



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



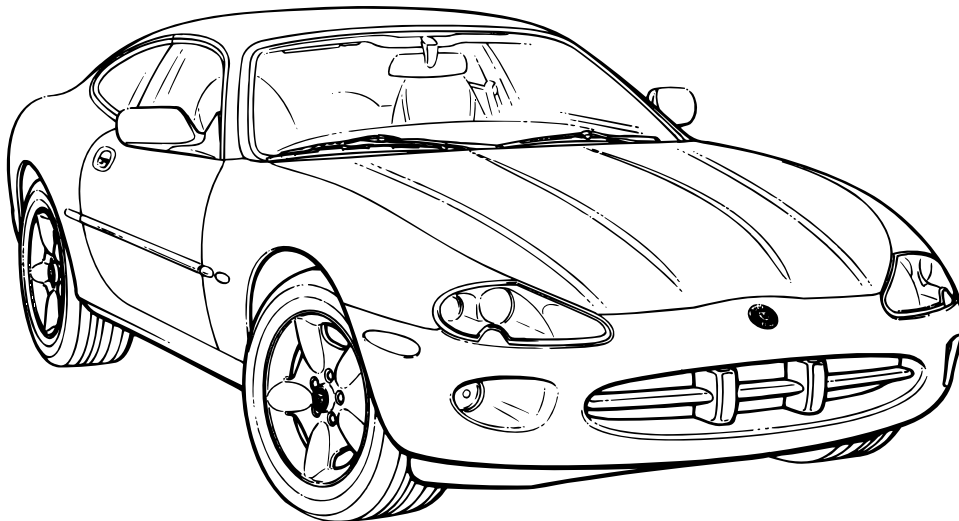
BY APPOINTMENT TO
HER MAJESTY QUEEN ELIZABETH
THE QUEEN MOTHER
MANUFACTURERS OF DAIMLER AND JAGUAR CARS
JAGUAR CARS LIMITED COVENTRY



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

JAGUAR XK8

1997 Range Electrical Guide



Published by Service Communications
Jaguar Cars Limited

Publication Part Number – JTP 559





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, and information and illustrations to aid in the understanding of the XK8 electrical / electronic systems, as well as the location and identification of components.

The second section includes the Figures, which are the basis of the book. Each Figure is identified by a Figure Number (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:

| | |
|-------|-------------------------------------|
| B+ | Battery Voltage |
| CAN | Controller Area Network |
| COUPE | Coupe Vehicles |
| CONV. | Convertible Vehicles |
| DI | Direction Indicator |
| LH | Left-Hand |
| LHD | Left-Hand Drive |
| NAS | North American Specification |
| RH | Right-Hand |
| RHD | Right-Hand Drive |
| ROW | Rest of World |
| SCP | Standard Corporate Protocol Network |
| 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".

XK8 Electrical System Architecture

The XK8 system "architecture" is new to Jaguar vehicles and features vehicle multiplexing. Multiplexing allows for greatly simplified wiring harnesses, while at the same time allowing flexibility in programming market variants. Two data networks are used in the system: a controller area network (CAN) for the engine, drive train and related systems, and a standard corporate protocol network (SCP) for the body systems. Any vehicle subsystem depicted on the figures with the CAN or SCP included uses data derived from the network, or transmits data via the network to achieve control. Messages for both networks are cataloged in the Appendix of this book. When appropriate, the user will be referred to the Appendix by a note on the Data page. In addition to the two networks, the XK8 uses a serial data bus (ISO) for diagnostics and for the programming of certain control modules.

The XK8 uses both power and logic grounds; however, it does not use a common logic ground stud connection as in previous vehicles.



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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 method eliminates the need to include detailed Power Distribution information on each of the Figures. Similarly, the Figure **02 – Ground Distribution** details the ignition switched ground distribution. The reference symbols are defined on page 12.

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.

When network data is required for the understanding of a particular circuit, the user is directed to the Appendix.

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.



CONTROL MODULE PIN OUT INFORMATION

FIGURE NUMBER

COMPONENT, RELAY, CONNECTOR AND GROUND INFORMATION

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----|---|--------|----------|
| D | EMR17 SECURITY ACKNOWLEDGE (ENCODED COMMUNICATIONS) | | |
| D | EMR18 OK TO START - ENCODED COMMUNICATIONS | | |
| I | EM114 ENGINE CRANK | | B- |

KEY TRANSDUCER MODULE (OPTIONAL)

| Pin | Description | Active | Inactive |
|-----|--|--------|----------|
| D | FC219 GLASS RELEASE LOCK TO START (ENCODED COMMUNICATIONS) | | |
| D | FC218 OK TO START (ENCODED COMMUNICATIONS) | | |
| D | FC216 SECURITY ACKNOWLEDGE (ENCODED COMMUNICATIONS) | | |
| D | FC217 | | |

Fig. 03.1

| Component | Connector / Type / Color | Location / Access |
|------------------------------|--|--|
| BATTERY | BEM (ELECT) BK1 (ELECT) | TRUNK, RIGHT HAND SIDE |
| BODY PROCESSOR MODULE | FC18 16-WAY (MIL) SLATE | FRONT/ENGINE SIDE (ADJACENT TO ENGINE BULKHEAD) |
| ENGINE CONTROL MODULE | EM17 16-WAY (MIL) SLATE EM18 16-WAY (MIL) SLATE EM19 16-WAY (MIL) SLATE EM20 16-WAY (MIL) SLATE EM21 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| GENERATOR | AM1 (ELECT) BK1 (ELECT) AM2 (ELECT) BK1 (ELECT) AM3 (ELECT) BK1 (ELECT) | ENGINE COMPARTMENT / RIGHT FRONT TRUNK / ADJACENT TO BATTERY |
| HIGH POWER PROTECTION MODULE | HPM (ELECT) BK1 (ELECT) HPM1 (ELECT) BK1 (ELECT) HPM2 (ELECT) BK1 (ELECT) | TRUNK / ADJACENT TO BATTERY |
| IGNITION SWITCH KEY-IN-START | FC19 16-WAY (MIL) SLATE FC20 16-WAY (MIL) SLATE FC21 16-WAY (MIL) SLATE | STEERING COLUMN, ADJACENT TO PASSENGER SIDE FUSE BOX |
| NEUTRAL SWITCH | FC16 16-WAY (MIL) SLATE FC17 16-WAY (MIL) SLATE | GEAR SELECTOR ASSEMBLY |
| REGULATOR (GENERATOR) | REG1 2-WAY (SUBMINI) PWR / BLACK REG2 2-WAY (SUBMINI) PWR / BLACK REG3 2-WAY (SUBMINI) PWR / BLACK REG4 2-WAY (SUBMINI) PWR / BLACK | ENGINE COMPARTMENT / GENERATOR ENGINE HOOD |
| STARTER MOTOR | ST1 (ELECT) BK1 (ELECT) ST2 (ELECT) BK1 (ELECT) ST3 (ELECT) BK1 (ELECT) | ENGINE COMPARTMENT / FORWARD OF GENERATOR |
| SUPPRESSION MODULE | AM1 (ELECT) BK1 (ELECT) AM2 (ELECT) BK1 (ELECT) AM3 (ELECT) BK1 (ELECT) | ENGINE COMPARTMENT / FORWARD OF GENERATOR |

| Relay | Color / Stripe | Connector / Color | Location / Access |
|---------------|----------------|-------------------|-----------------------------------|
| STARTER RELAY | BROWN | ENG1 BROWN | IN BRASS BOOSTER ENCLOSURE RELAYS |

| Connector | Type / Color | Location / Access |
|-----------|--------------------|--|
| BEM | ELECT | ENGINE COMPARTMENT / FALSE BULKHEAD, RIGHT HAND SIDE |
| EM17 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM18 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM19 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM20 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM21 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| FC16 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO PASSENGER SIDE FUSE BOX |
| FC17 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO PASSENGER SIDE FUSE BOX |
| FC18 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO PASSENGER SIDE FUSE BOX |
| FC19 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO PASSENGER SIDE FUSE BOX |
| FC20 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO PASSENGER SIDE FUSE BOX |
| FC21 | 16-WAY (MIL) SLATE | ENGINE COMPARTMENT / ADJACENT TO PASSENGER SIDE FUSE BOX |

| Ground | Location / Type |
|--------|---|
| B+ | BATTERY POSITIVE POST |
| FC16 | EJECT PUMP - RIGHT HAND-LEFT HAND IN POST |
| FC18 | EJECT PUMP - LEFT HAND IN POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)

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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON. "Inactive" means a load is not applied or a switch is OFF.

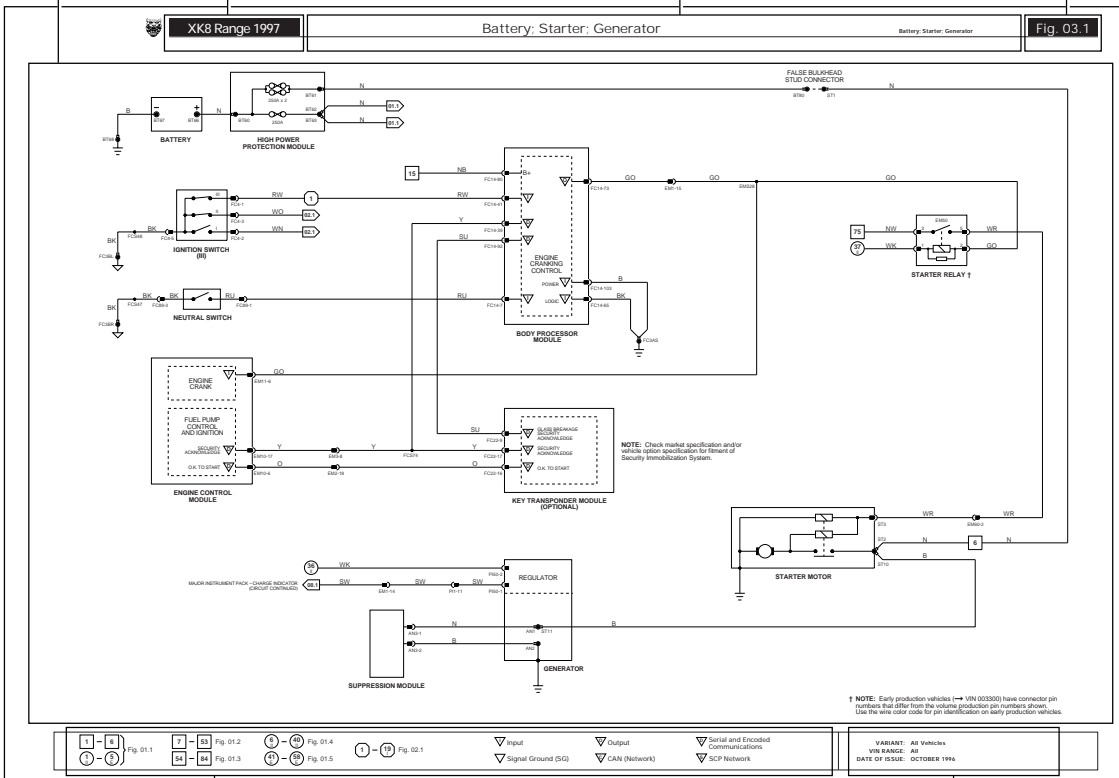
REFER TO THE FRONT OF THE BOOK FOR ILLUSTRATIONS DETAILING THE LOCATION AND IDENTIFICATION OF COMPONENTS, RELAYS, CONNECTORS, HARNESSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

DATE OF ISSUE: OCTOBER 1996

DATE OF ISSUE

DATA PAGE

FIGURE MODEL RANGE AND YEAR TITLE FIGURE NUMBER



KEY TO REFERENCE SYMBOLS

FIGURE PAGE

VARIANT, VIN RANGE AND DATE OF ISSUE



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

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

Battery Power Supply

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

Ignition Switched Power Supply

This symbol represents ignition switched power supply and refers the user to Figure 01.1, 01.4 or 01.5.

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).

The suffix E indicates engine management switched power. Power is supplied in ignition switch key positions II (IGNITION) and III (ENGINE CRANK) under ECM control.

Ignition Switched Ground

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

This symbol without a 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).

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 02.1, 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. When circuits are not overlapped, they are noted by (CIRCUIT CONTINUED).

BPM Because the Body Processor Module appears numerous times, the abbreviation BPM is used in the reference flags on Figures 01.2 and 02.1 in order to conserve space.

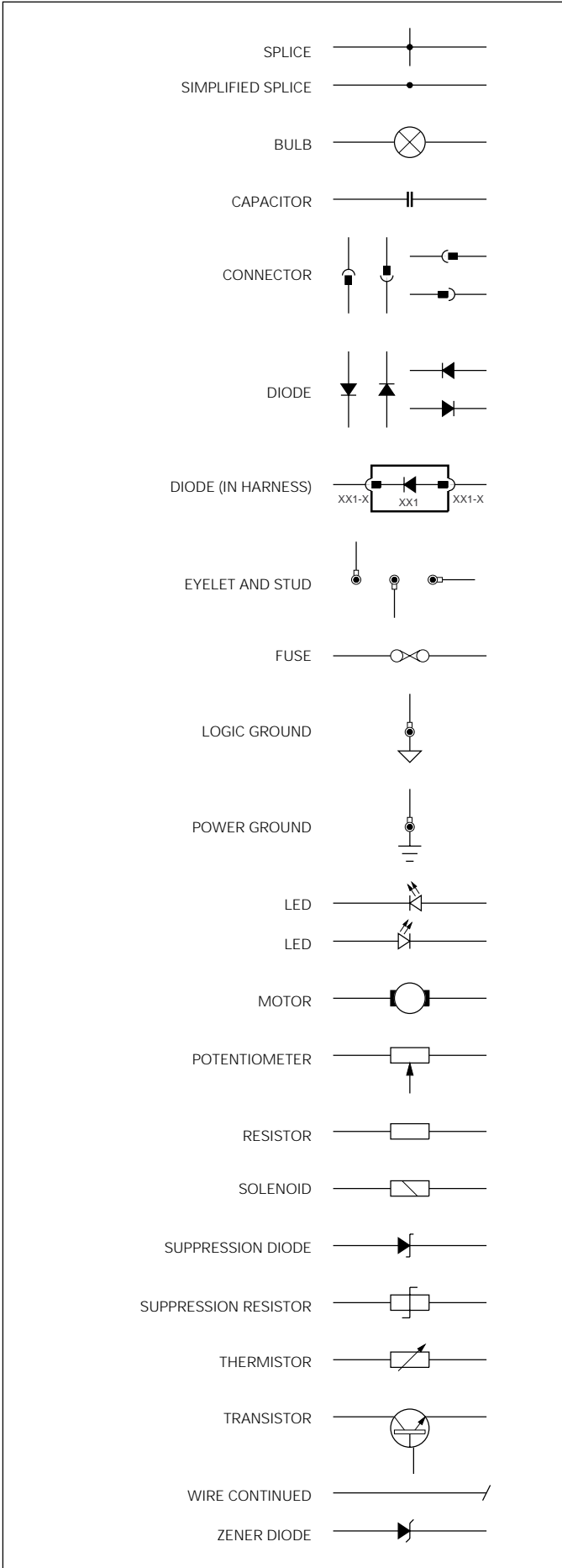
Control Module Input, Output, Data Link, Signal Ground and Network(s)

 Input  Output  Serial and Encoded Communications  Signal Ground (SG)  CAN (Network)  SCP Network

These six symbols are employed to assist the user in visualizing the 'logic' of circuits containing control modules. The symbols identify control module input, output, data link, signal ground and network pins. These symbols are also employed on the corresponding data 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 | T | Tan |
| Y | Yellow | BRD | Braid |

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 |
|------|---------------------------------------|
| AC | Air Conditioning (Climate Control) |
| AN | Generator Suppression Module |
| AS | Generator to Starter |
| BB | Trunk Bridging Link |
| BC | Main Power Distribution |
| BL | Trunk Lid |
| BT | Trunk |
| DD | Door, Driver |
| DP | Door, Passenger |
| EL | Engine Management Cruise Control Link |
| EM | Engine Management |
| EN | Engine Management Side Marker Link |
| FC | Fascia |
| FL | LH Front Wheel |
| FR | RH Front Wheel |
| IC | In-Car Entertainment |
| IS | Inclination Sensor Link |
| LF | Left Forward |
| LL | Power Steering Link |
| PI | Engine |
| QL | Convertible LH Quarter Light Link |
| QR | Convertible RH Quarter Light Link |
| RF | Roof |
| RH | Rearward |
| RL | LH Rear Wheel |
| RR | RH Rear Wheel |
| RT | Radio Telephone |
| SA | Starter to Generator Link |
| SC | Column Switchgear |
| SD | Seat, Driver |
| SP | Seat, Passenger |
| SW | Steering Wheel |
| TL | Telephone |

Code Numbering

When numbering connectors, grounds and splices, Jaguar Engineering uses a three-position format: AC001, AC002, etc. Because space is limited in this Electrical Guide, the codes have been shortened. Thus AC001-001 becomes AC1-1, AC002-001 becomes AC2-1, etc.



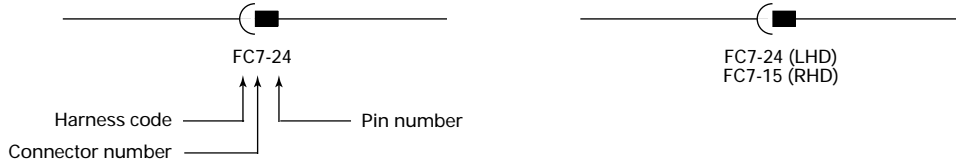
Harness Component Numbers

Connectors

HARNESS CODE + CONNECTOR NUMBER + PIN NUMBER

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

Where the pin number differs from LHD to RHD, the connector number will be further identified by (LHD) or (RHD).

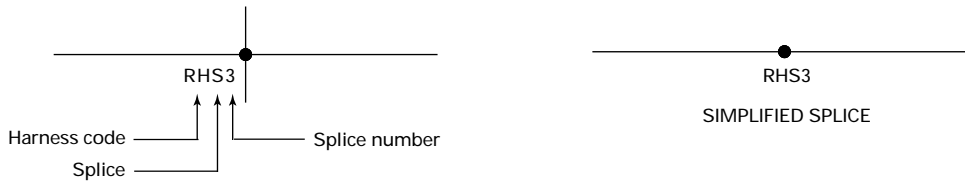


Splices

HARNESS CODE + S (SPLICE) + SPLICE NUMBER

EXAMPLE: RHS3 (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.



Diodes

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

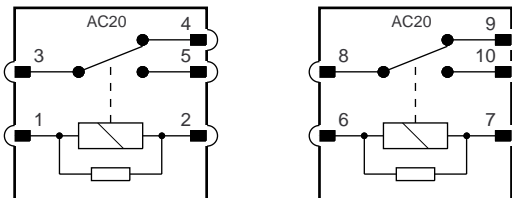
EXAMPLE:



Relay Connectors

Relay connector numbers are shown within the relay. The connector number is shown in the upper portion of the relay; the pin (terminal) number is shown adjacent to the pin. Certain relays are paired and share a modular connector. In this instance, the connector number remains the same for both relays while the pin numbers of the second relay are identified by numbers 6 – 10.

EXAMPLE:





Grounds

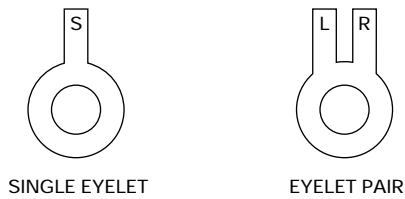
HARNESS CODE + GROUND STUD NUMBER + EYELET STUD POSITION (A,B,C) + EYELET DESIGNATION (S,L,R)

Eyelet stud position

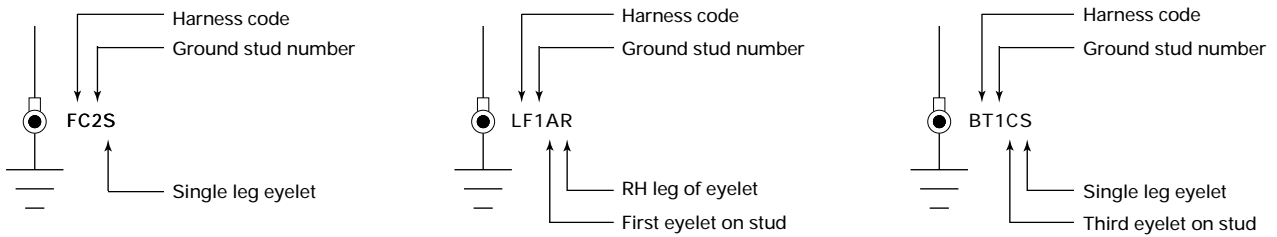
There may be up to three eyelets on one stud. A, B and C are used to indicate the position of the eyelet on the stud: A – first (bottom), B – second (middle), C – third (top).

Eyelet designation

Two eyelet variations are used: a single eyelet and an eyelet pair. The single eyelet has a single 'leg', which is identified by an S; the eyelet pair has two 'legs', identified as L (left) or R (right).

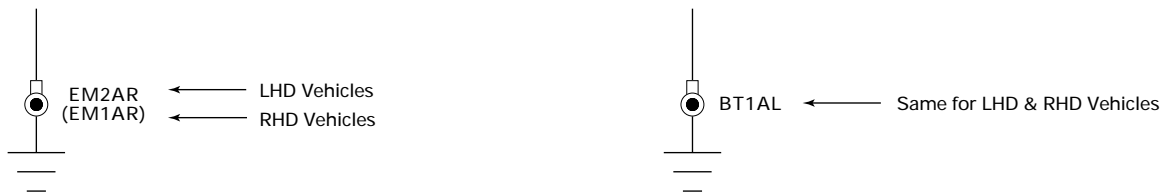


EXAMPLES:



Where the ground designation differs from LHD to RHD, the RHD ground is shown in parentheses. If the ground designation is the same for LHD and RHD, only one ground designation is used.

EXAMPLES:

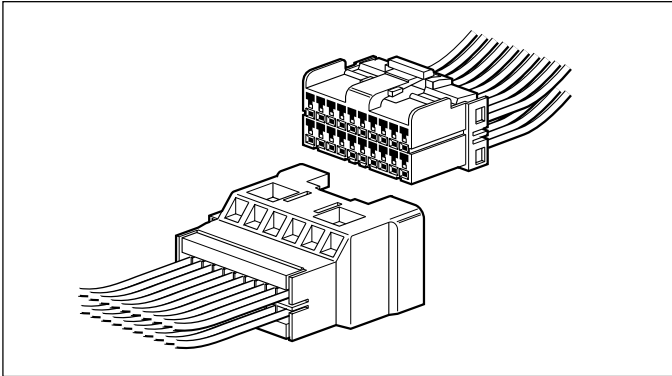




The following connectors are the common harness-to-harness connectors used throughout the vehicle.

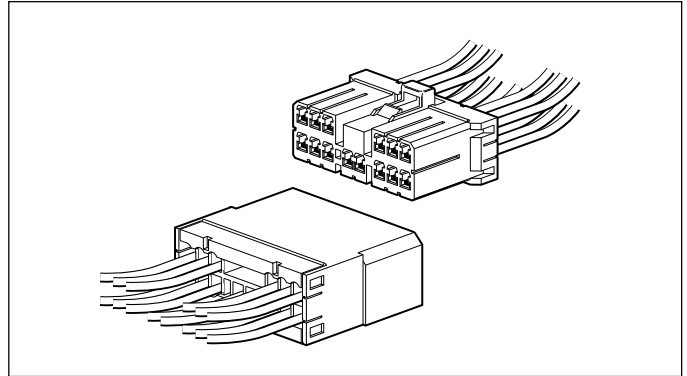
Multilock 040

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



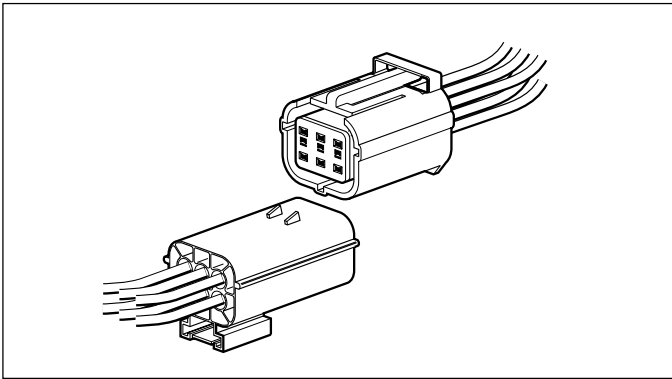
Multilock 070

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



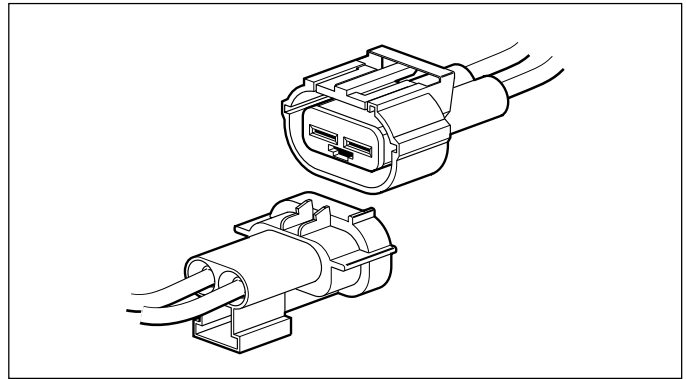
Econoseal III LC

Low current sealed connector.



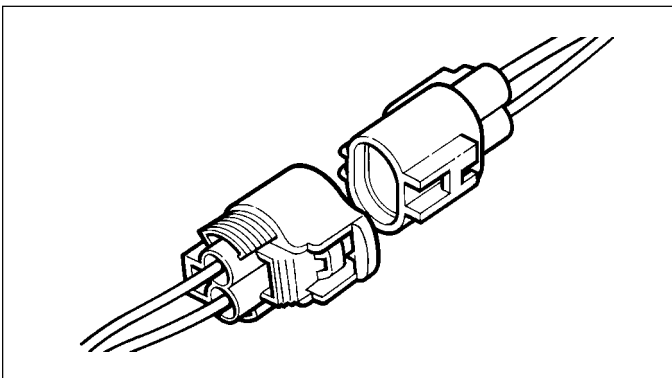
Econoseal III HC

High current sealed connector.



Ford Card

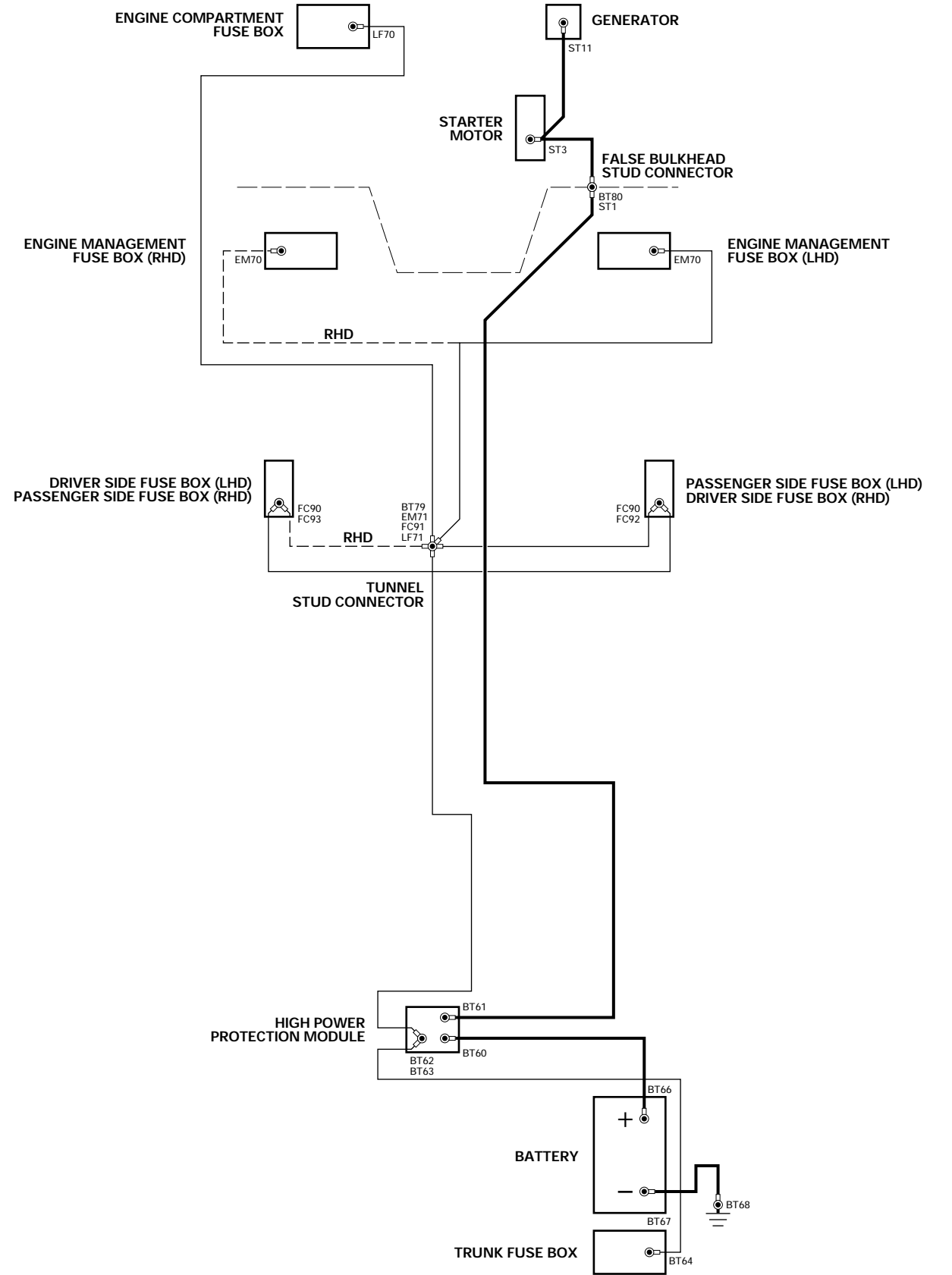
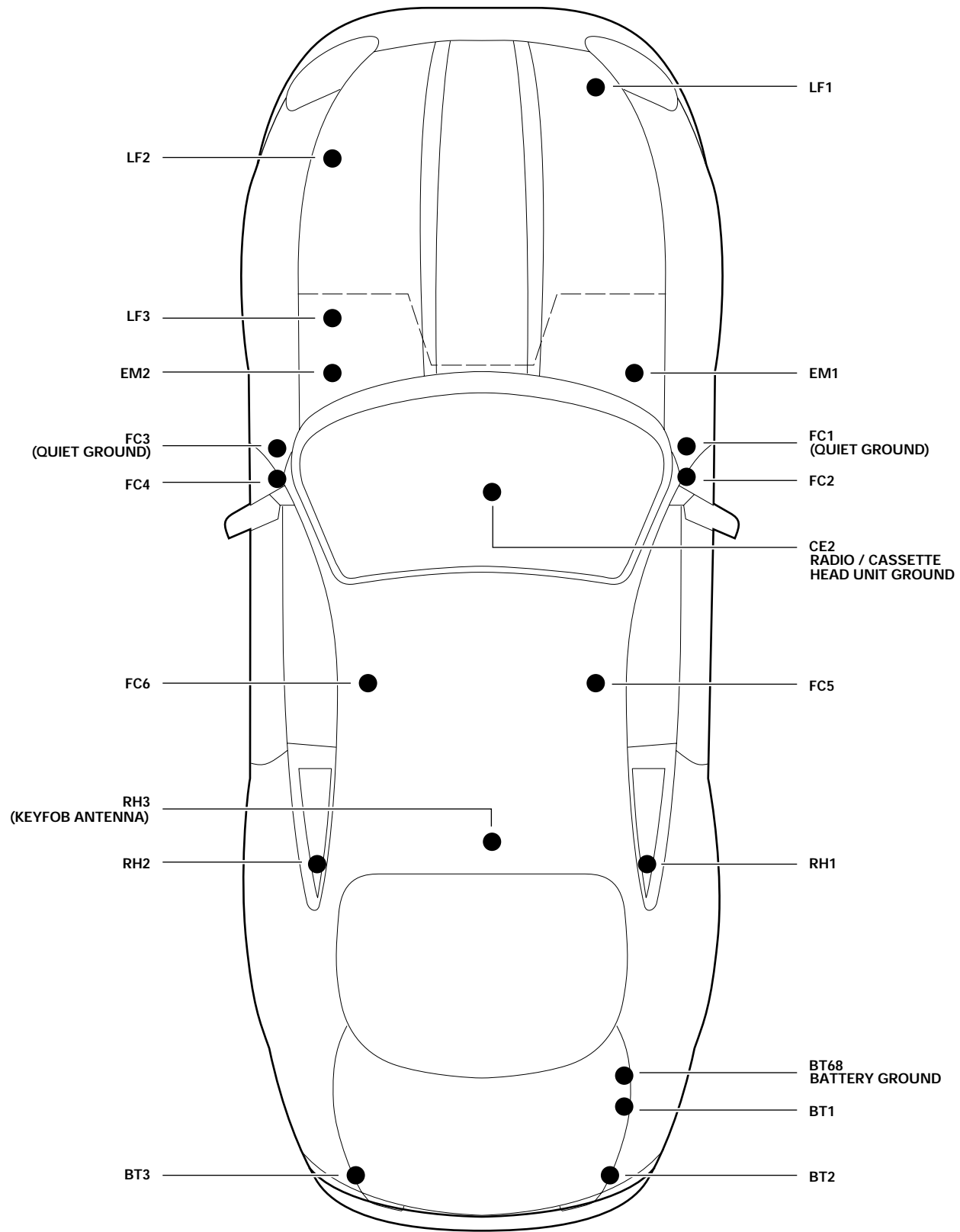
Used for SRS only.





GROUND POINTS

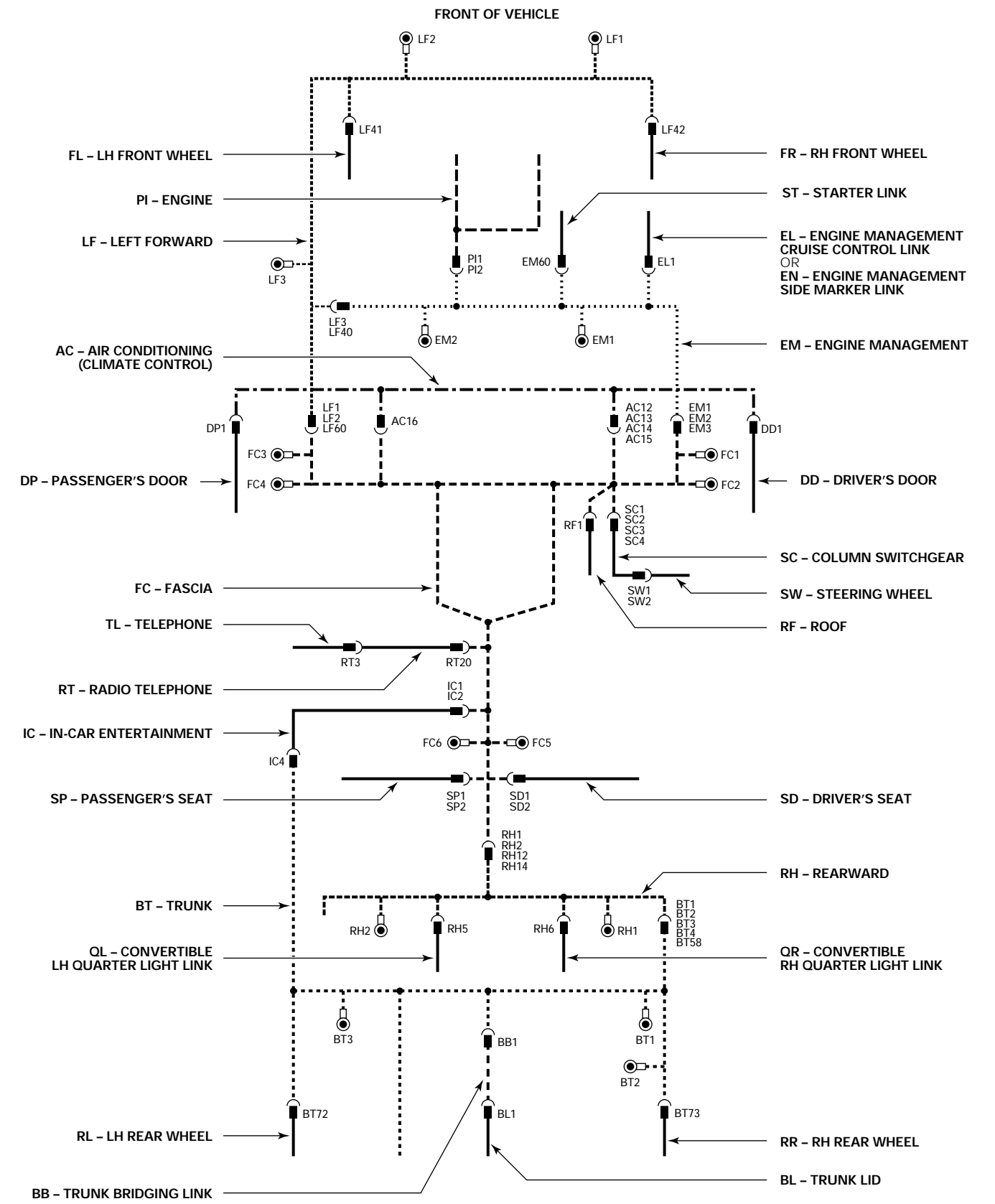
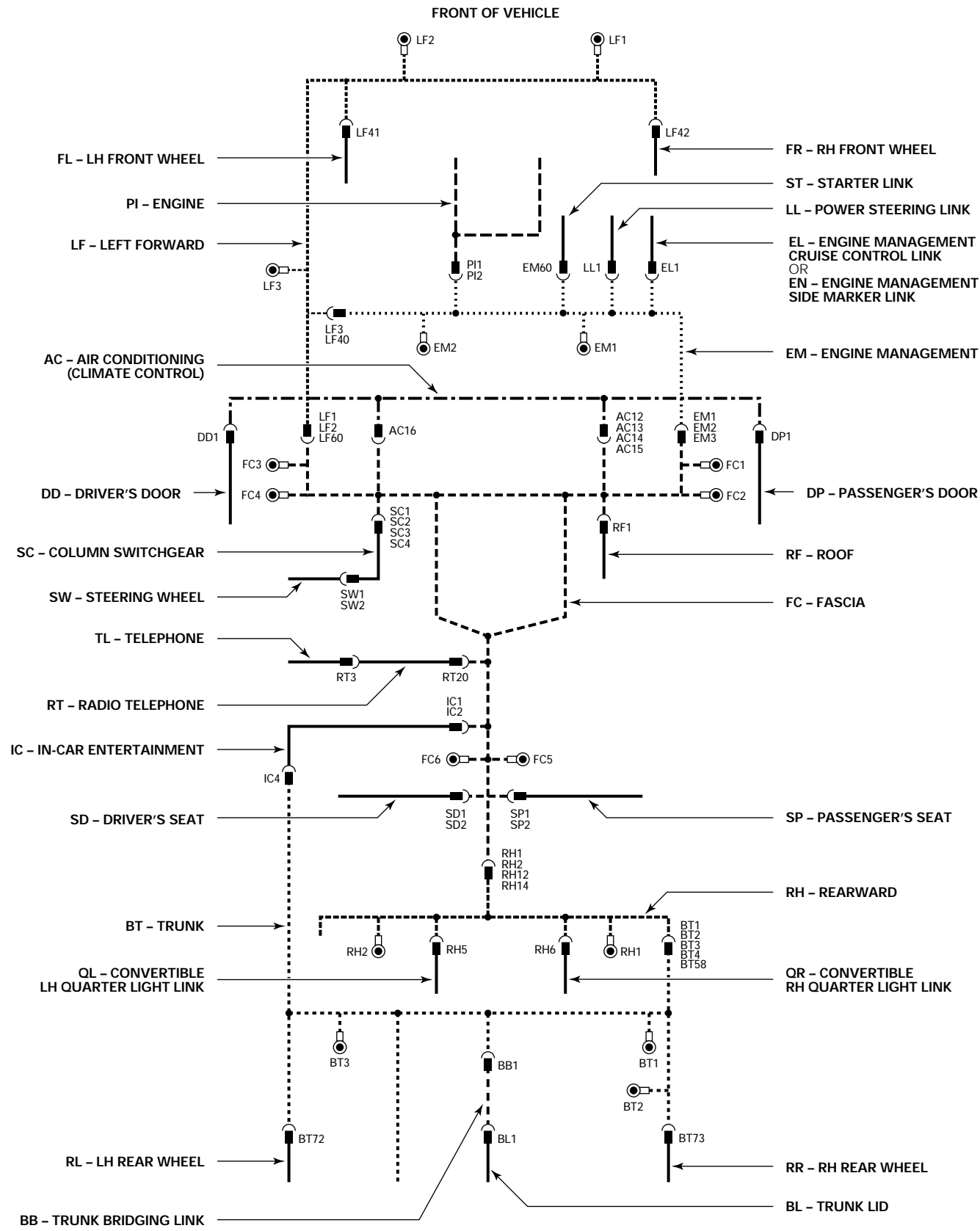
MAIN POWER DISTRIBUTION





LHD

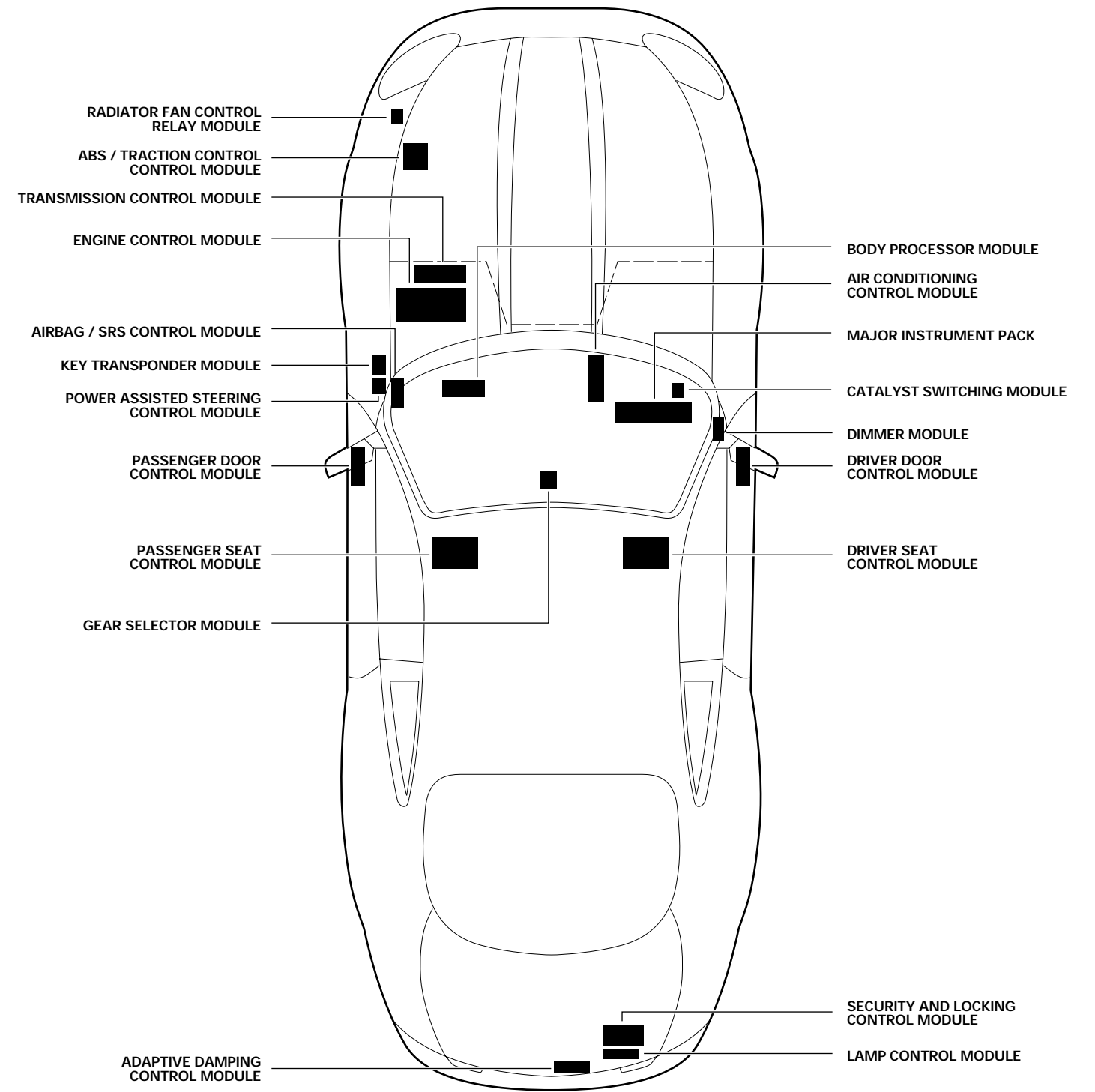
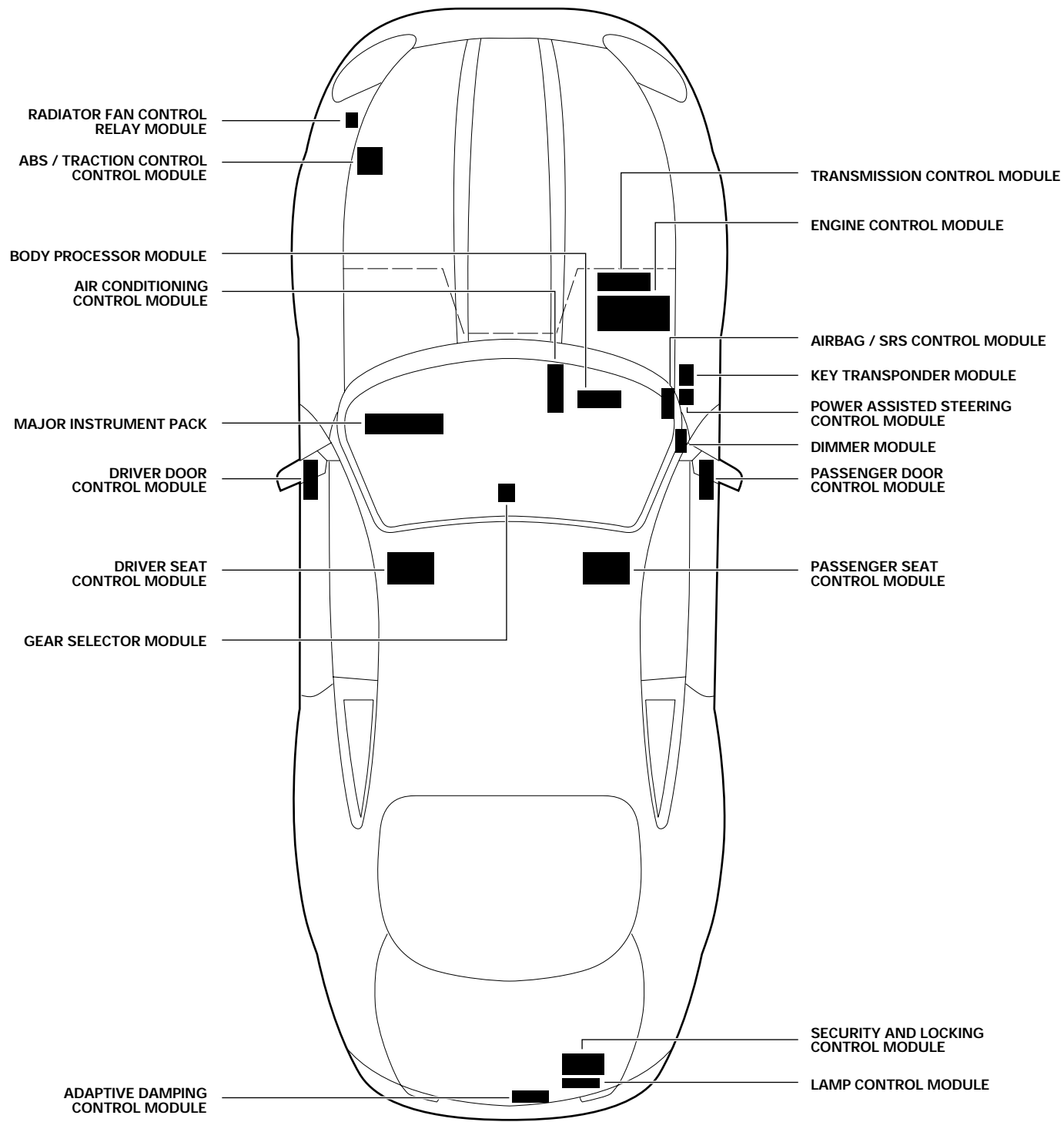
RHD





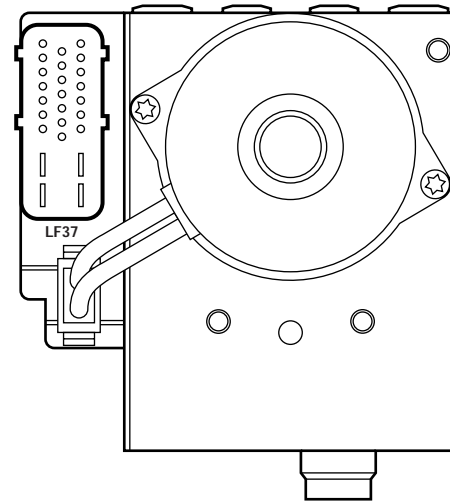
LHD

RHD





ABS / TRACTION CONTROL CONTROL MODULE

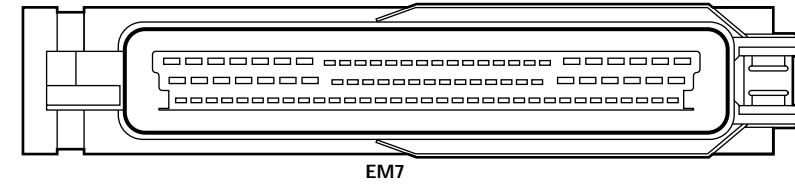


LF37 / 25-WAY AMP HYBRID / BLACK

| | | | | | | | | |
|----|----|----|----|----|----|----|----|----|
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| W | R | UP | WU | P | U | — | B | WY |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | — | — |
| — | — | — | UB | R | G | RY | — | — |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| UO | US | S | G | Y | Y | O | B | NR |

TOP

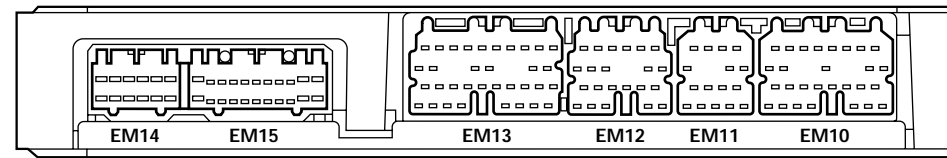
TRANSMISSION CONTROL MODULE



EM7 / 88-WAY BOSCH / BLACK

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|-----|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | | | | | |
| BY | — | ND | — | — | BRD | UY | BU | — | — | BS | — | U | BRD | N | US | RP | — | — | W | RB | — | B | OG | OK | — | RS | OU | | | | | |
| 55 | 54 | 53 | 52 | 51 | 50 | 49 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 | 32 | 31 | 30 | 29 | | | | | | |
| WB | WB | RU | RY | OB | — | — | — | — | — | RG | R | — | G | — | — | — | — | Y | S | — | B | YP | YU | — | YB | OR | | | | | | |
| 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 | 80 | 79 | 78 | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 |
| — | — | Y | G | — | Y | G | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |

ENGINE CONTROL MODULE



EM14 / 12-WAY MULTILOCK 47 / WHITE

| | | | | | |
|----|----|----|----|----|----|
| 6 | 5 | 4 | 3 | 2 | 1 |
| R | R | BK | WR | GY | GY |
| 12 | 11 | 10 | 9 | 8 | 7 |
| G | G | B | B | B | B |

EM15 / 22-WAY MULTILOCK 47 / WHITE

| | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|
| 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| B | — | RY | RG | BU | BW | BY | BO | PN | PU | PS |
| 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 |
| B | — | — | — | BS | BN | BG | BP | — | — | B |

EM13 / 34-WAY MULTILOCK 040 / SLATE

| | | | | | | | | | |
|-----|-----|-----|-----|----|----|----|----|----|----|
| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| — | — | — | — | — | — | — | SP | W | KN |
| 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 |
| WU | W | GR | PY | RW | PW | — | — | — | — |
| 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 |
| LGU | LGW | LGO | LGK | UB | — | B | Y | S | N |
| 34 | 33 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 |
| LPG | LGS | LGR | LGY | — | O | P | BG | — | — |

EM12 / 22-WAY MULTILOCK 040 / SLATE

| | | | | | |
|----|----|----|----|----|----|
| 6 | 5 | 4 | 3 | 2 | 1 |
| YW | WU | YR | YN | YG | YU |
| 11 | 10 | 9 | 8 | 7 | 6 |
| — | RY | SG | — | — | — |
| 17 | 16 | 15 | 14 | 13 | 12 |
| U | N | R | G | GY | UP |
| 22 | 21 | 20 | 19 | 18 | 17 |
| BP | — | — | BY | — | — |

EM11 / 16-WAY MULTILOCK 040 / SLATE

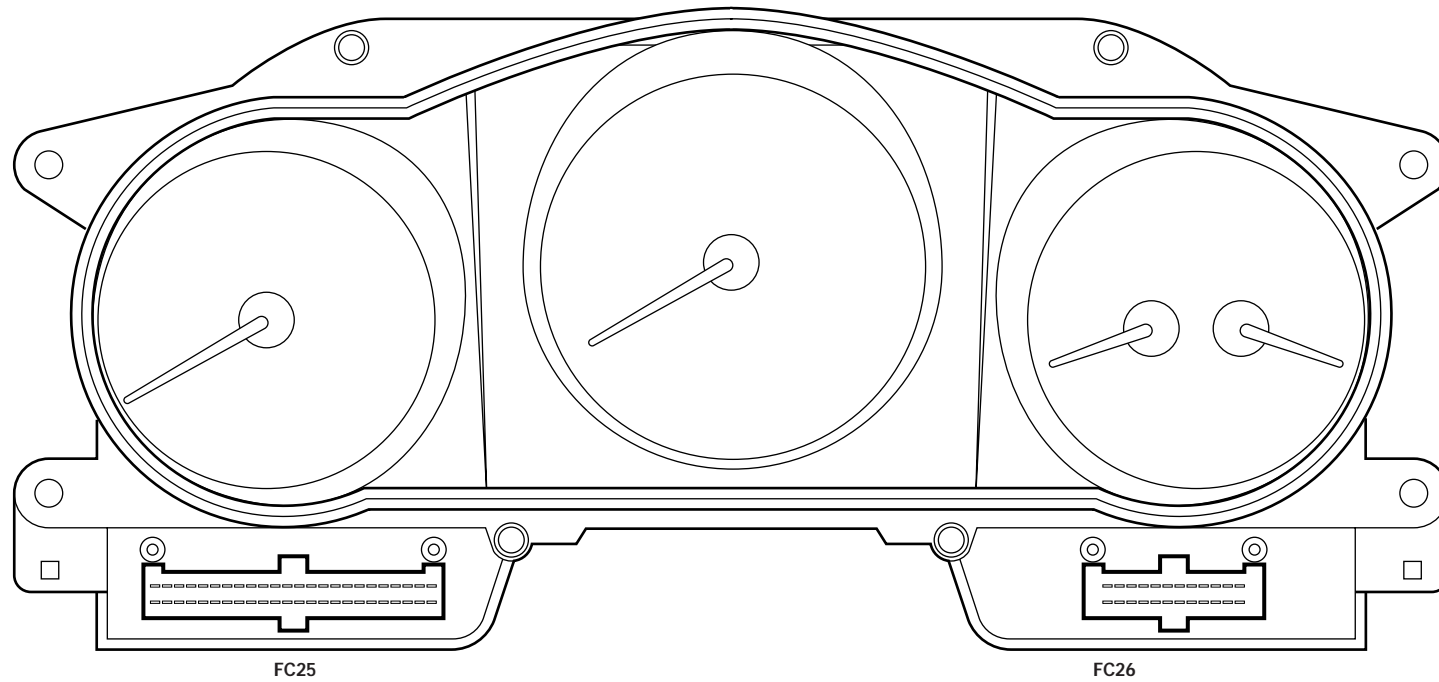
| | | | | |
|----|----|----|----|----|
| 4 | 3 | 2 | 1 | |
| WU | P | — | SR | |
| 7 | 6 | 5 | 4 | |
| — | GO | SG | — | |
| 11 | 10 | 9 | 8 | |
| U | G | UY | UW | |
| 16 | 15 | 14 | 13 | 12 |
| K | R | BG | BY | BG |

EM10 / 28-WAY MULTILOCK 040 / SLATE

| | | | | | | | |
|----|----|----|----|----|-----|----|----|
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| — | — | O | WK | UN | ULG | UG | WR |
| 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 |
| O | K | — | — | — | — | — | — |
| 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 |
| UW | BG | — | — | Y | PK | G | OU |
| 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 |
| Y | G | Y | G | — | BK | — | — |



MAJOR INSTRUMENT PACK



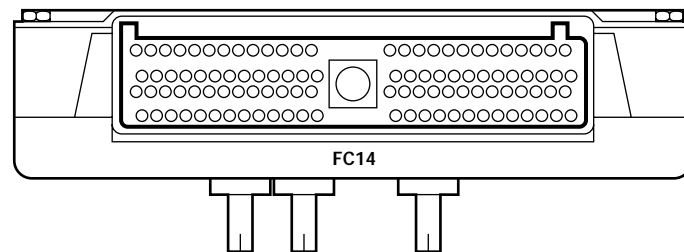
FC25 / 48-WAY AMP PCB SIGNAL / BLACK

| | | | | | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| BK | WG | RN | — | — | SO | — | — | — | SU | — | — | UY | R | — | — | — | — | S | U | — | — | Y | Y |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| NR | B | RO | RO | — | — | — | — | BR | — | Y | O | — | — | — | — | — | — | — | — | — | — | G | G |

FC26 / 24-WAY AMP PCB SIGNAL / BLACK

| | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|-----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| RK | OW | PY | SG | OU | UB | ON | RG | RS | OB | RB | RU |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| BW | RW | OU | YW | OS | OG | OS | UW | RLG | SW | OP | UR |

BODY PROCESSOR MODULE

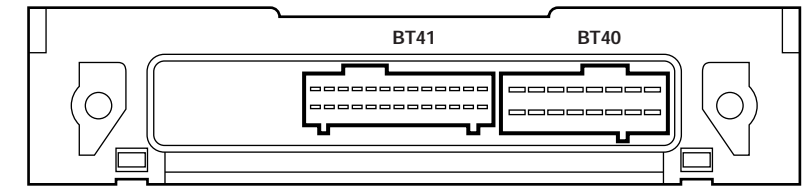


FC14 / 104-WAY AMP EEEC / SLATE

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|-----|----|-----|-----|----|----|----|----|-----|-----|----|-----|----|----|-----|-----|-----|-----|-----|
| 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 |
| NG | NB | GR | GR | GB | U | S | ON | SK | YG | LGR | BG | BW | SU | YK | LGO | RS | PW | — | GB | PN | BR | PW | NY | B | NY |
| 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 |
| RK | RB | SP | UW | — | SB | PY | RY | KG | LGU | SW | — | BK | PJ | UR | US | OK | GS | SR | — | GO | RW | — | GK | GP | PG |
| 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
| GO | RW | S | U | SW | WN | RG | LGK | OU | LGW | LGR | OR | Y | WU | RW | UY | BLG | OY | UG | — | — | OG | — | GY | RW | BS |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| RY | GY | GK | GU | SO | YW | RU | — | — | — | — | — | — | UB | WO | RY | OS | YS | WLG | OG | — | — | — | — | B | YG |

NOTE: (NAS) PIN 13 NOT USED

SECURITY AND LOCKING CONTROL MODULE



BT41 / 26-WAY FORD IDC / BLACK (NAS)

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| — | — | — | — | — | — | YP | — | RY | — | — | — | R |
| 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 |
| — | — | — | — | — | — | — | YR | — | — | — | — | — |

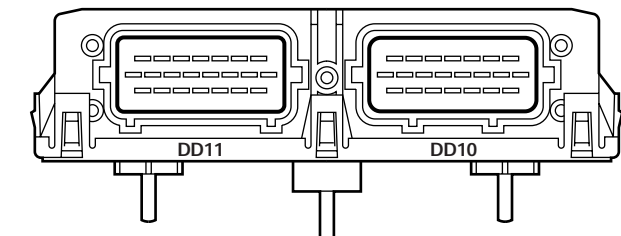
BT40 / 16-WAY FORD 2.8 TIMER / BLACK

| | | | | | | | |
|----|----|----|----|----|----|----|----|
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| S | OG | NK | YW | GW | UG | OB | OR |
| 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 |
| U | NY | BK | BK | — | — | — | GR |

BT41 / 26-WAY FORD IDC / BLACK (ROW)

| | | | | | | | | | | | | |
|----|----|----|----|----|-----|----|----|----|----|----|----|----|
| 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| — | — | — | BK | — | LGS | — | — | RY | — | — | — | — |
| 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 |
| YO | — | — | — | — | — | — | YR | — | — | — | — | — |

DRIVER DOOR CONTROL MODULE



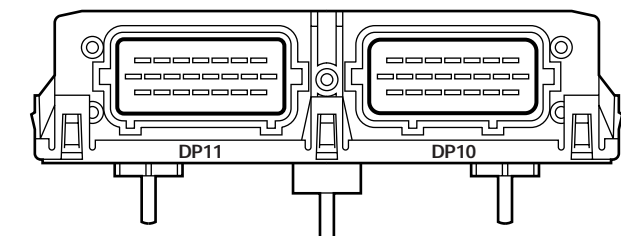
DD11 / 22-WAY FORD 2.8 TIMER / BLACK

| | | | | | | | |
|----|----|-----|----|----|----|----|---|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | |
| BP | KS | LGU | OU | SN | UG | OB | |
| 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 |
| WG | — | — | OY | — | YO | YN | — |
| 22 | 21 | 20 | 19 | 18 | 17 | 16 | — |
| UN | UP | GY | — | — | OR | — | — |

DD10 / 22-WAY FORD 2.8 TIMER / BLUE

| | | | | | | | |
|----|----|----|----|----|----|----|----|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | |
| OB | SU | SY | PN | PG | BY | N | |
| 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 |
| OU | GW | PO | PW | PB | BG | U | BK |
| 22 | 21 | 20 | 19 | 18 | 17 | 16 | — |
| PK | PU | WU | BR | BO | B | S | — |

PASSENGER DOOR CONTROL MODULE

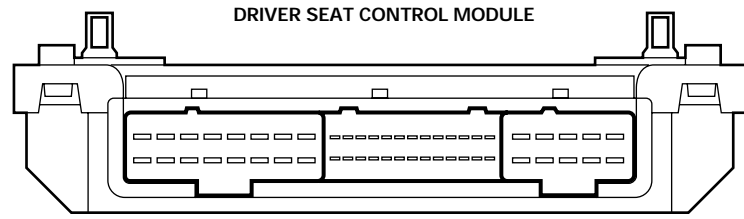


DP11 / 22-WAY FORD 2.8 TIMER / BLACK

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

DP10 / 22-WAY FORD 2.8 TIMER / BLUE

| | | | | | | | |
|----|----|----|----|----|----|----|----|
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | |
| OB | SU | SY | PN | PG | PY | N | |
| 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 |
| OU | GW | PO | PW | PB | BG | U | BK |
| 22 | 21 | 20 | 19 | 18 | 17 | 16 | — |
| PK | PU | WU | — | — | — | — | — |



SD3 SD4 SD5

SD3 / 16-WAY FORD 2.8 TIMER / BLACK

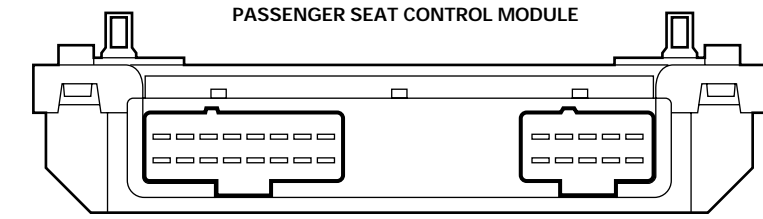
| | | | | | | | |
|----|----|----|----|----|----|----|----|
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| UY | UW | KW | KY | GN | GP | GW | GY |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PS | PO | OK | R | OB | OR | KS | KO |

SD4 / 26-WAY FORD IDC / BLACK

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| WP | — | — | — | WB | — | — | — | — | — | — | — | — |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| WG | WU | B | — | W | WN | — | — | — | WR | WY | WO | — |

SD5 / 10-WAY FORD 2.8 TIMER / BLACK

| | | | | |
|---|---|----|----|----|
| 6 | 7 | 8 | 9 | 10 |
| — | — | G | S | U |
| 1 | 2 | 3 | 4 | 5 |
| B | B | US | UO | NK |



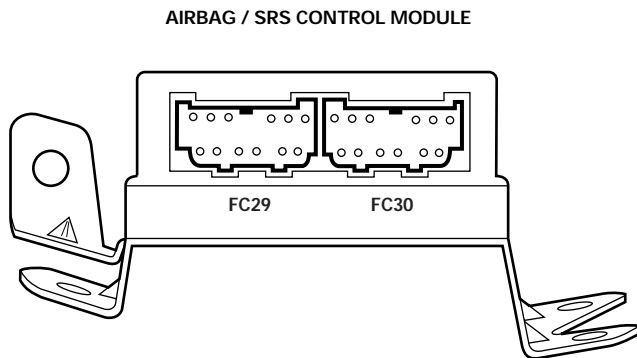
SP3 SP5

SP3 / 16-WAY FORD 2.8 TIMER / BLACK

| | | | | | | | |
|----|----|----|----|----|----|----|----|
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| UY | UW | KW | KY | GN | GP | GW | GY |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PS | PO | OK | R | OB | OR | KS | KO |

SP5 / 10-WAY FORD 2.8 TIMER / BLACK

| | | | | |
|---|---|----|----|----|
| 6 | 7 | 8 | 9 | 10 |
| — | — | G | S | U |
| 1 | 2 | 3 | 4 | 5 |
| B | B | US | UO | NK |



AIRBAG / SRS CONTROL MODULE

FC29 / 12-WAY FORD CARD / BLACK

| | | | | | |
|----|----|----|----|----|----|
| 7 | 8 | 9 | 10 | 11 | 12 |
| WK | OW | OP | — | YU | ON |
| 1 | 2 | 3 | 4 | 5 | 6 |
| — | — | — | BK | YW | R |

FC30 / 12-WAY FORD CARD / SLATE

| | | | | | |
|----|----|----|----|----|----|
| 12 | 11 | 10 | 9 | 8 | 7 |
| BK | RS | KU | KG | RW | RW |
| 6 | 5 | 4 | 3 | 2 | 1 |
| WK | RG | KP | KN | RP | — |

ADAPTIVE DAMPING CONTROL MODULE

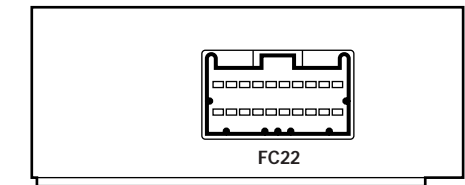


BT69

BT69 / 35-WAY AMP / BLACK

| | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | |
| — | PB | UB | RB | — | ON | U | US | NS | K | — | OB | OW | OK | OY | OU | — | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| SO | UP | UW | — | — | — | — | — | O | WR | — | OR | OG | OP | — | — | — | B |

KEY TRANSPONDER MODULE



FC22

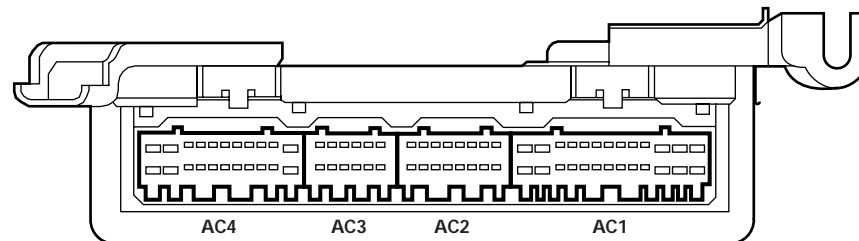
FC22 / 20-WAY MULTILOCK 040 / GREEN (NAS)

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| — | SU | — | — | O | — | — | — | — | — |
| 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 |
| — | — | — | Y | O | — | — | — | — | — |

FC22 / 20-WAY MULTILOCK 040 / GREEN (ROW)

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| — | SU | OG | OR | O | — | NR | — | — | SB |
| 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 |
| — | — | — | Y | O | — | WO | WN | BK | — |

AIR CONDITIONING CONTROL MODULE



AC4 AC3 AC2 AC1

AC4 / 22-WAY MULTILOCK 47 / SLATE

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

AC3 / 12-WAY MULTILOCK 47 / SLATE

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

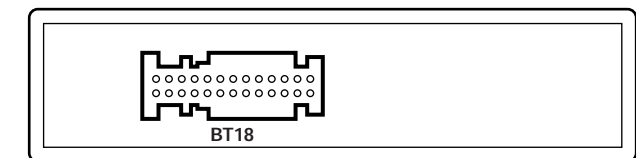
AC2 / 16-WAY MULTILOCK 47 / SLATE

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

AC1 / 26-WAY MULTILOCK 47 / SLATE

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

LAMP CONTROL MODULE



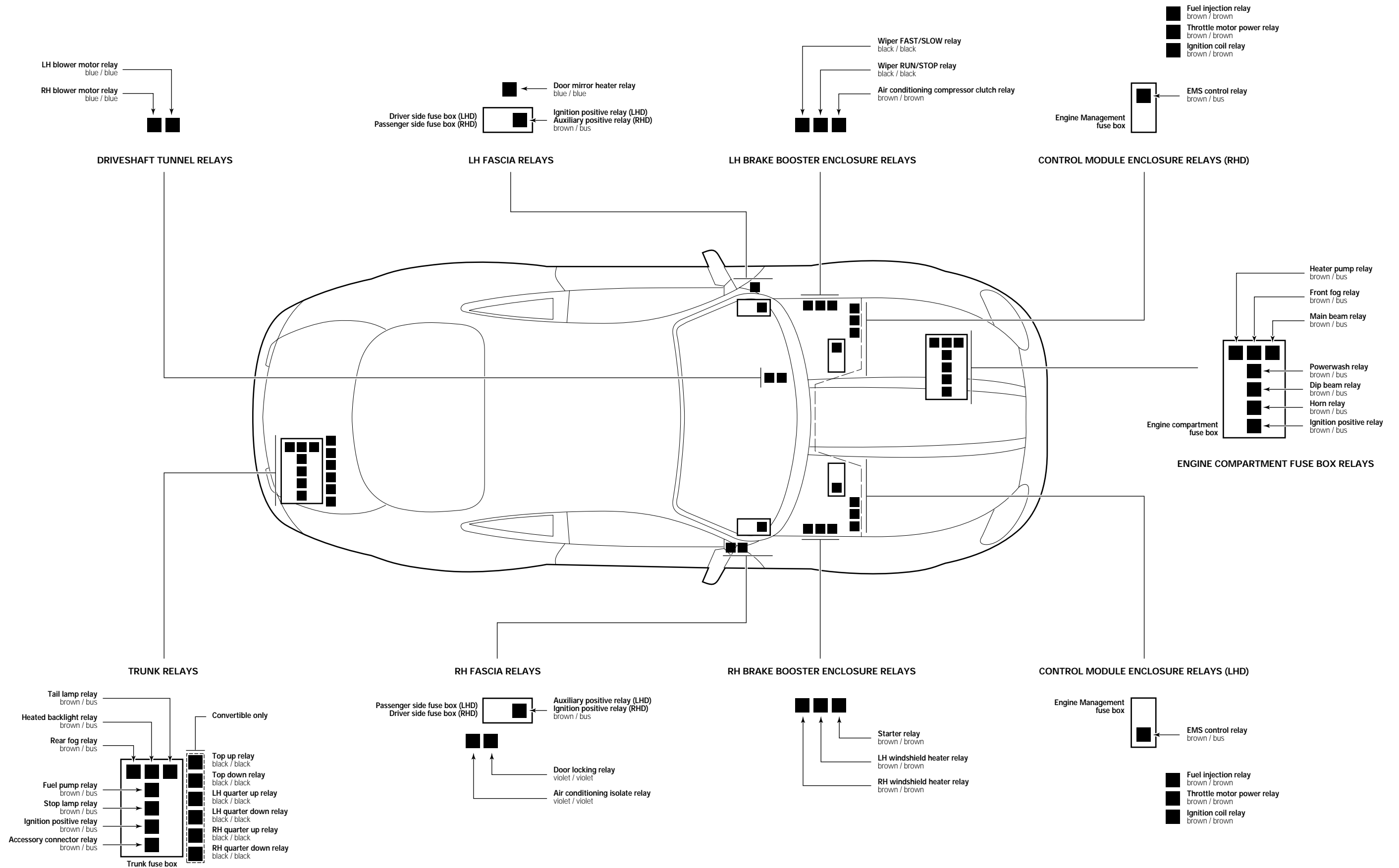
BT18

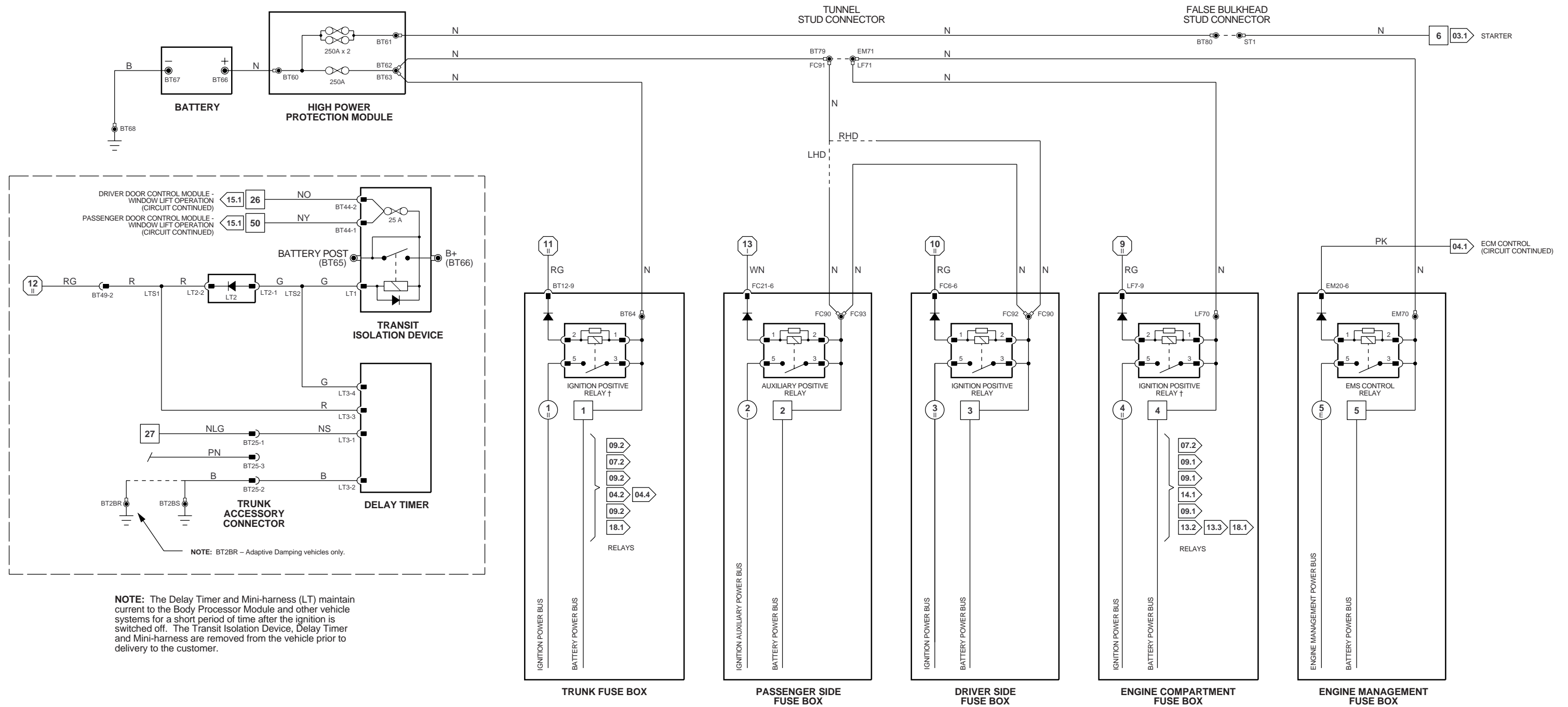
BT18 / 26-WAY AMP MQS / YELLOW

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| — | — | — | — | — | — | — | — | — | — | — | — | — |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| UP | UO | RY | RK | RU | UB | UW | RO | RG | RW | WG | R | BK |

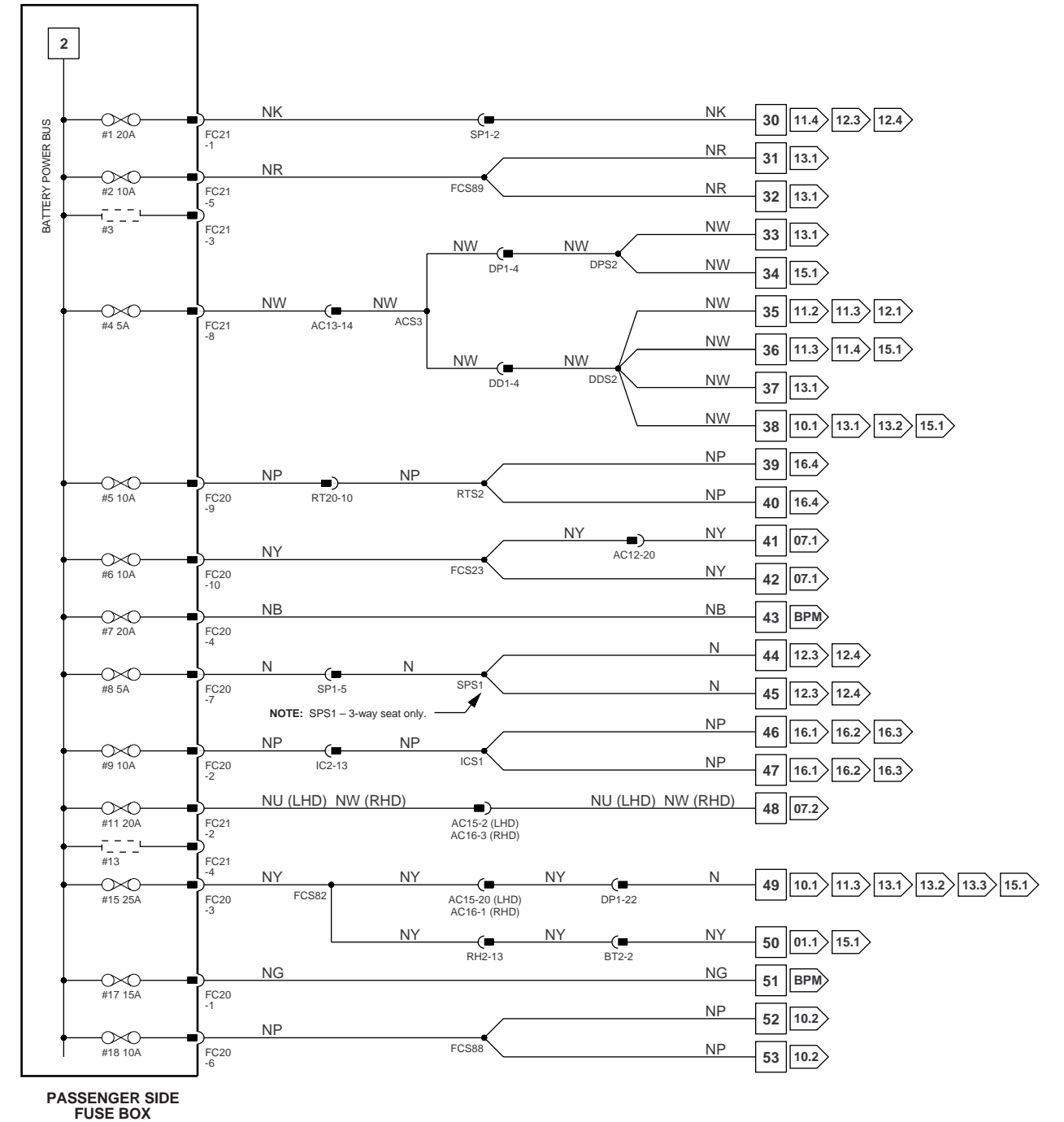
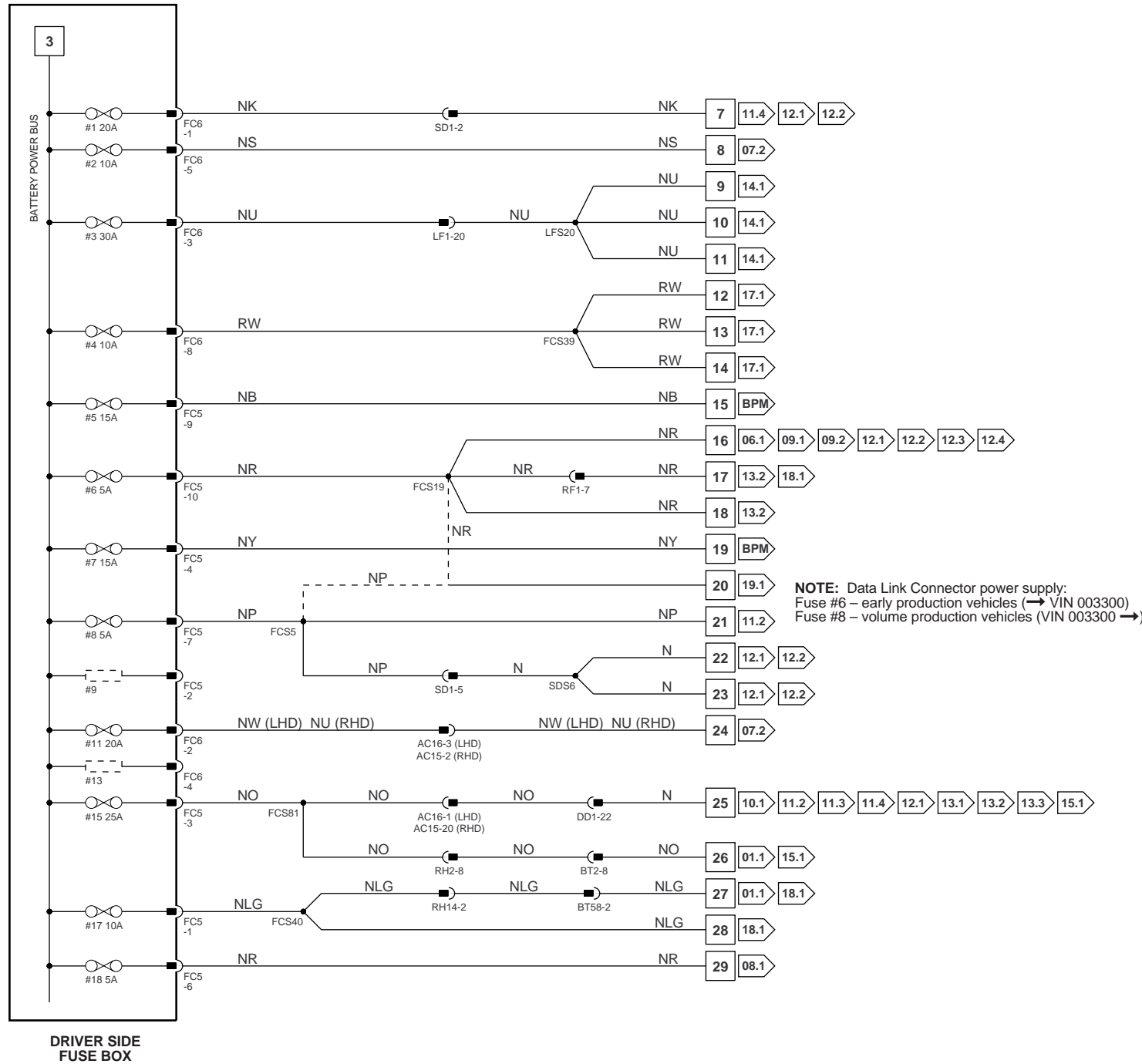


NOTE: RELAY COLORS ARE WRITTEN AS CASE COLOR (STRIPE) / CONNECTOR COLOR. FOR EXAMPLE, BLACK (BLUE) / BLUE INDICATES A RELAY HAVING A BLACK CASE WITH A BLUE STRIPE AND A BLUE CONNECTOR. IF THERE IS NO COLOR SHOWN IN PARENTHESES, THE RELAY CASE DOES NOT HAVE A STRIPE. SOME RELAYS CONNECT DIRECTLY TO A FUSE BOX BUS. THE CONNECTOR COLOR FOR THESE RELAYS IS IDENTIFIED AS "BUS".





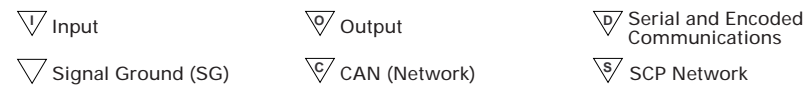
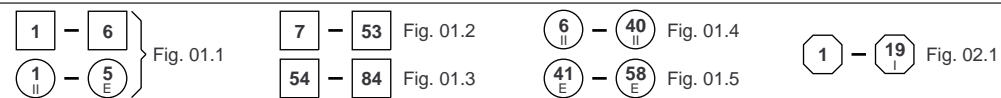
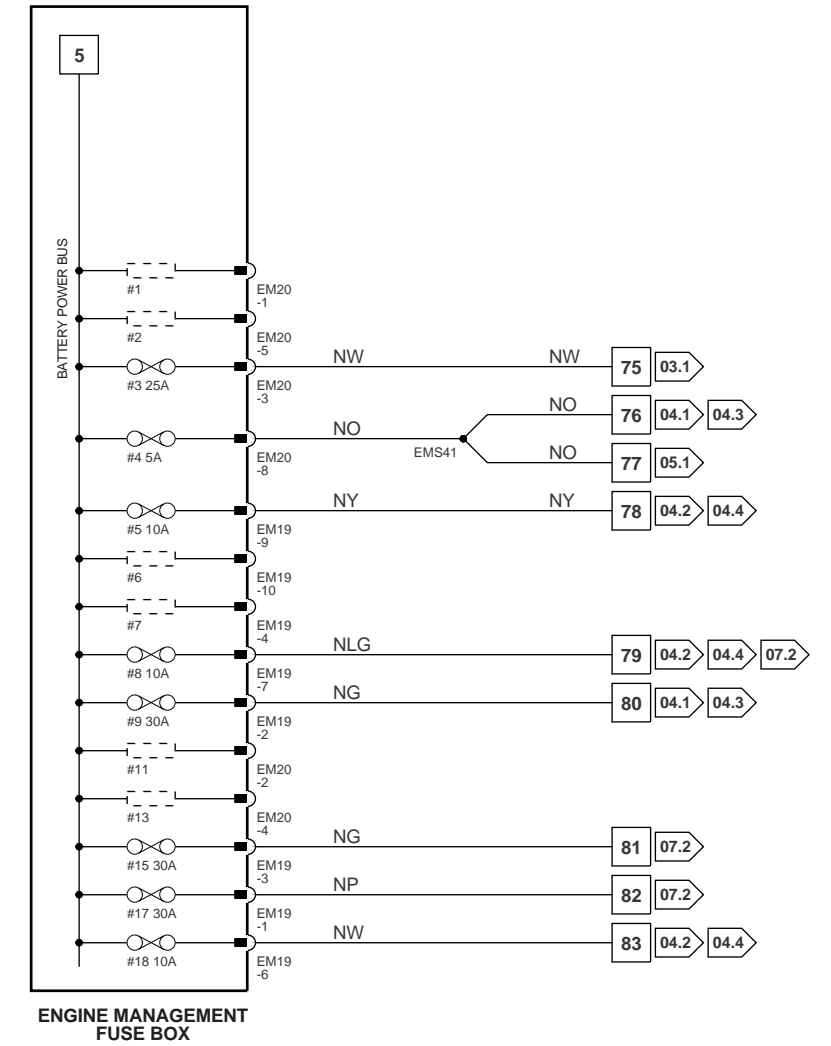
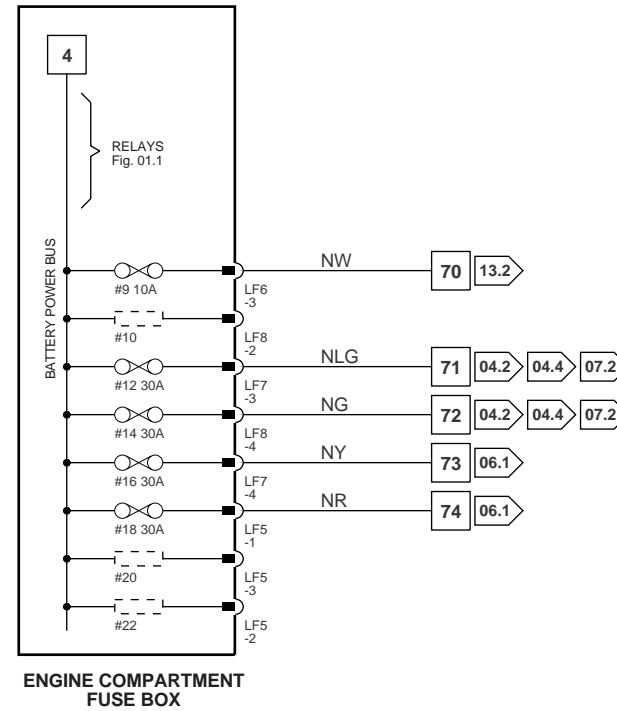
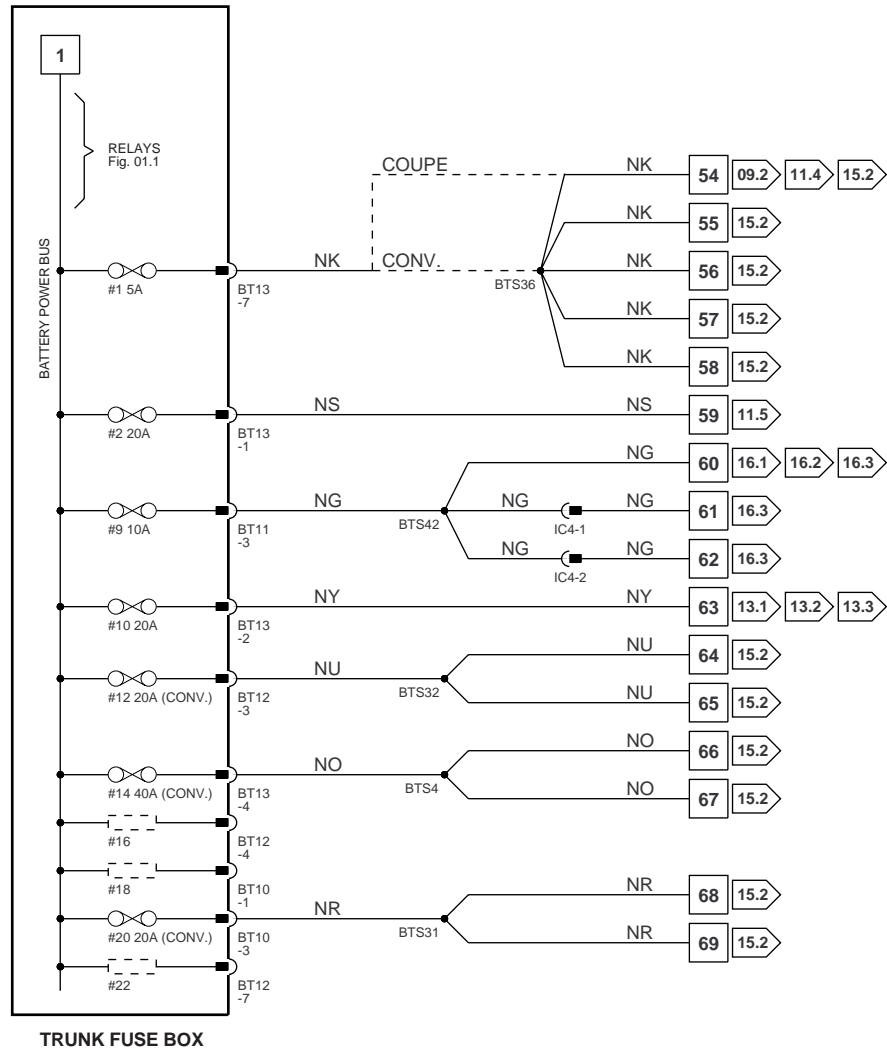
† **NOTE:** Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.



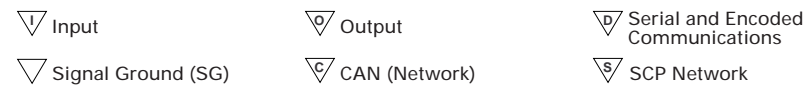
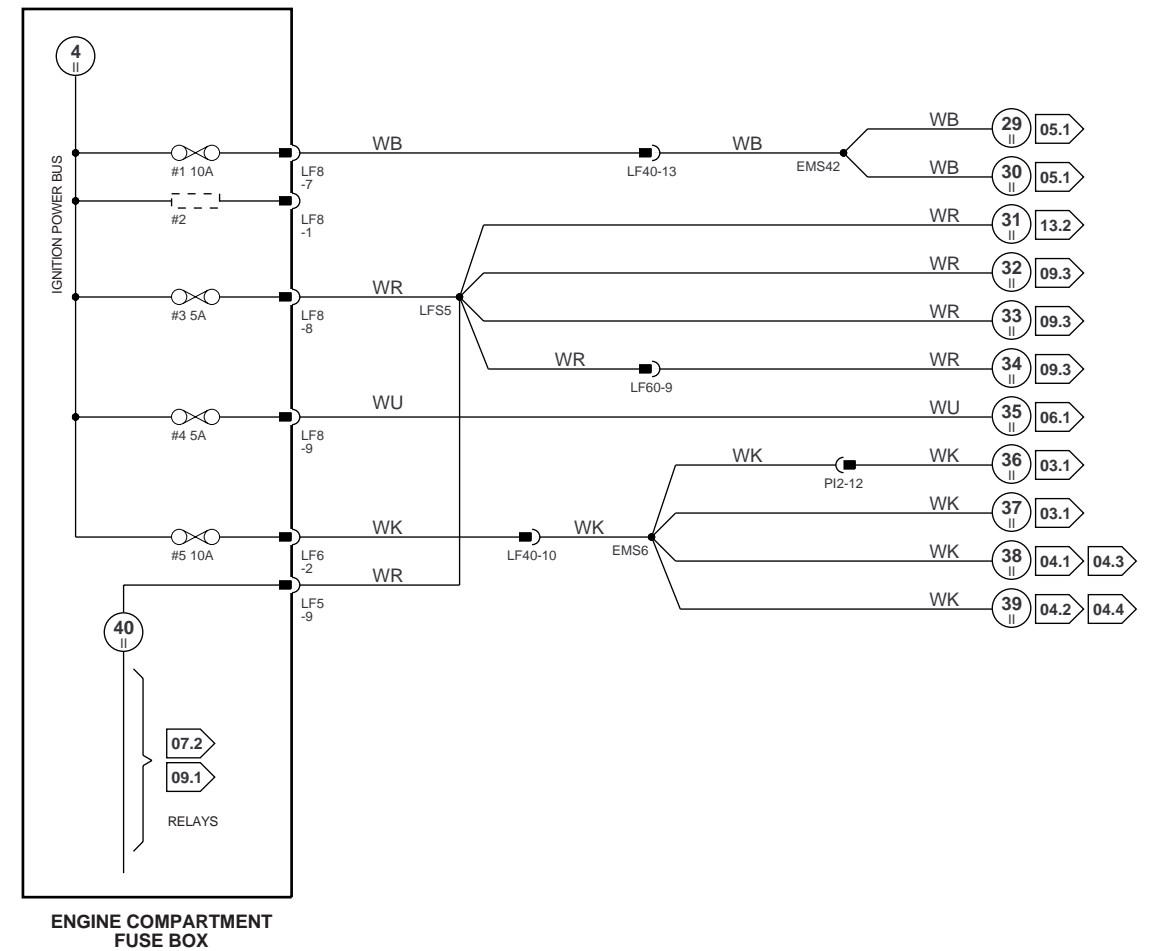
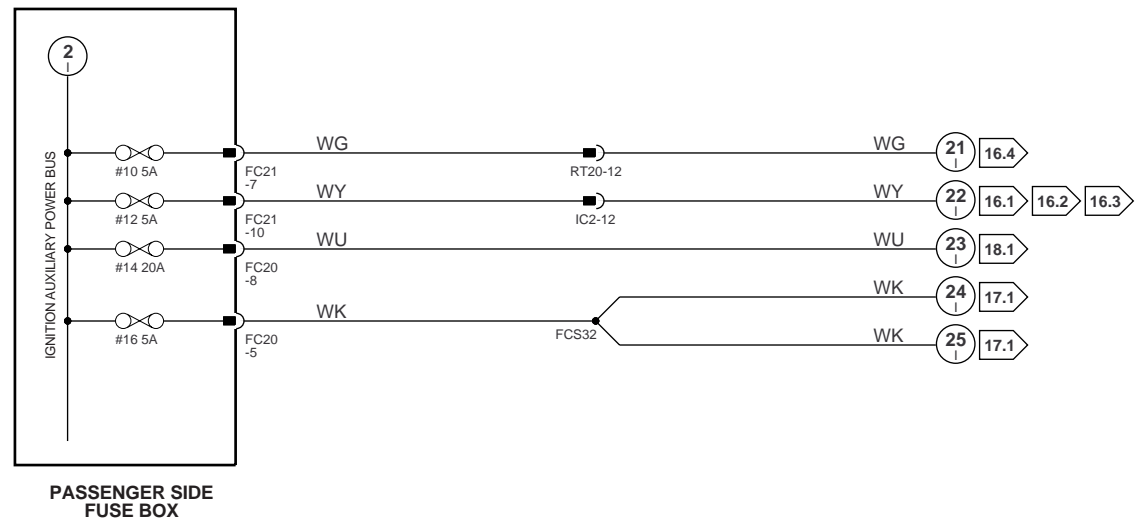
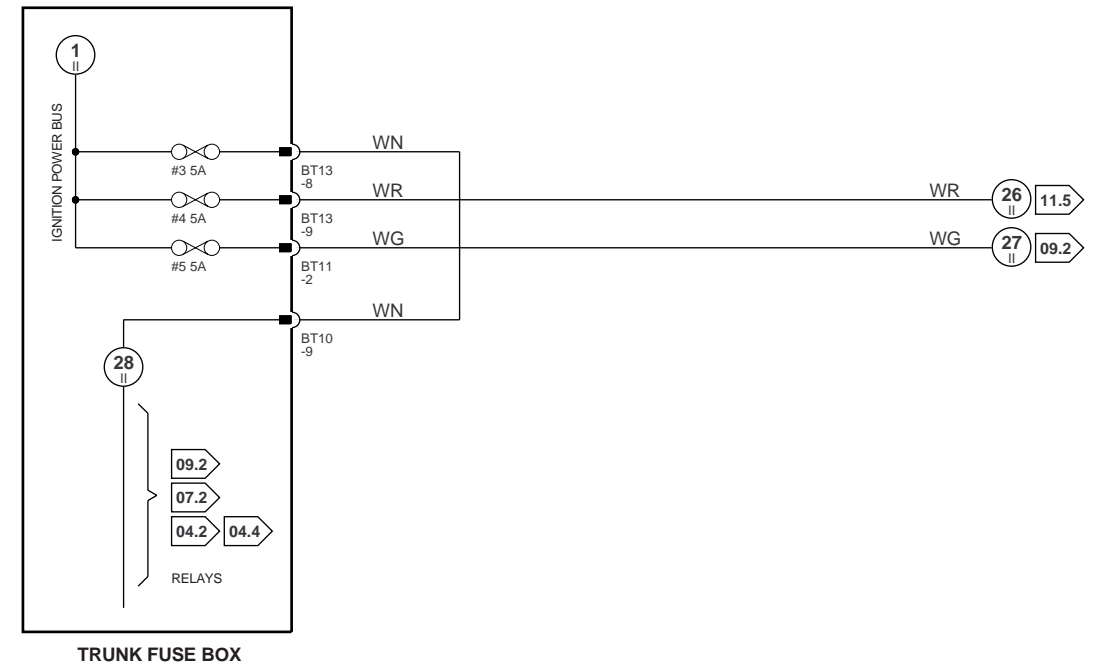
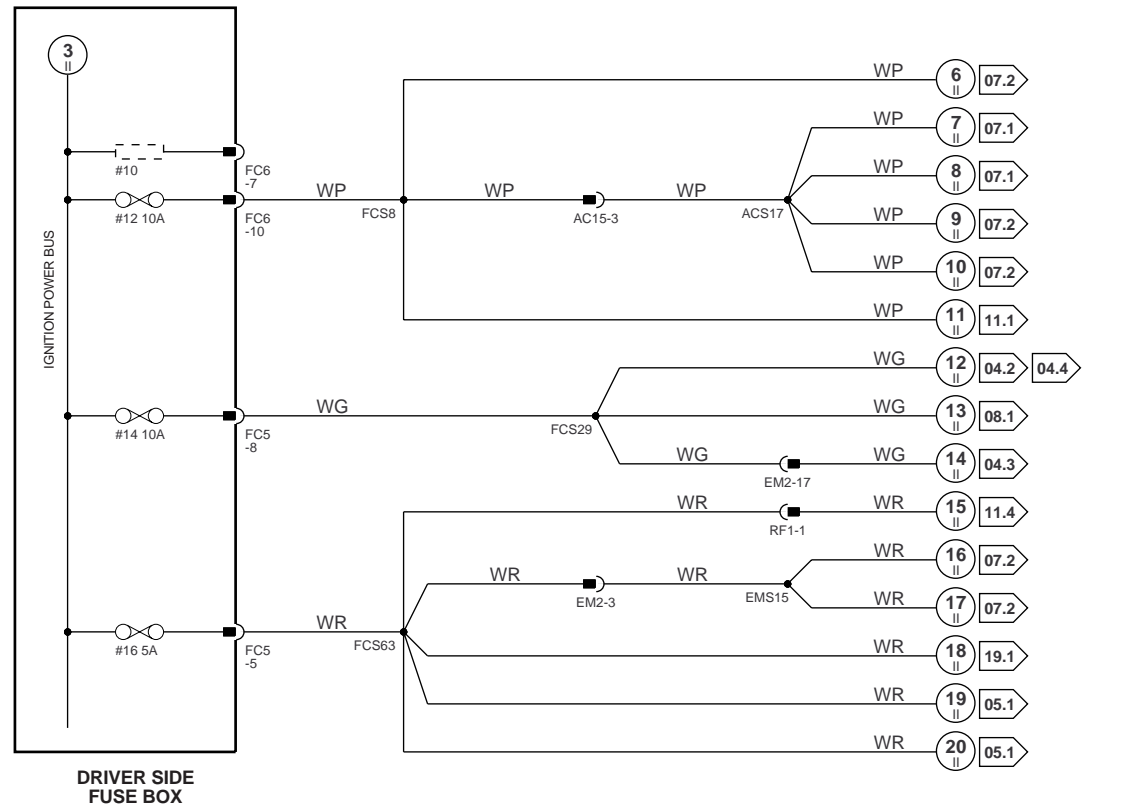
NOTE: Data Link Connector power supply:
 Fuse #6 – early production vehicles (→ VIN 003300)
 Fuse #8 – volume production vehicles (VIN 003300 →)

BPM NOTE: Body Processor Module appears in numerous Figures.

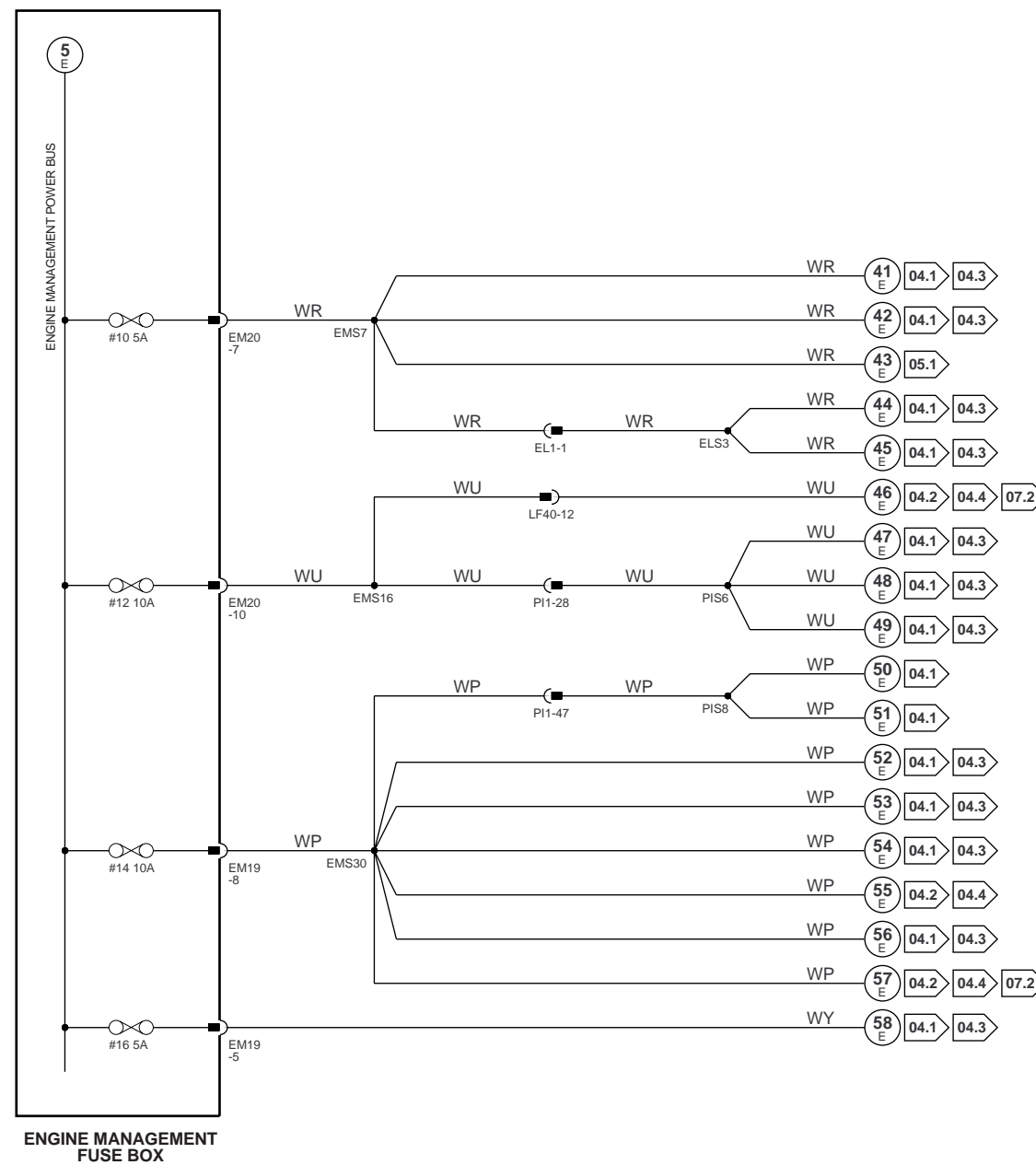
| | | | | | | | |
|--|---|--|---------------------------|--|--|---|---|
| | <p>1 - 6 } Fig. 01.1</p> <p>7 - 53 Fig. 01.2</p> <p>54 - 84 Fig. 01.3</p> | <p>6 II - 40 II Fig. 01.4</p> <p>41 E - 58 E Fig. 01.5</p> | <p>1 - 19 I Fig. 02.1</p> | <p>V Input</p> <p>V Signal Ground (SG)</p> | <p>V Output</p> <p>V CAN (Network)</p> | <p>V Serial and Encoded Communications</p> <p>V SCP Network</p> | <p>VARIANT: All Vehicles</p> <p>VIN RANGE: All</p> <p>DATE OF ISSUE: OCTOBER 1996</p> |
|--|---|--|---------------------------|--|--|---|---|



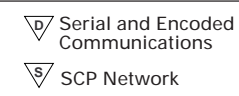
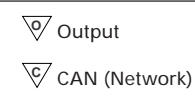
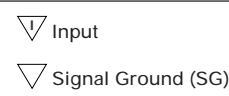
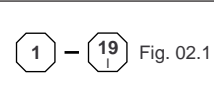
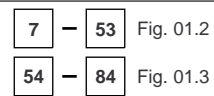
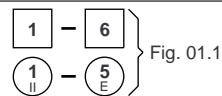
VARIANT: All Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



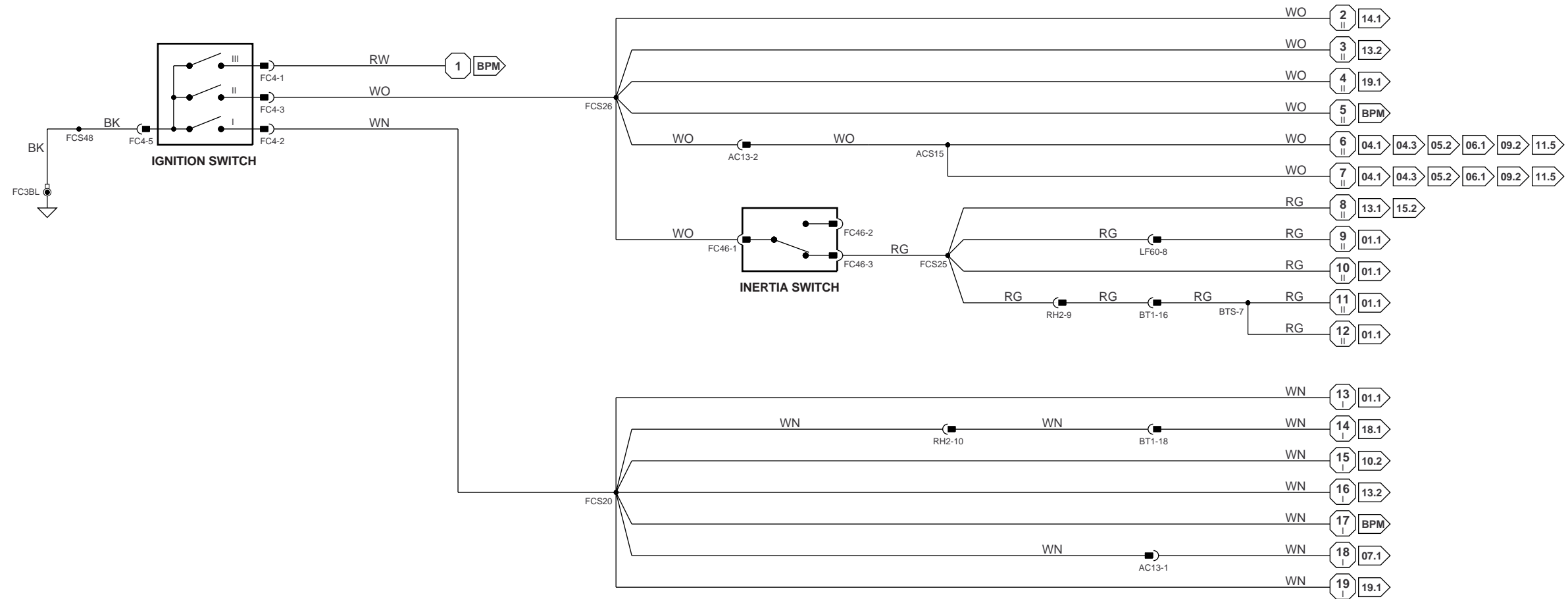
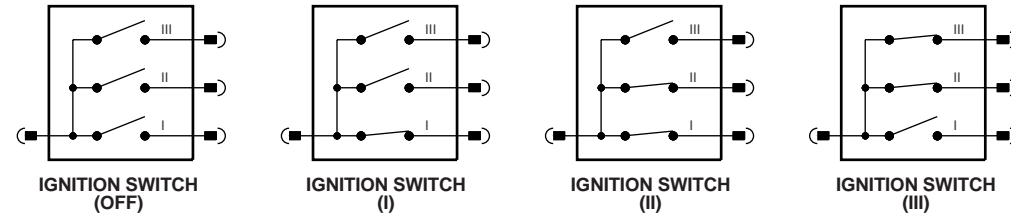
VARIANT: All Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



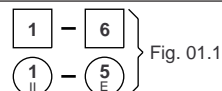
ENGINE MANAGEMENT FUSE BOX



VARIANT: All Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



BPM NOTE: Body Processor Module appears in numerous Figures.



▽ Input

▽ Output

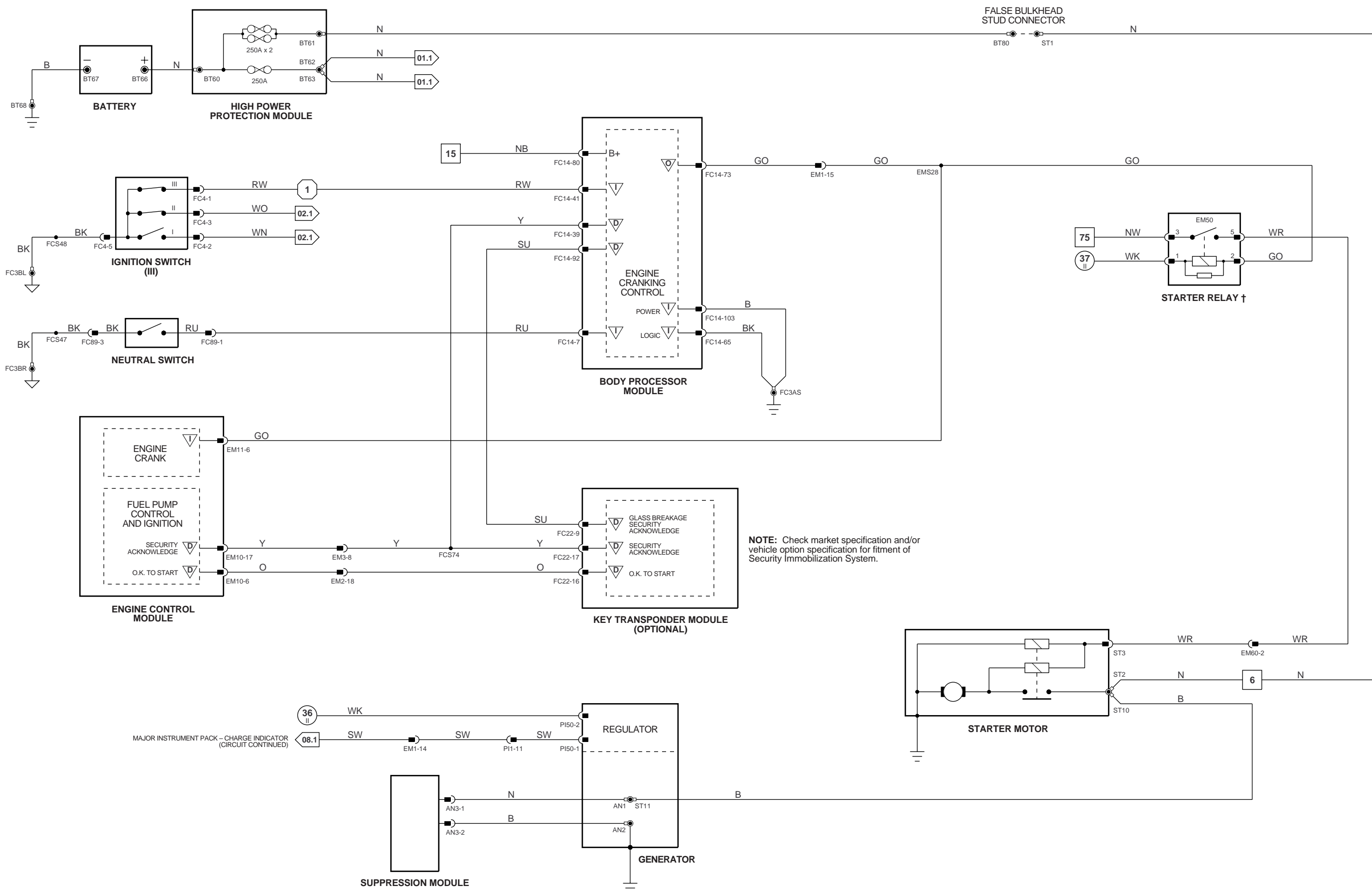
▽ Serial and Encoded Communications

▽ Signal Ground (SG)

▽ CAN (Network)

▽ SCP Network

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: OCTOBER 1996

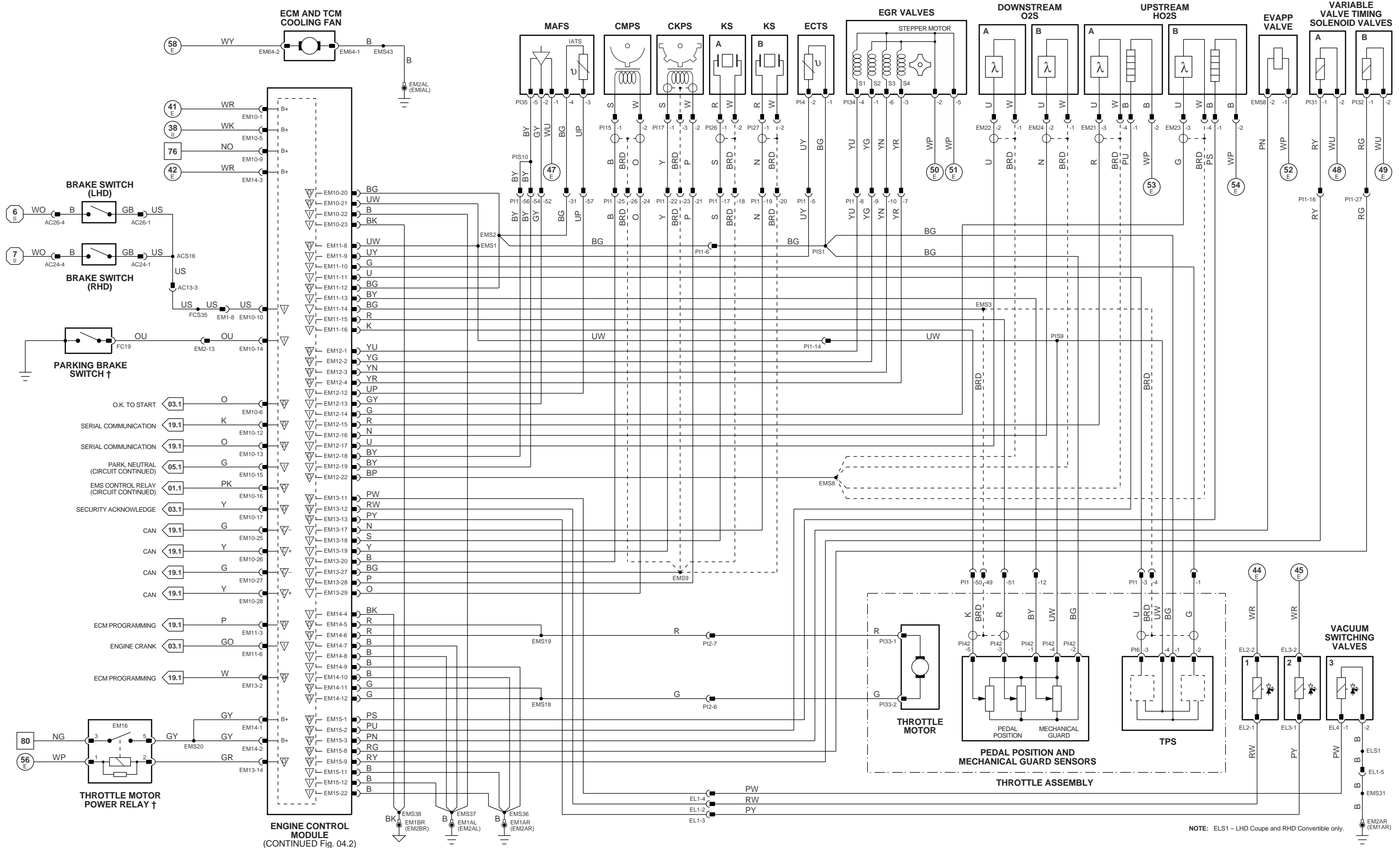


NOTE: Check market specification and/or vehicle option specification for fitment of Security Immobilization System.

† **NOTE:** Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.



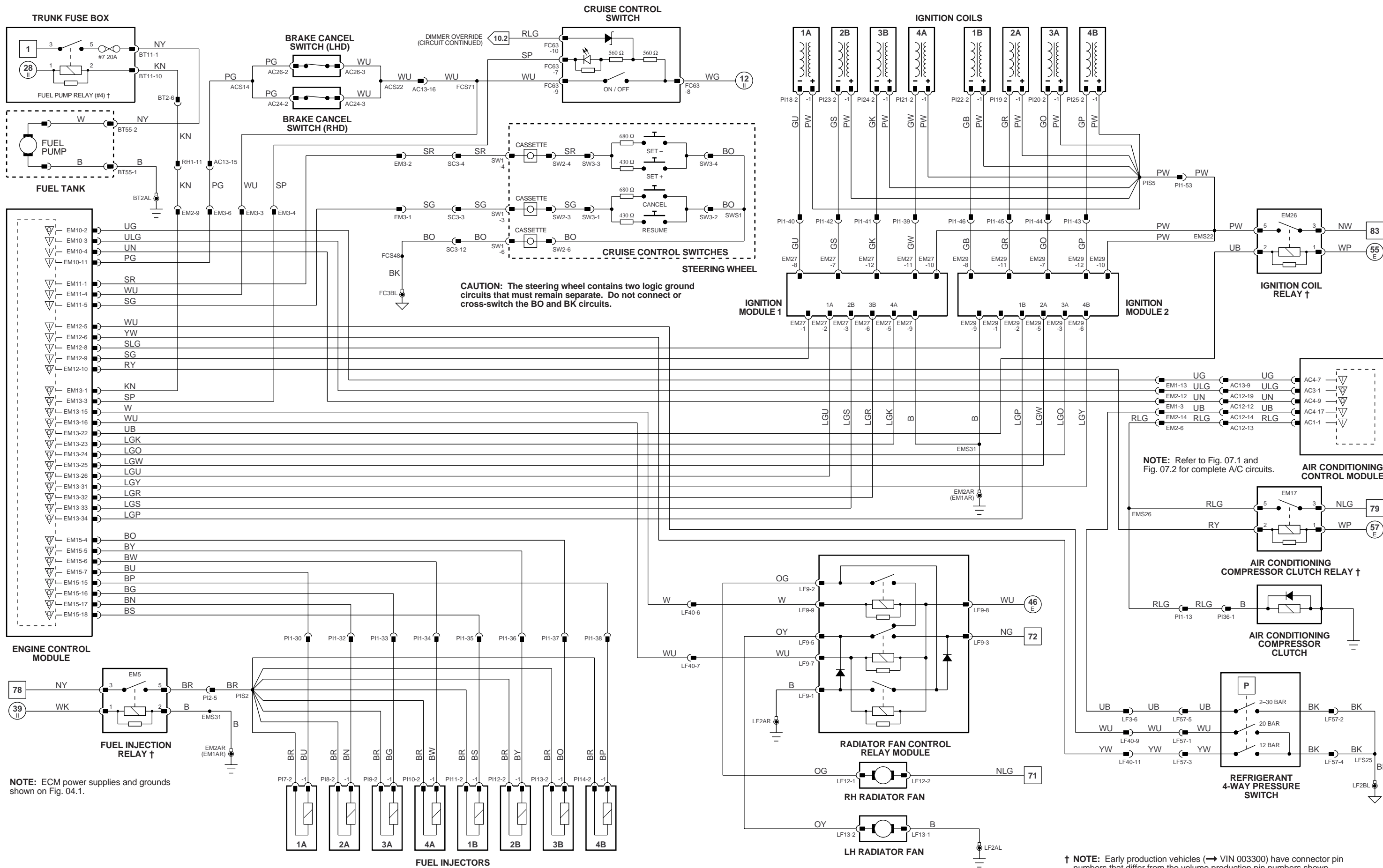
VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: OCTOBER 1996



NOTE: ELS1 - LHD Coupe and RHD Convertible only.

† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color for pin identification on early production vehicles.

| | | | | | | | |
|------------------------|------------------------|------------------------|-----------|---------------------------------|-----------------------------|--|---|
| Fig. 01.1 Fig. 01.1 | Fig. 01.2 Fig. 01.3 | Fig. 01.4 Fig. 01.5 | Fig. 02.1 | ▽ Input ▽ Signal Ground (SG) | ▽ Output ▽ CAN (Network) | ▽ Serial and Encoded Communications ▽ SCP Network | VARIANT: AJ26 NAS Vehicles VIN RANGE: All DATE OF ISSUE: OCTOBER 1996 |
|------------------------|------------------------|------------------------|-----------|---------------------------------|-----------------------------|--|---|

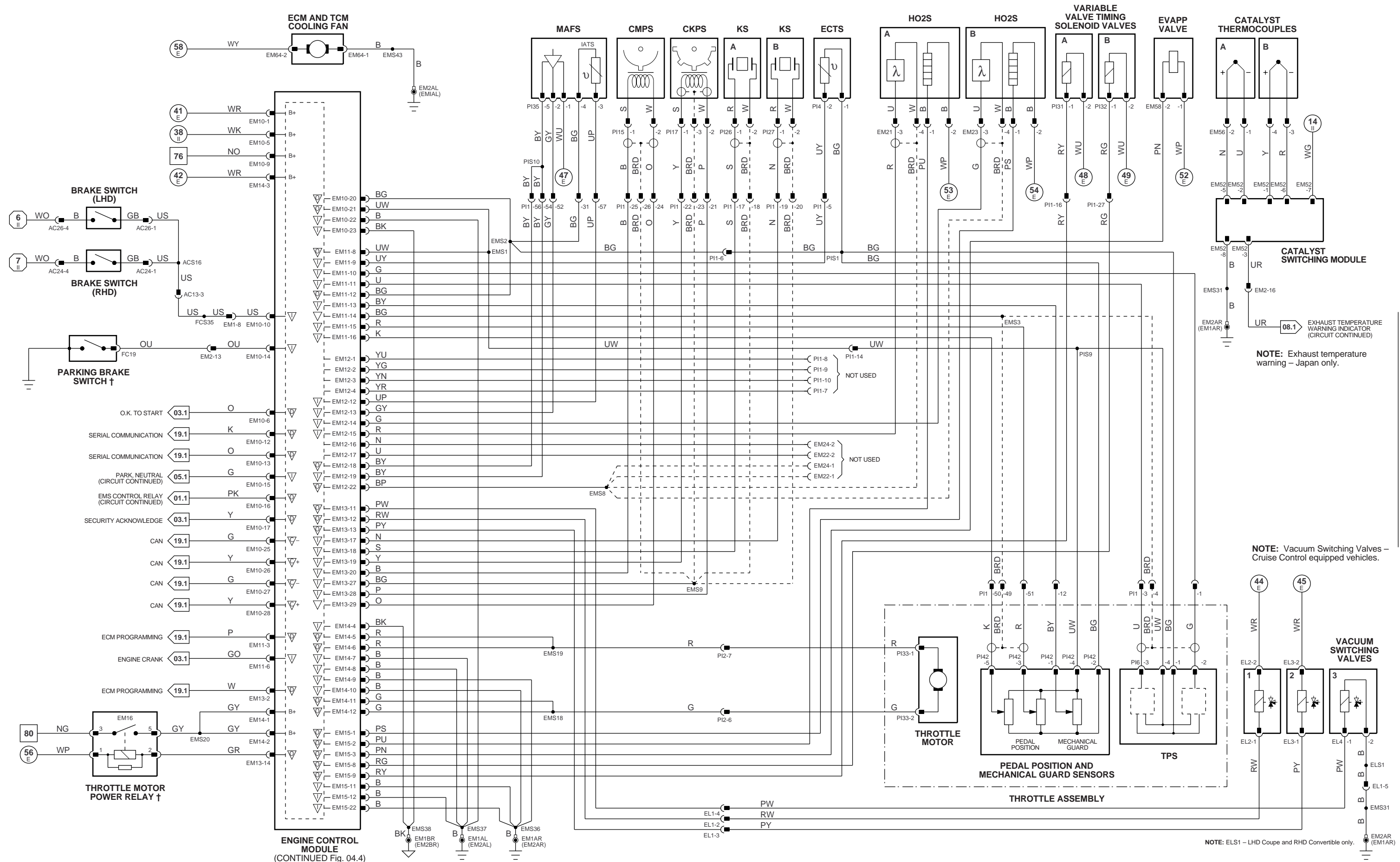


NOTE: ECM power supplies and grounds shown on Fig. 04.1.

† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color for pin identification on early production vehicles.

| | | | | | | |
|------------------------|------------------------|------------------------|-----------|-----------------------------|-------------------------|--|
| Fig. 01.1 Fig. 01.1 | Fig. 01.2 Fig. 01.3 | Fig. 01.4 Fig. 01.5 | Fig. 02.1 | Input Signal Ground (SG) | Output CAN (Network) | Serial and Encoded Communications SCP Network |
|------------------------|------------------------|------------------------|-----------|-----------------------------|-------------------------|--|

VARIANT: AJ26 NAS Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



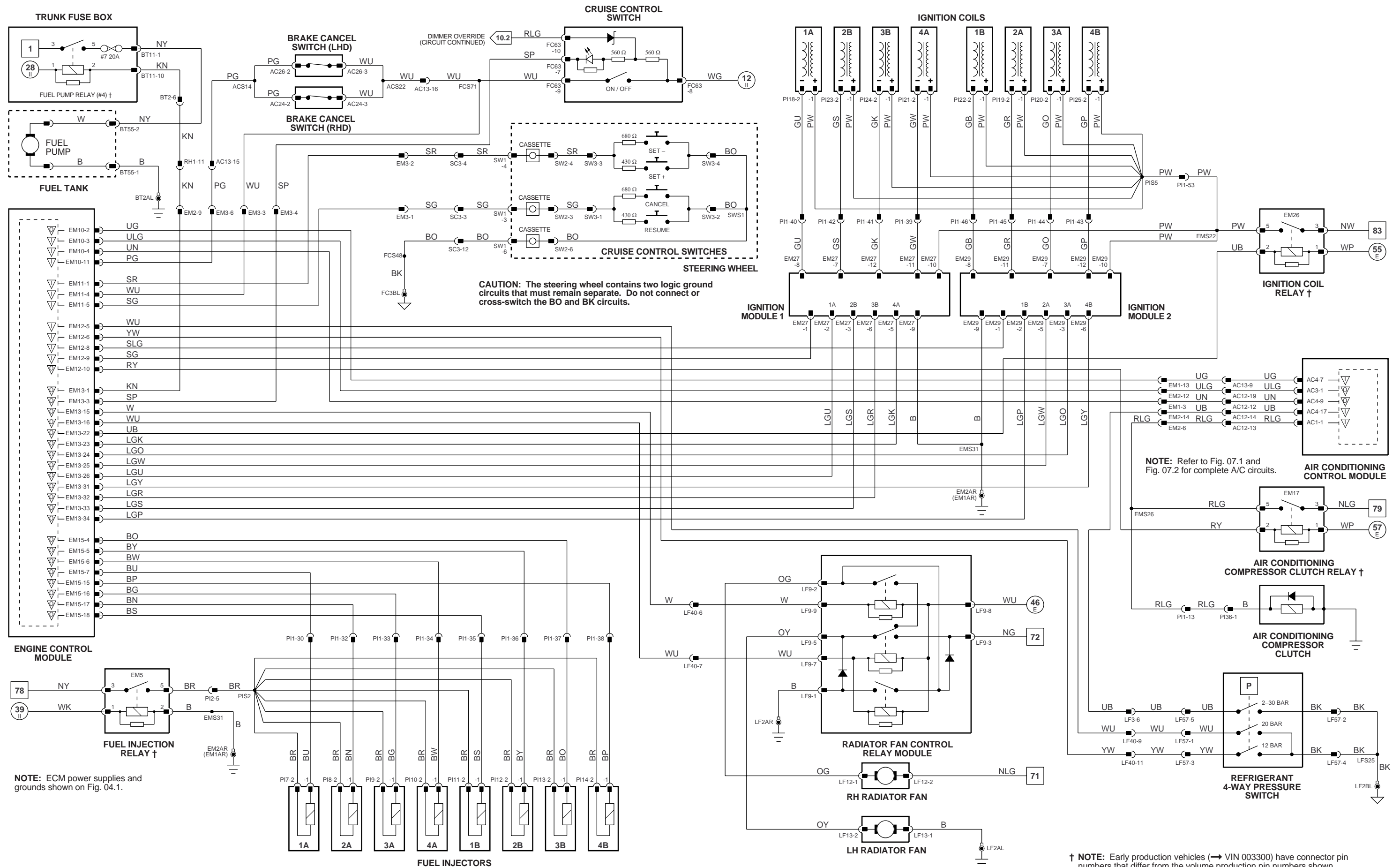
NOTE: Exhaust temperature warning – Japan only.

NOTE: Vacuum Switching Valves – Cruise Control equipped vehicles.

NOTE: ELS1 – LHD Coupe and RHD Convertible only.

† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.

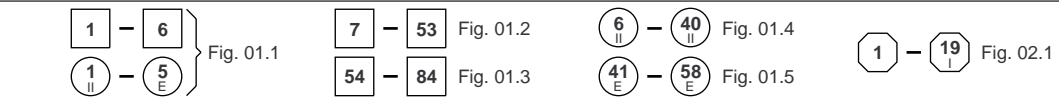
| | | | | | | | |
|------------------------|------------------------|------------------------|-----------|---------------------------------|-----------------------------|--|---|
| Fig. 01.1 Fig. 01.1 | Fig. 01.2 Fig. 01.3 | Fig. 01.4 Fig. 01.5 | Fig. 02.1 | ▽ Input ▽ Signal Ground (SG) | ▽ Output ▽ CAN (Network) | ▽ Serial and Encoded Communications ▽ SCP Network | VARIANT: AJ26 ROW Vehicles VIN RANGE: All DATE OF ISSUE: OCTOBER 1996 |
|------------------------|------------------------|------------------------|-----------|---------------------------------|-----------------------------|--|---|



NOTE: ECM power supplies and grounds shown on Fig. 04.1.

NOTE: Refer to Fig. 07.1 and Fig. 07.2 for complete A/C circuits.

† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.

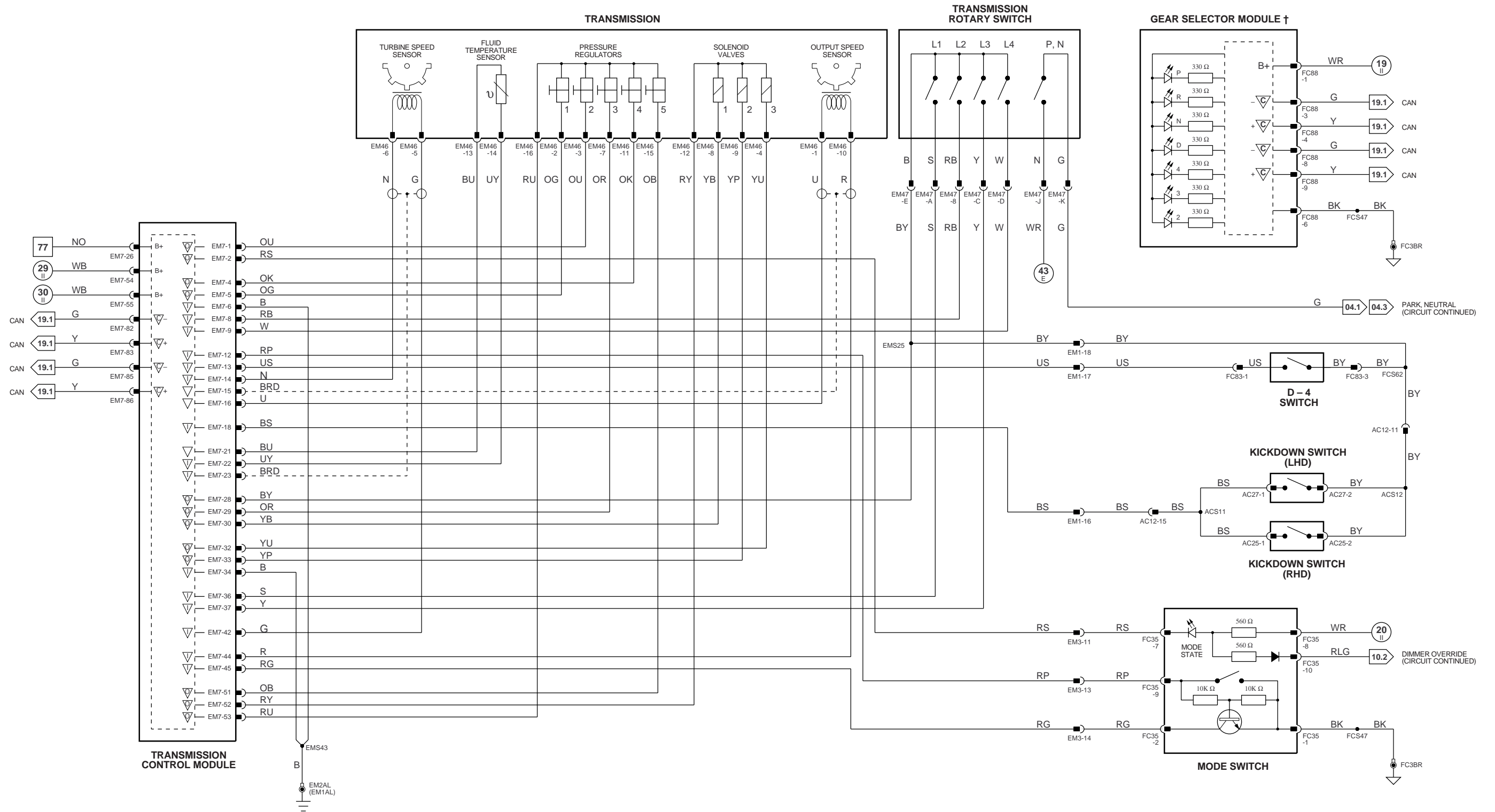


△ Input
▽ Output
△/ Signal Ground (SG)
△/ CAN (Network)
△/ SCP Network
△/ Serial and Encoded Communications

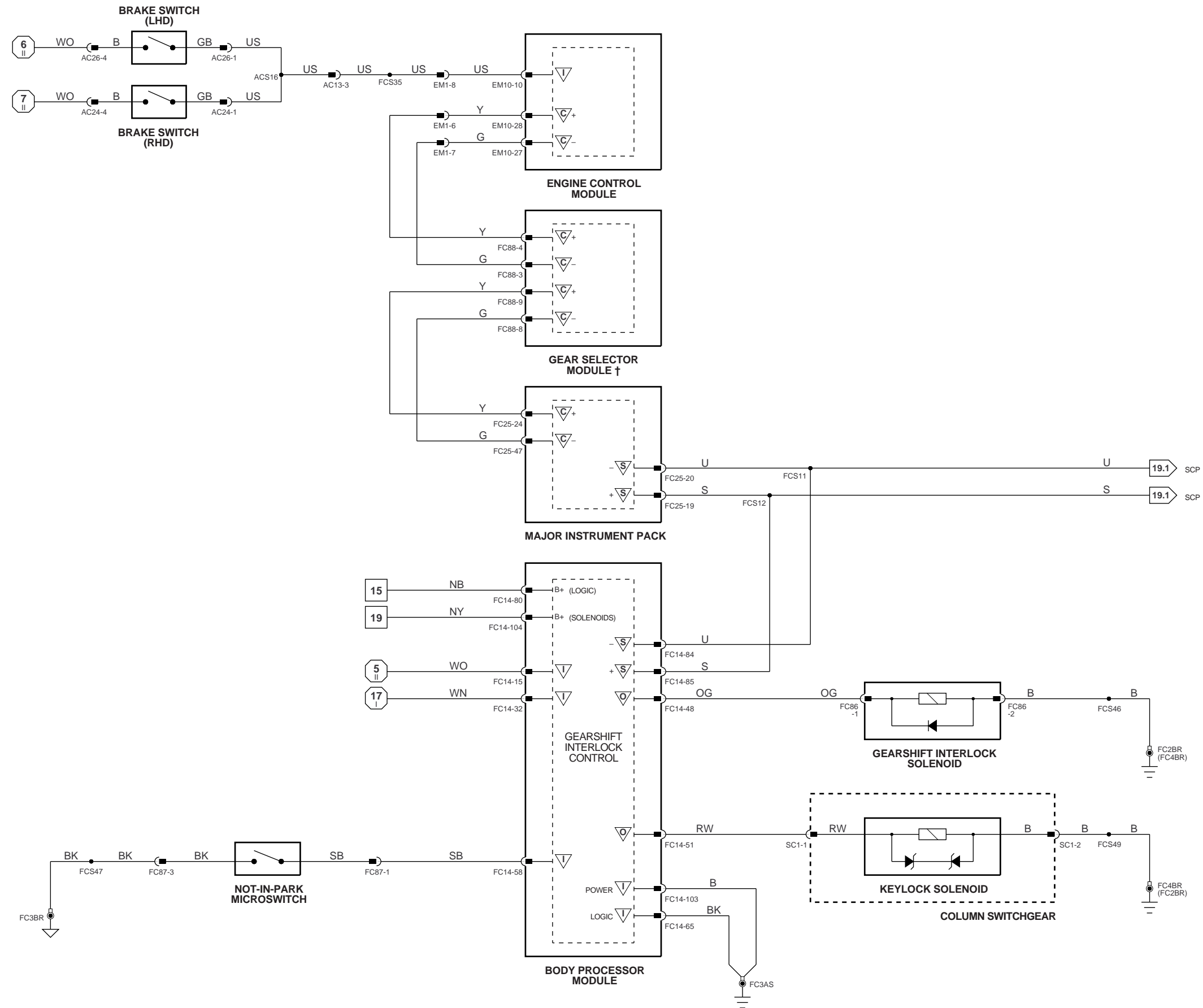
VARIANT: AJ26 ROW Vehicles
VIN RANGE: All
DATE OF ISSUE: OCTOBER 1996



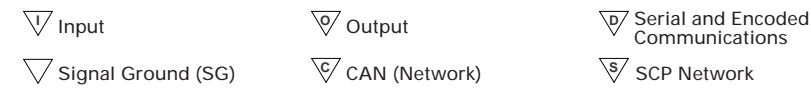
NOTE: Gear Selector Module – CAN 'Listen only' node for gear selector position indicators.



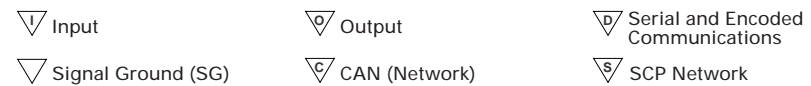
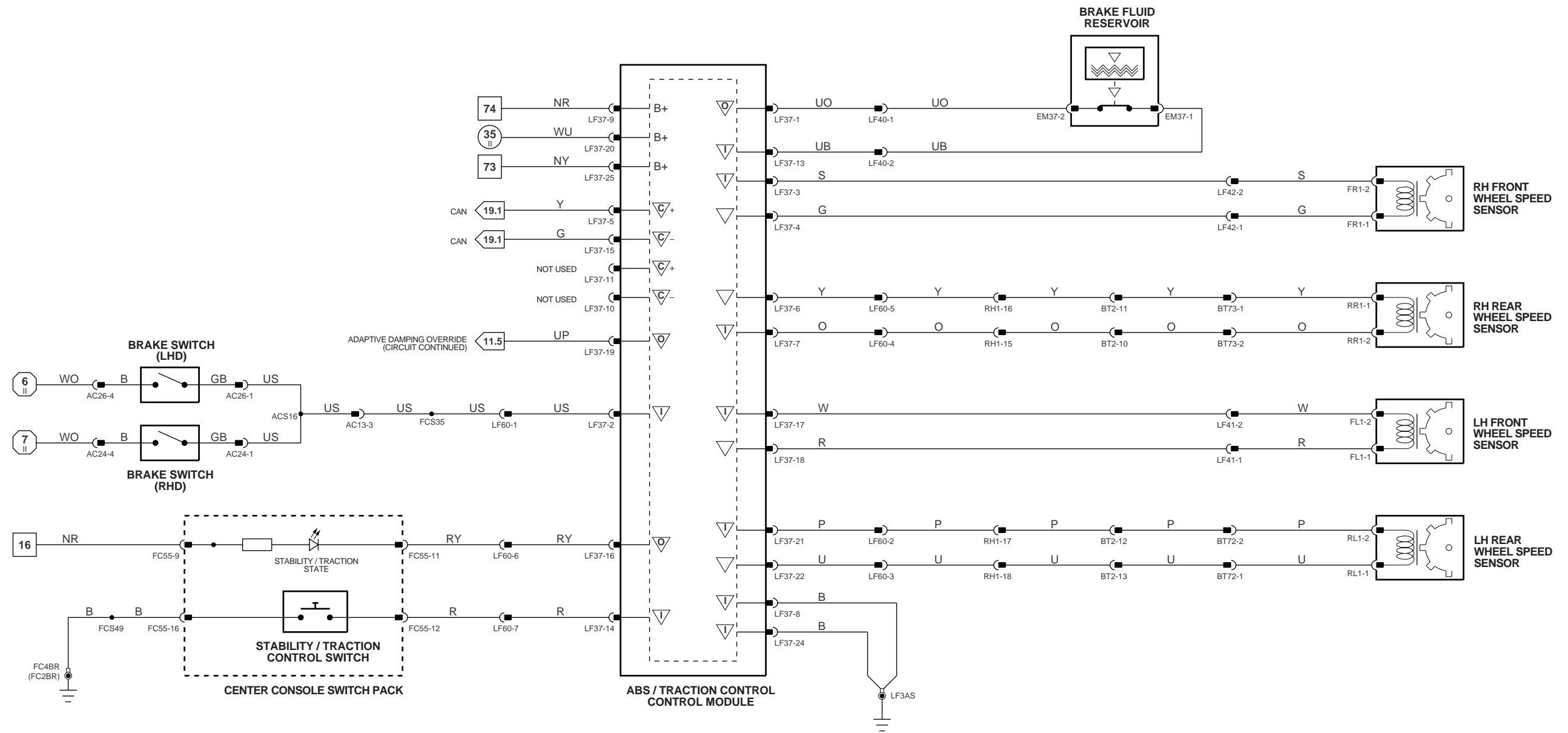
† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.



† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.



VARIANT: All Vehicles
 VIN RANGE: All
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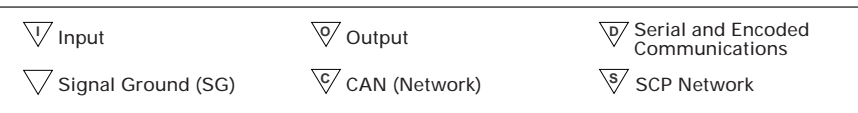
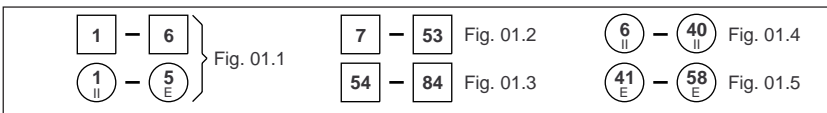
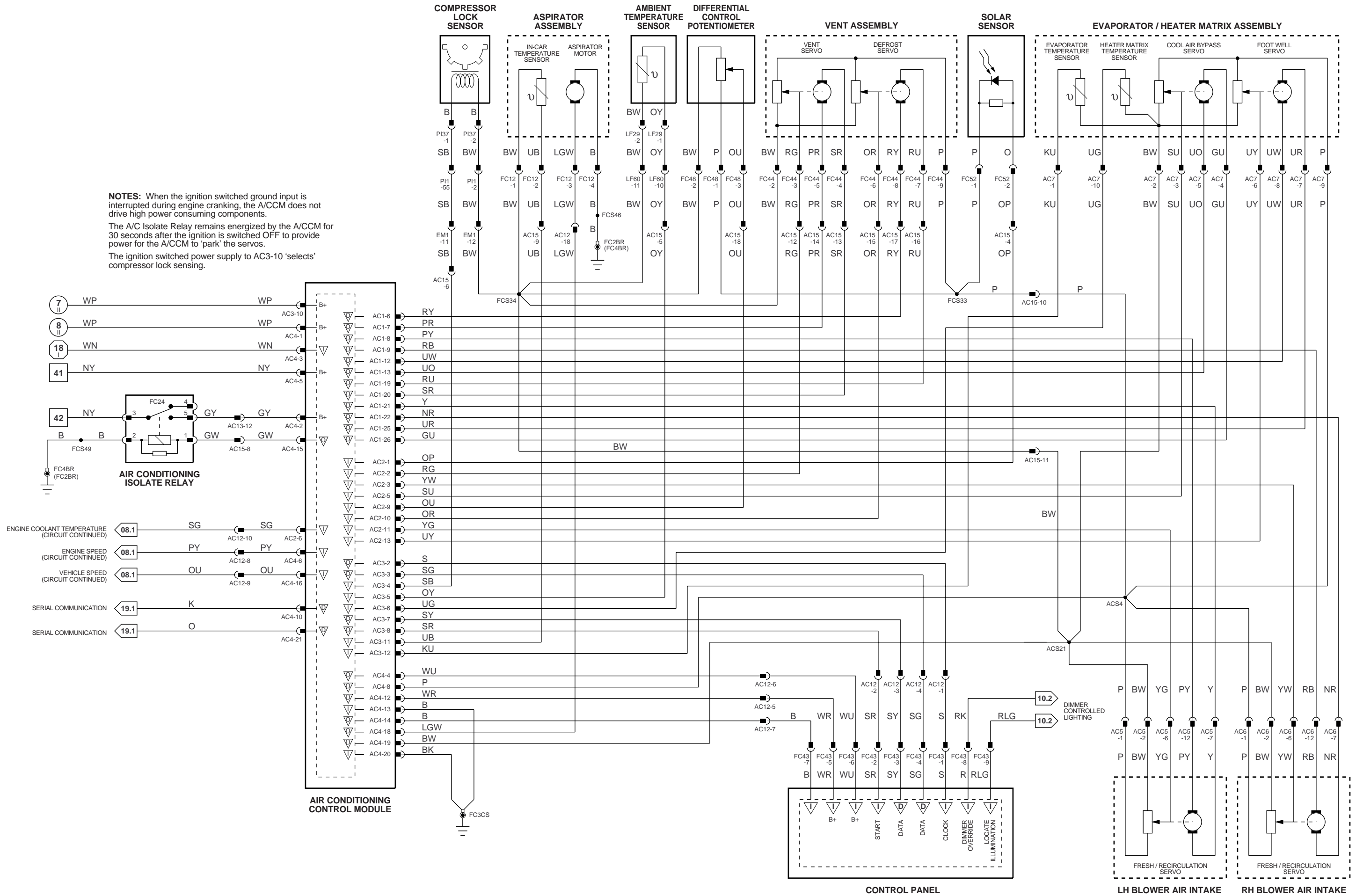
VARIANT: All Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



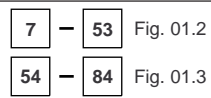
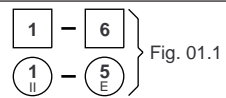
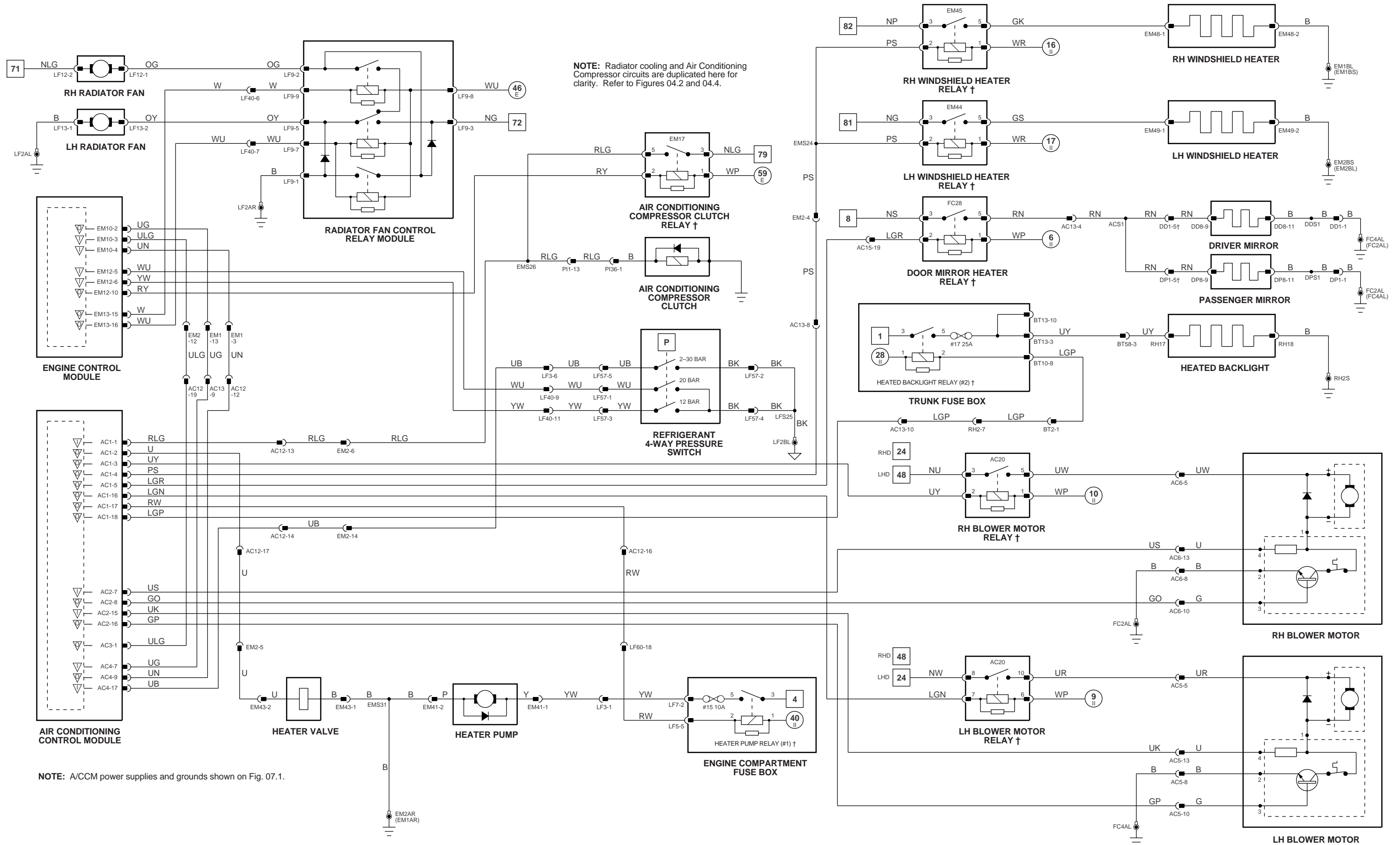
NOTES: When the ignition switched ground input is interrupted during engine cranking, the A/C/CM does not drive high power consuming components.

The A/C Isolate Relay remains energized by the A/C/CM for 30 seconds after the ignition is switched OFF to provide power for the A/C/CM to 'park' the servos.

The ignition switched power supply to AC3-10 'selects' compressor lock sensing.



VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: OCTOBER 1996



▽ Input

▽ Output

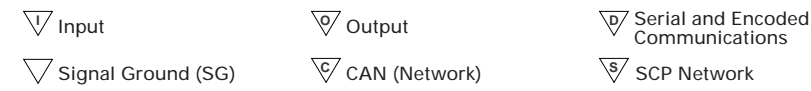
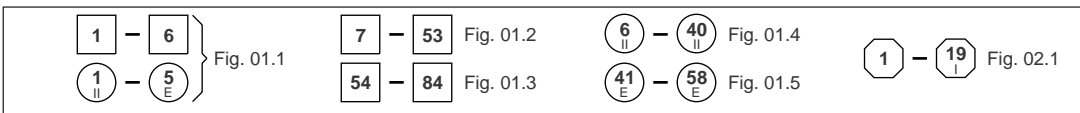
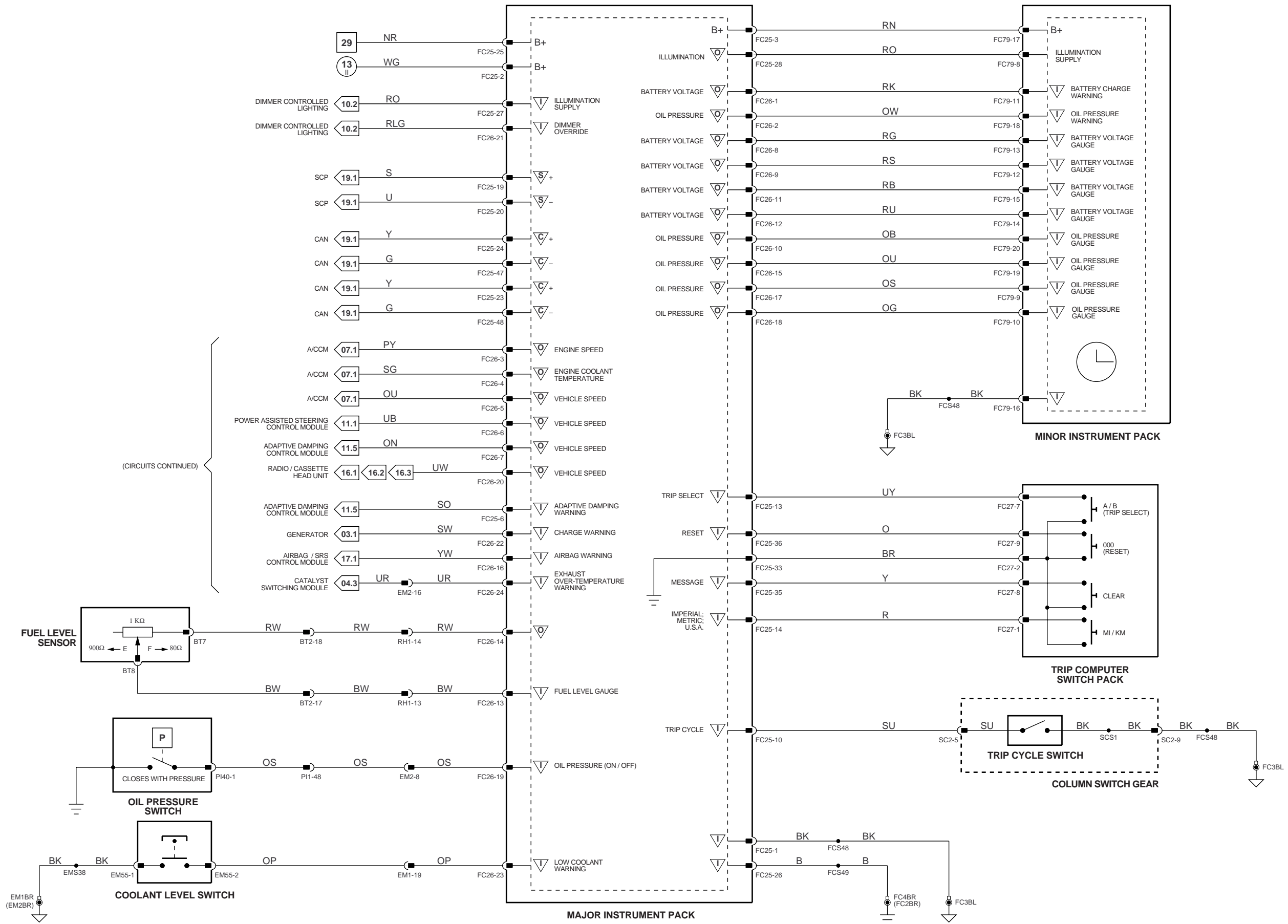
▽ Signal Ground (SG)

▽ CAN (Network)

▽ Serial and Encoded Communications

▽ SCP Network

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: OCTOBER 1996

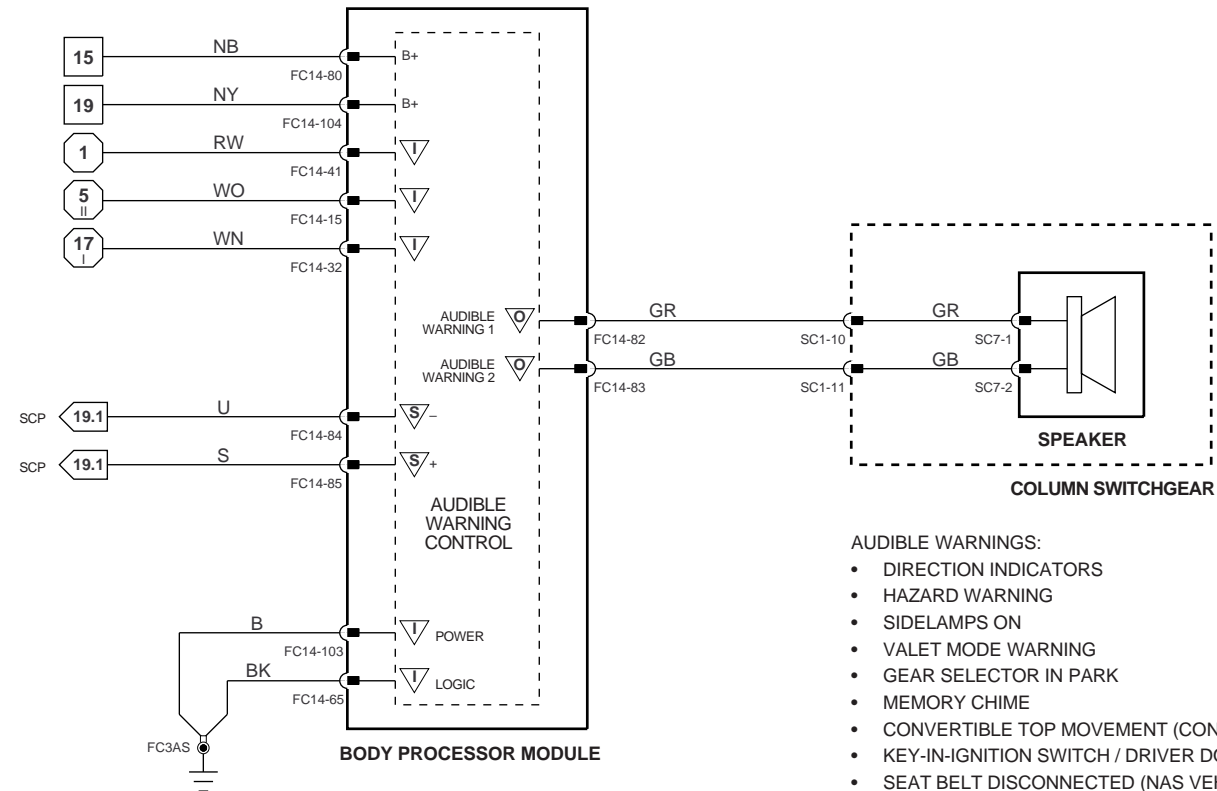


VARIANT: All Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996

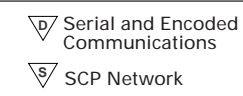
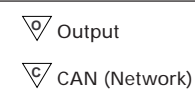
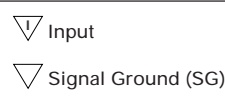
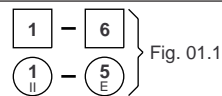


SCP SOURCES:

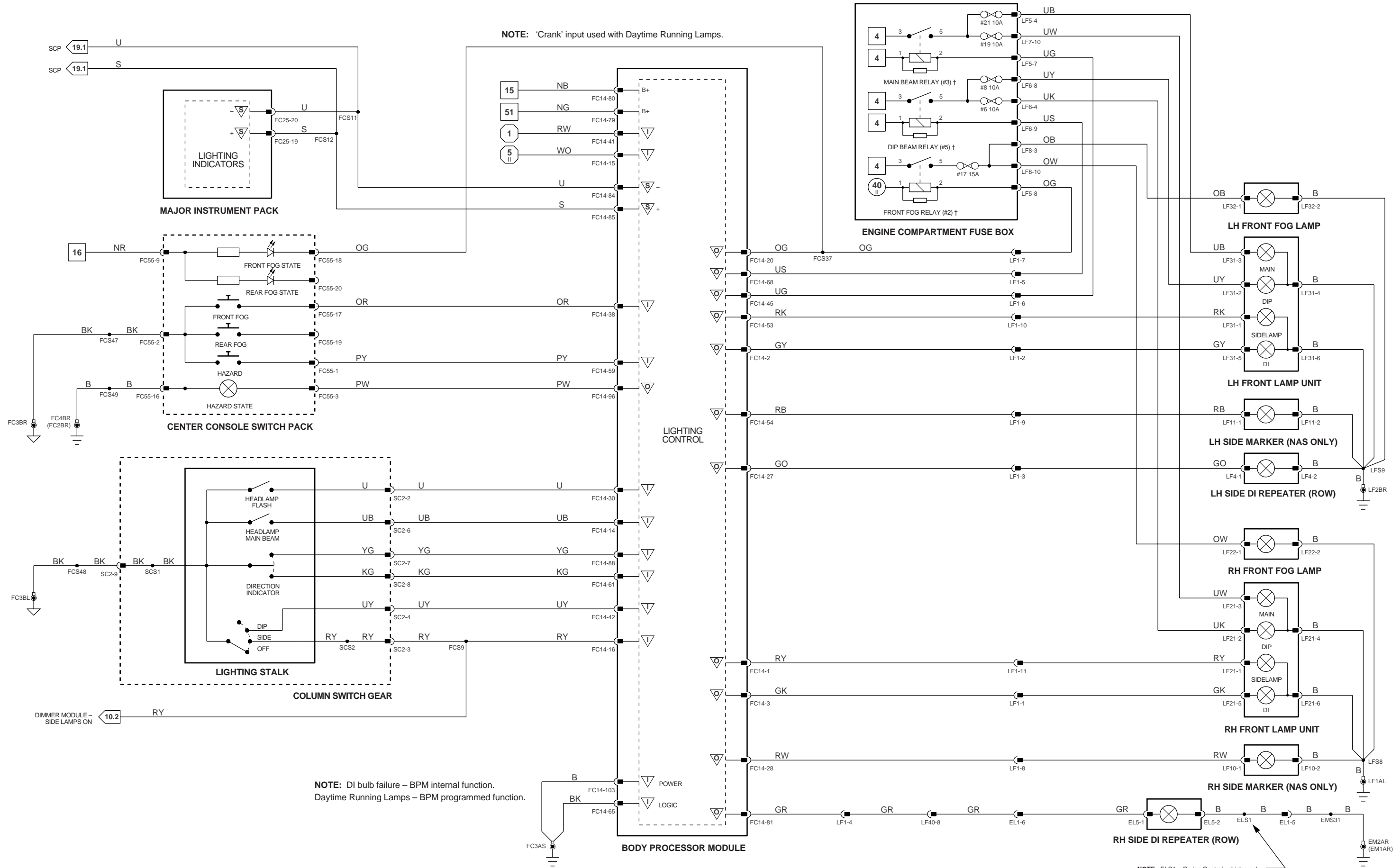
- DIRECTION INDICATORS; HAZARD WARNING; SIDELAMPS – Fig. 09.1, Fig. 09.2
- VALET SWITCH; TRUNK RELEASE – Fig. 13.1
- MEMORY – Fig. 12.1
- CONVERTIBLE TOP MOVEMENT – Fig. 15.2
- KEY-IN-IGNITION SWITCH / DRIVER DOOR SWITCH – Fig. 13.1
- NOT-IN-PARK SWITCH – Fig. 05.2
- SEAT BELT SWITCH – Fig. 12.1



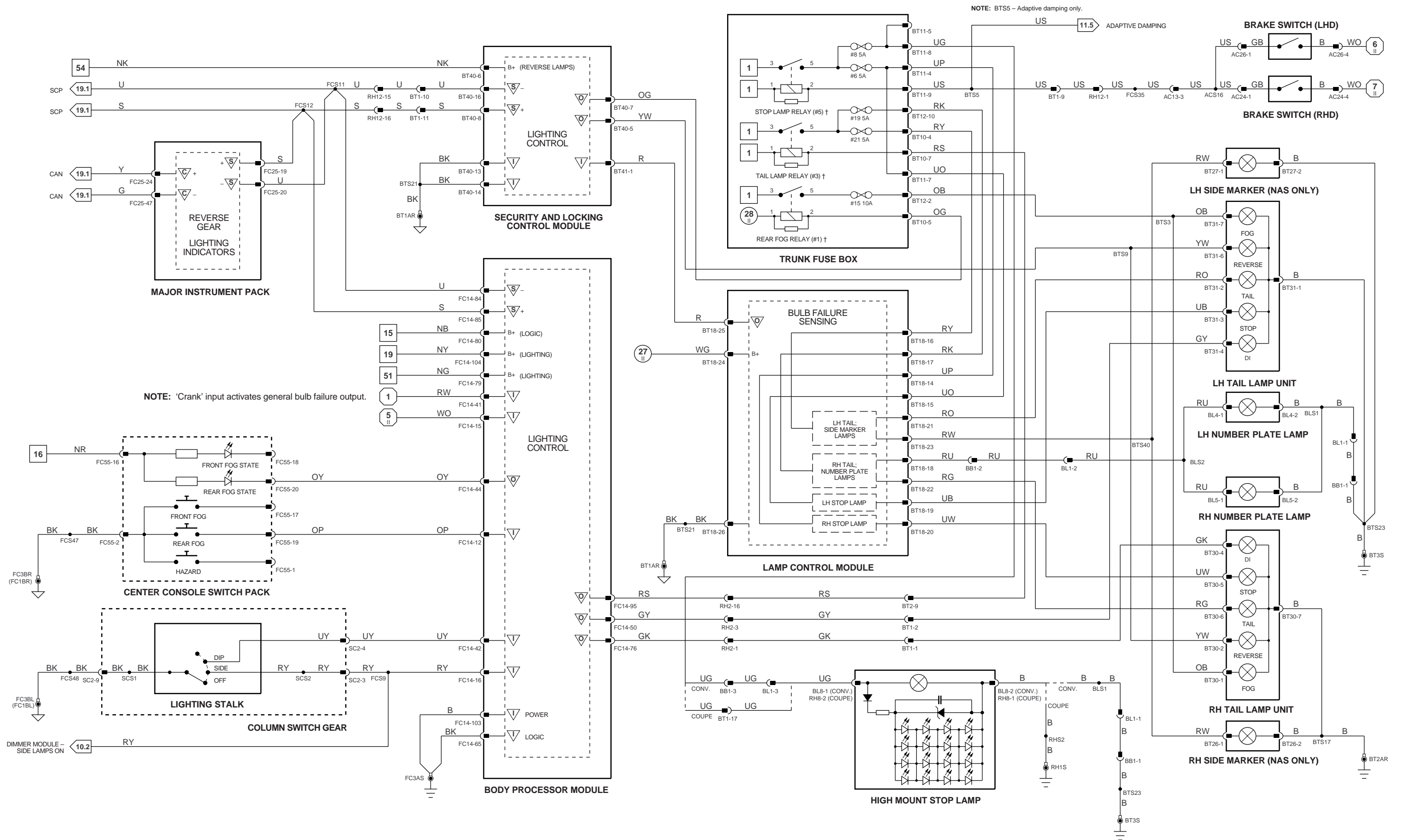
- AUDIBLE WARNINGS:
- DIRECTION INDICATORS
 - HAZARD WARNING
 - SIDELAMPS ON
 - VALET MODE WARNING
 - GEAR SELECTOR IN PARK
 - MEMORY CHIME
 - CONVERTIBLE TOP MOVEMENT (CONVERTIBLE VEHICLES)
 - KEY-IN-IGNITION SWITCH / DRIVER DOOR AJAR (NAS VEHICLES ONLY)
 - SEAT BELT DISCONNECTED (NAS VEHICLES ONLY)

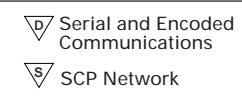
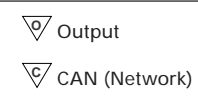
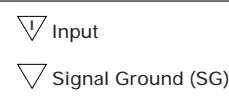
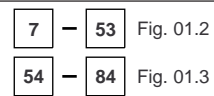
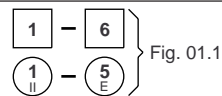
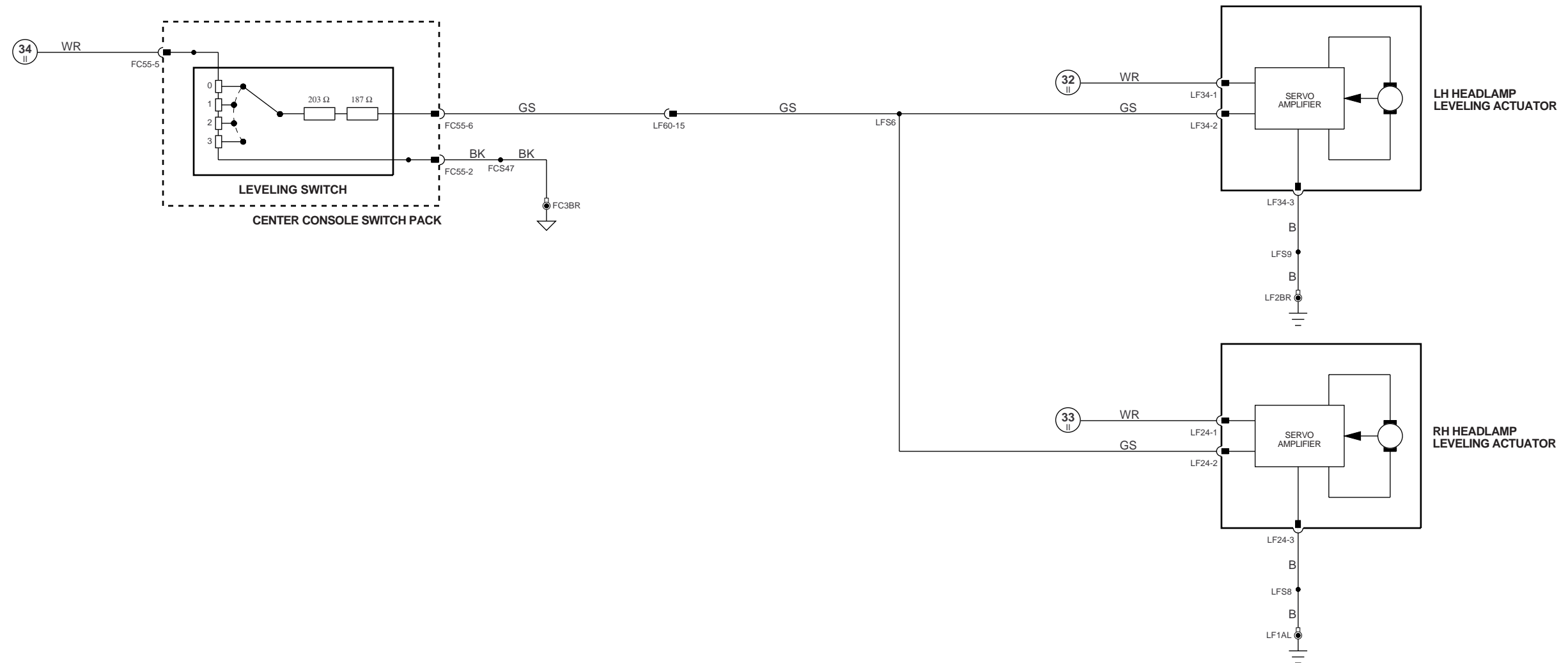


VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: OCTOBER 1996



| | | | | | | | |
|---------------|------------------------|------------------------|-----------|-----------------------------|-------------------------|--|---|
| Fig. 01.1 | Fig. 01.2 Fig. 01.3 | Fig. 01.4 Fig. 01.5 | Fig. 02.1 | Input Signal Ground (SG) | Output CAN (Network) | Serial and Encoded Communications SCP Network | VARIANT: All Vehicles VIN RANGE: All DATE OF ISSUE: OCTOBER 1996 |
|---------------|------------------------|------------------------|-----------|-----------------------------|-------------------------|--|---|

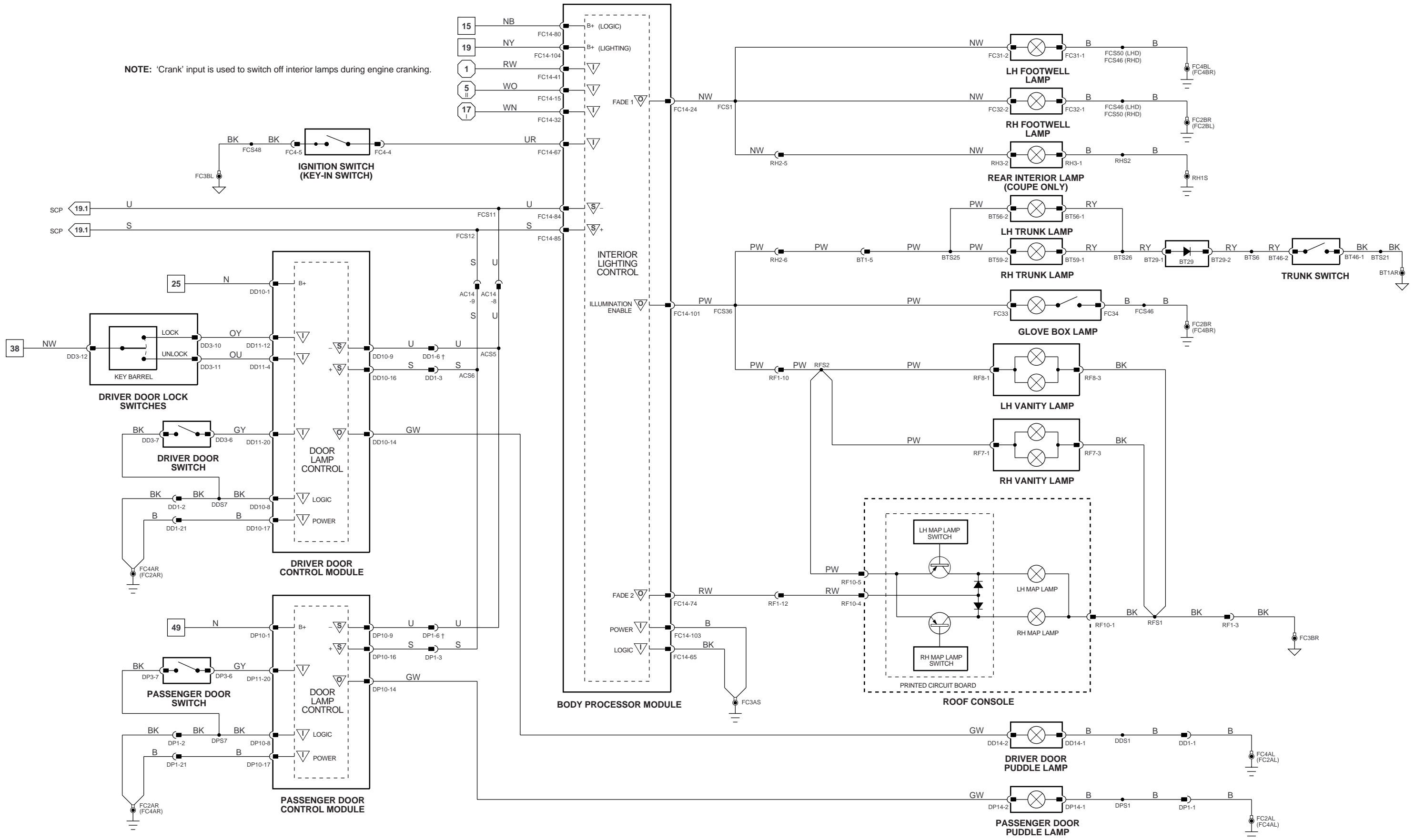




VARIANT: Headlamp Leveling Vehicles
VIN RANGE: All
DATE OF ISSUE: OCTOBER 1996

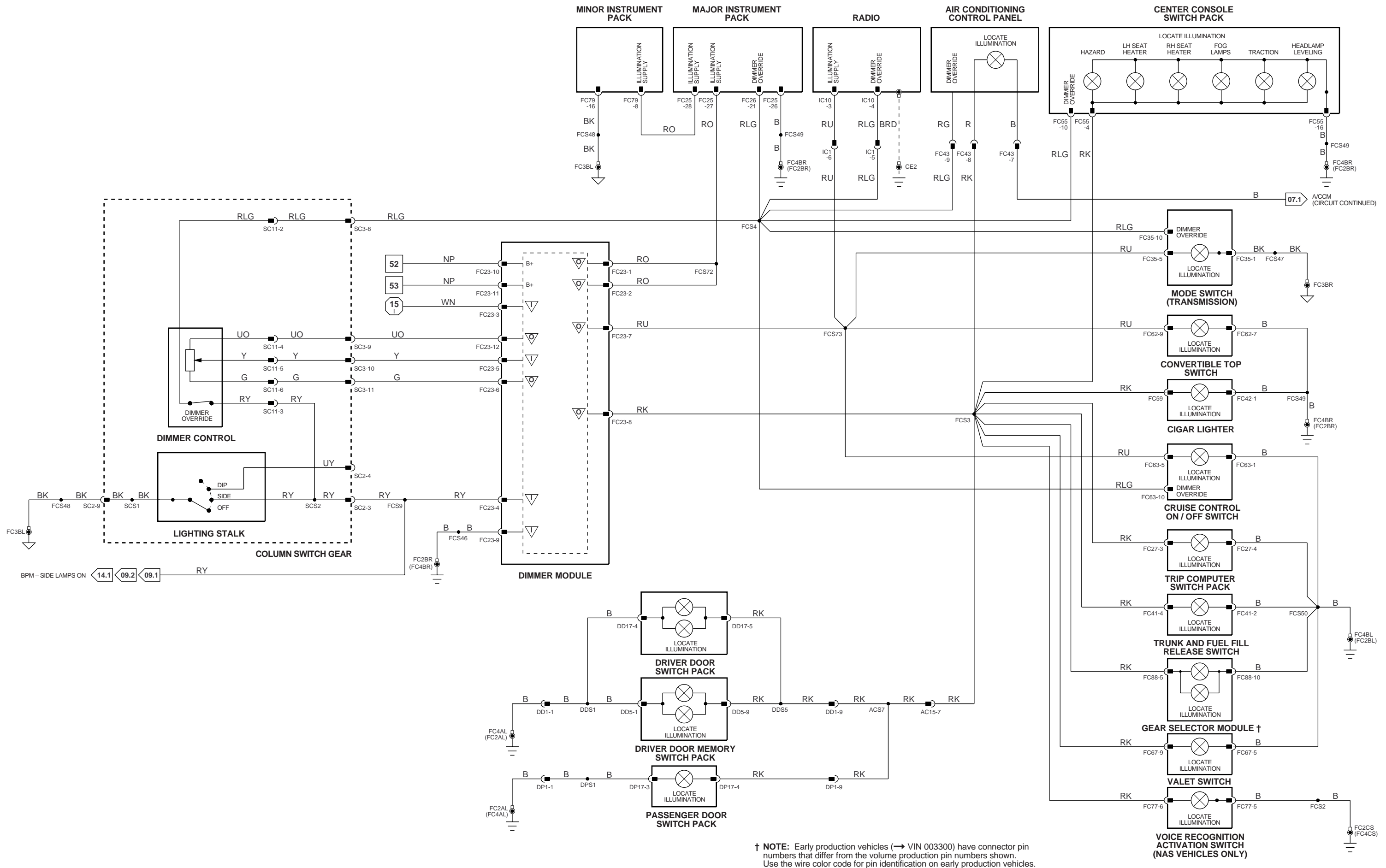


NOTE: 'Crank' input is used to switch off interior lamps during engine cranking.

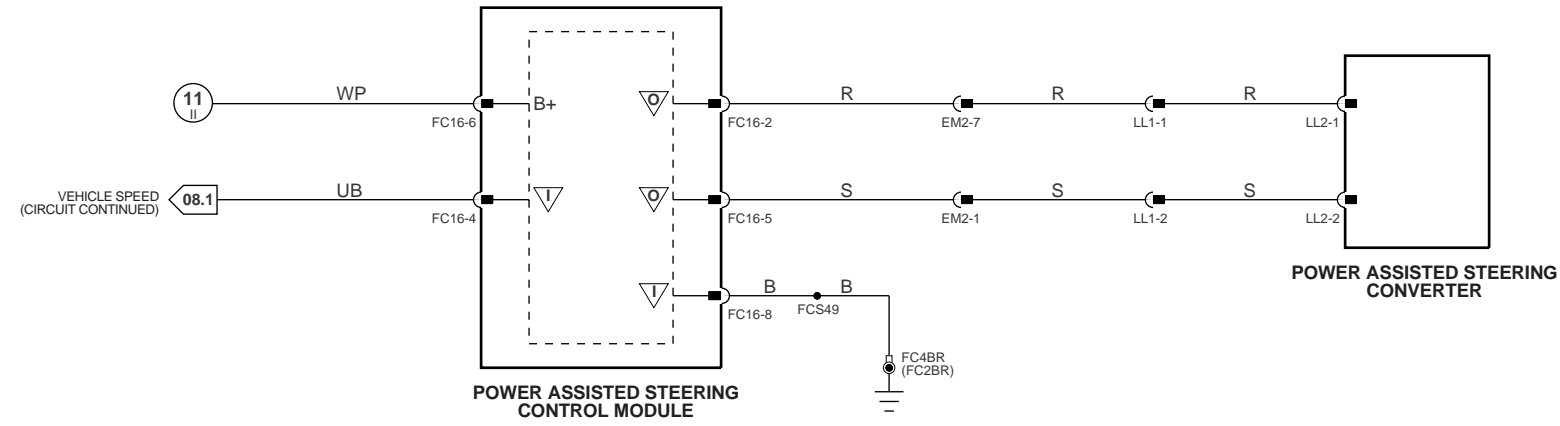


† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.

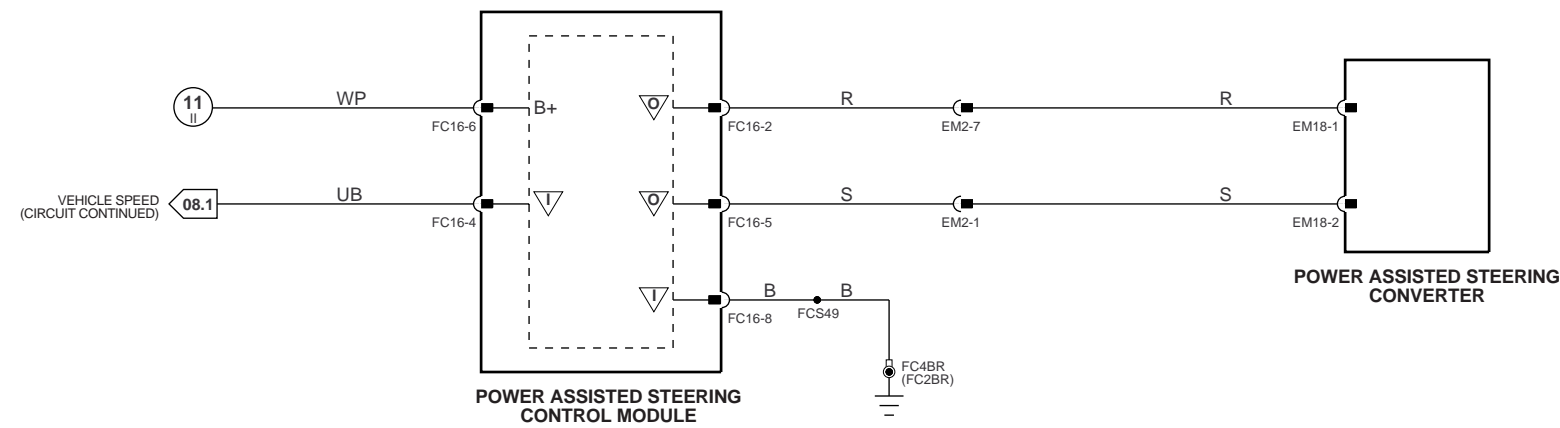
| | | | | | | | |
|------------------------|------------------------|------------------------|-----------|-----------------------------|-------------------------|--|---|
| Fig. 01.1 Fig. 01.1 | Fig. 01.2 Fig. 01.3 | Fig. 01.4 Fig. 01.5 | Fig. 02.1 | Input Signal Ground (SG) | Output CAN (Network) | Serial and Encoded Communications SCP Network | VARIANT: All Vehicles VIN RANGE: All DATE OF ISSUE: OCTOBER 1996 |
|------------------------|------------------------|------------------------|-----------|-----------------------------|-------------------------|--|---|



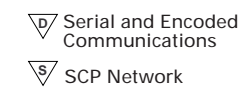
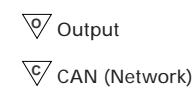
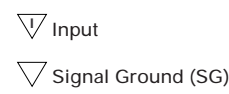
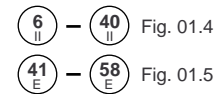
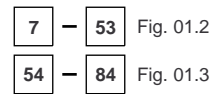
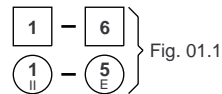
† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.



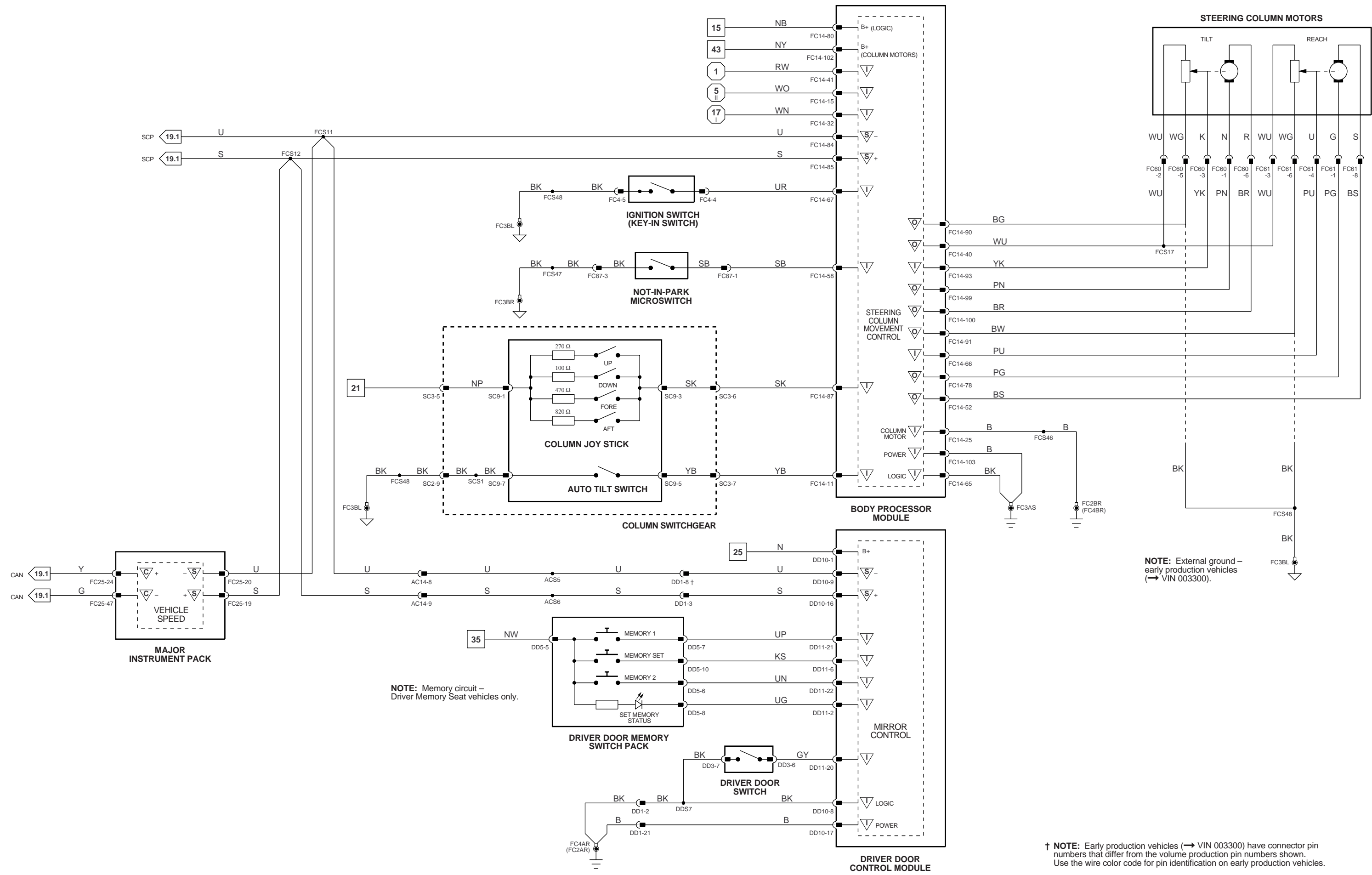
LHD



RHD



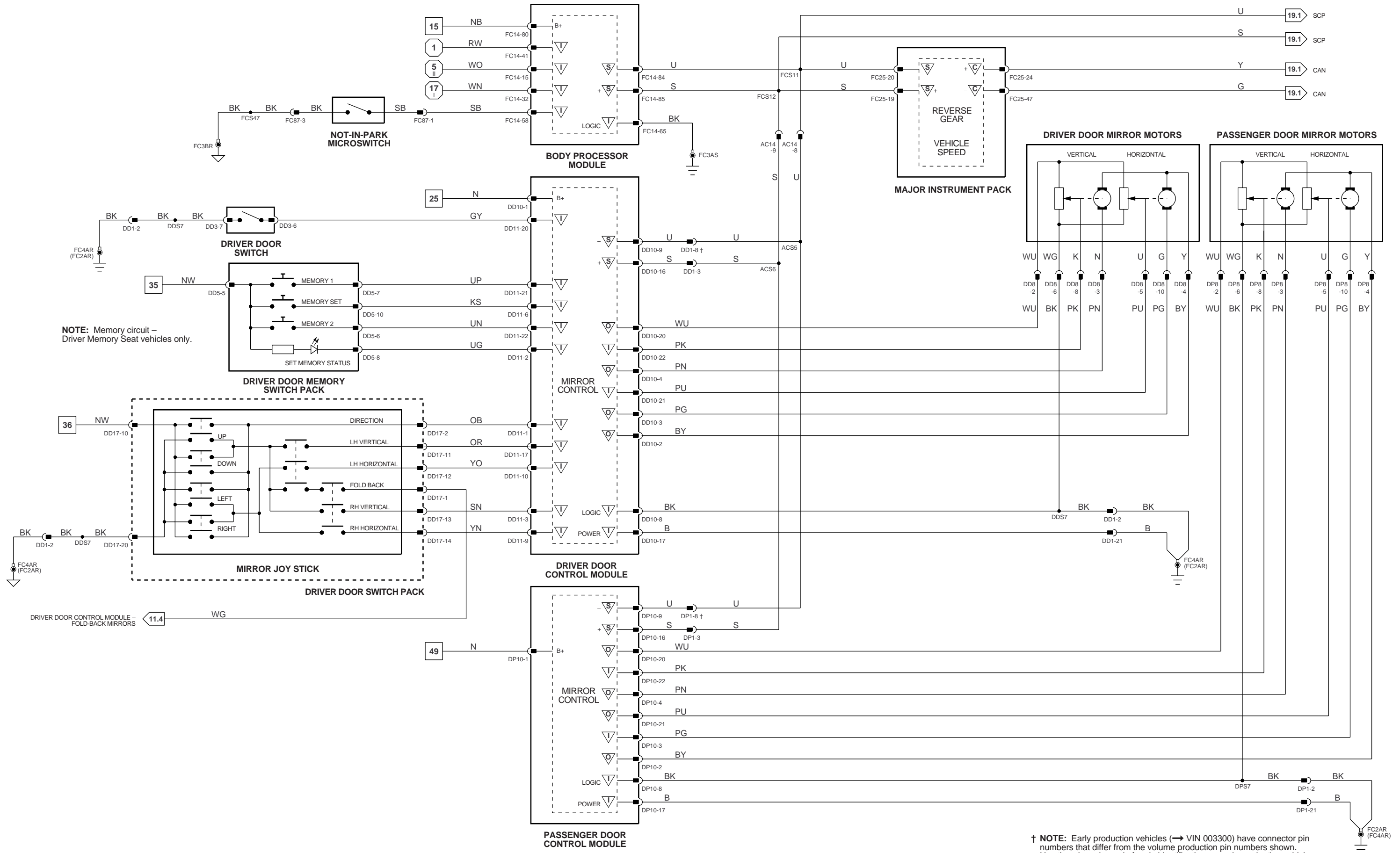
VARIANT: All Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



| | | |
|-------|---------|---------|
| 1 - 6 | 7 - 53 | 6 - 40 |
| 1 - 5 | 54 - 84 | 41 - 58 |

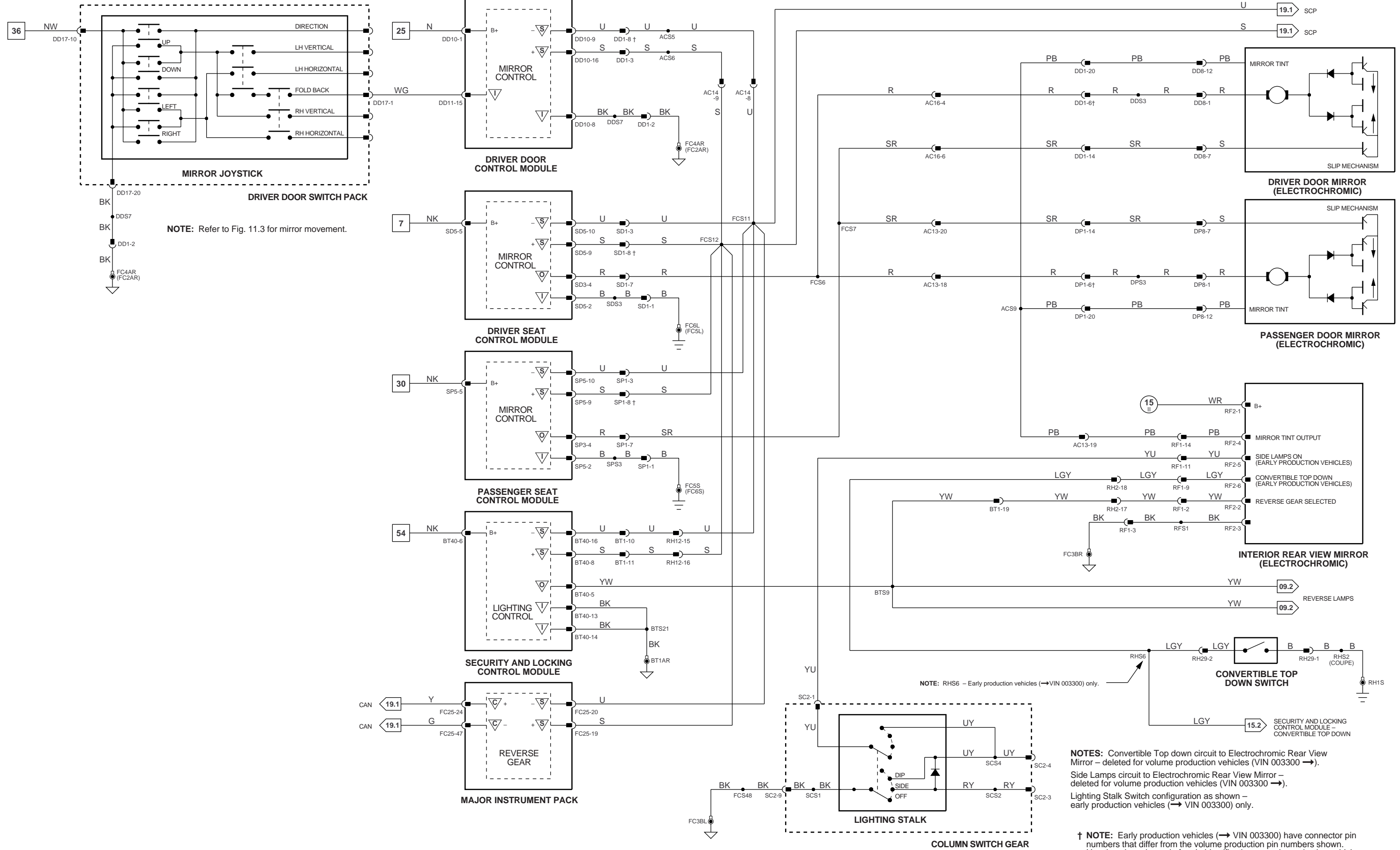
| | | | |
|--------|----------------------|-----------------|-------------------------------------|
| 1 - 19 | ▽ Input | ▽ Output | ▽ Serial and Encoded Communications |
| | ▽ Signal Ground (SG) | ▽ CAN (Network) | ▽ SCP Network |

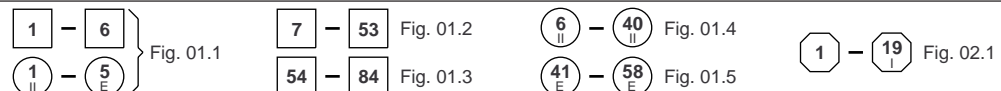
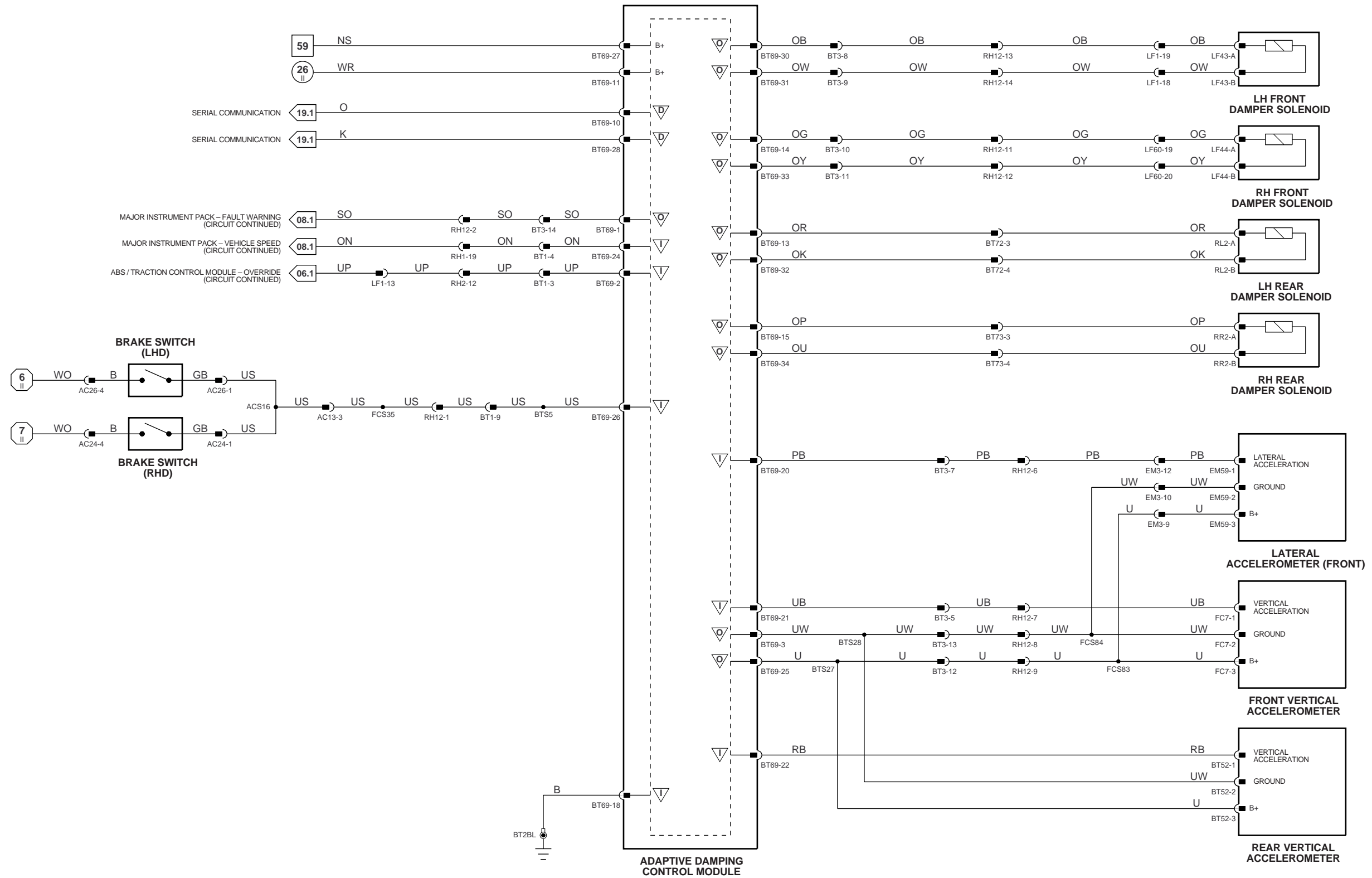
VARIANT: All Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



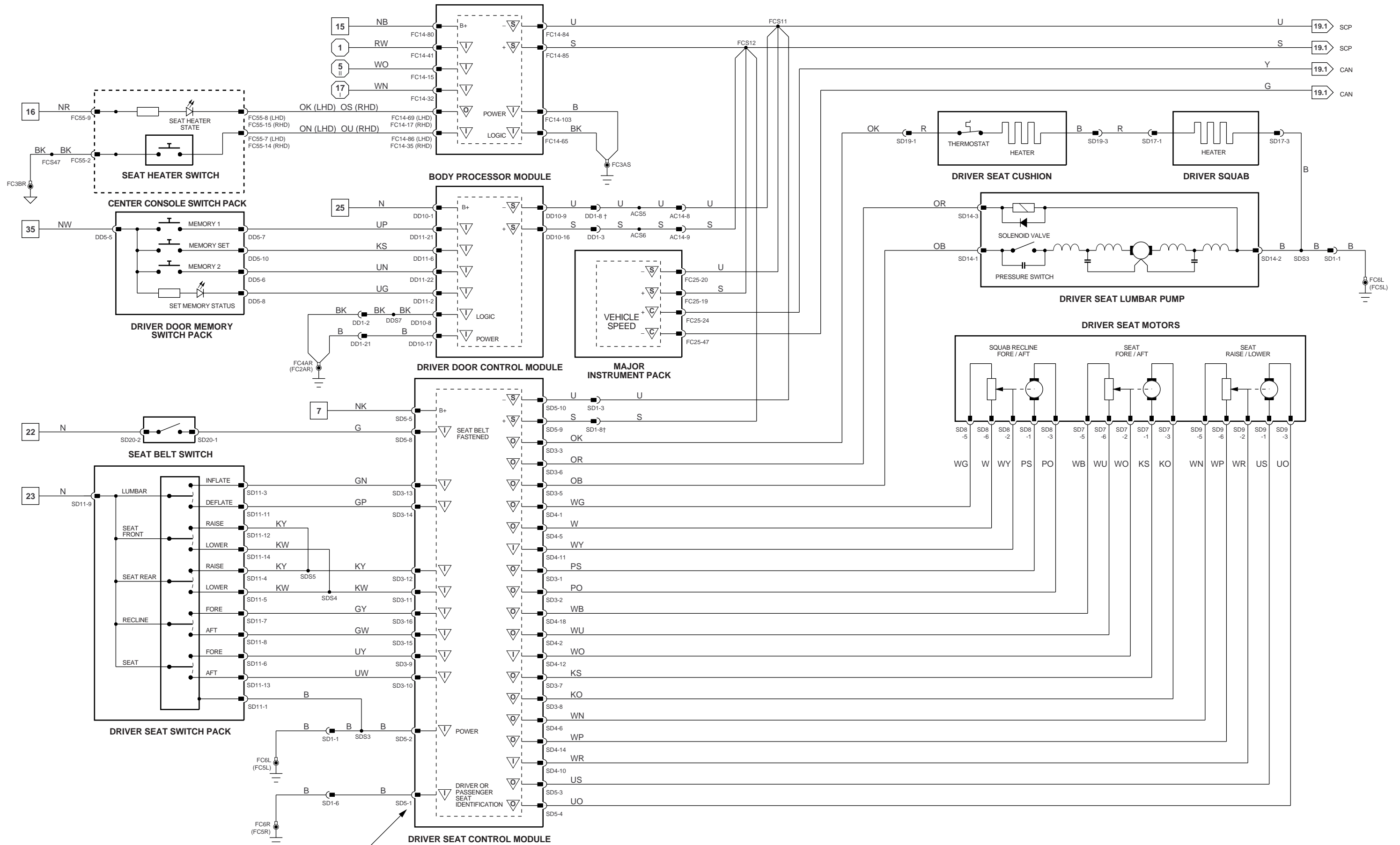
† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.

| | | | | | | | |
|------------------------|------------------------|------------------------|-----------|---------------------------------|-----------------------------|--|---|
| Fig. 01.1 Fig. 01.1 | Fig. 01.2 Fig. 01.3 | Fig. 01.4 Fig. 01.5 | Fig. 02.1 | ▽ Input ▽ Signal Ground (SG) | ▽ Output ▽ CAN (Network) | ▽ Serial and Encoded Communications ▽ SCP Network | VARIANT: All Vehicles VIN RANGE: All DATE OF ISSUE: OCTOBER 1996 |
|------------------------|------------------------|------------------------|-----------|---------------------------------|-----------------------------|--|---|





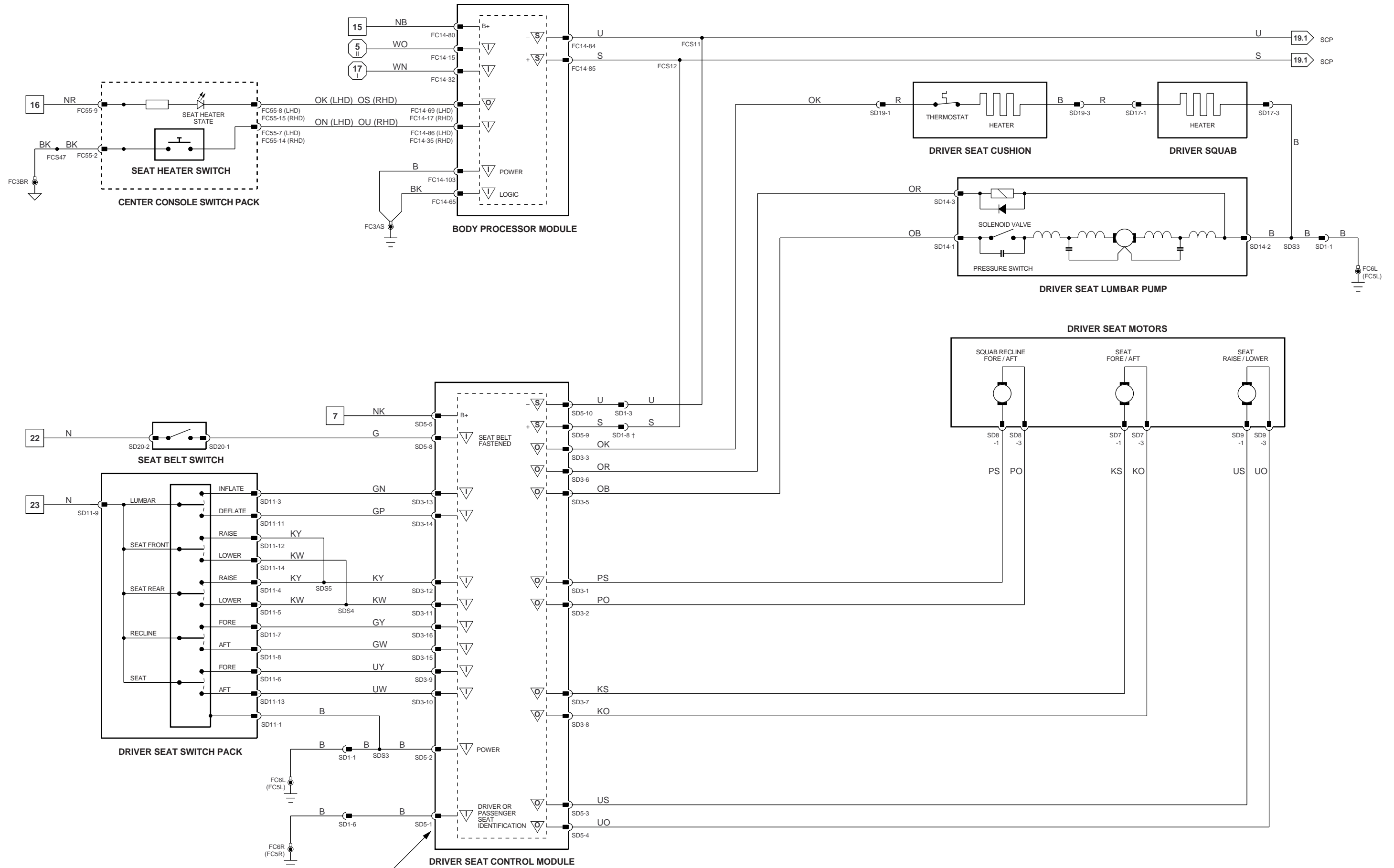
VARIANT: Adaptive Damping Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



NOTE: Early production vehicles (→ VIN 003300) - SD4-3.

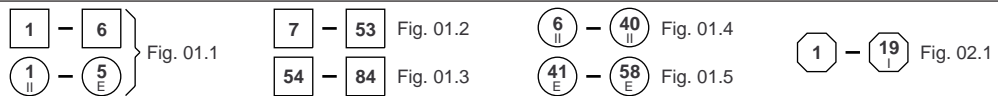
† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.

| | | | | | | | |
|------------------------|------------------------------|------------------------------|--------------|-----------------------------|-------------------------|--|---|
| - } Fig. 01.1 - } | - Fig. 01.2 - Fig. 01.3 | - Fig. 01.4 - Fig. 01.5 | - Fig. 02.1 | Input Signal Ground (SG) | Output CAN (Network) | Serial and Encoded Communications SCP Network | <p>VARIANT: Memory Seat Vehicles VIN RANGE: All DATE OF ISSUE: OCTOBER 1996</p> |
|------------------------|------------------------------|------------------------------|--------------|-----------------------------|-------------------------|--|---|



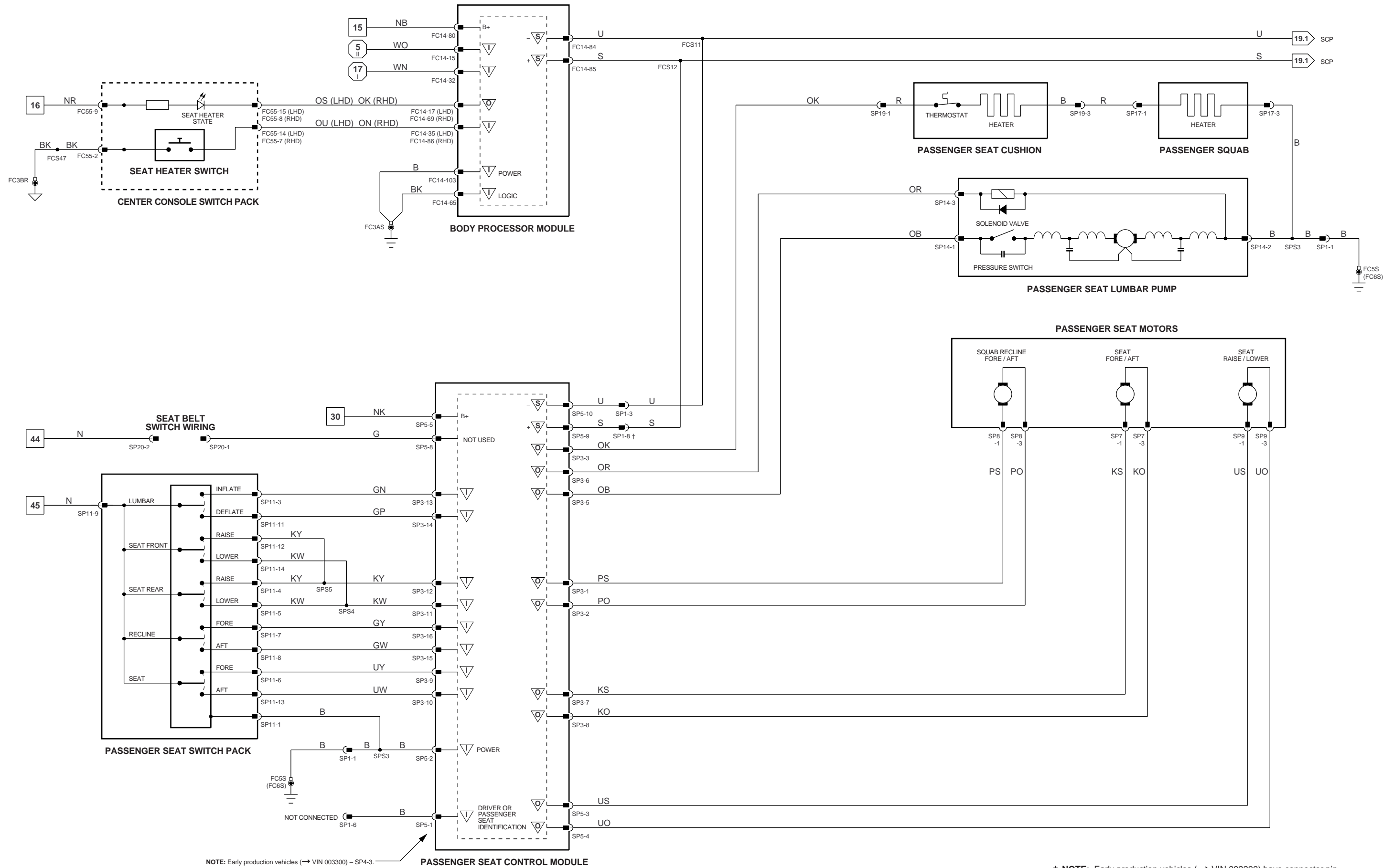
NOTE: Early production vehicles (→ VIN 003300) - SD4-3.

† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.



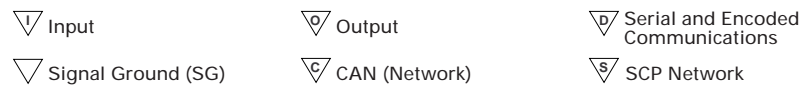
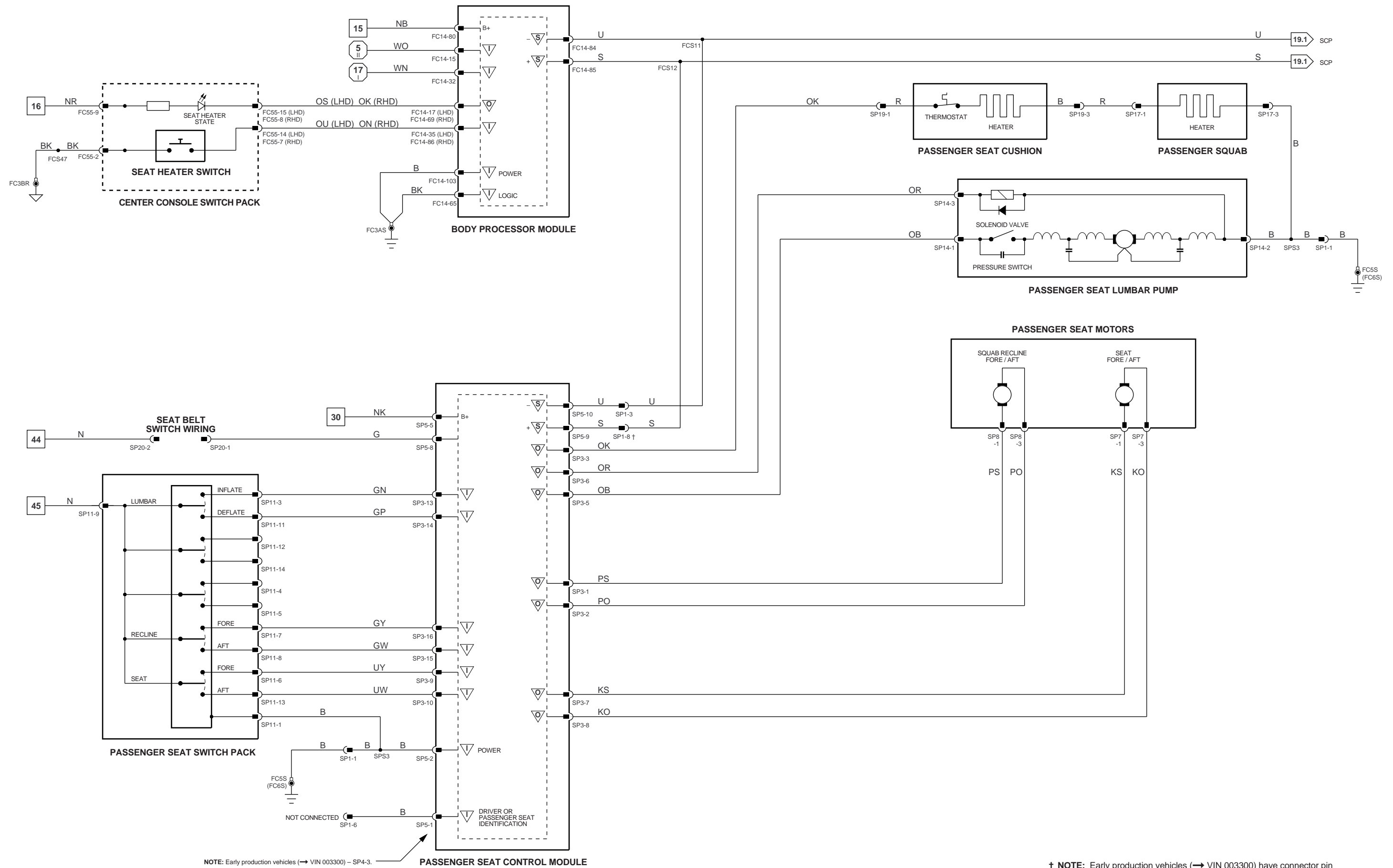
▽ Input
 ▽ Output
 ▽ Signal Ground (SG)
 ▽ CAN (Network)
 ▽ Serial and Encoded Communications
 ▽ SCP Network

VARIANT: Non Memory Seat Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996

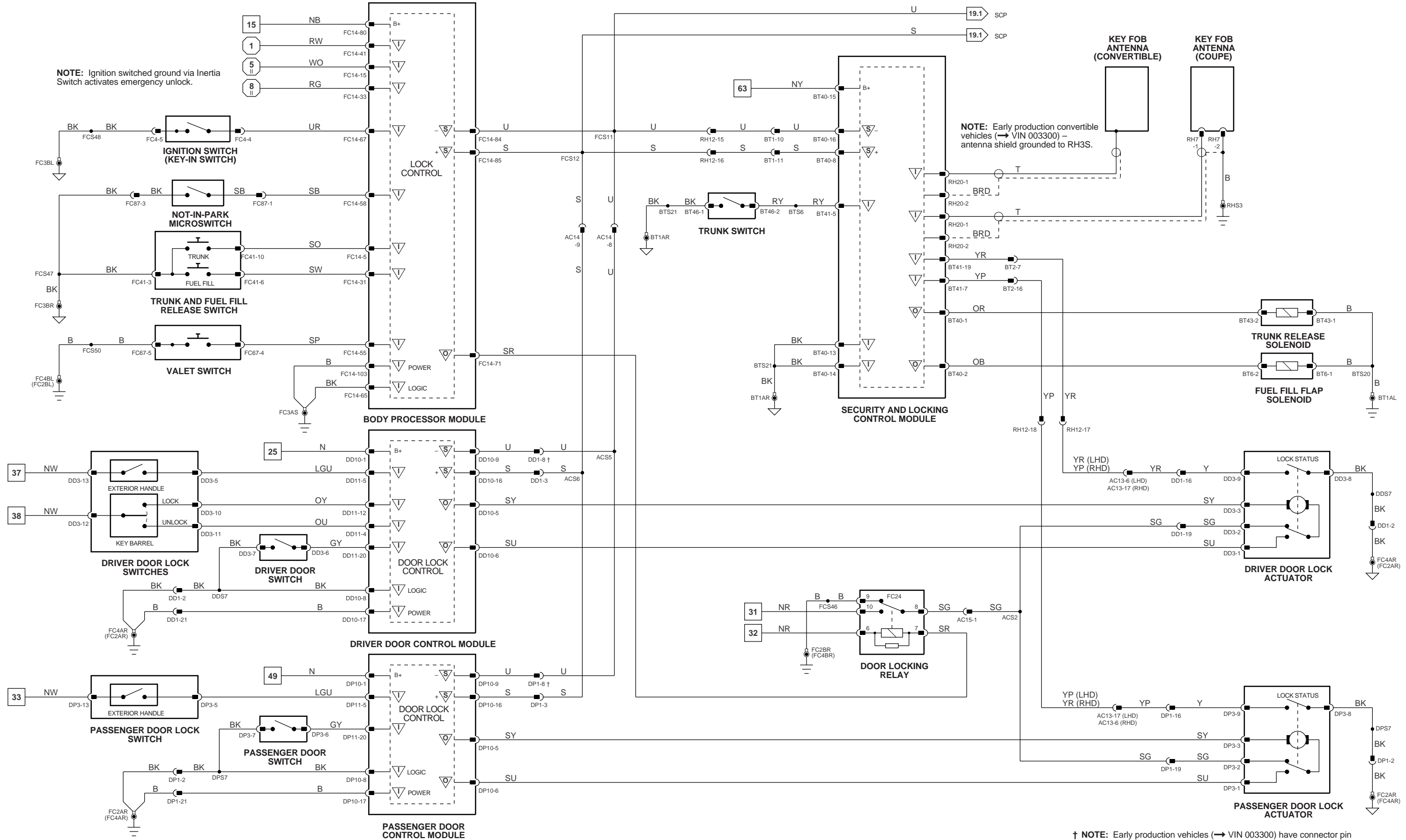


† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.

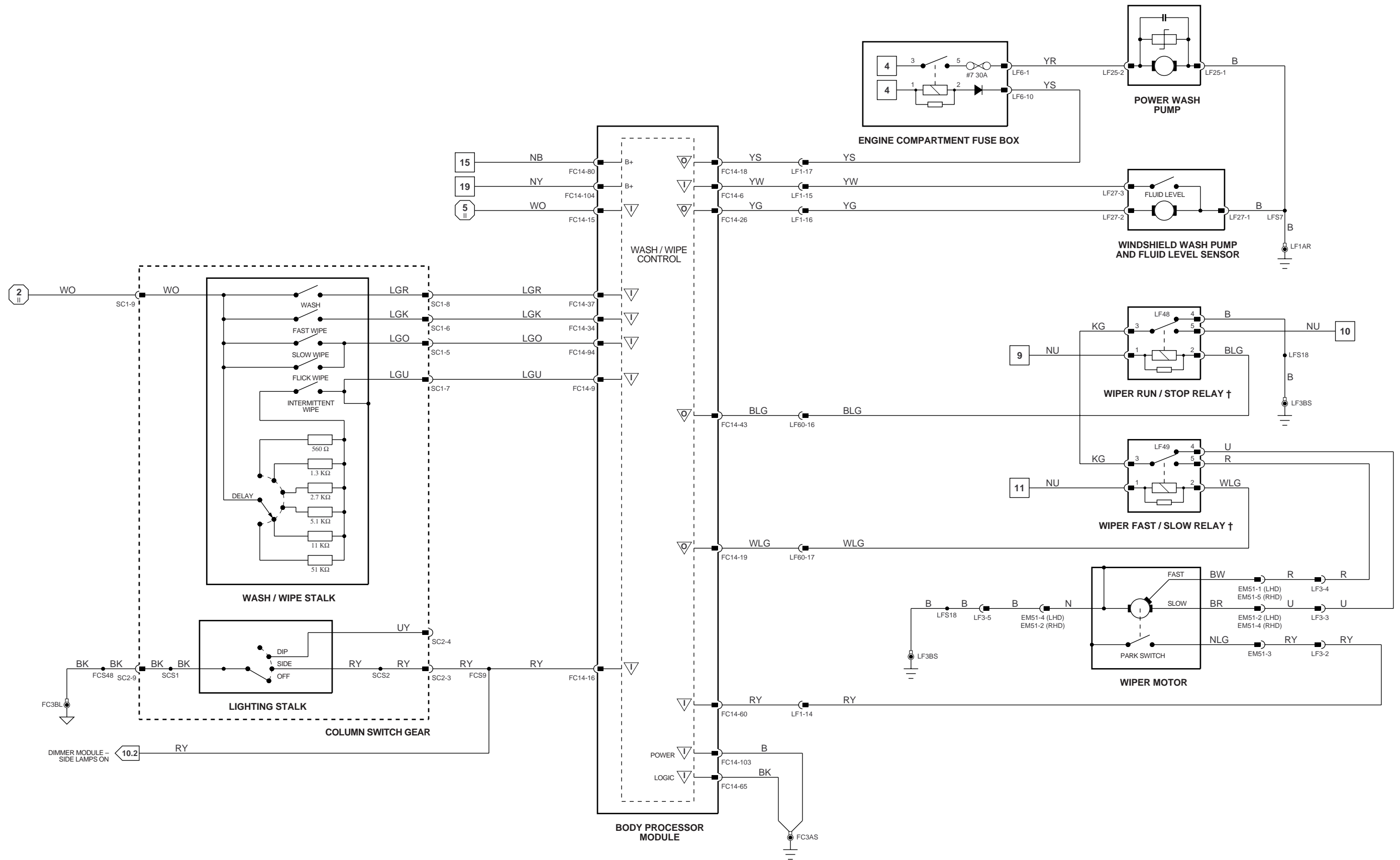
| | | | | | | | |
|---|--|--|---------------------------|--|--|---|--|
| <p>1 - 6 } Fig. 01.1</p> <p>1 - 5 } Fig. 01.1</p> | <p>7 - 53 } Fig. 01.2</p> <p>54 - 84 } Fig. 01.3</p> | <p>6 - 40 } Fig. 01.4</p> <p>41 - 58 } Fig. 01.5</p> | <p>1 - 19 } Fig. 02.1</p> | <p>▽ Input</p> <p>▽ Signal Ground (SG)</p> | <p>▽ Output</p> <p>▽ CAN (Network)</p> | <p>▽ Serial and Encoded Communications</p> <p>▽ SCP Network</p> | <p>VARIANT: 3-Way Movement Vehicles</p> <p>VIN RANGE: All</p> <p>DATE OF ISSUE: OCTOBER 1996</p> |
|---|--|--|---------------------------|--|--|---|--|



VARIANT: 2-Way Movement Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996

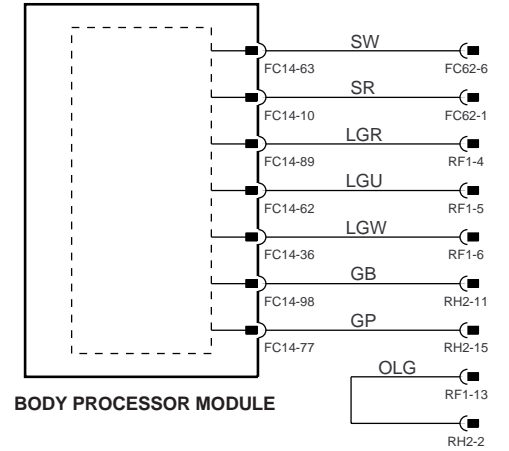
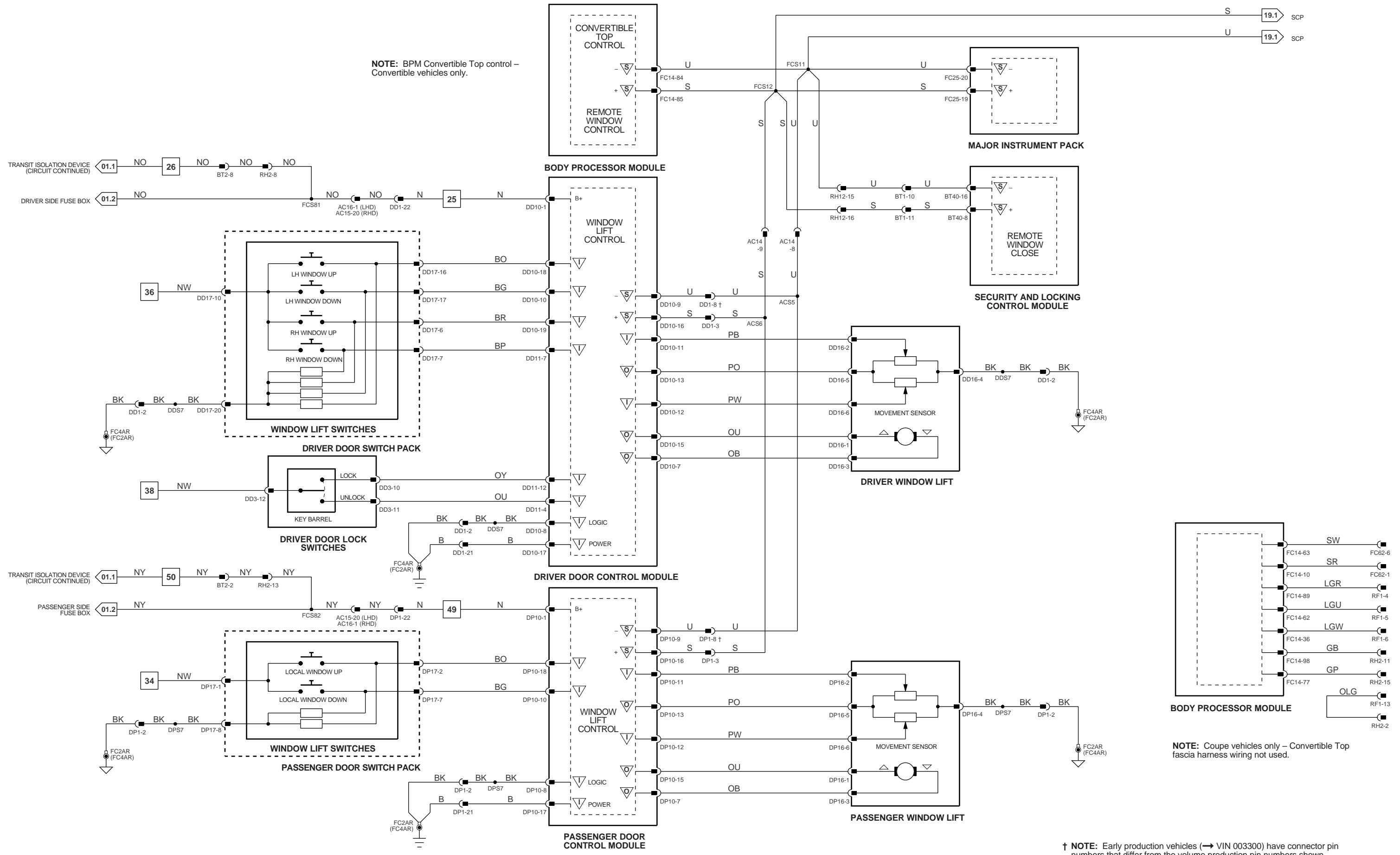


| | | | | | | | |
|---------------|------------------------|------------------------|-----------|-----------------------------|-------------------------|--|---|
| Fig. 01.1 | Fig. 01.2 Fig. 01.3 | Fig. 01.4 Fig. 01.5 | Fig. 02.1 | Input Signal Ground (SG) | Output CAN (Network) | Serial and Encoded Communications SCP Network | VARIANT: All Vehicles VIN RANGE: All DATE OF ISSUE: OCTOBER 1996 |
|---------------|------------------------|------------------------|-----------|-----------------------------|-------------------------|--|---|



† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.

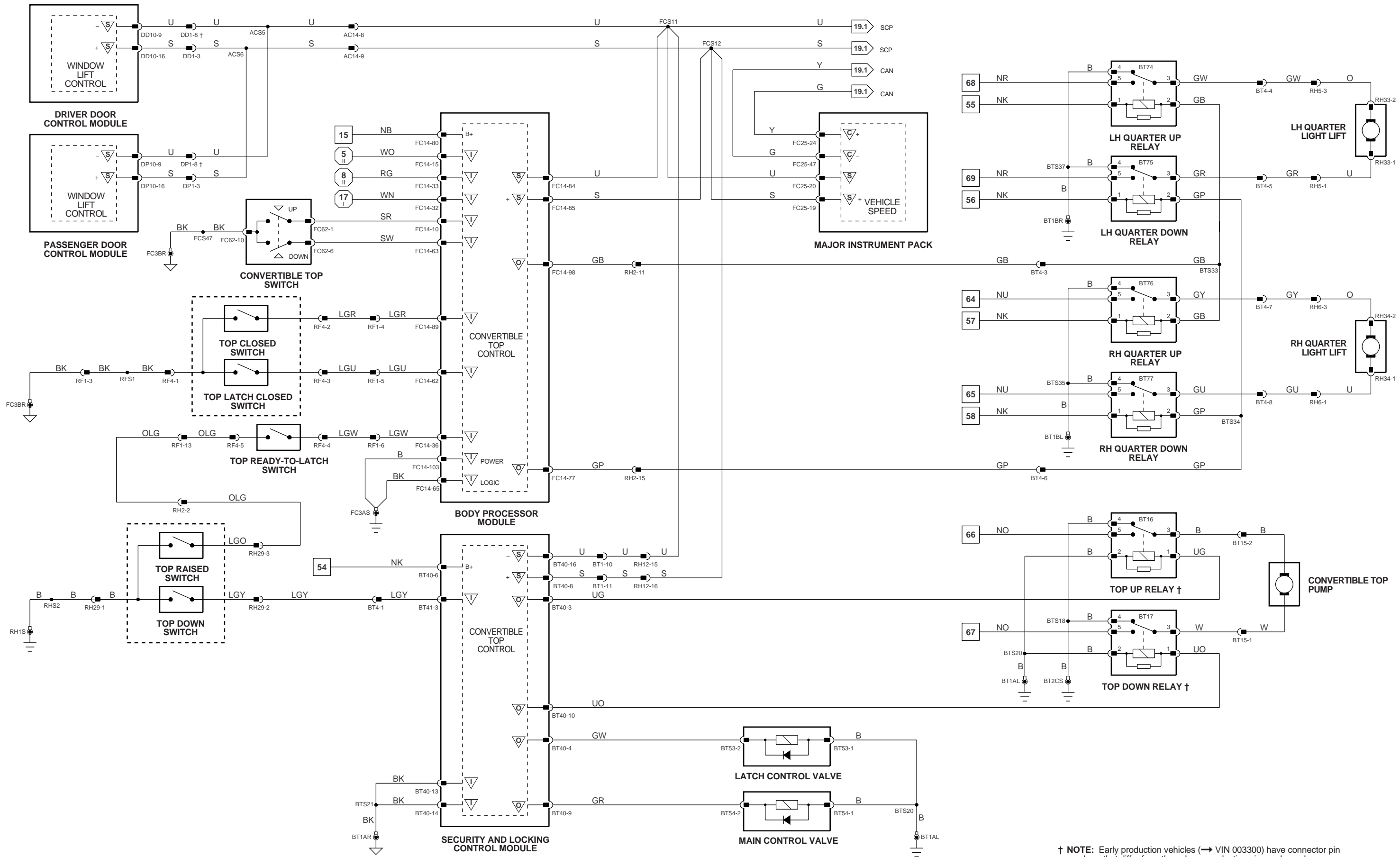
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|---------------|------------------------|------------------------|-----------|-----------------------------|-------------------------|--|---|
| Fig. 01.1 | Fig. 01.2 Fig. 01.3 | Fig. 01.4 Fig. 01.5 | Fig. 02.1 | Input Signal Ground (SG) | Output CAN (Network) | Serial and Encoded Communications SCP Network | <p>VARIANT: All Vehicles VIN RANGE: All DATE OF ISSUE: OCTOBER 1996</p> |
|---------------|------------------------|------------------------|-----------|-----------------------------|-------------------------|--|---|



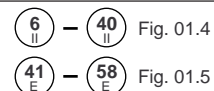
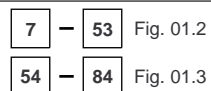
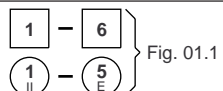
NOTE: Coupe vehicles only – Convertible Top fascia harness wiring not used.

† **NOTE:** Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.

| | | | |
|--|---|---|---|
| | <p>1 - 6 } Fig. 01.1</p> <p>1 - 5 } Fig. 01.1</p> <p>7 - 53 } Fig. 01.2</p> <p>54 - 84 } Fig. 01.3</p> <p>6 - 40 } Fig. 01.4</p> <p>41 - 58 } Fig. 01.5</p> <p>1 - 19 } Fig. 02.1</p> | <p>▽ Input</p> <p>▽ Signal Ground (SG)</p> <p>▽ Output</p> <p>▽ CAN (Network)</p> <p>▽ Serial and Encoded Communications</p> <p>▽ SCP Network</p> | <p>VARIANT: All Vehicles</p> <p>VIN RANGE: All</p> <p>DATE OF ISSUE: OCTOBER 1996</p> |
|--|---|---|---|



† NOTE: Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.



▽ Input

▽ Output

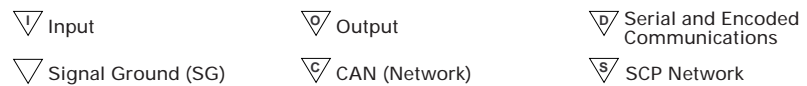
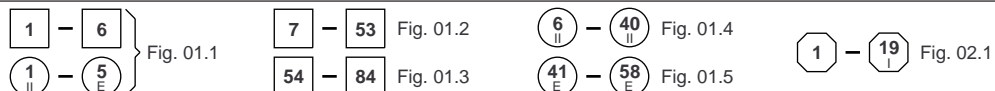
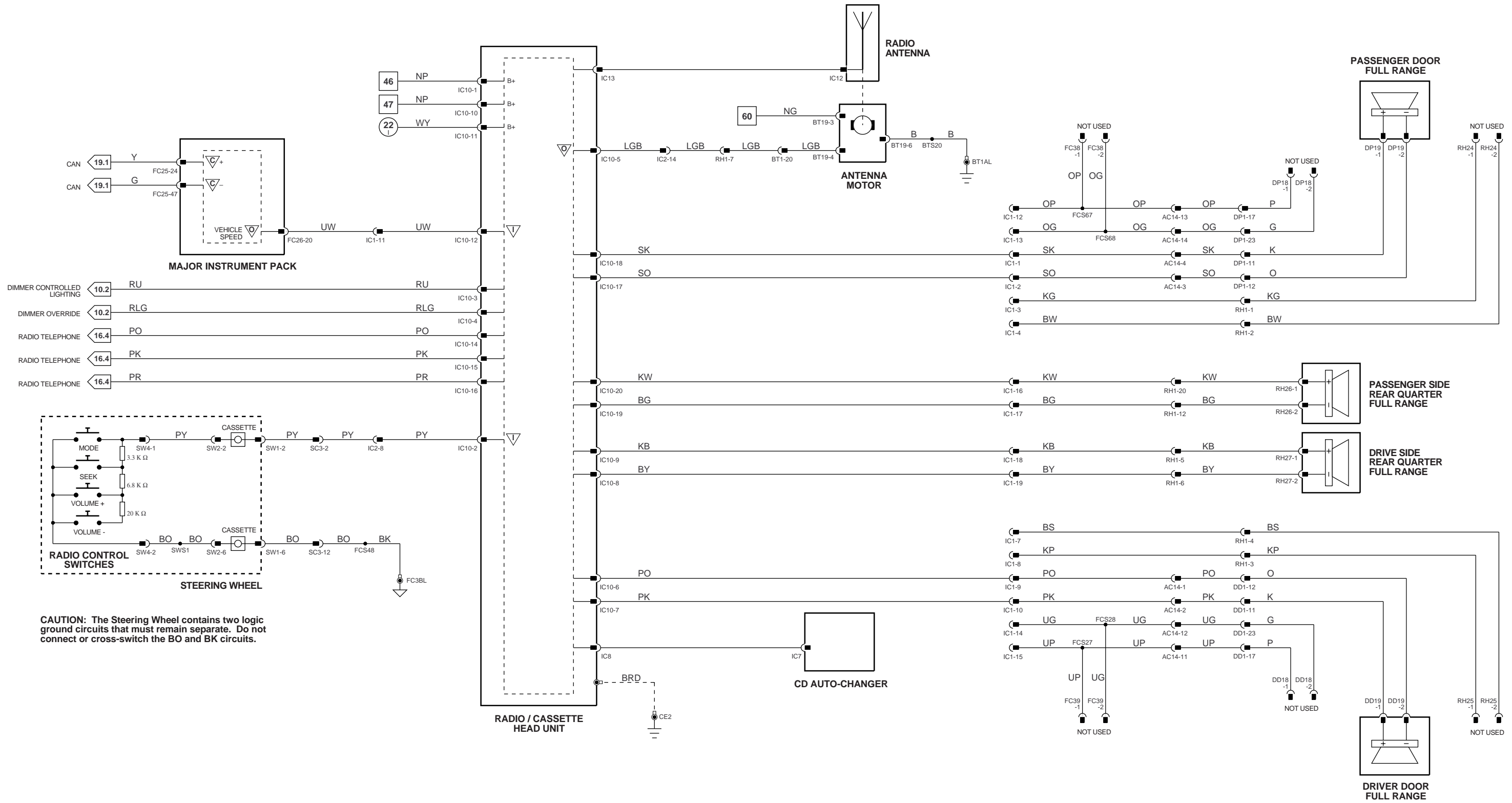
▽ Serial and Encoded Communications

▽ Signal Ground (SG)

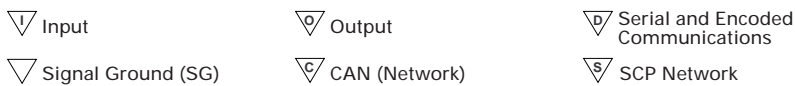
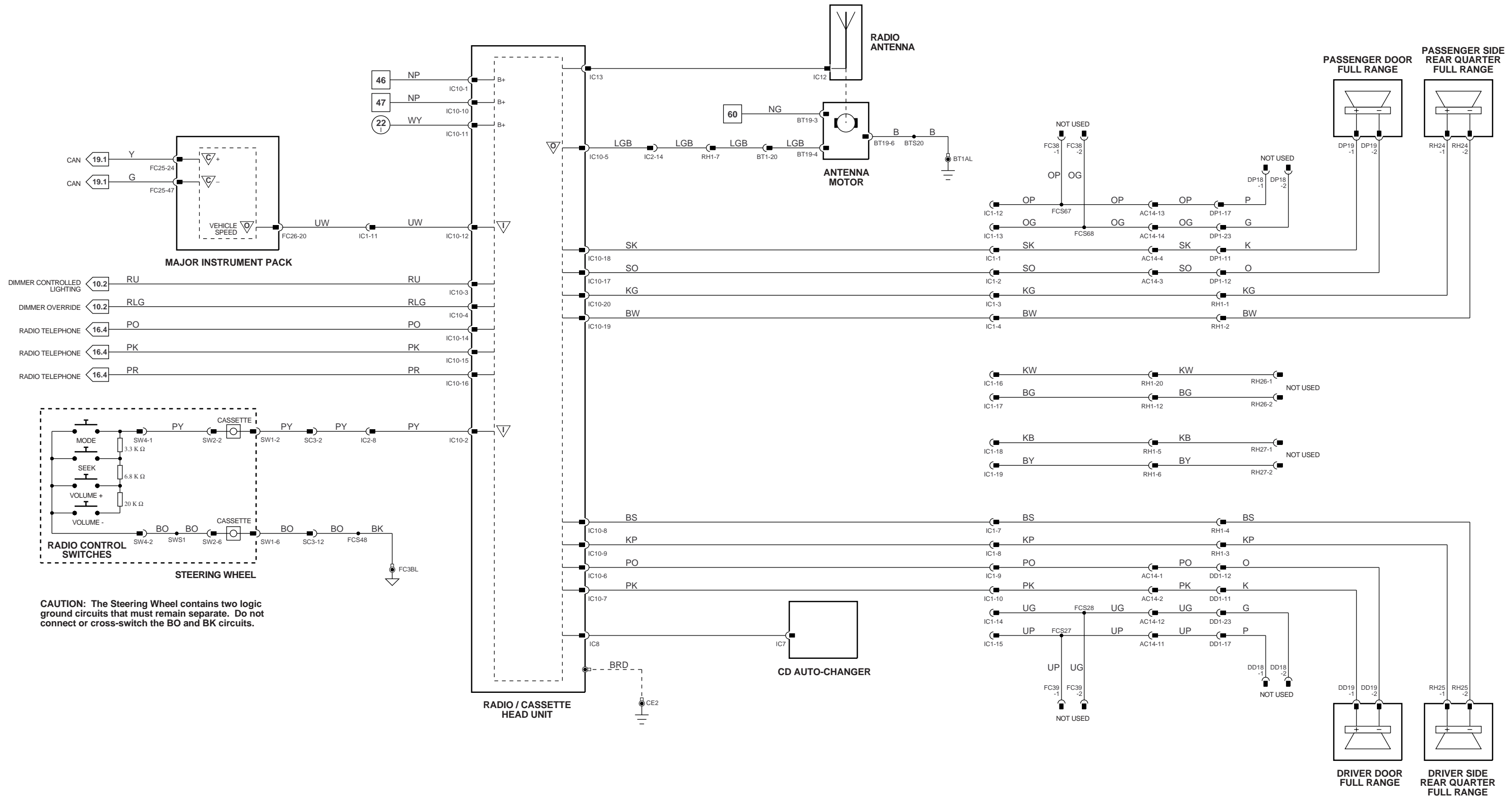
▽ CAN (Network)

▽ SCP Network

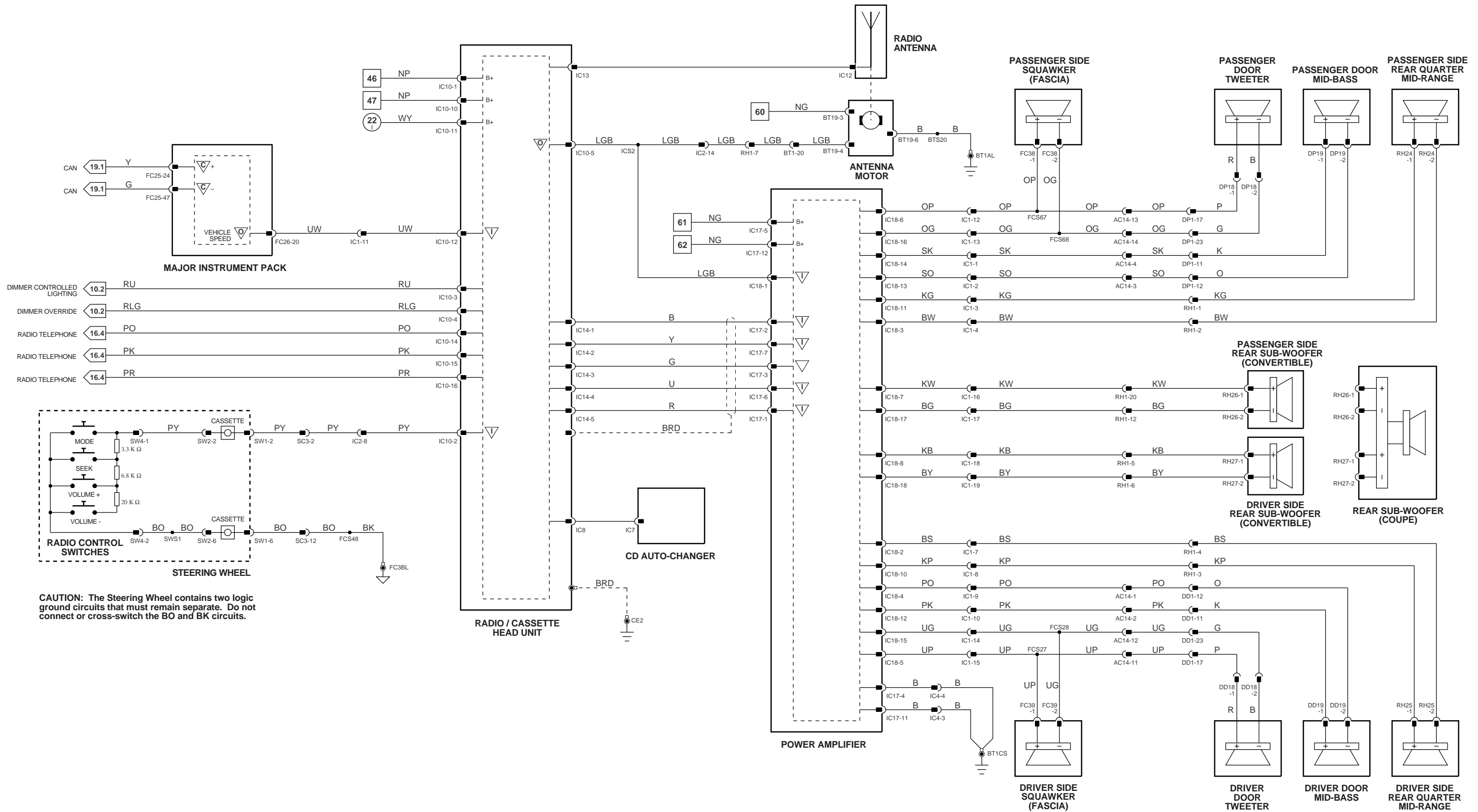
VARIANT: Convertible Vehicles
VIN RANGE: All
DATE OF ISSUE: OCTOBER 1996



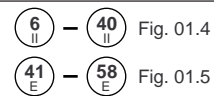
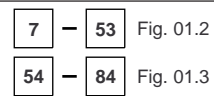
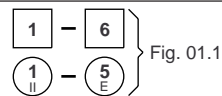
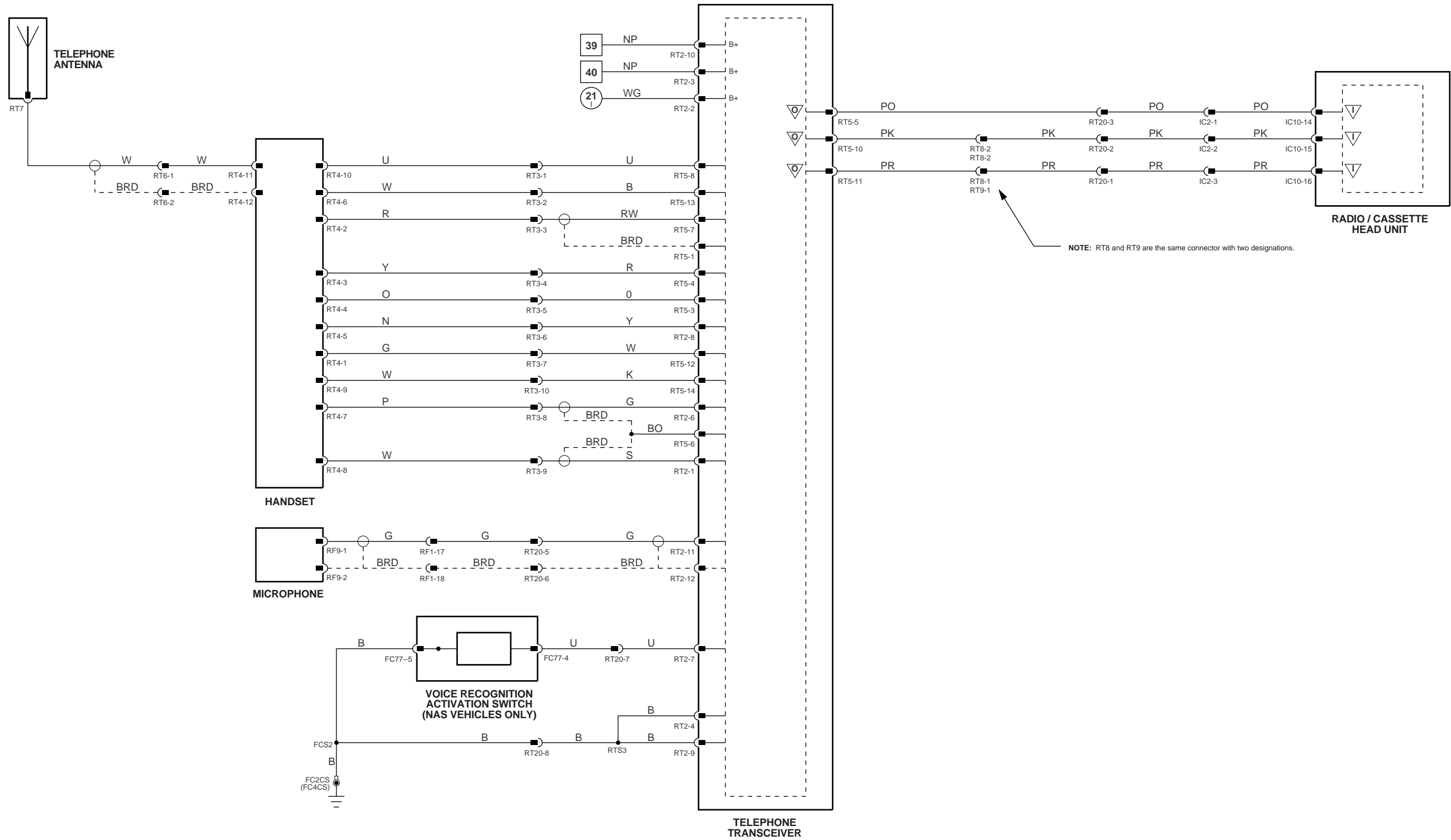
VARIANT: Convertible Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



VARIANT: Coupe Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



VARIANT: Premium ICE Vehicles
 VIN RANGE: All
 DATE OF ISSUE: OCTOBER 1996



▽ Input

▽ Signal Ground (SG)

▽ Output

▽ CAN (Network)

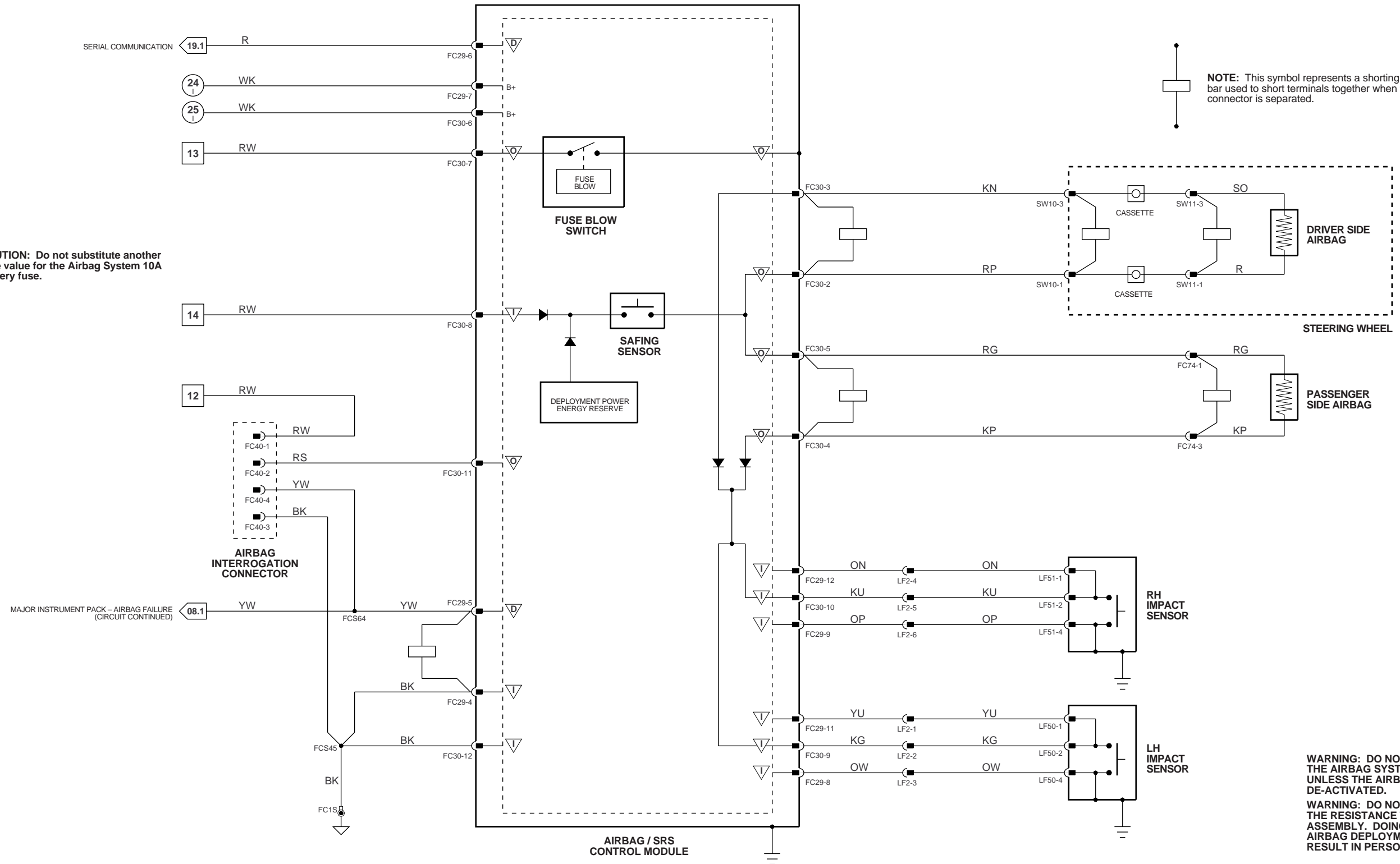
▽ Serial and Encoded Communications

▽ SCP Network

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: OCTOBER 1996



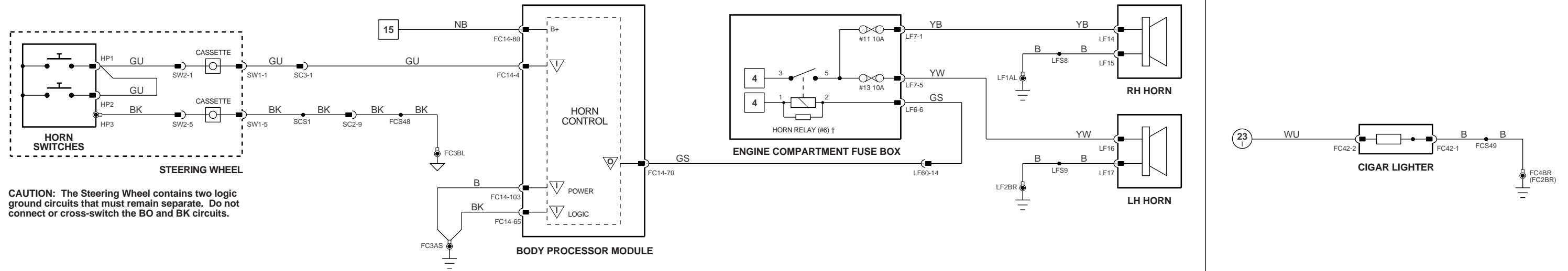
CAUTION: Do not substitute another fuse value for the Airbag System 10A Battery fuse.



NOTE: This symbol represents a shorting bar used to short terminals together when the connector is separated.

WARNING: DO NOT ATTEMPT TO REPLACE THE AIRBAG SYSTEM 10A BATTERY FUSE UNLESS THE AIRBAG SYSTEM HAS BEEN DE-ACTIVATED.

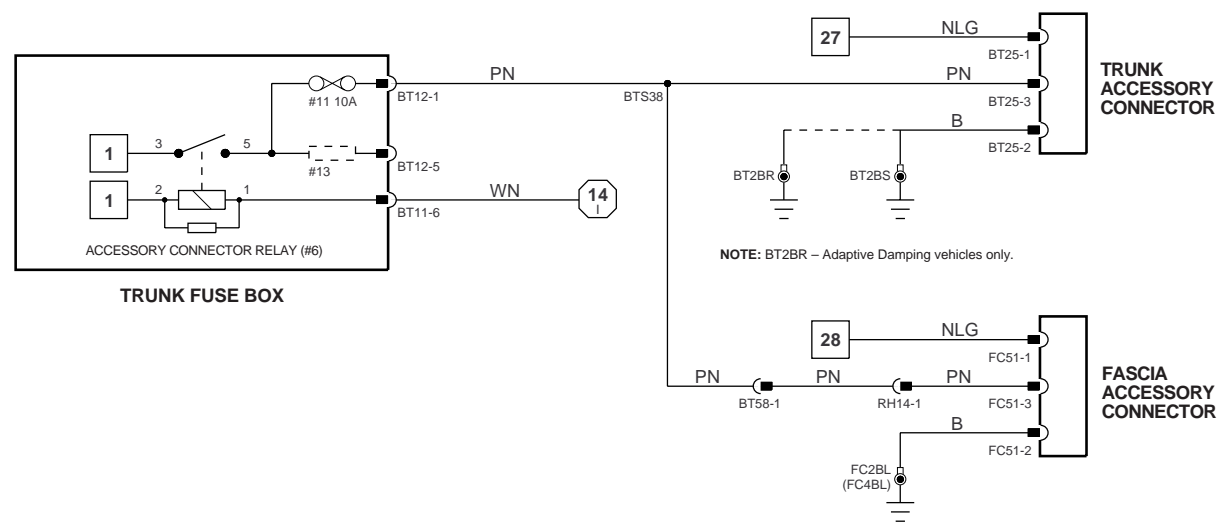
WARNING: DO NOT ATTEMPT TO MEASURE THE RESISTANCE THROUGH THE AIRBAG ASSEMBLY. DOING SO MAY TRIGGER AIRBAG DEPLOYMENT AND POSSIBLY RESULT IN PERSONAL INJURY.



CAUTION: The Steering Wheel contains two logic ground circuits that must remain separate. Do not connect or cross-switch the BO and BK circuits.

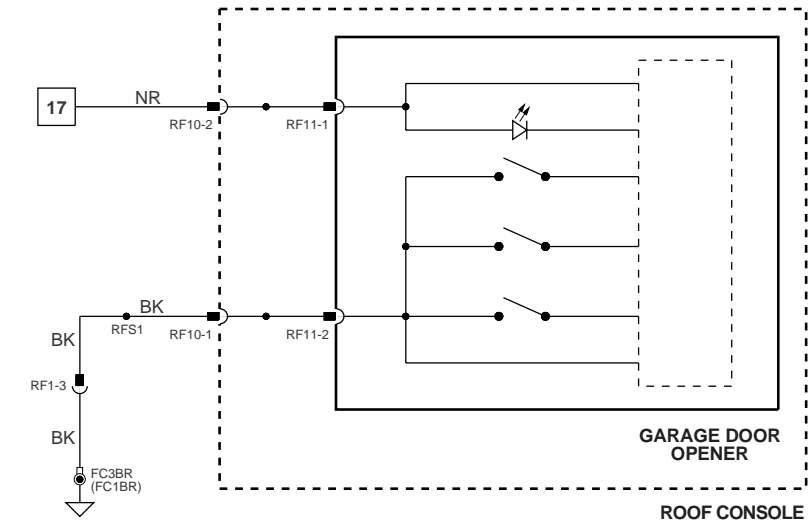
HORNS

CIGAR LIGHTER

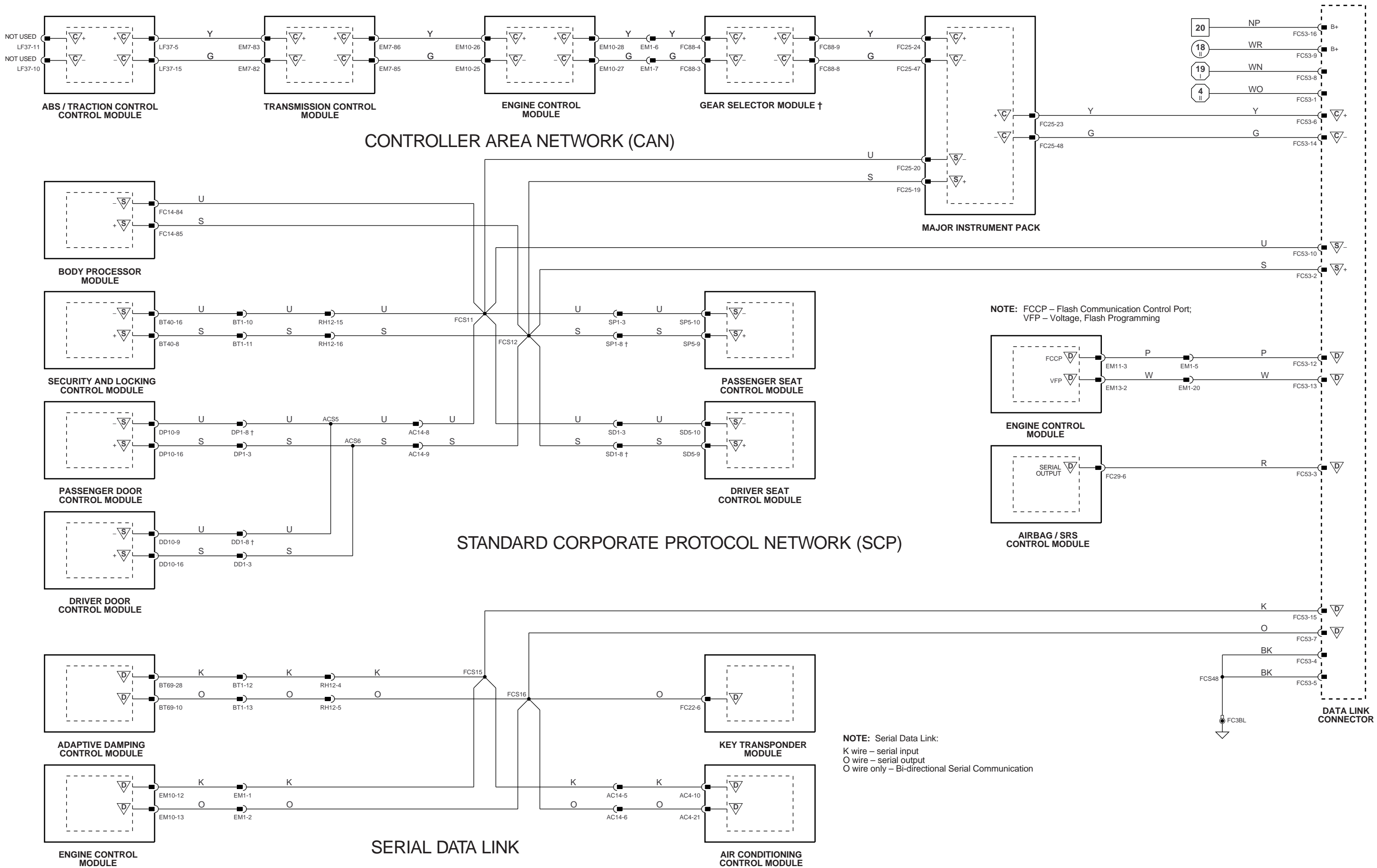


ACCESSORY CONNECTORS

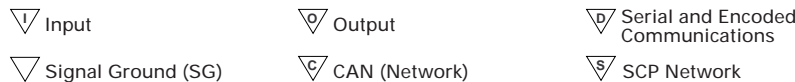
GARAGE DOOR OPENER



† **NOTE:** Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.



† **NOTE:** Early production vehicles (→ VIN 003300) have connector pin numbers that differ from the volume production pin numbers shown. Use the wire color code for pin identification on early production vehicles.



VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: OCTOBER 1996

Fig. 01.1**COMPONENTS**

| Component | Connector / Type / Color | Location / Access |
|------------------------------------|--|---|
| BATTERY | BT66 / EYELET BT67 / EYELET | TRUNK, RIGHT HAND SIDE |
| DELAY TIMER (TRANSIT MINI HARNESS) | LT3 / 9-WAY RELAY / BROWN | TRUNK / ADJACENT TO BATTERY |
| DIODE (LT2) - TRANSIT ISOLATION | LT2 / DIODE | TRUNK / ADJACENT TO BATTERY |
| FUSE BOX - DRIVER SIDE | FC5 / 10-WAY U.T.A. FUSEBOX / NATURAL FC6 / 10-WAY U.T.A. FUSEBOX / BLACK FC90 / EYELET FC92 / EYELET | FASCIA / DRIVER SIDE |
| FUSE BOX - ENGINE COMPARTMENT | LF5 / 10-WAY U.T.A. FUSEBOX / WHITE LF6 / 10-WAY U.T.A. FUSEBOX / BLACK LF7 / 10-WAY U.T.A. FUSEBOX / GREEN LF8 / 10-WAY U.T.A. FUSEBOX / BLUE LF70 / EYELET | ENGINE COMPARTMENT / LEFT FRONT |
| FUSE BOX - ENGINE MANAGEMENT | EM19 / 10-WAY U.T.A. FUSEBOX / WHITE EM20 / 10-WAY U.T.A. FUSEBOX / BLACK EM70 / EYELET | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| FUSE BOX - PASSENGER SIDE | FC20 / 10-WAY U.T.A. FUSEBOX / NATURAL FC21 / 10-WAY U.T.A. FUSEBOX / BLACK FC90 / EYELET FC93 / EYELET | FASCIA / PASSENGER SIDE |
| FUSE BOX - TRUNK | BT10 / 10-WAY U.T.A. FUSEBOX / NATURAL BT11 / 10-WAY U.T.A. FUSEBOX / BLACK BT12 / 10-WAY U.T.A. FUSEBOX / GREEN BT13 / 10-WAY U.T.A. FUSEBOX / BLUE BT64 / EYELET | TRUNK / ELECTRICAL CARRIER |
| HIGH POWER PROTECTION MODULE | BT60 / EYELET BT61 / EYELET BT62 / EYELET BT63 / EYELET | TRUNK / ADJACENT TO BATTERY |
| TRANSIT ISOLATION DEVICE | BT44 / 2-WAY FCONOSEAL III HC / BLACK BT65 / EYELET BT66 / EYELET LT1 / LUCAR | TRUNK / ADJACENT TO BATTERY |
| TRUNK ACCESSORY CONNECTOR | BT25 / 3-WAY AMP SERIES 250 PIN / BLACK | TRUNK / ADJACENT TO BATTERY |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|--------------------------|----------------|-------------------|-----------------------------|
| AUXILIARY POSITIVE RELAY | BROWN | BUS | PASSENGER SIDE FUSE BOX |
| EMS CONTROL RELAY | BROWN | BUS | ENGINE MANAGEMENT FUSE BOX |
| IGNITION POSITIVE RELAY | BROWN | BUS | DRIVER SIDE FUSE BOX |
| IGNITION POSITIVE RELAY | BROWN | BUS | ENGINE COMPARTMENT FUSE BOX |
| IGNITION POSITIVE RELAY | BROWN | BUS | TRUNK FUSE BOX |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|--------------|--|
| BT49 | LUCAR | TRUNK / ADJACENT TO BATTERY |
| BT79 | EYELET | TRANSMISSION TUNNEL |
| BT80 | EYELET | ENGINE COMPARTMENT / FALSE BULKHEAD, RIGHT HAND SIDE |
| EM71 | EYELET | TRANSMISSION TUNNEL |
| FC91 | EYELET | TRANSMISSION TUNNEL |
| LF71 | EYELET | TRANSMISSION TUNNEL |
| ST1 | EYELET | ENGINE COMPARTMENT / FALSE BULKHEAD, RIGHT HAND SIDE |

GROUNDS

| Ground | Location / Type |
|--------|--|
| BT68 | BATTERY GROUND STUD |
| BT2BR | EYELET (PAIR) - RIGHT HAND LEG / TRUNK, RIGHT REAR |
| BT2BS | EYELET (SINGLE) / TRUNK, RIGHT REAR |

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

Fig. 01.2**COMPONENTS**

| Component | Connector / Type / Color | Location / Access |
|---------------------------|--|-------------------------|
| FUSE BOX - DRIVER SIDE | FC5 / 10-WAY U.T.A. FUSEBOX / NATURAL FC6 / 10-WAY U.T.A. FUSEBOX / BLACK FC90 / EYELET FC92 / EYELET | FASCIA / DRIVER SIDE |
| FUSE BOX - PASSENGER SIDE | FC20 / 10-WAY U.T.A. FUSEBOX / NATURAL FC21 / 10-WAY U.T.A. FUSEBOX / BLACK FC90 / EYELET FC93 / EYELET | FASCIA / PASSENGER SIDE |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|--------------------------------|--|
| AC12 | 20-WAY MULTILOCK 070 / WHITE | FASCIA TOP CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC15 | 20-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC16 | 6-WAY MULTILOCK 070 / YELLOW | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| BT2 | 18-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BT58 | 4-WAY ECONOSEAL III HC / BLACK | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| IC2 | 14-WAY MULTILOCK 070 / WHITE | BELOW CENTER CONSOLE GLOVE BOX |
| LF1 | 20-WAY MULTILOCK 070 / SLATE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RF1 | 18-WAY MULTILOCK 070 / YELLOW | RIGHT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RH14 | 2-WAY ECONOSEAL III HC / BLACK | REAR OF CENTER CONSOLE ASSEMBLY |
| RH2 | 20-WAY MULTILOCK 070 / WHITE | REAR OF CENTER CONSOLE ASSEMBLY |
| RT20 | 14-WAY MULTILOCK 070 / SLATE | REAR OF CENTER CONSOLE ASSEMBLY |
| SD1 | 8-WAY MULTILOCK 070 / YELLOW | BELOW DRIVER SEAT |
| SP1 | 8-WAY MULTILOCK 070 / YELLOW | BELOW PASSENGER SEAT |

Fig. 01.3

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|-------------------------------|--|---|
| FUSE BOX - ENGINE COMPARTMENT | LFS / 10-WAY U.T.A. FUSEBOX / WHITE LFS / 10-WAY U.T.A. FUSEBOX / BLACK LF7 / 10-WAY U.T.A. FUSEBOX / GREEN LF8 / 10-WAY U.T.A. FUSEBOX / BLUE LF70/ EYELET | ENGINE COMPARTMENT / LEFT FRONT |
| FUSE BOX - ENGINE MANAGEMENT | EM19 / 10-WAY U.T.A. FUSEBOX / WHITE EM20 / 10-WAY U.T.A. FUSEBOX / BLACK EM70 / EYELET | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| FUSE BOX - TRUNK | BT10 / 10 WAY U.T.A. FUSEBOX / NATURAL BT11 / 10-WAY U.T.A. FUSEBOX / BLACK BT12 / 10-WAY U.T.A. FUSEBOX / GREEN BT13 / 10-WAY U.T.A. FUSEBOX / BLUE BT64 / EYELET | TRUNK / ELECTRICAL CARRIER |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|------------------|-----------------------------|----------------------------------|
| IC4 | 4-WAY MULTILOCK 070 / WHITE | TRUNK / LEFT OF ANTENNA ASSEMBLY |

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

Fig. 01.4**COMPONENTS**

| Component | Connector / Type / Color | Location / Access |
|-------------------------------|--|---------------------------------|
| FUSE BOX - DRIVER SIDE | FC5 / 10-WAY U.T.A. FUSEBOX / NATURAL FC6 / 10-WAY U.T.A. FUSEBOX / BLACK FC90 / EYELET FC92 / EYELET | FASCIA / DRIVER SIDE |
| FUSE BOX - ENGINE COMPARTMENT | LF5 / 10-WAY U.T.A. FUSEBOX / WHITE LF6 / 10-WAY U.T.A. FUSEBOX / BLACK LF7 / 10-WAY U.T.A. FUSEBOX / GREEN LF8 / 10-WAY U.T.A. FUSEBOX / BLUE LF70/ EYELET | ENGINE COMPARTMENT / LEFT FRONT |
| FUSE BOX - PASSENGER SIDE | FC20 / 10-WAY U.T.A. FUSEBOX / NATURAL FC21 / 10-WAY U.T.A. FUSEBOX / BLACK FC90 / EYELET FC93 / EYELET | FASCIA / PASSENGER SIDE |
| FUSE BOX - TRUNK | BT10 / 10-WAY U.T.A. FUSEBOX / NATURAL BT11 / 10-WAY U.T.A. FUSEBOX / BLACK BT12 / 10-WAY U.T.A. FUSEBOX / GREEN BT13 / 10-WAY U.T.A. FUSEBOX / BLUE BT64 / EYELET | TRUNK / ELECTRICAL CARRIER |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|------------------|---------------------------------|--|
| AC15 | 20-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| EM2 | 18-WAY MULTILOCK 070 / YELLOW | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| IC2 | 14-WAY MULTILOCK 070 / WHITE | BELOW CENTER CONSOLE GLOVE BOX |
| LF40 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |
| LF60 | 20-WAY MULTILOCK 070 / WHITE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| PI2 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |
| RF1 | 18-WAY MULTILOCK 070 / YELLOW | RIGHT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RT20 | 14-WAY MULTILOCK 070 / SLATE | REAR OF CENTER CONSOLE ASSEMBLY |

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

Fig. 01.5

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|------------------------------|---|---|
| FUSE BOX - ENGINE MANAGEMENT | EM19 / 10-WAY U.T.A. FUSEBOX / WHITE EM20 / 10-WAY U.T.A. FUSEBOX / BLACK EM70 / EYELET | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|------------------|---------------------------------|---|
| EL1 | 6-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / RIGHT HAND ENCLOSURE |
| LF40 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |
| P11 | 57-WAY SUMITOMO / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |

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

Fig. 02.1**COMPONENTS****Component**IGNITION SWITCH (KEY-IN SWITCH)
INERTIA SWITCH**Connector / Type / Color**FC4 (FLYLEAD) / 8-WAY MULTILOCK 070 / WHITE
FC46 / 3-WAY ECONOSEAL III LC / BLACK**Location / Access**STEERING COLUMN
ADJACENT TO LEFT HAND FASCIA FUSE BOX**HARNESS-TO-HARNESS CONNECTORS****Connector**AC13
BT1
LF60
RH2**Type / Color**20-WAY MULTILOCK 070 / YELLOW
20-WAY MULTILOCK 070 / WHITE
20-WAY MULTILOCK 070 / WHITE
20-WAY MULTILOCK 070 / WHITE**Location / Access**FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE
TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH
LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM
REAR OF CENTER CONSOLE ASSEMBLY**GROUNDS****Ground**

FC3BL

Location / Type

EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST

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

DATE OF ISSUE: OCTOBER 1996

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|--------------------------------------|------------------------|----------|
| D EM10-17 | SECURITY ACKNOWLEDGE | ENCODED COMMUNICATIONS | |
| D EM10-6 | OK TO START - ENCODED COMMUNICATIONS | | |
| I EM11-6 | ENGINE CRANK | GROUND (CRANKING) | B+ |

KEY TRANSPONDER MODULE (OPTIONAL)

| Pin | Description | Active | Inactive |
|-----------|--|--------|----------|
| D FC22-9 | GLASS BREAKAGE / OK TO START (ENCODED COMMUNICATION) | | |
| D FC22-16 | OK TO START (ENCODED COMMUNICATION) | | |
| D FC22-17 | SECURITY ACKNOWLEDGE (ENCODED COMMUNICATION) | | |

Fig. 03.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---------------------------------|--|---|
| BATTERY | BT66 / EYELET BT67 / EYELET | TRUNK, RIGHT HAND SIDE |
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| ENGINE CONTROL MODULE | EM10 / 28-WAY MULTILOCK 040 / SLATE EM11 / 16-WAY MULTILOCK 040 / SLATE EM12 / 22-WAY MULTILOCK 040 / SLATE EM13 / 34-WAY MULTILOCK 040 / SLATE | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| GENERATOR | AN1 / EYELET AN2 / EYELET ST11 / EYELET | ENGINE COMPARTMENT / RIGHT FRONT |
| HIGH POWER PROTECTION MODULE | BT60 / EYELET BT61 / EYELET BT62 / EYELET BT63 / EYELET | TRUNK / ADJACENT TO BATTERY |
| IGNITION SWITCH (KEY-IN SWITCH) | FC4 (FLYLEAD) / 8-WAY MULTILOCK 070 / WHITE | STEERING COLUMN |
| KEY TRANSPONDER MODULE | FC22 / 20-WAY MULTILOCK 040 / GREEN | ADJACENT TO PASSENGER SIDE FUSE BOX |
| NEUTRAL SWITCH | FC89 (FLYLEAD) / 3-WAY MULTILOCK 070 / SLATE | GEAR SELECTOR ASSEMBLY |
| REGULATOR (GENERATOR) | PI50 / 3-WAY SUMITOMO 0902 / BLACK | ENGINE COMPARTMENT / GENERATOR |
| STARTER MOTOR | ST2 / EYELET ST3 / EYELET ST10 / EYELET | ENGINE BLOCK |
| SUPPRESSION MODULE | AN3 (FLYLEAD) / 2-WAY ECONOSEAL III LC / RED | ENGINE COMPARTMENT / FORWARD OF GENERATOR |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|---------------|----------------|-------------------|-----------------------------------|
| STARTER RELAY | BROWN | EM50 / BROWN | RH BRAKE BOOSTER ENCLOSURE RELAYS |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|--------------------------------|---|
| BT80 | EYELET | ENGINE COMPARTMENT / FALSE BULKHEAD, RIGHT HAND SIDE |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM2 | 18-WAY MULTILOCK 070 / YELLOW | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM3 | 14-WAY MULTILOCK 070 / SLATE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM60 | 2-WAY ECONOSEAL III HC / BLACK | ENGINE COMPARTMENT / BEHIND LEFT INNER FENDER HEAT SHIELD |
| PI1 | 57-WAY SUMITOMO / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |
| ST1 | EYELET | ENGINE COMPARTMENT / FALSE BULKHEAD, RIGHT HAND SIDE |

GROUNDS

| Ground | Location / Type |
|--------|---|
| BT68 | BATTERY GROUND STUD |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE

| Pin | Description | Active | Inactive |
|------------|--|--|-----------|
| I EM10-1 | IGNITION SWITCHED POWER SUPPLY | B- | 0 V |
| I EM10-5 | IGNITION SWITCHED POWER SUPPLY | B- | B+ |
| D EM10-6 | OK TO START - ENCODED COMMUNICATIONS | | |
| I EM10-9 | BATTERY POWER SUPPLY | B+ | B+ |
| I EM10-10 | BRAKE SWITCH | GROUND | B+ |
| D EM10-12 | SERIAL COMMUNICATIONS | | |
| D EM10-13 | SERIAL COMMUNICATIONS | | |
| I EM10-14 | PARKING BRAKE SWITCH | | |
| I EM10-15 | PARK / NEUTRAL | GROUND (APPLIED) | B+ |
| O EM10-16 | EMS CONTROLLED RELAY ACTIVATE | GROUND (R,D,4,3,2) | B+ (P, N) |
| D EM10-17 | SECURITY ACKNOWLEDGE | GROUND | B- |
| O EM10-20 | IATS / ECTS / TPS / MECHANICAL GUARD POSITION / PEDAL POSITION COMMON REFERENCE GROUND | ENCODED COMMUNICATIONS | |
| O EM10-21 | MECHANICAL GUARD POSITION / PEDAL POSITION / TPS COMMON REFERENCE VOLTAGE | GROUND | GROUND |
| I EM10-22 | GROUND | 5 V | 5 V |
| I EM10-23 | GROUND | GROUND | GROUND |
| C EM10-25 | CAN NETWORK | GROUND | GROUND |
| C EM10-26 | CAN NETWORK | 15 - 1500 Hz | |
| C EM10-27 | CAN NETWORK | 15 - 1500 Hz | |
| C EM10-28 | CAN NETWORK | 15 - 1500 Hz | |
| D EM11-3 | ECM PROGRAMMING | B+ | B+ |
| I EM11-6 | ENGINE CRANK | GROUND (CRANKING) | B- |
| O EM11-8 | MECHANICAL GUARD POSITION / PEDAL POSITION / TPS COMMON REFERENCE VOLTAGE | 5 V | 5 V |
| I EM11-9 | ECT FEEDBACK | 0.41 V @ 195°F (DECREASING WITH TEMPERATURE) | |
| I EM11-10 | TPS FEEDBACK | 0.5 V = IDLE; 4.75 V = WOT | |
| I EM11-11 | TPS FEEDBACK | 0.5 V = IDLE; 4.75 V = WOT | |
| O EM11-12 | IATS / ECTS / TPS / MECHANICAL GUARD POSITION / PEDAL POSITION COMMON REFERENCE GROUND | GROUND | GROUND |
| I EM11-13 | MECHANICAL GUARD POSITION FEEDBACK | | |
| SG EM11-14 | MECHANICAL GUARD POSITION / PEDAL POSITION / TPS SHIELD | 0.5 V = IDLE; 4.75 V = WOT | GROUND |
| I EM11-15 | PEDAL POSITION FEEDBACK | 0.5 V = IDLE; 4.75 V = WOT | |
| I EM11-16 | PEDAL POSITION FEEDBACK | 0.5 V = IDLE; 4.75 V = WOT | |
| O EM12-1 | EGR STEPPER MOTOR 'S1' WINDING SUPPLY | GROUND | B+ |
| O EM12-2 | EGR STEPPER MOTOR 'S2' WINDING SUPPLY | GROUND | B+ |
| O EM12-3 | EGR STEPPER MOTOR 'S3' WINDING SUPPLY | GROUND | B+ |
| O EM12-4 | EGR STEPPER MOTOR 'S4' WINDING SUPPLY | GROUND | B+ |
| I EM12-12 | IATS FEEDBACK | 0.98 V @ 10°C, DECREASING WITH TEMPERATURE | |
| I EM12-13 | MAFS FEEDBACK | 1.2 V @ IDLE, INCREASING WITH RPM INCREASE | |
| I EM12-14 | UPSTREAM 'B' BANK HO2S | 0.1 - 0.9 V @ IDLE (SWING) | |
| I EM12-15 | UPSTREAM 'A' BANK HO2S | 0.1 - 0.9 V @ IDLE (SWING) | |
| I EM12-16 | DOWNSTREAM 'B' BANK O2S | 0.1 - 0.9 V @ IDLE (SWING) | |
| I EM12-17 | DOWNSTREAM 'A' BANK O2S | 0.1 - 0.9 V @ IDLE (SWING) | |
| O EM12-18 | MAFS REFERENCE GROUND | GROUND | GROUND |
| O EM12-19 | MAFS REFERENCE GROUND | GROUND | GROUND |
| SG EM12-22 | O2S / HO2S COMMON SHIELD | GROUND | GROUND |
| D EM13-2 | ECM PROGRAMMING | | |
| O EM13-11 | VACUUM SWITCHING VALVE #3 ACTIVATE | GROUND | B+ |
| O EM13-12 | VACUUM SWITCHING VALVE #1 ACTIVATE | GROUND | B+ |
| O EM13-13 | VACUUM SWITCHING VALVE #2 ACTIVATE | GROUND | B+ |
| O EM13-14 | THROTTLE MOTOR POWER RELAY ACTIVATE | GROUND | B+ |
| I EM13-17 | 'B' BANK KNOCK SENSOR FEEDBACK | 0 KHz = NO KNOCK, 2 - 20 KHz = KNOCK | |
| I EM13-18 | 'A' BANK KNOCK SENSOR FEEDBACK | 0 KHz = NO KNOCK, 2 - 20 KHz = KNOCK | |
| I EM13-19 | CKPS SIGNAL | 5 V @ 1000 RPM = 45 Hz; 2000 RPM = 90 Hz | |
| I EM13-20 | CMPS SIGNAL | 5 Hz @ IDLE | |
| I EM13-27 | CMPS / CKPS / KNOCK SENSORS COMMON SHIELD | GROUND | GROUND |
| I EM13-28 | CKPS SIGNAL | 5 V @ 1000 RPM = 45 Hz; 2000 RPM = 90 Hz | |
| SG EM13-29 | CMPS SIGNAL GROUND | GROUND | GROUND |
| I EM14-1 | THROTTLE MOTOR POWER SUPPLY | B- | GROUND |
| I EM14-2 | THROTTLE MOTOR POWER SUPPLY | B+ | GROUND |
| I EM14-3 | IGNITION SWITCHED POWER SUPPLY | B+ | GROUND |
| I EM14-4 | GROUND | GROUND | GROUND |
| O EM14-5 | THROTTLE MOTOR POWER SUPPLY | B+ | GROUND |
| O EM14-6 | THROTTLE MOTOR POWER SUPPLY | B+ | GROUND |
| I EM14-7 | GROUND | GROUND | GROUND |
| I EM14-8 | GROUND | GROUND | GROUND |
| I EM14-9 | GROUND | GROUND | GROUND |
| I EM14-10 | GROUND | GROUND | GROUND |
| O EM14-11 | THROTTLE MOTOR POWER SUPPLY | GROUND | GROUND |
| O EM14-12 | THROTTLE MOTOR POWER SUPPLY | B+ | GROUND |
| O EM15-1 | UPSTREAM 'B' BANK HO2S HEATER GROUND | GROUND | GROUND |
| O EM15-2 | UPSTREAM 'A' BANK HO2S HEATER GROUND | GROUND | GROUND |
| O EM15-3 | EVAP VALVE ACTIVATE | GROUND (VALVE OPEN) | B+ |
| O EM15-8 | VARIABLE VALVE TIMING SOLENOID 'B' BANK | GROUND | B+ |
| O EM15-9 | VARIABLE VALVE TIMING SOLENOID 'A' BANK | GROUND | B+ |
| I EM15-11 | GROUND | GROUND | GROUND |
| I EM15-12 | GROUND | GROUND | GROUND |
| I EM15-22 | GROUND | GROUND | GROUND |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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 |
|---|--|--|
| BRAKE SWITCH - LHD | AC26 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| BRAKE SWITCH - RHD | AC24 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| CAMSHAFT POSITION SENSOR | PI15 (FLYLEAD) / 2-WAY ECONOSEAL III HC / BLACK | 'B' BANK CYLINDER HEAD, REAR |
| CRANKSHAFT POSITION SENSOR | PI17 (FLYLEAD) / 3-WAY ECONOSEAL III LC / BLACK | ENGINE / REAR OF BED PLATE |
| ECM AND TCM COOLING FAN | EM84 / 2-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| ENGINE COOLANT TEMPERATURE SENSOR | PI4 / 2-WAY ECONOSEAL E J2 / SLATE | ENGINE COMPARTMENT / REAR OF ENGINE TOP HOSE |
| EGR VALVES | PI34 / 6-WAY EGR VALVE CONNECTOR / SLATE | ENGINE COMPARTMENT / REAR OF THROTTLE ASSEMBLY |
| ENGINE CONTROL MODULE | EM10 / 28-WAY MULTILOCK 040 / SLATE EM11 / 16-WAY MULTILOCK 040 / SLATE EM12 / 22-WAY MULTILOCK 040 / SLATE EM13 / 34-WAY MULTILOCK 040 / SLATE | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| EVAPORATIVE EMISSION CONTROL VALVE | EM58 / 2-WAY ECONOSEAL J2 / BLACK | ENGINE COMPARTMENT / LEFT HAND BULKHEAD EXTENSION |
| HEATED OXYGEN SENSOR - A UPSTREAM | EM21 (FLYLEAD) / 4-WAY SUMITOMO 090 II / SLATE | 'A' BANK CATALYTIC CONVERTER |
| HEATED OXYGEN SENSOR - B UPSTREAM | EM23 (FLYLEAD) / 4-WAY SUMITOMO 090 II / SLATE | 'B' BANK CATALYTIC CONVERTER |
| KNOCK SENSOR - A | PI26 (FLYLEAD) / 2-WAY ECONOSEAL III LC / BLACK | ENGINE VEE / UNDER INTAKE MANIFOLD |
| KNOCK SENSOR - B | PI27 (FLYLEAD) / 2-WAY ECONOSEAL III LC / BLACK | ENGINE VEE / UNDER INTAKE MANIFOLD |
| MASS AIR FLOW SENSOR | PI36 / 6-WAY YAZAKI 0902 / BLACK | ENGINE COMPARTMENT / REARWARD OF AIR CLEANER |
| OXYGEN SENSOR - A DOWNSTREAM | EM22 (FLYLEAD) / 2-WAY SUMITOMO 090 A TYPE / SLATE | 'A' BANK CATALYTIC CONVERTER |
| OXYGEN SENSOR - B DOWNSTREAM | EM24 (FLYLEAD) / 2-WAY SUMITOMO 090 A TYPE / SLATE | 'B' BANK CATALYTIC CONVERTER |
| PARKING BRAKE SWITCH | FC19 / LUCAR RIGHT ANGLE | BELOW PARKING BRAKE LEVER |
| PEDAL POSITION AND MECHANICAL GUARD SENSORS | PI42 / 5-WAY YAZAKI 0902 / BLACK | ENGINE COMPARTMENT / THROTTLE ASSEMBLY |
| THROTTLE MOTOR | PI33 / 2-WAY TWIN CLIP / BLACK | ENGINE COMPARTMENT / THROTTLE ASSEMBLY |
| THROTTLE POSITION SENSOR | PI6 / 4-WAY SUMITOMO TS090 / BLACK | ENGINE COMPARTMENT / THROTTLE ASSEMBLY |
| VACUUM SWITCHING VALVE - 1 | EL2 / 2-WAY SUMITOMO 090 DC INHIBIT 1 / BLUE | BEHIND RIGHT HAND WHEEL ARCH LINER |
| VACUUM SWITCHING VALVE - 2 | EL3 / 2-WAY SUMITOMO 090 DC INHIBIT 1 / BROWN | BEHIND RIGHT HAND WHEEL ARCH LINER |
| VACUUM SWITCHING VALVE - 3 | EL4 / 2-WAY YAZAKI 090 / SLATE | BEHIND RIGHT HAND WHEEL ARCH LINER |
| VARIABLE VALVE TIMING SOLENOID VALVE - A | PI31 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | ENGINE COMPARTMENT / 'A' BANK CYLINDER HEAD, FRONT |
| VARIABLE VALVE TIMING SOLENOID VALVE - B | PI32 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | ENGINE COMPARTMENT / 'B' BANK CYLINDER HEAD, FRONT |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|----------------------------|----------------|-------------------|---------------------------------|
| THROTTLE MOTOR POWER RELAY | BROWN | EM16 / BROWN | CONTROL MODULE ENCLOSURE RELAYS |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|---------------------------------|--|
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| EL1 | 6-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / RIGHT HAND ENCLOSURE |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM2 | 18-WAY MULTILOCK 070 / YELLOW | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| PI1 | 57-WAY SUMITOMO / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |
| PI2 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |

GROUNDS

| Ground | Location / Type |
|--------|---|
| EM1AL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM1AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM1BR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM2AL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| EM2AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| EM2BR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |

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, HARNESSSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE

| Pin | Description | Active | Inactive |
|---------|--|--|----------|
| EM10-2 | A/CCM ENGINE SPEED | 5 V @ 1000 RPM = 45 Hz; 2000 RPM = 90 Hz | |
| EM10-3 | A/CCM COMPRESSOR CLUTCH BATTERY POWER SUPPLY | B+ | B+ |
| EM10-4 | A/CCM COMPRESSOR CLUTCH REQUEST | B+ | GROUND |
| EM10-11 | CRUISE CONTROL BRAKE CANCEL REQUEST | GROUND (APPLIED) | B+ |
| EM11-1 | CRUISE CONTROL SET +/- | 7.3 V = (+), 8.8 V = (-)B+ | |
| EM11-4 | CRUISE CONTROL ON REQUEST | B+ | GROUND |
| EM11-5 | CRUISE CONTROL CANCEL / RESUME | 7.3 V = RESUME, 8.8 V = CANCEL B+ | |
| EM12-5 | 4 WAY REFRIGERANT SWITCH HIGH PRESSURE | GROUND @ 20 BAR (290 PSI) | |
| EM12-6 | 4 WAY REFRIGERANT SWITCH HIGH PRESSURE | GROUND @ 12 BAR (174 PSI) | |
| EM12-8 | IGNITION MODULE 2 SWITCHING FEEDBACK | 23 Hz @ IDLE (5 V) | |
| EM12-9 | IGNITION MODULE 2 SWITCHING FEEDBACK | 23 Hz @ IDLE (5 V) | |
| EM12-10 | AIR CONDITIONING COMPRESSOR RELAY ACTIVATE | GROUND | B+ |
| EM13-1 | FUEL PUMP RELAY ACTIVATE | GROUND | B+ |
| EM13-3 | CRUISE CONTROL ON STATUS LED | GROUND | B+ |
| EM13-15 | SERIES (LOW) SPEED FAN ACTIVATE | GROUND | B+ |
| EM13-16 | PARALLEL (HIGH) SPEED FAN ACTIVATE | GROUND | B+ |
| EM13-22 | IGNITION COIL RELAY ACTIVATE | GROUND | B+ |
| EM13-23 | IGNITION MODULE 1 SWITCHING | 5 Hz @ IDLE | |
| EM13-24 | IGNITION MODULE 2 SWITCHING | 5 Hz @ IDLE | |
| EM13-25 | IGNITION MODULE 2 SWITCHING | 5 Hz @ IDLE | |
| EM13-26 | IGNITION MODULE 1 SWITCHING | 5 Hz @ IDLE | |
| EM13-31 | IGNITION MODULE 2 SWITCHING | 5 Hz @ IDLE | |
| EM13-32 | IGNITION MODULE 1 SWITCHING | 5 Hz @ IDLE | |
| EM13-33 | IGNITION MODULE 1 SWITCHING | 5 Hz @ IDLE | |
| EM13-34 | IGNITION MODULE 1 SWITCHING | 5 Hz @ IDLE | |
| EM15-4 | INJECTOR '3B' ACTIVATE | GROUND | B+ |
| EM15-5 | INJECTOR '2B' ACTIVATE | GROUND | B+ |
| EM15-6 | INJECTOR '4A' ACTIVATE | GROUND | B+ |
| EM15-7 | INJECTOR '1A' ACTIVATE | GROUND | B+ |
| EM15-15 | INJECTOR '4B' ACTIVATE | GROUND | B+ |
| EM15-16 | INJECTOR '3A' ACTIVATE | GROUND | B+ |
| EM15-17 | INJECTOR '2A' ACTIVATE | GROUND | B+ |
| EM15-18 | INJECTOR '1B' ACTIVATE | GROUND | B+ |

AIR CONDITIONING CONTROL MODULE

| Pin | Description | Active | Inactive |
|--------|---|------------------|--------------------------|
| AC1-1 | COMPRESSOR CLUTCH STATUS | B+ (ON) | 0 V |
| AC3-1 | AIR CONDITIONING ELECTRICAL LOAD SIGNAL | B+ | 0 V |
| AC4-7 | LOAD INHIBIT | 0 V | B+ |
| AC4-9 | COMPRESSOR CLUTCH ON REQUEST | B+ | 0 V |
| AC4-17 | REFRIGERANT 4 WAY PRESSURE SWITCH | 0 V (2 - 30 BAR) | B+ (OUT OF ACTIVE RANGE) |

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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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 |
|--|--|--|
| AIR CONDITIONING COMPRESSOR CLUTCH | PI36 (FLYLEAD) / 1-WAY SUMITOMO 090 A-TYPE / BLACK | ENGINE COMPARTMENT / A/C COMPRESSOR |
| AIR CONDITIONING CONTROL MODULE | AC1 / 26-WAY MULTILOCK 47 / SLATE AC2 / 16-WAY MULTILOCK 47 / SLATE AC3 / 12-WAY MULTILOCK 47 / SLATE AC4 / 22-WAY MULTILOCK 47 / SLATE AC26 / 4-WAY MULTILOCK 070 / WHITE AC24 / 4-WAY MULTILOCK 070 / WHITE FC63 / 10-WAY AMP ML KEY B / WHITE SW3 (FLYLEAD) / 3-WAY EPC / BLACK AND WHITE | A/C UNIT / RIGHT HAND SIDE TOP OF BRAKE PEDAL TOP OF BRAKE PEDAL REARWARD OF GEAR SELECTOR CENTER OF STEERING WHEEL ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| BRAKE CANCEL SWITCH - LHD | | |
| BRAKE CANCEL SWITCH - RHD | | |
| CRUISE CONTROL ON / OFF SWITCH | | |
| CRUISE CONTROL SWITCHES (STEERING WHEEL) | | |
| ENGINE CONTROL MODULE | EM10 / 28-WAY MULTILOCK 040 / SLATE EM11 / 18-WAY MULTILOCK 040 / SLATE EM12 / 22-WAY MULTILOCK 040 / SLATE EM13 / 34-WAY MULTILOCK 040 / SLATE PI7 / 2-WAY AMP JUNIOR POWER TIMER / BLACK PI11 / 2-WAY AMP JUNIOR POWER TIMER / BLACK PI8 / 2-WAY AMP JUNIOR POWER TIMER / BLACK PI12 / 2-WAY AMP JUNIOR POWER TIMER / BLACK PI9 / 2-WAY AMP JUNIOR POWER TIMER / BLACK PI13 / 2-WAY AMP JUNIOR POWER TIMER / BLACK PI10 / 2-WAY AMP JUNIOR POWER TIMER / BLACK PI14 / 2-WAY AMP JUNIOR POWER TIMER / BLACK BT55 / 4-WAY SUMITOMO DL090 / NATURAL BT10 / 10-WAY U.T.A. FUSEBOX / NATURAL BT11 / 10-WAY U.T.A. FUSEBOX / BLACK BT12 / 10-WAY U.T.A. FUSEBOX / GREEN BT13 / 10-WAY U.T.A. FUSEBOX / BLUE BT64 / EYELET PI18 / 2-WAY YAZAKI 090X / BLACK PI22 / 2-WAY YAZAKI 090X / BLACK PI19 / 2-WAY YAZAKI 090X / BLACK PI23 / 2-WAY YAZAKI 090X / BLACK PI20 / 2-WAY YAZAKI 090X / BLACK PI24 / 2-WAY YAZAKI 090X / BLACK PI21 / 2-WAY YAZAKI 090X / BLACK PI25 / 2-WAY YAZAKI 090X / BLACK EM27 / 12-WAY IGNITION POWER MODULE / BLACK EM29 / 12-WAY IGNITION POWER MODULE / BLACK LF9 / 8-WAY TRW / BLACK LF13 / 2-WAY REINSHAGEN METRI 630 / BLACK LF12 / 2-WAY REINSHAGEN METRI 630 / BLACK LF57 (FLYLEAD) / 6-WAY ECONOSEAL III LC / BLACK | INTAKE MANIFOLD / FUEL RAIL INTAKE MANIFOLD / FUEL RAIL INTAKE MANIFOLD / FUEL RAIL INTAKE MANIFOLD / FUEL RAIL INTAKE MANIFOLD / FUEL RAIL INTAKE MANIFOLD / FUEL RAIL INTAKE MANIFOLD / FUEL RAIL INTAKE MANIFOLD / FUEL RAIL TRUNK / TOP OF FUEL TANK TRUNK / ELECTRICAL CARRIER ENGINE COMPARTMENT / CAMSHAFT COVER ENGINE COMPARTMENT / CAMSHAFT COVER ENGINE COMPARTMENT / CAMSHAFT COVER ENGINE COMPARTMENT / CAMSHAFT COVER ENGINE COMPARTMENT / CAMSHAFT COVER ENGINE COMPARTMENT / CAMSHAFT COVER ENGINE COMPARTMENT / CAMSHAFT COVER ENGINE COMPARTMENT / CAMSHAFT COVER ENGINE COMPARTMENT / BULKHEAD, RIGHT HAND SIDE ENGINE COMPARTMENT / BULKHEAD, LEFT HAND SIDE ADJACENT TO LEFT HAND HORN ENGINE COMPARTMENT / FRONT ENGINE COMPARTMENT / FRONT ENGINE COMPARTMENT / REARWARD OF RADIATOR |
| FUEL INJECTOR - 1A | | |
| FUEL INJECTOR - 1B | | |
| FUEL INJECTOR - 2A | | |
| FUEL INJECTOR - 2B | | |
| FUEL INJECTOR - 3A | | |
| FUEL INJECTOR - 3B | | |
| FUEL INJECTOR - 4A | | |
| FUEL INJECTOR - 4B | | |
| FUEL PUMP | | |
| FUSE BOX - TRUNK | | |
| IGNITION COIL - 1A | | |
| IGNITION COIL - 1B | | |
| IGNITION COIL - 2A | | |
| IGNITION COIL - 2B | | |
| IGNITION COIL - 3A | | |
| IGNITION COIL - 3B | | |
| IGNITION COIL - 4A | | |
| IGNITION COIL - 4B | | |
| IGNITION MODULE - 1 | | |
| IGNITION MODULE - 2 | | |
| RADIATOR FAN CONTROL RELAY MODULE | | |
| RADIATOR FAN - LH | | |
| RADIATOR FAN - RH | | |
| REFRIGERANT 4-WAY PRESSURE SWITCH | | |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|--|----------------|-------------------|-----------------------------------|
| AIR CONDITIONING COMPRESSOR CLUTCH RELAY | BROWN | BUS | LH BRAKE BOOSTER ENCLOSURE RELAYS |
| FUEL INJECTION RELAY | BROWN | EM5 / BROWN | CONTROL MODULE ENCLOSURE RELAYS |
| FUEL PUMP RELAY (#4) | BROWN | BUS | TRUNK FUSE BOX |
| IGNITION COIL RELAY | BROWN | EM26 / BROWN | CONTROL MODULE ENCLOSURE RELAYS |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|---------------------------------|--|
| AC12 | 20-WAY MULTILOCK 070 / WHITE | FASCIA TOP CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT2 | 18-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM2 | 18-WAY MULTILOCK 070 / YELLOW | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM3 | 14-WAY MULTILOCK 070 / SLATE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| LF3 | 13-WAY ECONOSEAL III LC / WHITE | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |
| LF40 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |
| PI1 | 57-WAY SUMITOMO / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |
| PI2 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |
| RH1 | 20-WAY MULTILOCK 070 / SLATE | BEHIND GLOVE BOX |
| SC3 | 12-WAY MULTILOCK 070 / SLATE | RIGHT HAND SIDE OF STEERING COLUMN |
| SW1 | 12-WAY MULTILOCK 040 / BLACK | INSIDE STEERING COLUMN COWL |
| SW2 | 6-WAY JST / WHITE | CENTER OF STEERING WHEEL |

GROUNDINGS

| Ground | Location / Type |
|--------|---|
| BT2AL | EYELET (PAIR) - LEFT HAND LEG / TRUNK, RIGHT REAR |
| EM1AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM2AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| LF2AL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |
| LF2BL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |

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, HARNESSSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----|-------------|--|-----------|
| I | EM10-1 | IGNITION SWITCHED POWER SUPPLY | B+ |
| I | EM10-5 | IGNITION SWITCHED POWER SUPPLY | B+ |
| D | EM10-6 | OK TO START - ENCODED COMMUNICATIONS | |
| I | EM10-7 | BRAKE SWITCH - NOT USED | |
| I | EM10-9 | BATTERY POWER SUPPLY | B+ |
| I | EM10-10 | BRAKE SWITCH | B+ |
| D | EM10-12 | SERIAL COMMUNICATIONS | B+ |
| D | EM10-13 | SERIAL COMMUNICATIONS | B+ |
| I | EM10-14 | PARKING BRAKE SWITCH | B+ |
| I | EM10-15 | PARK / NEUTRAL | B+ |
| O | EM10-16 | MAFS CONTROLLED RELAY ACTIVATE | B+ (P, N) |
| D | EM10-17 | SECURITY ACKNOWLEDGE | B+ |
| O | EM10-20 | IATS / ECTS / TPS / MECHANICAL GUARD POSITION / PEDAL POSITION COMMON REFERENCE GROUND | B+ |
| O | EM10-21 | MECHANICAL GUARD POSITION / PEDAL POSITION / TPS COMMON REFERENCE VOLTAGE | B+ |
| I | EM10-22 | GROUND | B+ |
| I | EM10-23 | GROUND | B+ |
| C | EM10-25 | CAN NETWORK | B+ |
| C | EM10-26 | CAN NETWORK | B+ |
| C | EM10-27 | CAN NETWORK | B+ |
| C | EM10-28 | CAN NETWORK | B+ |
| D | EM11-3 | ECM PROGRAMMING | B+ |
| I | EM11-6 | ENGINE CRANK | B+ |
| O | EM11-8 | MECHANICAL GUARD POSITION / PEDAL POSITION / TPS COMMON REFERENCE VOLTAGE | B+ |
| I | EM11-9 | ECT FEEDBACK | B+ |
| I | EM11-10 | TPS FEEDBACK | B+ |
| I | EM11-11 | TPS FEEDBACK | B+ |
| O | EM11-12 | IATS / ECTS / TPS / MECHANICAL GUARD POSITION / PEDAL POSITION COMMON REFERENCE GROUND | B+ |
| I | EM11-13 | MECHANICAL GUARD POSITION FEEDBACK | B+ |
| SG | EM11-14 | MECHANICAL GUARD POSITION / PEDAL POSITION / TPS SHIELD | B+ |
| I | EM11-15 | PEDAL POSITION FEEDBACK | B+ |
| I | EM11-16 | PEDAL POSITION FEEDBACK | B+ |
| O | EM12-1 | NOT USED | B+ |
| O | EM12-2 | NOT USED | B+ |
| O | EM12-3 | NOT USED | B+ |
| O | EM12-4 | NOT USED | B+ |
| I | EM12-12 | IATS FEEDBACK | B+ |
| I | EM12-13 | MAFS FEEDBACK | B+ |
| I | EM12-14 | 'B' BANK HO2S | B+ |
| I | EM12-15 | 'A' BANK HO2S | B+ |
| I | EM12-16 | NOT USED | B+ |
| I | EM12-17 | NOT USED | B+ |
| O | EM12-18 | MAFS REFERENCE GROUND | B+ |
| O | EM12-19 | MAFS REFERENCE GROUND | B+ |
| SG | EM12-22 | HO2S COMMON SHIELD | B+ |
| D | EM13-2 | ECM PROGRAMMING | B+ |
| O | EM13-3 | CRUISE CONTROL ON STATUS LED | B+ |
| O | EM13-11 | VACUUM SWITCHING VALVE #3 ACTIVATE | B+ |
| O | EM13-12 | VACUUM SWITCHING VALVE #1 ACTIVATE | B+ |
| O | EM13-13 | VACUUM SWITCHING VALVE #2 ACTIVATE | B+ |
| O | EM13-14 | THROTTLE MOTOR POWER RELAY ACTIVATE | B+ |
| I | EM13-17 | 'B' BANK KNOCK SENSOR FEEDBACK | B+ |
| I | EM13-18 | 'A' BANK KNOCK SENSOR FEEDBACK | B+ |
| I | EM13-19 | CKPS SIGNAL | B+ |
| I | EM13-20 | CMPS SIGNAL | B+ |
| I | EM13-27 | CMPS / CKPS / KNOCK SENSORS COMMON SHIELD | B+ |
| I | EM13-28 | CKPS SIGNAL | B+ |
| SG | EM13-29 | CMPS SIGNAL GROUND | B+ |
| O | EM13-31 | IGNITION MODULE 2 SWITCHING | B+ |
| O | EM13-32 | IGNITION MODULE 1 SWITCHING | B+ |
| O | EM13-33 | IGNITION MODULE 1 SWITCHING | B+ |
| O | EM13-34 | IGNITION MODULE 1 SWITCHING | B+ |
| I | EM14-1 | THROTTLE MOTOR POWER SUPPLY | B+ |
| I | EM14-2 | THROTTLE MOTOR POWER SUPPLY | B+ |
| I | EM14-3 | IGNITION SWITCHED POWER SUPPLY | B+ |
| I | EM14-4 | GROUND | B+ |
| O | EM14-5 | THROTTLE MOTOR POWER SUPPLY | B+ |
| O | EM14-6 | THROTTLE MOTOR POWER SUPPLY | B+ |
| I | EM14-7 | GROUND | B+ |
| I | EM14-8 | GROUND | B+ |
| I | EM14-9 | GROUND | B+ |
| I | EM14-10 | GROUND | B+ |
| O | EM14-11 | THROTTLE MOTOR POWER SUPPLY | B+ |
| O | EM14-12 | THROTTLE MOTOR POWER SUPPLY | B+ |
| O | EM15-1 | UPSTREAM 'B' BANK HO2S HEATER GROUND | B+ |
| O | EM15-2 | UPSTREAM 'A' BANK HO2S HEATER GROUND | B+ |
| O | EM15-3 | EVAP VALVE ACTIVATE | B+ |
| O | EM15-8 | VARIABLE VALVE TIMING SOLENOID 'B' BANK | B+ |
| O | EM15-9 | VARIABLE VALVE TIMING SOLENOID 'A' BANK | B+ |
| I | EM15-11 | GROUND | B+ |
| I | EM15-12 | GROUND | B+ |
| I | EM15-22 | GROUND | B+ |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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 |
|---|--|--|
| BRAKE SWITCH - LHD | AC26 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| BRAKE SWITCH - RHD | AC24 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| CATALYST SWITCHING MODULE | EM52 / 8-WAY MULTILOCK 040 / BLACK | ENGINE COMPARTMENT / ADJACENT TO FALSE BULKHEAD |
| CATALYST THERMOCOUPLES | EM56 / (FLYLEAD) 4-WAY ECONOSEAL III LC / BLACK | 'A' AND 'B' BANK CATALYTIC CONVERTERS |
| CAMSHAFT POSITION SENSOR | PI15 (FLYLEAD) / 2-WAY ECONOSEAL III HC / BLACK | 'B' BANK CYLINDER HEAD, REAR |
| CRANKSHAFT POSITION SENSOR | PI17 (FLYLEAD) / 3-WAY ECONOSEAL III LC / BLACK | ENGINE / REAR OF BED PLATE |
| ECM AND TCM COOLING FAN | EM64 / 2-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| ENGINE COOLANT TEMPERATURE SENSOR | PI4 / 2-WAY ECONOSEAL E J2 / SLATE | ENGINE COMPARTMENT / REAR OF ENGINE TOP HOSE |
| ENGINE CONTROL MODULE | EM10 / 28-WAY MULTILOCK 040 / SLATE EM11 / 16-WAY MULTILOCK 040 / SLATE EM12 / 22-WAY MULTILOCK 040 / SLATE EM13 / 34-WAY MULTILOCK 040 / SLATE | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| EVAPORATIVE EMISSION CONTROL VALVE | EM58 / 2-WAY ECONOSEAL J2 / BLACK | ENGINE COMPARTMENT / LEFT HAND BULKHEAD EXTENSION |
| HEATED OXYGEN SENSOR - A UPSTREAM | EM21 (FLYLEAD) / 4-WAY SUMITOMO 090 II / SLATE | 'A' BANK CATALYTIC CONVERTER |
| HEATED OXYGEN SENSOR - B UPSTREAM | EM23 (FLYLEAD) / 4-WAY SUMITOMO 090 II / SLATE | 'B' BANK CATALYTIC CONVERTER |
| KNOCK SENSOR - A | PI26 (FLYLEAD) / 2-WAY ECONOSEAL III LC / BLACK | ENGINE VEE / UNDER INTAKE MANIFOLD |
| KNOCK SENSOR - B | PI27 (FLYLEAD) / 2-WAY ECONOSEAL III LC / BLACK | ENGINE VEE / UNDER INTAKE MANIFOLD |
| MASS AIR FLOW SENSOR | PI35 / 5-WAY YAZAKI 0902 / BLACK | ENGINE COMPARTMENT / REARWARD OF AIR CLEANER |
| PARKING BRAKE SWITCH | FC19 / LUCAR RIGHT ANGLE | BELOW PARKING BRAKE LEVER |
| PEDAL POSITION AND MECHANICAL GUARD SENSORS | PI42 / 5-WAY YAZAKI 0902 / BLACK | ENGINE COMPARTMENT / THROTTLE ASSEMBLY |
| THROTTLE MOTOR | PI33 / 2-WAY TWIN CLIP / BLACK | ENGINE COMPARTMENT / THROTTLE ASSEMBLY |
| THROTTLE POSITION SENSOR | PI6 / 4-WAY SUMITOMO TS090 / BLACK | ENGINE COMPARTMENT / THROTTLE ASSEMBLY |
| VACUUM SWITCHING VALVE - 1 | EL2 / 2-WAY SUMITOMO 090 DC INHIBIT 1 / BLUE | BEHIND RIGHT HAND WHEEL ARCH LINER |
| VACUUM SWITCHING VALVE - 2 | EL3 / 2-WAY SUMITOMO 090 DC INHIBIT 1 / BROWN | BEHIND RIGHT HAND WHEEL ARCH LINER |
| VACUUM SWITCHING VALVE - 3 | EL4 / 2-WAY YAZAKI 090 / SLATE | BEHIND RIGHT HAND WHEEL ARCH LINER |
| VARIABLE VALVE TIMING SOLENOID VALVE - A | PI31 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | ENGINE COMPARTMENT / 'A' BANK CYLINDER HEAD, FRONT |
| VARIABLE VALVE TIMING SOLENOID VALVE - B | PI32 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | ENGINE COMPARTMENT / 'B' BANK CYLINDER HEAD, FRONT |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|----------------------------|----------------|-------------------|---------------------------------|
| THROTTLE MOTOR POWER RELAY | BROWN | EM16 / BROWN | CONTROL MODULE ENCLOSURE RELAYS |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|---------------------------------|--|
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| EL1 | 6-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / RIGHT HAND ENCLOSURE |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM2 | 18-WAY MULTILOCK 070 / YELLOW | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| PI1 | 57-WAY SUMITOMO / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |
| PI2 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |

GROUNDS

| Ground | Location / Type |
|--------|---|
| EM1A1 | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM1A2 | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM1B1 | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM1B2 | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM2A1 | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| EM2A2 | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| EM2B1 | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| EM2B2 | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |

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, HARNESSSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|--|--|----------|
| O EM10-2 | A/CCM ENGINE SPEED | 5 V @ 1000 RPM = 45 Hz; 2000 RPM = 90 Hz | |
| I EM10-3 | A/CCM COMPRESSOR CLUTCH BATTERY POWER SUPPLY | B+ | B+ |
| I EM10-4 | A/CCM COMPRESSOR CLUTCH REQUEST | B+ | GROUND |
| I EM10-10 | BRAKE SWITCH | GROUND | B- |
| I EM11-1 | CRUISE CONTROL SET +/- | 7.3 V (+), 8.8 V (-) B- | |
| I EM11-4 | CRUISE CONTROL ON REQUEST | B+ | GROUND |
| I EM11-5 | CRUISE CONTROL CANCEL / RESUME | 7.3 V = RESUME, 8.8 V = CANCEL B- | |
| I EM12-5 | 4 WAY REFRIGERANT SWITCH HIGH PRESSURE | GROUND @ 20 BAR (290 PSI) | |
| I EM12-6 | 4 WAY REFRIGERANT SWITCH HIGH PRESSURE | GROUND @ 12 BAR (174 PSI) | |
| I EM12-8 | IGNITION MODULE 2 SWITCHING FEEDBACK | 23 Hz @ IDLE (5 V) | |
| I EM12-9 | IGNITION MODULE 2 SWITCHING FEEDBACK | 23 Hz @ IDLE (5 V) | |
| O EM12-10 | AIR CONDITIONING COMPRESSOR RELAY ACTIVATE | GROUND | B- |
| O EM13-1 | FUEL PUMP RELAY ACTIVATE | GROUND | B+ |
| O EM13-3 | CRUISE CONTROL ON STATUS LED | GROUND | B+ |
| O EM13-15 | SERIES (LOW) SPEED FAN ACTIVATE | GROUND | B+ |
| O EM13-16 | PARALLEL (HIGH) SPEED FAN ACTIVATE | GROUND | B+ |
| O FM13-22 | IGNITION COIL RELAY ACTIVATE | GROUND | B+ |
| O EM13-23 | IGNITION MODULE 1 SWITCHING | 5 Hz @ IDLE | |
| O EM13-24 | IGNITION MODULE 2 SWITCHING | 5 Hz @ IDLE | |
| O EM13-25 | IGNITION MODULE 2 SWITCHING | 5 Hz @ IDLE | |
| O EM13-26 | IGNITION MODULE 1 SWITCHING | 5 Hz @ IDLE | |
| O EM13-31 | IGNITION MODULE 2 SWITCHING | 5 Hz @ IDLE | |
| O EM13-32 | IGNITION MODULE 1 SWITCHING | 5 Hz @ IDLE | |
| O EM13-33 | IGNITION MODULE 1 SWITCHING | 5 Hz @ IDLE | |
| O EM13-34 | IGNITION MODULE 1 SWITCHING | 5 Hz @ IDLE | |
| O EM15-4 | INJECTOR '3B' ACTIVATE | GROUND | B+ |
| O EM15-5 | INJECTOR '2B' ACTIVATE | GROUND | B+ |
| O EM15-6 | INJECTOR '4A' ACTIVATE | GROUND | B+ |
| O EM15-7 | INJECTOR '1A' ACTIVATE | GROUND | B+ |
| O EM15-15 | INJECTOR '4B' ACTIVATE | GROUND | B+ |
| O EM15-16 | INJECTOR '3A' ACTIVATE | GROUND | B+ |
| O EM15-17 | INJECTOR '2A' ACTIVATE | GROUND | B+ |
| O EM15-18 | INJECTOR '1B' ACTIVATE | GROUND | B+ |

AIR CONDITIONING CONTROL MODULE

| Pin | Description | Active | Inactive |
|----------|---|------------------|--------------------------|
| I AC1-1 | COMPRESSOR CLUTCH STATUS | B+ (ON) | 0 V |
| O AC3-1 | AIR CONDITIONING ELECTRICAL LOAD SIGNAL | B+ | 0 V |
| I AC4-7 | LOAD INHIBIT | 0 V | B+ |
| O AC4-9 | COMPRESSOR CLUTCH ON REQUEST | B+ | 0 V |
| I AC4-17 | REFRIGERANT 4 WAY PRESSURE SWITCH | 0 V (2 - 30 BAR) | B+ (OUT OF ACTIVE RANGE) |

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

| | | | |
|------------------|-------------------------------------|--------------------|----------------------|
| I Input | D Serial and encoded communications | B+ Battery voltage | KHz Frequency x 1000 |
| O Output | C CAN (Network) | V Voltage (DC) | MS Milliseconds |
| SG Signal Ground | S SCP Network | Hz Frequency | 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. 04.4

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|--|--|--|
| AIR CONDITIONING COMPRESSOR CLUTCH | PI36 (FLYLEAD) / 1-WAY SUMITOMO 090 A-TYPE / BLACK | ENGINE COMPARTMENT / A/C COMPRESSOR |
| AIR CONDITIONING CONTROL MODULE | AC1 / 26-WAY MULTILOCK 47 / SLATE AC2 / 18-WAY MULTILOCK 47 / SLATE AC3 / 12-WAY MULTILOCK 47 / SLATE AC4 / 22-WAY MULTILOCK 47 / SLATE | A/C UNIT / RIGHT HAND SIDE |
| BRAKE CANCEL SWITCH - LHD | AC26 / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| BRAKE CANCEL SWITCH - RHD | AC24 / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| CRUISE CONTROL ON / OFF SWITCH | FC63 / 10-WAY AMP ML KEY B / WHITE | REARWARD OF GEAR SELECTOR |
| CRUISE CONTROL SWITCHES (STEERING WHEEL) | SW3 (FLYLEAD) / 3-WAY EPC / BLACK AND WHITE | CENTER OF STEERING WHEEL |
| ENGINE CONTROL MODULE | EM10 / 28-WAY MULTILOCK 040 / SLATE EM11 / 16-WAY MULTILOCK 040 / SLATE EM12 / 22-WAY MULTILOCK 040 / SLATE EM13 / 34-WAY MULTILOCK 040 / SLATE | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| FUEL INJECTOR - 1A | PI7 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | INTAKE MANIFOLD / FUEL RAIL |
| FUEL INJECTOR - 1B | PI11 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | INTAKE MANIFOLD / FUEL RAIL |
| FUEL INJECTOR - 2A | PI8 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | INTAKE MANIFOLD / FUEL RAIL |
| FUEL INJECTOR - 2B | PI12 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | INTAKE MANIFOLD / FUEL RAIL |
| FUEL INJECTOR - 3A | PI9 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | INTAKE MANIFOLD / FUEL RAIL |
| FUEL INJECTOR - 3B | PI13 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | INTAKE MANIFOLD / FUEL RAIL |
| FUEL INJECTOR - 4A | PI10 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | INTAKE MANIFOLD / FUEL RAIL |
| FUEL INJECTOR - 4B | PI14 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | INTAKE MANIFOLD / FUEL RAIL |
| FUEL PUMP | BT55 / 4-WAY SUMITOMO DL090 / NATURAL | TRUNK / TOP OF FUEL TANK |
| FUSE BOX - TRUNK | BT10 / 10-WAY U.T.A. FUSEBOX / NATURAL BT11 / 10-WAY U.T.A. FUSEBOX / BLACK BT12 / 10-WAY U.T.A. FUSEBOX / GREEN BT13 / 10-WAY U.T.A. FUSEBOX / BLUE BT64 / EYELET | TRUNK / ELECTRICAL CARRIER |
| IGNITION COIL - 1A | PI18 / 2-WAY YAZAKI 090X / BLACK | ENGINE COMPARTMENT / CAMSHAFT COVER |
| IGNITION COIL - 1B | PI22 / 2-WAY YAZAKI 090X / BLACK | ENGINE COMPARTMENT / CAMSHAFT COVER |
| IGNITION COIL - 2A | PI19 / 2-WAY YAZAKI 090X / BLACK | ENGINE COMPARTMENT / CAMSHAFT COVER |
| IGNITION COIL - 2B | PI23 / 2-WAY YAZAKI 090X / BLACK | ENGINE COMPARTMENT / CAMSHAFT COVER |
| IGNITION COIL - 3A | PI20 / 2-WAY YAZAKI 090X / BLACK | ENGINE COMPARTMENT / CAMSHAFT COVER |
| IGNITION COIL - 3B | PI24 / 2-WAY YAZAKI 090X / BLACK | ENGINE COMPARTMENT / CAMSHAFT COVER |
| IGNITION COIL - 4A | PI21 / 2-WAY YAZAKI 090X / BLACK | ENGINE COMPARTMENT / CAMSHAFT COVER |
| IGNITION COIL - 4B | PI25 / 2-WAY YAZAKI 090X / BLACK | ENGINE COMPARTMENT / CAMSHAFT COVER |
| IGNITION MODULE - 1 | EM27 / 12-WAY IGNITION POWER MODULE / BLACK | ENGINE COMPARTMENT / BULKHEAD, RIGHT HAND SIDE |
| IGNITION MODULE - 2 | EM29 / 12-WAY IGNITION POWER MODULE / BLACK | ENGINE COMPARTMENT / BULKHEAD, LEFT HAND SIDE |
| RADIATOR FAN CONTROL RELAY MODULE | LF9 / 8-WAY TRW / BLACK | ADJACENT TO LEFT HAND HORN |
| RADIATOR FAN - LH | LF13 / 2-WAY REINSHAGEN METRI 630 / BLACK | ENGINE COMPARTMENT / FRONT |
| RADIATOR FAN - RH | LF12 / 2-WAY REINSHAGEN METRI 630 / BLACK | ENGINE COMPARTMENT / FRONT |
| REFRIGERANT 4-WAY PRESSURE SWITCH | LF57 (FLYLEAD) / 6-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / REARWARD OF RADIATOR |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|--|----------------|-------------------|-----------------------------------|
| AIR CONDITIONING COMPRESSOR CLUTCH RELAY | BROWN | BUS | LH BRAKE BOOSTER ENCLOSURE RELAYS |
| FUEL INJECTION RELAY | BROWN | EM5 / BROWN | CONTROL MODULE ENCLOSURE RELAYS |
| FUEL PUMP RELAY (#4) | BROWN | BUS | TRUNK FUSE BOX |
| IGNITION COIL RELAY | BROWN | EM26 / BROWN | CONTROL MODULE ENCLOSURE RELAYS |

HARNESSTO-HARNESSTO CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|---------------------------------|--|
| AC12 | 20-WAY MULTILOCK 070 / WHITE | FASCIA TOP CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT2 | 18-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM2 | 18-WAY MULTILOCK 070 / YELLOW | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM3 | 14-WAY MULTILOCK 070 / SLATE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| LF3 | 13-WAY ECONOSEAL III LC / WHITE | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |
| LF40 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |
| PI1 | 57-WAY SUMITOMO / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |
| PI2 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |
| RH1 | 20-WAY MULTILOCK 070 / SLATE | BEHIND GLOVE BOX |
| SC3 | 12-WAY MULTILOCK 070 / SLATE | RIGHT HAND SIDE OF STEERING COLUMN |
| SW1 | 12-WAY MULTILOCK 040 / BLACK | INSIDE STEERING COLUMN COWL |
| SW2 | 6-WAY JST / WHITE | CENTER OF STEERING WHEEL |

GROUNDS

| Ground | Location / Type |
|--------|---|
| BT2AL | EYELET (PAIR) - LEFT HAND LEG / TRUNK, RIGHT REAR |
| EM1AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM2AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| LF2AL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |
| LF2BL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

CONTROL MODULE PIN OUT INFORMATION

TRANSMISSION CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|---|---|------------------|
| O EM7-1 | PRESSURE REGULATOR #2 | GROUND (MAXIMUM PRESSURE) | B+ (NO PRESSURE) |
| O EM7-2 | SPORT MODE SWITCH STATUS LED | GROUND = LED ON | B+ |
| O EM7-4 | PRESSURE REGULATOR #4 | GROUND (MAXIMUM PRESSURE) | B+ (NO PRESSURE) |
| O EM7-5 | PRESSURE REGULATOR #1 | GROUND (MAXIMUM PRESSURE) | B+ (NO PRESSURE) |
| I EM7-6 | GROUND | GROUND | GROUND |
| I EM7-8 | ROTARY SWITCH 'L2' CONTACTS | B+ | GROUND |
| I EM7-9 | ROTARY SWITCH 'L4' CONTACTS | B+ | GROUND |
| I EM7-12 | SPORT MODE SWITCH STRATEGY SELECT | GROUND = SPORT | 9 V = NORMAL |
| I EM7-13 | D - 4 SWITCH | GROUND | B+ |
| I EM7-14 | TURBINE SPEED SENSOR | 300 Hz @ IDLE (2.5 V) | |
| SG EM7-15 | OUTPUT SPEED SENSOR SHIELD | GROUND | GROUND |
| SG EM7-16 | OUTPUT SPEED SENSOR | GROUND | GROUND |
| I EM7-18 | KICKDOWN SWITCH | GROUND | B+ |
| SG EM7-21 | FLUID TEMPERATURE SENSOR | 1.31 V | |
| I EM7-22 | FLUID TEMPERATURE SENSOR FEEDBACK | 1.15 V @ 90°C | |
| I EM7-23 | TURBINE SPEED SENSOR SHIELD | GROUND | GROUND |
| I EM7-26 | BATTERY POWER SUPPLY | B+ | B+ |
| O EM7-28 | ROTARY / D-4 / KICK DOWN SWITCHES COMMON GROUND | GROUND | GROUND |
| O EM7-29 | PRESSURE REGULATOR #3 | GROUND (MAXIMUM PRESSURE) | B+ (NO PRESSURE) |
| O EM7-30 | SOLENOID VALVE #1 | GROUND | B+ |
| O EM7-32 | SOLENOID VALVE #3 | GROUND | B+ |
| O EM7-33 | SOLENOID VALVE #2 | GROUND | B+ |
| I EM7-34 | GROUND | GROUND | GROUND |
| I EM7-36 | ROTARY SWITCH 'L1' CONTACTS | B+ | GROUND |
| I EM7-37 | ROTARY SWITCH 'L3' CONTACTS | B+ | GROUND |
| I EM7-42 | TURBINE SPEED SENSOR | 1.51 V @ 10 MPH (16 KM/H) = 250 Hz, 20 MPH (32 KM/H) = 500 Hz | |
| I EM7-44 | OUTPUT SPEED SENSOR | 1.51 V @ 10 MPH (16 KM/H) = 223 Hz, 20 MPH (32 KM/H) = 446 Hz | |
| I EM7-45 | SPORT MODE SWITCH STRATEGY SELECT | 10 v = SPORT | GROUND = NORMAL |
| O EM7-51 | PRESSURE REGULATOR #5 | GROUND (MAXIMUM PRESSURE) | B+ (NO PRESSURE) |
| O EM7-52 | SOLENOID VALVES COMMON SUPPLY | B+ | B+ |
| O EM7-53 | PRESSURE REGULATORS COMMON SUPPLY | B+ | B+ |
| I EM7-64 | IGNITION SWITCHED POWER SUPPLY | B+ | GROUND |
| I EM7-55 | IGNITION SWITCHED POWER SUPPLY | B+ | GROUND |
| C EM7-82 | CAN NETWORK | 15 - 1500 Hz | |
| C EM7-83 | CAN NETWORK | 15 - 1500 Hz | |
| C EM7-85 | CAN NETWORK | 15 - 1500 Hz | |
| C EM7-86 | CAN NETWORK | 15 - 1500 Hz | |

GEAR SELECTOR MODULE

| Pin | Description | Active | Inactive |
|----------|--------------------------------|----------------------|----------|
| I FC88-1 | IGNITION SWITCHED POWER SUPPLY | B+ | GROUND |
| C FC88-3 | CAN NETWORK | 15 - 1500 Hz @ 2.5 V | |
| C FC88-4 | CAN NETWORK | 15 - 1500 Hz @ 2.5 V | |
| I FC88-6 | GROUND | GROUND | GROUND |
| C FC88-8 | CAN NETWORK | 15 - 1500 Hz @ 2.5 V | |
| C FC88-9 | CAN NETWORK | 15 - 1500 Hz @ 2.5 V | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 05.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|-----------------------------------|--|---|
| D - 4 SWITCH | FC84 (FLYLEAD) / YELLOW | GEAR SELECTOR ASSEMBLY, REAR |
| GEAR SELECTOR MODULE | FC88 / HYBRID / BLACK | FRONT OF GEAR SELECTOR ASSEMBLY |
| KICKDOWN SWITCH - LHD | AC21 / 2-WAY ECONOSEAL III LC / BLACK | BELOW ACCELERATOR PEDAL |
| KICKDOWN SWITCH - RHD | AC25 / 2-WAY ECONOSEAL III LC / BLACK | BELOW ACCELERATOR PEDAL |
| MODE SWITCH (TRANSMISSION) | FC35 / 10-WAY AMP ML KEY A / BLACK | REARWARD OF GEAR SELECTOR |
| TRANSMISSION CONTROL MODULE | EM7 / 88-WAY BOSCH / BLACK | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| TRANSMISSION ELECTRICAL CONNECTOR | EM46 / 16-WAY TRANSMISSION / BLACK | TRANSMISSION / LEFT HAND SIDE |
| TRANSMISSION ROTARY SWITCH | EM47 (FLYLEAD) / 10-WAY REINSHAGEN MPL50 / BLACK | TRANSMISSION / RIGHT HAND SIDE |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|------------------------------|---|
| AC12 | 20-WAY MULTILOCK 070 / WHITE | FASCIA TOP CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM3 | 14-WAY MULTILOCK 070 / SLATE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |

GROUNDS

| Ground | Location / Type |
|--------|--|
| EM1AL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM2AL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|--|----------------------|---------------------------|
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| I FC14-32 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| O FC14-48 | GEARSHIFT INTERLOCK SOLENOID SUPPLY | B+ (GEARSHIFT FREE) | GROUND (GEARSHIFT LOCKED) |
| O FC14-51 | KEY LOCK SOLENOID SUPPLY | B+ (KEY CAPTIVE) | GROUND (KEY RELEASED) |
| I FC14-58 | NOT-IN-PARK | GROUND (R,N,D,4,3,2) | B+ (PARK) |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |
| I FC14-104 | LIGHTING / MOTORS BATTERY POWER SUPPLY | B+ | B+ |

ENGINE CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|--------------|--------------|----------|
| I EM10-10 | BRAKE SWITCH | GROUND | B- |
| C EM10-28 | CAN NETWORK | 15 - 1500 Hz | |
| C EM10-27 | CAN NETWORK | 15 - 1500 Hz | |

GEAR SELECTOR MODULE

| Pin | Description | Active | Inactive |
|----------|-------------|----------------------|----------|
| C FC88-4 | CAN NETWORK | 15 - 1500 Hz @ 2.5 V | |
| C FC88-3 | CAN NETWORK | 15 - 1500 Hz @ 2.5 V | |
| C FC88-8 | CAN NETWORK | 15 - 1500 Hz @ 2.5 V | |
| C FC88-9 | CAN NETWORK | 15 - 1500 Hz @ 2.5 V | |

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|-------------|--------------|----------|
| S FC25-19 | SCP NETWORK | 2 - 1600 Hz | |
| S FC25-20 | SCP NETWORK | 2 - 1600 Hz | |
| C FC25-24 | CAN NETWORK | 15 - 1500 Hz | |
| C FC25-47 | CAN NETWORK | 15 - 1500 Hz | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 05.2

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|--------------------------------------|--|---|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| BRAKE SWITCH - LHD | AC26 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| BRAKE SWITCH - RHD | AC24 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| ENGINE CONTROL MODULE | EM10 / 28-WAY MULTILOCK 040 / SLATE EM11 / 16-WAY MULTILOCK 040 / SLATE EM12 / 22-WAY MULTILOCK 040 / SLATE EM13 / 34-WAY MULTILOCK 040 / SLATE | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| GFAR SELECTOR MODULE | FC88 / HYBRID / BLACK | FRONT OF GEAR SELECTOR ASSEMBLY |
| GEARSHIFT INTERLOCK SOLENOID | FC86 / 2-WAY MULTILOCK 070 / WHITE | GEAR SELECTOR ASSEMBLY |
| KEYLOCK SOLENOID (COLUMN SWITCHGEAR) | SC1 (FLYLEAD) / 12-WAY MULTILOCK 070 / WHITE | STEERING COLUMN |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| NOT-IN-PARK MICROSWITCH | FC87 (FLYLEAD) / 3-WAY MULTILOCK 070 / WHITE | GEAR SELECTOR ASSEMBLY |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |

GROUNDS

| Ground | Location / Type |
|--------|--|
| FC2BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

ABS / TRACTION CONTROL CONTROL MODULE

| Pin | Description | Active | Inactive |
|------------|---|--|----------|
| O LF37-1 | BRAKE FLUID RESERVOIR LEVEL SWITCH REFERENCE | B+ | B+ |
| I LF37-2 | BRAKE SWITCH | GROUND | B+ |
| I LF37-3 | RH FRONT WHEEL SPEED SENSOR | 2.5 V @ 10 MPH (16 KM/H) = 100 Hz; 20 MPH (32 KM/H) = 200 Hz | |
| SG LF37-4 | RH FRONT WHEEL SPEED SENSOR | 2.5 V @ REST | |
| C LF37-5 | CAN NETWORK | 15 - 1500 Hz | |
| SG LF37-6 | RH REAR WHEEL SPEED SENSOR | 2.5 V @ REST | |
| I LF37-7 | RH REAR WHEEL SPEED SENSOR | 2.5 V @ 10 MPH (16 KM/H) = 100 Hz; 20 MPH (32 KM/H) = 200 Hz | |
| I LF37-8 | GROUND | GROUND | GROUND |
| I LF37-9 | BATTERY POWER SUPPLY | B+ | B+ |
| LF37-10 | NOT USED | | |
| LF37-11 | NOT USED | | |
| I LF37-13 | BRAKE FLUID RESERVOIR LEVEL SWITCH | GROUND | B+ |
| I LF37-14 | STABILITY / TRACTION CONTROL SWITCH | GROUND (MOMENTARY) | B+ |
| C LF37-15 | CAN NETWORK | 15 - 1500 Hz | |
| O LF37-16 | STABILITY / TRACTION CONTROL SWITCH STATE LED | GROUND | B+ |
| I LF37-17 | LH FRONT WHEEL SPEED SENSOR | 2.5 V @ 10 MPH (16 KM/H) = 100 Hz; 20 MPH (32 KM/H) = 200 Hz | |
| SG LF37-18 | LH FRONT WHEEL SPEED SENSOR | 2.5 V @ REST | |
| O LF37-19 | ADAPTIVE DAMPENING OVERRIDE | | |
| I LF37-20 | IGNITION SWITCHED SUPPLY | B+ | GROUND |
| I LF37-21 | LH REAR WHEEL SPEED SENSOR | 2.5 V @ 10 MPH (16 KM/H) = 100 Hz; 20 MPH (32 KM/H) = 200 Hz | |
| SG LF37-22 | LH REAR WHEEL SPEED SENSOR | 2.5 V @ REST | |
| I LF37-24 | GROUND | GROUND | GROUND |
| I LF37-25 | BATTERY POWER SUPPLY | B+ | B+ |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 06.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|--|--|--|
| ABS / TRACTION CONTROL CONTROL MODULE | LF37 / 25-WAY AMP HYBRID / BLACK | ENGINE COMPARTMENT / FRONT LEFT |
| BRAKE FLUID RESERVOIR | EM37 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | ENGINE COMPARTMENT / BRAKE BOOSTER ENCLOSURE |
| BRAKE SWITCH - LHD | AC26 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| BRAKE SWITCH - RHD | AC24 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| STABILITY / TRACTION CONTROL SWITCH (CENTER CONSOLE SWITCH PACK) | FC55 (FLYLEAD) / 20-WAY FORD IDC / BLACK | CENTER CONSOLE SWITCH PACK |
| WHEEL SPEED SENSOR - LH FRONT | FL1 / 2-WAY REINSHAGEN METRI 630 / BLACK | WHEEL HUB |
| WHEEL SPEED SENSOR - LH REAR | RL1 / 2-WAY REINSHAGEN METRI 630 / BLACK | WHEEL HUB |
| WHEEL SPEED SENSOR - RH FRONT | FR1 / 2-WAY REINSHAGEN METRI 630 / BLACK | WHEEL HUB |
| WHEEL SPEED SENSOR - RH REAR | RR1 / 2-WAY REINSHAGEN METRI 630 / BLACK | WHEEL HUB |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|---------------------------------|---|
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT2 | 18-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BT72 | 4-WAY ECONOSEAL III LC / BLACK | REAR OF REAR HUB ASSEMBLY / LEFT HAND SIDE |
| BT73 | 4-WAY ECONOSEAL III LC / BLACK | REAR OF REAR HUB ASSEMBLY / RIGHT HAND SIDE |
| LF40 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |
| LF41 | 2-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / ADJACENT TO ENGINE COMPARTMENT FUSE BOX |
| LF42 | 2-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / ADJACENT TO AIR CLEANER |
| LF60 | 20-WAY MULTILOCK 070 / WHITE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RH1 | 20-WAY MULTILOCK 070 / SLATE | BEHIND GLOVE BOX |

GROUNDS

| Ground | Location / Type |
|--------|---|
| FC2BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC4BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| LF3AS | EYELET (SINGLE) / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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.

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CONTROL MODULE PIN OUT INFORMATION

AIR CONDITIONING CONTROL MODULE

| Pin | Description | Active | Inactive |
|----------|--|---|----------------|
| O AC1-6 | DEFROST VENT SERVO MOTOR | B+ | 0 V |
| O AC1-7 | CENTER VENT SERVO MOTOR | B+ | 0 V |
| O AC1-8 | LH FRESH / RECIRCULATION VENT MOTOR | B+ | 0 V |
| O AC1-9 | RH FRESH / RECIRCULATION VENT MOTOR | B+ | 0 V |
| O AC1-12 | FOOTWELL VENT SERVO MOTOR | B+ | 0 V |
| O AC1-13 | COOL AIR BY-PASS VENT SERVO MOTOR | B+ | 0 V |
| O AC1-19 | DEFROST VENT SERVO MOTOR | B+ | 0 V |
| O AC1-20 | CENTER VENT SERVO MOTOR | B+ | 0 V |
| O AC1-21 | LH FRESH / RECIRCULATION VENT SERVO MOTOR | B+ | 0 V |
| O AC1-22 | RH FRESH / RECIRCULATION VENT SERVO MOTOR | B+ | 0 V |
| O AC1-25 | FOOTWELL SERVO MOTOR | B+ | 0 V |
| O AC1-26 | COOL AIR BY-PASS SERVO MOTOR | B+ | 0 V |
| I AC2-1 | SOLAR SENSOR FEEDBACK | 0.75 V – 4.75 V; INCREASING WITH SOLAR LOAD | < 1 V = CLOSED |
| I AC2-2 | CENTER VENT POTENTIOMETER FEEDBACK | > 3.5 V = OPEN | < 1 V = CLOSED |
| I AC2-3 | RH FRESH / RECIRCULATION VENT POTENTIOMETER FEEDBACK | > 3.5 V = OPEN | < 1 V = CLOSED |
| I AC2-5 | COOL AIR BY-PASS VENT POTENTIOMETER FEEDBACK | > 3.5 V = OPEN | < 1 V = CLOSED |
| I AC2-6 | ENGINE COOLANT TEMPERATURE | 2.5 V @ 90° C; DECREASING WITH TEMPERATURE | 4.75 V = BLUE |
| I AC2-9 | DIFFERENTIAL CONTROL POTENTIOMETER FEEDBACK | 0.75 V = RED | < 1 V = CLOSED |
| I AC2-10 | DEFROST VENT POTENTIOMETER FEEDBACK | > 3.5 V = OPEN | < 1 V = CLOSED |
| I AC2-11 | LH FRESH / RECIRCULATION VENT POTENTIOMETER FEEDBACK | > 3.5 V = OPEN | < 1 V = CLOSED |
| I AC2-13 | FOOTWELL VENT POTENTIOMETER FEEDBACK | > 3.5 V = OPEN | < 1 V = CLOSED |
| O AC3-2 | CLOCK | B+ (1.45 Hz) | |
| D AC3-3 | SERIAL DATA OUTPUT TO CONTROL PANEL | | 0 V |
| I AC3-4 | COMPRESSOR LOCK SIGNAL | .43 V | |
| I AC3-5 | AMBIENT TEMPERATURE SENSOR FEEDBACK | 2.18 V @ 25° C; DECREASING WITH WITH TEMPERATURE | |
| I AC3-6 | HEATER MATRIX TEMPERATURE SENSOR FEEDBACK | 2.25 V @ 20° C; DECREASING WITH TEMPERATURE | |
| D AC3-7 | SERIAL DATA INPUT FROM CONTROL PANEL | | 0 V |
| O AC3-8 | START | B+ (MOMENTARY) | 0 V |
| I AC3-10 | IGNITION SWITCHED POWER SUPPLY | B+ | |
| I AC3-11 | IN CAR TEMPERATURE SENSOR FEEDBACK | 3.25 V @ 0° C; DECREASING WITH TEMPERATURE | |
| I AC3-12 | EVAPORATOR TEMPERATURE SENSOR FEEDBACK | 3.25 V @ 0° C; DECREASING WITH TEMPERATURE | |
| I AC4-1 | IGNITION SWITCHED POWER SUPPLY | B+ | 0 V |
| I AC4-2 | ISOLATE RELAY CONTROLLED BATTERY POWER SUPPLY | B+ | 0 V |
| I AC4-3 | IGNITION SWITCHED GROUND | 0 V | B+ |
| O AC4-4 | CONTROL PANEL BATTERY POWER SUPPLY | B+ | 0 V |
| I AC4-5 | BATTERY POWER SUPPLY | B+ | B+ |
| I AC4-6 | ENGINE SPEED SIGNAL | 5 V @ 1000 RPM = 45 Hz; 2000 RPM = 90 Hz | 5 V |
| O AC4-8 | POTENTIOMETER COMMON REFERENCE VOLTAGE | 5 V | |
| D AC4-10 | SERIAL COMMUNICATIONS INPUT | | |
| O AC4-12 | CONTROL PANEL BATTERY POWER SUPPLY | B+ | B+ |
| I AC4-13 | GROUND | 0 V | 0 V |
| O AC4-14 | CONTROL PANEL GROUND SUPPLY | 0 V | 0 V |
| O AC4-15 | ISOLATE RELAY ACTIVE | B+ | 0 V |
| I AC4-16 | VEHICLE SPEED SIGNAL | 22 Hz @ 10 MPH (16 KM/H); 44 Hz @ 20 MPH (32 KM/H) @ B+ | |
| O AC4-18 | ASPIRATOR MOTOR POWER SUPPLY | B+ | 0 V |
| O AC4-19 | POTENTIOMETER COMMON REFERENCE GROUND | 0 V | 0 V |
| I AC4-20 | GROUND | 0 V | 0 V |
| D AC4-21 | SERIAL COMMUNICATIONS OUTPUT | | |

Fig. 07.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|-------------------------------------|--|---|
| AIR CONDITIONING CONTROL MODULE | AC1 / 26-WAY MULTILOCK 47 / SLATE AC2 / 16-WAY MULTILOCK 47 / SLATE AC3 / 12-WAY MULTILOCK 47 / SLATE AC4 / 22-WAY MULTILOCK 47 / SLATE | A/C UNIT / RIGHT HAND SIDE |
| AIR CONDITIONING CONTROL PANEL | FC43 (FLYLEAD) / 12-WAY MULTILOCK 040 / BLUE | CENTER CONSOLE |
| AIR INTAKE – LH BLOWER | AC5 (FLYLEAD) / 15-WAY SUMITOMO 090 HYBRID / NATURAL | ADJACENT TO BLOWER MOTOR ASSEMBLY |
| AIR INTAKE – RH BLOWER | AC6 (FLYLEAD) / 15-WAY SUMITOMO 090 HYBRID / NATURAL | ADJACENT TO BLOWER MOTOR ASSEMBLY |
| AMBIENT TEMPERATURE SENSOR | LF29 (FLYLEAD) / 2-WAY YAZAKI 0902 / BLACK | ADJACENT TO RIGHT HAND HORN |
| ASPIRATOR ASSEMBLY | FC12 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | DRIVER KNEE BOLSTER |
| COMPRESSOR LOCK SENSOR | PI37 (FLYLEAD) / 2-WAY SUMITOMO HW090 / BLACK | ENGINE COMPARTMENT / A/C COMPRESSOR |
| DIFFERENTIAL CONTROL POTENTIOMETER | FC48 (FLYLEAD) / 3-WAY MULTILOCK 070 / WHITE | A/C UNIT, LEFT HAND SIDE |
| EVAPORATOR / HEATER MATRIX ASSEMBLY | AC7 (FLYLEAD) / 12-WAY MULTILOCK 040 / BLACK | A/C UNIT / LEFT HAND SIDE |
| SOLAR SENSOR | FC92 (FLY LEAD) / 2-WAY MULTILOCK 040 / BLACK | DRIVER SIDE FASCIA / ADJACENT TO DEFROST VENT |
| VENT ASSEMBLY | FC44 (FLYLEAD) / 12-WAY MULTILOCK 040 / BLACK | A/C UNIT / TOP |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|--------------------------------|----------------|-------------------|-------------------|
| AIR CONDITIONING ISOLATE RELAY | VIOLET | FC24 / VIOLET | RH FASCIA RELAYS |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|---|
| AC12 | 20-WAY MULTILOCK 070 / WHITE | FASCIA TOP CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC15 | 20-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC15 | 20-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| LF60 | 20-WAY MULTILOCK 070 / WHITE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| PI1 | 57-WAY SUMITOMO / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |

GROUNDS

| Ground | Location / Type |
|--------|--|
| FC2BR | EYELET (PAIR) – RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3CS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC4BR | EYELET (PAIR) – RIGHT HAND LEG / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

ENGINE CONTROL MODULE

| Pin | Description | Active | Inactive |
|---------|--|--|----------|
| EM10-2 | A/CCM ENGINE SPEED | 5 V @ 1000 RPM = 45 Hz; 2000 RPM = 90 Hz | |
| EM10-3 | A/CCM COMPRESSOR CLUTCH BATTERY POWER SUPPLY | B+ | B+ |
| EM10-4 | A/CCM COMPRESSOR CLUTCH REQUEST | B+ | GROUND |
| EM12-5 | 4 WAY REFRIGERANT SWITCH HIGH PRESSURE | GROUND @ 20 BAR (290 PSI) | |
| FM12-6 | 4 WAY REFRIGERANT SWITCH HIGH PRESSURE | GROUND @ 12 BAR (174 PSI) | |
| EM12-10 | AIR CONDITIONING COMPRESSOR RELAY ACTIVATE | GROUND | B+ |
| EM13-15 | SERIES (LOW) SPEED FAN ACTIVATE | GROUND | B+ |
| EM13-16 | PARALLEL (HIGH) SPEED FAN ACTIVATE | GROUND | B+ |

AIR CONDITIONING CONTROL MODULE

| Pin | Description | Active | Inactive |
|--------|---|-------------------|--------------------------|
| AC1-1 | COMPRESSOR CLUTCH STATUS | B- (ON) | 0 V |
| AC1-2 | HEATER VALVE ACTIVE | B+ | 0 V |
| AC1-3 | RH BLOWER MOTOR RELAY ACTIVE | 0 V | B+ |
| AC1-4 | LH / RH WINDSHIELD HEATER RELAYS ACTIVATE | 0 V | B+ |
| AC1-5 | DOOR MIRROR HEATER RELAY ACTIVATE | 0 V | B+ |
| AC1-16 | LH BLOWER MOTOR RELAY ACTIVATE | B+ | 0 V |
| AC1-17 | HEATER PUMP RELAY ACTIVATE | 0 V | B+ |
| AC1-18 | HEATED BACKLIGHT RELAY ACTIVATE | 0 V | B+ |
| AC2-7 | RH BLOWER SPEED FEEDBACK | 7.6 V = LOW SPEED | 0.83 V = HIGH SPEED |
| AC2-8 | RH BLOWER SPEED CONTROL DRIVE SIGNAL | 1.3 V = LOW SPEED | 0 V = HIGH SPEED |
| AC2-15 | LH BLOWER SPEED FEEDBACK | 7.6 V = LOW SPEED | 0.83 V = HIGH SPEED |
| AC2-16 | LH BLOWER SPEED CONTROL DRIVE SIGNAL | 1.3 V = LOW SPEED | 0 V = HIGH SPEED |
| AC3-1 | AIR CONDITIONING ELECTRICAL LOAD SIGNAL | B+ | 0 V |
| AC4-7 | LOAD INHIBIT | 0 V | B+ |
| AC4-9 | COMPRESSOR CLUTCH ON REQUEST | B- | 0 V |
| AC4-17 | REFRIGERANT 4 WAY PRESSURE SWITCH | 0 V (2 - 30 BAR) | B+ (OUT OF ACTIVE RANGE) |

Fig. 07.2

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|------------------------------------|--|---|
| AIR CONDITIONING COMPRESSOR CLUTCH | PI36 (FLYLEAD) / 1-WAY SUMITOMO 090 A-TYPE / BLACK | ENGINE COMPARTMENT / A/C COMPRESSOR |
| AIR CONDITIONING CONTROL MODULE | AC1 / 26-WAY MULTILOCK 47 / SLATE AC2 / 16-WAY MULTILOCK 47 / SLATE AC3 / 12-WAY MULTILOCK 47 / SLATE AC4 / 22-WAY MULTILOCK 47 / SLATE | A/C UNIT / RIGHT HAND SIDE |
| BLOWER MOTOR - LH | AC5 (FLYLEAD) / 15-WAY SUMITOMO 090 HYBRID / NATURAL | LEFT HAND SIDE OF A/C UNIT |
| BLOWER MOTOR - RH | AC6 (FLYLEAD) / 15-WAY SUMITOMO 090 HYBRID / NATURAL | RIGHT HAND SIDE OF A/C UNIT |
| ENGINE CONTROL MODULE | EM10 / 28-WAY MULTILOCK 040 / SLATE EM11 / 16-WAY MULTILOCK 040 / SLATE EM12 / 22-WAY MULTILOCK 040 / SLATE EM13 / 34-WAY MULTILOCK 040 / SLATE | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| FUSE BOX - ENGINE COMPARTMENT | LF5 / 10-WAY U.T.A. FUSEBOX / WHITE LF6 / 10-WAY U.T.A. FUSEBOX / BLACK LF7 / 10-WAY U.T.A. FUSEBOX / GREEN LF8 / 10-WAY U.T.A. FUSEBOX / BLUE LF70 / EYELET | ENGINE COMPARTMENT / LEFT FRONT |
| FUSE BOX - TRUNK | BT10 / 10-WAY U.T.A. FUSEBOX / NATURAL BT11 / 10-WAY U.T.A. FUSEBOX / BLACK BT12 / 10-WAY U.T.A. FUSEBOX / GREEN BT13 / 10-WAY U.T.A. FUSEBOX / BLUE BT64 / EYELET | TRUNK / ELECTRICAL CARRIER |
| HEATED BACKLIGHT | RH17 / LUCAR RIGHT ANGLE | BACKLIGHT / RIGHT HAND SIDE |
| HEATER PUMP | EM41 (FLYLEAD) / 2-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / BULKHEAD, LEFT HAND SIDE |
| HEATER VALVE | EM42 (FLYLEAD) / 2-WAY ECONOSEAL III LC / WHITE | ENGINE COMPARTMENT / BULKHEAD, LEFT HAND SIDE |
| MIRROR - DRIVER | DD8 / 12-WAY MULTILOCK 040 / BLUE | DRIVER DOOR |
| MIRROR - PASSENGER | DPS / 12-WAY MULTILOCK 040 / BLUE | PASSENGER DOOR |
| RADIATOR FAN CONTROL RELAY MODULE | LF9 / 8-WAY TRW / BLACK | ADJACENT TO LEFT HAND HORN |
| RADIATOR FAN - LH | LF13 / 2-WAY REINSHAGEN METRI 630 / BLACK | ENGINE COMPARTMENT / FRONT |
| RADIATOR FAN - RH | LF12 / 2-WAY REINSHAGEN METRI 630 / BLACK | ENGINE COMPARTMENT / FRONT |
| REFRIGERANT 4-WAY PRESSURE SWITCH | LF57 (FLYLEAD) / 8-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / REARWARD OF RADIATOR |
| WINDSHIELD HEATER - LH | EM49 / 2-WAY AMP SERIES 187C / SLATE | ENGINE COMPARTMENT / |
| WINDSHIELD HEATER - RH | EM48 / 2-WAY AMP SERIES 187C / SLATE | ENGINE COMPARTMENT / |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|--|----------------|-------------------|------------------------------------|
| AIR CONDITIONING COMPRESSOR CLUTCH RELAY | BROWN | BUS | LH BRAKE BOOSTER ENCLOSURE RELAYS |
| BLOWER MOTOR RELAY - LH | BLUE | AC20 / BLUE | DRIVESHAFT TUNNEL RELAYS |
| BLOWER MOTOR RELAY - RH | BLUE | AC20 / BLUE | DRIVESHAFT TUNNEL RELAYS |
| DOOR MIRROR HEATER RELAY | BLUE | FC28 / BLUE | LH FASCIA RELAYS |
| HEATED BACKLIGHT RELAY (#2) | BROWN | BUS | TRUNK RELAYS |
| HEATER PUMP RELAY (#1) | BROWN | BUS | ENGINE COMPARTMENT FUSE BOX RELAYS |
| WINDSHIELD HEATER RELAY - LH | BROWN | EM44 / BROWN | RH BRAKE BOOSTER ENCLOSURE RELAYS |
| WINDSHIELD HEATER RELAY - RH | BROWN | EM45 / BROWN | RH BRAKE BOOSTER ENCLOSURE RELAYS |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|---------------------------------|---|
| AC12 | 20-WAY MULTILOCK 070 / WHITE | FASCIA TOP CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC15 | 20-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT2 | 18-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BT58 | 4-WAY ECONOSEAL III HC / BLACK | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM2 | 18-WAY MULTILOCK 070 / YELLOW | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| LF3 | 13-WAY ECONOSEAL III LC / WHITE | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |
| LF40 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |
| LF60 | 20-WAY MULTILOCK 070 / WHITE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| PI1 | 57-WAY SUMITOMO / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |
| RH2 | 20-WAY MULTILOCK 070 / WHITE | REAR OF CENTER CONSOLE ASSEMBLY |

GROUNDS

| Ground | Location / Type |
|--------|--|
| EM1AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM1BL | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM1BS | EYELET (SINGLE) / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM2AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| EM2BL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| EM2BS | EYELET (SINGLE) / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| FC2AL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND 'A' POST |
| FC4AL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| LF2AL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |
| LF2AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |
| LF2BL | EYELET (PAIR) - LEFT HAND LEG / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |
| RH2S | EYELET (SINGLE) / LEFT HAND REAR QUARTER |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

DATE OF ISSUE: OCTOBER 1996

CONTROL MODULE PIN OUT INFORMATION

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|---|---|----------|
| I FC25-1 | GROUND | GROUND | GROUND |
| I FC25-2 | IGNITION SWITCHED POWER SUPPLY | B+ | GROUND |
| O FC25-3 | MINOR INSTRUMENT PACK BATTERY POWER SUPPLY | B+ | B+ |
| I FC25-6 | ADAPTIVE DAMPENING WARNING | GROUND | B+ |
| I FC25-10 | TRIP CYCLE | GROUND (MOMENTARY) | B+ |
| I FC25-13 | 'A/B' TRIP SELECT | GROUND (MOMENTARY) | B+ |
| I FC25-14 | 'ML/KM' SELECT | GROUND (MOMENTARY) | B+ |
| S FC25-19 | SCP NETWORK | 2 - 1600 Hz | B+ |
| S FC25-20 | SCP NETWORK | 2 - 1600 Hz | B+ |
| C FC25-23 | CAN NETWORK | 15 - 1500 Hz | B+ |
| C FC25-24 | CAN NETWORK | 15 - 1500 Hz | B+ |
| I FC25-25 | BATTERY POWER SUPPLY | B+ | B+ |
| I FC25-26 | GROUND | GROUND | GROUND |
| I FC25-27 | ILLUMINATION SUPPLY | B+ | GROUND |
| O FC25-28 | MINOR INSTRUMENT PACK ILLUMINATION SUPPLY | B+ | GROUND |
| O FC25-33 | GROUND REFERENCE | GROUND | GROUND |
| I FC25-35 | 'CLEAR' SELECT | GROUND (MOMENTARY) | GROUND |
| I FC25-36 | '000' SELECT | GROUND (MOMENTARY) | GROUND |
| C FC25-47 | CAN NETWORK | 15 - 1500 Hz | GROUND |
| C FC25-48 | CAN NETWORK | 15 - 1500 Hz | GROUND |
| O FC26-1 | BATTERY CHARGE WARNING | < 3 V | B+ |
| O FC26-2 | OIL PRESSURE WARNING | < 3 V = < 3 PSI | B+ |
| O FC26-3 | ENGINE SPEED | 6 V @ 1000 RPM = 45 Hz; 2000 RPM = 90 Hz | B+ |
| O FC26-4 | ENGINE COOLANT TEMPERATURE | 6 V = 90° C | B+ |
| O FC26-5 | VEHICLE SPEED - A/C/M | 22 Hz @ 10 MPH (16 KM/H); 44 Hz @ 20 MPH (32 KM/H) @ B+ | B+ |
| O FC26-6 | VEHICLE SPEED - PAS | 22 Hz @ 10 MPH (16 KM/H); 44 Hz @ 20 MPH (32 KM/H) @ B+ | B+ |
| O FC26-7 | VEHICLE SPEED - ADAPTIVE DAMPING CONTROL MODULE | 22 Hz @ 10 MPH (16 KM/H); 44 Hz @ 20 MPH (32 KM/H) @ B+ | B+ |
| O FC26-8 | BATTERY VOLTAGE GAUGE POSITION FEEDBACK | 5 V (MIDPOINT) | B+ |
| O FC26-9 | BATTERY VOLTAGE GAUGE POSITION FEEDBACK | 5 V (MIDPOINT) | B+ |
| O FC26-10 | OIL PRESSURE GAUGE POSITION FEEDBACK | 5 V = 0 PSI; 3.3 V = NORMAL (MIDPOINT) | B+ |
| O FC26-11 | BATTERY VOLTAGE GAUGE MOVEMENT | 3.7 - 5 V (PULSE) | B+ |
| O FC26-12 | BATTERY VOLTAGE GAUGE MOVEMENT | 3.7 - 5 V (PULSE) | B+ |
| I FC26-13 | FUEL LEVEL GAUGE FEEDBACK | B+ = EMPTY | B+ |
| O FC26-14 | FUEL LEVEL GAUGE REFERENCE GROUND | GROUND | B+ |
| O FC26-15 | OIL PRESSURE GAUGE POSITION FEEDBACK | 5 V = 0 PSI; 3.3 V = NORMAL (MIDPOINT) | B+ |
| I FC26-16 | AIR BAG MIL | GROUND (ON) | B+ |
| O FC26-17 | OIL PRESSURE GAUGE MOVEMENT | 3.7 - 5 V (PULSE) | B+ |
| O FC26-18 | OIL PRESSURE GAUGE MOVEMENT | 3.7 - 5 V (PULSE) | B+ |
| I FC26-19 | LOW OIL PRESSURE WARNING | > 3 V = > 3 PSI | B+ |
| O FC26-20 | VEHICLE SPEED | 22 Hz @ 10 MPH (16 KM/H); 44 Hz @ 20 MPH (32 KM/H) @ B+ | B+ |
| I FC26-21 | DIMMER OVERRIDE | GROUND | B+ |
| I FC26-22 | CHARGE WARNING | B+ | B+ |
| I FC26-23 | LOW COOLANT WARNING | GROUND | B+ |
| I FC26-24 | EXHAUST OVER TEMPERATURE WARNING | GROUND | B+ |

MINOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|---|--|----------|
| I FC79-8 | MINOR INSTRUMENT PACK ILLUMINATION SUPPLY | B+ | B+ |
| I FC79-9 | OIL PRESSURE GAUGE MOVEMENT | 3.7 - 5 V (PULSE) | B+ |
| I FC79-10 | OIL PRESSURE GAUGE MOVEMENT | 3.7 - 5 V (PULSE) | B+ |
| I FC79-11 | CHARGE WARNING | < 3 V | B+ |
| I FC79-12 | BATTERY VOLTAGE GAUGE POSITION FEEDBACK | 5 V (MIDPOINT) | B+ |
| I FC79-13 | BATTERY VOLTAGE GAUGE POSITION FEEDBACK | 5 V (MIDPOINT) | B+ |
| I FC79-14 | BATTERY VOLTAGE GAUGE MOVEMENT | 3.7 - 5 V (PULSE) | B+ |
| I FC79-15 | BATTERY VOLTAGE GAUGE MOVEMENT | 3.7 - 5 V (PULSE) | B+ |
| I FC79-16 | GROUND | GROUND | GROUND |
| I FC79-17 | BATTERY POWER SUPPLY | B+ | B+ |
| I FC79-18 | LOW OIL PRESSURE WARNING | GROUND (< 3 PSI) | B+ |
| I FC79-19 | OIL PRESSURE GAUGE POSITION FEEDBACK | 5 V = 0 PSI; 3.3 V = NORMAL (MIDPOINT) | B+ |
| I FC79-20 | OIL PRESSURE GAUGE POSITION FEEDBACK | 5 V = 0 PSI; 3.3 V = NORMAL (MIDPOINT) | B+ |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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. 08.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---------------------------------------|--|--|
| COOLANT LEVEL SWITCH I | EM55 / 2-WAY AMP JUNIOR POWER TIMER / BROWN | ENGINE COMPARTMENT / COOLANT RESERVOIR |
| FUEL LEVEL SENSOR | BT7 / LUCAR RIGHT ANGLE BT8 / LUCAR RIGHT ANGLE | TRUNK / FUEL TANK |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| MINOR INSTRUMENT PACK | FC79 / 20-WAY MULTILOCK 040 / BLACK | FASCIA |
| OIL PRESSURE SWITCH | PI40 / 1-WAY ECONOSEAL ECJ2 / BLACK | ENGINE BLOCK / RIGHT HAND SIDE |
| TRIP COMPUTER SWITCH PACK | FC27 / 10-WAY AMP ML KEY A / BLACK | FASCIA / DRIVER SIDE |
| TRIP CYCLE SWITCH (COLUMN SWITCHGEAR) | SC2 (FLYLEAD) / 10-WAY MULTILOCK 070 / YELLOW | STEERING COLUMN |

HARNESSTO-HARNESSTO CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|---|
| BT2 | 18-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| EM2 | 18-WAY MULTILOCK 070 / YELLOW | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| PI1 | 57-WAY SUMITOMO / BLACK | ENGINE COMPARTMENT / BRACKET ON TOP OF TRANSMISSION |
| RH1 | 20-WAY MULTILOCK 070 / SLATE | BEHIND GLOVE BOX |

GROUNDS

| Ground | Location / Type |
|--------|---|
| EM1BR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM2BR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| FC2BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC4BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|---------------------------------|--------------|----------|
| I FC14-4 | BATTERY POWER SUPPLY | B+ | B+ |
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| I FC14-32 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| I FC14-41 | IGNITION GROUND SUPPLY | GROUND | GROUND |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| O FC14-82 | AUDIBLE WARNING SPEAKER OUTPUT | AUDIO OUTPUT | |
| O FC14-83 | AUDIBLE WARNING SPEAKER OUTPUT | AUDIO OUTPUT | |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 08.2

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|--|---|---|
| AUDIBLE WARNING SPEAKER (COLUMN SWITCHGEAR) BODY PROCESSOR MODULE | SC1 (FLYLEAD) / 12-WAY MULTILOCK 070 / WHITE FC14 / 104-WAY AMP EEEC / SLATE | STEERING COLUMN / RIGHT HAND SIDE PASSENGER SIDE FASCIA / AIRBAG BRACKET |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|------------------------------|------------------------------------|
| SC1 | 12-WAY MULTILOCK 070 / WHITE | RIGHT HAND SIDE OF STEERING COLUMN |

GROUNDS

| Ground | Location / Type |
|--------|--------------------------------------|
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|--|-----------------------------|----------|
| O FC14-1 | RH FRONT SIDE LAMP BULB SUPPLY | B+ | GROUND |
| O FC14-2 | LH FRONT DI BULB SUPPLY | B+ (PULSED) | GROUND |
| O FC14-3 | RH FRONT DI BULB SUPPLY | B+ (PULSED) | GROUND |
| I FC14-14 | HEADLAMP MAIN BEAM REQUEST | GROUND | B+ |
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | B+ |
| I FC14-16 | SIDE LAMP REQUEST | GROUND | B+ |
| O FC14-20 | FRONT FOG LAMP RELAY ACTIVATE / STATUS LED | GROUND (LIGHTS ON / LED ON) | B+ |
| O FC14-27 | LH SIDE DI REPEATER SUPPLY (ROW ONLY) | B+ | GROUND |
| O FC14-28 | RH SIDE DI REPEATER SUPPLY (ROW ONLY) | B+ | GROUND |
| I FC14-30 | HEADLAMP FLASH REQUEST | GROUND (MOMENTARY) | B+ |
| I FC14-38 | FRONT FOG LAMP SWITCH | GROUND (MOMENTARY) | B+ |
| I FC14-41 | IGNITION GROUND SUPPLY | GROUND | B+ |
| I FC14-42 | DIPPED BEAM REQUEST | GROUND | B+ |
| O FC14-45 | MAIN BEAM RELAY ACTIVATE | GROUND | B+ |
| O FC14-53 | LH FRONT SIDE LAMP SUPPLY | B+ (LIGHT ON) | GROUND |
| O FC14-54 | LH SIDE MARKER SUPPLY (NAS ONLY) | B+ (LIGHT ON) | GROUND |
| I FC14-59 | HAZARD LAMP REQUEST | GROUND (MOMENTARY) | B+ |
| I FC14-61 | RH DI REQUEST | GROUND | B+ |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| O FC14-68 | DIP BEAM RELAY ACTIVATE | GROUND (LIGHTS ON) | B+ |
| I FC14-79 | BATTERY POWER SUPPLY | B+ | B+ |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| O FC14-81 | RH SIDE DI REPEATER SUPPLY (ROW ONLY) | B+ (LIGHTS ON) | GROUND |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |
| I FC14-88 | LH DI REQUEST | GROUND | B+ |
| O FC14-96 | HAZARD STATUS INDICATOR | B+ (PULSED) | GROUND |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|-------------|-------------|----------|
| S FC25-19 | SCP NETWORK | 2 - 1600 Hz | |
| S FC25-20 | SCP NETWORK | 2 - 1600 Hz | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 09.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|------------------------------------|--|--|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| CENTER CONSOLE SWITCH PACK | FC55 / 20-WAY FORD IDC / BLACK | CENTER CONSOLE |
| FRONT FOG LAMP - LH | LF32 / 2-WAY REINSHAGEN METRI 830 / BLACK | FRONT BUMPER / WHEEL ARCH LINER PANEL |
| FRONT FOG LAMP - RH | LF22 / 2-WAY REINSHAGEN METRI 830 / BLACK | FRONT BUMPER / WHEEL ARCH LINER PANEL |
| FRONT LAMP UNIT - LH | LF31 / 6-WAY ECONOSEAL III LC / BLACK | LEFT HAND HEADLAMP ASSEMBLY |
| FRONT LAMP UNIT - RH | LF21 / 6-WAY ECONOSEAL III LC / BLACK | RIGHT HAND HEADLAMP ASSEMBLY |
| FUSE BOX - ENGINE COMPARTMENT | LF5 / 10-WAY U.T.A. FUSEBOX / WHITE LF6 / 10-WAY U.T.A. FUSEBOX / BLACK LF7 / 10-WAY U.T.A. FUSEBOX / GREEN LF8 / 10-WAY U.T.A. FUSEBOX / BLUE LF70 / EYELET | ENGINE COMPARTMENT / LEFT FRONT |
| LIGHTING STALK (COLUMN SWITCHGEAR) | SC2 (FLYLEAD) / 10-WAY MULTILOCK 070 / YELLOW | STEERING COLUMN |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| SIDE DI REPEATER - LH (ROW) | LF4 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | BEHIND WHEEL ARCH LINER |
| SIDE DI REPEATER - RH (ROW) | EL5 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | BEHIND WHEEL ARCH LINER |
| FRONT SIDE MARKER - LH (NAS ONLY) | LF11 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | BEHIND WHEEL ARCH LINER |
| FRONT SIDE MARKER - RH (NAS ONLY) | LF10 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | BEHIND WHEEL ARCH LINER |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|----------------------|----------------|-------------------|-----------------------------|
| DIP BEAM RELAY (#5) | BROWN | BUS | ENGINE COMPARTMENT FUSE BOX |
| FRONT FOG RELAY (#2) | BROWN | BUS | ENGINE COMPARTMENT FUSE BOX |
| MAIN BEAM RELAY (#3) | BROWN | BUS | ENGINE COMPARTMENT FUSE BOX |

HARNESSTO-HARNESSTO CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|---------------------------------|---|
| EL1 | 6-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / RIGHT HAND ENCLOSURE |
| LF1 | 20-WAY MULTILOCK 070 / SLATE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| LF40 | 13-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |

GROUNDS

| Ground | Location / Type |
|--------|--|
| EM1AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, RIGHT HAND ENCLOSURE |
| EM2AR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, LEFT HAND ENCLOSURE |
| FC2BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| LF1AL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND HEADLAMP |
| LF2BR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|--|--------------------|----------|
| I FC14-12 | REAR FOG LAMP REQUEST | GROUND (MOMENTARY) | B+ |
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| I FC14-16 | SIDE LAMP REQUEST | GROUND | B+ |
| I FC14-41 | IGNITION GROUND SUPPLY | GROUND | |
| I FC14-42 | DIPPED BEAM REQUEST | GROUND | B+ |
| O FC14-44 | REAR FOG LAMP STATUS LED | GROUND (LED ON) | B+ |
| O FC14-50 | LH REAR DI LAMP SUPPLY | B+ (LIGHT ON) | GROUND |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| O FC14-76 | RH REAR DI LAMP SUPPLY | B+ (LIGHTS ON) | GROUND |
| I FC14-79 | BATTERY POWER SUPPLY | B+ | B+ |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |
| O FC14-95 | TAIL LAMP RELAY ACTIVATE | GROUND (LIGHTS ON) | B+ |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |
| I FC14-104 | LIGHTING / MOTORS BATTERY POWER SUPPLY | B+ | B+ |

LAMP CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|-----------------------------------|--------|----------|
| I BT18-14 | RH STOP LAMP SUPPLY | B+ | GROUND |
| I BT18-15 | LH STOP LAMP SUPPLY | B+ | GROUND |
| I BT18-16 | LH TAIL & SIDE MARKER LAMP SUPPLY | B+ | GROUND |
| I BT18-17 | RH TAIL & SIDE MARKER LAMP SUPPLY | B+ | GROUND |
| O BT18-18 | NUMBER PLATE LAMP SUPPLY | B+ | GROUND |
| O BT18-19 | LH STOP LAMP SUPPLY | B+ | GROUND |
| O BT18-20 | RH STOP LAMP SUPPLY | B+ | GROUND |
| O BT18-21 | LH TAIL LAMP SUPPLY | B+ | GROUND |
| O BT18-22 | RH TAIL LAMP SUPPLY | B+ | GROUND |
| O BT18-23 | SIDE MARKER LAMP SUPPLY | B+ | GROUND |
| I BT18-24 | IGNITION SWITCHED POWER SUPPLY | B+ | GROUND |
| O BT18-25 | SECURITY LIGHTING ON FEEDBACK | B+ | GROUND |
| I BT18-26 | GROUND | GROUND | GROUND |

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|-------------|--------------|----------|
| S FC25-19 | SCP NETWORK | 2 - 1600 Hz | |
| S FC25-20 | SCP NETWORK | 2 - 1600 Hz | |
| C FC25-24 | CAN NETWORK | 15 - 1500 Hz | |
| C FC25-47 | CAN NETWORK | 15 - 1500 Hz | |

SECURITY AND LOCKING CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|-------------------------------|-------------|----------|
| O BT40-5 | REVERSE LAMP SUPPLY | B+ | GROUND |
| I BT40-6 | BATTERY POWER SUPPLY | B+ | B+ |
| O BT40-7 | REAR FOG LAMP RELAY ACTIVATE | B+ | GROUND |
| S BT40-8 | SCP NETWORK | 2 - 1600 Hz | |
| I BT40-13 | GROUND | GROUND | GROUND |
| I BT40-14 | GROUND | GROUND | GROUND |
| S BT40-16 | SCP NETWORK | 2 - 1600 Hz | |
| I BT41-1 | SECURITY LIGHTING ON FEEDBACK | B+ | GROUND |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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 | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| BRAKE SWITCH - LHD | AC26 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| BRAKE SWITCH - RHD | AC24 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| CENTER CONSOLE SWITCH PACK | FC55 / 20-WAY FORD IDC / BLACK | CENTER CONSOLE |
| FUSE BOX - TRUNK | BT10 / 10-WAY U.T.A. FUSEBOX / NATURAL BT11 / 10-WAY U.T.A. FUSEBOX / BLACK BT12 / 10-WAY U.T.A. FUSEBOX / GREEN BT13 / 10-WAY U.T.A. FUSEBOX / BLUE BT64 / EYELET | TRUNK / ELECTRICAL CARRIER |
| HIGH MOUNT STOP LAMP (CONV.) | BL8 / 2-WAY MULTILOCK 070 / WHITE | TRUNK / UNDERSIDE OF LID |
| HIGH MOUNT STOP LAMP (COUPE) | RH8 / 2-WAY MULTILOCK 070 / WHITE | TRUNK / REARWARD OF SUB WOOFER SPEAKER |
| LAMP CONTROL MODULE | BT18 / 26-WAY AMP MQS / YELLOW | TRUNK / ELECTRICAL CARRIER |
| LIGHTING STALK (COLUMN SWITCHGEAR) | SC2 (FLYLEAD) / 10-WAY MULTILOCK 070 / YELLOW | STEERING COLUMN |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| NUMBER PLATE LAMP - LH | BL4 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | TRUNK LID / LINER |
| NUMBER PLATE LAMP - RH | BL5 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | TRUNK LID / LINER |
| SECURITY AND LOCKING CONTROL MODULE | BT40 / 16-WAY FORD 2.8 TIMER / BLACK BT41 / 26-WAY FORD IDC / BLACK RH20 / COAXIAL CONNECTOR | TRUNK / ELECTRICAL CARRIER |
| REAR SIDE MARKER - LH (NAS ONLY) | BT27 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | TRUNK / LEFT HAND SIDE |
| REAR SIDE MARKER - RH (NAS ONLY) | BT26 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | TRUNK / RIGHT HAND SIDE |
| TAIL LAMP UNIT - LH | BT31 / 7-WAY AMP JUNIOR TIMER / BLACK | TRUNK / LEFT HAND SIDE |
| TAIL LAMP UNIT - RH | BT30 / 7-WAY AMP JUNIOR TIMER / BLACK | TRUNK / RIGHT HAND SIDE |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|----------------------|----------------|-------------------|-------------------|
| REAR FOG RELAY (#1) | BROWN | BUS | TRUNK FUSE BOX |
| STOP LAMP RELAY (#5) | BROWN | BUS | TRUNK FUSE BOX |
| TAIL LAMP RELAY (#9) | BROWN | BUS | TRUNK FUSE BOX |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BB1 | 3-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BL1 | 4-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BT2 | 18-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| RH2 | 20-WAY MULTILOCK 070 / WHITE | REAR OF CENTER CONSOLE ASSEMBLY |
| RH12 | 18-WAY MULTILOCK 070 / YELLOW | REAR OF CENTER CONSOLE ASSEMBLY |

GROUNDS

| Ground | Location / Type |
|--------|--|
| BT1AR | EYELET (PAIR) - RIGHT HAND LEG / ADJACENT TO BATTERY |
| BT2AR | EYELET (PAIR) - RIGHT HAND LEG / TRUNK, RIGHT REAR |
| BT3S | EYELET (SINGLE) / TRUNK, LEFT REAR |
| FC1BL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND 'A' POST |
| FC1BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| RH1S | EYELET (SINGLE) / RIGHT HAND REAR QUARTER |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



Fig. 09.3**COMPONENTS**

| Component | Connector / Type / Color | Location / Access |
|--|--|----------------------------|
| HEADLAMP LEVELING ACTUATOR - LH | LF34 / 3-WAY REINSHAGEN / BLACK | HEADLAMP ASSEMBLY / REAR |
| HEADLAMP LEVELING ACTUATOR - RH | LF24 / 3-WAY REINSHAGEN / BLACK | HEADLAMP ASSEMBLY / REAR |
| LEVELING SWITCH (CENTER CONSOLE SWITCH PACK) | FC55 (FLYLEAD) / 20-WAY FORD IDC / BLACK | CENTER CONSOLE SWITCH PACK |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|------------------|------------------------------|---|
| LF60 | 20-WAY MULTILOCK 070 / WHITE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |

GROUNDS

| Ground | Location / Type |
|---------------|--|
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| LF1AL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND HEADLAMP |
| LF2BR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |

CONTROL MODULE PIN OUT INFORMATION

DRIVER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|---|--------------------|----------|
| I DD10-1 | BATTERY POWER SUPPLY | B+ | B+ |
| I DD10-8 | LOGIC GROUND | GROUND | GROUND |
| S DD10-9 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| O DD10-14 | DRIVERS DOOR PUDDLE LAMP SUPPLY | B- | GROUND |
| S DD10-16 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| I DD10-17 | POWER GROUND | GROUND | GROUND |
| I DD11-4 | DRIVERS DOOR LOCK BARREL UNLOCK REQUEST | B+ (MOMENTARY) | GROUND |
| I DD11-12 | DRIVERS DOOR LOCK BARREL LOCK REQUEST | B+ (MOMENTARY) | GROUND |
| I DD11-20 | DRIVERS DOOR SWITCH | GROUND (DOOR OPEN) | B+ |

PASSENGER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|-----------------------------------|--------------------|----------|
| I DP10-1 | BATTERY POWER SUPPLY | B+ | B+ |
| I DP10-8 | LOGIC GROUND | GROUND | GROUND |
| S DP10-9 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| O DP10-14 | PASSENGER DOOR PUDDLE LAMP SUPPLY | B+ (LIGHT ON) | GROUND |
| S DP10-16 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| I DP10-17 | POWER GROUND | GROUND | GROUND |
| I DP11-20 | PASSENGER DOOR SWITCH | GROUND (DOOR OPEN) | B+ |

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|--|-------------------|----------|
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| O FC14-24 | FOOTWELL / INTERIOR LAMP SUPPLY | B+ | GROUND |
| I FC14-32 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| I FC14-41 | IGNITION GROUND SUPPLY | GROUND | GROUND |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| I FC14-67 | KEY IN IGNITION | GROUND (KEY IN) | B+ |
| O FC14-74 | INTERIOR LAMP FADE 2 OUTPUT | B+ (FADES TO 0 V) | B+ |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| O FC14-101 | TRUNK / GLOVE BOX / VANITY LAMP POWER SUPPLY | B+ | GROUND |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |
| I FC14-104 | LIGHTING / MOTORS BATTERY POWER SUPPLY | B+ | B+ |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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 | FC14 / 104-WAY AMP EEEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| DIODE (BT29) - TRUNK SWITCH | BT29 / DIODE | TRUNK / ADJACENT TO BATTERY |
| DOOR CONTROL MODULE - DRIVER | DD10 / 22-WAY FORD 2.8 TIMER / BLUE DD11 / 22-WAY FORD 2.8 TIMER / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR CONTROL MODULE - PASSENGER | DP10 / 22-WAY FORD 2.8 TIMER / BLUE DP11 / 22-WAY FORD 2.8 TIMER / BLACK | PASSENGER DOOR / DOOR CASING |
| DOOR LOCK SWITCHES - DRIVER | DD3 / 13-WAY ECONOSEAL III LC / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR SWITCH - DRIVER | DD3 / 13-WAY ECONOSEAL III LC / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR SWITCH - PASSENGER | DP3 / 13-WAY ECONOSEAL III LC / BLACK | PASSENGER DOOR / DOOR CASING |
| FOOTWELL LAMP - LH | FC31 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | LEFT HAND FOOTWELL |
| FOOTWELL LAMP - RH | FC32 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | RIGHT HAND FOOTWELL |
| GLOVE BOX LAMP | FC33 / 1-WAY LUCAR STRAIGHT FC34 / 1-WAY LUCAR STRAIGHT | GLOVE BOX |
| IGNITION SWITCH (KEY-IN SWITCH) | FC4 (FLYLEAD) / 8-WAY MULTILOCK 070 / WHITE | STEERING COLUMN |
| PUDDLE LAMP - DRIVER DOOR | DD14 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | DRIVER DOOR |
| PUDDLE LAMP - PASSENGER DOOR | DP14 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | PASSENGER DOOR |
| REAR INTERIOR LAMP (COUPE ONLY) | RH3 / 2-WAY AMP JUNIOR POWER TIMER / WHITE | REAR CENTER OF HEAD LINING |
| ROOF CONSOLE | RF10 / 6-WAY MULTILOCK 070 / SLATE | INTERIOR ROOF |
| TRUNK LAMP - LH | BT56 / 2-WAY AMP JUNIOR POWER TIMER / WHITE | TRUNK / LEFT HAND SIDE |
| TRUNK LAMP - RH | BT59 / 2-WAY AMP JUNIOR POWER TIMER / WHITE | TRUNK / RIGHT HAND SIDE |
| TRUNK SWITCH | BT46 / 2-WAY FORD / BLACK | TRUNK |
| VANITY LAMP - LH | RF8 / 3-WAY MULTILOCK 070 / YELLOW | SUN VISOR |
| VANITY LAMP - RH | RF7 / 3-WAY MULTILOCK 070 / YELLOW | SUN VISOR |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| RF1 | 18-WAY MULTILOCK 070 / YELLOW | RIGHT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RH2 | 20-WAY MULTILOCK 070 / WHITE | REAR OF CENTER CONSOLE ASSEMBLY |

GROUNDS

| Ground | Location / Type |
|--------|--|
| BT1AR | EYELET (PAIR) - RIGHT HAND LEG / ADJACENT TO BATTERY |
| FC2AL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND 'A' POST |
| FC2AR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC2BL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND 'A' POST |
| FC2BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4AL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC4AR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC4BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| RH1S | EYELET (SINGLE) / RIGHT HAND REAR QUARTER |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



CONTROL MODULE PIN OUT INFORMATION

DIMMER MODULE

| Pin | Description | Active | Inactive |
|-----------|--|---------------------------|----------|
| O FC23-1 | MAJOR INSTRUMENT PACK ILLUMINATION BULB SUPPLY | B+ (LIGHTS ON) | GROUND |
| O FC23-2 | MAJOR INSTRUMENT PACK ILLUMINATION BULB SUPPLY | B+ (LIGHTS ON) | GROUND |
| I FC23-3 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| I FC23-4 | SIDE LAMPS ON REQUEST | GROUND | |
| I FC23-5 | DIMMER POTENTIOMETER FEEDBACK VOLTAGE | 1.3 V = DIM; 4 V = BRIGHT | |
| O FC23-6 | DIMMER POTENTIOMETER REFERENCE GROUND | GROUND | GROUND |
| O FC23-7 | GENERAL ILLUMINATION BULB SUPPLY | B+ (LIGHTS ON) | GROUND |
| O FC23-8 | GENERAL ILLUMINATION BULB SUPPLY | B+ (LIGHTS ON) | GROUND |
| I FC23-9 | GROUND SUPPLY | GROUND | |
| I FC23-10 | BATTERY POWER SUPPLY | B+ | B+ |
| I FC23-11 | BATTERY POWER SUPPLY | B+ | B+ |
| O FC23-12 | DIMMER POTENTIOMETER REFERENCE VOLTAGE | 4 V | 0 V |

Fig. 10.2

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---|--|--|
| AIR CONDITIONING CONTROL PANEL | FC43 (FLYLEAD) / 12-WAY MULTILOCK 040 / BLUE | CENTER CONSOLE |
| CENTER CONSOLE SWITCH PACK | FC55 / 20-WAY FORD IDC / BLACK | CENTER CONSOLE |
| CIGAR LIGHTER | FC42 / CIGAR LIGHTER / BLACK FC59 / LUCAR RIGHT ANGLE | FORWARD OF GEAR SELECTOR |
| CONVERTIBLE TOP SWITCH | FC62 / 10-WAY AMP ML KEY A / BLACK | FORWARD OF GEAR SELECTOR |
| CRUISE CONTROL ON / OFF SWITCH | FC63 / 10-WAY AMP ML KEY B / WHITE | REARWARD OF GEAR SELECTOR |
| DIMMER CONTROL (COLUMN SWITCHGEAR) | SC11 (FLYLEAD) / 6-WAY MULTILOCK 070 / WHITE | STEERING COLUMN COWL |
| DIMMER MODULE | FC23 / 12-WAY MULTILOCK 040 / BLACK | ADJACENT TO RIGHT HAND FASCIA FUSE BOX |
| GEAR SELECTOR MODULE | FC88 / HYBRID / BLACK | FRONT OF GEAR SELECTOR ASSEMBLY |
| LIGHTING STALK (COLUMN SWITCHGEAR) | SC2 (FLYLEAD) / 10-WAY MULTILOCK 070 / YELLOW | STEERING COLUMN |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| MINOR INSTRUMENT PACK | FC79 / 20-WAY MULTILOCK 040 / BLACK | FASCIA |
| MODE SWITCH (TRANSMISSION) | FC35 / 10-WAY AMP ML KEY A / BLACK | REARWARD OF GEAR SELECTOR |
| RADIO | IC10 / 20-WAY MULTILOCK 070 / WHITE | CENTER CONSOLE |
| SWITCH PACK - DRIVER DOOR | DD17 / 20-WAY MULTILOCK 040 / BLACK | DRIVER DOOR |
| SWITCH PACK - DRIVER DOOR MEMORY | DD5 / 10-WAY AMP ML KEY A / BLACK | DRIVER DOOR |
| SWITCH PACK - PASSENGER DOOR | DP17 / 8-WAY MULTILOCK 040 / BLACK | PASSENGER DOOR |
| TRIP COMPUTER SWITCH PACK | FC27 / 10-WAY AMP ML KEY A / BLACK | FASCIA / DRIVER SIDE |
| TRUNK AND FUEL FILL RELEASE SWITCH | FC41 / 10-WAY AMP ML KEY B / WHITE | FASCIA / DRIVER SIDE |
| VALET SWITCH | FC67 / 10-WAY AMP ML KEY A / BLACK | DRIVER KNEE BOLSTER |
| VOICE RECOGNITION ACTIVATION SWITCH (NAS VEHICLES ONLY) | FC77 / 10-WAY AMP ML KEY B / WHITE | CENTER CONSOLE |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC15 | 20-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23 WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| IC1 | 20-WAY MULTILOCK 070 / YELLOW | BELOW CENTER CONSOLE GLOVE BOX |
| SC3 | 12-WAY MULTILOCK 070 / SLATE | RIGHT HAND SIDE OF STEERING COLUMN |
| SC11 | | |

GROUNDS

| Ground | Location / Type |
|--------|--|
| CE2 | EYELET (SINGLE) / ABOVE RIGHT HAND SIDE OF TRANSMISSION TUNNEL |
| FC2AL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND 'A' POST |
| FC2BL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND 'A' POST |
| FC2BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC2CS | EYELET (SINGLE) / RIGHT HAND 'A' POST |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4AL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC4BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC4BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4CS | EYELET (SINGLE) / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

POWER ASSISTED STEERING CONTROL MODULE

| Pin | Description | Active | Inactive |
|----------|--------------------------------|---|----------|
| O FC16-2 | TRANSDUCER NEGATIVE | 2 V @ IDLE DECREASING WITH VEHICLE SPEED | |
| I FC16-4 | VEHICLE SPEED | B- @ 10 MPH (16 KM/H) = 20 Hz, 20 MPH (32 KM/H) = 40 Hz | |
| O FC16-5 | TRANSDUCER POSITIVE | 9 V @ IDLE INCREASING WITH VEHICLE SPEED | |
| I FC16-6 | IGNITION SWITCHED POWER SUPPLY | B- | 0 V |
| I FC16-8 | GROUND | 0 V | 0 V |

Fig. 11.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|--|---|--|
| POWER ASSISTED STEERING CONTROL MODULE | FC16 / 9-WAY RISTS RELAY / BLACK AND RED | FASCIA / BETWEEN PASSENGER SIDE FUSE BOX AND GLOVE BOX |
| VARIABLE STEERING CONVERTER - LHD | LL2 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | STEERING RACK / CONTROL VALVE |
| VARIABLE STEERING CONVERTER - RHD | EM18 / 2-WAY AMP JUNIOR POWER TIMER / BLACK | STEERING RACK / CONTROL VALVE |

HARNES-TO-HARNES CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|--------------------------------|---|
| EM2 | 18-WAY MULTILOCK 070 / YELLOW | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| LL1 | 2-WAY ECONOSEAL III LC / BLACK | ENGINE COMPARTMENT / ADJACENT TO STARTER MOTOR |

GROUNDS

| Ground | Location / Type |
|--------|--|
| FC2BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC4BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|---|---|-----------|
| I FC14-11 | AUTO TILT REQUEST | GROUND | B+ |
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| I FC14-25 | COLUMN MOTOR GROUND SUPPLY | GROUND | GROUND |
| I FC14-32 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| O FC14-40 | COLUMN MOTOR POTENTIOMETER REFERENCE VOLTAGE | 5 V | |
| I FC14-41 | IGNITION GROUND SUPPLY | GROUND | |
| O FC14-52 | COLUMN REACH MOTOR SUPPLY | B+ | GROUND |
| I FC14-58 | NOT-IN-PARK | GROUND (R,N,D,4,3,2) | B+ (PARK) |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| I FC14-66 | COLUMN REACH MOTOR POTENTIOMETER FEEDBACK | 0.5 V (OUT); 4 V (IN) | |
| I FC14-67 | KEY IN IGNITION | GROUND (KEY IN) | B+ |
| O FC14-78 | COLUMN REACH MOTOR SUPPLY | B+ | GROUND |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |
| I FC14-87 | COLUMN MOVEMENT REQUEST | UP = 10.1 V, DOWN = 12.1 V, RETRACT = 8.5 V, EXTEND = 6.8 V | |
| O FC14-90 | COLUMN TILT MOTOR POTENTIOMETER REFERENCE GROUND | GROUND | GROUND |
| O FC14-91 | COLUMN REACH MOTOR POTENTIOMETER REFERENCE GROUND | GROUND | GROUND |
| I FC14-93 | COLUMN TILT MOTOR POTENTIOMETER FEEDBACK | UP = 4 V, DOWN = 0.5 V | |
| O FC14-99 | COLUMN TILT MOTOR SUPPLY | B+ | GROUND |
| O FC14-100 | COLUMN TILT MOTOR SUPPLY | B+ | GROUND |
| I FC14-102 | COLUMN MOVEMENT MOTORS BATTERY POWER SUPPLY | B+ | |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |

DRIVER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|-------------------------|--------------------|----------|
| I DD10-1 | BATTERY POWER SUPPLY | B+ | B+ |
| I DD10-8 | LOGIC GROUND | GROUND | GROUND |
| S DD10-9 | SCP NETWORK | 2 - 1600 Hz | |
| S DD10-16 | SCP NETWORK | 2 - 1600 Hz | |
| I DD10-17 | POWER GROUND | GROUND | GROUND |
| O DD11-2 | SEAT MEMORY STATUS LED | GROUND (LED ON) | B+ |
| I DD11-6 | MEMORY SET REQUEST | B+ | |
| I DD11-20 | DRIVERS DOOR SWITCH | GROUND (DOOR OPEN) | B+ |
| I DD11-21 | MEMORY 1 RECALL REQUEST | B+ (MOMENTARY) | GROUND |
| I DD11-22 | MEMORY 2 RECALL REQUEST | B+ (MOMENTARY) | GROUND |

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|-------------|-------------|----------|
| S FC25-19 | SCP NETWORK | 2 - 1600 Hz | |
| S FC25-20 | SCP NETWORK | 2 - 1600 Hz | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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 |
|--------------------------------------|---|--|
| AUTO TILT SWITCH (COLUMN SWITCHGEAR) | SC9 / 8-WAY GROTE AND HARTMAN MDK / BLACK | STEERING COLUMN / LEFT HAND SIDE |
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| COLUMN JOY STICK (COLUMN SWITCHGEAR) | SC9 / 8-WAY GROTE AND HARTMAN MDK / BLACK | STEERING COLUMN / LEFT HAND SIDE |
| DOOR CONTROL MODULE - DRIVER | DD10 / 22-WAY FORD 2.8 TIMER / BLUE DD11 / 22-WAY FORD 2.8 TIMER / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR SWITCH - DRIVER | DU3 / 13-WAY ECONOSEAL III LC / BLACK | DRIVER DOOR / DOOR CASING |
| IGNITION SWITCH (KEY-IN SWITCH) | FC4 (FLYLEAD) / 8-WAY MULTILOCK 070 / WHITE | STEERING COLUMN |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| NOT-IN-PARK MICROSWITCH | FC87 (FLYLEAD) / 3-WAY MULTILOCK 070 / WHITE | GEAR SELECTOR ASSEMBLY |
| STEERING COLUMN MOTORS | FC80 (FLYLEAD) / 6-WAY MULTILOCK 070 / WHITE FC61 (FLYLEAD) / 8-WAY MULTILOCK 070 / YELLOW | STEERING COLUMN |
| SWITCH PACK - DRIVER DOOR MEMORY | DD5 / 10-WAY AMP ML KEY A / BLACK | DRIVER DOOR |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET/ 'A' POST TRIM |
| SC2 | 10-WAY MULTILOCK 070 / YELLOW | ADJACENT TO STEERING COLUMN MOTOR |
| SC3 | 12-WAY MULTILOCK 070 / SLATE | RIGHT HAND SIDE OF STEERING COLUMN |

GROUNDS

| Ground | Location / Type |
|--------|--|
| FC2AR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC2BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4AR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |

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, HARNESES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|-----------|---------------------------------|----------------------|-----------|
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| I FC14-32 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| I FC14-41 | IGNITION GROUND SUPPLY | GROUND | |
| I FC14-58 | NOT-IN-PARK | GROUND (R,N,D,4,3,2) | B+ (PARK) |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |

DRIVER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|--|---------------------------------------|----------------------|
| I DD10-1 | BATTERY POWER SUPPLY | B+ | B+ |
| O DD10-2 | DRIVERS DOOR MIRROR VERTICAL / HORIZONTAL MOTOR COMMON SUPPLY | B+ = LEFT / DOWN; GROUND = RIGHT / UP | |
| O DD10-3 | DRIVERS DOOR MIRROR HORIZONTAL MOVEMENT MOTOR | B+ = RIGHT | GROUND = LEFT |
| O DD10-4 | DRIVERS DOOR MIRROR VERTICAL MOVEMENT MOTOR | B+ = UP | GROUND = DOWN |
| I DD10-8 | LOGIC GROUND | GROUND | GROUND |
| S DD10-9 | SCP NETWORK | 2 - 1600 Hz | |
| S DD10-16 | SCP NETWORK | 2 - 1600 Hz | |
| I DD10-17 | POWER GROUND | GROUND | GROUND |
| O DD10-20 | DRIVERS DOOR MIRROR POTENTIOMETER COMMON REFERENCE VOLTAGE | B+ | GROUND |
| I DD10-21 | DRIVERS DOOR MIRROR POTENTIOMETER HORIZONTAL POSITION FEEDBACK | 1 V = LEFT; 8 V = RIGHT | B+ |
| I DD10-22 | DRIVERS DOOR MIRROR POTENTIOMETER VERTICAL POSITION FEEDBACK | 1 V = DOWN; 8 V = UP | B+ |
| I DD11-1 | MIRROR SELECT | B+ = UP / RIGHT | GROUND = DOWN / LEFT |
| O DD11-2 | SEAT MEMORY STATUS LED | GROUND (LED ON) | B+ |
| I DD11-3 | RH VERTICAL MOVEMENT REQUEST | B+ = DOWN | GROUND = UP |
| I DD11-6 | MEMORY SET REQUEST | B+ | |
| I DD11-9 | RH HORIZONTAL MOVEMENT REQUEST | B+ = LEFT | GROUND = RIGHT |
| I DD11-10 | LH HORIZONTAL MOVEMENT REQUEST | B+ = LEFT | GROUND = RIGHT |
| I DD11-17 | LH VERTICAL MOVEMENT REQUEST | B+ = DOWN | GROUND = UP |
| I DD11-20 | DRIVERS DOOR SWITCH | GROUND (DOOR OPEN) | B+ |
| I DD11-21 | MEMORY 1 RECALL REQUEST | B+ (MOMENTARY) | GROUND |
| I DD11-22 | MEMORY 2 RECALL REQUEST | B+ (MOMENTARY) | GROUND |

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|-------------|--------------|----------|
| S FC25-19 | SCP NETWORK | 2 - 1600 Hz | |
| S FC25-20 | SCP NETWORK | 2 - 1600 Hz | |
| C FC25-24 | CAN NETWORK | 15 - 1500 Hz | |
| C FC25-47 | CAN NETWORK | 15 - 1500 Hz | |

PASSENGER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|--|-------------------------|---------------------|
| I DP10-1 | BATTERY POWER SUPPLY | B+ | B+ |
| O DP10-2 | PASSENGER DOOR MIRROR VERTICAL / HORIZONTAL MOVEMENT MOTORS COMMON | B+ = LEFT / DOWN | GROUND = RIGHT / UP |
| O DP10-3 | PASSENGER DOOR MIRROR HORIZONTAL MOVEMENT MOTOR | B+ = RIGHT | GROUND |
| O DP10-4 | PASSENGER DOOR MIRROR VERTICAL MOVEMENT MOTOR | B+ = UP | GROUND |
| I DP10-8 | LOGIC GROUND | GROUND | GROUND |
| S DP10-9 | SCP NETWORK | 2 - 1600 Hz | |
| S DP10-16 | SCP NETWORK | 2 - 1600 Hz | |
| I DP10-17 | POWER GROUND | GROUND | GROUND |
| O DP10-20 | PASSENGER DOOR MIRROR POTENTIOMETER COMMON REFERENCE VOLTAGE | B+ | GROUND |
| I DP10-21 | PASSENGER DOOR MIRROR POTENTIOMETER HORIZONTAL POSITION FEEDBACK VOLTAGE | 1 V = LEFT; 8 V = RIGHT | B+ |
| I DP10-22 | PASSENGER DOOR MIRROR POTENTIOMETER VERTICAL POSITION FEEDBACK VOLTAGE | 1 V = DOWN; 8 V = UP | B+ |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

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

| | | | |
|------------------|-------------------------------------|--------------------|----------------------|
| I Input | D Serial and encoded communications | B+ Battery voltage | KHz Frequency x 1000 |
| O Output | C CAN (Network) | V Voltage (DC) | MS Milliseconds |
| SG Signal Ground | S SCP Network | Hz Frequency | 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 | FC14 / 104-WAY AMP EEEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| DOOR CONTROL MODULE - DRIVER | DD10 / 22-WAY FORD 2.8 TIMER / BLUE DD11 / 22-WAY FORD 2.8 TIMER / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR CONTROL MODULE - PASSENGER | DP10 / 22-WAY FORD 2.8 TIMER / BLUE DP11 / 22-WAY FORD 2.8 TIMER / BLACK | PASSENGER DOOR / DOOR CASING |
| DOOR MIRROR MOTORS - DRIVER | DD8 (FLYLEAD) / 12-WAY MULTILOCK 040 / BLUE | DRIVER DOOR |
| DOOR MIRROR MOTORS - PASSENGER | DP8 (FLYLEAD) / 12-WAY MULTILOCK 040 / BLUE | PASSENGER DOOR |
| DOOR SWITCH - DRIVER | DD3 / 13-WAY ECONOSEAL III LC / BLACK | DRIVER DOOR / DOOR CASING |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| MIRROR JOYSTICK (DRIVER DOOR SWITCH PACK) | DD17 (FLYLEAD) / 20-WAY MULTILOCK 040 / BLACK | DRIVER DOOR SWITCH PACK |
| NOT-IN-PARK MICROSWITCH | FC87 (FLYLEAD) / 3-WAY MULTILOCK 070 / WHITE | GEAR SELECTOR ASSEMBLY |
| SWITCH PACK - DRIVER DOOR MEMORY | DD5 / 10-WAY AMP ML KEY A / BLACK | DRIVER DOOR |

HARNESSTO-HARNESSTO CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|------------------------------|--|
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |

GROUNDS

| Ground | Location / Type |
|--------|--|
| FC2AR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC2AR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4AR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4AR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



CONTROL MODULE PIN OUT INFORMATION

DRIVER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|-------------------------------------|-------------|----------|
| I DD10-1 | BATTERY POWER SUPPLY | B+ | B+ |
| I DD10-8 | LOGIC GROUND | GROUND | GROUND |
| S DD10-9 | SCP NETWORK | 2 - 1600 Hz | |
| S DD10-16 | SCP NETWORK | 2 - 1600 Hz | |
| I DD11-15 | DOOR MIRROR POWER FOLD BACK REQUEST | B+ | GROUND |

DRIVER SEAT CONTROL MODULE

| Pin | Description | Active | Inactive |
|----------|--------------------------------|-------------|----------|
| O SD3-4 | DOOR MIRROR FOLD BACK ACTIVATE | GROUND | B+ |
| I SD5-2 | POWER GROUND | GROUND | GROUND |
| I SD6-5 | BATTERY POWER SUPPLY | B+ | B+ |
| S SD5-9 | SCP NETWORK | 2 - 1600 Hz | |
| S SD5-10 | SCP NETWORK | 2 - 1600 Hz | |

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|-------------|--------------|----------|
| S FC25-19 | SCP NETWORK | 2 - 1600 Hz | |
| S FC25-20 | SCP NETWORK | 2 - 1600 Hz | |
| C FC25-24 | CAN NETWORK | 15 - 1500 Hz | |
| C FC25-47 | CAN NETWORK | 15 - 1500 Hz | |

PASSENGER SEAT CONTROL MODULE

| Pin | Description | Active | Inactive |
|----------|-------------------------------|-------------|----------|
| O SP3-4 | DOOR MIRROR FOLD OUT ACTIVATE | GROUND | B+ |
| I SP5-2 | POWER GROUND | GROUND | GROUND |
| I SP5-5 | BATTERY POWER SUPPLY | B+ | B+ |
| S SP5-9 | SCP NETWORK | 2 - 1600 Hz | |
| S SP5-10 | SCP NETWORK | 2 - 1600 Hz | |

SECURITY AND LOCKING CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|----------------------|-------------|----------|
| O BT40-5 | REVERSE LAMP SUPPLY | B+ | GROUND |
| I BT40-6 | BATTERY POWER SUPPLY | B+ | B+ |
| S BT40-8 | SCP NETWORK | 2 - 1600 Hz | |
| I BT40-13 | GROUND | GROUND | GROUND |
| I BT40-14 | GROUND | GROUND | GROUND |
| S BT40-16 | SCP NETWORK | 2 - 1600 Hz | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 11.4

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|--|---|--------------------------------------|
| CONVERTIBLE TOP DOWN SWITCH | RH29 (FLYLEAD) / 3-WAY MULTILOCK 070 / WHITE | RIGHT HAND OPERATING CYLINDER |
| DOOR CONTROL MODULE - DRIVER | DD10 / 22-WAY FORD 2.8 TIMER / BLUE DD11 / 22-WAY FORD 2.8 TIMER / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR MIRROR (ELECTROCHROMIC) - DRIVER | DD8 (FLYLEAD) / 12-WAY MULTILOCK 040 / BLUE | DRIVER DOOR |
| DOOR MIRROR (ELECTROCHROMIC) - PASSENGER | DP8 (FLYLEAD) / 12-WAY MULTILOCK 040 / BLUE | PASSENGER DOOR |
| INTERIOR REAR VIEW MIRROR (ELECTROCHROMIC) | RF2 / 6-WAY MULTILOCK 070 / YELLOW | WINDSHIELD / FORWARD OF ROOF CONSOLE |
| LIGHTING STALK (COLUMN SWITCHGEAR) | SC2 (FLYLEAD) / 10-WAY MULTILOCK 070 / YELLOW | STEERING COLUMN |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| MIRROR JOYSTICK (DRIVER DOOR SWITCH PACK) | DD17 (FLYLEAD) / 20-WAY MULTILOCK 040 / BLACK | DRIVER DOOR SWITCH PACK |
| SEAT CONTROL MODULE - DRIVER | SD3 / 16-WAY FORD 2.8 TIMER / BLACK SD4 / 26-WAY FORD IDC / BLACK SD5 / 10-WAY FORD 2.8 TIMER / BLACK | BELOW SEAT CUSHION |
| SEAT CONTROL MODULE - PASSENGER | SP3 / 16-WAY FORD 2.8 TIMER / BLACK SP5 / 10-WAY FORD 2.8 TIMER / BLACK | BELOW SEAT CUSHION |
| SECURITY AND LOCKING CONTROL MODULE | BT40 / 16-WAY FORD 2.8 TIMER / BLACK BT41 / 26-WAY FORD IDC / BLACK RH20 / COAXIAL CONNECTOR | TRUNK / ELECTRICAL CARRIER |

HARNESSTO-HARNESSTO CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC16 | 6-WAY MULTILOCK 070 / YELLOW | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| RF1 | 18-WAY MULTILOCK 070 / YELLOW | RIGHT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RH12 | 18-WAY MULTILOCK 070 / YELLOW | REAR OF CENTER CONSOLE ASSEMBLY |
| RH2 | 20-WAY MULTILOCK 070 / WHITE | REAR OF CENTER CONSOLE ASSEMBLY |
| SD1 | 8-WAY MULTILOCK 070 / YELLOW | BELOW DRIVER SEAT |
| SP1 | 8-WAY MULTILOCK 070 / YELLOW | BELOW PASSENGER SEAT |

GROUNDS

| Ground | Location / Type |
|--------|--|
| BT1AR | EYELET (PAIR) - RIGHT HAND LEG / ADJACENT TO BATTERY |
| FC2AR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4AR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC5L | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND SEAT |
| FC5S | EYELET (SINGLE) / RIGHT HAND SEAT |
| FC6L | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND SEAT |
| FC6S | EYELET (SINGLE) / LEFT HAND SEAT |
| RH1S | EYELET (SINGLE) / RIGHT HAND REAR QUARTER |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

ADAPTIVE DAMPING CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|---|---|--------------------|
| O BT69-1 | MAJOR INSTRUMENT PACK ADAPTIVE DAMPENING MIL | GROUND | B+ |
| I BT69-2 | ADAPTIVE DAMPENING OVERRIDE (FROM ABS/TC/ASC) | GROUND (DURING EVENT) | |
| O BT69-3 | ACCELEROMETER COMMON GROUND SUPPLY | GROUND | GROUND |
| D BT69-10 | SERIAL COMMUNICATIONS | | |
| I BT69-11 | IGNITION SWITCHED POWER SUPPLY | B+ | GROUND |
| O BT69-13 | LH REAR DAMPER BATTERY POWER SUPPLY | B- | B- |
| O BT69-14 | RH FRONT DAMPER BATTERY POWER SUPPLY | B- | B+ |
| O BT69-15 | RH REAR DAMPER BATTERY POWER SUPPLY | B+ | B- |
| I BT69-18 | GROUND | GROUND | GROUND |
| I BT69-20 | FRONT LATERAL ACCELEROMETER FEEDBACK | < 0.2 V OR > 4.8 V | 2.3 - 2.7 V = HARD |
| I BT69-21 | FRONT VERTICAL ACCELEROMETER FEEDBACK | < 0.2 V OR > 4.8 V | 2.3 - 2.7 V = HARD |
| I BT69-22 | REAR VERTICAL ACCELEROMETER FEEDBACK | < 0.2 V OR > 4.8 V | 2.3 - 2.7 V = HARD |
| I BT69-24 | VEHICLE SPEED SIGNAL | 22 Hz @ 10 MPH (16 KM/H); 44 Hz @ 20 MPH (32 KM/H) @ B+ | |
| O BT69-25 | ACCELEROMETER COMMON VOLTAGE SUPPLY | 5 V | 5 V |
| I BT69-26 | BRAKE SWITCH | GROUND | B+ |
| I BT69-27 | BATTERY POWER SUPPLY | B+ | B+ |
| D BT69-28 | SERIAL COMMUNICATIONS | | |
| O BT69-30 | LH FRONT DAMPER BATTERY POWER SUPPLY | B+ | B- |
| O BT69-31 | LH FRONT DAMPER | GROUND | B+ |
| O BT69-32 | LH REAR DAMPER | GROUND | B+ |
| O BT69-33 | RH FRONT DAMPER | GROUND | B- |
| O BT69-34 | RH REAR DAMPER | GROUND | B- |

Fig. 11.5

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---------------------------------|--|--|
| ACCELEROMETER - FRONT LATERAL | EM59 / 3-WAY AMP ML / BLACK | ENGINE COMPARTMENT / ADJACENT TO ECM |
| ACCELEROMETER - REAR VERTICAL | BT52 / 3-WAY AMP ML / BLACK | TRUNK / BELOW FUEL TANK |
| ACCELEROMETER - FRONT VERTICAL | FC7 / 3-WAY AMP ML / BLACK | CENTER CONSOLE / BEHIND ICE HEAD UNIT |
| ADAPTIVE DAMPING CONTROL MODULE | BT69 / 35-WAY AMP / BLACK | TRUNK / ADJACENT TO ELECTRICAL CARRIER |
| BRAKE SWITCH - LHD | AC26 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| BRAKE SWITCH - RHD | AC24 (FLYLEAD) / 4-WAY MULTILOCK 070 / WHITE | TOP OF BRAKE PEDAL |
| DAMPER SOLENOID - LH FRONT | LF43 / 2-WAY DELPHI/REINSHAGEN / SLATE | TOP OF LEFT HAND FRONT DAMPER |
| DAMPER SOLENOID - LH REAR | RL2 / 2-WAY DELPHI/REINSHAGEN / SLATE | TOP OF LEFT HAND REAR DAMPER |
| DAMPER SOLENOID - RH FRONT | LF44 / 2-WAY DELPHI/REINSHAGEN / SLATE | TOP OF RIGHT HAND FRONT DAMPER |
| DAMPER SOLENOID - RH REAR | RR2 / 2-WAY DELPHI/REINSHAGEN / SLATE | TOP OF RIGHT HAND REAR DAMPER |

HARNESSTO-HARNESSTO CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|--------------------------------|---|
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BT3 | 14-WAY MULTILOCK 070 / SLATE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BT72 | 4-WAY ECONOSEAL III LC / BLACK | REAR OF REAR HUB ASSEMBLY / LEFT HAND SIDE |
| BT73 | 4-WAY ECONOSEAL III LC / BLACK | REAR OF REAR HUB ASSEMBLY / RIGHT HAND SIDE |
| EM3 | 14-WAY MULTILOCK 070 / SLATE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| LF1 | 20-WAY MULTILOCK 070 / SLATE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| LF60 | 20-WAY MULTILOCK 070 / WHITE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RH1 | 20-WAY MULTILOCK 070 / SLATE | BEHIND GLOVE BOX |
| RH2 | 20-WAY MULTILOCK 070 / WHITE | REAR OF CENTER CONSOLE ASSEMBLY |
| RH12 | 18-WAY MULTILOCK 070 / YELLOW | REAR OF CENTER CONSOLE ASSEMBLY |

GROUNDS

| Ground | Location / Type |
|--------|---|
| BT28L | EYELET (PAIR) - LEFT HAND LEG / TRUNK, RIGHT REAR |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|--|--------------------|----------|
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| O FC14-17 | LHD RH (RHD LH) SEAT HEATER STATE LED | GROUND (LED ON) | B+ |
| I FC14-32 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| I FC14-35 | LHD RH (RHD LH) SEAT HEATER REQUEST | GROUND | B+ |
| I FC14-41 | IGNITION GROUND SUPPLY | GROUND | |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| O FC14-69 | LHD LH SEAT HEATER STATUS LED (RHD = RH) | GROUND | B+ |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |
| I FC14-86 | LHD LH (RHD RH) SEAT HEATER REQUEST | GROUND (MOMENTARY) | B+ |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |

DRIVER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|-------------------------|-----------------|----------|
| I DD10-1 | BATTERY POWER SUPPLY | B+ | B+ |
| I DD10-8 | LOGIC GROUND | GROUND | GROUND |
| S DD10-9 | SCP NETWORK | 2 - 1600 Hz | |
| S DD10-16 | SCP NETWORK | 2 - 1600 Hz | |
| I DD10-17 | POWER GROUND | GROUND | GROUND |
| O DD11-2 | SEAT MEMORY STATUS LED | GROUND (LED ON) | B+ |
| I DD11-6 | MEMORY SET REQUEST | B+ | |
| I DD11-21 | MEMORY 1 RECALL REQUEST | B+ (MOMENTARY) | GROUND |
| I DD11-22 | MEMORY 2 RECALL REQUEST | B+ (MOMENTARY) | GROUND |

DRIVER SEAT CONTROL MODULE

| Pin | Description | Active | Inactive |
|----------|--|----------------------------|----------|
| O SD3-1 | DRIVERS SEAT SQUAB MOTOR SUPPLY - FORWARD | B+ | GROUND |
| O SD3-2 | DRIVERS SEAT SQUAB MOTOR SUPPLY - REAR | B+ | GROUND |
| O SD3-3 | DRIVERS SEAT HEATER ELEMENTS SUPPLY | B+ | GROUND |
| O SD3-5 | DRIVER SEAT LUMBAR PUMP INFLATE MOTOR | B+ | GROUND |
| O SD3-6 | DRIVERS SEAT LUMBAR PUMP DEFLATE SOLENOID | B+ | GROUND |
| O SD3-7 | DRIVERS SEAT FORE / AFT MOTOR SUPPLY | B+ | GROUND |
| O SD3-8 | DRIVERS SEAT FORE / AFT MOTOR SUPPLY | B+ | GROUND |
| I SD3-9 | DRIVERS SEAT FORE MOVEMENT REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-10 | DRIVERS SEAT AFT MOVEMENT REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-11 | DRIVERS SEAT CUSHION REAR EDGE LOWER REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-12 | DRIVERS SEAT CUSHION REAR EDGE RAISE REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-13 | DRIVERS SEAT LUMBAR INFLATE REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-14 | DRIVERS SEAT LUMBAR DEFLATE REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-16 | DRIVERS SEAT SQUAB FORE RECLINE REQUEST | B+ (MOMENTARY) | GROUND |
| O SD4-1 | DRIVERS SEAT SQUAB POTENTIOMETER REFERENCE GROUND | GROUND | GROUND |
| O SD4-2 | DRIVERS SEAT FORE / AFT MOVEMENT POTENTIOMETER REFERENCE GROUND | GROUND | GROUND |
| O SD4-5 | DRIVERS SEAT SQUAB POT. REFERENCE VOLTAGE | B+ | B+ |
| O SD4-6 | DRIVERS SEAT RAISE / LOWER POTENTIOMETER REFERENCE VOLTAGE | B+ | B+ |
| I SD4-10 | DRIVERS SEAT RAISE / LOWER POTENTIOMETER FEEDBACK | 10 V = UP; 2 V = DOWN | |
| I SD4-11 | DRIVERS SEAT SQUAB POT. FEEDBACK | 9 V = UP; 4 V = DOWN | |
| I SD4-12 | DRIVERS SEAT FORE / AFT POTENTIOMETER FEEDBACK | 10 V = FORWARD; 2 V = REAR | |
| O SD4-14 | DRIVERS SEAT RAISE / LOWER POTENTIOMETER REFERENCE GROUND | GROUND | GROUND |
| O SD4-18 | DRIVERS SEAT FORE / AFT MOVEMENT POTENTIOMETER REFERENCE VOLTAGE | B+ | B+ |
| I SD5-1 | DRIVER OR PASSENGER SEAT IDENTIFICATION | GROUND (DRIVER) | |
| I SD5-2 | POWER GROUND | GROUND | GROUND |
| O SD5-3 | DRIVERS SEAT RAISE / LOWER MOTOR SUPPLY | B+ | GROUND |
| O SD5-4 | DRIVERS SEAT RAISE / LOWER MOTOR SUPPLY | B+ | GROUND |
| I SD5-5 | BATTERY POWER SUPPLY | B+ | B+ |
| I SD5-8 | DRIVERS SEAT BELT FASTENED | B+ (FASTENED) | GROUND |
| S SD5-9 | SCP NETWORK | 2 - 1600 Hz | |
| S SD5-10 | SCP NETWORK | 2 - 1600 Hz | |

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|-------------|-------------|----------|
| S FC25-19 | SCP NETWORK | 2 - 1600 Hz | |
| S FC25-20 | SCP NETWORK | 2 - 1600 Hz | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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 |
|---|--|--|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| DOOR CONTROL MODULE - DRIVER | DD10 / 22-WAY FORD 2.8 TIMER / BLUE DD11 / 22-WAY FORD 2.8 TIMER / BLACK | DRIVER DOOR / DOOR CASING |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| SEAT BELT SWITCH | SD20 / 2-WAY MULTILOCK 040 / BLACK | BELOW SEAT CUSHION |
| SEAT CONTROL MODULE - DRIVER | SD3 / 16-WAY FORD 2.8 TIMER / BLACK SD4 / 26-WAY FORD IDC / BLACK SD5 / 10-WAY FORD 2.8 TIMER / BLACK | BELOW SEAT CUSHION |
| SEAT CUSHION (HEATER) - DRIVER | SD19 (FLYLEAD) / 3-WAY MULTILOCK 070 / YELLOW | SEAT CUSHION |
| SEAT HEATER SWITCH (CENTER CONSOLE SWITCH PACK) | FC85 (FLYLEAD) / 20-WAY FORD IDC / BLACK | CENTER CONSOLE SWITCH PACK |
| SEAT LUMBAR PUMP - DRIVER | SD14 / 3-WAY MULTILOCK 070 / YELLOW | SEAT BACK |
| SEAT MOTORS - DRIVER | SD7 / 6-WAY MULTILOCK 070 / WHITE SD8 / 6-WAY MULTILOCK 070 / WHITE SD9 / 6-WAY MULTILOCK 070 / YELLOW | BELOW SEAT CUSHION |
| SQUAB (HEATER) - DRIVER | SD17 (FLYLEAD) / 3-WAY MULTILOCK 070 / SLATE | SEAT SQUAB |
| SWITCH PACK - DRIVER DOOR MEMORY | DD5 / 10-WAY AMP ML KEY A / BLACK | DRIVER DOOR |
| SWITCH PACK - DRIVER SEAT | SD11 / 16-WAY MULTILOCK 040 / BLACK | DRIVER SEAT |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|------------------------------|--|
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| SD1 | 8-WAY MULTILOCK 070 / YELLOW | BELOW DRIVER SEAT |

GROUNDS

| Ground | Location / Type |
|--------|--|
| FC2AR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4AR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC5L | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND SEAT |
| FC5R | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND SEAT |
| FC6L | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND SEAT |
| FC6R | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND SEAT |

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, HARNESSSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|--|--------------------|----------|
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| O FC14-17 | LHD RH (RHD LH) SEAT HEATER STATE LED | GROUND (LED ON) | B+ |
| I FC14-32 | IGNITION SWITCHED GROUND SUPPLY | GROUND | B+ |
| I FC14-35 | LHD RH (RHD LH) SEAT HEATER REQUEST | GROUND | B+ |
| O FC14-65 | LOGIC GROUND SUPPLY | GROUND | B+ |
| O FC14-69 | LHD LH SEAT HEATER STATUS LED (RHD = RH) | GROUND | B+ |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |
| I FC14-86 | LHD LH (RHD RH) SEAT HEATER REQUEST | GROUND (MOMENTARY) | B+ |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |

DRIVER SEAT CONTROL MODULE

| Pin | Description | Active | Inactive |
|----------|--|-----------------|----------|
| O SD3-1 | DRIVERS SEAT SQUAB MOTOR SUPPLY - FORWARD | B+ | GROUND |
| O SD3-2 | DRIVERS SEAT SQUAB MOTOR SUPPLY - REAR | B+ | GROUND |
| O SD3-3 | DRIVERS SEAT HEATER ELEMENTS SUPPLY | B+ | GROUND |
| O SD3-5 | DRIVER SEAT LUMBAR PUMP INFLATE MOTOR | B+ | GROUND |
| O SD3-6 | DRIVERS SEAT LUMBAR PUMP DEFLATE SOLENOID | B+ | GROUND |
| O SD3-7 | DRIVERS SEAT FORE / AFT MOTOR SUPPLY | B+ | GROUND |
| O SD3-8 | DRIVERS SEAT FORE / AFT MOTOR SUPPLY | B+ | GROUND |
| I SD3-9 | DRIVERS SEAT FORE MOVEMENT REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-10 | DRIVERS SEAT AFT MOVEMENT REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-11 | DRIVERS SEAT CUSHION REAR EDGE LOWER REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-12 | DRIVERS SEAT CUSHION REAR EDGE RAISE REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-13 | DRIVERS SEAT LUMBAR INFLATE REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-14 | DRIVERS SEAT LUMBAR DEFLATE REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-15 | DRIVERS SEAT SQUAB AFT RECLINE REQUEST | B+ (MOMENTARY) | GROUND |
| I SD3-16 | DRIVERS SEAT SQUAB FORE RECLINE REQUEST | B+ (MOMENTARY) | GROUND |
| I SD5-1 | DRIVER OR PASSENGER SEAT IDENTIFICATION | GROUND (DRIVER) | |
| I SD5-2 | POWER GROUND | GROUND | GROUND |
| O SD5-3 | DRIVERS SEAT RAISE / LOWER MOTOR SUPPLY | B+ | GROUND |
| O SD5-4 | DRIVERS SEAT RAISE / LOWER MOTOR SUPPLY | B+ | GROUND |
| I SD5-6 | BATTERY POWER SUPPLY | B+ | B+ |
| I SD5-8 | DRIVERS SEAT BELT FASTENED | B+ (FASTENED) | GROUND |
| S SD5-9 | SCP NETWORK | 2 - 1600 Hz | |
| S SD5-10 | SCP NETWORK | 2 - 1600 Hz | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 12.2

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---|--|--|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| SEAT BELT SWITCH | SD20 / 2-WAY MULTILOCK 040 / BLACK | BELOW SEAT CUSHION |
| SEAT CONTROL MODULE - DRIVER | SD3 / 16-WAY FORD 2.8 TIMER / BLACK SD4 / 26-WAY FORD IDC / BLACK SD5 / 10-WAY FORD 2.8 TIMER / BLACK | BELOW SEAT CUSHION |
| SEAT CUSHION (HEATER) - DRIVER | SD19 (FLYLEAD) / 3-WAY MULTILOCK 070 / YELLOW | SEAT CUSHION |
| SEAT HEATER SWITCH (CENTER CONSOLE SWITCH PACK) | FC55 (FLYLEAD) / 20-WAY FORD IDC / BLACK | CENTER CONSOLE SWITCH PACK |
| SEAT LUMBAR PUMP - DRIVER | SD14 / 3-WAY MULTILOCK 070 / YELLOW | SEAT BACK |
| SEAT MOTORS - DRIVER | SD7 / 6-WAY MULTILOCK 070 / WHITE SD8 / 6-WAY MULTILOCK 070 / WHITE SD9 / 6-WAY MULTILOCK 070 / YELLOW | BELOW SEAT CUSHION |
| SQUAB (HEATER) - DRIVER | SD17 (FLYLEAD) / 3-WAY MULTILOCK 070 / SLATE | SEAT SQUAB |
| SWITCH PACK - DRIVER SEAT | SD11 / 16-WAY MULTILOCK 040 / BLACK | DRIVER SEAT |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|------------------------------|-------------------|
| SD1 | 8-WAY MULTILOCK 070 / YELLOW | BELOW DRIVER SEAT |

GROUNDS

| Ground | Location / Type |
|--------|---|
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC5L | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND SEAT |
| FC5R | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND SEAT |
| FC6L | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND SEAT |
| FC6R | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND SEAT |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|--|--------------------|----------|
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| O FC14-17 | LHD RH (RHD LH) SEAT HEATER STATE LED | GROUND (LED ON) | B+ |
| I FC14-32 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| I FC14-35 | LHD RH (RHD LH) SEAT HEATER REQUEST | GROUND | B+ |
| I FC14-85 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| O FC14-69 | LHD LH SEAT HEATER STATUS LED (RHD = RH) | GROUND | B+ |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |
| I FC14-86 | LHD LH (RHD RH) SEAT HEATER REQUEST | GROUND (MOMENTARY) | B+ |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |

PASSENGER SEAT CONTROL MODULE

| Pin | Description | Active | Inactive |
|----------|--|------------------|---------------------|
| O SP3-1 | PASSENGER SEAT SQUAB MOTOR SUPPLY - FORWARD | B+ | GROUND |
| O SP3-2 | PASSENGER SEAT SQUAB MOTOR SUPPLY - REAR | B+ | GROUND |
| O SP3-3 | PASSENGER SEAT HEATER ELEMENTS SUPPLY | B+ | GROUND |
| O SP3-5 | PASSENGER SEAT LUMBAR PUMP INFLATE MOTOR | B+ | GROUND |
| O SP3-6 | PASSENGER SEAT LUMBAR PUMP DEFLATE SOLENOID | B+ | GROUND |
| O SP3-7 | PASSENGER SEAT FORE / AFT MOTOR SUPPLY - FORWARD | B+ | GROUND |
| O SP3-8 | PASSENGER SEAT FORE / AFT MOTOR SUPPLY - REAR | B+ | GROUND |
| I SP3-9 | PASSENGER SEAT FORE MOVEMENT REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-10 | PASSENGER SEAT AFT MOVEMENT REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-11 | PASSENGER SEAT CUSHION REAR EDGE LOWER REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-12 | PASSENGER SEAT CUSHION REAR EDGE RAISE REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-13 | PASSENGER SEAT LUMBAR INFLATE REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-14 | PASSENGER SEAT LUMBAR DEFLATE REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-15 | PASSENGER SEAT SQUAB AFT RECLINE REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-16 | PASSENGER SEAT SQUAB FORE RECLINE REQUEST | B+ (MOMENTARY) | GROUND |
| I SP5-1 | DRIVER OR PASSENGER SEAT IDENTIFICATION | GROUND (DRIVERS) | GROUND (PASSENGERS) |
| I SP5-2 | POWER GROUND | GROUND | GROUND |
| O SP5-3 | PASSENGER SEAT RAISE / LOWER MOTOR SUPPLY | NOT USED | |
| O SP5-4 | PASSENGER SEAT RAISE / LOWER MOTOR SUPPLY | NOT USED | |
| I SP5-5 | BATTERY POWER SUPPLY | B+ | B+ |
| I SP5-8 | PASSENGER SEAT BELT FASTENED | B+ (FASTENED) | GROUND |
| S SP5-9 | SCP NETWORK | 2 - 1600 Hz | |
| S SP5-10 | SCP NETWORK | 2 - 1600 Hz | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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 |
|---|--|--|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| SEAT BELT SWITCH WIRING (NOT USED) | SP20 / 2-WAY MULTILOCK 040 / BLACK | BELOW SEAT CUSHION |
| SEAT CONTROL MODULE - PASSENGER | SP3 / 16-WAY FORD 2.8 TIMER / BLACK SP5 / 10-WAY FORD 2.8 TIMER / BLACK | BELOW SEAT CUSHION |
| SEAT CUSHION (HEATER) - PASSENGER | SP19 (FLYLEAD) / 3-WAY MULTILOCK 070 / YELLOW | SEAT CUSHION |
| SEAT HEATER SWITCH (CENTER CONSOLE SWITCH PACK) | FC55 (FLYLEAD) / 20-WAY FORD IDC / BLACK | CENTER CONSOLE SWITCH PACK |
| SEAT LUMBAR PUMP - PASSENGER | SP14 / 3-WAY MULTILOCK 070 / YELLOW | SEAT BACK |
| SEAT MOTORS - PASSENGER | SP7 / 6-WAY MULTILOCK 070 / WHITE SP8 / 6-WAY MULTILOCK 070 / WHITE SP9 / 6-WAY MULTILOCK 070 / YELLOW | BELOW SEAT CUSHION |
| SQUAB (HEATER) - PASSENGER | SP17 (FLYLEAD) / 3-WAY MULTILOCK 070 / SLATE | SEAT SQUAB |
| SWITCH PACK - PASSENGER SEAT | SP11 / 16-WAY MULTILOCK 040 / BLACK | PASSENGER SEAT |

HARNESSTO-HARNESSTO CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|------------------------------|----------------------|
| SP1 | 8-WAY MULTILOCK 070 / YELLOW | BELOW PASSENGER SEAT |

GROUNDS

| Ground | Location / Type |
|--------|---|
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC5S | EYELET (SINGLE) / RIGHT HAND SEAT |
| FC6S | EYELET (SINGLE) / LEFT HAND SEAT |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|--|--------------------|----------|
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| O FC14-17 | LHD RH (RHD LH) SEAT HEATER STATE LED | GROUND (LED ON) | B+ |
| I FC14-32 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| I FC14-35 | LHD RH (RHD LH) SEAT HEATER REQUEST | GROUND | B+ |
| O FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| O FC14-69 | LHD LH SEAT HEATER STATUS LED (RHD = RH) | GROUND | B+ |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-86 | SCP NETWORK | 2 - 1600 Hz | |
| I FC14-86 | LHD LH (RHD RH) SEAT HEATER REQUEST | GROUND (MOMENTARY) | B+ |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |

PASSENGER SEAT CONTROL MODULE

| Pin | Description | Active | Inactive |
|----------|--|------------------|---------------------|
| O SP3-1 | PASSENGER SEAT SQUAB MOTOR SUPPLY - FORWARD | B+ | GROUND |
| O SP3-2 | PASSENGER SEAT SQUAB MOTOR SUPPLY - REAR | B+ | GROUND |
| O SP3-3 | PASSENGER SEAT HEATER ELEMENTS SUPPLY | B+ | GROUND |
| O SP3-5 | PASSENGER SEAT LUMBAR PUMP INFLATE MOTOR | B+ | GROUND |
| O SP3-6 | PASSENGER SEAT LUMBAR PUMP DEFLATE SOLENOID | B+ | GROUND |
| O SP3-7 | PASSENGER SEAT FORE / AFT MOTOR SUPPLY - FORWARD | B+ | GROUND |
| O SP3-8 | PASSENGER SEAT FORE / AFT MOTOR SUPPLY - REAR | B+ | GROUND |
| I SP3-9 | PASSENGER SEAT FORE MOVEMENT REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-10 | PASSENGER SEAT AFT MOVEMENT REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-13 | PASSENGER SEAT LUMBAR INFLATE REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-14 | PASSENGER SEAT LUMBAR DEFLATE REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-15 | PASSENGER SEAT SQUAB AFT RECLINE REQUEST | B+ (MOMENTARY) | GROUND |
| I SP3-16 | PASSENGER SEAT SQUAB FORE RECLINE REQUEST | B+ (MOMENTARY) | GROUND |
| I SP5-1 | DRIVER OR PASSENGER SEAT IDENTIFICATION | GROUND (DRIVERS) | GROUND (PASSENGERS) |
| I SP5-2 | POWER GROUND | GROUND | GROUND |
| I SP5-5 | BATTERY POWER SUPPLY | B+ | B+ |
| I SP5-8 | PASSENGER SEAT BELT FASTENED | B+ (FASTENED) | GROUND |
| S SP5-9 | SCP NETWORK | 2 - 1600 Hz | |
| S SP5-10 | SCP NETWORK | 2 - 1600 Hz | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 12.4

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---|--|--|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| SEAT BELT SWITCH WIRING (NOT USED) | SP20 / 2-WAY MULTILOCK 040 / BLACK | BELOW SEAT CUSHION |
| SEAT CONTROL MODULE - PASSENGER | SP3 / 16-WAY FORD 2.8 TIMER / BLACK SP5 / 10-WAY FORD 2.8 TIMER / BLACK | BELOW SEAT CUSHION |
| SEAT CUSHION (HEATER) - PASSENGER | SP19 (FLYLEAD) / 3-WAY MULTILOCK 070 / YELLOW | SEAT CUSHION |
| SEAT HEATER SWITCH (CENTER CONSOLE SWITCH PACK) | FC55 (FLYLEAD) / 20-WAY FORD IDC / BLACK | CENTER CONSOLE SWITCH PACK |
| SEAT MOTORS - PASSENGER | SP7 / 6-WAY MULTILOCK 070 / WHITE SP8 / 6-WAY MULTILOCK 070 / WHITE SP9 / 6-WAY MULTILOCK 070 / YELLOW | BELOW SEAT CUSHION |
| SQUAB (HEATER) - PASSENGER | SP17 (FLYLEAD) / 3-WAY MULTILOCK 070 / SLATE | SEAT SQUAB |
| SWITCH PACK - PASSENGER SEAT | SP11 / 16-WAY MULTILOCK 040 / BLACK | PASSENGER SEAT |

HARNESSTO-HARNESSTO CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|------------------------------|----------------------|
| SP1 | 8-WAY MULTILOCK 070 / YELLOW | BELOW PASSENGER SEAT |

GROUNDS

| Ground | Location / Type |
|--------|---|
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC5S | EYELET (SINGLE) / RIGHT HAND SEAT |
| FC6S | EYELET (SINGLE) / LEFT HAND SEAT |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|---------------------------------|----------------------|-----------|
| I FC14-5 | TRUNK LATCH RELEASE REQUEST | GROUND (MOMENTARY) | B+ |
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | B+ |
| I FC14-31 | FUEL FLAP RELEASE REQUEST | GROUND (MOMENTARY) | GROUND |
| I FC14-33 | IGNITION SWITCHED GROUND SUPPLY | GROUND | B+ |
| I FC14-41 | IGNITION GROUND SUPPLY | GROUND | B+ (PARK) |
| I FC14-55 | VALET SWITCH | GROUND (MOMENTARY) | GROUND |
| I FC14-58 | NOT-IN-PARK | GROUND (R,N,D,4,3,2) | B- |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | B+ |
| I FC14-67 | KEY IN IGNITION | GROUND (KEY IN) | B+ |
| O FC14-71 | DOOR LOCK RELAY ACTIVATE | GROUND (PULSE) | B+ |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B+ |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | B+ |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |

DRIVER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|--|--------------------|-------------|
| I DD10-1 | BATTERY POWER SUPPLY | B+ | B+ |
| O DD10-5 | DOOR LOCK ACTUATOR MOTOR UNLOCK | B+ | GROUND |
| O DD10-6 | DOOR LOCK ACTUATOR MOTOR LOCK | B+ | GROUND |
| I DD10-8 | LOGIC GROUND | GROUND | GROUND |
| S DD10-9 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| S DD10-16 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| I DD11-4 | DRIVERS DOOR LOCK BARREL UNLOCK REQUEST | B+ (MOMENTARY) | GROUND |
| I DD11-5 | EXTERIOR DOOR HANDLE WINDOW DROP REQUEST | B+ | B+ |
| I DD11-12 | DRIVERS DOOR LOCK BARREL LOCK REQUEST | B+ (MOMENTARY) | GROUND |
| I DD11-17 | LH VERTICAL MOVEMENT REQUEST | B+ = DOWN | GROUND = UP |
| I DD11-20 | DRIVERS DOOR SWITCH | GROUND (DOOR OPEN) | B+ |

PASSENGER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|---|--------------------|----------|
| I DP10-1 | BATTERY POWER SUPPLY | B+ | B+ |
| O DP10-5 | PASSENGER DOOR LOCK ACTUATOR MOTOR UNLOCK | B+ | GROUND |
| O DP10-6 | PASSENGER DOOR LOCK ACTUATOR MOTOR LOCK | B+ | GROUND |
| I DP10-8 | LOGIC GROUND | GROUND | GROUND |
| S DP10-9 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| S DP10-16 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| I DP10-17 | POWER GROUND | GROUND | GROUND |
| I DP11-5 | EXTERIOR DOOR HANDLE WINDOW DROP REQUEST | B+ | GROUND |
| I DP11-20 | PASSENGER DOOR SWITCH | GROUND (DOOR OPEN) | B+ |

SECURITY AND LOCKING CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|--|-----------------|----------|
| O BT40-1 | TRUNK RELEASE SOLENOID | B+ | GROUND |
| O BT40-2 | FUEL FILLER FLAP SOLENOID | B+ | GROUND |
| S BT40-8 | SCP NETWORK | 2 - 1600 Hz | GROUND |
| I BT40-13 | GROUND | GROUND | GROUND |
| I BT40-14 | GROUND | GROUND | GROUND |
| I BT40-15 | BATTERY POWER SUPPLY | B+ | B+ |
| S BT40-16 | SCP NETWORK | 2 - 1600 Hz | B+ |
| I BT41-5 | TRUNK SWITCH | GROUND | B+ |
| I BT41-7 | PASSENGER DOOR LOCK ACTUATOR LOCK STATUS | GROUND (LOCKED) | B+ |
| I BT41-19 | DRIVERS DOOR LOCK ACTUATOR LOCK STATUS | GROUND (LOCKED) | B+ |
| I RH20-1 | KEY FOB ANTENNA | | |
| I RH20-1 | KEY FOB ANTENNA | | |
| I RH20-2 | KEY FOB ANTENNA SHIELD | GROUND | GROUND |
| I RH20-2 | KEY FOB ANTENNA SHIELD | GROUND | GROUND |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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 / Type / Color | Location / Access |
|-------------------------------------|--|--|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| DOOR CONTROL MODULE - DRIVER | DD10 / 22-WAY FORD 2.8 TIMER / BLUE DD11 / 22-WAY FORD 2.8 TIMER / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR CONTROL MODULE - PASSENGER | DP10 / 22-WAY FORD 2.8 TIMER / BLUE DP11 / 22-WAY FORD 2.8 TIMER / BLACK | PASSENGER DOOR / DOOR CASING |
| DOOR LOCK ACTUATOR - DRIVER | DD3 / 13-WAY ECONOSEAL III LC / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR LOCK ACTUATOR - PASSENGER | DP3 / 13-WAY ECONOSEAL III LC / BLACK | PASSENGER DOOR / DOOR CASING |
| DOOR LOCK SWITCH - PASSENGER | DP3 / 13-WAY ECONOSEAL III LC / BLACK | PASSENGER DOOR / DOOR CASING |
| DOOR LOCK SWITCHES - DRIVER | DD3 / 13-WAY ECONOSEAL III LC / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR SWITCH - DRIVER | DD3 / 13-WAY ECONOSEAL III LC / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR SWITCH - PASSENGER | DP3 / 13-WAY ECONOSEAL III LC / BLACK | PASSENGER DOOR / DOOR CASING |
| FUEL FILL FLAP SOLENOID | BT6 / 2-WAY LABINAL / NATURAL | TRUNK / FUEL FILL |
| IGNITION SWITCH (KEY-IN SWITCH) | FC4 (FLYLEAD) / 8-WAY MULTILOCK 070 / WHITE | STEERING COLUMN |
| KEY FOB ANTENNA (CONVERTIBLE) | HARD WIRED | TOP OF BACKLIGHT |
| KEY FOB ANTENNA (COUPE) | RH7 / COAXIAL CONNECTOR | TOP OF BACKLIGHT |
| NOT-IN-PARK MICROSWITCH | FC87 (FLYLEAD) / 3-WAY MULTILOCK 070 / WHITE | GEAR SELECTOR ASSEMBLY |
| SECURITY AND LOCKING CONTROL MODULE | BT40 / 16-WAY FORD 2.8 TIMER / BLACK BT41 / 26-WAY FORD IDC / BLACK RH20 / COAXIAL CONNECTOR | TRUNK / ELECTRICAL CARRIER |
| TRUNK AND FUEL FILL RELEASE SWITCH | FC41 / 10-WAY AMP ML KEY B / WHITE | FASCIA / DRIVER SIDE |
| TRUNK RELEASE SOLENOID | BT43 / 2-WAY LABINAL / BROWN | TRUNK / LEFT HAND SIDE |
| TRUNK SWITCH | BT46 / 2-WAY FORD / BLACK | TRUNK |
| VALET SWITCH | FC67 / 10-WAY AMP ML KEY A / BLACK | DRIVER KNEE BOLSTER |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|--------------------|----------------|-------------------|-------------------|
| DOOR LOCKING RELAY | VIOLET | FC24 / VIOLET | RH FASCIA RELAYS |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC13 | 20-WAY MULTILOCK 070 / YELLOW | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC15 | 20-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BT2 | 18-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| RH12 | 18-WAY MULTILOCK 070 / YELLOW | REAR OF CENTER CONSOLE ASSEMBLY |

GROUND

| Ground | Location / Type |
|--------|--|
| BT1AL | EYELET (PAIR) - LEFT HAND LEG / ADJACENT TO BATTERY |
| BT1AR | EYELET (PAIR) - RIGHT HAND LEG / ADJACENT TO BATTERY |
| FC2AR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC2BL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND 'A' POST |
| FC2BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4AR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC4BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| RHS3 | EYELET (SINGLE) / ROOF, ADJACENT TO BACKLIGHT |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|--|--------------------|-----------------|
| I FC14-6 | WASHER FLUID LEVEL LOW | 0 V | B+ |
| I FC14-9 | INTERMITTENT WIPER REQUEST | GROUND (MOMENTARY) | B+ |
| I FC14-16 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| I FC14-16 | SIDE LAMP REQUEST | GROUND | B+ |
| O FC14-18 | POWER WASH RELAY ACTIVATE | GROUND | B+ |
| O FC14-19 | WIPER FAST / SLOW RELAY ACTIVATE | GROUND | B+ |
| O FC14-26 | WINDSHIELD WASH PUMP AND FLUID LEVEL SENSOR SUPPLY | B- | GROUND |
| I FC14-34 | FAST WIPE REQUEST | GROUND | B+ |
| I FC14-37 | WASH REQUEST | 0 V (MOMENTARY) | B+ |
| O FC14-43 | WIPER RUN / STOP RELAY ACTIVATE | GROUND | B- |
| I FC14-60 | WIPER MOTOR PARK SWITCH | GROUND (PARKED) | B+ (NOT PARKED) |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B- | B- |
| I FC14-94 | SLOW WIPE REQUEST | GROUND (WIPERS ON) | B- |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |
| I FC14-104 | LIGHTING / MOTORS BATTERY POWER SUPPLY | B- | B+ |

Fig. 14.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---|--|--|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EFFC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| FUSE BOX - ENGINE COMPARTMENT | LF5 / 10-WAY U.T.A. FUSEBOX / WHITE LF6 / 10-WAY U.T.A. FUSEBOX / BLACK LF7 / 10-WAY U.T.A. FUSEBOX / GREEN LF8 / 10-WAY U.T.A. FUSEBOX / BLUE LF70 / EYELET | ENGINE COMPARTMENT / LEFT FRONT |
| LIGHTING STALK (COLUMN SWITCHGEAR) | SC2 (FLYLEAD) / 10-WAY MULTILOCK 070 / YELLOW | STEERING COLUMN |
| POWER WASH PUMP | LF25 / 2-WAY ECONOSEAL III HC / BLACK | LEFT FRONT FENDER / WHEEL ARCH LINER |
| WASH / WIPE STALK (COLUMN SWITCHGEAR) | SC1 (FLYLEAD) / 12-WAY MULTILOCK 070 / WHITE | STEERING COLUMN |
| WINDSHIELD WASH PUMP AND FLUID LEVEL SENSOR | LF27 / 3-WAY AUGAT / BLACK | LEFT FRONT FENDER / WHEEL ARCH LINER |
| WIPER MOTOR | EM51 (FLYLEAD) / 5-WAY FORD FAO / BLACK | BASE OF WINDSHIELD / AIR INTAKE PLENUM |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|-------------------------|----------------|-------------------|-----------------------------------|
| WIPER RUN / STOP RELAY | BLACK | LF48 / BLACK | LH BRAKE BOOSTER ENCLOSURE RELAYS |
| WIPER FAST / SLOW RELAY | BLACK | LF49 / BLACK | LH BRAKE BOOSTER ENCLOSURE RELAYS |
| POWERWASH RELAY (#4) | BROWN | BUS | ENGINE COMPARTMENT FUSE BOX |

HARNESSTO-HARNESSTO CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|---------------------------------|---|
| LF3 | 13-WAY ECONOSEAL III LC / WHITE | ENGINE COMPARTMENT / LEFT HAND ENCLOSURE |
| LF1 | 20-WAY MULTILOCK 070 / SLATE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| LF60 | 20-WAY MULTILOCK 070 / WHITE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |

GROUNDS

| Ground | Location / Type |
|--------|---|
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| LF1AR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND HEADLAMP |
| LF3BS | EYELET (SINGLE) / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |
| LF3BS | EYELET (SINGLE) / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD CATCH |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|-----------|-------------|-------------|----------|
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |

DRIVER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|--|-----------------------|----------|
| I DD10-1 | BATTERY POWER SUPPLY | B- | B+ |
| O DD10-7 | WINDOW LIFT MOTOR DOWN SUPPLY | B- | GROUND |
| I DD10-8 | LOGIC GROUND | GROUND | GROUND |
| S DD10-9 | SCP NETWORK | 2 - 1600 Hz | |
| I DD10-10 | DRIVERS SWITCH PACK LH WINDOW DOWN REQUEST | GROUND (MOMENTARY) | B+ |
| I DD10-11 | DRIVERS WINDOW LIFT SENSOR FEEDBACK | 2 V = UP; 12 V = DOWN | B+ |
| I DD10-12 | DRIVERS WINDOW LIFT SENSOR FEEDBACK | 2 V = UP; 12 V = DOWN | B+ |
| O DD10-13 | DRIVERS WINDOW LIFT SENSOR REFERENCE VOLTAGE | B- | B+ |
| O DD10-15 | DRIVERS WINDOW LIFT MOTOR UP SUPPLY | B- | GROUND |
| S DD10-16 | SCP NETWORK | 2 - 1600 Hz | |
| I DD10-17 | POWER GROUND | GROUND | GROUND |
| I DD10-18 | DRIVERS SWITCH PACK LH WINDOW UP REQUEST | GROUND (MOMENTARY) | GROUND |
| I DD10-19 | DRIVERS SWITCH PACK RH WINDOW UP REQUEST | GROUND (MOMENTARY) | GROUND |
| I DD11-4 | DRIVERS DOOR LOCK BARREL UNLOCK REQUEST | B+ (MOMENTARY) | GROUND |
| I DD11-7 | DRIVERS SWITCH PACK RH WINDOW DOWN REQUEST | B- (MOMENTARY) | GROUND |
| I DD11-12 | DRIVERS DOOR LOCK BARREL LOCK REQUEST | B- (MOMENTARY) | GROUND |

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|-------------|-------------|----------|
| S FC25-19 | SCP NETWORK | 2 - 1600 Hz | |
| S FC25-20 | SCP NETWORK | 2 - 1600 Hz | |

PASSENGER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|---|-----------------------|----------|
| I DP10-1 | BATTERY POWER SUPPLY | B- | B+ |
| O DP10-7 | PASSENGER WINDOW LIFT MOTOR DOWN SUPPLY | B+ | GROUND |
| I DP10-8 | LOGIC GROUND | GROUND | GROUND |
| S DP10-9 | SCP NETWORK | 2 - 1600 Hz | |
| I DP10-10 | PASSENGER SWITCH PACK RH WINDOW DOWN REQUEST | B+ (MOMENTARY) | GROUND |
| I DP10-11 | PASSENGER WINDOW LIFT MOVEMENT SENSOR FEEDBACK | 2 V = UP; 12 V = DOWN | B+ |
| I DP10-12 | PASSENGER WINDOW LIFT MOVEMENT SENSOR FEEDBACK | 2 V = UP; 12 V = DOWN | B+ |
| O DP10-13 | PASSENGER WINDOW LIFT MOVEMENT SENSOR REFERENCE VOLTAGE | B- | B+ |
| O DP10-15 | PASSENGER WINDOW LIFT MOTOR UP SUPPLY | B- | GROUND |
| S DP10-16 | SCP NETWORK | 2 - 1600 Hz | |
| I DP10-17 | POWER GROUND | GROUND | GROUND |
| I DP10-18 | PASSENGER SWITCH PACK RH WINDOW UP REQUEST | B+ (MOMENTARY) | GROUND |

SECURITY AND LOCKING CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|-------------|-------------|----------|
| S BT40-8 | SCP NETWORK | 2 - 1600 Hz | |
| S BT40-16 | SCP NETWORK | 2 - 1600 Hz | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 15.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|--|--|--|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| DOOR CONTROL MODULE - DRIVER | DD10 / 22-WAY FORD 2.8 TIMER / BLUE DD11 / 22-WAY FORD 2.8 TIMER / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR CONTROL MODULE - PASSENGER | DP10 / 22-WAY FORD 2.8 TIMER / BLUE DP11 / 22-WAY FORD 2.8 TIMER / BLACK | PASSENGER DOOR / DOOR CASING |
| DOOR LOCK SWITCHES - DRIVER | DD3 / 13-WAY ECONOSEAL III LC / BLACK | DRIVER DOOR / DOOR CASING |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| SECURITY AND LOCKING CONTROL MODULE | BT40 / 16-WAY FORD 2.8 TIMER / BLACK BT41 / 26-WAY FORD IDC / BLACK RH20 / COAXIAL CONNECTOR | TRUNK / ELECTRICAL CARRIER |
| WINDOW LIFT SWITCHES - DRIVER DOOR | DD17 (FLYLEAD) / 20-WAY MULTILOCK 040 / BLACK | DRIVER DOOR SWITCH PACK |
| WINDOW LIFT SWITCHES - PASSENGER DOOR (PASSENGER DOOR SWITCH PACK) | DP17 (FLYLEAD) / 20-WAY MULTILOCK 040 / BLACK | PASSENGER DOOR SWITCH PACK |
| WINDOW LIFT - DRIVER | DD16 / 6-WAY ECONOSEAL III LC / BLACK | DRIVER DOOR |
| WINDOW LIFT - PASSENGER | DP16 / 6-WAY ECONOSEAL III LC / BLACK | DRIVER DOOR |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC15 | 20-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| AC16 | 6-WAY MULTILOCK 070 / YELLOW | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BT2 | 18-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| FC62 | 10-WAY AMP ML KEY A / BLACK | CONVERTIBLE TOP SWITCH |
| RF1 | 18-WAY MULTILOCK 070 / YELLOW | RIGHT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RH12 | 18-WAY MULTILOCK 070 / YELLOW | REAR OF CENTER CONSOLE ASSEMBLY |
| RH2 | 20-WAY MULTILOCK 070 / WHITE | REAR OF CENTER CONSOLE ASSEMBLY |

GROUNDS

| Ground | Location / Type |
|--------|--|
| FC2AR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC4AR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|---|--------------------|----------|
| I FC14-10 | CONVERTIBLE TOP RAISE REQUEST | GROUND (MOMENTARY) | B+ |
| I FC14-15 | IGNITION SWITCHED GROUND SUPPLY | GROUND | |
| I FC14-32 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| I FC14-33 | IGNITION SWITCHED GROUND SUPPLY | GROUND | GROUND |
| I FC14-35 | CONVERTIBLE TOP READY TO LATCH | GROUND | B+ |
| J FC14-62 | CONVERTIBLE TOP LATCH CLOSED | GROUND (CLOSED) | B- |
| I FC14-63 | CONVERTIBLE TOP LOWER REQUEST | GROUND (MOMENTARY) | B- |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| O FC14-77 | REAR QUARTER GLASS DOWN RELAYS ACTIVATE | GROUND | B- |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B+ | B- |
| S FC14-84 | SCP NETWORK | 2 - 1600 Hz | |
| S FC14-85 | SCP NETWORK | 2 - 1600 Hz | |
| J FC14-89 | CONVERTIBLE TOP CLOSED | GROUND | B+ |
| O FC14-98 | REAR QUARTER GLASS UP RELAYS ACTIVATE | GROUND | B+ |
| J FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |

DRIVER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|-------------|-------------|----------|
| S DD10-9 | SCP NETWORK | 2 - 1600 Hz | |
| S DD10-16 | SCP NETWORK | 2 - 1600 Hz | |

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|-------------|-------------|----------|
| S FC25-19 | SCP NETWORK | 2 - 1600 Hz | |
| S FC25-20 | SCP NETWORK | 2 - 1600 Hz | |

PASSENGER DOOR CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|-------------|-------------|----------|
| S DP10-9 | SCP NETWORK | 2 - 1600 Hz | |
| S DP10-16 | SCP NETWORK | 2 - 1600 Hz | |

SECURITY AND LOCKING CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|-----------------------------|-------------|----------|
| O BT40-3 | TOP UP RELAY ACTIVATE | B- | GROUND |
| O BT40-4 | LATCH CONTROL VALVE | B- | GROUND |
| I BT40-6 | BATTERY POWER SUPPLY | B- | B+ |
| S BT40-8 | SCP NETWORK | 2 - 1600 Hz | |
| O BT40-9 | MAIN CONTROL VALVE | B+ | GROUND |
| O BT40-10 | TOP DOWN RELAY ACTIVATE | B+ | GROUND |
| I BT40-13 | GROUND | GROUND | GROUND |
| I BT40-14 | GROUND | GROUND | GROUND |
| S BT40-16 | SCP NETWORK | 2 - 1600 Hz | |
| I BT41-3 | CONVERTIBLE TOP DOWN SWITCH | GROUND | B+ |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 15.2

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---------------------------------------|--|--|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| CONVERTIBLE TOP CLOSED SWITCH | RF4 (FLYLEAD) / 6-WAY MULTILOCK 070 / WHITE | TOP OF WINDSHIELD |
| CONVERTIBLE TOP DOWN SWITCH | RH29 (FLYLEAD) / 3-WAY MULTILOCK 070 / WHITE | RIGHT HAND OPERATING CYLINDER |
| CONVERTIBLE TOP LATCH CLOSED SWITCH | RF4 (FLYLEAD) / 6-WAY MULTILOCK 070 / WHITE | TOP OF WINDSHIELD |
| CONVERTIBLE TOP PUMP | BT15 (FLYLEAD) / 2-WAY AMP / NATURAL | TRUNK / RIGHT HAND SIDE |
| CONVERTIBLE TOP RAISED SWITCH | RH29 (FLYLEAD) / 3-WAY MULTILOCK 070 / WHITE | RIGHT HAND OPERATING CYLINDER |
| CONVERTIBLE TOP READY-TO-LATCH SWITCH | RF4 (FLYLEAD) / 6-WAY MULTILOCK 070 / WHITE | TOP OF WINDSHIELD |
| CONVERTIBLE TOP SWITCH | FC62 / 10-WAY AMP ML KEY A / BLACK | FORWARD OF GEAR SELECTOR |
| DOOR CONTROL MODULE - DRIVER | DD10 / 22-WAY FORD 2.8 TIMER / BLUE DD11 / 22-WAY FORD 2.8 TIMER / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR CONTROL MODULE - PASSENGER | DP10 / 22-WAY FORD 2.8 TIMER / BLUE DP11 / 22-WAY FORD 2.8 TIMER / BLACK | PASSENGER DOOR / DOOR CASING |
| LATCH CONTROL VALVE | BT53 / 2-WAY D & R / BLUE | TRUNK / CONVERTIBLE TOP PUMP |
| MAIN CONTROL VALVE | BT54 / 2-WAY D & R / ORANGE | TRUNK / CONVERTIBLE TOP PUMP |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| QUARTER LIGHT LIFT - LH | RH33 / 2-WAY ECONOSEAL III HC / BLACK | REAR QUARTER PANEL |
| QUARTER LIGHT LIFT - RH | RH34 / 2-WAY ECONOSEAL III HC / BLACK | REAR QUARTER PANEL |
| SECURITY AND LOCKING CONTROL MODULE | BT40 / 16-WAY FORD 2.8 TIMER / BLACK BT41 / 26-WAY FORD IDC / BLACK RH20 / COAXIAL CONNECTOR | TRUNK / ELECTRICAL CARRIER |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|-------------------------|----------------|-------------------|-------------------|
| QUARTER DOWN RELAY - LH | BLACK | BT75 / BLACK | TRUNK RELAYS |
| QUARTER DOWN RELAY - RH | BLACK | BT77 / BLACK | TRUNK RELAYS |
| QUARTER UP RELAY - LH | BLACK | BT74 / BLACK | TRUNK RELAYS |
| QUARTER UP RELAY - RH | BLACK | BT76 / BLACK | TRUNK RELAYS |
| TOP UP RELAY | BLACK | BT16 / BLACK | TRUNK RELAYS |
| TOP DOWN RELAY | BLACK | BT17 / BLACK | TRUNK RELAYS |

HARNESSTO-HARNESSTO CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| BT4 | 10-WAY MULTILOCK 070 / YELLOW | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| RF1 | 18-WAY MULTILOCK 070 / YELLOW | RIGHT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RH12 | 18-WAY MULTILOCK 070 / YELLOW | REAR OF CENTER CONSOLE ASSEMBLY |
| RH2 | 20-WAY MULTILOCK 070 / WHITE | REAR OF CENTER CONSOLE ASSEMBLY |
| RH5 | 3-WAY MULTILOCK 070 / WHITE | BEHIND LEFT HAND QUARTER TRIM PANEL |
| RH6 | 3-WAY MULTILOCK 070 / WHITE | BEHIND RIGHT HAND QUARTER TRIM PANEL |

GROUNDS

| Ground | Location / Type |
|--------|--|
| BT1AL | EYELET (PAIR) - LEFT HAND LEG / ADJACENT TO BATTERY |
| BT1AR | EYELET (PAIR) - RIGHT HAND LEG / ADJACENT TO BATTERY |
| BT1BL | EYELET (PAIR) - LEFT HAND LEG / ADJACENT TO BATTERY |
| BT1BR | EYELET (PAIR) - RIGHT HAND LEG / ADJACENT TO BATTERY |
| BT2CS | EYELET (SINGLE) / TRUNK, RIGHT REAR |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| RH1S | EYELET (SINGLE) / RIGHT HAND REAR QUARTER |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|---------------|---|----------|
| C FC25-24 | CAN NETWORK | 15 - 1500 Hz | |
| C FC25-47 | CAN NETWORK | 15 - 1500 Hz | |
| O FC26-20 | VEHICLE SPEED | 22 Hz @ 10 MPH (16 KM/H); 44 Hz @ 20 MPH (32 KM/H) @ B+ | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 16.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|--|--|-----------------------------|
| ANTENNA MOTOR | BT19 / 6-WAY YAZAKI C.S.U. / WHITE | TRUNK / RIGHT HAND SIDE |
| CD AUTO-CHANGER | IC7 / CD DATA CONNECTOR | TRUNK / RIGHT HAND SIDE |
| FULL RANGE SPEAKER - DRIVER DOOR | DD19 / 2-WAY GROTE AND HARTMAN MDK / BLACK | DRIVER DOOR CASING |
| FULL RANGE SPEAKER - PASSENGER DOOR | DP19 / 2-WAY GROTE AND HARTMAN MDK / BLACK | PASSENGER DOOR CASING |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| RADIO / CASSETTE HEAD UNIT | IC8 / COAXIAL CONNECTOR IC10 / 20-WAY MULTILOCK 070 / WHITE IC13 / COAXIAL CONNECTOR IC14 / POWER AMPLIFIER CONNECTOR | CENTER CONSOLE |
| RADIO ANTENNA | IC12 / COAXIAL CONNECTOR | TRUNK / RIGHT HAND SIDE |
| RADIO CONTROL SWITCHES (STEERING WHEEL) | SW4 (FLYLEAD) / 3-WAY EPC / BLACK AND WHITE | STEERING WHEEL |
| REAR QUARTER FULL RANGE SPEAKER - DRIVER SIDE | RH27 / 2-WAY GROTE AND HARTMAN MDK / BLACK | INTERIOR REAR QUARTER PANEL |
| REAR QUARTER FULL RANGE SPEAKER - PASSENGER SIDE | RH26 / 2-WAY GROTE AND HARTMAN MDK / BLACK | INTERIOR REAR QUARTER PANEL |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| IC1 | 20-WAY MULTILOCK 070 / YELLOW | BELOW CENTER CONSOLE GLOVE BOX |
| IC2 | 14-WAY MULTILOCK 070 / WHITE | BELOW CENTER CONSOLE GLOVE BOX |
| RH1 | 20-WAY MULTILOCK 070 / SLATE | BEHIND GLOVE BOX |
| SC2 | 10-WAY MULTILOCK 070 / YELLOW | ADJACENT TO STEERING COLUMN MOTOR |
| SC3 | 12-WAY MULTILOCK 070 / SLATE | RIGHT HAND SIDE OF STEERING COLUMN |
| SW1 | 12-WAY MULTILOCK 040 / BLACK | INSIDE STEERING COLUMN COWL |
| SW2 | 6-WAY JST / WHITE | CENTER OF STEERING WHEEL |

GROUNDS

| Ground | Location / Type |
|--------|--|
| BT1AL | EYELET (PAIR) - LEFT HAND LEG / ADJACENT TO BATTERY |
| CE2 | EYELET (SINGLE) / ABOVE RIGHT HAND SIDE OF TRANSMISSION TUNNEL |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted. "Active" means a load is applied or a switch is ON; "Inactive" means a load is not applied or a switch is OFF.

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

CONTROL MODULE PIN OUT INFORMATION

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|---------------|---|----------|
| C FC25-24 | CAN NETWORK | 15 - 1500 Hz | |
| C FC25-47 | CAN NETWORK | 15 - 1500 Hz | |
| O FC25-20 | VEHICLE SPEED | 22 Hz @ 10 MPH (16 KM/H); 44 Hz @ 20 MPH (32 KM/H) @ B+ | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 16.2

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|--|--|-----------------------------|
| ANTENNA MOTOR | BT19 / 6-WAY YAZAKI C.S.U. / WHITE | TRUNK / RIGHT HAND SIDE |
| CD AUTO-CHANGER | IC7 / CD DATA CONNECTOR | TRUNK / RIGHT HAND SIDE |
| FULL RANGE SPEAKER - DRIVER DOOR | DD19 / 2-WAY GROTE AND HARTMAN MDK / BLACK | DRIVER DOOR CASING |
| FULL RANGE SPEAKER - PASSENGER DOOR | DP19 / 2-WAY GROTE AND HARTMAN MDK / BLACK | PASSENGER DOOR CASING |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| RADIO / CASSETTE HEAD UNIT | IC8 / COAXIAL CONNECTOR IC10 / 20-WAY MULTILOCK 070 / WHITE IC13 / COAXIAL CONNECTOR IC14 / POWER AMPLIFIER CONNECTOR | CENTER CONSOLE |
| RADIO ANTENNA | IC12 / COAXIAL CONNECTOR | TRUNK / RIGHT HAND SIDE |
| RADIO CONTROL SWITCHES (STEERING WHEEL) | SW4 (FLYLEAD) / 3-WAY EPC / BLACK AND WHITE | STEERING WHEEL |
| REAR QUARTER FULL RANGE SPEAKER - DRIVER SIDE | RH25 / 2-WAY GROTE AND HARTMAN MDK / BLACK | INTERIOR REAR QUARTER PANEL |
| REAR QUARTER FULL RANGE SPEAKER - PASSENGER SIDE | RH24 / 2-WAY GROTE AND HARTMAN MDK / BLACK | INTERIOR REAR QUARTER PANEL |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| IC1 | 20-WAY MULTILOCK 070 / YELLOW | BELOW CENTER CONSOLE GLOVE BOX |
| IC2 | 14-WAY MULTILOCK 070 / WHITE | BELOW CENTER CONSOLE GLOVE BOX |
| RH1 | 20-WAY MULTILOCK 070 / SLATE | BEHIND GLOVE BOX |
| SC3 | 12-WAY MULTILOCK 070 / SLATE | RIGHT HAND SIDE OF STEERING COLUMN |
| SW1 | 12-WAY MULTILOCK 040 / BLACK | INSIDE STEERING COLUMN COWL |
| SW2 | 6-WAY JST / WHITE | CENTER OF STEERING WHEEL |

GROUNDS

| Ground | Location / Type |
|--------|--|
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| CE2 | EYELET (SINGLE) / ABOVE RIGHT HAND SIDE OF TRANSMISSION TUNNEL |
| BT1AL | EYELET (PAIR) - LEFT HAND LEG / ADJACENT TO BATTERY |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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.

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CONTROL MODULE PIN OUT INFORMATION

MAJOR INSTRUMENT PACK

| Pin | Description | Active | Inactive |
|-----------|---------------|---|----------|
| C FC25-24 | CAN NETWORK | 15 - 1500 Hz | |
| C FC25-47 | CAN NETWORK | 15 - 1500 Hz | |
| O FC26-20 | VEHICLE SPEED | 22 Hz @ 10 MPH (16 KM/H); 44 Hz @ 20 MPH (32 KM/H) @ B- | |

NOTE: REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 16.3

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---|--|-----------------------------|
| ANTENNA MOTOR | BT19 / 6-WAY YAZAKI C.S.U. / WHITE | TRUNK / RIGHT HAND SIDE |
| CD AUTO-CHANGER | IC7 / CD DATA CONNECTOR | TRUNK / RIGHT HAND SIDE |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| MID-BASS SPEAKER - DRIVER DOOR | DD19 / 2-WAY GROTE AND HARTMAN MDK / BLACK | DRIVER DOOR |
| MID-BASS SPEAKER - PASSENGER DOOR | DP19 / 2-WAY GROTE AND HARTMAN MDK / BLACK | PASSENGER DOOR |
| POWER AMPLIFIER | IC17 / 12-WAY MULTILOCK 070 / WHITE IC18 / 18-WAY MULTILOCK 070 / WHITE | TRUNK / RIGHT HAND SIDE |
| RADIO / CASSETTE HEAD UNIT | IC8 / COAXIAL CONNECTOR IC10 / 20-WAY MULTILOCK 070 / WHITE IC13 / COAXIAL CONNECTOR IC14 / POWER AMPLIFIER CONNECTOR | CENTER CONSOLE |
| RADIO ANTENNA | IC12 / COAXIAL CONNECTOR | TRUNK / RIGHT HAND SIDE |
| RADIO CONTROL SWITCHES (STEERING WHEEL) | SW4 (FLYLEAD) / 3-WAY EPC / BLACK AND WHITE | STEERING WHEEL |
| REAR QUARTER MID-RANGE SPEAKER - DRIVER SIDE | RH25 / 2-WAY GROTE AND HARTMAN MDK / BLACK | INTERIOR REAR QUARTER PANEL |
| REAR QUARTER MID-RANGE SPEAKER - PASSENGER SIDE | RH24 / 2-WAY GROTE AND HARTMAN MDK / BLACK | INTERIOR REAR QUARTER PANEL |
| REAR SUB-WOOFER (CONVERTIBLE) - DRIVER SIDE | RH27 / 2-WAY GROTE AND HARTMAN MDK / BLACK | INTERIOR REAR QUARTER PANEL |
| REAR SUB-WOOFER (CONVERTIBLE) - PASSENGER SIDE | RH26 / 2-WAY GROTE AND HARTMAN MDK / BLACK | INTERIOR REAR QUARTER PANEL |
| REAR SUB-WOOFER (COUPE) | RH27 / 2-WAY GROTE AND HARTMAN MDK / BLACK | PARCEL SHELF |
| SQUAWKER (FASCIA) - DRIVER SIDE | FC39 / 2-WAY MULTILOCK 070 / SLATE | FASCIA / DRIVER SIDE |
| SQUAWKER (FASCIA) - PASSENGER SIDE | FC38 / 2-WAY MULTILOCK 070 / SLATE | FASCIA / PASSENGER SIDE |
| TWEETER - DRIVER DOOR | DD18 (FLYLEAD) / 2-WAY MULTILOCK 040 / BLACK | DRIVER DOOR |
| TWEETER - PASSENGER DOOR | DP18 (FLYLEAD) / 2-WAY MULTILOCK 040 / BLACK | PASSENGER DOOR |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| IC1 | 20-WAY MULTILOCK 070 / YELLOW | BELOW CENTER CONSOLE GLOVE BOX |
| IC2 | 14-WAY MULTILOCK 070 / WHITE | BELOW CENTER CONSOLE GLOVE BOX |
| IC4 | 4-WAY MULTILOCK 070 / WHITE | TRUNK / LEFT OF ANTENNA ASSEMBLY |
| RH1 | 20-WAY MULTILOCK 070 / SLATE | BEHIND GLOVE BOX |
| SC3 | 12-WAY MULTILOCK 070 / SLATE | RIGHT HAND SIDE OF STEERING COLUMN |
| SW1 | 12-WAY MULTILOCK 040 / BLACK | INSIDE STEERING COLUMN COWL |
| SW2 | 6-WAY JST / WHITE | CENTER OF STEERING WHEEL |

GROUNDS

| Ground | Location / Type |
|--------|--|
| BT1AL | EYELET (PAIR) - LEFT HAND LEG / ADJACENT TO BATTERY |
| BT1CS | EYELET (SINGLE) / ADJACENT TO BATTERY |
| CE2 | EYELET (SINGLE) / ABOVE RIGHT HAND SIDE OF TRANSMISSION TUNNEL |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

| | | | | | | | |
|----|---------------|---|-----------------------------------|----|-----------------|-----|------------------|
| I | Input | D | Serial and encoded communications | B+ | Battery voltage | KHz | Frequency x 1000 |
| O | Output | C | CAN (Network) | V | Voltage (DC) | MS | Milliseconds |
| SG | Signal Ground | S | SCP Network | Hz | Frequency | 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.

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Fig. 16.4**COMPONENTS**

| Component | Connector / Type / Color | Location / Access |
|--|--|-------------------------|
| HANDSET | RT4 / TELEPHONE / PROPRIETARY | CENTER CONSOLE |
| MICROPHONE | RF9 / 2-WAY MULTILOCK 040 / BLACK | ROOF CONSOLE |
| RADIO / CASSETTE HEAD UNIT | IC8 / COAXIAL CONNECTOR IC10 / 20-WAY MULTILOCK 070 / WHITE IC13 / COAXIAL CONNECTOR IC14 / POWER AMPLIFIER CONNECTOR | CENTER CONSOLE |
| TELEPHONE ANTENNA | RT7 / COAXIAL | TRUNK / RIGHT HAND SIDE |
| TELEPHONE TRANSCEIVER | RT2 / TELEPHONE / PROPRIETARY RT5 / TELEPHONE / PROPRIETARY | CENTER CONSOLE |
| VOICE RECOGNITION ACTIVATION SWITCH (NAS VEHICLES ONLY) | FC77 / 10-WAY AMP ML KEY B / WHITE | CENTER CONSOLE |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| IC2 | 14-WAY MULTILOCK 070 / WHITE | BELOW CENTER CONSOLE GLOVE BOX |
| RF1 | 18-WAY MULTILOCK 070 / YELLOW | RIGHT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RT3 | TELEPHONE / PROPRIETARY | CENTER CONSOLE |
| RT6 | TELEPHONE / PROPRIETARY | CENTER CONSOLE |
| RT8 | TELEPHONE / PROPRIETARY | CENTER CONSOLE |
| RT9 | TELEPHONE / PROPRIETARY | CENTER CONSOLE |
| RT20 | 14-WAY MULTILOCK 070 / SLATE | REAR OF CENTER CONSOLE ASSEMBLY |

GROUNDS

| Ground | Location / Type |
|--------|---------------------------------------|
| FC2CS | EYELET (SINGLE) / RIGHT HAND 'A' POST |
| FC4CS | EYELET (SINGLE) / LEFT HAND 'A' POST |

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CONTROL MODULE PIN OUT INFORMATION

AIRBAG / SRS CONTROL MODULE

| Pin | Description | Active | Inactive |
|-----------|---------------------------------------|--------------------------------|---------------|
| I FC29-4 | GROUND | GROUND | GROUND |
| O FC29-5 | MAJOR INSTRUMENT PACK AIRBAG MIL | GROUND | B+ |
| D FC29-6 | SERIAL COMMUNICATION | | |
| I FC29-7 | IGNITION SWITCHED POWER SUPPLY | B+ | GROUND |
| I FC29-8 | LH IMPACT SENSOR GROUND SUPPLY STATUS | 0 V (NO FAULT) | |
| I FC29-9 | RH IMPACT SENSOR GROUND SUPPLY STATUS | GROUND (NO FAULT) | |
| O FC30-2 | DRIVERS SIDE AIRBAG POWER SUPPLY | B+ (SHORTED SAFING SENSOR) | OPEN CIRCUIT |
| O FC30-3 | DRIVERS SIDE AIRBAG GROUND SUPPLY | GROUND (SHORTED IMPACT SENSOR) | OPEN CIRCUIT |
| O FC30-4 | PASSENGER SIDE AIRBAG GROUND SUPPLY | GROUND (SHORTED IMPACT SENSOR) | OPEN CIRCUIT |
| O FC30-5 | PASSENGER SIDE AIRBAG POWER SUPPLY | B+ (SHORTED SAFING SENSOR) | OPEN CIRCUIT |
| I FC30-6 | IGNITION SWITCHED POWER SUPPLY | B+ | GROUND |
| O FC30-7 | FUSED SUPPLY INTERRUPT | GROUND (FAULT PRESENT) | B+ (NO FAULT) |
| I FC30-8 | DEPLOYMENT BATTERY POWER SUPPLY | B+ | B+ |
| I FC30-9 | COMMON AIRBAG GROUND SUPPLY | GROUND (SHORTED IMPACT SENSOR) | OPEN CIRCUIT |
| I FC29-11 | LH IMPACT SENSOR STATUS | GROUND (SHORTED) | B+ |
| I FC29-12 | RH IMPACT SENSOR STATUS | GROUND (SHORTED) | B- |
| I FC30-10 | COMMON AIRBAG GROUND SUPPLY | GROUND (SHORTED IMPACT SENSOR) | OPEN CIRCUIT |
| O FC30-11 | CODE RETRIEVAL PULSED OUTPUT | GROUND (PULSED) | B+ |
| I FC30-12 | GROUND | GROUND | GROUND |

Fig. 17.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---------------------------------------|--|--|
| AIRBAG - DRIVER SIDE (STEERING WHEEL) | SW11 (FLYLEAD) / 3-WAY EPC / BLACK | CENTER OF STEERING WHEEL |
| AIRBAG - PASSENGER SIDE | FC74 (FLYLEAD) / 3-WAY EPC / BLACK | LEFT HAND SIDE OF AIRBAG ASSEMBLY |
| AIRBAG INTERROGATION CONNECTOR | FC40 / 4-WAY MULTILOCK 070 / WHITE | RIGHT HAND 'A' POST / 'A' POST TRIM |
| AIRBAG / SRS CONTROL MODULE | FC29 / 12-WAY FORD CARD / BLACK FC30 / 12-WAY FORD CARD / SLATE | RIGHT HAND 'A' POST / 'A' POST TRIM |
| IMPACT SENSOR - RH | LF51 / 4-WAY FORD CARD / WHITE | FRONT UPPER CROSS MEMBER / FORWARD OF RADIATOR |
| IMPACT SENSOR - LH | LF50 / 4-WAY FORD CARD / WHITE | FRONT UPPER CROSS MEMBER / FORWARD OF RADIATOR |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------|---|
| LF2 | 8-WAY FORD CARD / BLACK | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| SW10 | 3-WAY EPC / BLACK | INSIDE STEERING COLUMN COWL |

GROUNDS

| Ground | Location / Type |
|--------|-------------------------------------|
| FC1S | EYELET (SINGLE) / RIGHT HAND A POST |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

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

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

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CONTROL MODULE PIN OUT INFORMATION

BODY PROCESSOR MODULE

| Pin | Description | Active | Inactive |
|------------|------------------------------|------------------------|----------|
| I FC14-4 | BATTERY POWER SUPPLY | B+ | B+ |
| I FC14-65 | LOGIC GROUND SUPPLY | GROUND | GROUND |
| O FC14-70 | HORN RELAY ACTIVATE | GROUND (HORN SOUNDING) | B- |
| I FC14-80 | BATTERY POWER SUPPLY (LOGIC) | B- | B- |
| I FC14-103 | POWER GROUND SUPPLY | GROUND | GROUND |

Fig. 18.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|-----------------------------------|--|---|
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| CIGAR LIGHTER | FC42 / CIGAR LIGHTER / BLACK FC69 / LUCAR RIGHT ANGLE | FORWARD OF GEAR SELECTOR |
| FASCIA ACCESSORY CONNECTOR | FC61 / 3-WAY AMP SERIES 250 / BLACK | FASCIA / ADJACENT TO RIGHT HAND SIDE OF GLOVE BOX |
| FUSE BOX - ENGINE COMPARTMENT | LF5 / 10-WAY U.T.A. FUSEBOX / WHITE LF6 / 10-WAY U.T.A. FUSEBOX / BLACK LF7 / 10-WAY U.T.A. FUSEBOX / GREEN LF8 / 10-WAY U.T.A. FUSEBOX / BLUE LF70 / EYELET | ENGINE COMPARTMENT / LEFT FRONT |
| FUSE BOX - TRUNK | RT10 / 10-WAY U.T.A. FUSEBOX / NATURAL BT11 / 10-WAY U.T.A. FUSEBOX / BLACK BT12 / 10-WAY U.T.A. FUSEBOX / GREEN BT13 / 10-WAY U.T.A. FUSEBOX / BLUE BT64 / EYELET | TRUNK / ELECTRICAL CARRIER |
| GARAGE DOOR OPENER (ROOF CONSOLE) | RF11 / HYBRID / WHITE RF10 (FLYLEAD) / 6-WAY MULTILOCK 070 / SLATE | ROOF CONSOLE |
| HORN SWITCHES (STEERING WHEEL) | HP1 / 1-WAY BLADE HP2 / 1-WAY BLADE HP3 / EYELET | CENTER OF STEERING WHEEL |
| HORN - LH | LF16 / LUCAR RIGHT ANGLE LF17 / LUCAR RIGHT ANGLE | FRONT BUMPER / REAR |
| HORN - RH | LF14 / LUCAR RIGHT ANGLE LF15 / LUCAR RIGHT ANGLE | FRONT BUMPER / REAR |
| TRUNK ACCESSORY CONNECTOR | BT25 / 3-WAY AMP SERIES 250 PIN / BLACK | TRUNK / ADJACENT TO BATTERY |

RELAYS

| Relay | Color / Stripe | Connector / Color | Location / Access |
|--------------------------------|----------------|-------------------|-----------------------------|
| HORN RELAY (#6) | BROWN | BUS | ENGINE COMPARTMENT FUSE BOX |
| ACCESSORY CONNECTOR RELAY (#6) | BROWN | BUS | TRUNK FUSE BOX |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|--------------------------------|--|
| BT58 | 4-WAY ECONOSEAL III HC / BLACK | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| LF60 | 20-WAY MULTILOCK 070 / WHITE | LEFT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RF1 | 18-WAY MULTILOCK 070 / YELLOW | RIGHT HAND 'A' POST CONNECTOR MOUNTING BRACKET / 'A' POST TRIM |
| RH14 | 2-WAY ECONOSEAL III HC / BLACK | REAR OF CENTER CONSOLE ASSEMBLY |
| SC2 | 10-WAY MULTILOCK 070 / YELLOW | ADJACENT TO STEERING COLUMN MOTOR |
| SC3 | 12-WAY MULTILOCK 070 / SLATE | RIGHT HAND SIDE OF STEERING COLUMN |
| SW1 | 12-WAY MULTILOCK 040 / BLACK | INSIDE STEERING COLUMN COWL |
| SW2 | 6-WAY JST / WHITE | CENTER OF STEERING WHEEL |

GROUND

| Ground | Location / Type |
|--------|--|
| FC1BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC2BL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND 'A' POST |
| FC2BR | EYELET (PAIR) - RIGHT HAND LEG / RIGHT HAND 'A' POST |
| FC3AS | EYELET (SINGLE) / LEFT HAND 'A' POST |
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC3BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| FC4BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |
| FC4BR | EYELET (PAIR) - RIGHT HAND LEG / LEFT HAND 'A' POST |
| LF1AL | EYELET (PAIR) - LEFT HAND LEG / RIGHT HAND HEADLAMP |
| LF2BR | EYELET (PAIR) - RIGHT HAND LEG / ENGINE COMPARTMENT, FORWARD OF LEFT HAND HOOD LATCH |

CONTROL MODULE PIN OUT INFORMATION (FOLD OUT PAGE)



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

| | | | |
|------------------|-------------------------------------|--------------------|----------------------|
| I Input | D Serial and encoded communications | B+ Battery voltage | KHz Frequency x 1000 |
| O Output | C CAN (Network) | V Voltage (DC) | MS Milliseconds |
| SG Signal Ground | S SCP Network | Hz Frequency | 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.

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CONTROL MODULE PIN OUT INFORMATION

REFER TO THE APPENDIX AT THE REAR OF THIS BOOK FOR CAN AND SCP NETWORK MESSAGES.

Fig. 19.1

COMPONENTS

| Component | Connector / Type / Color | Location / Access |
|---------------------------------------|--|---|
| ABS / TRACTION CONTROL CONTROL MODULE | LF37 / 25-WAY AMP HYBRID / BLACK | ENGINE COMPARTMENT / FRONT LEFT |
| ADAPTIVE DAMPING CONTROL MODULE | BT69 / 35-WAY AMP / BLACK | TRUNK / ADJACENT TO ELECTRICAL CARRIER |
| AIR CONDITIONING CONTROL MODULE | AC1 / 26-WAY MULTILOCK 47 / SLATE AC2 / 16-WAY MULTILOCK 47 / SLATE AC3 / 12-WAY MULTILOCK 47 / SLATE AC4 / 22-WAY MULTILOCK 47 / SLATE | A/C UNIT / RIGHT HAND SIDE |
| AIRBAG / SRS CONTROL MODULE | FC29 / 12-WAY FORD CARD / BLACK FC30 / 12-WAY FORD CARD / SLATE | RIGHT HAND 'A' POST / 'A' POST TRIM |
| BODY PROCESSOR MODULE | FC14 / 104-WAY AMP EEEC / SLATE | PASSENGER SIDE FASCIA / AIRBAG BRACKET |
| DATA LINK CONNECTOR | FC59 / 16-WAY AMP OBD2 / BLACK | BELOW DRIVER SIDE FUSE BOX |
| DOOR CONTROL MODULE - DRIVER | DD10 / 22-WAY FORD 2.8 TIMER / BLUE DD11 / 22-WAY FORD 2.8 TIMER / BLACK | DRIVER DOOR / DOOR CASING |
| DOOR CONTROL MODULE - PASSENGER | DP10 / 22-WAY FORD 2.8 TIMER / BLUE DP11 / 22-WAY FORD 2.8 TIMER / BLACK | PASSENGER DOOR / DOOR CASING |
| ENGINE CONTROL MODULE | EM10 / 28-WAY MULTILOCK 040 / SLATE EM11 / 16-WAY MULTILOCK 040 / SLATE EM12 / 22-WAY MULTILOCK 040 / SLATE EM13 / 34-WAY MULTILOCK 040 / SLATE | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |
| GEAR SELECTOR MODULE | FC98 / HYBRID / BLACK | FRONT OF GEAR SELECTOR ASSEMBLY |
| KEY TRANSPONDER MODULE | FC22 / 20-WAY MULTILOCK 040 / GREEN | ADJACENT TO PASSENGER SIDE FUSE BOX |
| MAJOR INSTRUMENT PACK | FC25 / 48-WAY AMP PCB SIGNAL / BLACK FC26 / 24-WAY AMP PCB SIGNAL / BLACK | FASCIA |
| SEAT CONTROL MODULE - DRIVER | SD3 / 16-WAY FORD 2.8 TIMER / BLACK SD4 / 26-WAY FORD IDC / BLACK SD5 / 10-WAY FORD 2.8 TIMER / BLACK | BELOW SEAT CUSHION |
| SEAT CONTROL MODULE - PASSENGER | SP3 / 16-WAY FORD 2.8 TIMER / BLACK SP5 / 10-WAY FORD 2.8 TIMER / BLACK | BELOW SEAT CUSHION |
| SECURITY AND LOCKING CONTROL MODULE | BT40 / 16-WAY FORD 2.8 TIMER / BLACK BT41 / 26-WAY FORD IDC / BLACK RH20 / COAXIAL CONNECTOR | TRUNK / ELECTRICAL CARRIER |
| TRANSMISSION CONTROL MODULE | EM7 / 88-WAY BOSCH / BLACK | ENGINE COMPARTMENT / CONTROL MODULE ENCLOSURE |

HARNESS-TO-HARNESS CONNECTORS

| Connector | Type / Color | Location / Access |
|-----------|-------------------------------|--|
| AC14 | 14-WAY MULTILOCK 070 / SLATE | FASCIA BOTTOM CONNECTOR MOUNTING BRACKET / RIGHT HAND SIDE |
| BT1 | 20-WAY MULTILOCK 070 / WHITE | TRUNK / ABOVE RIGHT HAND REAR WHEEL ARCH |
| DD1 | 23-WAY AMP - FORD / BLACK | DRIVER SIDE 'A' POST MOUNTING BRACKET / 'A' POST TRIM |
| DP1 | 23-WAY AMP - FORD / BLACK | PASSENGER SIDE 'A' POST / 'A' POST TRIM |
| EM1 | 20-WAY MULTILOCK 070 / WHITE | ENGINE COMPARTMENT / ADJACENT TO RIGHT HAND ENCLOSURE |
| RH12 | 18-WAY MULTILOCK 070 / YELLOW | REAR OF CENTER CONSOLE ASSEMBLY |
| SD1 | 8-WAY MULTILOCK 070 / YELLOW | BELOW DRIVER SEAT |
| SP1 | 8-WAY MULTILOCK 070 / YELLOW | BELOW PASSENGER SEAT |

GROUNDS

| Ground | Location / Type |
|--------|--|
| FC3BL | EYELET (PAIR) - LEFT HAND LEG / LEFT HAND 'A' POST |

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, HARNESSSES, GROUNDS, VEHICLE CONTROL MODULES AND CONTROL MODULE PINS.



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

Abbreviations

The following abbreviations are used throughout this Appendix:

| | |
|------|-------------------------------------|
| BPM | Body Processor Module |
| DIAG | Diagnostics |
| DDCM | Driver Door Control Module |
| DSCM | Driver Seat Control Module |
| IP | Instrument Pack |
| PDCM | Passenger Door Control Module |
| PSCM | Passenger Seat Control Module |
| R | Receive |
| T | Transmit |
| SLCM | Security and Locking Control Module |



CAN Messages by Node

NODE: Engine Control Module**Transmitted by ECM**

| Message | Useage |
|---|---|
| CAN traction acknowledge | Confirms torque reduction for traction control |
| CAN traction control estimated engine torque | Derived from map of engine characteristics |
| CAN shift energy management estimated engine torque | Derived from map of engine characteristics |
| CAN throttle position | Throttle valve position |
| CAN pedal position | Accelerator pedal position, throttle demand |
| CAN torque reduction acknowledge | Confirms torque reduction for shift energy management |
| CAN engine speed | Engine speed |
| CAN brake pedal pressed | Brake switch status |
| CAN cruise status | Cruise control system status |
| CAN park brake status | Indicates whether the parking brake is on |
| CAN OBD II clear fault codes | Request for ABS and TCM to clear their OBD II DTCs |
| CAN engine coolant temperature | Engine coolant temperature in Celsius |
| CAN engine OBD II MIL | MIL control for OBD II DTCs |
| CAN throttle malfunction red | Red throttle malfunction warnings |
| CAN throttle malfunction amber | Amber throttle malfunction warnings |
| CAN ECM fault code MIL status | Indicates whether the ECM DTC should switch MIL on |
| CAN ECM PECUS flag | PECUS programmed status of ECM |
| CAN engine fault codes | EMS DTCs, including OBD II P and C codes |
| CAN fuel used | Derived from injector pulse duration |
| CAN NWM token ECM | Message for monitoring network status |
| CAN diagnostic data out – ECM | From external diagnostics device only |



CAN Messages by Node

NODE: Engine Control Module**Received by ECM**

| Message | Usage | Source |
|------------------------------------|--|--------|
| CAN torque reduction throttle | For traction control – throttle intervention | ABS |
| CAN fast torque reduction ignition | Fast stability control response – ignition retard | ABS |
| CAN fast torque reduction cylinder | Fast stability control response – cylinder fuel cut off | ABS |
| CAN torque reduction request | For shift energy management | TCM |
| CAN transmission overload | Protects transmission against excessive torque | TCM |
| CAN transmission input speed | Transmission input shaft speed | TCM |
| CAN transmission output speed | Transmission output shaft speed | TCM |
| CAN torque converter slip | Percentage of torque converter slip | TCM |
| CAN kickdown | Kickdown status | TCM |
| CAN traction status | Indicates if the traction control algorithm is functioning | ABS |
| CAN vehicle reference speed | Vehicle speed based on a standard wheel size | ABS |
| CAN ABS fault codes | ABS DTCs, including OBD II P and C codes | ABS |
| CAN OBD II ABS clear acknowledge | Acknowledgment that OBD II ABS DTCs have been cleared | ABS |
| CAN ABS fault code MIL status | Indicates whether the ABS DTC should switch MIL on | ABS |
| CAN ABS malfunction | Malfunction information for ABS and brake systems | ABS |
| CAN sidelamp status | Side lamp state for idle speed control | IP |
| CAN dipped beam status | Dipped beam state for idle speed control | IP |
| CAN main beam status | Main beam state for idle speed control | IP |
| CAN oil pressure low | Indicates low engine oil pressure | IP |
| CAN fuel level damped | Indicates 'damped' level of fuel in tank | IP |
| CAN fuel level raw | Indicates 'raw – undamped' level of fuel in tank | IP |
| CAN gear position actual | Actual transmission gear state | TCM |
| CAN torque converter status | Indicates torque converter lockup | TCM |
| CAN gear position selected | Position of transmission rotary switch | TCM |
| CAN gear selection fault | Indicates validity of CAN gear position selected | TCM |
| CAN transmission shift map | Dynamic shift program currently selected | TCM |
| CAN transmission oil temperature | Transmission fluid temperature | TCM |
| CAN transmission malfunction | Transmission malfunction warning | TCM |
| CAN TCM fault code MIL status | Indicates whether the TCM DTC should switch MIL on | TCM |
| CAN OBD II TCM clear acknowledge | Acknowledgment that OBD II DTCs have been cleared | TCM |
| CAN transmission fault codes | TCM DTCs, including OBD II P and C codes | TCM |
| CAN left front wheel speed | Front left wheel speed | ABS |
| CAN right front wheel speed | Front right wheel speed | ABS |
| CAN left rear wheel speed | Rear left wheel speed | ABS |
| CAN right rear wheel speed | Rear right wheel speed | ABS |
| CAN NWM token – TCM | Message for monitoring network status | TCM |
| CAN NWM token – IP | Message for monitoring network status | IP |
| CAN NWM token – ABS | Message for monitoring network status | ABS |
| CAN diagnostic data in – ECM | From external diagnostics device only | DIAG |



CAN Messages by Node

NODE: Transmission Control Module**Transmitted by TCM**

| Message | Usage |
|----------------------------------|--|
| CAN torque reduction request | For shift energy management |
| CAN transmission overload | Protects transmission against excessive torque |
| CAN transmission input speed | Transmission input shaft speed |
| CAN transmission output speed | Transmission output shaft speed |
| CAN torque converter slip | Percentage of torque converter slip |
| CAN kickdown | Kickdown status |
| CAN gear position actual | Actual transmission gear state |
| CAN torque converter status | Indicates torque converter lockup |
| CAN gear position selected | Position of transmission rotary switch |
| CAN gear selection fault | Indicates validity of CAN gear position selected |
| CAN transmission shift map | Dynamic shift program currently selected |
| CAN transmission oil temperature | Transmission fluid temperature |
| CAN transmission malfunction | Transmission malfunction warning |
| CAN TCM PECUS flag | PECUS programmed status of TCM |
| CAN TCM fault code MIL status | Indicates whether the TCM DTC should switch MIL on |
| CAN OBD II TCM clear acknowledge | Acknowledgment that OBD II DTCs have been cleared |
| CAN transmission fault codes | TCM DTCs, including OBD II P and C codes |
| CAN NWM token – TCM | Message for monitoring network status |
| CAN diagnostic data out – TCM | To external diagnostics device only |

Received by TCM

| Message | Usage | Source |
|---|--|--------|
| CAN traction status | Indicates if the traction control algorithm is functioning | ABS |
| CAN ABS malfunction | Malfunction information for ABS and brake systems | ABS |
| CAN ABS status | Indicates whether ABS is operating | ABS |
| CAN shift energy management estimated engine torque | Derived from map of engine characteristics | ECM |
| CAN throttle position | Throttle valve position | ECM |
| CAN pedal position | Accelerator pedal position, throttle demand | ECM |
| CAN torque reduction acknowledge | Confirms torque reduction for shift energy management | ECM |
| CAN engine speed | Engine speed | ECM |
| CAN brake pedal pressed | Brake switch status | ECM |
| CAN cruise status | Cruise control system status | ECM |
| CAN OBD II clear fault codes | Request for ABS and TCM to clear their OBD II DTCs | ECM |
| CAN engine coolant temperature | Engine coolant temperature in Celsius | ECM |
| CAN engine OBD II MIL | MIL control for OBD II DTCs | ECM |
| CAN throttle malfunction red | Red throttle malfunction warnings | ECM |
| CAN throttle malfunction amber | Amber throttle malfunction warnings | ECM |
| CAN ECM fault code MIL status | Indicates whether the ECM DTC should switch MIL on | ECM |
| CAN engine fault codes | EMS DTCs, including OBD II P and C codes | ECM |
| CAN left front wheel speed | Front left wheel speed | ABS |
| CAN right front wheel speed | Front right wheel speed | ABS |
| CAN NWM token – ECM | Message for monitoring network status | ECM |
| CAN NWM token – IP | Message for monitoring network status | IP |
| CAN NWM token – ABS | Message for monitoring network status | ABS |
| CAN diagnostic data in – TCM | From external diagnostics device only | DIAG |



CAN Messages by Node

NODE: Instrument Pack**Transmitted by IP**

| Message | Usage |
|------------------------------|--|
| CAN sidelamp status | Side lamp state for idle speed control |
| CAN dipped beam status | Dipped beam state for idle speed control |
| CAN main beam status | Main beam state for idle speed control |
| CAN oil pressure low | Indicates low engine oil pressure |
| CAN fuel level damped | Indicates 'damped' level of fuel in tank |
| CAN fuel level raw | Indicates 'raw – undamped' level of fuel in tank |
| CAN NWM token – IP | Message for monitoring network status |
| CAN diagnostic data out – IP | To external diagnostics device only |

Received by IP

| Message | Usage | Source |
|----------------------------------|--|--------|
| CAN traction status | Indicates if the traction control algorithm is functioning | ABS |
| CAN vehicle reference speed | Vehicle speed based on a standard wheel size | ABS |
| CAN reference distance traveled | Rolling count – based on a standard wheel size | ABS |
| CAN ABS malfunction | Malfunction information for ABS and brake systems | ABS |
| CAN engine speed | Engine speed | ECM |
| CAN brake pedal pressed | Brake switch status | ECM |
| CAN park brake status | Indicates whether the parking brake is on | ECM |
| CAN gear position selected | Position of transmission rotary switch | TCM |
| CAN gear selection fault | Indicates validity of CAN gear position selected | TCM |
| CAN transmission oil temperature | Transmission fluid temperature | TCM |
| CAN transmission malfunction | Transmission malfunction warning | TCM |
| CAN TCM PECUS flag | PECUS programmed status of TCM | TCM |
| CAN engine coolant temperature | Engine coolant temperature in Celsius | ECM |
| CAN engine OBD II MIL | MIL control for OBD II DTCs | ECM |
| CAN throttle malfunction red | Red throttle malfunction warnings | ECM |
| CAN throttle malfunction amber | Amber throttle malfunction warnings | ECM |
| CAN ECM PECUS flag | PECUS programmed status of ECM | ECM |
| CAN fuel used | Derived from injector pulse duration | ECM |
| CAN right rear wheel speed | Rear right wheel speed | ABS |
| CAN NWM token ECM | Message for monitoring network status | ECM |
| CAN NWM token TCM | Message for monitoring network status | TCM |
| CAN NWM token ABS | Message for monitoring network status | ABS |
| CAN diagnostic data in inst | From external diagnostics device only | DIAG |



CAN Messages by Node

NODE: ABS / Traction Control Control Module

Transmitted by ABS/TC CM

| Message | Usage |
|------------------------------------|--|
| CAN torque reduction throttle | For traction control – throttle intervention |
| CAN fast torque reduction ignition | Fast stability control response – ignition retard |
| CAN fast torque reduction cylinder | Fast stability control response – cylinder fuel cut off |
| CAN traction status | Indicates if the traction control algorithm is functioning |
| CAN vehicle reference speed | Vehicle speed based on a standard wheel size |
| CAN reference distance traveled | Rolling count – based on a standard wheel size |
| CAN ABS fault codes | ABS DTCs, including OBD II P and C codes |
| CAN OBD II ABS clear acknowledge | Acknowledgment that OBD II ABS DTCs have been cleared |
| CAN ABS fault code MIL status | Indicates whether the ABS DTC should switch MIL on |
| CAN ABS malfunction | Malfunction information for ABS and brake systems |
| CAN ABS status | Indicates whether ABS is operating |
| CAN left front wheel speed | Front left wheel speed |
| CAN right front wheel speed | Front right wheel speed |
| CAN left rear wheel speed | Rear left wheel speed |
| CAN right rear wheel speed | Rear right wheel speed |
| CAN NWM token – ABS | Message for monitoring network status |
| CAN diagnostic data out – ABS | From external diagnostics device only |

Received by ABS/TC CM

| Message | Usage | Source |
|--|--|--------|
| CAN traction acknowledge | Confirms torque reduction for traction control | ECM |
| CAN traction control estimated engine torque | Derived from map of engine characteristics | ECM |
| CAN transmission input speed | Transmission input shaft speed | TCM |
| CAN transmission output speed | Transmission output shaft speed | TCM |
| CAN torque converter slip | Percentage of torque converter slip | TCM |
| CAN kickdown | Kickdown status | TCM |
| CAN throttle position | Throttle valve position | ECM |
| CAN pedal position | Accelerator pedal position, throttle demand | ECM |
| CAN engine speed | Engine speed | ECM |
| CAN brake pedal pressed | Brake switch status | ECM |
| CAN OBD II clear fault codes | Request for ABS and TCM to clear their OBD II DTCs | ECM |
| CAN gear position actual | Actual transmission gear state | TCM |
| CAN torque converter status | Indicates torque converter lockup | TCM |
| CAN transmission shift map | Dynamic shift program currently selected | TCM |
| CAN transmission malfunction | Transmission malfunction warning | TCM |
| CAN transmission fault codes | TCM DTCs, including OBD II P and C codes | TCM |
| CAN engine OBD II MIL | MIL control for OBD II DTCs | ECM |
| CAN throttle malfunction red | Red throttle malfunction warnings | ECM |
| CAN throttle malfunction amber | Amber throttle malfunction warnings | ECM |
| CAN ECM fault code MIL status | Indicates whether the ECM DTC should switch MIL on | ECM |
| CAN engine fault codes | EMS DTCs, including OBD II P and C codes | ECM |
| CAN NWM token – ECM | Message for monitoring network status | ECM |
| CAN NWM token – TCM | Message for monitoring network status | TCM |
| CAN NWM token – IP | Message for monitoring network status | IP |
| CAN diagnostic data in – ABS | From external diagnostics device only | DIAG |



CAN Messages by Node

NODE: Gear Selector Module (listen only)

Received by Gear Selector Module

| Message | Usage | Source |
|----------------------------|--------------------------------------|---------------|
| CAN gear position selected | Gear selector indicator illumination | TCM |
| CAN gear selection fault | | TCM |



CAN Message Matrix

| Message | ABS | TCM | ECM | IP | Gear Selector | Diagnostics |
|---|-----|-----|-----|----|---------------|-------------|
| CAN torque reduction throttle | T | | R | | | |
| CAN fast torque reduction ignition | T | | R | | | |
| CAN fast torque reduction cylinder | T | | R | | | |
| CAN traction acknowledge | R | | T | | | |
| CAN traction control estimated engine torque | R | | T | | | |
| CAN torque reduction request | | T | R | | | |
| CAN transmission overload | | T | R | | | |
| CAN transmission input speed | R | T | R | | | |
| CAN transmission out speed | R | T | R | | | |
| CAN torque converter slip | R | T | R | | | |
| CAN kickdown | R | T | R | | | |
| CAN traction status | T | R | R | R | | |
| CAN vehicle reference speed | T | | R | R | | |
| CAN reference distance traveled | T | | | R | | |
| CAN ABS fault codes | T | | R | | | |
| CAN OBD II ABS clear acknowledge | T | | R | | | |
| CAN ABS fault code MIL status | T | | R | | | |
| CAN ABS malfunction | T | R | R | R | | |
| CAN ABS status | T | R | | | | |
| CAN shift energy management estimated engine torque | | R | T | | | |
| CAN throttle position | R | R | T | | | |
| CAN pedal position | R | R | T | | | |
| CAN torque reduction acknowledge | | R | T | | | |
| CAN engine speed | R | R | T | R | | |
| CAN brake pedal pressed | R | R | T | R | | |
| CAN cruise status | | R | T | | | |
| CAN park brake status | | | T | R | | |
| CAN OBD II clear fault codes | R | R | T | | | |
| CAN sidelamp status | | | R | T | | |
| CAN dipped beam status | | | R | T | | |
| CAN main beam status | | | R | T | | |
| CAN oil pressure low | | | R | T | | |
| CAN fuel level raw | | | R | T | | |
| CAN fuel level damped | | | R | T | | |
| CAN gear position actual | R | T | R | | | |
| CAN torque converter status | R | T | R | | | |
| CAN gear position selected | R | T | R | R | R | |
| CAN gear selection fault | R | T | R | R | R | |
| CAN transmission shift map | R | T | R | | | |
| CAN transmission oil temperature | | T | R | R | | |
| CAN transmission malfunction | R | T | R | R | | |
| CAN TCM PECUS flag | | T | | R | | |
| CAN TCM fault code MIL status | | T | R | | | |
| CAN OBD II TCM clear acknowledge | | T | R | | | |
| CAN transmission fault codes | R | T | R | | | |
| CAN engine coolant temperature | | R | T | R | | |
| CAN engine OBD II MIL | R | R | T | R | | |
| CAN throttle malfunction red | R | R | T | R | | |
| CAN throttle malfunction amber | R | R | T | R | | |
| CAN ECM fault code MIL status | R | R | T | | | |
| CAN ECM PECUS flag | | | T | R | | |
| CAN engine fault codes | R | R | T | | | |
| CAN fuel used | | | T | R | | |
| CAN left front wheel speed | T | R | R | | | |
| CAN right front wheel speed | T | R | R | | | |
| CAN left rear wheel speed | T | | R | | | |
| CAN right rear wheel speed | T | | R | R | | |



| Message | ABS | TCM | ECM | IP | Gear Selector | Diagnostics |
|-------------------------------|---------|---------|---------|---------|---------------|-------------|
| CAN NWM token – ECM | R | R | T | R | | |
| CAN NWM token – TCM | R | T | R | R | | |
| CAN NWM token – IP | R | R | R | T | | |
| CAN NWM token – ABS | T | R | R | R | | |
| CAN diagnostic data in – ECM | | | R | | | T |
| CAN diagnostic data in – TCM | | R | | | | T |
| CAN diagnostic data in – IP | | | | R | | T |
| CAN diagnostic data in – ABS | R | | | | | T |
| CAN diagnostic data out – ECM | | | T | | | R |
| CAN diagnostic data out – TCM | | T | | | | R |
| CAN diagnostic data out – IP | | | | T | | R |
| CAN diagnostic data out – ABS | T | | | | | R |



SCP Message Matrix

| # | Message Name | IP | BPM | DDCM | PDCM | DSCM | PSCM | SLCM |
|-------|--------------------------------------|----|-----|------|------|------|------|------|
| 1 | Vehicle speed | T | R | R | | | | R |
| 2 | Brake pedal pressed | T | R | | | | | |
| 3 | SLCM not programmed | R | | | | | | T |
| 4 | BPM not programmed | R | T | | | | | |
| 5 | DDCM not programmed | R | | T | | | | |
| 6 | DSCM not programmed | R | | | | T | | |
| 7 | PDCM not programmed | R | | | T | | | |
| 8 | PSCM not programmed | R | | | | | T | |
| 9 | Left hand drive vehicle | | T | R | R | | | R |
| 10 | Valet mode OFF | | T | | | | | R |
| 11 | Non-convertible vehicle | | T | | | | | R |
| 12 | Right hand drive vehicle | | T | R | R | | | R |
| 13 | Valet mode ON | | T | | | | | R |
| 14 | Convertible vehicle | | T | | | | | R |
| 15 | Request vehicle drive side | | R | T | | | | |
| 16 | Request valet mode status | | R | | | | | T |
| 17 | Request convertible status | | R | | | | | T |
| 18 | Reverse gear selected | T | R | R | R | R | R | R |
| 19 | Not-in-park switch - inactive | | T | R | R | R | R | |
| 20 | Not-in-park switch - active | | T | R | R | R | R | |
| 21 | Request not-in-park switch status | | R | | | T | | |
| 22 | Request not-in-park switch status | | R | | | | T | |
| 23-58 | Diagnostic messages | | | | | | | |
| 59 | Charging OK | T | | | | R | R | |
| 60 | Inertia switch inactive | | T | R | R | | | R |
| 61 | Inertia switch active | | T | R | R | | | R |
| 62 | Request inertia switch status | | R | T | | | | |
| 63 | Request inertia switch status | | R | | T | | | |
| 64 | Ignition status | R | T | R | R | R | R | R |
| 65 | Key not-in-ignition | | T | R | R | | | R |
| 66 | Key in-ignition | | T | R | R | | | R |
| 67 | Request ignition status | | R | | | | | T |
| 68 | Request ignition status | T | R | | | | | |
| 69 | Request ignition status | | R | T | | | | |
| 70 | Request ignition status | | R | | | T | | |
| 71 | Request ignition status | | R | | T | | | |
| 72 | Request ignition status | | R | | | | T | |
| 73 | Request key-in status | | R | | | | | T |
| 74 | Request key-in status | | R | T | | | | |
| 75 | Request key-in status | | R | | | T | | |
| 76 | Request key-in status | | R | | T | | | |
| 77 | Seat belt tell tale OFF | R | | | | T | | |
| 78 | Low washer fluid warning OFF | R | T | | | | | |
| 79 | Convertible top latch warning OFF | R | | | | | | T |
| 80 | Seat belt tell tale ON | R | | | | T | | |
| 81 | Low washer fluid warning ON | R | T | | | | | |
| 82 | Convertible top latch warning ON | R | | | | | | T |
| 83 | Request washer fluid status | T | R | | | | | |
| 84 | Request convertible top latch status | T | | | | | | R |
| 85 | Security audible indication | | R | | | | | T |
| 86 | Remote panic | | R | R | R | | | T |
| 87 | Security disarm | | R | R | R | | | T |
| 88 | Glass break fault | | T | | | | | R |
| 89 | Security armed | | R | R | R | | | T |
| 90 | Key valid | | T | | | | | R |



| # | Message Name | IP | BPM | DDCM | PDCM | DSCM | PSCM | SLCM |
|--------|----------------------------------|----|-----|------|------|------|------|------|
| 91 | Glass break detected | | T | | | | | R |
| 92 | Request security arm status | | T | | | | | R |
| 93 | Request security arm status | | | T | | | | R |
| 94 | Request security arm status | | | | T | | | R |
| 95 | Seat belt chime OFF | | R | | | T | | |
| 96 | Seat belt chime ON | | R | | | T | | |
| 97 | Request seat belt chime status | | T | | | R | | |
| 98-165 | Diagnostic messages | | | | | | | |
| 166 | Recall memory 1 | | R | T | R | R | | |
| 167 | Recall memory 2 | | R | T | R | R | | |
| 168 | Save memory 1 | | R | T | R | R | | |
| 169 | Save memory 2 | | R | T | R | R | | |
| 170 | DDCM memory 1 recalled | | R | T | | | | |
| 171 | DSCM memory 1 recalled | | R | | | T | | |
| 172 | PDCM memory 1 recalled | | R | | T | | | |
| 173 | DDCM memory 2 recalled | | R | T | | | | |
| 174 | DSCM memory 2 recalled | | R | | | T | | |
| 175 | PDCM memory 2 recalled | | R | | T | | | |
| 176 | Park fold-back mirrors | | | T | | R | R | |
| 177 | Unfold fold-back mirrors | | | T | | R | R | |
| 178 | Stop driver mirror | | | T | R | | | |
| 179 | Stop passenger mirror | | | T | R | | | |
| 180 | Driver mirror up | | | T | R | | | |
| 181 | Passenger mirror up | | | T | R | | | |
| 182 | Driver mirror down | | | T | R | | | |
| 183 | Passenger mirror down | | | T | R | | | |
| 184 | Passenger mirror right | | | T | R | | | |
| 185 | Passenger mirror left | | | T | R | | | |
| 186 | Unlock driver door | | | R | T | | | |
| 187 | Unlock passenger door | | | T | R | | | |
| 188 | Remote unlock | R | | R | R | | | T |
| 189 | Remote trunk release | R | | | | | | T |
| 190 | Lock front doors | R | | T | | | | |
| 191 | Lock front doors | R | | | T | | | |
| 192 | Remote superlock | | | R | R | | | T |
| 193 | Superlock driver door | | | | | T | | |
| 194 | Superlock passenger door | | | T | | | | |
| 195 | Remote lock | R | | | | | | T |
| 196 | Vehicle unlocked | R | | T | | | | R |
| 197 | Driver door unlocked | R | | R | R | | | T |
| 198 | Passenger door unlocked | R | | | R | | | T |
| 199 | Driver lock switch status | R | | T | | | | R |
| 200 | Passenger lock switch status | R | | | T | | | R |
| 201 | Driver door unsuperlocked | R | | T | | | | |
| 202 | Passenger door unsuperlocked | R | | | T | | | |
| 203 | Vehicle locked | R | | T | | | | R |
| 204 | Driver door locked | R | | R | R | | | T |
| 205 | Passenger door locked | R | | R | R | | | T |
| 206 | Driver door superlocked | R | | T | | | | |
| 207 | Passenger door superlocked | R | | | T | | | |
| 208 | Request vehicle lock status | | | R | | | | T |
| 209 | Request driver door lock status | | | T | | | | R |
| 210 | Request passenger door status | | | | T | | | R |
| 211 | Request driver key barrel status | | | R | | | | T |
| 212 | Request driver key barrel status | | | R | T | | | |

(continued)



SCP Message Matrix

| # | Message Name | IP | BPM | DDCM | PDCM | DSCM | PSCM | SLCM |
|-----|---|----|-----|------|------|------|------|------|
| 213 | Request passenger key barrel status (deleted) | | | | R | | | T |
| 214 | Request passenger key barrel status (deleted) | | | T | R | | | |
| 215 | Request superlock status | | T | R | R | | | |
| 216 | Open trunk | | T | | | | | R |
| 217 | Hood closed | R | T | | | | | R |
| 218 | Driver door closed | R | R | T | | R | | R |
| 219 | Passenger door closed | R | R | | | T | R | R |
| 220 | Trunk closed | R | R | | | | | T |
| 221 | Stop fuel filler flap open | | T | | | | | R |
| 222 | Convertible top latch status | | T | | | | | |
| 223 | Hood ajar | R | T | | | | | R |
| 224 | Driver door ajar | R | R | T | | R | | R |
| 225 | Passenger door ajar | R | R | | T | | R | R |
| 226 | Trunk ajar | R | R | | | | | T |
| 227 | Open fuel filler flap | | T | | | | | R |
| 228 | Request hood ajar status | | R | | | | | T |
| 229 | Request driver door ajar status | | | R | | | | T |
| 230 | Request driver door status | | T | R | | | | |
| 231 | Request driver door ajar status | | | R | | T | | |
| 232 | Request passenger door ajar status | | | | R | | | T |
| 233 | Request trunk ajar status | | T | | | | | R |
| 234 | Request convertible top latch switches status | | R | | | | | T |
| 235 | Driver seat heater tell tale OFF | | R | | | T | | |
| 236 | Passenger seat heater tell tale OFF | | R | | | | T | |
| 237 | Driver seat heater tell tale ON | | R | | | T | | |
| 238 | Passenger seat heater tell tale ON | | R | | | | T | |
| 239 | Request driver heater tell tale status | | T | | | R | | |
| 240 | Request passenger heater tell tale status | | T | | | | R | |
| 241 | Stop global window open | | R | R | R | | | T |
| 242 | Stop global window close | | R | R | R | | | T |
| 243 | Position driver window | | | R | | | | T |
| 244 | Position passenger window | | | | R | | | T |
| 245 | Position rear quarters | | R | | | | | T |
| 246 | Driver window position | | | T | | | | R |
| 247 | Passenger window position | | | | T | | | R |
| 248 | Stop passenger window open | | | T | R | | | |
| 249 | Stop convertible top open | | T | | | | | R |
| 250 | Stop passenger window close | | | T | R | | | |
| 251 | Stop convertible top close | | T | | | | | R |
| 252 | Open passenger window | | | T | R | | | |
| 253 | Open convertible top | | T | | | | | R |
| 254 | Close passenger window | | | T | R | | | |
| 255 | Close convertible top | | T | | | | | R |
| 256 | Request driver window position | | | R | | | | T |
| 257 | Request passenger window position | | | | R | | | T |
| 258 | Request driver and passenger window switch status | | | R | T | | | |
| 259 | Driver seat heater switch active | | T | | | R | | |
| 260 | Passenger seat heater switch active | | T | | | | R | |
| 261 | Front bulb failure | R | T | | | | | |
| 262 | Rear bulb failure | R | | | | | | T |
| 263 | Front bulbs OK | R | T | | | | | |
| 264 | Rear bulbs OK | R | | | | | | T |
| 265 | Request front bulb fail status | T | R | | | | | |
| 266 | Request rear bulb fail status | T | | | | | | R |
| 267 | Rear fog lamps OFF | | T | | | | | R |
| 268 | Remote head lamp convenience OFF | | R | | | | | T |



| # | Message Name | IP | BPM | DDCM | PDCM | DSCM | PSCM | SLCM |
|---------|--|----|-----|------|------|------|------|------|
| 269 | Rear fog lamps ON | | T | | | | | R |
| 270 | Remote head lamp convenience ON | | R | | | | | T |
| 271 | Dip beam OFF | R | T | | | | | |
| 272 | Sidelamps OFF | R | T | | | | | |
| 273 | Hazard warning OFF | R | T | | | | | |
| 274 | Left DI lamp OFF | R | T | | | | | |
| 275 | Right DI lamp OFF | R | T | | | | | |
| 276 | Main beam OFF | R | T | | | | | |
| 277 | Rear fog lamps OFF | | R | | | | | T |
| 278 | Main beam flash OFF | | T | | | | | R |
| 279 | Request rear fog switch status | | R | | | | | T |
| 280 | Request remote headlamp convenience status | | T | | | | | R |
| 281 | Dip beam ON | R | T | | | | | |
| 282 | Sidelamps ON | R | T | | | | | |
| 283 | Hazards ON | R | T | | | | | |
| 284 | Left DI lamp ON | R | T | | | | | |
| 285 | Right DI lamp ON | R | T | | | | | |
| 286 | Main beam ON | R | T | | | | | |
| 287 | Rear fog lamps ON | | R | | | | | T |
| 288 | Main beam flash ON | | T | | | | | R |
| 289 | Request dip beam status | T | R | | | | | |
| 290 | Request sidelamps status | T | R | | | | | |
| 291 | Request left DI status | T | R | | | | | |
| 292 | Request right DI status | T | R | | | | | |
| 293 | Request main beam status | T | R | | | | | |
| 294 | Request hazard warning status | T | R | | | | | |
| 295 | Request rear fog lamps status | | T | | | | | R |
| 296 | Interior lamps OFF | R | T | | | | | |
| 297 | Interior lamps ON | R | T | | | | | |
| 298 | Request interior lighting status | T | R | | | | | |
| 299 | Valet mode message OFF | R | T | | | | | |
| 300 | Recoding keying message OFF | R | | | | | | T |
| 301 | Valet mode message | R | T | | | | | |
| 302 | Recoding keying message | R | | | | | | T |
| 303-356 | Diagnostic messages | | | | | | | |
| 357 | Wake up (SLCM) | | | | | | | T |
| 358 | Wake up (BPM) | | T | | | | | |
| 359 | Wake up (IP) | T | | | | | | |
| 360 | Wake up (DDCM) | | | T | | | | |
| 361 | Wake up (DSCM) | | | | | T | | |
| 362 | Wake up (PDCM) | | | | T | | | |
| 363 | Wake up (PSCM) | | | | | | T | |
| 364 | Network awake (SLCM) | R | R | R | R | R | R | T |
| 365 | Network awake (BPM) | R | T | R | R | R | R | R |
| 366 | Network awake (IP) | T | R | R | R | R | R | R |
| 367 | Network awake (DDCM) | R | R | T | R | R | R | R |
| 368 | Network awake (DSCM) | R | R | R | R | T | R | R |
| 369 | Network awake (PDCM) | R | R | R | T | R | R | R |
| 370 | Network awake (PSCM) | R | R | R | R | R | T | R |
| 371 | SLCM entering sleep mode | R | R | R | R | R | R | T |
| 372 | BPM entering sleep mode | R | T | R | R | R | R | R |
| 373 | IP entering sleep mode | T | R | R | R | R | R | R |
| 374 | DDCM entering sleep mode | R | R | T | R | R | R | R |
| 375 | DSCM entering sleep mode | R | R | R | R | T | R | R |
| 376 | PDCM entering sleep mode | R | R | R | T | R | R | R |
| 377 | PSCM entering sleep mode | R | R | R | R | R | T | R |