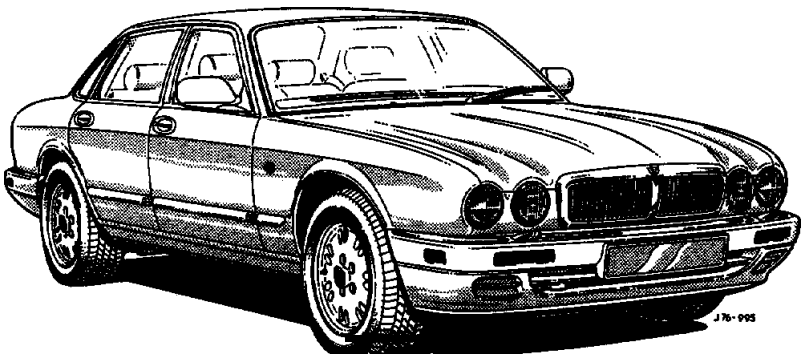
BY APPOINTMENT TO
HER MAJESTY QUEEN ELIZABETH II
MANUFACTURERS OF DAIMLER AND JAGUAR CARS
JAGUAR CARS LIMITED COVENTRY

BY APPOINTMENT TO
HER MAJESTY QUEEN ELIZABETH
THE QUEEN MOTHER
MANUFACTURERS OF DAIMLER AND JAGUAR CARS
JAGUAR CARS LIMITED COVENTRY

BY APPOINTMENT TO
HIS ROYAL HIGHNESS THE PRINCE OF WALES
MANUFACTURERS OF DAIMLER AND JAGUAR CARS
JAGUAR CARS LIMITED COVENTRY

JAGUAR

Sedan Range 1995
Electrical Guide



Published by Product Development & Publications
Jaguar Cars Limited
JTP476

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
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
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 1995 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.

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.**

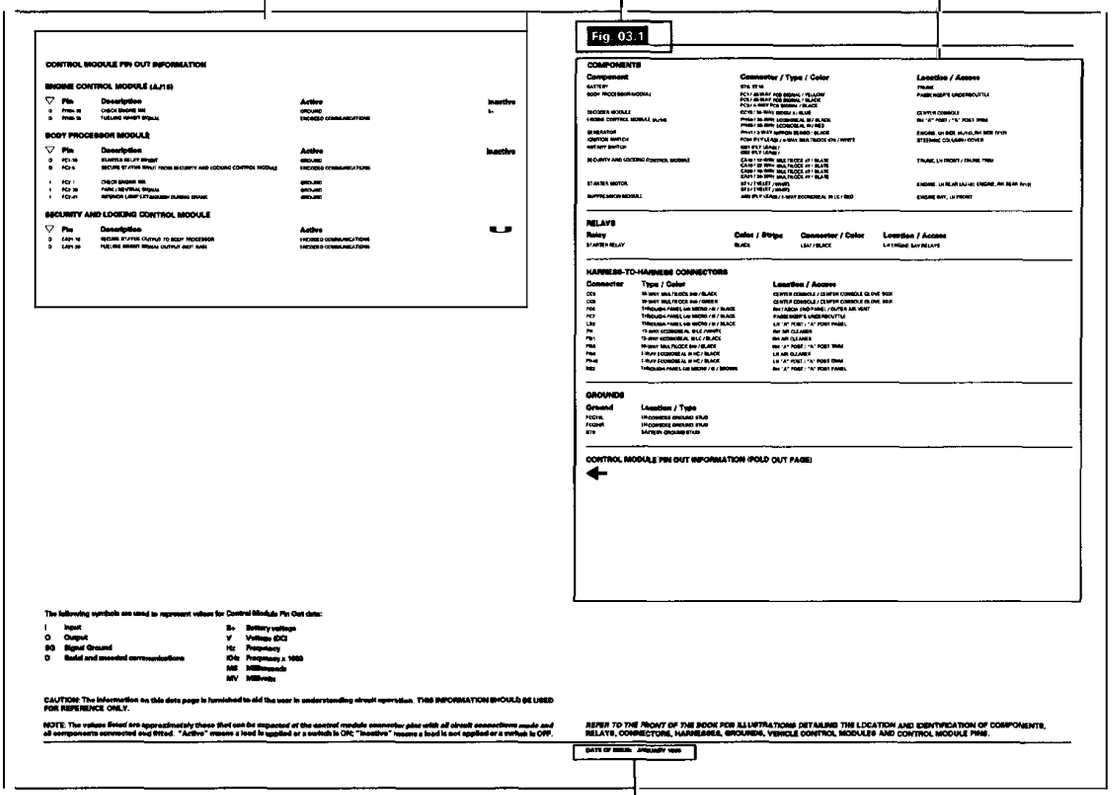
In addition, where circuits include a Control Module, Pin Out information is provided with values for "active" and "inactive" states. The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and 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



DATE OF ISSUE

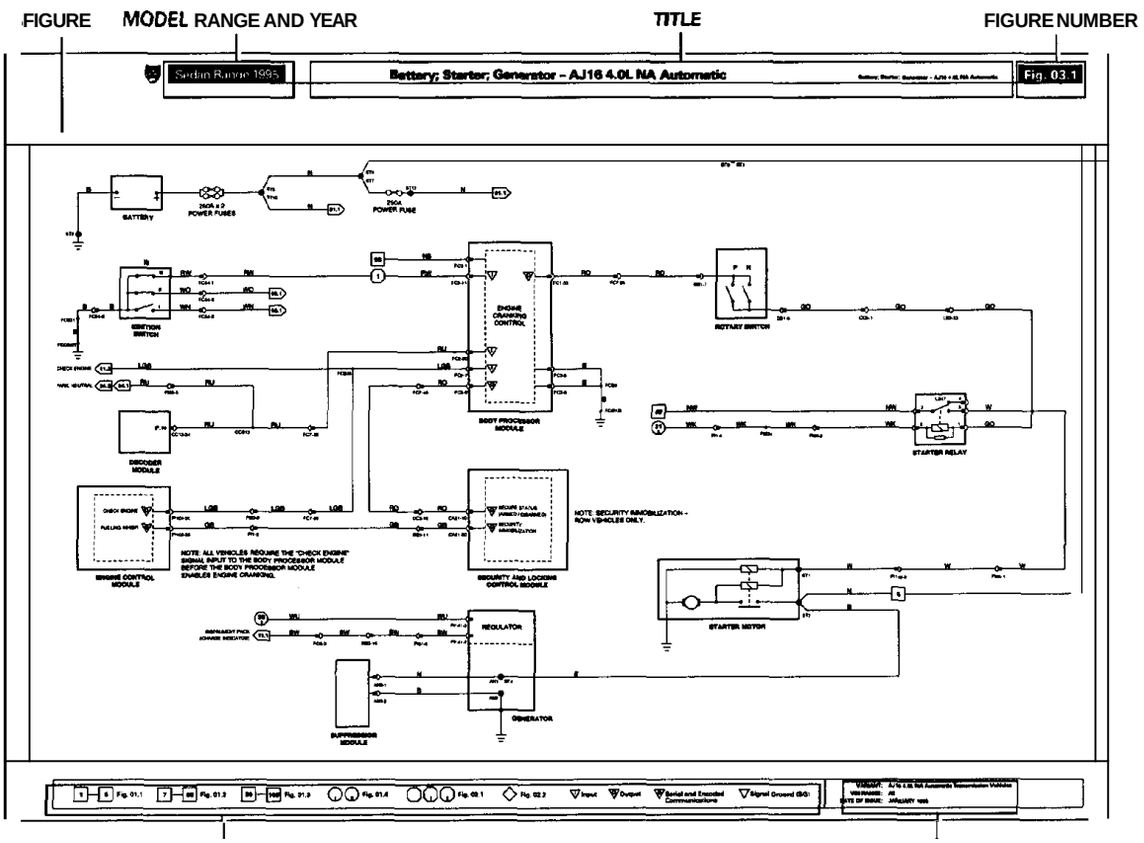
DATA PAGE

FIGURE

MODEL RANGE AND YEAR

TITLE

FIGURE NUMBER

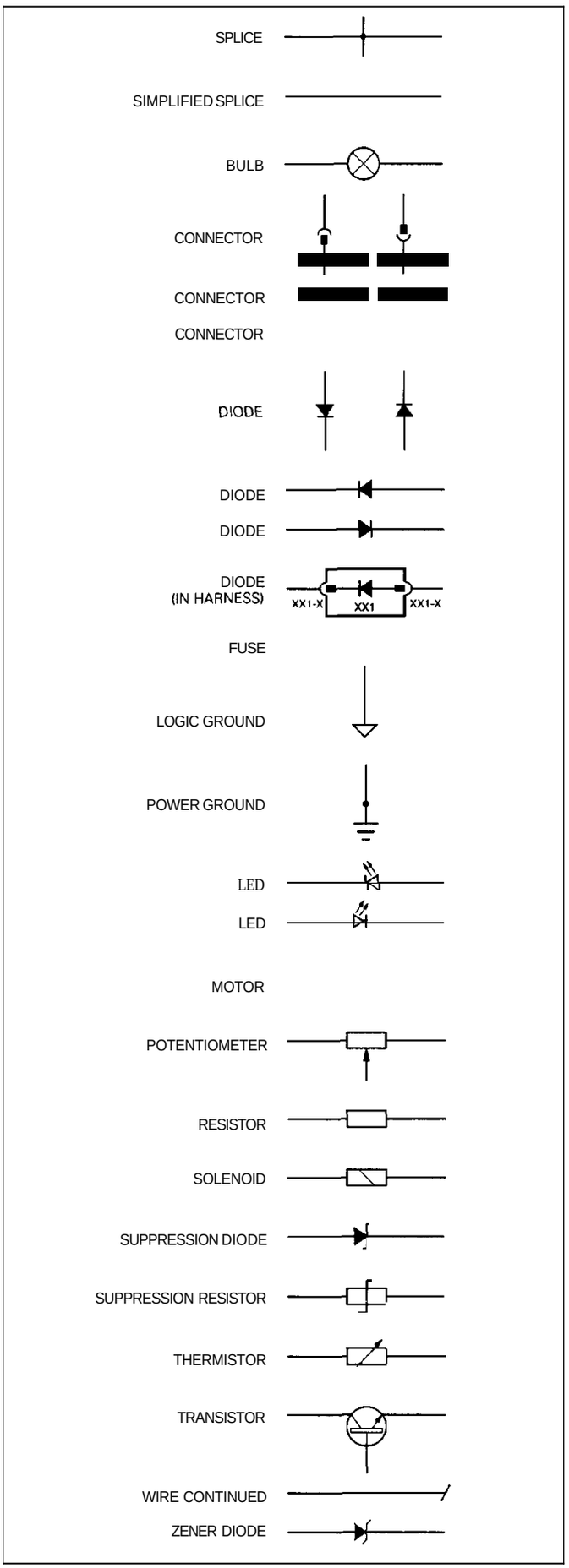


KEY TO REFERENCE SYMBOLS

VARIANT, VIN RANGE AND DATE OF ISSUE

FIGURE PAGE

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
BL	Front bumper – left
BR	Front bumper – right
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
DD	Driver door
DL	Non dead locking shorting link
FC	Facia
FU	Fuel pump
GB	Automatic transmission
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

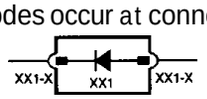
EXAMPLE: BTG14 (no dash is used)

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:

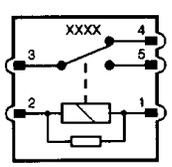


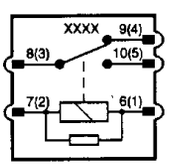
Relay Connectors

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.

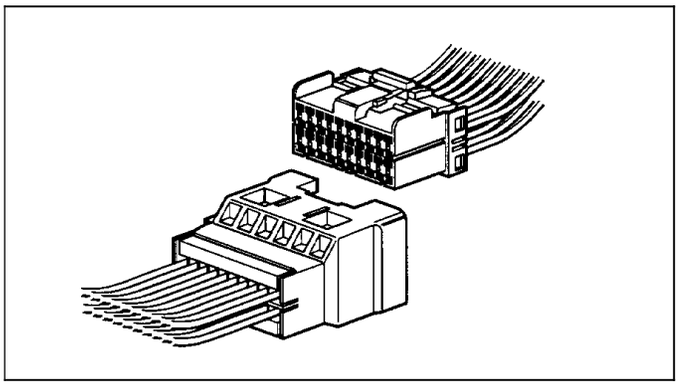
Control Module Input, Output, Data Line and Signal Ground

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

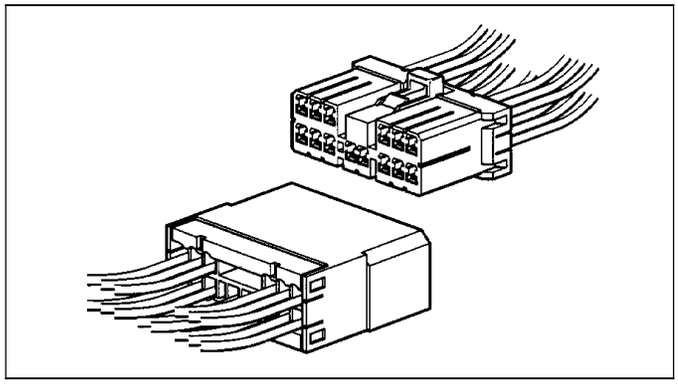
These four symbols are employed to assist the user in visualizing the 'logic' of circuits containing control modules. The symbols identify control module input, output, data line and signal ground pins. These symbols are also employed on the corresponding data page.

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

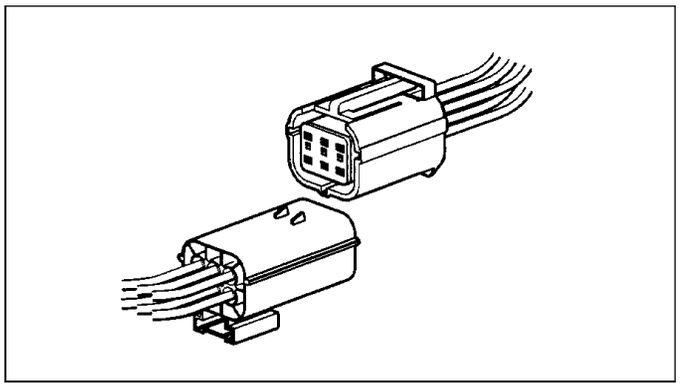
Muttilock 040
Low current (used as harness and 'direct' connection connector).



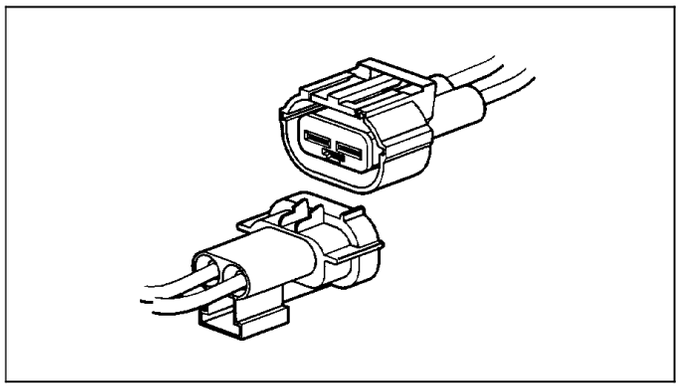
Multilock 070
High current (used as harness and 'direct' connection connector).



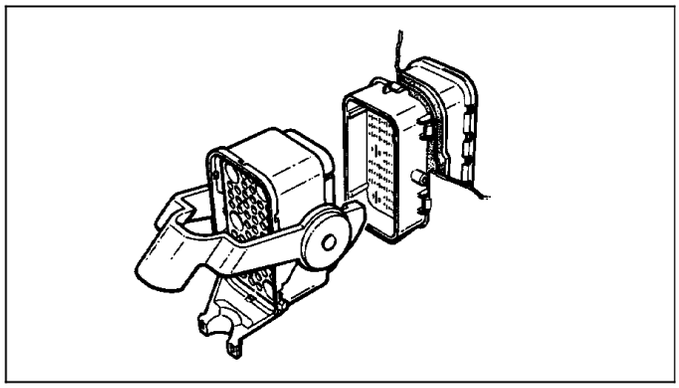
Econoseal III LC
Low current sealed connector.



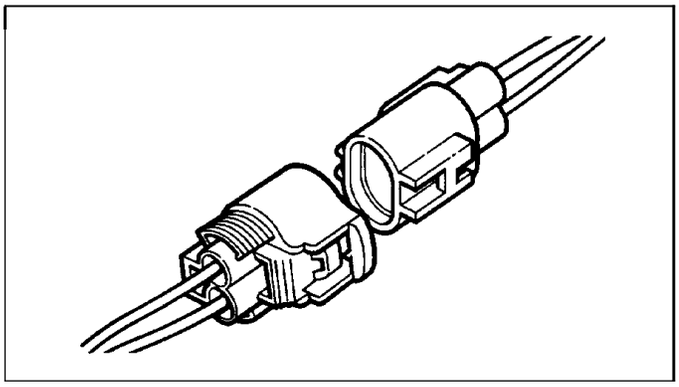
Econoseal III HC
High current sealed connector.



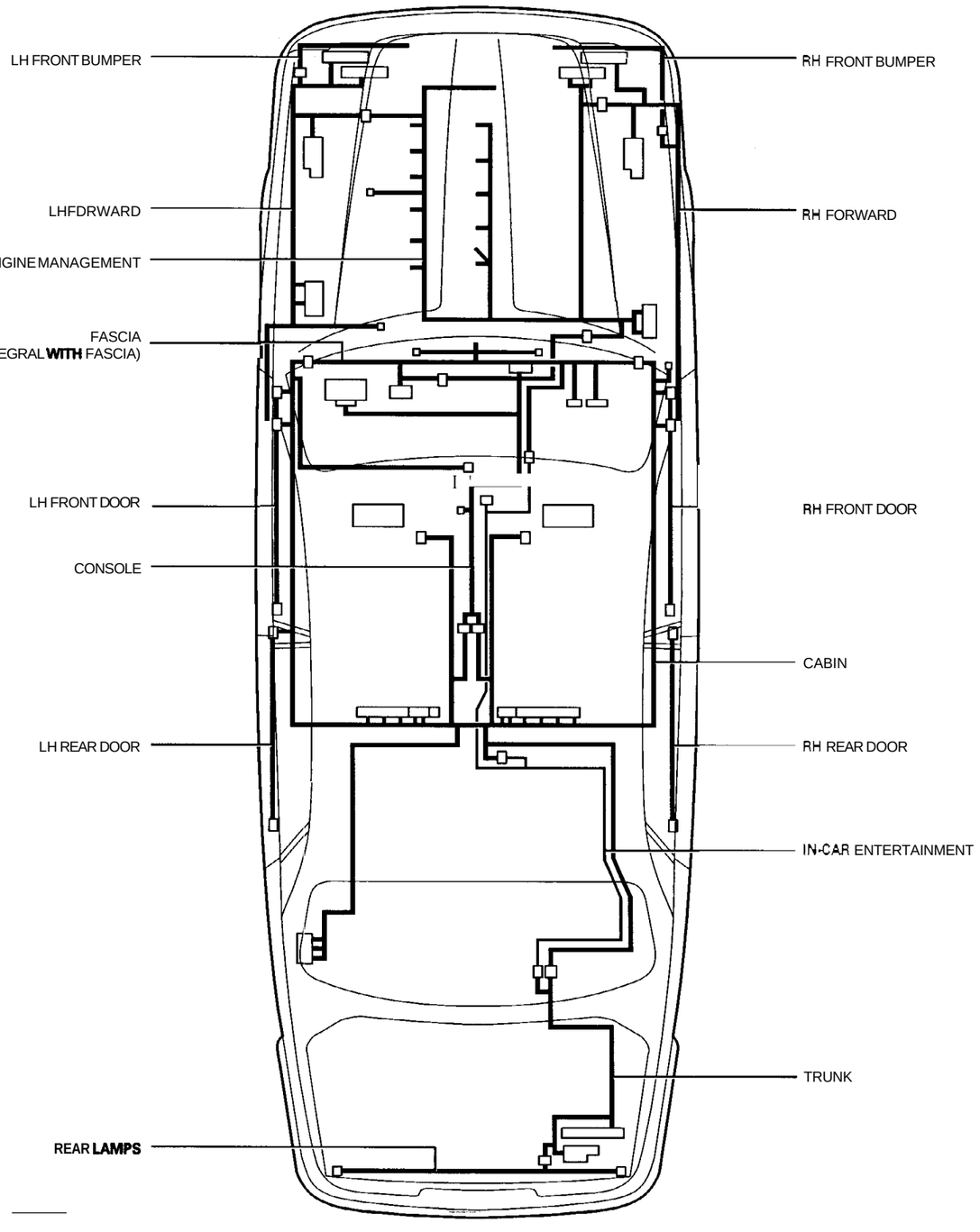
Through-Panel
48 low-current pins / 6 high-current pins.



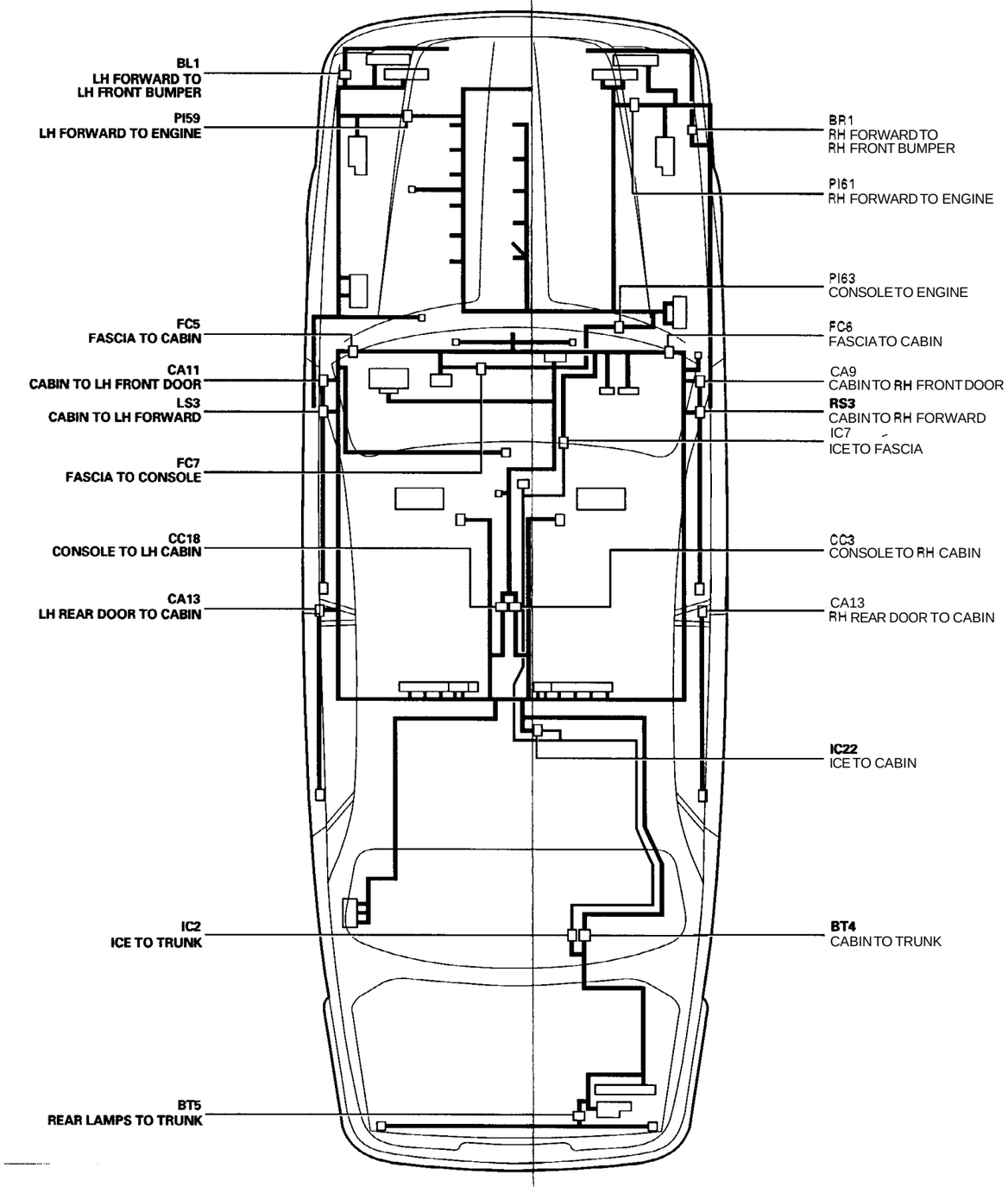
Ford Card
Used for SRS only.



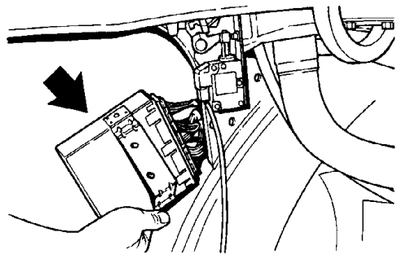
HARNESS LAYOUT



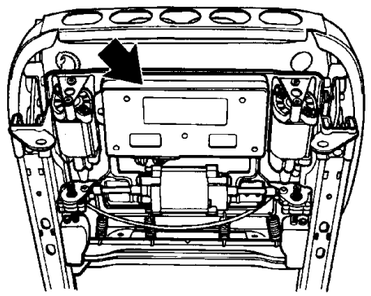
HARNESS CONNECTORS



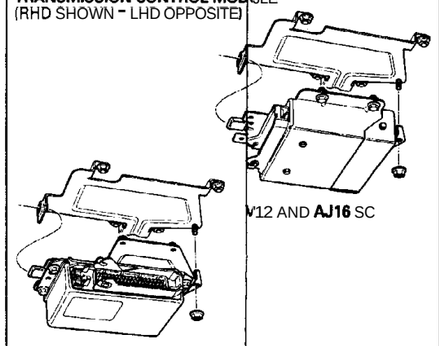
SECURITY AND LOCKING CONTROL MODULE



SEAT CONTROL MODULE - DRIVER, LHD; PASSENGER, RHD



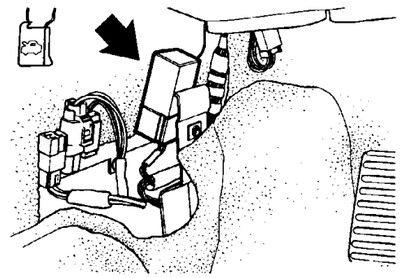
TRANSMISSION CONTROL MODULE (RHD SHOWN - LHD OPPOSITE)



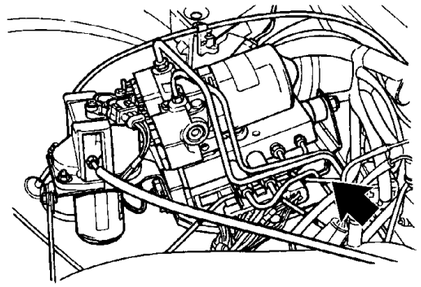
V12 AND **AJ16** SC

AJ16 NA

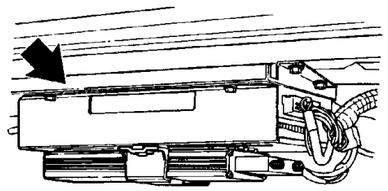
VARIABLE STEERING CONTROL MODULE

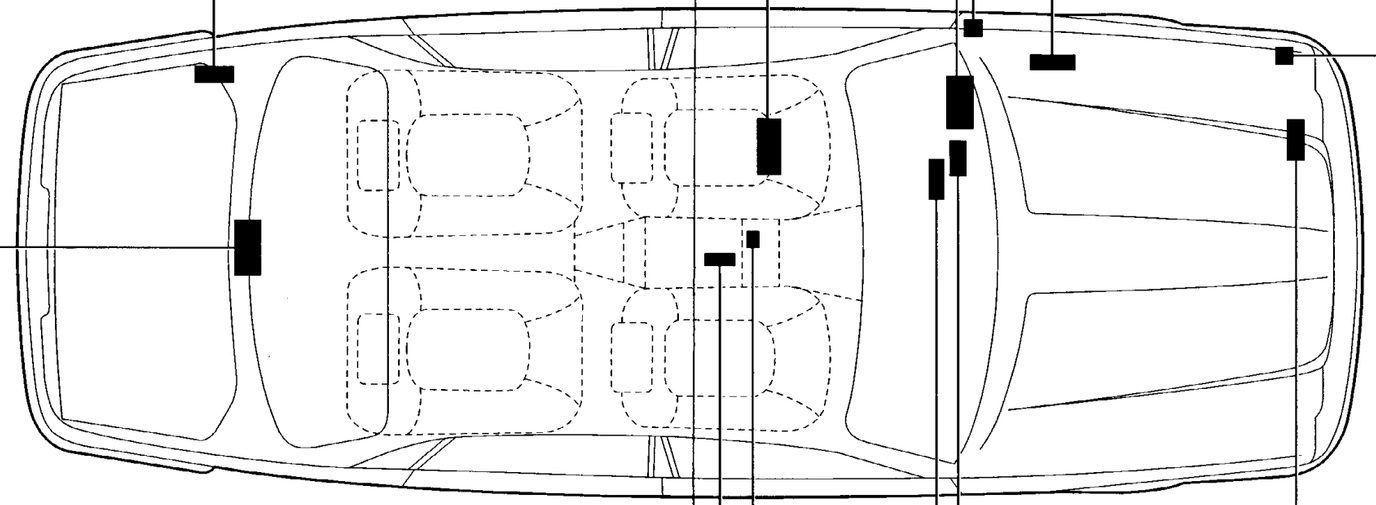


ABS / TRACTION CONTROL CO MODULE
RHD SHOWN – LHD OPPOSITE)

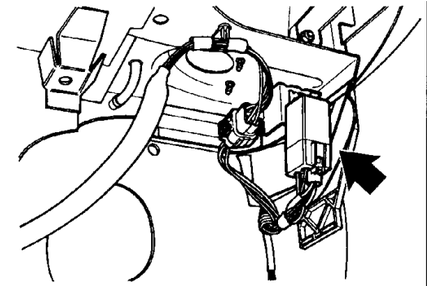


POWER AMPLIFIER

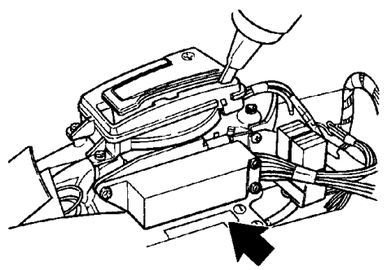




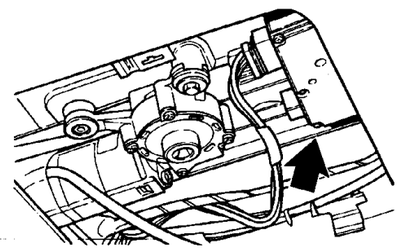
FAN CONTROL RELAY MODULE



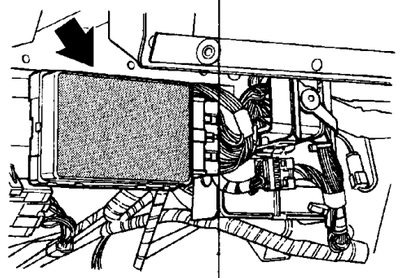
DECODER MODULE



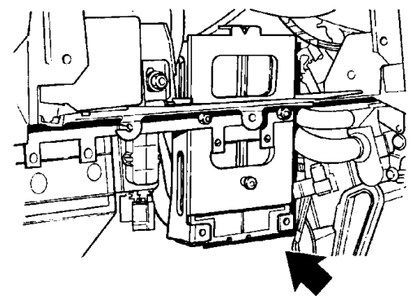
SLIDING ROOF CONTROL MODULE



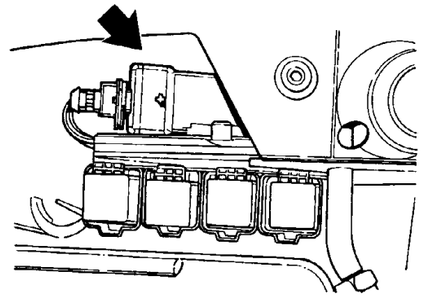
SRS DIAGNOSTIC MONITOR
(RHD SHOWN - LHD OPPOSITE)



BODY PROCESSOR MODULE
(RHD SHOWN - LHD OPPOSITE)

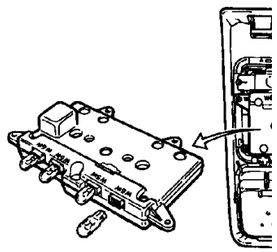


LH FRONT LIGHTING CONTROL MODULE

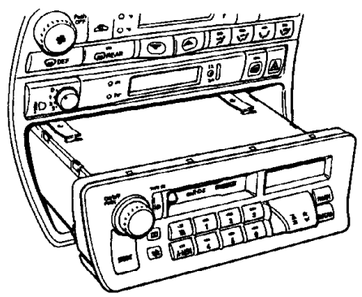


Electronic Control Module Identification and Location

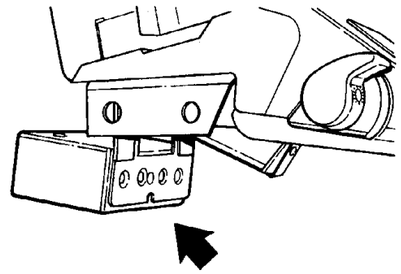
UNIVERSAL GARAGE DOOR OPENER



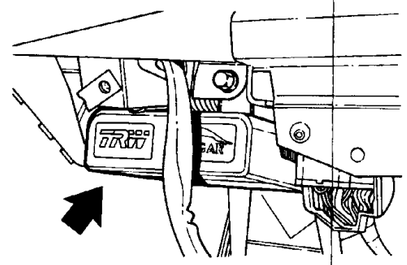
RADIO CASSETTE



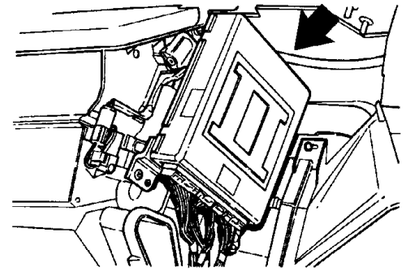
READER / EXCITER CONTROL MODULE
(RHD SHOWN - LHD OPPOSITE)



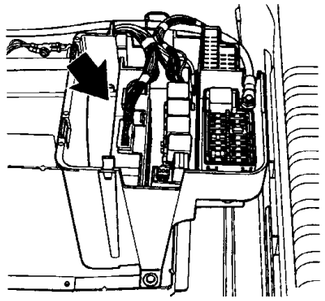
COLUMN / MIRROR MOVEMENT CONTROL MODULE
(RHD SHOWN - LHD OPPOSITE)

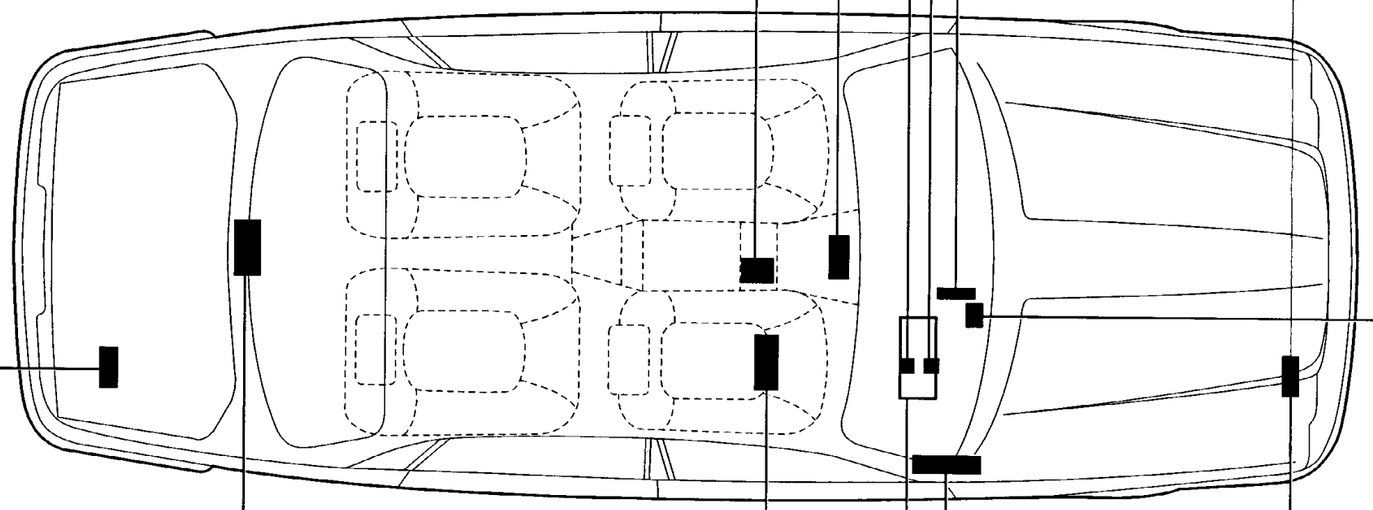


AIR CONDITIONING CONTROL MODULE

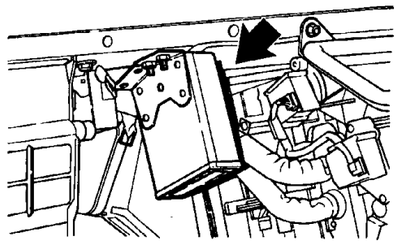


REAR **LIGHTING** CONTROL MODULE (→ VIN 739427)
LAMP CONTROL MODULE (**VIN** 739427 →)

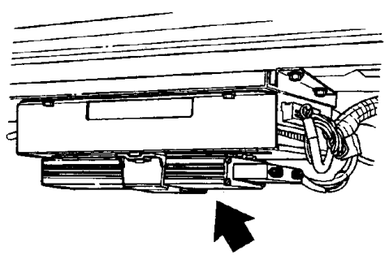




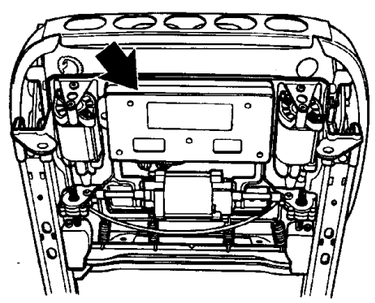
SPEED CONTROL CONTROL MODULE
(**RHD** SHOWN - LHD OPPOSITE)



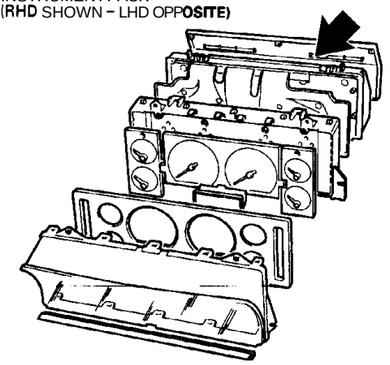
TELEPHONE TRANSCEIVER
(BENEATH POWER AMPLIFIER)



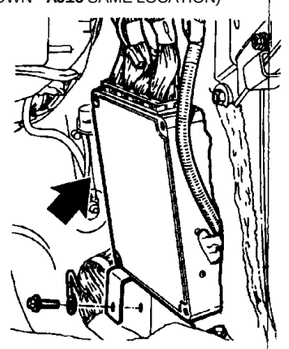
SEAT CONTROL MODULE -
DRIVER, RHD; PASSENGER, LHD



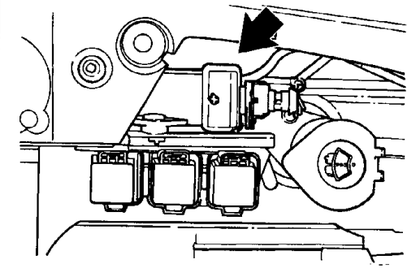
INSTRUMENT PACK
(**RHD** SHOWN - LHD OPPOSITE)



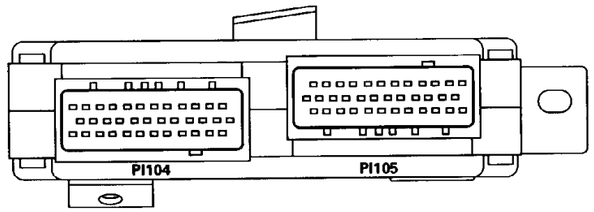
ENGINE CONTROL MODULE
(**V12** SHOWN - **AJ16** SAME LOCATION)



RH FRONT LIGHTING CONTROL MODULE



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 *	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 *	25 BP

* ⟶ VIN 739427: 23 = W, 26 = O
VIN 739427 ⟶: 23 = R, 26 = U

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

25 —	26 SU	27 RU	28 UP	29 KS	30 BG	31 BN	32 *	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

* ⟶ VIN 739427: 32 = W
VIN 739427 ⟶: 32 = R

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 *	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 *	25 BP

* ⟶ VIN 739427: 23 = W, 26 = O
VIN 739427 ⟶: 23 = R, 26 = U

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

25 —	26 SU	27 RU	28 UP	29 KS	30 BG	31 BN	32 *	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

* ⟶ VIN 739427: 32 = W
VIN 739427 ⟶: 32 = R

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 *	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 UN	29 OG	28 OR	27 BO	26 *	25 BP

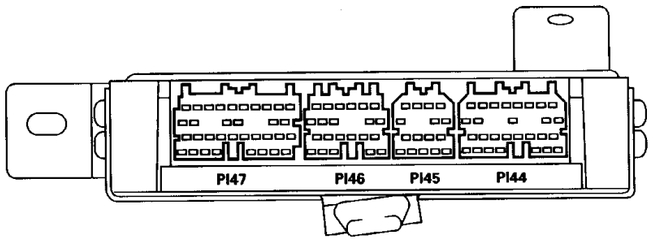
* ⟶ VIN 739427: 23 = W, 26 = O
VIN 739427 ⟶: 23 = R, 26 = U

PI105 / 36-WAY / RED (AJ16 SC)

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

* ⟶ VIN 739427: 32 = W
VIN 739427 ⟶: 32 = R

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 *	

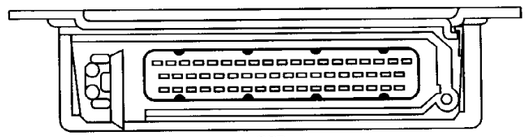
* ⟶ VIN 739427: 12 = WO
VIN 739427 ⟶: 12 = WK

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 *			24 NO	23 O	22 K

* ⟶ VIN 739427: 25 = WO
VIN 739427 ⟶: 25 = WK

TRANSMISSION CONTROL MODULE – AJ16 NA

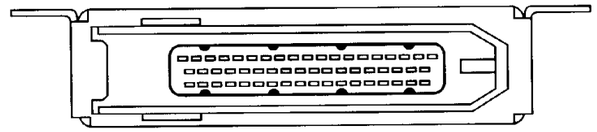


CC7

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

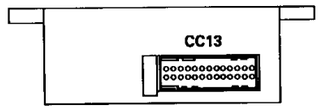
CC48 / 55-WAY / BLACK (AJ16 SC)

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	

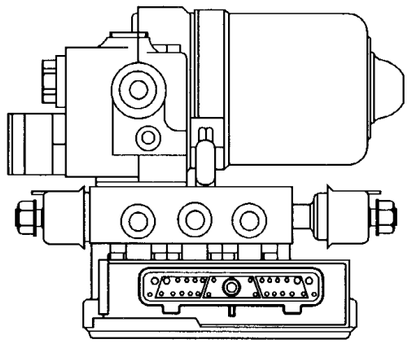
DECODER MODULE



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	

ABS / TRACTION CONTROL CONTROL MODULE

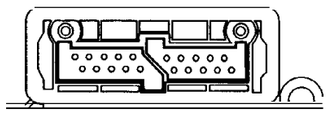


LHD – RS27; RHD – LS27

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

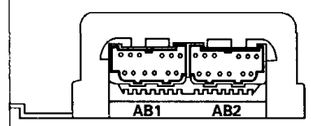


FC17

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



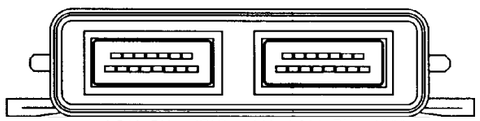
AB1 / 12-WAY / SLATE

6 YU	5 B	4 YW			
12 KG	11 KU	10 RG	9 RN		

AB2 / 12-WAY / BLACK

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

FRONT LIGHTING CONTROL MODULE



LH – LS13; RH – RS13 LH – LS30; RH – RS30

LS13 ▮15-WAY ▮BROWN

9 RO	10 RO	11 NY	12 R	13 UW	14 US	15 NK	
1 UY	2 —	3 —	4 —	5 UK	6 KY	7 WR	8 NO

LS30 ▮15-WAY / BLACK

9 YK	10 RO	11 G	12 GY	13 YS	14 —	15 KU	
1 NG	2 R	3 B	4 —	5 KR	6 —	7 KS	8 —

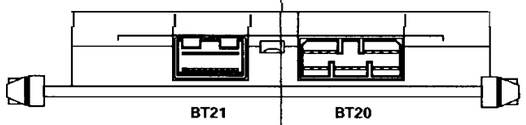
RS13 ▮15-WAY / BROWN

9 RO	10 RO	11 NY	12 R	13 UW	14 US	15 NK	
1 UY	2 —	3 —	4 —	5 UK	6 KU	7 WU	8 NO

RS30 ▮15-WAY / BLACK

9 YK	10 RO	11 G	12 GY	13 YU	14 —	15 KR	
1 NG	2 R	3 B	4 —	5 KG	6 —	7 KS	8 —

REAR LIGHTING CONTROL MODULE (⟶ VIN 739427)



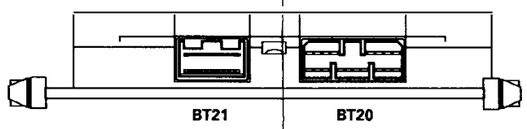
BT21 / 20-WAY ▮BLACK

10 YU	9 R	8 KR	7 KG	6 RW	5 PW	4 RS	3 RB	2 —	1 —
20 —	19 —	18 B	17 WS	16 KS	15 RU	14 RU	13 SLG	12 PU	11 YS

BT20 / 18-WAY / WHITE

8 NR	7 NLG	6 RG	5 PG				4 NLG	3 YG	2 UG	1 NR
18 KU	17 KR	16 GP		15 GU	14 RY	13 PY	12 GO		11 GN	10 Y	9 U

LAMP CONTROL MODULE (VIN 739427 ⟶)



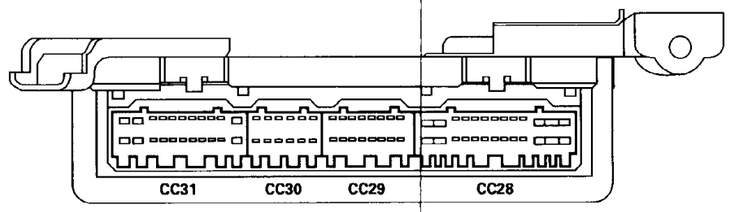
BT21 / 20-WAY ▮BLACK

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

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

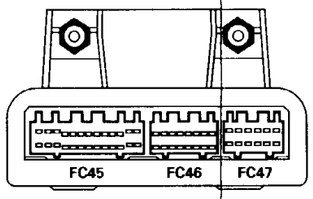
CC29 / 16-WAY / SLATE

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

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

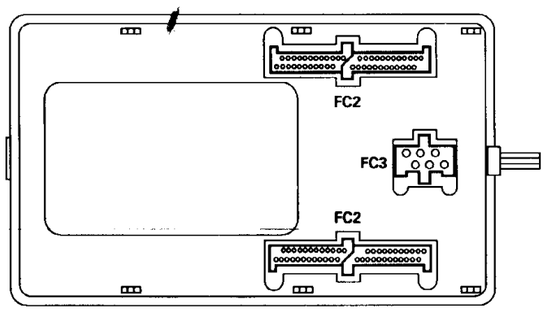
FC46 / 16-WAY / SLATE

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 —

BODY PROCESSOR MODULE



FC2 / 48-WAY / BLACK

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 OP	39 LGG	40 OLG	41 RW	42 KU	43 RLG	44 KY	45 PLG	46 YN	47 LGR	48 UR

FC3 / 6-WAY / BLACK

1 NB	2 —	3 O
4 K	5 B	6 B

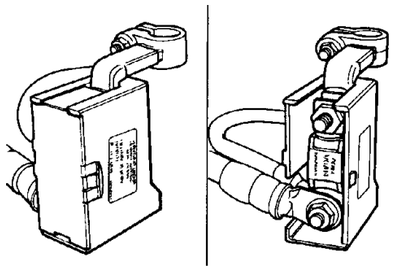
FC1 / 48-WAY / YELLOW

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 —

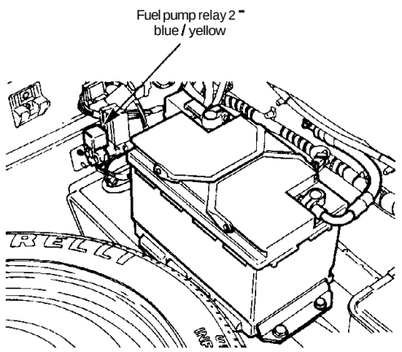
* → VIN 739427: 39 = UK, 41 = US
VIN 739427 →: 39 = US, 41 = UK

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.

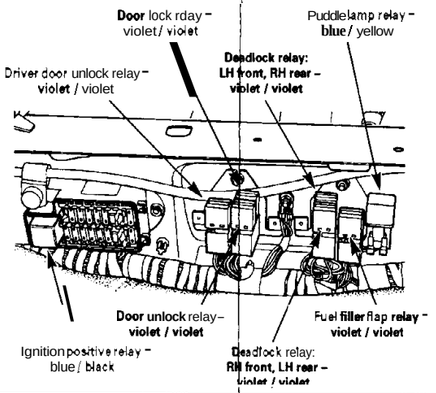
500A POWER FUSE



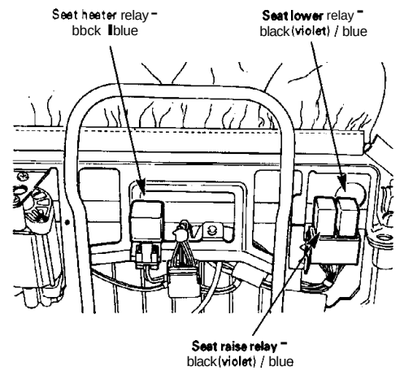
FUEL PUMP RELAY 2



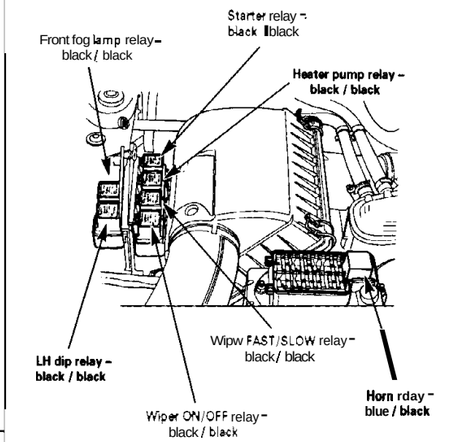
LH HEELBOARD RELAYS AND FUSE BOX



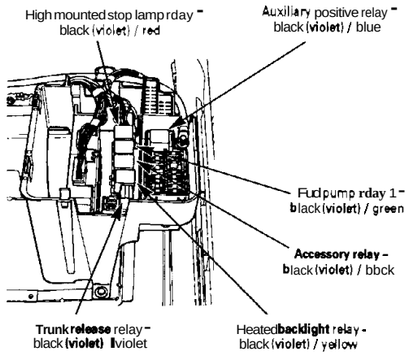
LH SEAT RELAYS



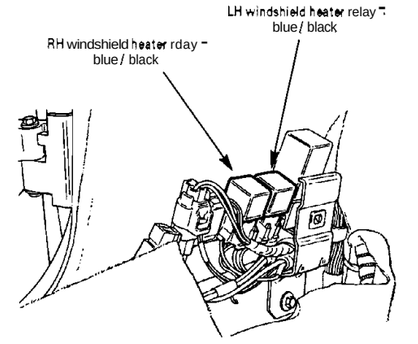
LH ENGINE BAY RELAYS AND FUSE BOX



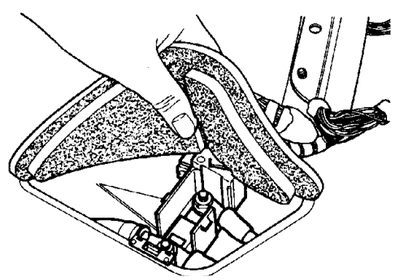
TRUNK RELAYS AND FUSE BOX



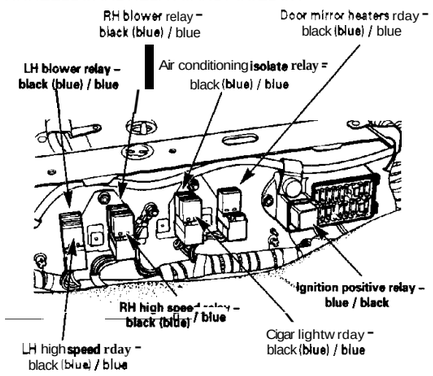
WINDSHIELD HEATER RELAYS



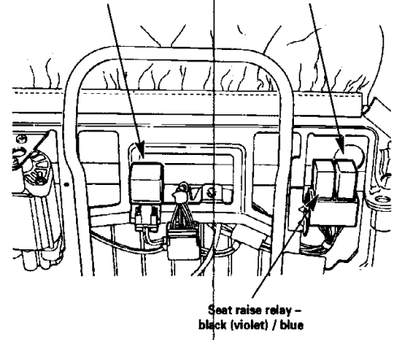
250A POWER FUSE



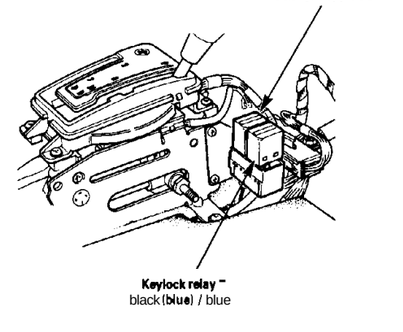
RH HEELBOARD RELAYS AND FUSE BOX



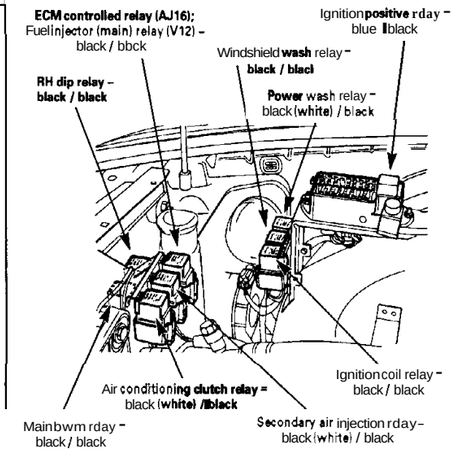
RH SEAT RELAYS



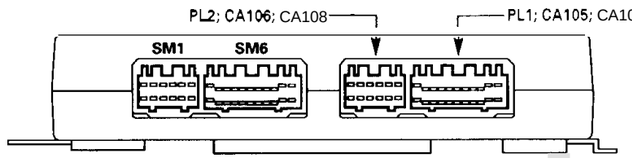
GEARSHIFT AND KEYLOCK RELAYS



RH ENGINE BAY RELAYS AND FUSE BOX



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

PL1-D, CA105 / 22-WAY / BLUE

11 WP	10 —	9 YB	8 UG	7 —	6 US	5 UP	4 UN	3 WN	2 —	1 —
22 PG	21 KS	20 —	19 —	18 PU	17 —	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 —	21 —	20 RW	19 UW	18 UY	17 KW	16 KY	15 GW	14 GY	13 —	12 —

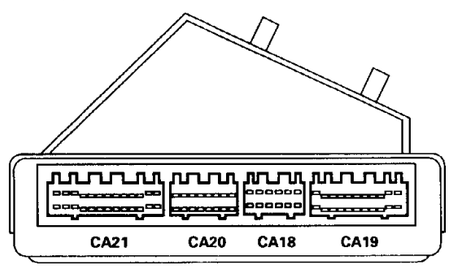
PL2-P, CA108 / 12-WAY / BLUE

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

PL1-P, CA107 122-WAY / BLUE

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

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 —	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 (LHD)

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

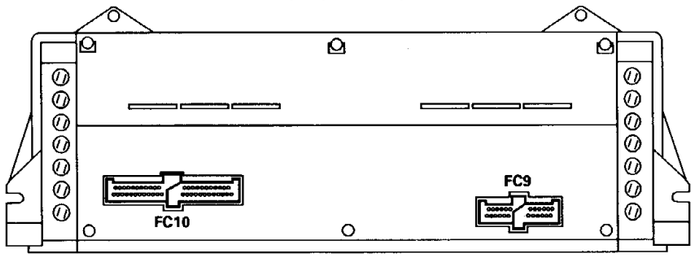
CA19 22-WAY SLATE

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

CA18 12-WAY SLATE (RHD)

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

INSTRUMENT PACK



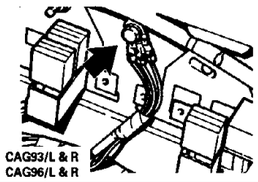
FC10 / 48-WAY / BLACK

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 B	39 —	40 YP	41 YG	42 R	43 KS	44 S	45 YW	46 G	47 P	48 —

FC9 24-WAY BLACK

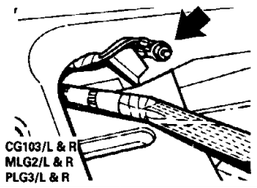
1 KR	2 WO	3 B	4 B	5 NR	6 LGS	7 RB	8 —	9 —	10 RO	11 —	12 —
13 O	14 K	15 GK	16 —	17 —	18 —	19 OK	20 BW	21 OS	22 SG	23 —	24 PY

LH HEELBOARD GROUND SCREW



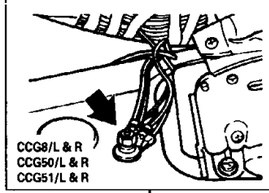
CAG93/L & R
CAG96/L & R

LH SEAT GROUND STUD



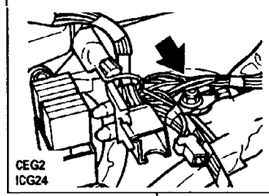
CG103/L & R
MLG2/L & R
PLG3/L & R

CENTER CONSOLE GROUND STUD



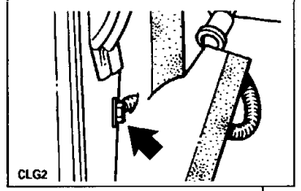
CCG8/L & R
CCG50/L & R
CCG51/L & R

RADIO GROUND STUD



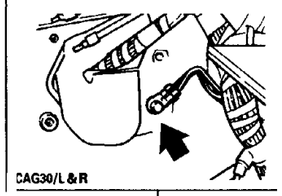
CEG2
ICG24

AIR BAG GROUND SCREW



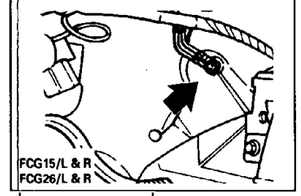
CLG2

LH 'A' POST GROUND SCREW



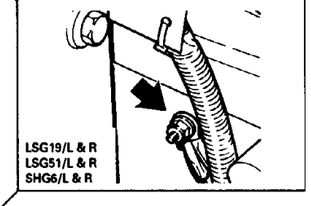
CAG30/L & R

LH CONSOLE GROUND STUD



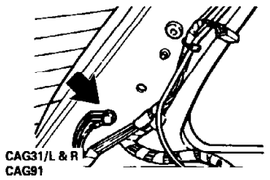
FCG15/L & R
FCG26/L & R

LH BULKHEAD GROUND STUD



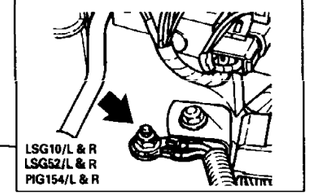
LSG19/L & R
LSG51/L & R
SHG6/L & R

PARCEL SHELF GROUND SCREW



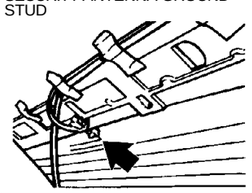
CAG31/L & R
CAG91

LEFT FORWARD GROUND STUD

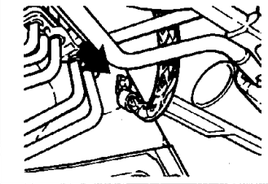


LSG10/L & R
LSG52/L & R
PIG154/L & R

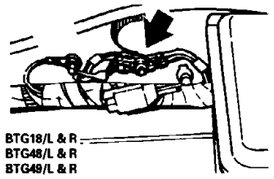
SECURITY ANTENNA GROUND STUD



ENGINE GROUND

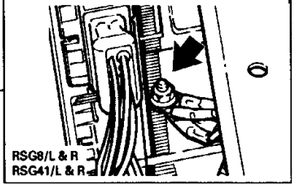


REAR TRUNK GROUND STUD



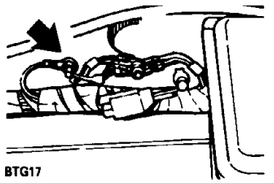
BTG18/L & R
BTG48/L & R
BTG49/L & R

RIGHT FORWARD GROUND STUD



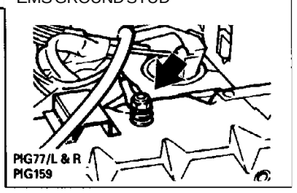
RSG8/L & R
RSG41/L & R

LOGIC GROUND STUD



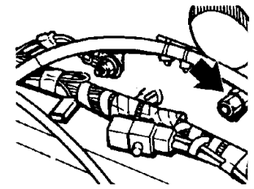
BTG17

RIGHT FORWARD EMS GROUND STUD

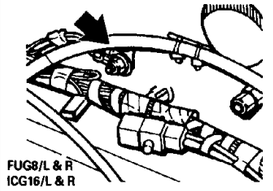


PIG77/L & R
PIG159

BATTERY GROUND STUD

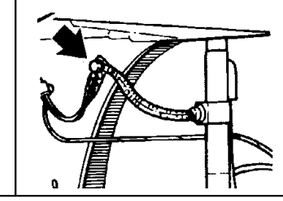


FRONT TRUNK GROUND STUD

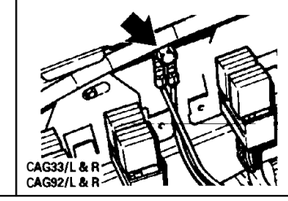


FUG8/L & R
ICG16/L & R

RADIO ANTENNA GROUND SCREW

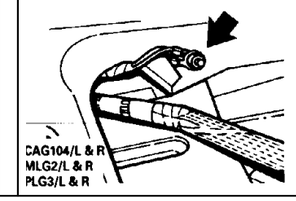


RH HEELBOARD GROUND SCREW



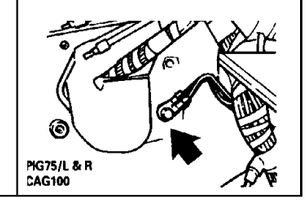
CAG33/L & R
CAG92/L & R

RH SEAT GROUND STUD



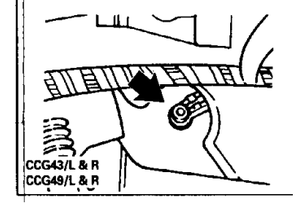
CAG104/L & R
MLG2/L & R
PLG3/L & R

RH 'A' POST GROUND STUD



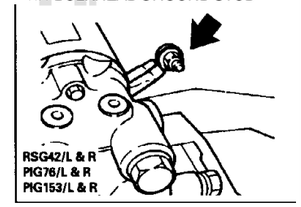
PIG75/L & R
CAG100

RH CONSOLE GROUND STUD



CCG43/L & R
CCG49/L & R

RH BULKHEAD GROUND STUD



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

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.

Fig. 0

COMPONENTS

Component	Connector ▮Type ▮Color	Location ▮Access
BATTERY	STB. ST10	TRUNK
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48 WAY PCB SIGNAL ▮BLACK FC3 / 6-WAY PCB SIGNALIBLACK	PASSENGERS UNDERSCUTTLE
FUSE BOX – LH ENGINE BAY	LS1 / 10-WAY UTA ▮BLACK LS37 ▮10WAY 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 CAP ▮IO-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 ▮IO-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 ILH ENGINE BAY FUSE BOX)	BLUE	— / BLACK	LH ENGINE BAY FUSE BOX
IGNITION POSITIVE RELAY ILH HEELBOARD FUSE BOX)	BLUE	— / BLACK	LH HEELBOARO 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 / 61 ▮BLACK	PARCEL SHELF ▮FUEL TANK TRIM
FC16	PO-WAY MULTILOCK 040 / BLACK	PASSENGERS 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)

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.

DATE OF ISSUE JANUARY 1995

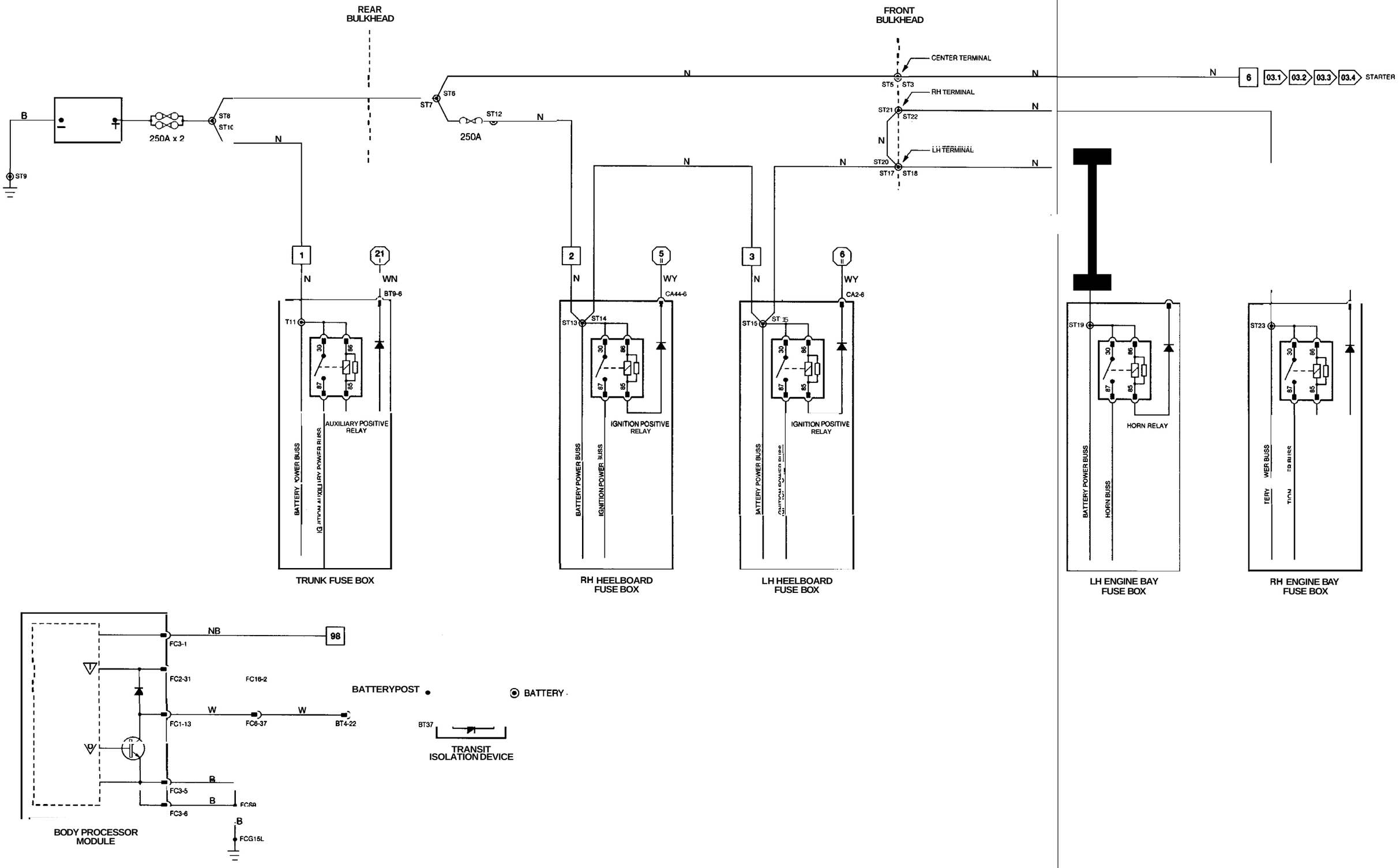

REAR BULKHEAD
FRONT BULKHEAD
B
ST9
250A x 2
ST8
ST10
ST6
ST7
ST12
250A
N
CENTER TERMINAL
ST5
ST3
RH TERMINAL
ST21
ST22
LH TERMINAL
ST20
ST17
ST18
6
03.1
03.2
03.3
03.4
STARTER
1
21
WN
BT9-6
T11
AUXILIARY POSITIVE RELAY
BATTERY POWER BUSS
2
5
WY
CA44-6
ST13
ST14
IGNITION POSITIVE RELAY
IGNITION POWER BUSS
3
6
CA2-6
ST15
ST16
ST19
HORN RELAY
HORN BUSS
ST23
TRUNK FUSE BOX
RH HEELBOARD FUSE BOX
LH HEELBOARD FUSE BOX
LH ENGINE BAY FUSE BOX
RH ENGINE BAY FUSE BOX
NB
98
FC3-1
FC2-31
FC16-2
W
FC1-13
FC6-37
BT4-22
FC3-5
FC3-6
FCG15L
BODY PROCESSOR MODULE
BATTERYPOST
BATTERY
BT37
TRANSIT ISOLATION DEVICE

Fig. 01.2

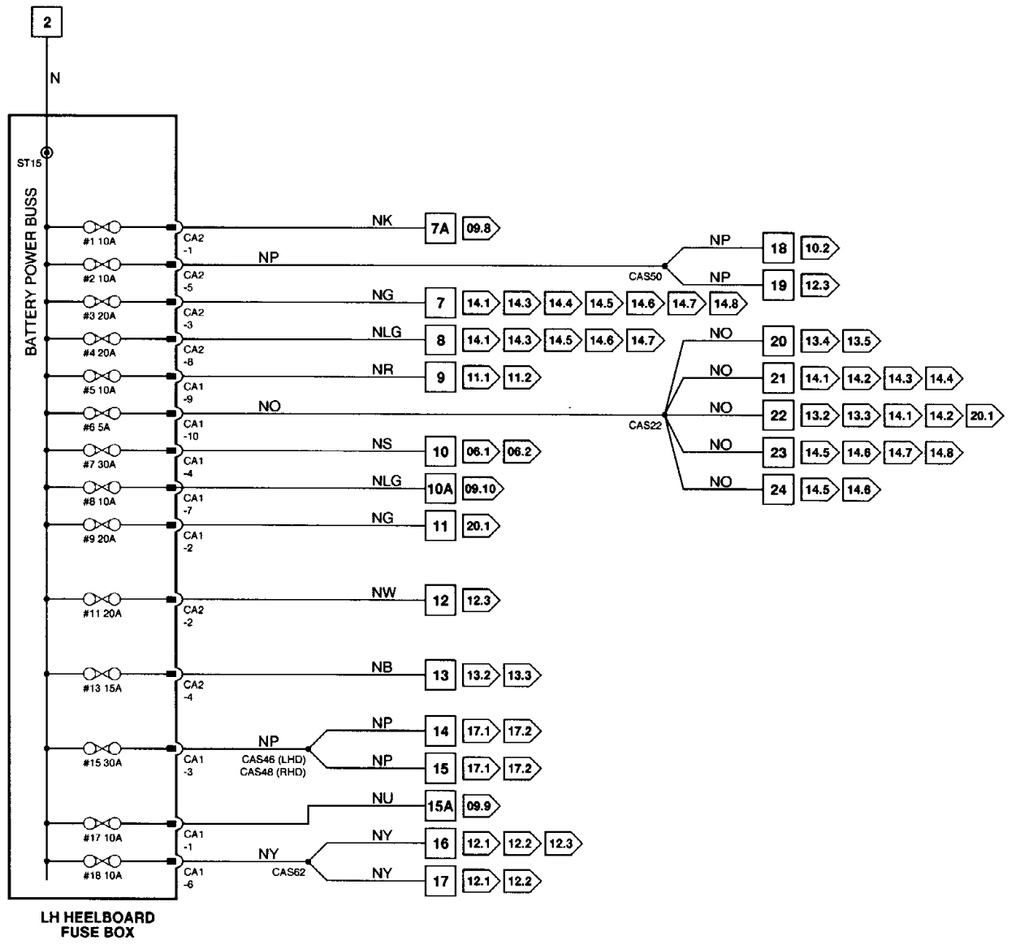
COMPONENTS

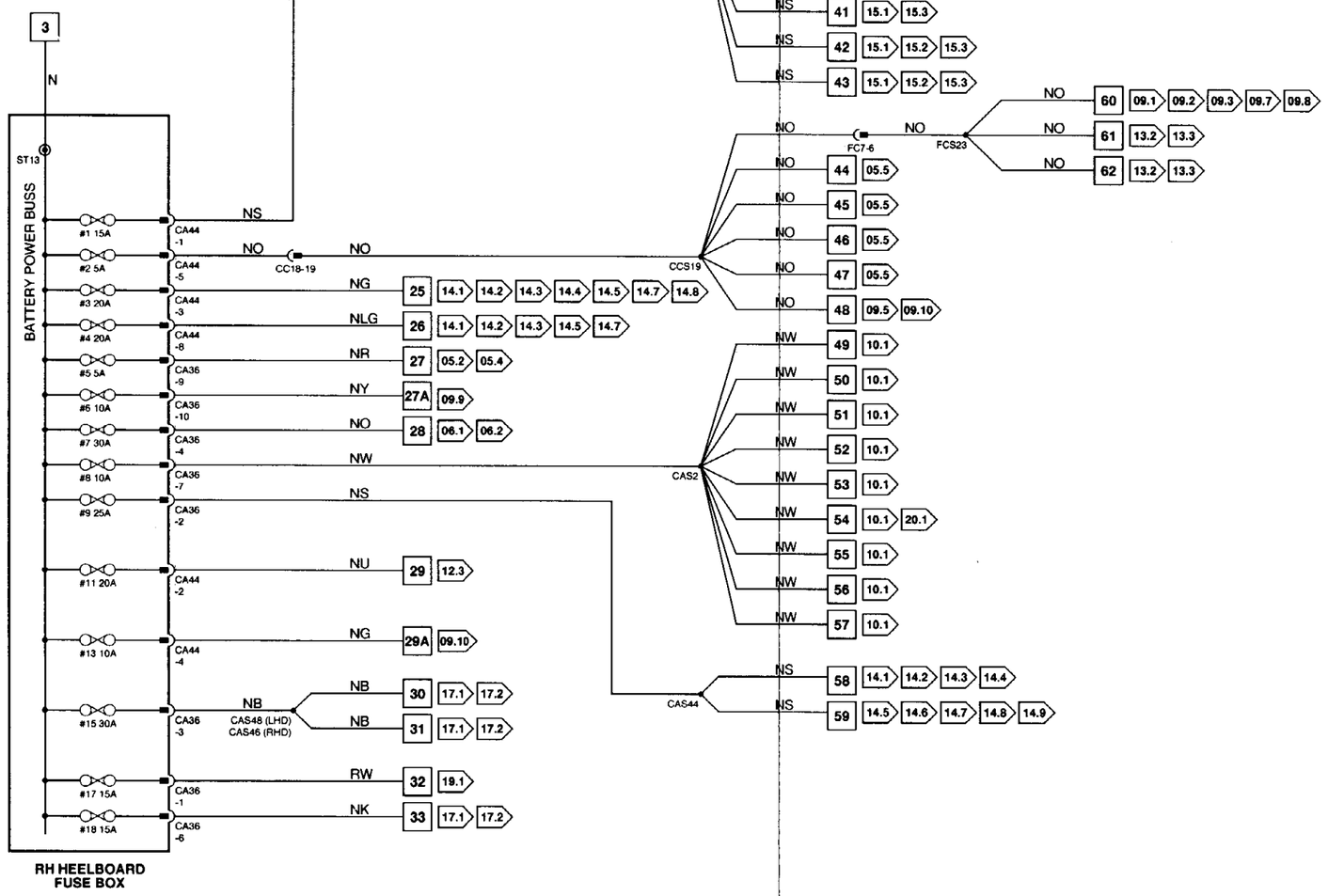
Component	Connector / Type / Color	Location / Access
FUSE BOX - LH HEELBOARD	CA1 / 10-WAY UTA / NATURAL CA2 / 10-WAY UTA / BLACK	LH HEELBOARD
FUSE BOX – RH HEELBOARD	CA36 / 10-WAY UTA / NATURAL CA44 / 10-WAY UTA / BLACK	RH HEELBOARD

HARNESS-TO-HARNESSCONNECTORS

Connector	Type / Color	Location / Access
CC18	20-WAY MULTILOCK H 0 / BLUE	CENTER CONSOLEICENTER CONSOLE
FC7	THROUGH-PANEL(48 MICRO/ 6) / BLACK	PASSENGERS 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 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: APRIL 1995

Fig. 01.3

COMPONENTS

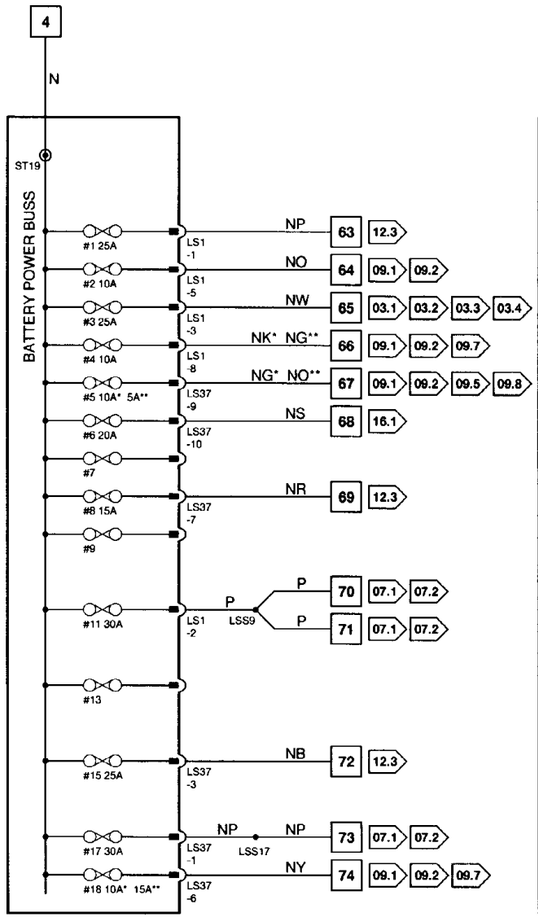
Component	Connector / Type / Color	Location / Access
FUSE BOX – LH ENGINE BAY	LS1 / 10-WAY UTA / BLACK LS37 / 10-WAY UTA / BLACK	ENGINE BAY, LH FRONT
FUSE BOX – RH ENGINE BAY	RS1 / 10-WAY UTA / BLACK RS6 / 10-WAY UTA / BLACK	ENGINE BAY. RH FRONT
FUSE BOX – TRUNK	BT9 / 10-WAY UTA / BLACK BT35 / 10-WAY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

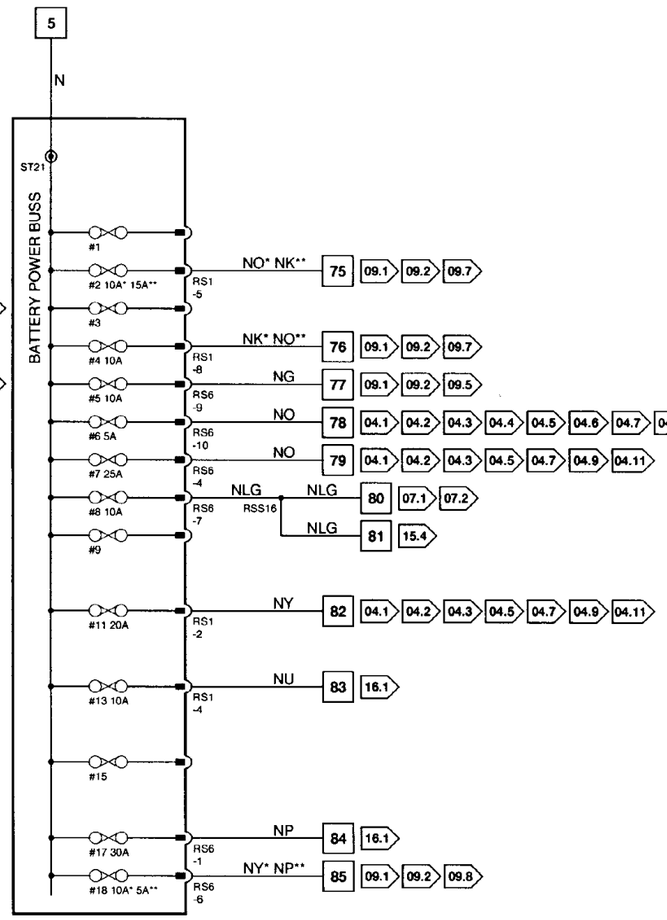
HARNESS-TO-HARNESS CONNECTORS

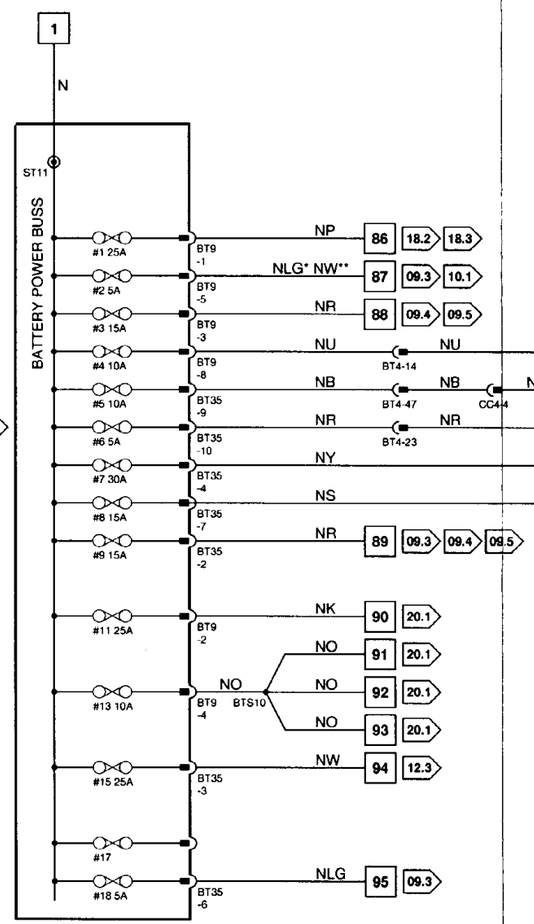
Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGERS UNDERSCUTTLE

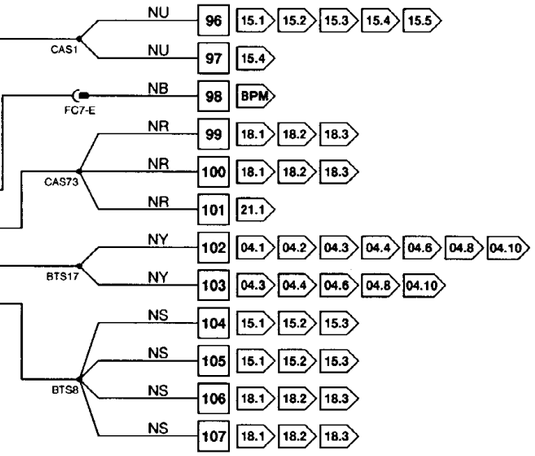
REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE JANUARY 1995









BPM NOTE: BODY PROCESSOR MODULE APPEARS IN NUMEROUS FIGURES

NOTE: FUSE RATING AND/OR WIRE COLOR CODE CHANGE
* → VIN 739427
** VIN 739427 →

NOTE: FUSE RATING AND/OR WIRE COLOR CODE CHANGE
* → VIN 739427
** VIN 739427 →

NOTE: FUSE RATING AND/OR WIRE COLOR CODE CHANGE
* → VIN 739427
** VIN 739427 →

Fig. 01.4

COMPONENTS

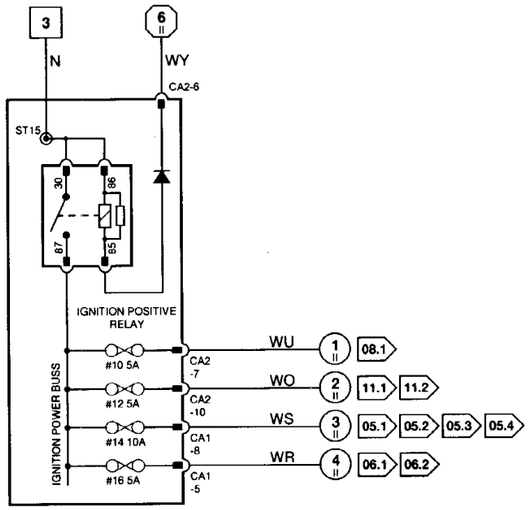
Component	Connector / Type / Color	Location / Access
FUSE BOX - RH ENGINE BAY	RS1 / 10-WAY UTA I BLACU RS6 / 10-WAY UTA I BLACK	ENGINE BAY. RH FRONT
FUSE BOX - LH HEELBOARD	CA1 110-WAY UTA I NATURAL CA2 / 10-WAY UTA IBLACK	LH HEELBOARD
FUSE BOX - RH HEELBOARD	CA36 / 10-WAY UTA I NATURAL CA44 / 10-WAY UTA IBLACK	RH HEELBOARD
FUSE BOX - TRUNK	BT9 I10-WAY UTA IBLACK BT35 / 10-WAY UTA I NATURAL	TRUNK ELECTRICAL CARRIER

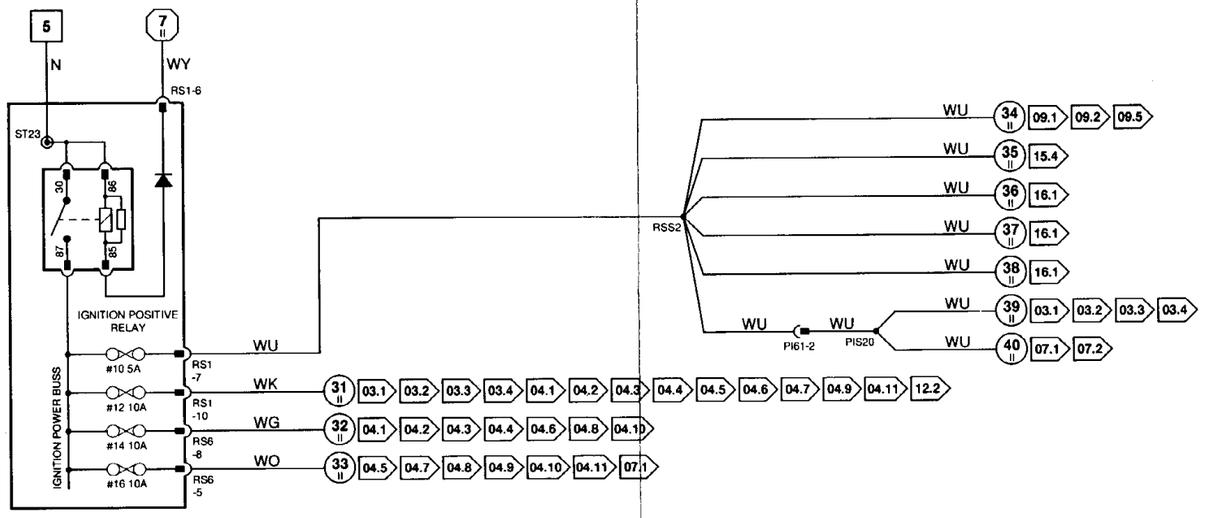
RELAYS

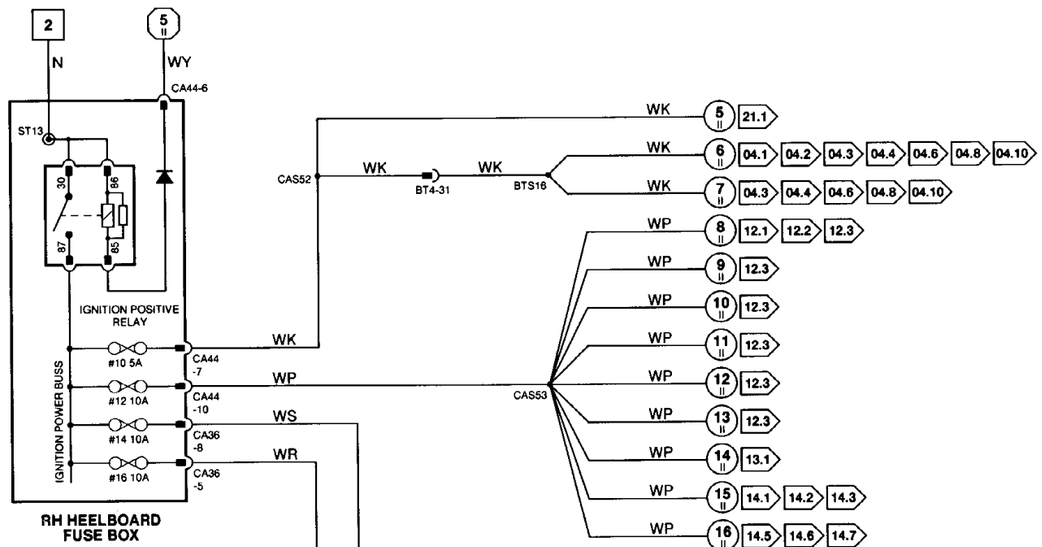
Relay	Color / Stripe	Connector / Color	Location / Access
AUXILIARY POSITIVE RELAY ITRUNK FUSE BOX)	BLACK / VIOLET	— / BLUE	TRUNK FUSE BOX
IGNITION POSITIVE RELAY ILH HEELBOARD FUSE BOX)	BLUE	— / BLACK	LH HEELBOARD FUSE BOX
IGNITION POSITIVE RELAY IRH HEELBOARD FUSE BOX1	BLUE	— / BLACK	RH HEELBOARD FUSE BOX
IGNITION POSITIVE RELAY IRH ENGINE BAY FUSE BOX)	BLUE	— / BLACK	RH ENGINE BAY FUSE BOX

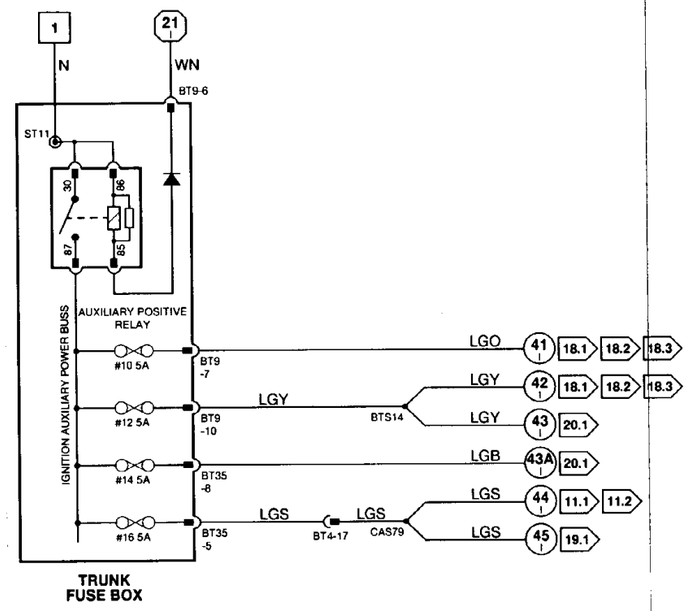
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH PANEL 148 MICRO / 6) / BLACK	PARCEL SHELFIFUELTANU TRIM
LS3	THROUGH-PANEL (48 MICRO / 6) IBLACK	LH 'A' POST / 'A' POSTPANEL
PI61	13 WAY ECONOSEAL III LC IBLACK	RH AIR CLEANER
SH8	4 WAY MULTILOCK 070 / WHITE	LH 'A POST / 'A POST PANEL









1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: APRIL 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

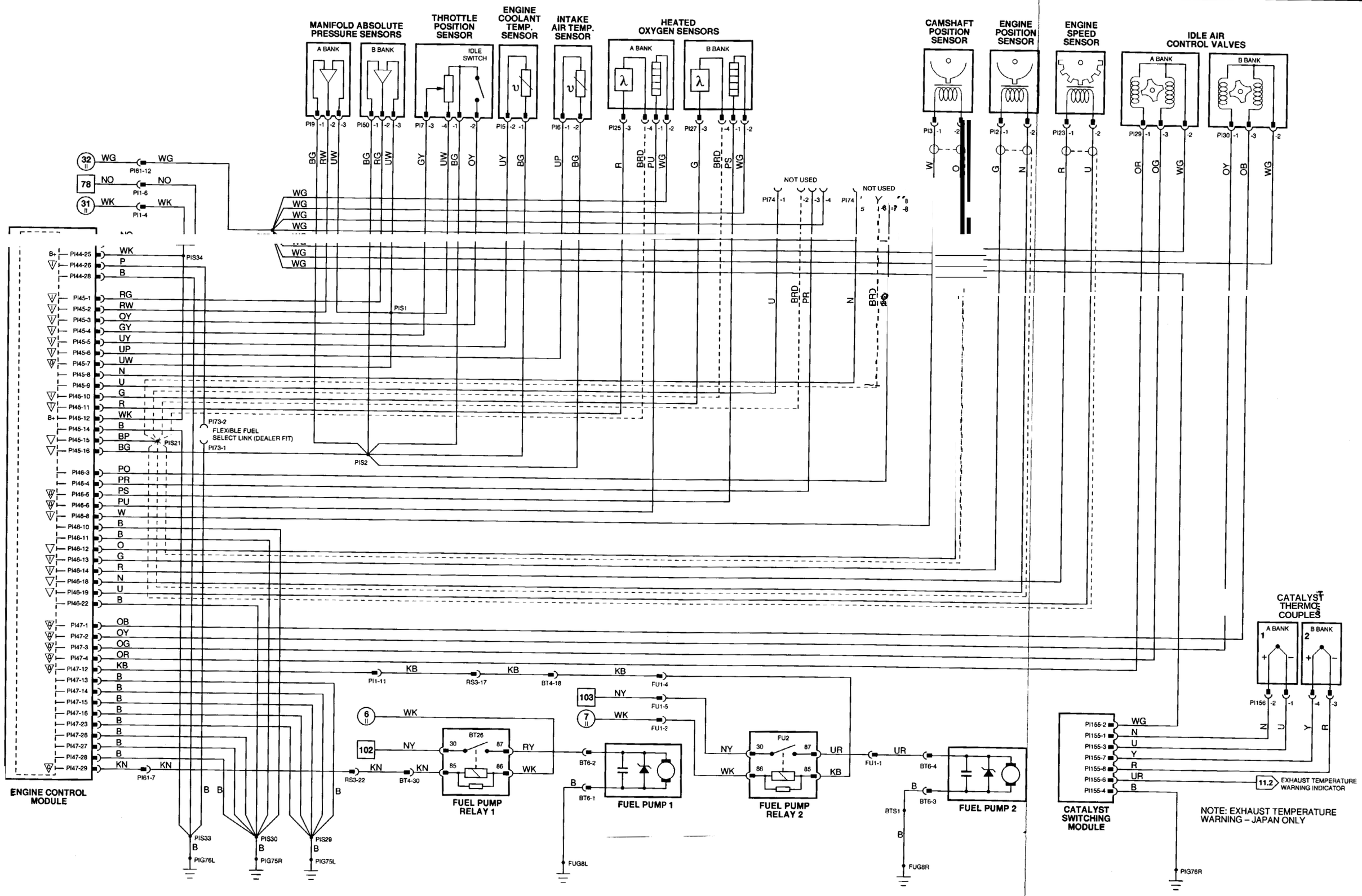
Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL 148MICRO / 6) / BLACK	PARCEL SHELF/ FUEL TANK TRIM
CC5	20 WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL 148MICRO / 61 / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH PANEL 148MICRO / 61 / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
RS3	THROUGH-PANEL (48 MICRO / 61 / BROWN	RH 'A POST / 'A' POST PANEL

GROUNDS

Ground	Location / Type
FCG26R	LH CONSOLE GROUND STUD

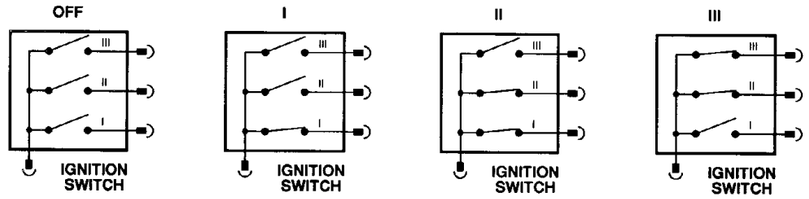
REFER TO THE **FRONT** OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

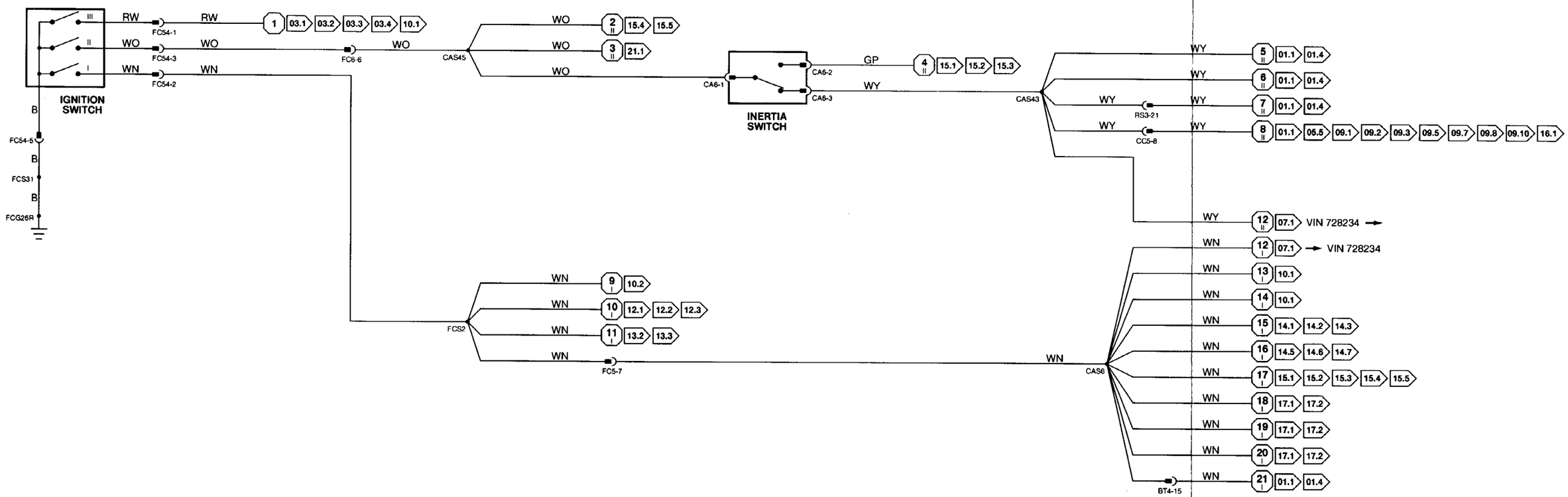
DATE OF ISSUE JANUARY **1995**



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 0 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: V12 ROW Vehicles
VIN RANGE: → 739427
DATE OF ISSUE: APRIL 1995





1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: APRIL 1995

Fig. 02.2

COMPONENTS

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

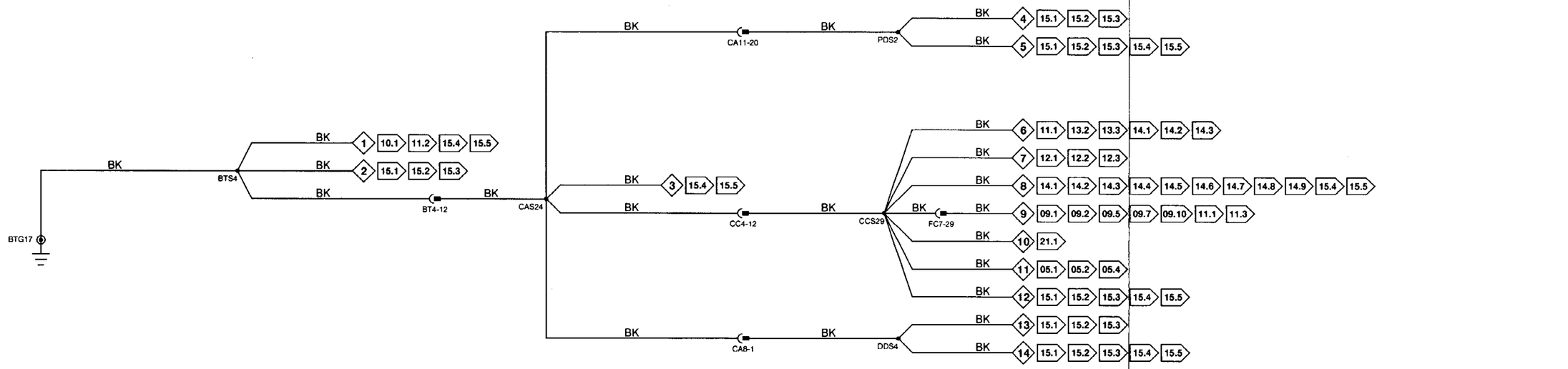
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL 48 MICRO / 6) BLACK	PARCEL SHELF / FUEL TANK TRIM
CA8	10-WAY MULTILOCK 040 / GREEN	DRIVER'S UNDERSCUTTLE
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGERS UNDERSCUTTLE / ECM
CC4	14-WAY MULTILOCK 070 WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC7	THROUGH PANEL (48 MICRO / 6) / BLACK	PASSENGERS UNDERSCUTTLE

GROUNDS

Ground	Location / Type
BTG17	LOGIC GROUND STUD

REFER TO THE FRONT OF BOOK FOR USTRATIONS DETA THE LOCATION AND IDENTIFICATIONOF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, HICLE CONTROL MC 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
PDS2
BK 4 15.1 15.2 15.3
BK 5 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 6 11.1 13.2 13.3 14.1 14.2 14.3
BK 7 12.1 12.2 12.3
BK 8 14.1 14.2 14.3 14.4 14.5 14.6 14.7 14.8 14.9 15.4 15.5
BK 9 09.1 09.2 09.5 09.7 09.10 11.1 11.3
BK 10 21.1
BK 11 05.1 05.2 05.4
BK 12 15.1 15.2 15.3 15.4 15.5
BK
CA8-1
BK
DDS4
BK 13 15.1 15.2 15.3
BK 14 15.1 15.2 15.3 15.4 15.5

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 NASJ	ENCODED COMMUNICATIONS	

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.

Fig. 03.1

COMPONENTS

Component	Connector ▮Type I 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' PDST TRIM
GENERATOR	PI141 / 3-WAY NIPPON DENSO / BLACK	ENGINE, LH SIDE (AJ16), RH SIDE (V12)
IGNITION SWITCH	FC54 (FLY LEAD) 18-WAY MULTILOCK 0701 WHITE	STEERING COLUMN ▮COVER
ROTARY SWITCH	GB1 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE GB2 (FLY LEAD) 112-WAY MULTILOCK 0401 BLACK	'J' GATE ▮CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 112-WAY MULTILOCK 41 / SLATE CA19 / 22-WAY MULTILOCK 47 ▮SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 41 ▮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 I Color	Location I Access
STARTER RELAY	BLACK	LS47 / BLACK	LH ENGINE BAY RELAYS

HARNESS-TO-HARNESSCONNECTORS

Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE1 CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE1 CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL 148 MICRO / 6) / BLACK	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A POST / 'A POST PANEL
PI1	13-WAY ECONOSEAL III LC / WHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC ▮BLACK	RH AIR CLEANER
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A POST / 'A POST TRIM
PI66	2-WAY ECONOSEAL III HC / BLACK	LH AIR CLEANER
PI142	2-WAY ECONOSEAL III HC / BLACK	LH 'A POST / 'A' POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A POST / 'A POST PANEL

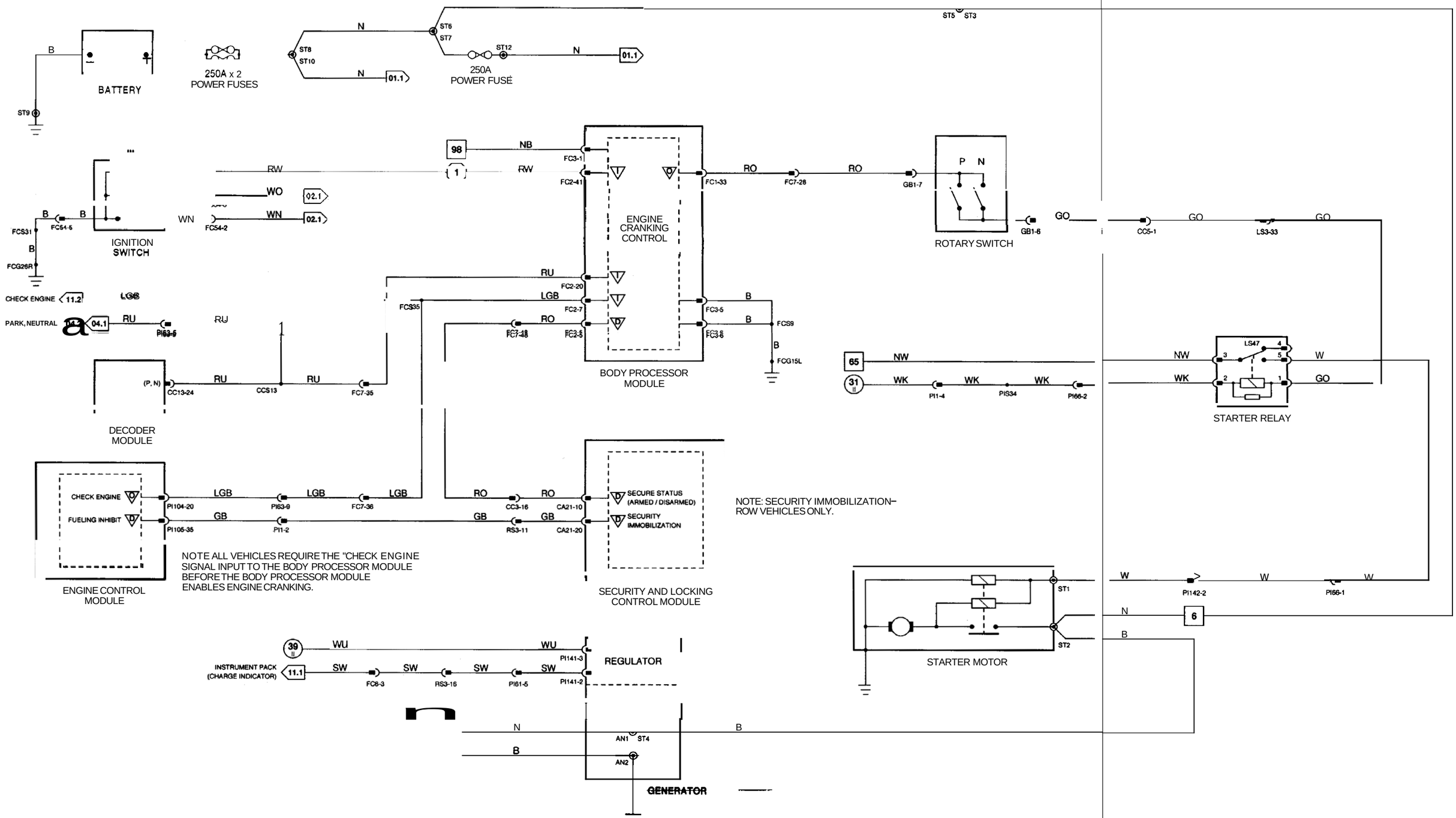
GROUNDS

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.

DATEOFISSUE APRIL 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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

DATE OF ISSUE: JANUARY 1995

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	
O	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	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.

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 SIGNAL1 BLACK	PASSENGERS UNDERSCUTTLE
ENGINE CONTROL MODULE (AJ16)	PI104 / 36-WAY ECONOSEAL111 ▮BLACK PI105 / 36-WAY ECONOSEALIII / RED	RH 'A' POST/ 'A' POSTTRIM
GENERATOR	PI141 / 3-WAY NIPPONDENSO / BLACK	ENGINE, LH SIDE (AJ16), RH SIDE (V12)
IGNITION SWITCH	FC54 (FLY LEAD1/ 8-WAY MULTILOCK 0701 WHITE	STEERING COLUMN ▮COVER
LINEAR GEAR POSITION SWITCHES	CC21 / 20-WAY MULTILOCK MO ▮BLACK	'JGATE / CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 112-WAY MULTILOCK 41 ▮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) 12-WAY ECONOSEAL 111 LC / RED	ENGINE BAY. LH FRONT

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
STARTERRELAY	BLACK	LS47 ▮BLACK	LH ENGINE BAY RELAYS

HARNESS-TO-HARNESSCONNECTORS

Connector	Type ▮Color	Location ▮Access
CC3	20-WAY MULTILOCK MO ▮BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK MO ▮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 16) ▮BLACK	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST/ 'A' PDSTPANEL
PI1	13-WAY ECONOSEALIII LC / WHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEAL 111 LC ▮BLACK	RH AIR CLEANER
PI63	20-WAY MULTILOCK040 / BLACK	RH 'A' POST/ 'A' POSTTRIM
PI66	2-WAY ECONOSEALIII HC ▮BLACK	LH AIR CLEANER
PI142	2-WAY ECONOSEAL 111 HC/ BLACK	LH 'A' POST/ 'A POSTTRIM
RS3	THROUGH-PANEL (48 MICRO/ 6) / BROWN	RH 'A' POST/ 'A' POSTPANEL

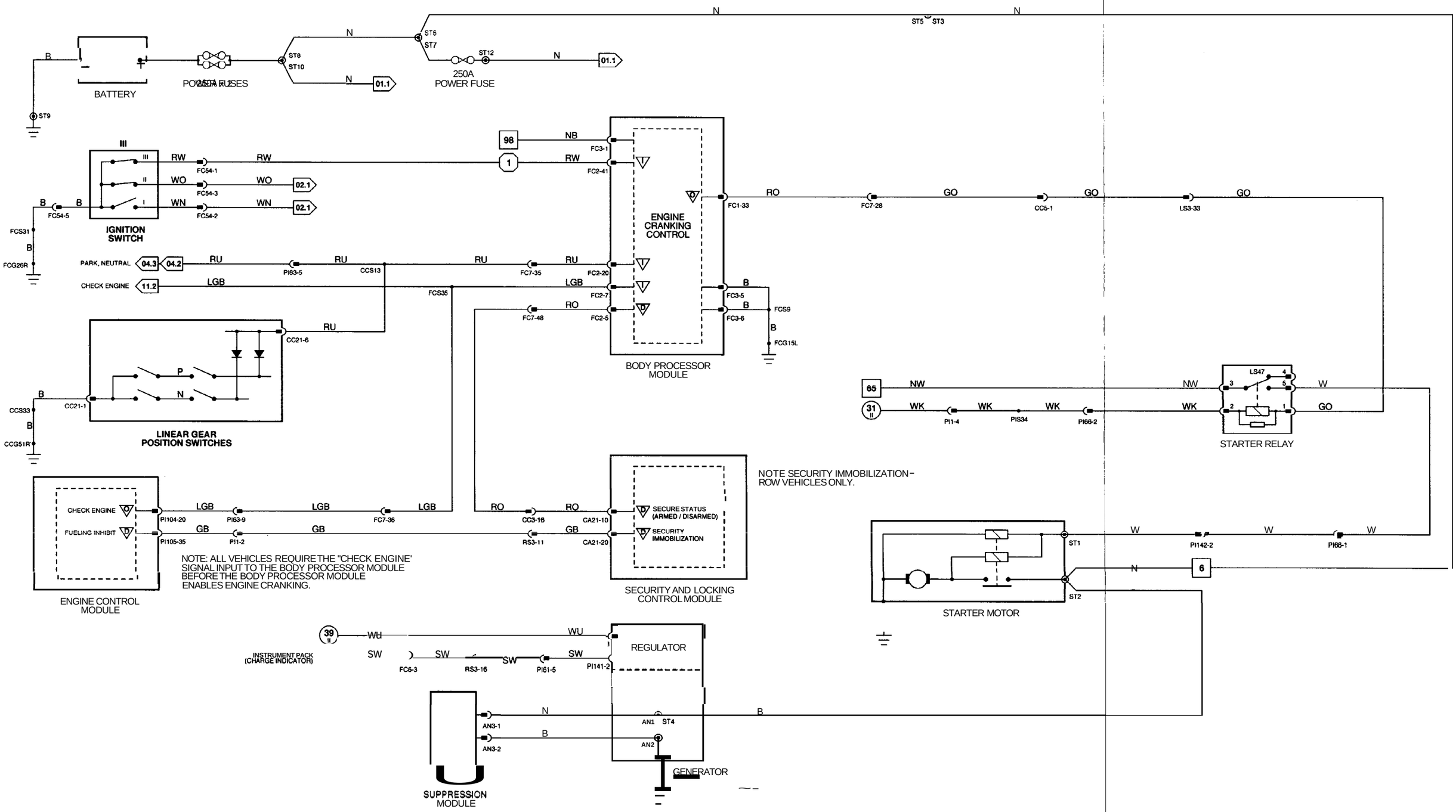
GROUNDS

Ground	Location ▮Type
CCG51R	CENTER MNSOLE 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 ILL ISTRATIONS DET ILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE JANUARY 1995


BATTERY
POWER FUSES
250A POWER FUSE
ST9
ST6
ST7
ST8
ST10
ST12
ST5
ST3
01.1
IGNITION SWITCH
FC54-1
FC54-3
FC54-2
FC54-5
02.1
FCS31
FCG26R
PARK, NEUTRAL
CHECK ENGINE
04.3
04.2
11.2
PI63-5
CCS13
FCS35
FC7-35
FC7-48
FC2-20
FC2-7
FC2-5
ENGINE CRANKING CONTROL
BODY PROCESSOR MODULE
FC1-33
FC7-28
CC5-1
LS3-33
FC3-1
FC2-41
FC3-5
FC3-6
FCS9
FCG15L
LINEAR GEAR POSITION SWITCHES
CC21-1
CC21-6
CCS33
CCG51R
P
N
ENGINE CONTROL MODULE
CHECK ENGINE
FUELING INHIBIT
PI104-20
PI105-35
PI63-9
PI1-2
FC7-36
NOTE: ALL VEHICLES REQUIRE THE "CHECK ENGINE' SIGNAL INPUT TO THE BODY PROCESSOR MODULE BEFORE THE BODY PROCESSOR MODULE ENABLES ENGINE CRANKING.
SECURITY AND LOCKING CONTROL MODULE
SECURE STATUS (ARMED / DISARMED)
SECURITY IMMOBILIZATION
CC3-16
CA21-10
RS3-11
CA21-20
NOTE SECURITY IMMOBILIZATION - ROW VEHICLES ONLY.
STARTER RELAY
LS47
PI1-4
PIS34
PI66-2
PI142-2
PI66-1
STARTER MOTOR
ST1
ST2
INSTRUMENT PACK (CHARGE INDICATOR)
REGULATOR
FC8-3
RS3-16
PI61-5
PI141-2
SUPPRESSION MODULE
AN3-1
AN3-2
AN1
AN2
ST4
GENERATOR

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (AJ16)

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

BODY PROCESSOR MODULE

V	Pin	Description	Active	Inactive
O	FC1-33	STARTER RELAY INHIBIT	GROUND	B+
O	FC25	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	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.

Fig. 03.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
BATTERY	ST8, ST10	TRUNK
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 148-WAY PCB SIGNAL / BLACK FC3 36-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' POSTTRIM
GENERATOR	PI141 13-WAY NIPPON DENSO / BLACK	ENGINE, LH SIDE (AJ16), RH SIDE (V12)
IGNITION SWITCH	FC54 (FLY LEAD) / 3-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 / REO	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 CONSOLE1 CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE1 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	PASSENGERS UNOERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POSTPANEL
PI1	13-WAY ECONOSEAL III LC / WHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC / BLACK	RH AIR CLEANER
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A POST / 'A' POSTTRIM
Plea	2-WAY ECONOSEAL III HC / SLACK	LH AIR CLEANER
PI142	2-WAY ECONOSEAL III HC / BLACK	LH 'A' POST / 'A' POSTTRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / 'A' POSTPANEL

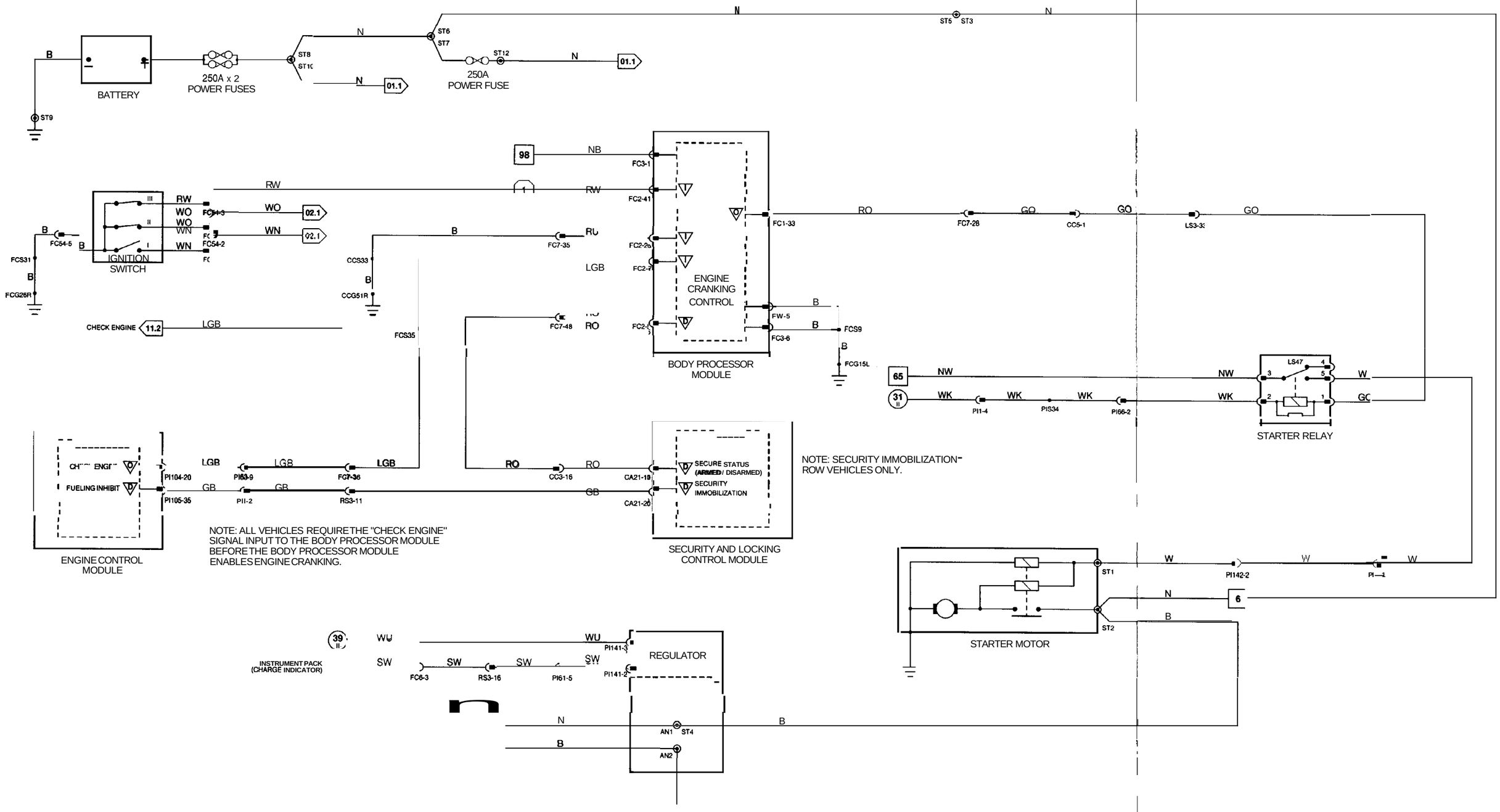
GROUNDS

Ground	Location / Type
FCG15L	LH CONSOLE GROUND S N D
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.

DATE OF ISSUE: JANUARY 1995



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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
VINRANGE All
DATE OF ISSUE: JANUARY 1995

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (V12)

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

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-33	STARTER RELAY INHIBIT	GROUND	B+
D	FCZ-5	SECURE STATUS INPUT FROM SECURITY AND LOCKING CONTRDL MODULE	ENCODED COMMUNICATIONS	
I	FC2-7	CHECK ENGINE MIL	GROUND	B+
I	FC2-20	PARK INEUTRAL 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	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.

Fig. 03.4

COMPONENTS

Component	Connector ▮Type ▮Color	Location / Access
BATTERY	ST8, ST10	TRUNK
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL1YELLOW FC2 / 48-WAY PCB SIGNAL1 BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGERS UNDERSCUTTLE
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 / SLATE PI45 / 16-WAY MULTILOCK 040 / SLATE PI46 / 22-WAY MULTILOCK 040 / SLATE PI47 134-WAY MULTILOCK 040 / SLATE	RH 'A' POST/ 'A' POSTTRIM
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 120-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 ▮12-WAY MULTILOCK 41 ▮SLATE CA19 / 22-WAY MULTILOCK 47 / SLATE CA201 16-WAY MULTILOCK 47 / SLATE CA21/ 26-WAY MULTILOCK 41 ▮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 111 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 MO ▮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	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST I 'A' POST PANEL
PI1	13-WAY ECONOSEAL 111 LC ▮WHITE	RH AIR CLEANER
PIE1	13-WAY ECONOSEAL 111 LC ▮BLACK	RH AIR CLEANER
PI63	20-WAY MULTILOCK 040 ▮BLACK	RH 'A' POST/ 'A' POSTTRIM
PI66	2-WAY ECONOSEM 111 HC ▮BLACK	LH AIR CLEANER
PI142	2-WAY ECONOSEAL 111 HC / BLACK	LH 'A' POST/ 'A' POSTTRIM
RS3	THROUGH-PANEL (48 MICRO / 6) ▮BROWN	RH 'A' POST/ 'A' POST PANEL

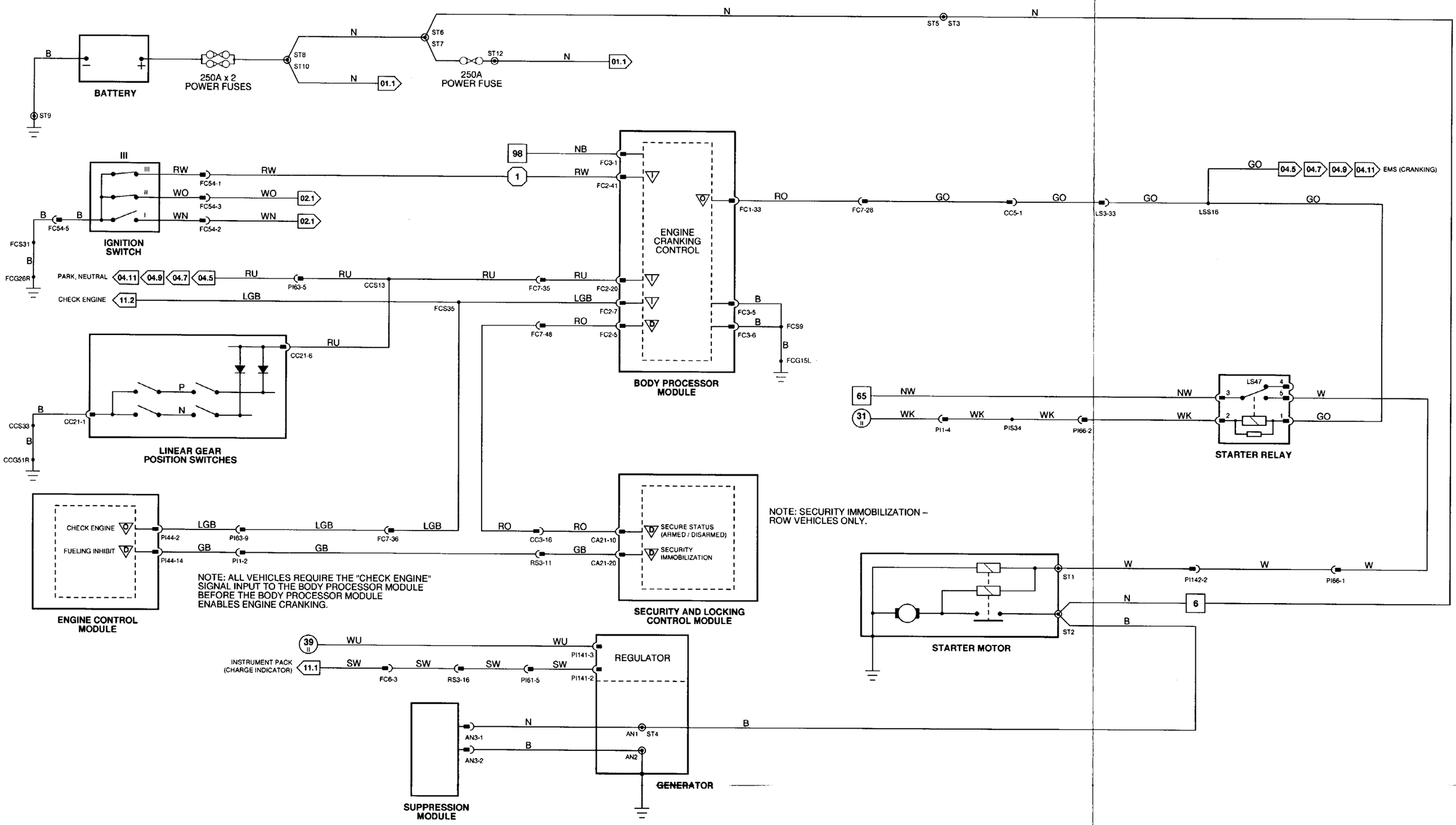
GROUNDS

Ground	Location ▮Type
CCG51R	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
STS	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.

DATE OF ISSUE JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: APRIL 1995

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 HI	
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, 2.6 MS @ IDLE	B+
O	PI104-16	IDLE SPEED CONTROL 4	12 V, 0 V	6 V (NOT MOVING)
O	PI104 17	FUEL USED	GROUND PULSE, 6 HI @ 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, 2.9 MS @ IDLE	B+
O	PI104-28	IDLE SPEEDCONTROL 3	12 V, 0 V	8 V INOT MOVING)
O	PI104-29	IDLE SPEED CONTROL 2	12 V, 0 V	8 V INOT MOVING)
O	PI104-30	UPSTREAM HO2S HEATERS	0.4-13 V. 10 HI @ IDLE	
O	PI104-32	THROTTLE POSITION	1.25 V @ IDLE	4.9 V @ FULL THROTTLE
O	PI104 33	ENGINE TORQUE	10.4 V (NO LOADI. 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
	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 HO2S FEEOBACK - 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
	PI105-12	THROTTLE POSITION SENSOR FEEDBACK	0.6V @ IDLE	4.9 V = FULL THROTTLE
I	PI105-14	ENGINE COOLANT TEMPERATURE SENSOR	0.41 V @ 90° C. INCREASING WITH TEMPERATURE INCREASE	
	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)	
	PI105-18	DOWNSTREAM HO2S FEEDBACK - CYLINDERS 4, 5, 6	0.1 - 4.7 V @ IDLE (SWING)	
	PI105-19	UPSTREAM H02S FEEDBACK - CYLINDERS 4.5.6	0.1 - 4.7 V @ IDLE (SWING)	
I	PI105-20	LOW FUEL LEVEL	GROUND	B+
	PI105-21	KNOCK SENSOR - A BANK	0 Hz = NO KNOCK, 2 - 20 Hz = KNOCK	
O	PI105-24	CAMSHAFT POSITION SENSOR SUPPLY	B+	B+
	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 116 KPHI = 20 Hz, 20 MPH 132 KPHI = 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
	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	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.

Fig. 04.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
CAMSHAFT POSITION SENSOR (AJ16)	PI112 / 3-WAY JUNIORTIMER IBLACK	ENGINE RH SIDE
CRANKSHAFT POSITION SENSOR	PI111 (FLY LEADI 12-WAY ECONOSEAL III LCIBLACK	ENGINE TIMING COVER
DIODE (PI81) - AIRP SOLENOID SUPPRESSION	PI81 I DIODE I BLACK	EMS HARNESSISECDNDARY AIR INJECTION PUMP
EGR TEMPERATURE SENSOR	PI110 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	INTAKE MANIFOLD
EGR VALVE	PI117 / 5-WAY PACKARDI BLACK	INTAKE MANIFOLD
ENGINE CONTROLMODULE (AJ16)	PI104 / 36-WAY ECONOSEAL III IBLACK 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 FRONTRELAYS
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 TIMERISLATE	FUEL RAIL. INTAKE MANIFOLD
FUEL INJECTOR (AJ16 5)	PI124 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 6)	PI125 12-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL PUMP (1)	BT6 [FLY LEADI / 4-WAY SUMITOMO 901 WHITE	FUEL TANK / FUEL TANK TRIM
HEATED OXYGEN SENSOR (AJ16 - 1.2.3 DOWNSTREAM1	PI126 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 - 4.5.6 DOWNSTREAM1	PI127 (FLY LEADI / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST. DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 - 1.2.3 UPSTREAM)	PI128 (FLY LEADI 14-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 IBLACK	EXHAUST. UPSTREAM OF PRIMARY CATALYST
IDLE AIR CONTROL VALVE (AJ16)	PI113 / 4-WAY PACKARD I 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 IBLACK	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 13-WAY JUNIOR TIMER / BLACK	ENGINE AIR INTAKE
SECONDARY AIR INJECTION PUMP	PI115 / 3-WAY PACKARDI BLACK	ENGINE, LH FRONT
THROTTLE POSITION SENSOR (AJ16)	PI118 / 3-WAY JUNIORTIMER IBLACK	THROTTLE BODY

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
ECM CONTROLLED RELAY (AJ16)	BLACK	PI119 I BLACK	RH ENGINE BAY RELAYS
FUEL PUMP RELAY (1)	BLACK I VIOLET	BT26 / GREEN	TRUNK ELECTRICALCARRIER
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	PARCEL SHELF / FUEL TANK TRIM
PI1	13-WAY ECONOSEAL III LC / WHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEALIII LC / BLACK	RH AIR CLEANER
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST / 'A POST TRIM
RS3	THROUGH-PANEL 148 MICRO / 6) / BROWN	RH 'A POST / 'A POST PANEL

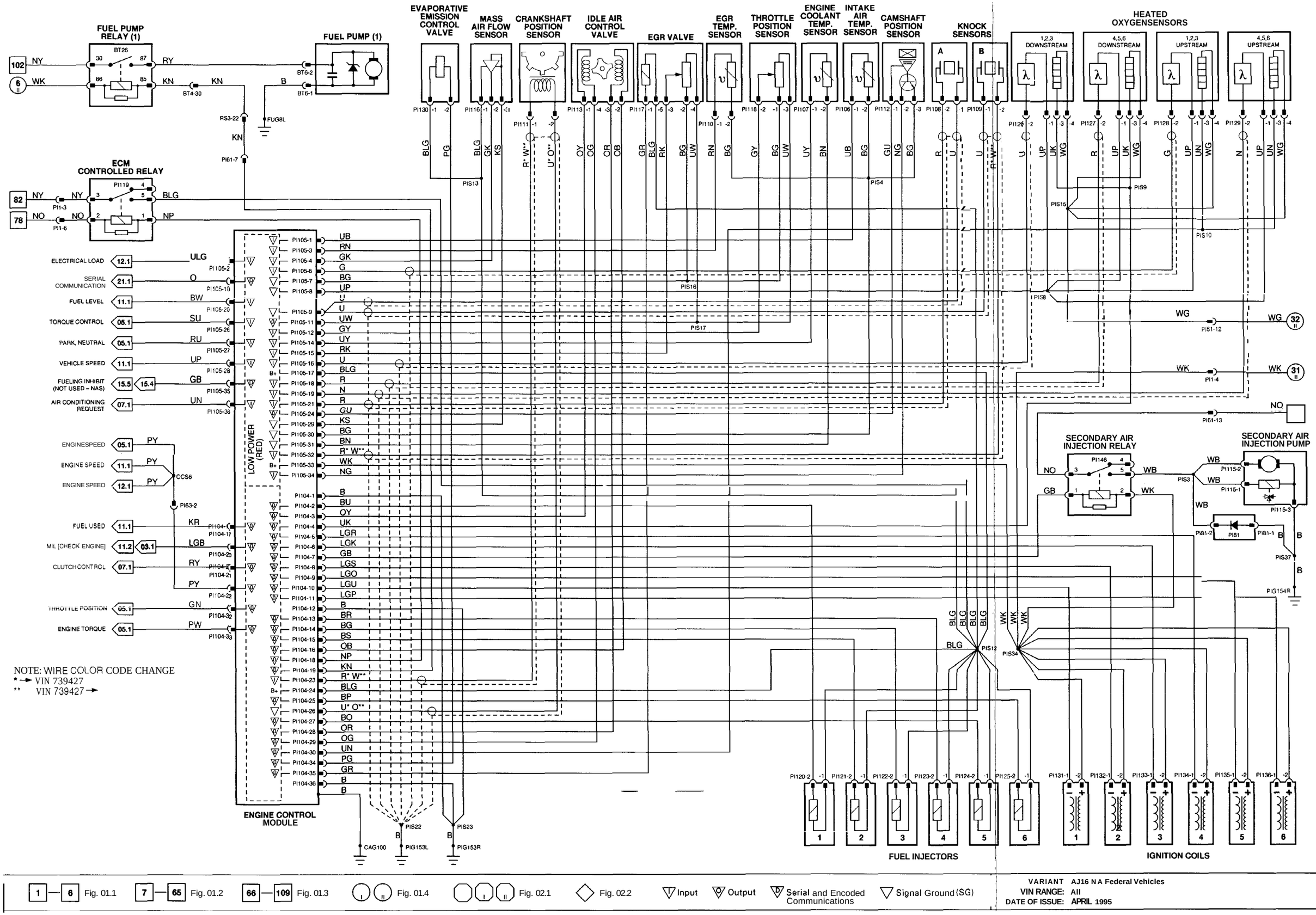
GROUNDS

Ground	Location / Type
CAG100	RH 'A' POST GROUND STUD
FUGBL	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.

DATE OF ISSUE: JANUARY 1995



NOTE: WIRE COLOR CODE CHANGE
* → VIN 739427
** VIN 739427 →

1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: APRIL 1995

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (AJ16)

▽	Pin	Description	Active	Inactive
O	PIIM.2	INJECTOR 1	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-3	IDLE SPEED CONTROL 1	12 V, 0 V	6 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 1	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	6 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, 2.6 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	6 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 TOROUE	10 :LV (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	12 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
O	PI105-10	SERIAL COMMUNICATION 181-DIRECTIONAL)		
O	PI105-11	SENSOR COMMON REFERENCE VOLTAGE	5 V	5 v
I	PI105-12	THROTTLE POSITION SENSOR FEEDBACU	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 132 KPHI = 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**	**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.

Fig. 04.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
CAMSHAFT POSITION SENSOR (AJ16)	PI112 13-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 IN161	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 136-WAY ECONOSEAL III RED	RH 'A' POST / 'A' POST TRIM
ENGINE COOLANTTEMPERATURE SENSOR (AJ16)	PI107 12-WAY JUNIOR TIMER / BLACK	ENGINE THERMOSTAT HOUSING
EVAPORATIVE EMISSION CONTROL VALVE (AJ16)	PI130 / 2-WAY JUNIOR TIMER IBLACK	BELOW LH FRONTRELAYS
FUEL INJECTOR (AJ16 1)	PI120 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 21	PI121 12-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 3)	PI122 12-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 51	PI124 / 2-WAY JUNIORTIMERISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR IN16 61	PI125 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL. INTAKE MANIFOLD
FUEL PUMP (1)	BT6 (FLY LEAD) 14-WAY SUMITOMO 90 / WHITE	FUEL TANK IFUEL TANK TRIM
HEATED OXYGEN SENSOR (AJ16 – 1,2,3)	PI126 (FLY LEAD) / 4-WAY ECONOSEAL III LC IBLACK	EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 – 4,5,6)	PI127 (FLY LEAD) 14-WAY ECONOSEAL III LC / BLACK	EXHAUST. DOWNSTREAM OF PRIMARY CATALYST
IDLE AIR CONTROL VALVE (AJ16)	PI113 14-WAY PACKARO IBLACK	THROTTLE BODY
IGNITION COIL (AJ16 1)	PI131 12-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 21	PI132 12-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 31	PI133 / 2-WAY SUMITOMO 90 IBROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 4)	PI134 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 51	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 12-WAY JUNIOR TIMER I BLACK	ENGINE BLOCK. LH FRONT
KNOCK SENSOR (B)	PI109 12-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 JUNIORTIMERIBLACK	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 I BLACK	RH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF IFUEL TANK TRIM
PI1	13-WAY ECONOSEAL III LC IWHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC IBLACK	RH AIR CLEANER
PI63	20 WAY MULTILOCK 040 IBLACK	RH 'A POST / 'A POST TRIM
RS3	THROUGH-PANEL 148 MICRO / 6) / BROWN	RH'APOSTI'APOSTPANEL

GROUNDS

Ground	Location / Type
CAG100	RH 'A' POST GROUNDSTUD
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.

DATE OF ISSUE: **JANUARY 1995**

FUEL PUMP RELAY (1)

FUEL PUMP (1)

ECM CONTROLLED RELAY

EVAPORATIVE EMISSION CONTROL VALVE

MASS AIR FLOW SENSOR

CRANKSHAFT POSITION SENSOR

IDLE AIR CONTROL VALVE

THROTTLE POSITION SENSOR

ENGINE COOLANT TEMP. SENSOR

INTAKE AIR TEMP. SENSOR

CAMSHAFT POSITION SENSOR

KNOCK SENSORS

HEATED OXYGEN SENSORS

CATALYST THERMOCOUPLES

CATALYST SWITCHING MODULE

SECONDARY AIR INJECTION RELAY

SECONDARY AIR INJECTION PUMP

ENGINE CONTROL MODULE

FUEL INJECTORS

IGNITION COILS

NOTE: WIRE COLOR CODE CHANGE
* → VIN 739427
** VIN 739427 →

1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: APRIL 1995

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	6 V (NOT MOVING)
O	PI104-4	WWNSTREAM HOZSHEATERS	0.4– 13V, 10Hz @ IDLE	
O	PI104-5	IGNITION COIL 4	GROUND PULSE, 1000 RPM = 15 HI	
O	PI104-6	IGNITION COIL 3	GROUND PULSE, 1000 RPM = 15Hz	
O	PI104-7	SECONDARY AIR INJECTION RELAY	GROUND	B+
O	PI104-8	IGNITION COIL 2	GROUND PULSE, 1000 RPM = 15Hz	
O	PI104-9	IGNITION COIL 5	GROUND PULSE, 1000 RPM = 15Hz	
O	PI104-10	IGNITION COIL 1	GROUND PULSE, 1000 RPM = 15Hz	
O	PI104-11	IGNITION COIL 6	GROUND PULSE, 1000 RPM = 15Hz	
O	PI104-13	INJECTOR4	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-14	INJECTOR3	GROUND PULSE, 2.6 MS @ IDLE	B+
O	PI104-15	INJECTOR2	GROUND PULSE, 2.6 MS @ IDLE	B+
O	PI104-16	IDLE SPEED CONTROL4	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 – 90Hz	
I	PI104-23	CRANKSHAFT POSITION SENSOR	GROUND @ 1000 RPM = 900 Hz 2000 RPM = 1600 Hz	
O	PI104-25	INJECTOR6	GROUND PULSE, 2.8 MS @ IDLE	B+
SG	PI104-26	CRANKSHAFT POSITION SENSOR GROUND	GROUND	GROUND
O	PI104-27	INJECTOR5	GROUND PULSE, 2.8 MS @ IDLE	B+
O	PI104-28	IDLE SPEED CONTROL3	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 LOADI. 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	
	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	
	PI105-6	UPSTREAM HO2S FEEDBACK - CYLINDERS 1.2.3	0.1 – 4.1 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 181-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	DOWNSTREAM HO2S FEEDBACK - CYLINDERS 1.2.3	0.1 – 4.7 V @ IDLE ISWINGI	
I	PI105-16	DOWNSTREAM HO2S FEEDBACK - CYLINDERS 4.5.6	0.1 - 4.1V @ IDLE (SWING)	
I	PI105-19	UPSTREAM HO2S FEEDBACK– CYLINDERS 4, 5, 6	0.1 – 4.1 V @ IDLE ISWINGI	
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 REOUEST	GROUND PULSE @ SHIFT	9.4 V @ IDLE
I	PI105-27	PARK / NEUTRAL	GROUND	B+
I	PI105-28	VEHICLE SPEED	GROUND PULSE @ 10 MPH 116 KPHI = 20 Hz, 20 MPH 132 KPHI 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 UNOCK, 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**	**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.

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 LEADI 12-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 136-WAY ECONOSEAL III RED	RH 'A' POST / 'A' POST TRIM
ENGINE COOLANT TEMPERATURE SENSOR (AJ16)	PI107 12-WAY JUNIOR TIMER / BLACU	ENGINE THERMOSTAT HOUSING
EVAPORATIVE EMISSION CONTROL VALVE (AJ16)	PI130 / 2-WAY JUNIOR TIMER / BLACK	BELOW LH FRONTRELAYS
FUEL INJECTORS (AJ161)	PI120 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTORS (AJ162)	PI121 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTORS (AJ163)	PI122 2-WAY JUNIOR TIMER SLATE	FUEL RAIL. INTAKE MANIFOLD
FUEL INJECTOR (AJ164)	PI123 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 51	PI124 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (AJ16 61	PI125 / 2-WAY JUNIOR TIMER SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL PUMP III	BT6 IFLY LEAD) / 4-WAY SUMITOMO 90 WHITE	FUEL TANK FUEL TANK TRIM
FUEL PUMP (2)	BT6 IFLY LEADI / 4-WAY SUMITOMO 90 WHITE	FUEL TANK / FUEL TANK TRIM
FUEL PUMP CONTROL MODULE	FU3 / RELAY CONNECTORIBLACK	TRUNK, RH FRONT / TRUNK TRIM
HEATEO OXYGEN SENSOR (AJ16 – 123 DOWNSTREAMI	PI126 IFLY LEADI / 4-WAY ECONOSEAL III LC BLACK	EXHAUST. DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 – 4,5,6 DOWNSTREAM)	PI127 IFLY LEADI 14-WAY ECONOSEAL III LCIBLACK	EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (AJ16 – 123 UPSTREAM)	PI128 (FLY LEAD) / 4-WAY ECONOSEAL III LC / BLACK	EXHAUST, UPSTREAM OF PRIMARY CATALYST
HEATEDOWGEN 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 14-WAY PACKARD BLACK	THROTTLE BODY
IGNITION COIL (AJ16 1)	PI131 12-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 21	PI132 / 2-WAY SUMITOMO 90 BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 31	PI133 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 4)	PI134 / 2-WAY SUMITOMO 90 / BROWN	CAMSHAFT COVER
IGNITION COIL (AJ16 51	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
UNOCK 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 13-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	FUYYELLOW	BATTERY COVER
ECM CONTROLLED RELAY (AJ16)	BLACK	PI119 / BLACK	RH ENGINE BAY RELAYS
SECONDARY AIR INJECTION RELAY IN 161	BLACK WHITE	PI146 / BLACK	RH ENGINE BAY RELAYS

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) BLACK	PARCEL SHELF FUEL TANK TRIM
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE1 CENTER CONSOLE GLOVE BOX
FU1	6-WAY MULTILOCK 070 / WHITE	FUEL TANK TRIM / BATTERY COVER
PI1	13-WAY ECONOSEALIII LC / WHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEALIII LC BLACK	RH 'A' POST / 'A' POST TRIM
PI63	20-WAY MULTILOCK 040 BLACK	
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 ATIONS DETAILING THE LOCATION / IC CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL ID PINS. OF COMPONENTS,

DATE OF ISSUE: JANUARY 1995

FUEL PUMP RELAY (1)

FUEL PUMP (1)

EVAPORATIVE EMISSION CONTROL VALVE

MASS AIR FLOW SENSOR

CRANKSHAFT POSITION SENSOR

IDLE AIR CONTROL VALVE

THROTTLE POSITION SENSOR

ENGINE COOLANT TEMP. SENSOR

INTAKE AIR TEMP. SENSOR

CAMSHAFT POSITION SENSOR

KNOCK SENSORS

HEATED OXYGEN SENSORS

1,2,3 DOWNSTREAM

4,5,6 DOWNSTREAM

1,2,3 UPSTREAM

4,5,6 UPSTREAM

FUEL PUMP CONTROL MODULE

ECM CONTROLLED RELAY

NOTE: EXHAUST TEMPERATURE WARNING – JAPAN ONLY

CATALYST SWITCHING MODULE

SECONDARY AIR INJECTION RELAY

SECONDARY AIR INJECTION PUMP

ENGINE CONTROL MODULE

LOW POWER (RED)

HIGH POWER (BLACK)

FUEL PUMP RELAY 2

FUEL PUMP 2

FUEL INJECTORS

IGNITION COILS

NOTE: WIRE COLOR CODE CHANGE
* → VIN 739427
** VIN 739427 →

1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: APRIL 1995

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+
	PI45-1	MAP SENSOR FEEDBACK - B BANK	1.7 V @ IWE. INCREASING WITH MANIFOLD ABSOLUTE PRESSURE	
I	PI45-2	MAP SENSOR FEEDBACK - A BANK	1.7 V @ IWE, INCREASING WITH MANIFOLD ABSOLUTE PRESSURE	
I	PI&-3	IDLE SWITCH	GROUND	B+
	PI45-4	THROTTLE POSITION SENSOR FEEDBACK VOLTAGE	0.58 V @ IDLE, 4.75 V @ FULL THROTTLE	
I	PI&-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	
0	PI45-7	COMMON SENSOR REFERENCE VOLTAGE	5 v	5 v
I	PI45-8	DOWNSTREAM HO2S FEEDBACK - B BANK	0.1 - 0.8 V (SWING)	
	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
0	PI46-3	DOWNSTREAM HO2S HEATER GROUND - B BANK	GROUND	B+
0	PI46-4	DOWNSTREAM HO2S HEATER GROUND - A BANK	GROUND	B+
O	PI&-5	UPSTREAM HO2S HEATER GROUND - B BANK	GROUND	B+
O	PI46-6	UPSTREAM HO2S HEATER GROUND - A BANK	GROUND	B+
I	PI48-8	CAMSHAFT POSITION SENSOR	GROUND PULSE @ 1000 RPM = 8 Hz, 2000 RPM = 16 Hz	
SG	PI46-12	CAMSHAFT POSITION SENSOR	GROUND	GROUND
I	PI46-13	ENGINE 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	ENGINE POSITION SENSOR	GROUND	GROUND
SG	PI46-19	ENGINE SPEEDSENSOR	GROUND	
O	PI47-1	IDLE AIR CONTROL VALVE CLOSE - B BANK	4.6 V @ IDLE	
O	PI47-2	IDLE AIR CONTROL VALVE OPEN - B BANK	9.6 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 fiied. 'Active" means a load is applied or a switch is ON; 'Inactive" means a load is not applied or a switch is OFF.

Fig. 04.4

COMPONENTS

Component	Connector / Type I Color	Location / Access
CAMSHAFT POSITION SENSOR (V12)	PI3 (FLY LEAD) / 2-WAY ECONOSEAL 111 LC / BLACK	A BANK CAMSHAFT COVER
ENGINE CONTROL MODULE (V12)	PI44 I28-WAY MULTILOCK MO ISLATE PI45 I16-WAY MULTILOCK MO ISLATE PI46 / 22-WAY MULTILOCK MO ISLATE PI47 / 34-WAY MULTILOCK 040 ISLATE	RH ' A POST I'A POST TRIM
ENGINE COOLANTTEMPERATURE SENSOR (V12)	PI5 / 2-WAY ECONOSEAL J / SLATE	B BANK THERMOSTAT HOUSING
ENGINE POSITION SENSOR	PI2 (FLY LEADI I2-WAY ECONOSEAL 111 LC I BLACK	ENGINE TIMING COVER
ENGINE SPEED SENSOR	PI23 (FLY LEADI / 2-WAY ECONOSEAL III LC / BLACK	ENGINE VEE, REAR
FUEL PUMP III	BT6 (FLY LEADI / 4-WAY SUMITOMO 90 / WHITE	FUEL TANK I FUEL TANK TRIM
FUEL PUMP (2)	BT6 (FLY LEAD) / 4-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
HEATED OXYGEN SENSOR (V12 A DOWNSTREAM1	CA98 (FLY LEADI / 4-WAY YAZAKI IWHITE	A BANK EXHAUST, DOWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (V12 A UPSTREAM1	PI25 (FLY LEADI 14-WAY SUMITOMO 90 ISLATE	A BANK EXHAUST, UPSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (V12 B DOWNSTREAM1	CA99 (FLY LEAD) / 4-WAY YAZAKI / WHITE	B BANK EXHAUST. WWNSTREAM OF PRIMARY CATALYST
HEATED OXYGEN SENSOR (V12 B UPSTREAM1	PI27 (FLY LEADI / 4-WAY SUMITOMO 90 / SLATE	B BANK EXHAUST. UPSTREAM OF PRIMARY CATALYST
IDLE AIR CONTROL VALVE (V12 A BANKI	PI29 / 3-WAY SUMITOMO 90/ SLATE	A BANK THROTTLE BODY
IDLE AIR CONTROL VALVE (V12 B BANKI	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 901 BLACK	A BANK INTAKE MANIFOLD, REAR
MANIFOLD ABSOLUTE PRESSURE SENSOR (V12 B BANK)	PI50 13-WAY SUMITOMO 90 / BLACK	B BANK INTAKE MANIFOLD, REAR
THROTTLE POSITION SENSOR (V12)	PI7 I4-WAY ECONOSEAL J / BLACK	THROTTLE TURNTABLE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
FUEL PUMP RELAY (1)	BLACK / VIOLET	BT26 IGREEN	TRUNK ELECTRICAL CARRIER
FUEL PUMP RELAY 121	BLUE	FU2 IYELLOW	BATTERY COVER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH PANEL 148 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
FU1	6-WAY MULTILOCK 070 / WHITE	FUEL TANK TRIM IBATTERY COVER
PI1	13-WAY ECONOSEALIII LC / WHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEAL 111 LC IBLACK	RH AIR CLEANER
PI73	2-WAY MULTILOCK 070 / YELLOW	RH 'A POST / 'A' POST TRIM
PI74	8 WAY MULTILOCK 070 / YELLOW	RH ' A POST, ECM I'A POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH ' A POST / 'A' POST PANEL

GROUNDS

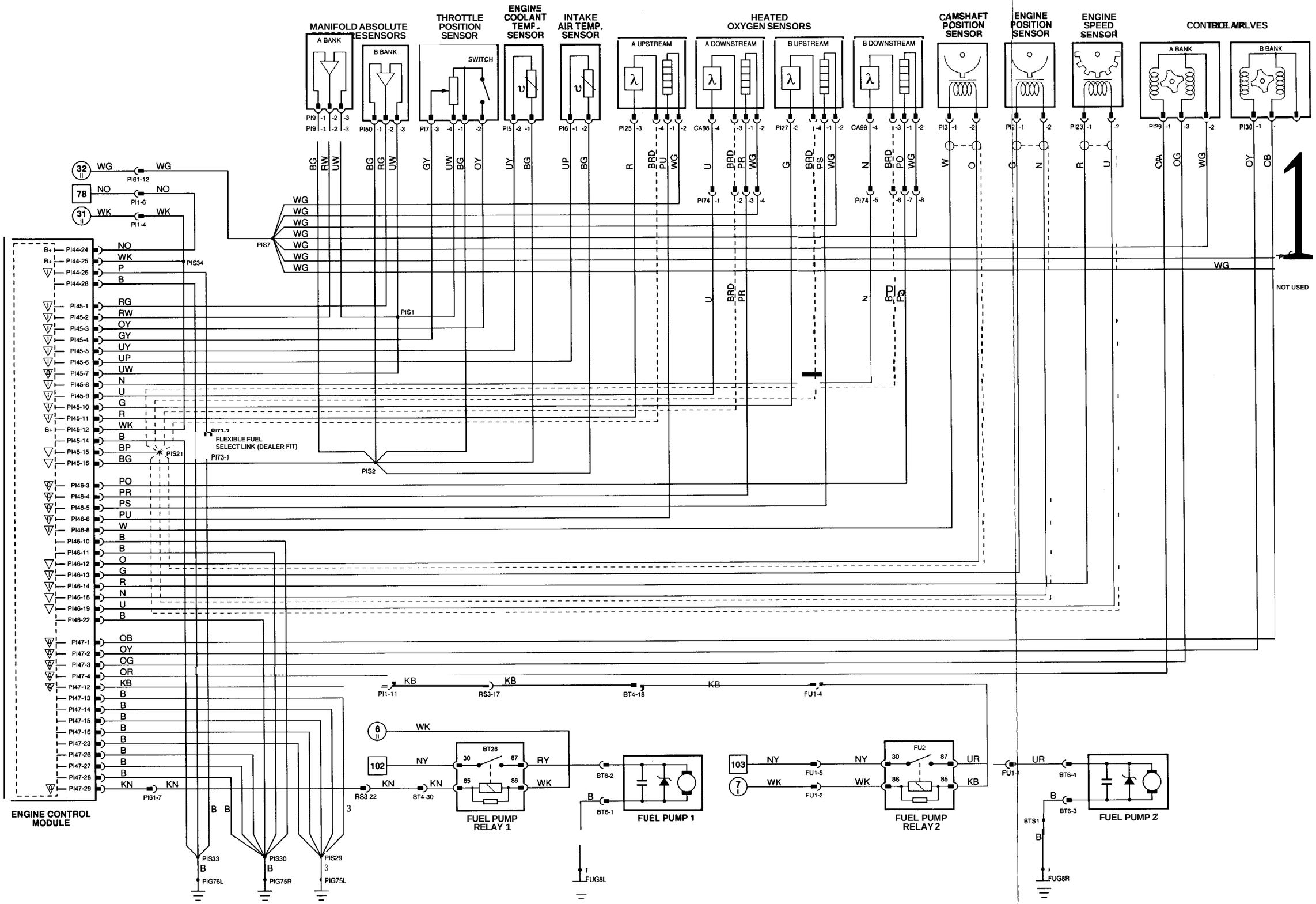
Ground	Location / Type
FUG8L	FRONTTRUNK GROUNDSND
FUG8R	FRONT TRUNK GROUND S N D
PIG75L	RH ' A POST GROUND STUD
PIG75R	RH 'A POST GROUND STUD
PIG76L	RH BULKHEAD GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

←

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

DATE OF ISSUE JANUARY 1995



1 — 6 Fig. 01.1	7 — 65 Fig. 01.2	66 — 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: → 739427 DATE OF ISSUE APRIL 1995	

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	PIM-3	ENGINE TORQUE SIGNAL	11.5 V @ IDLE, DECREASING WITH TORQUE INCREASE	
O	PIM-4	THROTTLE POSITION	1.4 V @ IDLE, 9 V @ FULL THROTTLE	
O	PI44-5	LOAD INHIBIT SIGNAL	GROUND	B+
I	PI44-6	TOROUE 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	PIM-13	AIR CONDITIONING REQUEST	B+	GROUND
D	PI44-14	FUELING INHIBIT SIGNAL	ENCODED COMMUNICATIONS	
I	PI44-18	PARK / NEUTRAL	GROUND	B+
I	PIM-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+
	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 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 5 6 - A BANK	GROUND PULSE, 1.5 MS @ IDLE	
O	PI47-9	FUEL INJECTORS 2 5 6 - B BANK	GROUND PULSE, 3.5 MS @ IDLE	
O	PI47-10	FUEL INJECTORS 1 5 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 - 1 0	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	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.

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 128-WAY MULTILOCK MO / SLATE PI45 / 16-WAY MULTILOCK MO / SLATE PI46 / 22 WAY MULTILOCK 040 ISLATE PI47 134-WAY MULTILOCK MO / SLATE	RH 'A' POST / 'A' POST TRIM
EVAPORATIVE EMISSION CONTROL VALVE (V12 A BANKI	PI18 I 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 11	PI32 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 21	PI33 / 2-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 31	PI34 / 2-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 41	PI35 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 5)	PI36 12-WAY JUNIOR TIMER ISLATE	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 11	PI38 12-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 21	PI39 12-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 31	PI40 / 2-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 41	PI41 / 2 WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 51	PI42 / 2-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 6)	PI43 / 2-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
IGNITION COIL (V12 A BANK)	PI12 / 4-WAY SUB-MINIATURE / BLACK	ENGINE VEE
IGNITION COIL (V12 B BANK)	PI13 14-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 18-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	PI2212 WAY DENSO / BLUE	A BANK INTAKE MANIFOLD 1 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	RH AIR CLEANER
PI59	13-WAY ECONOSEAL III LC BLACK	LH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC / BLACK	RH AIR CLEANER
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'POSTGROUNDSTUD
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.

DATE OF ISSUE: JANUARY 1995

EVAPORATIVE EMISSION CONTROL VALVES

SECONDARY AIR INJECTION SWITCHING VALVE

SECONDARY AIR INJECTION CLUTCH

ENGINE CONTROL MODULE

A BANK FUEL INJECTORS

B BANK FUEL INJECTORS

POWER STEERING PRESSURE SWITCH

FUEL INJECTOR RELAY (MAIN RELAY)

IGNITION COIL RELAY

A BANK IGNITION MODULE

B BANK IGNITION MODULE

A BANK IGNITION COILS

B BANK IGNITION COILS

FLEXIBLE FUEL SELECT LINK (DEALER FIT)

ENGINE SPEED 05.4 PY

ENGINE SPEED 11.1 PY

FUEL USED 11.1 KR

MIL (CHECK ENGINE) 11.2 03.4 LGB

ENGINE TORQUE 05.4 PW

THROTTLE POSITION 05.4 GN

LOAD INHIBIT 12.2 UG

TORQUE CONTROL 05.4 SU

VEHICLE SPEED 05.4 SB

ENGINE SPEED 12.2 PY

ELECTRICAL LOAD 12.2 ULG

AIR CONDITIONING REQUEST 07.2 UN

FUELING INHIBIT (NOT USED – NAS) 15.5 15.4 GB

PARK, NEUTRAL 05.4 RU

FUEL LEVEL 11.1 BW

SERIAL COMMUNICATION 21.1 K

SERIAL COMMUNICATION 21.1 O

CRANK SIGNAL 03.4 GO

CLUTCH CONTROL 07.2 RY

1 — 6	Fig. 01.1	Input	Serial and Encoded Communications
7 — 65	Fig. 01.2	Output	Signal Ground (SG)
66 — 109	Fig. 01.3		
	Fig. 01.4		
	Fig. 02.1		
	Fig. 02.2		

VARIANT V12 Federal Vehicles
VIN RANGE → 739427
DATE OF ISSUE APRIL 1995

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	1.1V @ IDLE. INCREASINGWITH MANIFOLD ABSOLUTE PRESSURE	
I	PIG-2	MAP SENSOR FEEDBACK - A BANK	1.1V @ IDLE. INCREASINGWITH MANIFOLD ABSOLUTE PRESSURE	
I	PI&-3	IDLE SWITCH	GROUND	B+
	PI45-4	THROTTLE POSITION SENSOR FEEDBACK VOLTAGE	0.58 V @ IDLE. 4.75 V @ FULL THROTTLE	
I	PI45-5	COOLANTTEMPERATURE SENSOR	0.41 V @ 90° C, INCREASING WITH TEMPERATURE	
	PI45-6	INTAKE AIR TEMPERATURE SENSOR	0.59 V @ 10° C, INCREASINGWITH TEMPERATURE	
O	PI45-7	COMMON SENSOR REFERENCE VOLTAGE	5 V	5 v
I	PI45-10	UPSTREAMHOZS FEEDBACK - B BANK	0.1 - 0.8 V (SWING)	
I	PI45-11	UPSTREAMHO2S 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
Ø	PI46-5	UPSTREAMHOZS HEATER GROUND - B BANK	GROUND	B+
Ø	PI46-6	UPSTREAMHOZS HEATER GROUND - A BANK	GROUND	B+
I	PI46-8	CAMSHAFT POSITION SENSOR	GROUND PULSE @ 1000 RPM = 8 Hz, 2000 RPM = 16Hz	
SG	PI46-12	CAMSHAFT POSITION SENSOR	GROUND	GROUND
I	PI46-13	ENGINE POSITION SENSOR	GROUND PULSE @ 1000 RPM = 15Hz, 2000 RPM = 30 Hz	
I	PI46-14	ENGINE SPEED SENSOR	GROUND PULSE @ 1000 RPM = 175 Hz, 2000 RPM = 350Hz	
SG	PI46-18	ENGINE POSITION SENSOR	GROUND	GROUND
SG	PI46-19	ENGINE SPEED SENSOR	GROUND	
Ø	PI47-1	IDLE AIR CONTROL VALVE CLOSE - B BANK	4.6 V @ IDLE	
Ø	PI47-2	IDLE AIR CONTROL VALVE OPEN - B BANK	9.8 V @ IDLE	
Ø	PI47-3	IDLE AIR CONTROL VALVE CLOSE - A BANK	4.6 V @ IDLE	
O	PI47-4	IDLE AIR CONTROL VALVE OPEN - A BANK	9.8 V @ IDLE	
Ø	PI47-12	FUEL PUMP RELAY 2	GROUND	B+
Ø	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.

Fig. 04.6

COMPONENTS

Component	Connector / Type / Color	Location / Access
CAMSHAFT POSITION SENSOR (V12)	PI3 (FLY LEAD) / 2-WAY ECONOSEALIII LC / BLACK	A BANK CAM SHAFT 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
ENGINE CONTROL MODULE (V12)	PI44 I26-WAY MULTILOCK MO I SLATE PI45 / 16-WAY MULTILOCK040 / SLATE PI46 / 22-WAY MULTILOCK040 / SLATE PI47 / 34-WAY MULTILOCK040 / SLATE	RH 'A' POST / 'A' POST TRIM
ENGINE COOLANT TEMPERATURE SENSOR (V12)	PI5 I2-WAY ECONOSEAL J I SLATE	B BANK THERMOSTAT HOUSING
ENGINE POSITION SENSOR	PI2 (FLY LEAD) 12-WAY ECONOSEAL III LC I BLACK	ENGINE TIMING COVER
ENGINE SPEED SENSOR	PI23 (FLY LEAD) / 2-WAY ECONOSEAL III LC / BLACK	ENGINE M E, REAR
FUEL PUMP (1)	BT6 (FLY LEADI 14-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
FUEL PUMP (2)	BT6 (FLY LEAD) 14-WAY SUMITOMO 90 / WHITE	FUEL TANK / FUEL TANK TRIM
HEATED OXYGEN SENSOR (V12 A BANK)	PI25 (FLY LEADI / 4-WAY SUMITOMO 90 I 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 I 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 I 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	FUY YELLOW	BATTERY COVER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANE1 (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
FU1	6-WAY MULTILOCK070 I WHITE	FUEL TANK TRIM I BATTERY COVER
PI1	13-WAY ECONOSEAL III LC I WHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC / BLACK	RH AIR CLEANER
PI73	2-WAY MULTILOCK070 / YELLOW	RH 'A' POST / 'A' POST TRIM
RS3	THROUGH-PANEL (48 MICRO / 6) I BROWN	RH 'A' POST / 'A' POST PANEL

GROUNDS

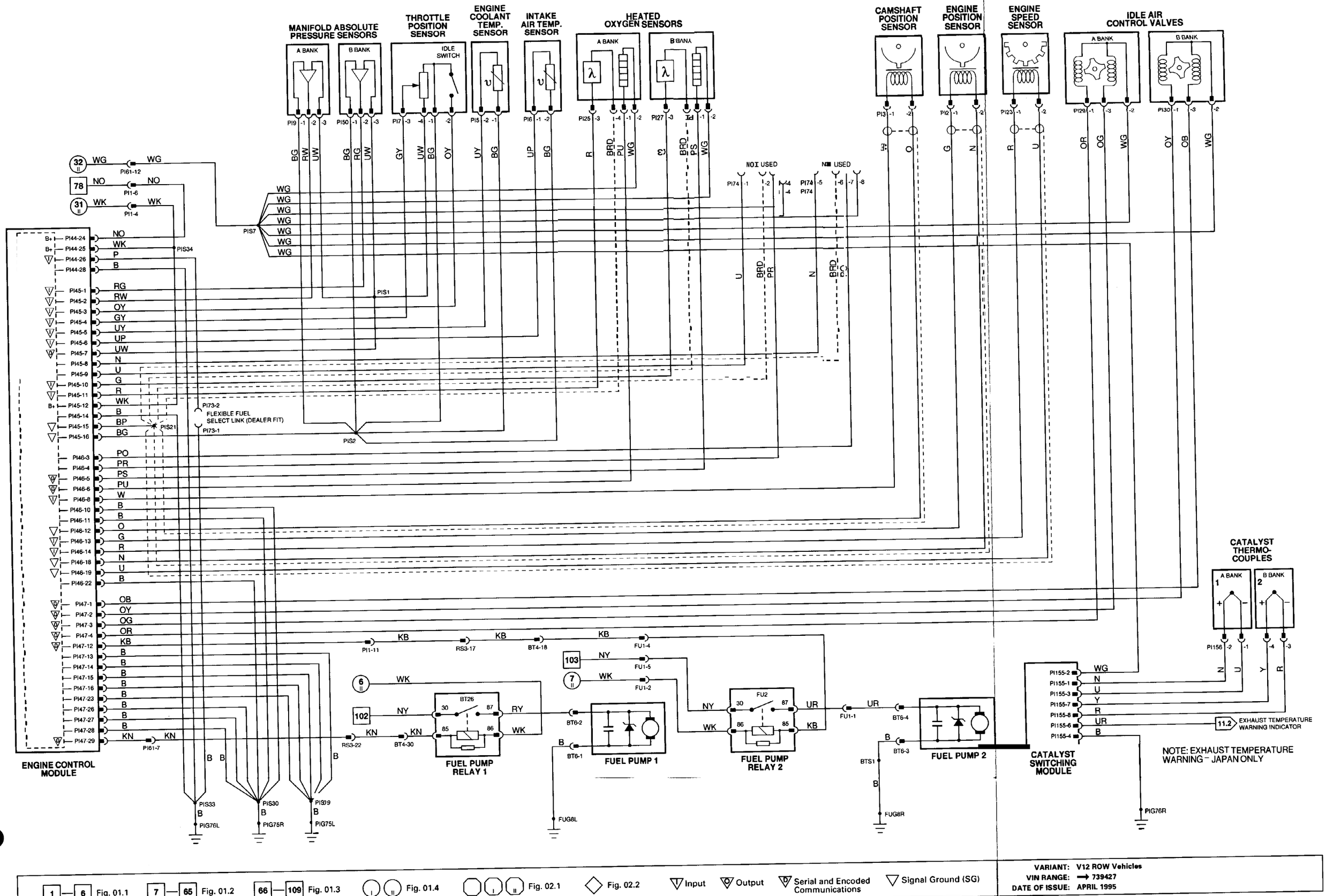
Ground	Location / Type
FUG8L	FRONT TRUNK GROUND STUD
FUG8R	FRONTTRUNK GROUNOSTUD
PIG75L	RH 'A' POSTGROUNDSTUD
PIG75R	RH 'A' POST GROUND STUD
PIG76L	RH BULKHEAD GROUND STUD
PIG76R	RH BULKHEAO GROUND STUD

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.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: → 739427
DATE OF ISSUE: APRIL 1995

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (V12)

▽	Pin	Description	Active	Inactive
O	PIU-1	FUEL USED	GROUND PULSE, 10 Hz @ IDLE	
O	PI44-2	CHECK ENGINE MIL	GROUND	B+
O	PI44-3	ENGINE TOROUE SIGNAL	11.5 V @ IDLE, DECREASING WITH TOROUE INCREASE	
O	PIU-4	THROTTLE POSITION	14 V @ IDLE, 9 V @ FULL THROTTLE	
O	PIU-5	LOAD INHIBIT SIGNAL	GROUND	B+
I	PIU-6	TORQUE REDUCTION	GROUND PULSE @ SHIFT	11.5 V @ IDLE
I	PIU-7	VEHICLE SPEED	GROUND	B+
O	PI44-10	ENGINE SPEED	5 V @ 1000 RPM = 45 Hz, 2000 RPM = 90 Hz	
	PI44-12	ELECTRICAL LOAD: HEATED WINDSHIELD, HEATED BACKLIGHT, OR BLOWERS ON HIGH SPEED	GROUND	B+
I	PIU-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	PIU-23	SERIAL COMMUNICATION OUTPUT		
I	PI44-26	FLEXIBLE FUEL SELECT LINK (DEALER FIT)	GROUND (FITTED)	B+
I	PUS-13	POWER STEERING PRESSURE SWITCH	GROUND	B+
I	PI46-7	CRANK SIGNAL	GROUND	B+
O	PIU-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
	PUB-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 BANU	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	PU7-19	IGNITION MODULE NEGATIVE - 1B	GROUND PULSE, 1000 RPM = 15 Hz	
O	PU7-20	IGNITION MODULE NEGATIVE - 3A	GROUND PULSE, 1000 RPM = 15 Hz	
O	PU7-21	IGNITION MODULE NEGATIVE - 2A	GROUND PULSE, 1000 RPM = 15 Hz	
O	PU7-22	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	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.

Fig. 04.7

COMPONENTS

Component	Connector / Type / Color	Location / Access
DIODE (PI81) - AIRP SOLENOID SUPPRESSION	PI81 MODE I BLACK	EMS HARNESS ISECONDARY AIR INJECTION PUMP
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 / SLATE PI45 / 16 WAY MULTILOCK 040 / SLATE PI46 22-WAY MULTILOCK040 ISLATE PI47 / 34-WAY MULTILOCK 040 / SLATE	RH 'A' POST / 'A' POST TRIM
EVAPORATIVE EMISSION CONTROL VALVE (V12 A BANKI	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 11	PI32 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 2)	PI33 / 2-WAY JUNIOR TIMERISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 31	PI34 / 2 WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 4)	PI35 / 2-WAY JUNIOR TIMER / SLATE	
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 ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 11	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 12-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 51	PI42 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 61	PI43 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
IGNITION COIL (V12 A BANK)	PI12 14-WAY SUB-MINIATURE BLACK	
IGNITION COIL (V12 B BANKI	PI13 / 4 WAY SUB-MINIATURE / BLACK	ENGINE VEE
IGNITION MODULE (V12 A BANKI	PI10 / 8-WAY SUMITOMO 90 / SLATE	ENGINE BAY, RH INNER FENDER
IGNITION MODULE (V12 B BANKI	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 12-WAY DENSO / BLUE	A BANK INTAKE MANIFOLD / REAR

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
FUEL INJECTOR RELAY (MAIN RELAY) (V12)	BLACK	PI20 BLACU	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 I WHITE	RH AIR CLEANER
PI59	13-WAY ECONOSEAL III LC BLACK	LH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC BLACK	RH AIR CLEANER
PI63	20-WAY MULTILOCK040 BLACK	RH 'A POST 'A POST TRIM
PI73	2-WAY MULTILOCK 0701 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 BULKHEAO 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 DETA THE ATION AND IDENTIFICATION OF ONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MC AND ONTRO MODULE PINS.

DATE OF ISSUE: JANUARY 1995

EVAPORATIVE EMISSION CONTROL VALVES
A BANK
B BANK
SECONDARY AIR INJECTION RELAY
SECONDARY AIR INJECTION SWITCHING VALVE
SECONDARY AIR INJECTION CLUTCH
78 NO
79 NO
82 NY
31 WK
33 WO
ENGINE SPEED 05.4
ENGINE SPEED 11.1
FUEL USED 11.1
MIL (CHECK ENGINE) 11.2 03.4
ENGINE TORQUE 05.4
THROTTLE POSITION W.4
LOAD INHIBIT 12.2
TORQUE CONTROL 05.2
VEHICLE SPEED 05.4
ENGINE SPEED 12.2
ELECTRICAL LOAD 12.2
AIR CONDITIONING REQUEST 07.2
FUELING INHIBIT 15.4
PARK, NEUTRAL 05.4
FUEL LEVEL 11.1
SERIAL COMMUNICATION 21.1
SERIAL COMMUNICATION 21.1 21.1
CRANK SIGNAL 03.4
CLUTCH CONTROL 07.2
CCS6
ENGINE CONTROL MODULE
FLEXIBLE FUEL SELECT LINK (DEALER FIT)
POWER STEERING PRESSURE SWITCH
A BANK FUEL INJECTORS
B BANK FUEL INJECTORS
FUEL INJECTOR RELAY (MAIN RELAY)
IGNITION COIL RELAY
A BANK IGNITION MODULE
B BANK IGNITION MODULE
A BANK IGNITION COILS
B BANK IGNITION COILS

1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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: → 739427
DATE OF ISSUE: APRIL 1995

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (V12)

▽	Pin	Description	Active	Inactive
I	PI44-26	FLEXIBLE FUEL SELECT LINK (DEALER FIT)	GROUND IF 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	PU5-10	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 = 8Hz, 2000 RPM = 18 Hz	
SG	PI46-12	CAMSHAFT POSITION SENSOR	GROUND	GROUND
I	PI46-13	ENGINE 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	ENGINE 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	PY7-29	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.

Fig. 04.8

COMPONENTS

Component	Connector / Type / Color	Location / Access
CAMSHAFT POSITION SENSOR (V12)	PI3 (FLY LEAD)/ 2-WAY ECONOSEAL III LC/ BLACK	A BANK CAMSHAFT COVER
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 / SLATE PI45 / 16-WAY MULTILOCK MD / SLATE PI46 / 22-WAY MULTILOCK 040 / SLATE PI47 / 31-WAY MULTILOCK MD / SLATE	RH 'A' POST/ 'A' POST TRIM
ENGINE COOLANT TEMPERATURE SENSOR (V12)	PI5 / 2-WAY ECONOSEAL J / SLATE	B BANK THERMOSTAT HOUSING
ENGINE POSITION SENSOR	PI2 (FLY LEAD) 12-WAY ECONOSEAL III LC BLACK	ENGINE TIMING COVER
ENGINE SPEED SENSOR	PI23 (FLY LEAD) 12-WAY ECONOSEAL III LC / BLACK	ENGINE M E, REAR
FUEL PUMP III	BT6 (FLY LEAD)/ 4-WAY SUMITOMO 90 WHITE	FUEL TANK FUEL TANK TRIM
FUEL PUMP (2)	BT6 (FLY LEAD) 14-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) 14-WAY SUMITOMO 901 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) 14-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 VALYE (V12 B BANK)	PI30 13-WAY SUMITOMO 901 SLATE	B BANK THROTTLE BODY
INTAKE AIR TEMPERATURE SENSOR (V12)	PI812-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 14-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	FUY YELLOW	BATTERY COVER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL 148 MICRO/ 6) BLACK	PARCEL SHELF FUEL TANK TRIM
FU1	8-WAY MULTILOCK 0701 WHITE	FUEL TANK TRIM BATTERY COVER
PI1	13-WAY ECONOSEAL III LC / WHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC BLACK	RH AIR CLEANER
PI73	2-WAY MULTILOCK 0701 YELLOW	RH 'A POST/ ' A POST TRIM
PI74	8-WAY MULTILOCK 070 / YELLOW	RH "A" POST, ECM / 'A' POST TRIM
RS3	THROUGH-PANEL 148 MICRO/ 6) BROWN	RH 'A' POST/ 'A' POST PANEL

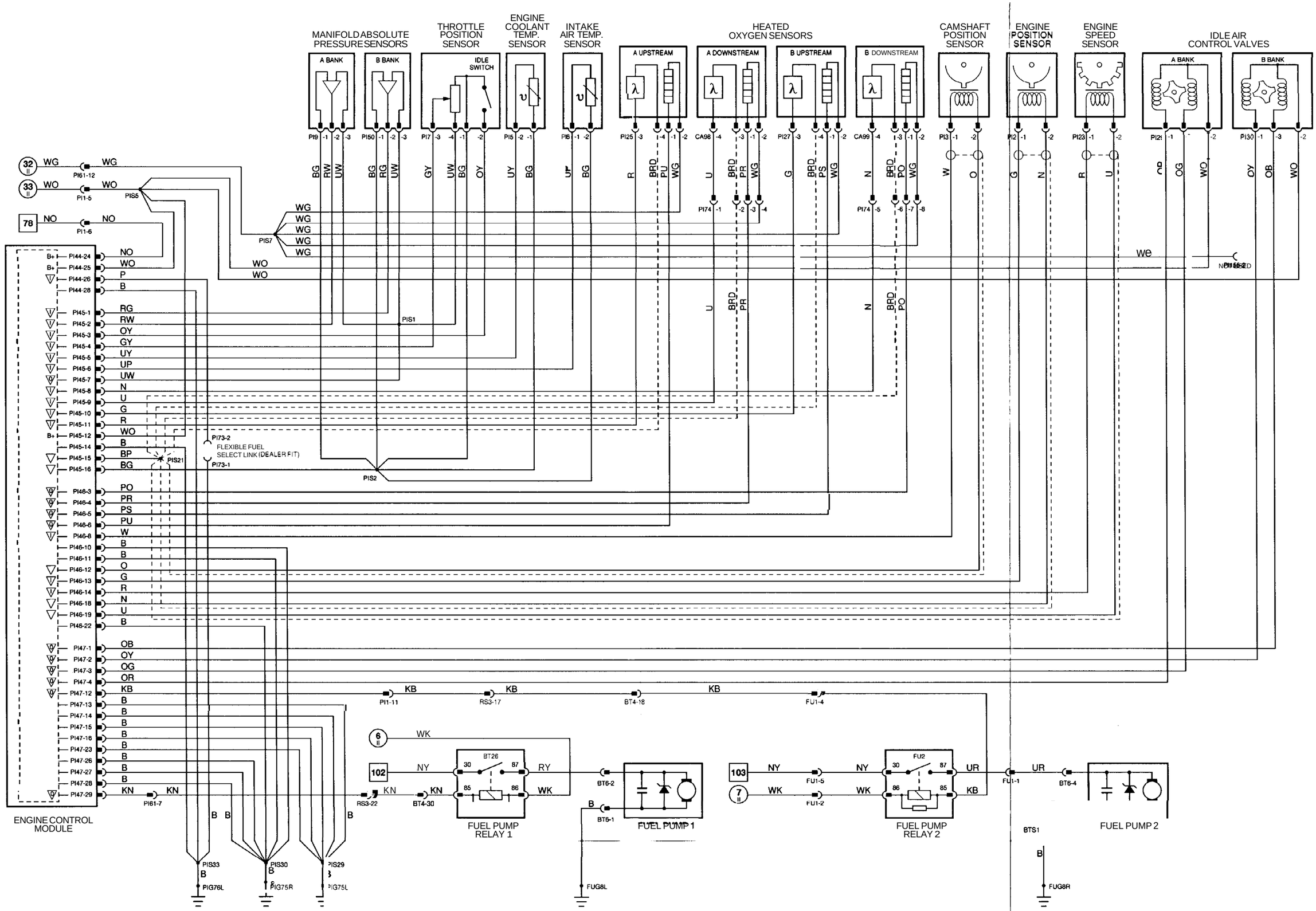
GROUNDS

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.

DATE OF ISSUE APRIL 1995



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—109 Fig. 01.3 | Fig. 01.4 | **Fig. 02.1** | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT VIZ **Federal Vehicles**
VIN RANGE: 719427 ⟶
DATE OF ISSUE: APRIL 1995

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE (V12)

V	Pin	Description	Active	Inactive
O	PIU-1	FUEL USED	GROUND PULSE, 10 Hz @ IDLE	
O	PI44-2	CHECK ENGINE MIL	GROUND	B+
O	PIM-3	ENGINE TORQUE SIGNAL	11.5 V @ IDLE, DECREASINGWITH TORQUE INCREASE	
O	PIU-4	THROTTLE POSITION	1.4 V @ IDLE, 9 V@ FULL THROTTLE	
O	PIU-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	P144.12	ELECTRICALLOAD HEATEDWINDSHIELD. 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	PIU-18	PARK / NEUTRAL	GROUND	B+
I	PI44-21	FUEL LEVEL	B+	GROUND
D	PIU-22	SERIAL COMMUNICATION INPUT		
D	PI44-23	SERIAL COMMUNICATION OUTPUT		
I	PIU-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	PI@-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 k 4 - A B A N K	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 - ABANK	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 - ABANK	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, loop 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, loop 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	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 l i e d are approximately those that can be expected *at* the control module connector pins with all circuit connections made and all components connected and f i . "Active" means a load is applied or a switch is ON; 'Inactive" means a load is not applied or a switch is OFF.

Fig. 04.9

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 128-WAY MULTILOCK M O ISLATE 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 BANKI	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 ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 51	PI36 12-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 A BANK 6)	PI37 / 2-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR W12 B BANK 1)	PI38 / 2-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 2)	PI39 12-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 3)	PI40 12-WAY JUNIOR TIMER ISLATE	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 51	PI42 / 2-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 6)	PI43 / 2-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
IGNITION COIL (V12 A BANKI	PI12 14-WAY SUB-MINIATURE / BLACK	ENGINE VEE
IGNITION COIL (V12 B BANKI	PI13 / I-WAY SUB-MINIATURE / BLACK	ENGINE VEE
IGNITION MODULE (V12 A BANKI	PI10 / 8-WAY SUMITOMO 90 / SLATE	ENGINE BAY, RH INNER FENDER
IGNITION MODULE (V12 B BANKI	PI11 18-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) 12-WAY ECONOSEAL III LC IBLACK	SECONDARY AIR INJECTION PUMP
SECONDARY AIR INJECTION SWITCHING VALVE	PI22 / 2-WAY DENSO / BLUE	A BANK INTAKE MANIFOLD1REAR

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	RH AIR CLEANER
PI59	13-WAY ECONOSEAL III LC IBLACK	LH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC IBLACK	RH AIR CLEANER
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 CATION AND IDENT OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE L MODULE AND CONTROL MODULE PINS.

EVAPORATIVE EMISSION CONTROL VALVES
A BANK
B BANK
SECONDARY AIR INJECTION RELAY
SECONDARY AIR INJECTION SWITCHING VALVE
SECONDARY AIR INJECTION CLUTCH
ENGINE SPEED 05.4
ENGINE SPEED 11.1
FUEL USED 11.1
MIL [CHECK ENGINE] 11.2 03.4
ENGINE TORQUE 05.4
THROTTLE POSITION 05.4
LOAD INHIBIT 12.2
TORQUE CONTROL 05.4
VEHICLE SPEED 05.4
ENGINE SPEED 12.2
ELECTRICAL LOAD 12.2
AIR CONDITIONING REQUEST 07.2
FUELING INHIBIT (NOT USED – NAS) 15.5 15.4
PARK, NEUTRAL 05.4
FUEL LEVEL 11.1
SERIAL COMMUNICATION
SERIAL COMMUNICATION 21.1
CRANK SIGNAL 03.4 03.4
CLUTCH CONTROL 07.2
ENGINE CONTROL MODULE
FLEXIBLE FUEL SELECT LINK (DEALER FIT)
A BANK FUEL INJECTORS
B BANK FUEL INJECTORS
POWER SEE SWITCH
FUEL INJECTOR RELAY (MAIN RELAY)
IGNITION COIL RELAY
ABANK IGNITION MODULE
B BANK IGNITION MODULE
A BANK IGNITION COILS
B BANK IGNITION COILS

1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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 739427 →
DATE OF ISSUE: APRIL 1995

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	PI&-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	ENGINE 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	ENGINE 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.

Fig. 04.10

COMPONENTS

Component	Connector / Type / Color	Location / Access
CAMSHAFT POSITION SENSOR (V12)	PI3 (FLY LEAD) 12-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) 14-WAY ECONOSEAL III LC / BLACK	REAR OF ENGINE
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 0401 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 POSITION SENSOR	PI2 (FLY LEAD) 12-WAY ECONOSEAL III LC / BLACK	ENGINE TIMING COVER
ENGINE SPEED SENSOR	PI23 (FLY LEAD) 12-WAY ECONOSEAL III LC BLACK	ENGINE ME, REAR
FUEL PUMP (1)	BT6 (FLY LEAD) / 4-WAY SUMITOMO 90 WHITE	FUEL TANK FUEL TANK TRIM
FUEL PUMP (2)	BT8 (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) 14-WAY SUMITOMO 901 SLATE	B BANK EXHAUST. DOWNSTREAM OF PRIMARY CATALYST
IDLE AIR CONTROL VALVE (V12 A BANK)	PI29 / 3-WAY SUMITOMO 901 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 BANK1	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 III	BLACK / VIOLET	BT26 / GREEN	TRUNK ELECTRICAL CARRIER
FUEL PUMP RELAY (2)	BLUE	FUY YELLOW	BATTERY COVER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location Access
BT4	THROUGH-PANEL 148 MICRO / 6) / BLACK	PARCEL SHELF FUEL TANK TRIM
FU1	6-WAY MULTILOCK 070 WHITE	FUEL TANK TRIM BATTERY COVER
PI1	13-WAY ECONOSEAL III LC I WHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC / BLACK	RH AIR CLEANER
PI73	2-WAY MULTILOCK 070 / YELLOW	RH 'A POST / 'A POST TRIM
RS3	THROUGH-PANEL 148 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 TH BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS

DATE OF ISSUE: APRIL 1995

MANIFOLD ABSOLUTE PRESSURE SENSORS
THROTTLE POSITION SENSOR
ENGINE COOLANT TEMP. SENSOR
INTAKE AIR TEMP. SENSOR
HEATED OXYGEN SENSORS
CAMSHAFT POSITION SENSOR
ENGINE [illegible] SENSOR
ENGINE SPEED SENSOR
IDLE AIR CONTROL VALVES
A BANK
B BANK
IDLE SWITCH
NOT USED
ENGINE CONTROL MODULE
FUEL PUMP RELAY 1
FUEL PUMP 1
FUEL PUMP RELAY 2
FUEL PUMP 2
FLEXIBLE FUEL SELECT LINK (DEALER FIT)
CATALYST THERMO-COUPLES
CATALYST SWITCHING MODULE
EXHAUST TEMPERATURE WARNING INDICATOR
NOTE: EXHAUST TEMPERATURE WARNING – JAPAN ONLY

1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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: 739427 →
DATE OF ISSUE: APRIL 1995

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	PIU-3	ENGINE TORQUE SIGNAL	11.5 V @ IDLE, DECREASING WITH TORQUE INCREASE	
O	PIU-4	THROTTLE POSITION	1.4 V @ IDLE, 9 V @ FULL THROTTLE	
O	PI44-5	LOAD INHIBIT SIGNAL	GROUND	B+
I	PIU-6	TORQUE REDUCTION	GROUND PULSE @ SHIFT	11.5 V @ IDLE
I	PIU-7	VEHICLE SPEED	GROUND	B+
O	PIU-10	ENGINE SPEED	5 V @ 1000 RPM = 45 Hz 2000 RPM = 90 Hz	
I	PIU-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	PIU-21	FUEL LEVEL	B+	GROUND
D	PIU-22	SERIAL COMMUNICATION INPUT		
D	PIU-23	SERIAL COMMUNICATION OUTPUT		
I	PIU-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	PY7-17	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	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.

Fig. 04.11

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 MO[SLATE PI45 / 16-WAY MULTILOCK WO 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 12-WAY JUNIOR TIMER / BLACK	BELOW LH FRONT RELAYS
EVAPORATIVE EMISSION CONTROL VALVE (V12 B BANK)	PI19 12-WAY JUNIOR TIMER / BLACK	BELOW LH FRONT RELAYS
FUEL INJECTOR (V12 A BANK 1)	PI32 12-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 12-WAY JUNIOR TIMER / SLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 1)	PI38 12-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 12-WAY JUNIOR TIMER ISLATE	FUEL RAIL, INTAKE MANIFOLD
FUEL INJECTOR (V12 B BANK 5)	PI42 12-WAY JUNIOR TIMER ISLATE	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	RH AIR CLEANER
PI59	13-WAY ECONOSEAL III LC / BLACK	LH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC / BLACK	RH AIR CLEANER
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 D THE CATION AND IFIC/ ION OF COMPONENTS EL CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTRC MODULE PINS

DATE OF ISSUE APRIL 1995

EVAPORATIVE EMISSION CONTROL VALVES
A BANK
B BANK
SECONDARY AIR INJECTION RELAY
SECONDARY AIR INJECTION SWITCHING VALVE
SECONDARY AIR INJECTION CLUTCH
ENGINE CONTROL MODULE
FLEXIBLE FUEL SELECT LINK (DEALER FIT)
A BANK FUEL INJECTORS
B BANK FUEL INJECTORS
POWER STEERING PRESSURE SWITCH
FUEL INJECTOR RELAY (MAIN RELAY)
IGNITION COIL RELAY
A BANK IGNITION MODULE
B BANK IGNITION MODULE
A BANK IGNITION COILS
B BANK IGNITION COILS
ENGINE SPEED
FUEL USED
MIL (CHECK ENGINE)
ENGINE TORQUE
THROTTLE POSITION
LOAD INHIBIT
TORQUE CONTROL
VEHICLE SPEED
ENGINE SPEED
ELECTRICAL LOAD
AIR CONDITIONING REQUEST
FUELING INHIBIT
PARK, NEUTRAL
FUEL LEVEL
COMMUNICATION
SERIAL COMMUNICATION
CRANK SIGNAL
CLUTCH CONTROL

1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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: 739427 ⟶
DATE OF ISSUE APRIL 1995

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	2V = P, R, N
I	CC13-13	GEAR POSITION 'X'	GROUND = P, R, 3.2	2 V – N . 0
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	OUTPUTSHAFTSPEEDSENSOR	151 V @ 10 MPH 116 KPHI = 280 HI 20 MPH (32 KPHL = 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, *0.3*	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 REOUEST	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	131 V	
I	CC7-46	FLUID TEMPERATURE SENSOR	1.16 V @ 90° C	
I	cc7.47	THROTTLE POSITION SENSOR FEEDBACK VOLTAGE	131 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	B+	Batteryvottage
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 INFORMATIONSHOULD 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.

Fig. 05.1

COMPONENTS

Component	Connector / Type / Color	Location ▮Access
DECODER MODULE	CC13 / 26-WAY MODU 4 / BLUE	CENTER CONSOLE
FLUID TEMPERATURE SENSOR	GB3 19-WAY HELLERMAN MUTSCH ▮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) 13-WAY MULTILOCK 070 ▮SLATE	UNDER ACCELERATOR
MODE SWITCH	CC11 / 6-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
OUTPUT SHAFT SENSOR	GB3 / 9-WAY HELLERMAN DEUTSCH ▮BLACU	TRANSMISSION
PRESSURE REGULATOR	GB3 / 9-WAY HELLERMAN MUTSCH / 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	PASSENGERS UNOERSCUTTLE
TRANSMISSION SOLENOID VALVES	06319-WAY HELLERMAN DEUTSCH / BLACK	TRANSMISSION / SUMP

HARNESS-TO-HARNESSCONNECTORS

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
P163	20-WAY MULTILOCK WO ▮BLACK	RH 'A' POST / 'A' POST TRIM

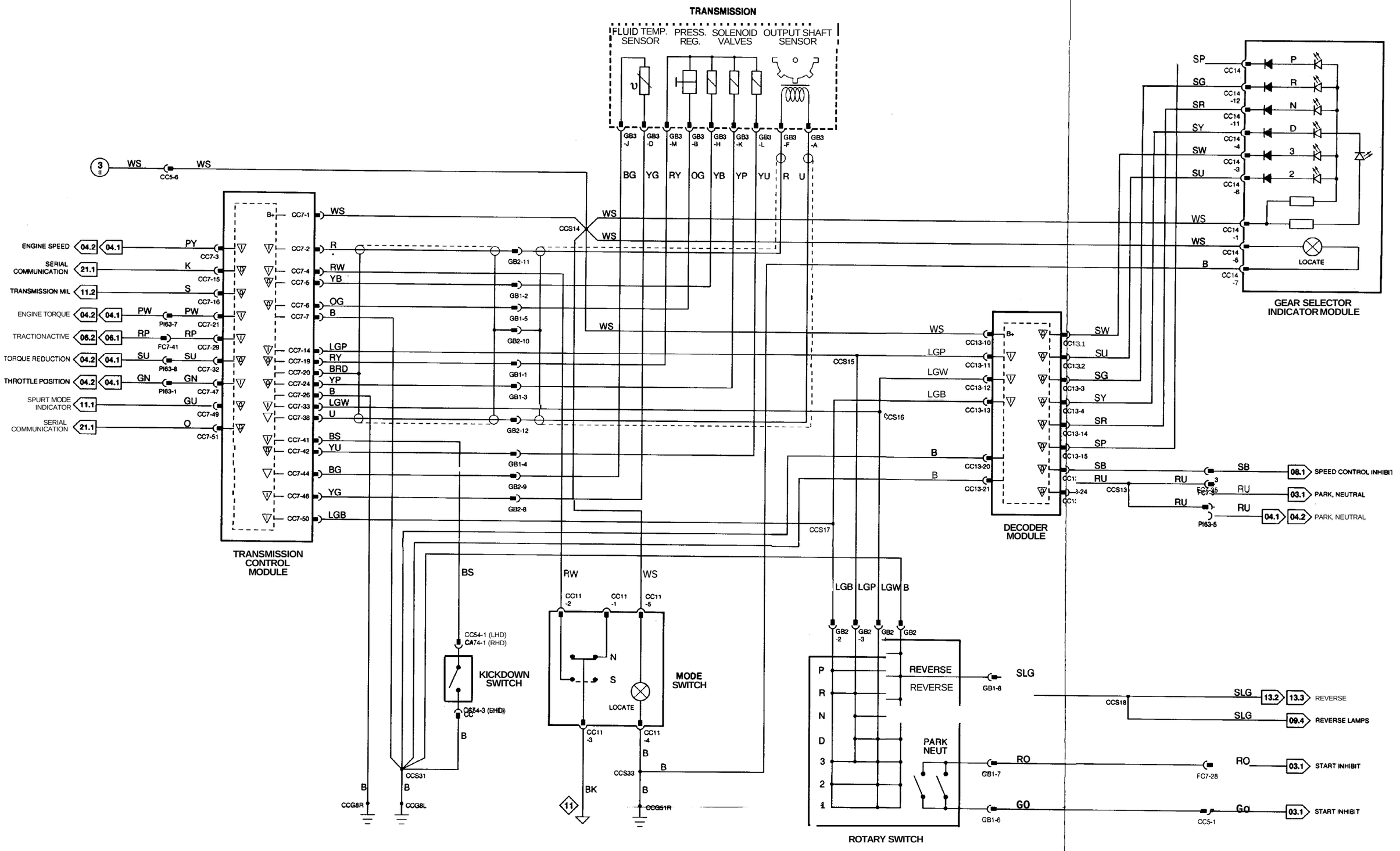
GROUNDS

Ground	Location ▮Type
CCGBL	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.

DATE OF ISSUE: JANUARY 1995



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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
VINRANGE All
DATE OF ISSUE: JANUARY 1995

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	CUB-5	MODE SWITCH	GROUND = SPORT	B+ = NORMAL
I	CC48-6	CALIBRATION SELECT LINK (DEALER FIT)	GROUND = (FITTED)	B+
O	CC48-7	TOROUE REDUCTION	GROUND PULSE @ SHIFT	11.5 V @ IDLE
I	cca-11	THROTTLE POSITION	1.4 V @ IDLE	8 V @ FULL THROTTLE
I	CUB-12	ENGINE TOROUE	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
	CC48-23	TRACTION ACTIVE	GROUND	B+
I	CUB-24	KICK W W N 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, 2w0 RPM = 90 Hz	
SG	CUB-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	CUB-U	SHIFT SOLENOID 'B'	GROUND = 3.4	B+ = 1, 2
D	CC48-45	SERIAL WMMUNICATION OUTPUT		
O	CC48-49	VAAIABLE FORCE MOTOR	1.3 V @ IDLE, DECREASING WITH PRESSURE INCREASE	
I	CC48-50	INPUT SPEED SENSOR	GROUND @ 1000 RPM = 450 Hz, 2000 RPM – 9 WHz	
	CUB-51	OUTPUT SPEED SENSOR	GROUND @ 10 MPH (16 KPHI = 3W Hz, 20 MPH (32 KPH) = 800 Hz	
O	CC48-52	VARIABLE FORCE MOTOR	7.7 V @ IDLE. DECREASINGWITH PRESSURE INCREASE	

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.

Fig. 05.2

COMPONENTS

Component	Connector / Type ▮Color	Location / Access
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVERS UNDERSCUTTLE
GEAR SELECTOR INDICATOR MODULE (AJ16 3.2L, 4.0L SC V12)	GB11 (FLY LEAD) 112-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 120-WAY MULTILOCK 040 ▮BLACK	'J' GATE ▮CENTER CONSOLE
MODE SWITCH	CC11 16-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 112-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)	CUB / 55-WAY AMP 55 ▮BLACK	PASSENGER'S UNDERSCUTTLE
TRANSMISSION TEMPERATURE SENSOR	GB12 / 12-WAY HELLERMAN DEUTSCH ▮BLACK	TRANSMISSION/ SUMP
VAAIABLE FORCE MOTOR	GB12 112-WAY HELLERMAN DEUTSCH ▮BLACK	TRANSMISSION/ SUMP

HARNESS-TO-HARNESSCONNECTORS

Connector	Type ▮Color	Location ▮Access
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER WNSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE1CENTER CONSOLE GLOVE BOX
CC38	2-WAY MULTILOCK070 / YELLOW	PASSENGER'S UNDERSCUTTLE
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGERSUNDERSCUTTLE
GB10	12-WAY MULTILOCK 040 ▮BLACK	CENTER CONSOLE ▮CENTER CONSOLE
GB15	8-WAY MULTILOCK 0701WHITE	CENTER CONSOLE/ CENTER CONSOLE
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST/ 'A' POSTTRIM

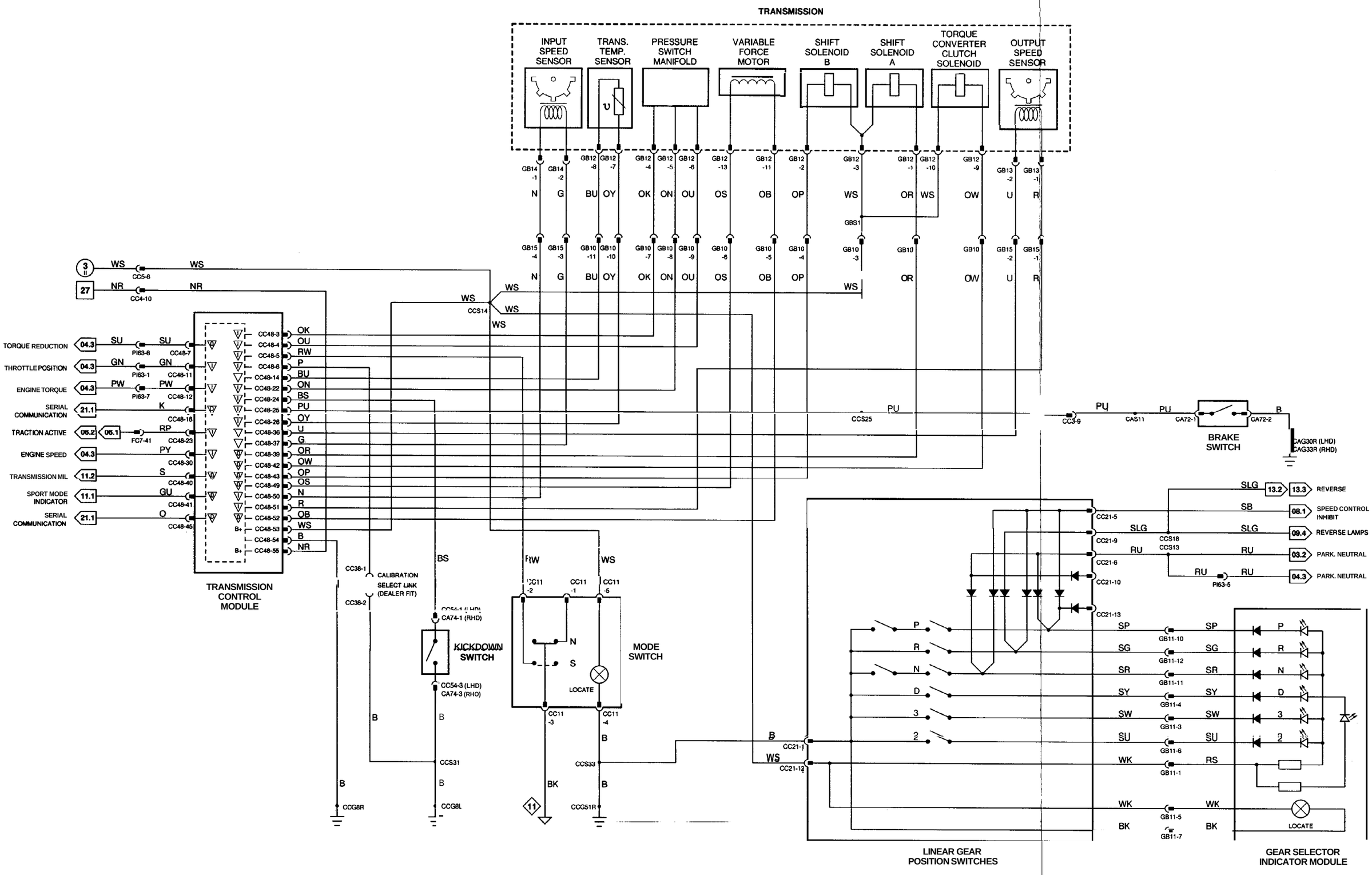
GROUNDS

Ground	Location / Type
CAG30R	LH 'A' POST GROUND SCREW
CAGUR	*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 F ILLUSTRATIONS DETAILING **THE LOCA'** AND IDENTIFICATION OF COMPONENTS, **RELAYS, CONNECTORS, HARNESSES,** GROUNDS, VEHICLE CONTROL **MODULES** AND CONTROL MODULE PINS.

DATE OF ISSUE: *JANUARY* ***1995***



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: XJR Automatic Transmission Vehicles
VINRANGE All
DATE OF ISSUE: JANUARY1995

Fig. 05.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
LINEAR GEAR POSITION SWITCHES	CC21 120-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
GEAR SELECTOR INDICATOR MODULE (AJ16 3.2L, 4.0L SC: V12)	GB11 (FLY LEAD) 112-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 WO / BLACK	RH 'A' POST / 'A' POST TRIM

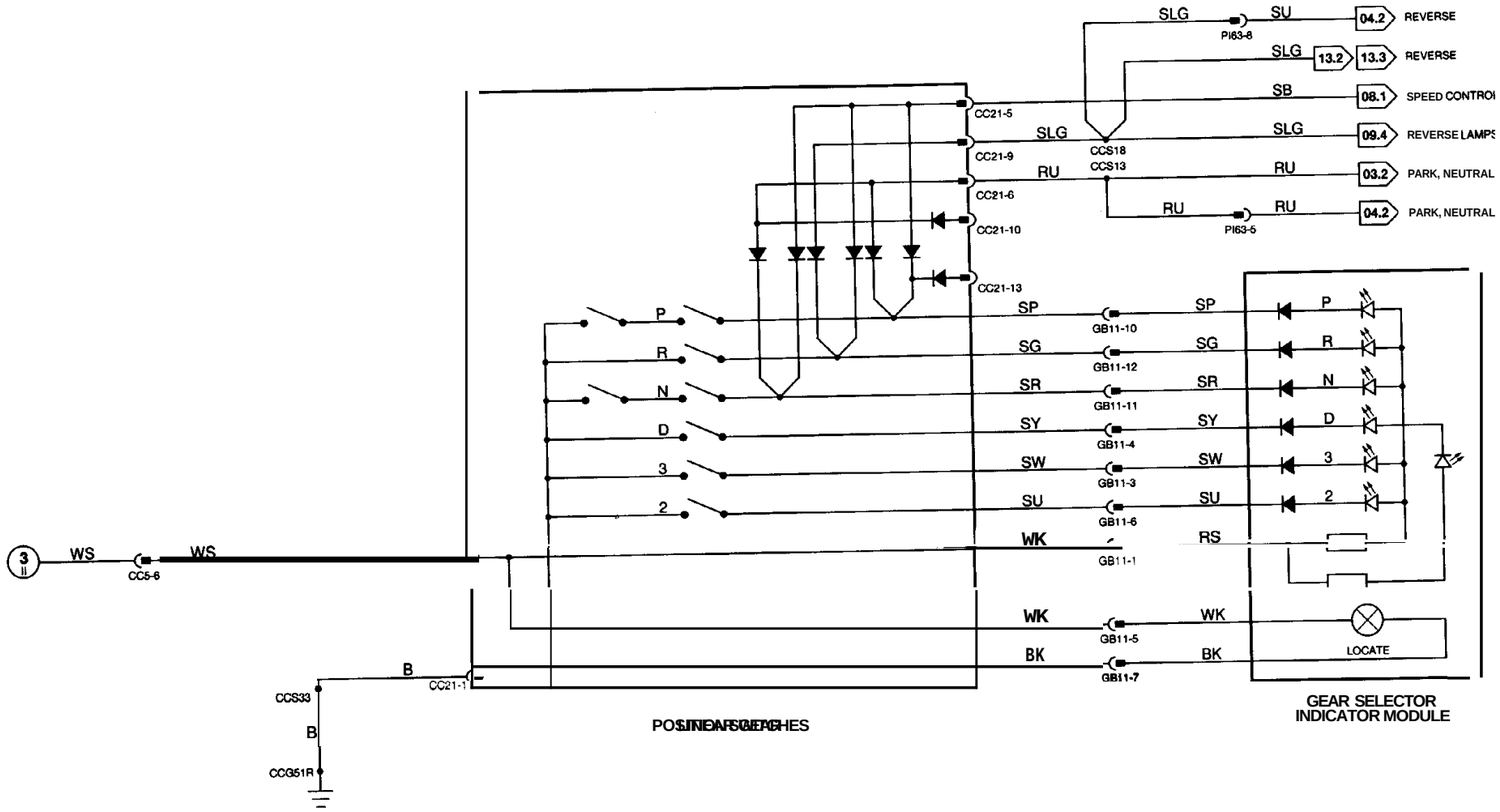
GROUNDS

Ground	Location / Type
CCG51R	CENTER WNSOLE GROUND STUD

REFER TO THE FRONT OF THE BOOK OR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, ARM GROUNDS, EHICLE CONTROL MODULE AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995

Fig. 05.3



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: JANUARY 1995

CONTROL MODULE PIN OUT INFORMATION

TRANSMISSION CONTROL MODULE (V12)

▽	Pin	Description	Active	Inactive
I	c m - 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	TOROUE 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 TOROUE	11.5 V @ IDLE. DECREASING WITH TOROUE INCREASE	
SG	CC48-14	TRANSMISSION TEMPERATURE SENSOR	GROUND	GROUND
O	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 EMPERATURE 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	TOROUE 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 KPHI = 300 Hz, 20 MPH (32 KPH) = 600 Hz	
O	CC48-52	VARIABLE FORCE MOTOR	7.1 V @ IDLE. DECREASING WITH PRESSURE INCREASE	

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.

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 120-WAY MULTILOCK 040 BLACK	'J' GATE CENTER CONSOLE
MODE SWITCH	CC11 16-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 DEUTSCHIBLACK	TRANSMISSION/ SUMP
TOROUE CONVERTER CLUTCH SOLENOID	GB12 12-WAY HELLERMAN MUTSCH BLACK	TRANSMISSION/ SUMP
TRANSMISSION CONTROL MODULE (V12 & AJ16 SC)	CC48 3/4-WAY AMP 55 / BLACK	PASSENGER'S UNDERSCUTTLE
TRANSMISSION TEMPERATURE SENSOR	GB12 / 12-WAY HELLERMAN DEUTSCH BUCK	TRANSMISSION/ SUMP
VARIABLE FORCE MOTOR	GB12 112-WAY HELLERMAN DEUTSCHIBLACK	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 CONSOLE1CENTER 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 RI BLACK	PASSENGER'S UNDERSCUTTLE
GB10	12-WAY MULTILOCK 040 BLACK	CENTER CONSOLE1CENTER CONSOLE
GB15	0-WAY MULTILOCK 070 WHITE	CENTER CONSOLE / CENTER CONSOLE
PI63	20-WAY MULTILOCK 040 / BLACK	RH 'A' POST/ 'A' POSTTRIM

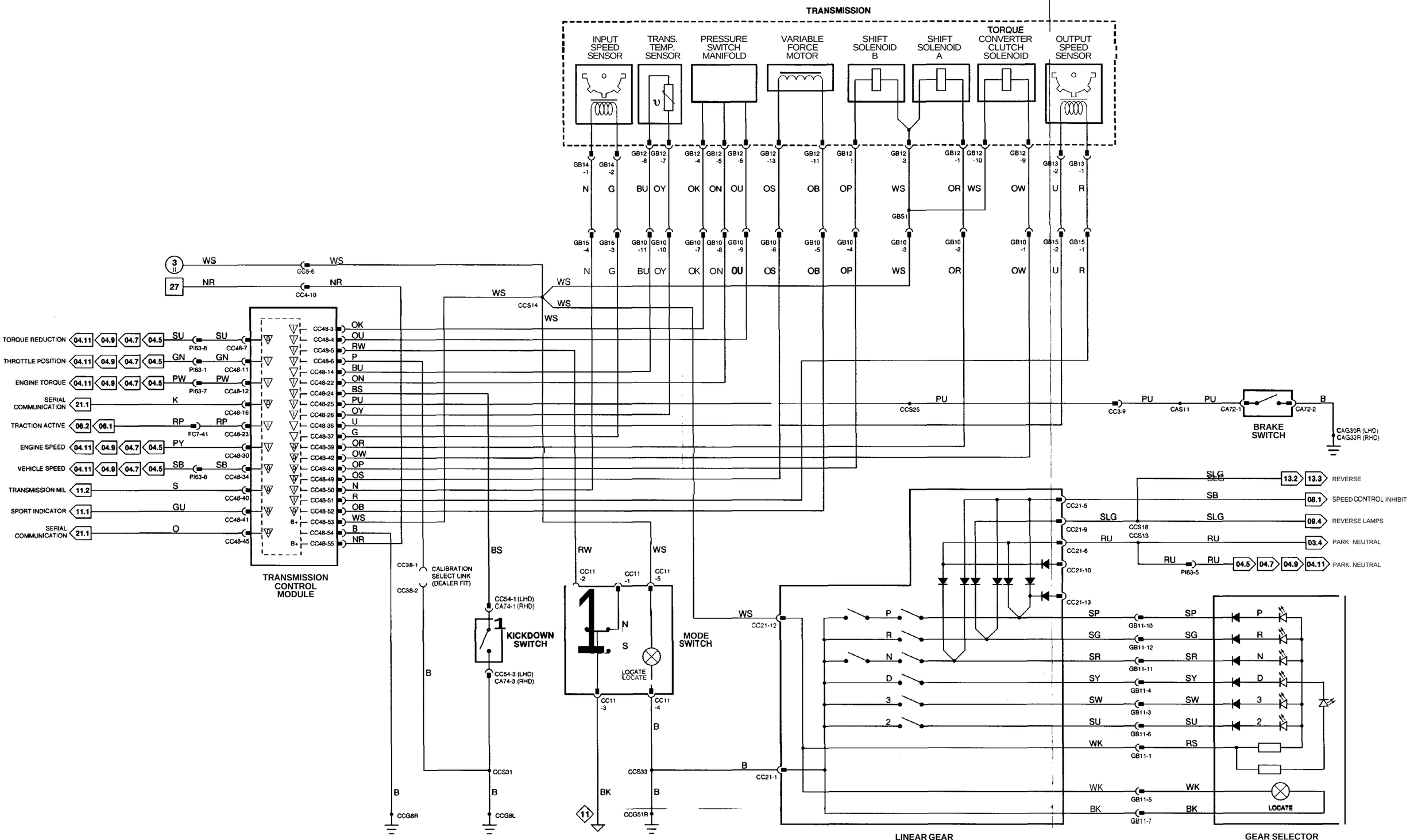
GROUNDS

Ground	Location I Type
CAG30R	LH 'A' POST GROUND SCREW
CAGUR	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.

DATE OF ISSUE: *JANUARY* 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: APRIL 1995

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-25	KEY LOCK SOLENOID RELAY	GROUND	B+
O	FCI-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	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.

Fig. 05.5

COMPONENTS

Component	Connector Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL YELLOW FC2 / 48-WAY PCB SIGNAL1 BLACK FC3 / 6-WAY PCB SIGNALIBLACK	PASSENGERS UNDERSCUTTLE
BRAKE SWITCH	CA72 14-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) 12-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	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGERS UNDERSCUTTLE
FC8	12-WAY MULTILOCK 040 / BLACK	DRIVERS UNDERSCUTTLE

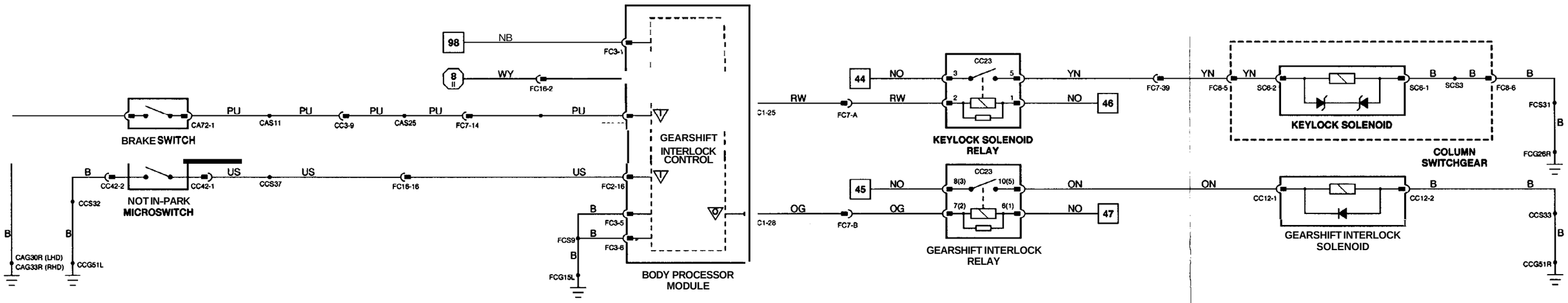
GROUNDS

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.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: JANUARY 1995

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 IAT REST)	25 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 IAT 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 IAT 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 IAT REST)	2.5 V
O	RS27-16	TRACTION CONTROL ACTUATOR MOTOR	GROUND	7 V
O	RS27-17	TRACTION CONTROL ACNATOR MOTOR	GROUND	7 v
I	RS27-18	TRACTION CONTROL INHIBIT SWITCH	GROUND	B+
I	RS27-20	BRAKE SWITCH INPUT	GROUND	B+
O	RSD-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 132 KPH) = 400 Hz	
O	RS27-25	ACTUATOR POTENTIOMETER REFERENCE VOLTAGE	5 v	5 v
I	RSD-26	ACTUATOR POTENTIOMETER FEEDBACK	0 - 5 V (FLUCTUATING)	0.47 V (AT REST)
SG	RS27-27	ACTUATOR POTENTIOMETER REFERENCE GRWND	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	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.

Fig. 06.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
ABS TRACTION CONTROL CONTROL MODULE (LHD)	RS27 128-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) 12-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	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) BLACK	LH 'A POST / 'A POSTPANEL
RS3	THROUGH-PANEL (48 MICRO / 6) BROWN	RH 'A' POST / 'A' POSTPANEL

GROUNDS

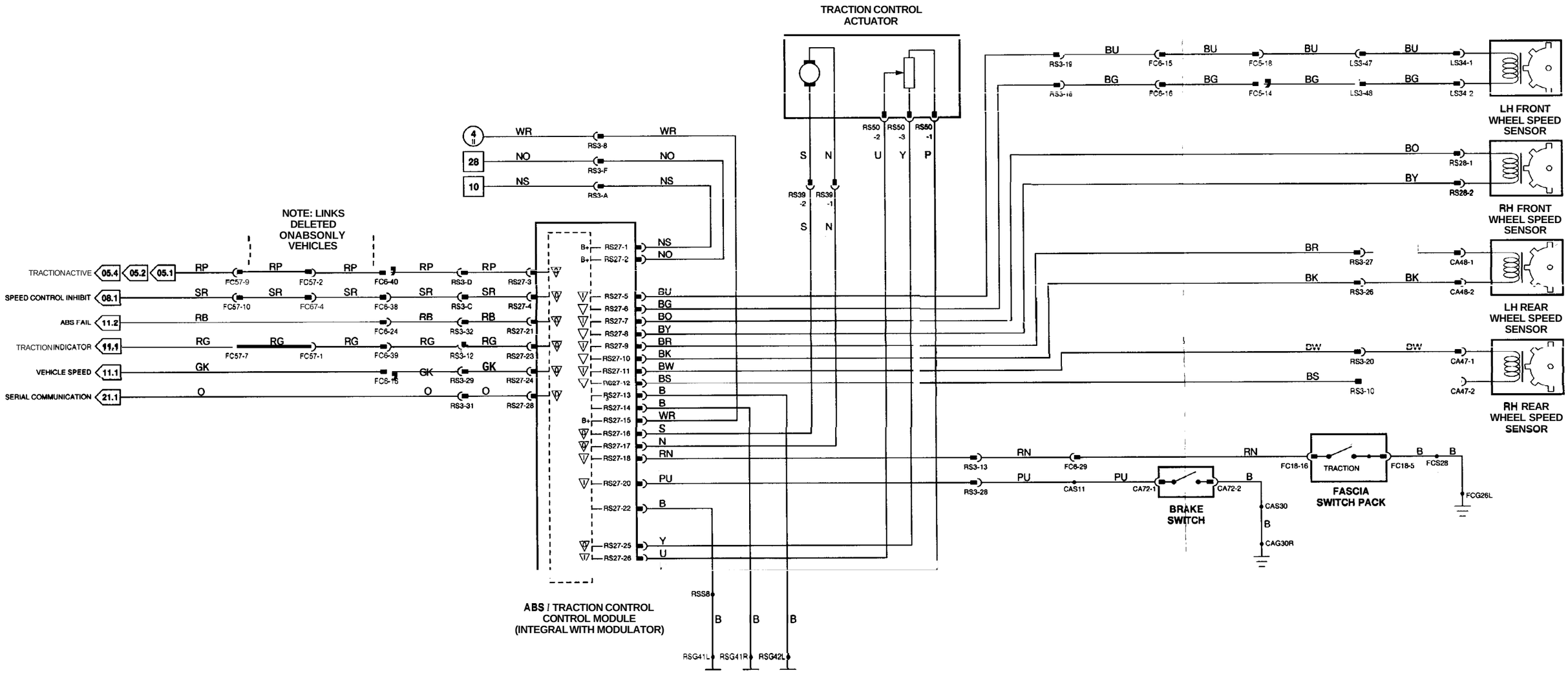
Ground	Location Type
CAG30R	LH 'A' POST GROUND SCREW
FCG26L	LH CONSOLE GROUND STUD
RSG41L	RIGHT FORWARD GROUND STUD
RSG41R	RIGHT FORWARD GROUND STUD
RSG42L	RH BULKHEAD GROUND STUD

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.

DATE OF ISSUE JANUARY 1995



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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
VINRANGE: All
DATE OF ISSUE: JANUARY 1995

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 IAT 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 IATRESTI	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 IAT 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	B+	Battery voltage
O	Output	V	Voltage (DC)
SG	Signal Ground	Hz	Frequency
D	Serial and encoded communications	K k	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.

Fig. 06.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
ABS TRACTION CONTROL CONTROL MODULE (RHD)	LS27 128-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 FORO BLACK LS50 3-WAY JUNIOR TIMER / BLACK	ENGINE BAY, RH REAR
WHEEL SPEED SENSOR - LH FRONT	LS34 (FLY LEAD) 12-WAY ECONOSEAL III LC BLACK	LH FRONT WHEEL
WHEEL SPEED SENSOR - LH REAR	CA40 IFLY LEAD1 12-WAY ECONOSEAL III LC / BLACK	LH REAR WHEEL
WHEEL SPEED SENSOR - RH FRONT	RS28 (FLY LEAD) 12-WAY ECONOSEAL III LC / BLACK	RH FRONT WHEEL
WHEEL SPEED SENSOR - RH REAR	CA47 (FLY LEAD) / 2-WAY ECONOSEAL III LC I 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' POSTPANEL
RS3	THROUGH-PANEL (48 MICRO / 6) BROWN	RH 'A' POST / 'A' POSTPANEL

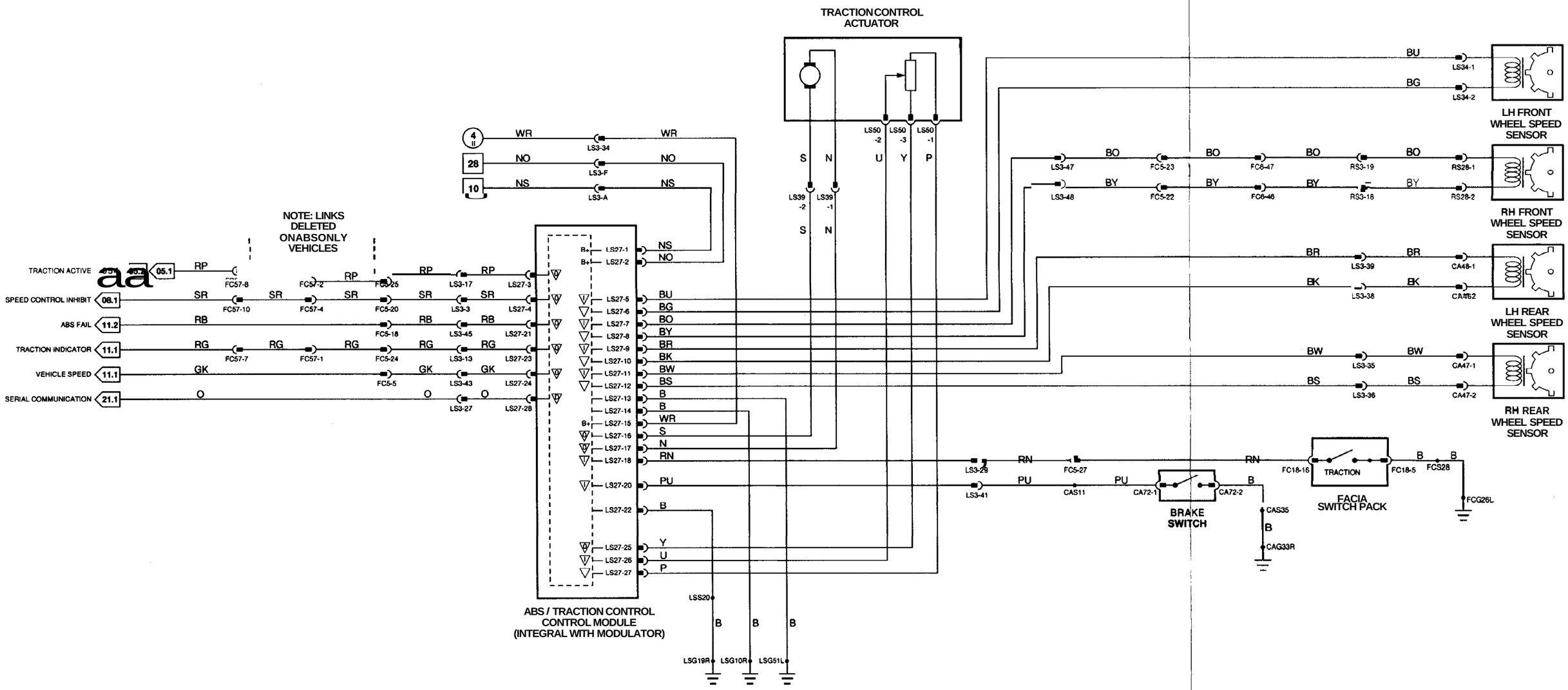
GROUNDS

Ground	Location / Type
CAG33R	RH HEELBOARD GROUND SCREW
FCG25L	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.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: JANUARY 1995

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	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.

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 126-WAY MULTILOCK47 ▮SLATE CC29 116-WAY MULTILOCK47 ▮SLATE CC30 / 12-WAY MULTILOCK47 / SLATE CC31 ▮22-WAY MULTILOCK47 / SLATE	A/C UNIT, RH SIDE ▮RH UNDERSCUTTLE
ENGINE CONTROL MODULE (AJ16)	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 / 36-WAY ECONDSEAL III / RED	RH 'A' POST/ 'A' POSTTRIM
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	RH AIR CLEANER
PI59	13-WAY ECONOSEAL III LC ▮BLACK	LH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC / BLACK	RH AIR CLEANER
PI63	20-WAY MULTILOCK 040 ▮BLACK	RH 'A' POST/ 'A' POSTTRIM
RS3	THROUGH-PANEL (48 MICRO/ 6) ▮BROWN	RH 'A' POST/ 'A' POSTPANEL

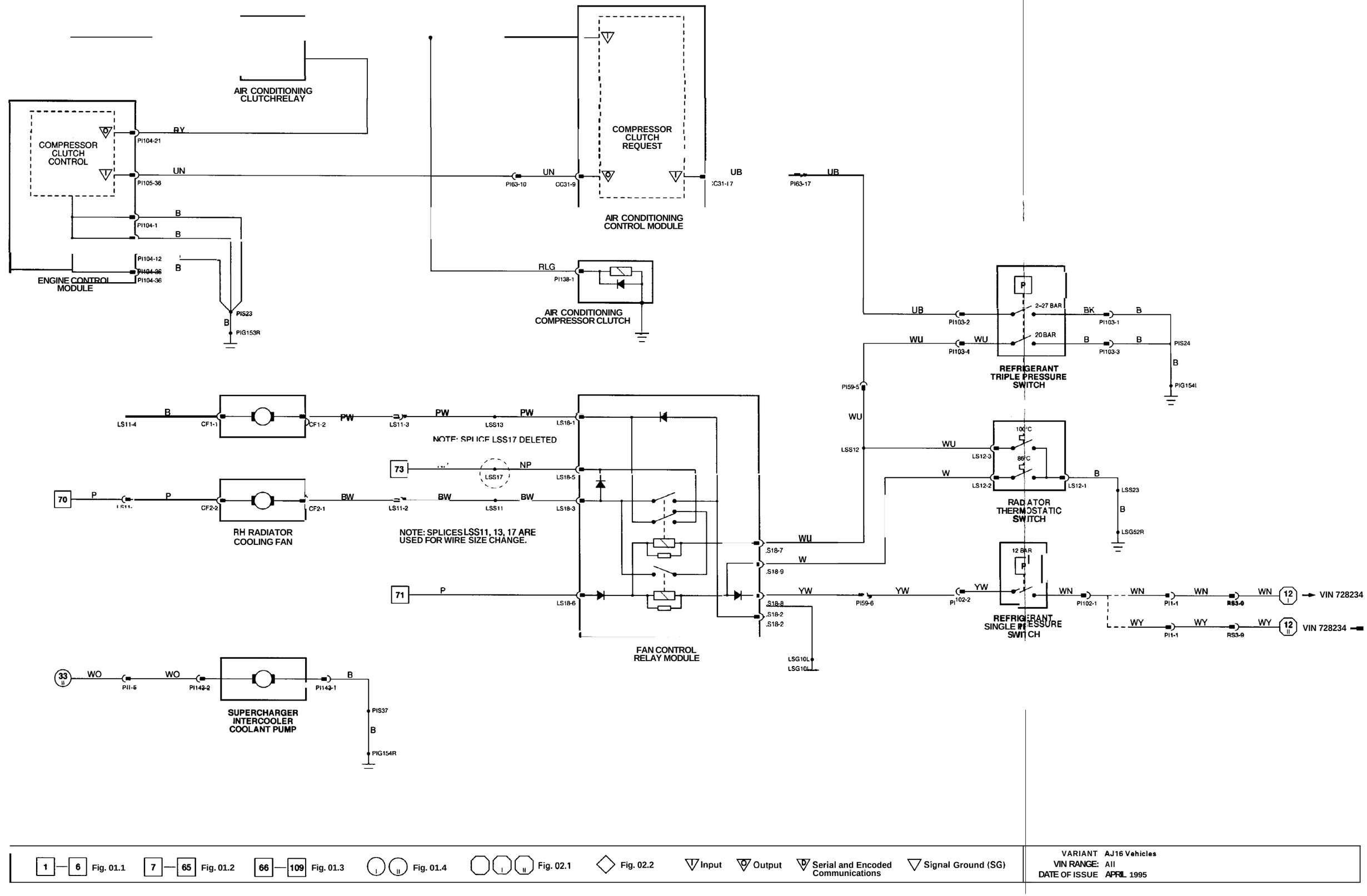
GROUNDS

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.

DATE OF ISSUE: JANUARY 1995


AIR CONDITIONING CLUTCHRELAY
COMPRESSOR CLUTCH CONTROL
BY
PI104-21
UN
PI105-36
B
PI104-1
B
PI104-12
PI104-36
PI104-36
B
ENGINE CONTROL MODULE
PIS23
B
PIG153R
COMPRESSOR CLUTCH REQUEST
UN
PI63-10
UN
CC31-9
UB
:C31-17
AIR CONDITIONING CONTROL MODULE
RLG
PI138-1
AIR CONDITIONING COMPRESSOR CLUTCH
UB
PI63-17
P
2-27 BAR
UB
PI103-2
BK
B
PI103-1
WU
WU
PI103-4
20 BAR
B
B
PI103-3
PIS24
B
PIG154I
REFRIGERANT TRIPLE PRESSURE SWITCH
PI59-5
WU
LSS12
WU
LS12-3
100°C
88°C
W
LS12-2
B
LS12-1
LSS23
B
LSG52R
RADIATOR THERMOSTATIC SWITCH
B
LS11-4
CF1-1
CF1-2
PW
LS11-3
PW
LSS13
PW
LS18-1
NOTE: SPLICE LSS17 DELETED
73
NP
LSS17
LS18-5
70
P
P
CF2-2
CF2-1
BW
LS11-2
BW
LSS11
BW
LS18-3
RH RADIATOR COOLING FAN
NOTE: SPLICES LSS11, 13, 17 ARE USED FOR WIRE SIZE CHANGE.
WU
.S18-7
W
.S18-9
71
P
LS18-6
YW
.S18-8
.S18-2
.S18-2
FAN CONTROL RELAY MODULE
YW
PI59-6
YW
PI102-2
12 BAR
P
REFRIGERANT SINGLE PRESSURE SWITCH
WN
PI102-1
WN
PI1-1
WN
RS3-9
WN
12
VIN 728234
WY
PI1-1
WY
RS3-9
WY
12
VIN 728234
LSG10L
LSG10L
33
WO
PII-5
WO
PI143-2
B
PI143-1
PIS37
B
PIG154R
SUPERCHARGER INTERCOOLER COOLANT PUMP

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	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.

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 122-WAY MULTILOCK 41/ SLATE	A/C UNIT. RH SIDE ▮RH UNDERSCUTTLE
ENGINE CONTROL MODULE (V12)	PI44 / 28-WAY MULTILOCK 040 ▮SLATE PI45 ▮6-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	LS16 / 8-WAY TRW ▮BLACK	BELOW LH HEADLAMPS
RADIATOR COOLING FAN (LH)	CF1 12-WAY REINSHAGEN / BLACK	ENGINE BAY. FRONT
RADIATOR COOLING FAN (RH)	CF2 12-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) 12-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 H C I BLACK	SPOILER, LH SIDE / SPOILER
PI61	13-WAV ECONOSEAL Iii LC / BLACK	RH AIR CLEANER
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' POST 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.

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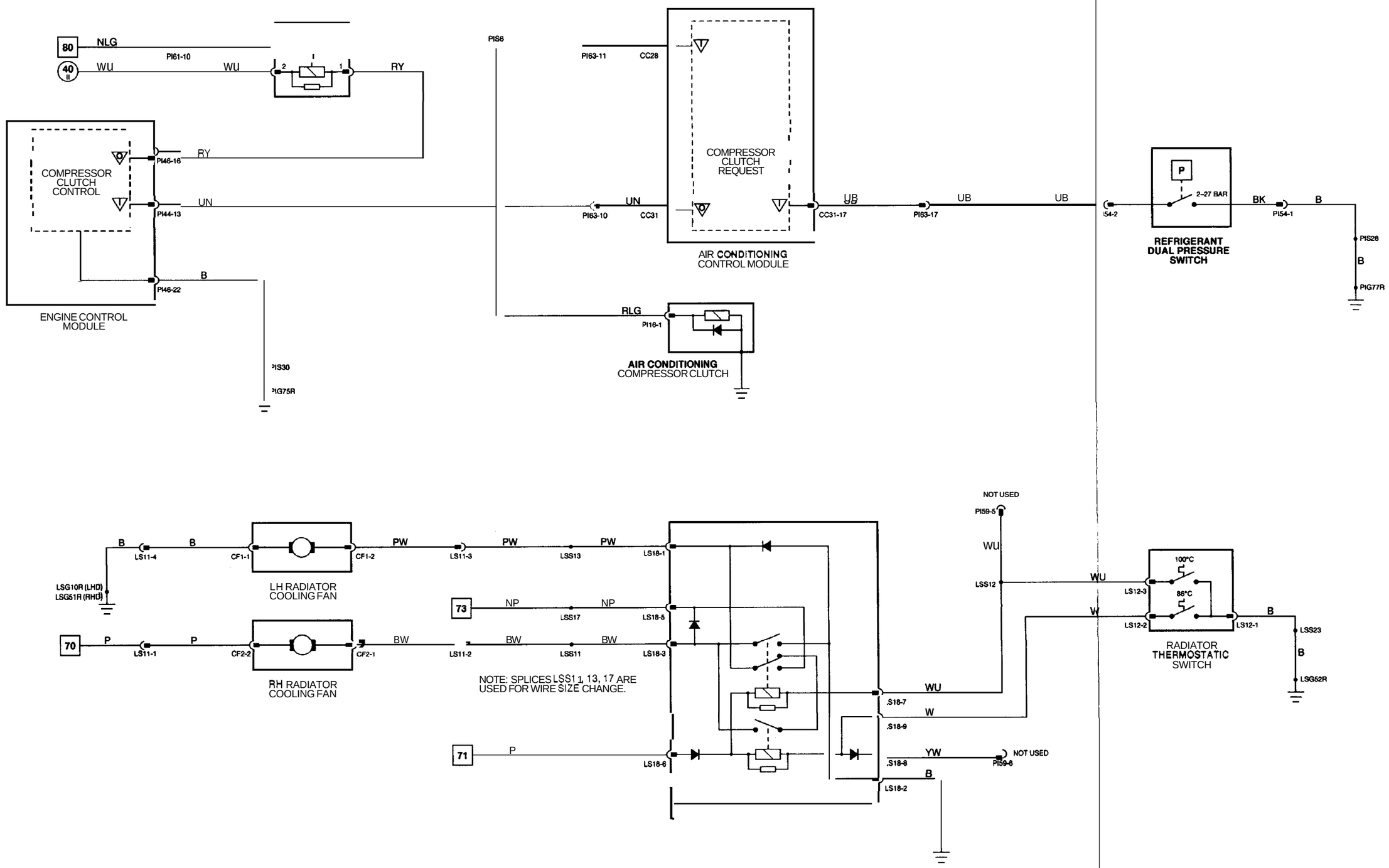

1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: V12 Vehicles
VIN RANGE: All
DATE OF ISSUE: JANUARY 1995

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	WMP 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**	**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 fiied. 'Active" means a load is applied or a switch is ON; 'Inactive" means a load is not applied or a switch is OFF.

Fig. 08.1

COMPONENTS

Component	Connector / Type Color	Location / Access
BRAKE SWITCH	CA72 14-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CLUTCH SWITCH (MANUAL TRANSMISSION)	CA73 / 2-WAY MULTILOCK 070 / YELLOW	ABOM 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	DRIVERS UNDERSCUTTLE
SPEED CONTROL BRAKE SWITCH	CA72/ CWAY MULTILOCK 070 / WHITE	DRIVERS UNDERSCUTTLE
SPEED CONTROL SWITCHES	FC18 / 16-WAY MULTILOCK MD BLACK	FASCIA SWITCH PACK
VACUUM PUMP AND CONTROL VALVE	LS23 13-WAY SPEED CONTROL IBLACK	ENGINE BAY. LH FRONT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type Color	Location / Access
CC3	20-WAY MULTILOCK MO / 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	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO/ 6) BLACK	LH 'A' POST/ 'A' POSTPANEL

GROUNDS

Ground	Location Type
CAG30R	LH 'A' POST GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
FCG26L	LH CONSOLE GROUND S N D

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.

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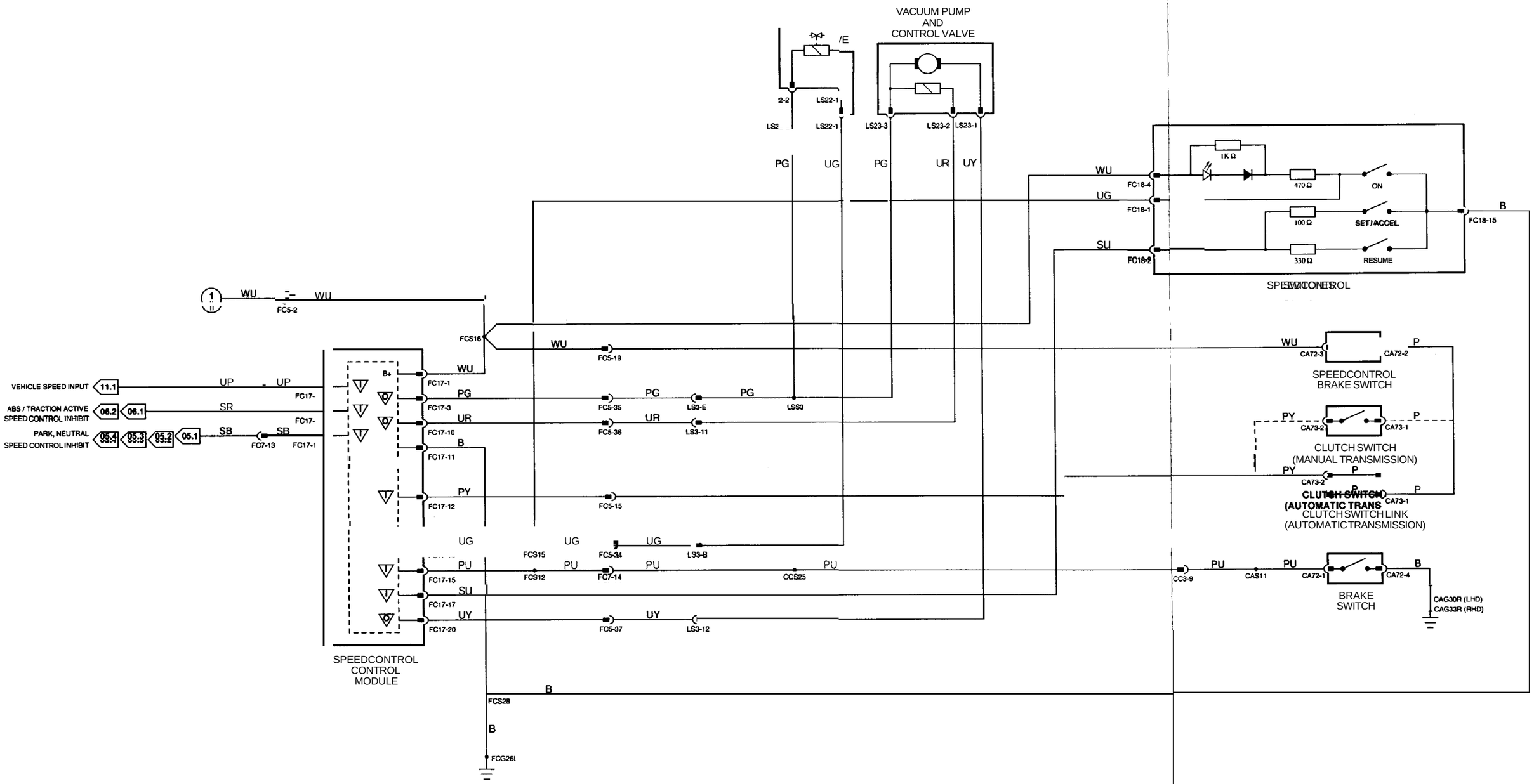


1 — 6 Fig. 01.1 | 7 — 65 Fig.01.2 | 66 — 109 Fig.01.3 | Fig.01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: All Vehicles
VINRANGE All
DATE OF ISSUE JANUARY 1995

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	FC1-18	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	FC1-35	LH MAIN BEAM ON	GROUND	B+
O	FC1-39	RH DIPPED BEAM ON	GROUND	B+
O	FC1-41	RH 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+

LH FRONT LIGHTING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	LS30-7	IGNITION SWITCHED POWER	B+	GROUND

RH FRONT LIGHTING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	RS30-7	IGNITION SWITCHED POWER	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.

Fig. 09.1

COMPONENTS

Component	Connector Type Color	Location / Access
BODY PROCESSOR MODULE	' 48-WAY PCB SIGNAL / YELLOW ' 48-WAY PCB SIGNAL / BLACK ' 6-WAY PCB SIGNAL / BLACK	PASSENGERS 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 16-WAY MULTILOCK 070 WHITE	STEERING COLUMN COVER
HEADLAMP - LH	LS38 / 6-WAY ECONOSEAL III LC BLACK	LH HEADLAMP
HEADLAMP - RH	RS38 16-WAY ECONOSEAL III LC / BLACK	RH HEADLAMP
LIGHTING CONTROL MODULE - LH FRONT	LS13 / 15-WAY JUNIOR TIMER / BROWN LS30 / 15-WAY JUNIOR TIMER / BLACK	ENGINE BAY. LH FRONT
LIGHTING CONTROL MODULE - RH FRONT	RS13 115-WAY JUNIOR TIMER BROWN RSM / 15-WAY JUNIOR TIMER BLACK	ENGINE BAY. RH FRONT
LIGHTING SWITCHES	FC12 / 16-WAY MULTILOCK 040 / BLUE	FASCIA SWITCH PACK

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	13-WAY ECONOSEAL III LC BLACK	RH FRONT WHEEL ARCH LINER SPOILER AND SPOILER TRAY
CC3	20-WAY MULTILOCK 040 BLACK	CENTER CONSOLE 1 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	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' WSTPANEL
RS3	THROUGH-PANEL (48 MICRO / 6) BROWN	RH 'A' POST / 'A' WSTPANEL

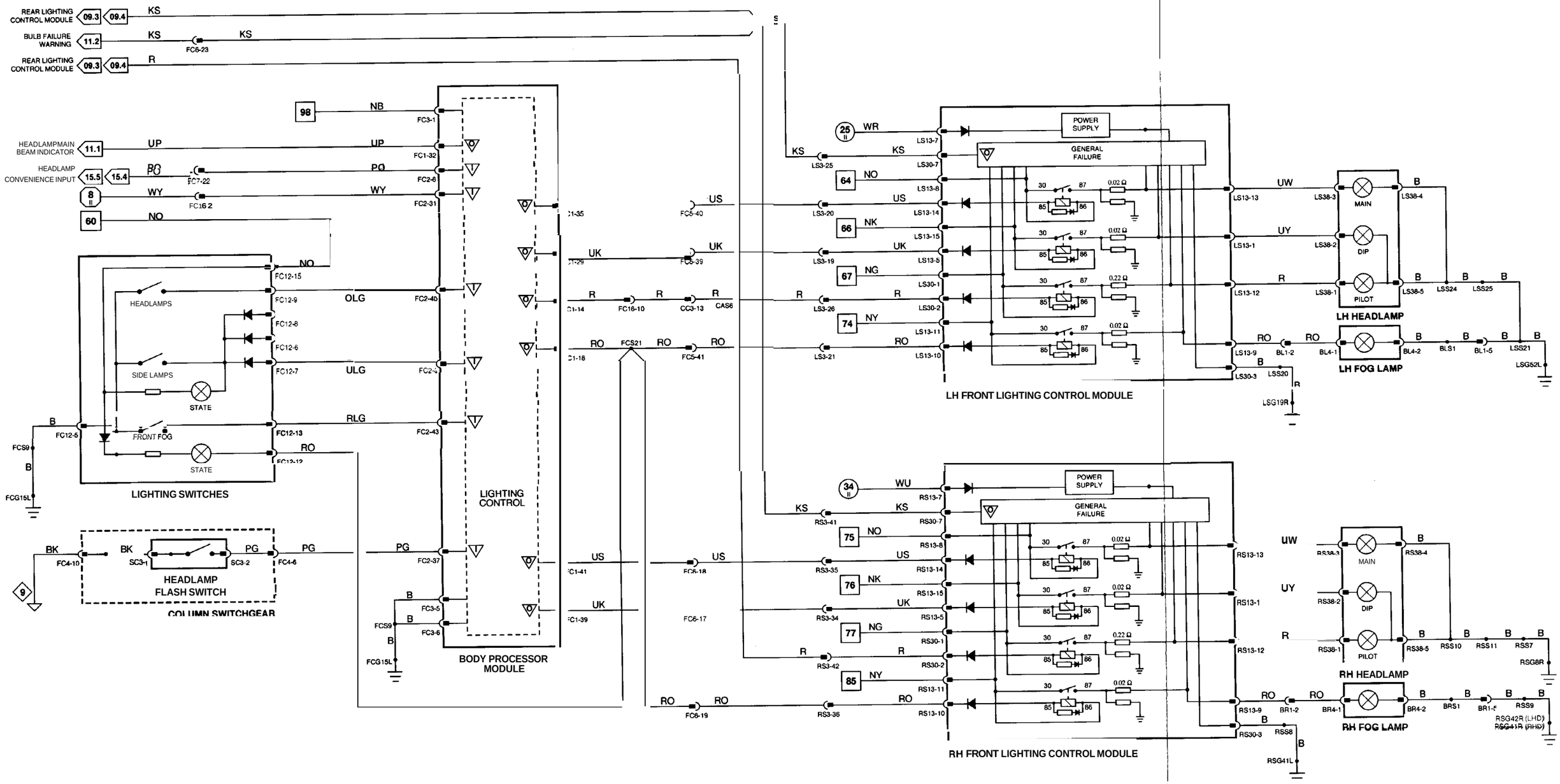
GROUNDS

Ground	Location / Type
FCG15L	LH CONSOLE GROUND S N D
LSG19R	LH BULKHEAD GROUND STUD
LSG52L	LEFT FORWARD GROUND STUD
RSGW	RIGHT FORWARD GROUND STUD
RSG41L	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.

DATE OF ISSUE JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial multiplexed | Signal Ground (SG)

VARIANT: ROW Vehicles
VIN RANGE: → 739427
DATE OF ISSUE: APRIL 1995

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	FC1-18	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	FC1-35	LH MAIN BEAM ON	GROUND	B+
O	FC1-39	RH DIPPED BEAM ON	GROUND	B+
O	FC1-41	RH 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+

LH FRONT LIGHTING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	LS30-7	IGNITION SWITCHED POWER	B+	GROUND

RH FRONT LIGHTING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	RSM-7	IGNITION SWITCHED POWER	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.

Fig. 09.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 148-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL/BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGERS 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 CONTROL MODULE - LH FRONT	LS13 / 15-WAY JUNIOR TIMER / BROWN LS30 115-WAY JUNIOR TIMER / BLACK	ENGINE BAY. LH FRONT
LIGHTING CONTROL MODULE - RH FRONT	RS13 /15-WAY JUNIOR TIMER / BROWN RS30 / 15-WAY JUNIOR TIMER / BLACK	ENGINE BAY. RH FRONT
LIGHTING SWITCHES	FC12 116-WAY MULTILOCK 040 / BLUE	FASCIA SWITCH PACK
SIDE MARKER LAMP - LH	BL5/ 2-WAY JUNIOR TIMER / BLACK	LH FRONT LAMP UNIT
SIDE MARKER LAM? - RH	BR5 / 2-WAY JUNIOR TIMER / BLACK	RH FRONT LAMP UNIT

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	13-WAY ECONOSEAL III LC / BLACK	RH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC4	20-WAY MULTILOCK 040 / BLUE	DRIVERS 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 148 MICRO / 6) BLACK	PASSENGERS 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 148 MICRO/ 6) / BROWN	RH 'A POST / 'A POST PANEL

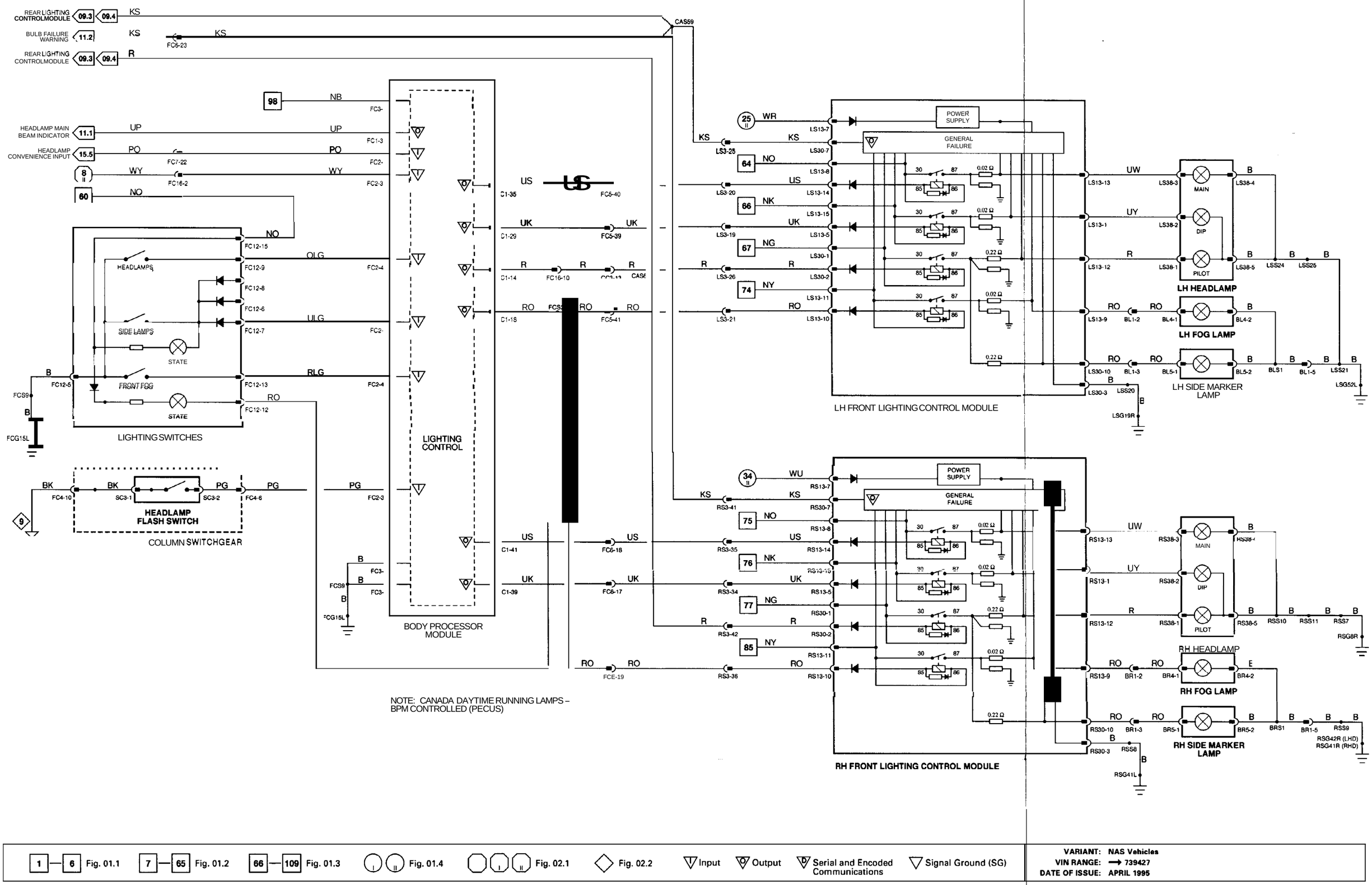
GROUNDS

Ground	Location / Type
FCG15L	LH CONSOLE GROUND STUD
LSG19R	LH BULKHEAD GROUND STUD
LSG52L	LEFT FORWARD GROUNOSTUD
RSGBR	RIGHT FORWARD GROUND STUD
RSG41L	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.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: → 739427
DATE OF ISSUE: APRIL 1995

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

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

REAR LIGHTING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	BT21-16	GENERAL BULB FAILURE	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.

Fig. 09.3

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	PASSENGERS UNDERSCUTTLE
LIGHTING CONTROL MODULE - REAR	BT20 18-WAY MULTILOCK070 / WHITE BT21 120-WAY MULTILOCK040 / 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 12-WAY POSILOCK / BLACK	TRUNK LID/TRUNK LID TRIM
SIDE MARKER LAMP - LH	SR1-L 12-WAY JUNIOR TIMER / BLACK	LH FRONT LAMP UNIT
SIDE MARKER LAMP - RH	SR1-R 12-WAY JUNIOR TIMER / BLACK	RH FRONT LAMP UNIT
TAIL LAMP UNIT - LH	TL4 / 7-WAY JUNIOR TIMER / BLACU	LH REAR / TRUNK TRIM
TAIL LAMP UNIT - RH	TL3 17-WAY JUNIOR TIMER / BLACK	RH REAR / TRUNK TRIM

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
BT50	18-WAY MULTILOCK070 / WHITE	TRUNK FLOOR TRIM / BATTERY COVER
CC3	20-WAY MULTILOCK040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL 148 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC16	20-WAV MULTILOCK040 / BLACK	PASSENGERS UNDERSCUTTLE
TL5	2-WAY MULTILOCK040 / GREEN	TRUNK LID/TRUNK LID TRIM
TL6	2-WAY MULTILOCK 040 / GREEN	TRUNK LID/TRUNK LID TRIM

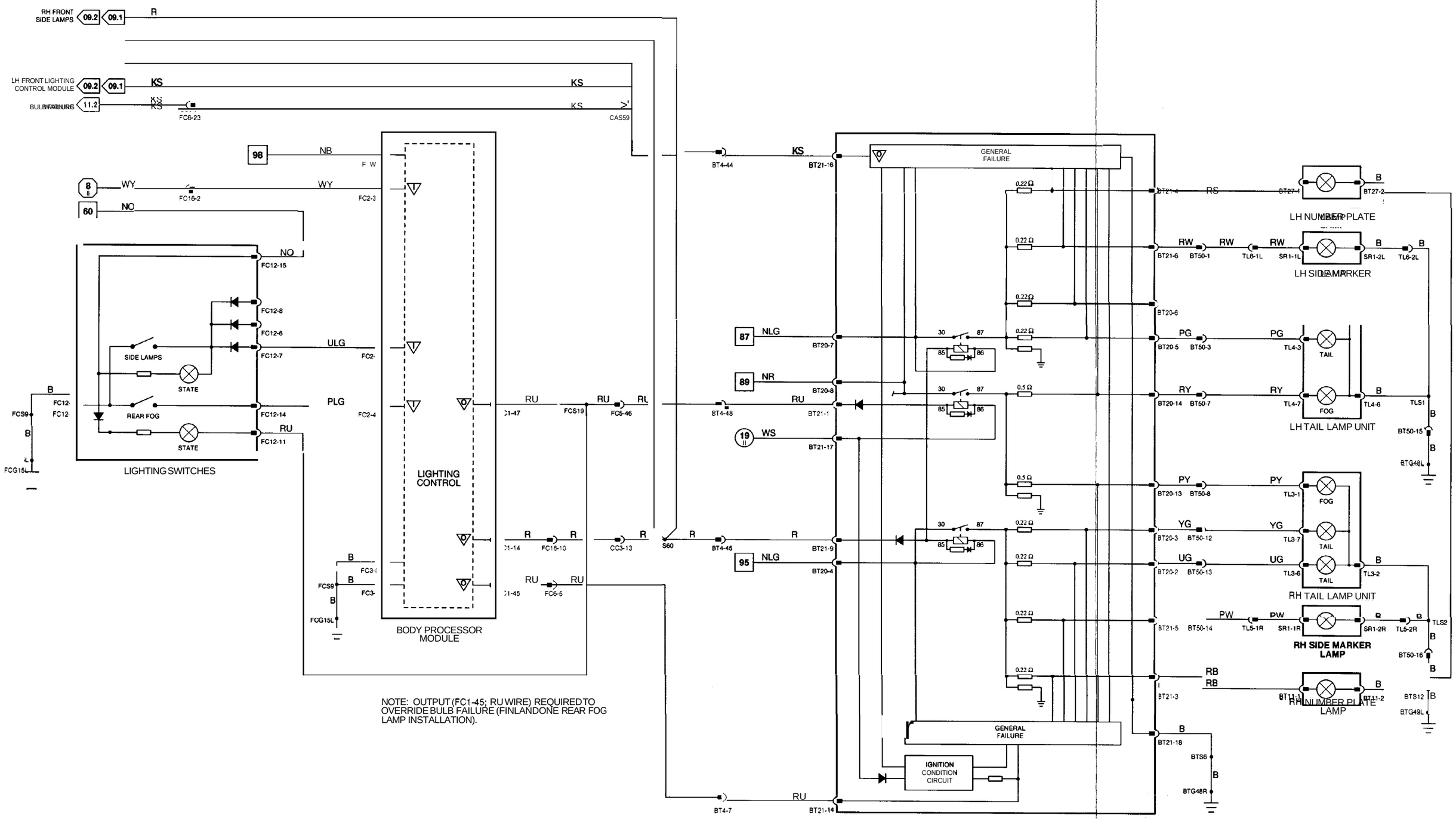
GROUNDS

Ground	Location / Type
BTG48L	REAR TRUNK GROUND STUD
BTG48R	REAR TRUNK GROUND S N D
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.

DATE OF ISSUE JANUARY 1995



NOTE: OUTPUT (FC1-45; RU WIRE) REQUIRED TO OVERRIDE BULB FAILURE (FINLANDONE REAR FOG LAMP INSTALLATION).

1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: → 739427
DATE OF ISSUE APRIL 1995

CONTROL MODULE PIN OUT INFORMATION

REAR LIGHTING CONTROL MODULE

▽ Pin	Description	Active	Inactive
0 BT21-16	GENERAL BULB FAILURE	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 fiied. 'Active" means a load is applied or a switch is ON; 'Inactive" means a load is not applied or a switch is OFF.

Fig. 09.4

COMPONENTS

Component	Connector ▮Type ▮Color	Location / Access
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVERS 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 M T EDGE ▮SLATE	BACKLIGHT
LIGHTING CONTROL MODULE - REAR	BT20 / 18-WAY MULTILOCK 070 / WHITE BT21 120-WAY MULTILOCK 040 / BLACK	TRUNK ELECTRICAL CARRIER
LINEAR GEAR POSITION SWITCHES	CC21 120-WAY MULTILOCK 040 / BLACK	'J' GATE ▮CENTER CONSOLE
REVERSE SWITCH (AJ16 MANUAL1	CC45 / 2-WAY SUMITOMO / WHITE	TRANSMISSION TUNNEL ▮CENTER CONSOLE
ROTARY SWITCH	GB1 (FLY LEADI / 8-WAY MULTILOCK 0701WHITE 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 I Access
HIGH MOUNTED STOP LAMP RELAY	BLACK / VIOLET	BT13 / RED	TRUNK ELECTRICAL CARRIER

HARNESS-TO-HARNESSCONNECTORS

Connector	Type / Color	Location ▮Access
BT4	THROUGH-PANEL (48 MICRO / 6) ▮BLACK	PARCEL SHELF / FUEL TANK TRIM
BT50	18-WAY MULTILOCK 070 / WHITE	TRUNK FLOOR TRIM / BATTERY COVER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE1CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL ▮OUTER AIR VENT

GROUNDS

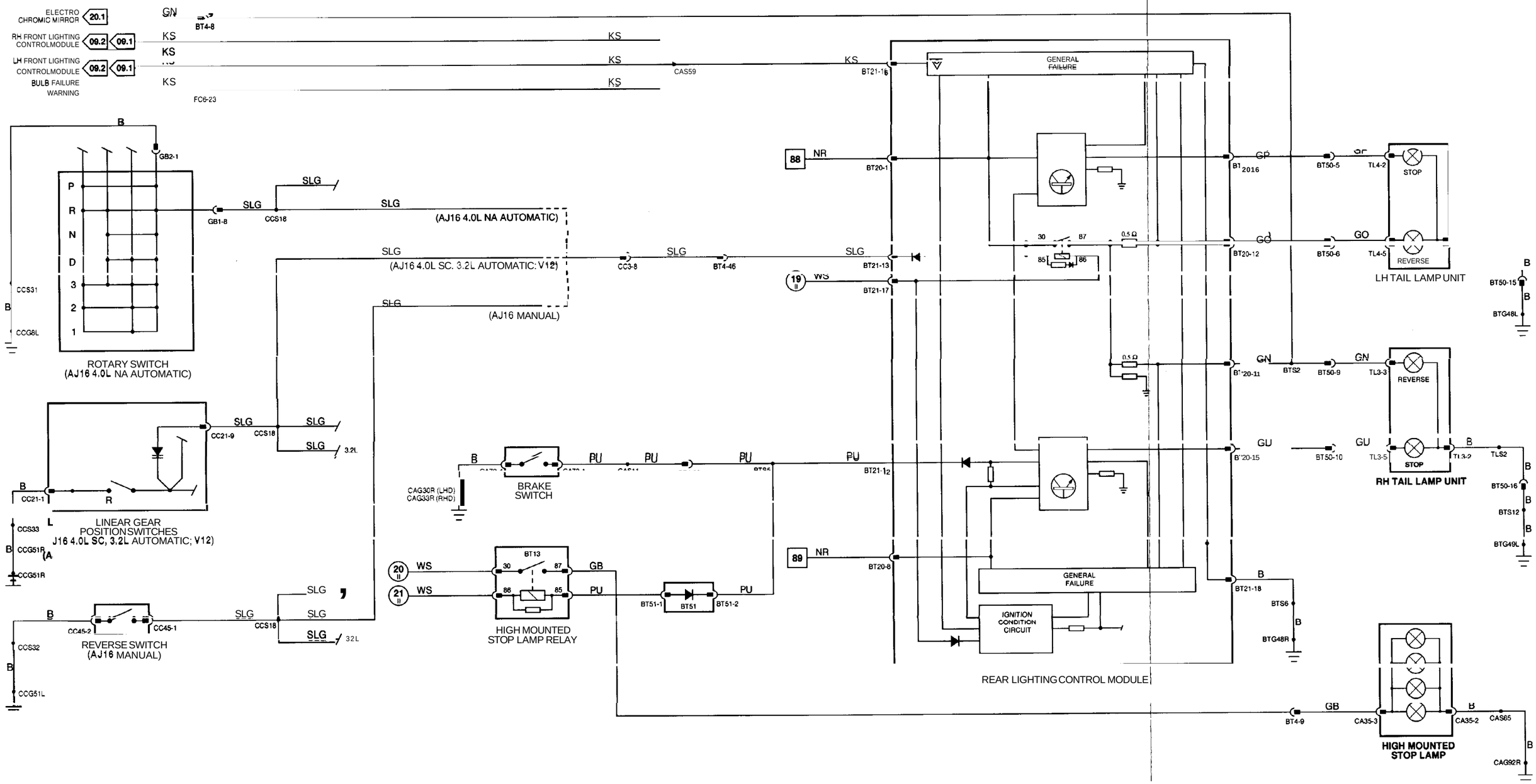
Ground	Location / Type
BTG48L	REAR TRUNK GROUND STUD
BTG48R	REAR TRUNK GROUND STUD
BTG49L	REAR TRUNK GROUND STUD
CAG30R	LH 'A POST GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
CCG51R	CENTER CONSOLE GROUND STUD
CCG8L	CENTER CONSOLE GROUND STUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.2 | Input | Output | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: → 739427
DATE OF ISSUE: APRIL 1995

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	FCI-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+

LH FRONT LIGHTING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	LSM-5	LH DI BULB FAILURE	GROUND	B+
O	LS30-7	IGNITION SWITCHED POWER	B+	GROUND

RH FRONT LIGHTING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	RS30-5	RH DI BULB FAILURE	GROUND	B+
O	RS30-7	IGNITION SWITCHED POWER	B+	GROUND

REAR LIGHTING CONTROL MODULE

▽	Pin	Description	Active	Inactive
O	BT21-7	RH DI BULB FAILURE	GROUND	B+
O	BT21 8	LH DI BULB FAILURE	GROUND	B+
O	BT21-16	GENERAL BULB FAILURE	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 IOW
		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.

Fig. 09.5

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL/YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3 / 8-WAY PCB SIGNAL / BLACK	PASSENGERS UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK AND CLOCK	CC1 / 16-WAY MULTILOCK040 / BLACK	CENTER CONSOLE
DIODE (FC59) - RH DI INDICATOR	FC59 DIODE/ BLACK	FASCIA HARNESS1INSTRUMENT PACU
DIODE (FC60) - LH DI INDICATOR	FCW / DIODE BLACK	FASCIA HARNESS/ INSTRUMENT PACK
DIRECTION INDICATOR SWITCHES (COLUMN SWITCHGEAR)	SC3 / 6-WAY MULTILOCK 070 WHITE	STEERING COLUMN COVER
DIRECTION INDICATORS - LH	0L2 / 3-WAY JUNIOR TIMER BLACK	LH FRONT / SPOILER
DIRECTION INDICATORS - RH	BR2 03-WAY JUNIOR TIMER BLACK	RH FRONT / SPOILER
LIGHTING CONTROL MODULE - LH FRONT	LS13 / 15-WAY JUNIOR TIMER BROWN LS30 / 15-WAY JUNIOR TIMER BLACK	ENGINE BAY. LH FRONT
LIGHTING CONTROL MODULE - RH FRONT	RS13 / 15-WAY JUNIOR TIMER / BROWN RS30 / 15-WAY JUNIOR TIMER / BLACK	ENGINE BAY. RH FRONT
LIGHTING CONTROL MODULE - REAR	BT20 / 18-WAY MULTILOCK 0701 WHITE BT21 / 20-WAY MULTILOCK040 BLACK	TRUNK ELECTRICAL CARRIER
REPEATER - LH	LS17 / 2-WAY JUNIOR TIMER BLACK	LH FRONT FENDER
REPEATER - RH	RS12 12-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	13-WAY ECONOSEALIII LC BLACK	RH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
BT4	THROUGH-PANEL 146 MICRO/ 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
BT50	18-WAY MULTILOCK 0701 WHITE	TRUNK FLOOR TRIM / BATTERY COVER
FC16	20-WAY MULTILOCK040 / BLACK	PASSENGERS UNDERSCUTTLE
FC4	20-WAY MULTILOCK MO BLUE	DRIVER'S UNDERSCUTTLE
FC5	THROUGH-PANEL(48 MICRO/ 6) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL 148 MICRO/ 6) / BLACK	RH FASCIA END PANEL OUTER AIR VENT
FC7	THROUGH-PANEL(48 MICRO/ 6) BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL 148 MICRO/ 6) / BLACK	LH 'A POST / 'A' POST PANEL
RS3	THROUGH-PANEL(48 MICRO / 61 BROWN	RH 'A POST I' 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
RSG41L	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 MODULE AND CONTROL MODULE PINS.

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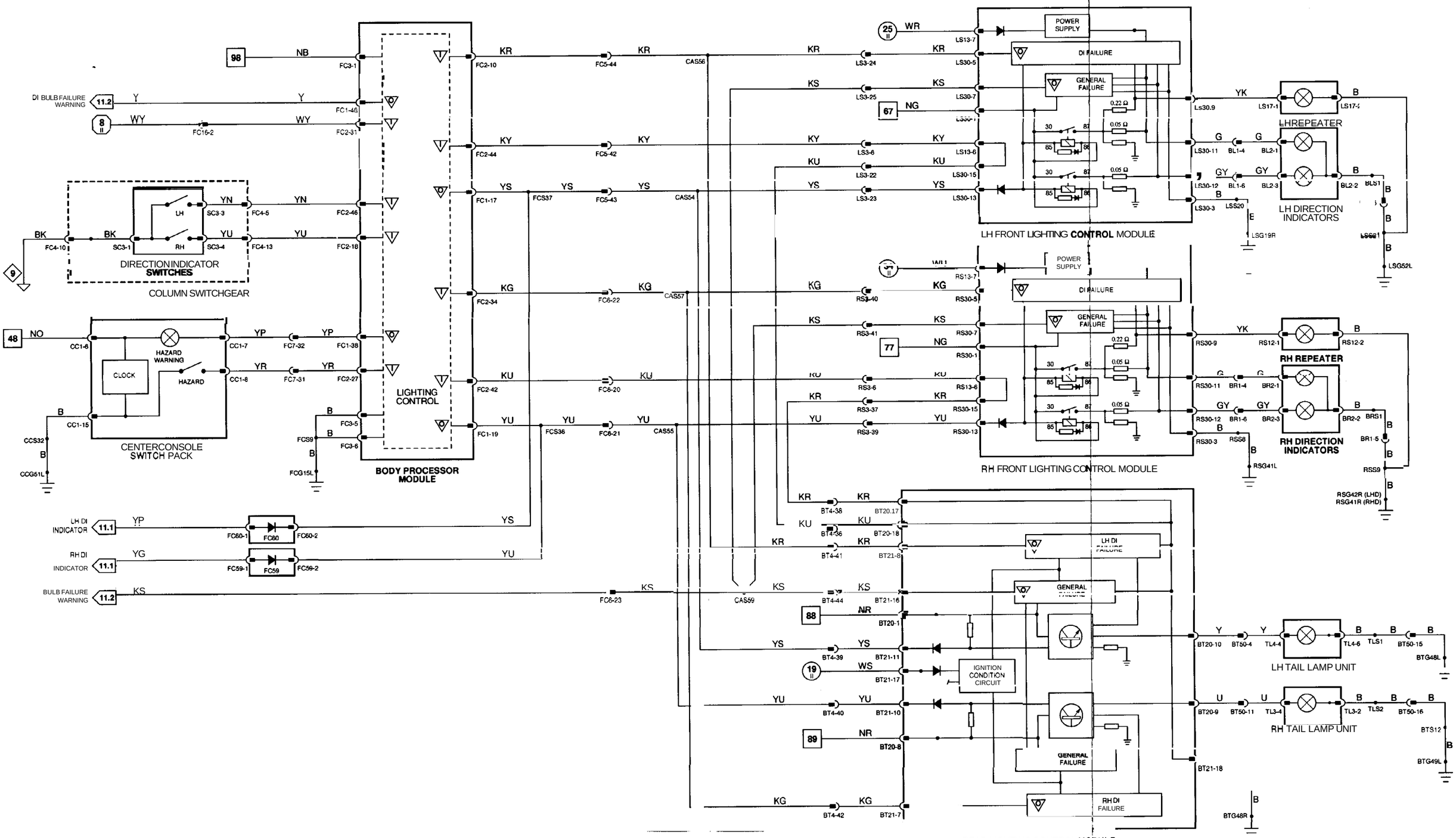


1—6 Fig. 01.1 | 7—85 Fig. 01.2 | 66—109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT All Vehicles
VIN RANGE: → 739427
DATE OF ISSUE APRIL 1995

Fig. 09.6

COMPONENTS

Component	Connector / Type ▮Color	Location / Access
CENTER CONSOLE SWITCH PACK	CC1 ▮16-WAY MULTILOCK MO ▮BLACK	CENTER CONSOLE
HEADLAMP LEVELING ACTUATOR - LH	LS41 13-WAY GROTE AND HARTMAN / BLACK	LH HEADLAMP, REAR
HEADLAMP LEVELING ACTUATOR - RH	RS22 13-WAY GROTE AND HARTMAN / BLACK	RH HEADLAMP, REAR

HARNESS-TO-HARNESS CONNECTORS

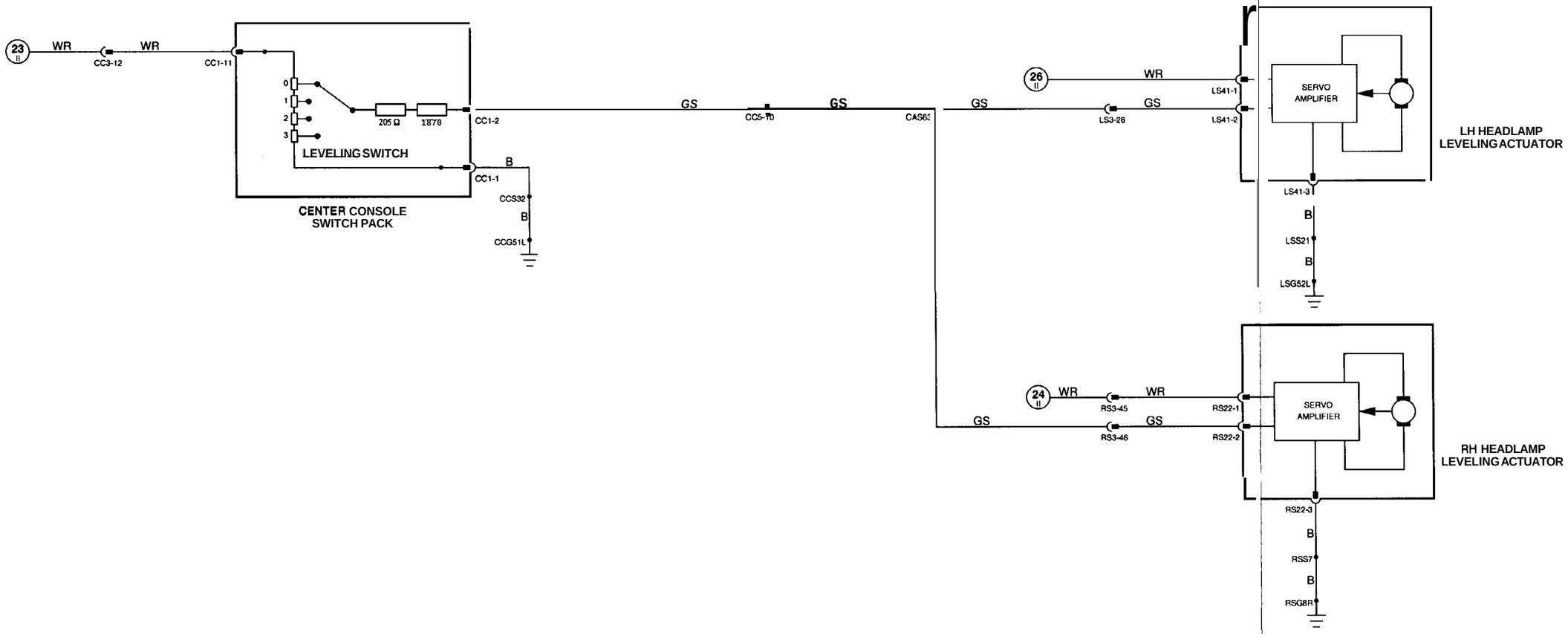
Connector	Type / Color	Location / Access
CC3	20-WAY MULTILOCK MO ▮BLACK	CENTER CONSOLE ▮CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 ▮GREEN	CENTER CONSOLE ▮CENTER CONSOLE GLOVE BOX
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST ▮'A' POST PANEL
RS3	THROUGH-PANEL (48 MICRO / 6) ▮BROWN	RH 'A' 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, HARNESS GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PIN!

DATE OF ISSUE: *JANUARY* 1995


23
WR
WR
CC3-12
CC1-11
0
1
2
3
205 Ω
1870
LEVELING SWITCH
CC1-2
B
CC1-1
CCS32
B
CCG51L
CENTER CONSOLE
SWITCH PACK
GS
CCS-10
GS
CAS63
GS
26
WR
LS41-1
GS
LS3-28
LS41-2
SERVO
AMPLIFIER
LS41-3
B
LSS21
B
LSG52L
LH HEADLAMP
LEVELING ACTUATOR
24
WR
WR
RS3-45
RS22-1
GS
GS
RS3-46
RS22-2
SERVO
AMPLIFIER
RS22-3
B
RSS7
B
RSG8R
RH HEADLAMP
LEVELING ACTUATOR

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	FCZ-6	HEADLAMP CONVENIENCE	GROUND PULSE	B+
I	FC2-31	IGNITION SWITCHED GROUND	GROUND	B+
I	FCZ-37	HEADLAMP FLASH SWITCH	GROUND	B+
I	FC2-40	HEADLAMPS ON	GROUND	B+
I	FCZ-43	FRONT FOG LAMPS	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.

Fig. 09.7

COMPONENTS

Component	Connector I Type I Color	Location I Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL IYELLOW FCZ I 48-WAY PCB SIGNAL IBLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGERS UNDERSCUTTLE
FOG LAMP – LH	BL4 / 2-WAY JUNIOR TIMER / BLACK	LH REAR LAMP UNIT
FOG LAMP – RH	BR4 / 2-WAY JUNIOR TIMER I BLACK	RH REAR LAMP UNIT
HEADLAMP FLASH SWITCH (COLUMN SWITCHGEARI	SC3 / 6-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
HEADLAMP – LH	LS38 / BWAY ECONOSEAL III LC I BLACK	LH HEADLAMP
HEADLAMP - RH	RS38 / 6-WAY ECONOSEAL III LC I 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 I 2-WAY JUNIOR TIMER I BLACK	RH FRONT LAMP UNIT

RELAYS

Relay	Color I Stripe	Connector I Color	Location I Access
DIP RELAY - LH	BLACK	LS54 / BLACK	ENGINE BAY. LH FRONT
DIP RELAY - RH	BLACK	RS47 IBLACK	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-HARNESSCONNECTORS

Connector	Type I Color	Location I Access
BL1	13-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER ISPOILER AND SPOILER TRAY
BR1	13-WAY ECONOSEAL III LC / BLACK	RH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
FC4	20-WAY MULTILOCK MO / BLUE	DRIVERS UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO / 6) I BLACK	LH FASCIA END PANEL I OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL(48 MICRO / 6) I BLACK	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 61 / BLACK	LH 'A' POST / 'A' POST PANEL
PI1	13-WAY ECONOSEAL III LC / WHITE	RH AIR CLEANER
PI59	13-WAY ECONOSEAL III LC / BLACK	LH AIR CLEANER
RS3	THROUGH-PANEL (48 MICRO / 61 IBROWN	RH 'A POST / 'A' POST PANEL

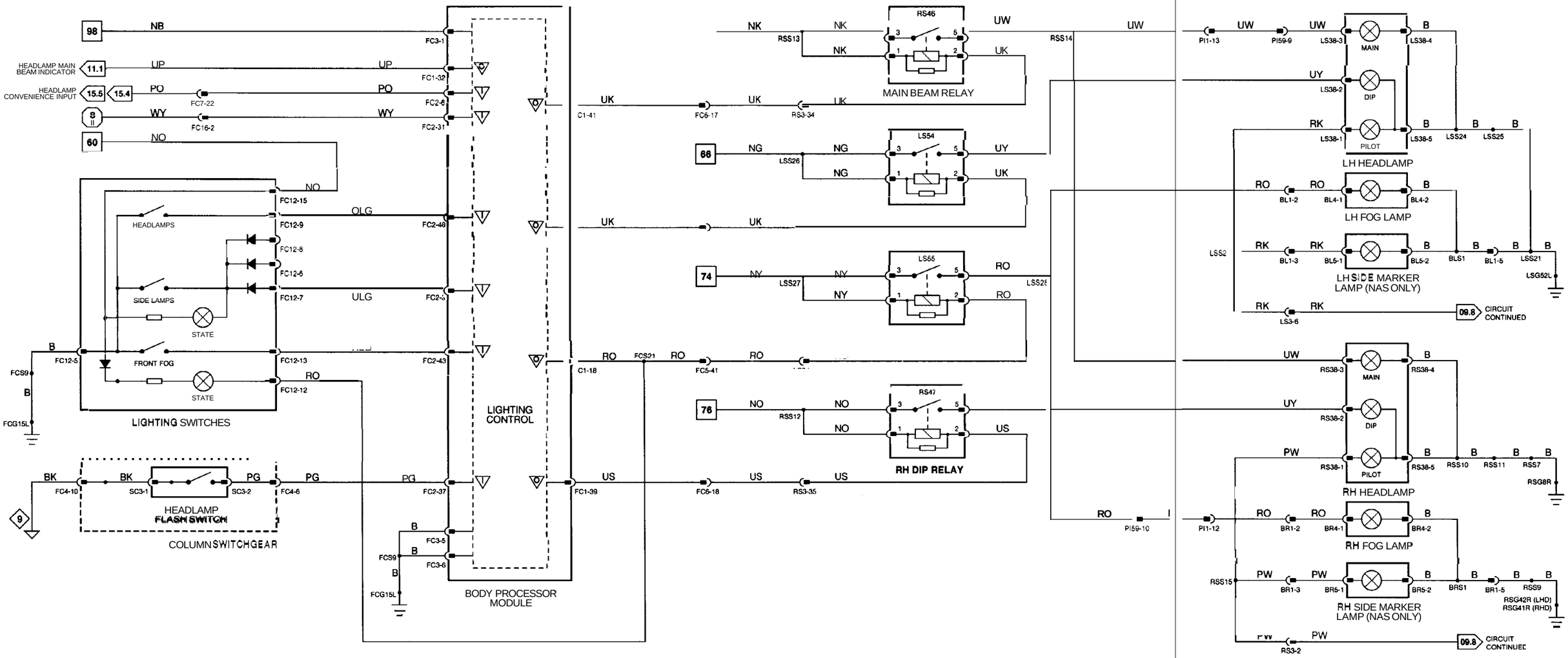
GROUNDS

Ground	Location / Type
FCG15L	LH CONSOLE GROUND STUD
LSG52L	LEFT FORWARD GROUND STUD
RSG8R	RIGHT FORWARD GROUND STUD
RSG41R	RIGHT FORWARDGROUNDSTUD
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.

DATE OF ISSUE: APRIL 1995



NOTE CANADA DAYTIME RUNNING LAMPS – BPM CONTROLLED (PECUS)

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	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.

Fig. 09.8

COMPONENTS

Component	Connector Type Color	Location Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL1 BLACK FC3 36-WAY PCB SIGNAL BLACK	PASSENGER'S UNDERSCUTTLE
LAMP CONTROL MODULE	BT20 / 18-WAY MULTILOCK 070 / WHITE BT21 120-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	PARCEL SHELF / FUEL TANK TRIM
BTM	10-WAY MULTILOCK 0701 WHITE	TRUNK FLOOR TRIM / BATTERY COVER
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	PASSENGERS 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	TRUNK LID TRUNK LID TRIM
TL6	2-WAY MULTILOCK 040 / GREEN	TRUNK LID TRUNK LID TRIM

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.

DATE OF ISSUE APRIL 1995

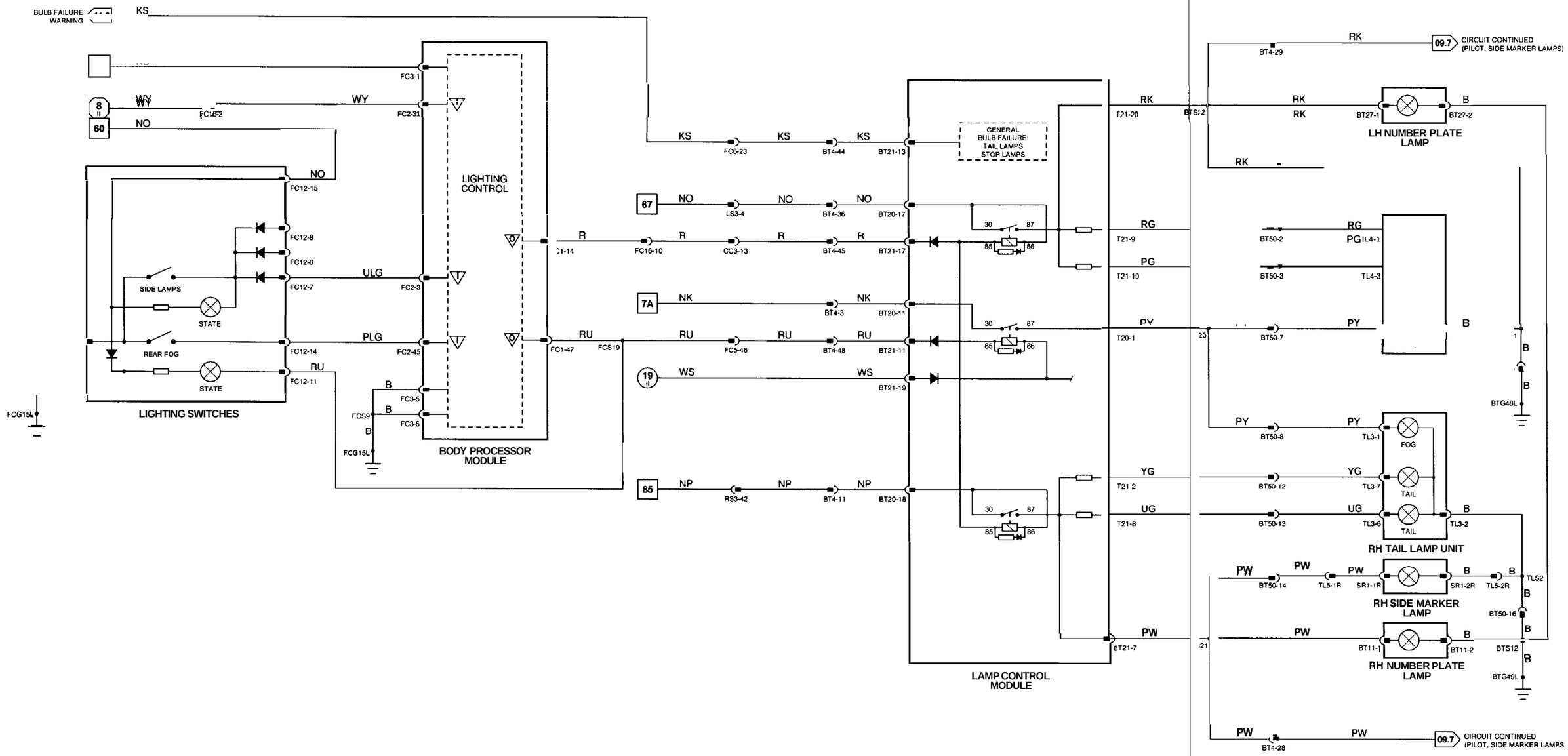

BULB FAILURE WARNING
KS
FC3-1
WY
FC2-31
8
60
NO
FC12-15
FC12-8
FC12-6
ULG
FC12-7
FC2-3
SIDE LAMPS
STATE
PLG
FC12-14
FC2-45
REAR FOG
STATE
RU
FC12-11
LIGHTING SWITCHES
FCG15L
LIGHTING CONTROL
B
FC3-5
FC3-6
FCS9
FCG15L
BODY PROCESSOR MODULE
KS
FC6-23
BT4-44
BT21-13
GENERAL BULB FAILURE: TAIL LAMPS STOP LAMPS
67
NO
LS3-4
BT4-36
BT20-17
R
FC16-10
CC3-13
BT4-45
BT21-17
7A
NK
BT4-3
BT20-11
RU
FC1-47
FCS19
FC5-46
BT4-48
BT21-11
19
WS
BT21-19
85
NP
RS3-42
BT4-11
BT20-18
30
87
85
86
RK
T21-20
RG
T21-9
PG
T21-10
PY
T20-1
YG
T21-2
UG
T21-8
PW
ET21-7
LAMP CONTROL MODULE
RK
BT4-29
09.7
CIRCUIT CONTINUED (PILOT, SIDE MARKER LAMPS)
BT52-2
BT27-1
BT27-2
LH NUMBER PLATE LAMP
BT50-2
PG
IL4-1
BT50-3
TL4-3
BT50-7
BTG48L
BT50-8
TL3-1
FOG
BT50-12
TL3-7
TAIL
BT50-13
TL3-6
TAIL
TL3-2
RH TAIL LAMP UNIT
BT50-14
TL5-1R
SR1-1R
SR1-2R
TL5-2R
TLS2
RH SIDE MARKER LAMP
BT50-16
BT11-1
BT11-2
BTS12
RH NUMBER PLATE LAMP
BTG49L
BT4-28
09.7
CIRCUIT CONTINUED (PILOT, SIDE MARKER LAMPS)

Fig. 09.9

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 120-WAY MULTILOCKMOI BLACU	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 TUNNEL1CENTER CONSOLE
ROTARY SWITCH	GB1 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE GB2 (FLY LEAD) 112-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
TAIL LAMP UNIT - LH	TL4 / 7-WAY JUNIOR TIMER / BLACK	LH REAR ITRUNK 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

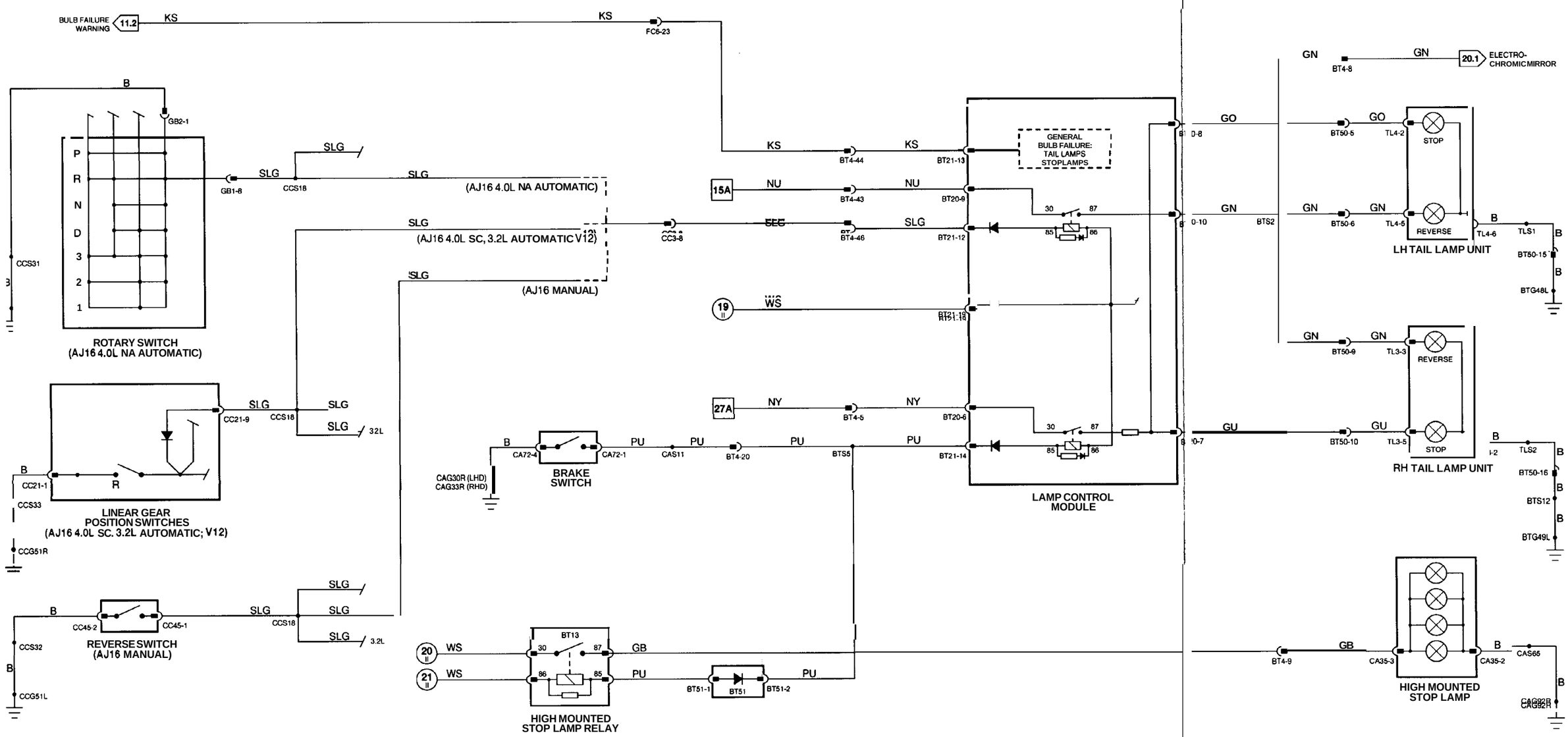
Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
BT50	18-WAY MULTILOCK 070 / WHITE	TRUNK FLOOR TRIM / BATTERY COVER
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO / 6) IBLACK	RH FASCIA 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 HEELBOARO GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUNDSTUD
CCG51R	CENTER CONSOLE GROUND STUD
CCG8L	CENTER CONSOLE GROUND STUD

REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFI ATION OF CC IPONENTS, RELAYS, CONNECTORS. HARNESSES. GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PII S.

DATE OF ISSUE: APRIL 1995


BULB FAILURE WARNING
11.2
KS
KS
FC6-23
B
GB2-1
P
R
N
D
3
2
1
CCS31
ROTARY SWITCH
(AJ16 4.0L NA AUTOMATIC)
SLG
SLG
GB1-8
CCS18
SLG
(AJ16 4.0L NA AUTOMATIC)
SLG
(AJ16 4.0L SC, 3.2L AUTOMATIC V12)
CC3-8
SLG
(AJ16 MANUAL)
SLG
CC21-9
CCS18
SLG
SLG
32L
B
CC21-1
R
CCS33
LINEAR GEAR
POSITION SWITCHES
(AJ16 4.0L SC, 3.2L AUTOMATIC; V12)
CCG51R
SLG
SLG
SLG
B
CC45-2
CC45-1
CCS18
SLG
3.2L
CCS32
REVERSE SWITCH
(AJ16 MANUAL)
B
CCG51L
KS
KS
BT4-44
BT21-13
GENERAL
BULB FAILURE:
TAIL LAMPS
STOPLAMPS
15A
NU
NU
BT4-43
BT20-9
SLG
SLG
BT4-46
BT21-12
30
87
85
86
19
WS
BT21-19
BT21-18
27A
NY
NY
BT4-5
BT20-6
30
87
85
86
B
CA72-4
PU
CA72-1
PU
CAS11
PU
BT4-20
PU
BTS5
PU
BT21-14
CAG30R (LHD)
CAG33R (RHD)
BRAKE
SWITCH
LAMP CONTROL
MODULE
BT13
20
WS
30
87
GB
21
WS
86
85
PU
PU
BT51-1
BT51
BT51-2
HIGH MOUNTED
STOP LAMP RELAY
GO
0-8
GN
0-10
BTS2
GU
0-7
GN
BT4-8
GN
20.1
ELECTRO-
CHROMIC MIRROR
GO
BT50-5
GO
TL4-2
STOP
GN
BT50-6
GN
TL4-5
REVERSE
B
TL4-6
TLS1
B
BT50-15
B
BTG48L
LH TAIL LAMP UNIT
GN
BT50-9
GN
TL3-3
REVERSE
GU
BT50-10
GU
TL3-5
STOP
B
I-2
TLS2
B
BT50-16
B
BTS12
B
BTG49L
RH TAIL LAMP UNIT
GB
BT4-9
CA35-3
B
CA35-2
CAS65
B
CAG92R
CAG92L
HIGH MOUNTED
STOP LAMP

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	GROUNDPULSE	B+
O	FC1-46	DI BULB FAIL WARNING LAMP	GROUND	B+
I	FC2-10	LH DI BULB FAILURE	GRDUND	B+
I	FC2-18	RH DI REOUEST	GROUND	B+
I	FC2-27	HAZARD LAMPS REQUEST	GRDUND	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	FC244	LH GROUND DISCONNECT LOOP	GROUND	B+
I	FC2-46	LH DI REOUEST	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.

Fig. 09.10

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNALIYELLOW FC2 / 48-WAY PCB SIGNAL BLACK FC3 / 6-WAY PCB SIGNAL BLACK	PASSENGERS UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK AND CLOCK	CC1 116-WAY MULTILOCK MO / BLACK	CENTER CONSOLE
DIODE (FC59) - RH DI INDICATOR	FC59 DIODE / BLACK	FASCIA HARNESS / INSTRUMENT PACK
DIODE (FC60) - LH DI INDICATOR	FC60 / DIODE / BLACK	FASCIA HARNESS1 INSTRUMENT PACK
DIRECTION INDICATOR SWITCHES(COLUMN SWITCHGEAR)	SC3 / 6-WAY MULTILOCK 070 / WHITE	STEERING COLUMN COVER
DIRECTION INMCATORS - 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 0401 BLACK	TRUNK ELECTRICAL CARRIER
REPEATER - LH FRONT	LS17 12-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 / 1-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	13-WAY ECONOSEAL III LC BLACK	RH FRONT WHEEL ARCH LINER/ SPOILER AND SPOILER TRAY
BT4	THROUGH-PANEL 148 MICRO / 6) BLACK	PARCEL SHELF / FUEL TANK TRIM
BT50	10-WAY MULTILOCK 070 WHITE	TRUNK FLOOR TRIM / BATTERY COVER
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGERS UNDERSCUTTLE
FC4	20-WAY MULTILOCK MO 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 / 6L / BLACK	PASSENGER'S UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST/ 'A' POST PANEL
RS3	THROUGH-PANEL (48 MICRO / 6) BROWN	RH 'A' POSTI'A' POST PANEL

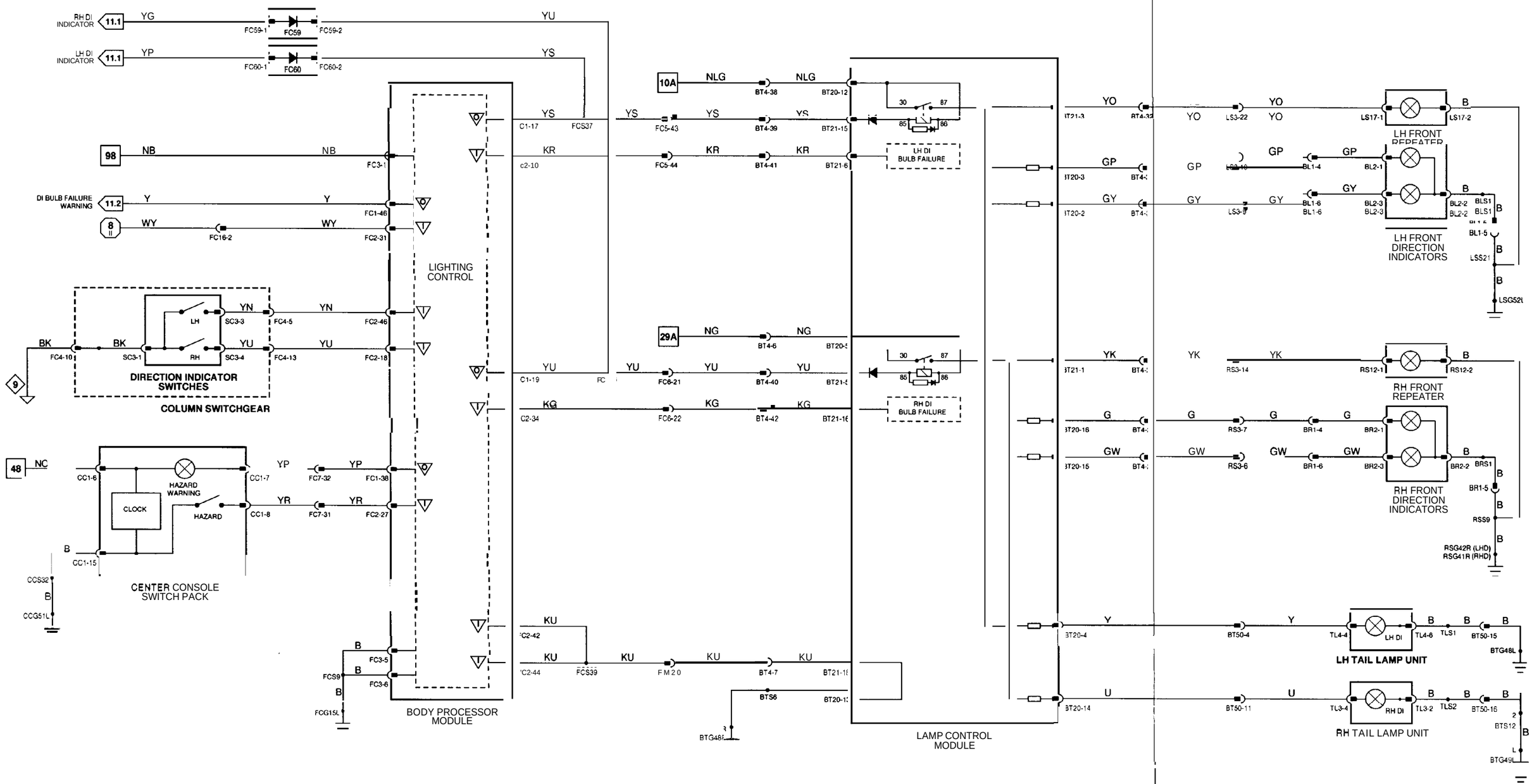
GROUNDS

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.

DATE OF ISSUE: APRIL 1995



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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: 739427 ⟶
DATE OF ISSUE: APRIL 1995

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	PUDOLE 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	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.

Fig. 10.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL/YELLOW	PASSENGERS UNDERSCUTTLE
	FC2 / 48-WAY PCB SIGNAL1 BLACK	
	FC3 / CWAY PCB SIGNAL / BLACK	
DOOR SWITCH PACK - DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 122-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 112-WAY MULTILOCK 070 / WHITE	DOOR CASING
DOOR SWITCH -DRIVER	DD3/ 13-WAY ECONOSEAL 111 LC / BLACK	DOOR CASING
DOOR SWITCH - LH REAR	RD3 L 16 WAY ECONOSEAL 111 LC / BLACK	
DOOR SWITCH - PASSENGER	PD3 113-WAY ECONOSEAL (1! LC / BLACK	DOOR CASING
DOOR SWITCH - RH REAR	RD3-R / 8-WAY ECONOSEAL 111 LC / BLACK	DOOR CASING
E-WST LAMP- LH	CA89 14-WAY MULTILOCK 040 / BLACK	'E' POST LAMP
E-POST LAMP - RH	CA90 / 4-WAY MULTILOCK MO / BLACK	'E' POST LAMP
GLOVE BOX LAMP	G11 / LUCAR / WHITE G12/ LUCAR / WHITE	GLOVE BOX GLOVE BOX
IGNITION SWITCH	FC54 (FLY LEAD) / 8 WAY MULTILOCK 0701 WHITE	STEERING COLUMN / COVER
INTERIOR / MAP LAMPS CONSOLE	CA83 / 8-WAY MULTILOCK / BLACK	DOOR CONSOLE
PUWLE LAMP - DRIVER DOOR	DO14/ 2 WAY JUNIOR TIMER / BLACK	
PUDDLE LAMP - LH REAR DOOR	RD7L / LUCAR / WHITE RDBL / 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 12-WAY MULTILOCK MO / BLACK	RH SUNVISOR
TRUNK LAMP - LH	BT46 12-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	PARCEL SHELF / FUEL TANK TRIM
CAB	20-WAY MULTILOCK WO / GREEN	DRIVER'S UNDERSCUTTLE
CA9	20 WAY MULTILOCK MO / BLACK	DRIVERS 'A' POST/ 'A WST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CA11	20 WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE/ ECM
CA12	12-WAY MULTILOCK 070 / WHITE	PASSENGERS UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK MO / 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 070 / WHITE	RH 'BC' POST/ 'BC POST PANEL
CC3	20-WAY MULTILOCK MO / 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 MO / BLUE	CENTER CONSOLE/CENTER CONSOLE
CC53	2 WAY MULTILOCK WO / BLACK	PASSENGERS UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO 86) / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL 148 MICRO / 6) / BLACK	RH FASCIA END PANEL/ OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK MO / BLACK	PASSENGERS UNDERSCUTTLE

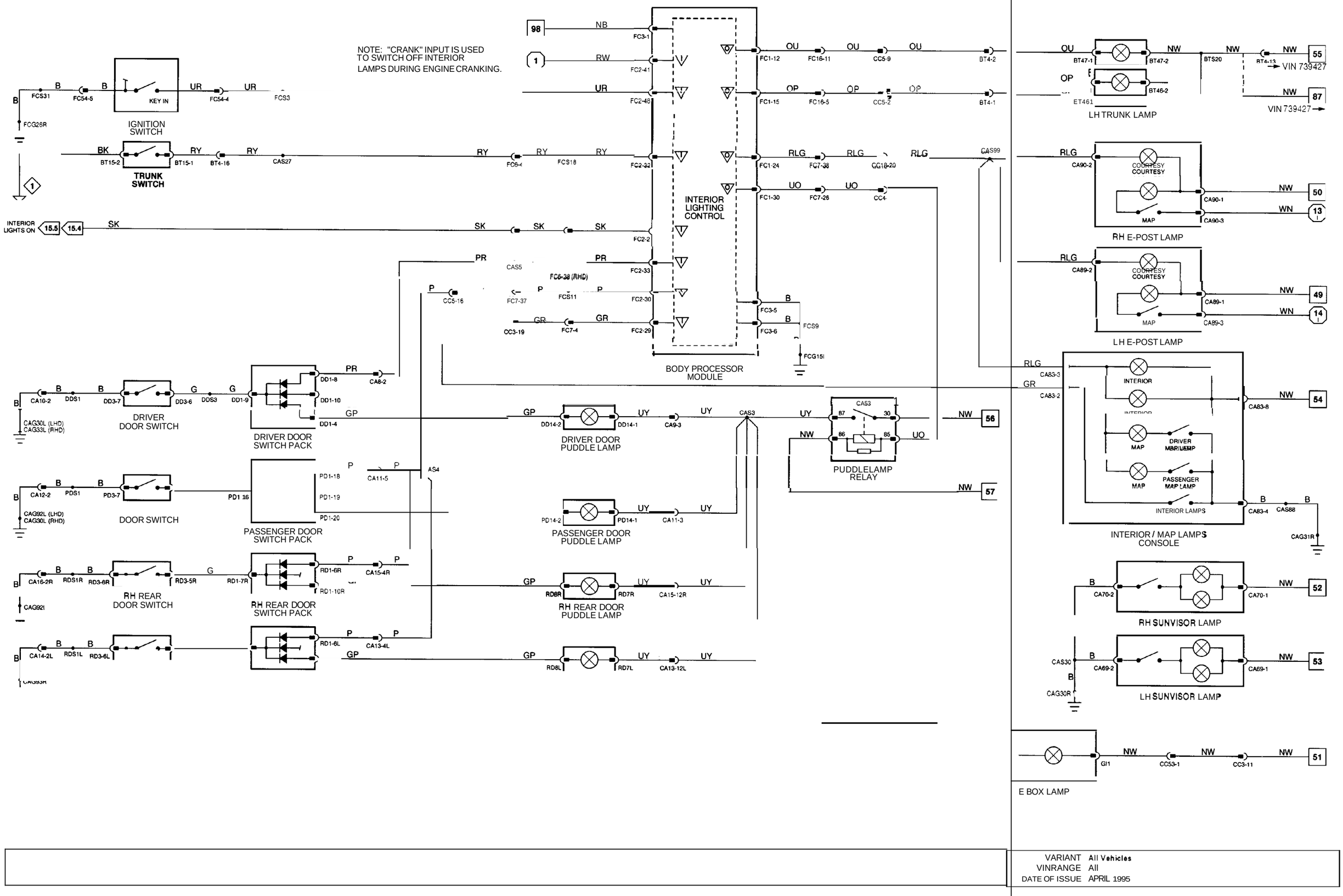
GROUNDS

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

DATE OF ISSUE: JANUARY 1995



VARIANT	All Vehicles
VINRANGE	All
DATE OF ISSUE	APRIL 1995

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+	GROUNO

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 l i e d 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.

Fig. 10.2

COMPONENTS

Component	Connector / Type I Color	Location / Access
AIR CONDITIONING CONTROL MODULE	CC28 / 26-WAY MULTILOCK 47 ISLATE CC29 / 16-WAY MULTILOCK 41 / SLATE CC30 / 12-WAY MULTILOCK47 / SLATE CC31 / 22-WAY MULTILOCK 47 ISLATE	A/C UNIT, RH SIDE IRH UNDERSCUTTLE
AIR CONDITIONING CONTROL PANEL	CC2 (FLY LEAD) 112-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
CIGAR LIGHTER - FRONT	CC9 I 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 (COLUMN SWITCHGEARI	SC1 I8-WAY MULTILOCK MO / WHITE	STEERING COLUMN ICOVER
W O R SWITCH PACK - DRIVER	DD1 / 12-WAY MULTILOCK 47 / WHITE DD2 / 22-WAY MULTILOCK 47 / WHITE	ARM RESTITOP ROLL
DOOR SWITCH PACK - LH REAR	RD1-L I12-WAY MULTILOCK 070 IWHITE	DOOR CASING
DOOR SWITCH PACK - PASSENGER	PD1 126-WAY MULTILOCK 47 / SLATE	ARM RESTITOP 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 IDRIVER'S UNMRSCUTTLE
INSTRUMENT PACK	FC9 / 24-WAY IDC / BLACK FC10 / 48-WAY IDC / BLACK	INSTRUMENT PACK
INTERIOR IMAP LAMPS CONSOLE	CA03 18-WAY MULTILOCK / BLACK	ROOF CONSOLE
LIGHTING SWITCHES	FC12 I16-WAY MULTILOCK 040 / BLUE	FASCIA SWITCH PACK
RADIO	IC1 120-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE

HARNESS-TO-HARNESSCONNECTORS

Connector	Type I Color	Location / Access
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S ' A POST / ' A POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CA11	20 WAY MULTILOCK 040 / BLACK	PASSENGERS UNDERSCUTTLE IECM
CA12	12-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE IECM
CA13	12 WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA14	2-WAY MULTILOCK 070 IWHITE	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK WO / BLACK	RH 'BC' POST / 'BC' POST PANEL
CA16	2-WAY MULTILOCK 070 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE ICENTER CONSOLE
FC4	20 WAY MULTILOCK M 0 IBLUE	DRIVER'S UNOERSCUTTLE
FC7	THROUGH-PANEL (48 MICRO / 6) IBLACK	PASSENGERS UNOERSCUTTLE
IC7	8-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE

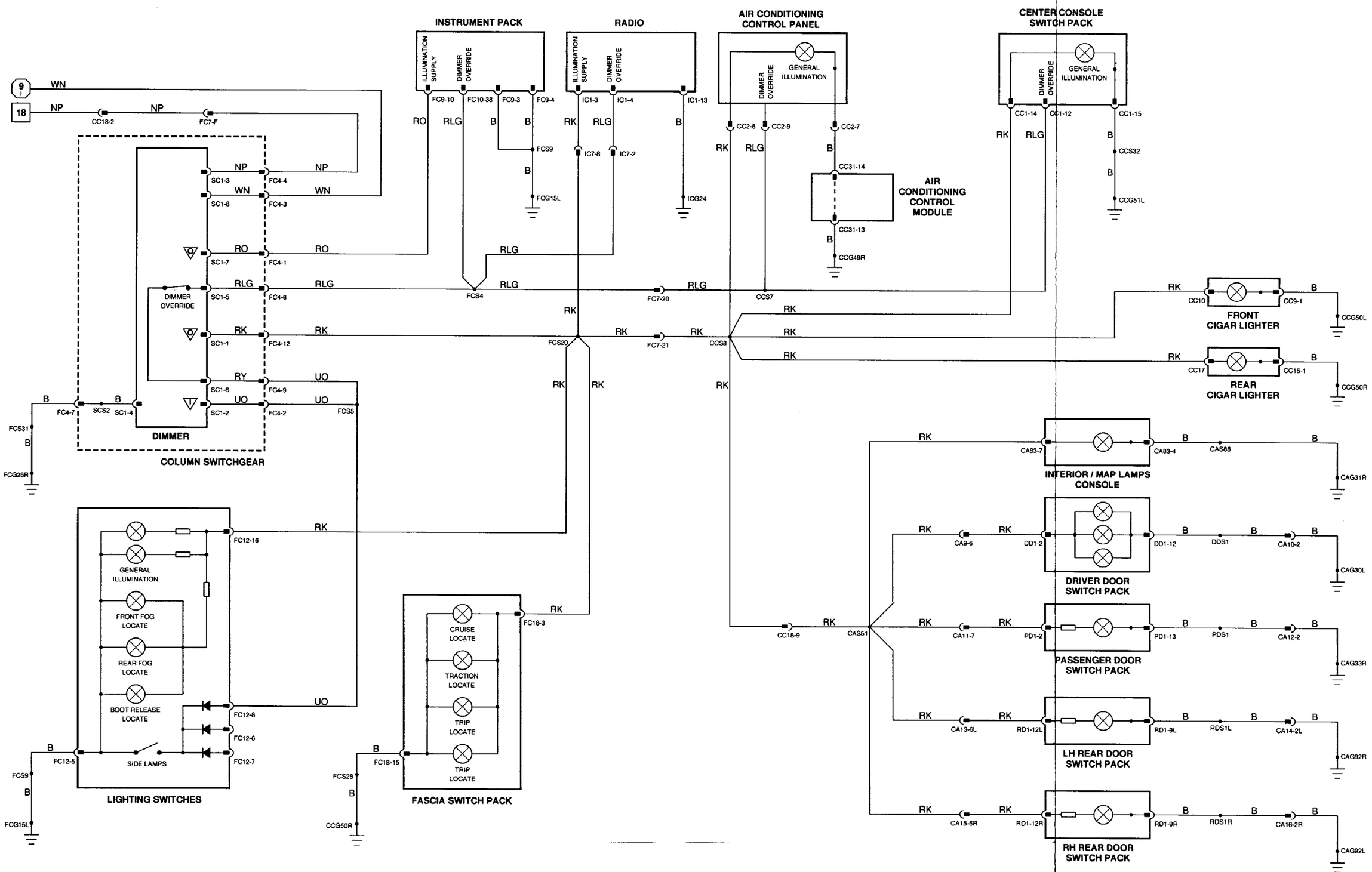
GROUNDS

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 HEELBOARDGROUNDSCREW
CCG49R	RH CONSOLE GROUND STUD
CCGML	CENTER CONSOLE GROUNO
CCG50R	CENTER CONSOLE GROUND
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND STUD
ICG24	RADIO GROUNO 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.

DATE OF ISSUE: JANUARY 1995



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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
VINRANGE All
DATE OF ISSUE JANUARY 1995

CONTROL MODULE PIN OUT INFORMATION

INSTRUMENT PACK

▽	Pin	Description	Active	Inactive
D	FC9-13	SERIAL COMMUNICATION INPUT		
D	FC9-14	SERIAL COMMUNICATION OUTPUT		
I	FCP-15	VEHICLE SPEED INPUT	B+ @ 10 MPH = 200 Hz, 20 MPH = 400 Hz	
I	FC9-19	COOLANT TEMPERATURE INDICATOR LAMP	GROUND	B+
I	FCP-20	FUEL LEVEL	GROUND = FULL	B+ = EMPTY
I	FC9-21	ENGINE OIL PRESSURE	GROUNO = MAXIMUM PRESSURE	B+ = MINIMUM PRESSURE
I	FCS-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 132 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	GROUNO	B+
I	FC10-40	LH DI ON	GROUND PULSE	B+
I	FC10-41	RH DI ON	GROUND PULSE	B+
I	FC10-42	MPH IKPH	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.

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 MULTILOCK040 / BLACK	STEERING COLUMN ▮DRIVERS UNDERSCUTTLE
FUEL LEVEL SENSOR	BT32; BT33 ▮LUCAR / WHITE	FUEL TANK ▮FUEL TANK TRIM
HAND BRAKE SWITCH	CC52 ▮2-WAY MULTILOCK040 ▮BLACK	CENTER CONSOLE, LH SIDE
INSTRUMENT PACK	FC9 ▮24-WAY IDC / BLACK FC10 / 48-WAY IDC ▮BLACK	INSTRUMENT PACK
OIL PRESSURE SENSOR	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	PARCEL SHELF / FUEL TANK TRIM
CC5	20-WAY MULTILOCK MO ▮GREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC4	20-WAY MULTILOCK040 / 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	PASSENGERS UNDERSCUTTLE
IC7	8-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE
PI1	13 WAY ECONOSEAL!II LC / WHITE	RH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC ▮BLACK	RH AIR CLEANER
PI63	20-WAY MULTILOCK040 / BLACK	RH 'A' POST/ 'A' POSTTRIM
RS3	THROUGH-PANEL (48 MICRO/ 6) ▮BROWN	RH 'A' POSTI'A' POSTPANEL

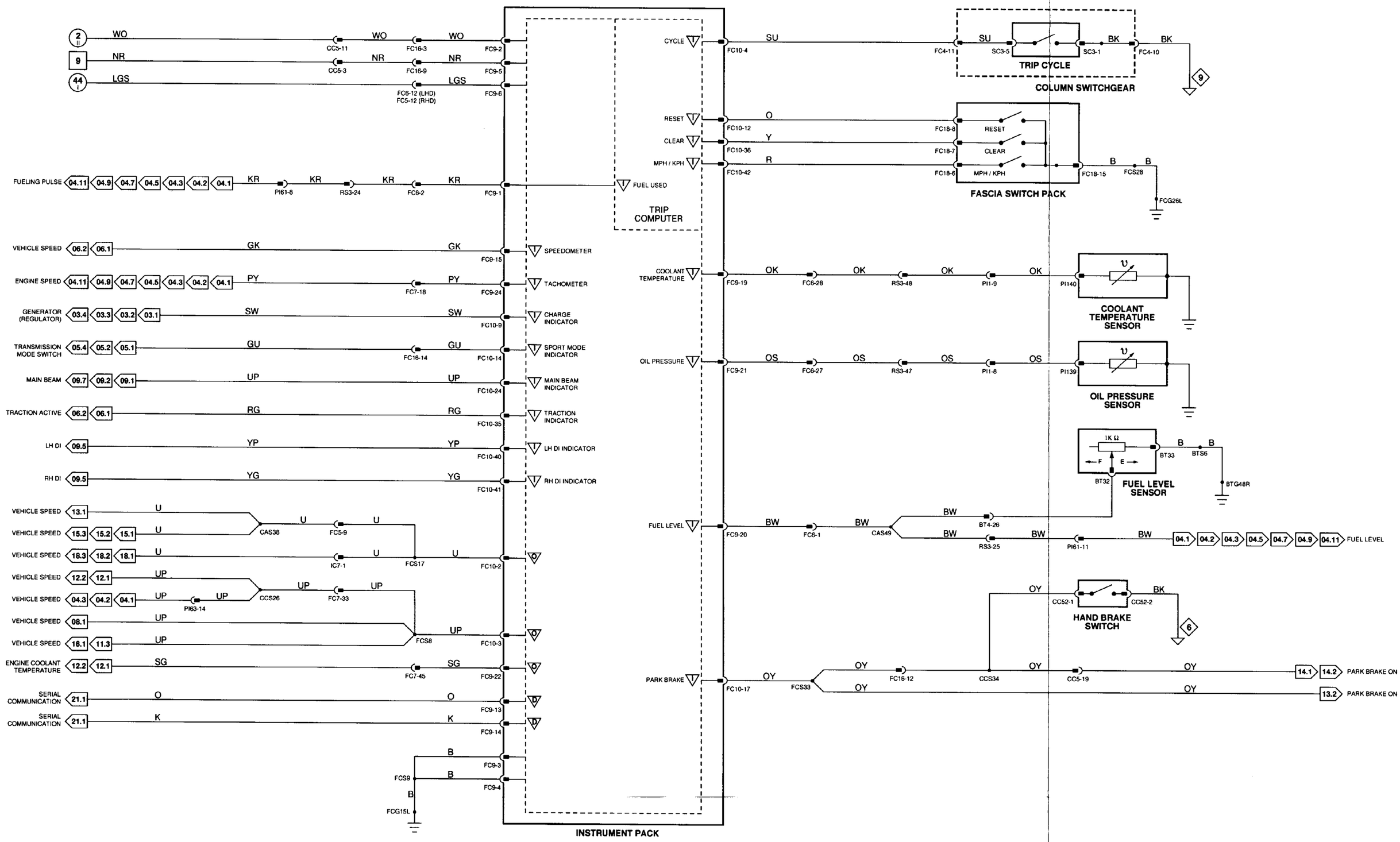
GROUNDS

Ground	Location ▮Type
BTG48R	REAR TRUNK GROUND S N D
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.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: APRIL 1995

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-26	SEAT BELT WARNING LAMP	GROUND	B+
I	FCZ-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		
	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+
	FC10-45	AIR BAG FAILURE	GROUND	B+
I	FC10-46	DRIVER WOR AJAR	GROUND	7.9 V
	FC10-47	PASSENGER DQOR AJAR	GROUND	7.9 V

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.

Fig. 11.2

COMPONENTS

Component	Connector ▮Type ▮Color	Location ▮Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNALIYELLOW FC2 148-WAY PCB SIGNAL ▮BLACK FC3 ▮6-WAY PCB SIGNAL / BLACK	PASSENGERS UNDERSCUTTLE
BRAKE FLUID LEVEL SWITCH (LHD)	LS28 / 2-WAY JUNIOR TIMER IBLACK	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
WOR 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	0031 13-WAY ECONOSEAL III LC ▮BLACK	
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 124-WAY IDC / BLACK FC10 / 48-WAY IDC / BLACK	INSTRUMENT PACK
SEAT BELT SWITCH	SMB / 2-WAY MULTILOCK M O ▮BLACK	DRIVER'S SEAT / UNDER
SEAT CONTROL MODULE – DRIVER (NAS VEHICLES)	CA105 / 22-WAY MULTILOCK 47 ▮BLUE CA1061 12-WAY MULTILOCK 471 BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6-D / 22-WAY MULTILOCK 47 I WHITE	DRIVER'S SEAT
SEAT CONTROL MODULE – DRIVER IROW. MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE PL2 ▮12-WAY MULTILOCK 41/ 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	PARCEL SHELF ▮FUEL TANK TRIM
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S ' A POST / 'A POST TRIM
CA10	8-WAY MULTILOCK 0701WHITE	DRIVER'S UNDERSCUTTLE
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S 'A' POST / 'A' POST TRIM
CA12	12-WAY MULTILOCK 0701WHITE	PASSENGERS 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 070 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CA23	20-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT
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
FC5	THROUGH-PANEL 148 MICRO / 6) / BLACK	LH FASCIA END PANEL ▮OUTER AIR VENT
FC6	THROUGH-PANEL 148 MICRO / 6) / BLACK	RH FASCIA END PANEL ▮OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) ▮BLACK	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGERS 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	RH AIR CLEANER
PI63	20-WAY MULTILOCK MO ▮BLACK	RH 'A' POST / 'A' POST TRIM
RS3	THROUGH-PANEL48 MICRO / 6) ▮BROWN	RH 'A POST / 'APOST PANEL

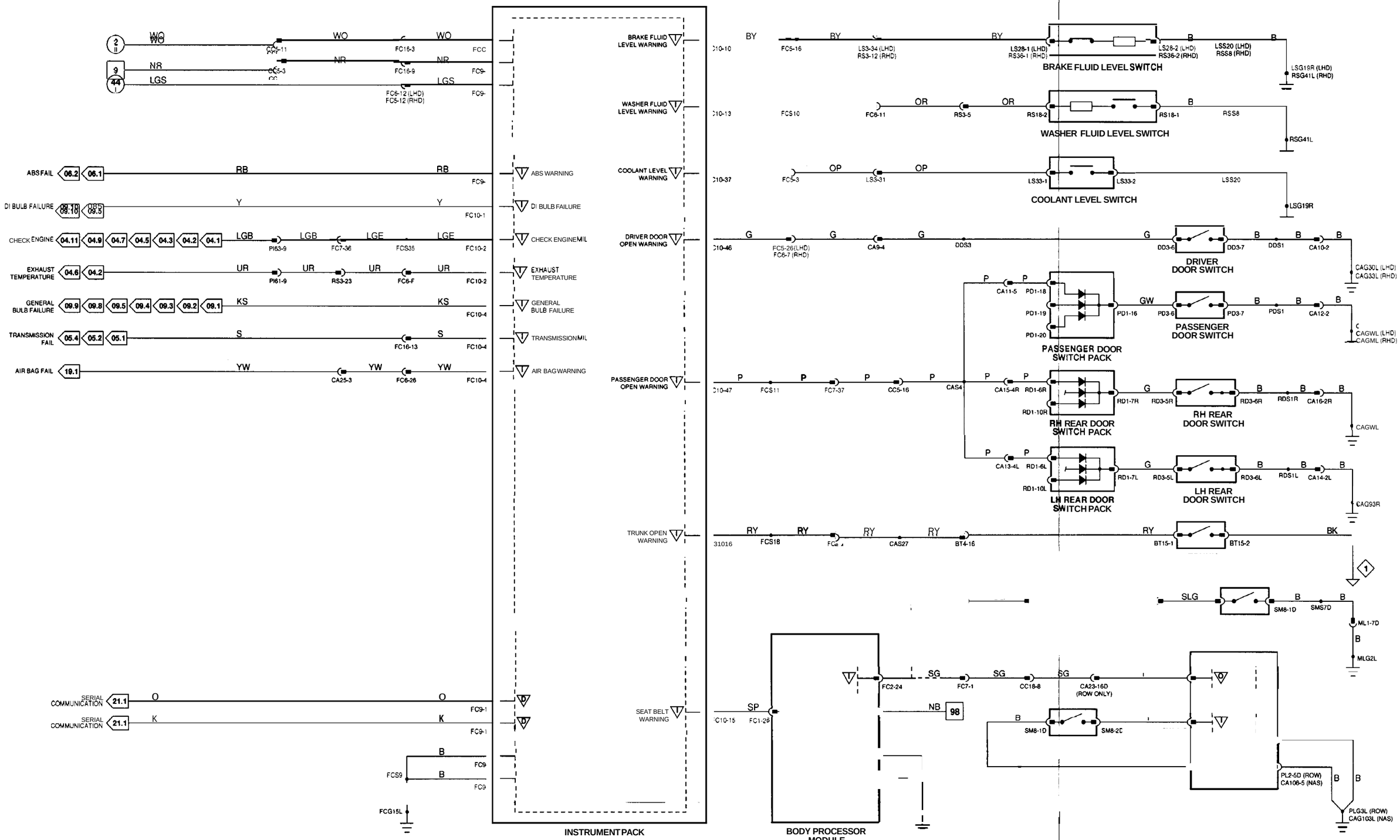
GROUNDS

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
PLGK	LH SEAT GROUND SCREW
RSG41L	RIGHT FORWARD GROUND

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 MODULE CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: APRIL 1995

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 KPHI = 20 Hz, 20 MPH 132 KPHI = 40 Hz	
I	FC2-16	NOT IN PARK MICRO SWITCH	GROUND	B+
I	FC2-18	RH DI REOUEST	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 REOUEST	GROUND	B+
I	FC2-33	DRIVER DOOR AJAR	GROUND	B+
I	FC2-46	LH DI REOUEST	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	B+	Battery voltage
O	output	V	Voltage (DC)
SG	Signal Ground	Hz	Frequency
D	Serial and encoded communications	KHz	Frequency x IOW
		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.

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 SWITCHGEARI	SC3 / 6-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
DOOR SWITCH –DRIVER	DD3 / 13-WAY ECONOSEAL 111 LC / BLACK	DOOR CASING
DOOR SWITCH PACK - DRIVER	DD1 / 12-WAY MULTILOCK 41 WHITE DD2 22-WAY MULTILOCK 47 / WHITE	ARM RESTITOP ROLL
SEAT CONTROL MODULE – DRIVER (NAS VEHICLES1	CA106 122-WAY MULTILOCK 47 BLUE CA106 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6 D I 2 2 WAY MULTILOCK 41 / WHITE	DRIVERS SEAT
SEAT CONTROL MODULE - DRIVER (ROW. MEMORY SEAT VEHICLES)	PL1 122-WAY MULTILOCK 47 / BLUE PL2 12-WAY MULTILOCK 47 / BLUE SM1 D I 1 2 WAY MULTILOCK 47 / WHITE SM6-D / 22-WAY MULTILOCK 47 / WHITE	DRIVER'S SEAT
IGNITION SWITCH	FC54 (FLY LEAD) IB WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
LIGHTING SWITCHES	FC12 116-WAY MULTILOCK 040 / BLUE	FASCIA SWITCH PACK
NOT IN PARK MICROSWITCH	CC42 (FLY LEAD) 12-WAY MULTILOCK 040 / BLACK	'J' GATE / CENTER CONSOLE
SEAT BELT SWITCH	SM8 12-WAY MULTILOCK MO / BLACK	DRIVERS SEAT / UNDER
SPEAKER [COLUMN SWITCHGEAR)	SC4 / 3 WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER

HARNESS-TO-HARNESSCONNECTORS

Connector	Type Color	Location / Access
CA6	20-WAY MULTILOCK MO / GREEN	DRIVER'S UNDERSCUTTLE
CA10	6-WAY MULTILOCK 0701WHITE	DRIVER'S UNDERSCUTTLE
CA23	20-WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK MO / BLUE	CENTER CONSOLE / CENTER CONSOLE
FC4	20-WAY MULTILOCK W 0 / BLUE	DRIVER'S UNDERSCUTTLE
FC5	THROUGH-PANEL 146 MICRO / 6) / BLACK	LH FASCIA END PANEL OUTER AIR VENT
FC6	THROUGH-PANEL 146MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANE1 (48 MICRO / 6) BLACK	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 BLACK	PASSENGERS UNDERSCUTTLE
ML1-D	10-WAY MULTILOCK 010 I WHITE	DRIVER'S SEATIUNDER

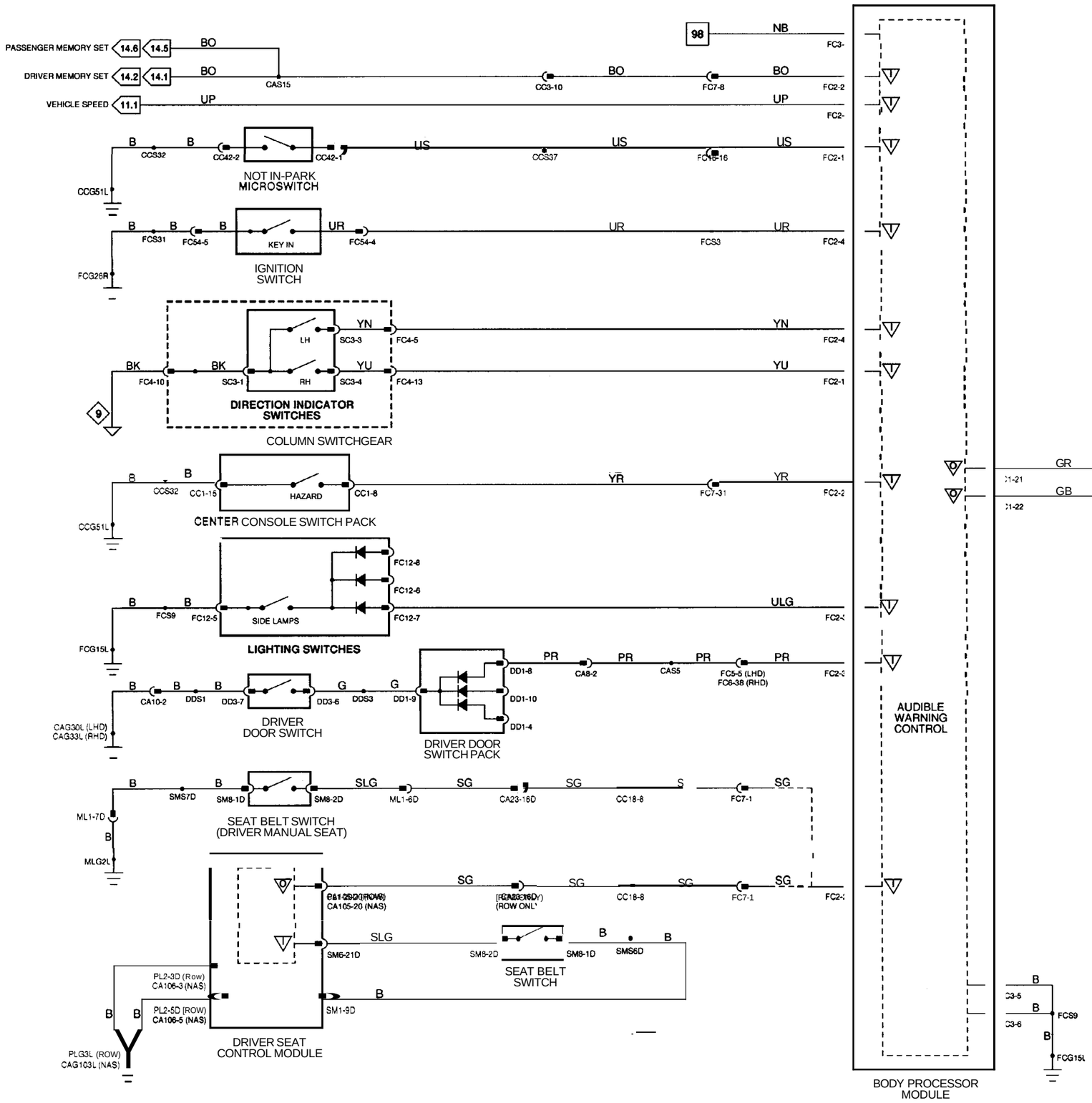
GROUNDS

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 SEATGROUNDSCREW
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.

DATE OF ISSUE: JANUARY 1995



AUDIBLE WARNINGS:

RIVER DOOR OPEN (SIDE LIGHTS O N KEY-IN)

EY IN IGNITION

RANSMISSION NOT IN PARK

RIVER SEAT BELT

EMORY SET

IRECTION INDICATORS/ HAZARD

EHICLE OVERSPEED (MIDDLE EAST ONLY)

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	ccm-7	CENTER VENT SERVO MOTOR	B+	GROUND
O	CC28-8	LH RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28-9	RH RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28 12	FOOTWELL VENT SERVO MOTOR	B+	GROUND
O	CC28-13	COOL AIR BY-PASSVENT 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 RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28-22	RH RECIRCULATIONVENT 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 IOPENI	< 1V ICLOSEDI
I	CC29-3	RH RECIRCULATIONPOTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V IOPENI	< 1V ICLOSEDI
I	CC29-5	COOL AIR BY-PASS POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V IOPENI	< 1V ICLOSEDI
I	CC29-6	COOLANT TEMPERATURE SIGNAL	2.5 V @ 90° C. INCREASING WITH TEMPERANRE	
I	CC29-9	TEMPERATURE DIFFERENTIAL POTENTIOMETER FEEDBACK	0.75V = RED; 4.75V = BLUE	
I	CC29-10	DEFRDSTVENTPOTENTIDMETER FEEDBACK	> 3.5 V IOPENI	< 1V ICLOSEDI
I	CC29-11	LH RECIRCULATIONPOTENTIOMETER FEEDBACK	> 3.5 V (OPEN); < 1 V (CLOSED)	
I	CCB-13	FOOTWELL VENT POTENTIOMETER FEEDBACK	> 3.5 V IOPENI; < 1V ICLOSEDI	
O	ccm-1	AIR CONDITIONINGELECTRICALLOAD SIGNAL	B+	GROUND
O	CCM-2	CLOCK	B+ 11.46 KHz)	B+
D	CC30-3	SERIAL DATAOUTPUTTD CONTROL PANEL		
I	CC30-5	AMBIENT TEMPERATURE SENSOR FEEDBACK	2.18 V @ 25° C, INCREASING WITH TEMPERATURE	
I	CCM-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	CCM-11	IN CAR TEMPERATURESENSOR FEEDBACK	3.25 V @ 0° C. INCREASING WITH TEMPERATURE	
I	CCM-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 REDUEST	GROUND	B+
D	CC31-10	SERIAL COMMUNICATION INPUT		
O	CC31-12	BATTERY POWER SUPPLY TO CONTROL PANEL	B+	B+
O	CC31 15	AIR CONDITIONINGISOLATE RELAY	B+	GROUND
I	CC31-16	VEHICLE SPEED SIGNAL	B+ @ 10 MPH (16 KPHI = 20 Hz, 20 MPH 132 KPHI = 40 Hz	
I	CC31-17	REFRIGERANTTRIPLE PRESSURE SWITCH - 4.0L REFRIGERANTDUAL PRESSURE SWITCH - V12	GROUND	B+
O	CC31-18	ASPIRATOR MOTOR	B+	GROUND
SG	CC31-19	SERVO POTENTIOMETERCOMMON REFERENCE GROUND	GROUND	GROUND
D	CC31-21	SERIAL COMMUNICATION OUTPUT		

AIR CONDITIONING CONTROL PANEL

▽	Pin	Description	Active	Inactive
I	CC2-1	CLOCK	B+ 11.45 KHz)	B+
I	CC2-2	START	B+	GROUND
D	CC2-3	SERIAL DATA DUTPUTTO 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	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.

Fig. 12.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING CONTROL MODULE	CC28 126-WAY MULTILOCK 47 / SLATE CC29 / 16-WAY MULTILOCK 47 / SLATE CC30 112-WAY MULTILOCK 47 / SLATE CC31 122-WAY MULTILOCK 47 / SLATE	A/C UNIT. RH SIDE/ RH UNDERSCUTTLE
AIR CONDITIONING CONTROL PANEL	CC2 (FLY LEAD) 112-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE
AMBIENT TEMPERANRE SENSOR	BL6 (FLY LEADI 12-WAY ECONOSEAL III LCI BLACK	LH FRONTWHEEL ARCH LINER / SPOILER TRAY
ASPIRATOR MOTOR	FC40 (FLY LEAD) 14-WAY MULTILOCK 070/ WHITE	DRIVERS UNDERSCUTTLE
COOL AIR BYPASS SERVO	CC34 IFLY LEAD) 12-WAY MULTILOCK 040 I BLACK	AJC UNIT, LH SIDE; /LH UNDERSCUTTLE
DEFROST SERVO	FC42 (FLY LEAD) 112-WAY MULTILOCK 040 / BLACK	AJC UNIT. RH SIDE; FASCIA
DIFFERENTIAL CONTROL POTENTIOMETER	FC20 (FLY LEAD) / 3-WAY MULTILOCK 070 I WHITE	A/C UNIT, LH SIDE; FASCIA
EVAPORATOR TEMPERATURE SENSOR	CC34 (FLY LEAD)/ 12-WAY MULTILOCK 040 I BLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
FOOT WELL SERVO	CC34 IFLY LEAD) I 12-WAY MULTILOCK 040 I BLACK	A/C UNIT, LH SIDE I LH UNDERSCUTTLE
FRESH IRECIRCULATION SERVO - LH	CC32 IFLY LEAD)/ 15-WAY SUMITOMO 90 / GREEN	BLOWER HOUSING
FRESH IRECIRCULATION SERVO - RH	CC33 IFLY LEAD) / 15-WAY SUMITOMO 90 / GREEN	BLOWER HOUSING
HEATER MATRIX TEMPERATURE SENSOR	CC34 (FLY LEAD) I 12-WAY MULTILOCK 040 / BLACK	A/C UNIT. LH SIDE / LH UNDERSCUTTLE
IN-CAR TEMPERATURE SENSOR	FC40 IFLY LEAD) / 4-WAY MULTILOCK 040 I WHITE	DRIVERS UNDERSCUTTLE
SOLAR SENSOR	FC34 IFLY LEAD) 12-WAY MULTILOCK 040 I BLACK	FASCIA, TOP FRONT
VENT SERVO	FC42 IFLY 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 LCI BLACK	LH FRONTWHEEL ARCH LINER I 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
FC5	THROUGH-PANEL (48 MICRO/ 6) / BLACK	LH FASCIA END PANEL I OUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO/ 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO/ 6) I BLACK	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO/ 6) / BLACK	LH 'A' POST/ 'A' POSTPANEL
PI63	20 WAY MULTILOCK 040 I BLACK	RH 'A POST/ 'A' POSTTRIM

GROUNDS

Ground	Location / Type
CAG92R	RH HEELBOARDGROUNDSCREW
CCG49L	RH CONSOLE GROUNDSTUD
CCG49R	RH CONSOLE GROUND STUD
FCG15R	LH CONSOLE GROUND STUD
PIG153L	RH BULKHEAD GROUNDSTUD

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.

DATE OF ISSUE: JANUARY 1995

NOTE WHEN THE IGNITION SWITCHED GROUND INPUT IS INTERRUPTED DURING ENGINE CRANKING, THE NCCM DOES NOT DRIVE HIGH POWER CONSUMING COMPONEMS.

N TE: THE A/C ISOLATE RELAY REMAIN ENERGIZED B THE A/CCM FOR 30 SECONDS AFTER THE IGNITION IS SWITCHED OFF TO PROVIDE POWER FOR THE A/CCM TO "PARK" THE SERVOS

EVAPORATOR / HEATER MATRIX ASSEMBLY
EVAPORATOR TEMPERATURE SENSOR
HEATER MATRIX TEMPERATURE SENSOR
COOL AIR BYPASS SERVO
FOOT WELL SERVO
LH AIR INTAKE
FRESH / RECIRCULATION SERVO
RH AIR INTAKE
FRESH / RECIRCULATION SERVO
VENT ASSEMBLY
VENT SERVO
DEFROST SERVO
DIFFERENTIAL CONTROL POTENTIOMETER
ASPIRATOR ASSEMBLY
IN-CAR TEMPERATURE SENSOR
ASPIRATOR MOTOR
SOLAR SENSOR
AMBIENT TEMPERATURE SENSOR

AIR CONDITIONING ISOLATE RELAY

AIR CONDITIONING CONTROL MODULE

CONTROL PANEL

1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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 All
DATE OF ISSUE JANUARY 1995

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 RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28-9	RH RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28 12	FOOTWELLVENT SERVO MOTOR	B+	GROUND
O	CC28-13	CDOL AIR BY-PASS VENT SERVO MOTOR	B+	GROUND
O	CC28-19	DEFROSTVENTSERVO MOTOR	B+	GRDUND
O	CC28-20	CENTER VENT SERVO MOTOR	B+	GROUND
O	CC28-21	LH RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28-22	RH RECIRCULATIONVENT SERVO MOTOR	B+	GROUND
O	CC28-25	FOOTWELLVENT 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 WTENTIOMETER FEEDBACK VOLTAGE	> 35 V (OPEN)	< 1 V (CLOSED)
I	CC29-3	RH RECIRCULATION POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V ICLOSEDI
I	CC29-5	COOL AIR BY-PASS POTENTIOMETER FEEDBACK VOLTAGE	> 3.5 V (OPEN)	< 1 V ICLOSEDI
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 ICLOSEDI
I	CC29-11	LH RECIRCULATIONWTENTIOMETER FEEDBACK	> 3.5 V (OPEN); < 1 V (CLOSED)	
I	CC29-13	FOOTWELLVENT POTENTIOMETER FEEDBACK	> 3.5 V IOPENI: < 1 V ICLOSEDI	
O	CC30-1	AIR CONDITIONING ELECTRICAL LOAD SIGNAL	B+	GROUND
O	CCM-2	CLOCK	B+ (1.45 KHz)	B+
D	CCM-3	SERIAL DATA OUTPUT TO CONTROL PANEL		
I	CC30-4	COMPRESSOR LOCK SIGNAL (V12 ONLY)	0.43 V	GROUND
I	CCM-5	AMBIENT TEMPERATURE SENSOR FEEDBACK	2.18 V @ 25° C, INCREASING WITH TEMPERANRE	
I	CC30-6	HEATER MATRIX AIR TEMPERATURE SENSOR FEEDBACK	2.26 V @ 20° C. INCREASING WITH TEMPERANRE	
D	CCM-7	SERIAL DATA INPUT FROM CONTROL PANEL		
O	CC30-8	START	B+	GROUND
I	CC30-11	IN CAR TEMPERANRE SENSOR FEEDBACK	3.25 V @ 0° C, INCREASING WITH TEMPERATURE	
	CC30-12	EVAPORATOR TEMPERATURE SENSOR FEEDBACK	3.25 V @ 0° C, INCREASING WITH TEMPERANRE	
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	
	CC31-7	LOADINHIBIT (V12 ONLY)	GROUND	B+
O	CC31-8	SERVO POTENTIOMETER COMMON REFERENCE VOLTAGE	5V	5 v
O	CC31-9	COMPRESSOR CLUTCH REOUEST	GRDUND	B+
D	CC31-10	SERIAL COMMUNICATION INPUT		
O	CC31-12	BATTERYPOWER SUPPLY TO CONTROL PANEL	B+	B+
O	CC31-15	AIR CONDITIONINGISOLATE RELAY	B+	GROUND
I	CC31-16	VEHICLE SPEED SIGNAL	B+ @ 10 MPH (16 KPH) = 20 Hz, 20 MPH 132 KPH) = 40 Hz	
	CC31-17	REFRIGERANT TRIPLE PRESSURE SWITCH - 4.0L REFRIGERANTDUAL PRESSURE SWITCH - V12	GROUND	B+
O	CC31-18	ASFIRATOR MOTOR	B+	GROUND
SG	CC31-19	SERVO POTENTIOMETERCOMMON 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	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.

Fig. 12.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR CONDITIONING CONTROL MODULE	CC28 126-WAY MULTILOCK 47 / SLATE CC29 116-WAY MULTILOCK 47 ISLATE CC30 112-WAY MULTILOCK 47 / SLATE CC31 / 22-WAY MULTILOCK 41 / SLATE	A/C UNIT, RH SIDE IRH UNDERSCUTTLE
AIR CONDITIONING CONTROL PANEL	CC2 (FLY LEAD) I12-WAY MULTILOCK 040 IBLUE	CENTER CONSOLE
AMBIENT TEMPERATURE SENSOR	BL6 (FLY LEAD) 12-WAY ECONOSEALIII LC / BLACK	LH FRONT WHEEL ARCH LINER ISPOILER TRAY
ASPIRATOR MOTOR	FC40 (FLY LEADI I4-WAY MULTILOCK 070 IWHITE	DRIVERS UNDERSCUTTLE
COMPRESSOR LOCK SENSOR	PI57 (FLY LEAD) / 2-WAY ECONOSEAL III LC IBLACK	A/C COMPRESSOR
COOL AIR BYPASS SERVO	CC34 IFLY LEAD) 12-WAY MULTILOCK 040 / BLACK	A/C UNIT, LH SIDE: /LH UNDERSCUTTLE
DEFROST SERVO	FC42 IFLY LEAD) I12-WAY MULTILOCK 040 IBLACK	A/C UNIT, RH SIDE; FASCIA
DIFFERENTIAL CONTROL WTENTIOMETER	FC20 IFLY LEAD) 13-WAY MULTILOCK 0701WHITE	A/C UNIT, LH SIDE: FASCIA
EVAPORATOR TEMPERATURE SENSOR	CC34 IFLY LEADI 112-WAY MULTILOCK 040 IBLACK	A/C UNIT, LH SIDE / LH UNDERSCUTTLE
FOOT WELL SERVO	CC34 (FLY LEADI 112-WAY MULTILOCK 040 IBLACK	A/C UNIT, LH SIDE I L H UNDERSCUTTLE
FRESH IRECIRCULATION SERVO ~ LH	CC32 (FLY LEAD) I15-WAY SUMITOMO 90 IGREEN	BLOWER HOUSING
FRESH IRECIRCULATION SERVO– RH	CC33 IFLY LEAD) 116-WAY SUMITOMO 901GREEN	BLOWER HOUSING
HEATER MATRIX TEMPERATURE SENSOR	CC34 IFLY LEAD) 112-WAY MULTILOCK 040 IBLACK	A/C UNIT, LH SIDE ILH UNDERSCUTTLE
IN-CAR TEMPERATURE SENSOR	FC40 (FLY LEAD) 14-WAY MULTILOCK M 0 / WHITE	DRIVER'S UNDERSCUTTLE
SOLAR SENSOR	FC34 (FLY LEAD) 12-WAY MULTILOCK 040 IBLACK	FASCIA, TOP FRONT
VENT SERVO	FC42 (FLY LEAD) 112-WAY MULTILOCK 040 IBLACK	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 ISPOILER AND SPOILER TRAY
CC5	20-WAY MULTILOCK M 0 IGREEN	CENTER CONSOLE1CENTER CONSDLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 IBLUE	CENTER CONSOLE ICENTER CONSOLE
FC5	THROUGH-PANEL(48 MICRO / 6) IBLACK	LH FASCIA END PANEL IOUTER AIR VENT
FC6	THROUGH-PANEL(48 MICRO / 6) IBLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGERSUNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 IBLACK	PASSENGERSUNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) IBLACK	LH 'A' POST/ 'A' POSTPANEL
PI1	13-WAY ECONOSEAL III LC I WHITE	RH AIR CLEANER
PI63	20-WAY MULTILOCK MO / BLACK	RH 'A' POST/ 'A' POSTTRIM

GROUNDS

Ground	Location / Type
CAG92R	RH HEELBOARDGROUND SCREW
CCG49R	RH CONSOLE GROUND S N D
FCG15R	LH CONSOLE GROUND S N D

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

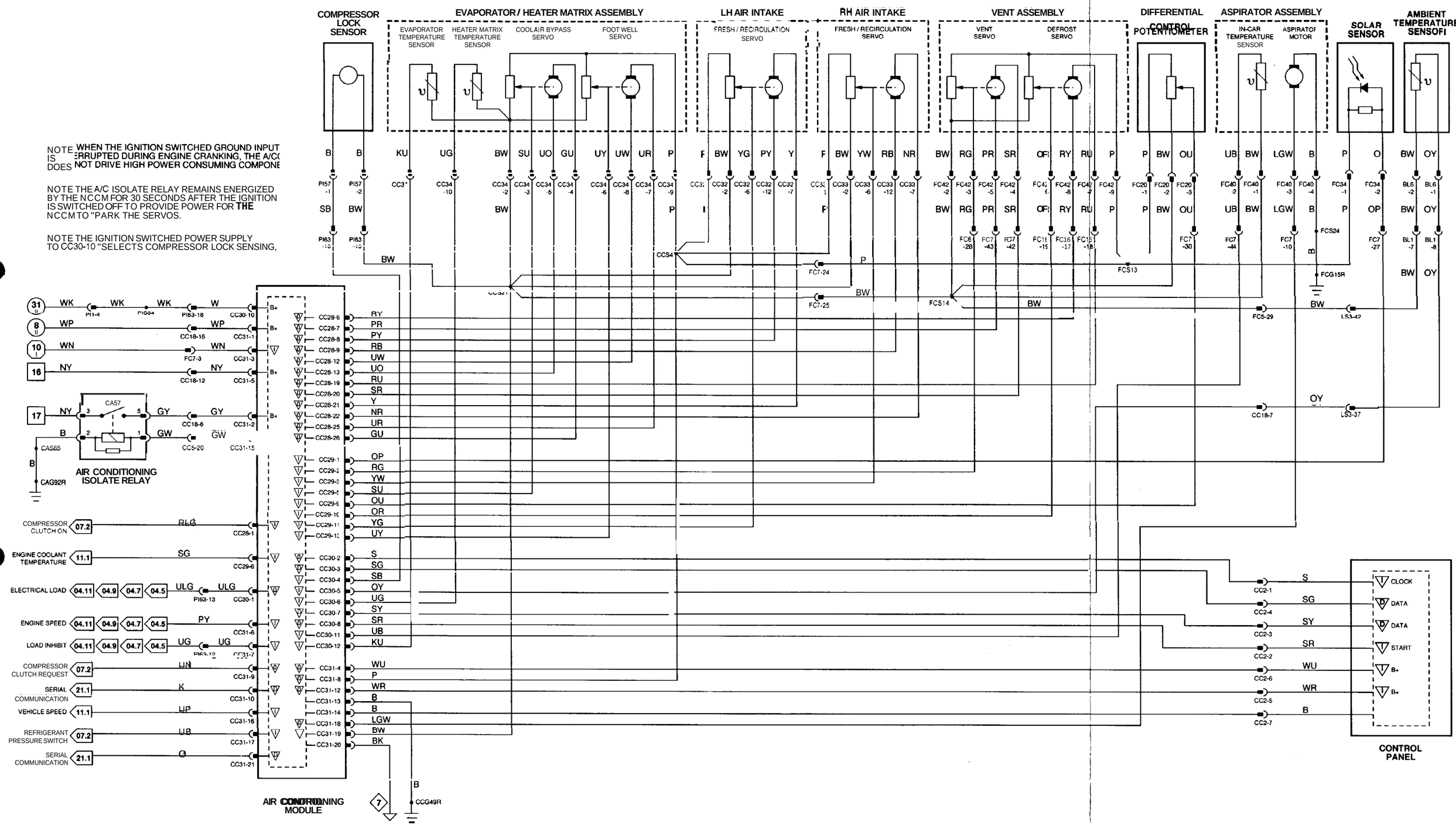
REFER TO THE FRONT OF THE B OK I OR ILLUSTRATIONS DET ILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNE SES GROUNDS, VEHICLE CO I TROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995

NOTE WHEN THE IGNITION SWITCHED GROUND INPUT IS ERRUPTED DURING ENGINE CRANKING, THE A/C(DOES NOT DRIVE HIGH POWER CONSUMING COMPONE

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

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



1—6 Fig. 01.1	7—65 Fig. 01.2	66—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: All
DATE OF ISSUE: APRIL 1995

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+
I	CC31-11	HEATER PUMP	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.

Fig. 12.3

COMPONENTS

Component	Connector ▮Type ▮Color	Location ▮Access
AIR CONDITIONING CONTROL MODULE	CC28 126-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) 115-WAY SUMITOMO 090 / GREEN	LH UNDERSCUTTLE
BLOWER MOTOR – RH	CC33 (FLY LEADJ/ 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) I 2 WAY ECONOSEAL 111 LC / BLACK	ENGINE BAY, LH REAR
HEATERVALVE	LS15 (FLY LEAD) 12-WAY ECONOSEAL 111 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 HCATER 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	PARCEL SHELF ▮FUEL TANK TRIM
CA3	20 WAY MULTILOCK 040 / BLACK	DRIVER'S 'A POSTI'A POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	12-WAY MULTILOCK 0701WHITE	PASSENGERS UNDERSCUTTLE / ECM
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE ICENTER CONSOLE GLOVE BOX
CC4	14 WAY MULTILOCK 070 ▮WHITE	CENTER CONSOLE ICENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 / GREEN	CENTER CONSOLE / CENTER CONSOLE
FC7	THROUGH-PANEL 148 MICRO / 6) / BLACK	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
SH1	2-WAY SERIES 187C / SLATE	LH'APOSTI'APOST PANEL
SH8	4-WAY MULTILOCK 070 / WHITE	LH 'A' POST / 'A' POST PANEL

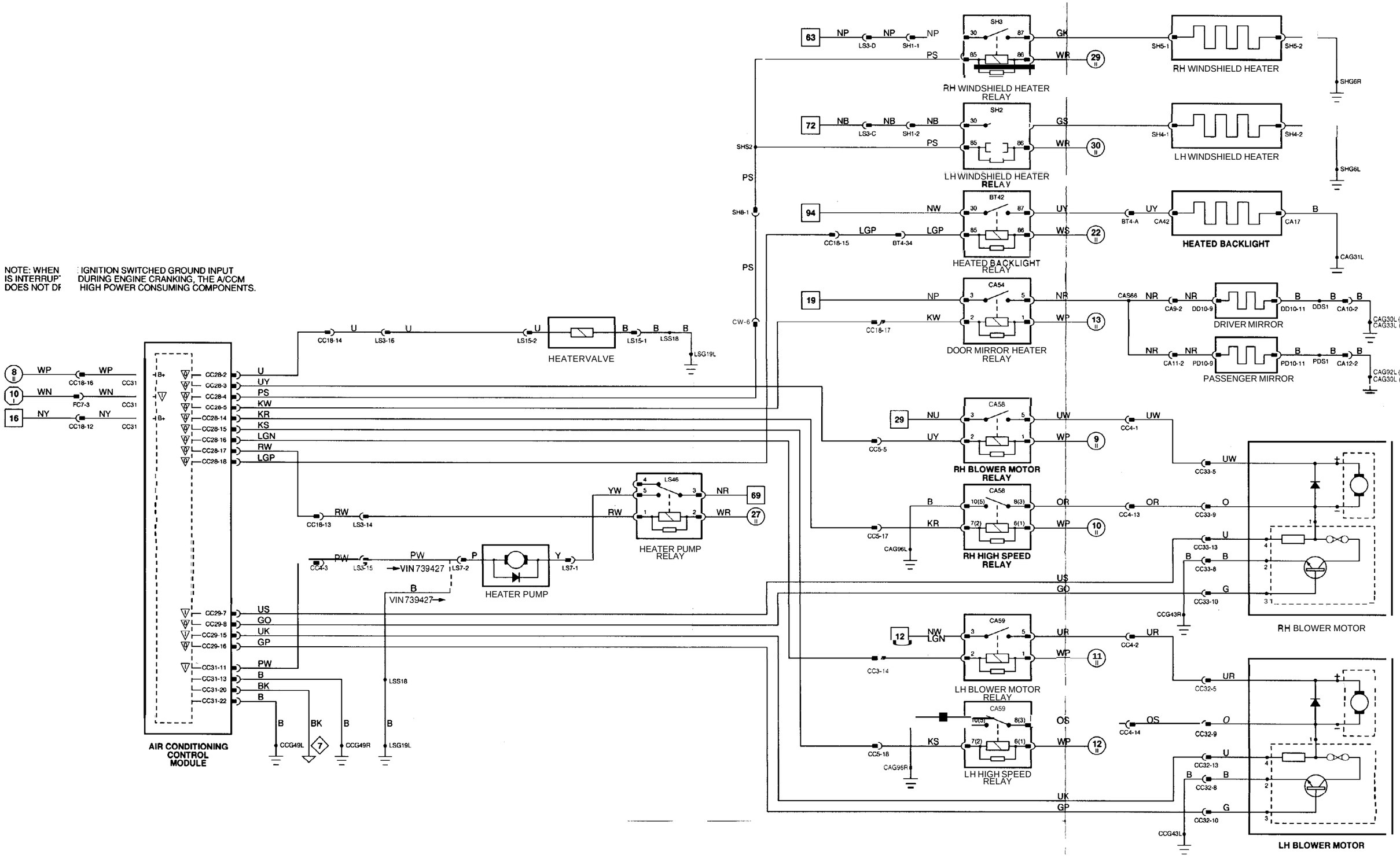
GROUNDS

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 FROM 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: JANUARV 1995



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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
VINRANGE All
DATE OF ISSUE APRIL 1995

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	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.

Fig. 13.1

COMPONENTS

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

HARNESS-TO-HARNESSCONNECTORS

Connector	Type I Color	Location Access
LL2	3-WAY ECONOSEAL III LC / BLACK	LH FRONT WHEEL ARCH LINER
LS3	THROUGH PANEL (48 MICRO / 61 BLACK	LH ' A POST / ' A POST PANEL
PI59	13-WAY ECONOSEAL III LC / BLACK	LH AIR CLEANER
PI61	13 WAY ECONOSEAL III LC / BLACK	RH AIR CLEANER

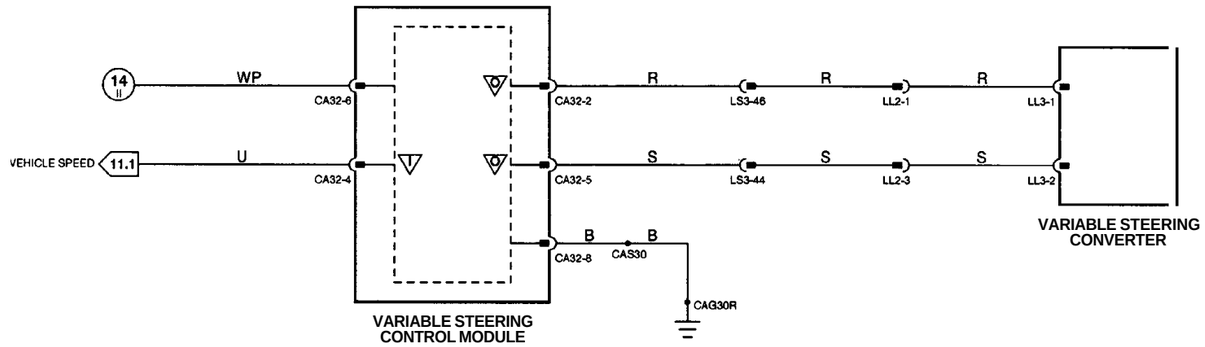
GROUNDS

Ground	Location Type
CAG30R	LH 'A POST GROUND SCREW

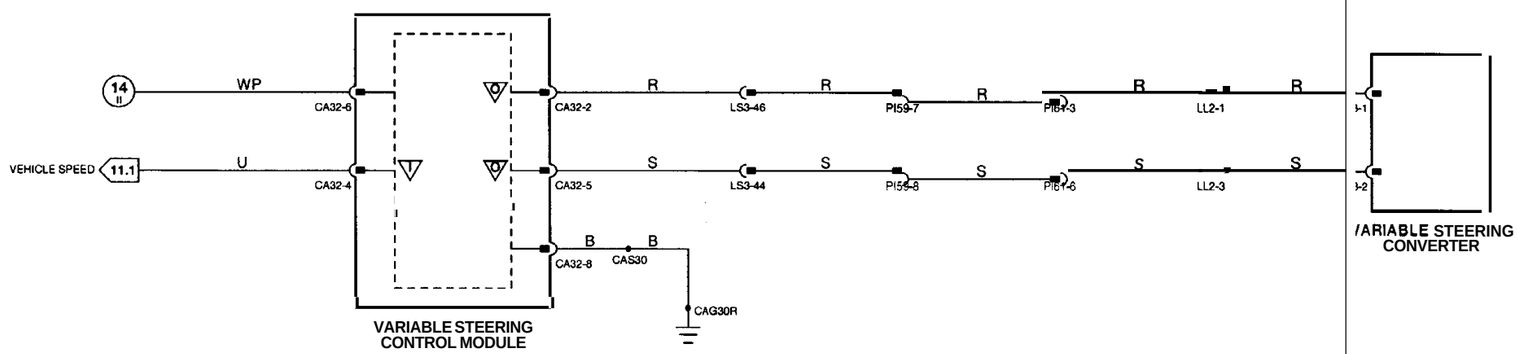
CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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.

DATE OF ISSUE JANUARY 1995


14
WP
CA32-6
VEHICLE SPEED
11.1
U
CA32-4
CA32-2
R
LS3-46
R
LL2-1
R
LL3-1
CA32-5
S
LS3-44
S
LL2-3
S
LL3-2
VARIABLE STEERING CONVERTER
CA32-8
B
B
CAS30
CAG30R
VARIABLE STEERING CONTROL MODULE

LHD


14
WP
CA32-6
VEHICLE SPEED
11.1
U
CA32-4
CA32-2
R
LS3-46
R
R
R
LL2-1
R
CA32-5
S
LS3-44
S
S
S
LL2-3
S
VARIABLE STEERING CONVERTER
CA32-8
B
B
CAS30
CAG30R
VARIABLE STEERING CONTROL MODULE

RHD

CONTROL MODULE PIN OUT INFORMATION

COLUMN / MIRROR MOVEMENT CONTROL MODULE

▽	Pin	Description	Active	Inactive
θ	FC45-1	PASSENGER MIRROR UP /DOWN MOTOR	B+ (UP)	GROUND
O	FC45-2	STEERING COLUMN TILT MOTOR	B+ IUPI	GROUND
I	FC45-4	PASSENGER MIRROR RIGHT / LEFT POTENTIOMETER FEEDBACK	0.5 V ILEFTI. 4 V (RIGHT)	
I	FC45-5	STEERING COLUMN MOVEMENT JOYSTICK	6.8 V (OUT), 8.5 V (IN) 10.1 V IUPI, 12.1 V (DOWN)	GROUND GROUND
I	FC45-6	PASSENGER MIRROR UP / DOWN REQUEST	B+ IUPI. 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 REOUEST	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
θ	FC45-13	DRIVER MIRROR RIGHT / LEFT MOTOR	B+ (RIGHT)	GROUND
θ	FC45-14	STEERING COLUMN TILT MOTOR	B+ (DOWN)	GROUND
θ	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 REOUEST	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+
θ	FC45-24	COLUMN AND MIRROR POTENTIOMETER COMMON REFERENCE VOLTAGE	5 v	5 v
θ	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 ILEFTI. 4 V (RIGHT)	
I	FC46-2	PASSENGER MIRROR UP / DOWN POTENTIOMETER FEEDBACK	0.5 V IDOWNI. 4 V IUPI	
	FC46-3	DRIVER MIRROR UP / DOWN POTENTIOMETER FEEDBACK	0.5 V IDOWNI. 4 V (UP)	
I	FC46-4	STEERING COLUMN TILT POTENTIOMETER FEEDBACK	0.5 V IDOWNI. 4 V (UP)	
	FC46-5	STEERING COLUMN REACH POTENTIOMETER FEEDBACK	0.5 V IOUT1.4 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+
	FC46-10	DRIVER DOOR AJAR	GROUND	7.9 V
I	FC46-11	REMOTE SEAT / MIRROR / COLUMN REOUEST	GROUND PULSE	B+
D	FC47-4	SERIAL COMMUNICATION OUTPUT		
D	FC4775	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.

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 126-WAY MULTILOCK 47 SLATE FC46 / 16-WAY MULTILOCK 47 / SLATE FC47 112-WAY MULTILOCK 47 SLATE	RH UNDERSCUTTLE
COLUMN JOYSTICK (COLUMN SWITCHGEAR)	SC5 (FLY LEAD) 18-WAY GROTE AND HARTMAN BLACK	STEERING COLUMN COVER
DOOR MIRROR MOTORS - DRIVER	DD10 (FLY LEAD) / 12-WAY MULTILOCK MO BLACK	MIRROR ASSEMBLY
DOOR MIRROR MOTORS - PASSENGER	PD10 (FLY LEAD) 12-WAY MULTILOCK MO 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 RESTITOPROLL
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 120-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 DRIVERS UNDERSCUTTLE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S UNDERSCUTTLE
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 WHITE	DRIVERS UNDERSCUTTLE
CA11	20-WAY MULTILOCK MO BLACK	PASSENGER'S UNDERSCUTTLE ECM
CA12	12-WAY MULTILOCK 0701 WHITE	PASSENGER'S UNDERSCUTTLE ECM
CC3	20-WAY MULTILOCK MO / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC4	20-WAY MULTILOCK *MO I* 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	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 BLACK	PASSENGERS UNDERSCUITLE

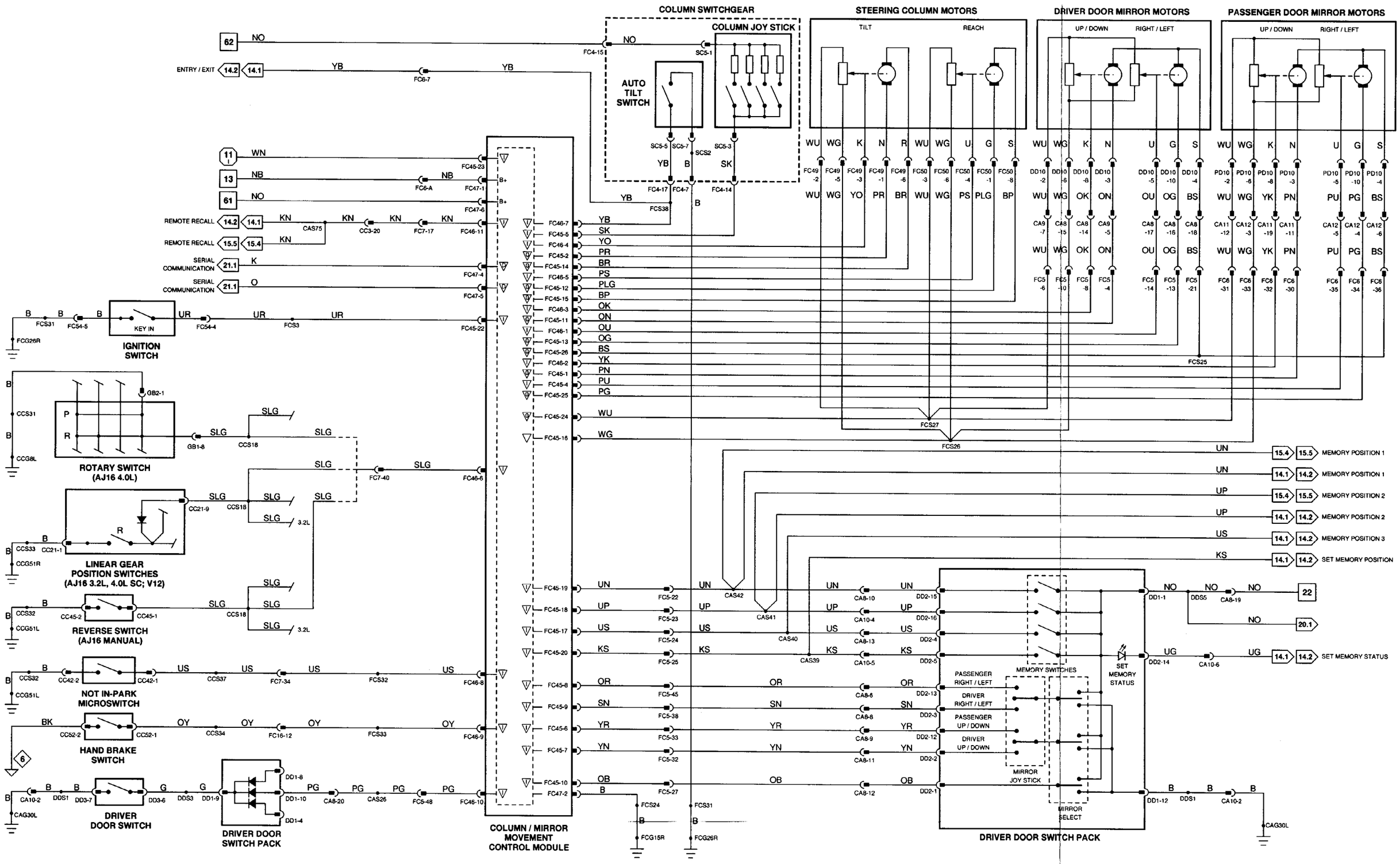
GROUNDS

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 FRC IT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE OCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECT)RS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: JANUARY 1995

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 POTENTIDMETER FEEDBACK	0.5 V ILEFTI, 4 V (RIGHT)	
I	FC45-5	STEERING COLUMN MOVEMENT JOYSTICK	6.8 V IOUTI. 8.5 V (IN) 10.1 V IUPI, 12.1 V (DOWN)	GROUND GROUND
I	FC45-6	PASSENGER MIRROR UP / W W N REQUEST	B+ (UP), GROUND (DOWN)	OPEN CIRCUIT
I	FC45-7	DRIVER MIRROR UP / DOWN REQUEST	B+ IUPI. GROUND (DOWN)	OPEN CIRCUIT
I	FC45-8	PASSENGER MIRROR RIGHT ILEFT REOUEST	B+ (RIGHT), GROUND (LEFT)	OPEN CIRCUIT
I	FC45-9	DRIVER MIRROR RIGHT / LEFT REQUEST	B+ IRIGHTI, GROUND (LEFT)	OPEN CIRCUIT
I	FC45-10	MIRROR SELECT	SAME AS DIRECTIONAL REOUEST 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 ILEFT 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	GRDUND	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 VDLTAGE	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 RIGHTI 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 IW W N 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 IOUTI. 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 ICOLUMN REOUEST	GROUND PULSE	B+
D	FC47-4	SERIAL COMMUNICATION OUTPUT		
O	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.

Fig. 13.3

COMPONENTS

Component	Connector / Type / Color	Location / Access
AUTO TILT SWITCH (COLUMN SWITCHGEAR)	SC5 IFLY LEAD) 18-WAY GROTE AND HARTMAN IBLACK	STEERING COLUMN / COVER
COLUMN IMIRROR 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 IBLACK	STEERING COLUMN ICOVER
W O R MIRROR MOTORS – DRIVER	DD10 IFLY LEAD) / 12-WAY MULTILOCK040 / BLACK	MIRROR ASSEMBLY
DOOR MIRROR MOTORS – PASSENGER	PD10 IFLY LEAD) / 12-WAY MULTILOCK MO / BLACK	MIRROR ASSEMBLY
DOOR SWITCH – DRIVER	DD3 113-WAY ECONOSEAL 111 LC IBLACK	DOOR CASING
DOOR SWITCH PACK – DRIVER	DD1 112-WAY MULTILOCK 47 / WHITE DD2 122-WAY MULTILOCK 47 IWHITE	ARM REST / TOP RDLL
HAND BRAKE SWITCH	CC52 / 2-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE, LH SIDE
IGNITION SWITCH	FC54 IFLY LEADI 10-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
LINEAR GEAR POSITION SWITCHES	CC21 / 20-WAY MULTILOCK M O IBLACK	'J' GATE ICENTER CONSOLE
NOT IN-PARK MICROSWITCH	CC42 IFLY LEAD) 12-WAY MULTILOCK M O / BLACK	'J' GATE / CENTER CONSOLE
REVERSE SWITCH (AJ16 MANUAL)	CC45 / 2-WAY SUMITOMO IWHITE	TRANSMISSION TUNNEL / CENTER CONSOLE
ROTARY SWITCH	GB1 (FLY LEAD) / 8-WAY MULTILOCK 070 / WHITE GB2 IFLY LEADI 112-WAY MULTILOCK 040 IBLACK	'J' GATE / CENTER CONSOLE
STEERING COLUMN MOTORS	FC49 (FLY LEAD) / 8-WAY MULTILDCK 070 IWHITE FCM IFLY LEAD) / 8-WAY MULTILDCK 070 / YELLOW	STEERING COLUMN / DRIVERS UNDERSCUTTLE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA9	20-WAY MULTILOCK 040 / GREEN	DRIVERS UNDERSCUTTLE
CA9	20-WAY MULTILOCK MO / BLACK	DRIVERS 'A' POST / 'A' POSTTRIM
CA10	8-WAY MULTILOCK 070 IWHITE	DRIVERS UNDERSCUTTLE
CA11	20-WAY MULTILOCK MO IBLACK	PASSENGERS UNDERSCUTTLE / ECM
CA12	12-WAY MULTILOCK 070 / WHITE	PASSENGERS UNDERSCUTTLE IECM
CC3	20-WAY MULTILOCK MO IBLACK	CENTER CONSOLE 1CENTER CONSOLE GLOVE BOX
FC4	20-WAY MULTILOCK MO / BLUE	DRIVERS UNDERSCUTTLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL IOUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) IBLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO / 6) IBLACK	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK MO IBLACK	PASSENGERS 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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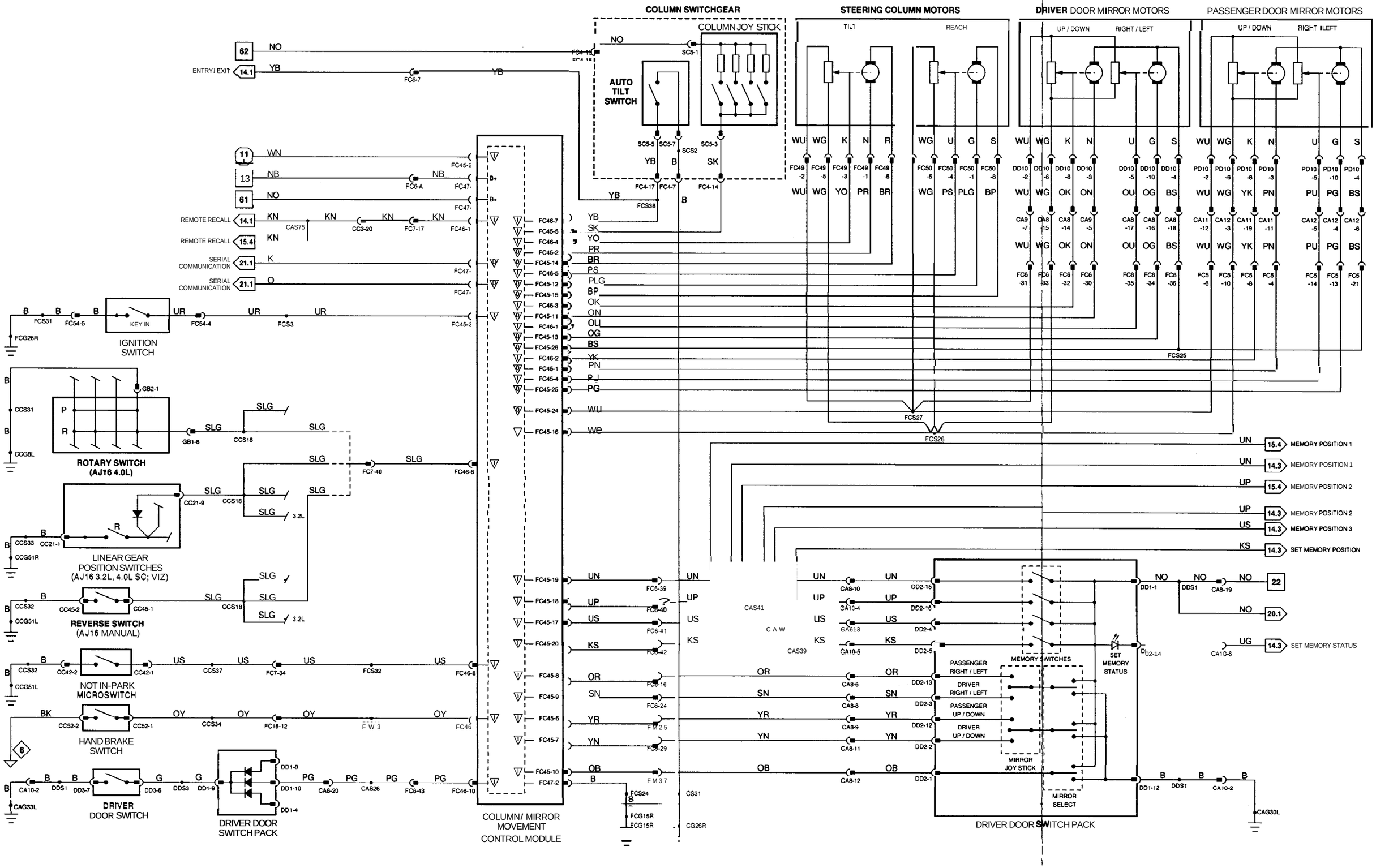
REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE .OCATION AND IDENTIFIC TION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE: JANUARY 1995

Fig. 13.4

COMPONENTS

Component	Connector / Type / Color	Location / Access
DOOR MIRROR MOTORS - DRIVER	DD10 (FLY LEAD) 112-WAY MULTILOCK 040 BLACK	MIRROR ASSEMBLY
DOOR MIRROR MOTORS - PASSENGER	PD10 (FLY LEAD) / 12-WAY MULTILOCK 040 BLACK	MIRROR ASSEMBLY
WOR SWITCH PACK - DRIVER	DD1 12-WAY MULTILOCK 41 WHITE DD2 / 22-WAY MULTILOCK 47 WHITE	ARM RESTITOP ROLL

HARNESS-TO-HARNESS CONNECTORS

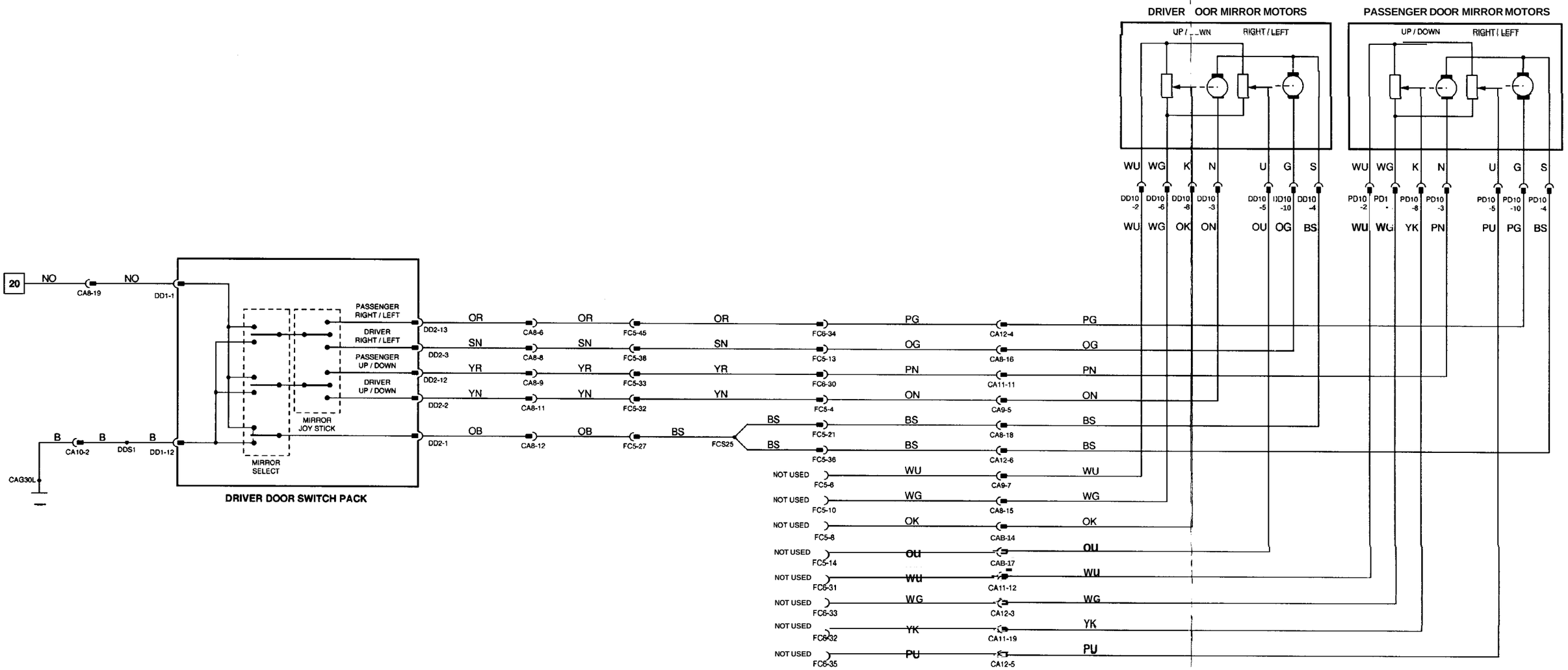
Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S UNDERSCUTTLE
CA9	20-WAY MULTILOCK 040 BLACK	DRIVERS 'A' POST/ 'A' POSTTRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CA11	20-WAY MULTILOCK 040 BLACK	PASSENGERS UNDERSCUTTLE ECM
CA12	12-WAY MULTILOCK 070 WHITE	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.

DATE OF ISSUE JANUARY 1995



1 ~ 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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 All
DATE OF ISSUE: JANUARY 1995

Fig. 13.5

COMPONENTS

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

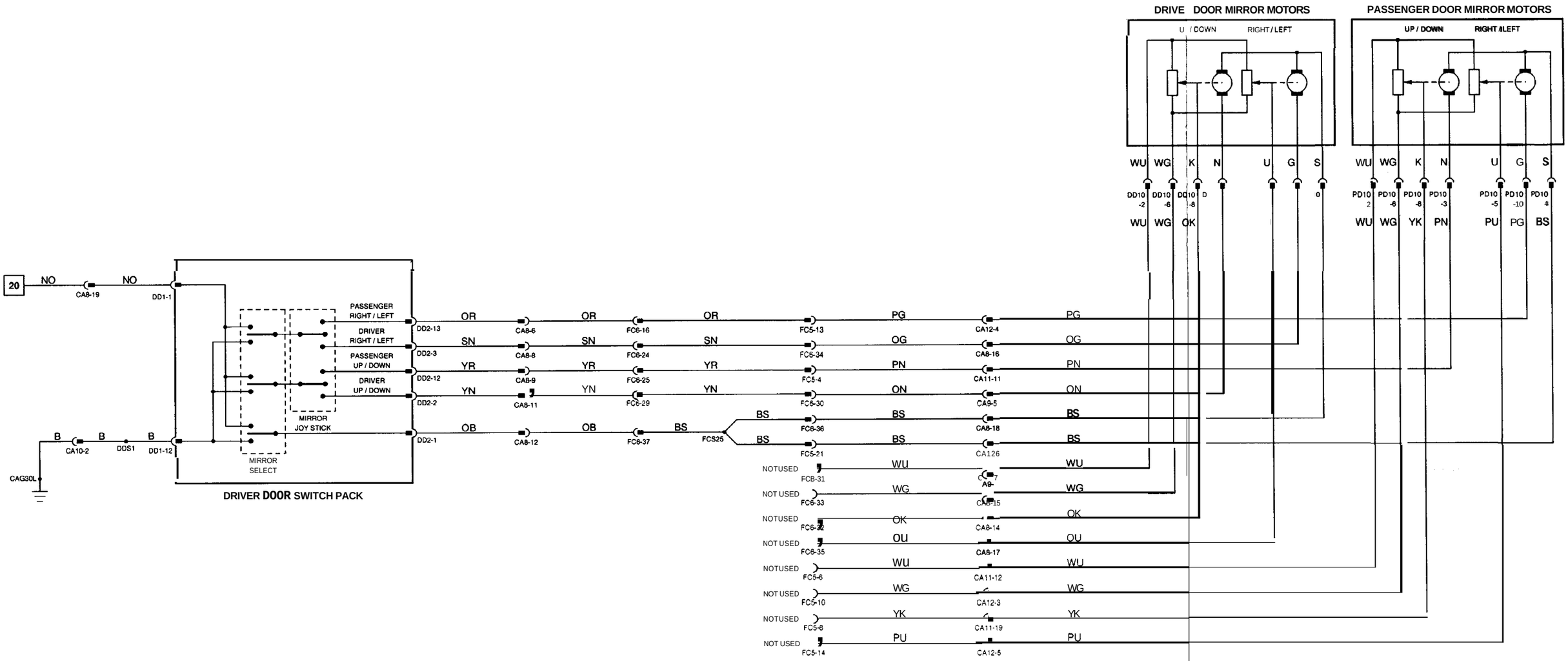
HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA8	20-WAY MULTILOCK WO / GREEN	DRIVER'S UNDERSCUTTLE
CA9	20-WAY MULTILOCK MO / BLACK	DRIVER'S 'A' POST/ 'A' POSTTRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CA11	20-WAY MULTILOCK MO BLACK	PASSENGERS UNDERSCUTTLE ECM
CA12	12-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE ECM
FC5	THROUGH-PANEL (48 MICRO/ 6) BLACK	LH FASCIA END PANELIOUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) / BLACK	RH FASCIA END PANEL/ OUTER AIR VENT

GROUNDS

Ground	Location / Type
CAG30L	LH'A'POSTGROUNDSCREW

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 — 65 Fig. 01.2 | 66 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded | Signal Ground (SG)

VARIANT: RHD Manual Column Vehicles
VIN RANGE: All
DATE OF ISSUE JANUARY 1995

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	PLI-40	MEMORY POSITION 1 REQUEST	B+	GROUND
I	PL1-5D	MEMORY POSITION 2 REQUEST	B+	GROUND
1	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	SEATHEATER REQUEST	GROUND	B+
I	PL1 12D	REMOTE RECALL REQUEST	GROUND PULSE ON UNLOCK	B+
1	PL1-13D	NOTINPARK	GROUND	B+
I	PL1 14D	HANDBRAKE ON	GROUND	B+
1	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 W O R AJAR	GROUND	7.9 V
D	PL2-1D	SERIAL COMMUNICATION INPUT		
0	PL2-2D	SERIAL COMMUNICATION OUTPUT		
0	SM1-1D	SQUAB RECLINE FORE/ AFT MOTOR	B+ (AFT)	GROUND
0	SM1-2D	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
0	SM1-3D	SEAT FRDNT RAISE ILOWER MOTOR	B+ IRAISE)	GROUND
0	SM1-4D	SEAT FRONT RAISE/ LOWER MOTOR	B+ (LOWER)	GROUND
0	SM1-5D	SEAT REAR RAISE ILOWER MOTOR	B+ (RAISE)	GROUND
0	SM1-6D	SEAT REAR RAISE/ LOWER MOTOR	B+ (LOWER)	GROUND
0	SM1-7D	SEAT FORE/ AFT MOTOR	B+ IAFTI	GROUND
0	SM1-8D	SEAT FORE/ AFT MOTOR	B+ (FORE)	GROUND
	SM1-9D	COMMON GROUND	GROUND	GROUND
0	SM1-10D	HEATER ELEMENT SUPPLY	B+	GROUND
0	SM1-11D	HEADREST RAISE/ LOWER MOTOR	B+ IRAISE)	GROUND
0	SM1-12D	HEADREST RAISE / LOWER MOTOR	B+ (LOWER)	GROUND
0	SM8-1D	POTENTIOMETER COMMON REFERENCE VOLTAGE	5 v	5 v
SG	SM6-2D	POTENTIOMETER COMMON REFERENCE GROUND	GROUND	GROUND
0	SM6-3D	HEADREST POTENTIOMETER FEEDBACK	0.5 V IDOWNI, 4 V (UP)	
0	SM6-4D	SQUAB RECLINE POTENTIOMETER FEEDBACK	0.5 V (BACK), 4 V IFORWARD)	
0	SM6-5D	SEAT FORE IAFT POTENTIOMETER FEEDBACK	0.5 V (BACK), 4 V IFORWARD)	
0	SM6-6D	SEAT REAR RAISE / LOWER POTENTIOMETER FEEDBACK	0.5 V ILOWERI, 4 V IRAISE)	
0	SM6-7D	SEAT FRONT RAISE/ LOWER POTENTIOMETER FEEDBACK	0.5 V ILOWERI. 4 V (RAISE)	
	SM6-8D	RECLINE AFT MOVEMENT REQUEST	B+	GROUND
I	SM6-9D	SEAT AFT MOVEMENT REQUEST	B+	GROUND
	SM6-10D	SEAT FORE MOVEMENT REQUEST	B+	GROUND
0	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
	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
0	FC1-23	DRIVER SEATHEATER 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 it ON; 'Inactive" means a load is not applied or a switch is OFF.

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 SIGNAL1 BLACK	PASSENGER'S UNDERSCUTTLE
BRAKE SWITCH	CA72 14-WAY MULTILOCK 0701 WHITE	DRIVER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR SWITCH –DRIVER	DD3 / 13-WAY ECONOSEAL III L C I BLACK	DOOR CASING
DOOR SWITCH PACK " DRIVER	DD1 / 72-WAY MULTILOCK 47 IWHITE DD2 / 22-WAY MULTILOCK 47 IWHITE	ARM REST / TOP ROLL
SEAT CONTROL MODULE - DRIVER IROW. MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 / BLUE SM1-D / 22-WAY MULTILOCK 47 BLUE/WHITE	DRIVER'S SEAT
	SM6-D / 22-WAY MULTILOCK 471 WHITE	
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 ISQUAB
SEAT MOTORS –DRIVER	**SM2-D / 6-WAY** MULTILOCK 0701 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 / YELLO**	DRIVER'S SEATIUNDER DRIVER'S SEATIUNDER DRIVER'S SEAT / UNDER DRIVER'S SEAT / SQUAB DRIVER'S SEAT / UNDER
SEAT SWITCH PACK - DRIVER	SM5-0 / **16-WAY** MULTILOCK 0401 BLACK	DRIVER'S SEAT
SQUAB " DRIVER	SM9-D / 3-WAY MULTILOCK 070 ISLATE	DRIVER'S SEAT
HAND BRAKE SWITCH	CC52 / 2-WAY MULTILOCK 040 IBLACK	CENTER CONSOLE, LH SIDE
IGNITION **SWITCH**	FC54 (FLY LEAD) 18-WAY MULTILOCK 0701 WHITE	STEERING COLUMN / COVER
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD) 12-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 UNDERSCUTTLE
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CA23	20-WAY MULTILOCK 040 IBLACK	DRIVER'S SEAT
CA24	6-WAY MULTILOCK 070 / WHITE	DRIVER'S SEAT
CC3	20-WAY MULTILOCK 040 IBLACK	CENTER CONSOLE ICENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK MO / GREEN	CENTER CONSOLE ICENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL 148 MICRO / 6) / BLACK	LH FASCIA END PANEL IOUTER AIR VENT
FC6	THROUGH-PANEL 146 MICRO / 6) / BLACK	RH FASCIA END PANEL/ OUTER AIR VENT
FC7	THROUGH-PANEL 148 MICRO/ 6) IBLACK	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

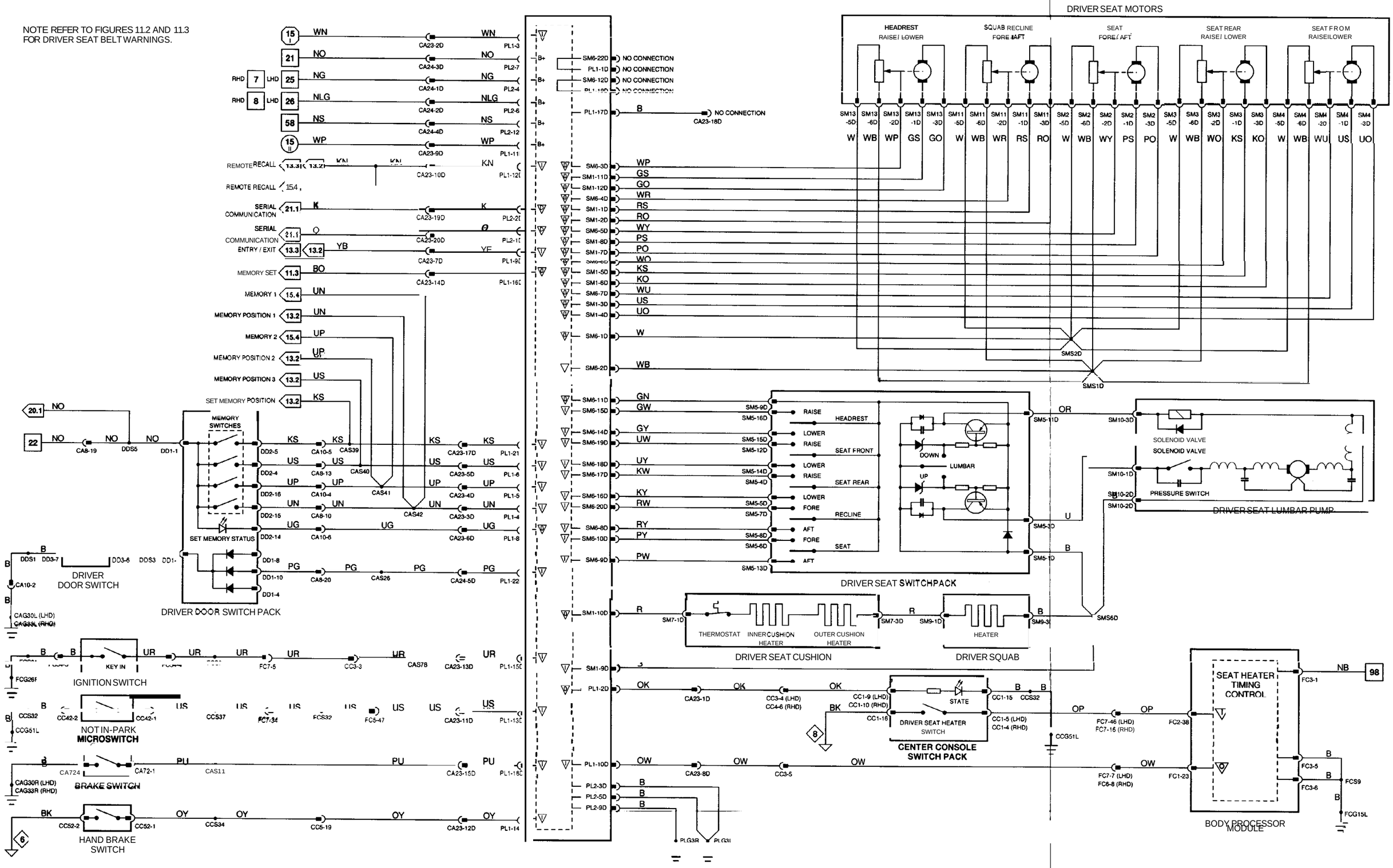
CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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.

DATE OF ISSUE: JANUARY 1995

Driver Seat - Memory, ROW

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



1 — 6 Fig. 01.1	7 — 65 Fig. 01.2	66 — 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 Memory Seat Vehicles
VINRANGE All
DATE OF ISSUE: JANUARY 1995

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	CA10514	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 DDOR 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+ IUPI	GROUND
O	SM1-4D	SEAT FRONT ▮RAISE LOWER MOTOR	B+ IDOWNI	GROUND
O	SM1-5D	SEAT REM RAISE ▮LOWER MOTOR	B+ IUPI	GROUND
O	SM1-6D	SEAT REM RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-7D	SEAT FORE ▮AFT MOTOR	B+ IAFTI	GROUND
O	SM1-8D	SEAT FORE ▮AFT MOTOR	B+ (FORE)	GROUND
	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 IBACKI. 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 IDOWNI, 4 V IUPI	
O	SM6-7D	SEAT FRONT RAISE ▮LOWER FEEDBACK VOLTAGE	0.5 V IDOWNI, 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	ip	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.

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	PASSENGERS UNDERSCUTTLE
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVERS UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 0401 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 122-WAY MULTILOCK 41 / WHITE	ARM RESTITOP ROLL
SEAT CONTROL MODULE – DRIVER (NAS VEHICLES)	CA105 / 22-WAY MULTILOCK 47 / BLUE CA106 I 12 WAY MULTILOCK 47 ▮BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6-D 122-WAY MULTILOCK 41 / WHITE	DRIVERS SEAT
SEAT CUSHION – DRIVER	SM7-D / 3-WAY MULTILOCK 0701 YELLOW	DRIVER'S SEAT / UNDER
SEAT LUMBAR PUMP – DRIVER	SM10-D ▮3-WAY MULTILOCK 070 / YELLOW	DRIVERS SEAT / SQUAB
SEAT MOTORS – DRIVER	SM2-D / 6-WAY MULTILOCK 0101 WHITE SM3-D ▮6-WAY MULTILOCK 070 / YELLOW SM4-D / 6-WAY MULTILOCK 0701 SLATE SM11-D / 6-WAY MULTILOCK 070 / WHITE SM13-D 18-WAY MULTILOCK 070 / YELLOW	DRIVERS SEAT UNDER DRIVERS SEAT / UNDER DRIVER'S SEAT UNDER DRIVER'S SEAT ▮SQUAB DRIVERS SEAT / UNDER
SEAT SWITCH PACK – DRIVER	SM5-D / 16-WAY MULTILOCK 040 / BLACK	DRIVERS SEAT
SQUAB – DRIVER	SM9-D / 3-WAY MULTILOCK 0701 SLATE	
HAND BRAKE SWITCH	CC52 / 2-WAY MULTILOCK 040 / SLACK	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	DRIVERS UNDERSCUTTLE
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVERS UNDERSCUTTLE
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

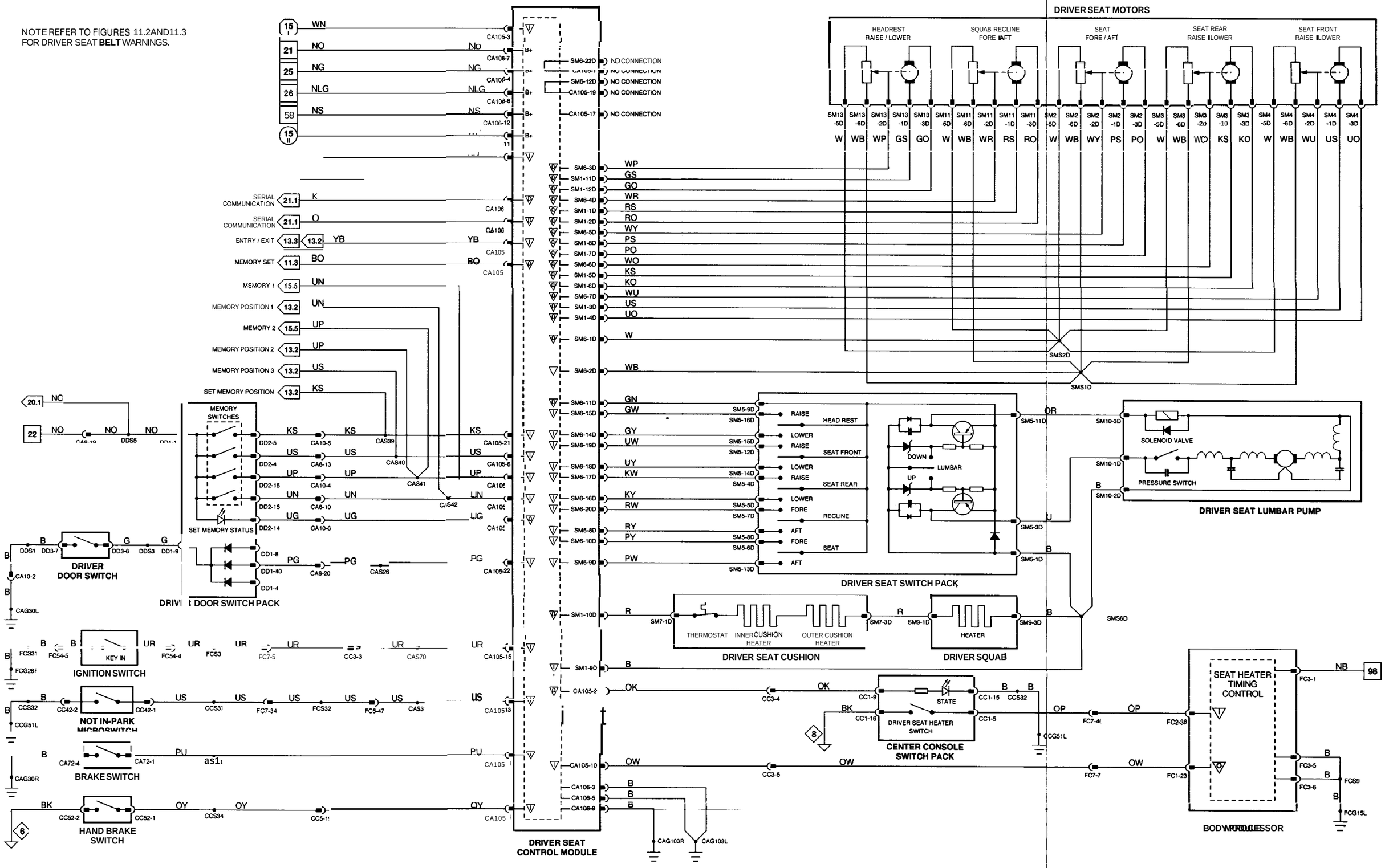
CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

+–

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.

DATE OF ISSUE: JANUARY 1995

NOTE REFER TO FIGURES 11.2AND11.3
FOR DRIVER SEAT **BELT** WARNINGS.



1 — 6 Fig. 01.1	7 — 65 Fig. 01.2	66 — 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**
VINRANGE All
DATE OF ISSUE: JANUARY 1995

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	SEATHEATERREOUEST	GROUND	B+
I	PL1-13D	NOT IN PARK	GROUND	B+
I	PL1-14D	HANDBRAKE ON	GROUND	B+
	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	SOUAB RECLINE FORE IAFT MOTOR	B+ (AFT)	GROUND
O	SM1-2D	SOUAB RECLINE FORE IAFT MOTOR	B+ (FORE)	GROUND
O	SM1-3D	SEAT FRONT RAISE ILOWER MOTOR	B+ (RAISE)	GROUND
O	SM1-4D	SEAT FRONT RAISE ILOWER MOTOR	B+ (LOWER)	GROUND
O	SM1-5D	SEAT REAR RAISE ILOWER MOTOR	B+ (RAISE)	GROUND
O	SM1-6D	SEAT REAR RAISE ILOWER MOTOR	B+ ILOWERI	GROUND
O	SM1-7D	SEAT FORE IAFT 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 ILOWER MOTOR	B+ (RAISE)	GROUND
O	SM1-12D	HEADREST RAISE ILOWER MOTOR	B+ (LOWER)	GROUND
I	SM6-8D	RECLINE AFT MOVEMENT REOUEST	B+	GROUND
I	SM6-9D	SEAT AFT MOVEMENT REOUEST	B+	GROUND
I	SM6-10D	SEAT FORE MOVEMENT REOUEST	B+	GROUND
O	SM6-11D	LUMBAR SWITCH POWER SUPPLY	B+	B+
I	SM6-14D	HEADREST LOWER MOVEMENT REOUEST	B+	GROUND
I	SM6-15D	HEADREST RAISE MOVEMENT REOUEST	B+	GROUND
I	SM6-16D	SEAT REAR LOWER MOVEMENT REOUEST	B+	GROUND
I	SM6-17D	SEAT REAR RAISE MOVEMENT REOUEST	B+	GROUND
	SM6-18D	SEAT FRONT LOWER MOVEMENT REOUEST	B+	GROUND
I	SMB-190	SEAT FRONT RAISE MOVEMENT REOUEST	B+	GROUND
	SM6-20D	RECLINE FORE MOVEMENT REOUEST	B+	GROUND

BODY PROCESSOR MODULE

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

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 F U/ EWAY PCB SIGNAL/ BLACK	PASSENGERS UNDERSCUTTLE
BRAKE SWITCH	CA72 / 4-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 IBLACK	CENTER CONSOLE
DOOR SWITCH - DRIVER	DD3 113-WAY ECONOSEAL III LC/ BLACK	DOOR CASING
W O R SWITCH PICK - DRIVER	DD1 / 12-WAY MULTILOCK 47 IWHITE DD2 122-WAY MULTILOCK 47 IWHITE	ARM REST / TOP ROLL
SEAT CONTROL MODULE - DRIVER (ROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK 47 IBLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / WHITE SM6-D / 22 WAY MULTILOCK 47 IWHITE	DRIVERS 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 ISQUAB
SEAT MOTORS – DRIVER	SM2-D / 6-WAY MULTILOCK 0701 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	DRIVERS SEAT / UNDER DRIVER'S SEAT / UNDER DRIVERS SEAT ISQUAB DRIVERS SEAT IUNDER
SEAT SWITCH PACK - DRIVER	SM5 0116 WAY MULTILOCK 040 / BLACK	DRIVER'S SEAT
SOUAB - DRIVER	SM9-D / 3-WAY MULTILOCK 0701 SLATE	DRIVERS SEAT
HAND BRAKE SWITCH	CC62 / 2-WAY MULTILOCK WO / BLACK	CENTER CONSOLE, LH SIDE
IGNITION SWITCH	FC54 (FLY LEAD) I8-WAY MULTILOCK 070 IWHITE	STEERING COLUMN ICOVER
NOT IN-PARK MICROSWITCH	CC42 (FLY LEAD)/ 2-WAY MULTILOCK MO IBLACK	'J' GATE ICENTER CONSOLE

HARNESS-TO-HARNESS CONNECTORS

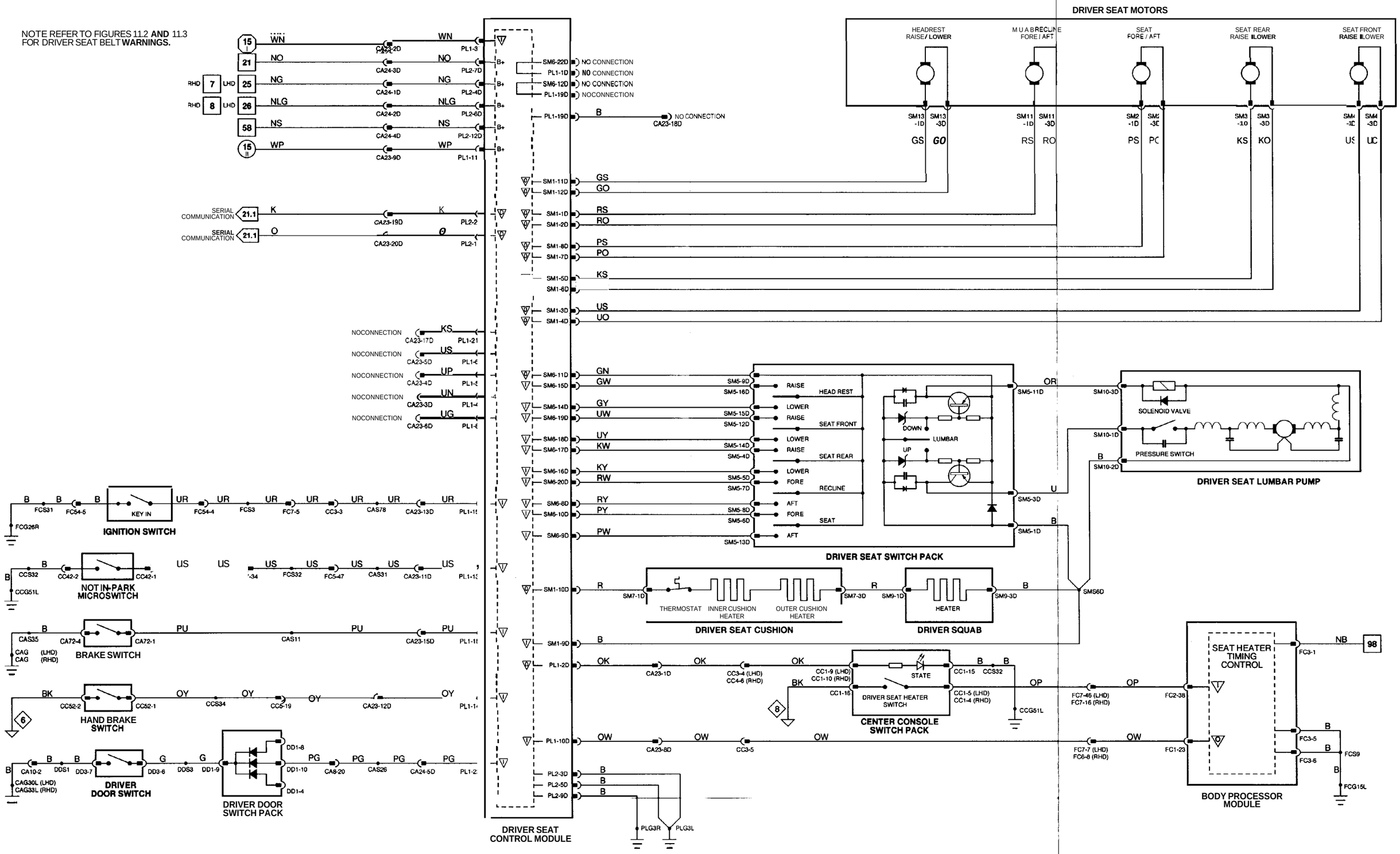
Connector	Type / Color	Location / Access
CA6	20-WAY MULTILOCK 040 / GREEN	DRIVERS UNDERSCUTTLE
CA10	8-WAY MULTILOCK 070 IWHITE	DRIVERS UNDERSCUTTLE
CA23	20-WAY MULTILOCK 040 IBLACK	DRIVERS SEAT
CA24	6-WAY MULTILOCK 070 IWHITE	DRIVERS SEAT
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE1CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK 040 IGREEN	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL IOUTER AIR VENT
FC6	THROUGH-PANEL (48 MICRO / 6) IBLACK	RH FASCIA END PANEL IOUTER 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
CAGUL	RH HEELBDARD GROUND SCREW
CAG33R	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND SNO
PLG3L	LH SEAT GROUND SCREW
PLG3R	LH SEAT GROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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
VINRANGE All
DATE OF ISSUE: JANUARY 1995

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.

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 SIGNAL1 BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / IS-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
SEAT CUSHION –DRIVER	SM7-D / 3-WAY MULTILOCK 070 / YELLOW	DRIVER'S SEATI 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	DRIVERS SEAT
SQUAB – DRIVER	SM9-D / 3-WAY MULTILOCK 070/ SLATE	DRIVERS 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	DRIVERS SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA23-D	20-WAY MULTILOCK MO BLACK	DRIVER'S SEAT
CAZCD	6-WAY MULTILOCK 070 / WHITE	DRIVERS SEAT
CC3	20-WAY MULTILOCK 040 BLACK	CENTER CONSOLEICENTERCONSOLEGLOVE 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 148 MICRO/ 6) / BLACK	PASSENGER'S UNDERSCUTTLE
ML1-D	10-WAY MULTILOCK 070/ WHITE	DRIVER'S SEAT / UNDER

GROUNDS

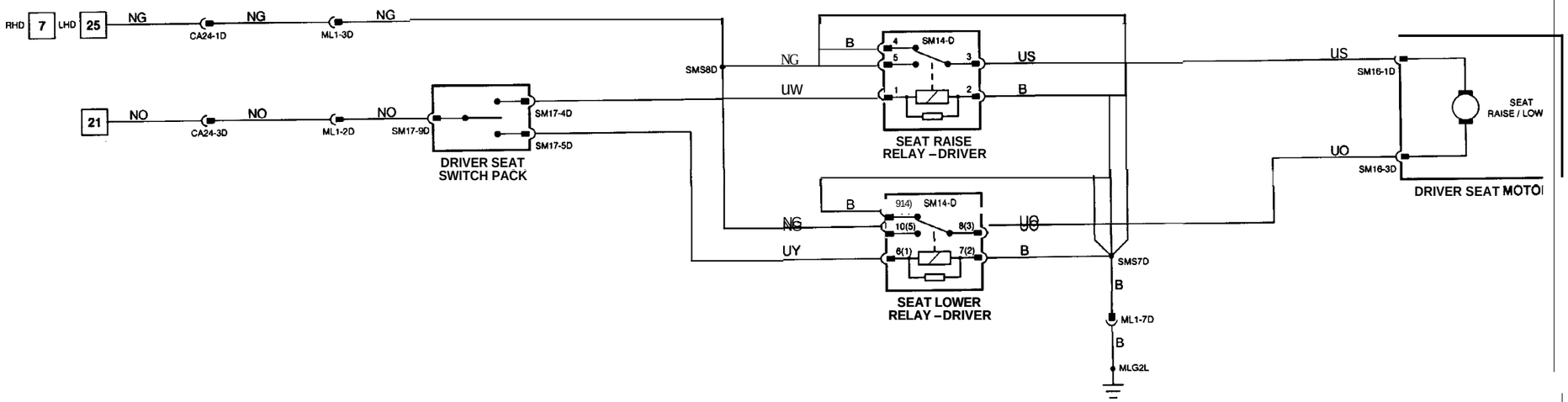
Ground	Location Type
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
MLGZL	LH SEAT GROUND SCREW
MLGZR	LH SEAT GROUND SCREW

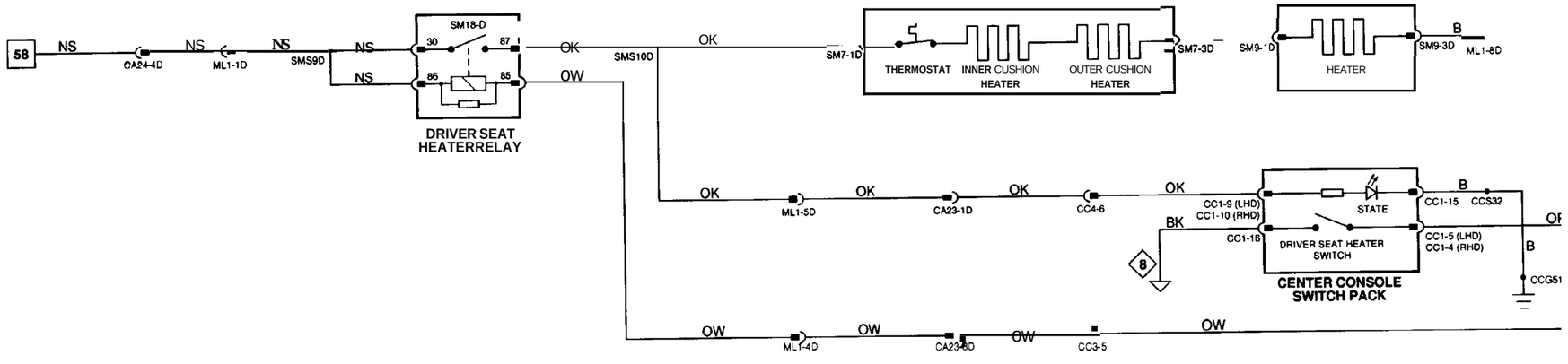
CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

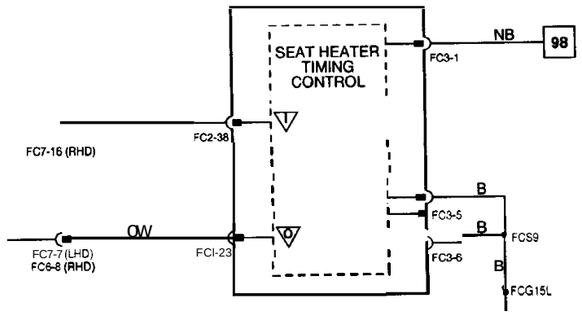
REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995

Driver Seat - Raise/ Lower Only







CONTROL MODULE PIN OUT INFORMATION

PASSENGER SEAT CONTROL MODULE (ROW, MEMORY SEAT VEHICLES)

▽	Pin	Description	Active	Inactive
O	PL1-2P	SEATHEATERONSTATE	B+	GROUND
I	PL1-3P	IGNITION SWITCHEDPOWER	GROUND	B+
I	PL1-4P	MEMORY POSITION 1 REQUEST	B+	GROUND
I	PL1-5P	MEMDRY 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	SEATHEATERREQUEST	GROUND	B+
I	PL1-15P	KEY IN IGNITION SIGNAL	GROUND	B+
O	PL1-16P	MEMORY SET AUDIBLE TDNE	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 COMMUNICATIONOUTPUT		
O	SM1-1P	SQUAB RECLINE FORE IAFT MOTOR	B+ (AFT)	GROUND
O	SM1-2P	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-3P	SEAT FRONT RAISE ILOWER MOTOR	B+ (UP)	GROUND
D	SM1-4P	SEAT FRONT RAISE / LOWER MOTOR	B+ (DOWN)	GROUND
O	SM1-5P	SEAT REAR RAISE ILOWER MDTOR	B+ (UP)	GROUND
O	SM1-6P	SEAT REAR RAISEI LOWER MOTOR	B+ (DOWN)	GROUND
D	SM1-7P	SEAT FORE/ AFT MOTOR	B+'(AFT)	GROUND
O	SM1-8P	SEAT FORE IAFT MOTDR	B+ (FORE)	GROUND
I	SM1-9P	CDMMON GROUND	GROUND	GROUND
O	SM1-10P	HEATER ELEMENT SUPPLY	B+	B+
D	SM1-11P	HEADRESTRAISE ILOWER MOTOR	B+ (UP)	GROUND
O	SM1-12P	HEADRESTRAISE ILOWER MOTOR	B+ (DOWN)	GROUND
0	SM6-1P	POTENTIOMETER COMMON REFERENCEVOLTAGE	5 V	5 v
SG	SM6-2P	POTENTIOMETER COMMON REFERENCE GRDUND	GROUND	GROUND
O	SM6-3P	HEADRESTFEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
D	SM6-4P	SQUAB RECLINE FEEDBACK VOLTAGE	0.5 V (BACK), 4 V (FORWARD)	
O	SM6-5P	SEAT FORE IAFT FEEDBACK VDLTAGE	0.5 V (AFT), 4 V IFOREI	
O	SM6-6P	SEAT REAR RAISE ILOWER 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+	GRDUND
I	SM6-10P	SEAT FORE MOVEMENT REQUEST	B+	GROUND
O	SM6-11P	LUMBAR SWITCH POWER SUPPLY	B+	B+
I	SM6-14P	HEADREST LOWER MOVEMENT REDUEST	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	Bt	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.

Fig. 14.5

COMPONENTS

Component	Connector I Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 148-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL / BLACK FC3/ EWAY PCB SIGNAL / BLACK	PASSENGERS UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 I16-WAY MULTILOCK 040 IBLACK	CENTER CONSOLE
IGNITION SWITCH	FC54 (FLY LEAD) 18-WAY MULTILOCK 070 / WHITE	STEERING COLUMN/ COVER
DOOR SWITCH PACK - PASSENGER	PD1 / 26-WAY MULTILOCK 41 ISLATE	ARM REST / TOP ROLL
DOOR SWITCH –PASSENGER	PD3/ 13-WAY ECONDSEAL111 LC / BLACK	DOOR CASING
SEAT CONTROL MODULE – PASSENGER IROW, MEMORY SEAT VEHICLES)	PL1 / 22-WAY MULTILOCK47/ BLUE PL2 / 2 WAY MULTILOCK 47 / BLUE SM1- / 12-WAY MULTILOCK 47 / WHITE SM6- / 22-WAY MULTILOCK 47 / WHITE	PASSENGERS 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	PASSENGERS SEAT / SQUAB
SEAT MOTORS - PASSENGER	SM2-P / 6-WAY MULTILOCK070I WHITE SM3-P / 6-WAY MULTILOCK 070 IYELLOW SM4-P / 6-WAY MULTILOCK 070 / SLATE SM11-P / 6-WAY MULTILDCK 070 / WHITE SM13-P / 6-WAY MULTILOCK 070 / YELLOW	PASSENGERS SEAT / UNDER PASSENGERS SEAT / UNDER PASSENGERS SEAT / UNDER PASSENGER'S SEAT / SQUAB PASSENGER'S SEAT / UNDER
SEAT SWITCH PACK - PASSENGER	SM5-P / 16-WAY MULTILOCK 040 / BLACK	PASSENGERS SEAT
SQUAB - PASSENGER	SM9-P / 3-WAY MULTILOCK 070 / SLATE	PASSENGER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type I Color	Location / Access
CA11	20-WAY MULTILOCK MO IBLACK	PASSENGERS UNDERSCUTTLE IECM
CA12	12-WAY MULTILOCK 0701 WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA27	6-WAY MULTILOCK 070 / WHITE	PASSENGER'S SEAT
CA28	20-WAY MULTILOCK MO I BLACK	PASSENGER'S SEAT
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 IWHITE	CENTER CONSOLE / CENTER CONSOLE GLDYE BOX
FC6	THROUGH-PANEL(48 MICRO/ 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL(48 MICRO/ 6) IBLACK	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.

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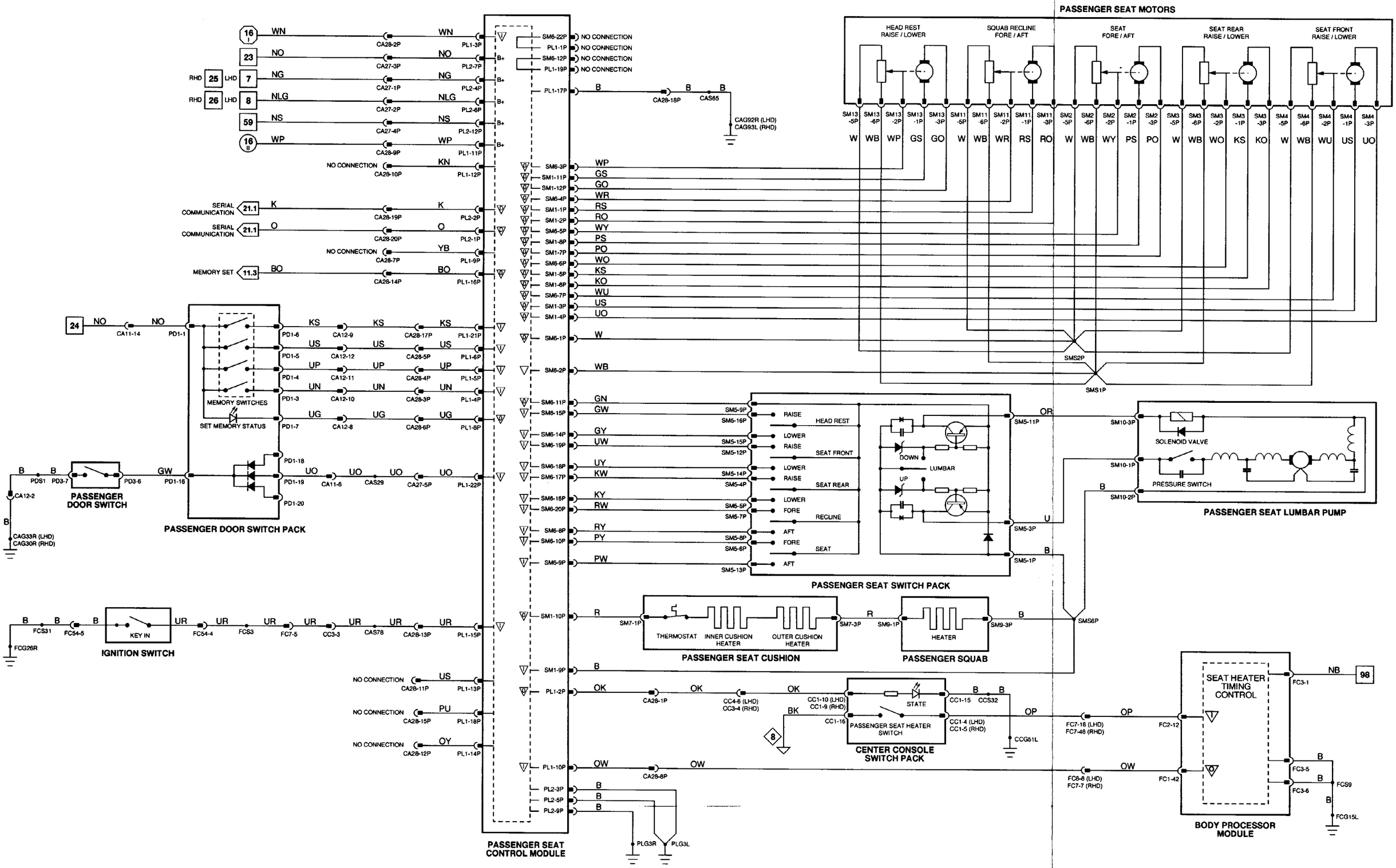


Fig. 01.1 | Fig. 01.2 | Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: ROW Memory Seat Vehicles
VIN RANGE: All
DATE OF ISSUE: JANUARY 1995

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+
	CA1074	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 REDUEST	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		
O	CA108-2	SERIAL COMMUNICATION OUTPUT		
O	SM1-1P	SQUAB RECLINE FORE / AFT MOTOR	B+ IAFTI	GROUND
O	SM1-2P	SQUAB RECLINE FORE / AFT MOTOR	B+ (FORE)	GROUND
O	SM1-3P	SEAT FRONT RAISE ILOWER MOTOR	B+ (UP)	GROUND
O	SM1-4P	SEAT FRONT RAISE ILOWER MOTOR	B+ IDOWNI	GROUND
O	SM1-5P	SEAT REAR RAISE / LOWER MDTOR	B+ (UP)	GROUND
O	SM1-6P	SEAT REAR RAISE / LDWER MDTOR	B+ IDOWNI	GRDUND
O	SM1-7P	SEAT FORE IAFT MOTOR	B+ IAFTI	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+ IDOWNI	GROUND
O	SM6-1P	POTENTIOMETER COMMON REFERENCE VOLTAGE	5 Y	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 IBACKI. 4 V IFORWARDI	
O	SM6-5P	SEAT FORE IAFT FEEDBACK VOLTAGE	0.5 V IBACKI. 4V IFORWARDI	
O	SM6-6P	SEAT REAR RAISE / LOWER FEEDBACK VOLTAGE	0.5 V IDOWNI. 4 V (UP)	
O	SM6-7P	SEAT FRONT RAISE / LOWER FEEDBACK VOLTAGE	0.5 V (DOWN), 4 V (UP)	
	SM6-8P	RECLINE AFT MOVEMENT REQUEST	B+	GRDUND
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
	SM6-15P	HEADREST RAISE MOVEMENT REQUEST	B+	GRDUND
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	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.

Fig. 14.6

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 I48-WAY PCB SIGNAL / BLACK FC3/ EWAY PCB SIGNAL 1 BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
IGNITION SWITCH	FC54 (FLY LEAD) / 8-WAY MULTILOCK 0701 WHITE	STEERING COLUMN / COVER
DOOR SWITCH PACK - PASSENGER	PD1 / 26-WAY MULTILDCK 47 ISLATE	ARM REST ITOP ROLL
WOR SWITCH –PASSENGER	PD3 113-WAY ECONDSEAL 111LC IBLACX	DOOR CASING
SEAT CONTROL MODULE - PASSENGER (NAS VEHICLES)	CA107 122-WAY MULTILOCK47 / BLUE CA108 / 12-WAY MULTILOCK 47 / BLUE SM1-P / 12-WAY MULTILOCK 47 / BLUE SM6-P / 22-WAY MULTILOCK47 IBLUE	PASSENGER'S SEAT
SEAT CUSHION –PASSENGER	SM7-P / 3-WAY MULTILOCK070 / YELLOW	PASSENGER'S SEAT IUNDER
SEAT LUMBAR PUMP – PASSENGER	SM10-P 13-WAY MULTILOCK070 / YELLOW	PASSENGER'S SEAT / SQUAB
SEAT MOTORS - PASSENGER	SM2-P / 6-WAY MULTILOCK070 / WHITE SM3-P / 6-WAY MULTILOCK070 / YELLOW SM4-P / 6-WAY MULTILOCK 070 / SLATE SM11-P / 6-WAY MULTILOCK 070 / WHITE SM13-P / 6-WAY MULTILOCK0701 YELLOW	PASSENGER'S SEAT / UNDER PASSENGER'S SEAT IUNDER PASSENGER'S SEAT IUNDER PASSENGER'S SEAT / SQUAB PASSENGER'S SEAT / UNDER
SEAT SWITCH PACK – PASSENGER	SMS-PI16-WAY MULTILOCK040 / BLACK	PASSENGER'S SEAT
SOUAB - PASSENGER	SM9-P / 3-WAY MULTILOCK0701 SLATE	PASSENGER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA11	20-WAY MULTILOCK 040 IBLACK	PASSENGER'S UNDERSCUTTLE IECM
CA12	12-WAY MULTILOCK070 IWHITE	PASSENGER'S UNDERSCUTTLE/ ECM
CC3	20-WAY MULTILOCK040 IBLACK	CENTER CONSOLE1CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK070 / WHITE	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL (48 MICRO/ 6) IBLACK	RH FASCIA END PANEL IOUTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO/ 6) IBLACK	PASSENGER'S UNDERSCUTTLE

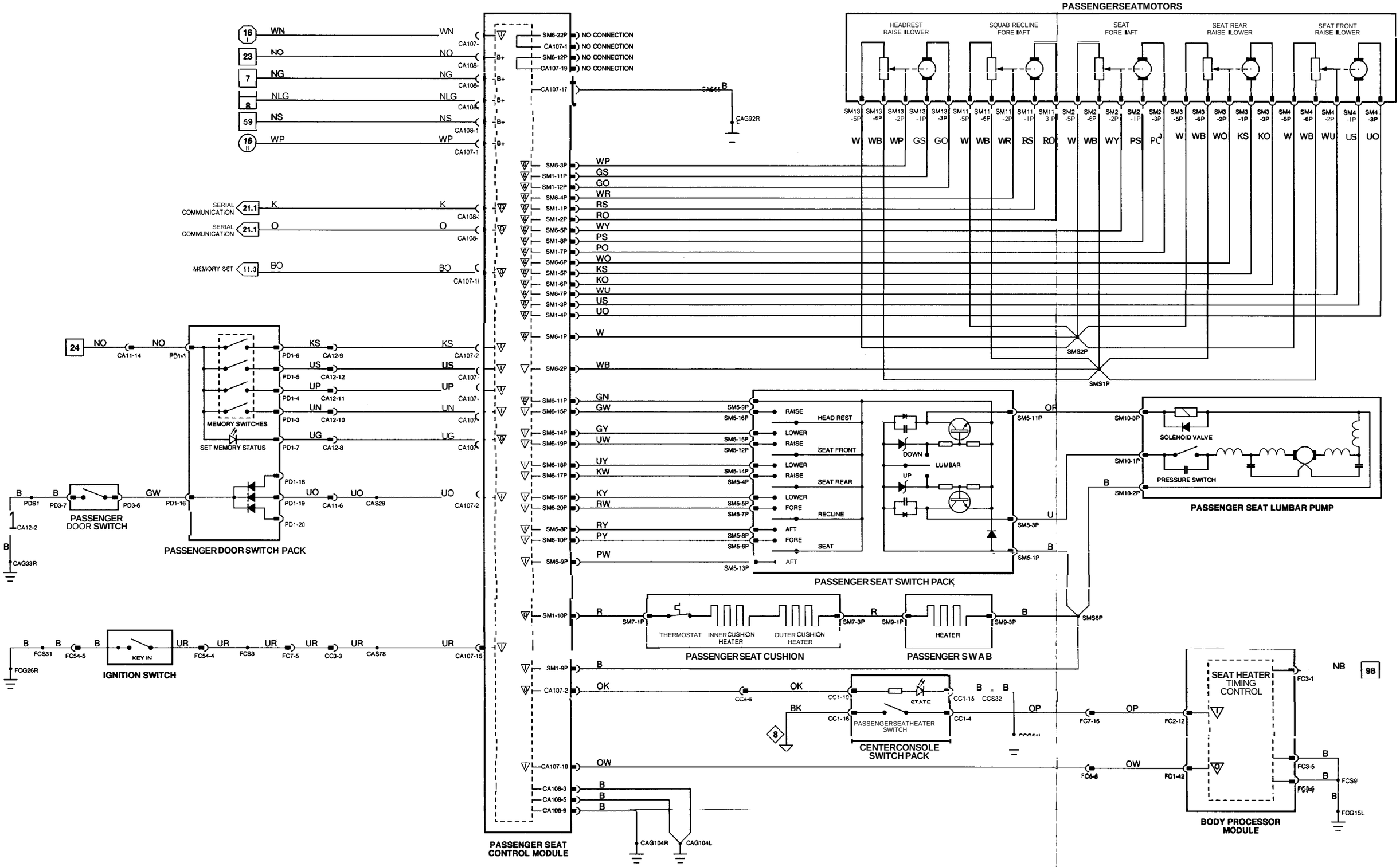
GROUNDS

Ground	Location / Type
CAG104L	LH SEAT GROUND STUD
CAG104R	LH SEAT GROUND STUD
CAGUR	RH HEELBDARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
FCG26R	LH CONSOLE GROUND S N O

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, S IARNESSES GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS

DATE OF ISSUE: JANUARY 1995



1—6 Fig. 01.1 | 7—65 Fig. 02.1 | 66—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
VINRANGE All
DATE OF ISSUE JANUARY 1995

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 WWER	GROUND	B+
I	PL1-10P	SEATHEATERREQUEST	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
D	SM6-11P	LUMBAR SWITCH WWER 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
	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	PASSENGERSEATHEATERREQUEST	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.

Fig. 14.7

COMPONENTS

Component	Connector / Type / Color	Location / Access
BODY PROCESSOR MODULE	FC1 48-WAY PCB SIGNAL/YELLOW FC2 / 48-WAY PCB SIGNAL1BLACK FC3 EWAY PCB SIGNAL1BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK040 BLACK	CENTER CONSOLE
IGNITION SWITCH	FC54 (FLY LEAD) 18-WAY MULTILOCK 0701 WHITE	STEERING COLUMN COVER
DOOR SWITCH – PASSENGER	PD3 / 13-WAY ECONOSEALIII 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 MULTILOCK47 / BLUE PL2 / 12-WAY MULTILOCK 47 BLUE SM1-P 12-WAY MULTILOCK47 / WHITE SM6-P 122-WAY MULTILOCK47 WHITE	PASSENGER'S SEAT
SEAT CUSHION – PASSENGER	SM7-P IS-WAY MULTILOCK070 / YELLOW	PASSENGER'S SEAT / UNDER
SEAT LUMBAR PUMP – PASSENGER	SM10-P / 3-WAY MULTILOCK070 / YELLOW	PASSENGER'S SEAT / SQUAB
SEAT MOTORS – PASSENGER	SM2-P EWAY MULTILOCK070 WHITE SM3-P / 6-WAY MULTILOCK0701 YELLOW SM4-P / 6-WAY MULTILOCK0701 SLATE SM11-P / 6-WAY MULTILOCK070 / WHITE SM13-P / 6-WAY MULTILOCK070 / YELLOW	PASSENGER'S SEATIUNDER PASSENGERS SEATIUNDER PASSENGER'S SEATIUNDER PASSENGER'S SEAT / SQUAB PASSENGER'S SEAT / UNDER
SEAT SWITCH PACK – PASSENGER	SM5-P IS-WAY MULTILOCK040 / BLACK	PASSENGER'S SEAT
SQUAB – PASSENGER	SM9-P / 3-WAY MULTILOCK0701 SLATE	PASSENGER'S SEAT

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA11	20-WAY MULTILOCK MO / BLACK	PASSENGER'S UNDERSCUTTLE ECM
CA12	12-WAY MULTILOCK 0701 WHITE	PASSENGER'S UNDERSCUTTLE ECM
CA27	6-WAY MULTILOCK 070 WHITE	PASSENGER'S SEAT
CA26	20-WAY MULTILOCK MO BLACK	PASSENGER'S SEAT
CC3	20-WAY MULTILOCK MO 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

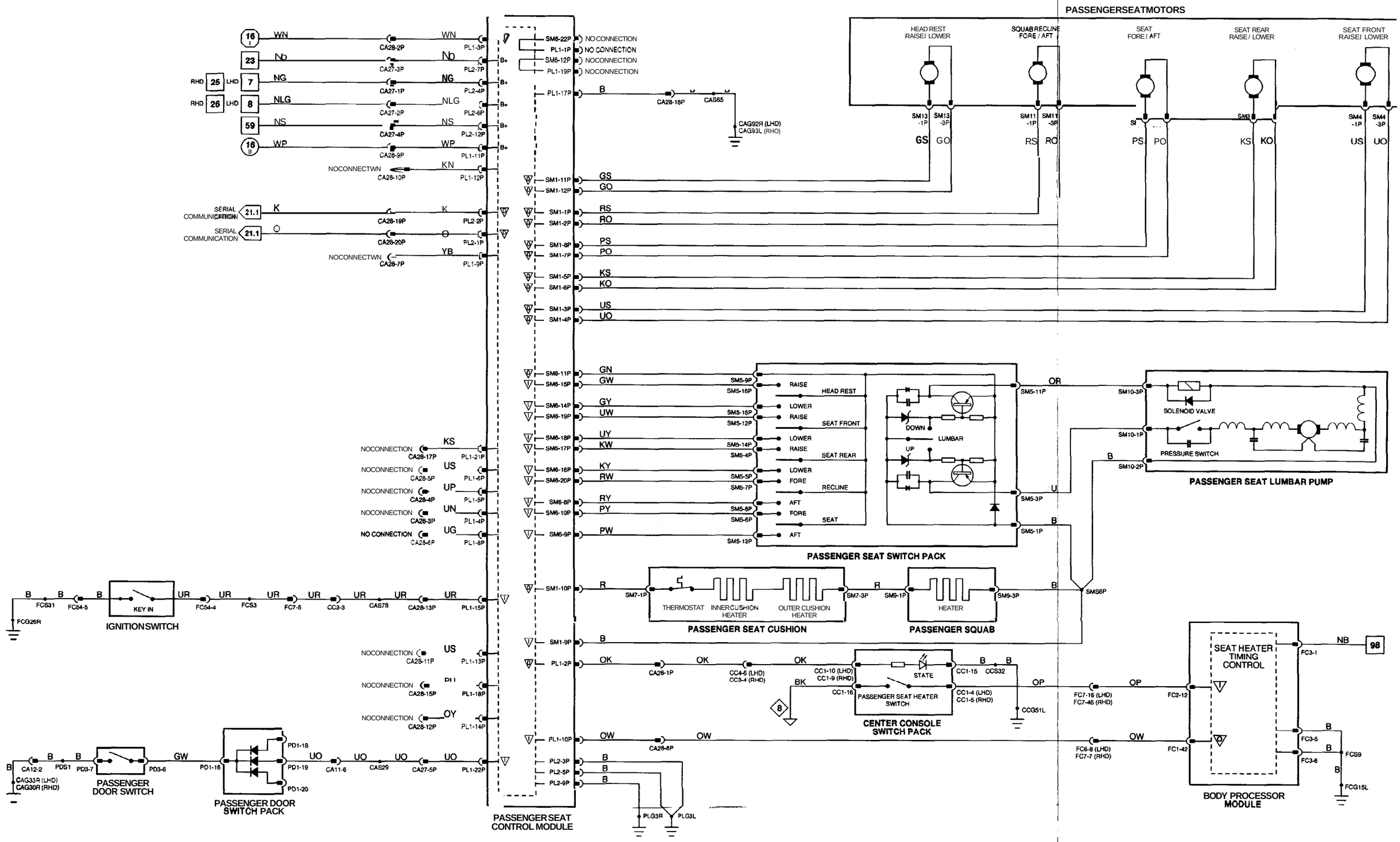
GROUNDS

Ground	Location / Type
CAG30R	LH 'A' PDST 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
PLGY	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 II JSTR TIONS DET ILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, EHICLE CO TROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1	7 — 65 Fig. 01.2	66 — 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
VINRANGE All
DATE OF ISSUE: JANUARY 1995

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FC1-42	PASSENGER SEAT HEATER REQUEST	GROUND	B+
I	FCZ-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	SignalGround	**Hz**	**Frequency**
D	Serialand *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.

Fig. 14.8

COMPONENTS

Component	Connector ▮Type ▮Color	Location ▮Access
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 148-WAY PCB SIGNAL / BLACK F U ▮SWAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 18-WAY MULTILOCK040 / BLACK	CENTER CONSOLE
SEAT CUSHION –PASSENGER	SM7-P / 3-WAY MULTILOCK070 / YELLOW	PASSENGERSSEAT / 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 MULTILOCK040 / BLACK	PASSENGER'S SEAT
SQUAB –PASSENGER	SM9-P / 3-WAY MULTILOCK070 ▮SLATE	PASSENGERS SEAT

RELAYS

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

HARNESS-TO-HARNESSCONNECTORS

Connector	Type / Color	Location ▮Access
CA27	6-WAY MULTILOCK070 / WHITE	PASSENGERSSEAT
CA28	20-WAY MULTILOCK040 ▮BLACK	PASSENGER'S SEAT
CC3	20-WAY MULTILOCK MO ▮BLACK	CENTER CONSOLE1CENTER CONSOLE GLOVE BOX
CC4	14-WAY MULTILOCK 070 / WHITE	CENTER CONSOLE1CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL(48 MICRO/ 61 ▮BLACK	RH FASCIA END PANEL ▮OUTER AIR VENT
FC7	THROUGH-PANEL(48 MICRO ▮61 / BLACK	PASSENGERSUNDERSCUTTLE
ML1-P	10-WAY MULTILOCK070 ▮WHITE	PASSENGER'S SEAT / UNDER

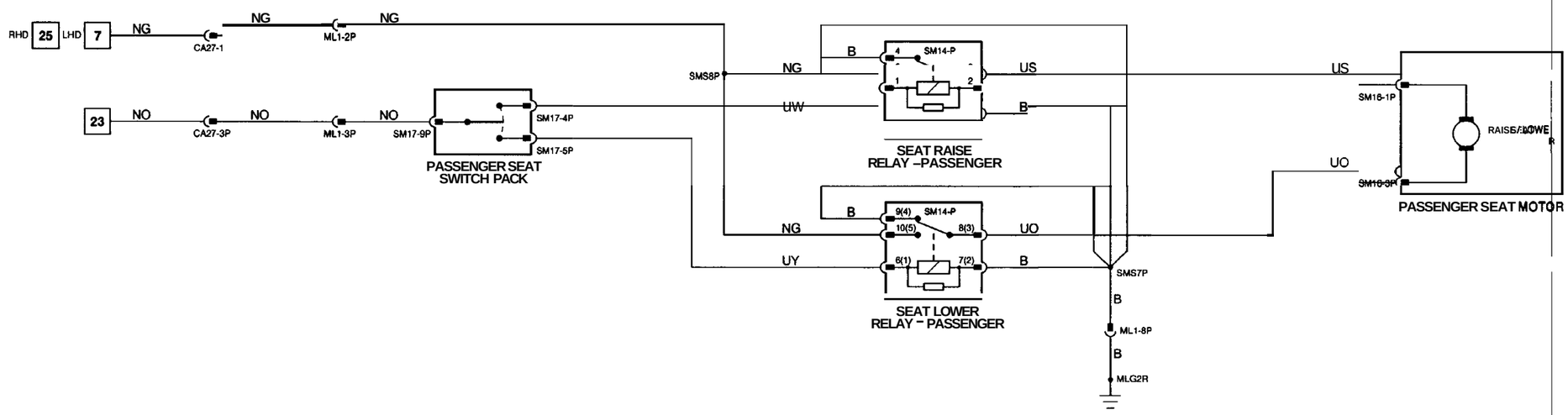
GROUNDS

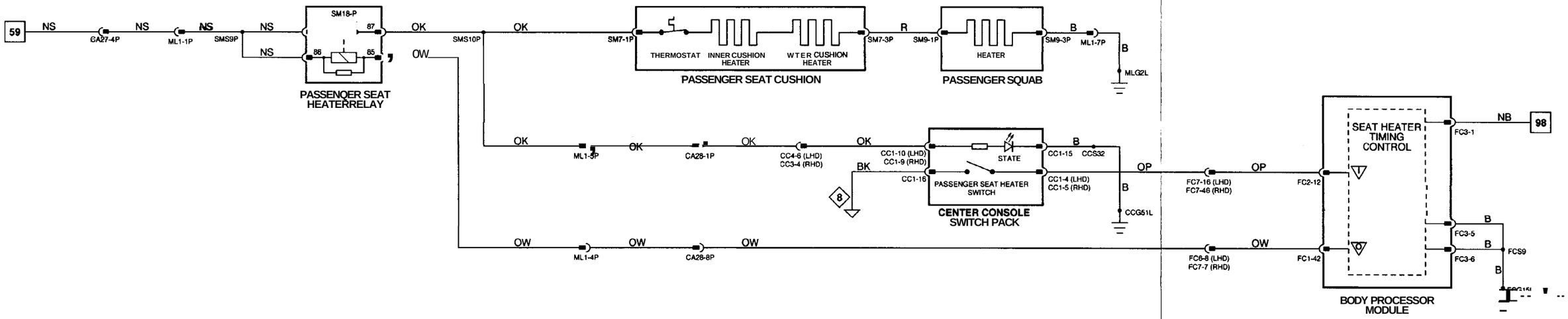
Ground	Location ▮Type
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
MLG2L	LH SEAT GROUND SCREW
MLG2R	LH SEAT GROUND SCREW

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.

DATE OF ISSUE: JANUARY 1995





1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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
VINRANGE All
DATE OF ISSUE: JANUARY 1995

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+

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.

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	PASSENGERS UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 18-WAY MULTILOCK040 / BLACK	CENTER CONSOLE
SEAT CUSHION –PASSENGER	SM7-P / 3-WAY MULTILOCK070 / YELLOW	PASSENGERS SEATIUNDER
SQUAB – PASSENGER	SM9-P / 3-WAY MULTILOCK 070 / SLATE	PASSENGERS SEAT

RELAYS

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

HARNESS-TO-HARNESSCONNECTORS

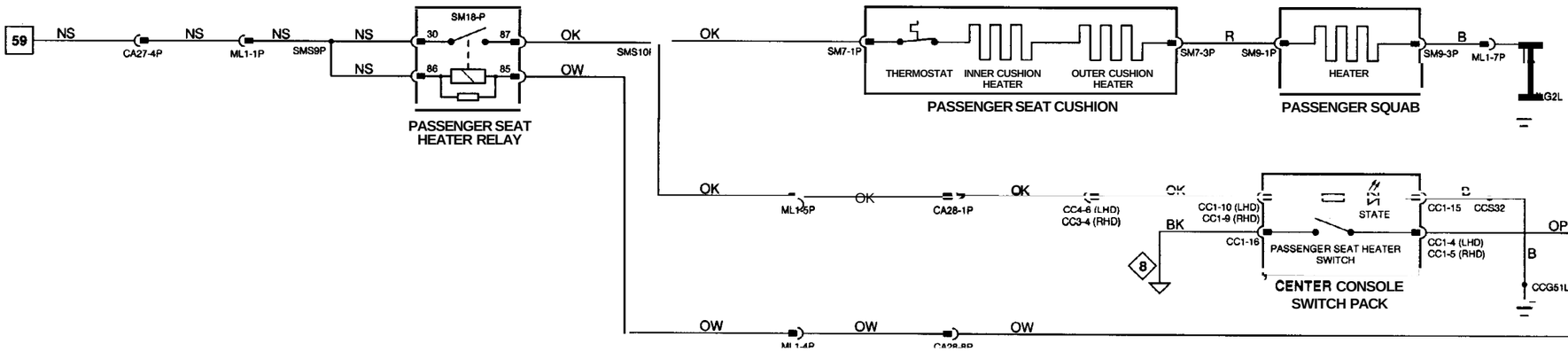
Connector	Type ▮Color	Location ▮Access
CA27	6-WAY MULTILOCK070/ WHITE	PASSENGERS SEAT
CA28	20-WAY MULTILOCK040 ▮BLACK	PASSENGERS SEAT
CC3	20-WAY MULTILOCK040 ▮BLACK	CENTER CONSOLE ▮CENTER CONSOLE GLOVE BOX
CC4	11-WAY MULTILOCK070 / WHITE	CENTER CONSOLE1CENTER CONSOLE GLOVE BOX
FC6	THROUGH-PANEL(48 MICRO/ 6) ▮BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC7	THROUGH-PANEL(48 MICRO/ 6) / BLACK	PASSENGER'S UNDERSCUTTLE
ML1-P	10-WAY MULTILOCK070/ WHITE	PASSENGERS SEAT / UNDER

GROUNDS

Ground	Location / Type
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE G R WND STUD
MLG2L	LH SEATGROUND SCREW

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

: TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, NNECTORS SSES GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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
VINRANGE All
DATE OF ISSUE JANUARY 1995

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	CA18-5	PASSENGER DOOR LOCK BARREL UNLOCK / DISARM REQUEST	MOMENTARY GROUND	1.74 V
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	CA18-11	PASSENGER DOOR LOCK BARREL LOCK / ARM REQUEST	MOMENTARY GROUND	1.74 V
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 NASI	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	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.

Fig. 15.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
CEMER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
DOOR KEY BARREL SWITCH - DRIVER	DD3 / 13-WAY ECONOSEAL III LC / BLACK	WOR CASING
DOOR KEV BARREL SWITCH - PASSENGER	PD3 113-WAY ECONOSEAL 111 LC / BLACK	DOOR CASING
DOOR LOCK ACNATOR - 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 16-WAY ECONOSEAL 111 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) 18-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	CA431 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	CEMER CONSOLE GLOVE BOX

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
DEADLOCK RELAY - DRIVER, RH REAR	VIOLET	CA55 / VIOLET	
DEADLOCK RELAY - PASSENGER, LH REAR	VIOLET	CA55 / VIOLET	LH HEELBOARD
DOOR LOCK RELAY	VIOLET	CAS0 / VIOLET	LH HEELBOARD
DOOR UNLOCK RELAY	VIOLET	CAS0 / VIOLET	
FUEL FILLER FLAP RELAY	VIOLET	CA97 / VIOLET	LH HEELBOARD
TRUNK RELEASE RELAY	BLACK / VIOLET	B T U / VIOLET	TRUNK ELECTRICAL CARRIER

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S UNDERSCUTTLE
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	12-WAY MULTILOCK 070 / WHITE	PASSENGER'S UNDERSCUTTLE / ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA15	12-WAY MULTILOCK MO1 BLACK	RH 'BC' POST / 'BC' POST PANEL
CCin	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
CC5	20-WAY MULTILOCK MO / 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

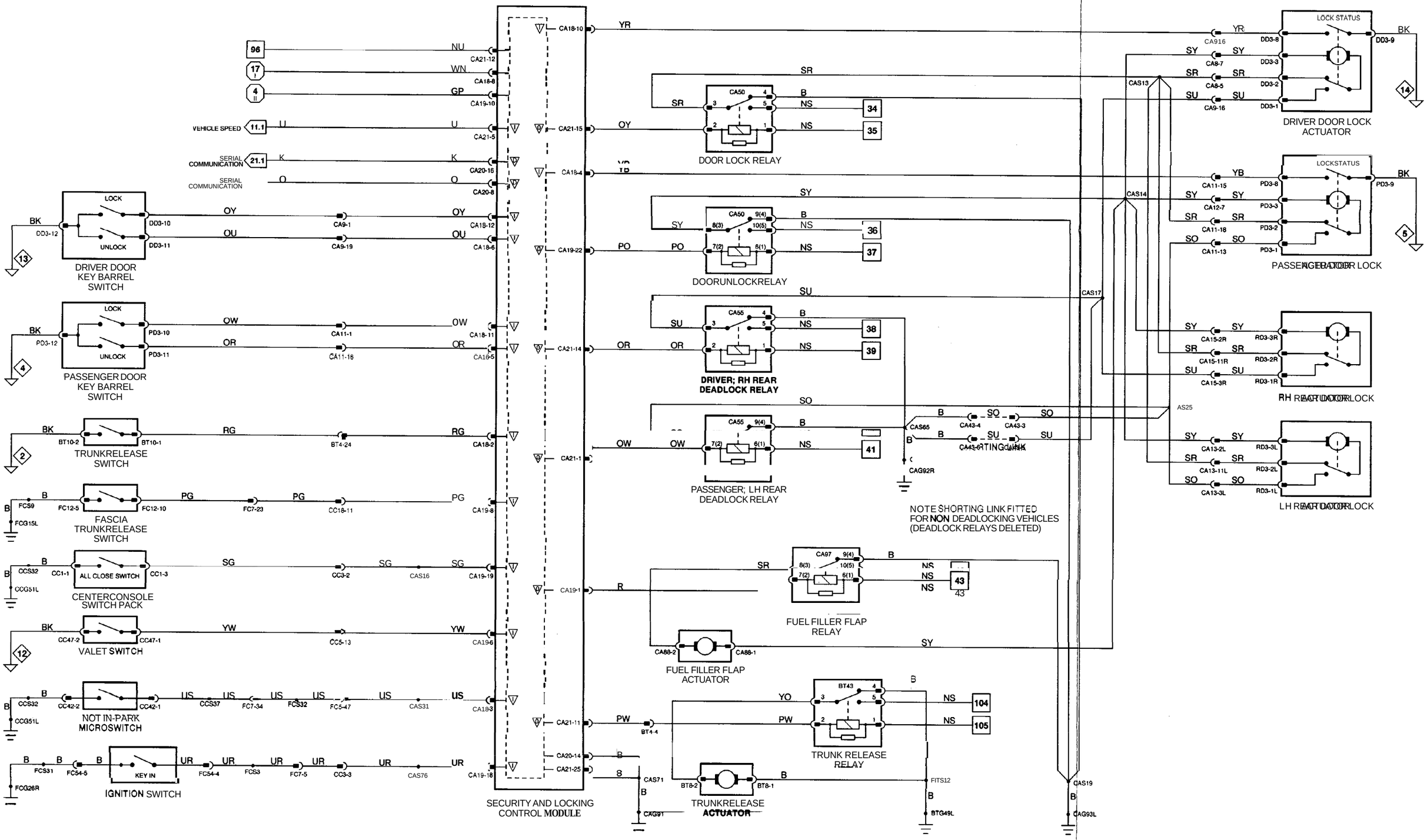
GROUNDS

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

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 MODULE AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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

DATE OF ISSUE: JANUARY 1995

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	CA184	PASSENGER DOOR LOCK STATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA18-5	PASSENGER DOOR LOCK BARREL UNLOCK / DISARM REQUEST	MOMENTARY GROUND	1.74 V
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	CA18-11	PASSENGER W O R LOCK BARREL LOCK / ARM REQUEST	MOMENTARY GROUND	1.74 V
I	CA18-12	DRIVER W O R LOCK BARREL LOCK IARM 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	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 fiied. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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
W O R KEY BARREL SWITCH -PASSENGER	PD3 / 13-WAY ECONOSEAL III LC / BLACK	DOOR CASING
DOOR LOCK ACTWATOR - 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 16-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 12-WAY LABINAL NATURAL	TRUNK, LF FRONT ITRUNK TRIM
IGNITION SWITCH	FCY (FLY LEAD) E-WAY MULTILOCK 070 / WHITE	STEERING COLUMN / COVER
NOT IN PARK MICROSWITCH	CC42 (FLY LEAD) 12-WAY MULTILOCK MO BLACK	'J' GATE CENTER CONSOLE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 SLATE CA19 122-WAY MULTILOCK 47 SLATE CA20 / 16-WAY MULTILOCK 47 SLATE CA21 / 26 WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
TRUNK RELEASE ACTUATOR	BTBI 2 WAY LABINALIBROWN	TRUNK LIDITRUNK LIDTRIM
TRUNK RELEASE SWITCH	BT10 / 2 WAY MULTILOCK 040 / GREEN	TRUNK LID / TRUNK LID TRIM
VALET SWITCH	CC47 12-WAY MULTILOCK MO BLACK	CENTER CONSOLE GLOVE BOX

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
DRIVER DOOR UNLOCK RELAY	VIOLET	CA71 VIOLET	LH HEELBOARD
DOOR LOCK RELAY	VIOLET	CA50 / VIOLET	LH HEELBOARD
DOOR UNLOCK RELAY	VIOLET	CA50 / VIOLET	
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	PARCEL SHELF / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S UNDERSCUTTLE
CA9	20-WAY MULTILOCK MO / BLACK	DRIVERS 'A POST/ 'A POSTTRIM
CA11	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	12-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' POSTI 'BC' WST PANEL
CC18	20-WAY MULTILOCK 040 BLUE	CENTER CONSOLE/ CENTER CONSOLE
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE 1 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 16) BLACK	PASSENGERS UNDERSCUTTLE

GROUNDS

Ground	Location / Type
BTG48L	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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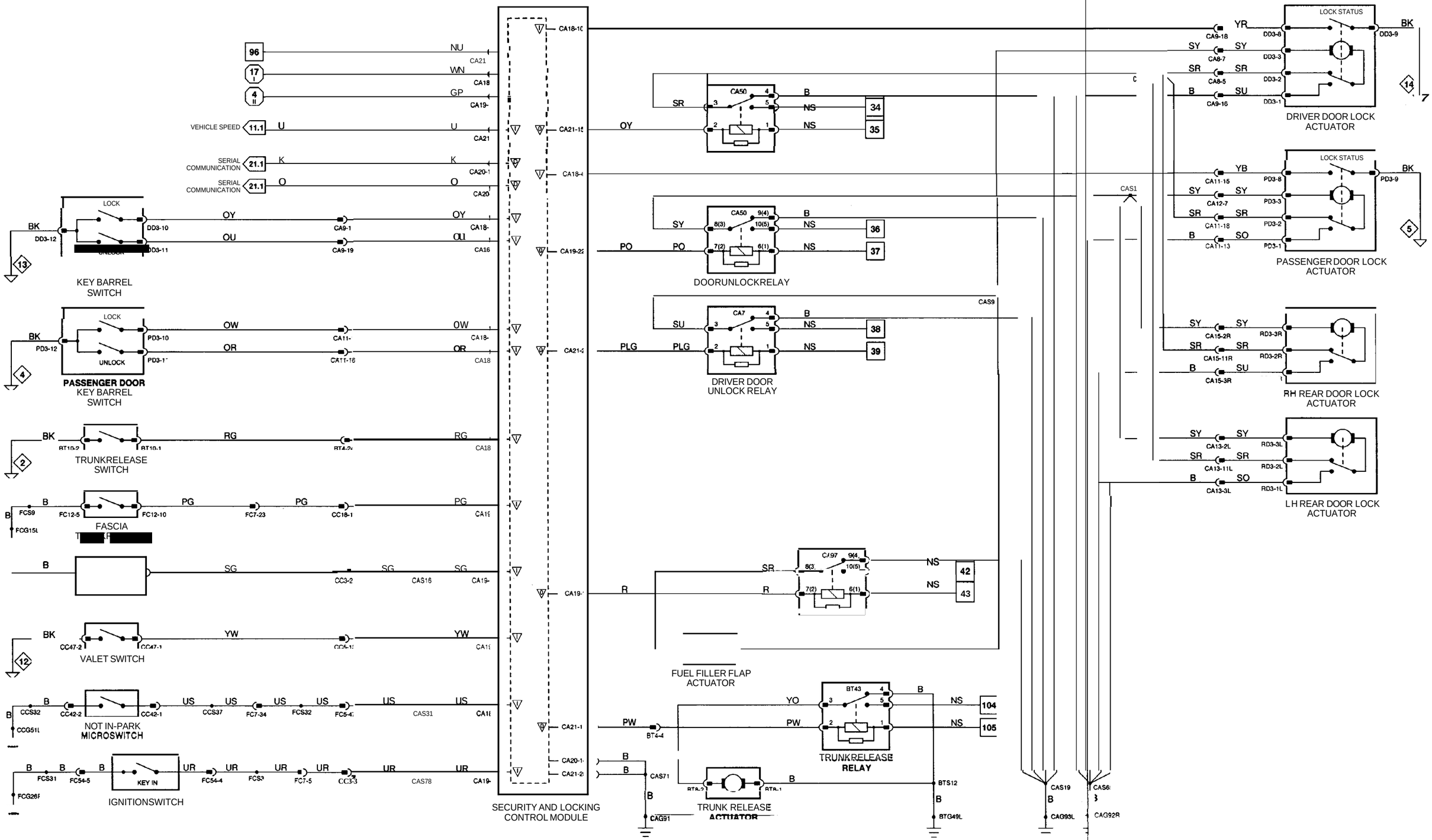
F S, HAF S OUNDS, VEHICLE CONTROL IODUL AND CONTROL MODUL PINS.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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: All
DATE OF ISSUE JANUARY 1995

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	CA18-5	PASSENGER DOOR LOCK BARREL UNLOCK/ DISARM REQUEST	MOMENTARV GROUND	1.74 V
I	CA18-6	DRIVER W O R LOCK BARREL UNLOCK DISARM REQUEST	MOMENTARY GROUND	1.74 V
I	CA18-10	PASSENGER DOOR LOCK STATUS	GROUND= LOCKED	1.74 V = UNLOCKED
I	CA18-11	PASSENGER DOOR LOCK BARREL LOCK / ARM REQUEST	MOMENTARY GROUND	1.74 V
I	CA18-12	DRIVER W O R 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	2.1 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	W O R 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	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.

Fig. 15.3

COMPONENTS

Component	Connector Type / Color	Location Access
CENTER CONSOLE SWITCH PACK	CC1 / 18-WAY MULTILOCK 040 BLACK	CENTER CONSOLE
DOOR KEY BARREL SWITCH - DRIVER	DD3 13-WAY ECONOSEAL 111 LC / BLACK	DOOR CASING
DOOR KEY BARREL SWITCH - PASSENGER	PD3 113-WAY ECONOSEAL III LC BLACK	DOOR CASING
DOOR LOCK ACTUATOR - DRIVER	DD3 113-WAY ECONOSEAL 111 LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR - LH REAR	RD3-L / 6-WAY ECONOSEAL 111 LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR - PASSENGER	PD3 / 13-WAY ECONOSEAL 111 LC / BLACK	DOOR CASING
DOOR LOCK ACTUATOR - RH REAR	RDOR / 6-WAY ECONOSEAL 111 LC / BLACK	DOOR CASING
FASCIA TRUNK RELEASE SWITCH	FC12 / 16-WAY MULTILOCK 040 / BLUE	STEERING COLUMN / DRIVER'S UNDERSCUTTLE
FUEL FILLER FLAP ACTUATOR	CA88 12-WAY LABINAL / NATURAL	TRUNU. LF FRONTITRUNK TRIM
IGNITION SWITCH	FC54 (FLY LEAD) 18-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 122-WAY MULTILOCK 47 / SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 126-WAY MULTILOCK 47 SLATE	TRUNK, LH FRONTITRUNK TRIM
SHORTING LINK	CA43 / 6-WAY MULTILOCK 070 / YELLOW	REAR SEAT. LH SIDE UNDER
TRUNK RELEASE ACTUATOR	BT8 12-WAY LABINAL BROWN	TRUNK LIDITRUNK LID TRIM
TRUNK RELEASE SWITCH	BT10 / 2-WAY MULTILOCK 040 / GREEN	TRUNK LIDITRUNK LID TRIM
VALET SWITCH	CC47 12-WAY MULTILOCU 040 / BLACU	CENTER CONSOLE GLOVE BOX

RELAYS

Relay	Color Stripe	Connector Color	Location Access
DEADLOCK RELAY - DRIVER. LH REAR	VIOLET	CA56 / 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	PARCEL SHELF / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S UNDERSCUTTLE
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST/ 'A' POST TRIM
CA11	20-WAY MULTILOCK 040 BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	12-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
CC3	20 WAY MULTILOCK 040 / BLACK	CENTER CONSOLE1 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 / WTER AIR VENT
FC7	THROUGH-PANEL (48 MICRO/ 6) / BLACK	PASSENGERS UNDERSCUTTLE

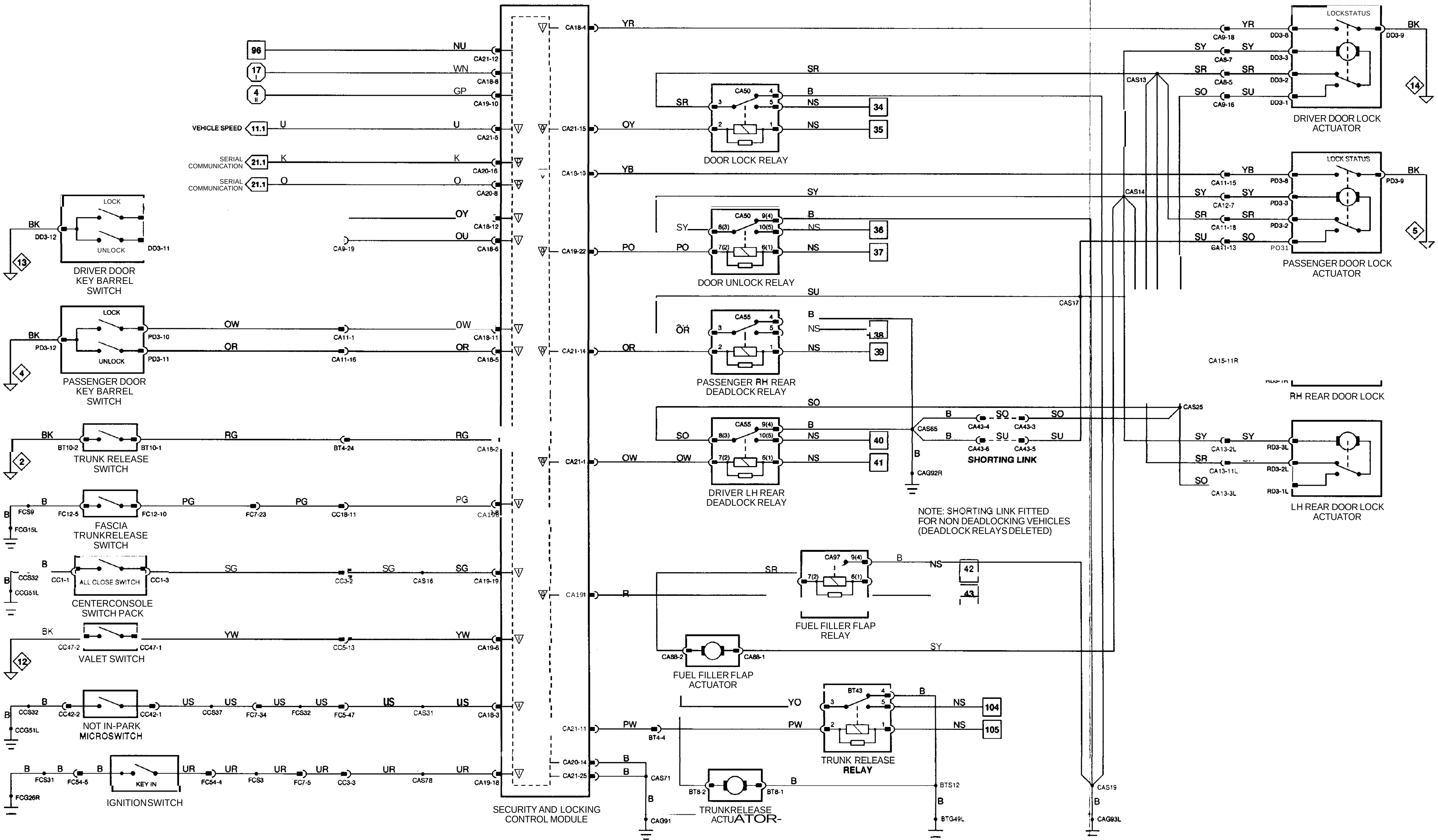
GROUNDS

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.

DATE OF ISSUE JANUARY 1995


DRIVER DOOR LOCK ACTUATOR
LOCKSTATUS
PASSENGER DOOR LOCK ACTUATOR
LOCK STATUS
RH REAR DOOR LOCK
LH REAR DOOR LOCK ACTUATOR
DOOR LOCK RELAY
DOOR UNLOCK RELAY
PASSENGER RH REAR DEADLOCK RELAY
DRIVER LH REAR DEADLOCK RELAY
SHORTING LINK
NOTE: SHORTING LINK FITTED FOR NON DEADLOCKING VEHICLES (DEADLOCK RELAYS DELETED)
FUEL FILLER FLAP RELAY
FUEL FILLER FLAP ACTUATOR
TRUNK RELEASE RELAY
TRUNKRELEASE ACTUATOR
SECURITY AND LOCKING CONTROL MODULE
VEHICLE SPEED
SERIAL COMMUNICATION
SERIAL COMMUNICATION
DRIVER DOOR KEY BARREL SWITCH
LOCK
UNLOCK
PASSENGER DOOR KEY BARREL SWITCH
TRUNK RELEASE SWITCH
FASCIA TRUNKRELEASE SWITCH
ALL CLOSE SWITCH
CENTERCONSOLE SWITCH PACK
VALET SWITCH
NOT IN-PARK MICROSWITCH
KEY IN
IGNITIONSWITCH

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 CLDSE	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	GRDUND	B+

SECURITY AND LOCKING CONTROL MODULE

▽	Pin	Description	Active	Inactive
I	CA18-1	PASSENGER DOOR WAR	GROUND	1.74 V
I	CA18-4	PASSENGER W O R 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 NASI	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 INOT 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 W AR	GROUND	79 V
I	CA19-21	REAR PASSENGER W O R AJAR	GROUND	7.9 V
I	CA20-4	RH INTRUSION SENSOR INOT 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 NASI	GROUND	GROUND
D	C M - 8	SERIAL COMMUNICATION INPUT		
I	C M - 1 2	LH INTRUSION SENSOR INOT NASI	SIGNAL	GROUND
O	CA20-13	LH INTRUSION SENSOR VOLTAGE FEED INOT 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 REOUEST	B+ W LSE	GROUND
O	CA21-9	VISUAL WARNING	GROUND W LSE	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 INOT NASI	ENCODED COMMUNICATIONS	
O	CA21-21	MEMORY POSITION 1 REOUEST	B+ PULSE	GROUND
O	CA21-22	ALL CLOSE REOUEST	GROUND	7.6 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	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.

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 12-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	W O R CASING
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 112-WAY MULTILOCK 070 / WHITE	
W O R SWITCH – DRIVER	DD3 / 13-WAY ECONOSEAL III LC BLACK	DOOR CASING
DOOR SWITCH - LH REAR	RD3-L IS-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 16-WAY ECONOSEAL III LC BLACK	DOOR CASING
HOODSWITCH	RS17 / 2-WAY ECONOSEAL III LC BLACK	ENGINE BAY. RH FRONT
INCLINATION SENSOR	CA66 / 6-WAY CS-251 ORANGE	TRUNK. LH FRONT ITRUNK 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 MO BLACK	DRIVERS UNDERSCUTTLE
SECURITY AND LOCKING CONTROL MODULE	CA18 / 12-WAY MULTILOCK 47 / SLATE CA19 122-WAY MULTILOCK 47 SLATE CA20 / 16-WAY MULTILOCK 47 / SLATE CA21 / 26-WAY MULTILOCK 47 SLATE	TRUNK. LH FRONT ITRUNK 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 CDNSOLE GLDVE BOX

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 GREEN	DRIVER'S UNDERSCUTTTLE
CA9	20-WAY MULTILOCK 040 BLACK	DRIVERS 'A' POST / 'A' POSTTRIM
CA10	8-WAY MULTILOCK 0701 WHITE	DRIVER'S UNDERSCUTTLE
CA11	20-WAY MULTILOCK 040 I BLACK	PASSENGER'S UNDERSCUTTLE / ECM
CA12	12-WAY MULTILOCK 0701 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 0701 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
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	PASSENGERS UNDERSCUTTLE
PI1	13-WAY ECONOSEAL III LC / WHITE	RH AIR CLEANER
RF4	12-WAY MULTILOCK 040 / BLACK	ROOF CONSOLE
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POST / *A' POSTPANEL

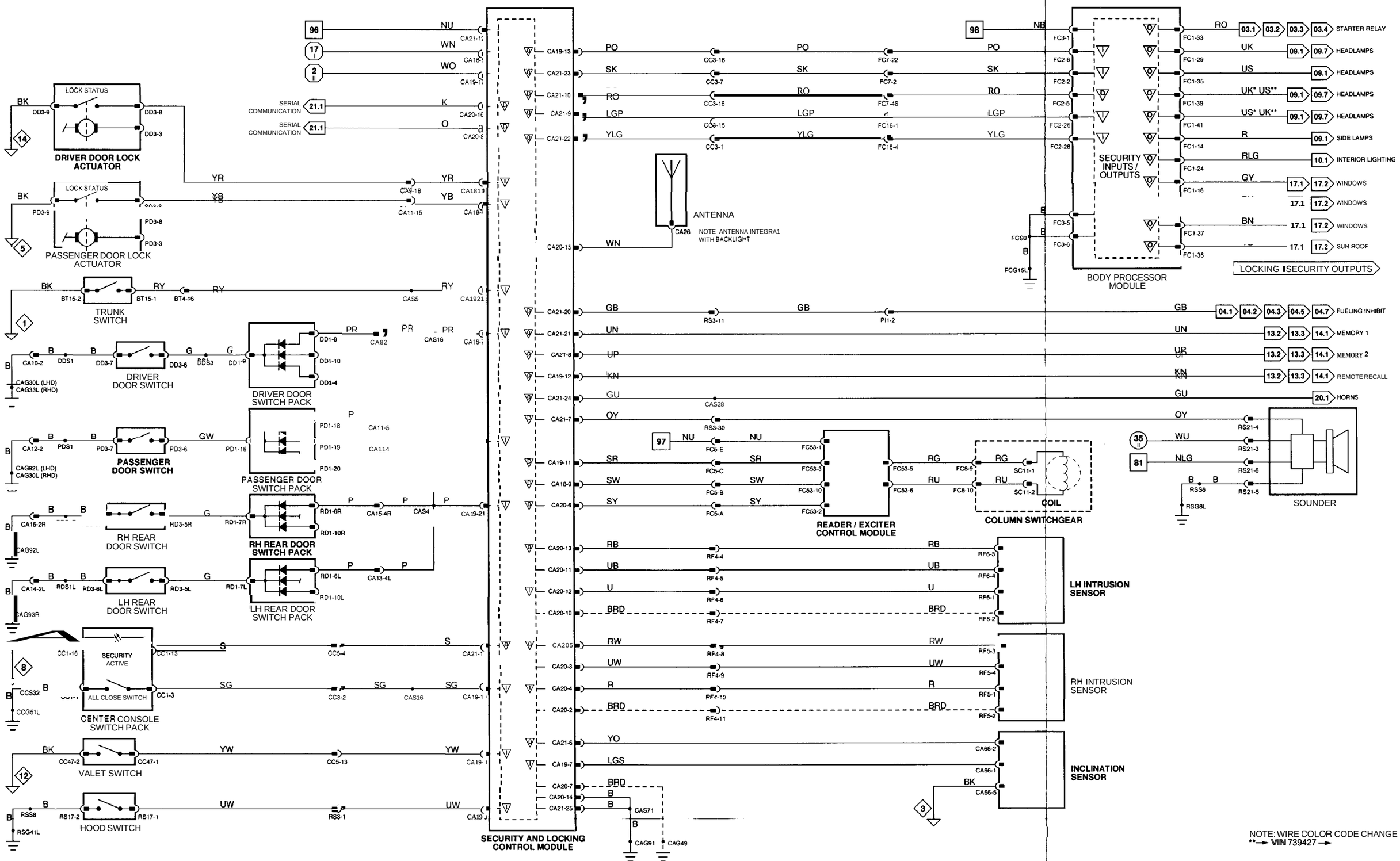
GROUNDS

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)

REFER TO THE FRONT OF THE BO FOR II USTR TIONS DETAILING THE LOCATION ND IDENTIFICATION OF COMPONENTS. RELAYS, ONNECTOR IARNES GRO NDS, EHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995



NOTE: WIRE COLOR CODE CHANGE
** → VIN 739427 →

1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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 Vehicles
VIN RANGE: All
DATE OF ISSUE: APRIL 1995

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	GRDUNO	B+
O	FC1-24	INTERIOR AND COURTESY LAMPS	GROUND	B+
O	FCI-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	FCI-35	LH MAIN BEAM ON	GROUND	B+
O	FC1-36	SLIDING ROOF CLOSE	GROUND	B+
O	FC1 31	DRIVER WINDOW RAISE	GROUND	B+
O	FC1-39	RH DIPPED BEAM ON	GROUND	B+
O	FC1 41	RH MAIN BEAM ON	GROUND	B+
I	FC22	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 W O R AJAR	GROUND	1 74 V
I	CA18-4	PASSENGERDOORLOCKSTATUS	GROUND = LOCKED	1.74 V = UNLOCKED
I	CA187	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 CLOSEREQUEST	GROUND	B+
I	CA19-20	TRUNK LID AJAR	GROUND	7 9 v
I	CA19-21	REAR PASSENGER DOOR AJAR	GROUND	7 9 v
	CA20-4	RH INTRUSION SENSOR (NOT NASI	SIGNAL	GROUND
Ø	CA20-5	RH INTRUSION SENSOR VOLTAGE FEED (NOT NASI	8 V	GROUND
D	CA20-8	SERIAL COMMUNICATION INPUT		
I	CA20-12	LH INTRUSION SENSOR (NOT NASI	SIGNAL	GROUND
Ø	CA20-13	LH INTRUSION SENSOR VOLTAGE FEED (NOT NASI	8 V	GROUND
D	CA20-16	SERIAL COMMUNICATION OUTPUT		
Ø	CA21-6	INCLINATION SENSOR GROUND	GROUND	GROUND
Ø	CA21-5	MEMORY POSITION 2 REOUEST	B+ PULSE	GROUND
Ø	CA21-9	VISUAL WARNING	GROUND PULSE	B+
D	CA21-10	SECURE STATUS OUTPUT TO BODY PROCESSOR	ENCODED COMMUNICATIONS	
Ø	CA21-13	SECURITY SOUNDER	5 V (480 - 1900 Hz)	GROUND
Ø	CA21-19	SECURITY ACTIVE LED	9V PULSE	GROUND
D	CA21-20	FUELING INHIBIT SIGNAL OUTPUT (NOT NASI	ENCODED COMMUNICATIONS	
Ø	CA21-21	MEMORY POSITION 1REOUEST	B+ PULSE	GROUND
Ø	CA21-22	ALL CLOSE REQUEST	GROUND	7.8 V
Ø	CA21-23	INTERIOR LIGHTS ON	GROUND PULSE	7.8 V
Ø	CA21-24	HORN	GROUND PULSE	B+
Ø	CA21-26	SECURITY SOUNDER	5 V 1480 - 1900 Hz)	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**
		M S	**Milliseconds**
		M V	**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.

Fig. 15.5

COMPONENTS

Component	Connector I Type / Color	Location I 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 116-WAY MULTILOCK 0401 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 - DRIVER	DD1 / 12 WAY MULTILOCK 47 / WHITE DD2 122-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	PO1 126-WAY MULTILOCK 47 / SLATE	ARM RESTITOP ROLL
DOOR SWITCH PACK - RH REAR	RD1-R 112-WAY MULTILOCK 0701WHITE	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 16-WAY ECONOSEAL III LC / BLACK	DOOR CASING
HOOD SWITCH	RS17 12-WAY ECONOSEAL III LC / BLACK	ENGINE BAY. RH FRONT
INCLINATION SENSOR	CA66 / 6-WAY CS-25 / ORANGE	TRUNK, LH FRONTITRUNKTRIM
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 112 WAY MULTILOCK 47 / SLATE CA19 122-WAY MULTILOCK 47 / SLATE CA20 116-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 12-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE GLOVE BOX

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S UNDERSCUTTLE
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POST TRIM
CA10	8-WAY MULTILOCK 070 / WHITE	DRIVER'S UNDERSCUTTLE
CA11	20-WAY MULTILOCK MO / BLACK	PASSENGERS UNDERSCUTTLE / ECM
CA12	12-WAY MULTILOCK 070 / WHITE	PASSENGERS 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 0701WHITE	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
FC7	THROUGH-PANEL 148MICRO / 6) / BLACK	PASSENGERS UNDERSCUTTLE
FC16	20-WAY MULTILOCK 040 / BLACK	PASSENGERS UNDERSCUTTLE
PI1	13-WAY ECONOSEAL III LC / WHITE	RH AIR CLEANER
RF4	12-WAY MULTILOCK 040 / BLACK	ROOF CONSOLE
RS3	THROUGH-PANEL (48 MICRO / 6) / BROWN	RH 'A' POSTI'A POST PANEL

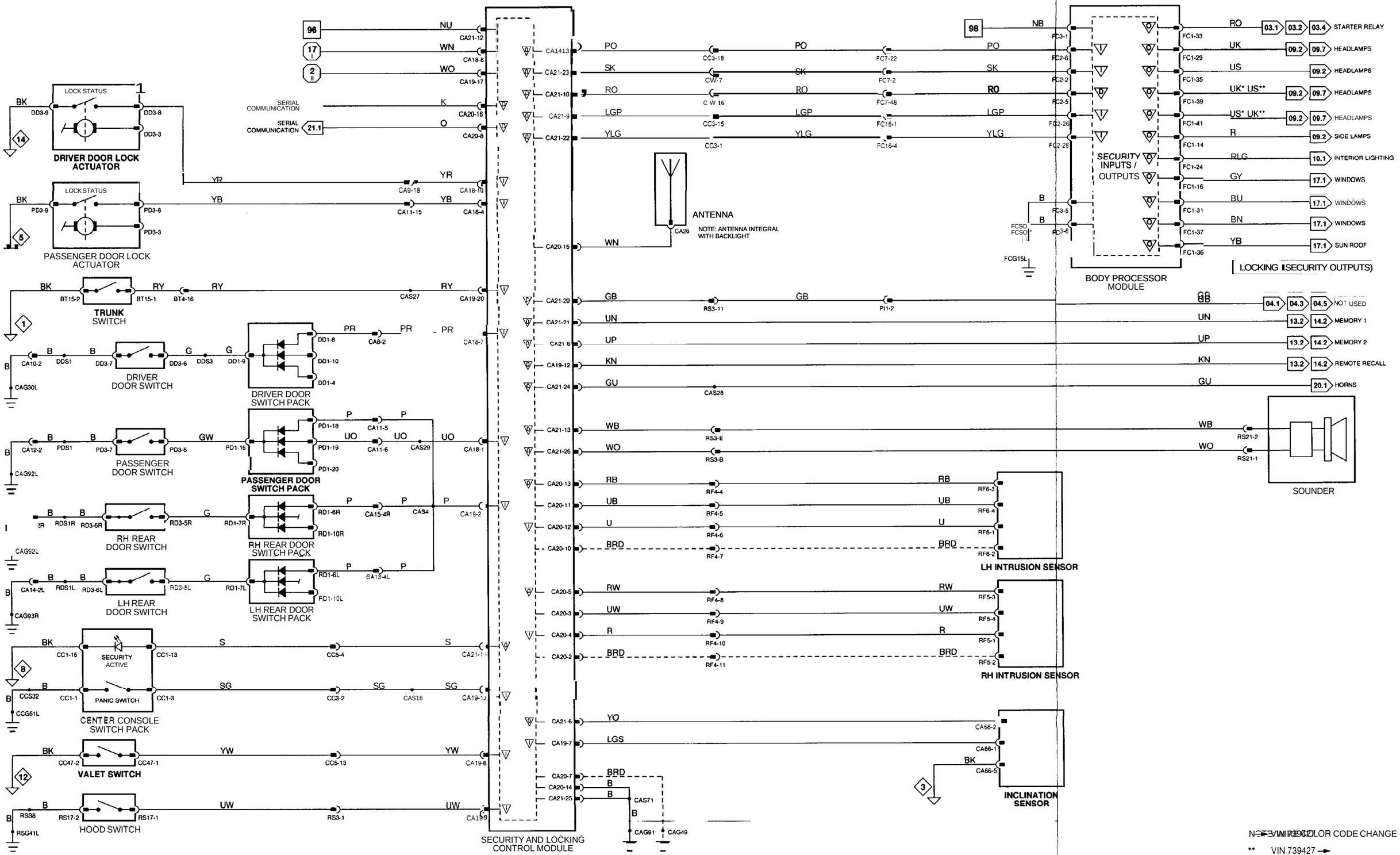
GROUNDS

Ground	Location I Type
CAG30L	LH 'A' POST GROUND SCREW
CAG49	RH CONSOLE GROUND STUD
CAG91	PARCEL SHELF GROUND SCREW
CAG92L	RH HEELBOAROGROUNO SCREW
CAG93R	LH HEELBOAROGROUNO SCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND STUD
RSG41L	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 IDENTIFICA' OF COMPONENTS, RELAYS, CONNECTORS :SSES, (;ROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE JANUARY 1995



* VIN 739421 → COLOR CODE CHANGE

** VIN 739427 →

1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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: All
DATE OF ISSUE: APRIL 1995

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 116 KPHI = 20 Hz, 20 MPH (32 KPHI = 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	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.

Fig. 16.1

COMPONENTS

Component	Connector ▮Type ▮Color	Location / Access
AMBIENT TEMPERATURE SWITCH	BR7 12-WAY ECONDSEAL 111 LC / WHITE	LH FRONT WHEEL ARCH LINER / SPOILER TRAY
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNALIYELLOW FC2 / 48-WAY PCB SIGNAL1 BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGERS UNDERSCUTTLE
DIODE (FC58) – WASH / WIPE SWITCH	FC58 / DIODE / BLACK	FASCIA HARNESS/ PASSENGER AIR BAG [PASSENGER SIDE FASCIATRIM)
DIODE (FC61) – WASH / WIPE SWITCH	FC61 / DIODE / BLACK	FASCIA HARNESS / PASSENGER AIR BAG [PASSENGER SIDE FASCIATRIM)
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 SWITCHGEARJ	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 12-WAY SUMITOMO 90 /WHITE	PLENUM CHAMBER / COVER
WINDSHIELD WASH HEATER – RH	PI72 12-WAY SUMITOMO 90 / WHITE	PLENUM CHAMBERICOVER
WINDSHIELD WASH PUMP	RS25 / 2-WAY ECONOSEAL 111 LC / BLACK	WASHER FLUID RESERVOIR
WIPER MOTOR	LS9 / 6-WAY ECONOSEAL 111 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	13-WAY ECONOSEAL 111 LC / BLACK	RH FRONT WHEEL ARCH LINER / SPOILER AND SPOILER TRAY
FC5	THROUGH-PANEL 148 MICRO / 61 / BLACK	LH FASCIA END PANEL / OUTER AIR VENT
FC6	THROUGH-PANEL 148 MICRO / 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC8	12-WAY MULTILOCK 040 / BLACK	DRIVER'S UNDERSCUTTLE
FC16	20-WAY MULTILDCK 040 / BLACK	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL 148 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI61	13-WAY ECONOSEAL III LC / BLACK	RH AIR CLEANER
RS3	THROUGH-PANEL 148 MICRO / 6) / BROWN	RH ' A POST / ' A POST PANEL

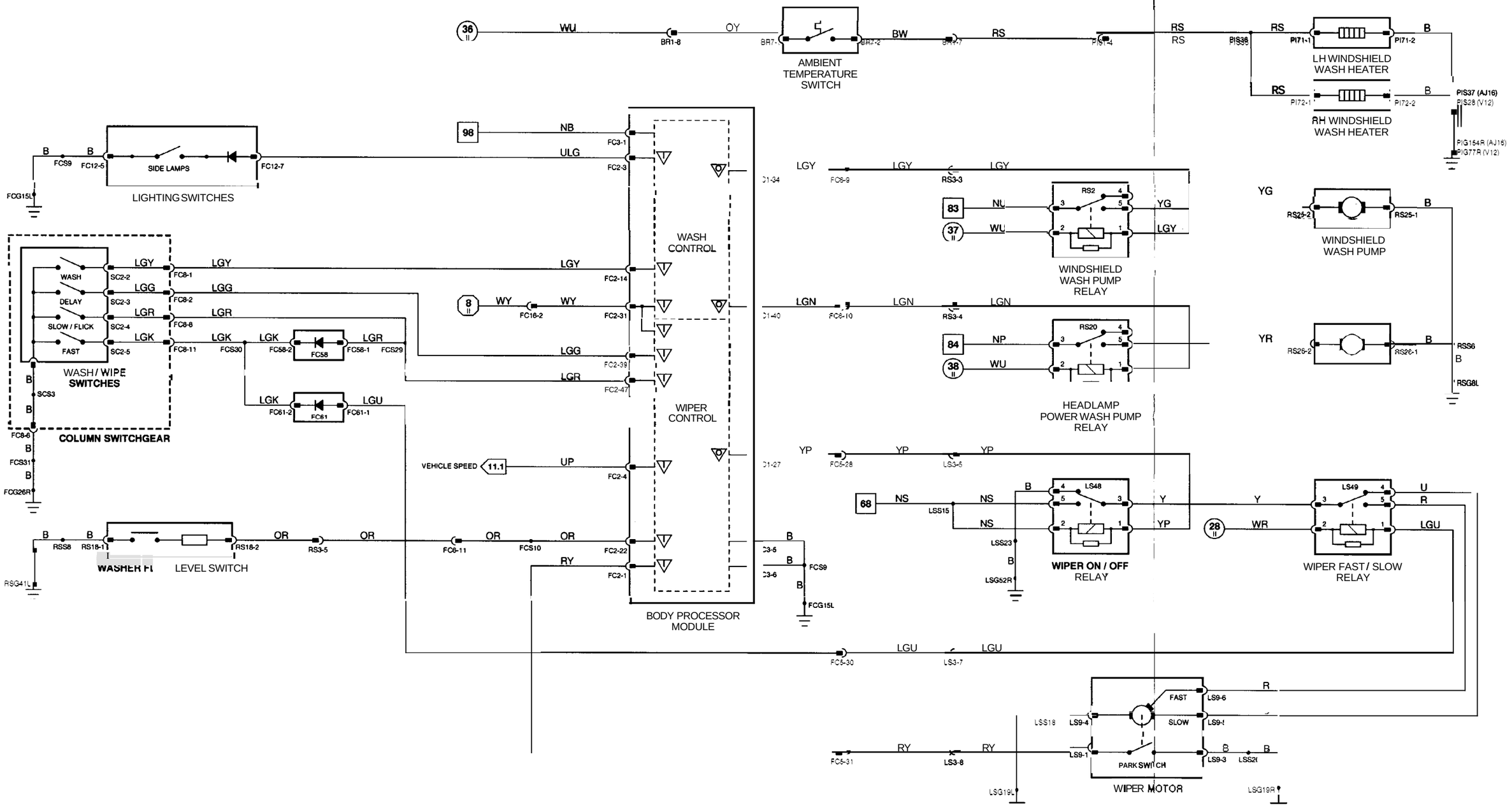
GROUNDS

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 GROUNDSTUD
PIG154R	LEFT FORWARDGROUNDSTUD
PIG77R	RIGHT FORWARD EMS GROUND STUD
RSG41L	RIGHT FORWARD 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 IDENTIFICATIONOF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

WARRANTY: All Vehicles

DATE OF ISSUE: JANUARY 1995

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

▽	Pin	Description	Active	Inactive
O	FCI-16	REAR WINDOW RAISE	GROUND	B+
O	FC1-31	FRONT PASSENGER WINDOW RAISE	GROUND	B+
O	FCI-36	SLIDING ROOF CLOSE	GRDUNO	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	CAM-2	ALL CLOSE REOUEST	GROUND	B+
I	CA84-4	ALL CLOSE REDUESTTO BM	GROUND	B+
I	CAS(-5	TILT OPEN / SLIDE CLOSE REOUEST	GROUND	B+
I	CAS(-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	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.

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	PASSENGERS UNDERSCUTTLE
CENTER CONSOLE SWITCH PACK	CC1 / 16-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE
W O R SWITCH PACK - DRIVER	DD1 / 12-WAY MULTILOCK 41 WHITE DD2 22-WAY MULTILOCK 47 WHITE	ARM RESTITOP 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 12-WAY ECONOSEAL III LC / BLACK	DRIVER'S DOOR / DOOR CASING
WINDOW LIFT MOTOR - LH REAR	RDCL / 2-WAY ECONOSEAL III LC / BLACK	LH REAR DOOR DOOR CASING
WINDOW LIFT MOTOR – PASSENGER	PD5 / 2-WAY ECONOSEAL III LC / BLACK	PASSENGERS DOOR / DOOR CASING
WINDOW LIFT MOTOR - RH REAR	RDCR / 2-WAY ECONDSEAL III LC BLACK	RH DOOR DOOR CASING
WINDOW LIFT SWITCH PACK - LH REAR	RD1-L / 26-WAY MULTILOCK 41 / SLATE	LH REAR DOOR ARM RESTITOP ROLL
WINDOW LIFT SWITCH PACK - PASSENGER	PD1 26-WAY MULTILOCK 47 SLATE	PASSENGERS DOOR ARM RESTITOP ROLL
WINDOW LIFT SWITCH PACK - RH REAR	RD1-R 126-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	DRIVERS UNDERSCUTTLE
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S 'A' POST / 'A' POSTTRIM
CA10	8-WAY MULTILOCK 070 WHITE	DRIVERS UNDERSCUTTLE
CA11	20-WAY MULTILOCK 040 BLACK	PASSENGERS UNDERSCUTTLE / ECM
CA12	12-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 070 / WHITE	RH 'BC' POST / 'BC' POST PANEL
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE1CENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE CENTER CONSOLE
FC5	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH FASCIA END PANEL OUTER AIR VENT
FC16	20-WAY MULTILOCK 040 BLACK	PASSENGERS UNDERSCUTTLE

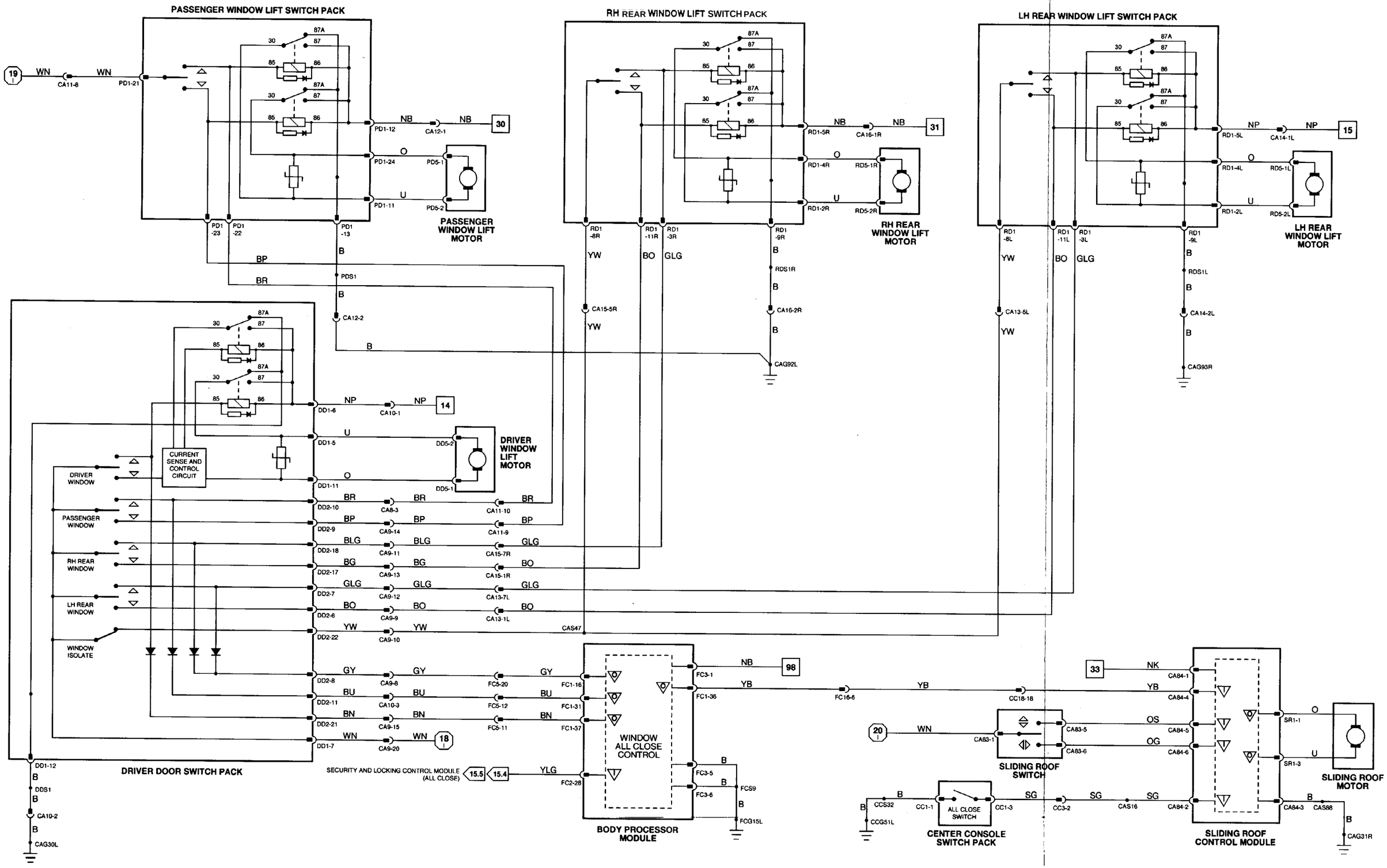
GROUNDS

Ground	Location Type
CAG30L	LH 'A' POST GROUND SCREW
CAG31R	PARCEL SHELF GRDUNDSCREW
CAG92L	RH HEELBOARDGROUND SCREW
CAG93R	LH HEELBOARDGROUNDSCREW
CCG51L	CENTER CONSOLE GROUND STUD
FCG15L	LH CONSOLE GROUND S N D

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.

DATE OF ISSUE: JANUARY 1995



1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 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
VINRANGE All
DATE OF ISSUE APRIL 1995

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	CAM-2	ALL CLOSE REQUEST	GROUND	B+
I	CA84-4	ALL CLOSE REQUEST TO BPM	GROUND	B+
I	CA84-5	TILT OPEN ISLIDE CLOSE REQUEST	GROUND	B+
I	CA84-6	TILT CLOSE / SLIDE OPEN REOUEST	GROUND	B+
O	SR1-1	SLIDING ROOF MOTOR	B+	GROUND
O	SR1-3	SLIDING ROOF MOTOR	B+	GROUND

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

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 SUNDERSCUTTLE
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 RESTITOP 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 12-WAY ECONOSEAL III LC / BLACK	DRIVER'S DOOR WIN O R CASING
WINDOW LIFT MOTOR - LH REAR	RD5-L / 2-WAY ECONOSEAL III LC BLACK	LH REAR DOOR DOOR CASING
WINDOW LIFT MOTOR -PASSENGER	PD5 12-WAY ECONOSEAL III LC / BLACK	PASSENGERS 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 116-WAY MULTILOCK 471 SLATE	LH REAR DOOR ARM REST / TOP ROLL
WINDOW LIFT SWITCH PACK - PASSENGER	PO1 26-WAY MULTILOCK 47 SLATE	PASSENGER? DOOR ARM REST / TOP ROLL
WINDOW LIFT SWITCH PACK - RH REAR	RD1-R 126-WAY MULTILOCK 47 / SLATE	RH REAR DOOR ARM RESTITOP ROLL

HARNESS-TO-HARNESS CONNECTORS

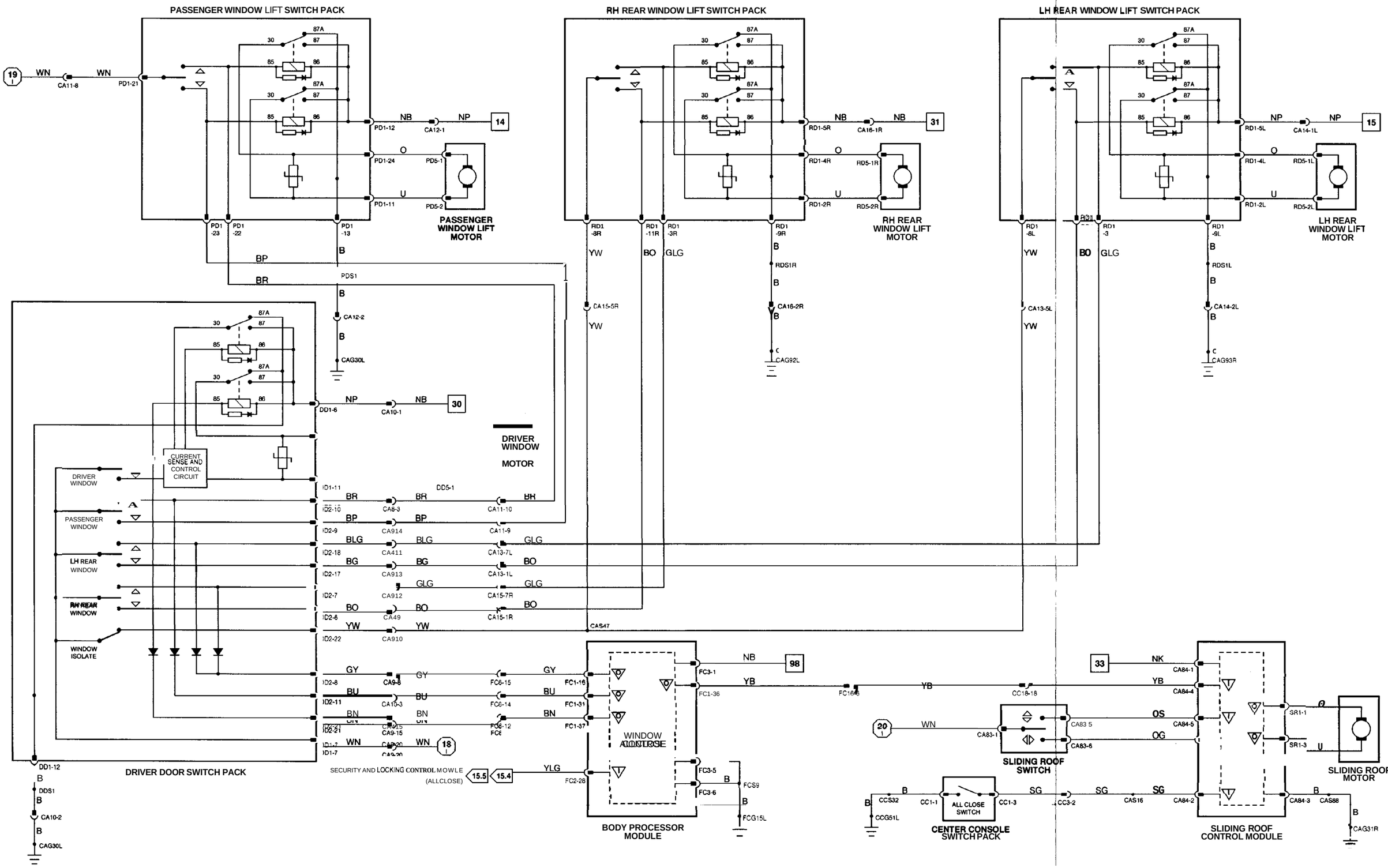
Connector	Type Color	Location / Access
CAB	20-WAY MULTILOCK M O / GREEN	DRIVER'S UNDERSCUITLE
CA9	20-WAY MULTILOCK 040 / BLACK	DRIVER'S ' A POST I' A POST TRIM
CA10	8-WAY MULTILOCK 070 WHITE	DRIVERS UNDERSCUTTLE
CA11	20-WAY MULTILOCK 040 BLACK	PASSENGERS UNDERSCUITLE / ECM
CA12	12-WAY MULTILOCK 070 / WHITE	PASSENGERS UNDERSCUITLE I ECM
CA13	12-WAY MULTILOCK 040 / BLACK	LH 'BC' POST / 'BC' POST PANEL
CA14	2-WAY MULTILOCK 0701 WHITE	LH 'BC' POST I 'BC' POST PANEL
CA15	12-WAY MULTILOCK 040 BLACK	RH 'BC POST / 'BC' POST PANEL
CA16	2-WAY MULTILOCK 0701 WHITE	RH 'BC POST I 'BC' POST PANEL
CC3	20-WAY MULTILOCK 040 / BLACK	CENTER CONSOLE ICENTER CONSOLE GLOVE BOX
CC18	20-WAY MULTILOCK M O BLUE	CENTER CONSOLE ICENTER CONSOLE
FC6	THROUGH-PANEL (48 MICRO/ 6) / BLACK	RH FASCIA END PANEL / OUTER AIR VENT
FC16	20-WAY MULTILOCK 040 / BLACU	PASSENGERS UNDERSCUTTLE

GROUNDS

Ground	Location Type
CAG30L	LH 'A' POST GROUND SCREW
CAG31R	PARCEL SHELF GROUND SCREW
CAG92L	RH HEELBOARD GROUND SCREW
CAG93R	LH HEELBOARD GROUNO 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 II ISTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS.



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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
VINRANGE All
DATE OF ISSUE: APRIL 1995

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+	Batteryvoltage
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.

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 MD BLUE	CENTER CONSOLE
MICROPHONE	CA67 / 2-WAY MULTILOCK 040 / BLUE	ROOF CONSOLE
MID-BASS - LH FRONT	DD6 (LHD) IFLY LEAD) 12-WAY GROTE AND HARTMAN BLACK PD6 (RHD) IFLY LEAD) 12-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) IFLY 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 IFLY LEAD) / 2-WAY GROTE AND HARTMAN BLACK	DOOR CASING
RADIO ANTENNA	IC12 12-WAY ANTENNA CONNECTOR / BLACK	RH REAR FENDER / TRUNK TRIM
RADIO ANTENNA MOTOR	BT44 / 6 WAY YAZAKI / WHITE	TRUNK, RH SIDEITRUNKTRIM
RADIO CASSETTE	IC1 120-WAY MULTILOCK 0701WHITE IC13 / 2-WAY ANTENNACONNECTOR / WHITE IC19 / CD AUTOCHANGER CONNECTOR	CENTER CONSOLE
TELEPHONE ANTENNA	RT65 / ANTENNA CONNECTORIBLACK	HEADLINER, REAR
TELEPHONE TRANSCEIVER	RT62 / 25 WAY D TYPE / BLACK RT64 / ANTENNA CONNECTOR1 BLACK	PARCEL SHELF / TRUNK TRIM
TWEETER - LH FRONT, STANDARD ICE	FC32 IFLY LEAD) / 2-WAY MODU / BLACK	FASCIA, LH SIDE
TWEETER - LH REAR. STANDARD ICE	CA81 IFLY LEAD) / 2-WAY MODU / BLACK	PARCEL SHELF. LH SIDE
TWEETER - RH FRONT, STANDARD ICE	FC31 IFLY LEAD) 12-WAY MODU / BLACK	FASCIA, LH SIDE
TWEETER - RH REAR, STANDARD ICE	CA82 IFLY LEAD) / 2-WAY MOOU / BLACK	PARCEL SHELF, RH SIDE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type Color	Location Access
ET4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
CA77	2-WAY MULTILOCK 070 / YELLOW	LH '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	4 WAY MULTILOCK 040 / BLACK	RH 'E' POST LAMP
IC2	8-WAY MULTILOCK 0701WHITE	RH TRUNK TRIM PANEL / FUEL TANK TRIM
IC7	8 WAY MULTILOCK 0701WHITE	PASSENGERS UNDERSCUTTLE
IC22	18-WAY MULTILOCK 070 WHITE	LH REAR DOOR / DOOR CASING
IC23	4-WAY MULTILOCK 0401 BLACK	LH HEELBOARD / HEELBOARD COVER
RT61	12-WAY MULTILOCK 040 BLACK	PARCEL SHELF
RT66	10-WAY YAZAKI / BLACK	PARCEL SHELF

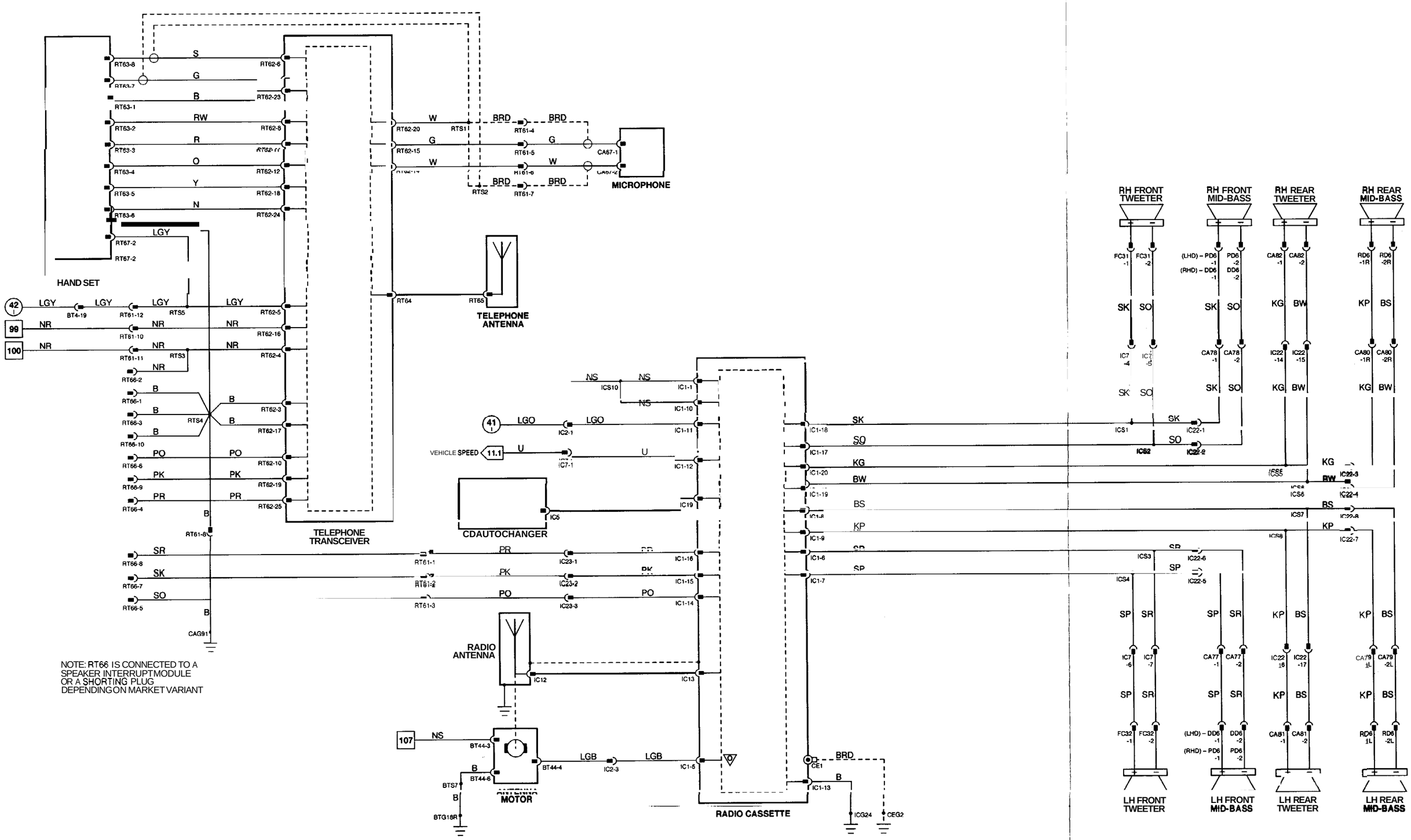
GROUNDS

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 IDENTIFICATIONOF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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
VINRANGE All
DATE OF ISSUE: JANUARY 1995

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 FRONTCHANNEL LOW LEVELINPUT	0 – 30 MV	0 MV
SG	IC30-3	SIGNAL GROUND	GROUND	GROUND
I	IC30-6	LH REAR CHANNEL LOW LEVEL INPUT	0 – 30MV	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 UPIAMPLIFIER ON SIGNAL	B+	GROUND
O	IC34-1	RH FRONT CHANNEL LOW LEVEL OUTPUT	0 – 30MV	0 MV
O	IC34-2	LH FRONTCHANNEL 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 – 30MV	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	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.

Fig. 18.2

COMPONENTS

Component	Connector / Type / Color	Location / Access
CD AUTO CHANGER	IC5 / 2-WAY ANTENNAIBLACK	PARCEL SHELF
HANDSET	RT63 / 8-WAY PHONE / BLACK RT67 / 2-WAY MULTILOCK 0401BLUE	CENTER CONSOLE
MICROPHONE	CA67 / 2-WAY MULTILOCK 0401BLUE	ROOF CONSOLE
MIDBASS - LH FRONT	DD6 (LHD) (FLY LEAD) I2-WAY GROTE AND HARTMAN IBLACK PD6 (RHD) (FLY LEADI I2-WAY GROTE AND HARTMAN IBLACK	DOOR CASING
MIDBASS- LH REAR	RDBL IFLY LEAD) / 2-WAY GROTE AND HARTMAN / BLACK	DOOR CASING
MIDBASS - RH FRONT	DD6 (RHD) (FLY LEADI 12-WAY GROTE AND HARTMAN IBLACK PD6 (LHD) (FLY LEADI / 2-WAY GROTE AND HARTMAN IBLACK	WDR CASING
MIDBASS - RH REAR	RD6-R IFLY LEAD1/ 2-WAY GROTE AND HARTMAN IBLACK	DOOR CASING
POWER AMPLIFIER	IC30 I12-WAY MULTILOCK070 / WHITE IC31 I18-WAY MULTILOCK 070 / WHITE	PARCEL SHELF / TRUNK TRIM
RADIO ANTENNA	IC12 12-WAY ANTENNA CONNECTOR IBLACK	RH REAR FENDER / TRUNK TRIM
RADIO ANTENNA MOTOR	BT44 I6-WAY YAZAKI IWHITE	TRUNK, RH SIDE / TRUNK TRIM
RADIO CASSETTE	IC1 / 20-WAY MULTILOCK070 IWHITE IC13 12-WAY ANTENNA CONNECTOR IWHITE IC19 / CD AUTOCHANGER CONNECTOR IC34 I6-WAY DIN /SLATE	CENTER CONSOLE
SUBWOOFER	IC32 (FLY LEADI I2-WAY GROTE AND HARTMAN I BLACK IC33 (FLY LEADI / 2-WAY GROTE AND HARTMAN / BLACK	PARCEL SHELF ITRUNK TRIM
TELEPHONE ANTENNA	RT65 / ANTENNA CONNECTOR / BLACK	HEADLINER, REAR
TELEPHONE TRANSCEIVER	RT62 I25-WAY D TYPE IBLACK RT64 / ANTENNA CONNECTOR / BLACK	PARCELSHELF / TRUNK TRIM
TWEETER – LH FRONT, PREMIUM ICE	CA102 IFLY LEAD) / 2-WAY MULTILOCK040 / 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 LEAD1 I2-WAY MULTILOCK040 / BLACK	FASCIA, RH SIDE
TWEETER - RH REAR, PREMIUM ICE	MB1-R IFLY LEADI / 2-WAY MODU / BLACK	PARCEL SHELF, RH SIDE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location I Access
BT4	THROUGH-PANEL (48 MICRO / 6) / BLACK	PARCEL SHELF / FUEL TANK TRIM
CA77	2-WAY MULTILOCK0701YELLOW	LH 'A' POST/ 'A' POSTPANEL
CA10	2-WAY MULTILOCK070 /YELLOW	PASSENGER'S 'A' POST/ 'A' POSTPANEL
CA79	2-WAY MULTILOCK070 / YELLOW	LH 'BC' POST I'BC' POST PANEL
CA80	4-WAY MULTILOCKMO/ BLACK	RH "E" POST LAMP
IC2	8-WAY MULTILOCK 070 IWHITE	RH TRUNK TRIM PANEL / FUEL TANK TRIM
IC7	8-WAY MULTILOCK070 / WHITE	PASSENGER'SUNDERSCUTTLE
IC22	18-WAY MULTILOCK 0701WHITE	LH REAR DOOR IWOR CASING
IC23	4-WAY MULTILOCK040 / BLACK	LH HEELBOARD IHEELBOARDCOVER
RT61	12-WAY MULTILOCKMO/ BLKK	PARCELSHELF
RT66	10-WAY YAZAKI / BLACK	PARCELSHELF

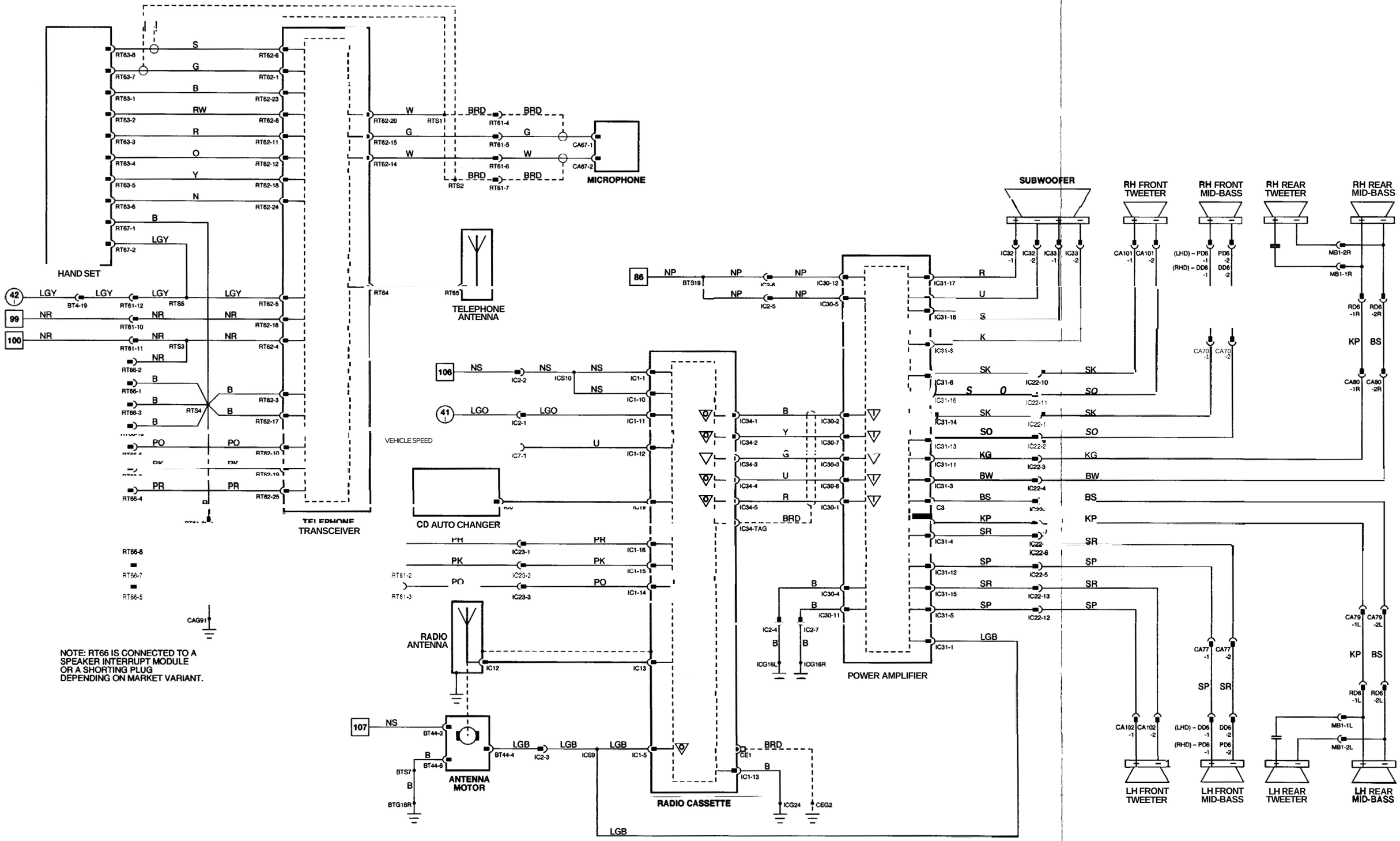
GROUNDS

Ground	Location / Type
BTG18R	REAR TRUNK GROUND STUD
CAG91	PARCEL SHELFGROUNDSCREW
CEG2	RADIO GROUND STUD
ICG16L	FRONT TRUNK GROUND STUD
ICG16R	FRONT TRUNK GROUND STUD
ICG24	RADIO GROUNDSTUD

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

REFER TO THE FR NT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNEC ORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: JANUARY 1995



1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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: All
DATE OF ISSUE: JANUARY 1995

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 MY
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	ICY-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**	**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.

Fig. 18.3

COMPONENTS

Component	Connector I Type I 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
MIDBASS - LH FRONT	DD6 ILHDI IFLY LEADI12-WAY GROTE AND HARTMAN BLACK PD6 **(RHD)** IFLY LEAD) 12-WAY GROTE AND HARTMAN/ BLACK	DOOR CASING
MIDBASS - LH REAR	RD6-L IFLY LEAD) I2-WAY GROTE AND HARTMAN IBLACK	DOOR CASING
MIDBASS - RH FRONT	DD6 **(RHD) (FLY** LEADI12-WAY GROTE AND HARTMAN BUCK PD6 **(LHD) (FLY** LEAD) / 2-WAY GROTE AND HARTMAN/ BLACK	DOOR CASING
MIDBASS - RH REAR	RD6-R (FLY LEADI **I2-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 IBLACK	RH REAR FENDER ITRUNK TRIM
RADIO ANTENNA MOTOR	**BT44** / 6-WAY YAZAKI / WHITE	TRUNK, RH SIDE / **TRUNK TRIM**
RADIO CASSETTE	**IC1** I20-WAY MULTILOCK **070** IWHITE IC13 12-WAY ANTENNA CONNECTOR/ **WHITE** IC19 **/ CD** AUTOCHANGER CONNECTOR IC34 / 8-WAY OINLLATE	CENTER CONSOLE
SUBWOOFER	IC32 **(FLY LEADI** 12-WAY GROTE AND HARTMAN/ BLACK **IC33** IFLY LEADI 12-WAY GROTE AND HARTMAN/ BLACK	PARCEL SHELF ITRUNK TRIM
TELEPHONE ANTENNA	RT66 / ANTENNA CONNECTOR / BLACK	HEADLINER. REAR
TELEPHONE TRANSCEIVER	RT62 125-WAY D WPE IBLACK **RT64 / ANTENNA CONNECTOR / BLACK**	PARCEL SHELF / TRUNK TRIM
TWEETER - LH FRONT. PREMIUM ICE	CA102 (FLY LEAD) 12-WAY MULTILOCK OM IBLACK	FASCIA, LH SIDE
TWEETER - LH REAR, PREMIUM ICE	MB1-L IFLY LEADI I2-WAY MODU IBLACK	PARCEL SHELF, LH SIDE
TWEETER - RH FRONT, PREMIUM ICE	CA101 IFLY LEADI/ 2-WAY MULTILOCK OM/ BLACK	FASCIA, **RH SIDE**
TWEETER - RH REAR, PREMIUM ICE	MB1-R IFLY LEAD) 12-WAY **MODU** IBLACK	PARCEL SHELF, RH SIDE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
BT4	THROUGH-PANEL (48 MICRO **/ 8) /** BLACK	PARCEL SHELF / FUEL TANK TRIM
CA77	2-WAY **MULTILOCK 070** / YELLOW	LH 'A' POST/ 'A' POSTPANEL
CA78	2-WAY MULTILOCK 070 IYELLOW	PASSENGERS 'A' POST/ 'A' POSTPANEL
CA79	2-WAY MULTILOCK 070 IYELLOW	LH 'BC' POST **/ 'BC'** POST PANEL
CA80	+WAY MULTILOCK 040 / BLACK	RH **"E"** POST LAMP
IC2	SWAY MULTILOCK 070 / WHITE	**RH TRUNK TRIM PANEL / FUEL TANK TRIM**
IC7	8-WAY MULTILOCK 070 / WHITE	PASSENGERS UNDERSCUTTLE
IC22	18-WAY MULTILOCK 070 / WHITE	LH REAR DOOR IDOOR CASING
IC23	4-WAY **MULTILOCK M0 /** BLACK	LH HEELBOARD / HEELBOARD COVER
RT61	12-WAY MULTILOCK 040 / BLACK	PARCEL SHELF

GROUNDS

Ground	Location I 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.

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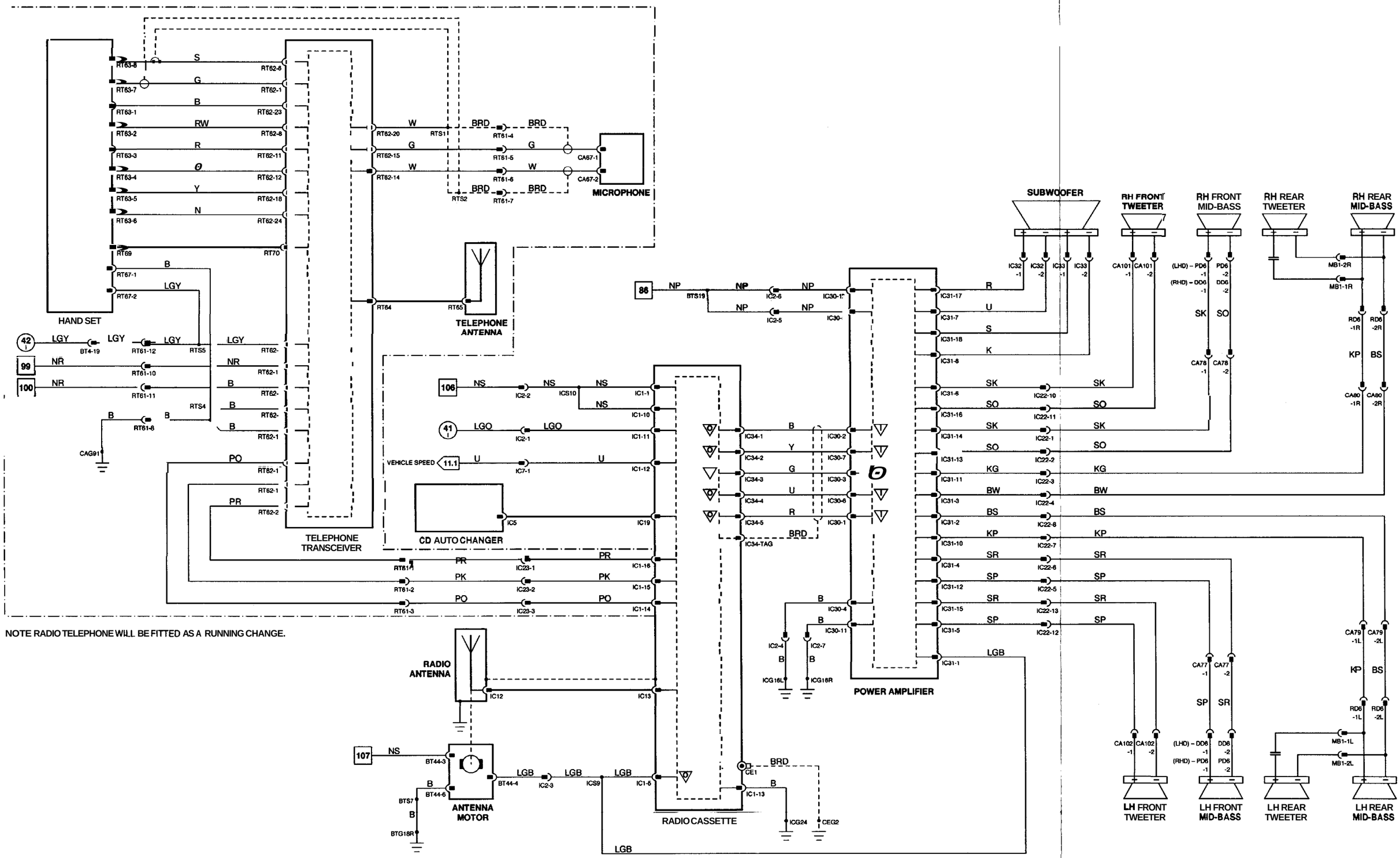

1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial and Encoded Communications | Signal Ground (SG)

VARIANT: NAS Vehicles
VIN RANGE: All
DATE OF ISSUE: JANUARY 1995

Fig. 19.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
AIR BAG DIAGNOSTIC MONITOR	AB1 / 12-WAY FORD CARD / SLATE	PASSENGER'S UNDER SCUTTLE
	AB2 / 12-WAY FORD CARD / BIACK	
AIR BAG - DRIVER SIDE	AB0 **(FLY LEAD)** 13-WAY EPCI YELLOW	STEERING WHEEL
AIR BAG - PASSENGER SIDE **(NAS ONLY)**	AB8 **(FLY LEAD) / 3-WAY** EPCI YELLOW	PASSENGER'S FASCIA
IMPACT SENSOR - LH	**CL1 /** CWAY FORD CARD / NATURAL	BEHIND LH HEADLAMP
IMPACT SENSOR - RH	CR1 / **4-WAY** FORD CARD IN 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
AB?	3-WAY EPC / YELLOW	DRIVER'S UNDER SCUTTLE
AB11	4-WAY FORD CARD / NATURAL	RH 'A' POST I 'A' POST PANEL
AB12	CWAY FORD CARD / 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 I OUTER AIRMNT

GROUNDS

Ground	Location / Type
CLG2	AIR BAG GROUND SCREW

R TO THE RONT OF THE BOOK FOR **TIONS** DETAILING THE **ND IDENTIFICATION** OF COMPONENTS,
NYS, ONN CTOR HARNESSES, GROUNDS, **EHICL** CONTROL MODULES **ONTROL MODULE PI**

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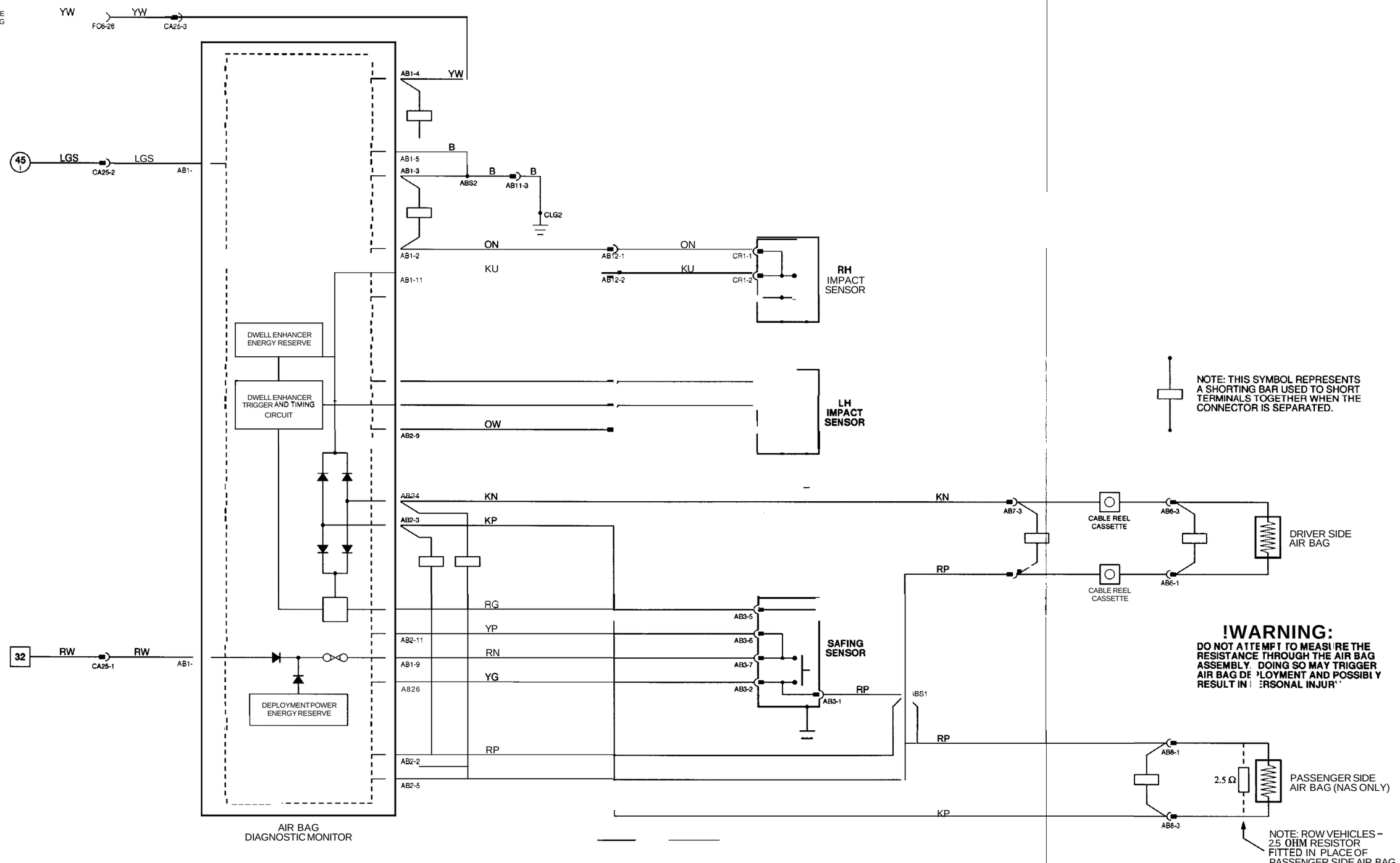

NOTE: THIS SYMBOL REPRESENTS A SHORTING BAR USED TO SHORT TERMINALS TOGETHER WHEN THE CONNECTOR IS SEPARATED.

1—6 Fig. 01.1 | 7—65 Fig. 01.2 | 66—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: All
DATE OF ISSUE APRIL 1995

Fig. 20.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
ACCESSORY CONNECTOR – CABIN	CA71 / 3-WAY SERIES 250 BLACK	LH ' A POST / 'A' POST TRIM
ACCESSORY CONNECTOR - TRUNK	BT12 13-WAY SERIES 250 / BLACK	TRUNK ELECTRICAL CARRIER
CARAVAN / TRAILER CONNECTOR	BT19 12-WAY ECONOSEAL III HC BLACK	BEHIND BATTERY TRUNK FLOOR TRIM
CIGAR LIGHTER - FRONT	CCS / 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	ROOFCONSOLE
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 MO 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 W O R OPENER (INTERIOR MAP LAMP CONSOLE)	RIBBON CONNECTOR	ROOF CONSOLE

RELAYS

Relay	Color / Stripe	Connector / Color	Location / Access
ACCESSORYRELAY	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	PARCEL SHELF / FUEL TANK TRIM
CA8	20-WAY MULTILOCK 040 / GREEN	DRIVER'S UNOERSCUTTLE
CAS	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	PASSENGERS UNDERSCUTTLE / ECM
CA03	8-WAY MULTILOCK 040 / BLACK	ROOF CONSOLE
CC4	14-WAY MULTILOCK 0701WHITE	CENTER CONSOLE1 CENTER CONSOLE GLOVE BOX
DD16	6-WAY MULTILOCK 040 / BLACK	DRIVER'S DOOR / W O R CASING
FC4	20-WAY MULTILOCK M 0 BLUE	DRIVER'S UNDERSCUTTLE
FC5	THROUGH-PANEL 148 MICRO 161 / 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	LH AIR CLEANER
PI61	13-WAY ECONOSEAL III LC / BLACK	RH AIR CLEANER

GROUNDS

Ground	Location / Type
BTG18L	REAR TRUNK GROUND STUD
BTG18R	REAR TRUNK GROUND STUD
BTG49R	REARTRUNK GROUNDSTUO
CAG30L	LH 'A'POST GROUND SCREW
CAG31R	PARCEL SHELF GROUND SCREW
CAG33L	RH HEELBOARD GROUND SCREW
CAG92R	RH HEELBOARD GROUND SCREW
CCGML	CENTER CONSOLE GROUND
CCGMR	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.

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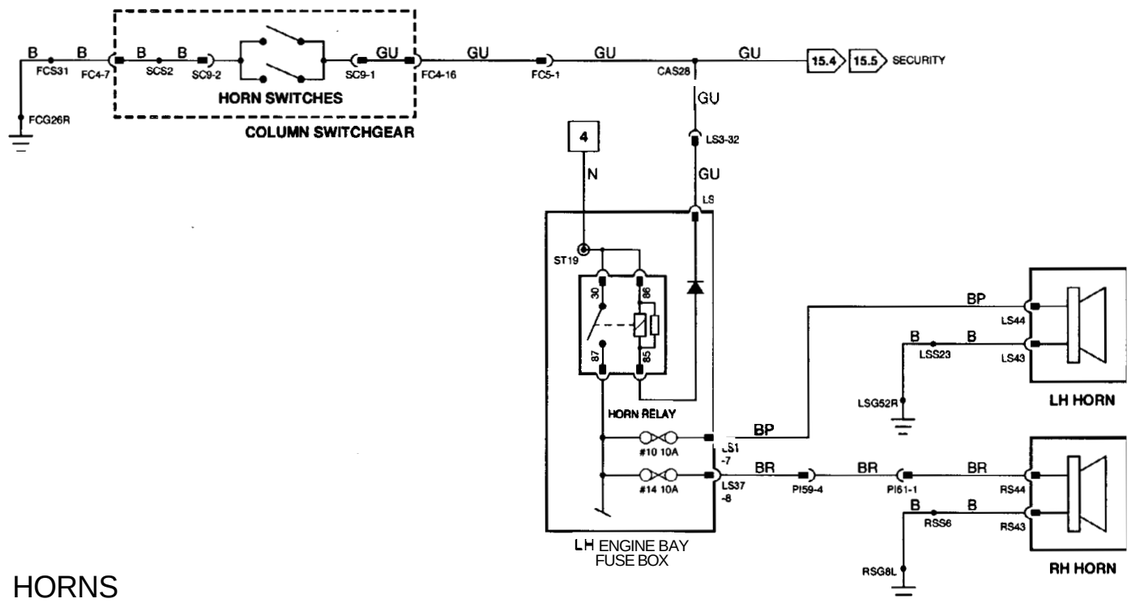
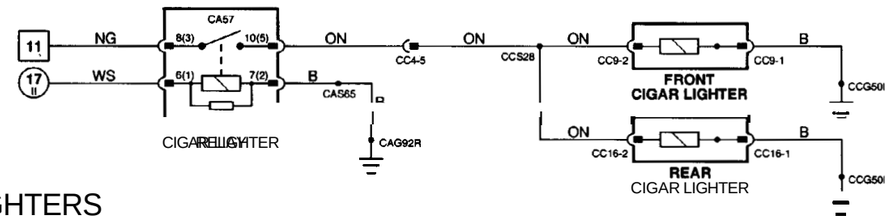
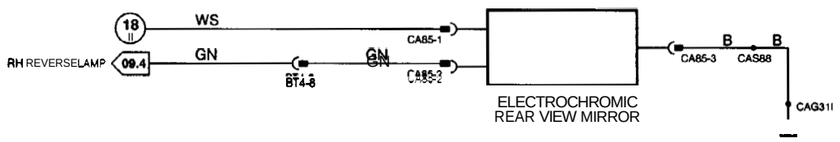
HORNS



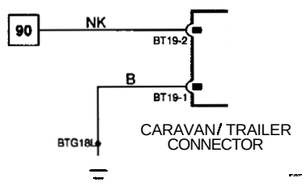
CIGAR LIGHTERS



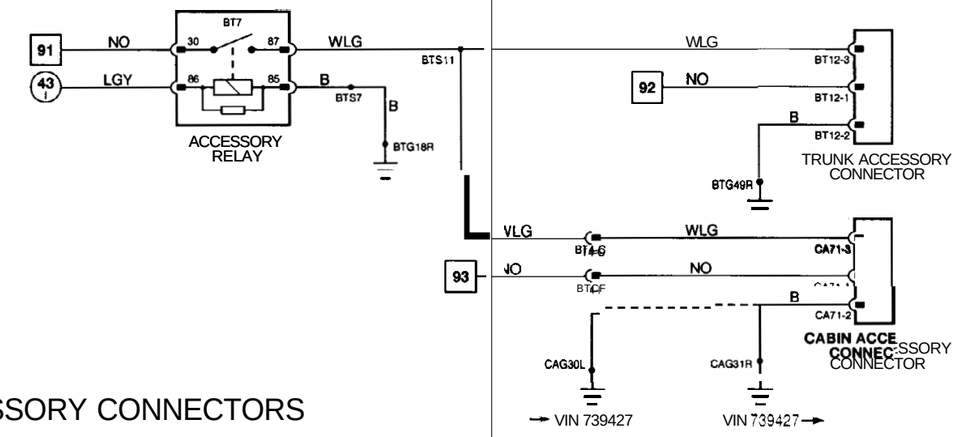
ELECTROCHROMIC REAR VIEW MIRROR



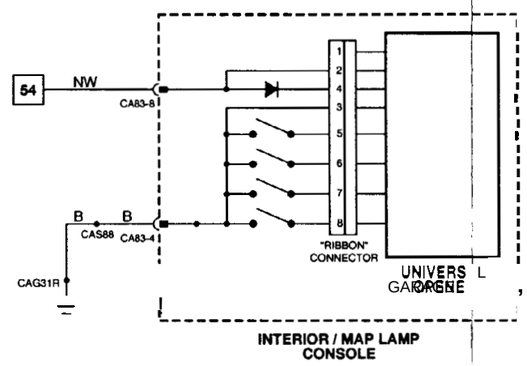
CARAVAN / TRAILER CONNECTOR



ACCESSORY CONNECTORS



UNIVERSAL GARAGE DOOR OPENER



FOLD-BACK MIRRORS

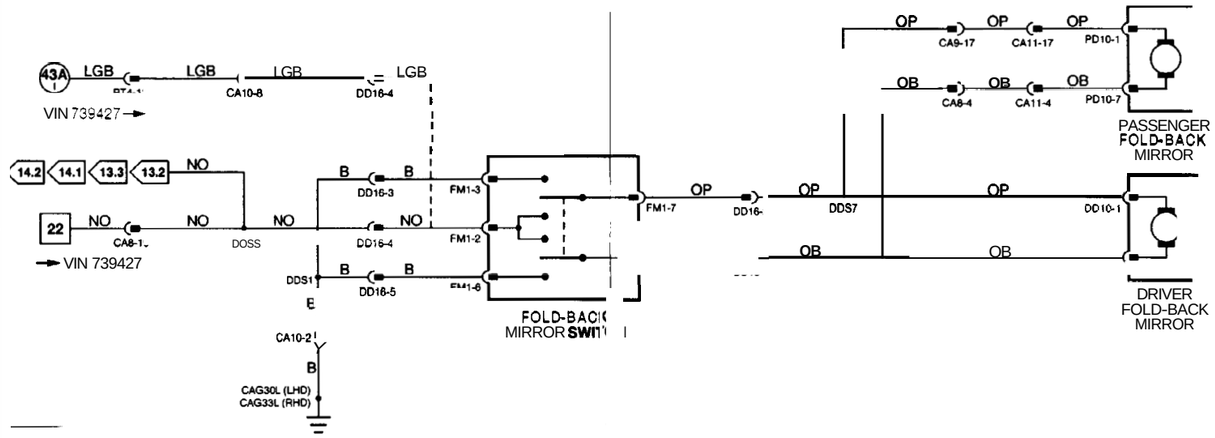


Fig. 21.1

COMPONENTS

Component	Connector / Type / Color	Location / Access
ABS / TRACTION CONTROL CONTROL MODULE (LHD)	RS27 128-WAY FORD GTE / SLATE	ENGINE BAY / RH REAR
ABS / TRACTION CONTROL CONTROL MOWLE (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 122-WAY MULTILOCK 47 / SLATE	A/C UNIT, RH SIDE / RH UNDERSCUTTLE
BODY PROCESSOR MODULE	FC1 / 48-WAY PCB SIGNAL / YELLOW FC2 / 48-WAY PCB SIGNAL1 BLACK FC3 / 6-WAY PCB SIGNAL / BLACK	PASSENGER'S UNDERSCUTTLE
COLUMN / MIRROR MOVEMENT CONTROL MODULE	F W / 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 IN161	PI104 / 36-WAY ECONOSEAL III / BLACK PI105 / 36-WAY ECONOSEAL III / RED	RH 'A' POST / 'A' POST TRIM
ENGINE CONTROL MODULE (V12)	PI44 128-WAY MULTILOCK M 0 / SLATE PI45 116-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 124-WAY IDC / BLACK FC10 148-WAY IDC / BLACK	INSTRUMENT PACK
SEAT CONTROL MODULE - DRIVER (NAS VEHICLES1	CA106 / 22-WAY MULTILOCK 47 / BLUE CA106 112-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / BLUE SM6-D 122-WAY MULTILOCK 471 WHITE	DRIVER'S SEAT
SEAT CONTROL MODULE - DRIVER (ROW, MEMORY SEAT VEHICLES)	PL1 122-WAY MULTILOCK 47 / BLUE PL2 / 12-WAY MULTILOCK 47 / BLUE SM1-D / 12-WAY MULTILOCK 47 / BLUE SM6-D / 16-WAY MULTILOCK WO / BLACK	DRIVERS SEAT
SEAT CONTROL MODULE - PASSENGER (NAS VEHICLES)	CA107 122-WAY MULTILOCK 47 / BLUE CA108 / 12-WAY MULTILOCK 47 / BLUE SM1-P / 12-WAY MULTILOCK 47 / WHITE SM6-P 122-WAY MULTILOCK 47 / WHITE	PASSENGERS 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 / WI SM6 P / 22 WAY MULTILOCK 471 WHITE	PASSENGERS 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 126-WAY MULTILOCK 47 / SLATE	TRUNK, LH FRONT / TRUNK TRIM
TRANSMISSION CC MODULE (TRANSMISSION CONTROL MODULE (V12)	CC7 155-WAY BOSCH / BLACK CC48 / 55 WAY AMP 55 / BLACK	PASSENGER'S UNDERSCUTTLE PASSENGER'S UNDERSCUTTLE

HARNESS-TO-HARNESS CONNECTORS

Connector	Type / Color	Location / Access
CA23	20-WAY MULTILOCK 040 / BLACK	DRIVERS SEAT
CA28	20-WAY MULTILOCK 040 / BLACK	PASSENGER'S SEAT
CC18	20-WAY MULTILOCK 040 / BLUE	CENTER CONSOLE / CENTER CONSOLE
CC3	20-WAY MULTILOCK MO / BLACK	CENTER CONSOLE / CENTER CONSOLE GLOVE BOX
FC7	THROUGH-PANEL (48 MICRO / 6) / BLACK	PASSENGERS UNDERSCUTTLE
LS3	THROUGH-PANEL (48 MICRO / 6) / BLACK	LH 'A' POST / 'A' POST PANEL
PI59	13-WAY ECONOSEAL III LC / BLACK	LH AIR CLEANER
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.

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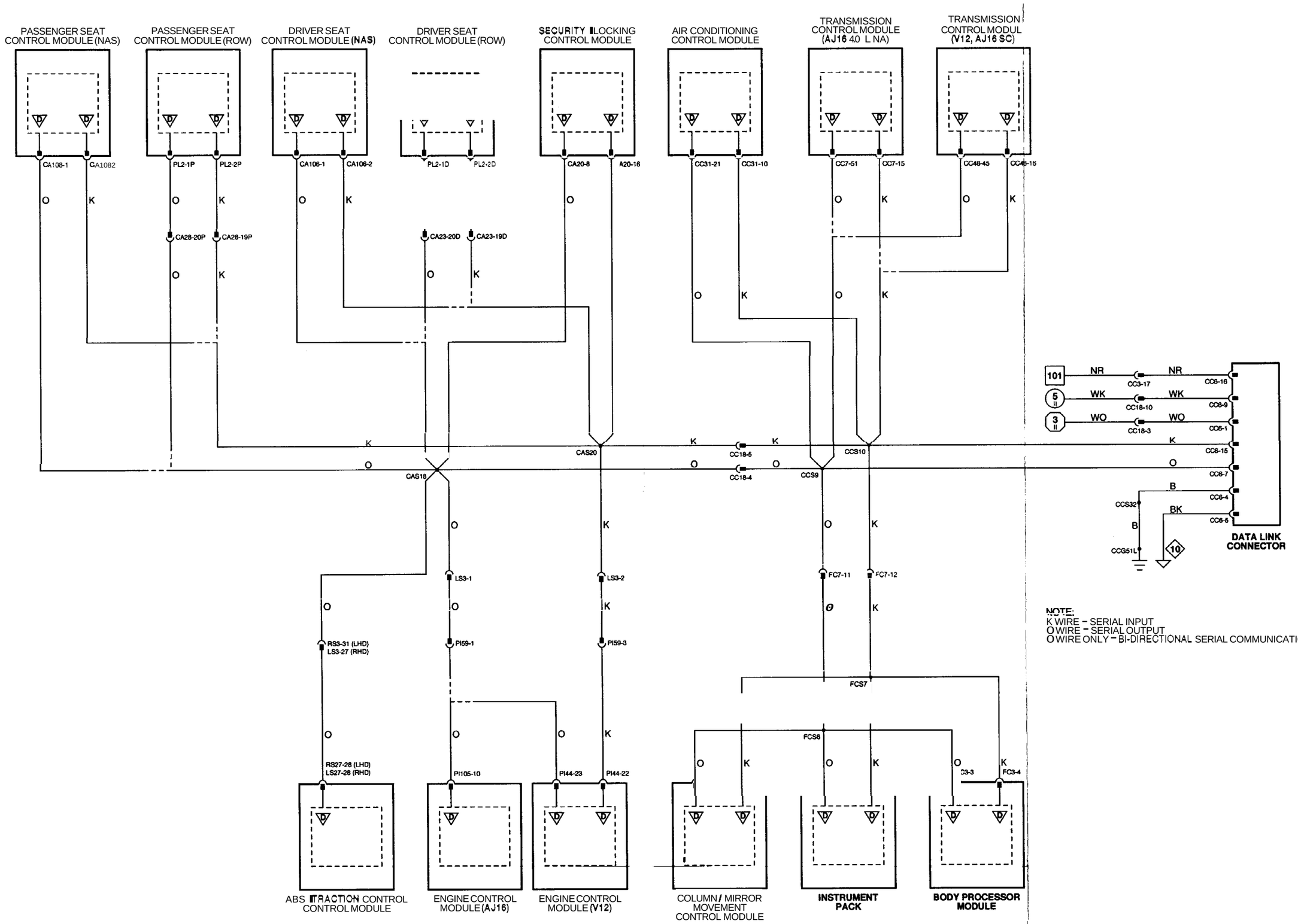

NOTE:
K WIRE – SERIAL INPUT
O WIRE – SERIAL OUTPUT
O WIRE ONLY – BI-DIRECTIONAL SERIAL COMMUNICATION

1 — 6 Fig. 01.1 | 7 — 65 Fig. 01.2 | 66 — 109 Fig. 01.3 | Fig. 01.4 | Fig. 02.1 | Fig. 02.2 | Input | Output | Serial communications | Signal Ground (SG)

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: JANUARY 1995