20-WAY MULTILOCK 040 / BLUE	DRIVER'S UNDERSCUTTLE
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
IC7	8-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG31R	PARCEL SHELF GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CAG92L	RH HEELBOARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CCG49R	RH CONSOLE GROUND STUD
CCG50L	CENTER CONSOLE GROUND
CCG50R	CENTER CONSOLE GROUND
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
ICG24	RADIO GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

DIMMER

▽	Pin	Description	Active	Inactive
O	SC1-1	ILLUMINATION SUPPLY	B+	GROUND
I	SC1-2	SIDE LAMPS ON	0.6 V	B+
O	SC1-7	ILLUMINATION SUPPLY	B+	GROUND
SG	G	DIMMER POTENTIOMETER GROUND	1.27V = DIM, 1.46V = BRIGHT	
I	Y	DIMMER POTENTIOMETER FEEDBACK VOLTAGE	1.27V = DIM, 4.10V = BRIGHT	
O	U	DIMMER POTENTIOMETER REFERENCE VOLTAGE	3.91V = DIM, 4.10V = BRIGHT	

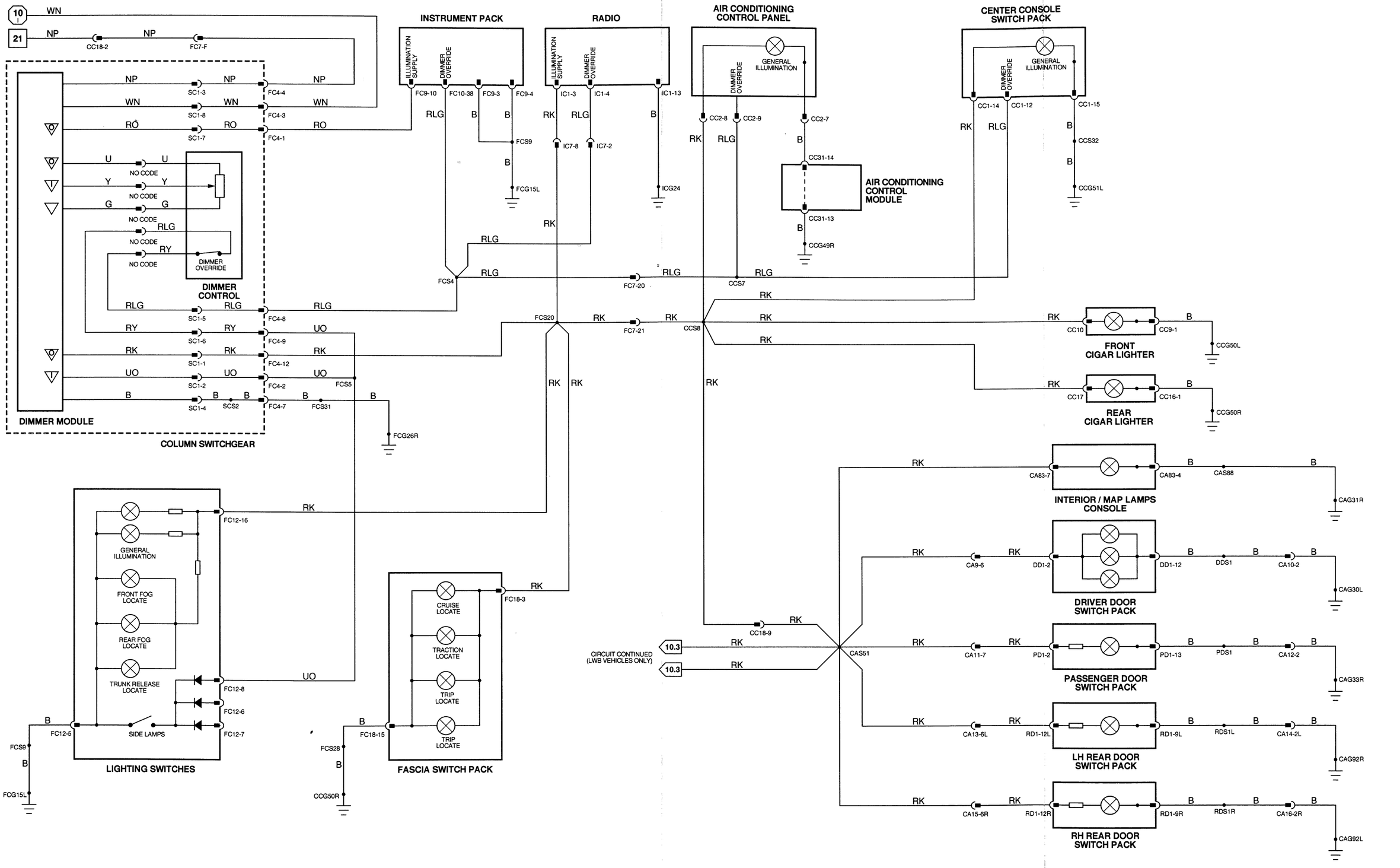
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: SWB Vehicles
VIN RANGE: 746613 →
DATE OF ISSUE: NOVEMBER 1995

Fig. 10.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING CONTROL MODULE	CC28 / 26-WAY MULTILOCK 47 / SLATE CC29 / 16-WAY MULTILOCK 47 / SLATE CC30 / 12-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 47 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
AIR CONDITIONING CONTROL PANEL	CC2 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
CIGAR LIGHTER – FRONT	CC9 / 2-WAY SERIES 250 / BLACK CC10 / LUCAR / BLACK	CENTER CONSOLE
CIGAR LIGHTER – REAR	CC16 / 2-WAY SERIES 250 / BLACK CC17 / LUCAR / BLACK	CENTER CONSOLE
DIMMER MODULE (COLUMN SWITCHGEAR)	SC1 / 8-WAY MULTILOCK 040 / WHITE	STEERING COLUMN / COVER
DIMMER CONTROL (COLUMN SWITCHGEAR)	NO CODE / 6-WAY MULTILOCK 040 / NO COLOR	STEERING COLUMN / COVER
DOOR SWITCH PACK – DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
DOOR SWITCH PACK – LH REAR	RD1-L / 12-WAY MULTILOCK 070 / WHITE	DOOR CASING
DOOR SWITCH PACK – PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
DOOR SWITCH PACK – RH REAR	RD1-R / 12-WAY MULTILOCK 070 / WHITE	DOOR CASING
FASCIA SWITCH PACK	FC18 / 16-WAY MULTILOCK 040 / BLACK	STEERING COLUMN / DRIVER'S UNDERSCUTTLE
INSTRUMENT PACK	FC9 / 24-WAY IDC / BLACK FC10 / 48-WAY IDC / BLACK	INSTRUMENT PACK
INTERIOR / MAP LAMPS CONSOLE	CA83 / 8-WAY MULTILOCK / BLACK	ROOF CONSOLE
LIGHTING SWITCHES	FC12 / 16-WAY MULTILOCK 040 / BLUE	FASCIA SWITCH PACK
RADIO	IC1 / 20-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE
SEAT CONTROL MODULE – PASSENGER (NAS VEHICLES)	CA107 / 22-WAY MULTILOCK 47 / WHITE CA108 / 12-WAY MULTILOCK 47 / WHITE SM1-P / 12-WAY MULTILOCK 47 / BLUE SM6-P / 16-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT
SEAT CONTROL MODULE – PASSENGER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / WHITE PL2 / 12-WAY MULTILOCK 47 / WHITE SM1-P / 12-WAY MULTILOCK 47 / BLUE SM6-P / 16-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT
SEAT FORE/AFT SWITCH – LH REAR	BC3 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT FORE/AFT SWITCH – RH REAR	BC5 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT FORE/AFT SWITCHES – PASSENGER, REAR	SM19 / 10-WAY AMP MQL / BLACK	FRONT LOWER SEAT / INSIDE
SEAT HEADREST SWITCH – LH REAR	BC4 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT HEADREST SWITCH – RH REAR	BC7 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT HEATER SWITCH – LH REAR	BC1 / 10-WAY AMP MLQ / BLACK	CENTER CONSOLE / REAR
SEAT HEATER SWITCH – RH REAR	BC2 / 10-WAY AMP MLQ / BLACK	CENTER CONSOLE / REAR
SEAT LUMBAR SWITCH – LH REAR	BC8 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT LUMBAR SWITCH – RH REAR	BC6 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT RECLINE SWITCHES – PASSENGER, REAR	SM20 / 10-WAY AMP MQL / NATURAL	FRONT LOWER SEAT / INSIDE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BS4	20-WAY MULTILOCK 070 / WHITE	REAR SEAT CONSOLE / UNDER
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA14	2-WAY MULTILOCK 070 / WHITE	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CA16	2-WAY MULTILOCK 040 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CA27	6-WAY MULTILOCK 070 / WHITE	PASSENGER'S SEAT / UNDER
CA109	12-WAY MULTILOCK 070 / WHITE	RH REAR SEAT / UNDER
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC4	20-WAY MULTILOCK 040 / BLUE	DRIVER'S UNDERSCUTTLE
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
IC7	8-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type	Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW	CCG50L	CENTER CONSOLE GROUND
CAG31R	PARCEL SHELF GROUND SCREW	CCG50R	CENTER CONSOLE GROUND
CAG33R	RH HEELBOARD GROUND SCREW	CCG51L	CENTER CONSOLE GROUND STUD
CAG92L	RH HEELBOARD GROUND SCREW	FCG15L	LH CONSOLE GROUND STUD
CAG92R	RH HEELBOARD GROUND SCREW	FCG26R	LH CONSOLE GROUND STUD
CAG104L	LH SEAT GROUND STUD	ICG24	RADIO GROUND STUD
CAG110L	RH SEAT GROUND STUD	PLG3L	LH SEAT GROUND SCREW
CCG49R	RH CONSOLE GROUND STUD		

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

DIMMER

▽	Pin	Description	Active	Inactive
O	SC1-1	ILLUMINATION SUPPLY	B+	GROUND
I	SC1-2	SIDE LAMPS ON	0.6 V	B+
O	SC1-7	ILLUMINATION SUPPLY	B+	GROUND
SG	G	DIMMER POTENTIOMETER GROUND	1.27V = DIM, 1.46V = BRIGHT	
I	Y	DIMMER POTENTIOMETER FEEDBACK VOLTAGE	1.27V = DIM, 4.10V = BRIGHT	
O	U	DIMMER POTENTIOMETER REFERENCE VOLTAGE	3.91V = DIM, 4.10V = BRIGHT	

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

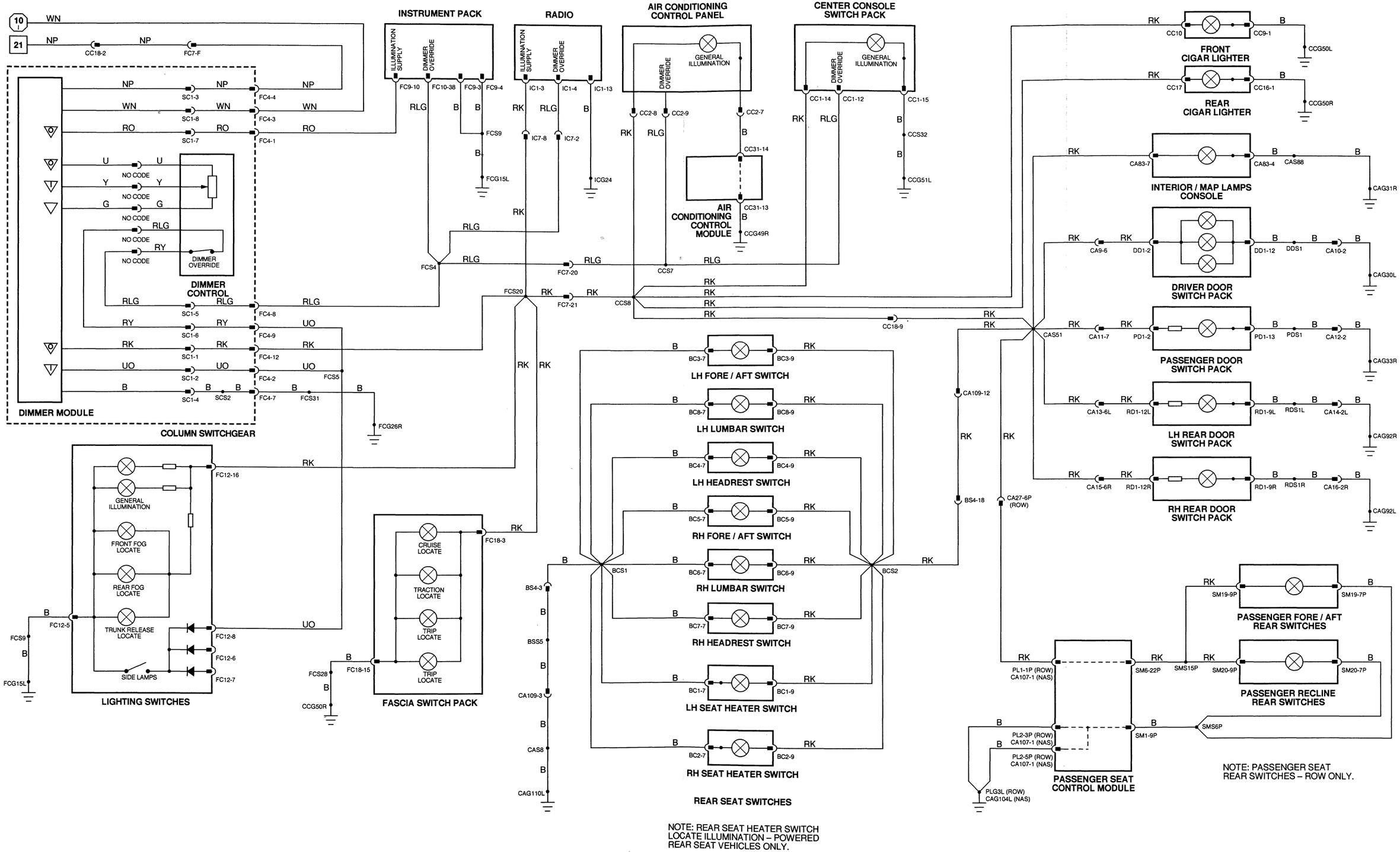

10
21
WN
NP
CC18-2
FC7-F
DIMMER MODULE
DIMMER CONTROL
DIMMER OVERRIDE
NO CODE
U
Y
G
RLG
RY
RO
RK
UO
B
SC1-3
SC1-8
SC1-7
SC1-5
SC1-6
SC1-1
SC1-2
SC1-4
SCS2
FC4-4
FC4-3
FC4-1
FC4-8
FC4-9
FC4-12
FC4-2
FC4-7
FCS5
FCS31
FCG26R
COLUMN SWITCHGEAR
GENERAL ILLUMINATION
FRONT FOG LOCATE
REAR FOG LOCATE
TRUNK RELEASE LOCATE
SIDE LAMPS
FC12-16
FC12-5
FC12-8
FC12-6
FC12-7
FCS9
FCG15L
LIGHTING SWITCHES
CRUISE LOCATE
TRACTION LOCATE
TRIP LOCATE
FC18-3
FC18-15
FCS28
CCG50R
FASCIA SWITCH PACK
INSTRUMENT PACK
ILLUMINATION SUPPLY
FC9-10
FC10-38
FC9-3
FC9-4
RADIO
IC1-3
IC1-4
IC1-13
IC7-8
IC7-2
ICG24
AIR CONDITIONING CONTROL PANEL
CC2-8
CC2-9
CC2-7
CC31-14
CC31-13
AIR CONDITIONING CONTROL MODULE
CCG49R
CENTER CONSOLE SWITCH PACK
CC1-14
CC1-12
CC1-15
CCS32
CCG51L
FCS4
FCS20
FC7-20
FC7-21
CCS7
CCS8
CC18-9
BC3-7
BC3-9
LH FORE / AFT SWITCH
BC8-7
BC8-9
LH LUMBAR SWITCH
BC4-7
BC4-9
LH HEADREST SWITCH
BC5-7
BC5-9
RH FORE / AFT SWITCH
BCS1
BCS2
BC6-7
BC6-9
RH LUMBAR SWITCH
BC7-7
BC7-9
RH HEADREST SWITCH
BC1-7
BC1-9
LH SEAT HEATER SWITCH
BC2-7
BC2-9
RH SEAT HEATER SWITCH
REAR SEAT SWITCHES
BS4-3
BSS5
CA109-3
CAS8
CAG110L
BS4-18
CA27-6P (ROW)
CA109-12
NOTE: REAR SEAT HEATER SWITCH LOCATE ILLUMINATION – POWERED REAR SEAT VEHICLES ONLY.
CC10
CC9-1
CCG50L
FRONT CIGAR LIGHTER
CC17
CC16-1
CCG50R
REAR CIGAR LIGHTER
CA83-7
CA83-4
CAS88
CAG31R
INTERIOR / MAP LAMPS CONSOLE
CA9-6
DD1-2
DD1-12
DDS1
CA10-2
CAG30L
DRIVER DOOR SWITCH PACK
CAS51
CA11-7
PD1-2
PD1-13
PDS1
CA12-2
CAG33R
PASSENGER DOOR SWITCH PACK
CA13-6L
RD1-12L
RD1-9L
RDS1L
CA14-2L
CAG92R
LH REAR DOOR SWITCH PACK
CA15-6R
RD1-12R
RD1-9R
RDS1R
CA16-2R
CAG92L
RH REAR DOOR SWITCH PACK
SM19-9P
SM19-7P
PASSENGER FORE / AFT REAR SWITCHES
PL1-1P (ROW)
CA107-1 (NAS)
SM6-22P
SMS15P
SM20-9P
SM20-7P
PASSENGER RECLINE REAR SWITCHES
PL2-3P (ROW)
CA107-1 (NAS)
PL2-5P (ROW)
CA107-1 (NAS)
SM1-9P
SMS6P
PLG3L (ROW)
CAG104L (NAS)
PASSENGER SEAT CONTROL MODULE
NOTE: PASSENGER SEAT REAR SWITCHES – ROW ONLY.

Fig. 11.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
COOLANT TEMPERATURE SENSOR	PI140 / LUCAR / BLACK	ENGINE THERMOSTAT HOUSING
FASCIA SWITCH PACK	FC18 / 16-WAY MULTILOCK 040 / BLACK	STEERING COLUMN / DRIVER'S UNDERSCUTTLE
FUEL LEVEL SENSOR	BT32; BT33 / LUCAR / WHITE	FUEL TANK / FUEL TANK TRIM
HAND BRAKE SWITCH	CC52 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE, LH SIDE
INSTRUMENT PACK	FC9 / 24-WAY IDC / BLACK FC10 / 48-WAY IDC / BLACK	INSTRUMENT PACK
OIL PRESSURE SWITCH	PI139 / LUCAR / BLACK	ENGINE BLOCK, LH SIDE (AJ16); ENGINE VEE, REAR (V12)
TRIP CYCLE (COLUMN SWITCHGEAR)	SC3 / 6-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC4	20-WAY MULTILOCK 040 / BLUE	DRIVER'S UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
IC7	8-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
BTG48R	REAR TRUNK GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26L	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

INSTRUMENT PACK

▽	Pin	Description	Active	Inactive
D	FC9-13	SERIAL COMMUNICATION INPUT		
D	FC9-14	SERIAL COMMUNICATION OUTPUT		
I	FC9-15	VEHICLE SPEED INPUT	B+ @ 10 MPH = 200 Hz, 20 MPH = 400 Hz	
I	FC9-19	COOLANT TEMPERATURE INDICATOR LAMP	GROUND	B+
I	FC9-20	FUEL LEVEL	GROUND = FULL	B+ = EMPTY
I	FC9-21	ENGINE OIL PRESSURE	GROUND = MAXIMUM PRESSURE	B+ = MINIMUM PRESSURE
O	FC9-22	ENGINE COOLANT TEMPERATURE	2.5 V @ 90° C, INCREASING WITH TEMPERATURE INCREASE	
I	FC9-24	TACHOMETER	GROUND PULSE @ 1000 RPM = 15 Hz	
O	FC10-2	VEHICLE SPEED SIGNAL	B+ @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
O	FC10-3	VEHICLE SPEED SIGNAL	GROUND @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
I	FC10-4	TRIP STALK CYCLE	GROUND	B+
I	FC10-9	GENERATOR INDICATOR VOLTAGE	< 10.4 V OR > 15.6 V	10.5-15.5 V
I	FC10-12	TRIP RESET	GROUND	B+
I	FC10-14	TRANSMISSION SPORT MODE	GROUND = SPORT	B+
I	FC10-17	PARK BRAKE ON	GROUND	B+
I	FC10-24	MAIN BEAM	GROUND	B+
I	FC10-35	TRACTION CONTROL STATUS	B+	FAILURE = GROUND TRACTION OFF = 4 Hz GROUND PULSE
I	FC10-36	TRIP CLEAR	GROUND	B+
I	FC10-40	LH DI ON	GROUND PULSE	B+
I	FC10-41	RH DI ON	GROUND PULSE	B+
I	FC10-42	MPH / KPH	GROUND	B+

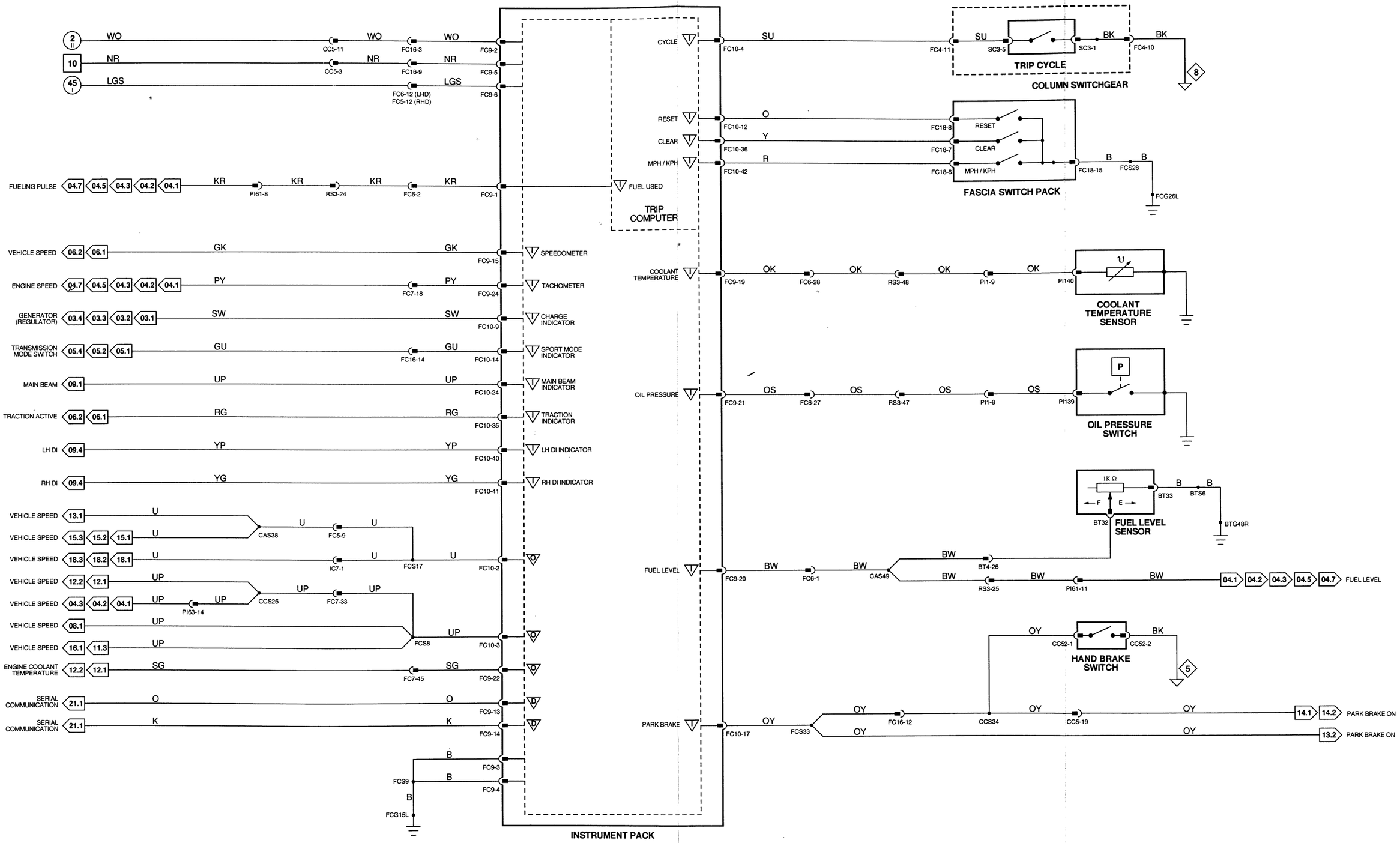
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | I II Fig. 01.4 | I II Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 11.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
BRAKE FLUID LEVEL SWITCH (LHD)	LS28 / 2-WAY JUNIOR TIMER / BLACK	BRAKE FLUID RESERVOIR
BRAKE FLUID LEVEL SWITCH (RHD)	RS36 / 2-WAY JUNIOR TIMER / BLACK	BRAKE FLUID RESERVOIR
COOLANT LEVEL SWITCH	LS33 / 2-WAY JUNIOR TIMER / BROWN	COOLANT RESERVOIR
DOOR SWITCH PACK – LH REAR	RD1-L / 12-WAY MULTILOCK 070 / WHITE	DOOR CASING
DOOR SWITCH PACK – PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
DOOR SWITCH PACK – RH REAR	RD1-R / 12-WAY MULTILOCK 070 / WHITE	DOOR CASING
DOOR SWITCH – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH – LH REAR	RD3-L / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH – PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH – RH REAR	RD3-R / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
INSTRUMENT PACK	FC9 / 24-WAY IDC / BLACK FC10 / 48-WAY IDC / BLACK	INSTRUMENT PACK
SEAT BELT SWITCH	SM8 / 2-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT / UNDER
SEAT CONTROL MODULE – DRIVER (NAS VEHICLES)	CA105 / 22-WAY MULTILOCK 47 / BLUE CA106 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6-D / 22-WAY MULTILOCK 47 / WHITE	DRIVER'S SEAT
SEAT CONTROL MODULE – DRIVER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6-D / 22-WAY MULTILOCK 47 / WHITE	DRIVER'S SEAT
TRUNK SWITCH	BT15 / 2-WAY FORD DIAGNOSTIC / BLACK	TRUNK LID / TRUNK LID TRIM
WASHER FLUID LEVEL SWITCH	RS18 / 2-WAY ECONOSEAL III LC / RED	WASHER FLUID RESERVOIR

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S 'A' POST / 'A' POST TRIM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA14	2-WAY MULTILOCK 070 / WHITE	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CA16	2-WAY MULTILOCK 040 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CA23	20-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT / UNDER
CA25	3-WAY MULTILOCK 070 / YELLOW	RH 'A' POST, ECM / 'A' POST PANEL
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
ML1-D	10-WAY MULTILOCK 070 / WHITE	DRIVER'S SEAT / UNDER
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG33L	RH HEELBOARD GROUND SCREW
CAG92L	RH HEELBOARD GROUND SCREW
CAG93R	LH HEELBOARD GROUND SCREW
CAG103L	LH SEAT GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
LSG19R	LH BULKHEAD GROUND STUD
MLG2L	LH SEAT GROUND SCREW
PLG3L	LH SEAT GROUND SCREW
RSG41L	RIGHT FORWARD GROUND

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-26	SEAT BELT WARNING LAMP	GROUND	B+
I	FC2-24	SEAT BELT WARNING LAMP	GROUND	B+

DRIVER SEAT CONTROL MODULE (NAS)

▽	Pin	Description	Active	Inactive
O	CA105-20	SEAT BELT WARNING	GROUND	B+
I	SM6-21D	SEAT BELT FASTENED	GROUND	B+

DRIVER SEAT CONTROL MODULE (ROW)

▽	Pin	Description	Active	Inactive
O	PL1-20D	SEAT BELT WARNING	GROUND	B+
I	SM6-21D	SEAT BELT FASTENED	GROUND	B+

INSTRUMENT PACK

▽	Pin	Description	Active	Inactive
I	FC9-7	ANTI-LOCK FAILURE	< 5 V OR > 11.9 V	5.1 - 11.8 V
D	FC9-13	SERIAL COMMUNICATION INPUT		
D	FC9-14	SERIAL COMMUNICATION OUTPUT		
I	FC10-10	BRAKE FLUID LEVEL	GROUND	B+
I	FC10-13	WASHER FLUID LEVEL	GROUND	B+
I	FC10-15	SEAT BELT WARNING	GROUND	B+
I	FC10-16	TRUNK AJAR	GROUND	7.9 V
I	FC10-18	DI BULB FAILURE	GROUND	B+
I	FC10-22	CHECK ENGINE MIL	GROUND	B+
I	FC10-23	EXHAUST TEMPERATURE (JAPAN ONLY)	GROUND	B+
I	FC10-37	COOLANT LEVEL	GROUND	B+
I	FC10-43	GENERAL BULB FAIL	GROUND	B+
I	FC10-44	TRANSMISSION MIL	GROUND	B+
I	FC10-45	AIR BAG FAILURE	GROUND	B+
I	FC10-46	DRIVER DOOR AJAR	GROUND	7.9 V
I	FC10-47	PASSENGER DOOR AJAR	GROUND	7.9 V

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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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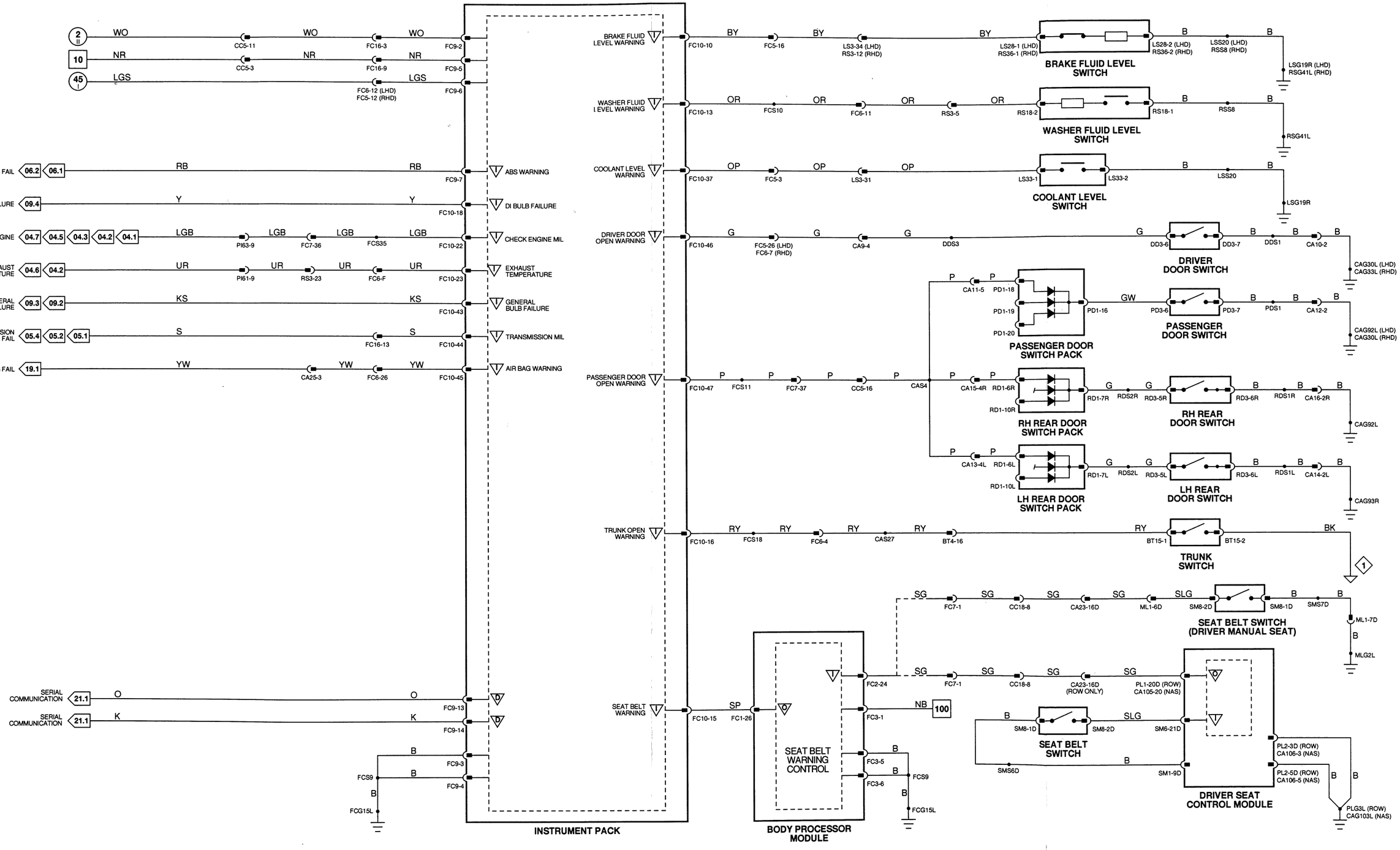


1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 11.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DIRECTION INDICATOR SWITCHES (COLUMN SWITCHGEAR)	SC3 / 6-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
DOOR SWITCH - DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH PACK - DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
SEAT CONTROL MODULE - DRIVER (NAS VEHICLES)	CA105 / 22-WAY MULTILOCK 47 / BLUE CA106 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6-D / 22-WAY MULTILOCK 47 / WHITE	DRIVER'S SEAT
SEAT CONTROL MODULE - DRIVER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6-D / 22-WAY MULTILOCK 47 / WHITE	DRIVER'S SEAT
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
LIGHTING SWITCHES	FC12 / 16-WAY MULTILOCK 040 / BLUE	FASCIA SWITCH PACK
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
SEAT BELT SWITCH	SM8 / 2-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT / UNDER
SPEAKER (COLUMN SWITCHGEAR)	SC4 / 3-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA23	20-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT / UNDER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC4	20-WAY MULTILOCK 040 / BLUE	DRIVER'S UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
ML1-D	10-WAY MULTILOCK 070 / WHITE	DRIVER'S SEAT / UNDER

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG33L	RH HEELBOARD GROUND SCREW
CAG103L	LH SEAT GROUND STUD
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
MLG2L	LH SEAT GROUND SCREW
PLG3L	LH SEAT GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-21	AUDIBLE TONE SPEAKER		
O	FC1-22	AUDIBLE TONE SPEAKER		
I	FC2-3	SIDE LAMPS ON	GROUND	B+
I	FC2-4	VEHICLE SPEED SENSOR	GROUND PULSE @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
I	FC2-16	NOT IN PARK MICRO SWITCH	GROUND	B+
I	FC2-18	RH DI REQUEST	GROUND	B+
I	FC2-24	SEAT BELT WARNING LAMP	GROUND	B+
I	FC2-25	SEAT MEMORY AUDIBLE WARNING	GROUND	B+
I	FC2-27	HAZARD LAMPS REQUEST	GROUND	B+
I	FC2-33	DRIVER DOOR AJAR	GROUND	B+
I	FC2-46	LH DI REQUEST	GROUND	B+
I	FC2-48	KEY IN IGNITION SWITCH	GROUND	B+

DRIVER SEAT CONTROL MODULE (NAS)

▽	Pin	Description	Active	Inactive
O	CA105-20	SEAT BELT WARNING	GROUND	B+
I	SM6-21D	SEAT BELT FASTENED	GROUND	B+

DRIVER SEAT CONTROL MODULE (ROW)

▽	Pin	Description	Active	Inactive
O	PL1-20D	SEAT BELT WARNING	GROUND	B+
I	SM6-21D	SEAT BELT FASTENED	GROUND	B+

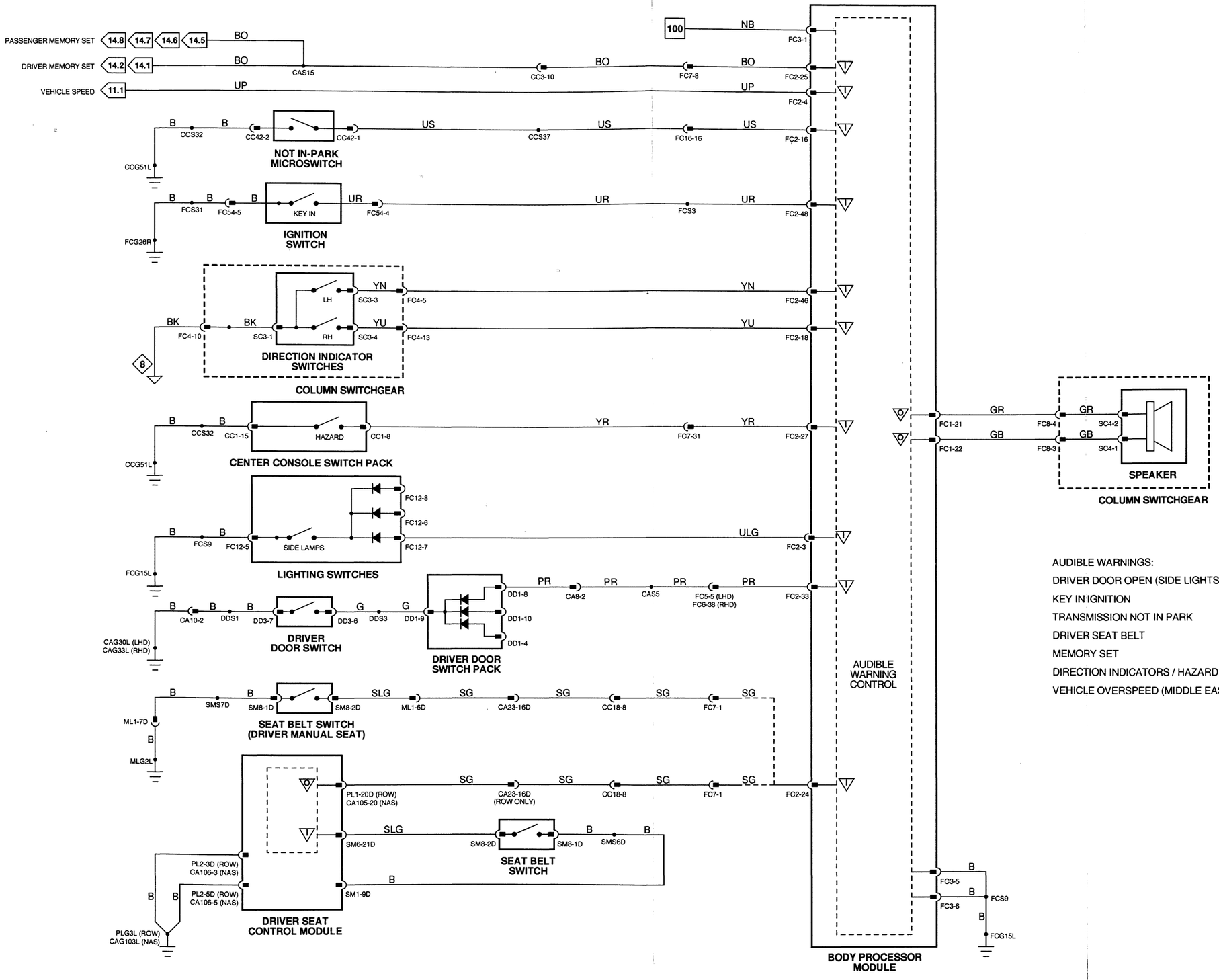
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



AUDIBLE WARNINGS:

DRIVER DOOR OPEN (SIDE LIGHTS ON; KEY IN)

KEY IN IGNITION

TRANSMISSION NOT IN PARK

DRIVER SEAT BELT

MEMORY SET

DIRECTION INDICATORS / HAZARD

VEHICLE OVERSPEED (MIDDLE EAST ONLY)

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 12.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING CONTROL MODULE	CC28 / 26-WAY MULTILOCK 47 / SLATE CC29 / 16-WAY MULTILOCK 47 / SLATE CC30 / 12-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 47 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
AIR CONDITIONING CONTROL PANEL	CC2 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE
AMBIENT TEMPERATURE SENSOR	BL6 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER / SPOILER TRAY
ASPIRATOR MOTOR	FC40 (FLY LEAD) / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
COOL AIR BYPASS SERVO	CC34 (FLY LEAD) 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE; /LH UNDERSCUTTLE
DEFROST SERVO	FC42 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, RH SIDE; FASCIA
DIFFERENTIAL CONTROL POTENTIOMETER	FC20 (FLY LEAD) / 3-WAY MULTILOCK 070 / WHITE	A/C UNIT, LH SIDE; FASCIA
EVAPORATOR TEMPERATURE SENSOR	CC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
FOOT WELL SERVO	CC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
FRESH / RECIRCULATION SERVO – LH	CC32 (FLY LEAD) / 15-WAY SUMITOMO 90 / GREEN	BLOWER HOUSING
FRESH / RECIRCULATION SERVO – RH	CC33 (FLY LEAD) / 15-WAY SUMITOMO 90 / GREEN	BLOWER HOUSING
HEATER MATRIX TEMPERATURE SENSOR	CC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
IN-CAR TEMPERATURE SENSOR	FC40 (FLY LEAD) / 4-WAY MULTILOCK 040 / WHITE	DRIVER'S UNDERSCUTTLE
SOLAR SENSOR	FC34 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	FASCIA, TOP FRONT
VENT SERVO	FC42 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
AIR CONDITIONING ISOLATE RELAY	BLACK / BLUE	CA57 / BLUE	RH HEELBOARD

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BL1	13-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM

GROUNDS

Ground	Location / Type
CAG92R	RH HEELBOARD GROUND SCREW
CCG49L	RH CONSOLE GROUND STUD
CCG49R	RH CONSOLE GROUND STUD
FCG15R	LH CONSOLE GROUND STUD
PIG153L	RH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

AIR CONDITIONING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CC28-1	COMPRESSOR CLUTCH ON SIGNAL	B+	GROUND
O	CC28-6	DEFROST VENT SERVO MOTOR	B+	GROUND
O	CC28-7	CENTER VENT SERVO MOTOR	B+	GROUND
O	CC28-8	LH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-9	RH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-12	FOOTWELL VENT SERVO MOTOR	B+	GROUND
O	CC28-13	COOL AIR BY-PASS VENT SERVO MOTOR	B+	GROUND
O	CC28-19	DEFROST VENT SERVO MOTOR	B+	GROUND
O	CC28-20	CENTER VENT SERVO MOTOR	B+	GROUND
O	CC28-21	LH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-22	RH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-25	FOOTWELL VENT SERVO MOTOR	B+	GROUND
O	CC28-26	COOL AIR BY-PASS VENT SERVO MOTOR	B+	GROUND
I	CC29-1	SOLAR SENSOR FEEDBACK VOLTAGE	0.75 – 4.75 V, INCREASING WITH LAMP BRIGHTNESS	
I	CC29-2	CENTER VENT POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-3	RH RECIRCULATION POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-5	COOL AIR BY-PASS POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-6	COOLANT TEMPERATURE SIGNAL	2.5 V @ 90° C, INCREASING WITH TEMPERATURE	
I	CC29-9	TEMPERATURE DIFFERENTIAL POTENTIOMETER FEEDBACK	0.75V = RED; 4.75V = BLUE	
I	CC29-10	DEFROST VENT POTENTIOMETER FEEDBACK	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-11	LH RECIRCULATION POTENTIOMETER FEEDBACK	> 3.5 V (OPEN); < 1 V (CLOSED)	
I	CC29-13	FOOTWELL VENT POTENTIOMETER FEEDBACK	> 3.5 V (OPEN); < 1 V (CLOSED)	
O	CC30-1	AIR CONDITIONING ELECTRICAL LOAD SIGNAL	B+	GROUND
O	CC30-2	CLOCK	B+ (1.45 KHz)	B+
D	CC30-3	SERIAL DATA OUTPUT TO CONTROL PANEL		
I	CC30-5	AMBIENT TEMPERATURE SENSOR FEEDBACK	2.18 V @ 25° C, INCREASING WITH TEMPERATURE	
I	CC30-6	HEATER MATRIX AIR TEMPERATURE SENSOR FEEDBACK	2.25 V @ 20° C, INCREASING WITH TEMPERATURE	
D	CC30-7	SERIAL DATA INPUT FROM CONTROL PANEL		
O	CC30-8	START	B+	GROUND
I	CC30-11	IN CAR TEMPERATURE SENSOR FEEDBACK	3.25 V @ 0° C, INCREASING WITH TEMPERATURE	
I	CC30-12	EVAPORATOR TEMPERATURE SENSOR FEEDBACK	3.25 V @ 0° C, INCREASING WITH TEMPERATURE	
I	CC31-3	IGNITION SWITCHED GROUND	GROUND	B+
O	CC31-4	IGNITION SWITCHED POWER SUPPLY TO CONTROL PANEL	B+	GROUND
I	CC31-6	ENGINE SPEED SIGNAL	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
O	CC31-8	SERVO POTENTIOMETER COMMON REFERENCE VOLTAGE	5V	5 V
O	CC31-9	COMPRESSOR CLUTCH REQUEST	GROUND	B+
D	CC31-10	SERIAL COMMUNICATION INPUT		
O	CC31-12	BATTERY POWER SUPPLY TO CONTROL PANEL	B+	B+
O	CC31-15	AIR CONDITIONING ISOLATE RELAY	B+	GROUND
I	CC31-16	VEHICLE SPEED SIGNAL	B+ @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
I	CC31-17	REFRIGERANT TRIPLE PRESSURE SWITCH – 4.0L REFRIGERANT DUAL PRESSURE SWITCH – V12	GROUND	B+
O	CC31-18	ASPIRATOR MOTOR	B+	GROUND
SG	CC31-19	SERVO POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
D	CC31-21	SERIAL COMMUNICATION OUTPUT		

AIR CONDITIONING CONTROL PANEL

▽	Pin	Description	Active	Inactive
I	CC2-1	CLOCK	B+ (1.45 KHz)	B+
I	CC2-2	START	B+	GROUND
D	CC2-3	SERIAL DATA OUTPUT TO A/C CONTROL MODULE		
D	CC2-4	SERIAL DATA INPUT FROM A/C CONTROL MODULE		
I	CC2-5	IGNITION SWITCHED POWER SUPPLY	B+	GROUND
I	CC2-6	BATTERY POWER SUPPLY	B+	B+

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

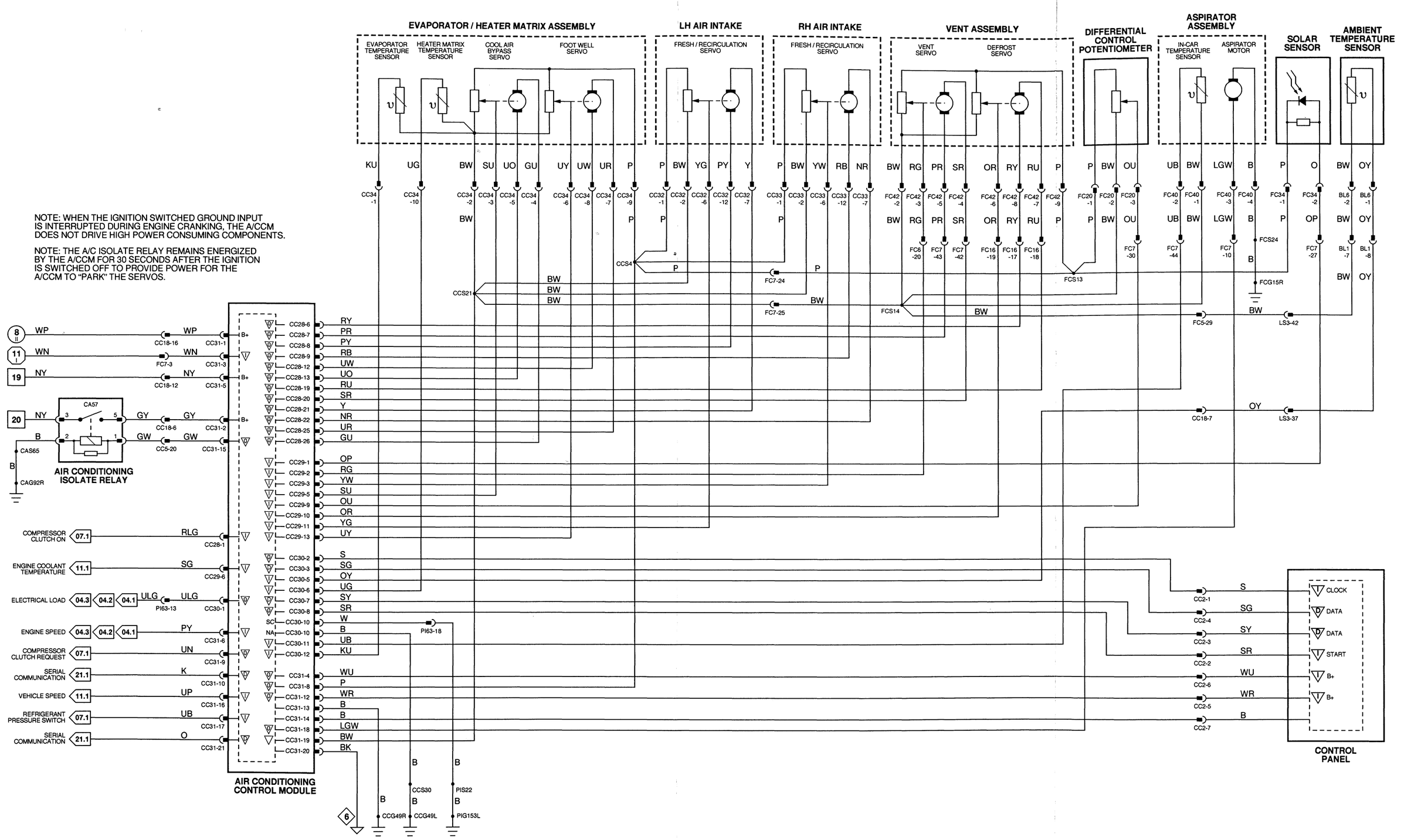
B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

NOTE: WHEN THE IGNITION SWITCHED GROUND INPUT IS INTERRUPTED DURING ENGINE CRANKING, THE A/CCM DOES NOT DRIVE HIGH POWER CONSUMING COMPONENTS.

NOTE: THE A/C ISOLATE RELAY REMAINS ENERGIZED BY THE A/CCM FOR 30 SECONDS AFTER THE IGNITION IS SWITCHED OFF TO PROVIDE POWER FOR THE A/CCM TO "PARK" THE SERVOS.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: AJ16 Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 12.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING CONTROL MODULE	CC28 / 26-WAY MULTILOCK 47 / SLATE CC29 / 16-WAY MULTILOCK 47 / SLATE CC30 / 12-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 47 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
AIR CONDITIONING CONTROL PANEL	CC2 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE
AMBIENT TEMPERATURE SENSOR	BL6 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER / SPOILER TRAY
ASPIRATOR MOTOR	FC40 (FLY LEAD) / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
COMPRESSOR LOCK SENSOR	PI57 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	A/C COMPRESSOR
COOL AIR BYPASS SERVO	CC34 (FLY LEAD) 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE; /LH UNDERSCUTTLE
DEFROST SERVO	FC42 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, RH SIDE; FASCIA
DIFFERENTIAL CONTROL POTENTIOMETER	FC20 (FLY LEAD) / 3-WAY MULTILOCK 070 / WHITE	A/C UNIT, LH SIDE; FASCIA
EVAPORATOR TEMPERATURE SENSOR	CC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
FOOT WELL SERVO	CC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
FRESH / RECIRCULATION SERVO – LH	CC32 (FLY LEAD) / 15-WAY SUMITOMO 90 / GREEN	BLOWER HOUSING
FRESH / RECIRCULATION SERVO – RH	CC33 (FLY LEAD) / 15-WAY SUMITOMO 90 / GREEN	BLOWER HOUSING
HEATER MATRIX TEMPERATURE SENSOR	CC34 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
IN-CAR TEMPERATURE SENSOR	FC40 (FLY LEAD) / 4-WAY MULTILOCK 040 / WHITE	DRIVER'S UNDERSCUTTLE
SOLAR SENSOR	FC34 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	FASCIA, TOP FRONT
VENT SERVO	FC42 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
AIR CONDITIONING ISOLATE RELAY	BLACK / BLUE	CA57 / BLUE	RH HEELBOARD

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BL1	13-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM

GROUNDS

Ground	Location / Type
CAG92R	RH HEELBOARD GROUND SCREW
CCG49R	RH CONSOLE GROUND STUD
FCG15R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

AIR CONDITIONING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CC28-1	COMPRESSOR CLUTCH ON SIGNAL	B+	GROUND
O	CC28-6	DEFROST VENT SERVO MOTOR	B+	GROUND
O	CC28-7	CENTER VENT SERVO MOTOR	B+	GROUND
O	CC28-8	LH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-9	RH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-12	FOOTWELL VENT SERVO MOTOR	B+	GROUND
O	CC28-13	COOL AIR BY-PASS VENT SERVO MOTOR	B+	GROUND
O	CC28-19	DEFROST VENT SERVO MOTOR	B+	GROUND
O	CC28-20	CENTER VENT SERVO MOTOR	B+	GROUND
O	CC28-21	LH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-22	RH RECIRCULATION VENT SERVO MOTOR	B+	GROUND
O	CC28-25	FOOTWELL VENT SERVO MOTOR	B+	GROUND
O	CC28-26	COOL AIR BY-PASS VENT SERVO MOTOR	B+	GROUND
I	CC29-1	SOLAR SENSOR FEEDBACK VOLTAGE	0.75 – 4.75 V, INCREASING WITH LAMP BRIGHTNESS	
I	CC29-2	CENTER VENT POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-3	RH RECIRCULATION POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-5	COOL AIR BY-PASS POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-6	COOLANT TEMPERATURE SIGNAL	2.5 V @ 90° C, INCREASING WITH TEMPERATURE	
I	CC29-9	TEMPERATURE DIFFERENTIAL POTENTIOMETER FEEDBACK	0.75V = RED; 4.75V = BLUE	
I	CC29-10	DEFROST VENT POTENTIOMETER FEEDBACK	> 3.5 V (OPEN)	< 1 V (CLOSED)
I	CC29-11	LH RECIRCULATION POTENTIOMETER FEEDBACK	> 3.5 V (OPEN); < 1 V (CLOSED)	
I	CC29-13	FOOTWELL VENT POTENTIOMETER FEEDBACK	> 3.5 V (OPEN); < 1 V (CLOSED)	
O	CC30-1	AIR CONDITIONING ELECTRICAL LOAD SIGNAL	B+	GROUND
O	CC30-2	CLOCK	B+ (1.45 KHz)	B+
D	CC30-3	SERIAL DATA OUTPUT TO CONTROL PANEL		
I	CC30-4	COMPRESSOR LOCK SIGNAL (V12 ONLY)	0.43 V	GROUND
I	CC30-5	AMBIENT TEMPERATURE SENSOR FEEDBACK	2.18 V @ 25° C, INCREASING WITH TEMPERATURE	
I	CC30-6	HEATER MATRIX AIR TEMPERATURE SENSOR FEEDBACK	2.25 V @ 20° C, INCREASING WITH TEMPERATURE	
D	CC30-7	SERIAL DATA INPUT FROM CONTROL PANEL		
O	CC30-8	START	B+	GROUND
I	CC30-11	IN CAR TEMPERATURE SENSOR FEEDBACK	3.25 V @ 0° C, INCREASING WITH TEMPERATURE	
I	CC30-12	EVAPORATOR TEMPERATURE SENSOR FEEDBACK	3.25 V @ 0° C, INCREASING WITH TEMPERATURE	
I	CC31-3	IGNITION SWITCHED GROUND	GROUND	B+
O	CC31-4	IGNITION SWITCHED POWER SUPPLY TO CONTROL PANEL	B+	GROUND
I	CC31-6	ENGINE SPEED SIGNAL	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
I	CC31-7	LOAD INHIBIT (V12 ONLY)	GROUND	B+
O	CC31-8	SERVO POTENTIOMETER COMMON REFERENCE VOLTAGE	5V	5 V
O	CC31-9	COMPRESSOR CLUTCH REQUEST	GROUND	B+
D	CC31-10	SERIAL COMMUNICATION INPUT		
O	CC31-12	BATTERY POWER SUPPLY TO CONTROL PANEL	B+	B+
O	CC31-15	AIR CONDITIONING ISOLATE RELAY	B+	GROUND
I	CC31-16	VEHICLE SPEED SIGNAL	B+ @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
I	CC31-17	REFRIGERANT TRIPLE PRESSURE SWITCH – 4.0L REFRIGERANT DUAL PRESSURE SWITCH – V12	GROUND	B+
O	CC31-18	ASPIRATOR MOTOR	B+	GROUND
SG	CC31-19	SERVO POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
D	CC31-21	SERIAL COMMUNICATION OUTPUT		

AIR CONDITIONING CONTROL PANEL

▽	Pin	Description	Active	Inactive
I	CC2-1	CLOCK	B+ (1.45 KHz)	B+
I	CC2-2	START	B+	GROUND
D	CC2-3	SERIAL DATA OUTPUT TO A/C CONTROL MODULE		
D	CC2-4	SERIAL DATA INPUT FROM A/C CONTROL MODULE		
I	CC2-5	IGNITION SWITCHED POWER SUPPLY	B+	GROUND
I	CC2-6	BATTERY POWER SUPPLY	B+	B+

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

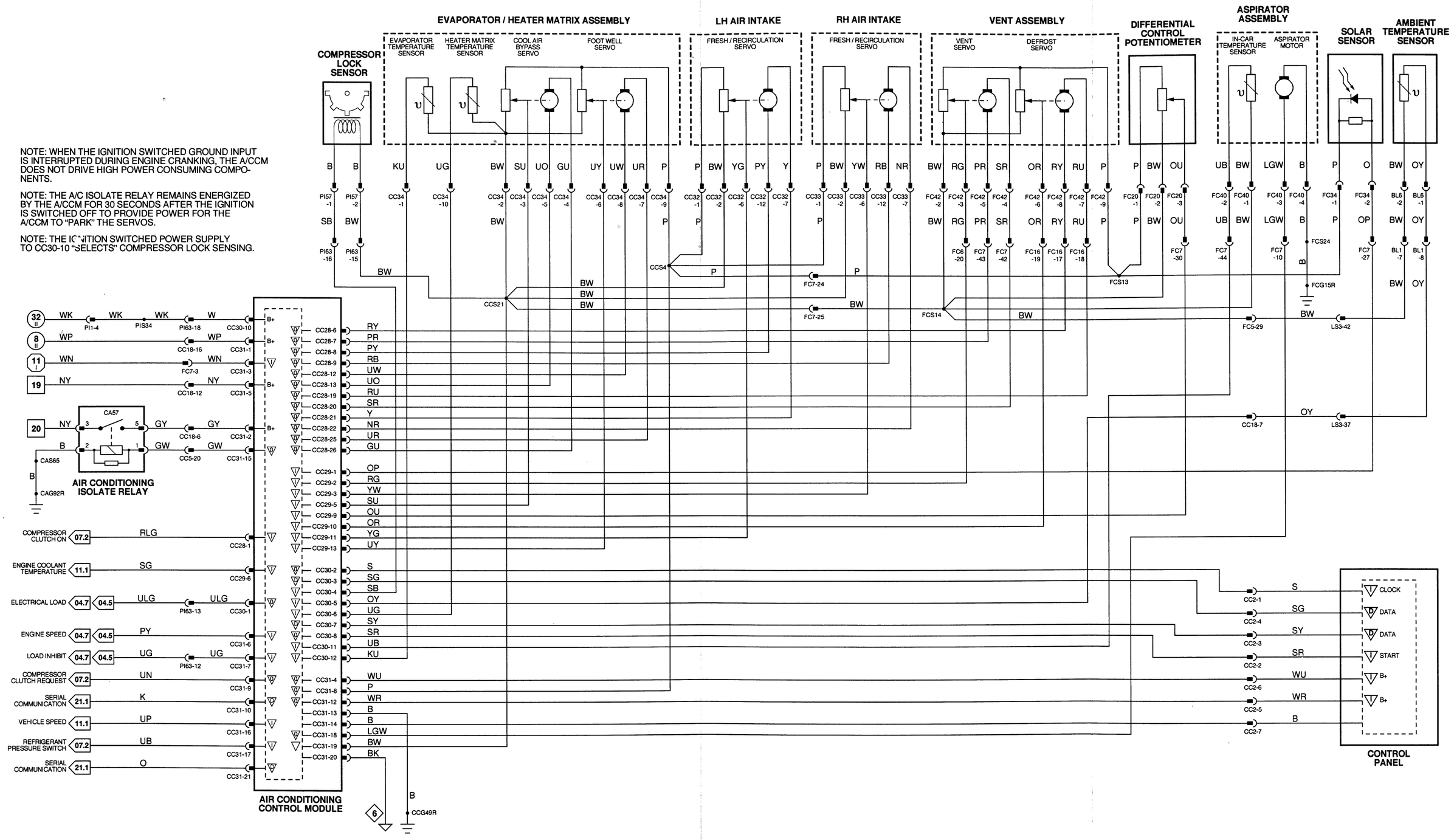
CAUTION: The information on this data page is furnished to aid the user in understanding circuit operation. THIS INFORMATION SHOULD BE USED FOR REFERENCE ONLY.

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

NOTE: WHEN THE IGNITION SWITCHED GROUND INPUT IS INTERRUPTED DURING ENGINE CRANKING, THE A/CCM DOES NOT DRIVE HIGH POWER CONSUMING COMPONENTS.

NOTE: THE A/C ISOLATE RELAY REMAINS ENERGIZED BY THE A/CCM FOR 30 SECONDS AFTER THE IGNITION IS SWITCHED OFF TO PROVIDE POWER FOR THE A/CCM TO "PARK" THE SERVOS.

NOTE: THE IGNITION SWITCHED POWER SUPPLY TO CC30-10 "SELECTS" COMPRESSOR LOCK SENSING.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	Fig. 01.4	Fig. 02.1	Fig. 02.2	Input / Output / Serial and Encoded Communications / Signal Ground (SG)	VARIANT: V12 Vehicles VIN RANGE: 746613 ⟶ DATE OF ISSUE: NOVEMBER 1995

Fig. 12.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING CONTROL MODULE	CC28 / 26-WAY MULTILOCK 47 / SLATE CC29 / 16-WAY MULTILOCK 47 / SLATE CC30 / 12-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 47 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
BLOWER MOTOR – LH	CC32 (FLY LEAD) / 15-WAY SUMITOMO 090 / GREEN	LH UNDERSCUTTLE
BLOWER MOTOR – RH	CC33 (FLY LEAD) / 15-WAY SUMITOMO 090 / GREEN	RH UNDERSCUTTLE
HEATED BACKLIGHT	CA17 / LUCAR / BLACK CA42 / LUCAR / BLACK	BACKLIGHT / LH 'E' POST TRIM BACKLIGHT / RH 'E' POST TRIM
HEATER PUMP	LS7 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE BAY, LH REAR
HEATER VALVE	LS15 (FLY LEAD) / 2-WAY ECONOSEAL III LC / WHITE	ENGINE BAY, LH REAR
MIRROR – DRIVER	DD10 / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
MIRROR – PASSENGER	PD10 / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
WINDSHIELD HEATER – LH	SH4 / 2-WAY SERIES 187C / SLATE	WINDSHIELD / WINDSHIELD BASE, ENGINE BAY
WINDSHIELD HEATER – RH	SH5 / 2-WAY SERIES 187C / SLATE	WINDSHIELD / WINDSHIELD BASE, ENGINE BAY

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
BLOWER MOTOR RELAY – LH	BLACK / BLUE	CA59 / BLUE	RH HEELBOARD
BLOWER MOTOR RELAY – RH	BLACK / BLUE	CA58 / BLUE	RH HEELBOARD
DOOR MIRROR HEATER RELAY	VIOLET	CA54 / BLUE	RH HEELBOARD
HEATED BACKLIGHT RELAY	BLACK / VIOLET	BT42 / YELLOW	TRUNK ELECTRICAL CARRIER
HEATER PUMP RELAY	BLACK	LS46 / BLACK	LH ENGINE BAY RELAYS
HIGH SPEED RELAY – LH	BLACK / BLUE	CA59 / BLUE	RH HEELBOARD
HIGH SPEED RELAY – RH	BLACK / BLUE	CA58 / BLUE	RH HEELBOARD
WINDSHIELD HEATER RELAY – LH	LIGHT BLUE	SH2 / BLACK	LH 'A' POST
WINDSHIELD HEATER RELAY – RH	LIGHT BLUE	SH3 / BLACK	LH 'A' POST

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
SH1	2-WAY AMP 87C SERIES / SLATE	LH 'A' POST / 'A' POST PANEL
SH8	4-WAY MULTILOCK 070 / WHITE	LH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG31L	PARCEL SHELF GROUND SCREW
CAG33L	RH HEELBOARD GROUND SCREW
CAG92L	RH HEELBOARD GROUND SCREW
CAG96L	LH HEELBOARD GROUND SCREW
CAG96R	LH HEELBOARD GROUND SCREW
CCG43L	RH CONSOLE GROUND STUD
CCG43R	RH CONSOLE GROUND STUD
CCG49L	RH CONSOLE GROUND STUD
CCG49R	RH CONSOLE GROUND STUD
LSG19L	LH BULKHEAD GROUND STUD
SHG6L	LH BULKHEAD GROUND STUD
SHG6R	LH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

AIR CONDITIONING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	CC28-2	HEATER VALVE SUPPLY	B+	GROUND
O	CC28-3	R/H BLOWER MOTOR RELAY	GROUND	B+
O	CC28-4	LH AND RH WINDSHIELD HEATER RELAYS	GROUND	B+
O	CC28-5	DOOR MIRROR HEATER RELAY	GROUND	B+
O	CC28-14	RH HIGH SPEED BLOWER RELAY	GROUND	B+
O	CC28-15	LH HIGH SPEED BLOWER RELAY	GROUND	B+
O	CC28-16	LH BLOWER MOTOR RELAY	GROUND	B+
O	CC28-17	HEATER PUMP RELAY	GROUND	B+
O	CC28-18	HEATED BACKLIGHT RELAY	GROUND	B+
I	CC29-7	RH BLOWER SPEED FEEDBACK	7.6 V = LOW SPEED; 0.83 V = HIGH SPEED	
O	CC29-8	RH BLOWER SPEED CONTROL DRIVE SIGNAL	1.3 V = LOW SPEED; 0V = HIGH SPEED	
I	CC29-15	LH BLOWER SPEED FEEDBACK	7.6 V = LOW SPEED; 0.83 V = HIGH SPEED	
O	CC29-16	LH BLOWER SPEED CONTROL DRIVE SIGNAL	1.3 V = LOW SPEED; 0 V = HIGH SPEED	
I	CC31-3	IGNITION SWITCHED GROUND	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

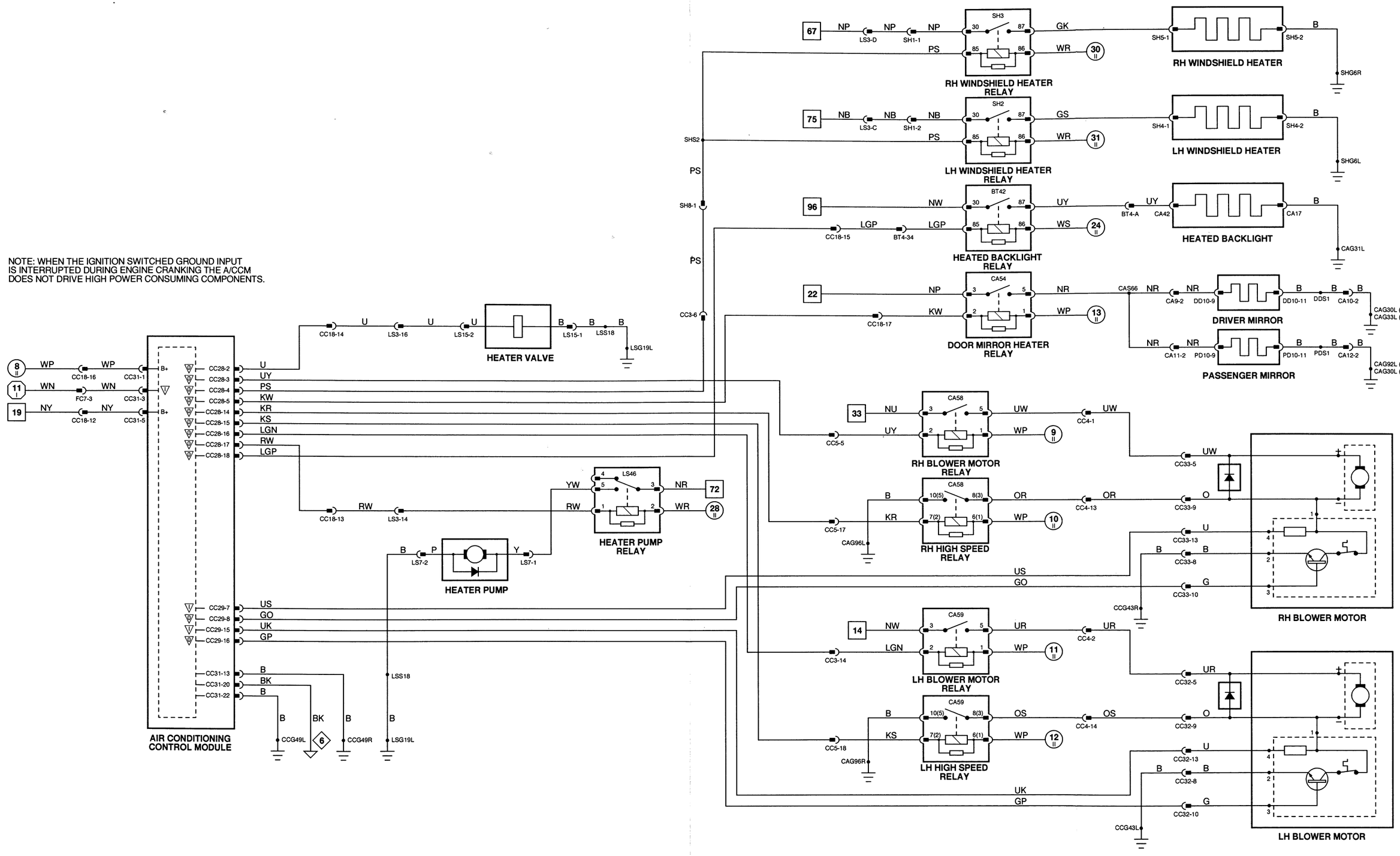
I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

NOTE: WHEN THE IGNITION SWITCHED GROUND INPUT IS INTERRUPTED DURING ENGINE CRANKING THE A/CCM DOES NOT DRIVE HIGH POWER CONSUMING COMPONENTS.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	Fig. 01.4	Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)	VARIANT: All Vehicles VIN RANGE: 746613 ⟶ DATE OF ISSUE: NOVEMBER 1995	

Fig. 13.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
VARIABLE POWER STEERING CONTROL MODULE	CA32 / 9-WAY RISTS / BLACK	LH 'A' POST / 'A' POST TRIM
VARIABLE STEERING CONVERTER	LL3 / 2-WAY JUNIOR TIMER / BLACK	STEERING RACK, PINION HOUSING

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
LL2	3-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI59	13-WAY ECONOSEAL III LC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP

GROUNDS

Ground	Location / Type
CAG30R	LH 'A' POST GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

VARIABLE STEERING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	CA32-2	TRANSDUCER NEGATIVE	2 V @ IDLE, DECREASING WITH VEHICLE SPEED	
I	CA32-4	VEHICLE SPEED	B+ @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
O	CA32-5	TRANSDUCER POSITIVE	9 V @ IDLE, INCREASING WITH VEHICLE SPEED	

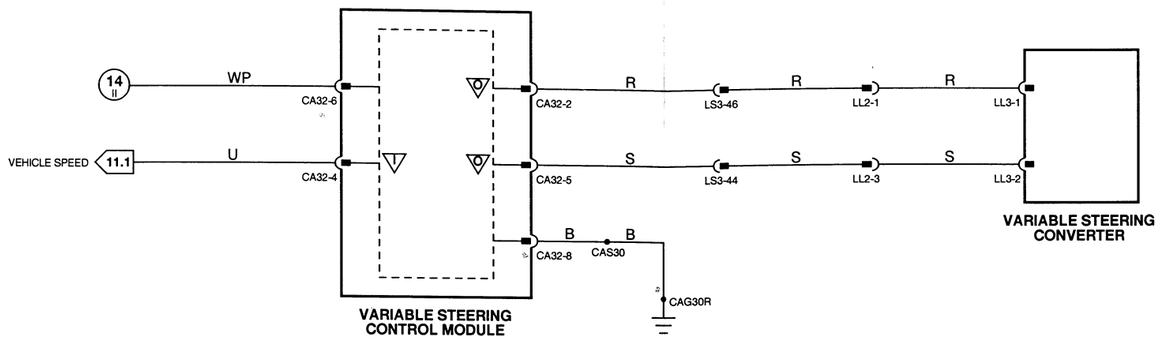
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

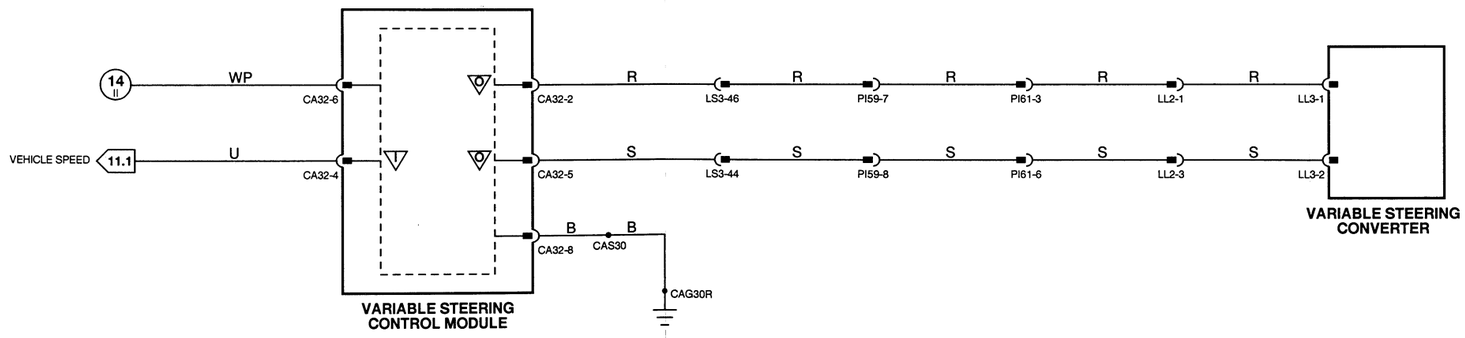
B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



LHD



RHD

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 13.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
AUTO TILT SWITCH (COLUMN SWITCHGEAR)	SC5 (FLY LEAD) / 8-WAY GROTE AND HARTMAN / BLACK	STEERING COLUMN / COVER
COLUMN / MIRROR MOVEMENT CONTROL MODULE	FC45 / 26-WAY MULTILOCK 47 / SLATE FC46 / 16-WAY MULTILOCK 47 / SLATE FC47 / 12-WAY MULTILOCK 47 / SLATE	RH UNDERSCUTTLE
COLUMN JOYSTICK (COLUMN SWITCHGEAR)	SC5 (FLY LEAD) / 8-WAY GROTE AND HARTMAN / BLACK	STEERING COLUMN / COVER
DOOR MIRROR MOTORS – DRIVER	DD10 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
DOOR MIRROR MOTORS – PASSENGER	PD10 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
DOOR SWITCH – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH PACK – DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
HAND BRAKE SWITCH	CC52 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE, LH SIDE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
LINEAR GEAR POSITION SWITCHES	CC21 / 20-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
REVERSE SWITCH (AJ16 MANUAL)	CC45 / 2-WAY SUMITOMO / WHITE	TRANSMISSION TUNNEL / CENTER CONSOLE
ROTARY SWITCH	GB1 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE GB2 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
STEERING COLUMN MOTORS	FC49 (FLY LEAD) / 6-WAY MULTILOCK 070 / WHITE FC50 (FLY LEAD) / 8-WAY MULTILOCK 070 / YELLOW	STEERING COLUMN / DRIVER'S UNDERSCUTTLE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC4	20-WAY MULTILOCK 040 / BLUE	DRIVER'S UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
CCG51R	CENTER CONSOLE GROUND STUD
CCG8L	CENTER CONSOLE GROUND STUD
FCG15R	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

COLUMN / MIRROR MOVEMENT CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	FC45-1	PASSENGER MIRROR UP / DOWN MOTOR	B+ (UP)	GROUND
O	FC45-2	STEERING COLUMN TILT MOTOR	B+ (UP)	GROUND
I	FC45-4	PASSENGER MIRROR RIGHT / LEFT POTENTIOMETER FEEDBACK	0.5 V (LEFT), 4 V (RIGHT)	
I	FC45-5	STEERING COLUMN MOVEMENT JOYSTICK	6.8 V (OUT), 8.5 V (IN) 10.1 V (UP), 12.1 V (DOWN)	GROUND GROUND
I	FC45-6	PASSENGER MIRROR UP / DOWN REQUEST	B+ (UP), GROUND (DOWN)	OPEN CIRCUIT
I	FC45-7	DRIVER MIRROR UP / DOWN REQUEST	B+ (UP), GROUND (DOWN)	OPEN CIRCUIT
I	FC45-8	PASSENGER MIRROR RIGHT / LEFT REQUEST	B+ (RIGHT), GROUND (LEFT)	OPEN CIRCUIT
I	FC45-9	DRIVER MIRROR RIGHT / LEFT REQUEST	B+ (RIGHT), GROUND (LEFT)	OPEN CIRCUIT
I	FC45-10	MIRROR SELECT	SAME AS DIRECTIONAL REQUEST IN USE	OPEN CIRCUIT
O	FC45-11	DRIVER MIRROR UP / DOWN MOTOR	B+ (UP)	
O	FC45-12	STEERING COLUMN REACH MOTOR	B+ (IN)	GROUND
O	FC45-13	DRIVER MIRROR RIGHT / LEFT MOTOR	B+ (RIGHT)	GROUND
O	FC45-14	STEERING COLUMN TILT MOTOR	B+ (DOWN)	GROUND
O	FC45-15	STEERING COLUMN REACH MOTOR	B+ (OUT)	GROUND
SG	FC45-16	COLUMN AND MIRROR POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
I	FC45-17	MEMORY 3 SWITCH REQUEST	B+	GROUND
I	FC45-18	MEMORY 2 SWITCH REQUEST	B+	GROUND
I	FC45-19	MEMORY 1 SWITCH REQUEST	B+	GROUND
I	FC45-20	MEMORY SET SWITCH REQUEST	B+	GROUND
I	FC45-22	KEY IN IGNITION SWITCH SIGNAL	GROUND	B+
I	FC45-23	IGNITION SWITCHED GROUND	GROUND	B+
O	FC45-24	COLUMN AND MIRROR POTENTIOMETER COMMON REFERENCE VOLTAGE	5 V	5 V
O	FC45-25	PASSENGER MIRROR RIGHT / LEFT MOTOR	B+ (RIGHT)	GROUND
O	FC45-26	DRIVER AND PASSENGER MIRROR MOTORS COMMON	B+ (LEFT), GROUND (RIGHT)	GROUND
I	FC46-1	DRIVER MIRROR RIGHT / LEFT POTENTIOMETER FEEDBACK	0.5 V (LEFT), 4 V (RIGHT)	
I	FC46-2	PASSENGER MIRROR UP / DOWN POTENTIOMETER FEEDBACK	0.5 V (DOWN), 4 V (UP)	
I	FC46-3	DRIVER MIRROR UP / DOWN POTENTIOMETER FEEDBACK	0.5 V (DOWN), 4 V (UP)	
I	FC46-4	STEERING COLUMN TILT POTENTIOMETER FEEDBACK	0.5 V (DOWN), 4 V (UP)	
I	FC46-5	STEERING COLUMN REACH POTENTIOMETER FEEDBACK	0.5 V (OUT), 4 V (IN)	
I	FC46-6	IGNITION VOLTAGE	B+	GROUND
I	FC46-7	AUTO / MANUAL TILT SELECTION SWITCH	GROUND = AUTO	B+ = OFF
I	FC46-8	NOT IN PARK	GROUND	B+
I	FC46-9	HANDBRAKE ON	GROUND	B+
I	FC46-10	DRIVER DOOR AJAR	GROUND	7.9 V
I	FC46-11	REMOTE SEAT / MIRROR / COLUMN REQUEST	GROUND PULSE	B+
D	FC47-4	SERIAL COMMUNICATION OUTPUT		
D	FC47-5	SERIAL COMMUNICATION INPUT		

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

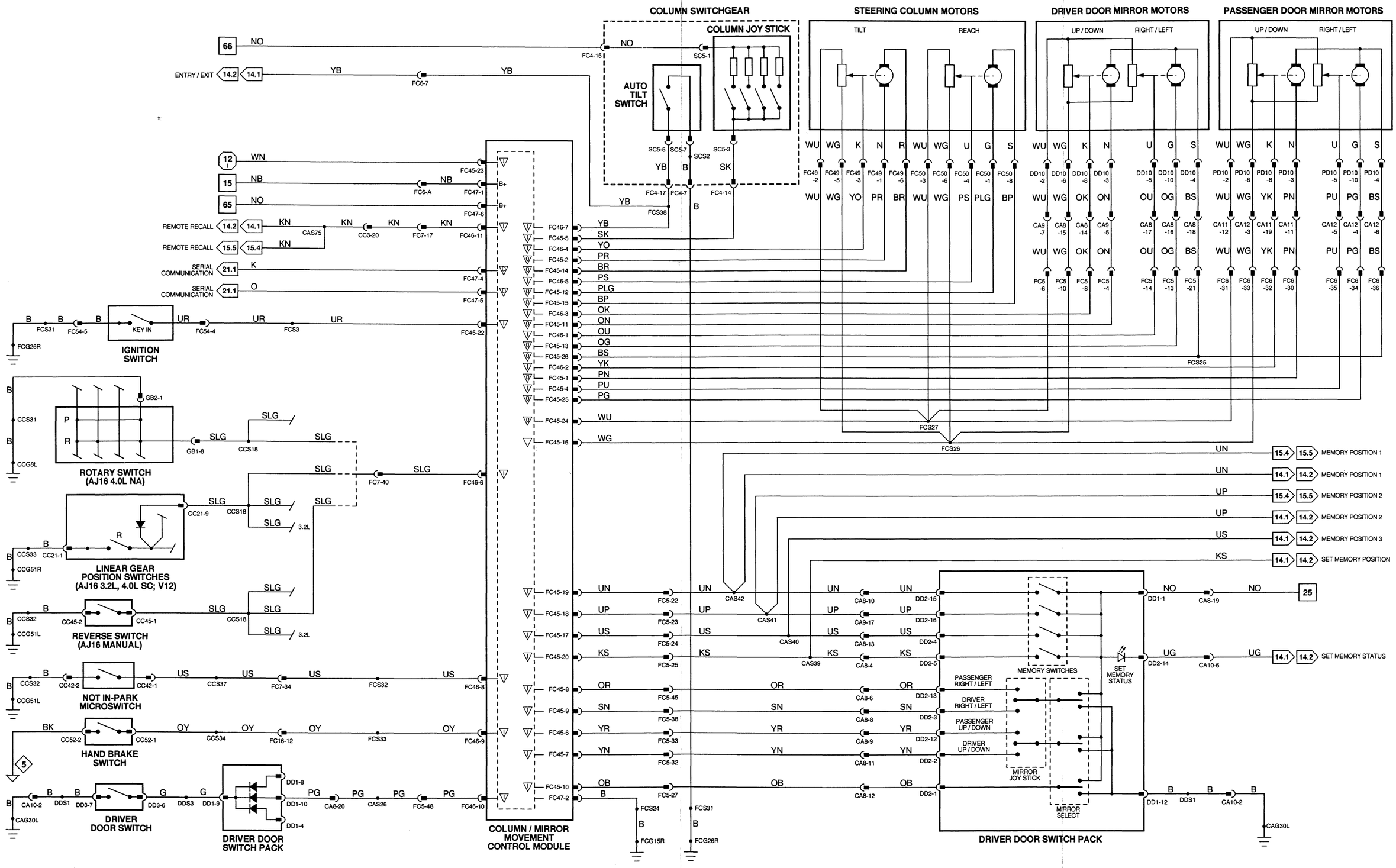

COLUMN SWITCHGEAR
COLUMN JOY STICK
AUTO TILT SWITCH
STEERING COLUMN MOTORS
TILT
REACH
DRIVER DOOR MIRROR MOTORS
UP / DOWN
RIGHT / LEFT
PASSENGER DOOR MIRROR MOTORS
66
ENTRY / EXIT
14.2
14.1
12
15
65
REMOTE RECALL
15.5
15.4
SERIAL COMMUNICATION
21.1
IGNITION SWITCH
KEY IN
FCG26R
ROTARY SWITCH (AJ16 4.0L NA)
GB2-1
CCG8L
LINEAR GEAR POSITION SWITCHES (AJ16 3.2L, 4.0L SC; V12)
CCG51R
REVERSE SWITCH (AJ16 MANUAL)
CCG51L
NOT IN-PARK MICROSWITCH
HAND BRAKE SWITCH
DRIVER DOOR SWITCH
CAG30L
DRIVER DOOR SWITCH PACK
COLUMN / MIRROR MOVEMENT CONTROL MODULE
FCG15R
FCG26R
CAS75
CAS42
CAS41
CAS40
CAS39
FCS25
FCS26
FCS27
MEMORY SWITCHES
SET MEMORY STATUS
PASSENGER RIGHT / LEFT
DRIVER RIGHT / LEFT
PASSENGER UP / DOWN
DRIVER UP / DOWN
MIRROR JOY STICK
MIRROR SELECT
MEMORY POSITION 1
MEMORY POSITION 2
MEMORY POSITION 3
SET MEMORY POSITION
SET MEMORY STATUS
1 — 6 Fig. 01.1
7 — 66 Fig. 01.2
67 — 109 Fig. 01.3
Fig. 01.4
Fig. 02.1
Fig. 02.2
Input
Output
Serial and Encoded Communications
Signal Ground (SG)
VARIANT: LHD Memory Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 13.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
AUTO TILT SWITCH (COLUMN SWITCHGEAR)	SC5 (FLY LEAD) / 8-WAY GROTE AND HARTMAN / BLACK	STEERING COLUMN / COVER
COLUMN / MIRROR MOVEMENT CONTROL MODULE	FC45 / 26-WAY MULTILOCK 47 / SLATE FC46 / 16-WAY MULTILOCK 47 / SLATE FC47 / 12-WAY MULTILOCK 47 / SLATE	RH UNDERSCUTTLE
COLUMN JOYSTICK (COLUMN SWITCHGEAR)	SC5 (FLY LEAD) / 8-WAY GROTE AND HARTMAN / BLACK	STEERING COLUMN / COVER
DOOR MIRROR MOTORS - DRIVER	DD10 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
DOOR MIRROR MOTORS - PASSENGER	PD10 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
DOOR SWITCH - DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH PACK - DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
HAND BRAKE SWITCH	CC52 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE, LH SIDE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
LINEAR GEAR POSITION SWITCHES	CC21 / 20-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
REVERSE SWITCH (AJ16 MANUAL)	CC45 / 2-WAY SUMITOMO / WHITE	TRANSMISSION TUNNEL / CENTER CONSOLE
ROTARY SWITCH	GB1 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE GB2 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
STEERING COLUMN MOTORS	FC49 (FLY LEAD) / 6-WAY MULTILOCK 070 / WHITE FC50 (FLY LEAD) / 8-WAY MULTILOCK 070 / YELLOW	STEERING COLUMN / DRIVER'S UNDERSCUTTLE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC4	20-WAY MULTILOCK 040 / BLUE	DRIVER'S UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG33L	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
CCG51R	CENTER CONSOLE GROUND STUD
CCG8L	CENTER CONSOLE GROUND STUD
FCG15R	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

COLUMN / MIRROR MOVEMENT CONTROL MODULE

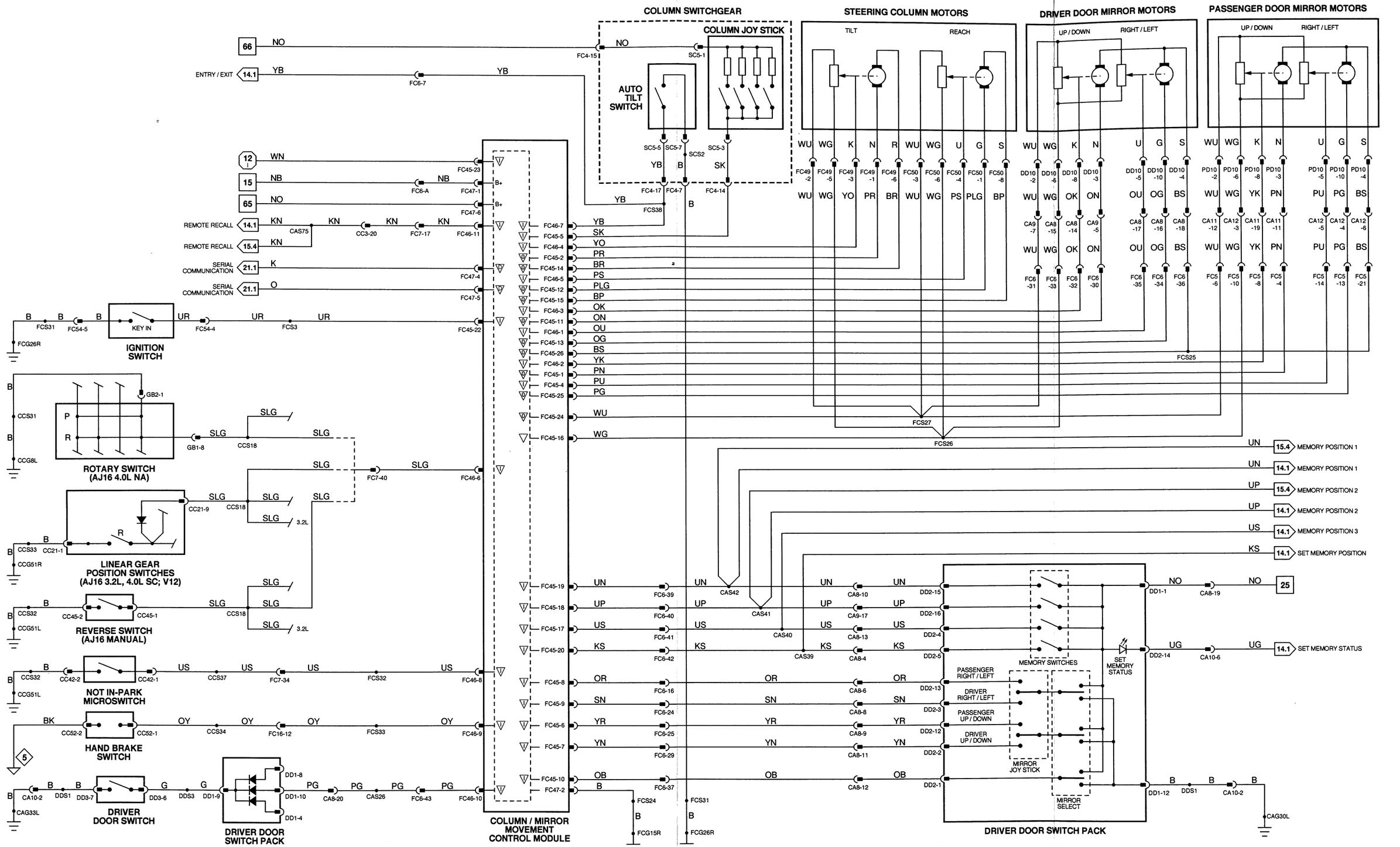
▽	Pin	Description	Active	Inactive
O	FC45-1	PASSENGER MIRROR UP / DOWN MOTOR	B+ (UP)	GROUND
O	FC45-2	STEERING COLUMN TILT MOTOR	B+ (UP)	GROUND
I	FC45-4	PASSENGER MIRROR RIGHT / LEFT POTENTIOMETER FEEDBACK	0.5 V (LEFT), 4 V (RIGHT)	
I	FC45-5	STEERING COLUMN MOVEMENT JOYSTICK	6.8 V (OUT), 8.5 V (IN) 10.1 V (UP), 12.1 V (DOWN)	GROUND GROUND
I	FC45-6	PASSENGER MIRROR UP / DOWN REQUEST	B+ (UP), GROUND (DOWN)	OPEN CIRCUIT
I	FC45-7	DRIVER MIRROR UP / DOWN REQUEST	B+ (UP), GROUND (DOWN)	OPEN CIRCUIT
I	FC45-8	PASSENGER MIRROR RIGHT / LEFT REQUEST	B+ (RIGHT), GROUND (LEFT)	OPEN CIRCUIT
I	FC45-9	DRIVER MIRROR RIGHT / LEFT REQUEST	B+ (RIGHT), GROUND (LEFT)	OPEN CIRCUIT
I	FC45-10	MIRROR SELECT	SAME AS DIRECTIONAL REQUEST IN USE	OPEN CIRCUIT
O	FC45-11	DRIVER MIRROR UP / DOWN MOTOR	B+ (UP)	
O	FC45-12	STEERING COLUMN REACH MOTOR	B+ (IN)	GROUND
O	FC45-13	DRIVER MIRROR RIGHT / LEFT MOTOR	B+ (RIGHT)	GROUND
O	FC45-14	STEERING COLUMN TILT MOTOR	B+ (DOWN)	GROUND
O	FC45-15	STEERING COLUMN REACH MOTOR	B+ (OUT)	GROUND
SG	FC45-16	COLUMN AND MIRROR POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
I	FC45-17	MEMORY 3 SWITCH REQUEST	B+	GROUND
I	FC45-18	MEMORY 2 SWITCH REQUEST	B+	GROUND
I	FC45-19	MEMORY 1 SWITCH REQUEST	B+	GROUND
I	FC45-20	MEMORY SET SWITCH REQUEST	B+	GROUND
I	FC45-22	KEY IN IGNITION SWITCH SIGNAL	GROUND	B+
I	FC45-23	IGNITION SWITCHED GROUND	GROUND	B+
O	FC45-24	COLUMN AND MIRROR POTENTIOMETER COMMON REFERENCE VOLTAGE	5 V	5 V
O	FC45-25	PASSENGER MIRROR RIGHT / LEFT MOTOR	B+ (RIGHT)	GROUND
O	FC45-26	DRIVER AND PASSENGER MIRROR MOTORS COMMON	B+ (LEFT), GROUND (RIGHT)	GROUND
I	FC46-1	DRIVER MIRROR RIGHT / LEFT POTENTIOMETER FEEDBACK	0.5 V (LEFT), 4 V (RIGHT)	
I	FC46-2	PASSENGER MIRROR UP / DOWN POTENTIOMETER FEEDBACK	0.5 V (DOWN), 4 V (UP)	
I	FC46-3	DRIVER MIRROR UP / DOWN POTENTIOMETER FEEDBACK	0.5 V (DOWN), 4 V (UP)	
I	FC46-4	STEERING COLUMN TILT POTENTIOMETER FEEDBACK	0.5 V (DOWN), 4 V (UP)	
I	FC46-5	STEERING COLUMN REACH POTENTIOMETER FEEDBACK	0.5 V (OUT), 4 V (IN)	
I	FC46-6	IGNITION VOLTAGE	B+	GROUND
I	FC46-7	AUTO / MANUAL TILT SELECTION SWITCH	GROUND = AUTO	B+ = OFF
I	FC46-8	NOT IN PARK	GROUND	B+
I	FC46-9	HANDBRAKE ON	GROUND	B+
I	FC46-10	DRIVER DOOR AJAR	GROUND	7.9 V
I	FC46-11	REMOTE SEAT / MIRROR / COLUMN REQUEST	GROUND PULSE	B+
D	FC47-4	SERIAL COMMUNICATION OUTPUT		
D	FC47-5	SERIAL COMMUNICATION INPUT		

The following symbols are used to represent values for Control Module Pin Out data:

I	**Input**	**B+**	**Battery voltage**
O	**Output**	**V**	**Voltage (DC)**
SG	**Signal Ground**	**Hz**	**Frequency**
D	**Serial and encoded communications**	**KHz**	**Frequency x 1000**
		MS	**Milliseconds**
		MV	**Millivolts**

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	Fig. 01.4	Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)	VARIANT: RHD Memory Vehicles VIN RANGE: 746613 → DATE OF ISSUE: NOVEMBER 1995	

Fig. 13.4

COMPONENTS

Component	Connector / Type / Color	Location / Access
DOOR MIRROR MOTORS – DRIVER	DD10 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
DOOR MIRROR MOTORS – PASSENGER	PD10 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
DOOR SWITCH PACK – DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL

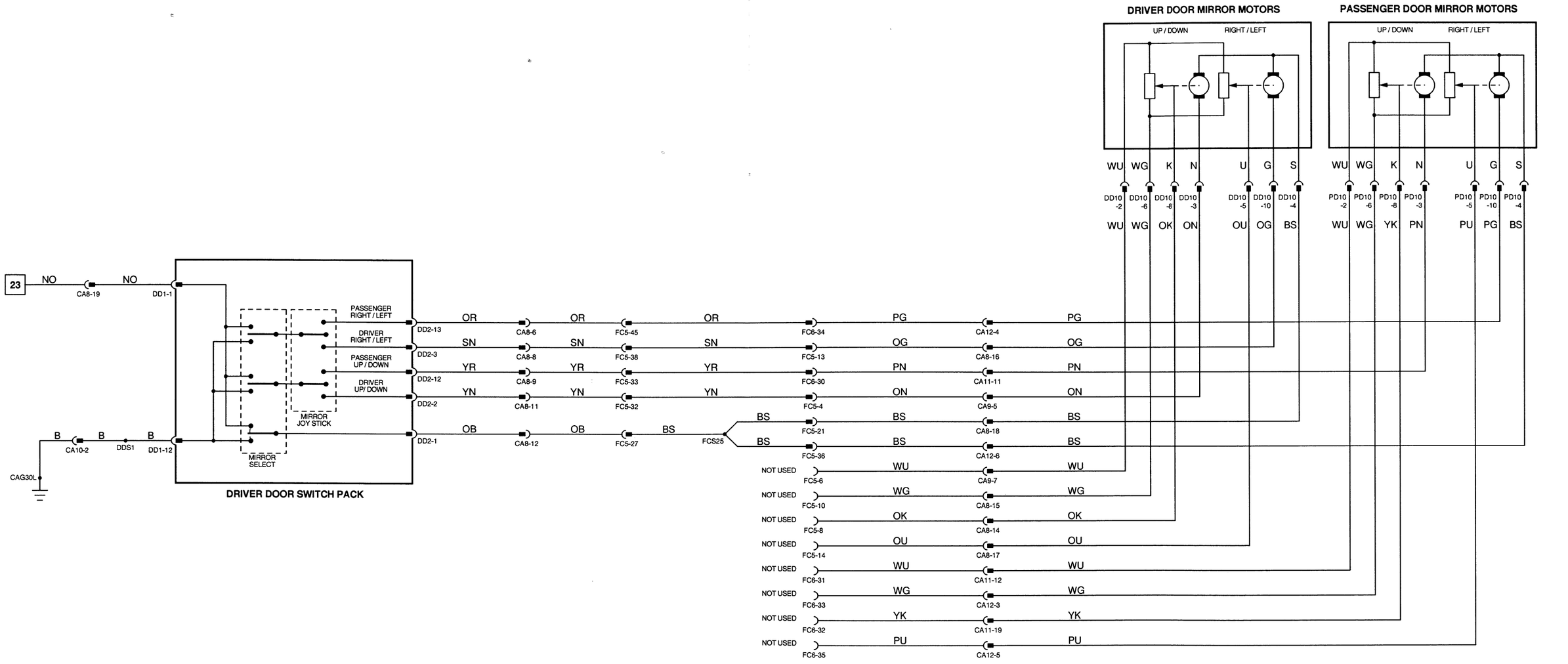
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: LHD Manual Column Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 13.5

COMPONENTS

Component	Connector / Type / Color	Location / Access
DOOR MIRROR MOTORS - DRIVER	DD10 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
DOOR MIRROR MOTORS - PASSENGER	PD10 (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
DOOR SWITCH PACK - DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL

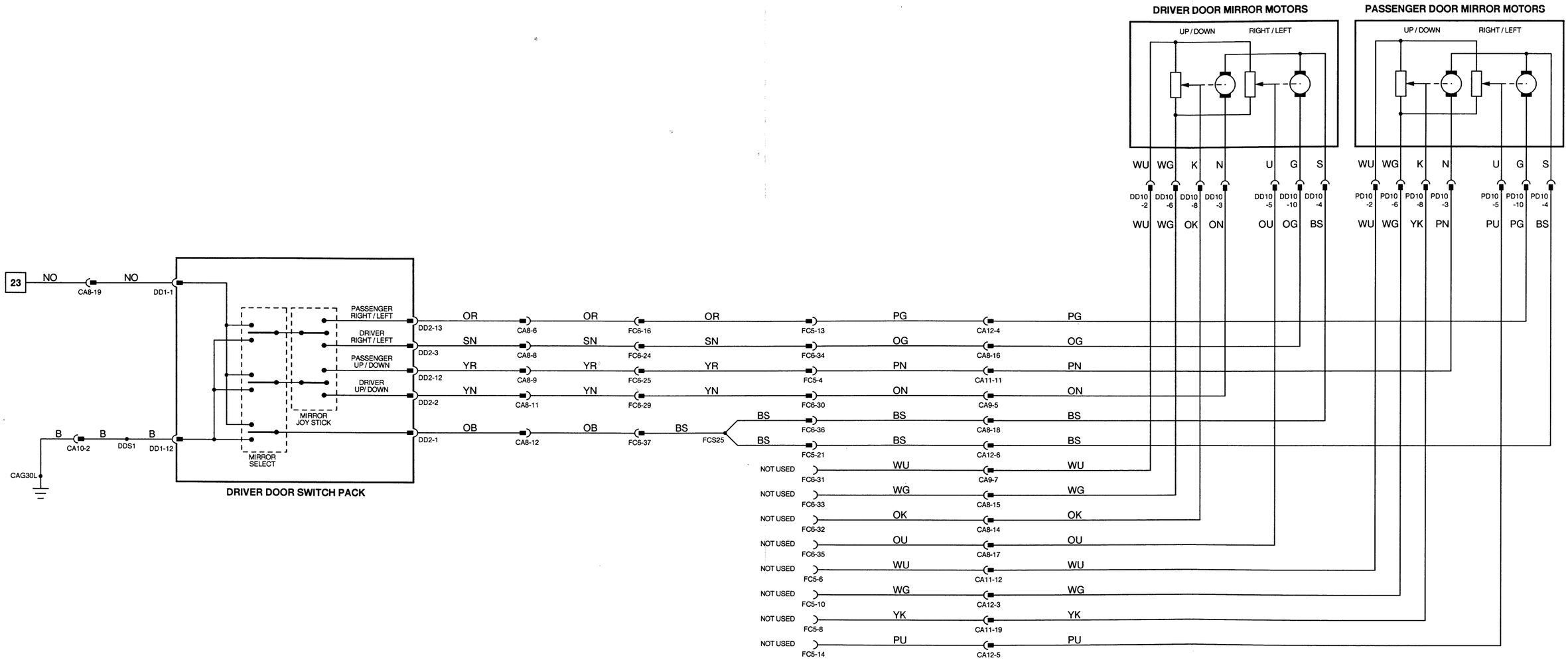
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: RHD Manual Column Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR SWITCH – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH PACK – DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
SEAT CONTROL MODULE – DRIVER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6-D / 22-WAY MULTILOCK 47 / WHITE	DRIVER'S SEAT
SEAT CUSHION – DRIVER	SM7-D / 3-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEAT / UNDER
SEAT LUMBAR PUMP – DRIVER	SM10-D / 3-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEAT / SQUAB
SEAT MOTORS – DRIVER	SM2-D / 6-WAY MULTILOCK 070 / WHITE SM3-D / 6-WAY MULTILOCK 070 / YELLOW SM4-D / 6-WAY MULTILOCK 070 / SLATE SM11-D / 6-WAY MULTILOCK 070 / WHITE SM13-D / 6-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEAT / UNDER DRIVER'S SEAT / UNDER DRIVER'S SEAT / UNDER DRIVER'S SEAT / SQUAB DRIVER'S SEAT / UNDER
SEAT SWITCH PACK – DRIVER	SM5-D / 16-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT
SQUAB – DRIVER	SM9-D / 3-WAY MULTILOCK 070 / SLATE	DRIVER'S SEAT
HAND BRAKE SWITCH	CC52 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE, LH SIDE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA23	20-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT / UNDER
CA24	6-WAY MULTILOCK 070 / WHITE	DRIVER'S SEAT / UNDER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG30R	LH 'A' POST GROUND SCREW
CAG33L	RH HEELBOARD GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
PLG3L	LH SEAT GROUND SCREW
PLG3R	LH SEAT GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

←

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

DRIVER SEAT CONTROL MODULE (ROW, MEMORY SEAT VEHICLES)

▽	Pin	Description	Active	Inactive
O	PL1-2D	SEAT HEATER ON (STATE)	B+	GROUND
I	PL1-3D	IGNITION SWITCHED GROUND	GROUND	B+
I	PL1-4D	MEMORY POSITION 1 REQUEST	B+	GROUND
I	PL1-5D	MEMORY POSITION 2 REQUEST	B+	GROUND
I	PL1-6D	MEMORY POSITION 3 REQUEST	B+	GROUND
O	PL1-8D	SET MEMORY STATUS (STATE)	GROUND	B+
I	PL1-9D	ENTRY / EXIT SIGNAL	GROUND	B+
I	PL1-10D	SEAT HEATER REQUEST	GROUND	B+
I	PL1-12D	REMOTE RECALL REQUEST	GROUND PULSE ON UNLOCK	B+
I	PL1-13D	NOT IN PARK	GROUND	B+
I	PL1-14D	HANDBRAKE ON	GROUND	B+
I	PL1-15D	KEY IN IGNITION	GROUND	B+
O	PL1-16D	MEMORY SET	GROUND	B+
I	PL1-18D	BRAKE SWITCH	GROUND	B+
I	PL1-21D	SEAT MEMORY POSITION REQUEST	B+	GROUND
I	PL1-22D	DRIVER'S DOOR AJAR	GROUND	7.9 V
D	PL2-1D	SERIAL COMMUNICATION INPUT		
D	PL2-2D	SERIAL COMMUNICATION OUTPUT		
O	SM1-1D	SQUAB RECLINE FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-2D	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-3D	SEAT FRONT RAISE / LOWER MOTOR	B+ (RAISE)	GROUND
O	SM1-4D	SEAT FRONT RAISE / LOWER MOTOR	B+ (LOWER)	GROUND
O	SM1-5D	SEAT REAR RAISE / LOWER MOTOR	B+ (RAISE)	GROUND
O	SM1-6D	SEAT REAR RAISE / LOWER MOTOR	B+ (LOWER)	GROUND
O	SM1-7D	SEAT FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-8D	SEAT FORE / AFT MOTOR	B+ (FORE)	GROUND
I	SM1-9D	COMMON GROUND	GROUND	GROUND
O	SM1-10D	HEATER ELEMENT SUPPLY	B+	GROUND
O	SM1-11D	HEADREST RAISE / LOWER MOTOR	B+ (RAISE)	GROUND
O	SM1-12D	HEADREST RAISE / LOWER MOTOR	B+ (LOWER)	GROUND
O	SM6-1D	POTENTIOMETER COMMON REFERENCE VOLTAGE	5 V	5 V
SG	SM6-2D	POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
O	SM6-3D	HEADREST POTENTIOMETER FEEDBACK	0.5 V (DOWN), 4 V (UP)	
O	SM6-4D	SQUAB RECLINE POTENTIOMETER FEEDBACK	0.5 V (BACK), 4 V (FORWARD)	
O	SM6-5D	SEAT FORE / AFT POTENTIOMETER FEEDBACK	0.5 V (BACK), 4 V (FORWARD)	
O	SM6-6D	SEAT REAR RAISE / LOWER POTENTIOMETER FEEDBACK	0.5 V (LOWER), 4 V (RAISE)	
O	SM6-7D	SEAT FRONT RAISE / LOWER POTENTIOMETER FEEDBACK	0.5 V (LOWER), 4 V (RAISE)	
I	SM6-8D	RECLINE AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-9D	SEAT AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-10D	SEAT FORE MOVEMENT REQUEST	B+	GROUND
O	SM6-11D	LUMBAR SWITCH POWER SUPPLY	B+	B+
I	SM6-14D	HEADREST LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-15D	HEADREST RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-16D	SEAT REAR LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-17D	SEAT REAR RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-18D	SEAT FRONT LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-19D	SEAT FRONT RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-20D	RECLINE FORE MOVEMENT REQUEST	B+	GROUND

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-23	DRIVER SEAT HEATER ON	GROUND	B+
I	FC2-38	DRIVER SEAT HEATER REQUEST	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

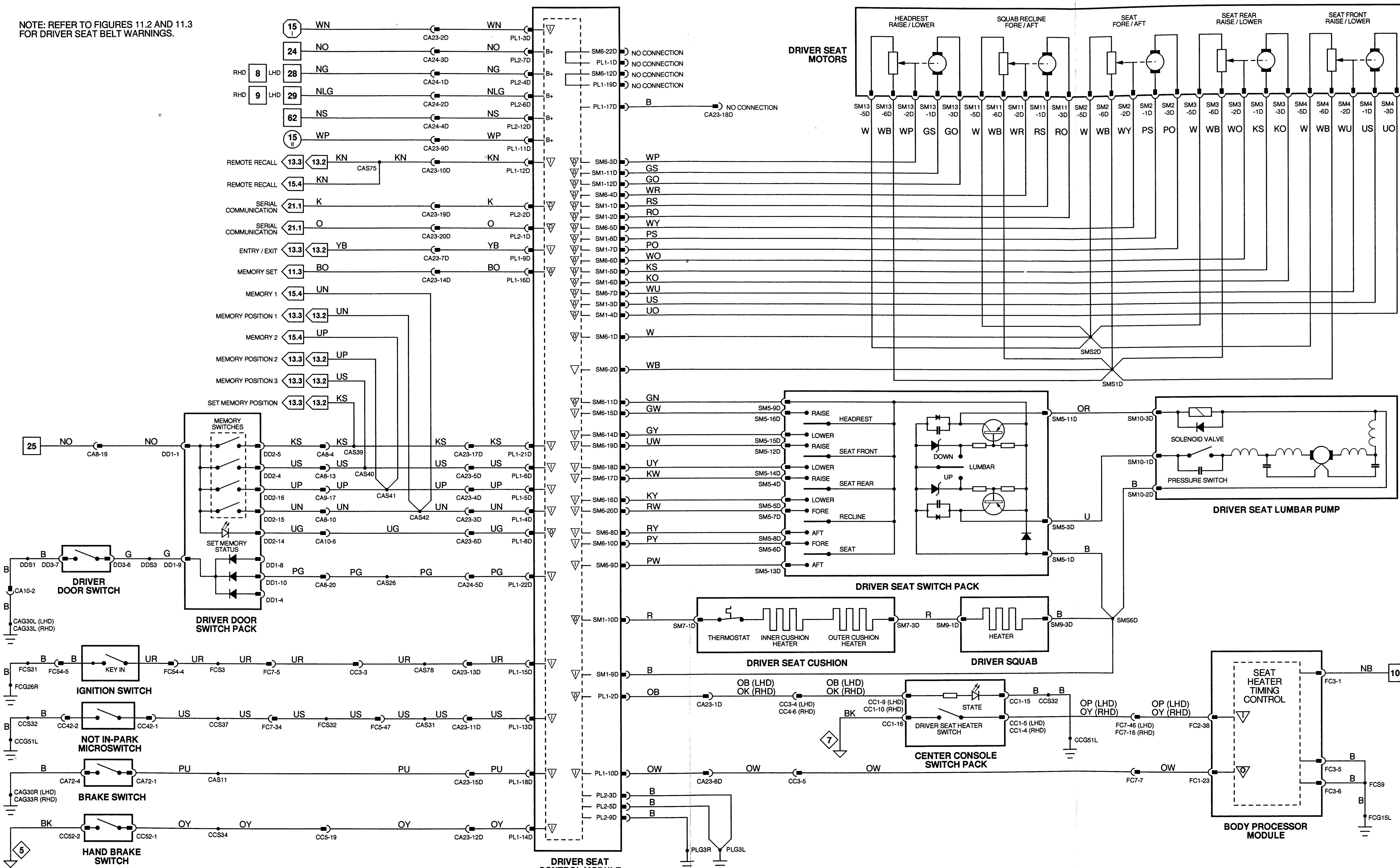
I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

NOTE: REFER TO FIGURES 11.2 AND 11.3 FOR DRIVER SEAT BELT WARNINGS.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	Fig. 01.4	Fig. 02.1
Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)

VARIANT: ROW Memory Seat Vehicles
VIN RANGE: 746613 →
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR SWITCH – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH PACK – DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
SEAT CONTROL MODULE – DRIVER (NAS VEHICLES)	CA105 / 22-WAY MULTILOCK 47 / BLUE CA106 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6-D / 22-WAY MULTILOCK 47 / WHITE	DRIVER'S SEAT
SEAT CUSHION – DRIVER	SM7-D / 3-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEAT / UNDER
SEAT LUMBAR PUMP – DRIVER	SM10-D / 3-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEAT / SQUAB
SEAT MOTORS – DRIVER	SM2-D / 6-WAY MULTILOCK 070 / WHITE SM3-D / 6-WAY MULTILOCK 070 / YELLOW SM4-D / 6-WAY MULTILOCK 070 / SLATE SM11-D / 6-WAY MULTILOCK 070 / WHITE SM13-D / 6-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEAT / UNDER DRIVER'S SEAT / UNDER DRIVER'S SEAT / UNDER DRIVER'S SEAT / SQUAB DRIVER'S SEAT / UNDER
SEAT SWITCH PACK – DRIVER	SM5-D / 16-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT
SQUAB – DRIVER	SM9-D / 3-WAY MULTILOCK 070 / SLATE	DRIVER'S SEAT
HAND BRAKE SWITCH	CC52 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE, LH SIDE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG30R	LH 'A' POST GROUND SCREW
CAG103L	LH SEAT GROUND STUD
CAG103R	LH SEAT GROUND STUD
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

DRIVER SEAT CONTROL MODULE (NAS VEHICLES)

▽	Pin	Description	Active	Inactive
O	CA105-2	SEAT HEATER ON LED	B+	GROUND
I	CA105-3	IGNITION SWITCHED GROUND	GROUND	B+
I	CA105-4	MEMORY POSITION 1 REQUEST	B+	GROUND
I	CA105-5	MEMORY POSITION 2 REQUEST	B+	GROUND
I	CA105-6	MEMORY POSITION 3 REQUEST	B+	GROUND
O	CA105-8	SEAT MEMORY STATUS LED	GROUND	B+
I	CA105-9	ENTRY / EXIT SIGNAL	GROUND	B+
I	CA105-10	SEAT HEATER REQUEST	GROUND	B+
I	CA105-12	REMOTE RECALL REQUEST	GROUND PULSE ON UNLOCK	B+
I	CA105-13	NOT IN PARK SIGNAL	GROUND	B+
I	CA105-14	PARK BRAKE ON SIGNAL	GROUND	B+
I	CA105-15	KEY IN IGNITION SIGNAL	GROUND	B+
O	CA105-16	MEMORY SET	GROUND	B+
I	CA105-18	BRAKE SWITCH SIGNAL	GROUND	B+
I	CA105-21	SET MEMORY POSITION REQUEST	B+	GROUND
I	CA105-22	DRIVER DOOR AJAR	GROUND	7.9 V
D	CA106-1	SERIAL COMMUNICATION INPUT		
D	CA106-2	SERIAL COMMUNICATION OUTPUT		
O	SM1-1D	SQUAB RECLINE FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-2D	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-3D	SEAT FRONT / RAISE LOWER MOTOR	B+ (UP)	GROUND
O	SM1-4D	SEAT FRONT / RAISE LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-5D	SEAT REAR RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-6D	SEAT REAR RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-7D	SEAT FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-8D	SEAT FORE / AFT MOTOR	B+ (FORE)	GROUND
I	SM1-9D	COMMON GROUND	GROUND	GROUND
O	SM1-10D	HEATER ELEMENT SUPPLY	B+	GROUND
O	SM1-11D	HEADREST RAISE / LOWER MOTOR	B+ (RAISE)	GROUND
O	SM1-12D	HEADREST RAISE / LOWER MOTOR	B+ (LOWER)	GROUND
O	SM6-1D	POTENTIOMETER COMMON REFERENCE VOLTAGE	5 V	5 V
SG	SM6-2D	POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
O	SM6-3D	HEADREST FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
O	SM6-4D	SQUAB RECLINE FEEDBACK VOLTAGE	0.5 V (BACK), 4 V (FORWARD)	
O	SM6-5D	SEAT FORE / AFT FEEDBACK VOLTAGE	0.5 V (AFT), 4 V (FORE)	
O	SM6-6D	SEAT REAR RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
O	SM6-7D	SEAT FRONT RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
I	SM6-8D	RECLINE AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-9D	SEAT AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-10D	SEAT FORE MOVEMENT REQUEST	B+	GROUND
O	SM6-11D	LUMBAR SWITCH POWER SUPPLY	B+	B+
I	SM6-14D	HEADREST LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-15D	HEADREST RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-16D	SEAT REAR LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-17D	SEAT REAR RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-18D	SEAT FRONT LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-19D	SEAT FRONT RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-20D	RECLINE FORE MOVEMENT REQUEST	B+	GROUND

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-23	DRIVER SEAT HEATER ON	GROUND	B+
I	FC2-38	DRIVER SEAT HEATER REQUEST	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

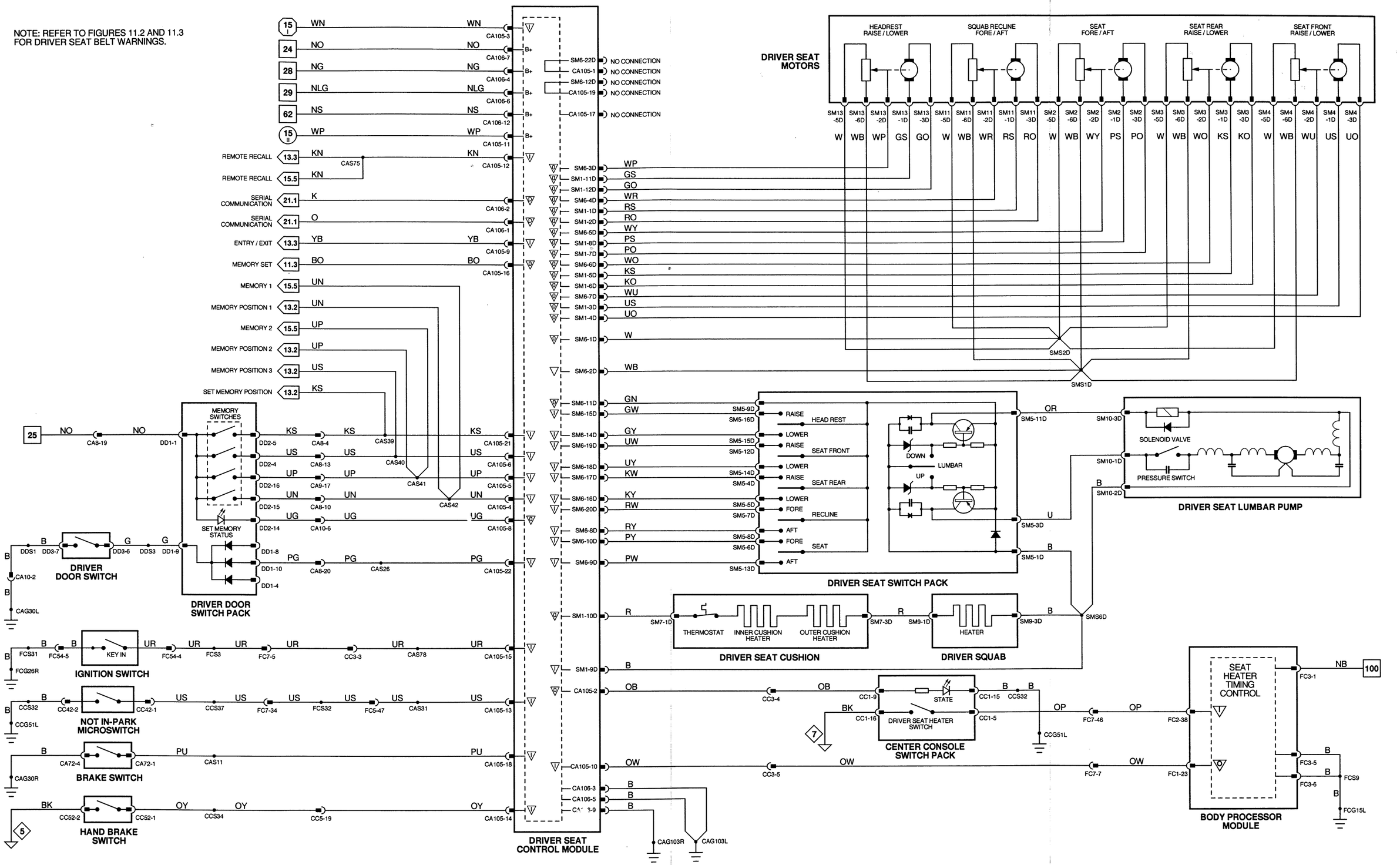
I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

NOTE: REFER TO FIGURES 11.2 AND 11.3 FOR DRIVER SEAT BELT WARNINGS.



1 — 6	Fig. 01.1	7 — 66	Fig. 01.2	67 — 109	Fig. 01.3	Fig. 01.4	Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)

VARIANT: NAS Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR SWITCH – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH PACK – DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
SEAT CONTROL MODULE – DRIVER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6-D / 22-WAY MULTILOCK 47 / WHITE	DRIVER'S SEAT
SEAT CUSHION – DRIVER	SM7-D / 3-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEAT / UNDER
SEAT LUMBAR PUMP – DRIVER	SM10-D / 3-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEAT / SQUAB
SEAT MOTORS – DRIVER	SM2-D / 6-WAY MULTILOCK 070 / WHITE SM3-D / 6-WAY MULTILOCK 070 / YELLOW SM4-D / 6-WAY MULTILOCK 070 / SLATE SM11-D / 6-WAY MULTILOCK 070 / WHITE SM13-D / 6-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEAT / UNDER DRIVER'S SEAT / UNDER DRIVER'S SEAT / UNDER DRIVER'S SEAT / SQUAB DRIVER'S SEAT / UNDER
SEAT SWITCH PACK – DRIVER	SM5-D / 16-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT
SQUAB – DRIVER	SM9-D / 3-WAY MULTILOCK 070 / SLATE	DRIVER'S SEAT
HAND BRAKE SWITCH	CC52 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE, LH SIDE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA23	20-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT / UNDER
CA24	6-WAY MULTILOCK 070 / WHITE	DRIVER'S SEAT / UNDER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG30R	LH 'A' POST GROUND SCREW
CAG33L	RH HEELBOARD GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
PLG3L	LH SEAT GROUND SCREW
PLG3R	LH SEAT GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

DRIVER SEAT CONTROL MODULE (ROW, MEMORY SEAT VEHICLES)

▽	Pin	Description	Active	Inactive
O	PL1-2D	SEAT HEATER ON (STATE)	B+	GROUND
I	PL1-3D	IGNITION SWITCHED GROUND	GROUND	B+
I	PL1-10D	SEAT HEATER REQUEST	GROUND	B+
I	PL1-13D	NOT IN PARK	GROUND	B+
I	PL1-14D	HANDBRAKE ON	GROUND	B+
I	PL1-15D	KEY IN IGNITION	GROUND	B+
I	PL1-18D	BRAKE SWITCH	GROUND	B+
I	PL1-22D	DRIVER'S DOOR AJAR	GROUND	7.9 V
D	PL2-1D	SERIAL COMMUNICATION INPUT		
D	PL2-2D	SERIAL COMMUNICATION OUTPUT		
O	SM1-1D	SQUAB RECLINE FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-2D	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-3D	SEAT FRONT RAISE / LOWER MOTOR	B+ (RAISE)	GROUND
O	SM1-4D	SEAT FRONT RAISE / LOWER MOTOR	B+ (LOWER)	GROUND
O	SM1-5D	SEAT REAR RAISE / LOWER MOTOR	B+ (RAISE)	GROUND
O	SM1-6D	SEAT REAR RAISE / LOWER MOTOR	B+ (LOWER)	GROUND
O	SM1-7D	SEAT FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-8D	SEAT FORE / AFT MOTOR	B+ (FORE)	GROUND
I	SM1-9D	COMMON GROUND	GROUND	GROUND
O	SM1-10D	HEATER ELEMENT SUPPLY	B+	GROUND
O	SM1-11D	HEADREST RAISE / LOWER MOTOR	B+ (RAISE)	GROUND
O	SM1-12D	HEADREST RAISE / LOWER MOTOR	B+ (LOWER)	GROUND
I	SM6-8D	RECLINE AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-9D	SEAT AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-10D	SEAT FORE MOVEMENT REQUEST	B+	GROUND
O	SM6-11D	LUMBAR SWITCH POWER SUPPLY	B+	B+
I	SM6-14D	HEADREST LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-15D	HEADREST RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-16D	SEAT REAR LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-17D	SEAT REAR RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-18D	SEAT FRONT LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-19D	SEAT FRONT RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-20D	RECLINE FORE MOVEMENT REQUEST	B+	GROUND

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-23	DRIVER SEAT HEATER ON	GROUND	B+
I	FC2-38	DRIVER SEAT HEATER REQUEST	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

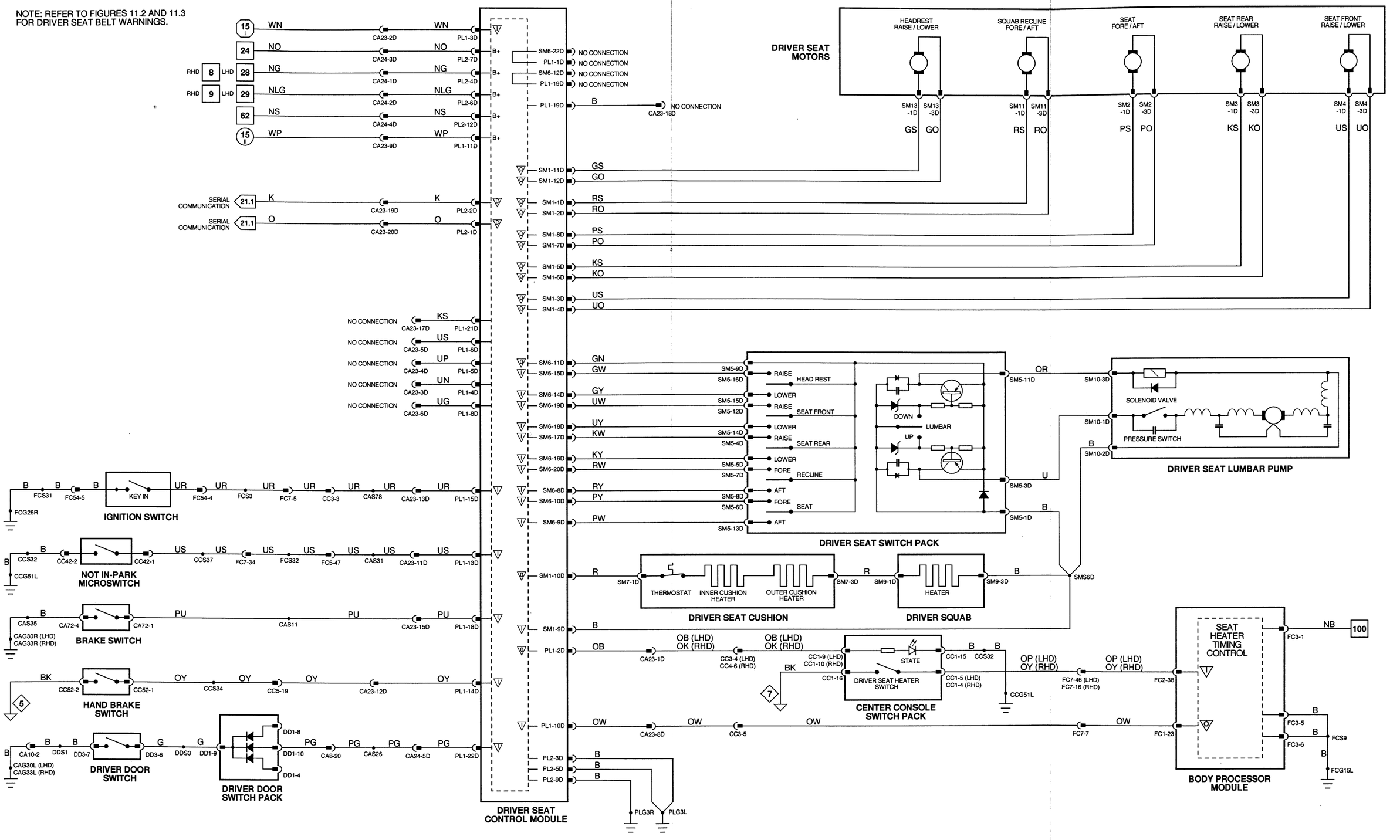
I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

NOTE: REFER TO FIGURES 11.2 AND 11.3 FOR DRIVER SEAT BELT WARNINGS.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	Fig. 01.4	Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)

VARIANT: Non-Memory Seat Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.4

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
SEAT CUSHION – DRIVER	SM7-D / 3-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEAT / UNDER
SEAT MOTOR – DRIVER (RAISE / LOWER SEAT VEHICLES)	SM16-D / 6-WAY MULTILOCK 070 / SLATE	DRIVER'S SEAT / UNDER
SEAT SWITCH PACK – DRIVER (RAISE / LOWER SEAT VEHICLES)	SM17-D / 16-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT
SQUAB – DRIVER	SM9-D / 3-WAY MULTILOCK 070 / SLATE	DRIVER'S SEAT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
SEAT HEATER RELAY – DRIVER	BLACK	SM18-D / BLUE	DRIVER'S SEAT
SEAT LOWER RELAY – DRIVER	BLACK / VIOLET	SM14-D / BLUE	DRIVER'S SEAT
SEAT RAISE RELAY – DRIVER	BLACK / VIOLET	SM14-D / BLUE	DRIVER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA23-D	20-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT / UNDER
CA24-D	6-WAY MULTILOCK 070 / WHITE	DRIVER'S SEAT / UNDER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
ML1-D	10-WAY MULTILOCK 070 / WHITE	DRIVER'S SEAT / UNDER

GROUNDS

Ground	Location / Type
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
MLG2L	LH SEAT GROUND SCREW
MLG2R	LH SEAT GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

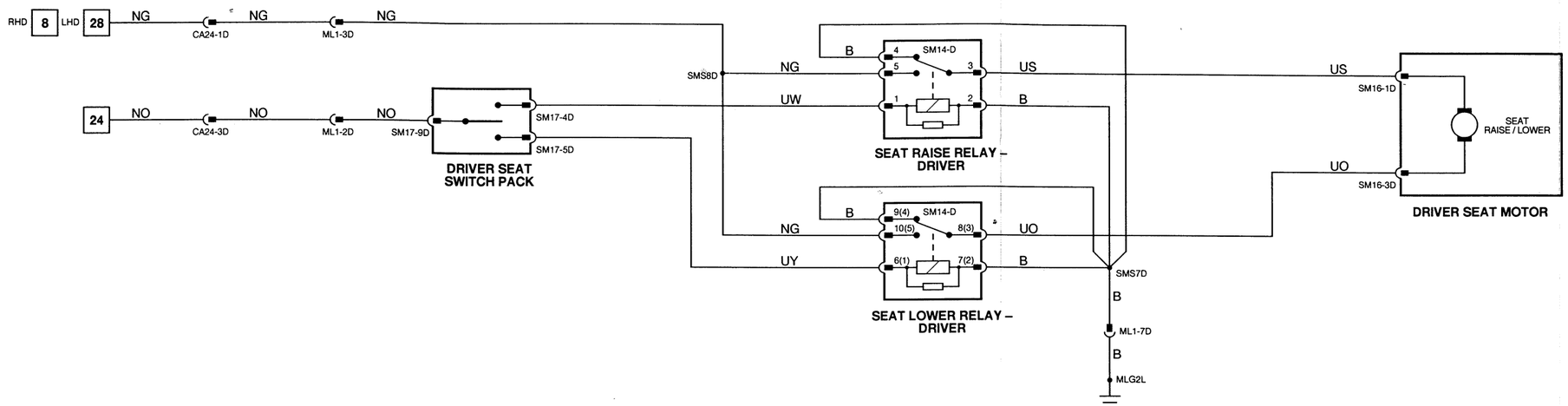
▽	Pin	Description	Active	Inactive
O	FC1-23	DRIVER SEAT HEATER ON	GROUND	B+
I	FC2-38	DRIVER SEAT HEATER REQUEST	GROUND	B+

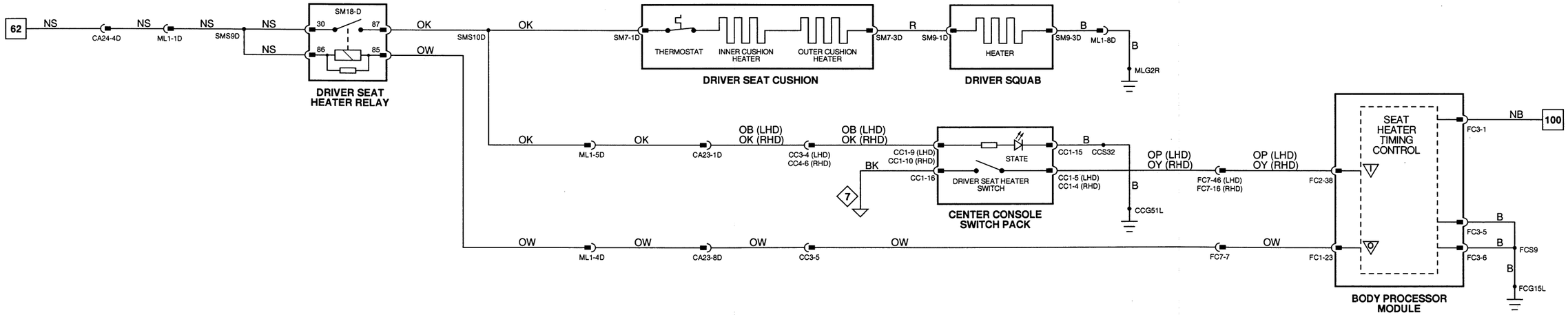
The following symbols are used to represent values for Control Module Pin Out data:

I	Input	B+	Battery voltage
O	Output	V	Voltage (DC)
SG	Signal Ground	Hz	Frequency
D	Serial and encoded communications	KHz	Frequency x 1000
		MS	Milliseconds
		MV	Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.





1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: Raise / Lower Seat Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.5

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
DOOR SWITCH PACK - PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
DOOR SWITCH - PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
SEAT CONTROL MODULE - PASSENGER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-P / 12-WAY MULTILOCK 47 / WHITE SM6-P / 22-WAY MULTILOCK 47 / WHITE	PASSENGER'S SEAT
SEAT CUSHION - PASSENGER	SM7-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER
SEAT LUMBAR PUMP - PASSENGER	SM10-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / SQUAB
SEAT MOTORS - PASSENGER	SM2-P / 6-WAY MULTILOCK 070 / WHITE SM3-P / 6-WAY MULTILOCK 070 / YELLOW SM4-P / 6-WAY MULTILOCK 070 / SLATE SM11-P / 6-WAY MULTILOCK 070 / WHITE SM13-P / 6-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / SQUAB PASSENGER'S SEAT / UNDER
SEAT SWITCH PACK - PASSENGER	SM5-P / 16-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT
SQUAB - PASSENGER	SM9-P / 3-WAY MULTILOCK 070 / SLATE	PASSENGER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA27	6-WAY MULTILOCK 070 / WHITE	PASSENGER'S SEAT / UNDER
CA28	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT / UNDER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30R	LH 'A' POST GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CAG93L	LH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
PLG3L	LH SEAT GROUND SCREW
PLG3R	LH SEAT GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

PASSENGER SEAT CONTROL MODULE (ROW, MEMORY SEAT VEHICLES)

▽	Pin	Description	Active	Inactive
O	PL1-2P	SEAT HEATER ON STATE	B+	GROUND
I	PL1-3P	IGNITION SWITCHED POWER	GROUND	B+
I	PL1-4P	MEMORY POSITION 1 REQUEST	B+	GROUND
I	PL1-5P	MEMORY POSITION 2 REQUEST	B+	GROUND
I	PL1-6P	MEMORY POSITION 3 REQUEST	B+	GROUND
O	PL1-8P	SEAT MEMORY STATUS STATE	GROUND	B+
I	PL1-10P	SEAT HEATER REQUEST	GROUND	B+
I	PL1-15P	KEY IN IGNITION SIGNAL	GROUND	B+
O	PL1-16P	MEMORY SET AUDIBLE TONE	GROUND	B+
I	PL1-21P	SET MEMORY POSITION REQUEST	B+	GROUND
I	PL1-22P	PASSENGER DOOR AJAR	GROUND	7.9 V
D	PL2-1P	SERIAL COMMUNICATION INPUT		
D	PL2-2P	SERIAL COMMUNICATION OUTPUT		
O	SM1-1P	SQUAB RECLINE FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-2P	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-3P	SEAT FRONT RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-4P	SEAT FRONT RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-5P	SEAT REAR RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-6P	SEAT REAR RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-7P	SEAT FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-8P	SEAT FORE / AFT MOTOR	B+ (FORE)	GROUND
I	SM1-9P	COMMON GROUND	GROUND	GROUND
O	SM1-10P	HEATER ELEMENT SUPPLY	B+	B+
O	SM1-11P	HEADREST RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-12P	HEADREST RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM6-1P	POTENTIOMETER COMMON REFERENCE VOLTAGE	5 V	5 V
SG	SM6-2P	POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
O	SM6-3P	HEADREST FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
O	SM6-4P	SQUAB RECLINE FEEDBACK VOLTAGE	0.5 V (BACK), 4 V (FORWARD)	
O	SM6-5P	SEAT FORE / AFT FEEDBACK VOLTAGE	0.5 V (AFT), 4 V (FORE)	
O	SM6-6P	SEAT REAR RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
O	SM6-7P	SEAT FRONT RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
I	SM6-8P	RECLINE AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-9P	SEAT AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-10P	SEAT FORE MOVEMENT REQUEST	B+	GROUND
O	SM6-11P	LUMBAR SWITCH POWER SUPPLY	B+	B+
I	SM6-14P	HEADREST LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-15P	HEADREST RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-16P	SEAT REAR LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-17P	SEAT REAR RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-18P	SEAT FRONT LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-19P	SEAT FRONT RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-20P	RECLINE FORE MOVEMENT REQUEST	B+	GROUND

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-42	PASSENGER SEAT HEATER REQUEST	GROUND	B+
I	FC2-12	PASSENGER SEAT HEATER SWITCH	GROUND	B+

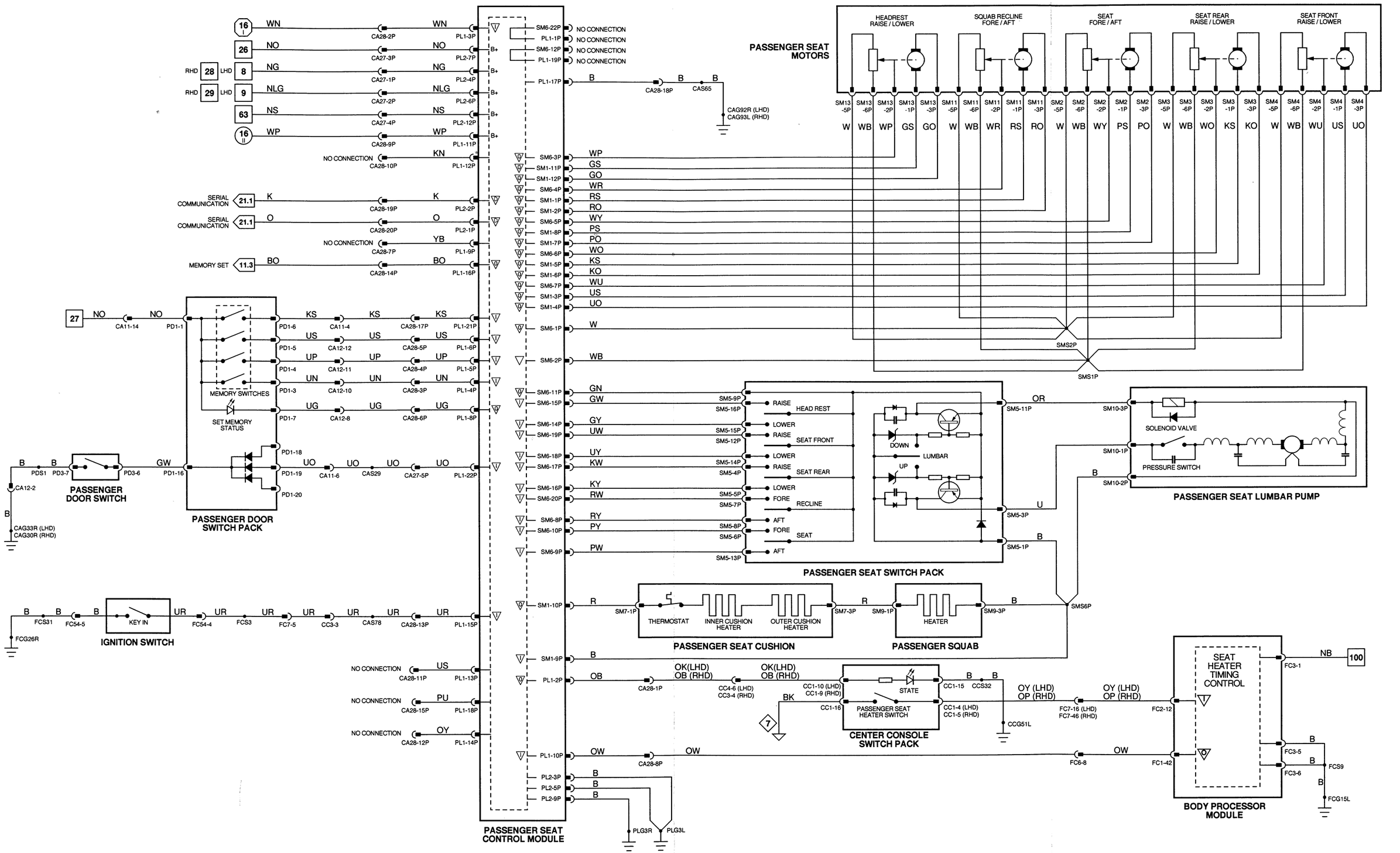
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	I II Fig. 01.4	I II Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)	VARIANT: ROW / SWB Memory Seat Vehicles VIN RANGE: 746613 ⟶ DATE OF ISSUE: NOVEMBER 1995	

Fig. 14.6

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
DOOR SWITCH PACK - PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
DOOR SWITCH - PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
SEAT CONTROL MODULE - PASSENGER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-P / 12-WAY MULTILOCK 47 / WHITE SM6-P / 22-WAY MULTILOCK 47 / WHITE	PASSENGER'S SEAT
SEAT CUSHION - PASSENGER	SM7-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER
SEAT FORE/AFT SWITCHES - PASSENGER, REAR	SM19 / 10-WAY AMP MQL / BLACK	FRONT LOWER SEAT / INSIDE
SEAT LUMBAR PUMP - PASSENGER	SM10-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / SQUAB
SEAT MOTORS - PASSENGER	SM2-P / 6-WAY MULTILOCK 070 / WHITE SM3-P / 6-WAY MULTILOCK 070 / YELLOW SM4-P / 6-WAY MULTILOCK 070 / SLATE SM11-P / 6-WAY MULTILOCK 070 / WHITE SM13-P / 6-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / SQUAB PASSENGER'S SEAT / UNDER
SEAT RECLINE SWITCHES - PASSENGER, REAR	SM20 / 10-WAY AMP MQL / NATURAL	FRONT LOWER SEAT / INSIDE
SEAT SWITCH PACK - PASSENGER	SM5-P / 16-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT
SQUAB - PASSENGER	SM9-P / 3-WAY MULTILOCK 070 / SLATE	PASSENGER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA27	6-WAY MULTILOCK 070 / WHITE	PASSENGER'S SEAT / UNDER
CA28	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT / UNDER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30R	LH 'A' POST GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CAG93L	LH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
PLG3L	LH SEAT GROUND SCREW
PLG3R	LH SEAT GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

PASSENGER SEAT CONTROL MODULE (ROW, MEMORY SEAT VEHICLES)

▽	Pin	Description	Active	Inactive
O	PL1-2P	SEAT HEATER ON STATE	B+	GROUND
I	PL1-3P	IGNITION SWITCHED POWER	GROUND	B+
I	PL1-4P	MEMORY POSITION 1 REQUEST	B+	GROUND
I	PL1-5P	MEMORY POSITION 2 REQUEST	B+	GROUND
I	PL1-6P	MEMORY POSITION 3 REQUEST	B+	GROUND
O	PL1-8P	SEAT MEMORY STATUS STATE	GROUND	B+
I	PL1-10P	SEAT HEATER REQUEST	GROUND	B+
I	PL1-15P	KEY IN IGNITION SIGNAL	GROUND	B+
O	PL1-16P	MEMORY SET AUDIBLE TONE	GROUND	B+
I	PL1-21P	SET MEMORY POSITION REQUEST	B+	GROUND
I	PL1-22P	PASSENGER DOOR AJAR	GROUND	7.9 V
D	PL2-1P	SERIAL COMMUNICATION INPUT		
D	PL2-2P	SERIAL COMMUNICATION OUTPUT		
O	SM1-1P	SQUAB RECLINE FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-2P	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-3P	SEAT FRONT RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-4P	SEAT FRONT RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-5P	SEAT REAR RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-6P	SEAT REAR RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-7P	SEAT FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-8P	SEAT FORE / AFT MOTOR	B+ (FORE)	GROUND
I	SM1-9P	COMMON GROUND	GROUND	GROUND
O	SM1-10P	HEATER ELEMENT SUPPLY	B+	B+
O	SM1-11P	HEADREST RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-12P	HEADREST RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM6-1P	POTENTIOMETER COMMON REFERENCE VOLTAGE	5 V	5 V
SG	SM6-2P	POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
O	SM6-3P	HEADREST FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
O	SM6-4P	SQUAB RECLINE FEEDBACK VOLTAGE	0.5 V (BACK), 4 V (FORWARD)	
O	SM6-5P	SEAT FORE / AFT FEEDBACK VOLTAGE	0.5 V (AFT), 4 V (FORE)	
O	SM6-6P	SEAT REAR RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
O	SM6-7P	SEAT FRONT RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
I	SM6-8P	RECLINE AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-9P	SEAT AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-10P	SEAT FORE MOVEMENT REQUEST	B+	GROUND
O	SM6-11P	LUMBAR SWITCH POWER SUPPLY	B+	B+
I	SM6-14P	HEADREST LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-15P	HEADREST RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-16P	SEAT REAR LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-17P	SEAT REAR RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-18P	SEAT FRONT LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-19P	SEAT FRONT RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-20P	RECLINE FORE MOVEMENT REQUEST	B+	GROUND

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-42	PASSENGER SEAT HEATER REQUEST	GROUND	B+
I	FC2-12	PASSENGER SEAT HEATER SWITCH	GROUND	B+

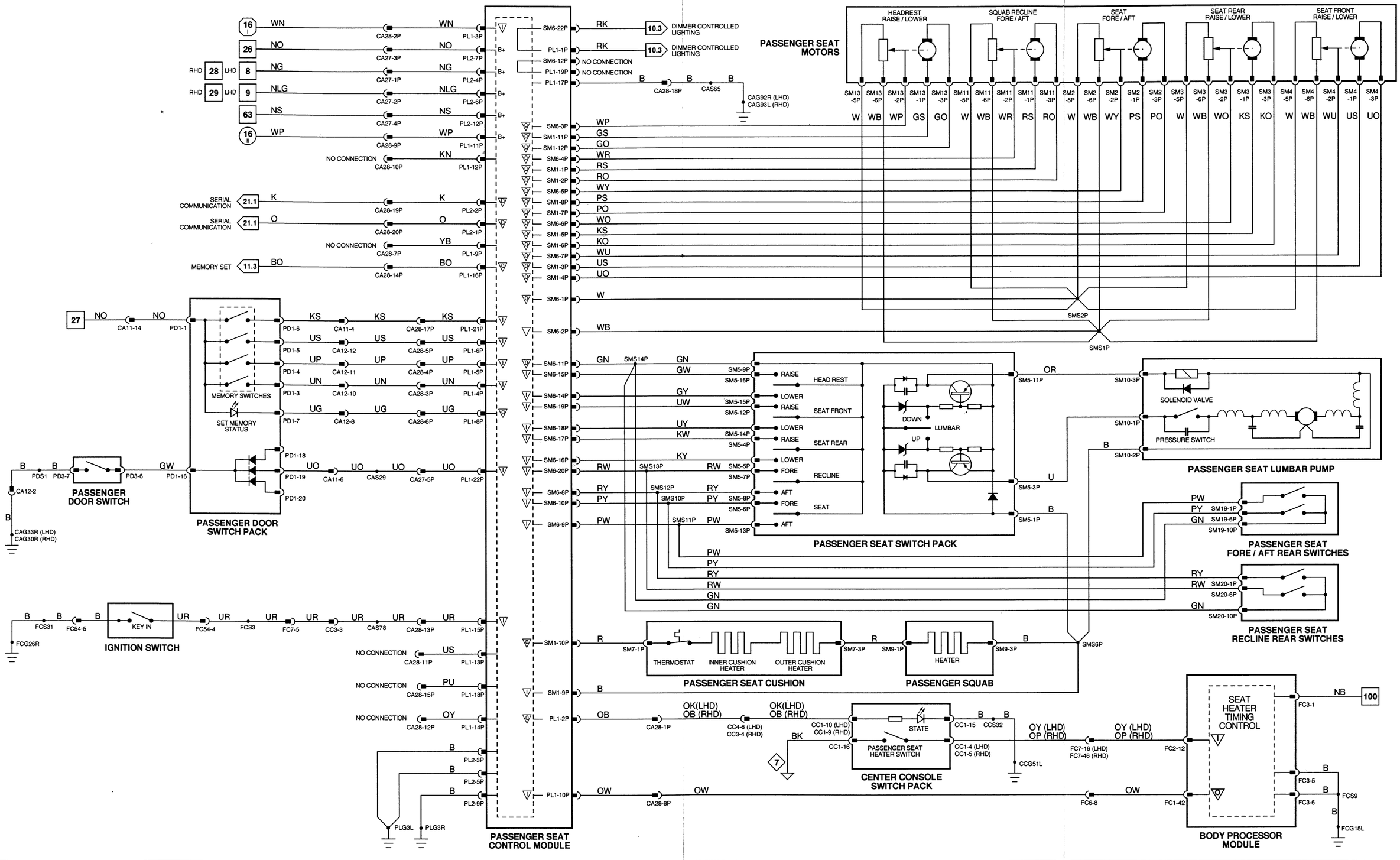
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	Fig. 01.4	Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)

VARIANT: ROW / LWB Memory Seat Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.7

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
DOOR SWITCH PACK – PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
DOOR SWITCH – PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
SEAT CONTROL MODULE – PASSENGER (NAS VEHICLES)	CA107 / 22-WAY MULTILOCK 47 / BLUE CA108 / 12-WAY MULTILOCK 47 / BLUE SM1-P / 12-WAY MULTILOCK 47 / BLUE SM6-P / 22-WAY MULTILOCK 47 / BLUE	PASSENGER'S SEAT
SEAT CUSHION – PASSENGER	SM7-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER
SEAT LUMBAR PUMP – PASSENGER	SM10-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / SQUAB
SEAT MOTORS – PASSENGER	SM2-P / 6-WAY MULTILOCK 070 / WHITE SM3-P / 6-WAY MULTILOCK 070 / YELLOW SM4-P / 6-WAY MULTILOCK 070 / SLATE SM11-P / 6-WAY MULTILOCK 070 / WHITE SM13-P / 6-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / SQUAB PASSENGER'S SEAT / UNDER
SEAT SWITCH PACK – PASSENGER	SM5-P / 16-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT
SQUAB – PASSENGER	SM9-P / 3-WAY MULTILOCK 070 / SLATE	PASSENGER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG104L	LH SEAT GROUND STUD
CAG104R	LH SEAT GROUND STUD
CAG33R	RH HEELBOARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

PASSENGER SEAT CONTROL MODULE (NAS VEHICLES)

▽	Pin	Description	Active	Inactive
O	CA107-2	SEAT HEATER ON STATE	B+	GROUND
I	CA107-3	IGNITION SWITCHED GROUND	GROUND	B+
I	CA107-4	MEMORY POSITION 1 REQUEST	B+	GROUND
I	CA107-5	MEMORY POSITION 2 REQUEST	B+	GROUND
I	CA107-6	MEMORY POSITION 3 REQUEST	B+	GROUND
O	CA107-8	SEAT MEMORY STATUS STATE	GROUND	B+
I	CA107-10	SEAT HEATER REQUEST	GROUND	B+
I	CA107-15	KEY IN IGNITION SWITCH	GROUND	B+
O	CA107-16	MEMORY SET AUDIBLE TONE	GROUND	B+
I	CA107-21	SET MEMORY POSITION REQUEST	B+	GROUND
I	CA107-22	PASSENGER DOOR SWITCH	GROUND	B+
D	CA108-1	SERIAL COMMUNICATION INPUT		
D	CA108-2	SERIAL COMMUNICATION OUTPUT		
O	SM1-1P	SQUAB RECLINE FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-2P	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-3P	SEAT FRONT RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-4P	SEAT FRONT RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-5P	SEAT REAR RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-6P	SEAT REAR RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-7P	SEAT FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-8P	SEAT FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-9P	COMMON GROUND	GROUND	GROUND
O	SM1-10P	HEATER ELEMENT SUPPLY	B+	B+
O	SM1-11P	HEADREST RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-12P	HEADREST RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM6-1P	POTENTIOMETER COMMON REFERENCE VOLTAGE	5 V	5 V
SG	SM6-2P	POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
O	SM6-3P	HEADREST FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
O	SM6-4P	SQUAB RECLINE FEEDBACK VOLTAGE	0.5 V (BACK), 4 V (FORWARD)	
O	SM6-5P	SEAT FORE / AFT FEEDBACK VOLTAGE	0.5 V (BACK), 4V (FORWARD)	
O	SM6-6P	SEAT REAR RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
O	SM6-7P	SEAT FRONT RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
I	SM6-8P	RECLINE AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-9P	SEAT AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-10P	SEAT FORE MOVEMENT REQUEST	B+	GROUND
O	SM6-11P	LUMBAR SWITCH POWER SUPPLY	B+	B+
I	SM6-14P	HEADREST LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-15P	HEADREST RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-16P	SEAT REAR LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-17P	SEAT REAR RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-18P	SEAT FRONT LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-19P	SEAT FRONT RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-20P	RECLINE FORE MOVEMENT REQUEST	B+	GROUND

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-42	PASSENGER SEAT HEATER REQUEST	GROUND	B+
I	FC2-12	PASSENGER SEAT HEATER SWITCH	GROUND	B+

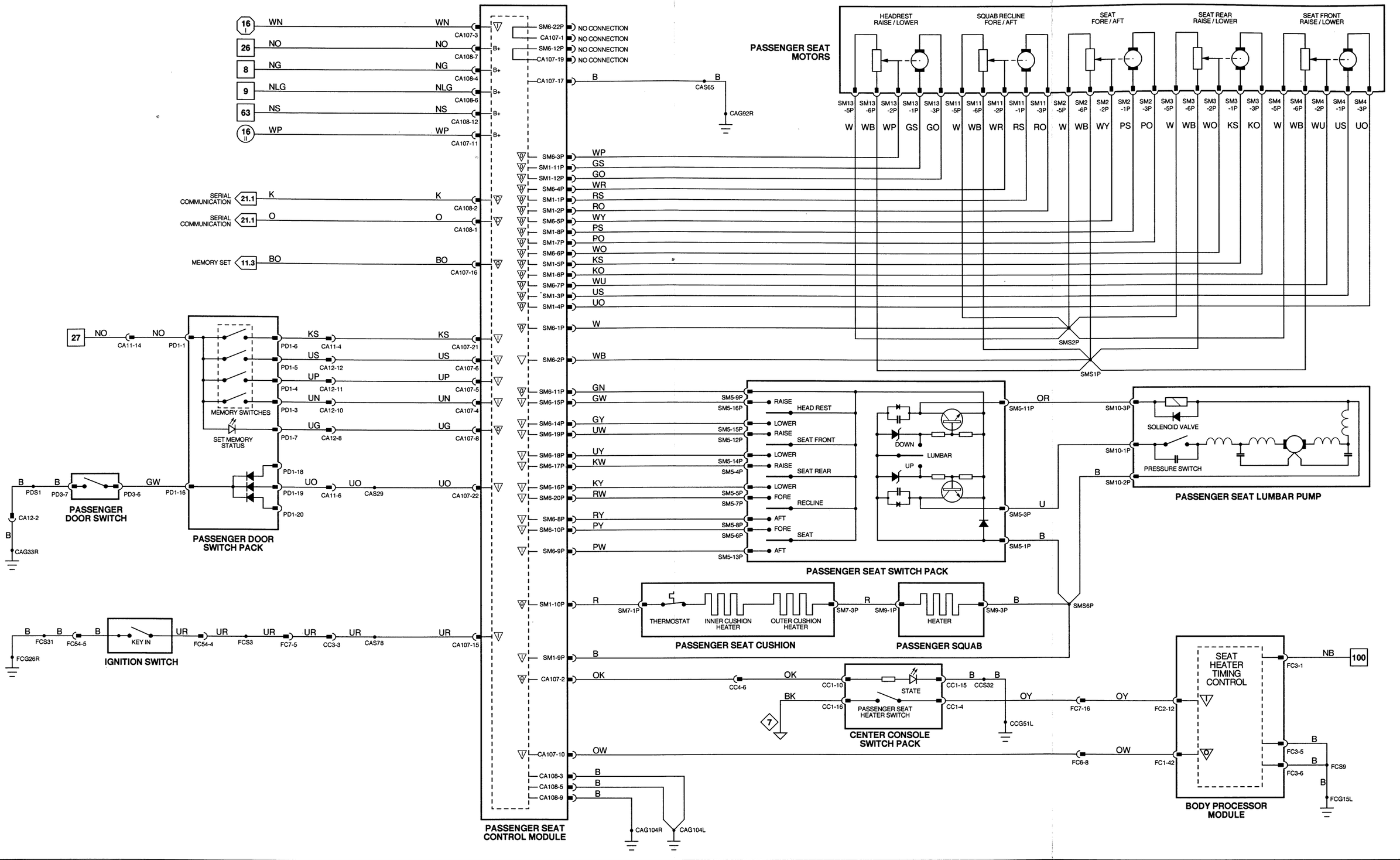
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: NAS / SWB Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.8

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
DOOR SWITCH PACK – PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
DOOR SWITCH – PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
SEAT CONTROL MODULE – PASSENGER (NAS VEHICLES)	CA107 / 22-WAY MULTILOCK 47 / BLUE CA108 / 12-WAY MULTILOCK 47 / BLUE SM1-P / 12-WAY MULTILOCK 47 / BLUE SM6-P / 22-WAY MULTILOCK 47 / BLUE	PASSENGER'S SEAT
SEAT CUSHION – PASSENGER	SM7-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER
SEAT FORE/AFT SWITCHES – PASSENGER, REAR	SM19 / 10-WAY AMP MQL / BLACK	FRONT LOWER SEAT / INSIDE
SEAT LUMBAR PUMP – PASSENGER	SM10-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / SQUAB
SEAT MOTORS – PASSENGER	SM2-P / 6-WAY MULTILOCK 070 / WHITE SM3-P / 6-WAY MULTILOCK 070 / YELLOW SM4-P / 6-WAY MULTILOCK 070 / SLATE SM11-P / 6-WAY MULTILOCK 070 / WHITE SM13-P / 6-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / SQUAB PASSENGER'S SEAT / UNDER
SEAT RECLINE SWITCHES – PASSENGER, REAR	SM20 / 10-WAY AMP MQL / NATURAL	FRONT LOWER SEAT / INSIDE
SEAT SWITCH PACK – PASSENGER	SM5-P / 16-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT
SQUAB – PASSENGER	SM9-P / 3-WAY MULTILOCK 070 / SLATE	PASSENGER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG104L	LH SEAT GROUND STUD
CAG104R	LH SEAT GROUND STUD
CAG33R	RH HEELBOARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

PASSENGER SEAT CONTROL MODULE (NAS VEHICLES)

▽	Pin	Description	Active	Inactive
O	CA107-2	SEAT HEATER ON STATE	B+	GROUND
I	CA107-3	IGNITION SWITCHED GROUND	GROUND	B+
I	CA107-4	MEMORY POSITION 1 REQUEST	B+	GROUND
I	CA107-5	MEMORY POSITION 2 REQUEST	B+	GROUND
I	CA107-6	MEMORY POSITION 3 REQUEST	B+	GROUND
O	CA107-8	SEAT MEMORY STATUS STATE	GROUND	B+
I	CA107-10	SEAT HEATER REQUEST	GROUND	B+
I	CA107-15	KEY IN IGNITION SWITCH	GROUND	B+
O	CA107-16	MEMORY SET AUDIBLE TONE	GROUND	B+
I	CA107-21	SET MEMORY POSITION REQUEST	B+	GROUND
I	CA107-22	PASSENGER DOOR SWITCH	GROUND	B+
D	CA108-1	SERIAL COMMUNICATION INPUT		
D	CA108-2	SERIAL COMMUNICATION OUTPUT		
O	SM1-1P	SQUAB RECLINE FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-2P	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-3P	SEAT FRONT RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-4P	SEAT FRONT RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-5P	SEAT REAR RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-6P	SEAT REAR RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-7P	SEAT FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-8P	SEAT FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-9P	COMMON GROUND	GROUND	GROUND
O	SM1-10P	HEATER ELEMENT SUPPLY	B+	B+
O	SM1-11P	HEADREST RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-12P	HEADREST RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM6-1P	POTENTIOMETER COMMON REFERENCE VOLTAGE	5 V	5 V
SG	SM6-2P	POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
O	SM6-3P	HEADREST FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
O	SM6-4P	SQUAB RECLINE FEEDBACK VOLTAGE	0.5 V (BACK), 4 V (FORWARD)	
O	SM6-5P	SEAT FORE / AFT FEEDBACK VOLTAGE	0.5 V (BACK), 4V (FORWARD)	
O	SM6-6P	SEAT REAR RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
O	SM6-7P	SEAT FRONT RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
I	SM6-8P	RECLINE AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-9P	SEAT AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-10P	SEAT FORE MOVEMENT REQUEST	B+	GROUND
O	SM6-11P	LUMBAR SWITCH POWER SUPPLY	B+	B+
I	SM6-14P	HEADREST LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-15P	HEADREST RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-16P	SEAT REAR LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-17P	SEAT REAR RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-18P	SEAT FRONT LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-19P	SEAT FRONT RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-20P	RECLINE FORE MOVEMENT REQUEST	B+	GROUND

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-42	PASSENGER SEAT HEATER REQUEST	GROUND	B+
I	FC2-12	PASSENGER SEAT HEATER SWITCH	GROUND	B+

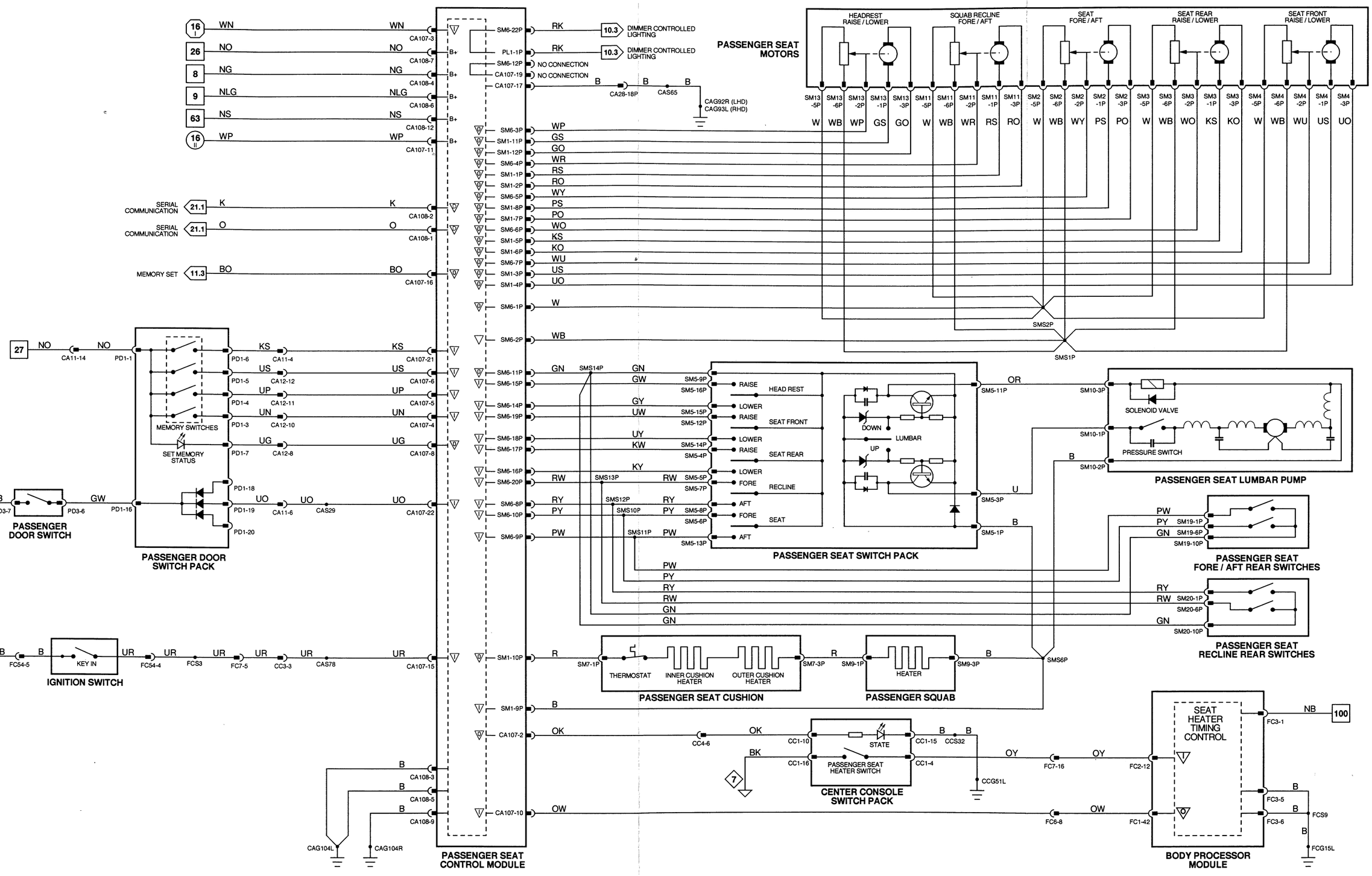
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	Fig. 01.4	Fig. 02.1	Fig. 02.2	Input	Output	Serial and Encoded Communications	Signal Ground (SG)

VARIANT: NAS / LWB Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.9

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
DOOR SWITCH – PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH PACK – PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
SEAT CONTROL MODULE – PASSENGER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-P / 12-WAY MULTILOCK 47 / WHITE SM6-P / 22-WAY MULTILOCK 47 / WHITE	PASSENGER'S SEAT
SEAT CUSHION – PASSENGER	SM7-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER
SEAT LUMBAR PUMP – PASSENGER	SM10-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / SQUAB
SEAT MOTORS – PASSENGER	SM2-P / 6-WAY MULTILOCK 070 / WHITE SM3-P / 6-WAY MULTILOCK 070 / YELLOW SM4-P / 6-WAY MULTILOCK 070 / SLATE SM11-P / 6-WAY MULTILOCK 070 / WHITE SM13-P / 6-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / UNDER PASSENGER'S SEAT / SQUAB PASSENGER'S SEAT / UNDER
SEAT SWITCH PACK – PASSENGER	SM5-P / 16-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT
SQUAB – PASSENGER	SM9-P / 3-WAY MULTILOCK 070 / SLATE	PASSENGER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA27	6-WAY MULTILOCK 070 / WHITE	PASSENGER'S SEAT / UNDER
CA28	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT / UNDER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30R	LH 'A' POST GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CAG93L	LH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
PLG3L	LH SEAT GROUND SCREW
PLG3R	LH SEAT GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

PASSENGER SEAT CONTROL MODULE (ROW, MEMORY SEAT VEHICLES)

▽	Pin	Description	Active	Inactive
O	PL1-2P	SEAT HEATER ON STATE	B+	GROUND
I	PL1-3P	IGNITION SWITCHED POWER	GROUND	B+
I	PL1-10P	SEAT HEATER REQUEST	GROUND	B+
I	PL1-15P	KEY IN IGNITION SIGNAL	GROUND	B+
I	PL1-22P	PASSENGER DOOR AJAR	GROUND	7.9 V
D	PL2-1P	SERIAL COMMUNICATION INPUT		
D	PL2-2P	SERIAL COMMUNICATION OUTPUT		
O	SM1-1P	SQUAB RECLINE FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-2P	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-3P	SEAT FRONT RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-4P	SEAT FRONT RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-5P	SEAT REAR RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-6P	SEAT REAR RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-7P	SEAT FORE / AFT MOTOR	B+ (AFT)	GROUND
O	SM1-8P	SEAT FORE / AFT MOTOR	B+ (FORE)	GROUND
I	SM1-9P	COMMON GROUND	GROUND	GROUND
O	SM1-10P	HEATER ELEMENT SUPPLY	B+	B+
O	SM1-11P	HEADREST RAISE / LOWER MOTOR	B+ (UP)	GROUND
O	SM1-12P	HEADREST RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
I	SM6-8P	RECLINE AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-9P	SEAT AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-10P	SEAT FORE MOVEMENT REQUEST	B+	GROUND
O	SM6-11P	LUMBAR SWITCH POWER SUPPLY	B+	B+
I	SM6-14P	HEADREST LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-15P	HEADREST RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-16P	SEAT REAR LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-17P	SEAT REAR RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-18P	SEAT FRONT LOWER MOVEMENT REQUEST	B+	GROUND
I	SM6-19P	SEAT FRONT RAISE MOVEMENT REQUEST	B+	GROUND
I	SM6-20P	RECLINE FORE MOVEMENT REQUEST	B+	GROUND

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-42	PASSENGER SEAT HEATER REQUEST	GROUND	B+
I	FC2-12	PASSENGER SEAT HEATER SWITCH	GROUND	B+

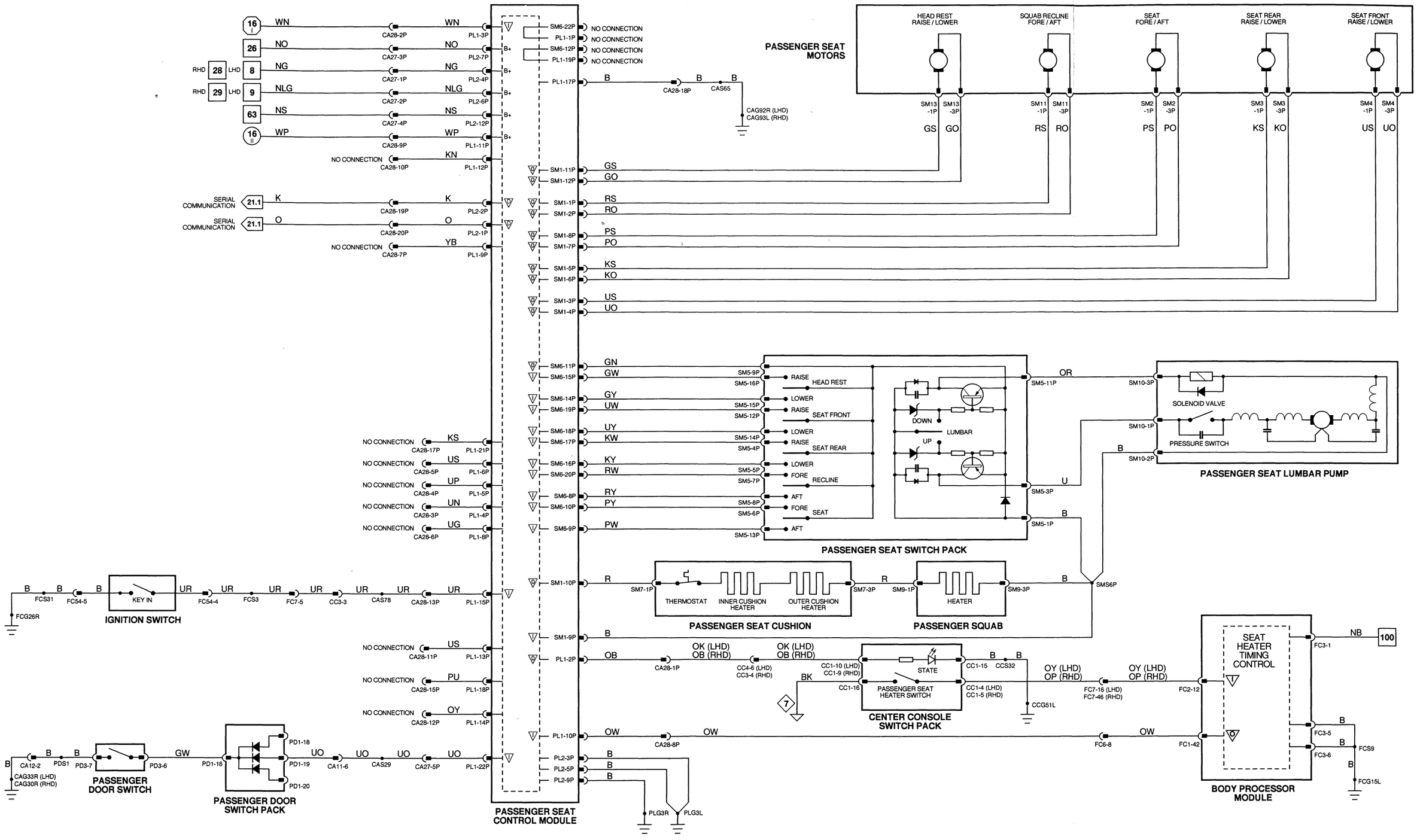
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1	7 — 66 Fig. 01.2	67 — 109 Fig. 01.3	Fig. 01.4
Fig. 02.1	Fig. 02.2	Input	Output
Serial and Encoded Communications	Signal Ground (SG)		

VARIANT: Non-Memory Seat Vehicles
VIN RANGE: 746613 →
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.10

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
SEAT CUSHION – PASSENGER	SM7-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER
SEAT MOTOR – PASSENGER (SEAT RAISE / LOWER VEHICLES)	SM16-P / 6-WAY MULTILOCK 070 / SLATE	PASSENGER'S SEAT / UNDER
SEAT SWITCH PACK – PASSENGER (SEAT RAISE / LOWER VEHICLES)	SM17-P / 16-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT
SQUAB – PASSENGER	SM9-P / 3-WAY MULTILOCK 070 / SLATE	PASSENGER'S SEAT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
SEAT HEATER RELAY – PASSENGER	BLACK	SM18-P / BLUE	PASSENGER'S SEAT
SEAT LOWER RELAY – PASSENGER	BLACK / VIOLET	SM14-P / BLUE	PASSENGER'S SEAT
SEAT RAISE RELAY – PASSENGER	BLACK / VIOLET	SM14-P / BLUE	PASSENGER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA27	6-WAY MULTILOCK 070 / WHITE	PASSENGER'S SEAT / UNDER
CA28	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT / UNDER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
ML1-P	10-WAY MULTILOCK 070 / WHITE	PASSENGER'S SEAT / UNDER

GROUNDS

Ground	Location / Type
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
MLG2L	LH SEAT GROUND SCREW
MLG2R	LH SEAT GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

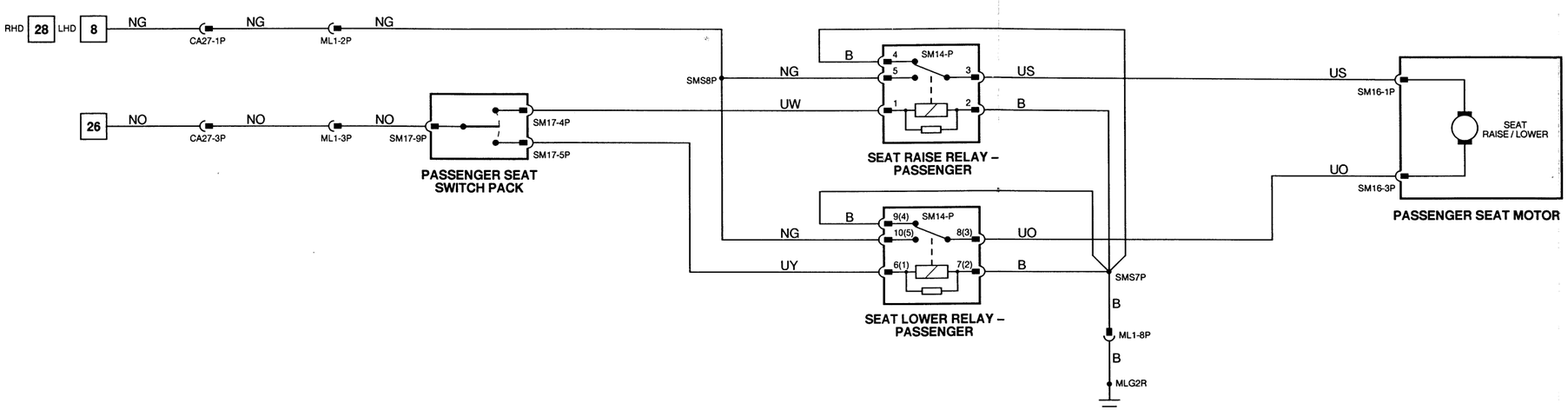
▽	Pin	Description	Active	Inactive
O	FC1-42	PASSENGER SEAT HEATER REQUEST	GROUND	B+
I	FC2-12	PASSENGER SEAT HEATER SWITCH	GROUND	B+

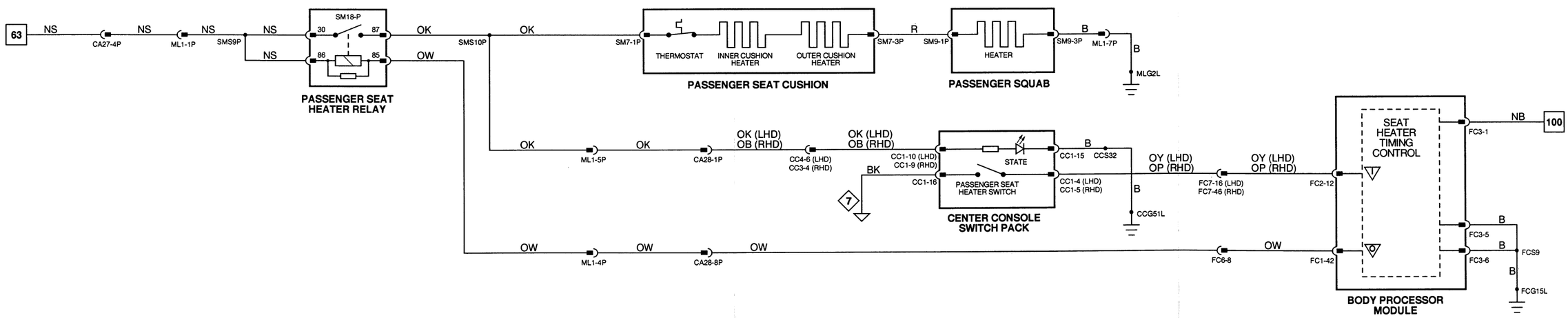
The following symbols are used to represent values for Control Module Pin Out data:

I	Input	B+	Battery voltage
O	Output	V	Voltage (DC)
SG	Signal Ground	Hz	Frequency
D	Serial and encoded communications	KHz	Frequency x 1000
		MS	Milliseconds
		MV	Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.





1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: Raise / Lower Seat Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.11

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
SEAT CUSHION – PASSENGER	SM7-P / 3-WAY MULTILOCK 070 / YELLOW	PASSENGER'S SEAT / UNDER
SQUAB – PASSENGER	SM9-P / 3-WAY MULTILOCK 070 / SLATE	PASSENGER'S SEAT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
SEAT HEATER RELAY – PASSENGER	BLACK	SM18-P / BLUE	PASSENGER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA27	6-WAY MULTILOCK 070 / WHITE	PASSENGER'S SEAT / UNDER
CA28	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT / UNDER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
ML1-P	10-WAY MULTILOCK 070 / WHITE	PASSENGER'S SEAT / UNDER

GROUNDS

Ground	Location / Type
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
MLG2L	LH SEAT GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

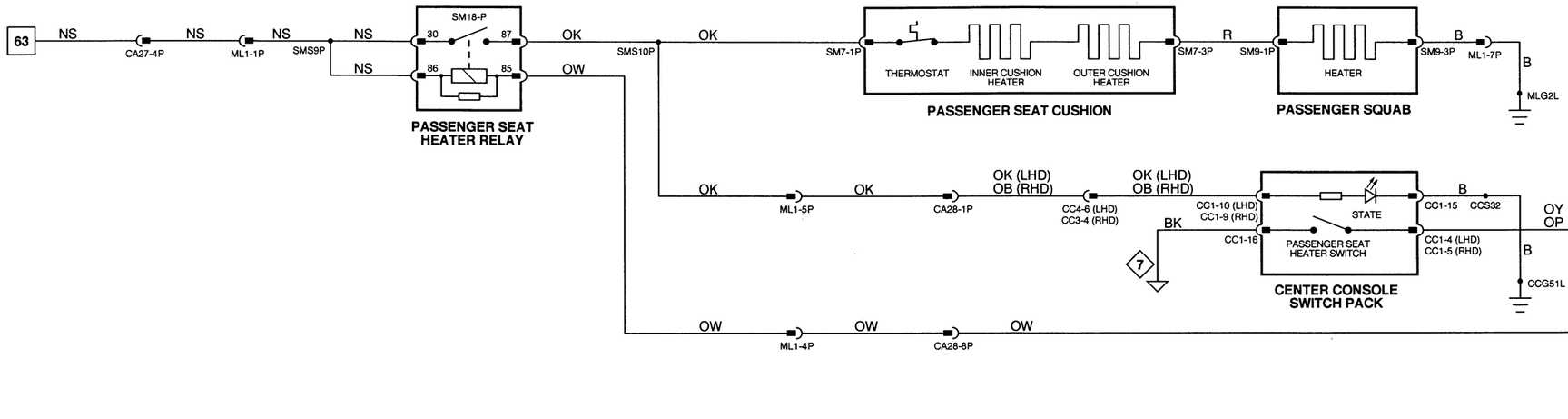
▽	Pin	Description	Active	Inactive
O	FC1-42	PASSENGER SEAT HEATER REQUEST	GROUND	B+
I	FC2-12	PASSENGER SEAT HEATER SWITCH	GROUND	B+

The following symbols are used to represent values for Control Module Pin Out data:

I	Input	B+	Battery voltage
O	Output	V	Voltage (DC)
SG	Signal Ground	Hz	Frequency
D	Serial and encoded communications	KHz	Frequency x 1000
		MS	Milliseconds
		MV	Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: Manual Passenger Seat Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.12

COMPONENTS

Component	Connector / Type / Color	Location / Access
SEAT CONTROL MODULE – REAR	BS1 / 22-WAY MULTILOCK 47 / BLUE	REAR SEATS, CENTER / BEHIND
BS2 / 12-WAY MULTILOCK 47 / BLUE	REAR SEATS, CENTER / BEHIND	
BS6 / 12-WAY MULTILOCK 47 / WHITE	REAR SEATS, CENTER / BEHIND	
BS7 / 22-WAY MULTILOCK 47 / WHITE	REAR SEATS, CENTER / BEHIND	
SEAT CUSHION – LH REAR	BB1-L / 3-WAY MULTILOCK 070 / YELLOW	LH REAR SEAT / INSIDE
SEAT CUSHION – RH REAR	BB1-R / 3-WAY MULTILOCK 070 / YELLOW	RH REAR SEAT / INSIDE
SEAT FORE/AFT MOTOR – LH REAR	BB2-L / 3-WAY MULTILOCK 070 / WHITE	LH REAR SEAT / INSIDE
SEAT FORE/AFT MOTOR – RH REAR	BB2-R / 3-WAY MULTILOCK 070 / WHITE	RH REAR SEAT / INSIDE
SEAT FORE/AFT SWITCH – LH REAR	BC3 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT FORE/AFT SWITCH – RH REAR	BC5 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT HEADREST MOTOR – LH REAR	BB3-L / 6-WAY MULTILOCK 070 / YELLOW	LH REAR SEAT / INSIDE
SEAT HEADREST MOTOR – RH REAR	BB3-R / 6-WAY MULTILOCK 070 / YELLOW	RH REAR SEAT / INSIDE
SEAT HEADREST SWITCH – LH REAR	BC4 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT HEADREST SWITCH – RH REAR	BC7 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT HEATER SWITCH – LH REAR	BC1 / 10-WAY AMP MLQ / BLACK	CENTER CONSOLE / REAR
SEAT HEATER SWITCH – RH REAR	BC2 / 10-WAY AMP MLQ / BLACK	CENTER CONSOLE / REAR
SEAT HEATER TIMER – LH REAR	CA111 / 5-WAY RELAY BASE / YELLOW	LH HEELBOARD / HEELBOARD COVER
SEAT HEATER TIMER – RH REAR	CA112 / 5-WAY RELAY BASE / YELLOW	RH HEELBOARD / HEELBOARD COVER
SEAT LUMBAR PUMP – LH REAR	BB4-L / 3-WAY MULTILOCK 070 / YELLOW	LH REAR SEAT / INSIDE
SEAT LUMBAR PUMP – RH REAR	BB4-R / 3-WAY MULTILOCK 070 / YELLOW	RH REAR SEAT / INSIDE
SEAT LUMBAR SWITCH – LH REAR	BC8 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT LUMBAR SWITCH – RH REAR	BC6 / 10-WAY AMP MLQ / BLACK	REAR SEAT SWITCH PACK / UNDER
SEAT SQUAB – LH REAR	BB5-L / 3-WAY MULTILOCK 070 / SLATE	LH REAR SEAT / INSIDE
SEAT SQUAB – RH REAR		BB5-R / 3-WAY MULTILOCK 070 / SLATERH REAR SEAT / INSIDE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
LUMBAR DEFLATE RELAY – LH REAR	BLACK / BLUE	CA54 / BLUE	RH HEELBOARD

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BS3	8-WAY MULTILOCK 070 / YELLOW	LH REAR SEAT / UNDER
BS4	20-WAY MULTILOCK 070 / WHITE	REAR SEAT CONSOLE / UNDER
BS5	8-WAY MULTILOCK 070 / YELLOW	RH REAR SEAT / UNDER
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
CA109	12-WAY MULTILOCK 070 / WHITE	RH REAR SEAT / UNDER

GROUNDS

Ground	Location / Type
CAG110L	RH SEAT GROUND STUD
CAG110R	RH SEAT GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

REAR SEAT CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	BS1-11	LH LUMBAR SWITCH INFLATE	B+	0V
O	BS6-1	RH REAR SEAT LUMBAR PUMP FEED	B+	B+
O	BS6-2	RH REAR SEAT LUMBER DEFLATE SOLENOID VALVE	B+	0V
O	BS6-3	LH REAR SEAT MOTOR – FORE / AFT MOTOR	B+	0V
O	BS6-4	LH REAR SEAT MOTOR – FORE / AFT MOTOR	B+	0V
O	BS6-5	LH REAR SEAT – HEADREST MOTOR	B+	0V
O	BS6-6	LH REAR SEAT – HEADREST MOTOR	B+	0V
O	BS6-7	RH REAR SEAT MOTOR – FORE / AFT MOTOR	B+	0V
O	BS6-8	RH REAR SEAT MOTOR – FORE / AFT MOTOR	B+	0V
O	BS6-10	LH REAR SEAT LUMBAR PUMP FEED	B+	B+
O	BS6-11	RH REAR SEAT – HEADREST MOTOR	B+	0V
O	BS6-12	RH REAR SEAT – HEADREST MOTOR	B+	0V
I	BS7-8	RH LUMBAR SWITCH – INFLATE REQUEST	B+	OV
I	BS7-9	RH FORE / AFT SWITCH – AFT REQUEST	B+	0V
I	BS7-10	RH FORE / AFT SWITCH – FORE REQUEST	B+	0V
I	BS7-14	RH HEADREST SWITCH – LOWER REQUEST	B+	0V
I	BS7-15	RH HEADREST SWITCH – RAISE REQUEST	B+	0V
I	BS7-16	LH HEADREST SWITCH – LOWER REQUEST	B+	0V
I	BS7-17	LH HEADREST SWITCH – RAISE REQUEST	B+	0V
I	BS7-18	LH FORE / AFT SWITCH – AFT REQUEST	B+	0V
I	BS7-19	LH FORE / AFT SWITCH – FORE REQUEST	B+	0V
I	BS7-20	RH LUMBAR SWITCH – DEFLATE REQUEST	B+	0V

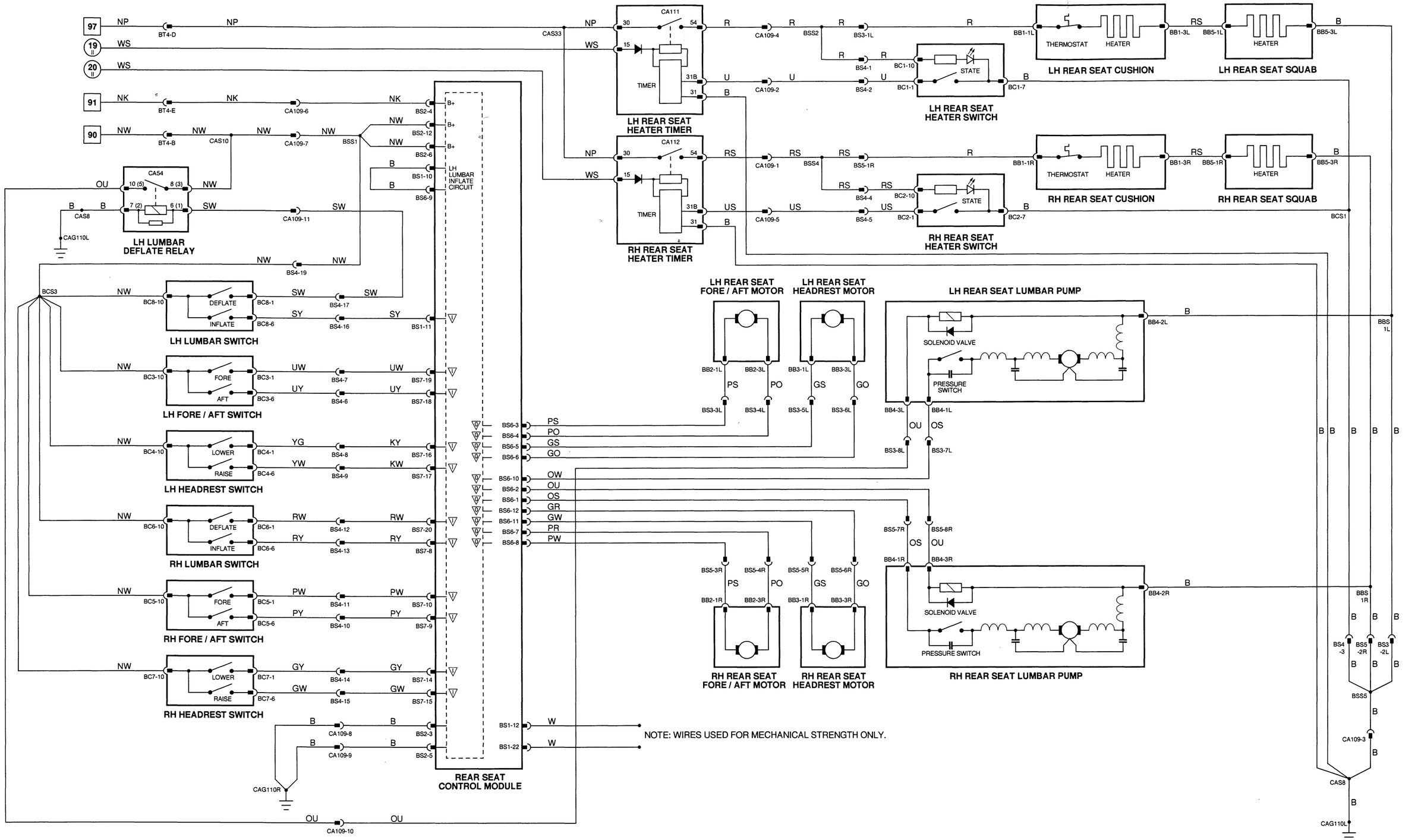
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: ROW / LWB Powered Rear Seat Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 14.13

COMPONENTS

Component	Connector / Type / Color	Location / Access
SEAT CUSHION – LH REAR	BB1-L / 3-WAY MULTILOCK 070 / YELLOW	LH REAR SEAT / INSIDE
SEAT CUSHION – RH REAR	BB1-R / 3-WAY MULTILOCK 070 / YELLOW	RH REAR SEAT / INSIDE
SEAT HEATER SWITCH – LH REAR	BC1 / 10-WAY AMP MLQ / BLACK	CENTER CONSOLE / REAR
SEAT HEATER SWITCH – RH REAR	BC2 / 10-WAY AMP MLQ / BLACK	CENTER CONSOLE / REAR
SEAT HEATER TIMER – LH REAR	CA111 / 5-WAY RELAY BASE / YELLOW	LH HEELBOARD / HEELBOARD COVER
SEAT HEATER TIMER – RH REAR	CA112 / 5-WAY RELAY BASE / YELLOW	RH HEELBOARD / HEELBOARD COVER
SEAT SQUAB – LH REAR	BB5-L / 3-WAY MULTILOCK 070 / SLATE	LH REAR SEAT / INSIDE
SEAT SQUAB – RH REAR		BB5-R / 3-WAY MULTILOCK 070 / SLATERH REAR SEAT / INSIDE

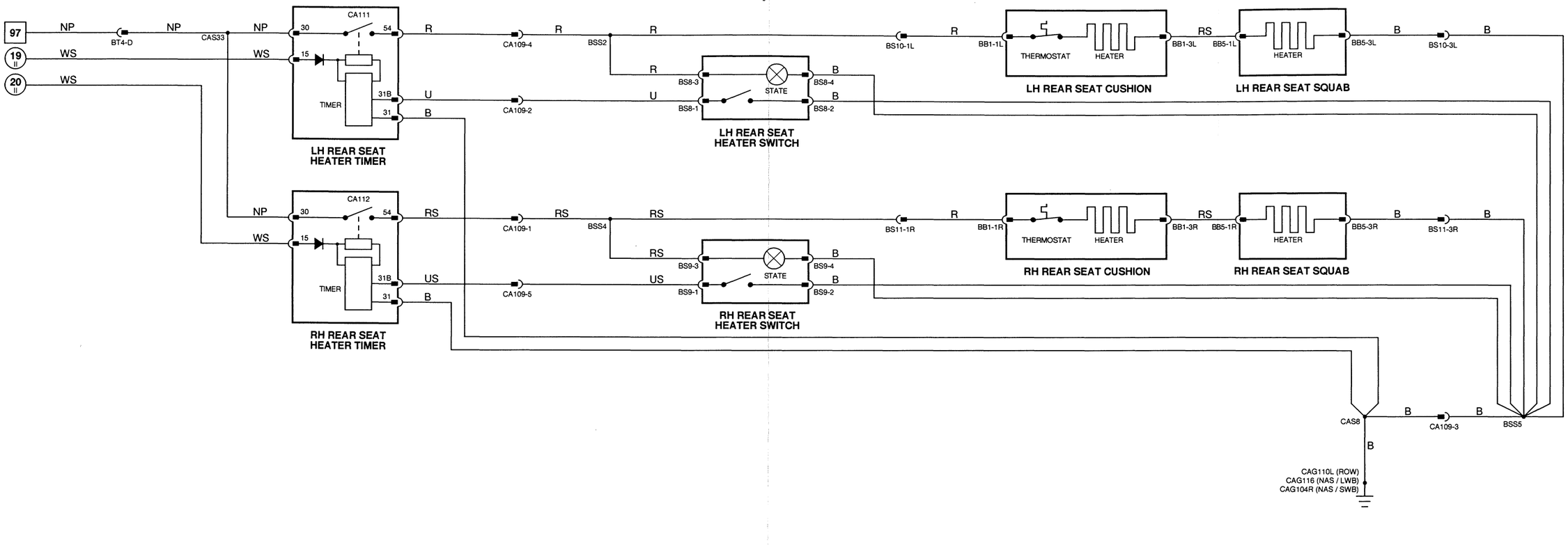
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BS10	3-WAY MULTILOCK 070 / YELLOW	LH REAR SEAT / UNDER
BS11	3-WAY MULTILOCK 070 / YELLOW	RH REAR SEAT / UNDER
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
CA109	12-WAY MULTILOCK 070 / WHITE	RH REAR SEAT / UNDER

GROUNDS

Ground	Location / Type
CAG104R	LH SEAT GROUND STUD
CAG110L	RH SEAT GROUND STUD
CAG116	RH SEAT GROUND STUD

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: Heated Rear Seat Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 15.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR KEY BARREL SWITCH – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – LH REAR	RD3-L / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – RH REAR	RD3-R / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
FASCIA TRUNK RELEASE SWITCH	FC12 / 16-WAY MULTILOCK 040 / BLUE	STEERING COLUMN / DRIVER'S UNDERSCUTTLE
FUEL FILLER FLAP ACTUATOR	CA88 / 2-WAY LABINAL / NATURAL	TRUNK, LF FRONT / TRUNK TRIM
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
SHORTING LINK	CA43 / 6-WAY MULTILOCK 070 / YELLOW	REAR SEAT, LH SIDE / UNDER
TRUNK RELEASE ACTUATOR	BT8 / 2-WAY LABINAL / BROWN	TRUNK LID / TRUNK LID TRIM
TRUNK RELEASE SWITCH	BT10 / 2-WAY MULTILOCK 040 / GREEN	TRUNK LID / TRUNK LID TRIM
VALET SWITCH	CC47 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE GLOVE BOX

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
DEADLOCK RELAY – DRIVER, RH REAR	VIOLET	CA55 / VIOLET	LH HEELBOARD
DEADLOCK RELAY – PASSENGER, LH REAR	VIOLET	CA55 / VIOLET	LH HEELBOARD
DOOR LOCK RELAY	VIOLET	CA50 / VIOLET	LH HEELBOARD
DOOR UNLOCK RELAY	VIOLET	CA50 / VIOLET	LH HEELBOARD
FUEL FILLER FLAP RELAY	VIOLET	CA97 / VIOLET	LH HEELBOARD
TRUNK RELEASE RELAY	BLACK / VIOLET	BT43 / VIOLET	TRUNK ELECTRICAL CARRIER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
BTG49L	REAR TRUNK GROUND STUD
CAG91	PARCEL SHELF GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CAG93L	LH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CA18-2	EXTERNAL TRUNK LID SWITCH	GROUND	1.74 V
I	CA18-3	NOT IN PARK MICROSWITCH	GROUND	B+
I	CA18-4	PASSENGER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA18-6	DRIVER DOOR LOCK BARREL UNLOCK / DISARM REQUEST	MOMENTARY GROUND	1.74 V
I	CA18-10	DRIVER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA18-12	DRIVER DOOR LOCK BARREL LOCK / ARM REQUEST	MOMENTARY GROUND	1.74 V
O	CA19-1	FUEL FILLER FLAP LOCK REQUEST	GROUND PULSE	B+
I	CA19-6	VALET SWITCH	MOMENTARY GROUND	2 V
I	CA19-8	FASCIA TRUNK RELEASE SWITCH	MOMENTARY GROUND	2.7 V
I	CA19-18	KEY IN IGNITION SWITCH	GROUND	9.5 V
I	CA19-19	CENTRAL LOCKING SWITCH ALL CLOSE REQUEST	GROUND	B+
O	CA19-22	DOOR UNLOCK RELAY	GROUND PULSE	B+
D	CA20-8	SERIAL COMMUNICATION INPUT		
D	CA20-16	SERIAL COMMUNICATION OUTPUT		
O	CA21-1	RHF & LHR DOOR DEADLOCK RELAY (NOT NAS)	GROUND PULSE	B+
I	CA21-5	VEHICLE SPEED INPUT	B+ @ 10 MPH = 20 Hz, 20 MPH = 40 Hz	
O	CA21-11	TRUNK RELEASE RELAY	GROUND PULSE	B+
O	CA21-14	LHF & RHR DOOR DEADLOCK RELAY	GROUND PULSE	B+
O	CA21-15	DOOR LOCK RELAY	GROUND PULSE	B+

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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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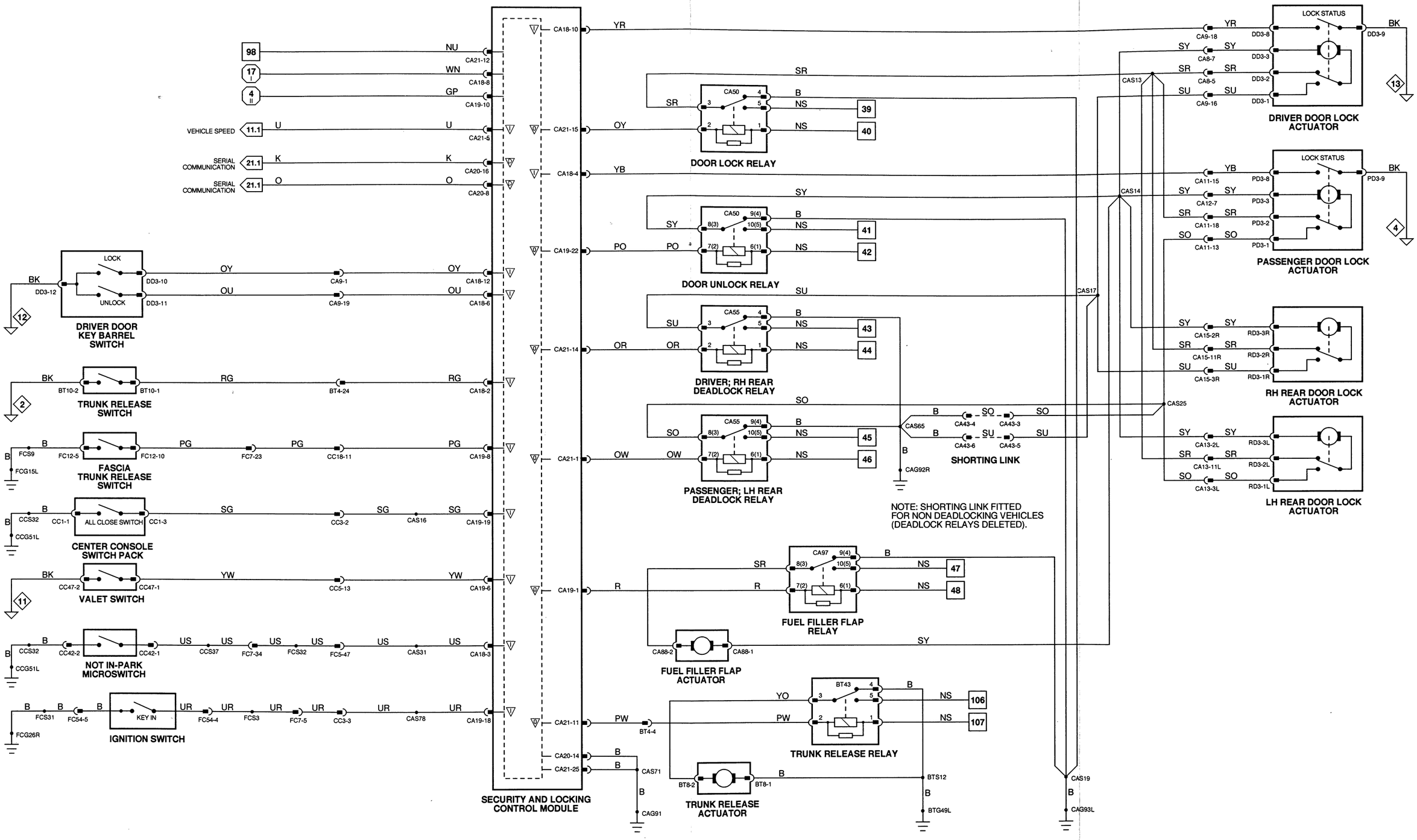

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: LHD ROW Vehicles
VIN RANGE: 746613 →
DATE OF ISSUE: NOVEMBER 1995

Fig. 15.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR KEY BARREL SWITCH – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – LH REAR	RD3-L / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – RH REAR	RD3-R / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
FASCIA TRUNK RELEASE SWITCH	FC12 / 16-WAY MULTILOCK 040 / BLUE	STEERING COLUMN / DRIVER'S UNDERSCUTTLE
FUEL FILLER FLAP ACTUATOR	CA88 / 2-WAY LABINAL / NATURAL	TRUNK, LF FRONT / TRUNK TRIM
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
TRUNK RELEASE ACTUATOR	BT8 / 2-WAY LABINAL / BROWN	TRUNK LID / TRUNK LID TRIM
TRUNK RELEASE SWITCH	BT10 / 2-WAY MULTILOCK 040 / GREEN	TRUNK LID / TRUNK LID TRIM
VALET SWITCH	CC47 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE GLOVE BOX

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
DRIVER DOOR UNLOCK RELAY	VIOLET	CA7 / VIOLET	LH HEELBOARD
DOOR LOCK RELAY	VIOLET	CA50 / VIOLET	LH HEELBOARD
DOOR UNLOCK RELAY	VIOLET	CA50 / VIOLET	LH HEELBOARD
FUEL FILLER FLAP RELAY	VIOLET	CA97 / VIOLET	LH HEELBOARD
TRUNK RELEASE RELAY	BLACK / VIOLET	BT43 / VIOLET	TRUNK ELECTRICAL CARRIER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
BTG49L	REAR TRUNK GROUND STUD
CAG91	PARCEL SHELF GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CAG93L	LH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CA18-2	EXTERNAL TRUNK LID SWITCH	GROUND	1.74 V
I	CA18-3	NOT IN PARK MICROSWITCH	GROUND	B+
I	CA18-4	PASSENGER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA18-6	DRIVER DOOR LOCK BARREL UNLOCK / DISARM REQUEST	MOMENTARY GROUND	1.74 V
I	CA18-10	DRIVER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA18-12	DRIVER DOOR LOCK BARREL LOCK / ARM REQUEST	MOMENTARY GROUND	1.74 V
O	CA19-1	FUEL FILLER FLAP LOCK REQUEST	GROUND PULSE	B+
I	CA19-6	VALET SWITCH	MOMENTARY GROUND	2 V
I	CA19-8	FASCIA TRUNK RELEASE SWITCH	MOMENTARY GROUND	2.7 V
I	CA19-18	KEY IN IGNITION SWITCH	GROUND	9.5 V
I	CA19-19	CENTRAL LOCKING SWITCH ALL CLOSE REQUEST	GROUND	B+
O	CA19-22	DOOR UNLOCK RELAY	GROUND PULSE	B+
D	CA20-8	SERIAL COMMUNICATION INPUT		
D	CA20-16	SERIAL COMMUNICATION OUTPUT		
O	CA21-2	DRIVER DOOR UNLOCK RELAY (TWO STAGE REMOTE UNLOCKING)	GROUND PULSE	B+
I	CA21-5	VEHICLE SPEED INPUT	B+ @ 10 MPH = 20 Hz, 20 MPH = 40 Hz	
O	CA21-11	TRUNK RELEASE RELAY	GROUND PULSE	B+
O	CA21-15	DOOR LOCK RELAY	GROUND PULSE	B+

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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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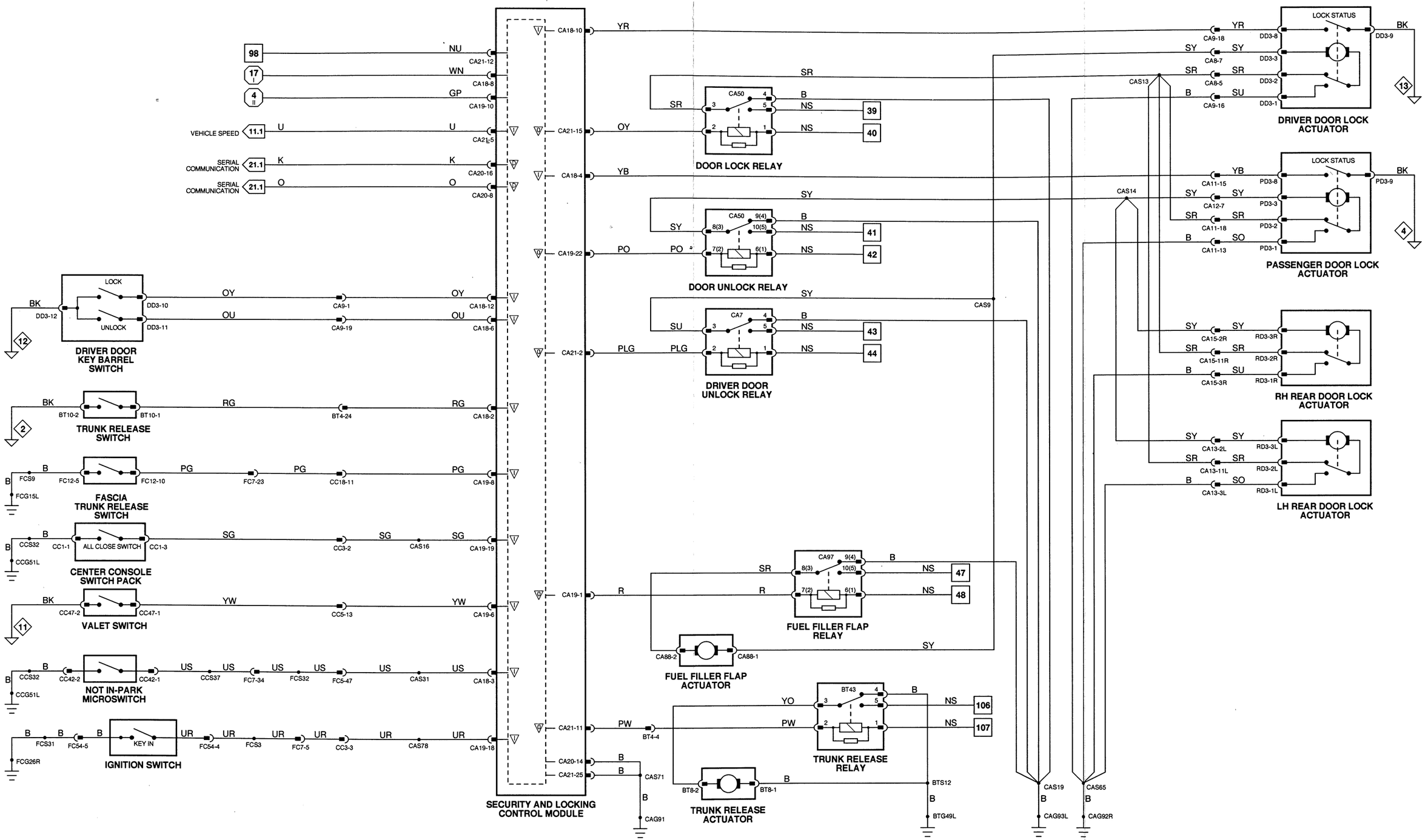

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: NAS Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 15.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR KEY BARREL SWITCH – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – LH REAR	RD3-L / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – RH REAR	RD3-R / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
FASCIA TRUNK RELEASE SWITCH	FC12 / 16-WAY MULTILOCK 040 / BLUE	STEERING COLUMN / DRIVER'S UNDERSCUTTLE
FUEL FILLER FLAP ACTUATOR	CA88 / 2-WAY LABINAL / NATURAL	TRUNK, LF FRONT / TRUNK TRIM
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
SHORTING LINK	CA43 / 6-WAY MULTILOCK 070 / YELLOW	REAR SEAT, LH SIDE / UNDER
TRUNK RELEASE ACTUATOR	BT8 / 2-WAY LABINAL / BROWN	TRUNK LID / TRUNK LID TRIM
TRUNK RELEASE SWITCH	BT10 / 2-WAY MULTILOCK 040 / GREEN	TRUNK LID / TRUNK LID TRIM
VALET SWITCH	CC47 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE GLOVE BOX

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
DEADLOCK RELAY – DRIVER, LH REAR	VIOLET	CA55 / VIOLET	LH HEELBOARD
DEADLOCK RELAY – PASSENGER, RH REAR	VIOLET	CA55 / VIOLET	LH HEELBOARD
DOOR LOCK RELAY	VIOLET	CA50 / VIOLET	LH HEELBOARD
DOOR UNLOCK RELAY	VIOLET	CA50 / VIOLET	LH HEELBOARD
FUEL FILLER FLAP RELAY	VIOLET	CA97 / VIOLET	LH HEELBOARD
TRUNK RELEASE RELAY	BLACK / VIOLET	BT43 / VIOLET	TRUNK ELECTRICAL CARRIER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
BTG49L	REAR TRUNK GROUND STUD
CAG91	PARCEL SHELF GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CAG93L	LH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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CONTROL MODULE PIN OUT INFORMATION

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CA18-2	EXTERNAL TRUNK LID SWITCH	GROUND	1.74 V
I	CA18-3	NOT IN PARK MICROSWITCH	GROUND	B+
I	CA18-4	DRIVER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA18-6	DRIVER DOOR LOCK BARREL UNLOCK / DISARM REQUEST	MOMENTARY GROUND	1.74 V
I	CA18-10	PASSENGER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA18-12	DRIVER DOOR LOCK BARREL LOCK / ARM REQUEST	MOMENTARY GROUND	1.74 V
O	CA19-1	FUEL FILLER FLAP LOCK REQUEST	GROUND PULSE	B+
I	CA19-6	VALET SWITCH	MOMENTARY GROUND	2 V
I	CA19-8	FASCIA TRUNK RELEASE SWITCH	MOMENTARY GROUND	2.7 V
I	CA19-18	KEY IN IGNITION SWITCH	GROUND	9.5 V
I	CA19-19	CENTRAL LOCKING SWITCH ALL CLOSE REQUEST	GROUND	B+
O	CA19-22	DOOR UNLOCK RELAY	GROUND PULSE	B+
D	CA20-8	SERIAL COMMUNICATION INPUT		
D	CA20-16	SERIAL COMMUNICATION OUTPUT		
O	CA21-1	RHF & LHR DOOR DEADLOCK RELAY (NOT NAS)	GROUND PULSE	B+
I	CA21-5	VEHICLE SPEED INPUT	B+ @ 10 MPH = 20 Hz, 20 MPH = 40 Hz	
O	CA21-11	TRUNK RELEASE RELAY	GROUND PULSE	B+
O	CA21-14	LHF & RHR DOOR DEADLOCK RELAY	GROUND PULSE	B+
O	CA21-15	DOOR LOCK RELAY	GROUND PULSE	B+

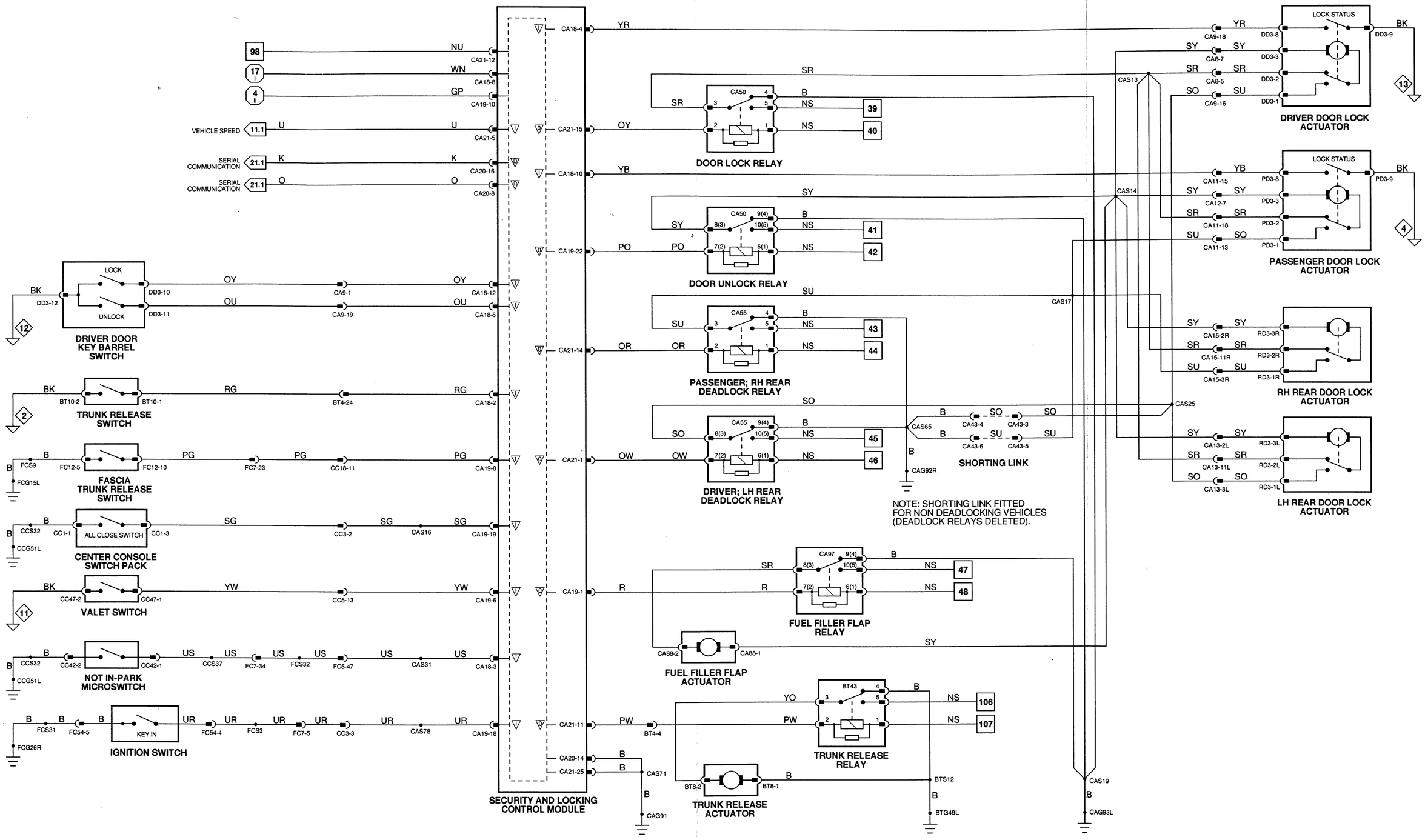
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: RHD Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 15.4

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
COIL (COLUMN SWITCHGEAR)	SC11 / 2-WAY MULTILOCK 040 / GREEN	STEERING COLUMN / COVER
DOOR LOCK ACTUATOR - DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR - PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH PACK - PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
DOOR SWITCH - DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH - LH REAR	RD3-L / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH - PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH - RH REAR	RD3-R / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
HOOD SWITCH	RS17 / 2-WAY ECONOSEAL III LC / BLACK	ENGINE BAY, RH FRONT
INCLINATION SENSOR	CA66 / 6-WAY CS-25 / ORANGE	TRUNK, LH FRONT / TRUNK TRIM
INTRUSION SENSOR - LH	RF6 / 4-WAY MODU / BLACK	HEAD LINER, LH SIDE
INTRUSION SENSOR - RH	RF5 / 4-WAY MODU / BLACK	HEAD LINER, RH SIDE
READER / EXCITER CONTROL MODULE	FC53 / 20-WAY MULTILOCK 040 / BLACK	DRIVER'S UNDERSCUTTLE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
SECURITY ANTENNA	CA26 / LUCAR / BLACK	BACKLIGHT
SECURITY SOUNDER	RS21 (FLY LEAD) / 6-WAY ECONOSEAL III LC / BLACK	ENGINE BAY, RH FRONT
TRUNK SWITCH	BT15 / 2-WAY FORD DIAGNOSTIC / BLACK	TRUNK LID / TRUNK LID TRIM
VALET SWITCH	CC47 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE GLOVE BOX

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA14	2-WAY MULTILOCK 070 / WHITE	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CA16	2-WAY MULTILOCK 040 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC8	12-WAY MULTILOCK 040 / BLACK	DRIVER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
RF4	12-WAY MULTILOCK 040 / BLACK	ROOF CONSOLE
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG33L	RH HEELBOARD GROUND SCREW
CAG49	RH CONSOLE GROUND STUD
CAG91	PARCEL SHELF GROUND SCREW
CAG92L	RH HEELBOARD GROUND SCREW
CAG93R	LH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
RSG41L	RIGHT FORWARD GROUND STUD
RSG8L	RIGHT FORWARD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-14	LH PILOT BEAM, SIDE LAMPS AND TAIL LAMPS ON	GROUND	B+
O	FC1-16	REAR WINDOW RAISE	GROUND	B+
O	FC1-24	INTERIOR AND COURTESY LAMPS	GROUND	B+
O	FC1-29	LH DIPPED BEAM ON	GROUND	B+
O	FC1-31	FRONT PASSENGER WINDOW RAISE	GROUND	B+
O	FC1-33	STARTER RELAY INHIBIT	GROUND	B+
O	FC1-35	LH MAIN BEAM ON	GROUND	B+
O	FC1-36	SLIDING ROOF CLOSE	GROUND	B+
O	FC1-37	DRIVER WINDOW RAISE	GROUND	B+
O	FC1-39	RH DIPPED BEAM ON	GROUND	B+
O	FC1-41	RH MAIN BEAM ON	GROUND	B+
I	FC2-2	INTERIOR LAMPS ON	GROUND	B+
D	FC2-5	SECURE STATUS INPUT FROM SECURITY AND LOCKING CONTROL MODULE	ENCODED COMMUNICATIONS	
I	FC2-6	HEADLAMP CONVENIENCE	GROUND PULSE	B+
I	FC2-26	SECURITY SYSTEM VISUAL WARNING	GROUND PULSE	B+
I	FC2-28	REMOTE ALL CLOSE REQUEST	GROUND	B+

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CA18-1	PASSENGER DOOR AJAR	GROUND	1.74 V
I	CA18-4	PASSENGER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA18-7	DRIVER DOOR AJAR	GROUND	7.9 V
D	CA18-9	TRANSPONDER IMMOBILIZATION OUTPUT (NOT NAS)	ENCODED COMMUNICATIONS	
I	CA18-10	DRIVER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA19-6	VALET SWITCH	MOMENTARY GROUND	2 V
I	CA19-7	INCLINATION SENSOR VIOLATION	GROUND PULSE	1.3 V
I	CA19-9	HOOD AJAR	GROUND	1.7 V
D	CA19-11	TRANSPONDER IMMOBILIZATION ON OUTPUT (NOT NAS)	ENCODED COMMUNICATIONS	
O	CA19-12	MEMORY SEAT REMOTE INDICATOR	GROUND PULSE	B+
O	CA19-13	HEADLAMP CONVENIENCE	GROUND PULSE	7.89 V
I	CA19-19	CENTRAL LOCKING SWITCH ALL CLOSE REQUEST	GROUND	B+
I	CA19-20	TRUNK LID AJAR	GROUND	7.9 V
I	CA19-21	REAR PASSENGER DOOR AJAR	GROUND	7.9 V
I	CA20-4	RH INTRUSION SENSOR (NOT NAS)	SIGNAL	GROUND
O	CA20-5	RH INTRUSION SENSOR VOLTAGE FEED (NOT NAS)	8 V	GROUND
O	CA20-6	READER / EXCITER CONTROL MODULE GROUND (NOT NAS)	GROUND	GROUND
D	CA20-8	SERIAL COMMUNICATION INPUT		
I	CA20-12	LH INTRUSION SENSOR (NOT NAS)	SIGNAL	GROUND
O	CA20-13	LH INTRUSION SENSOR VOLTAGE FEED (NOT NAS)	8 V	GROUND
D	CA20-16	SERIAL COMMUNICATION OUTPUT		
O	CA21-6	INCLINATION SENSOR GROUND	GROUND	GROUND
D	CA21-7	INTELLIGENT SOUNDER OUTPUT	ENCODED COMMUNICATIONS	
O	CA21-8	MEMORY POSITION 2 REQUEST	B+ PULSE	GROUND
O	CA21-9	VISUAL WARNING	GROUND PULSE	B+
D	CA21-10	SECURE STATUS OUTPUT TO BODY PROCESSOR	ENCODED COMMUNICATIONS	
O	CA21-19	SECURITY ACTIVE LED	9V PULSE	GROUND
D	CA21-20	FUELING INHIBIT SIGNAL OUTPUT (NOT NAS)	ENCODED COMMUNICATIONS	
O	CA21-21	MEMORY POSITION 1 REQUEST	B+ PULSE	GROUND
O	CA21-22	ALL CLOSE REQUEST	GROUND	7.8 V
O	CA21-23	INTERIOR LIGHTS ON	GROUND PULSE	7.8 V
O	CA21-24	HORN	GROUND PULSE	B+

The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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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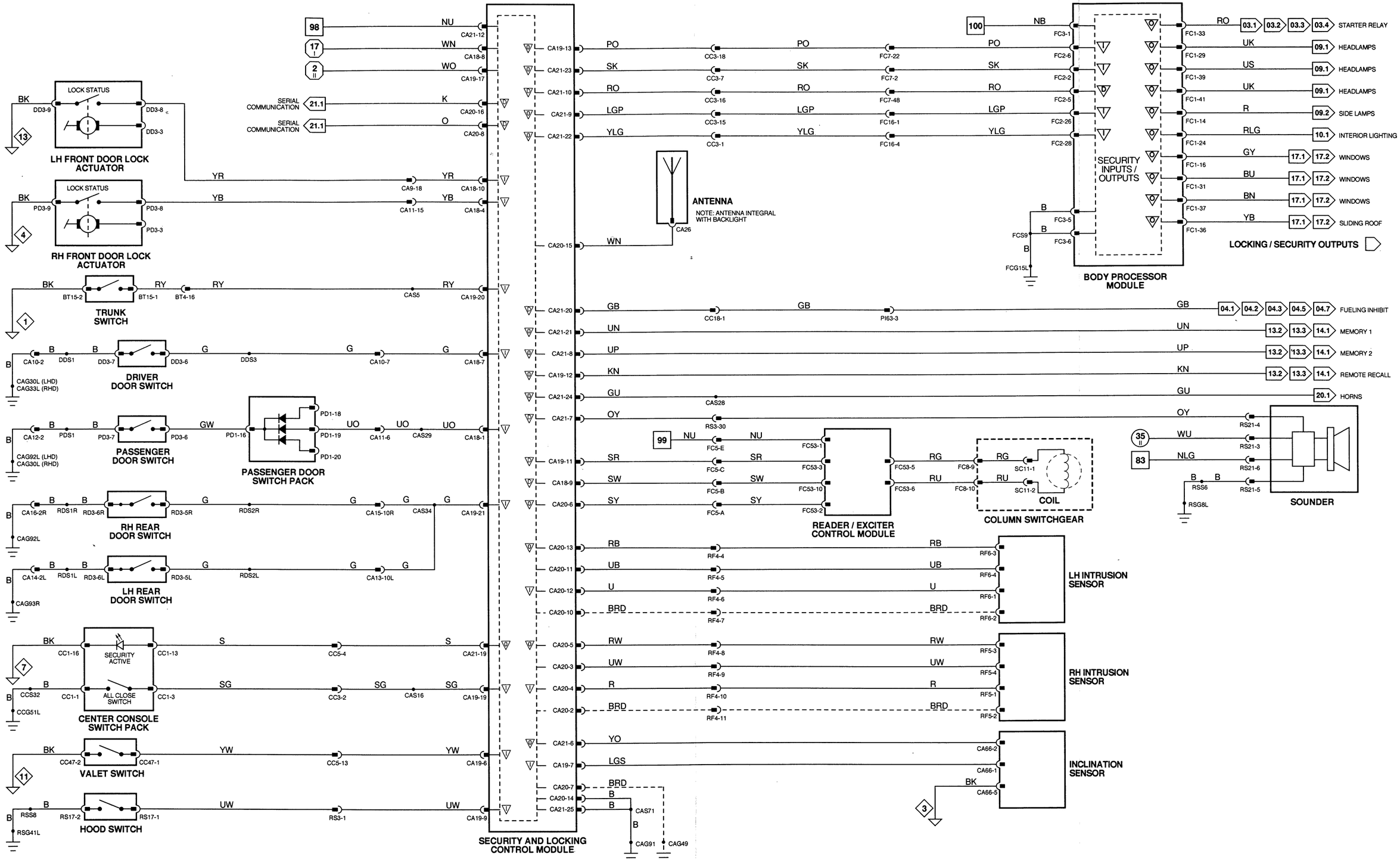

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: ROW Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 15.5

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR LOCK ACTUATOR – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR – PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH PACK – PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	ARM REST / TOP ROLL
DOOR SWITCH – DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH – LH REAR	RD3-L / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH – PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR SWITCH – RH REAR	RD3-R / 6-WAY ECONOSEAL III LC / BLACK	DOOR CASING
HOOD SWITCH	RS17 / 2-WAY ECONOSEAL III LC / BLACK	ENGINE BAY, RH FRONT
INCLINATION SENSOR	CA66 / 6-WAY CS-25 / ORANGE	TRUNK, LH FRONT / TRUNK TRIM
INTRUSION SENSOR – LH	RF6 / 4-WAY MODU / BLACK	HEAD LINER, LH SIDE
INTRUSION SENSOR – RH	RF5 / 4-WAY MODU / BLACK	HEAD LINER, RH SIDE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
SECURITY ANTENNA	CA26 / LUCAR / BLACK	BACKLIGHT
SECURITY SOUNDER	RS21 (FLY LEAD) / 6-WAY ECONOSEAL III LC / BLACK	ENGINE BAY, RH FRONT
TRUNK SWITCH	BT15 / 2-WAY FORD DIAGNOSTIC / BLACK	TRUNK LID / TRUNK LID TRIM
VALET SWITCH	CC47 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE GLOVE BOX

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA14	2-WAY MULTILOCK 070 / WHITE	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CA16	2-WAY MULTILOCK 040 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A' POST TRIM
RF4	12-WAY MULTILOCK 040 / BLACK	ROOF CONSOLE
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG49	RH CONSOLE GROUND STUD
CAG91	PARCEL SHELF GROUND SCREW
CAG92L	RH HEELBOARD GROUND SCREW
CAG93R	LH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
RSG41L	RIGHT FORWARD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-14	LH PILOT BEAM, SIDE LAMPS AND TAIL LAMPS ON	GROUND	B+
O	FC1-16	REAR WINDOW RAISE	GROUND	B+
O	FC1-24	INTERIOR AND COURTESY LAMPS	GROUND	B+
O	FC1-29	LH DIPPED BEAM ON	GROUND	B+
O	FC1-31	FRONT PASSENGER WINDOW RAISE	GROUND	B+
O	FC1-33	STARTER RELAY INHIBIT	GROUND	B+
O	FC1-35	LH MAIN BEAM ON	GROUND	B+
O	FC1-36	SLIDING ROOF CLOSE	GROUND	B+
O	FC1-37	DRIVER WINDOW RAISE	GROUND	B+
O	FC1-39	RH DIPPED BEAM ON	GROUND	B+
O	FC1-41	RH MAIN BEAM ON	GROUND	B+
I	FC2-2	INTERIOR LAMPS ON	GROUND	B+
D	FC2-5	SECURE STATUS INPUT FROM SECURITY AND LOCKING CONTROL MODULE	ENCODED COMMUNICATIONS	
I	FC2-6	HEADLAMP CONVENIENCE	GROUND PULSE	B+
I	FC2-26	SECURITY SYSTEM VISUAL WARNING	GROUND PULSE	B+
I	FC2-28	REMOTE ALL CLOSE REQUEST	GROUND	B+

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CA18-1	PASSENGER DOOR AJAR	GROUND	1.74 V
I	CA18-4	PASSENGER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA18-7	DRIVER DOOR AJAR	GROUND	7.9 V
I	CA18-10	DRIVER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA19-6	VALET SWITCH	MOMENTARY GROUND	2 V
I	CA19-7	INCLINATION SENSOR VIOLATION	GROUND PULSE	1.3 V
I	CA19-9	HOOD AJAR	GROUND	1.7 V
O	CA19-12	MEMORY SEAT REMOTE INDICATOR	GROUND PULSE	B+
O	CA19-13	HEADLAMP CONVENIENCE	GROUND PULSE	7.89 V
I	CA19-19	CENTRAL LOCKING SWITCH ALL CLOSE REQUEST	GROUND	B+
I	CA19-20	TRUNK LID AJAR	GROUND	7.9 V
I	CA19-21	REAR PASSENGER DOOR AJAR	GROUND	7.9 V
I	CA20-4	RH INTRUSION SENSOR (NOT NAS)	SIGNAL	GROUND
O	CA20-5	RH INTRUSION SENSOR VOLTAGE FEED (NOT NAS)	8 V	GROUND
D	CA20-8	SERIAL COMMUNICATION INPUT		
I	CA20-12	LH INTRUSION SENSOR (NOT NAS)	SIGNAL	GROUND
O	CA20-13	LH INTRUSION SENSOR VOLTAGE FEED (NOT NAS)	8 V	GROUND
D	CA20-16	SERIAL COMMUNICATION OUTPUT		
O	CA21-6	INCLINATION SENSOR GROUND	GROUND	GROUND
O	CA21-8	MEMORY POSITION 2 REQUEST	B+ PULSE	GROUND
O	CA21-9	VISUAL WARNING	GROUND PULSE	B+
D	CA21-10	SECURE STATUS OUTPUT TO BODY PROCESSOR	ENCODED COMMUNICATIONS	
O	CA21-13	SECURITY SOUNDER	5 V (480 – 1900 Hz)	GROUND
O	CA21-19	SECURITY ACTIVE LED	9V PULSE	GROUND
D	CA21-20	FUELING INHIBIT SIGNAL OUTPUT (NOT NAS)	ENCODED COMMUNICATIONS	
O	CA21-21	MEMORY POSITION 1 REQUEST	B+ PULSE	GROUND
O	CA21-22	ALL CLOSE REQUEST	GROUND	7.8 V
O	CA21-23	INTERIOR LIGHTS ON	GROUND PULSE	7.8 V
O	CA21-24	HORN	GROUND PULSE	B+
O	CA21-26	SECURITY SOUNDER	5 V (480 – 1900 Hz)	GROUND

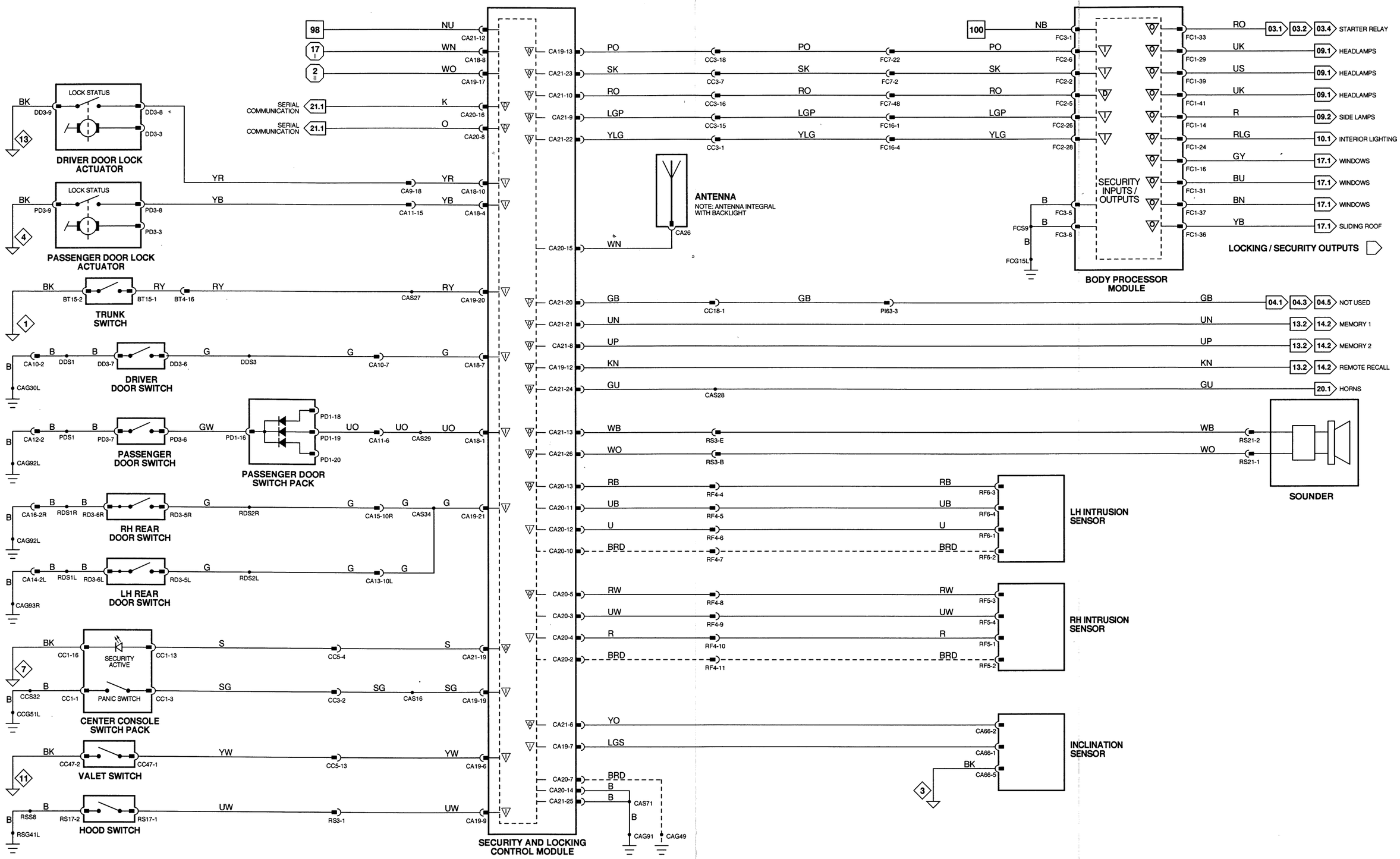
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2

Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: NAS Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 16.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
AMBIENT TEMPERATURE SWITCH	BR7 / 2-WAY ECONOSEAL III LC / WHITE	LH FRONT WHEEL ARCH LINER / SPOILER TRAY
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
DIODE (FC58) – WASH / WIPE SWITCH	FC58 / DIODE / BLACK	FASCIA HARNESS / PASSENGER AIR BAG (PASSENGER SIDE FASCIA TRIM)
DIODE (FC61) – WASH / WIPE SWITCH	FC61 / DIODE / BLACK	FASCIA HARNESS / PASSENGER AIR BAG (PASSENGER SIDE FASCIA TRIM)
LIGHTING SWITCHES	FC12 / 16-WAY MULTILOCK 040 / BLUE	FASCIA SWITCH PACK
POWER WASH PUMP	RS26 / 2-WAY ECONOSEAL III HC / RED	ENGINE BAY, RH INNER FENDER
WASH / WIPE SWITCHES (COLUMN SWITCHGEAR)	SC2 / 6-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
WASHER FLUID LEVEL SWITCH	RS18 / 2-WAY ECONOSEAL III LC / RED	WASHER FLUID RESERVOIR
WINDSHIELD WASH HEATER – LH	PI71 / 2-WAY SUMITOMO 90 / WHITE	PLENUM CHAMBER / COVER
WINDSHIELD WASH HEATER – RH	PI72 / 2-WAY SUMITOMO 90 / WHITE	PLENUM CHAMBER / COVER
WINDSHIELD WASH PUMP	RS25 / 2-WAY ECONOSEAL III LC / BLACK	WASHER FLUID RESERVOIR
WIPER MOTOR	LS9 / 6-WAY ECONOSEAL III LC / BLACK	PLENUM CHAMBER / COVER

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
POWER WASH PUMP RELAY	BLACK / WHITE	RS20 / BLACK	RH ENGINE BAY RELAYS
WINDSHIELD WASH PUMP RELAY	BLACK	RS2 / BLACK	RH ENGINE BAY RELAYS
WIPER FAST / SLOW RELAY	BLACK	LS49 / BLACK	LH ENGINE BAY RELAYS
WIPER ON / OFF RELAY	BLACK	LS48 / BLACK	LH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BR1	15-WAY ECONOSEAL III LC / BLACK	RH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC8	12-WAY MULTILOCK 040 / BLACK	DRIVER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI1	13-WAY ECONOSEAL III LC / WHITE	REARWARD OF RH HEADLAMP
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
LSG19L	LH BULKHEAD GROUND STUD
LSG19R	LH BULKHEAD GROUND STUD
LSG52R	LEFT FORWARD GROUND STUD
RSG41L	RIGHT FORWARD GROUND STUD
RSG41R	RIGHT FORWARD GROUND STUD
RSG42R	RH BULKHEAD GROUND STUD
RSG8L	RIGHT FORWARD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-27	WIPER RELAY	GROUND	B+
O	FC1-34	WINDSHIELD WASH PUMP RELAY	GROUND	B+
O	FC1-40	HEADLAMP POWER WASH PUMP RELAY	GROUND	B+
I	FC2-1	WIPER MOTOR PARK SWITCH	GROUND	B+
I	FC2-3	SIDE LAMPS ON	GROUND	B+
I	FC2-4	VEHICLE SPEED SENSOR	GROUND PULSE @ 10 MPH (16 KPH) = 20 Hz, 20 MPH (32 KPH) = 40 Hz	
I	FC2-14	WASH (PRE-PROGRAMMED)	GROUND	B+
I	FC2-22	WASHER FLUID LEVEL	GROUND	B+
I	FC2-31	IGNITION SWITCHED GROUND	GROUND	B+
I	FC2-39	WIPER DELAY	GROUND	B+
I	FC2-47	SLOW / FLICK WIPER	GROUND	B+

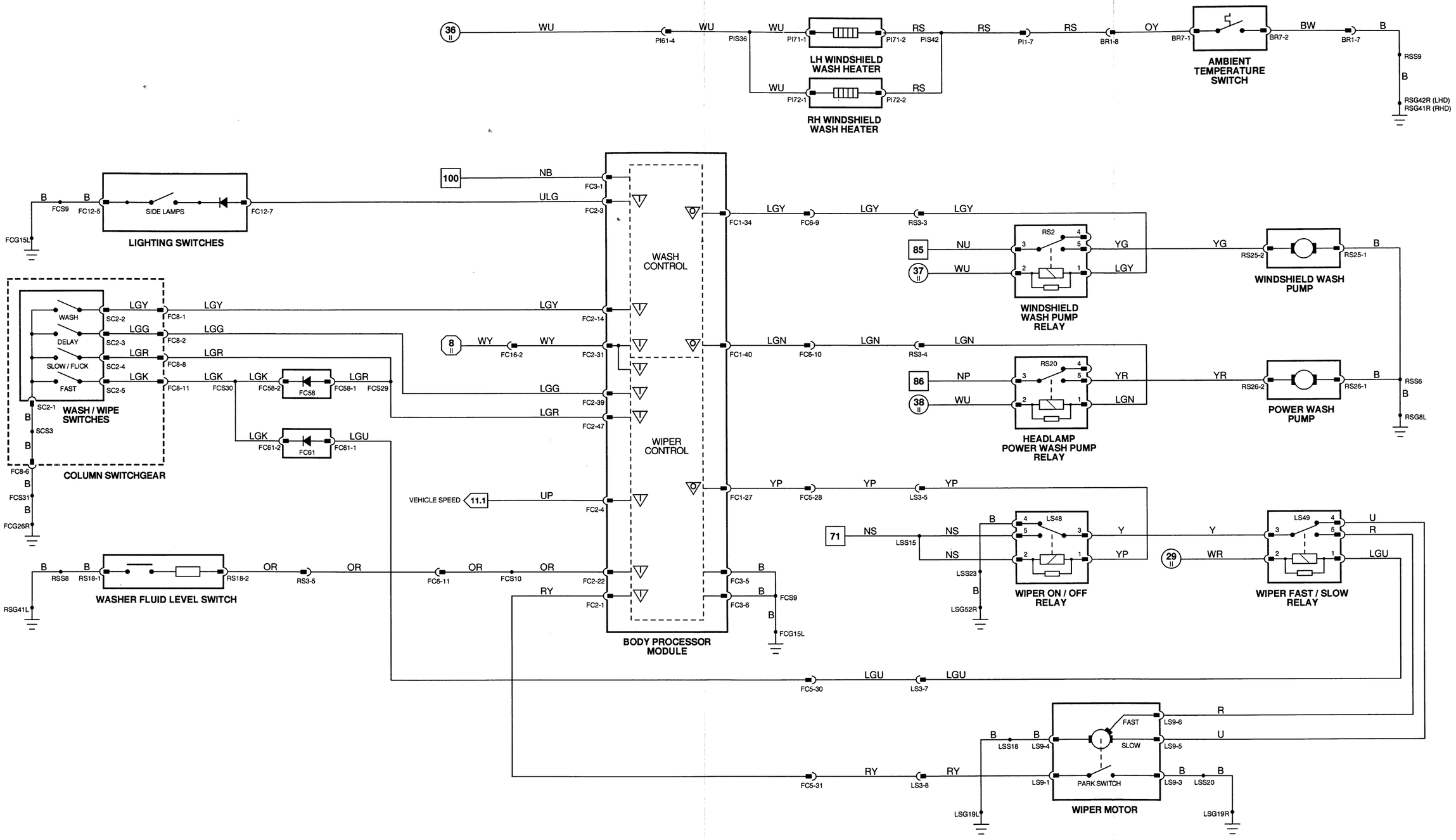
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | I II Fig. 01.4 | I II Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 17.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR SWITCH PACK – DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
SLIDING ROOF CONTROL MODULE	CA84 / 6-WAY MULTILOCK 070 / WHITE SR1 / 3-WAY MULTILOCK 070 / WHITE	ROOF CONSOLE
SLIDING ROOF MOTOR	SR1 / 3-WAY MULTILOCK 070 / WHITE	ROOF CONSOLE
SLIDING ROOF SWITCH	CA83 / 8-WAY MULTILOCK 040 / BLACK	ROOF CONSOLE
WINDOW LIFT MOTOR – DRIVER	DD5 / 2-WAY ECONOSEAL III LC / BLACK	DRIVER'S DOOR / DOOR CASING
WINDOW LIFT MOTOR – LH REAR	RD5-L / 2-WAY ECONOSEAL III LC / BLACK	LH REAR DOOR / DOOR CASING
WINDOW LIFT MOTOR – PASSENGER	PD5 / 2-WAY ECONOSEAL III LC / BLACK	PASSENGER'S DOOR / DOOR CASING
WINDOW LIFT MOTOR – RH REAR	RD5-R / 2-WAY ECONOSEAL III LC / BLACK	RH DOOR / DOOR CASING
WINDOW LIFT SWITCH PACK – LH REAR	RD1-L / 26-WAY MULTILOCK 47 / SLATE	LH REAR DOOR ARM REST / TOP ROLL
WINDOW LIFT SWITCH PACK – PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	PASSENGER'S DOOR ARM REST / TOP ROLL
WINDOW LIFT SWITCH PACK – RH REAR	RD1-R / 26-WAY MULTILOCK 47 / SLATE	RH REAR DOOR ARM REST / TOP ROLL

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA14	2-WAY MULTILOCK 070 / WHITE	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CA16	2-WAY MULTILOCK 040 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG31R	PARCEL SHELF GROUND SCREW
CAG92L	RH HEELBOARD GROUND SCREW
CAG93R	LH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-16	REAR WINDOW RAISE	GROUND	B+
O	FC1-31	FRONT PASSENGER WINDOW RAISE	GROUND	B+
O	FC1-36	SLIDING ROOF CLOSE	GROUND	B+
O	FC1-37	DRIVER WINDOW RAISE	GROUND	B+
I	FC2-28	REMOTE ALL CLOSE REQUEST	GROUND	B+

SLIDING ROOF CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CA84-2	ALL CLOSE REQUEST	GROUND	B+
I	CA84-4	ALL CLOSE REQUEST TO BM	GROUND	B+
I	CA84-5	TILT OPEN / SLIDE CLOSE REQUEST	GROUND	B+
I	CA84-6	TILT CLOSE / SLIDE OPEN REQUEST	GROUND	B+
O	SR1-1	SLIDING ROOF MOTOR	B+	GROUND
O	SR1-3	SLIDING ROOF MOTOR	B+	GROUND

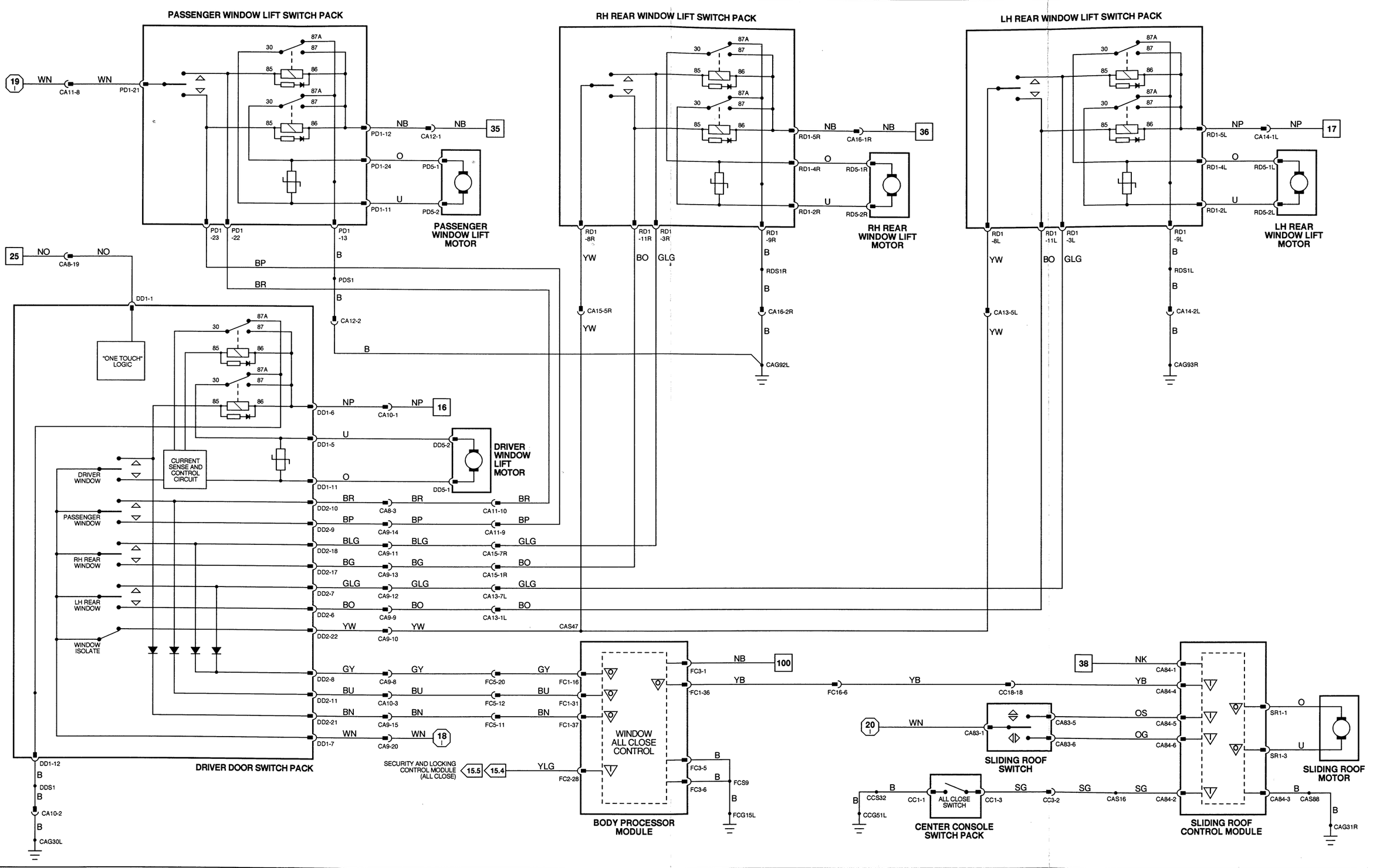
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: LHD Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 17.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR SWITCH PACK – DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM REST / TOP ROLL
SLIDING ROOF CONTROL MODULE	CA84 / 6-WAY MULTILOCK 070 / WHITE SR1 / 3-WAY MULTILOCK 070 / WHITE	ROOF CONSOLE
SLIDING ROOF MOTOR	SR1 / 3-WAY MULTILOCK 070 / WHITE	ROOF CONSOLE
SLIDING ROOF SWITCH	CA83 / 8-WAY MULTILOCK 040 / BLACK	ROOF CONSOLE
WINDOW LIFT MOTOR – DRIVER	DD5 / 2-WAY ECONOSEAL III LC / BLACK	DRIVER'S DOOR / DOOR CASING
WINDOW LIFT MOTOR – LH REAR	RD5-L / 2-WAY ECONOSEAL III LC / BLACK	LH REAR DOOR / DOOR CASING
WINDOW LIFT MOTOR – PASSENGER	PD5 / 2-WAY ECONOSEAL III LC / BLACK	PASSENGER'S DOOR / DOOR CASING
WINDOW LIFT MOTOR – RH REAR	RD5-R / 2-WAY ECONOSEAL III LC / BLACK	RH DOOR / DOOR CASING
WINDOW LIFT SWITCH PACK – LH REAR	RD1-L / 26-WAY MULTILOCK 47 / SLATE	LH REAR DOOR ARM REST / TOP ROLL
WINDOW LIFT SWITCH PACK – PASSENGER	PD1 / 26-WAY MULTILOCK 47 / SLATE	PASSENGER'S DOOR ARM REST / TOP ROLL
WINDOW LIFT SWITCH PACK – RH REAR	RD1-R / 26-WAY MULTILOCK 47 / SLATE	RH REAR DOOR ARM REST / TOP ROLL

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA14	2-WAY MULTILOCK 070 / WHITE	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 / BLACK	RH 'BC' POST / 'BC' POST PANEL
CA16	2-WAY MULTILOCK 040 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE

GROUNDS

Ground	Location / Type
CAG30L	LH 'A' POST GROUND SCREW
CAG31R	PARCEL SHELF GROUND SCREW
CAG92L	RH HEELBOARD GROUND SCREW
CAG93R	LH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-16	REAR WINDOW RAISE	GROUND	B+
O	FC1-31	FRONT PASSENGER WINDOW RAISE	GROUND	B+
O	FC1-36	SLIDING ROOF CLOSE	GROUND	B+
O	FC1-37	DRIVER WINDOW RAISE	GROUND	B+
I	FC2-28	REMOTE ALL CLOSE REQUEST	GROUND	B+

SLIDING ROOF CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CA84-2	ALL CLOSE REQUEST	GROUND	B+
I	CA84-4	ALL CLOSE REQUEST TO BPM	GROUND	B+
I	CA84-5	TILT OPEN / SLIDE CLOSE REQUEST	GROUND	B+
I	CA84-6	TILT CLOSE / SLIDE OPEN REQUEST	GROUND	B+
O	SR1-1	SLIDING ROOF MOTOR	B+	GROUND
O	SR1-3	SLIDING ROOF MOTOR	B+	GROUND

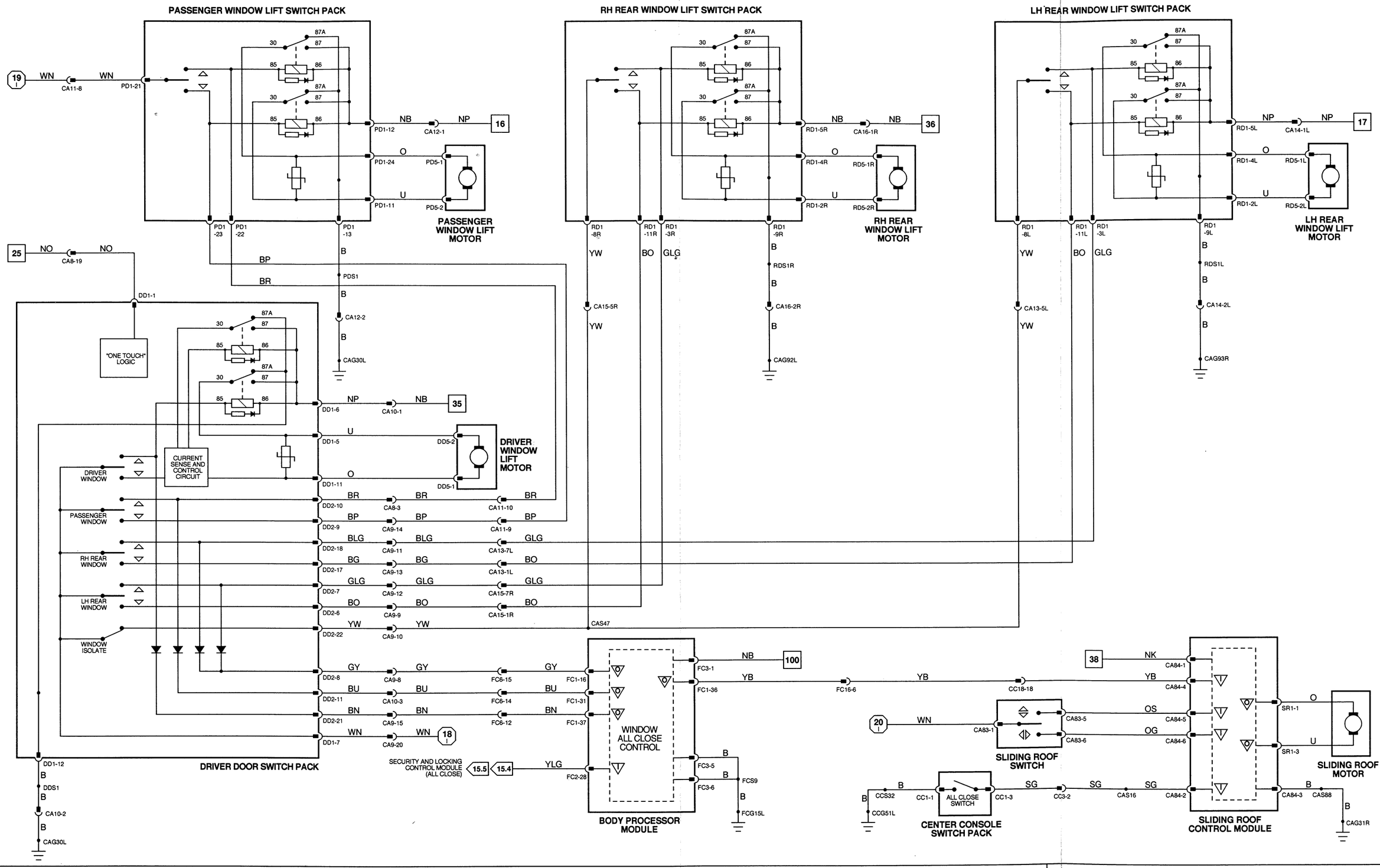
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: RHD Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 18.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
CD AUTO CHANGER	IC5 / 2-WAY ANTENNA / BLACK	PARCEL SHELF
HANDSET	RT63 / 8-WAY PHONE / BLACK RT67 / 2-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE
MICROPHONE	CA67 / 2-WAY MULTILOCK 040 / BLUE	ROOF CONSOLE
MID-BASS - LH FRONT	DD6 (LHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK PD6 (RHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
MID-BASS - LH REAR	RD6-L (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
MID-BASS - RH FRONT	DD6 (RHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK PD6 (LHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
MID-BASS - RH REAR	RD6-R (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
RADIO ANTENNA	IC12 / 2-WAY ANTENNA CONNECTOR / BLACK	RH REAR FENDER / TRUNK TRIM
RADIO ANTENNA MOTOR	BT44 / 6-WAY YAZAKI / WHITE	TRUNK, RH SIDE / TRUNK TRIM
RADIO CASSETTE	IC1 / 20-WAY MULTILOCK 070 / WHITE IC13 / 2-WAY ANTENNA CONNECTOR / WHITE IC19 / CD AUTOCHANGER CONNECTOR	CENTER CONSOLE
TELEPHONE ANTENNA	RT65 / ANTENNA CONNECTOR / BLACK	HEADLINER, REAR
TELEPHONE TRANSCEIVER	RT62 / 25-WAY D TYPE / BLACK RT64 / ANTENNA CONNECTOR / BLACK	PARCEL SHELF / TRUNK TRIM
TWEETER - LH FRONT, STANDARD ICE	FC32 (FLY LEAD) / 2-WAY MODU / BLACK	FASCIA, LH SIDE
TWEETER - LH REAR, STANDARD ICE	CA81 (FLY LEAD) / 2-WAY MODU / BLACK	PARCEL SHELF, LH SIDE
TWEETER - RH FRONT, STANDARD ICE	FC31 (FLY LEAD) / 2-WAY MODU / BLACK	FASCIA, LH SIDE
TWEETER - RH REAR, STANDARD ICE	CA82 (FLY LEAD) / 2-WAY MODU / BLACK	PARCEL SHELF, RH SIDE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA77	2-WAY MULTILOCK 070 / YELLOW	DRIVER'S 'A' POST / 'A' POST PANEL
CA78	2-WAY MULTILOCK 070 / YELLOW	PASSENGER'S 'A' POST / 'A' POST PANEL
CA79	2-WAY MULTILOCK 070 / YELLOW	LH 'BC' POST / 'BC' POST PANEL
CA80	2-WAY MULTILOCK 070 / YELLOW	RH 'BC' POST / 'BC' POST PANEL
IC2	8-WAY MULTILOCK 070 / WHITE	ABOVE FUEL TANK / FUEL TANK TRIM
IC7	8-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE
IC22	18-WAY MULTILOCK 070 / WHITE	RH REAR SEAT / UNDER
IC23	4-WAY MULTILOCK 040 / BLACK	LH HEELBOARD / HEELBOARD COVER
RT61	12-WAY MULTILOCK 040 / BLACK	PARCEL SHELF / UNDER
RT66	10-WAY YAZAKI / BLACK	PARCEL SHELF / UNDER

GROUNDS

Ground	Location / Type
BTG18R	REAR TRUNK GROUND STUD
CAG91	PARCEL SHELF GROUND SCREW
CEG2	RADIO GROUND STUD
ICG24	RADIO GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

RADIO CASSETTE

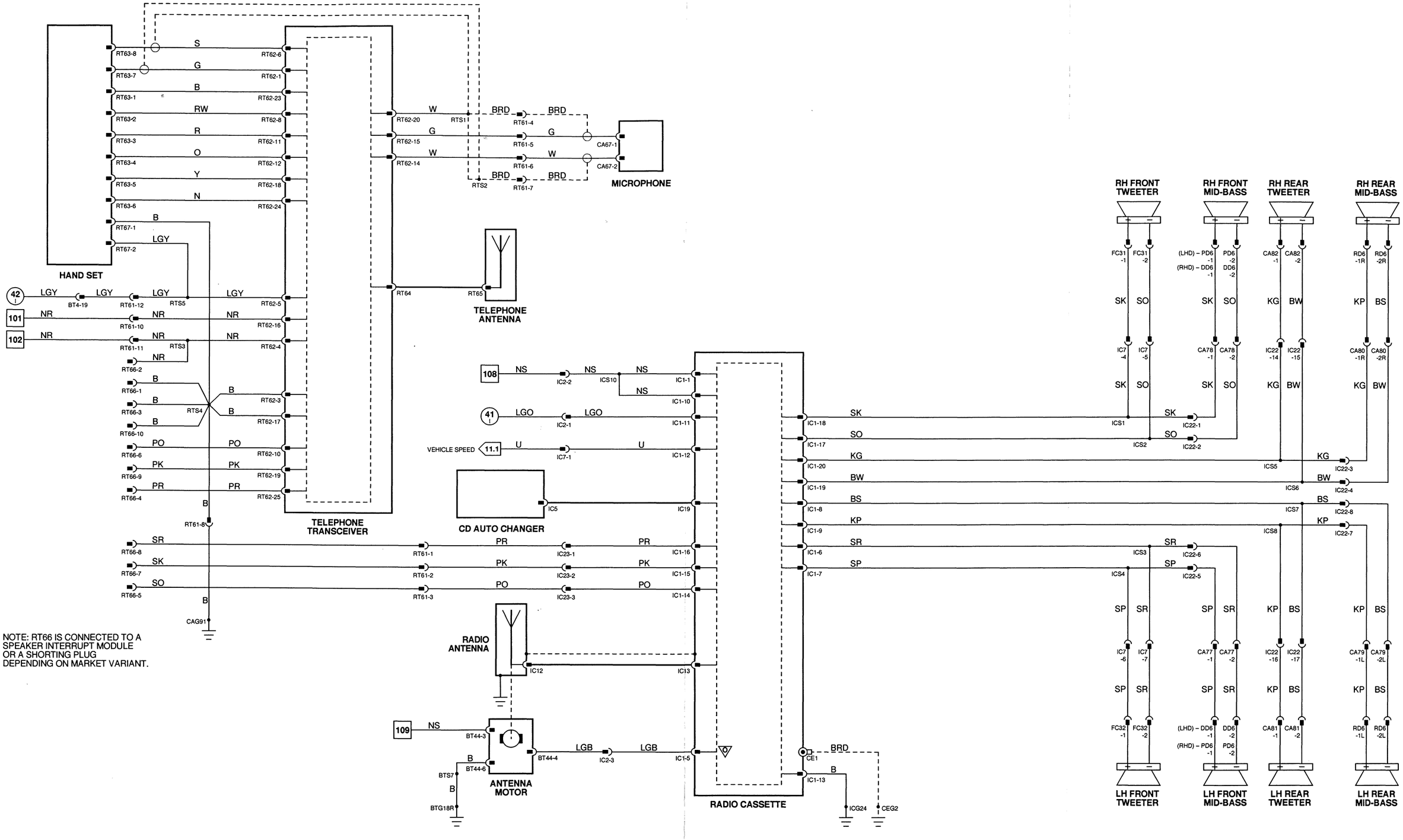
▽	Pin	Description	Active	Inactive
O	IC1-5	ANTENNA UP	B+	GROUND

The following symbols are used to represent values for Control Module Pin Out data:

I	Input	B+	Battery voltage
O	Output	V	Voltage (DC)
SG	Signal Ground	Hz	Frequency
D	Serial and encoded communications	KHz	Frequency x 1000
		MS	Milliseconds
		MV	Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



NOTE: RT66 IS CONNECTED TO A SPEAKER INTERRUPT MODULE OR A SHORTING PLUG DEPENDING ON MARKET VARIANT.

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: Standard ICE Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 18.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
CD AUTO CHANGER	IC5 / 2-WAY ANTENNA / BLACK	PARCEL SHELF
HANDSET	RT63 / 8-WAY PHONE / BLACK RT67 / 2-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE
MICROPHONE	CA67 / 2-WAY MULTILOCK 040 / BLUE	ROOF CONSOLE
MID-BASS – LH FRONT	DD6 (LHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK PD6 (RHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
MID-BASS – LH REAR	RD6-L (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
MID-BASS – RH FRONT	DD6 (RHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK PD6 (LHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
MID-BASS – RH REAR	RD6-R (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
POWER AMPLIFIER	IC30 / 12-WAY MULTILOCK 070 / WHITE IC31 / 18-WAY MULTILOCK 070 / WHITE	PARCEL SHELF / TRUNK TRIM
RADIO ANTENNA	IC12 / 2-WAY ANTENNA CONNECTOR / BLACK	RH REAR FENDER / TRUNK TRIM
RADIO ANTENNA MOTOR	BT44 / 6-WAY YAZAKI / WHITE	TRUNK, RH SIDE / TRUNK TRIM
RADIO CASSETTE	IC1 / 20-WAY MULTILOCK 070 / WHITE IC13 / 2-WAY ANTENNA CONNECTOR / WHITE IC19 / CD AUTOCHANGER CONNECTOR IC34 / 6-WAY DIN /SLATE	CENTER CONSOLE
SUBWOOFER	IC32 (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK IC33 (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	PARCEL SHELF / TRUNK TRIM
TELEPHONE ANTENNA	RT65 / ANTENNA CONNECTOR / BLACK	HEADLINER, REAR
TELEPHONE TRANSCEIVER	RT62 / 25-WAY D TYPE / BLACK RT64 / ANTENNA CONNECTOR / BLACK	PARCEL SHELF / TRUNK TRIM
TWEETER – LH FRONT, PREMIUM ICE	CA102 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	FASCIA, LH SIDE
TWEETER – LH REAR, PREMIUM ICE	MB1-L (FLY LEAD) / 2-WAY MODU / BLACK	PARCEL SHELF, LH SIDE
TWEETER – RH FRONT, PREMIUM ICE	CA101 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	FASCIA, RH SIDE
TWEETER – RH REAR, PREMIUM ICE	MB1-R (FLY LEAD) / 2-WAY MODU / BLACK	PARCEL SHELF, RH SIDE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA77	2-WAY MULTILOCK 070 / YELLOW	DRIVER'S 'A' POST / 'A' POST PANEL
CA78	2-WAY MULTILOCK 070 / YELLOW	PASSENGER'S 'A' POST / 'A' POST PANEL
CA79	2-WAY MULTILOCK 070 / YELLOW	LH 'BC' POST / 'BC' POST PANEL
CA80	2-WAY MULTILOCK 070 / YELLOW	RH 'BC' POST / 'BC' POST PANEL
IC2	8-WAY MULTILOCK 070 / WHITE	ABOVE FUEL TANK / FUEL TANK TRIM
IC7	8-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE
IC22	18-WAY MULTILOCK 070 / WHITE	RH REAR SEAT / UNDER
IC23	4-WAY MULTILOCK 040 / BLACK	LH HEELBOARD / HEELBOARD COVER
RT61	12-WAY MULTILOCK 040 / BLACK	PARCEL SHELF / UNDER
RT66	10-WAY YAZAKI / BLACK	PARCEL SHELF / UNDER

GROUNDS

Ground	Location / Type
BTG18R	REAR TRUNK GROUND STUD
CAG91	PARCEL SHELF GROUND SCREW
CEG2	RADIO GROUND STUD
ICG16L	FRONT TRUNK GROUND STUD
ICG16R	FRONT TRUNK GROUND STUD
ICG24	RADIO GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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CONTROL MODULE PIN OUT INFORMATION

POWER AMPLIFIER

▽	Pin	Description	Active	Inactive
I	IC30-1	RH REAR CHANNEL LOW LEVEL INPUT	0 - 30 MV	0 MV
I	IC30-2	RH FRONT CHANNEL LOW LEVEL INPUT	0 - 30 MV	0 MV
SG	IC30-3	SIGNAL GROUND	GROUND	GROUND
I	IC30-6	LH REAR CHANNEL LOW LEVEL INPUT	0 - 30 MV	0 MV
I	IC30-7	LH FRONT CHANNEL LOW LEVEL INPUT	0 - 30 MV	0 MV

RADIO CASSETTE

▽	Pin	Description	Active	Inactive
O	IC1-5	ANTENNA UP / AMPLIFIER ON SIGNAL	B+	GROUND
O	IC34-1	RH FRONT CHANNEL LOW LEVEL OUTPUT	0 - 30 MV	0 MV
O	IC34-2	LH FRONT CHANNEL LOW LEVEL OUTPUT	0 - 30 MV	0 MV
SG	IC34-3	SIGNAL GROUND	GROUND	GROUND
O	IC34-4	LH REAR CHANNEL LOW LEVEL OUTPUT	0 - 30 MV	0 MV
O	IC34-5	RH REAR CHANNEL LOW LEVEL OUTPUT	0 - 30 MV	0 MV

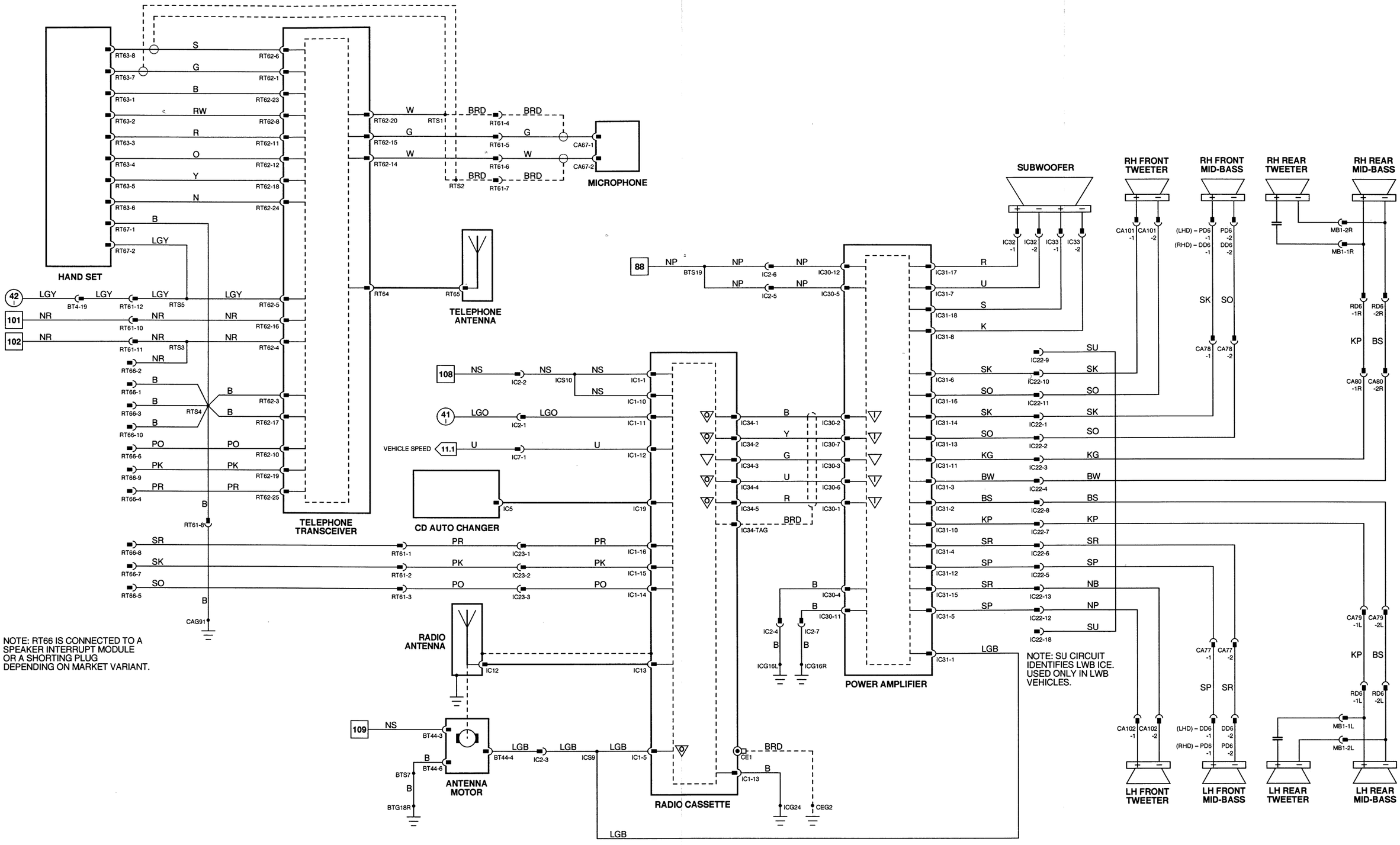
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: Premium ICE ROW Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 18.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
CD AUTO CHANGER	IC5 / 2-WAY ANTENNA / BLACK	PARCEL SHELF
HANDSET	RT63 / 8-WAY PHONE / BLACK RT67 / 2-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE
MICROPHONE	CA67 / 2-WAY MULTILOCK 040 / BLUE	ROOF CONSOLE
MID-BASS – LH FRONT	DD6 (LHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK PD6 (RHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
MID-BASS – LH REAR	RD6-L (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
MID-BASS – RH FRONT	DD6 (RHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK PD6 (LHD) (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
MID-BASS – RH REAR	RD6-R (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
POWER AMPLIFIER	IC30 / 12-WAY MULTILOCK 070 / WHITE IC31 / 18-WAY MULTILOCK 070 / WHITE	PARCEL SHELF / TRUNK TRIM
RADIO ANTENNA	IC12 / 2-WAY ANTENNA CONNECTOR / BLACK	RH REAR FENDER / TRUNK TRIM
RADIO ANTENNA MOTOR	BT44 / 6-WAY YAZAKI / WHITE	TRUNK, RH SIDE / TRUNK TRIM
RADIO CASSETTE	IC1 / 20-WAY MULTILOCK 070 / WHITE IC13 / 2-WAY ANTENNA CONNECTOR / WHITE IC19 / CD AUTOCHANGER CONNECTOR IC34 / 6-WAY DIN /SLATE	CENTER CONSOLE
SUBWOOFER	IC32 (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK IC33 (FLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	PARCEL SHELF / TRUNK TRIM
TELEPHONE ANTENNA	RT65 / ANTENNA CONNECTOR / BLACK	HEADLINER, REAR
TELEPHONE TRANSCEIVER	RT62 / 25-WAY D TYPE / BLACK RT64 / ANTENNA CONNECTOR / BLACK	PARCEL SHELF / TRUNK TRIM
TWEETER – LH FRONT, PREMIUM ICE	CA102 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	FASCIA, LH SIDE
TWEETER – LH REAR, PREMIUM ICE	MB1-L (FLY LEAD) / 2-WAY MODU / BLACK	PARCEL SHELF, LH SIDE
TWEETER – RH FRONT, PREMIUM ICE	CA101 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK	FASCIA, RH SIDE
TWEETER – RH REAR, PREMIUM ICE	MB1-R (FLY LEAD) / 2-WAY MODU / BLACK	PARCEL SHELF, RH SIDE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA77	2-WAY MULTILOCK 070 / YELLOW	DRIVER'S 'A' POST / 'A' POST PANEL
CA78	2-WAY MULTILOCK 070 / YELLOW	PASSENGER'S 'A' POST / 'A' POST PANEL
CA79	2-WAY MULTILOCK 070 / YELLOW	LH 'BC' POST / 'BC' POST PANEL
CA80	2-WAY MULTILOCK 070 / YELLOW	RH 'BC' POST / 'BC' POST PANEL
IC2	8-WAY MULTILOCK 070 / WHITE	ABOVE FUEL TANK / FUEL TANK TRIM
IC7	8-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE
IC22	18-WAY MULTILOCK 070 / WHITE	RH REAR SEAT / UNDER
IC23	4-WAY MULTILOCK 040 / BLACK	LH HEELBOARD / HEELBOARD COVER
RT61	12-WAY MULTILOCK 040 / BLACK	PARCEL SHELF / UNDER

GROUNDS

Ground	Location / Type
BTG18R	REAR TRUNK GROUND STUD
CAG91	PARCEL SHELF GROUND SCREW
CEG2	RADIO GROUND STUD
ICG16L	FRONT TRUNK GROUND STUD
ICG16R	FRONT TRUNK GROUND STUD
ICG24	RADIO GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

POWER AMPLIFIER

▽	Pin	Description	Active	Inactive
I	IC30-1	RH REAR CHANNEL LOW LEVEL INPUT	0 - 30 MV	0 MV
I	IC30-2	RH FRONT CHANNEL LOW LEVEL INPUT	0 - 30 MV	0 MV
SG	IC30-3	SIGNAL GROUND	GROUND	GROUND
I	IC30-6	LH REAR CHANNEL LOW LEVEL INPUT	0 - 30 MV	0 MV
I	IC30-7	LH FRONT CHANNEL LOW LEVEL INPUT	0 - 30 MV	0 MV

RADIO CASSETTE

▽	Pin	Description	Active	Inactive
O	IC1-5	ANTENNA UP / AMPLIFIER ON SIGNAL	B+	GROUND
O	IC34-1	RH FRONT CHANNEL LOW LEVEL OUTPUT	0 - 30 MV	0 MV
O	IC34-2	LH FRONT CHANNEL LOW LEVEL OUTPUT	0 - 30 MV	0 MV
SG	IC34-3	SIGNAL GROUND	GROUND	GROUND
O	IC34-4	LH REAR CHANNEL LOW LEVEL OUTPUT	0 - 30 MV	0 MV
O	IC34-5	RH REAR CHANNEL LOW LEVEL OUTPUT	0 - 30 MV	0 MV

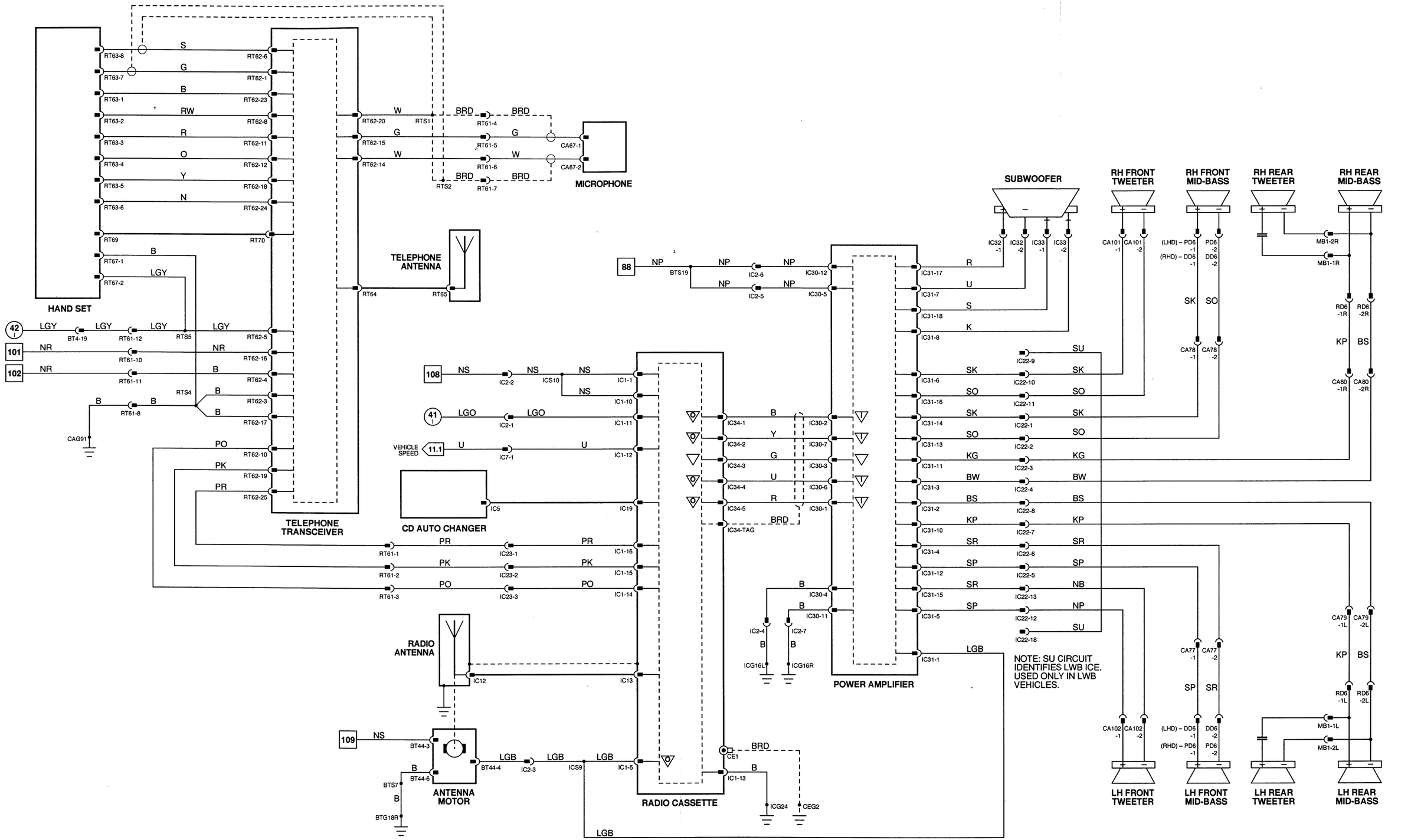
The following symbols are used to represent values for Control Module Pin Out data:

I Input
O Output
SG Signal Ground
D Serial and encoded communications

B+ Battery voltage
V Voltage (DC)
Hz Frequency
KHz Frequency x 1000
MS Milliseconds
MV Millivolts

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. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.



1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: NAS Vehicles
VIN RANGE: 746613 →
DATE OF ISSUE: NOVEMBER 1995

Fig. 19.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR BAG DIAGNOSTIC MONITOR	AB1 / 12-WAY FORD CARD / SLATE AB2 / 12-WAY FORD CARD / BLACK	PASSENGER'S UNDERSCUTTLE
AIR BAG - DRIVER SIDE	AB6 (FLY LEAD) / 3-WAY EPC / YELLOW	STEERING WHEEL
AIR BAG - PASSENGER SIDE	AB8 (FLY LEAD) / 3-WAY EPC / YELLOW	PASSENGER'S FASCIA
IMPACT SENSOR - LH	CL1 / 4-WAY FORD CARD / NATURAL	BEHIND LH HEADLAMP
IMPACT SENSOR - RH	CR1 / 4-WAY FORD CARD / NATURAL	BEHIND RH HEADLAMP
SAFING SENSOR	AB3 / 8-WAY FORD NAAO / NATURAL	RH 'A' POST / 'A' POST TRIM

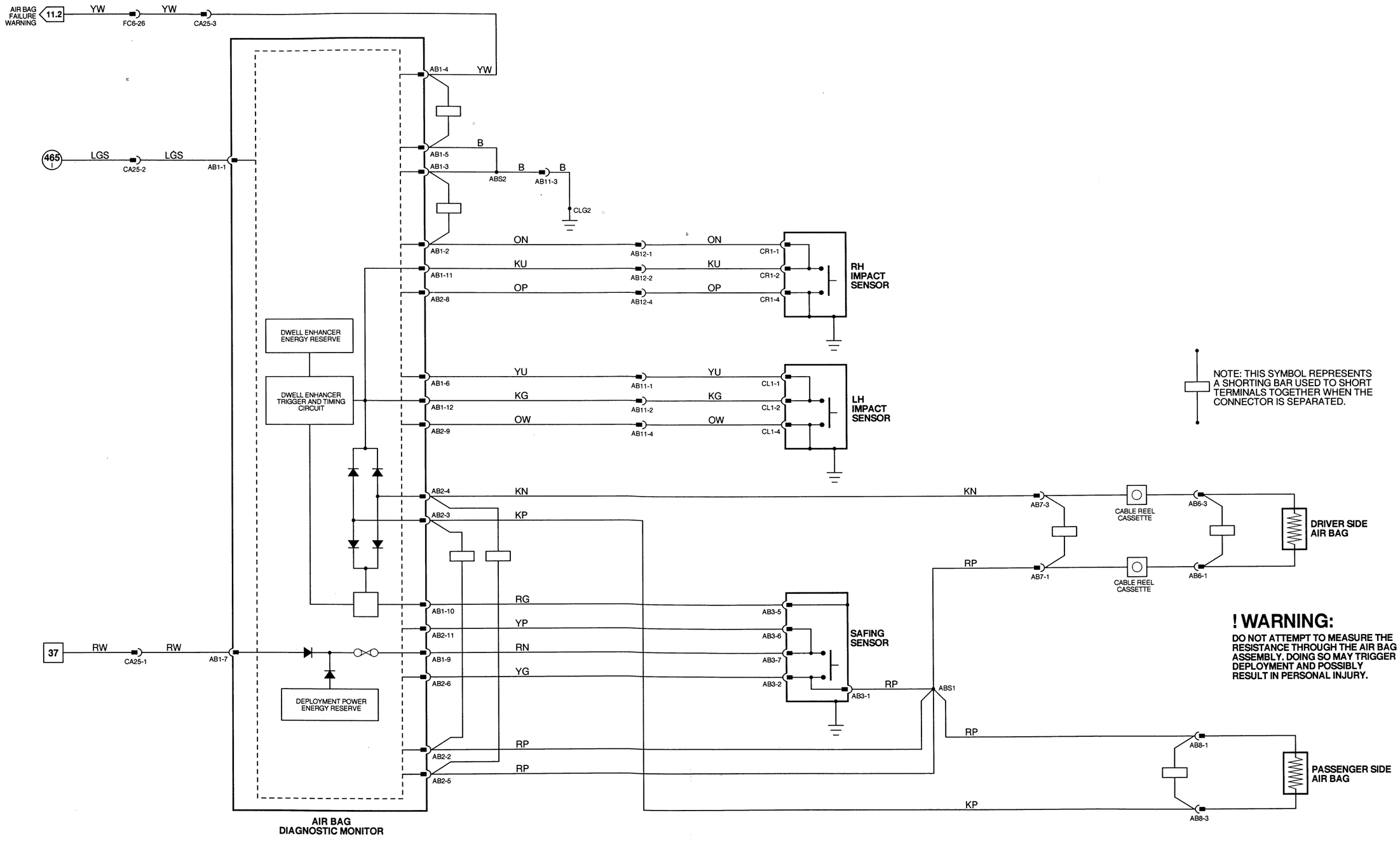
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
AB7	3-WAY CARDELL / BLACK	COLUMN SWITCHGEAR / BEHIND
AB11	4-WAY CARDELL / NATURAL	RH "A" POST / "A" POST PANEL
AB12	4-WAY CARDELL / NATURAL	LH "A" POST / "A" POST PANEL
CA25	3-WAY MULTILOCK 070 / YELLOW	RH 'A' POST, ECM / 'A' POST PANEL
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT

GROUNDS

Ground	Location / Type
CLG2	AIR BAG GROUND SCREW

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



NOTE: THIS SYMBOL REPRESENTS A SHORTING BAR USED TO SHORT TERMINALS TOGETHER WHEN THE CONNECTOR IS SEPARATED.

! WARNING:

DO NOT ATTEMPT TO MEASURE THE RESISTANCE THROUGH THE AIR BAG ASSEMBLY. DOING SO MAY TRIGGER DEPLOYMENT AND POSSIBLY RESULT IN PERSONAL INJURY.

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2

Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: Air Bag Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 20.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
ACCESSORY CONNECTOR – CABIN	CA71 / 3-WAY SERIES 250 / BLACK	SWB: LH 'A' POST / 'A' POST TRIM LWB: RH HEELBOARD
ACCESSORY CONNECTOR – TRUNK	BT12 / 3-WAY SERIES 250 / BLACK	TRUNK ELECTRICAL CARRIER
CARAVAN / TRAILER CONNECTOR	BT19 / 2-WAY ECONOSEAL III HC / BLACK	BEHIND BATTERY / TRUNK FLOOR TRIM
CIGAR LIGHTER – FRONT	CC9 / 2-WAY SERIES 250 / BLACK CC10 / LUCAR / BLACK	CENTER CONSOLE
CIGAR LIGHTER – REAR	CC16 / 2-WAY SERIES 250 / BLACK CC17 / LUCAR / BLACK	CENTER CONSOLE
ELECTROCHROMIC REAR VIEW MIRROR	CA85 / 3-WAY MULTILOCK 070 / WHITE	ROOF CONSOLE
FOLD-BACK MIRROR SWITCH	FM1 / 7-WAY FORD / BLACK	DRIVER'S DOOR SWITCH PACK / TOP ROLL, ARM REST
FOLD-BACK MIRROR – DRIVER	DD10 / (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
FOLD-BACK MIRROR – PASSENGER	PD10 / (FLY LEAD) / 12-WAY MULTILOCK 040 / BLACK	MIRROR ASSEMBLY
HORN SWITCHES	SC9 / 2-WAY MULTILOCK 040 / BLACK	STEERING WHEEL
HORN – LH	LS43 / LUCAR / BLACK LS44 / LUCAR / BLACK	BEHIND FRONT GRILLE
HORN – RH	RS43 / LUCAR / BLACK RS44 / LUCAR / BLACK	BEHIND FRONT GRILLE
FUSE BOX – LH ENGINE BAY	LS1 / 10-WAY UTA / BLACK LS37 / 10-WAY UTA / BLACK	ENGINE BAY, LH FRONT
UNIVERSAL GARAGE DOOR OPENER (INTERIOR MAP LAMP CONSOLE)	RIBBON CONNECTOR	ROOF CONSOLE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
ACCESSORY RELAY	BLACK / VIOLET	BT7 / BLACK	TRUNK ELECTRICAL CARRIER
CIGAR LIGHTER RELAY	BLACK / BLUE	CA57 / BLUE	RH HEELBOARD
HORN RELAY (LH ENGINE BAY FUSE BOX)	BLUE	— / BLACK	LH ENGINE BAY FUSE BOX

HARNESS-TO-HARNESS CONNECTORS

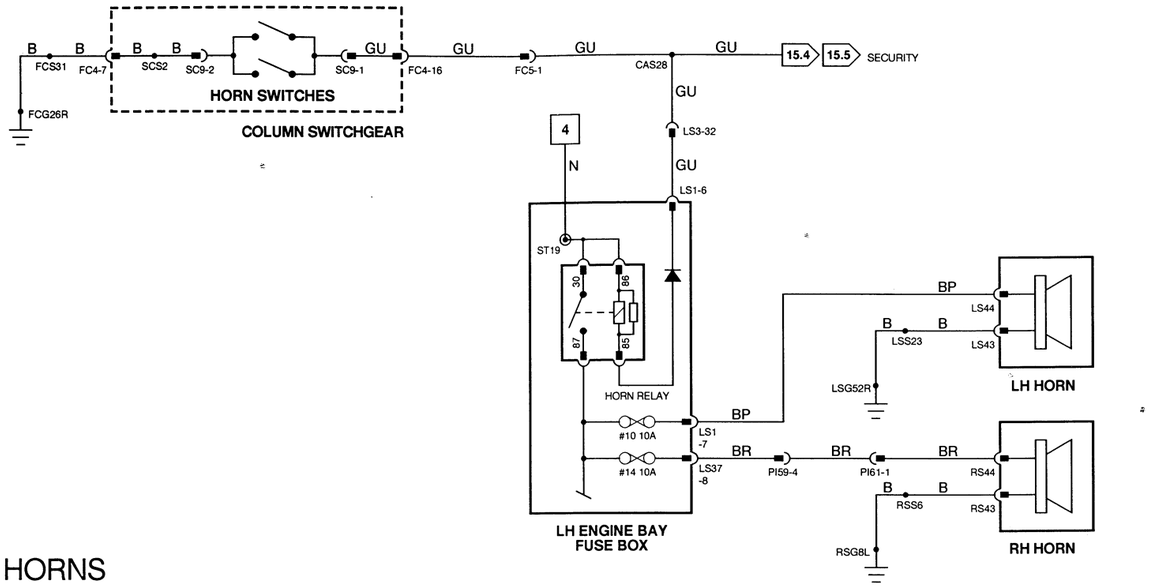
Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	ABOVE FUEL TANK / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S 'A' POST / 'A' POST TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	15-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA83	8-WAY MULTILOCK 040 / BLACK	ROOF CONSOLE
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
DD16	6-WAY MULTILOCK 040 / BLACK	DRIVER'S DOOR / DOOR CASING
FC4	20-WAY MULTILOCK 040 / BLUE	DRIVER'S UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI59	13-WAY ECONOSEAL III LC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
PI61	13-WAY ECONOSEAL III LC / BLACK	REARWARD OF RH HEADLAMP

GROUNDS

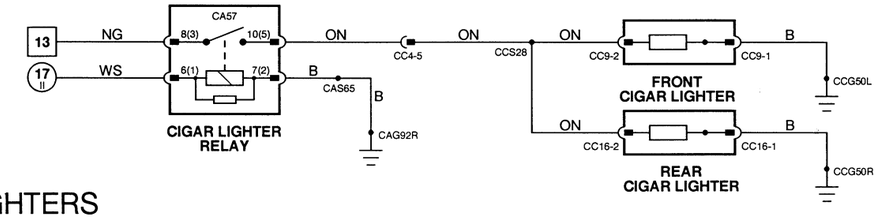
Ground	Location / Type
BTG18L	REAR TRUNK GROUND STUD
BTG18R	REAR TRUNK GROUND STUD
BTG49R	REAR TRUNK GROUND STUD
CAG30L	LH 'A' POST GROUND SCREW
CAG30R	LH 'A' POST GROUND SCREW
CAG31R	PARCEL SHELF GROUND SCREW
CAG33L	RH HEELBOARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CCG50L	CENTER CONSOLE GROUND
CCG50R	CENTER CONSOLE GROUND
FCG26R	LH CONSOLE GROUND STUD
RSG8L	RIGHT FORWARD GROUND STUD

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

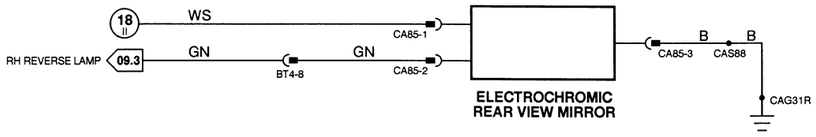
HORNS



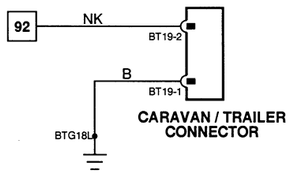
CIGAR LIGHTERS



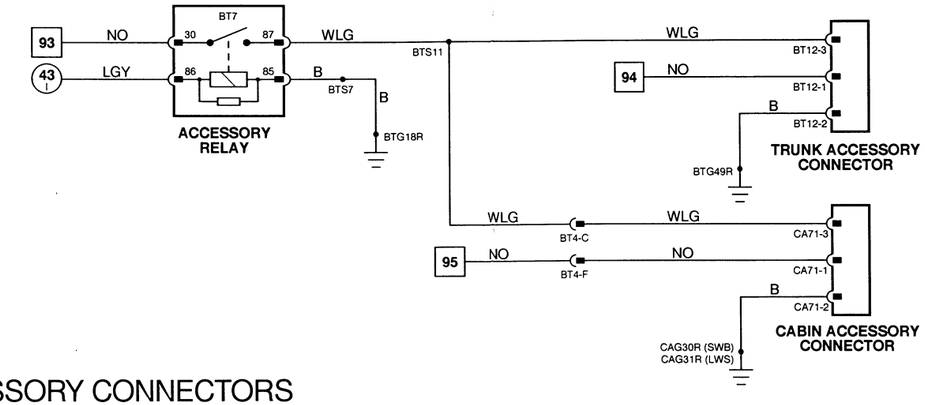
ELECTROCHROMIC REAR VIEW MIRROR



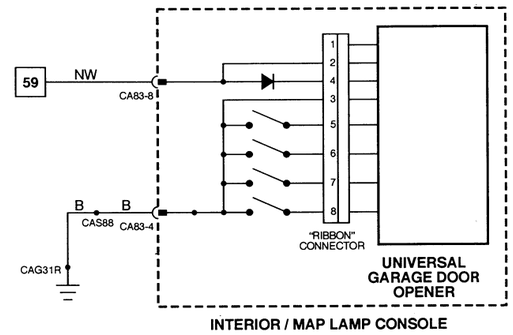
CARAVAN / TRAILER CONNECTOR



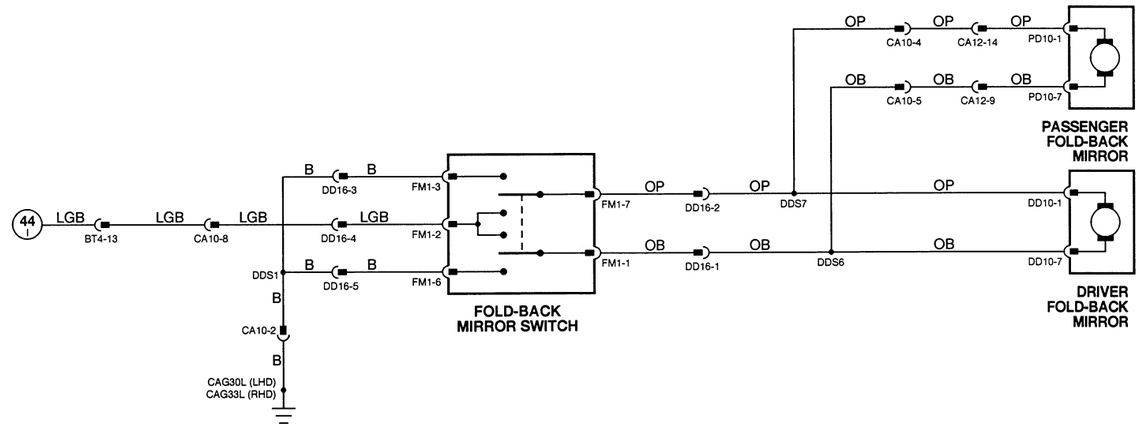
ACCESSORY CONNECTORS



UNIVERSAL GARAGE DOOR OPENER



FOLD-BACK MIRRORS



1—6 Fig. 01.1 | 7—66 Fig. 01.2 | 67—109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995

Fig. 21.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
ABS / TRACTION CONTROL CONTROL MODULE (LHD)	RS27 / 28-WAY FORD GTE / SLATE	ENGINE BAY / RH REAR
ABS / TRACTION CONTROL CONTROL MODULE (RHD)	LS27 / 28-WAY FORD GTE / SLATE	ENGINE BAY / LH REAR
AIR CONDITIONING CONTROL MODULE	CC28 / 26-WAY MULTILOCK 47 / SLATE CC29 / 16-WAY MULTILOCK 47 / SLATE CC30 / 12-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 47 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
COLUMN / MIRROR MOVEMENT CONTROL MODULE	FC45 / 26-WAY MULTILOCK 47 / SLATE FC46 / 16-WAY MULTILOCK 47 / SLATE FC47 / 12-WAY MULTILOCK 47 / SLATE	RH UNDERSCUTTLE
DATA LINK CONNECTOR	CC6 / 16-WAY OBD II / SLATE	DRIVER'S 'A' POST
ENGINE CONTROL MODULE (AJ16)	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 / 36-WAY ECONOSEAL III / RED	RH 'A' POST / 'A' POST TRIM
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 / SLATE PI45 / 16-WAY MULTILOCK 040 / SLATE PI46 / 22-WAY MULTILOCK 040 / SLATE PI47 / 34-WAY MULTILOCK 040 / SLATE	RH 'A' POST / 'A' POST TRIM
INSTRUMENT PACK	FC9 / 24-WAY IDC / BLACK FC10 / 48-WAY IDC / BLACK	INSTRUMENT PACK
SEAT CONTROL MODULE – DRIVER (NAS VEHICLES)	CA105 / 22-WAY MULTILOCK 47 / BLUE CA106 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / BLUE SM6-D / 22-WAY MULTILOCK 47 / WHITE	DRIVER'S SEAT
SEAT CONTROL MODULE – DRIVER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / BLUE SM6-D / 16-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT
SEAT CONTROL MODULE – PASSENGER (NAS VEHICLES)	CA107 / 22-WAY MULTILOCK 47 / BLUE CA108 / 12-WAY MULTILOCK 47 / BLUE SM1-P / 12-WAY MULTILOCK 47 / WHITE SM6-P / 22-WAY MULTILOCK 47 / WHITE	PASSENGER'S SEAT
SEAT CONTROL MODULE – PASSENGER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-P / 12-WAY MULTILOCK 47 / WHITE SM6-P / 22-WAY MULTILOCK 47 / WHITE	PASSENGER'S SEAT
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
TRANSMISSION CONTROL MODULE (AJ16)	CC7 / 55-WAY BOSCH / BLACK	PASSENGER'S UNDERSCUTTLE
TRANSMISSION CONTROL MODULE (V12)	CC48 / 55-WAY AMP 55 / BLACK	PASSENGER'S UNDERSCUTTLE

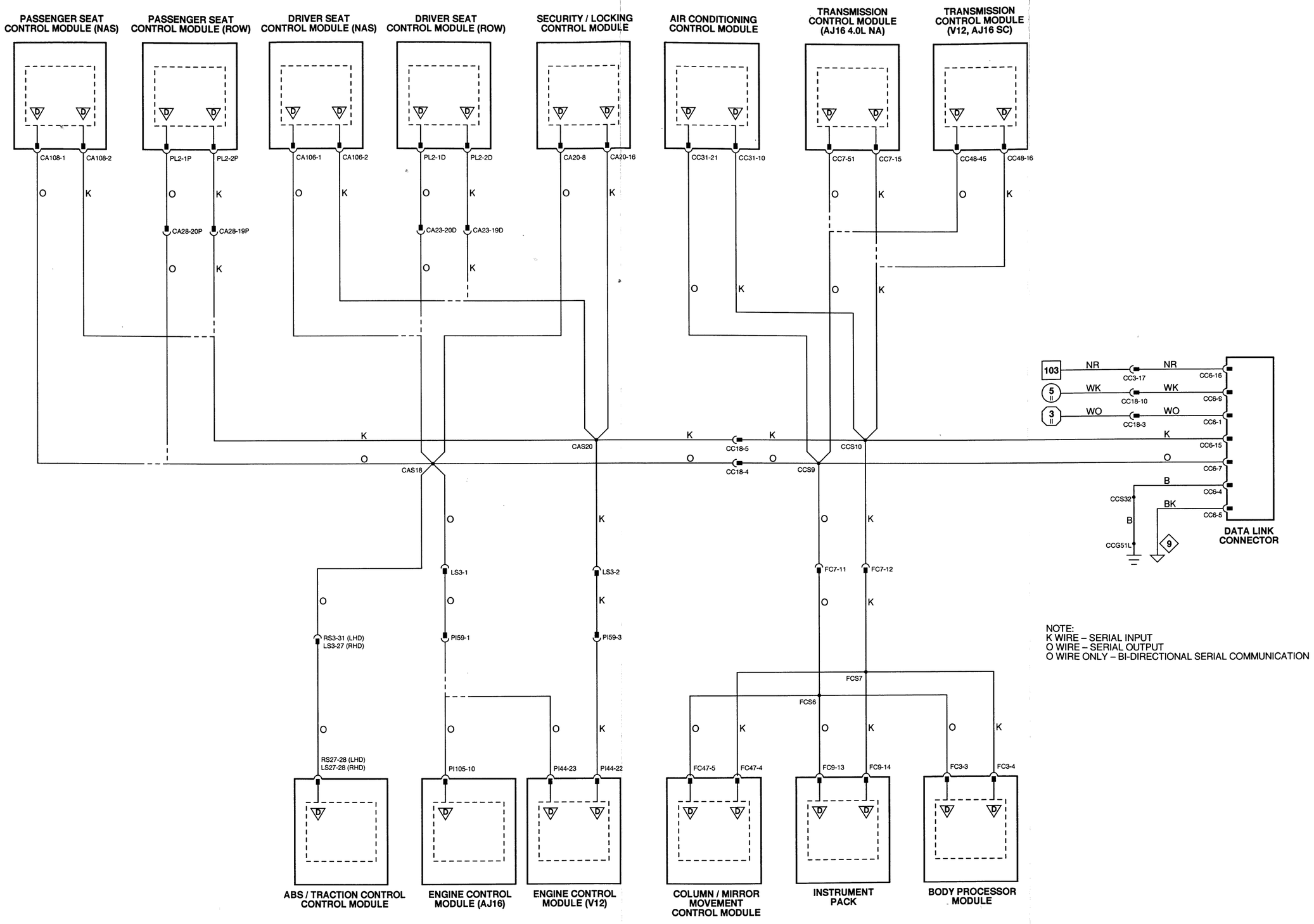
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA23	20-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT / UNDER
CA28	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT / UNDER
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI59	13-WAY ECONOSEAL III LC / BLACK	FORWARD OF LH ENGINE BAY FUSE BOX
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
CCG51L	CENTER CONSOLE GROUND STUD

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



NOTE:
K WIRE – SERIAL INPUT
O WIRE – SERIAL OUTPUT
O WIRE ONLY – BI-DIRECTIONAL SERIAL COMMUNICATION

1 — 6 Fig. 01.1 | 7 — 66 Fig. 01.2 | 67 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: 746613 ⟶
DATE OF ISSUE: NOVEMBER 1995