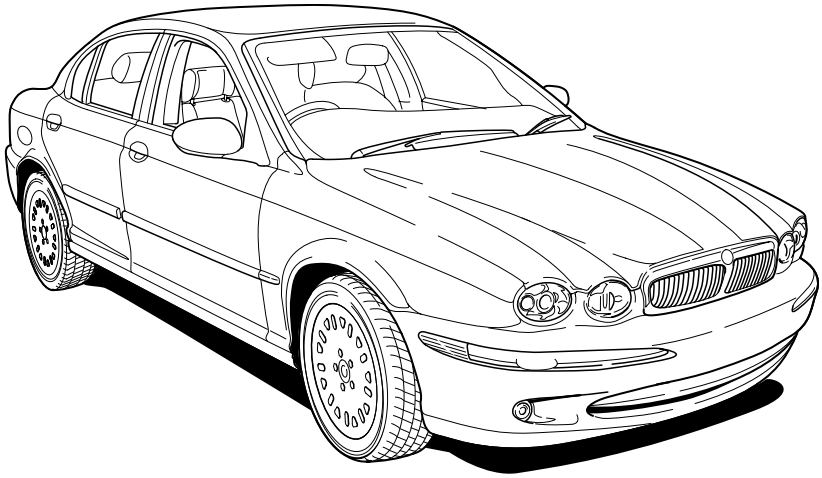
X-TYPE

Sedan and Sports Brake Electrical Guide

2.0 L, 2.5 L and 3.0 L Gasoline; 2.0 L Diesel
Model Years: Sedan 2004.25, Sports Brake 2004.5



PROVISIONAL

Published by Parts and Service Communications
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JAGUAR

Table of Contents

FIGURES

FIGURES

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

A/C	Air Conditioning
APP SENSOR	Accelerator Pedal Position Sensor
APP1	Accelerator Pedal Position Sensor Element 1
APP2	Accelerator Pedal Position Sensor Element 2
B+	Battery Voltage
BANK 1	RH Cylinder Bank (Cylinders 1, 3, 5, 7)
BANK 2	LH Cylinder Bank (Cylinders 2, 4, 6, 8)
CAN	Controller Area Network
CHT SENSOR	Cylinder Head Temperature Sensor
CKP SENSOR	Crankshaft Position Sensor
CMP SENSOR / 1	Camshaft Position Sensor / RH Bank
CMP SENSOR / 2	Camshaft Position Sensor / LH Bank
D2B	D2B Network
DSC	Dynamic Stability Control
ECT SENSOR	Engine Coolant Temperature Sensor
EFT SENSOR	Engine Fuel Temperature Sensor
EGR VALVE	Exhaust Gas Recirculation Valve
EGT SENSOR	Exhaust Gas Temperature Sensor
EMS	Engine Management System
EOT SENSOR	Engine Oil Temperature Sensor
EVAP CANISTER CLOSE VALVE	Evaporative Emission Canister Close Valve
EVAP CANISTER PURGE VALVE	Evaporative Emission Canister Purge Valve
FTP SENSOR	Fuel Tank Pressure Sensor
GPS	Global Positioning System
HID	High Intensity Discharge
HO2 SENSOR 1 / 1	Heated Oxygen Sensor – RH Bank / Upstream
HO2 SENSOR 1 / 2	Heated Oxygen Sensor – RH Bank / Downstream
HO2 SENSOR 2 / 1	Heated Oxygen Sensor – LH Bank / Upstream
HO2 SENSOR 2 / 2	Heated Oxygen Sensor – LH Bank / Downstream
IAT SENSOR	Intake Air Temperature Sensor
ICE	In-Car Entertainment System
IMT VALVE / 1	Intake Manifold Tuning Valve / Bottom
IMT VALVE / 2	Intake Manifold Tuning Valve / Top
IP SENSOR	Injection Pressure Sensor
KS / 1	Knock Sensor / RH Bank
KS / 2	Knock Sensor / LH Bank
LH	Left Hand
LHD	Left Hand Drive
MAF SENSOR	Mass Air Flow Sensor
MAP SENSOR	Manifold Absolute Pressure Sensor
N/A	Normally Aspirated
NAS	North American Specification
PATS	Passive Anti-Theft System
PWM	Pulse Width Modulated
RH	Right Hand
RHD	Right Hand Drive
ROW	Rest of World
SB	Sports Brake
SCP	Standard Corporate Protocol Network
T-MAP SENSOR	Temperature Manifold Absolute Pressure Sensor
TP SENSOR	Throttle Position Sensor
TP1	Throttle Position Sensor Element 1
TP2	Throttle Position Sensor Element 2
TURN	Turn Signal
TV	Television
V6	V6 Engine
V8	V8 Engine
VVT VALVE / 1	Variable Valve Timing Valve / Bank 1
VVT VALVE / 2	Variable Valve Timing Valve / Bank 2
+ve	Positive
–ve	Negative

Provisional Electrical Guide Format

This Provisional Electrical Guide is an abridged version made up of two sections. The first section provides general information for and about the use of the book, and information and illustrations to aid in the location and identification of components.

The Figure section illustrates detailed electrical circuit information for each system on the vehicle. Each Figure is identified by a Figure Number (i.e. Fig. 01.1) and Title. The data that would normally accompany each Figure is not included in this provisional version.

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

Vehicle Identification Numbers (VIN)

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

→ VIN 123456 indicates "up to VIN 123456"; VIN 123456 → indicates "from VIN 123456 on".

Jaguar 2004 Model Year X-TYPE Electrical System Architecture

Power Supplies

The Jaguar 2004 Model year X-TYPE electrical system is a supply-side switched system. The ignition switch directly carries much of the ignition switched power supply load. Power supply is provided via three methods: direct battery power supply, ignition switched power supply, and "Battery Saver Power Supply". The "Battery Saver Power Supply" circuit is controlled via the GEM (General Electronic Module). Refer to Figure 01.7 for circuit activation details.

Fuse Boxes

The electrical harness incorporates two serviceable power distribution fuse boxes: the Power Distribution Fuse Box located in the engine compartment and the Passenger Junction Fuse Box located in the left-hand 'A' Post. All fuses and relays (except the trailer towing accessory kit and two Diesel vehicle relays) are located in the two fuse boxes.

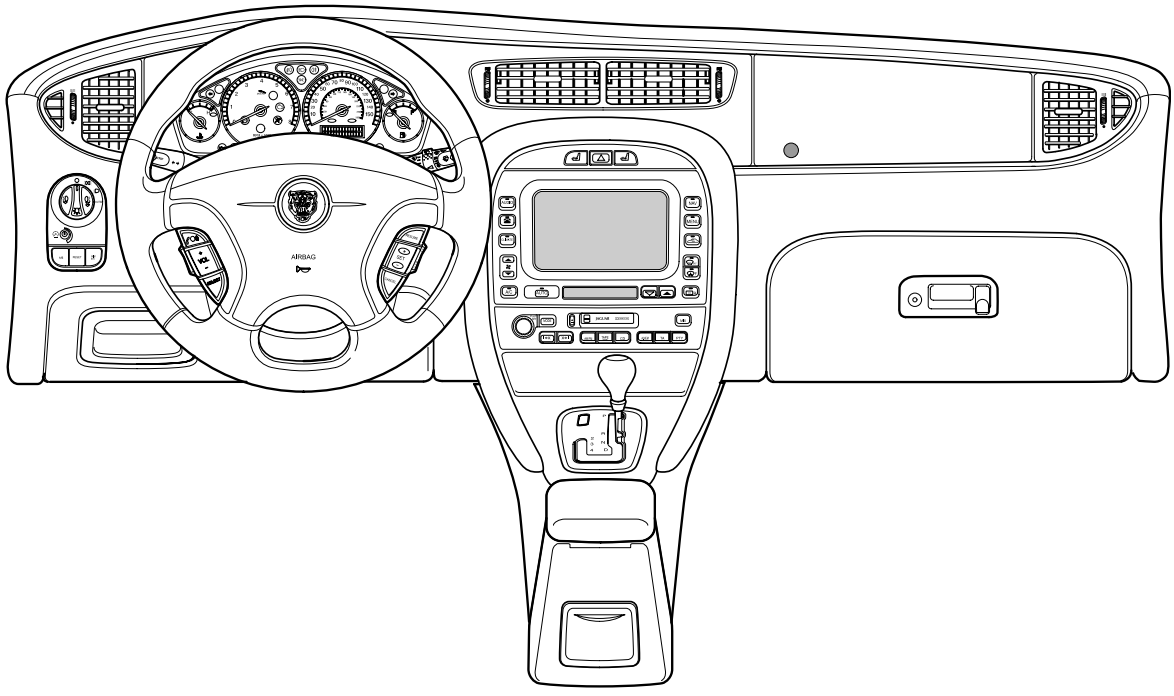
Vehicle Networks

The X-TYPE employs three different networks: a CAN (Controller Area Network) for high-speed power train communications, an SCP (Standard Corporate Protocol) network for slower speed body systems communications, and a D2B (Optical) Network for very high-speed "real-time" audio data transfer. The D2B Network is a fiber optic network with a gateway to the remaining vehicle networks via the Audio Unit. Technician access to the three networks and the Serial Data Link is via the Data Link Connector.

Ground Studs

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

X-TYPE INSTRUMENT PANEL



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

Reference Symbols

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

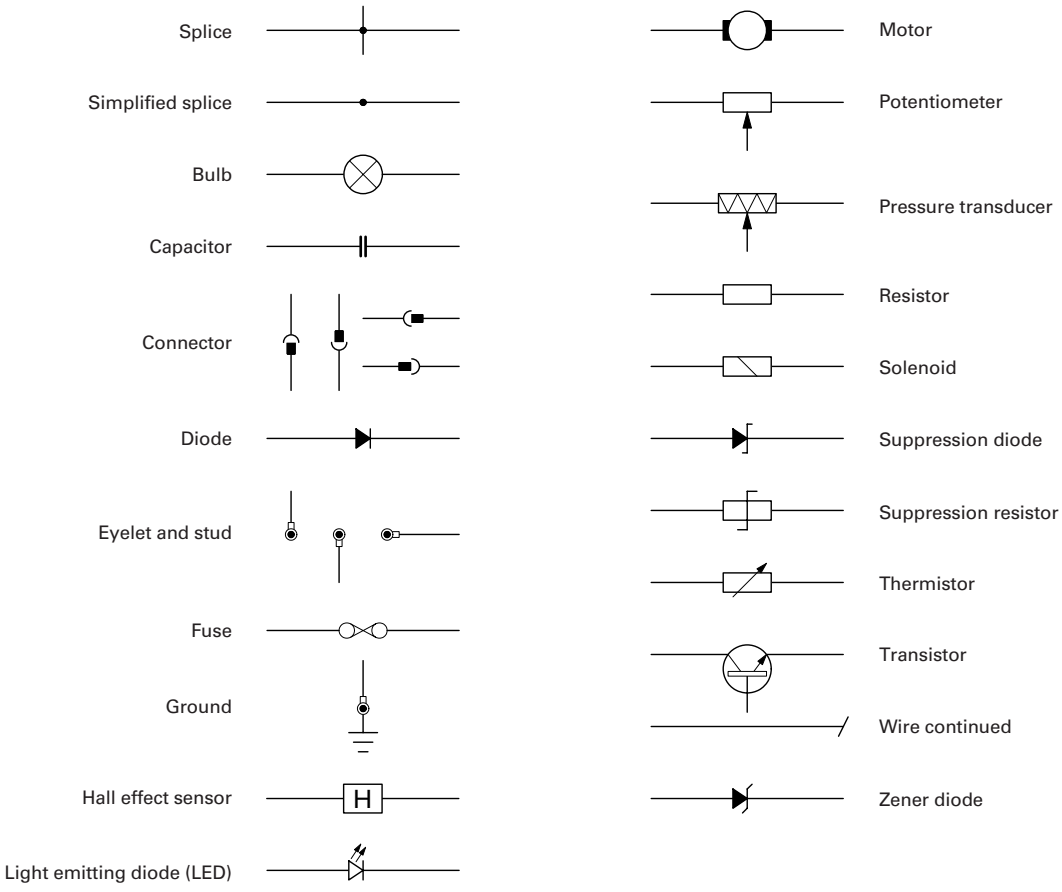
Control Module Pin Symbols

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

* May also indicate Reference Voltage.

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

Wiring Symbols



Harness Codes

AC Climate Control
AS Side Airbag
BH Engine Block Heaters
BL LH Rear Door
BR RH Rear Door
CA Cabin
DE Diesel Engine
DL Diesel Engine Link
EN Engine
FB Front Bumper
FL LH Front Door
FR RH Front Door
FT Fuel Tank
GC Cooling Pack
IJ Injector Rail
IP Instrument Panel
JB Junction Box
LF LH Front Wheel Speed Sensor
LR LH Rear Wheel Speed Sensor
LS LH Front Seat
NA Navigation System
PA Pedal Assembly
PH Telephone
RB Rear Bumper
RC Roof Console
RF RH Front Wheel Speed Sensor
RR RH Rear Wheel Speed Sensor
RS RH Front Seat
SL Security Sounder Link
TL Trunk Lid
TT Trailer Towing
TV Television
WG Tailgate Glass (Sports Brake only)
WL Tailgate Link (Sports Brake only)
WS Weight Sensor
WT Tailgate (Sports Brake only)

Wiring Color Codes

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

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, in most cases, been shortened. Thus AC001-001 becomes AC1-1, AC002-001 becomes AC2-1, etc.

Grounds

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

EXAMPLE:

On figures where LHD and RHD circuits are combined and the ground designation differs from LHD to RHD, the RHD ground is shown in parentheses. If the ground designation is the same for LHD and RHD, only one ground designation is used.

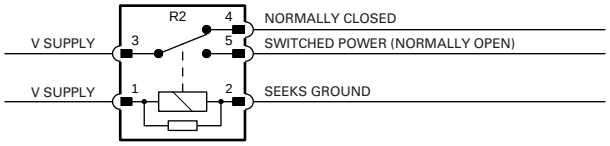
EXAMPLE:

Relays

Serviceable Relays

Serviceable relays are located in both fuse boxes. They do not have a separate relay connector (base). All relays use the ISO pin numbering system – 1, 2, 3, 4, 5. Each relay is identified by an "R" number unique only to the fuse box in which it is located.

EXAMPLE:

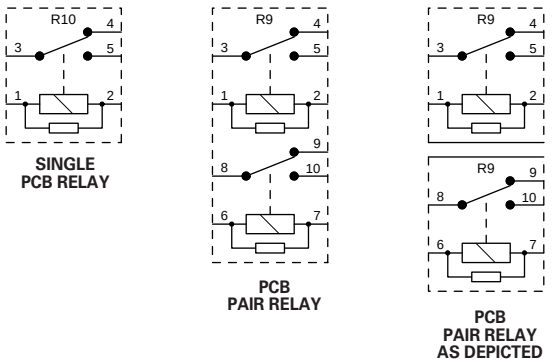


CHANGE-OVER RELAY: RELAY PIN NUMBERS AND STANDARD FUNCTIONS

Non-Serviceable Relays

Non-serviceable relays are located in both fuse boxes. They are a component part of the fuse box printed circuit board (PCB) and are arranged in singles or pairs. The relays use the ISO pin numbering system – 1, 2, 3, 4, 5 (single relay or top pair relay) and 6, 7, 8, 9, 10 (bottom pair relay). Each relay is identified by an "R" number unique only to the fuse box in which it is located. Pair relays are normally depicted separately.

EXAMPLE:



SINGLE PCB RELAY

PCB PAIR RELAY

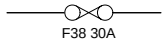
PCB PAIR RELAY AS DEPICTED

NOTE: Diesel vehicles have one serviceable relay located on the Junction Box harness and one serviceable relay attached to the Power Distribution Fuse Box.

Fuses

All fuses are located in the fuse boxes. Each fuse is identified by an “F” number unique only to the fuse box in which it is located.

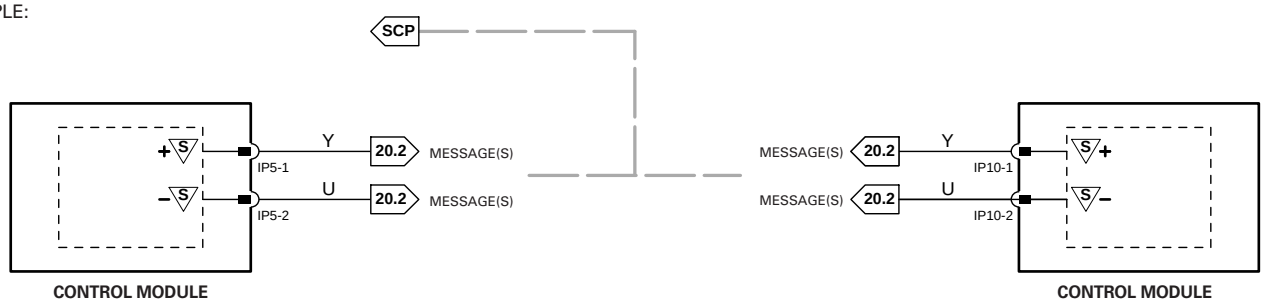
EXAMPLE:



Networks

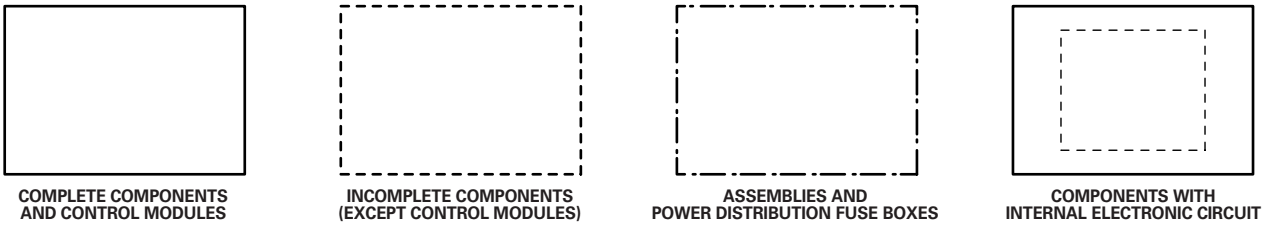
In most instances, networks are shown as a broken grey line to indicate that there is network communication between the depicted control modules. Refer to Figures 20.1, 20.2, 20.3 and 20.4 for circuit details.

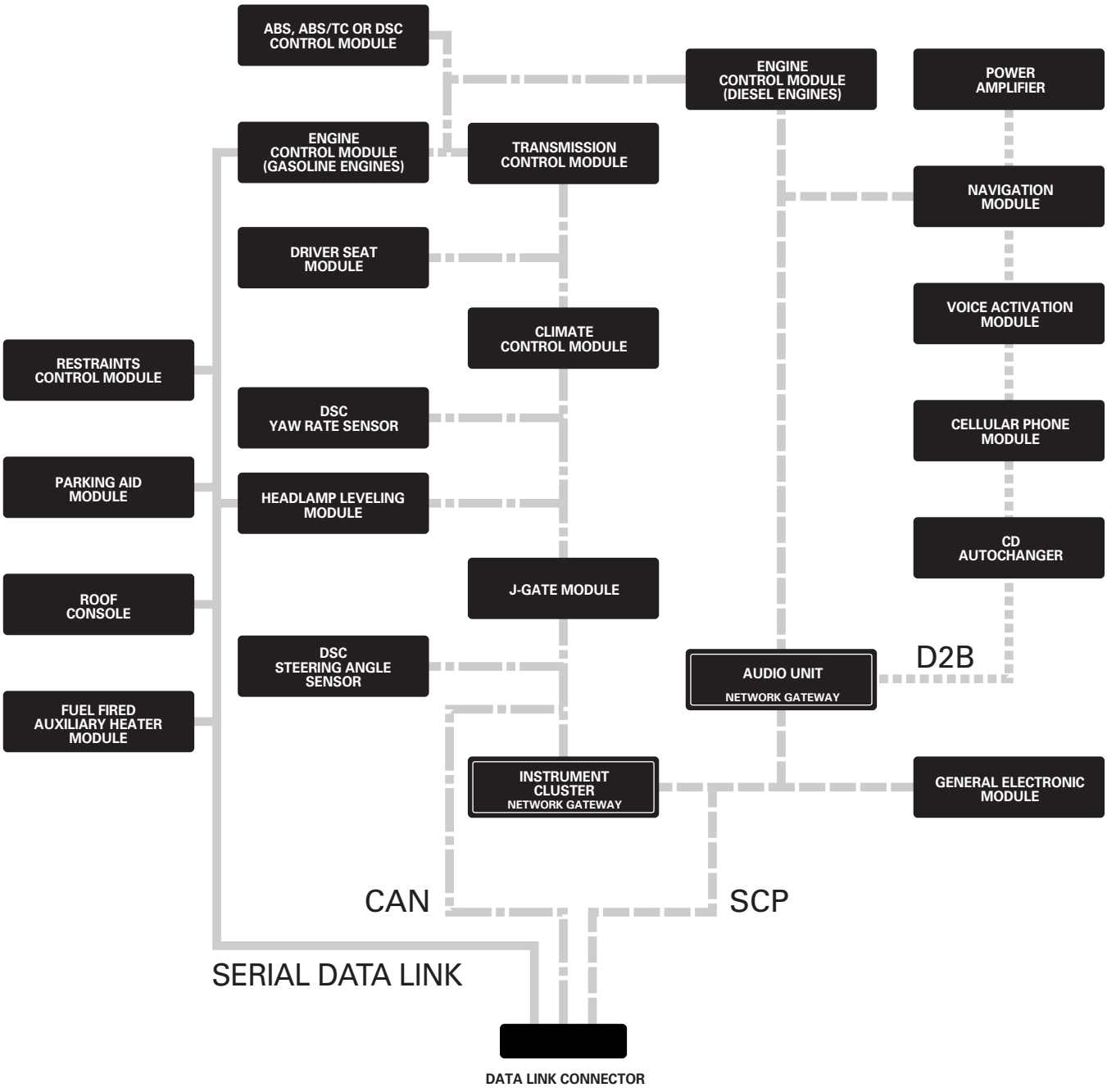
EXAMPLE:



Component Depictions

EXAMPLE:

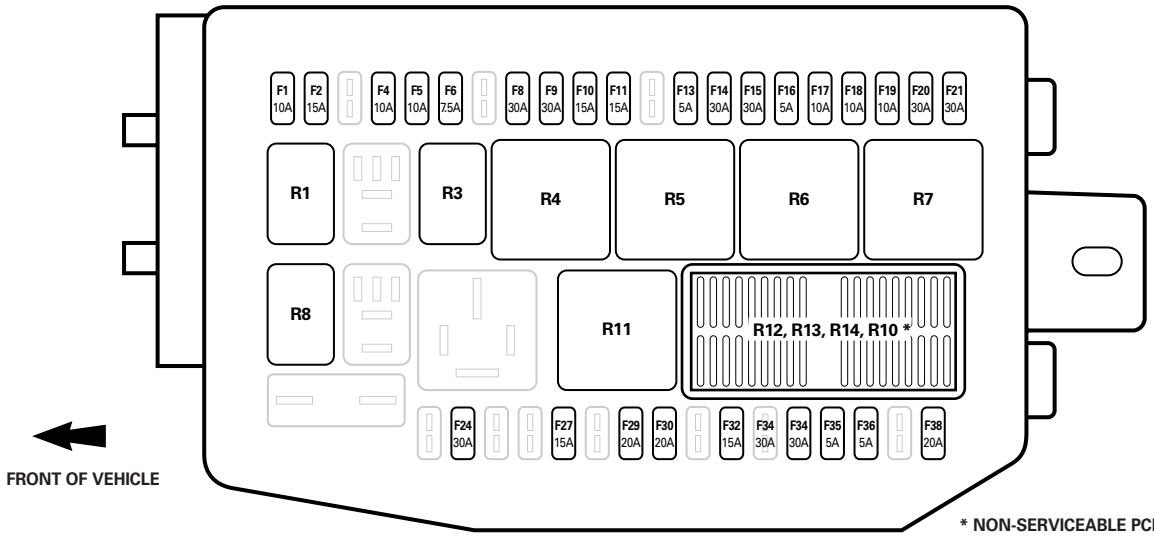




CAN NETWORK
SCP NETWORK
D2B NETWORK
SERIAL DATA LINK

NOTE: TYPICAL NETWORK CONFIGURATION.
REFER TO FIGURES 20.1, 20.2, 20.3 AND 20.4 FOR CIRCUIT DETAILS.

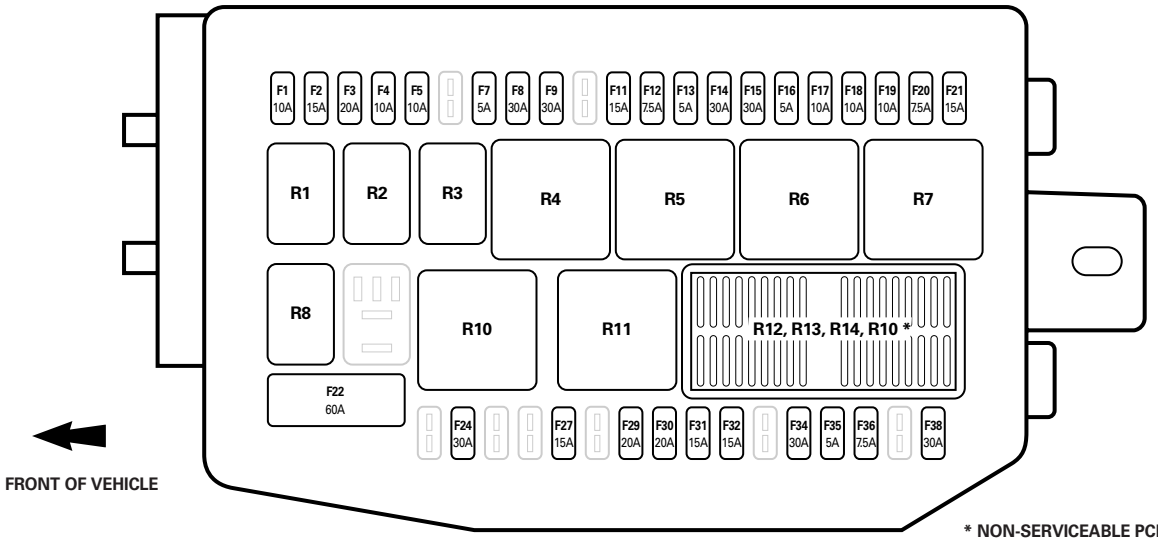
POWER DISTRIBUTION FUSE BOX (TOP): GASOLINE ENGINE VEHICLES



* NON-SERVICEABLE PCB RELAYS

R1 MAIN BEAM / FRONT FOG RELAY
R2 NOT USED
R3 A/C COMPRESSOR CLUTCH RELAY
R4 WINDSHIELD WIPER MOTOR RELAY
R5 POWER DISTRIBUTION FUSE BOX IGNITION RELAY
R6 WINDSHIELD HEATER RELAY
R7 EMS CONTROL RELAY
R8 POWERWASH PUMP RELAY
R9 NOT USED
R10 NOT USED
R11 DIP BEAM RELAY
R12 STARTER RELAY
R13 SLAVE IGNITION RELAY
R14 NOT USED
R15 HORN RELAY

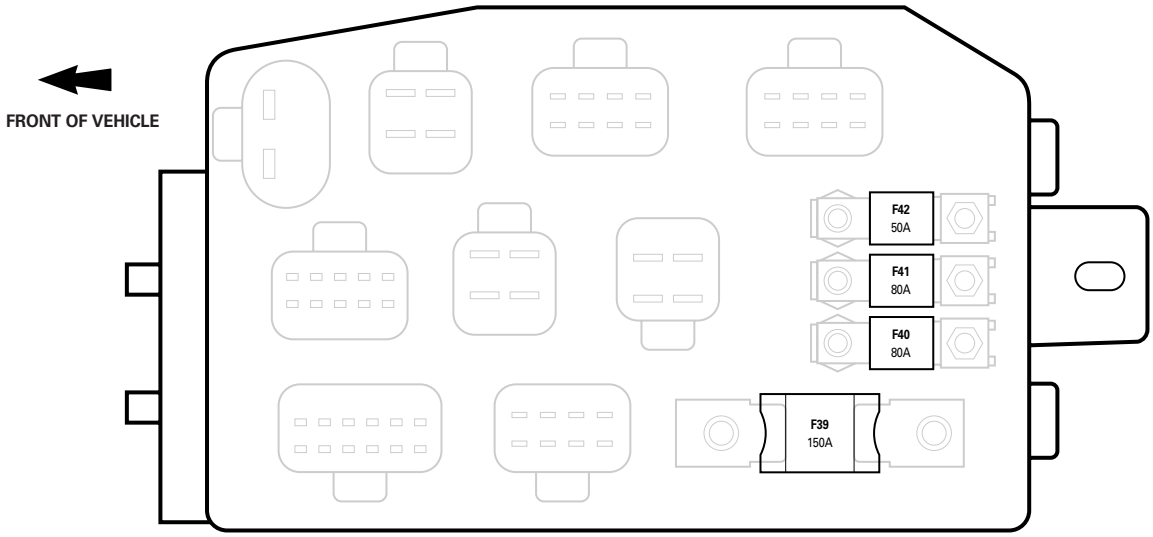
POWER DISTRIBUTION FUSE BOX (TOP): DIESEL ENGINE VEHICLES



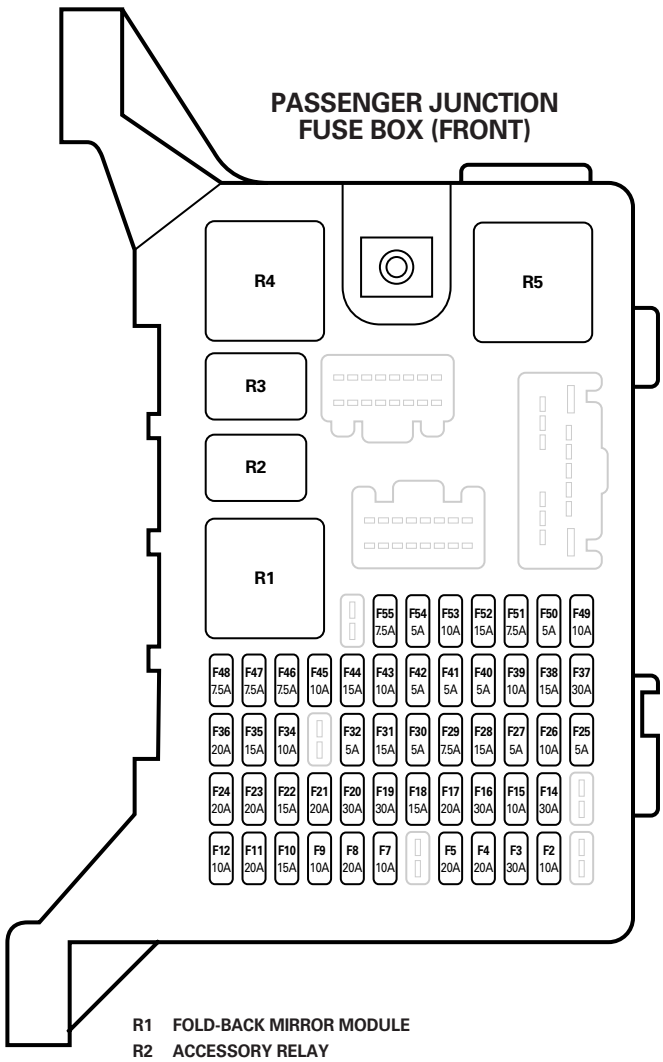
* NON-SERVICEABLE PCB RELAYS

R1 MAIN BEAM / FRONT FOG RELAY
R2 HORN RELAY
R3 A/C COMPRESSOR CLUTCH RELAY
R4 WINDSHIELD WIPER MOTOR RELAY
R5 POWER DISTRIBUTION FUSE BOX IGNITION RELAY
R6 WINDSHIELD HEATER RELAY
R7 EMS CONTROL RELAY
R8 POWERWASH PUMP RELAY
R9 NOT USED
R10 GLOW PLUG RELAY
R11 DIP BEAM RELAY
R12 STARTER RELAY
R13 SLAVE IGNITION RELAY
R14 NOT USED
R15 AUXILIARY HEATER RELAY 1

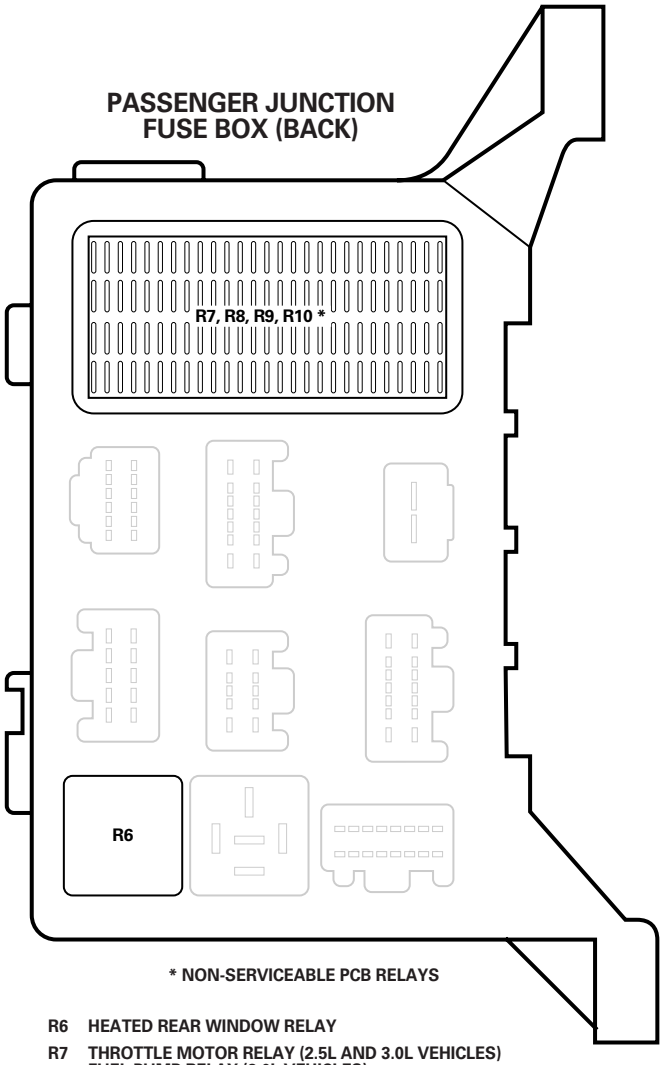
POWER DISTRIBUTION FUSE BOX (BOTTOM)



PASSENGER JUNCTION FUSE BOX (FRONT)



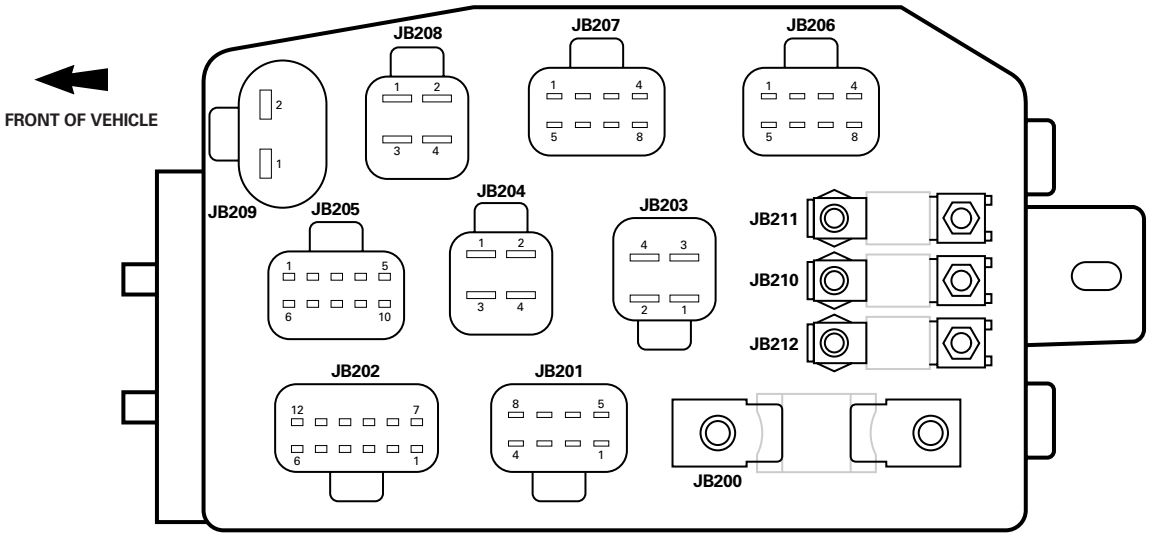
PASSENGER JUNCTION FUSE BOX (BACK)



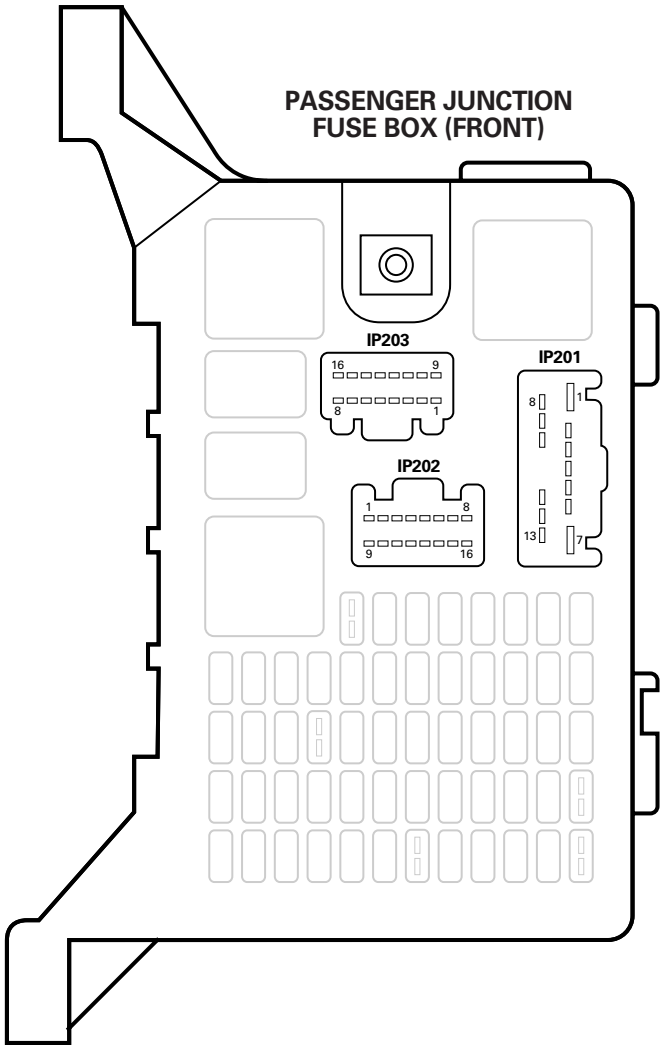
* NON-SERVICEABLE PCB RELAYS

- R1 FOLD-BACK MIRROR MODULE
- R2 ACCESSORY RELAY
- R3 REAR WIPER MOTOR RELAY (SPORTS BRAKE ONLY)
- R4 BLOWER MOTOR RELAY
- R5 PASSENGER JUNCTION FUSE BOX IGNITION RELAY
- R6 HEATED REAR WINDOW RELAY
- R7 THROTTLE MOTOR RELAY (2.5L AND 3.0L VEHICLES) FUEL PUMP RELAY (2.0L VEHICLES)
- R8 NOT USED
- R9 REVERSE LAMPS RELAY
- R10 BATTERY SAVER RELAY

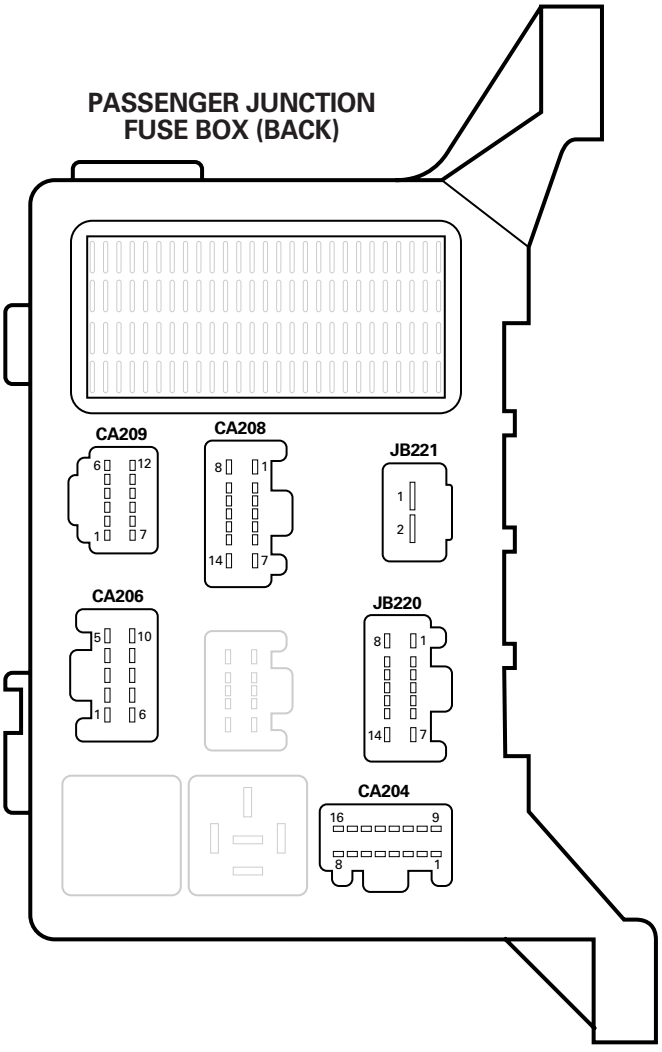
POWER DISTRIBUTION FUSE BOX (BOTTOM)



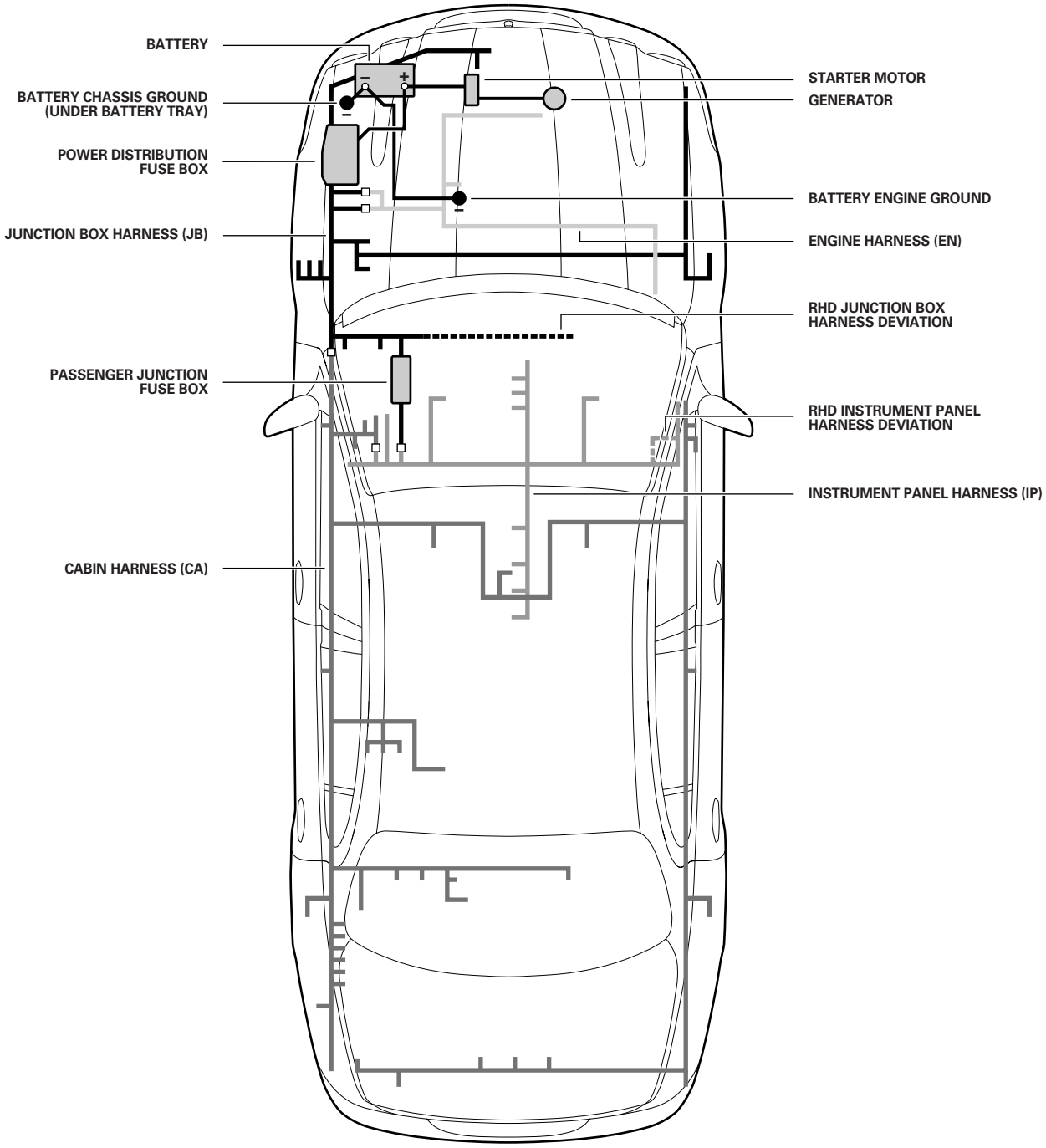
PASSENGER JUNCTION FUSE BOX (FRONT)



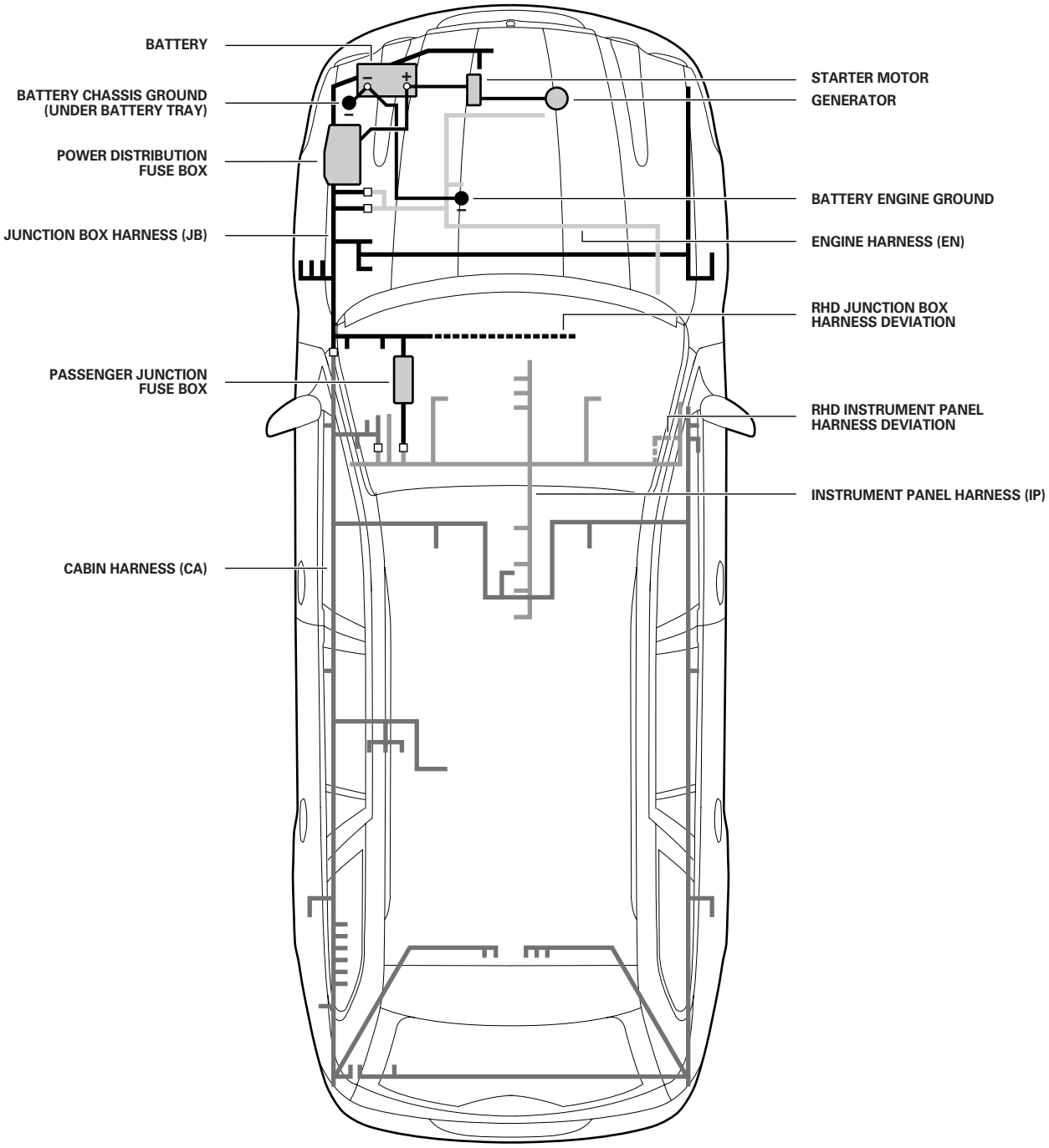
PASSENGER JUNCTION FUSE BOX (BACK)



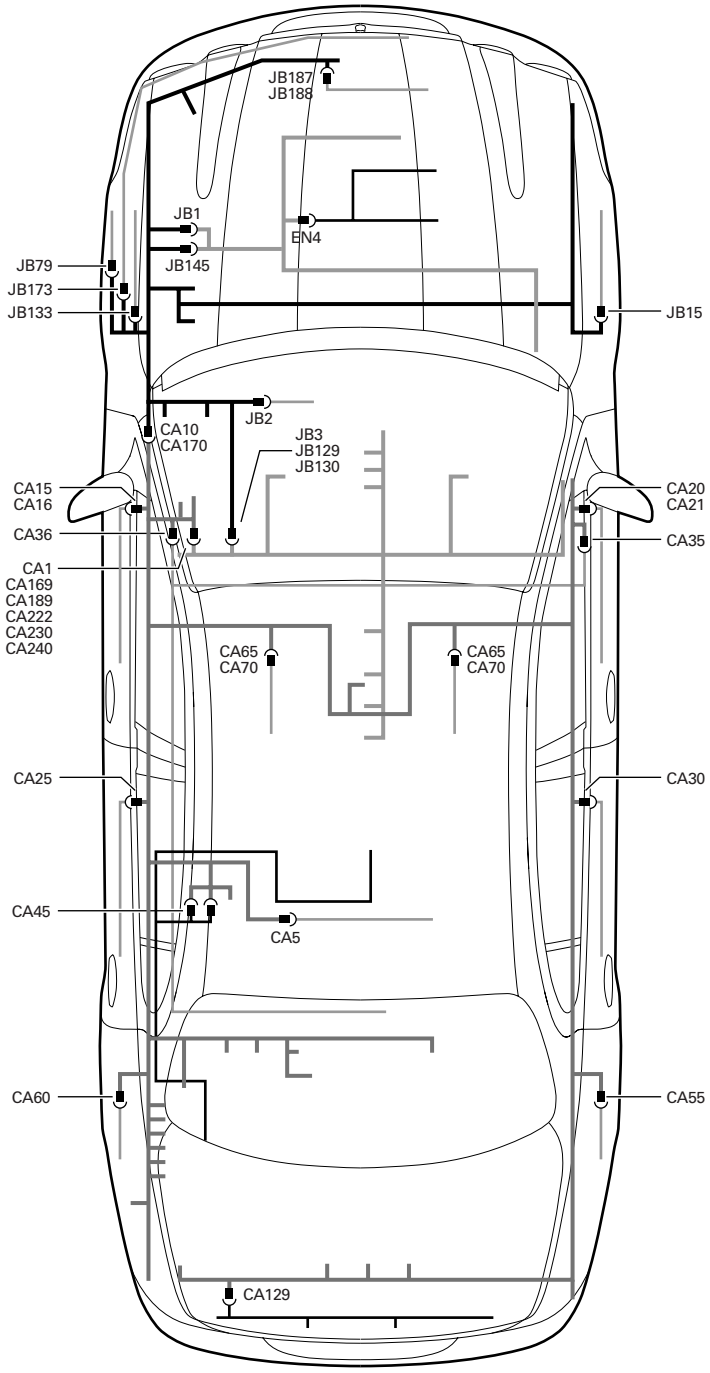
SEDAN (GASOLINE ENGINE SHOWN)



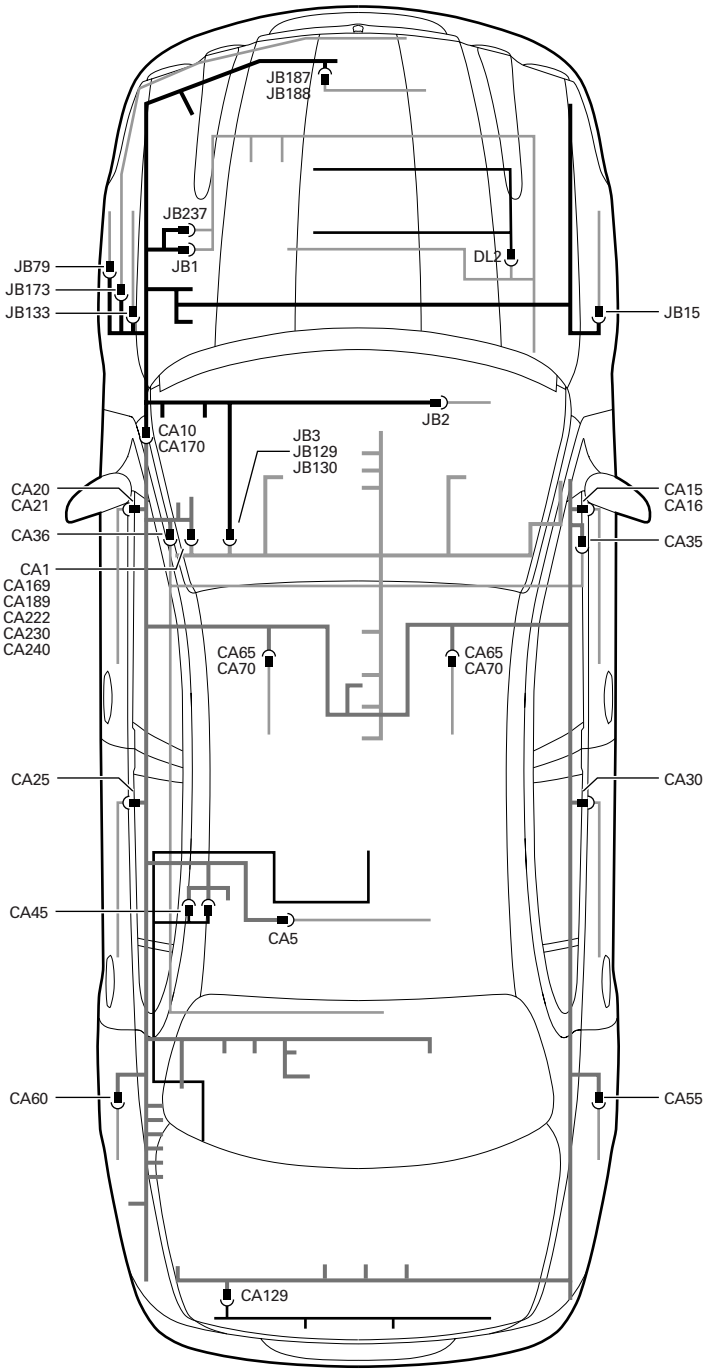
SPORTS BRAKE (GASOLINE ENGINE SHOWN)



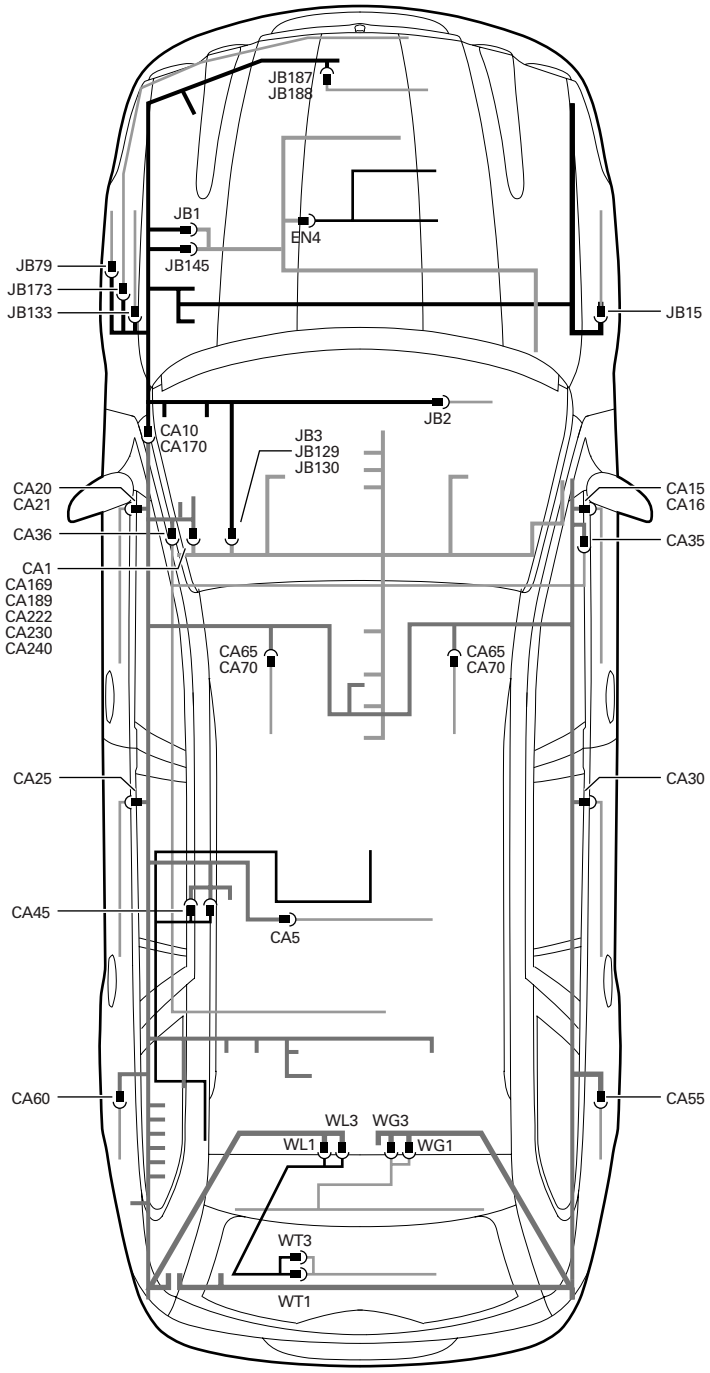
SEDAN: GASOLINE ENGINE (LHD SHOWN)



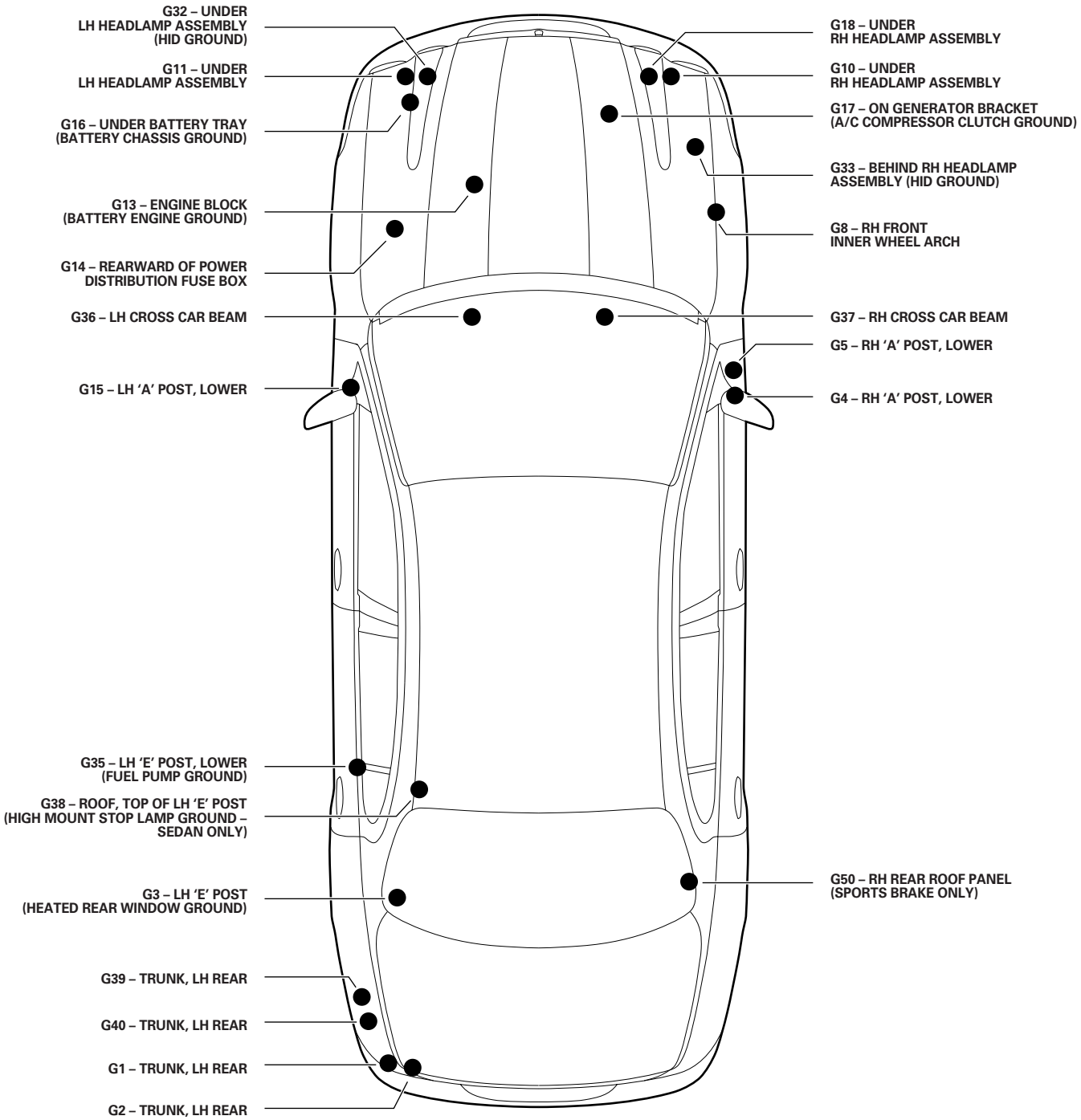
SEDAN: DIESEL ENGINE (RHD SHOWN)



SPORTS BRAKE (RHD SHOWN)

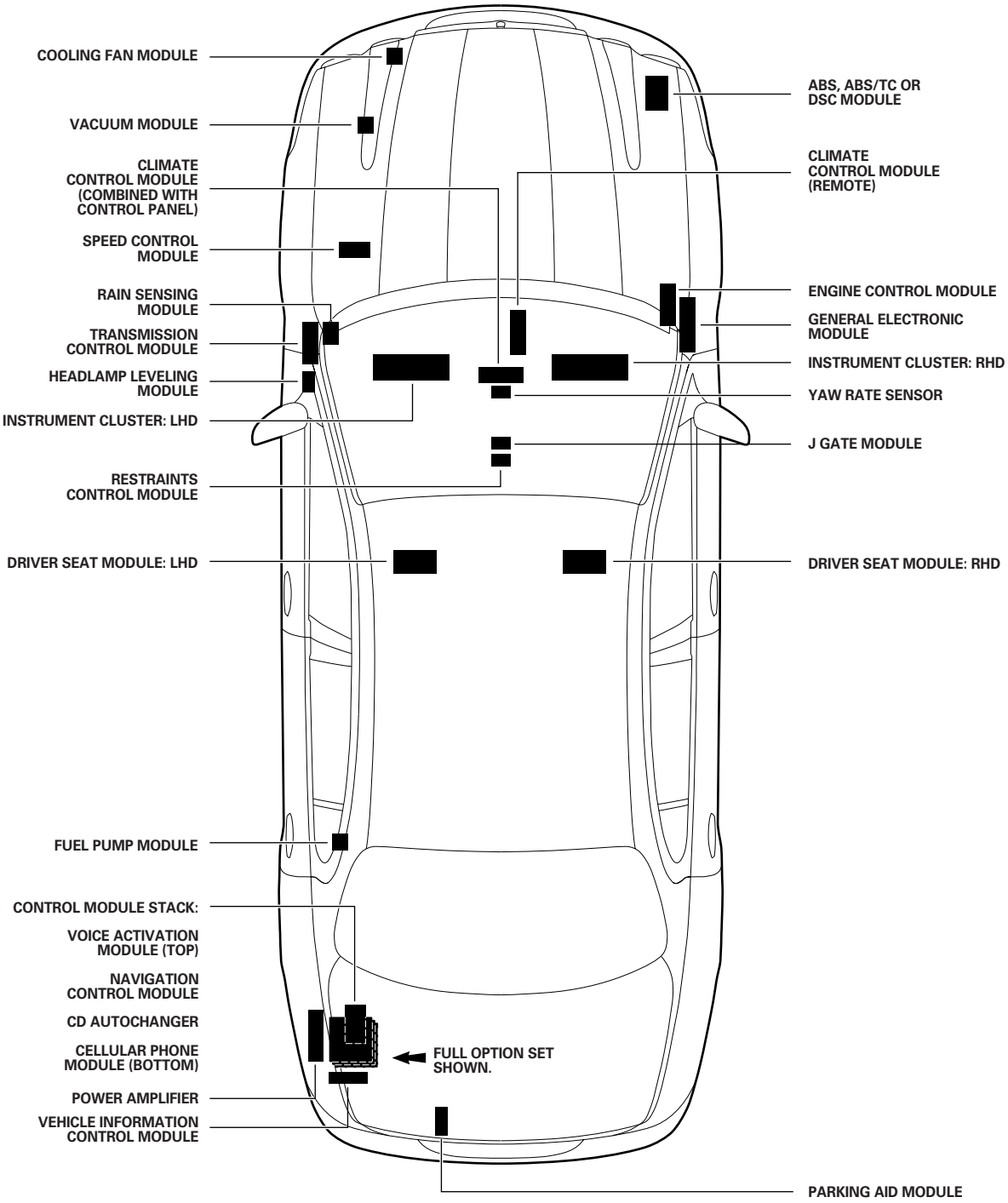


SEDAN SHOWN

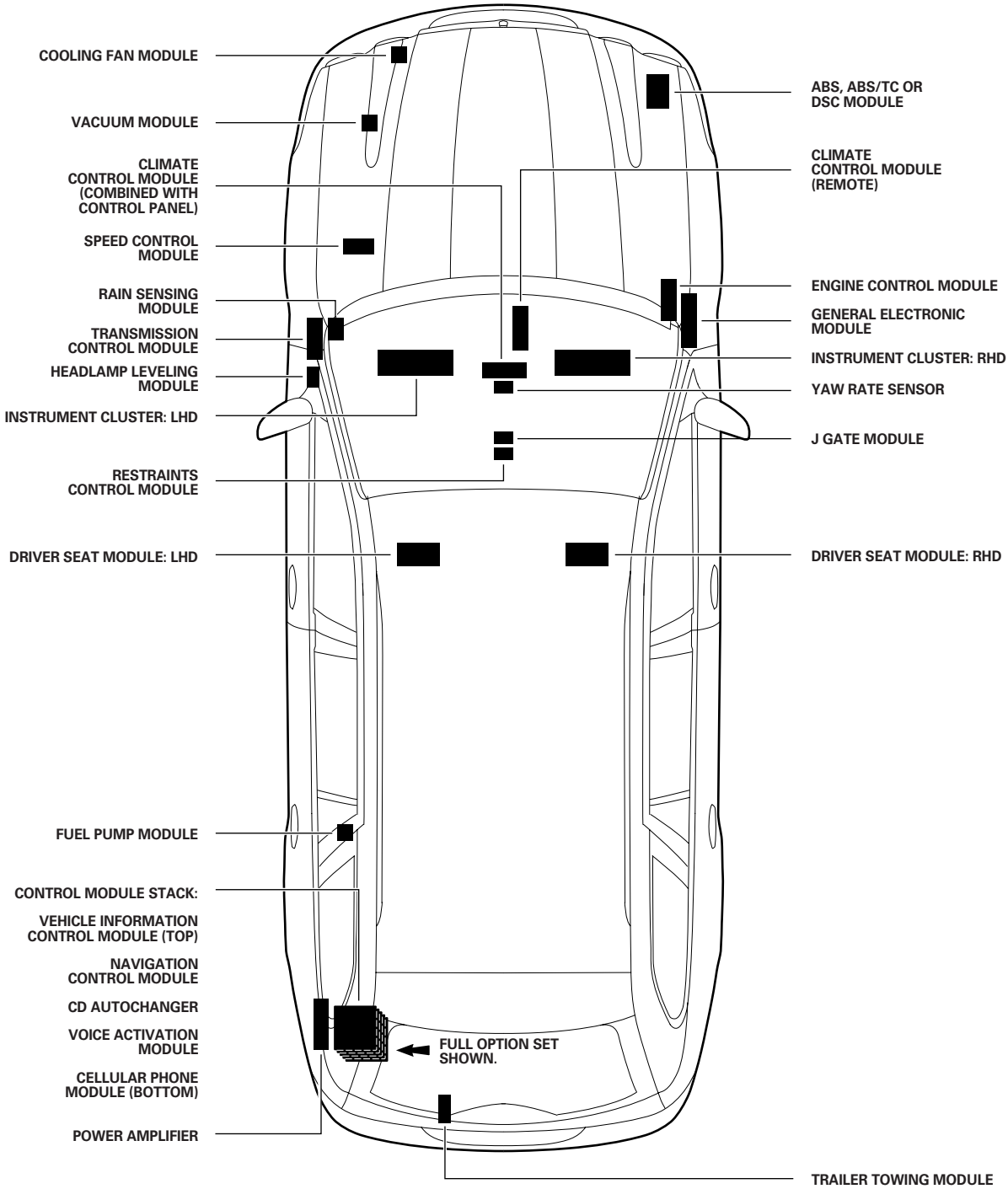


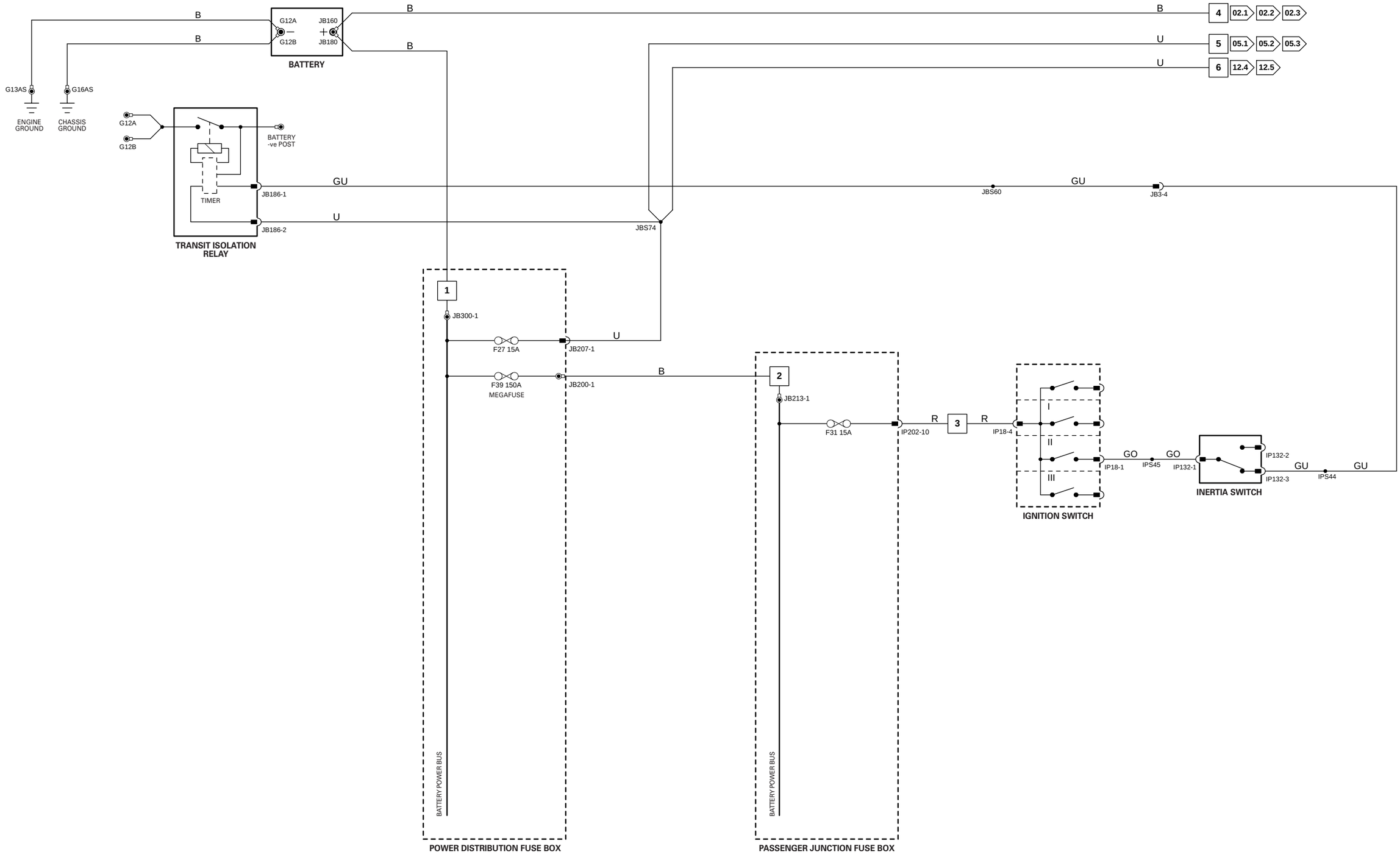
NOTE: UNIQUE GROUND STUDS ARE NOTED IN PARENTHESES.

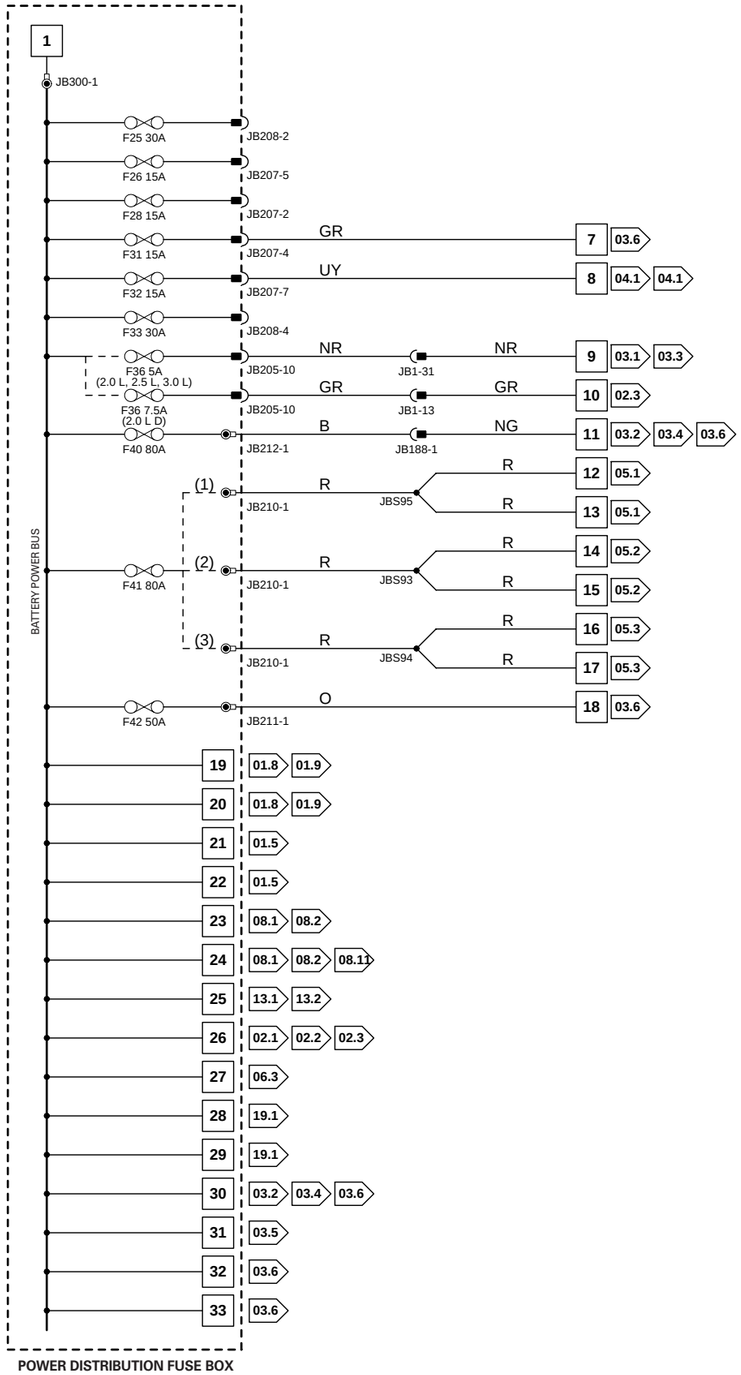
SEDAN


COOLING FAN MODULE
VACUUM MODULE
CLIMATE CONTROL MODULE (COMBINED WITH CONTROL PANEL)
SPEED CONTROL MODULE
RAIN SENSING MODULE
TRANSMISSION CONTROL MODULE
HEADLAMP LEVELING MODULE
INSTRUMENT CLUSTER: LHD
RESTRAINTS CONTROL MODULE
DRIVER SEAT MODULE: LHD
FUEL PUMP MODULE
CONTROL MODULE STACK:
VOICE ACTIVATION MODULE (TOP)
NAVIGATION CONTROL MODULE
CD AUTOCHANGER
CELLULAR PHONE MODULE (BOTTOM)
POWER AMPLIFIER
VEHICLE INFORMATION CONTROL MODULE
FULL OPTION SET SHOWN.
ABS, ABS/TC OR DSC MODULE
CLIMATE CONTROL MODULE (REMOTE)
ENGINE CONTROL MODULE
GENERAL ELECTRONIC MODULE
INSTRUMENT CLUSTER: RHD
YAW RATE SENSOR
J GATE MODULE
DRIVER SEAT MODULE: RHD
PARKING AID MODULE

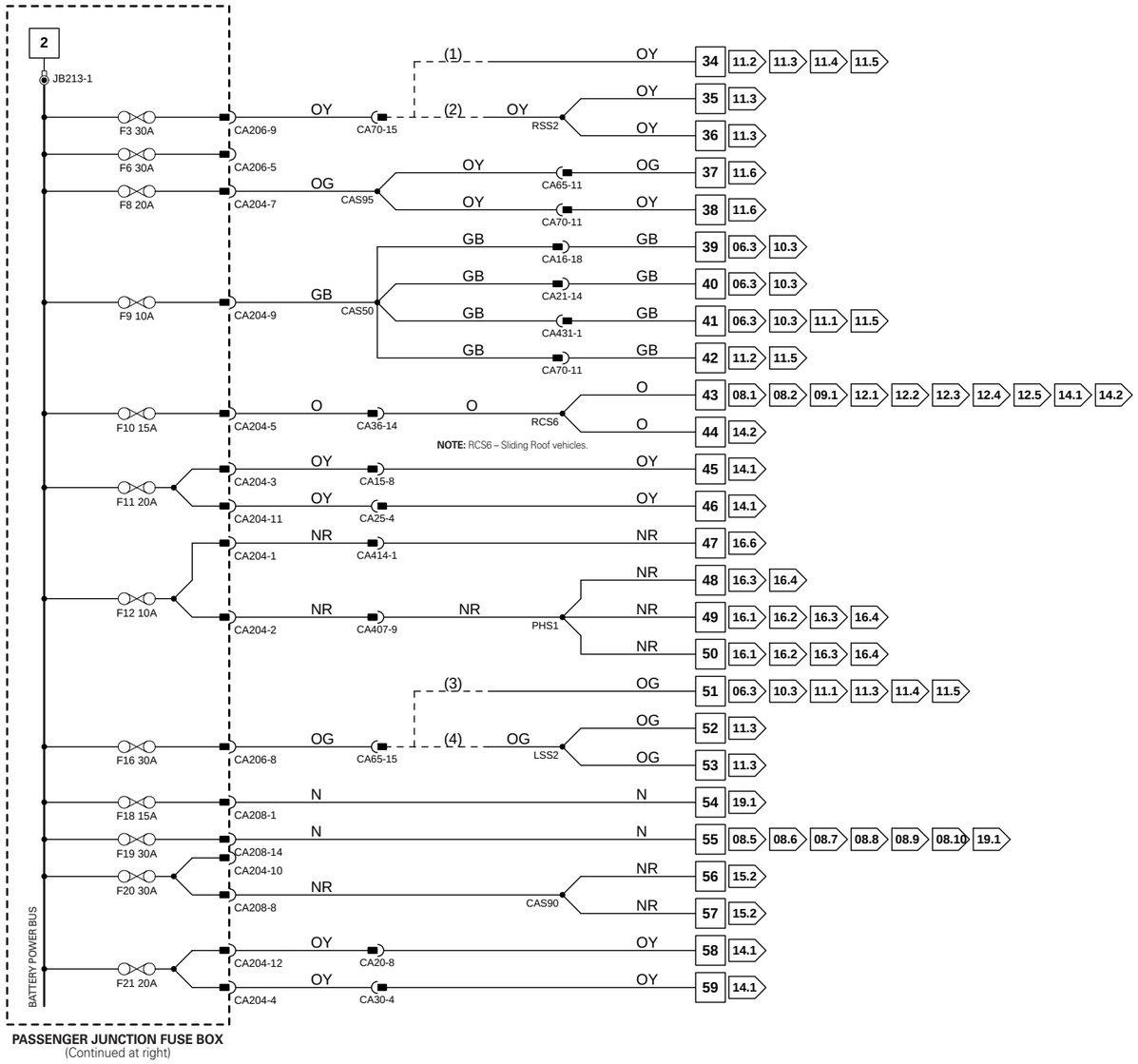
SPORTS BRAKE



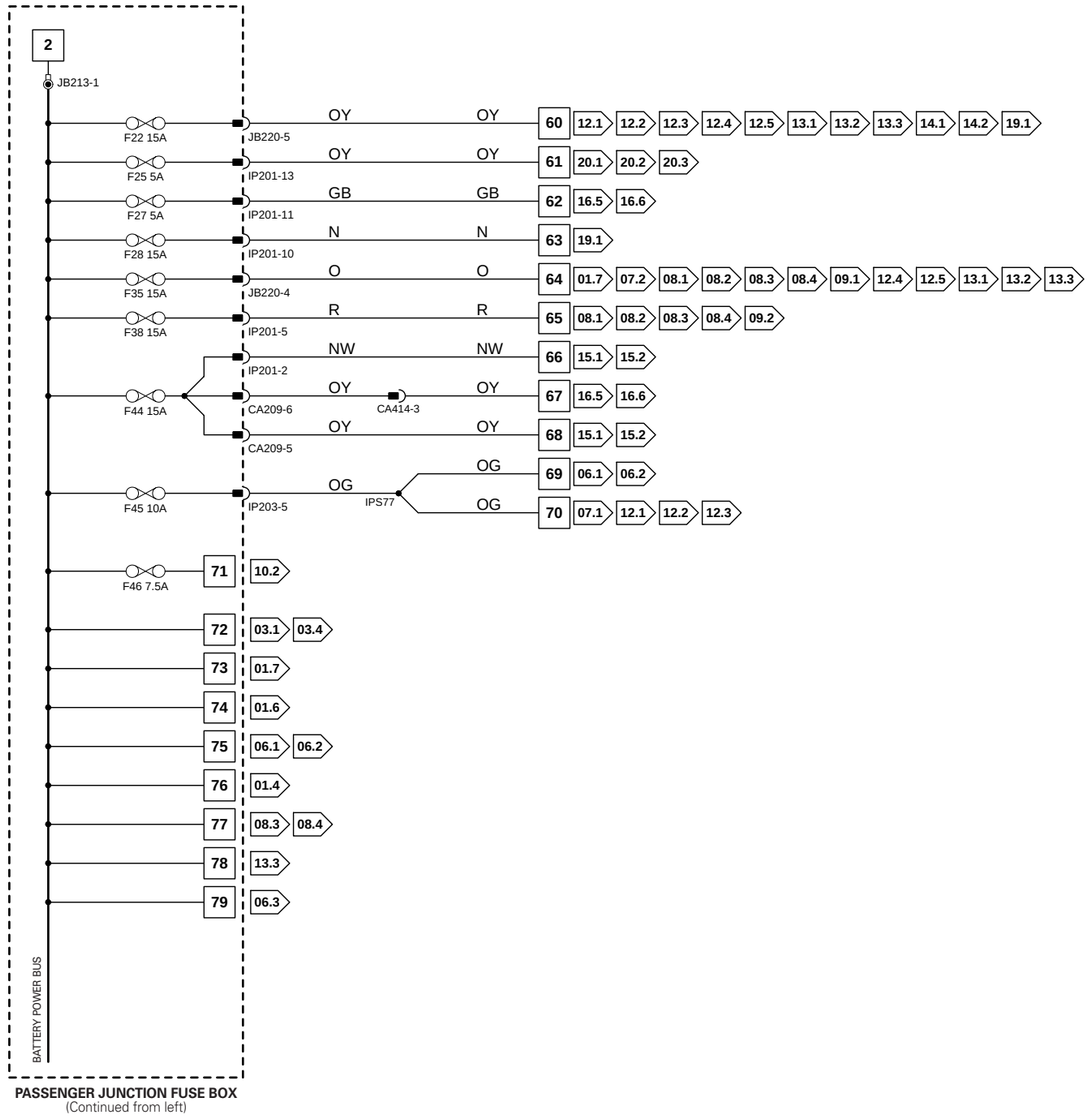

B
B
G12A
G12B
JB160
JB180
BATTERY
B
B
B
4
02.1
02.2
02.3
U
5
05.1
05.2
05.3
U
6
12.4
12.5
G13AS
G16AS
ENGINE GROUND
CHASSIS GROUND
G12A
G12B
BATTERY -ve POST
TIMER
JB186-1
JB186-2
TRANSIT ISOLATION RELAY
GU
U
JBS74
JBS60
GU
JB3-4
1
JB300-1
F27 15A
JB207-1
U
F39 150A MEGAFUSE
JB200-1
B
2
JB213-1
F31 15A
IP202-10
R
3
R
IP18-4
I
II
III
IP18-1
GO
IPS45
GO
IP132-1
IP132-2
IP132-3
INERTIA SWITCH
GU
IPS44
GU
IGNITION SWITCH
BATTERY POWER BUS
POWER DISTRIBUTION FUSE BOX
BATTERY POWER BUS
PASSENGER JUNCTION FUSE BOX



NOTATION:
(1) Vehicles with Anti-Lock Braking only
(2) Vehicles with ABS and Traction Control
(3) Vehicles with Dynamic Stability Control



PASSENGER JUNCTION FUSE BOX
(Continued at right)



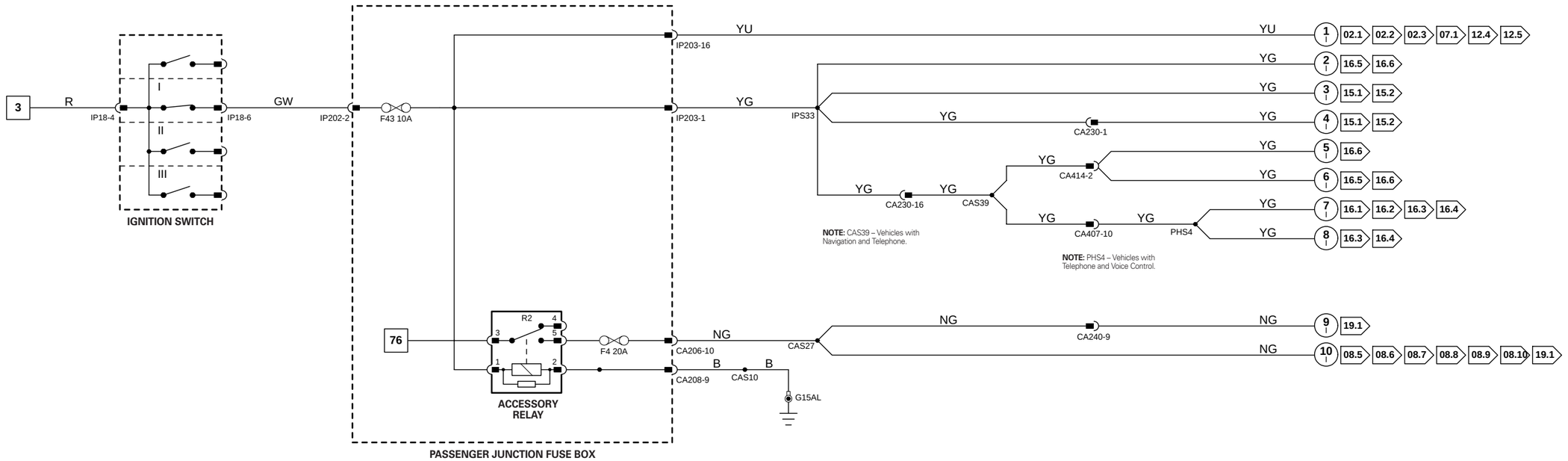
PASSENGER JUNCTION FUSE BOX
(Continued from left)

NOTATION:
(1) Passenger Memory Seat; RH Seat without Lumbar
(2) RH Seat with Lumbar
(3) Driver Memory Seat; LH Seat without Lumbar
(4) LH Seat with Lumbar

1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

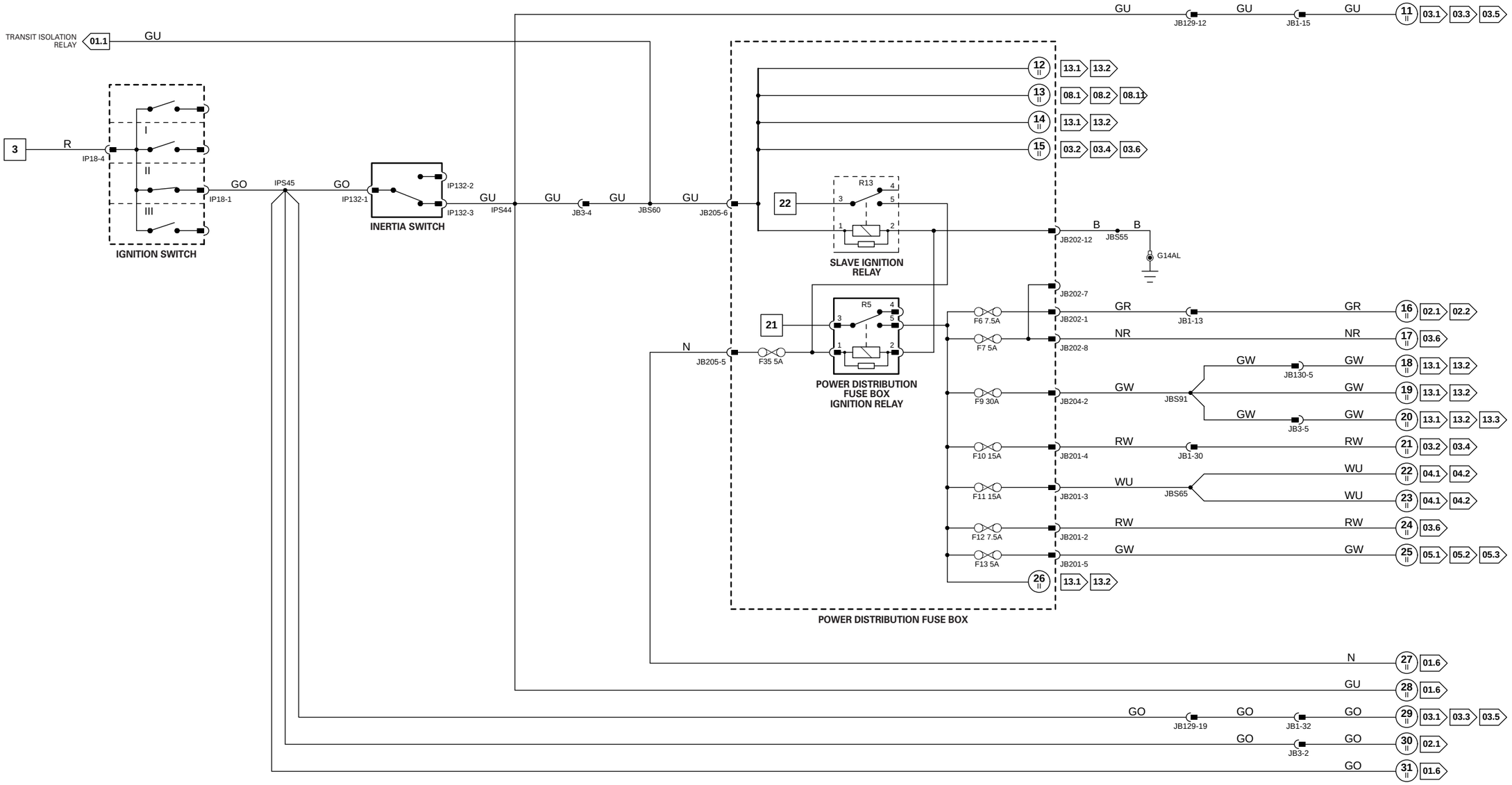
VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

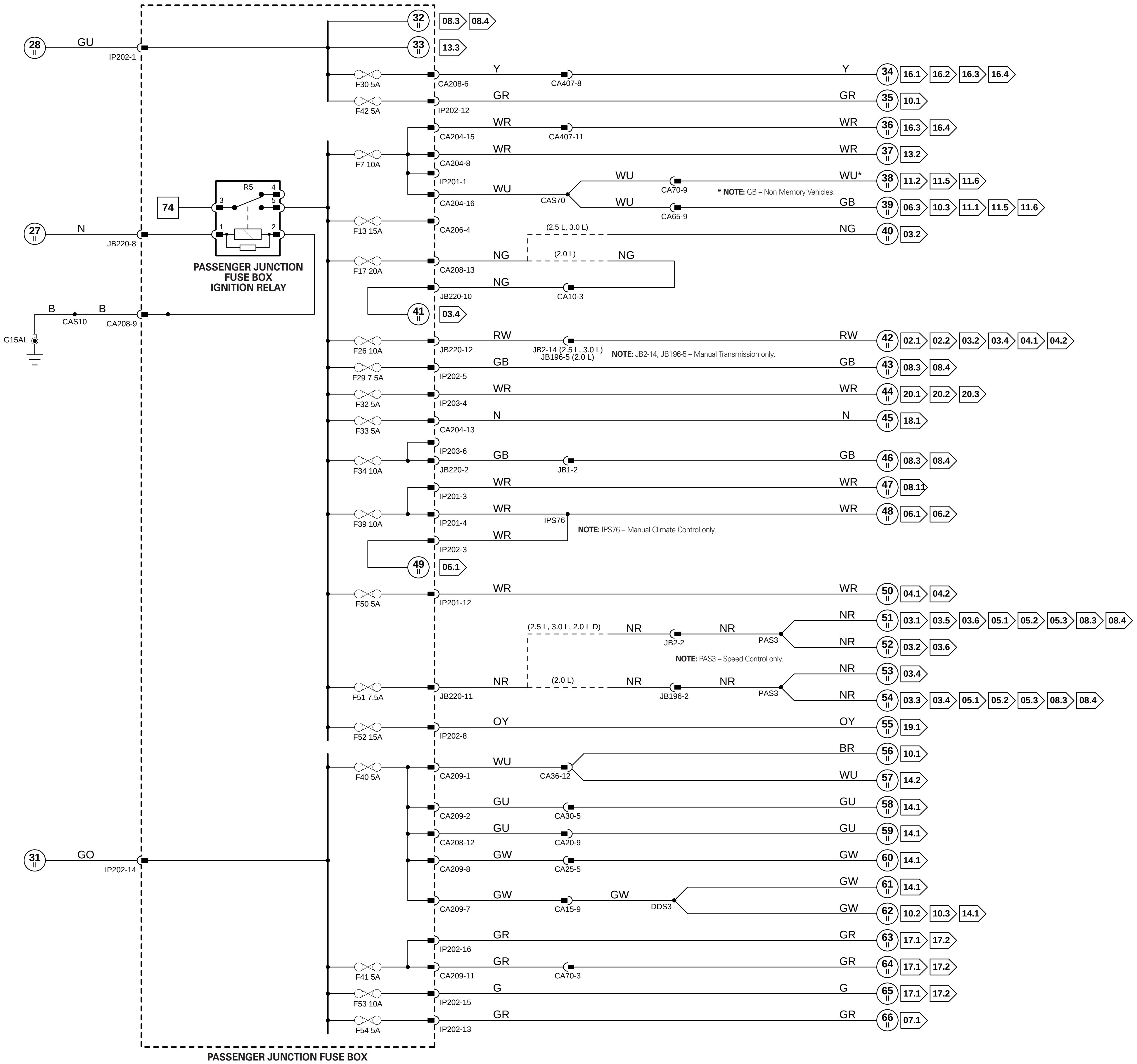
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

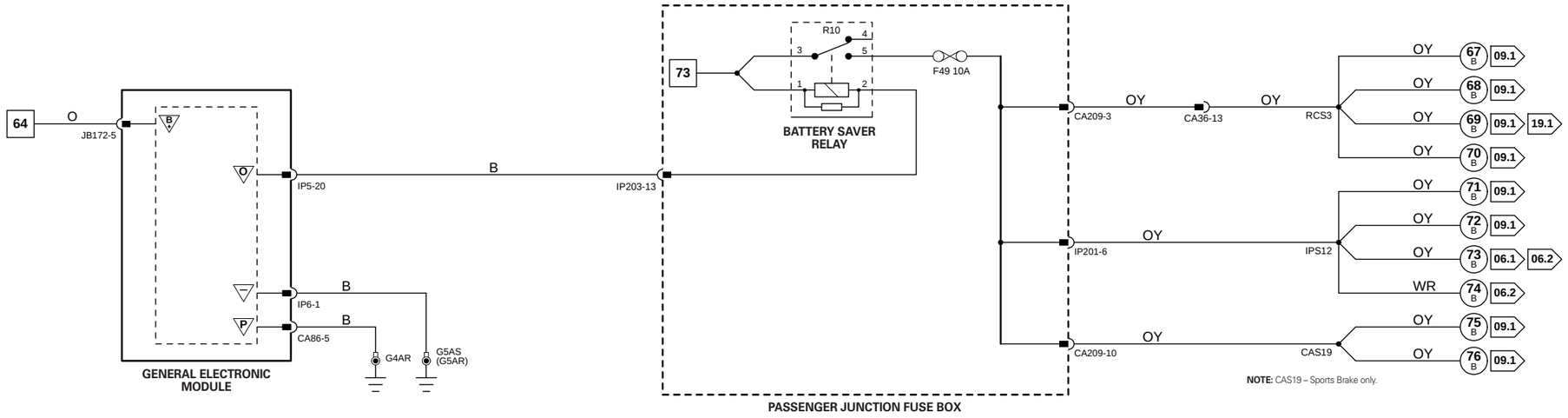
VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	– Sensor/Signal Ground	C SCP	D Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)


28 GU IP202-1
27 N JB220-8
B B CAS10 CA208-9
G15AL
31 GO IP202-14
74
R5
PASSENGER JUNCTION FUSE BOX IGNITION RELAY
PASSENGER JUNCTION FUSE BOX
32 08.3 08.4
33 13.3
F30 5A CA208-6 Y CA407-8 Y 34 16.1 16.2 16.3 16.4
F42 5A IP202-12 GR GR 35 10.1
CA204-15 WR CA407-11 WR 36 16.3 16.4
F7 10A CA204-8 WR WR 37 13.2
IP201-1
CA204-16 WU CAS70 WU CA70-9 WU* 38 11.2 11.5 11.6
* NOTE: GB – Non Memory Vehicles.
WU CA65-9 GB 39 06.3 10.3 11.1 11.5 11.6
F13 15A CA206-4 (2.5 L, 3.0 L) NG 40 03.2
F17 20A CA208-13 NG (2.0 L) NG
JB220-10 NG CA10-3
41 03.4
F26 10A JB220-12 RW JB2-14 (2.5 L, 3.0 L) JB196-5 (2.0 L) RW 42 02.1 02.2 03.2 03.4 04.1 04.2
NOTE: JB2-14, JB196-5 – Manual Transmission only.
F29 7.5A IP202-5 GB GB 43 08.3 08.4
F32 5A IP203-4 WR WR 44 20.1 20.2 20.3
F33 5A CA204-13 N N 45 18.1
IP203-6
F34 10A JB220-2 GB JB1-2 GB 46 08.3 08.4
IP201-3 WR WR 47 08.11
F39 10A IP201-4 WR IPS76 WR 48 06.1 06.2
NOTE: IPS76 – Manual Climate Control only.
IP202-3 WR
49 06.1
F50 5A IP201-12 WR WR 50 04.1 04.2
(2.5 L, 3.0 L, 2.0 L D) NR JB2-2 NR PAS3 NR 51 03.1 03.5 03.6 05.1 05.2 05.3 08.3 08.4
NOTE: PAS3 – Speed Control only.
NR 52 03.2 03.6
F51 7.5A JB220-11 NR (2.0 L) NR JB196-2 NR PAS3 NR 53 03.4
NR 54 03.3 03.4 05.1 05.2 05.3 08.3 08.4
F52 15A IP202-8 OY OY 55 19.1
F40 5A CA209-1 WU CA36-12 BR 56 10.1
WU 57 14.2
CA209-2 GU CA30-5 GU 58 14.1
CA208-12 GU CA20-9 GU 59 14.1
CA209-8 GW CA25-5 GW 60 14.1
GW 61 14.1
CA209-7 GW CA15-9 GW DDS3 GW 62 10.2 10.3 14.1
IP202-16 GR GR 63 17.1 17.2
F41 5A CA209-11 GR CA70-3 GR 64 17.1 17.2
F53 10A IP202-15 G G 65 17.1 17.2
F54 5A IP202-13 GR GR 66 07.1



NOTE: CAS19 – Sports Brake only.

NOTE: "Battery Saver" provides automatic switch-off of the Courtesy Lamps after 10 minutes and automatic switch-off of the Demand Lighting and Audible Warning after 30 minutes.

GEM timers are started when the Ignition Key has been switched to the I (Accessory) or 0 (Off) position. When the timers expire at 10 and 30 minutes, the feature(s) is/are switched off.

When one of the following actions is detected, all features are enabled, and the Battery Saver timer is reset:

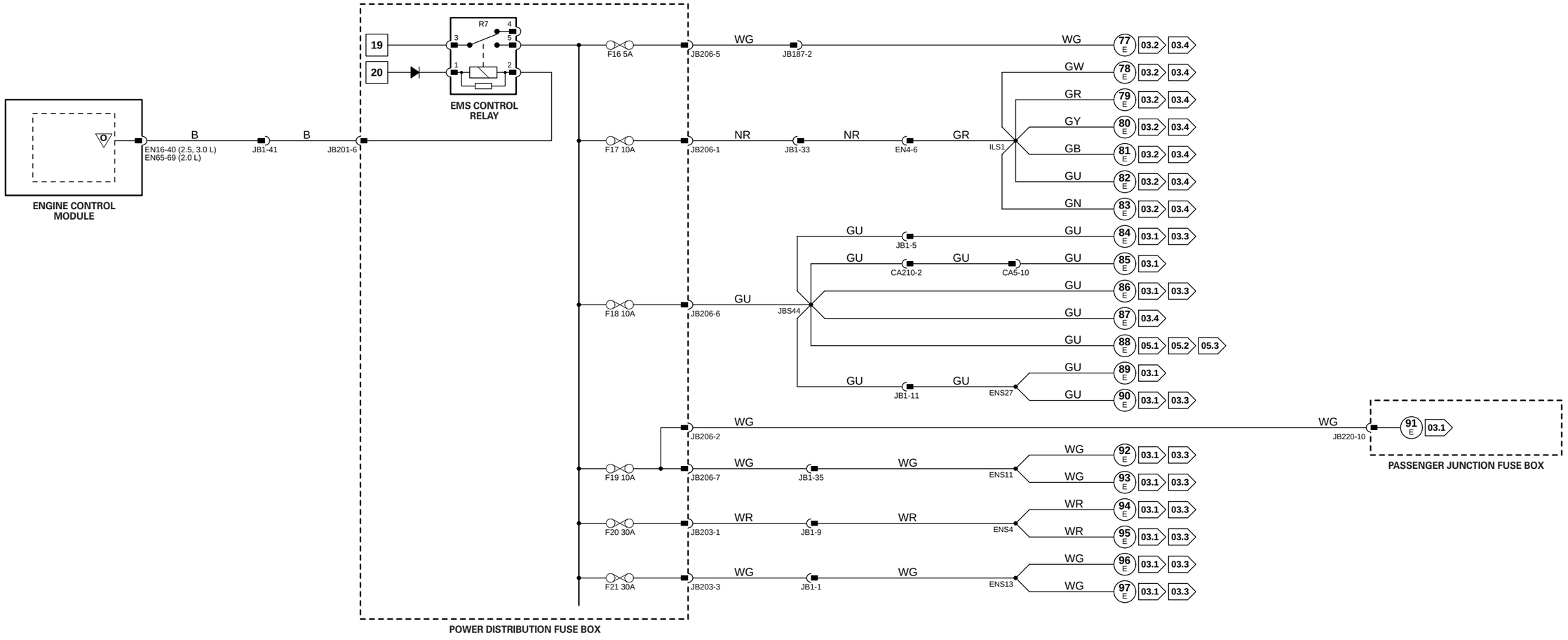
- The Ignition is switched to II (run) or III (start).
- Any door or trunk lid becomes ajar or is opened.
- Any unlock is activated.

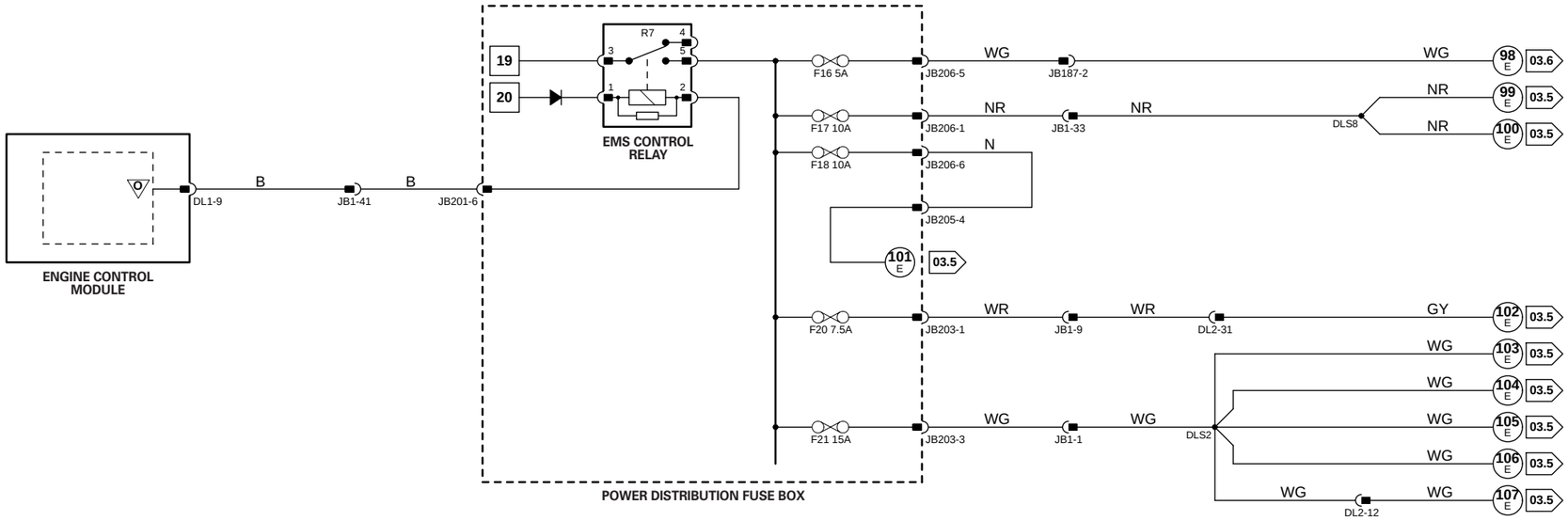
Battery Saver is also active when GEM diagnostic mode is entered.

1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 (I) → 10 (I) Fig. 01.4
11 (U) → 31 (U) Fig. 01.5
32 (II) → 66 (II) Fig. 01.6
67 (B) → 76 (B) Fig. 01.7
77 (E) → 97 (E) Fig. 01.8
98 (E) → 107 (E) Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

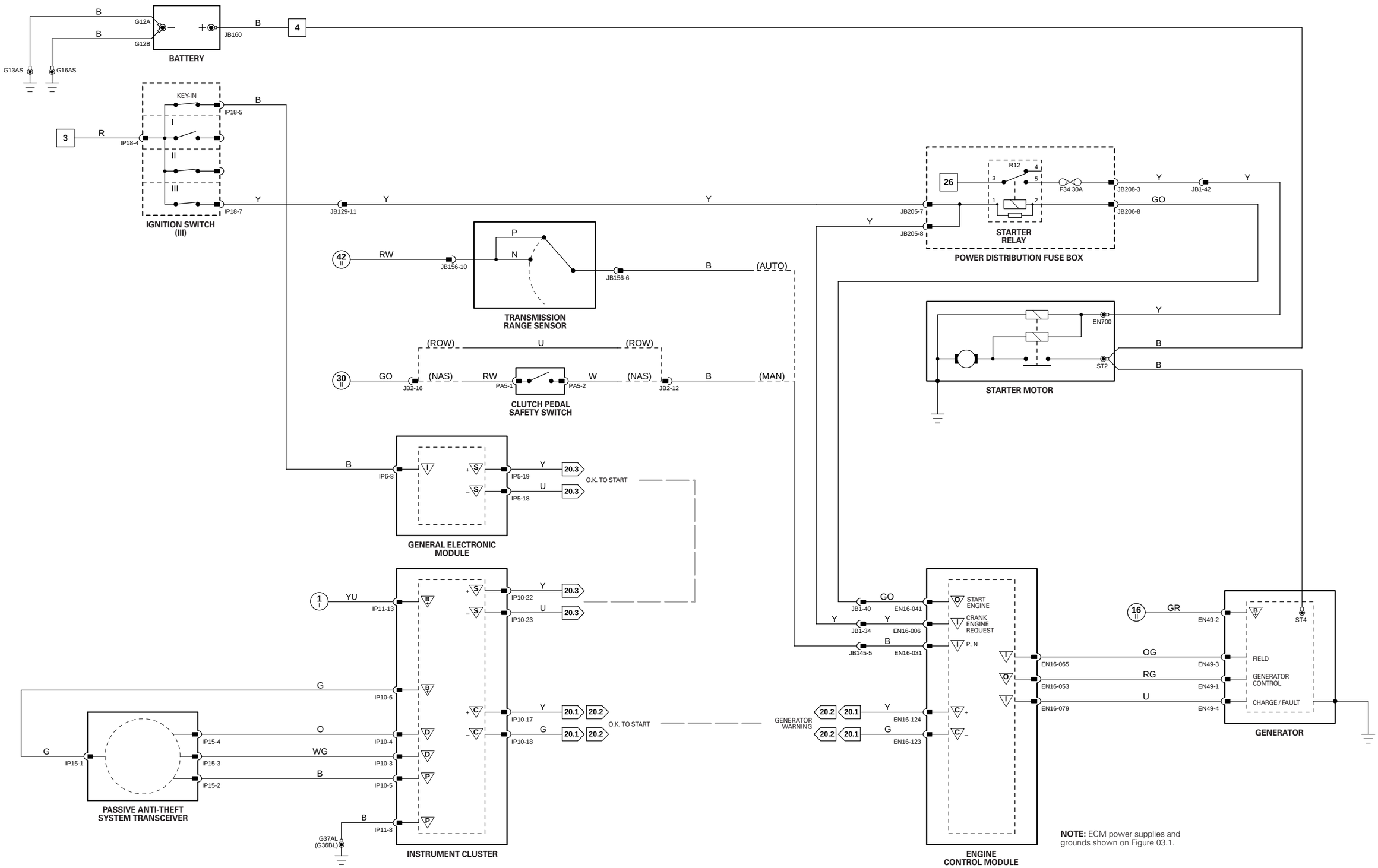
VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)


ENGINE CONTROL MODULE
B
EN16-40 (2.5, 3.0 L)
EN65-69 (2.0 L)
JB1-41
B
JB201-6
19
20
R7
3
4
5
1
2
EMS CONTROL RELAY
F16 5A
JB206-5
WG
JB187-2
WG
77 E
03.2
03.4
GW
78 E
03.2
03.4
GR
79 E
03.2
03.4
GY
80 E
03.2
03.4
GB
81 E
03.2
03.4
GU
82 E
03.2
03.4
GN
83 E
03.2
03.4
F17 10A
JB206-1
NR
JB1-33
NR
EN4-6
GR
ILS1
F18 10A
JB206-6
GU
JBS44
GU
JB1-5
GU
84 E
03.1
03.3
GU
CA210-2
GU
CA5-10
GU
85 E
03.1
GU
86 E
03.1
03.3
GU
87 E
03.4
GU
88 E
05.1
05.2
05.3
GU
JB1-11
GU
ENS27
GU
89 E
03.1
GU
90 E
03.1
03.3
F19 10A
JB206-2
WG
JB206-7
WG
JB1-35
WG
ENS11
WG
92 E
03.1
03.3
WG
93 E
03.1
03.3
F20 30A
JB203-1
WR
JB1-9
WR
ENS4
WR
94 E
03.1
03.3
WR
95 E
03.1
03.3
F21 30A
JB203-3
WG
JB1-1
WG
ENS13
WG
96 E
03.1
03.3
WG
97 E
03.1
03.3
WG
JB220-10
91 E
03.1
PASSENGER JUNCTION FUSE BOX
POWER DISTRIBUTION FUSE BOX



1 → 6 Fig. 01.1 7 → 33 Fig. 01.2	34 → 79 Fig. 01.3 1 (I) → 10 (I) Fig. 01.4	11 (III) → 31 (III) Fig. 01.5 32 (III) → 66 (III) Fig. 01.6	67 (B) → 76 (B) Fig. 01.7 77 (E) → 97 (E) Fig. 01.8	98 (E) → 107 (E) Fig. 01.9	I Input O Output	B Battery Voltage P Power Ground	+ Sensor/Signal Supply V − Sensor/Signal Ground	A CAN C SCP	S D2B Network D Serial and Encoded Data

VARIANT: Diesel Engine Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

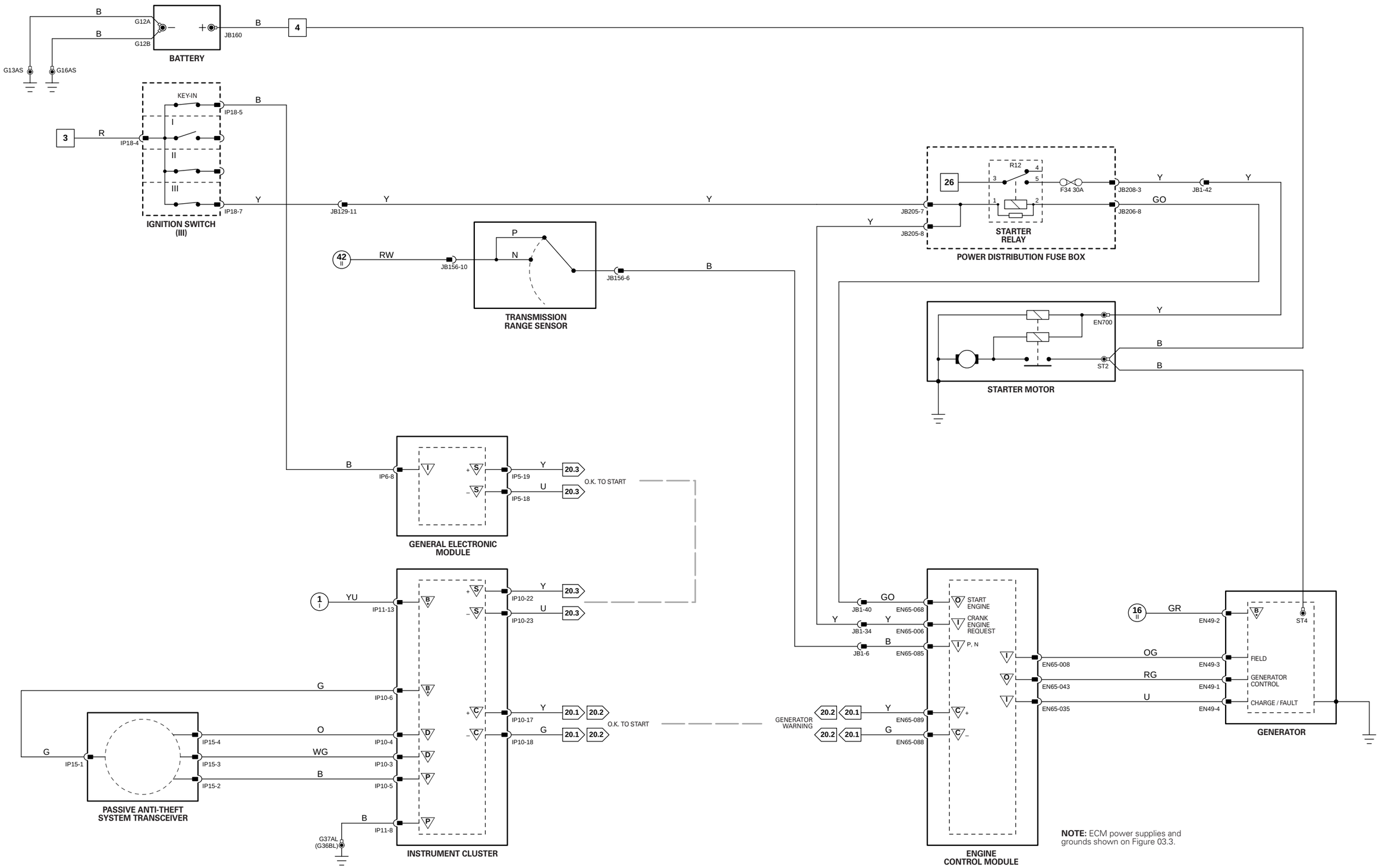


NOTE: ECM power supplies and grounds shown on Figure 03.1.

1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

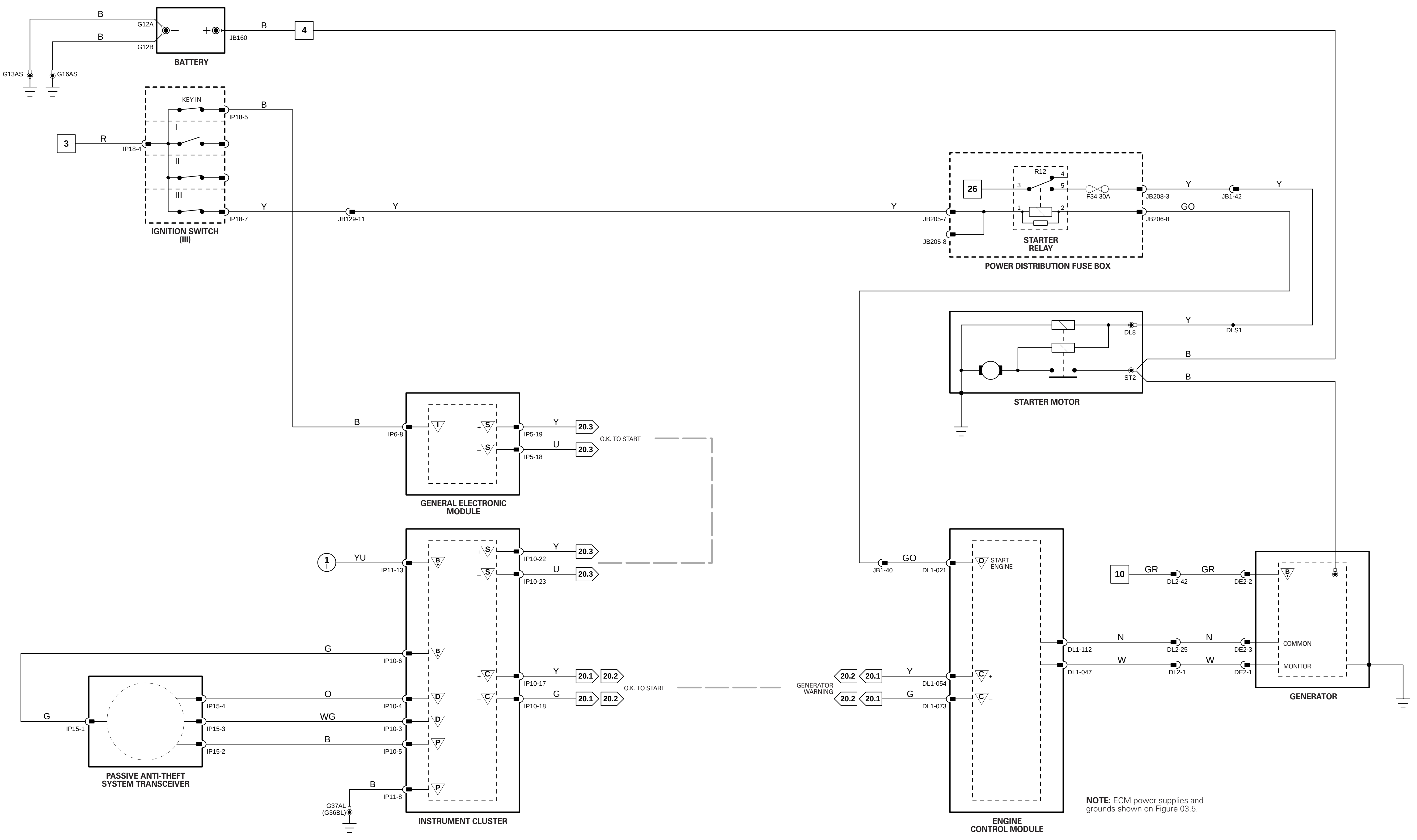
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: 2.5 L & 3.0 L Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	− Sensor/Signal Ground	C SCP	D Serial and Encoded Data

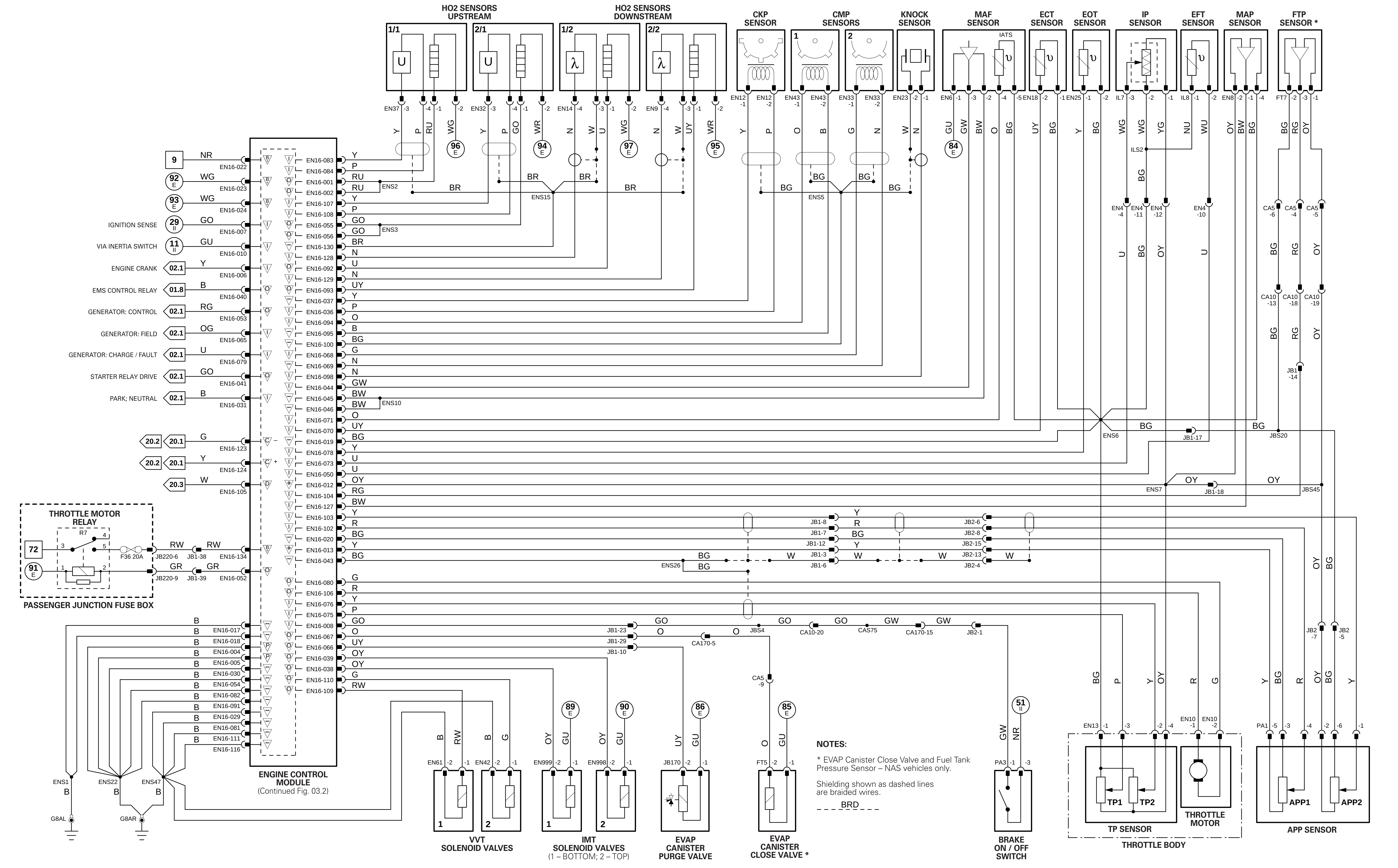
VARIANT: 2.0 L Gasoline Engine Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

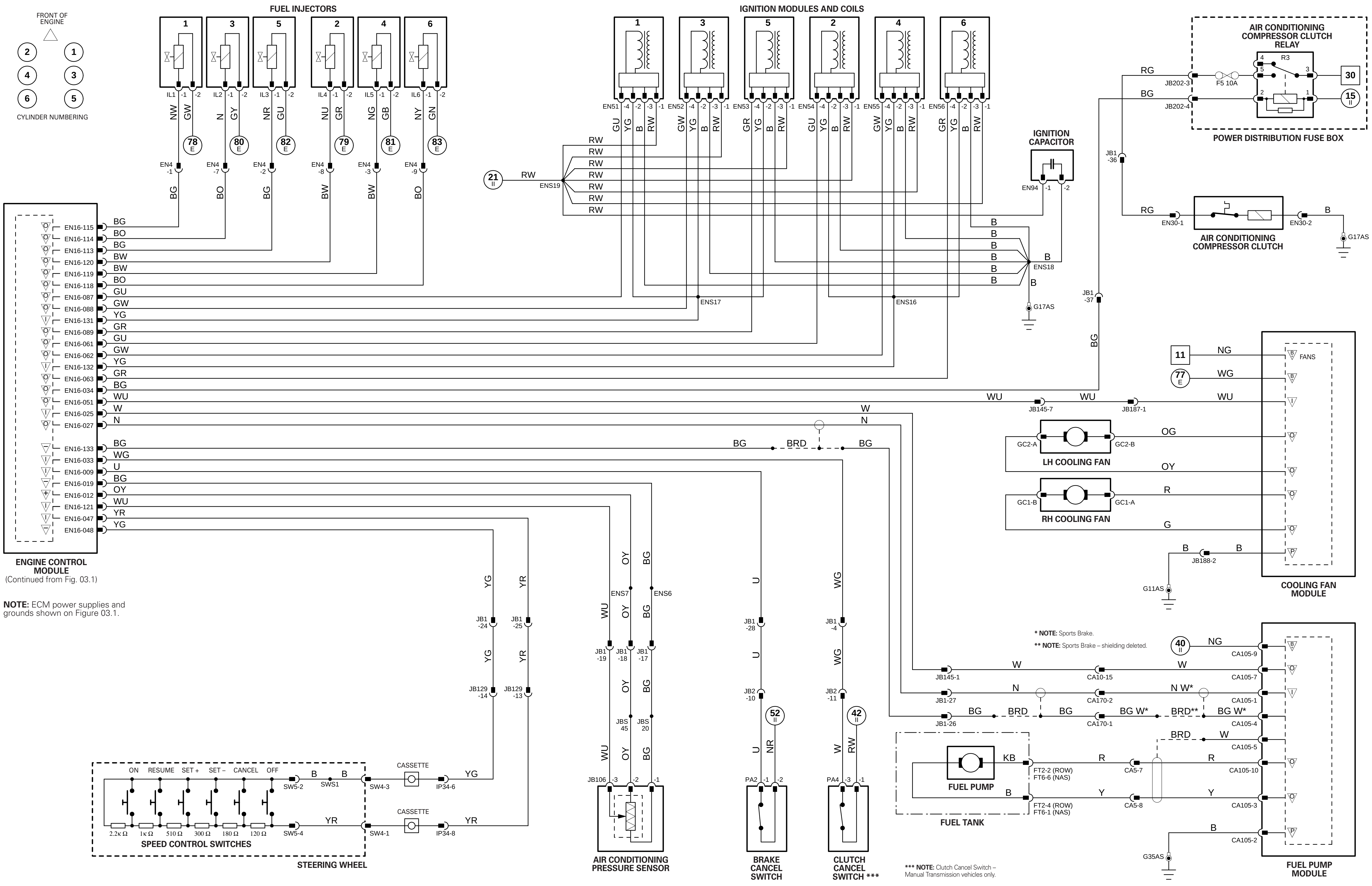
VARIANT: 2.0 L Diesel Engine Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 → 31 Fig. 01.5	67 → 76 Fig. 01.7	98 → 107 Fig. 01.9
7 → 33 Fig. 01.2	1 → 10 Fig. 01.4	32 → 66 Fig. 01.6	77 → 97 Fig. 01.8	

I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN / S D2B Network
O Output	P Power Ground	– Sensor/Signal Ground	C SCP / D Serial and Encoded Data

VARIANT: 2.5 L & 3.0 L Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

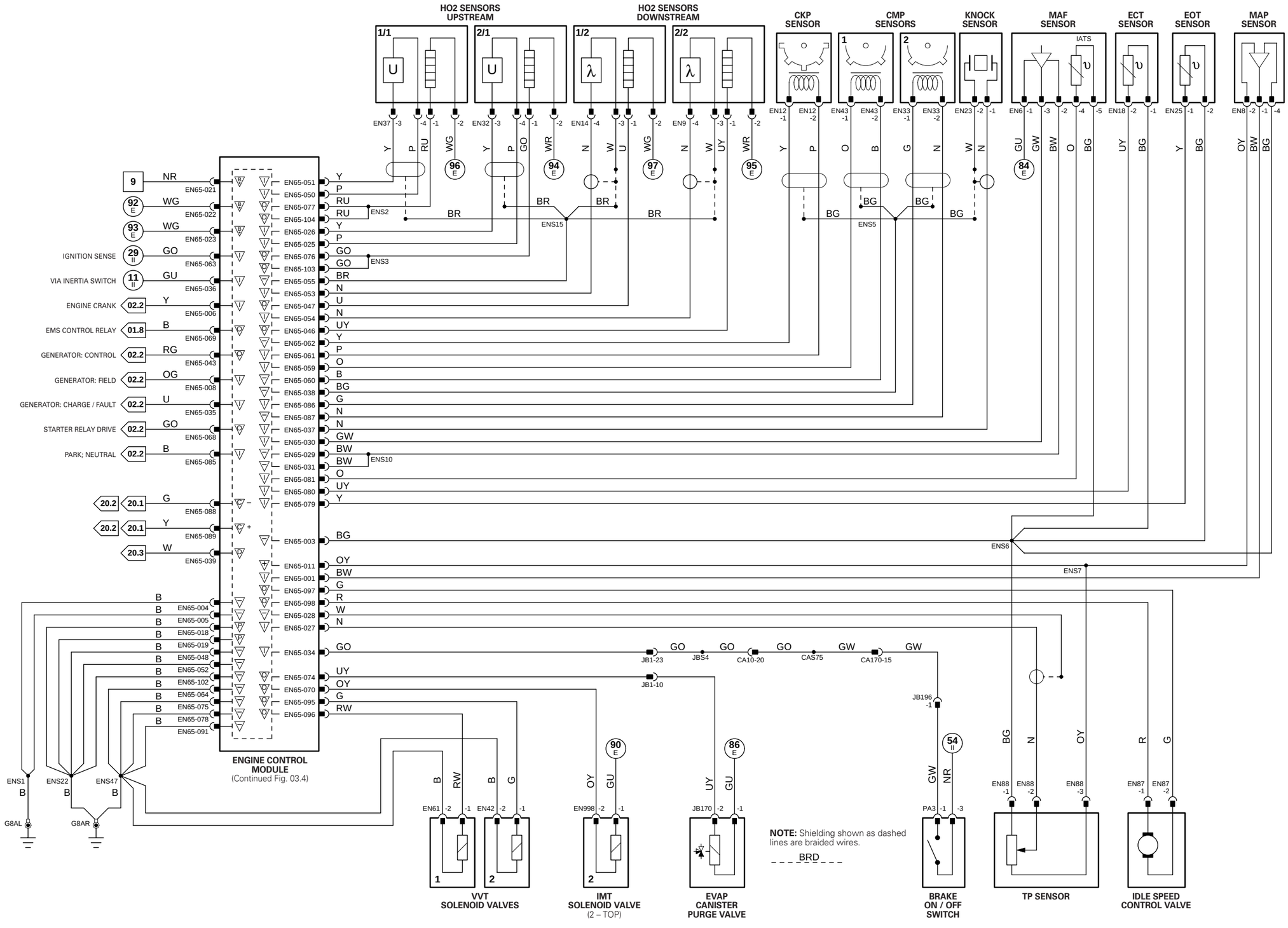


1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 → 31 Fig. 01.5	67 → 76 Fig. 01.7	98 → 107 Fig. 01.9
7 → 33 Fig. 01.2	1 → 10 Fig. 01.4	32 → 66 Fig. 01.6	77 → 97 Fig. 01.8	

I Input; O Output; B Battery Voltage; P Power Ground; + Sensor/Signal Supply V; – Sensor/Signal Ground; A CAN; C SCP; S D2B Network; D Serial and Encoded Data

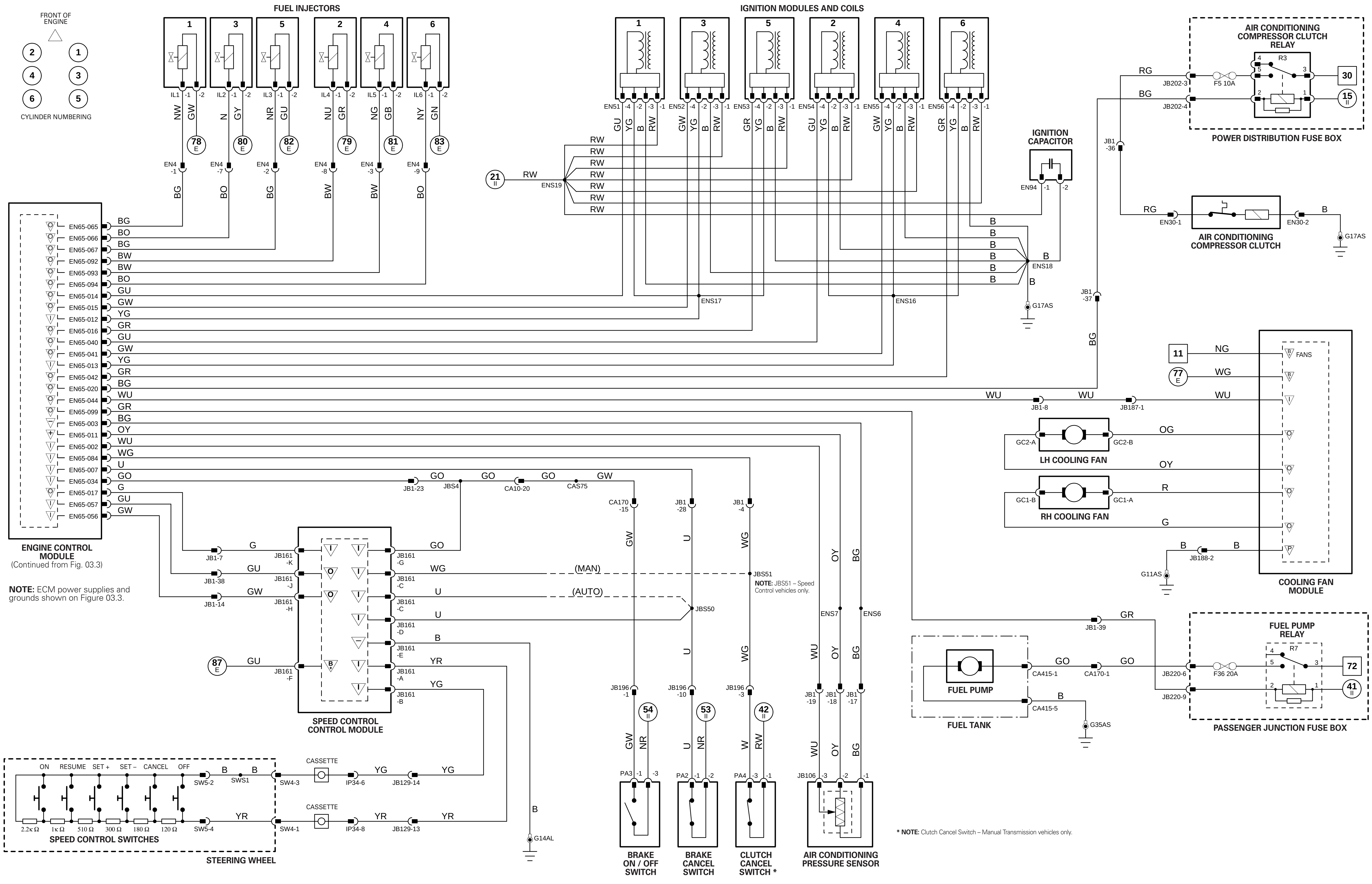
VARIANT: 2.5 L & 3.0 L Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

Engine Management: 2.0 L – Part 1



1 → 6	Fig. 01.1	34 → 79	Fig. 01.3	11 → 31	Fig. 01.5	67 → 76	Fig. 01.7	98 → 107	Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33	Fig. 01.2	1 → 10	Fig. 01.4	32 → 66	Fig. 01.6	77 → 97	Fig. 01.8			O Output	P Power Ground	– Sensor/Signal Ground	C SCP	D Serial and Encoded Data

VARIANT: 2.0 L Gasoline Engine Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



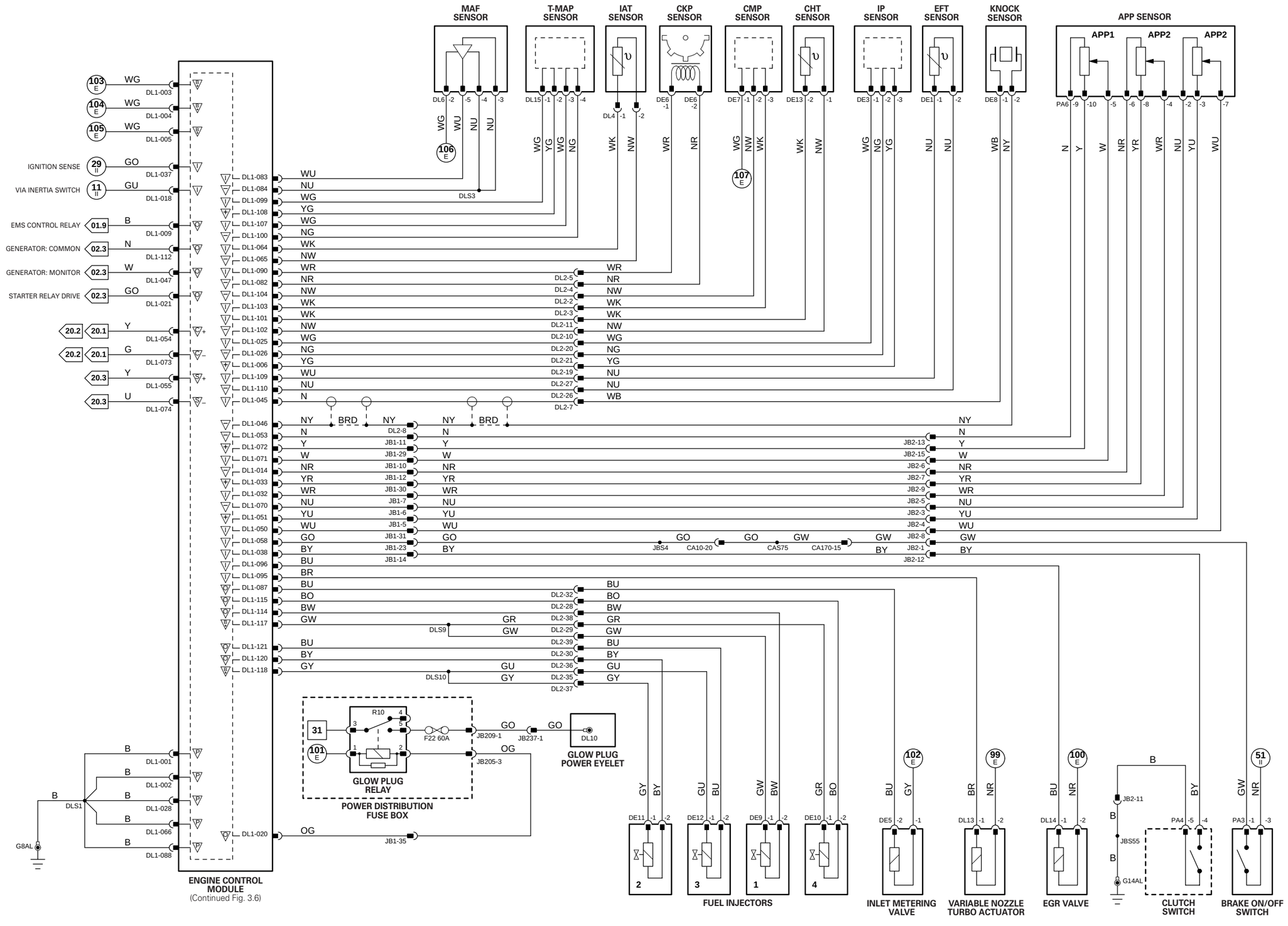
1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 → 31 Fig. 01.5	67 → 76 Fig. 01.7	98 → 107 Fig. 01.9	
7 → 33 Fig. 01.2	1 → 10 Fig. 01.4	32 → 66 Fig. 01.6	77 → 97 Fig. 01.8		

I Input — B Battery Voltage — + Sensor/Signal Supply V — A CAN — S D2B Network

O Output — P Power Ground — – Sensor/Signal Ground — C SCP — D Serial and Encoded Data

VARIANT: 2.0 L Gasoline Engine Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

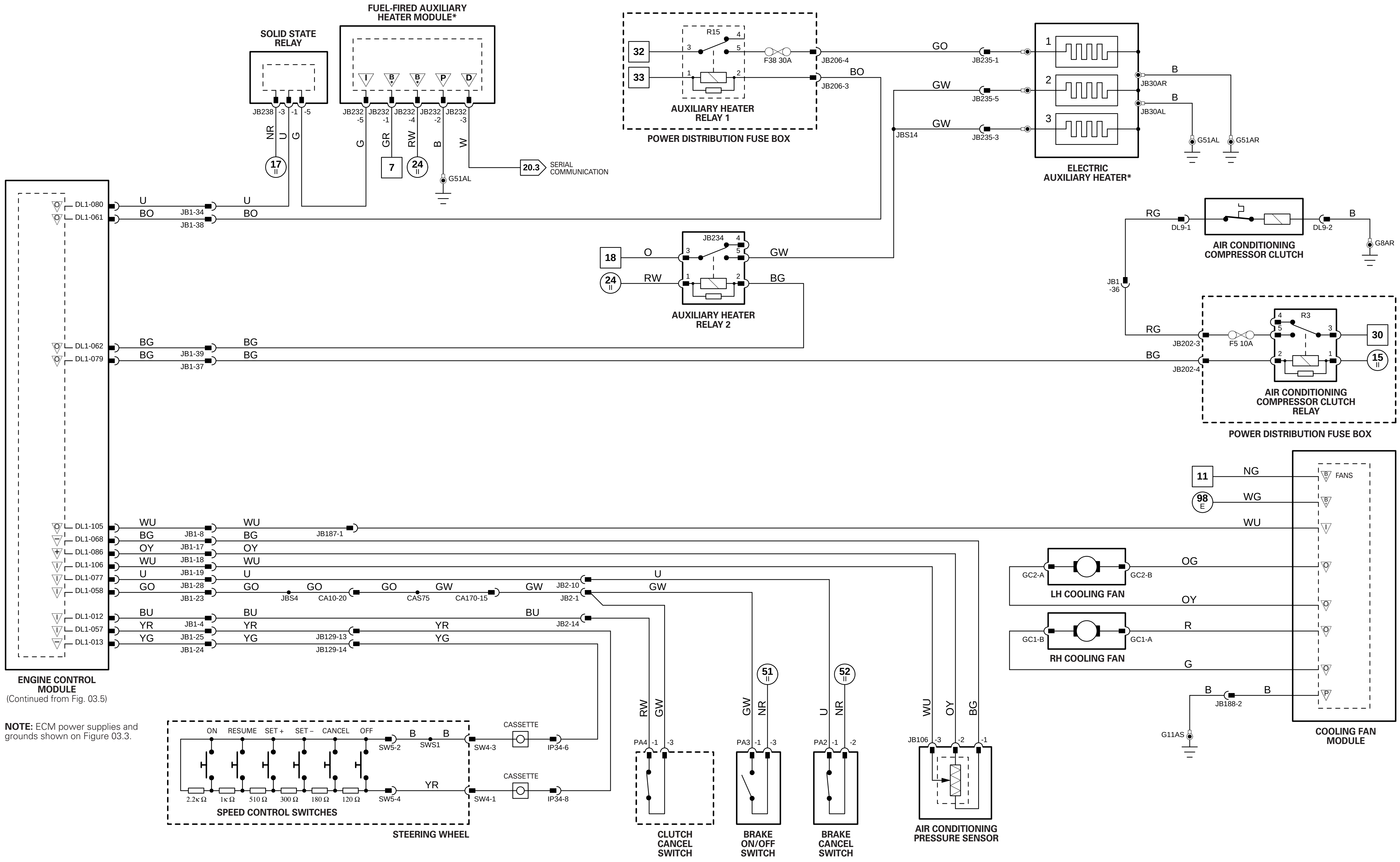
Engine Management: 2.0 L D – Part 1



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 → 31 Fig. 01.5	67 → 76 Fig. 01.7	98 → 107 Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 → 10 Fig. 01.4	32 → 66 Fig. 01.6	77 → 97 Fig. 01.8		O Output	P Power Ground	– Sensor/Signal Ground	C SCP	D Serial and Encoded Data

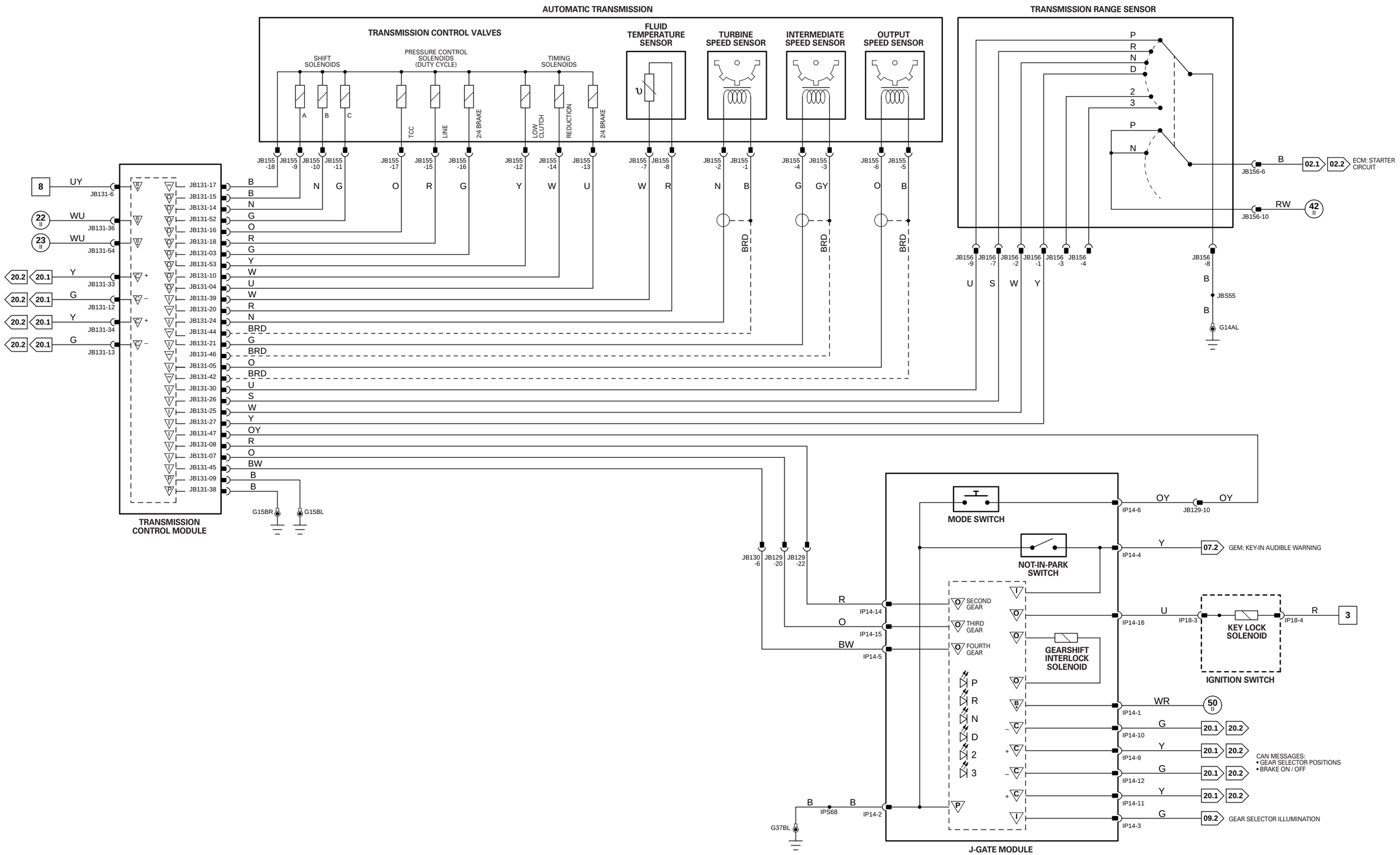
VARIANT: 2.0 L Diesel Engine Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

NOTE: Either Fuel-Fired Auxiliary Heater or Electric Auxiliary Heater fitted.



I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: 2.0 L Diesel Engine Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

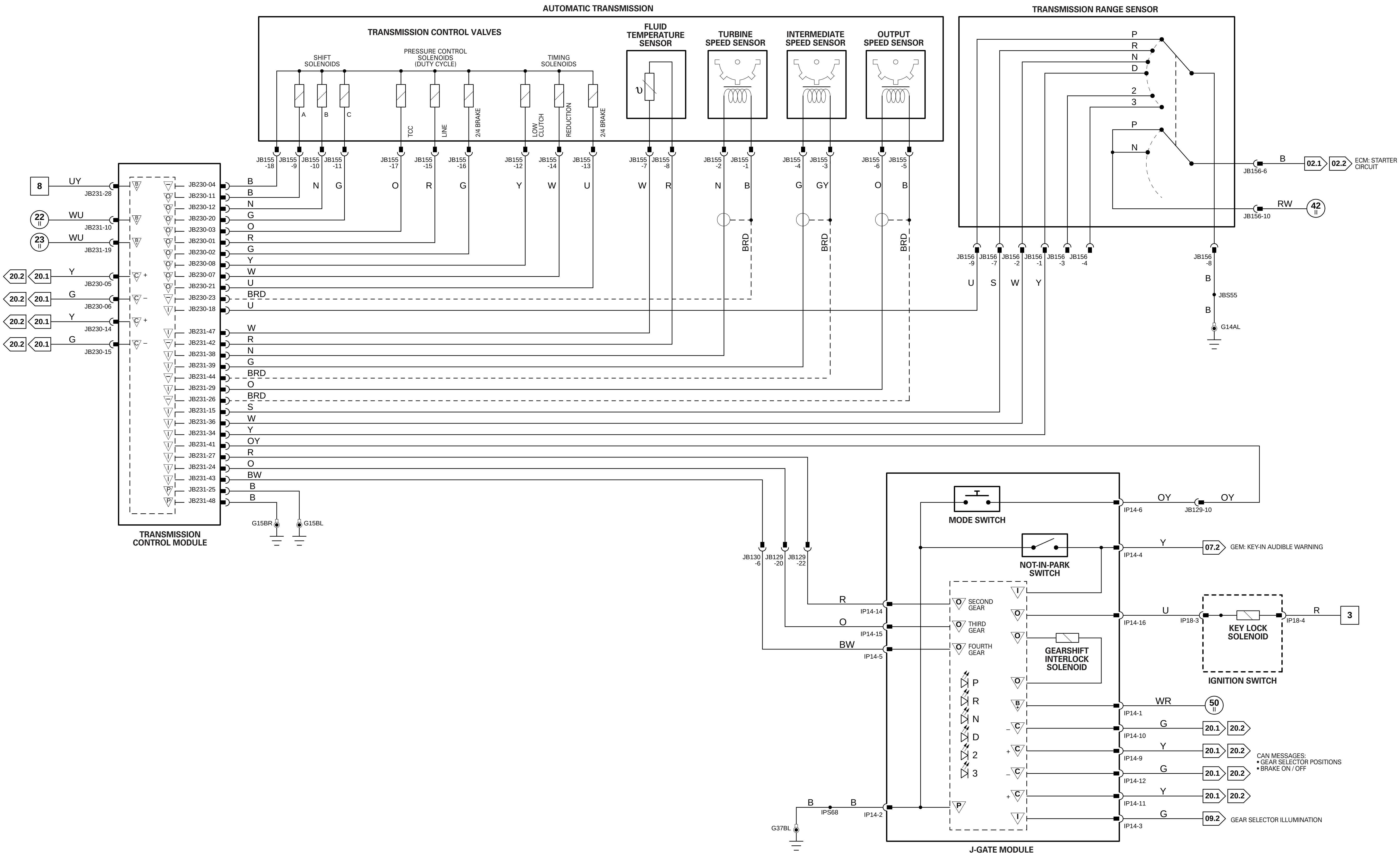


1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: 16-Bit TCM Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

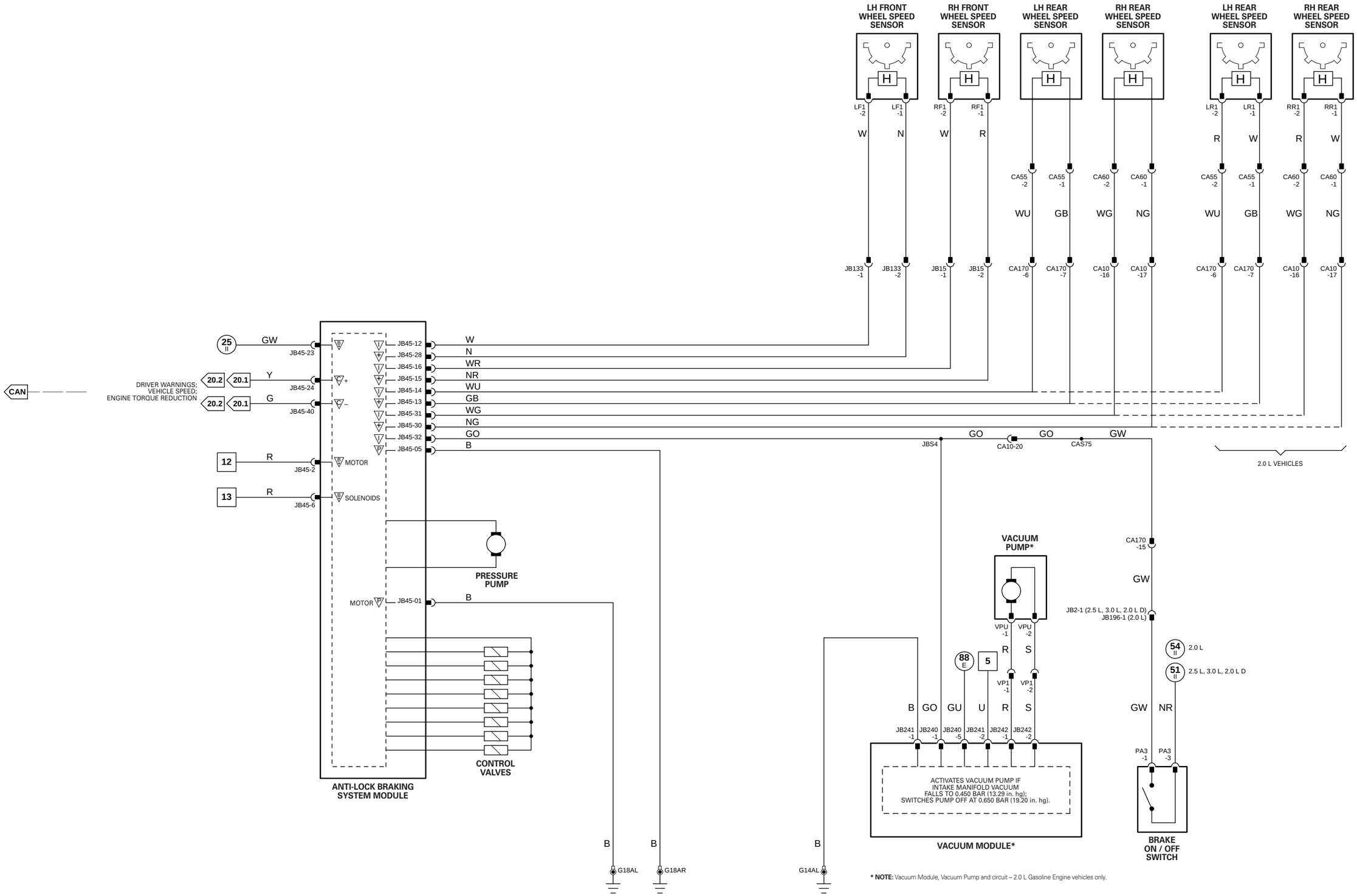
Automatic Transmission: 32-Bit TCM



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 → 31 Fig. 01.5	67 → 76 Fig. 01.7	98 → 107 Fig. 01.9	
7 → 33 Fig. 01.2	1 → 10 Fig. 01.4	32 → 66 Fig. 01.6	77 → 97 Fig. 01.8		

I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN · S D2B Network
O Output	P Power Ground	– Sensor/Signal Ground	C SCP · D Serial and Encoded Data

VARIANT: 32-Bit TCM Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

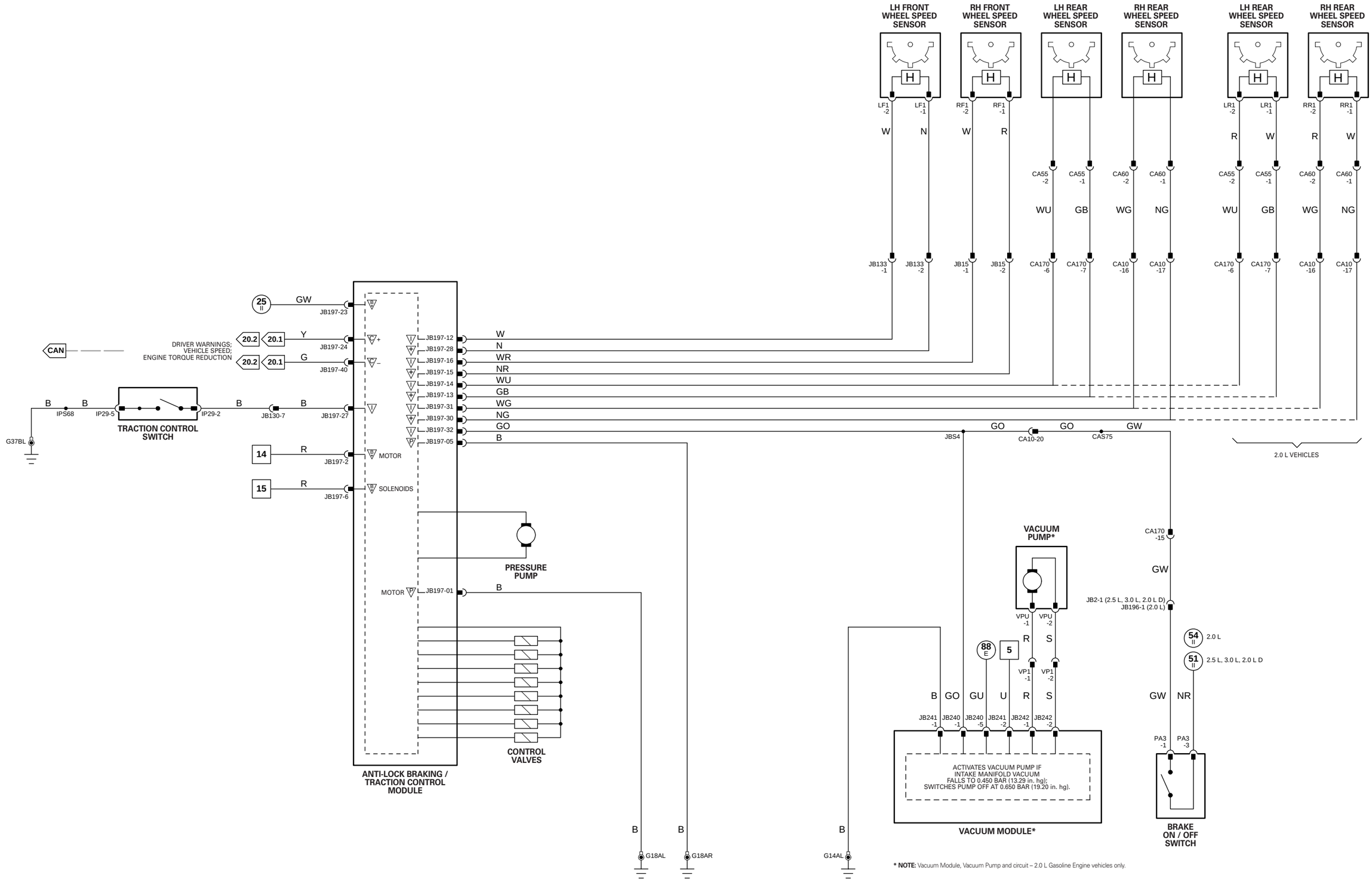


* **NOTE:** Vacuum Module, Vacuum Pump and circuit – 2.0 L Gasoline Engine vehicles only.

1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 I → 10 I Fig. 01.4
11 II → 31 II Fig. 01.5
32 II → 66 II Fig. 01.6
67 B → 76 B Fig. 01.7
77 E → 97 E Fig. 01.8
98 E → 107 E Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: ABS Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

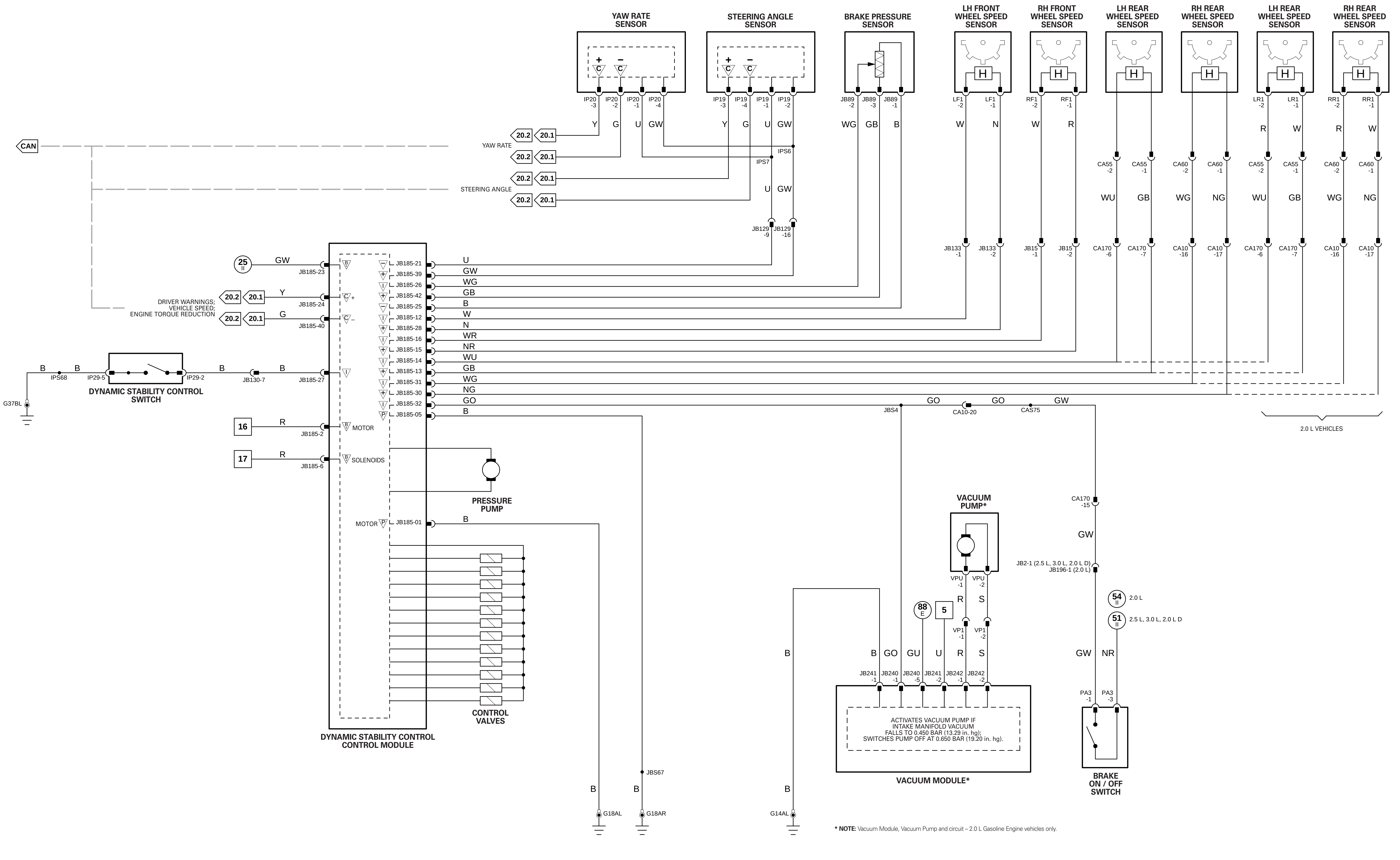


*** NOTE:** Vacuum Module, Vacuum Pump and circuit – 2.0 L Gasoline Engine vehicles only.

1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: ABS / TC Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



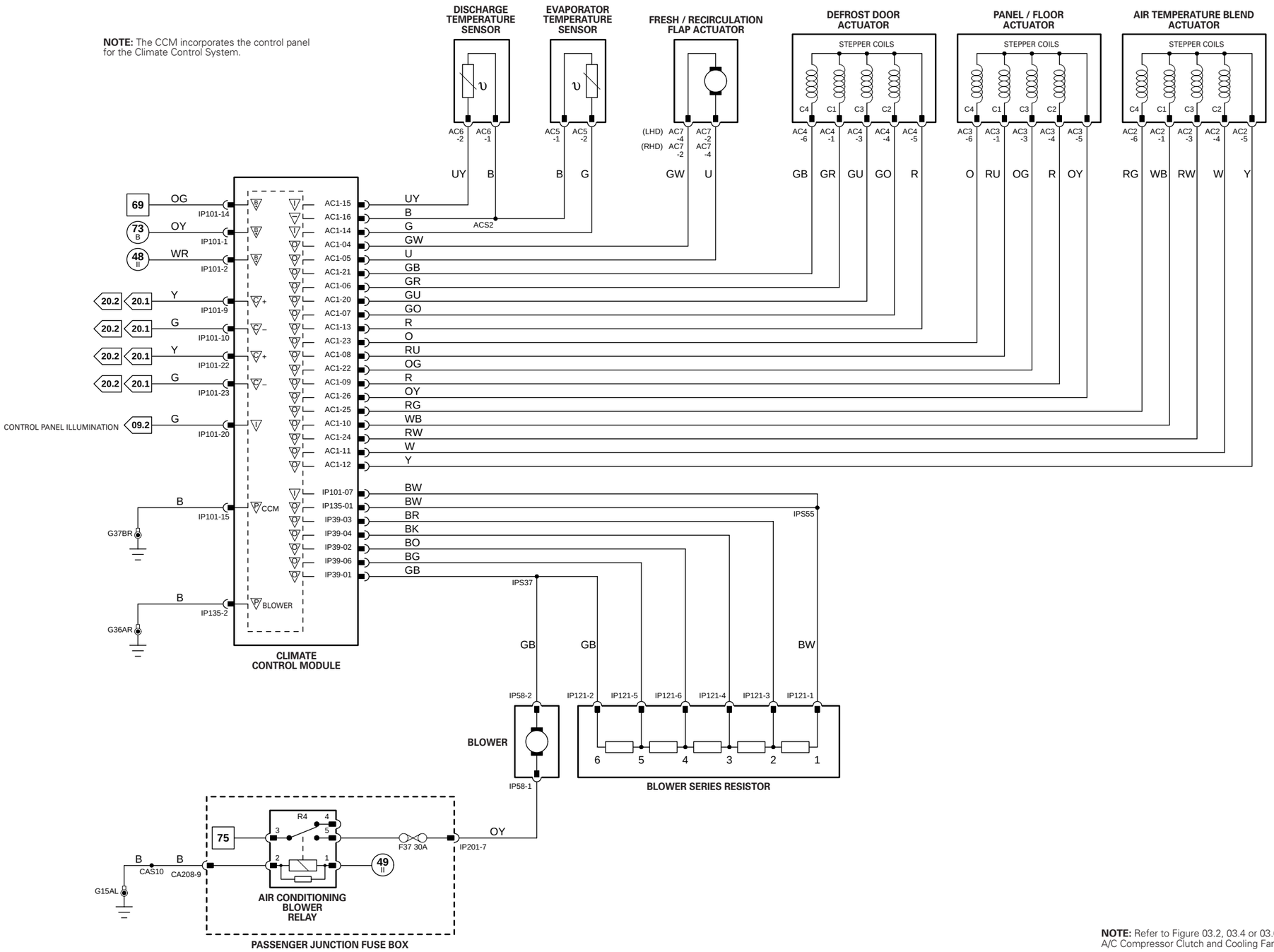
*** NOTE:** Vacuum Module, Vacuum Pump and circuit – 2.0 L Gasoline Engine vehicles only.

1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 → 31 Fig. 01.5	67 → 76 Fig. 01.7
7 → 33 Fig. 01.2	1 → 10 Fig. 01.4	32 → 66 Fig. 01.6	77 → 97 Fig. 01.8
98 → 107 Fig. 01.9			

I Input · O Output · B Battery Voltage · P Power Ground · + Sensor/Signal Supply V · − Sensor/Signal Ground · A CAN · C SCP · S D2B Network · D Serial and Encoded Data

VARIANT: DSC Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

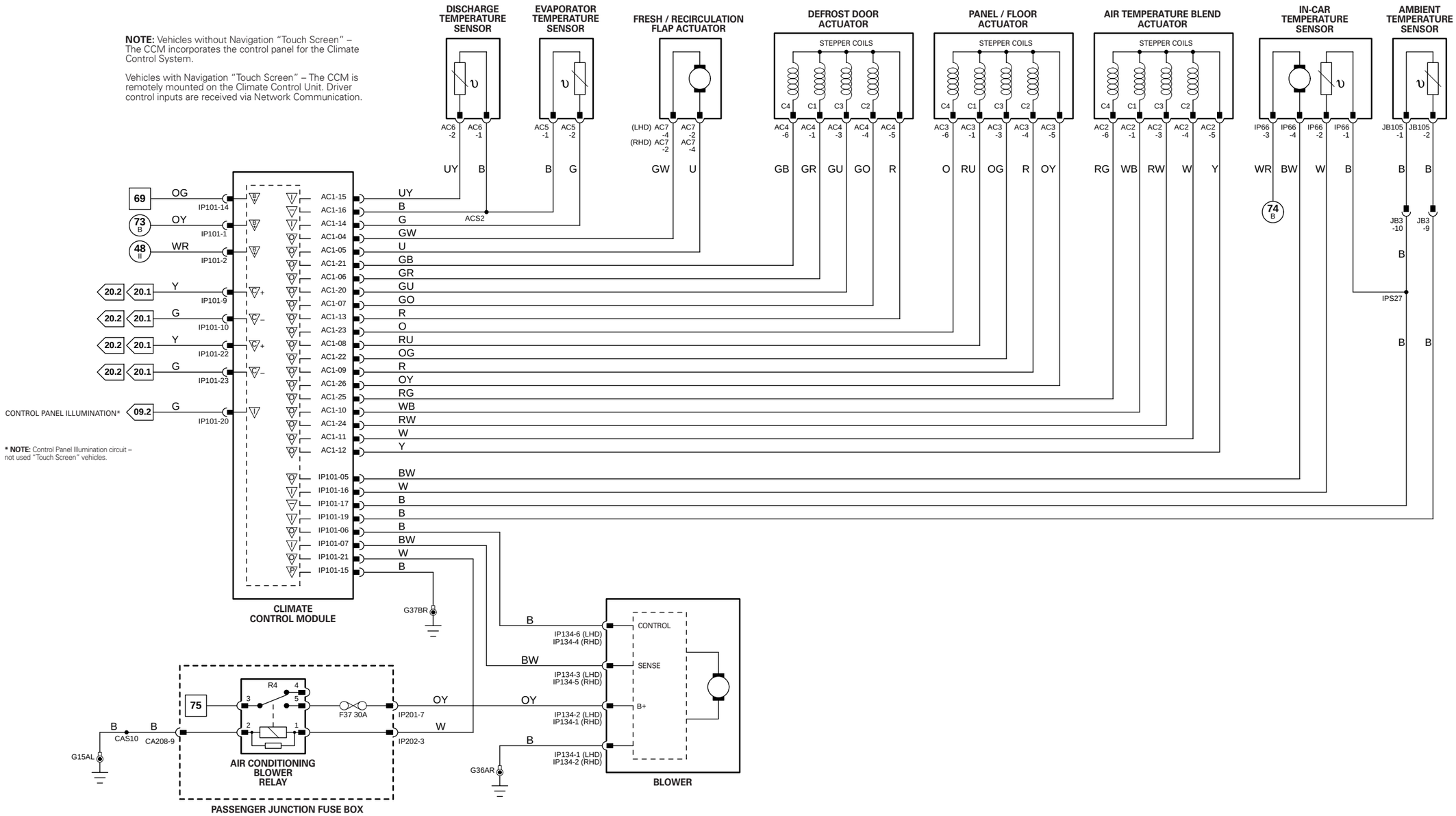
NOTE: The CCM incorporates the control panel for the Climate Control System.



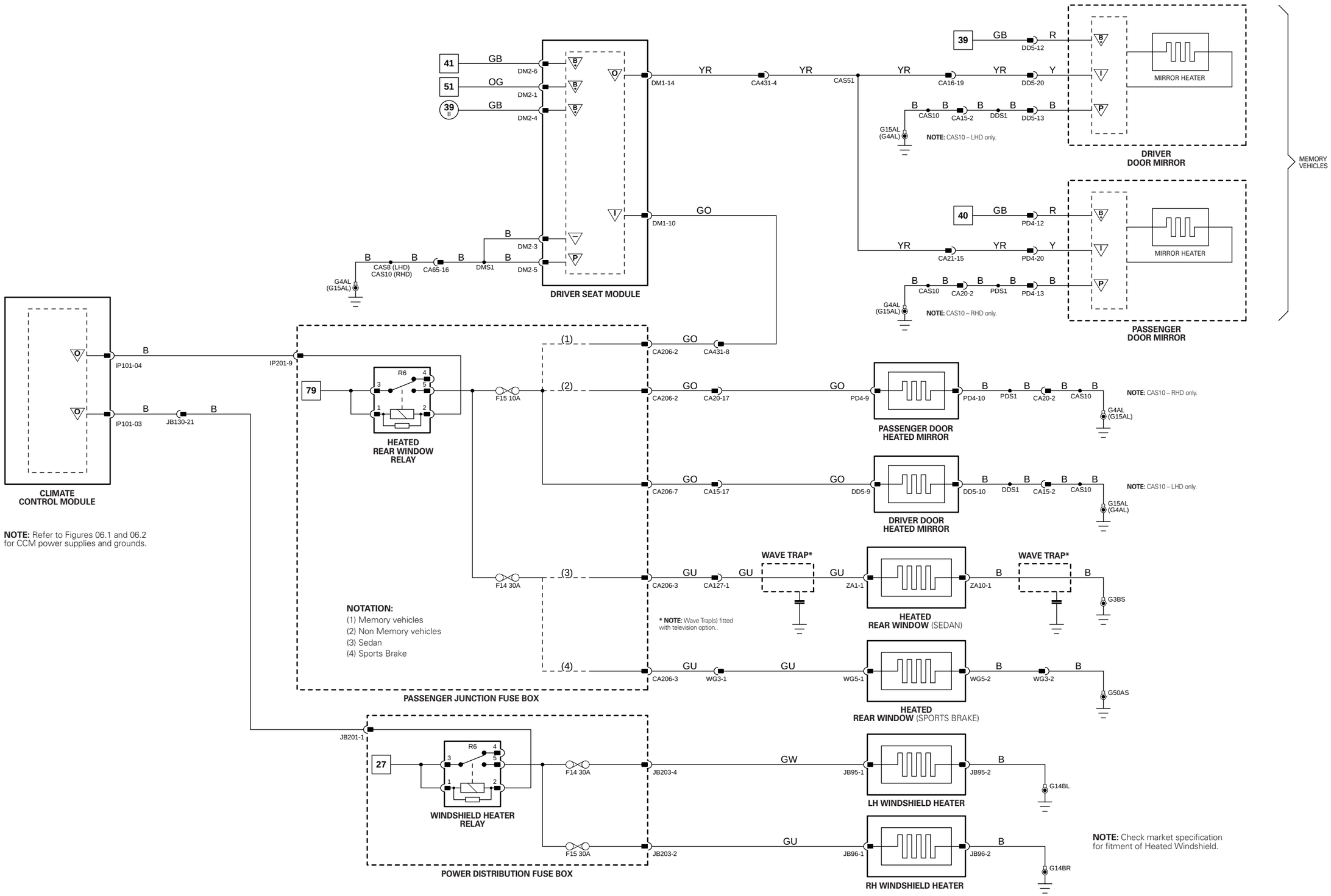
NOTE: Refer to Figure 03.2, 03.4 or 03.6 for A/C Compressor Clutch and Cooling Fan circuits.

NOTE: Vehicles without Navigation "Touch Screen" – The CCM incorporates the control panel for the Climate Control System.

Vehicles with Navigation "Touch Screen" – The CCM is remotely mounted on the Climate Control Unit. Driver control inputs are received via Network Communication.



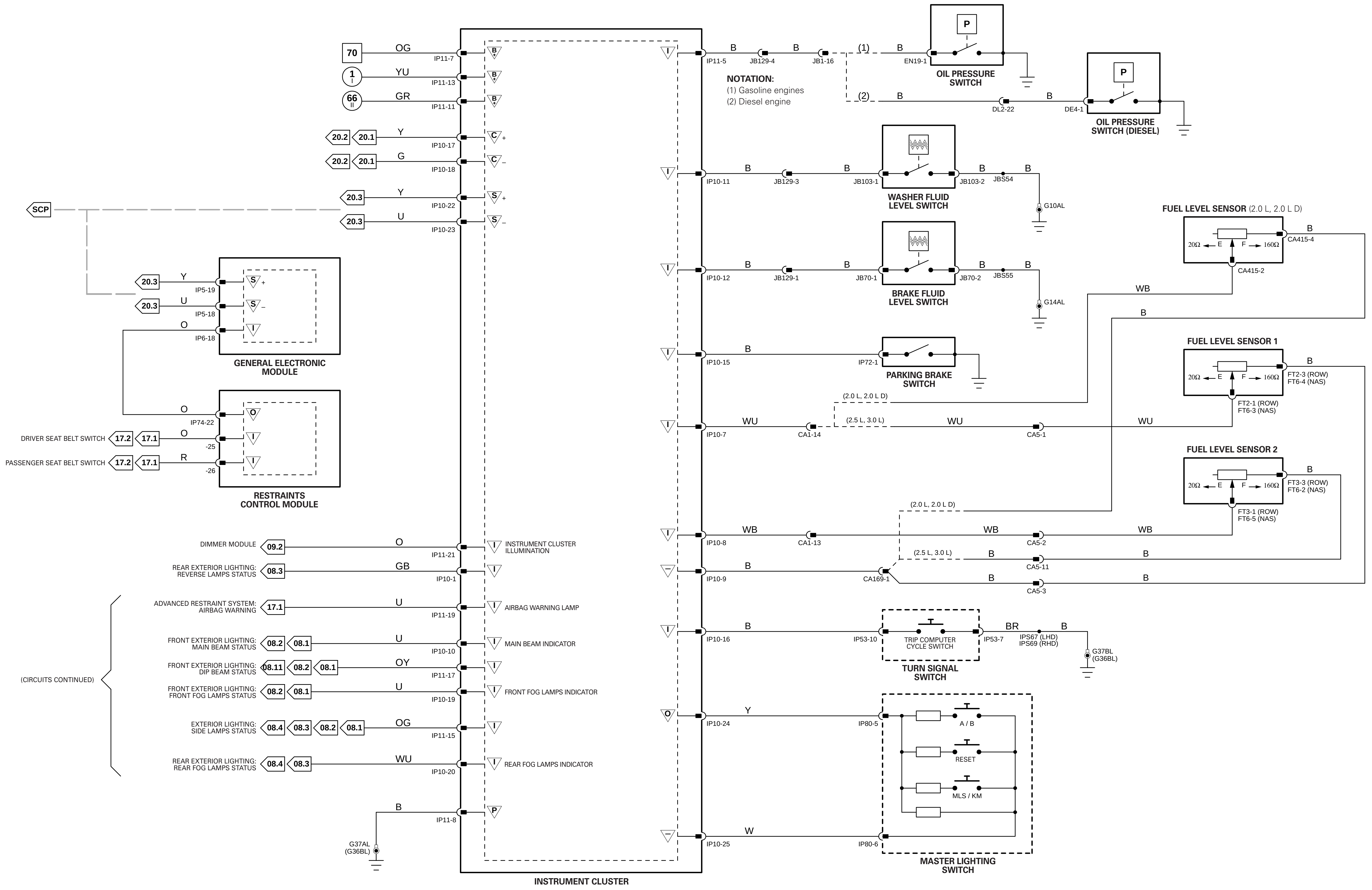
NOTE: Refer to Figure 03.2, 03.4 or 03.6 for A/C Compressor Clutch and Cooling Fan circuits.



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 II → 31 II Fig. 01.5
32 II → 66 II Fig. 01.6
67 B → 76 B Fig. 01.7
77 E → 97 E Fig. 01.8
98 E → 107 E Fig. 01.9

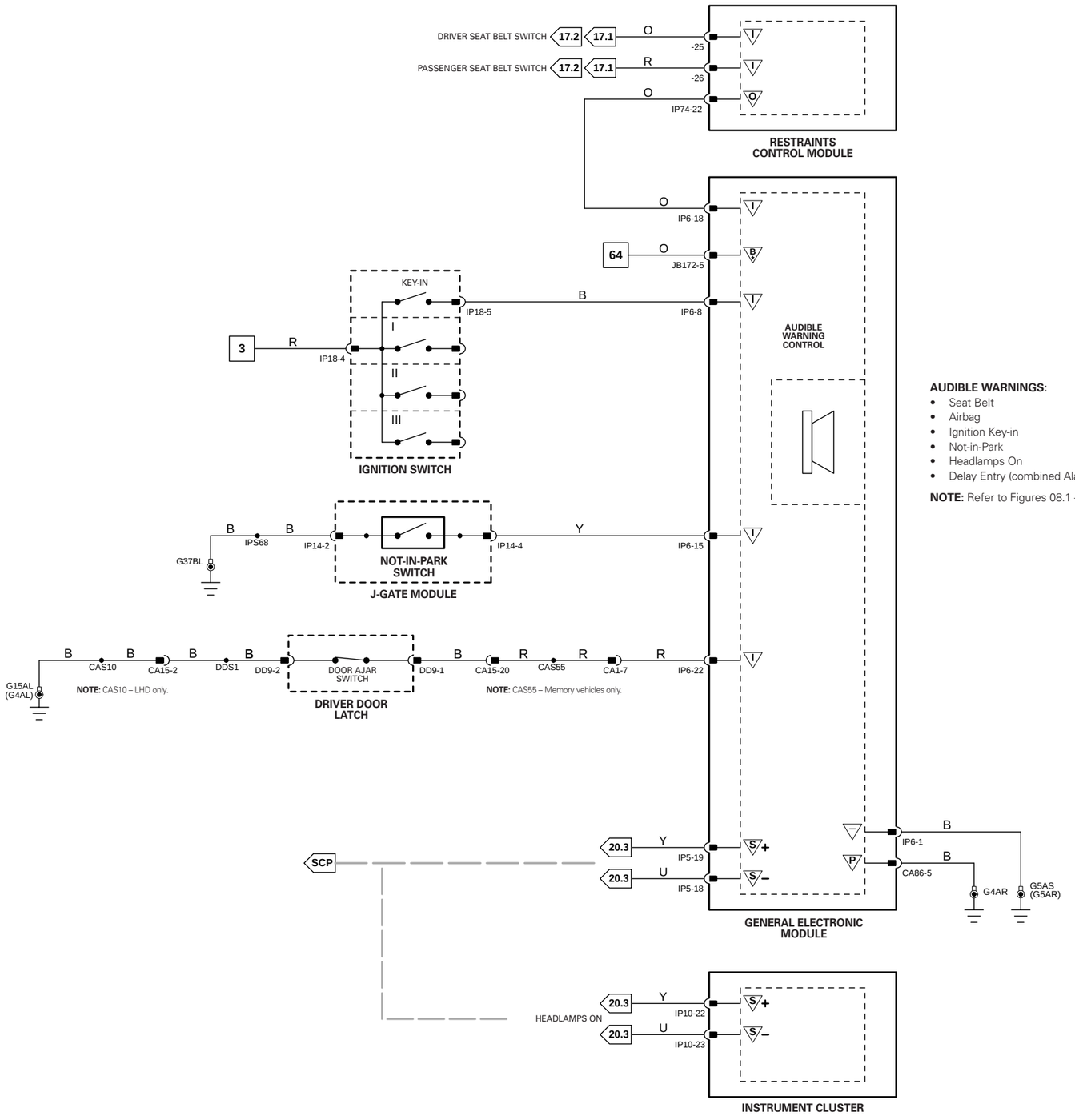
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 → 31 Fig. 01.5	67 → 76 Fig. 01.7	98 → 107 Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 → 10 Fig. 01.4	32 → 66 Fig. 01.6	77 → 97 Fig. 01.8		O Output	P Power Ground	– Sensor/Signal Ground	C SCP	D Serial and Encoded Data

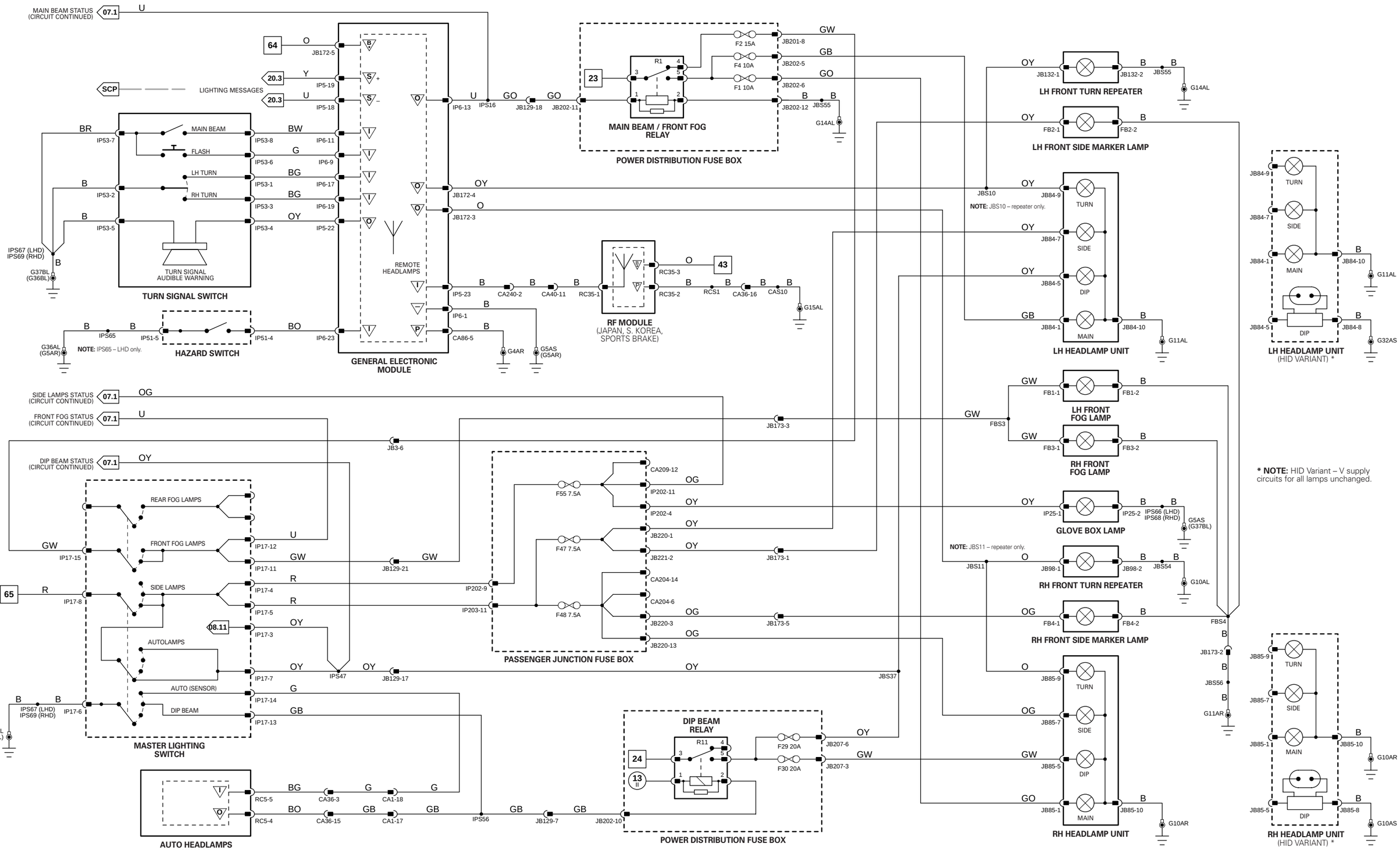
VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



AUDIBLE WARNINGS:

- Seat Belt
- Airbag
- Ignition Key-in
- Not-in-Park
- Headlamps On
- Delay Entry (combined Alarm State and Driver Door Ajar status)

NOTE: Refer to Figures 08.1 – 08.4 for Turn Signal Audible Warning.

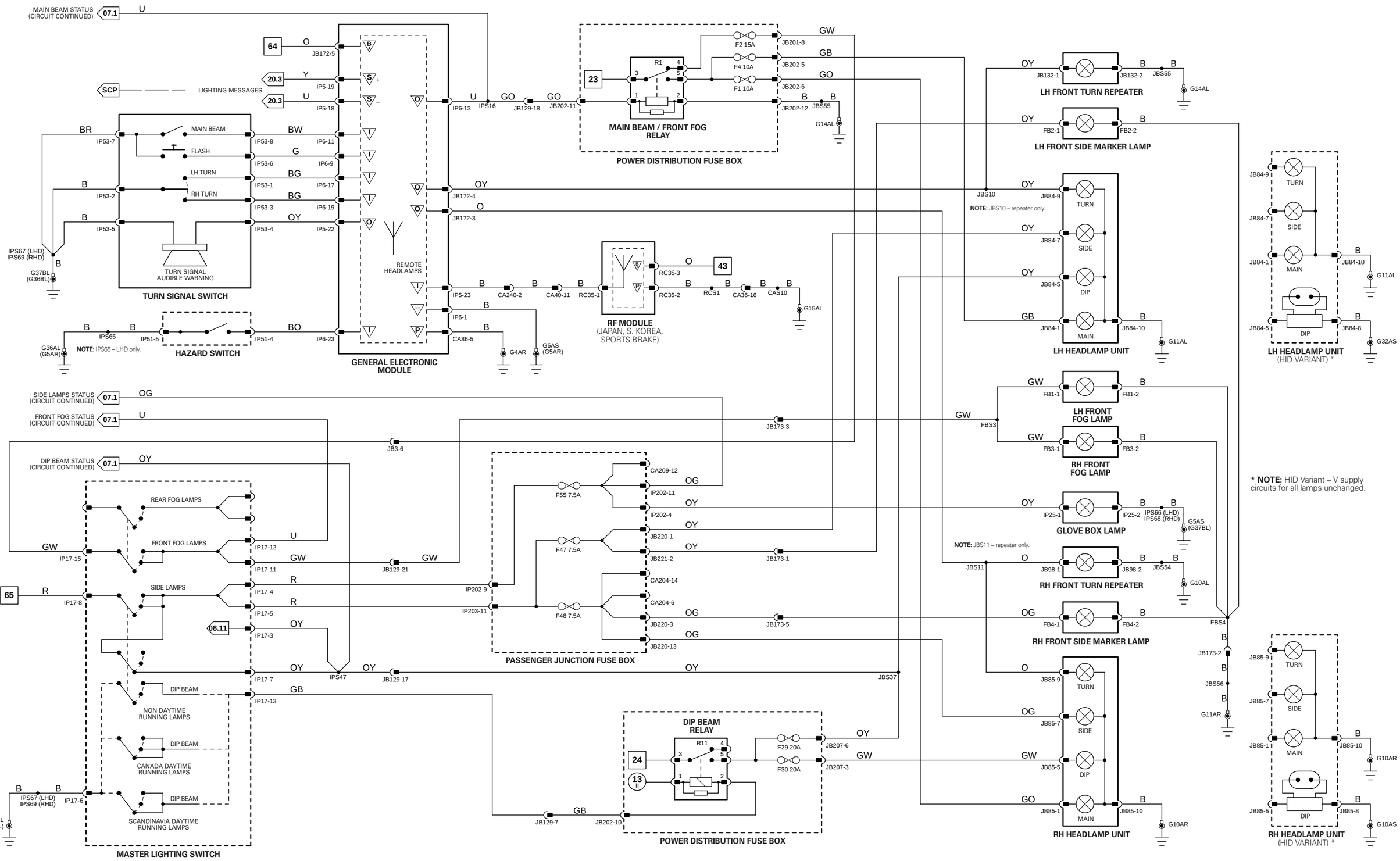


1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 (U) → 31 (U) Fig. 01.5	67 (B) → 76 (B) Fig. 01.7	98 (E) → 107 (E) Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 (I) → 10 (I) Fig. 01.4	32 (U) → 66 (B) Fig. 01.6	77 (E) → 97 (E) Fig. 01.8		O Output	P Power Ground	– Sensor/Signal Ground	C SCP	D Serial and Encoded Data

VARIANT: Auto Headlamp Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

Exterior Lighting: Front – Non Autolamps; Daytime Running Lamps

Fig. 08.2



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
\+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Non Autolamp Daytime Running Lamp Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

ELECTROCHROMIC MIRROR: REVERSE LAMPS ACTIVATED 10.1 GB

PARKING AID: REVERSE LAMPS ACTIVATED 18.1 GB

(CIRCUITS CONTINUED)

CAN — REVERSE GEAR (AUTO) — 20.2 20.1 Y IP10-17 (C+); 20.2 20.1 G IP10-18 (C−)

NOTE: Refer to Figure 07.1 for Instrument Cluster power supplies and grounds.

INSTRUMENT CLUSTER

46 GB EN85-01 DL7-1 (2.0 L D) EN85-02 DL7-2 (2.0 L D) GB JB145-4 JB1-3 (2.0 L D) GB CA10-6 GB (MAN)

REVERSE LAMPS SWITCH

IP10-1 (I) GB CA1-22 GB (MAN)

IP11-3 (O)

77 R9 9 8 10 6 7 F2 10A CA206-6 GB (AUTO) CAS26

32 II

GB IP203-9

REVERSE LAMPS RELAY

PASSENGER JUNCTION FUSE BOX

64 O JB172-5 (B)

20.3 Y IP5-19 (S+)

SCP — LIGHTING MESSAGES — 20.3 U IP5-18 (S−)

GENERAL ELECTRONIC MODULE

O CA86-2 OY

O CA87-4 NR

(−) IP6-1 B

P CA86-5 B

G4AR G5AS (G5AR)

LH TURN IP53-1 BG IP6-17 (I)

RH TURN IP53-3 BG IP6-19 (I)

B IP53-2 B IP53-5 OY IP53-4 IP5-22 (O)

TURN SIGNAL AUDIBLE WARNING

TURN SIGNAL SWITCH

IPS67 (LHD) IPS69 (RHD) B G37BL (G36BL)

B IPS65 B IP51-5 BO IP51-4 IP6-23 (I)

HAZARD SWITCH

G36AL (G5AR)

NOTE: IPS65 – LHD only.

SIDE LAMPS STATUS (CIRCUIT CONTINUED) 07.1 OG

REAR FOG STATUS (CIRCUIT CONTINUED) 07.1 WU

43 II GB IP17-16 REAR FOG LAMPS IP17-10 WU IP17-9 GW CA1-21 GW CAS80

65 R IP17-8 SIDE LAMPS IP17-4 R IP202-9 F55 7.5A IP202-11 OG CA45-1

IP17-5 R IP203-11 F47 7.5A CA208-4 OY CA208-11 OY

F48 7.5A CA204-14 O CA204-6 O

PASSENGER JUNCTION FUSE BOX

MASTER LIGHTING SWITCH

2.5 L, 3.0 L, 2.0 L D 51 II NR PA3-3 PA3-1 GW JB2-1 GW CA170-15 GW CAS75

2.0 L 54 II

BRAKE ON / OFF SWITCH

GR CA137-3 STOP

OY CA137-5 TAIL

GW CA137-7 FOG B CA137-6

OY CA137-1 TURN

GB CA137-2 REVERSE

LH TAIL LAMP UNIT

OY CA129-6 OY RB5-1 RB5-2 B

LH REAR SIDE MARKER LAMP*

O TM4-1 TM4-2 B

LH LICENSE PLATE LAMP

O TL10-1 O TMS1 O TM5-1 TM5-2 B TMS2

RH LICENSE PLATE LAMP

B TL10-2 B CA45-2 B CAS9 B G1AR

O CA138-5 STOP

O CA138-3 TAIL

GW CA138-1 FOG

NR CA138-7 TURN B CA138-2 CAS61 B G2AR

GB CA138-6 REVERSE

RH TAIL LAMP UNIT

O CA129-10 O RB6-1 RB6-2 B RBS10

RH REAR SIDE MARKER LAMP*

OG CA304-2 B CA304-1 G38AS

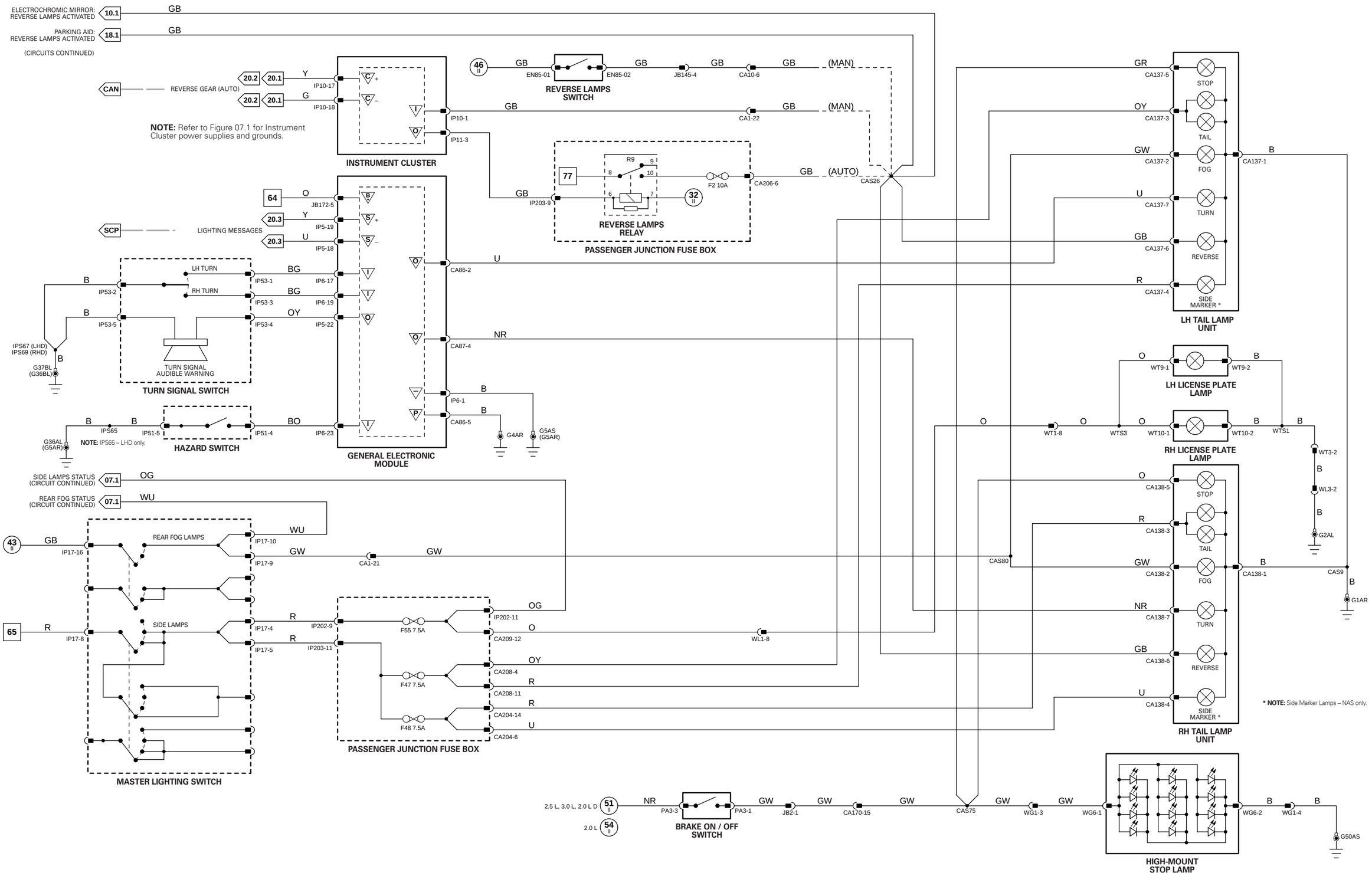
HIGH-MOUNT STOP LAMP

B CA129-7 B G2AL

*** NOTE:** Side Marker Lamps – NAS only.

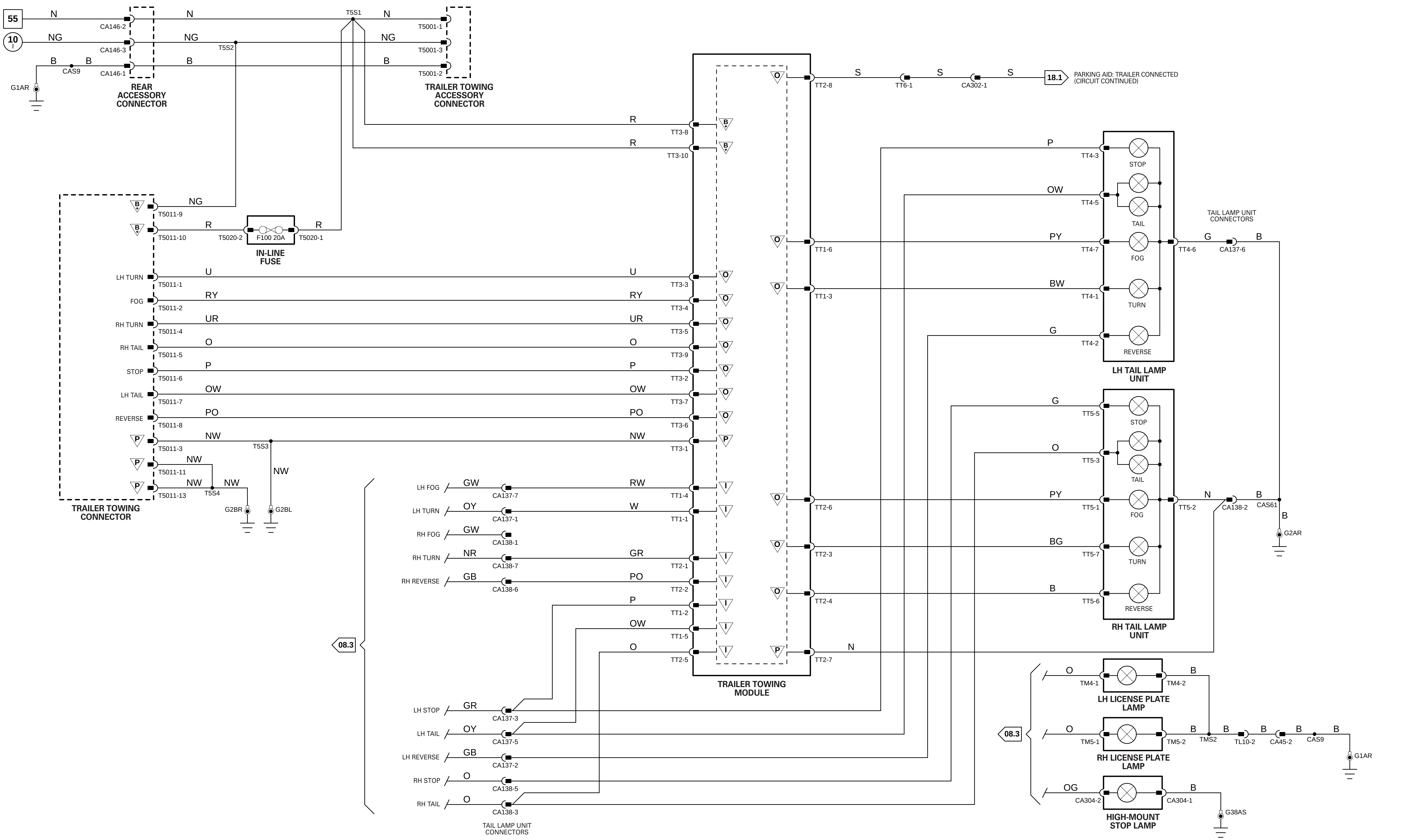
1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	− Sensor/Signal Ground	C SCP	D Serial and Encoded Data

VARIANT: Sedan Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



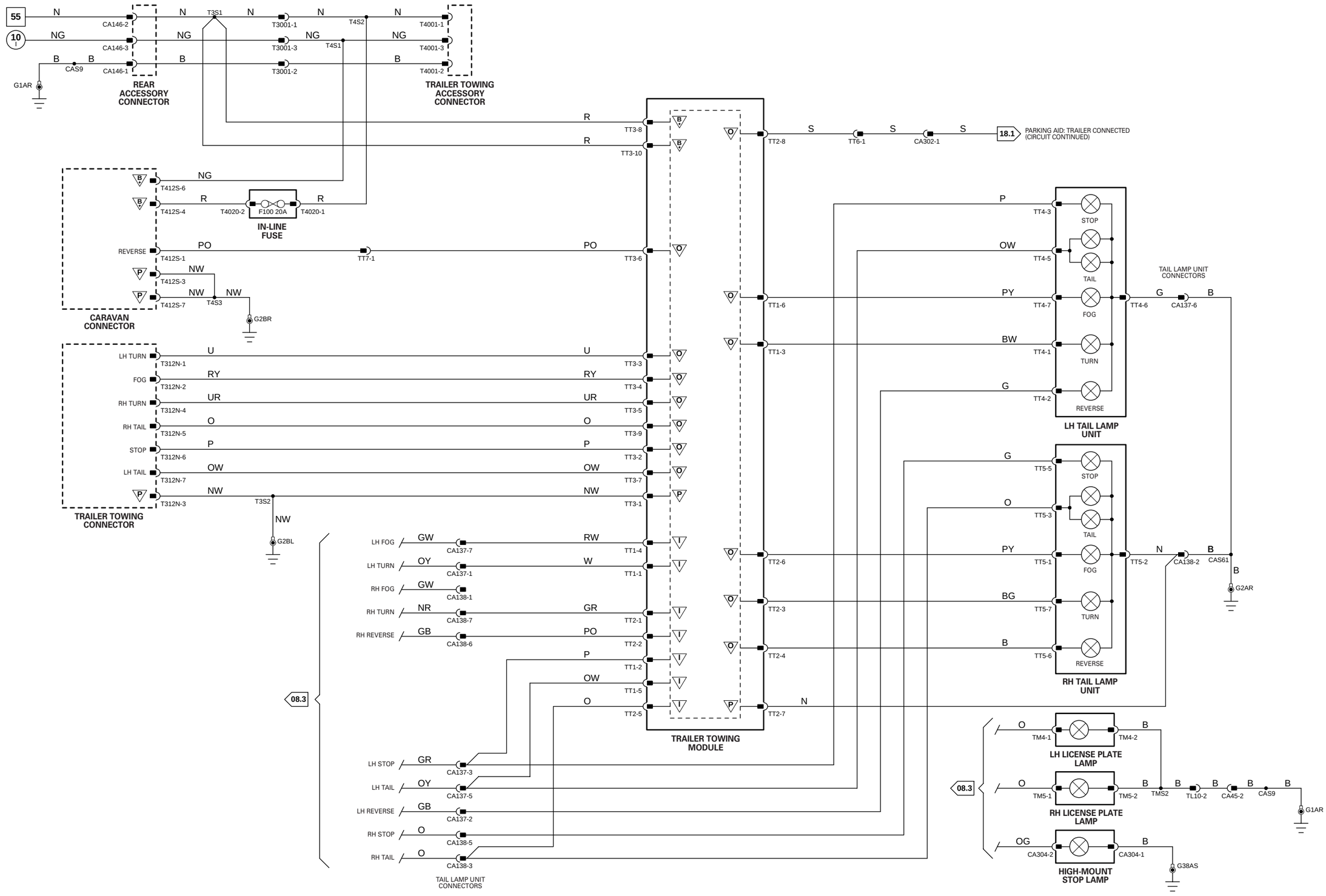
1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	− Sensor/Signal Ground	C SCP	D Serial and Encoded Data

VARIANT: Sports Brake Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



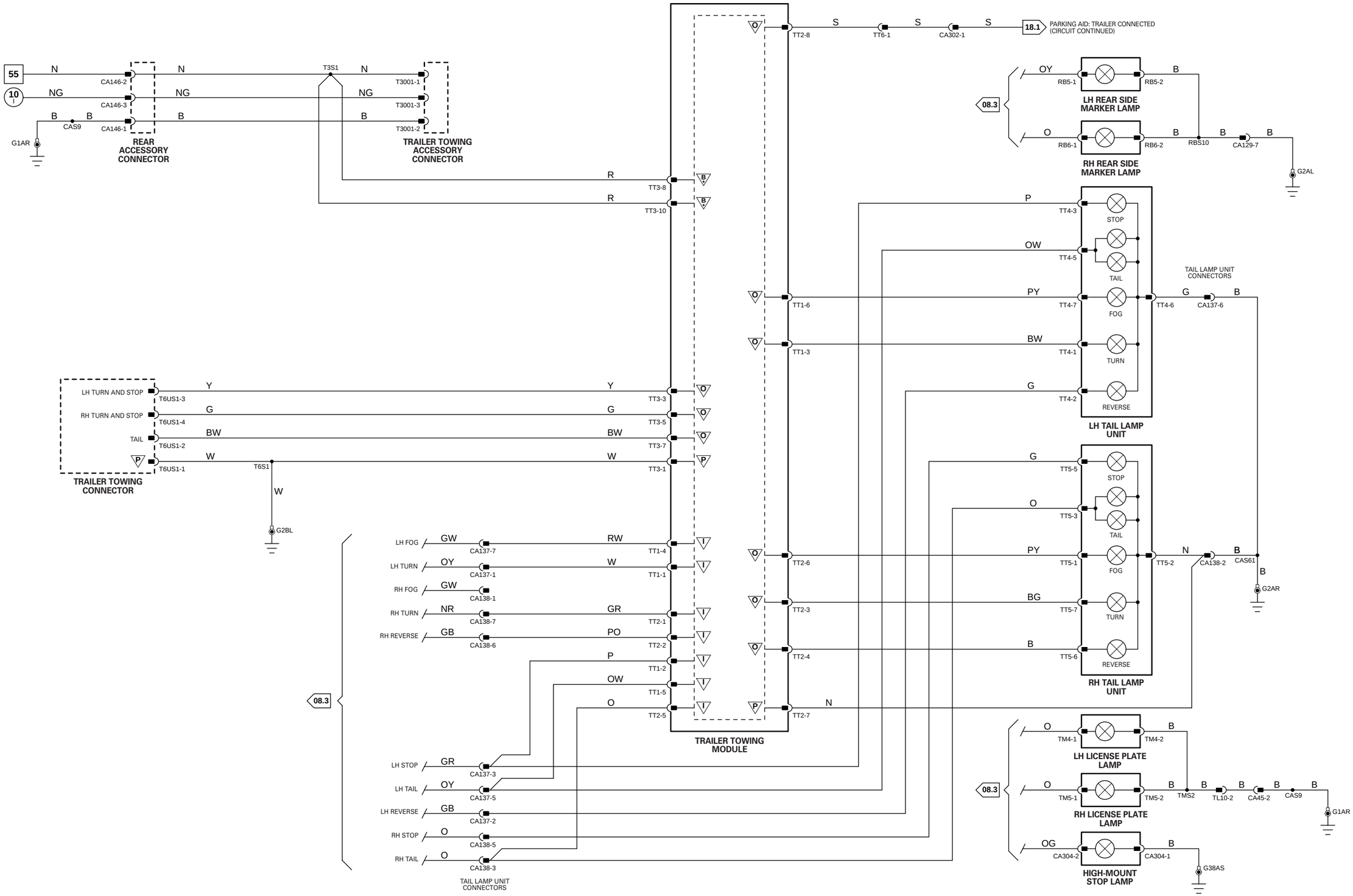
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Euro. Sedan Trailer Towing Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



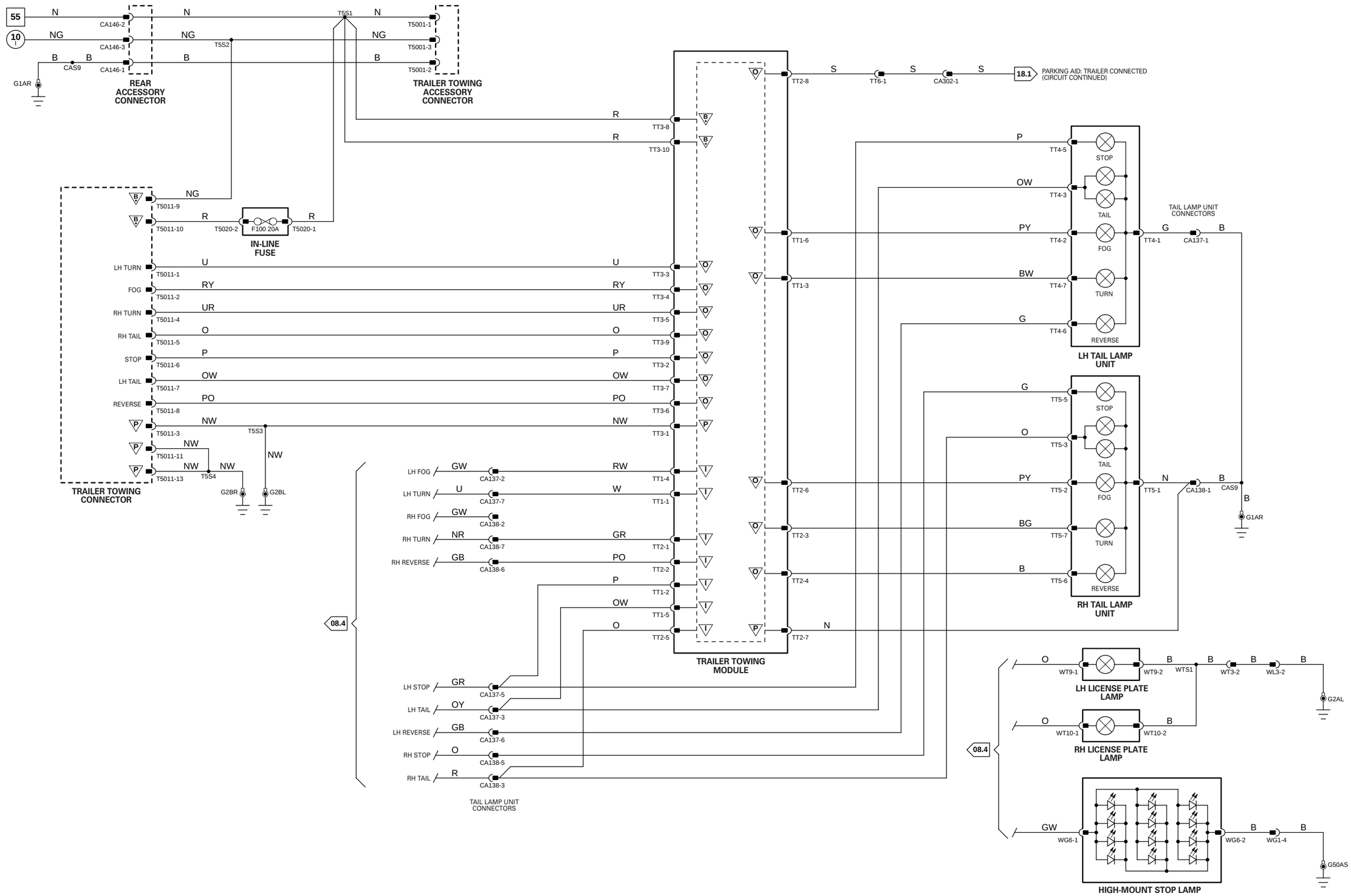
1 → 6 Fig. 01.1 7 → 33 Fig. 01.2	34 → 79 Fig. 01.3 1 → 10 Fig. 01.4	11 → 31 Fig. 01.5 32 → 66 Fig. 01.6	67 → 76 Fig. 01.7 77 → 97 Fig. 01.8	98 → 107 Fig. 01.9	Input Output	Battery Voltage Power Ground	Sensor/Signal Supply V Sensor/Signal Ground	CAN SCP	D2B Network Serial and Encoded Data

VARIANT: U.K. Sedan Trailer Towing Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



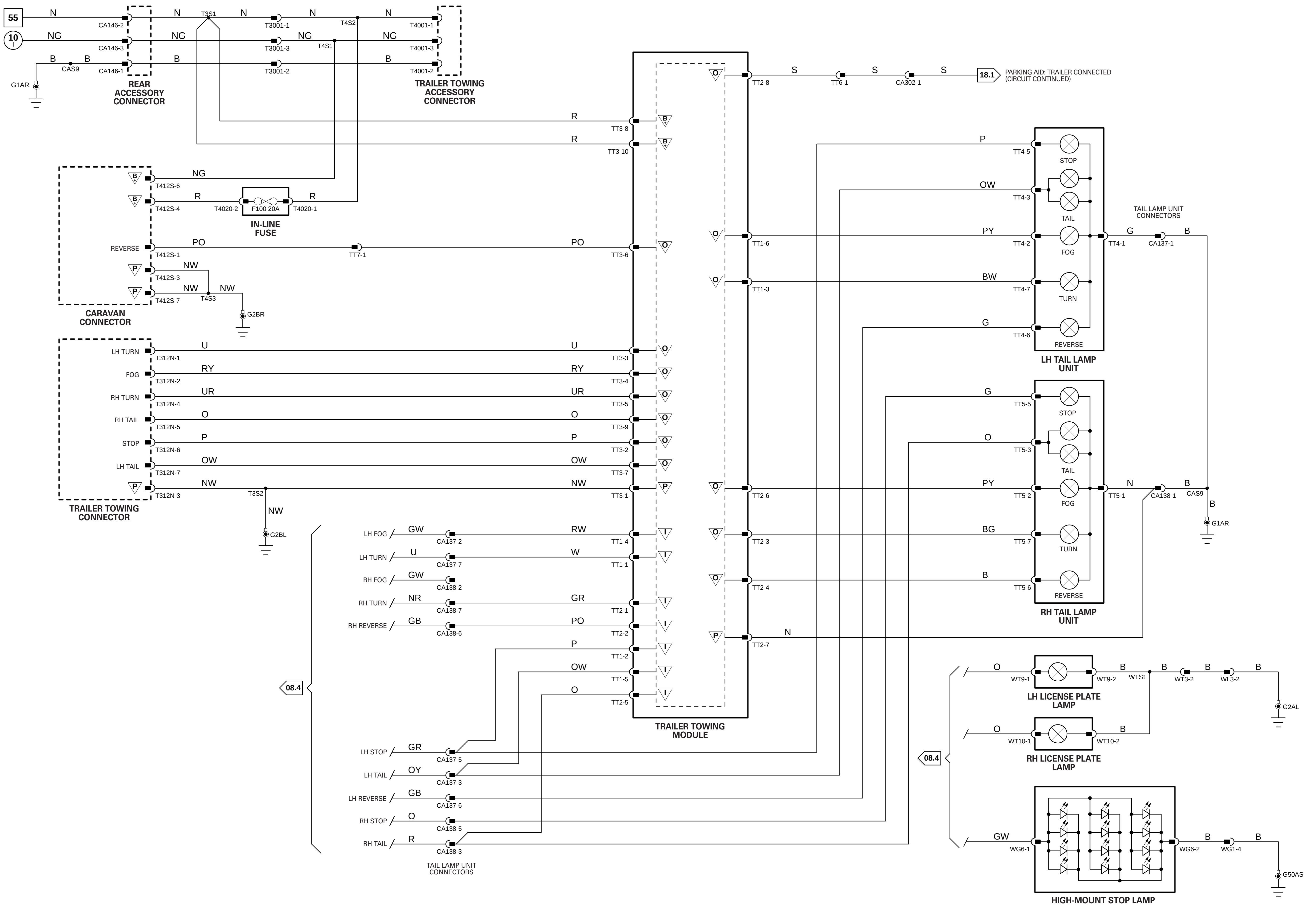
1 → 6 Fig. 01.1 7 → 33 Fig. 01.2	34 → 79 Fig. 01.3 1 → 10 Fig. 01.4	11 → 31 Fig. 01.5 32 → 66 Fig. 01.6	67 → 76 Fig. 01.7 77 → 97 Fig. 01.8	98 → 107 Fig. 01.9	I Input O Output	B Battery Voltage P Power Ground	+ Sensor/Signal Supply V – Sensor/Signal Ground	A CAN C SCP	S D2B Network D Serial and Encoded Data

VARIANT: NAS Sedan Trailer Towing Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



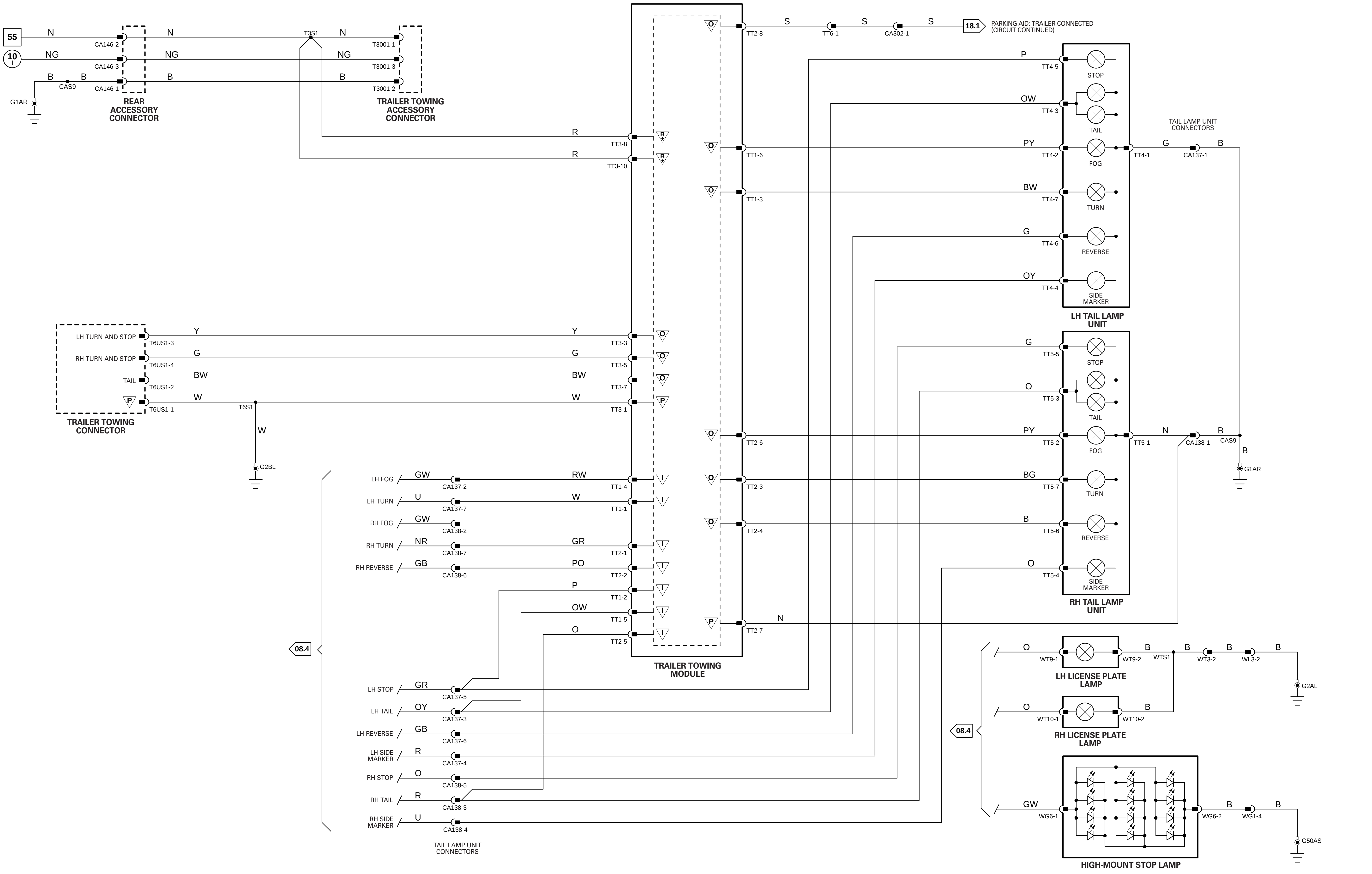
1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	− Sensor/Signal Ground	C SCP	D Serial and Encoded Data

VARIANT: European SB Trailer Towing Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



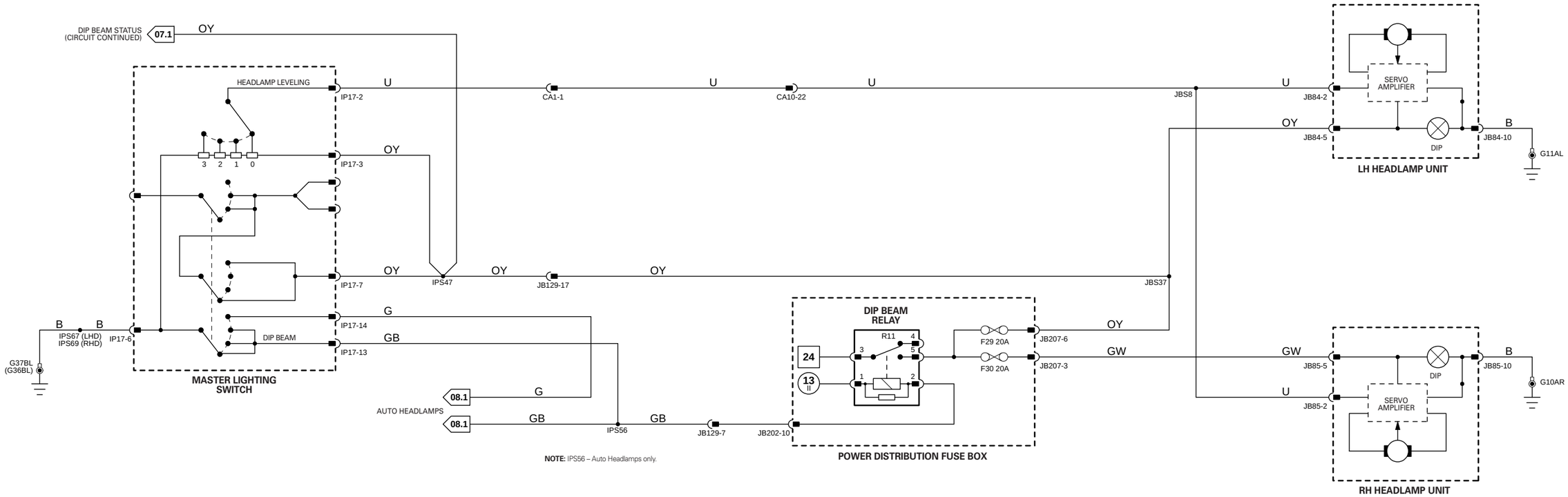
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: U.K. SB Trailer Towing Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

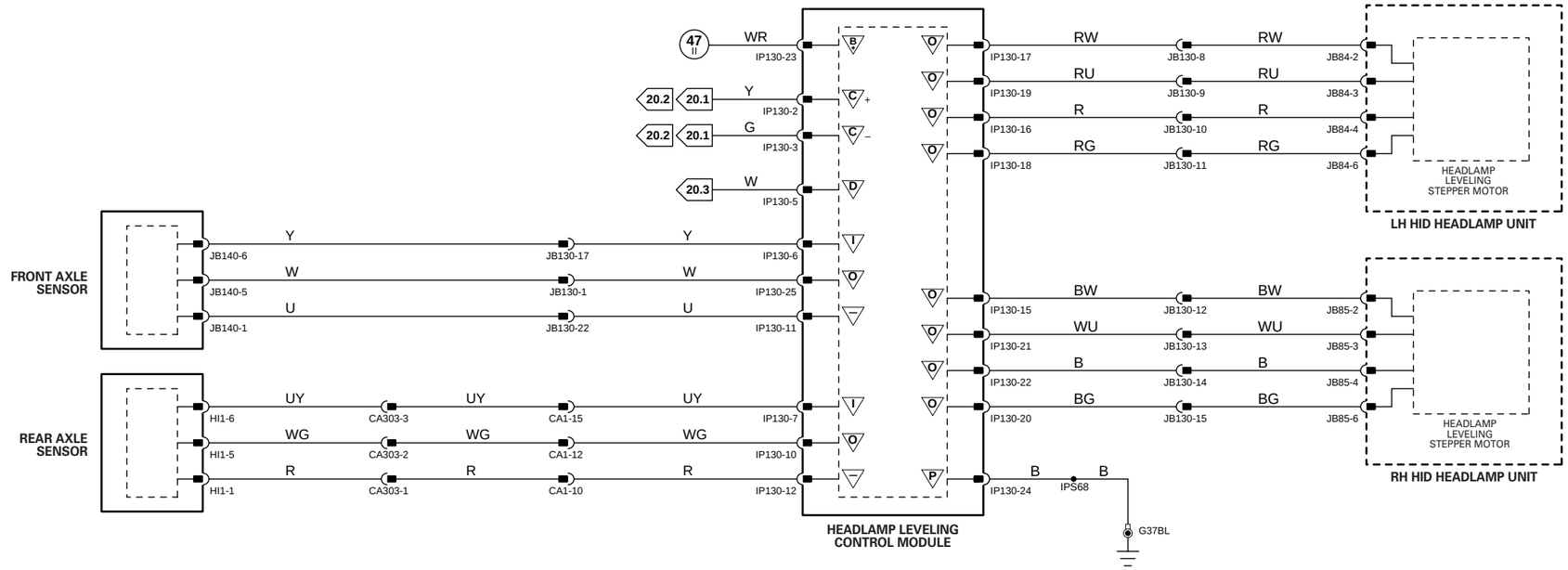


Input | Output | Battery Voltage | Power Ground | Sensor/Signal Supply V | Sensor/Signal Ground | CAN | SCP | D2B Network | Serial and Encoded Data

VARIANT: NAS SB Trailer Towing Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



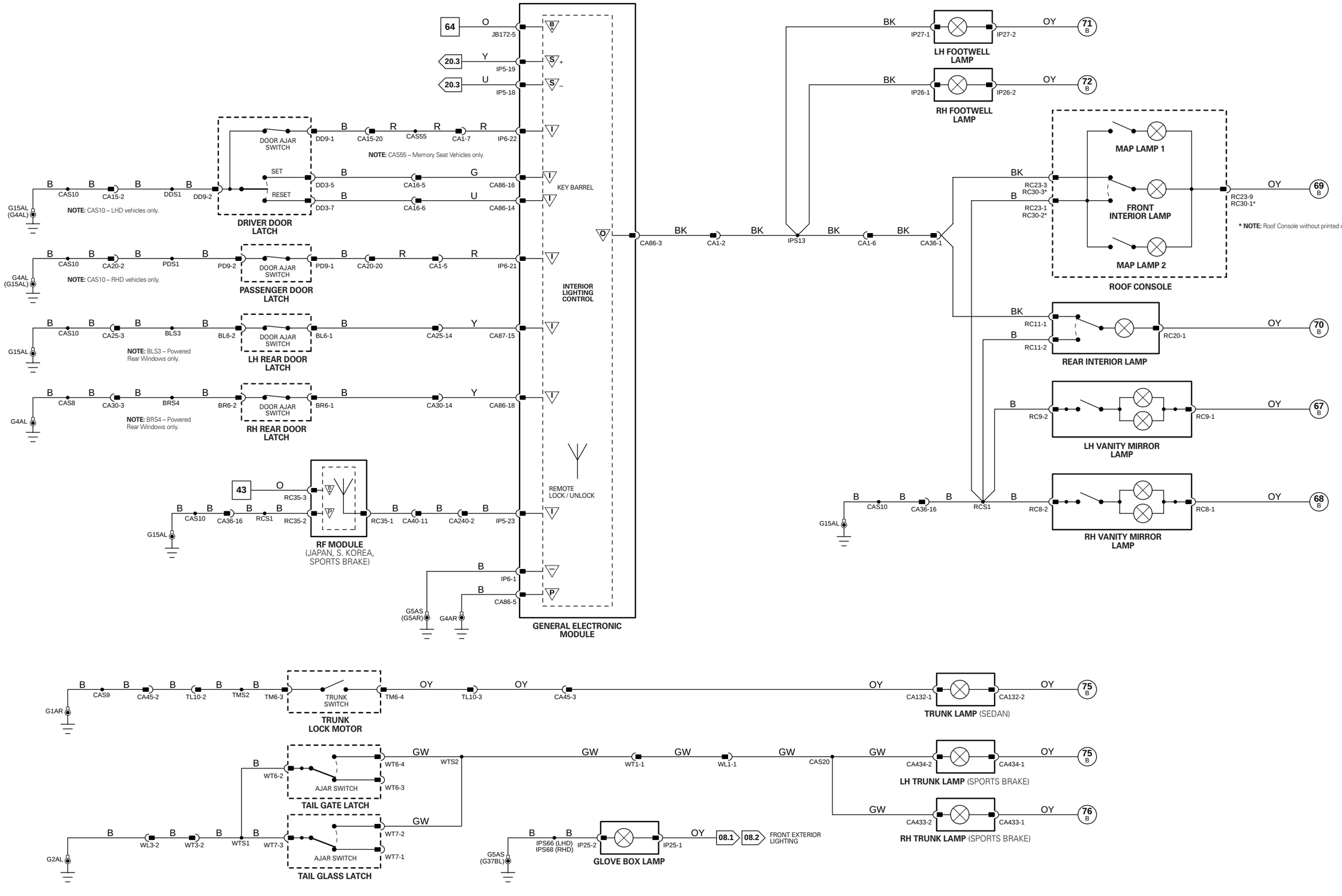
DRIVER–CONTROLLED HEADLAMP LEVELING



AUTOMATIC HEADLAMP LEVELING

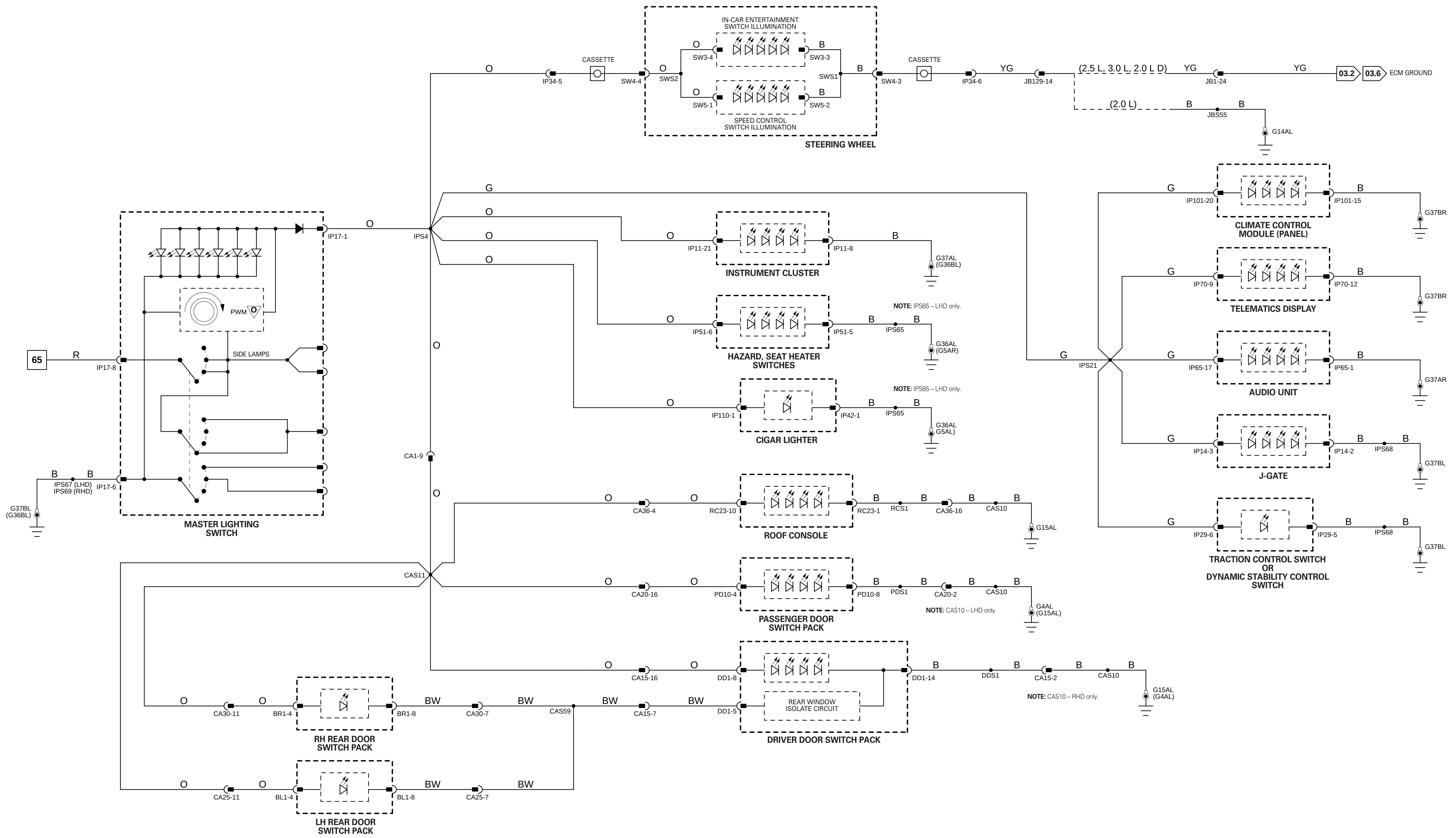
1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 T → 10 T Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	– Sensor/Signal Ground	C SCP	D Serial and Encoded Data

VARIANT: Headlamp Leveling & HID Headlamp Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	− Sensor/Signal Ground	C SCP	D Serial and Encoded Data

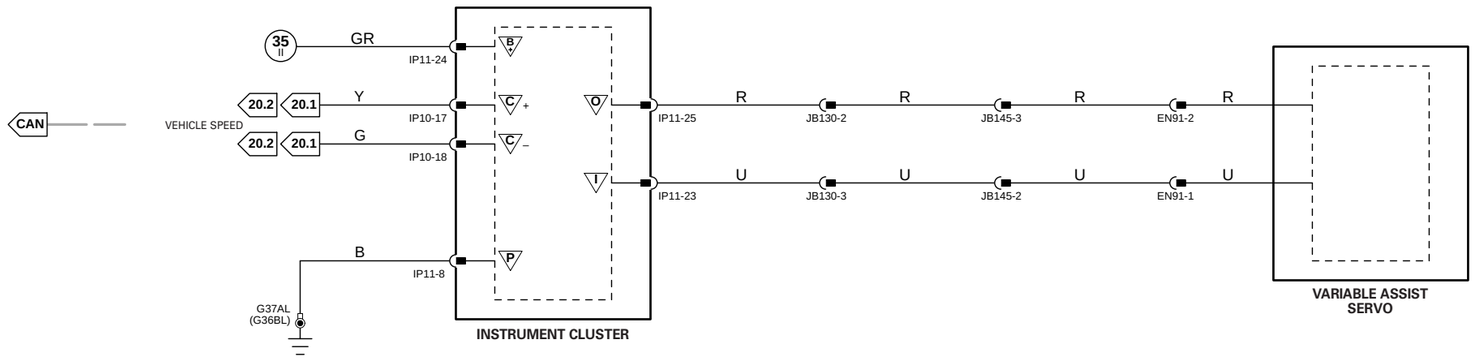
VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



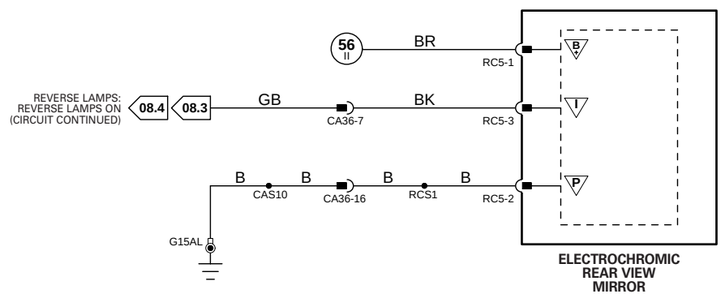
1 → 6 Fig. 01.1 | 7 → 33 Fig. 01.2 | 34 → 79 Fig. 01.3 | 1 → 10 Fig. 01.4 | 11 → 31 Fig. 01.5 | 32 → 66 Fig. 01.6 | 67 → 76 Fig. 01.7 | 77 → 97 Fig. 01.8 | 98 → 107 Fig. 01.9

I Input | O Output | B Battery Voltage | P Power Ground | + Sensor/Signal Supply V | – Sensor/Signal Ground | A CAN | C SCP | S D2B Network | D Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



VARIABLE ASSIST STEERING

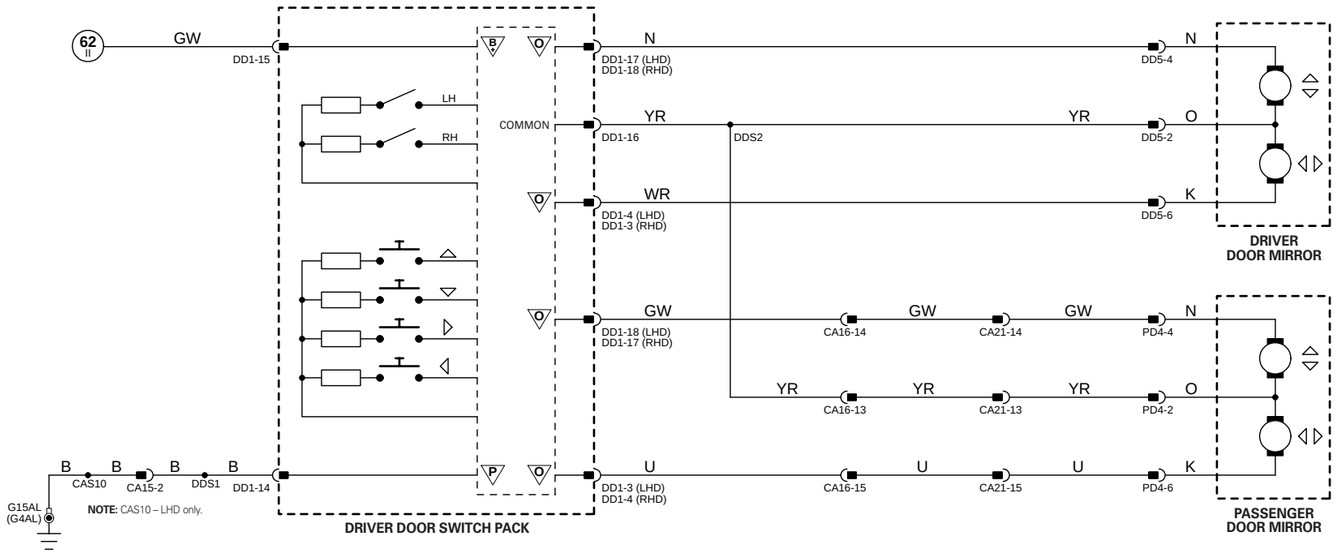


ELECTROCHROMIC REAR VIEW MIRROR

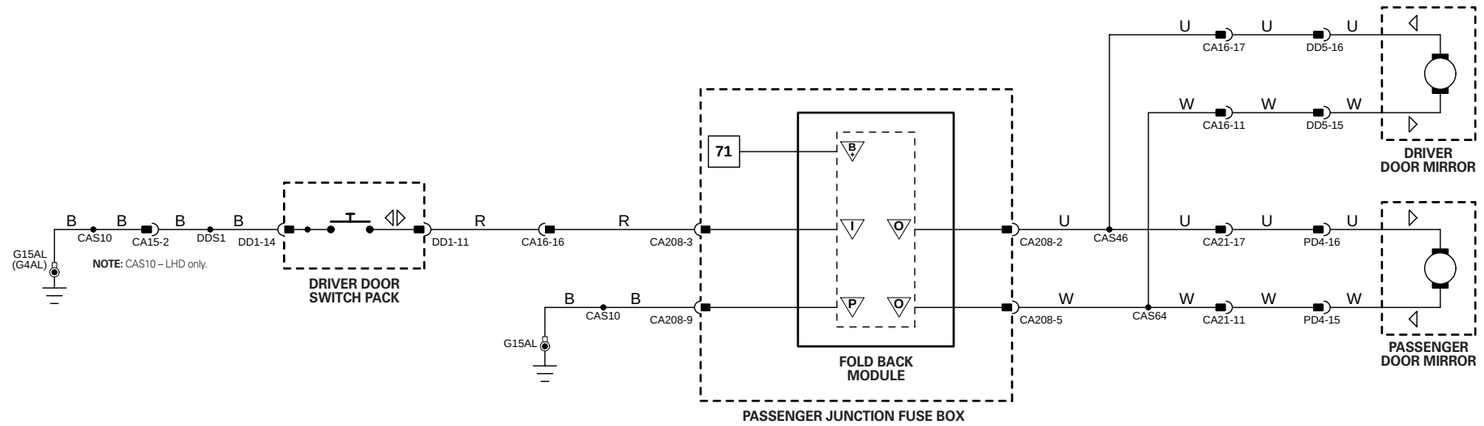
1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 (I) → 10 (I) Fig. 01.4
11 (II) → 31 (II) Fig. 01.5
32 (II) → 66 (II) Fig. 01.6
67 (B) → 76 (B) Fig. 01.7
77 (E) → 97 (E) Fig. 01.8
98 (E) → 107 (E) Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

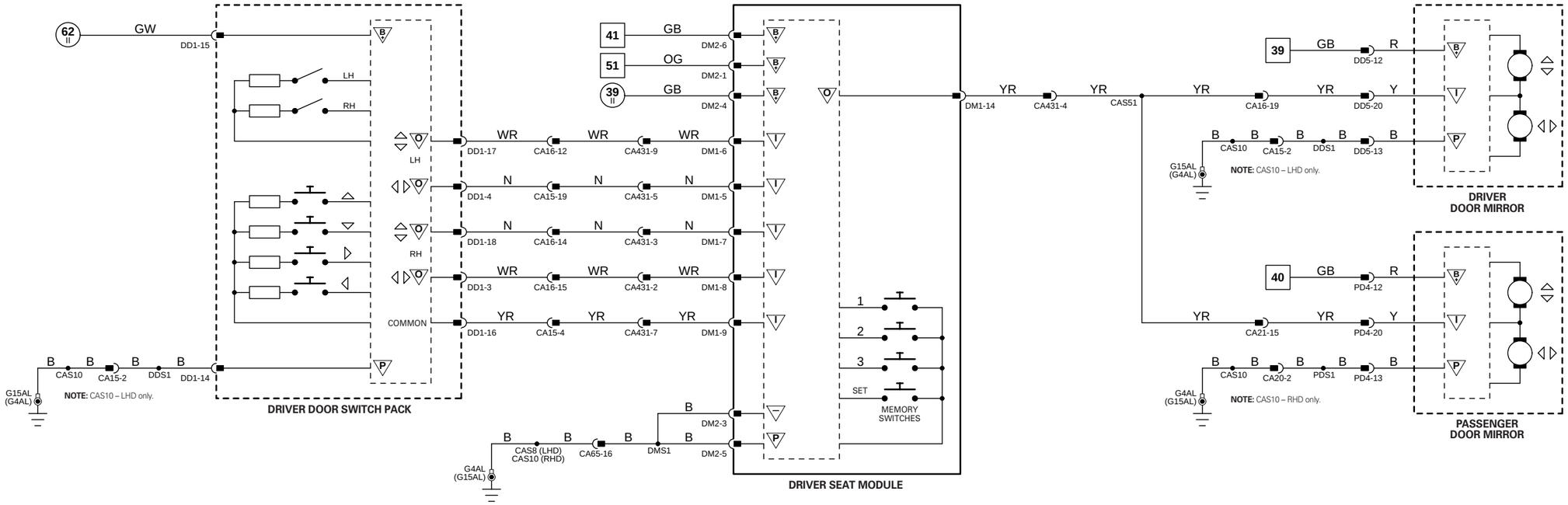


DOOR MIRROR MOVEMENT



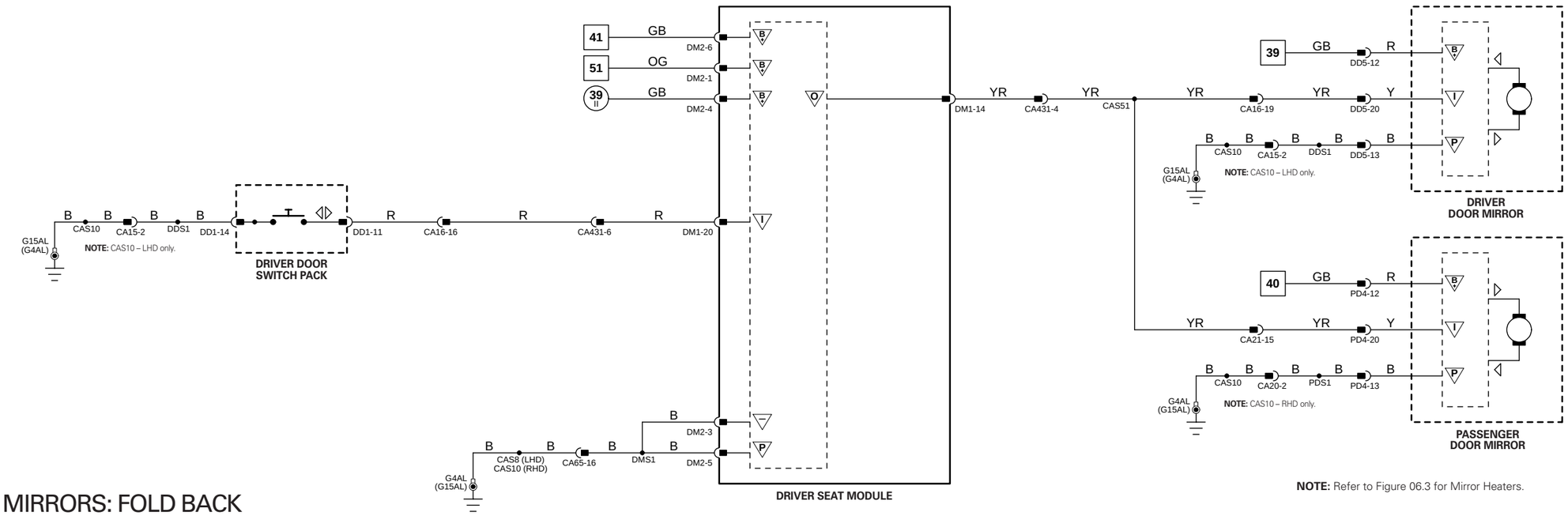
NOTE: Refer to Figure 06.3 for Mirror Heaters.

DOOR MIRRORS: FOLD-BACK



DOOR MIRROR MOVEMENT

DOOR MIRRORS: FOLD BACK

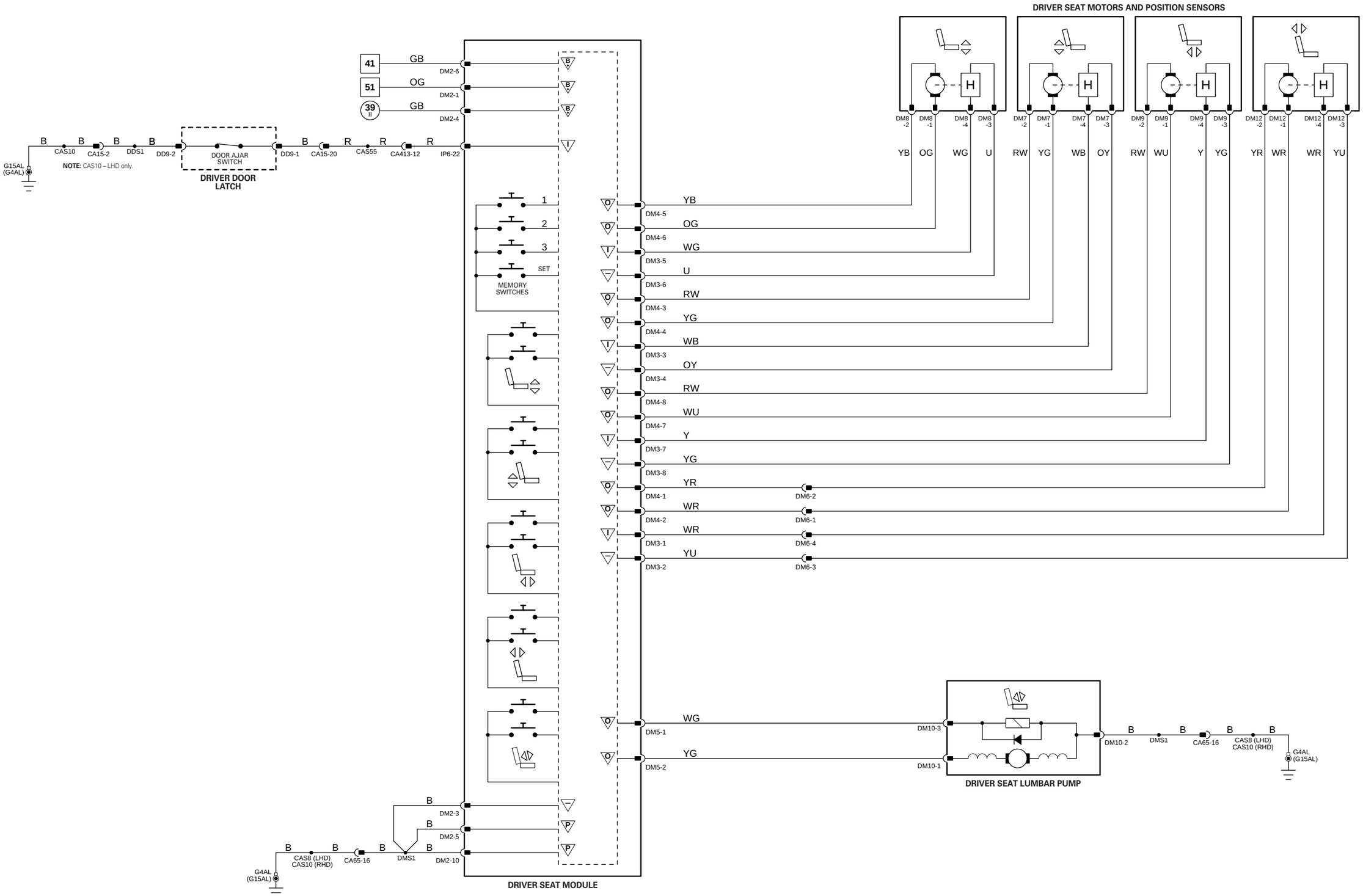


NOTE: Refer to Figure 06.3 for Mirror Heaters.

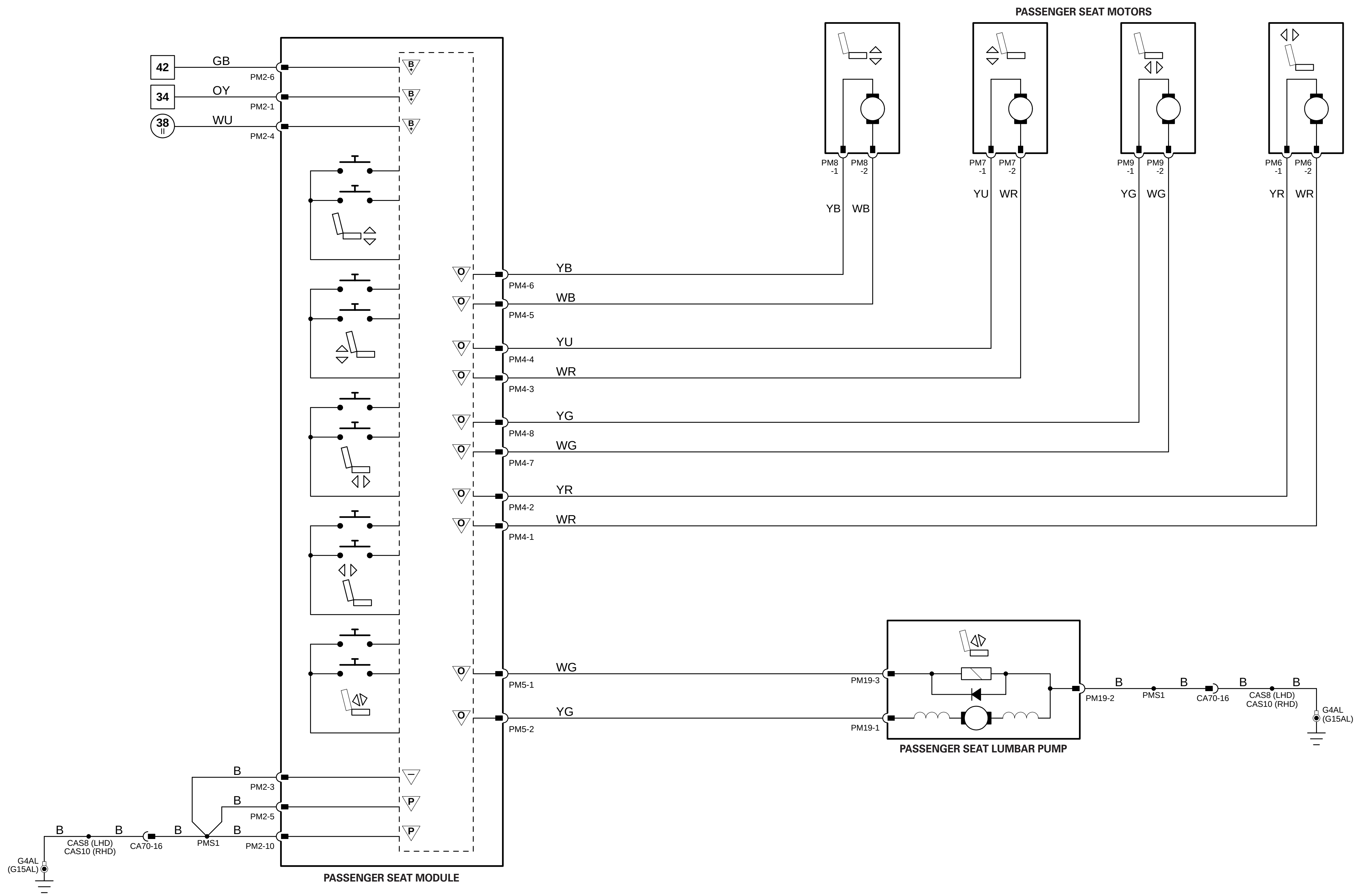
1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 I → 10 I Fig. 01.4
11 II → 31 II Fig. 01.5
32 II → 66 II Fig. 01.6
67 B → 76 B Fig. 01.7
77 E → 97 E Fig. 01.8
98 E → 107 E Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Memory Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

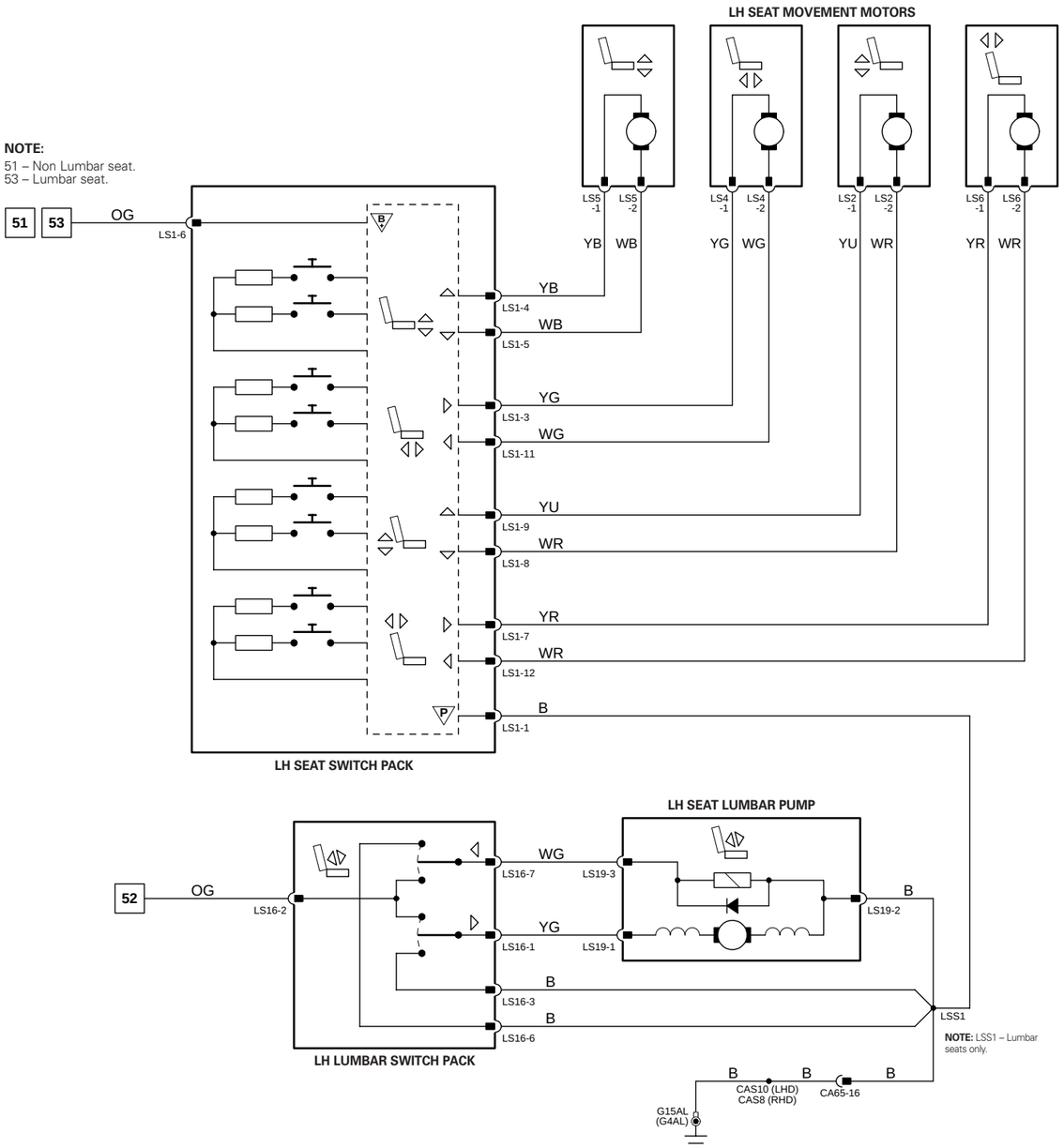


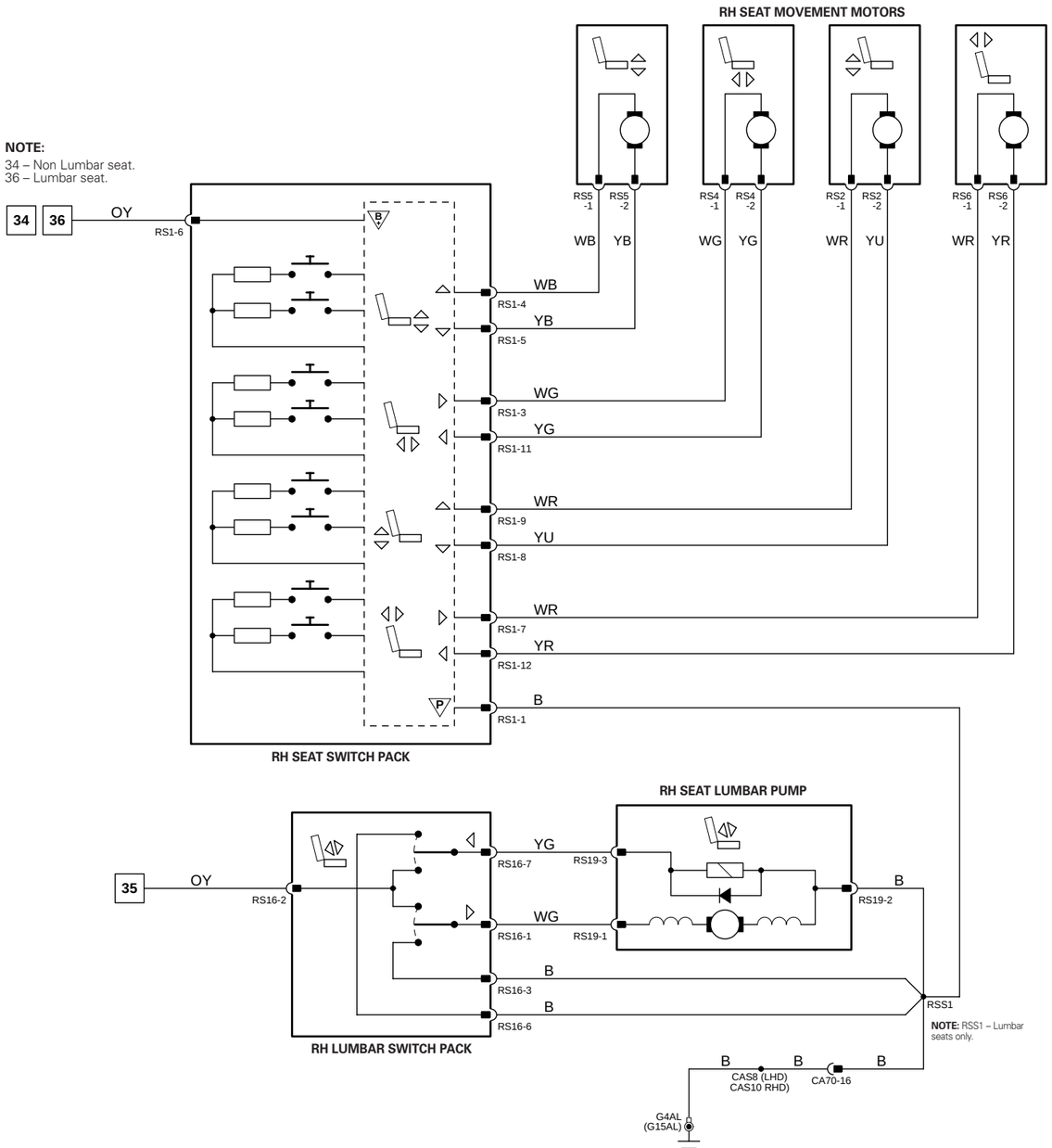
1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network	**VARIANT:**	Memory Vehicles
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	− Sensor/Signal Ground	C SCP	D Serial and Encoded Data	**VIN RANGE:**	All
										DATE OF ISSUE:	June 2003 (PROVISIONAL)



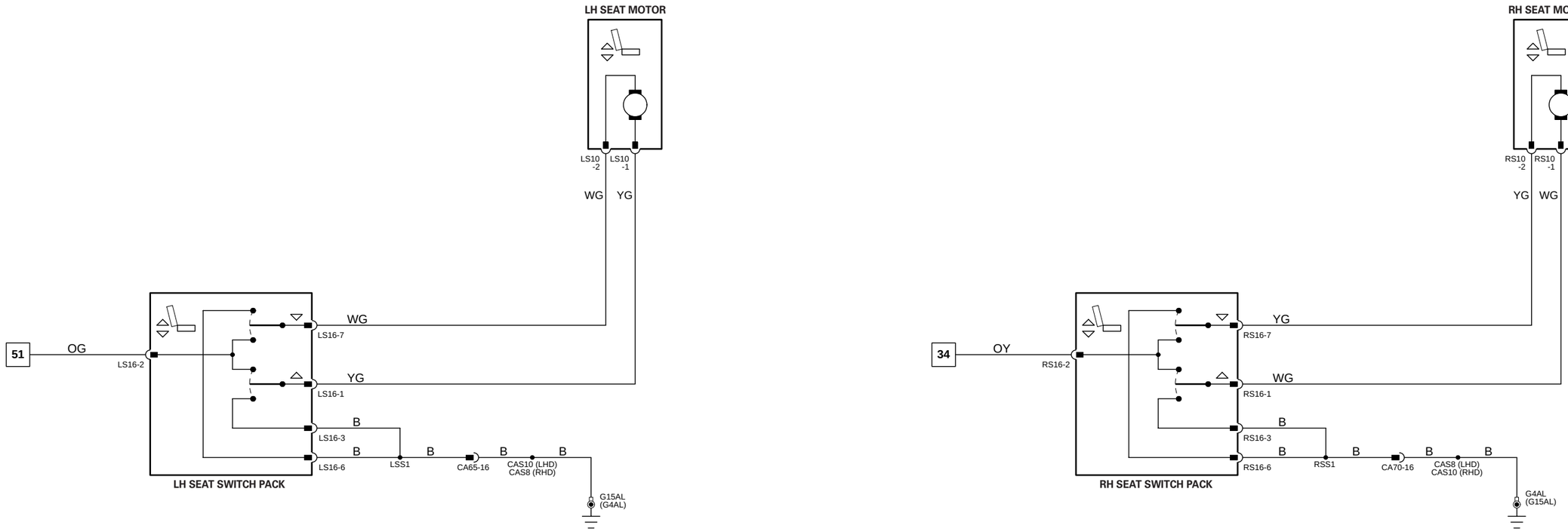
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Memory Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)





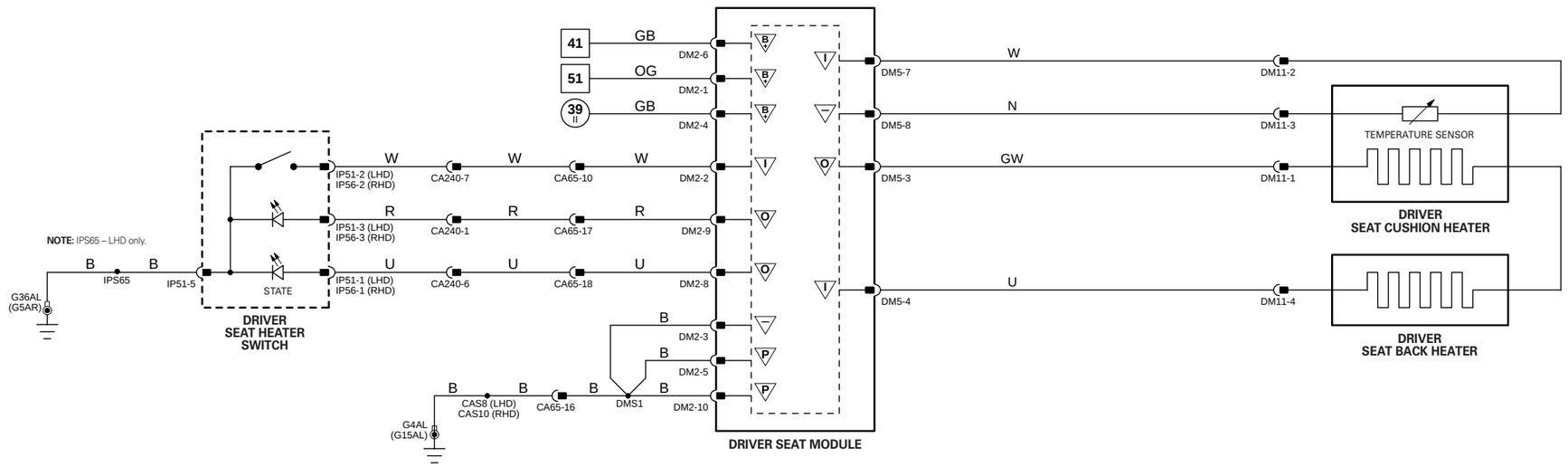
NOTE: Powered Lumbar circuit and components – Powered Lumbar seats only.

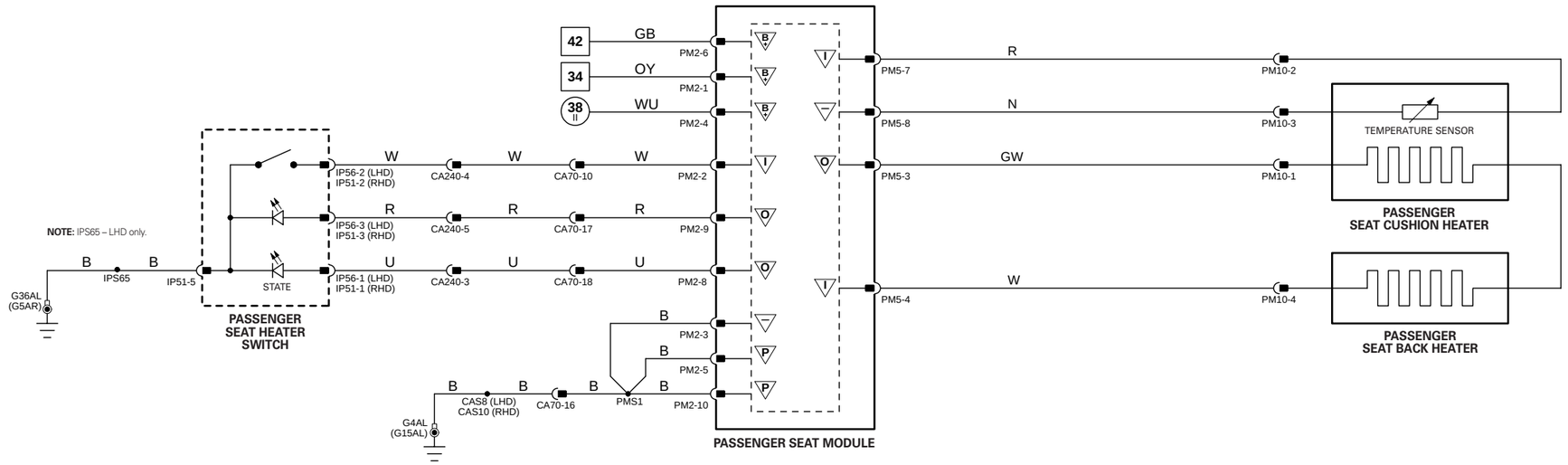


1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 (I) → 10 (I) Fig. 01.4
11 (U) → 31 (U) Fig. 01.5
32 (U) → 66 (U) Fig. 01.6
67 (B) → 76 (B) Fig. 01.7
77 (E) → 97 (E) Fig. 01.8
98 (E) → 107 (E) Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: 2-Way Powered Seat Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

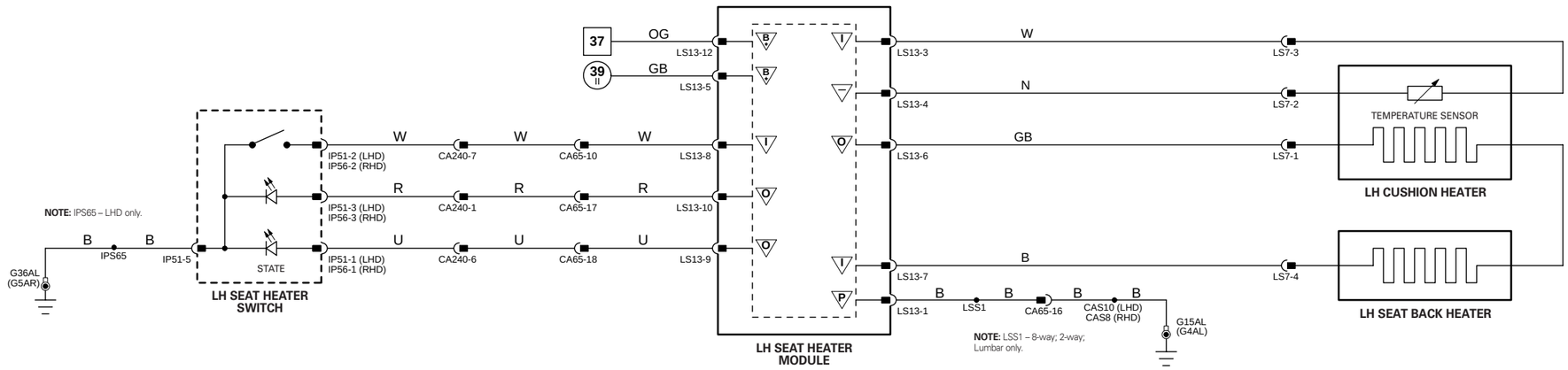


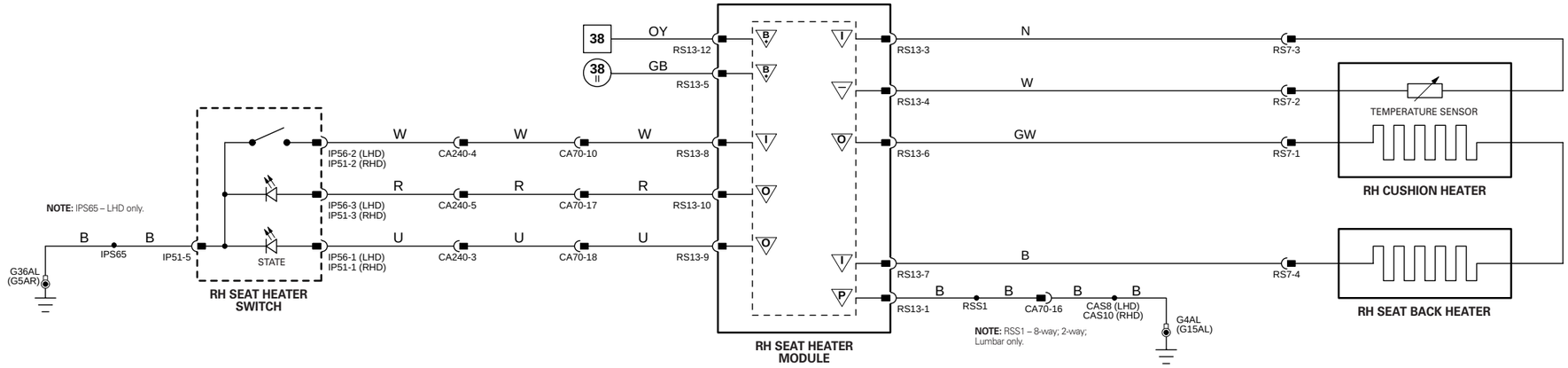


1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 I → 10 I Fig. 01.4
11 II → 31 II Fig. 01.5
32 II → 66 II Fig. 01.6
67 B → 76 B Fig. 01.7
77 E → 97 E Fig. 01.8
98 E → 107 E Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Memory Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)





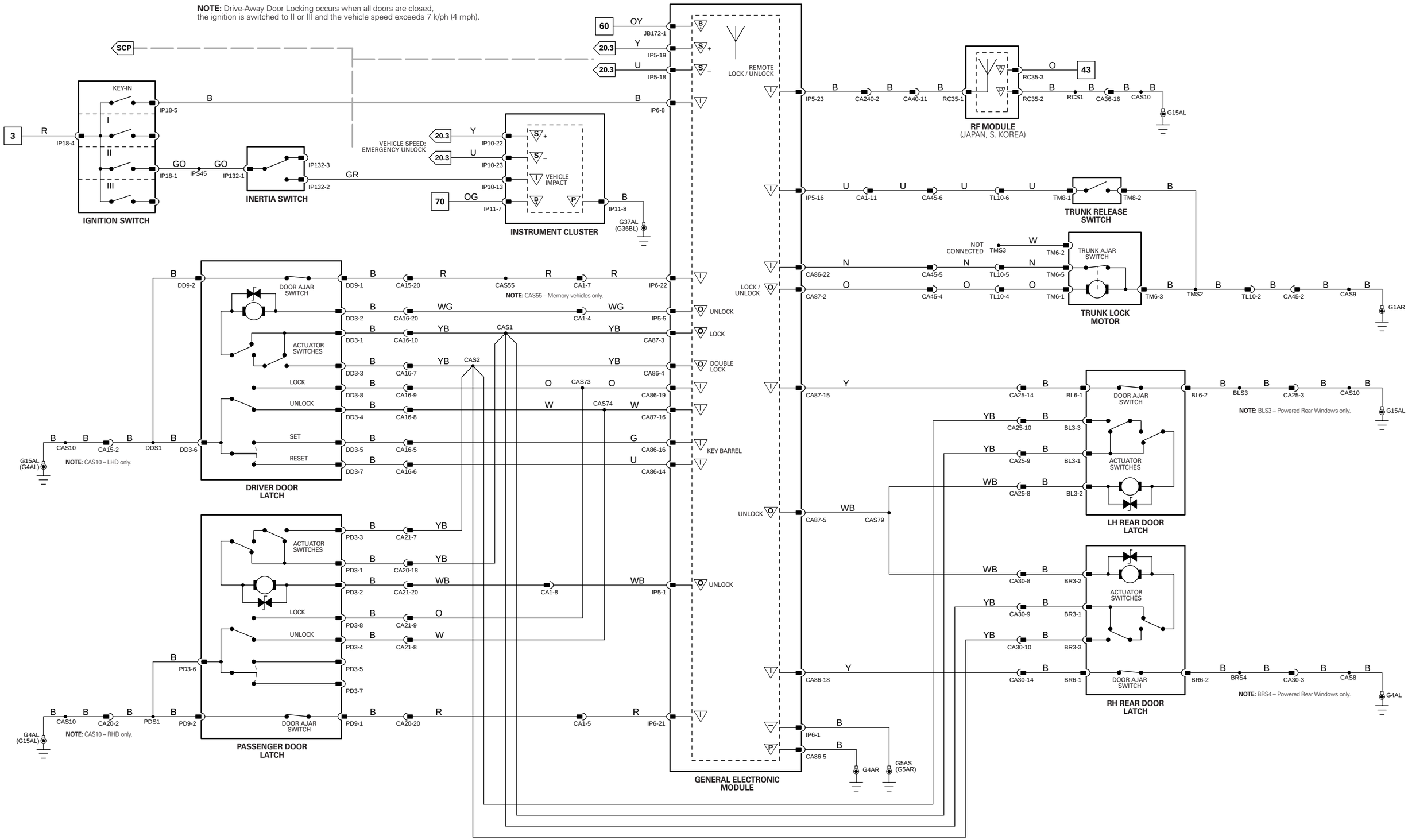
1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Heated Seat Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

Central Door Locking: Sedan – Double Locking

NOTE: Drive-Away Door Locking occurs when all doors are closed, the ignition is switched to II or III and the vehicle speed exceeds 7 k/ph (4 mph).

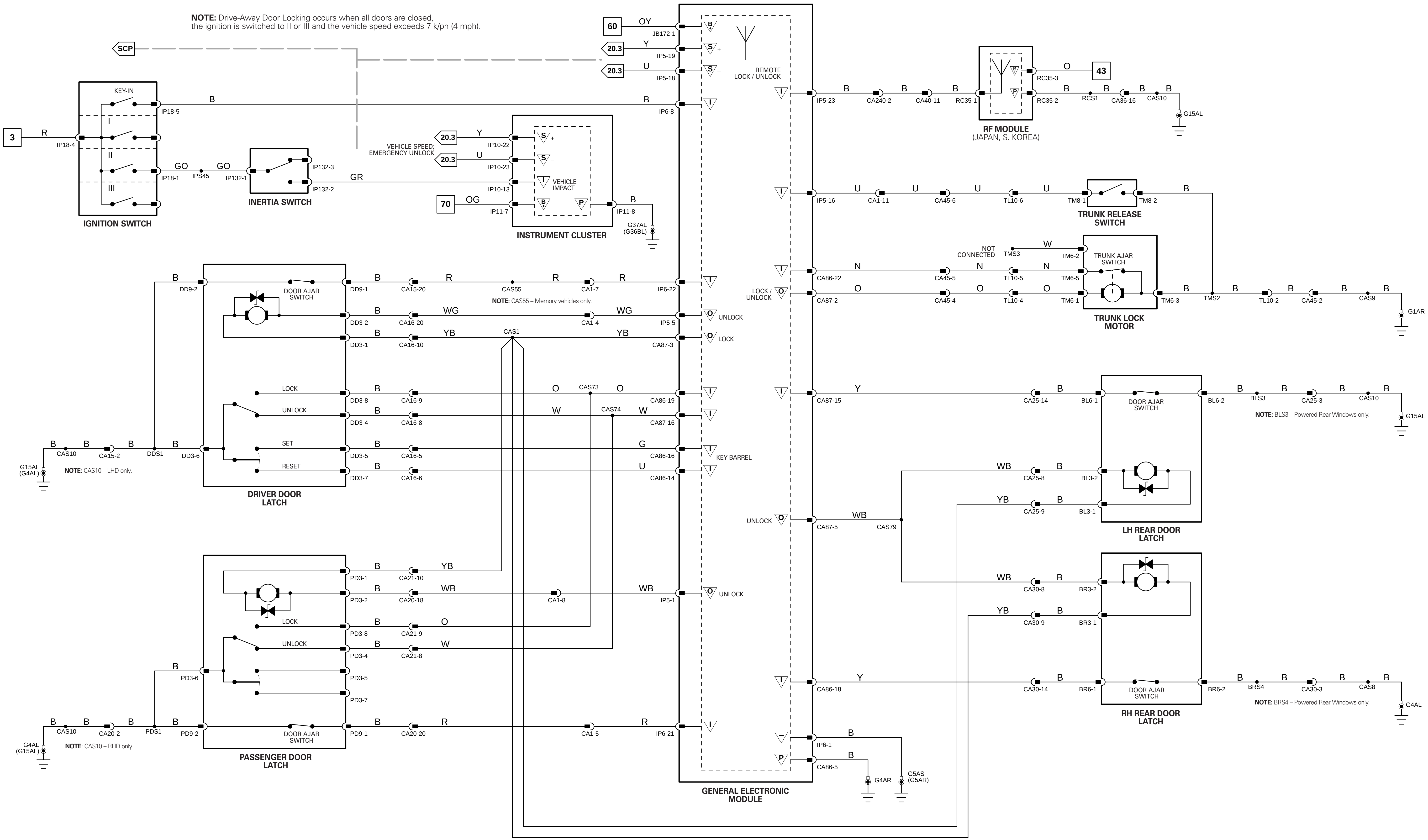


1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Double Locking Sedan Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

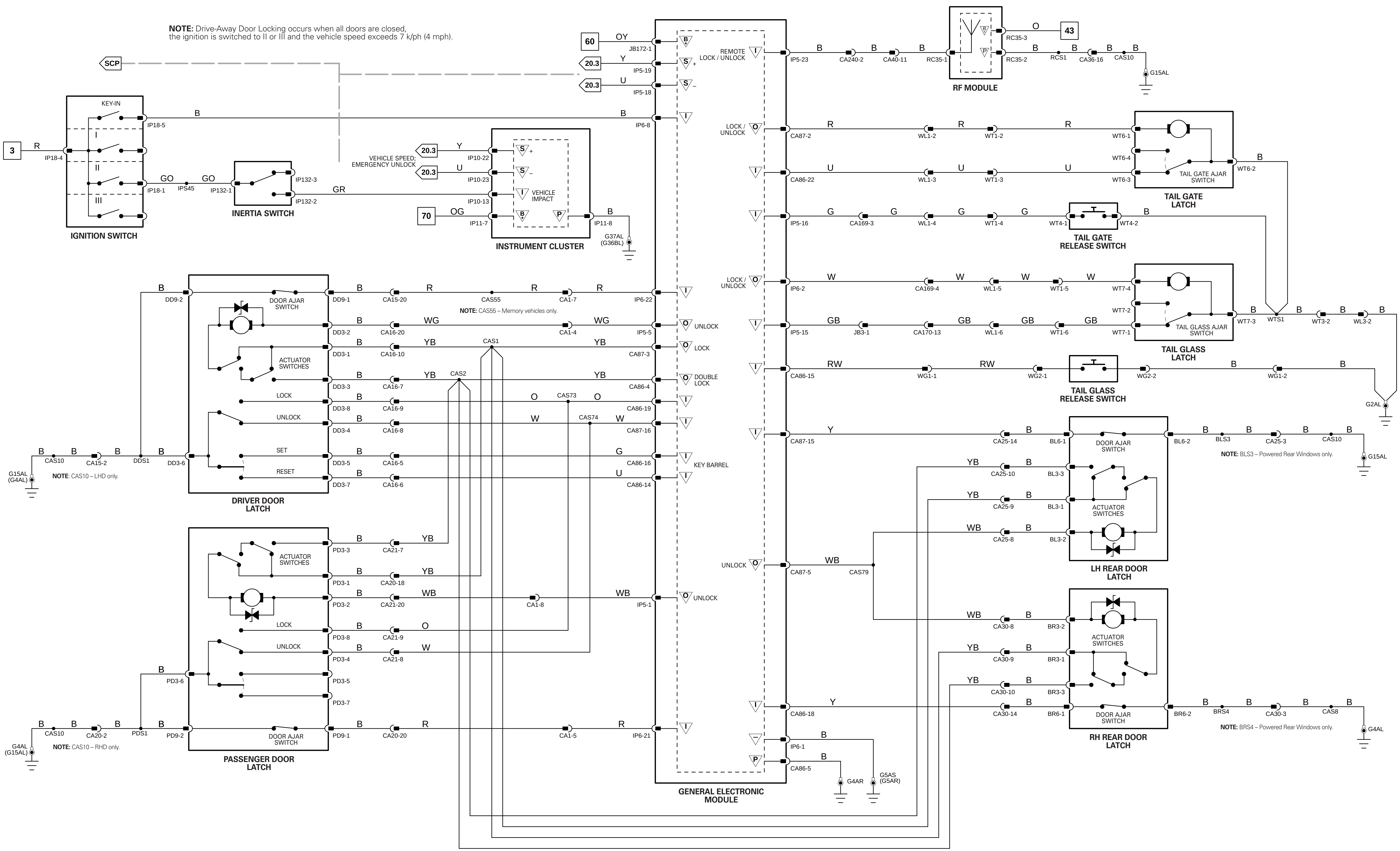
NOTE: Drive-Away Door Locking occurs when all doors are closed, the ignition is switched to II or III and the vehicle speed exceeds 7 k/ph (4 mph).



I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Non Double Locking Sedan Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

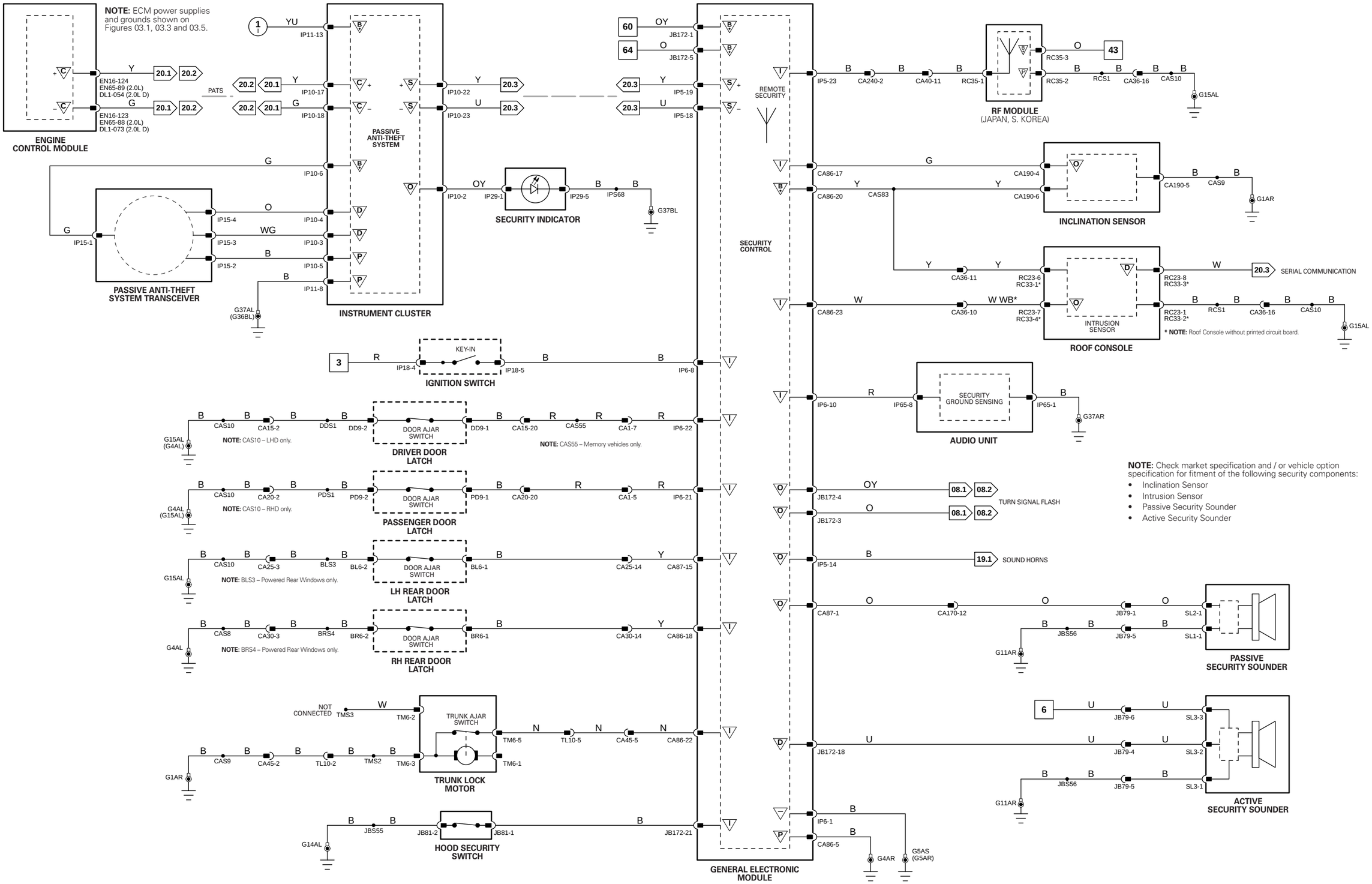
Central Door Locking: Sports Brake



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 → 31 Fig. 01.5
7 → 33 Fig. 01.2	1 → 10 Fig. 01.4	32 → 66 Fig. 01.6
67 → 76 Fig. 01.7	98 → 107 Fig. 01.9	
77 → 97 Fig. 01.8		

I Input | O Output | B Battery Voltage | P Power Ground | + Sensor/Signal Supply V | – Sensor/Signal Ground | A CAN | C SCP | S D2B Network | D Serial and Encoded Data

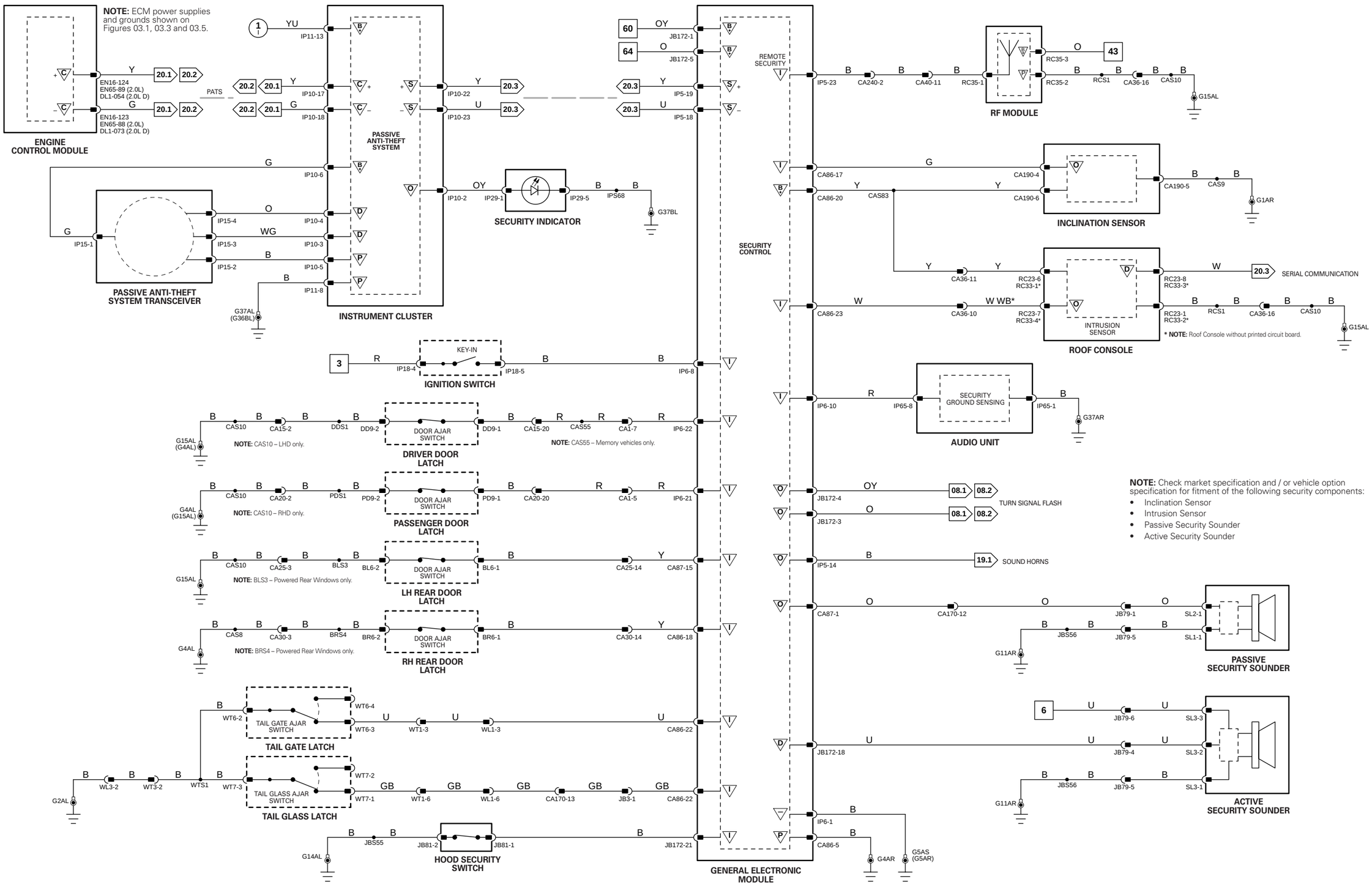
VARIANT: Sports Brake Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

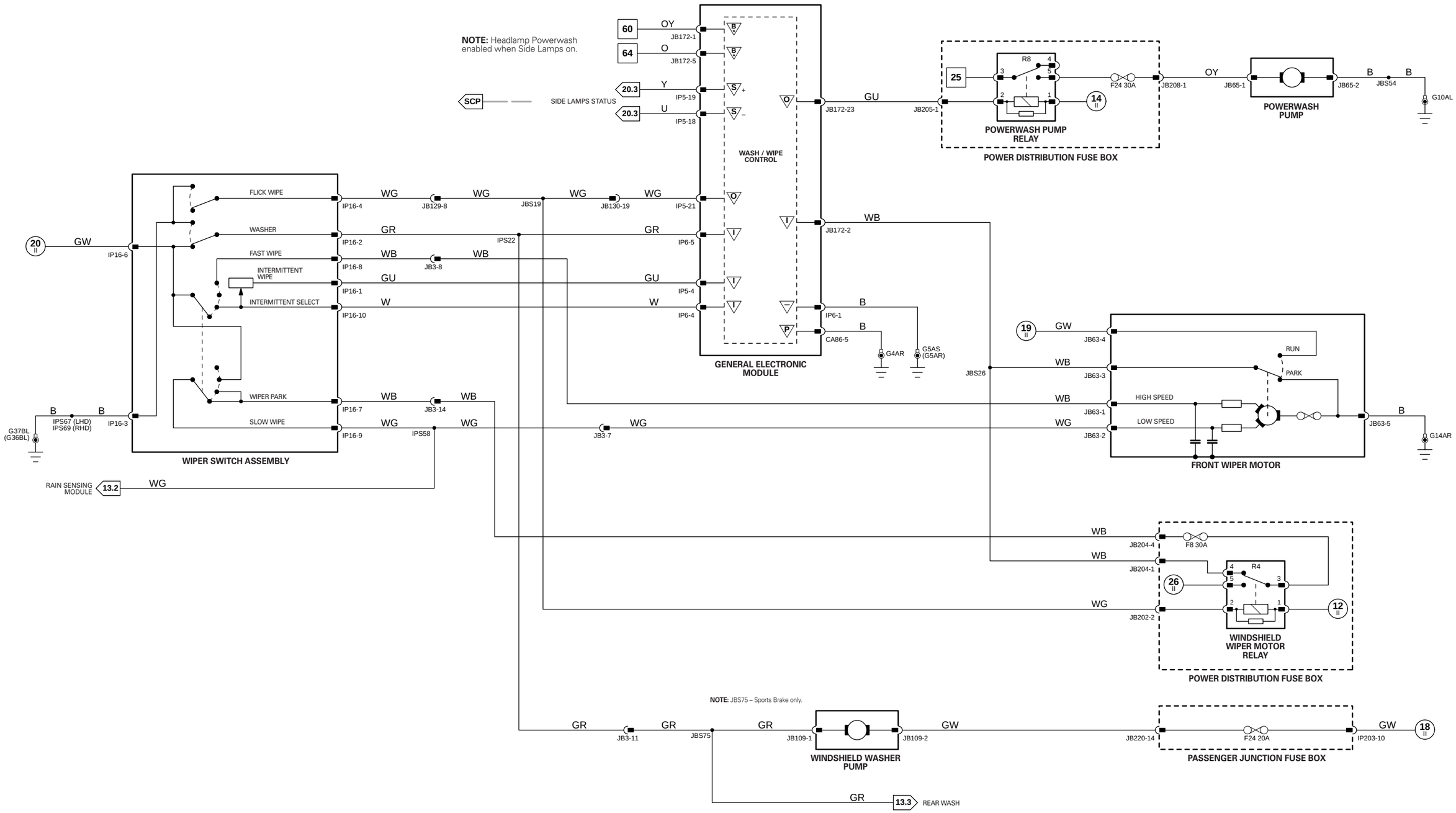
VARIANT: Sedan Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

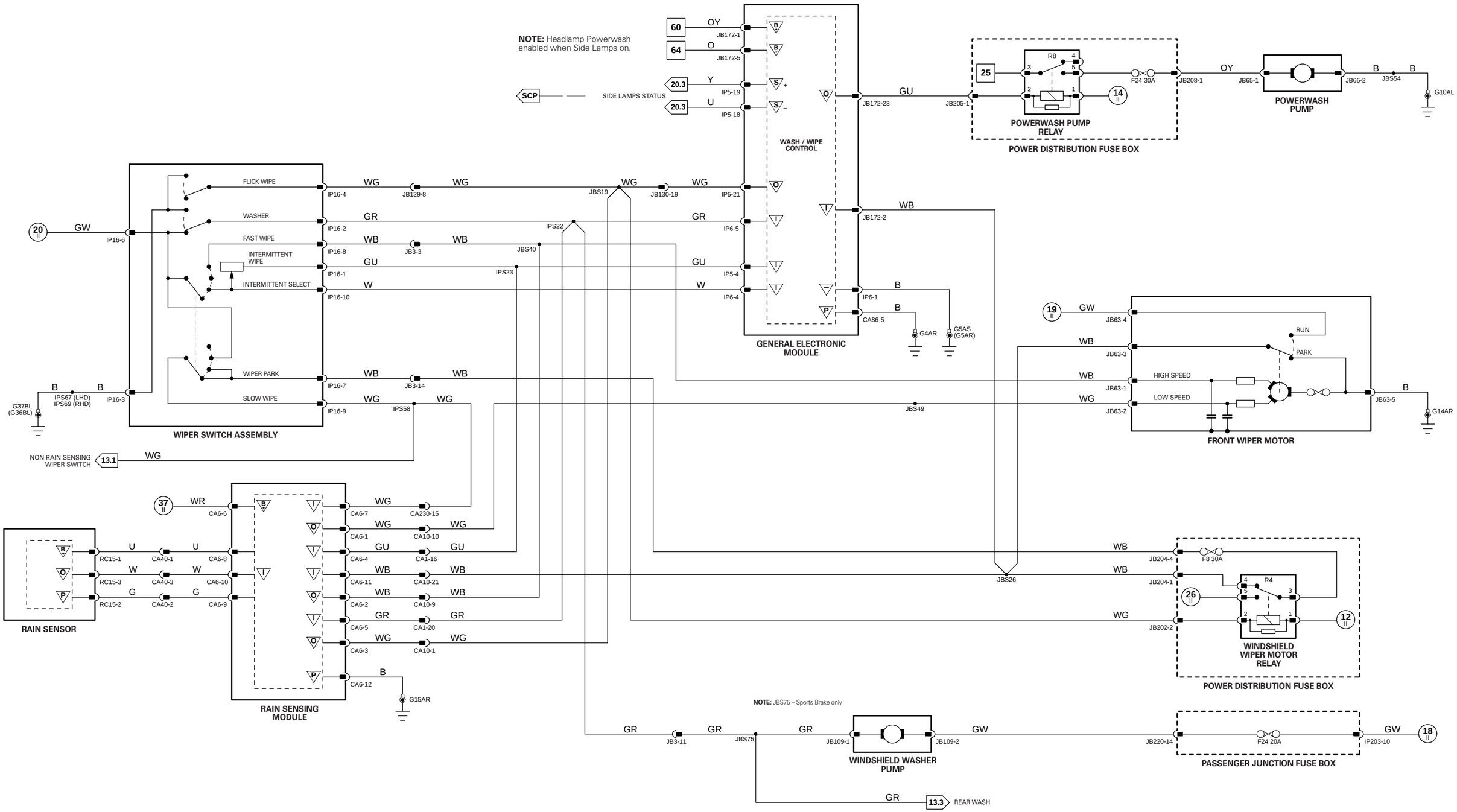
VARIANT: Sports Brake Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 I → 10 I Fig. 01.4
11 II → 31 II Fig. 01.5
32 II → 66 II Fig. 01.6
67 B → 76 B Fig. 01.7
77 E → 97 E Fig. 01.8
98 E → 107 E Fig. 01.9

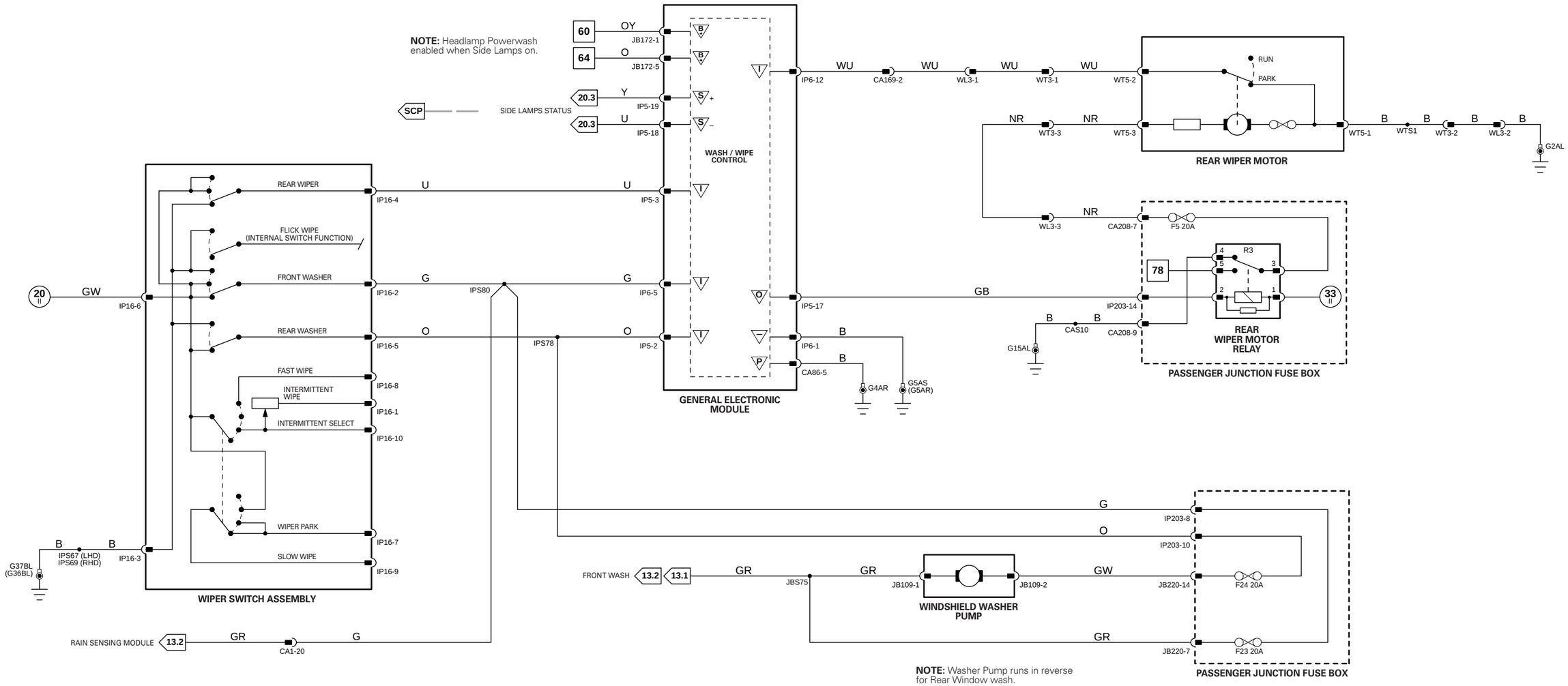
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Non Rain Sensing Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



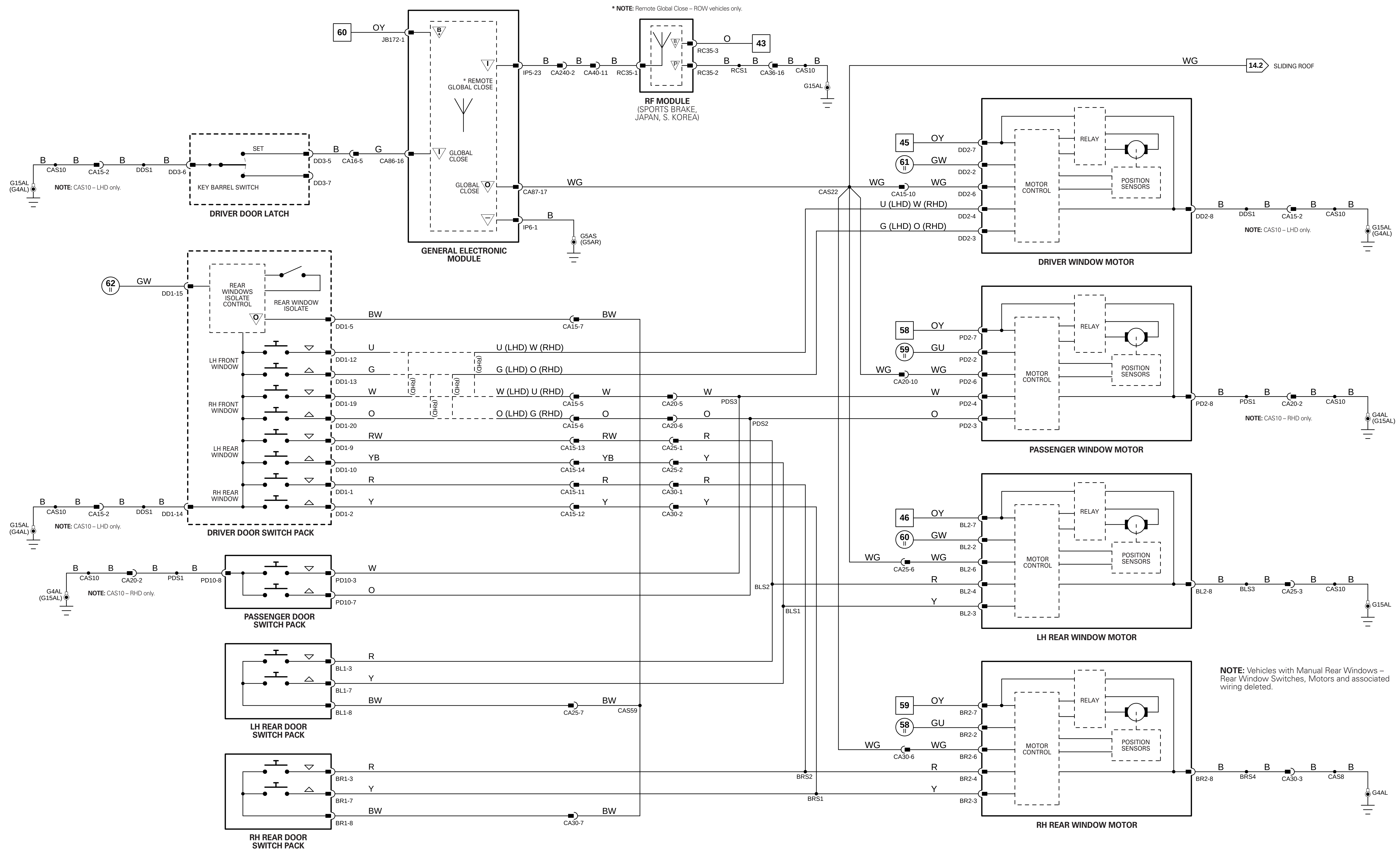
1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 T → 10 T Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	− Sensor/Signal Ground	C SCP	D Serial and Encoded Data

VARIANT: Rain Sensing Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	− Sensor/Signal Ground	C SCP	D Serial and Encoded Data

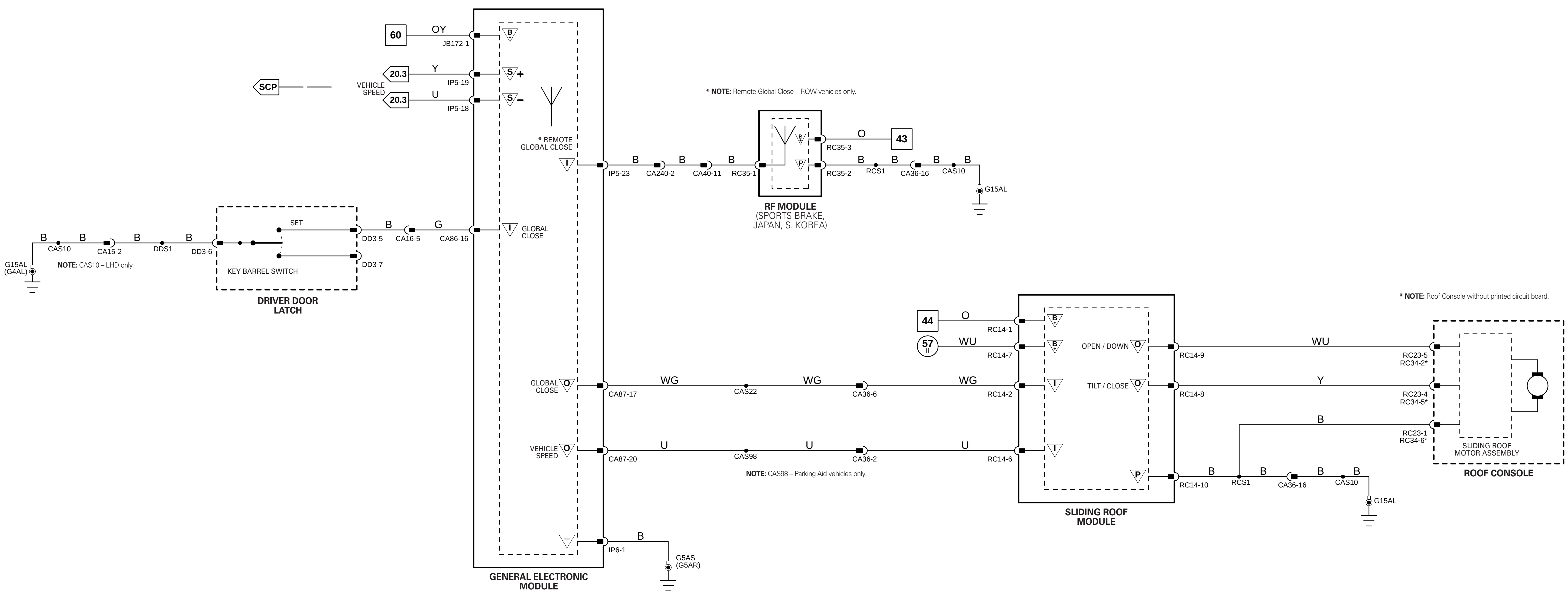
VARIANT: Sports Brake Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6	Fig. 01.1	34 → 79	Fig. 01.3	11 → 31	Fig. 01.5	67 → 76	Fig. 01.7	98 → 107	Fig. 01.9
7 → 33	Fig. 01.2	1 → 10	Fig. 01.4	32 → 66	Fig. 01.6	77 → 97	Fig. 01.8		

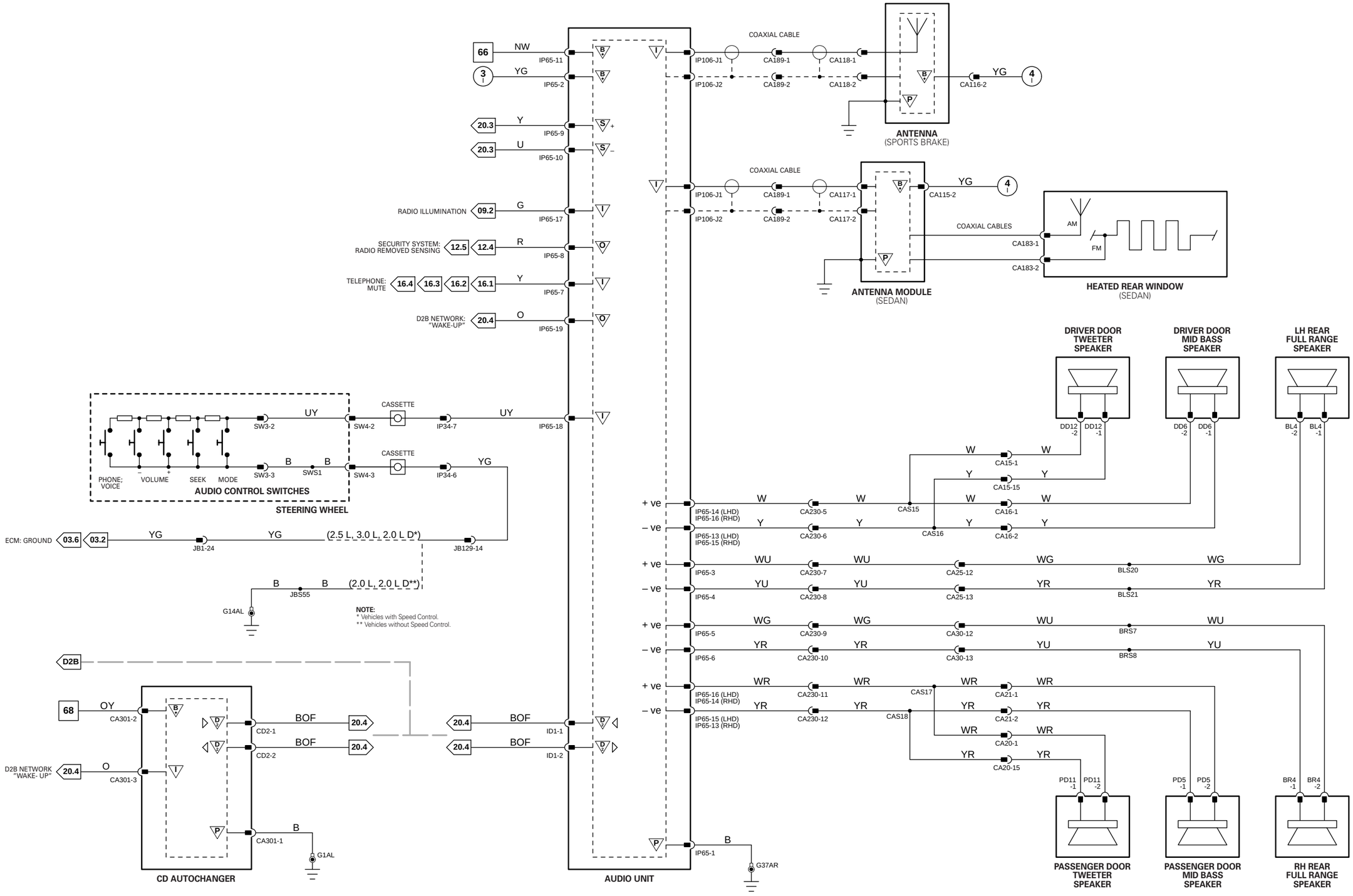
I Input · O Output · B Battery Voltage · P Power Ground · + Sensor/Signal Supply V · – Sensor/Signal Ground · A CAN · C SCP · S D2B Network · D Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



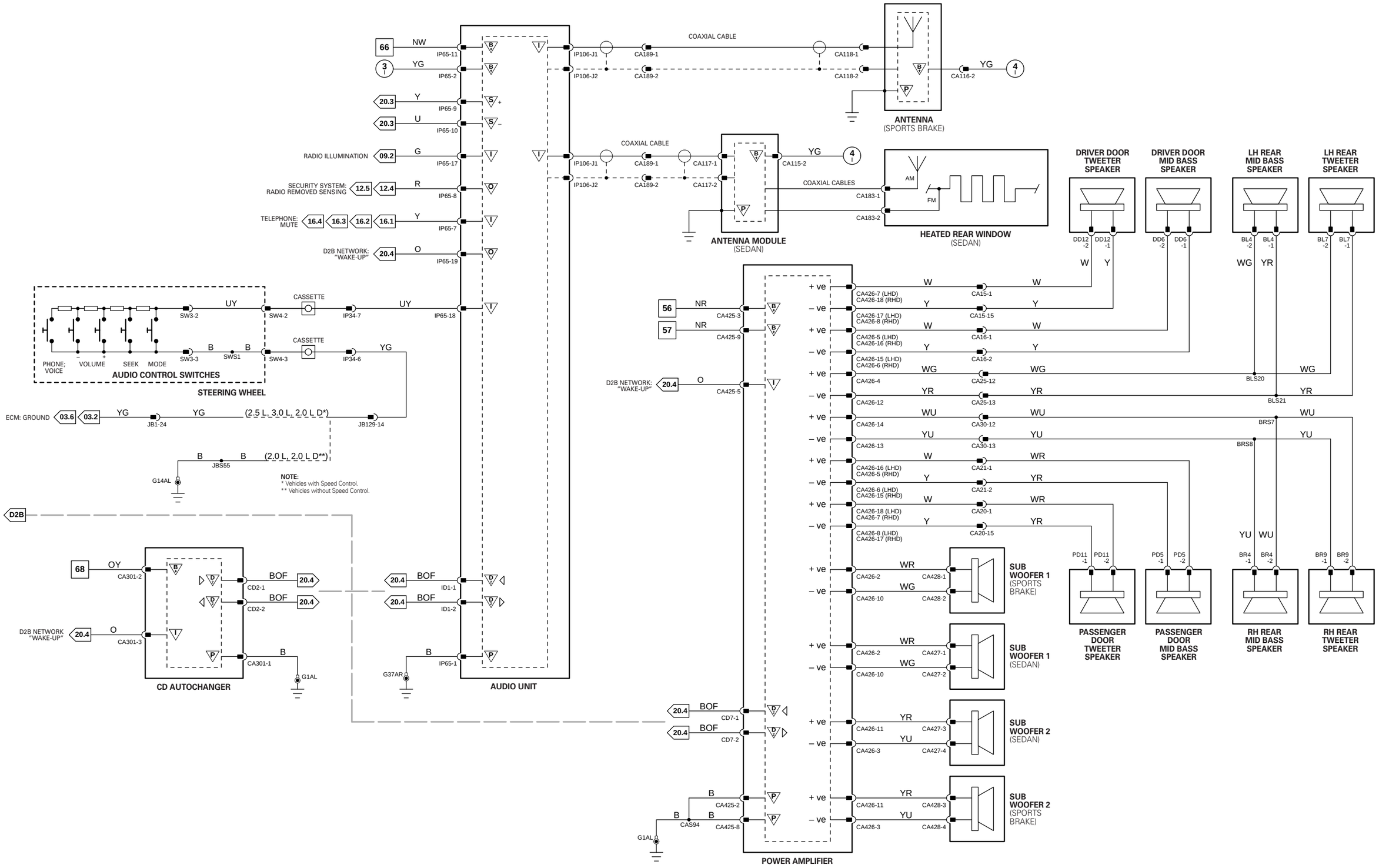
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Sliding Roof Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 (U) → 31 (U) Fig. 01.5	67 (B) → 76 (B) Fig. 01.7	98 (E) → 107 (E) Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 (I) → 10 (I) Fig. 01.4	32 (U) → 66 (U) Fig. 01.6	77 (E) → 97 (E) Fig. 01.8		O Output	P Power Ground	– Sensor/Signal Ground	C SCP	D Serial and Encoded Data

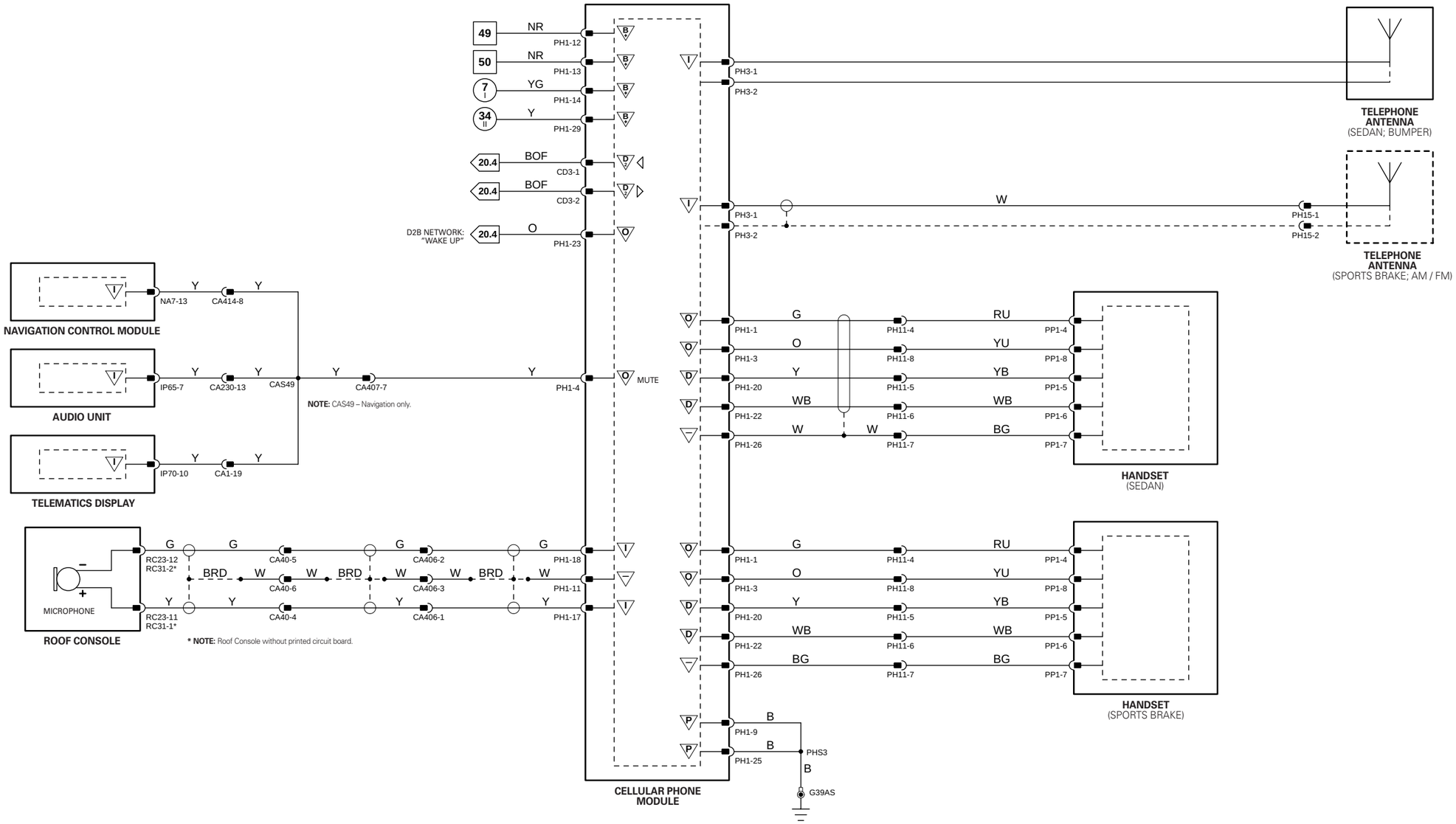
VARIANT: Standard ICE Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
I → 10 I Fig. 01.4
11 II → 31 II Fig. 01.5
32 II → 66 II Fig. 01.6
67 B → 76 B Fig. 01.7
77 E → 97 E Fig. 01.8
98 E → 107 E Fig. 01.9

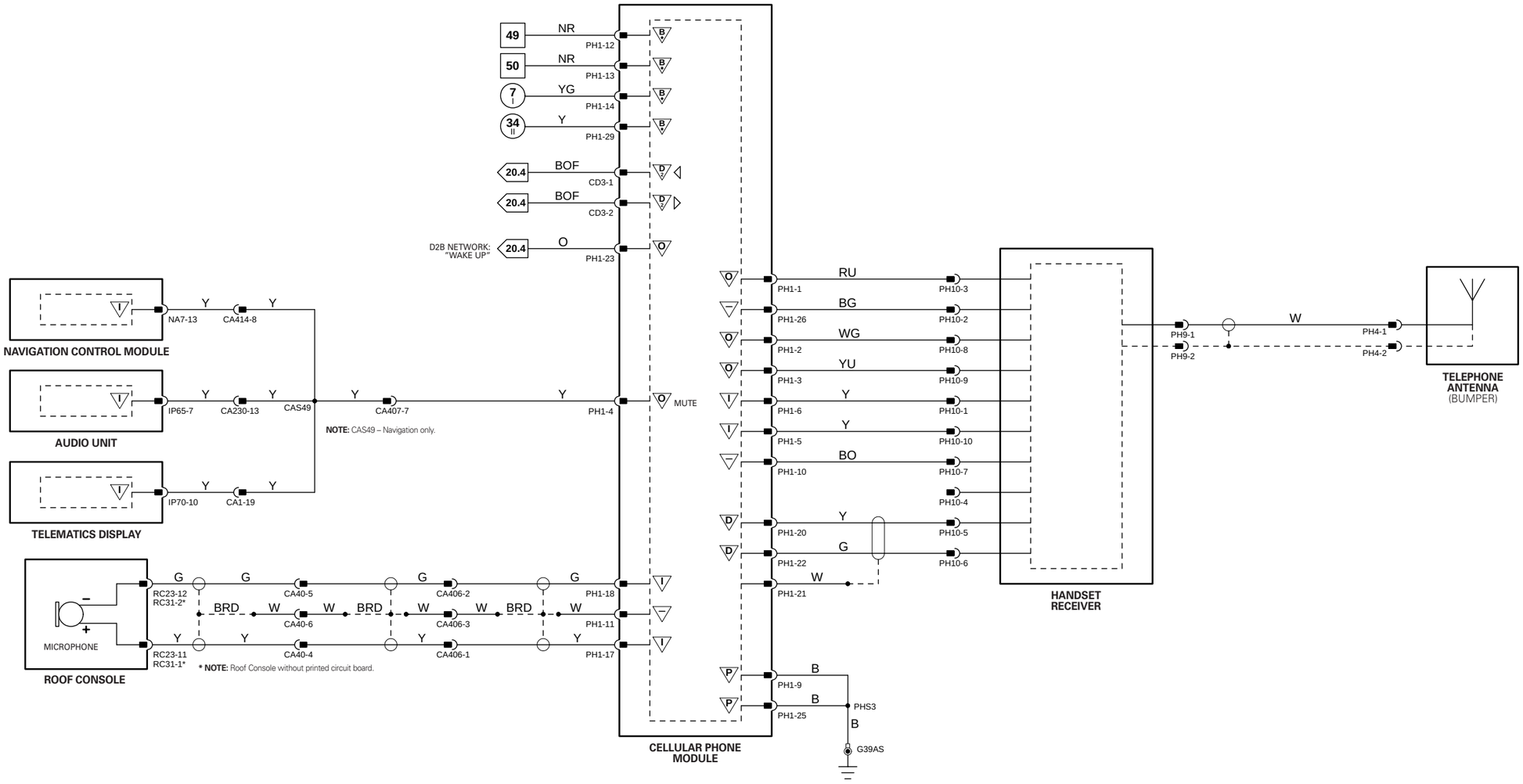
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Premium ICE Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 → 31 Fig. 01.5	67 → 76 Fig. 01.7	98 → 107 Fig. 01.9	Input	Battery Voltage	Sensor/Signal Supply V	CAN	D2B Network
7 → 33 Fig. 01.2	1 → 10 Fig. 01.4	32 → 66 Fig. 01.6	77 → 97 Fig. 01.8		Output	Power Ground	Sensor/Signal Ground	SCP	Serial and Encoded Data

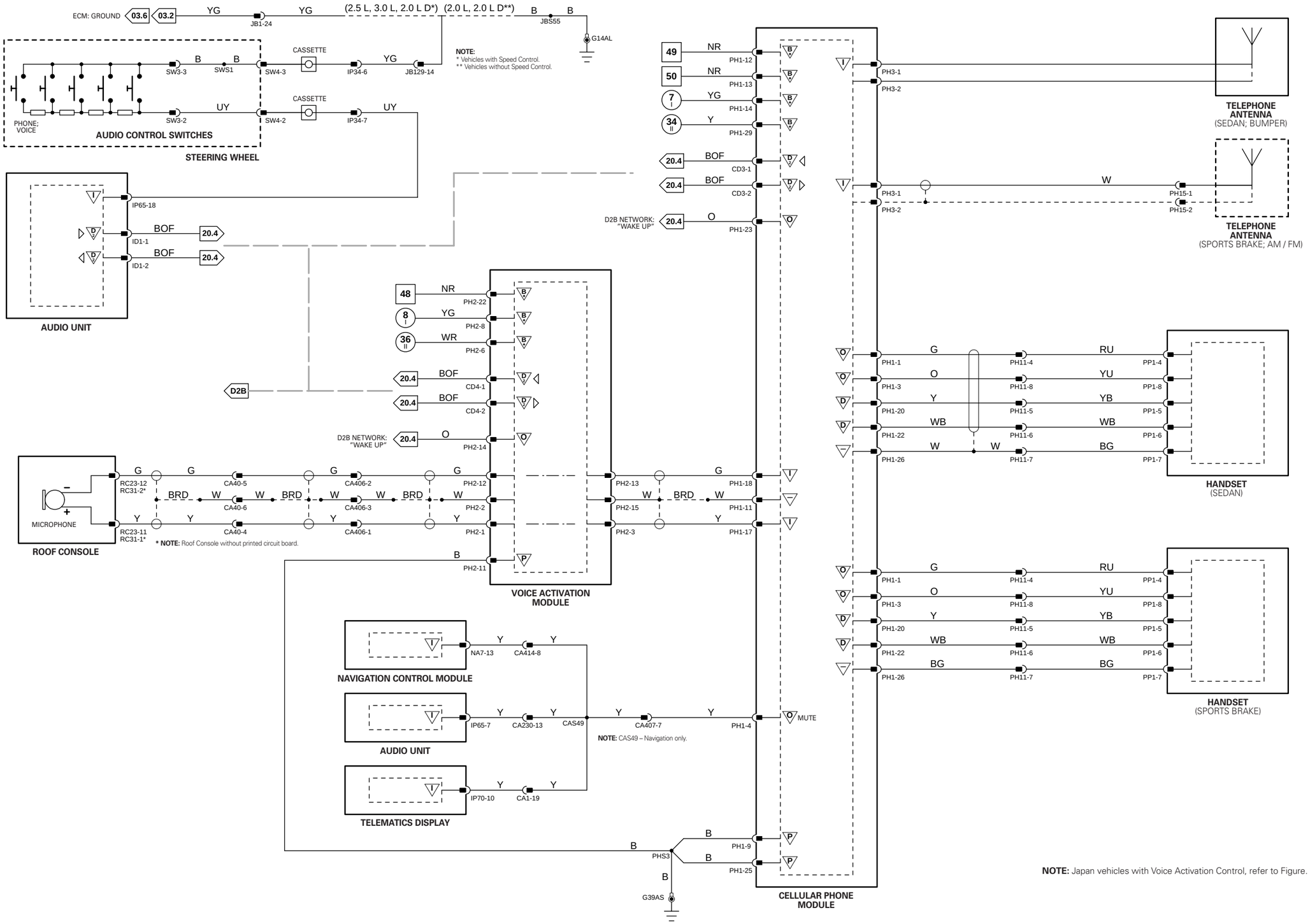
VARIANT: ROW Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: NAS Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

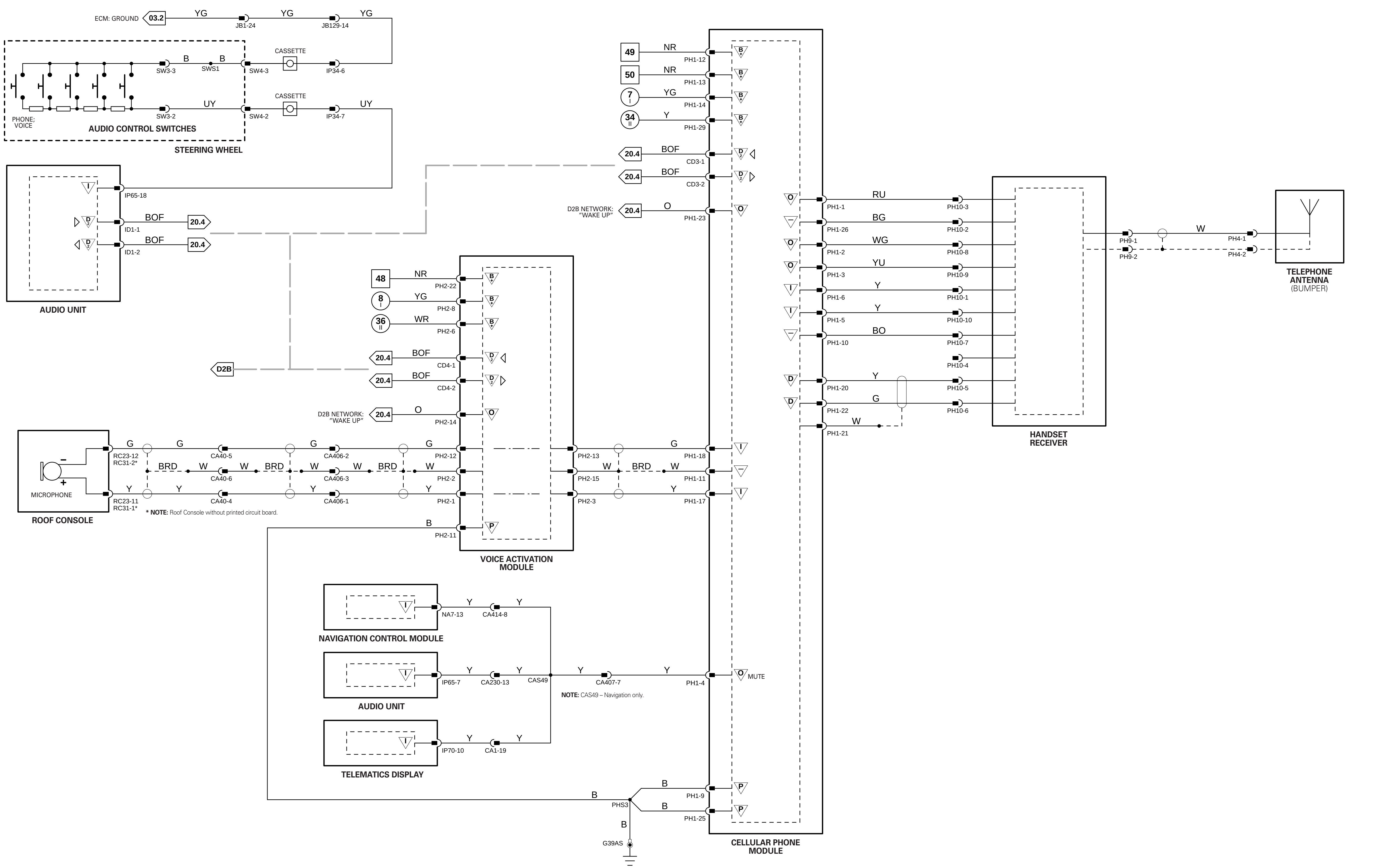


1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

Input
Output
Battery Voltage
Power Ground
Sensor/Signal Supply V
Sensor/Signal Ground
CAN
SCP
D2B Network
Serial and Encoded Data

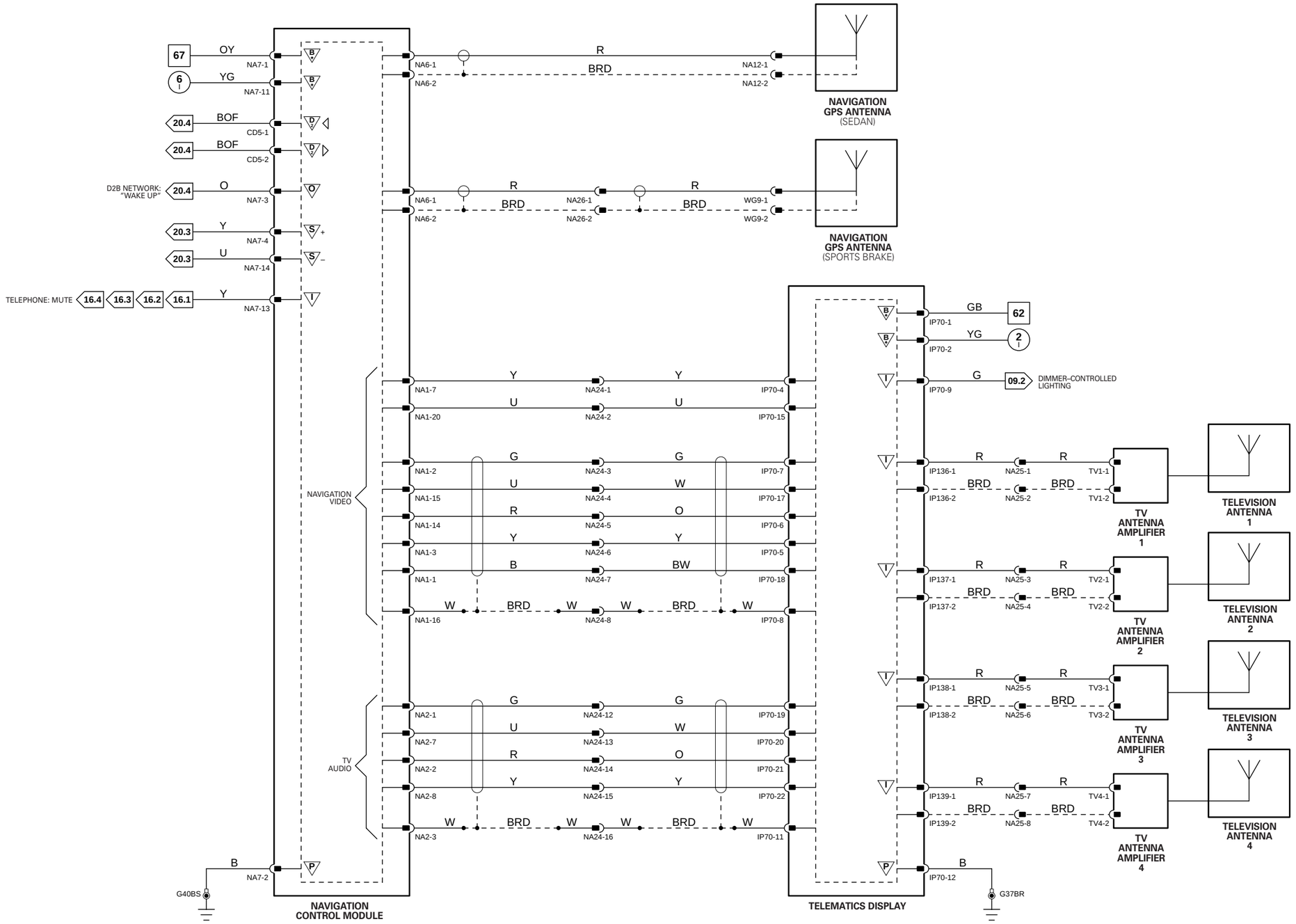
VARIANT: ROW Voice Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

Telephone with Voice Control: NAS



I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
O Output	P Power Ground	– Sensor/Signal Ground	C SCP	D Serial and Encoded Data

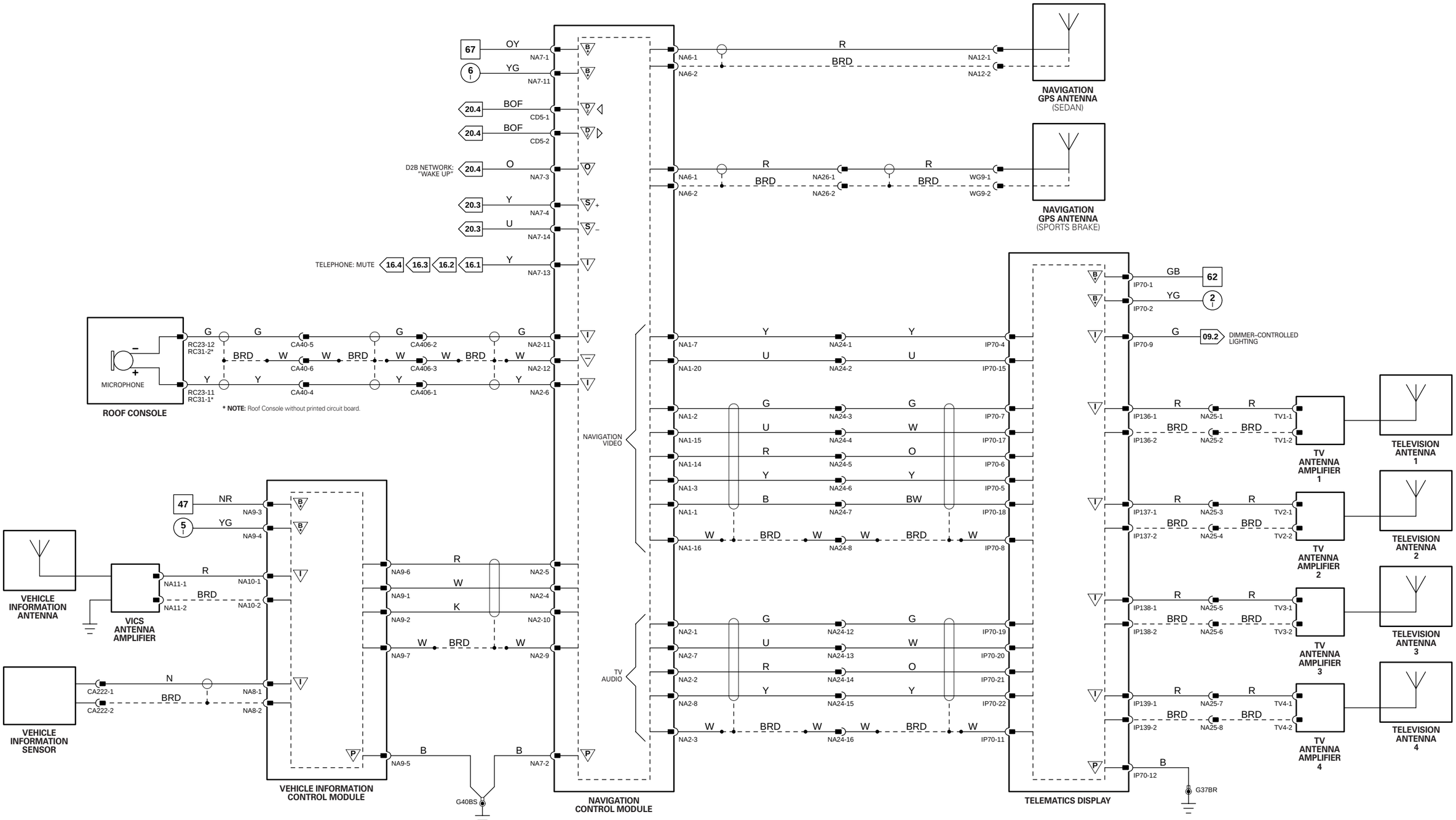
VARIANT: NAS Voice Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

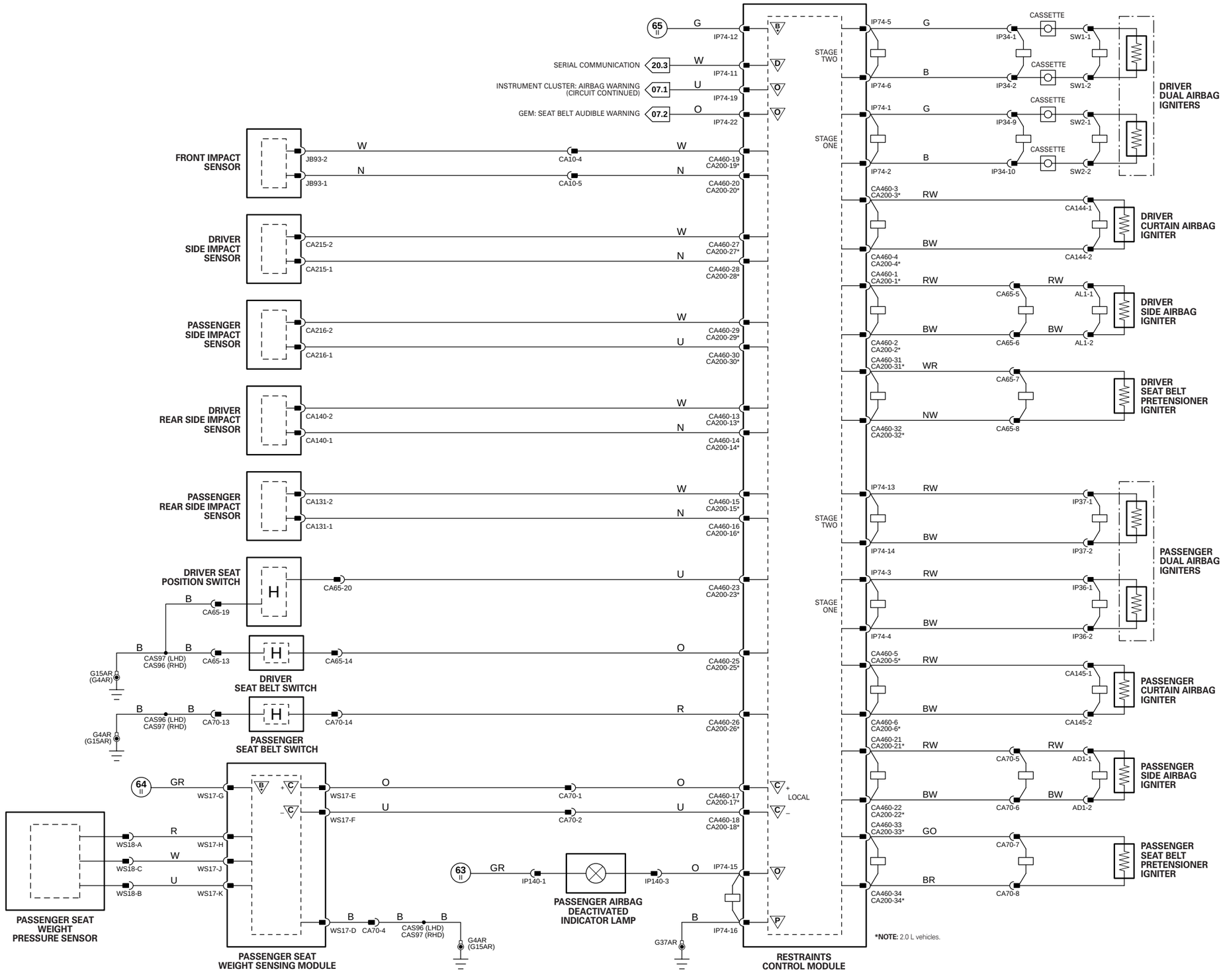
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: NAV Vehicles (except Japan)
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 U → 31 U Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 U → 66 U Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	– Sensor/Signal Ground	C SCP	D Serial and Encoded Data

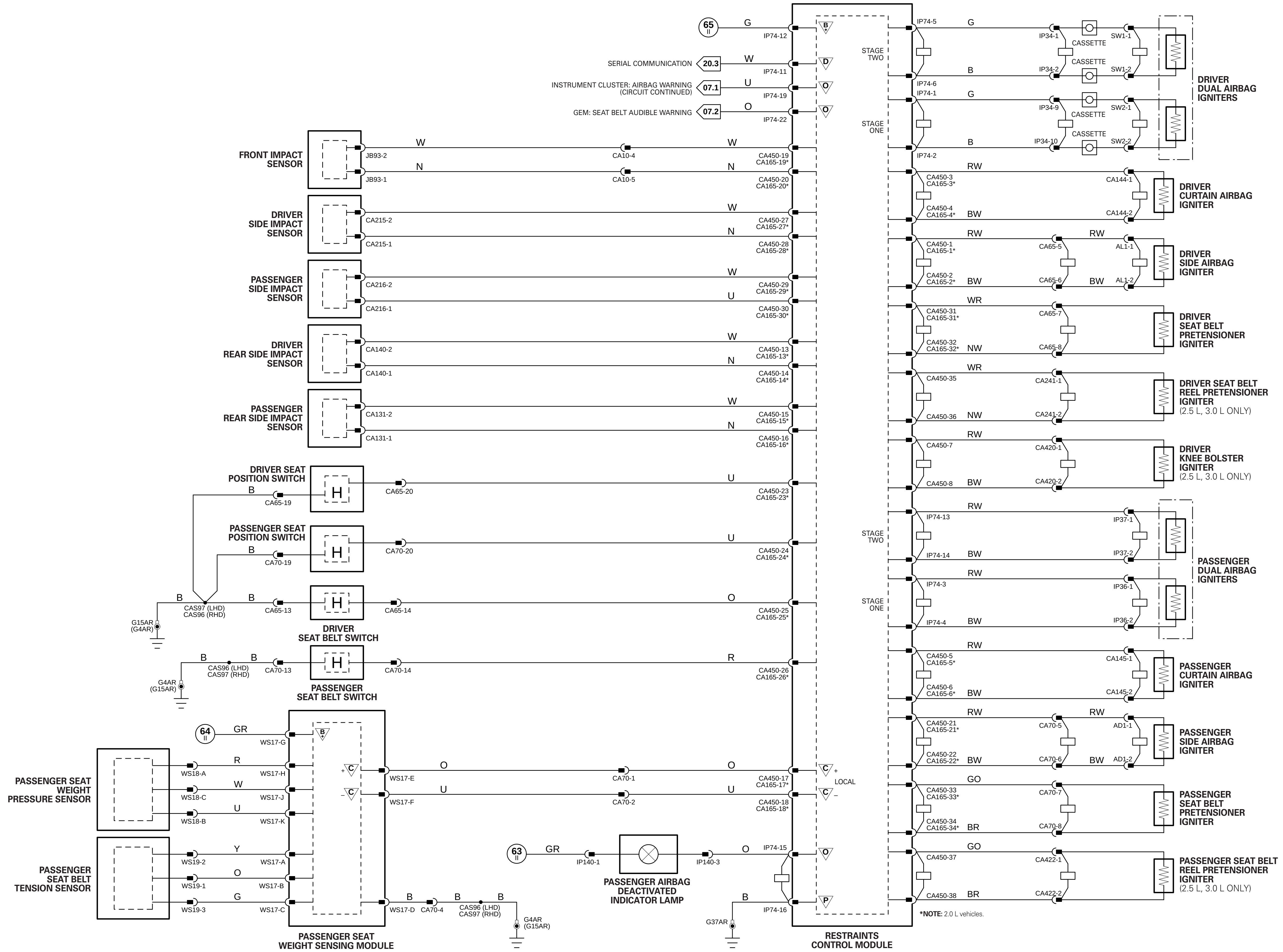
VARIANT: Japan Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 II → 31 II Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 II → 66 II Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	− Sensor/Signal Ground	C SCP	D Serial and Encoded Data

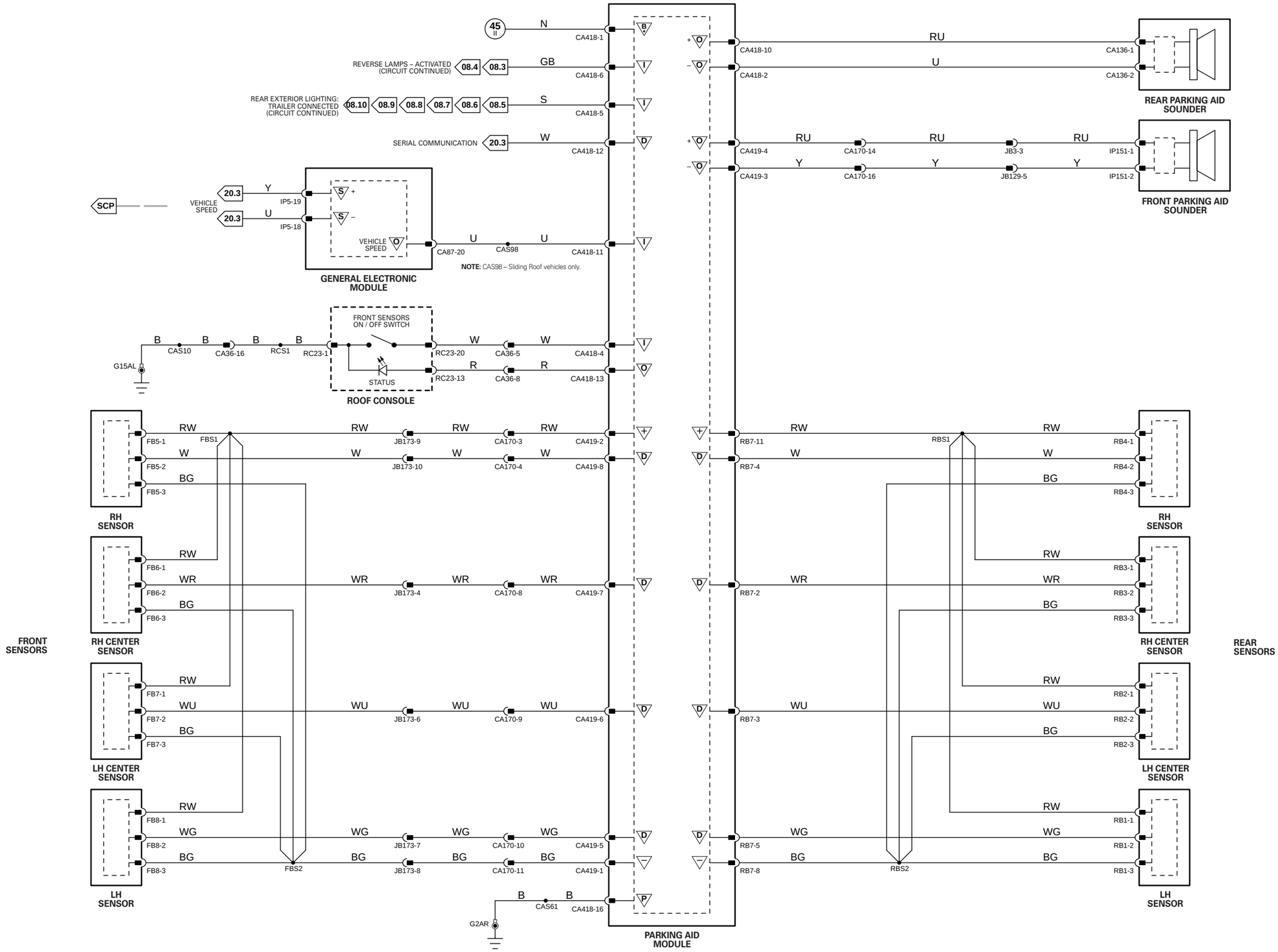
VARIANT: Sedan Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

Advanced Restraint System: Sports Brake



I Input — B Battery Voltage — + Sensor/Signal Supply V — A CAN — S D2B Network
O Output — P Power Ground — − Sensor/Signal Ground — C SCP — D Serial and Encoded Data

VARIANT: Sports Brake Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

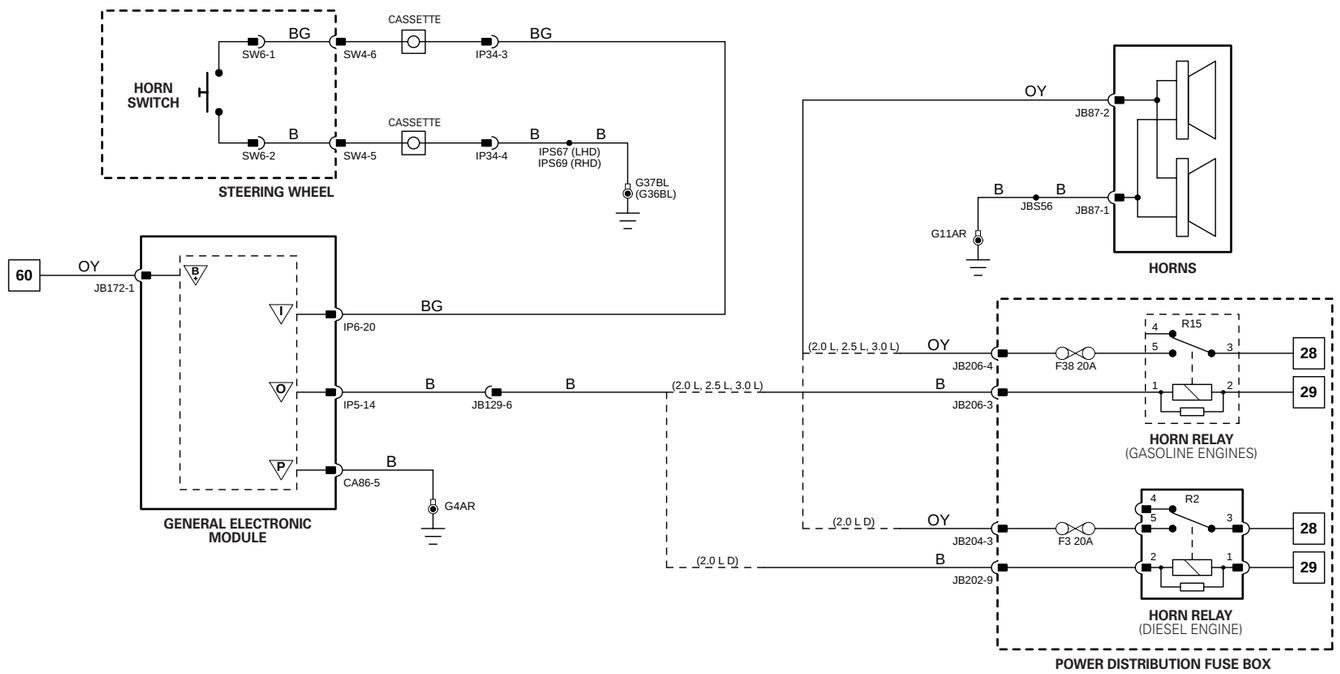


1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 I → 10 I Fig. 01.4
11 U → 31 U Fig. 01.5
32 U → 66 U Fig. 01.6
67 B → 76 B Fig. 01.7
77 E → 97 E Fig. 01.8
98 E → 107 E Fig. 01.9

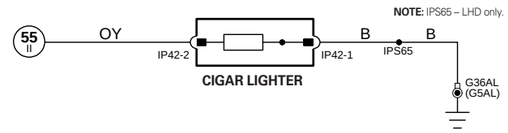
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: Parking Aid Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

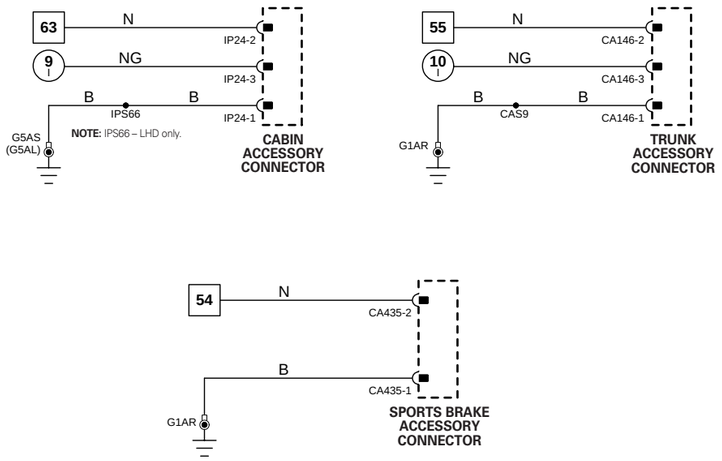
HORN



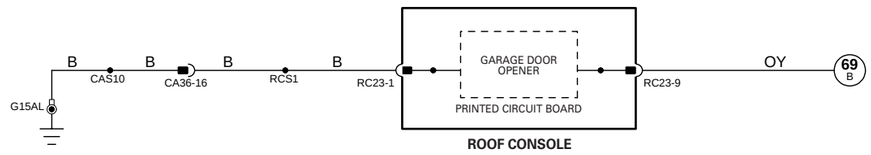
CIGAR LIGHTER



ACCESSORY CONNECTORS



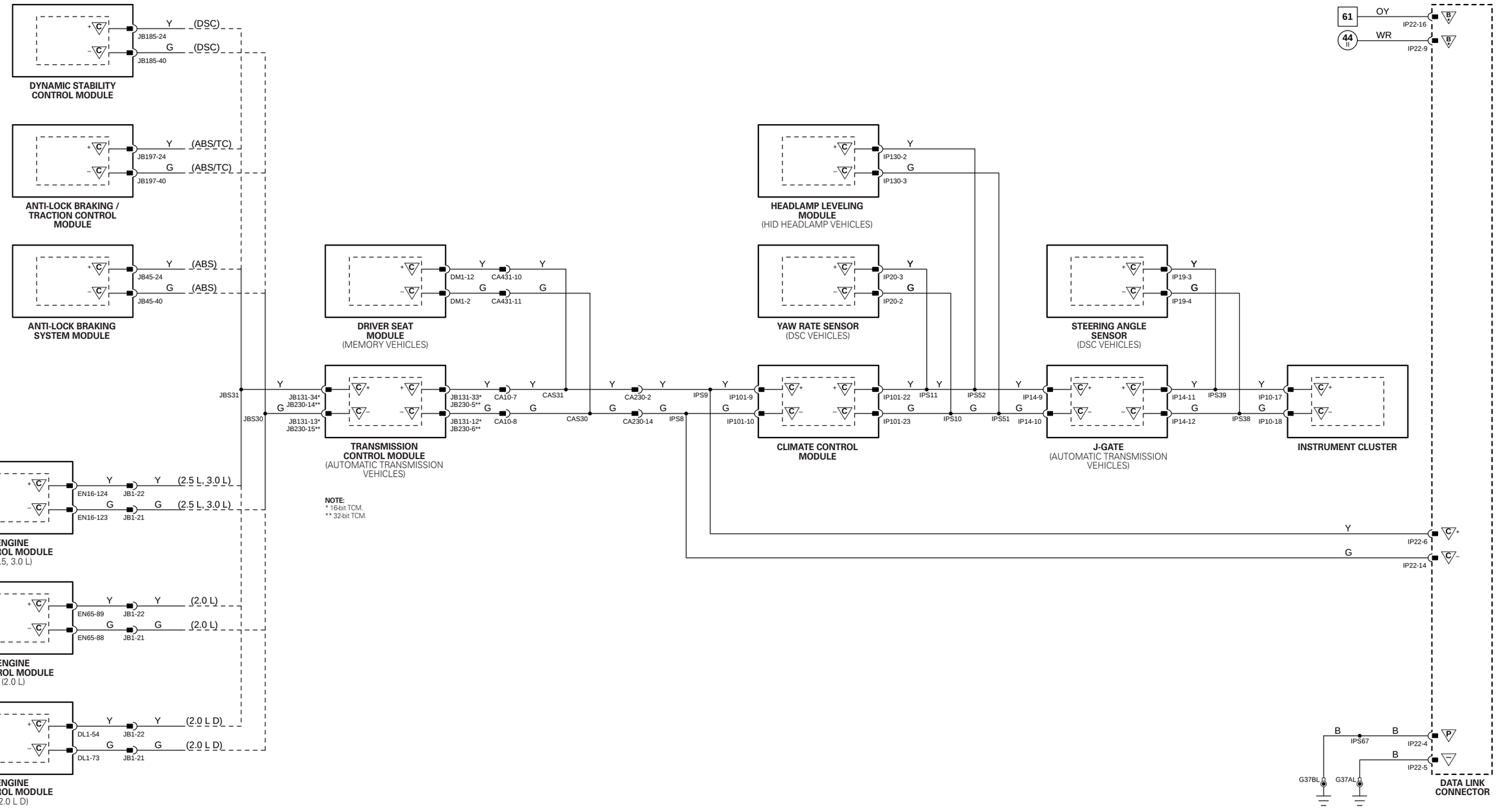
GARAGE DOOR OPENER



1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 I → 10 I Fig. 01.4
11 II → 31 II Fig. 01.5
32 II → 66 II Fig. 01.6
67 B → 76 B Fig. 01.7
77 E → 97 E Fig. 01.8
98 E → 107 E Fig. 01.9

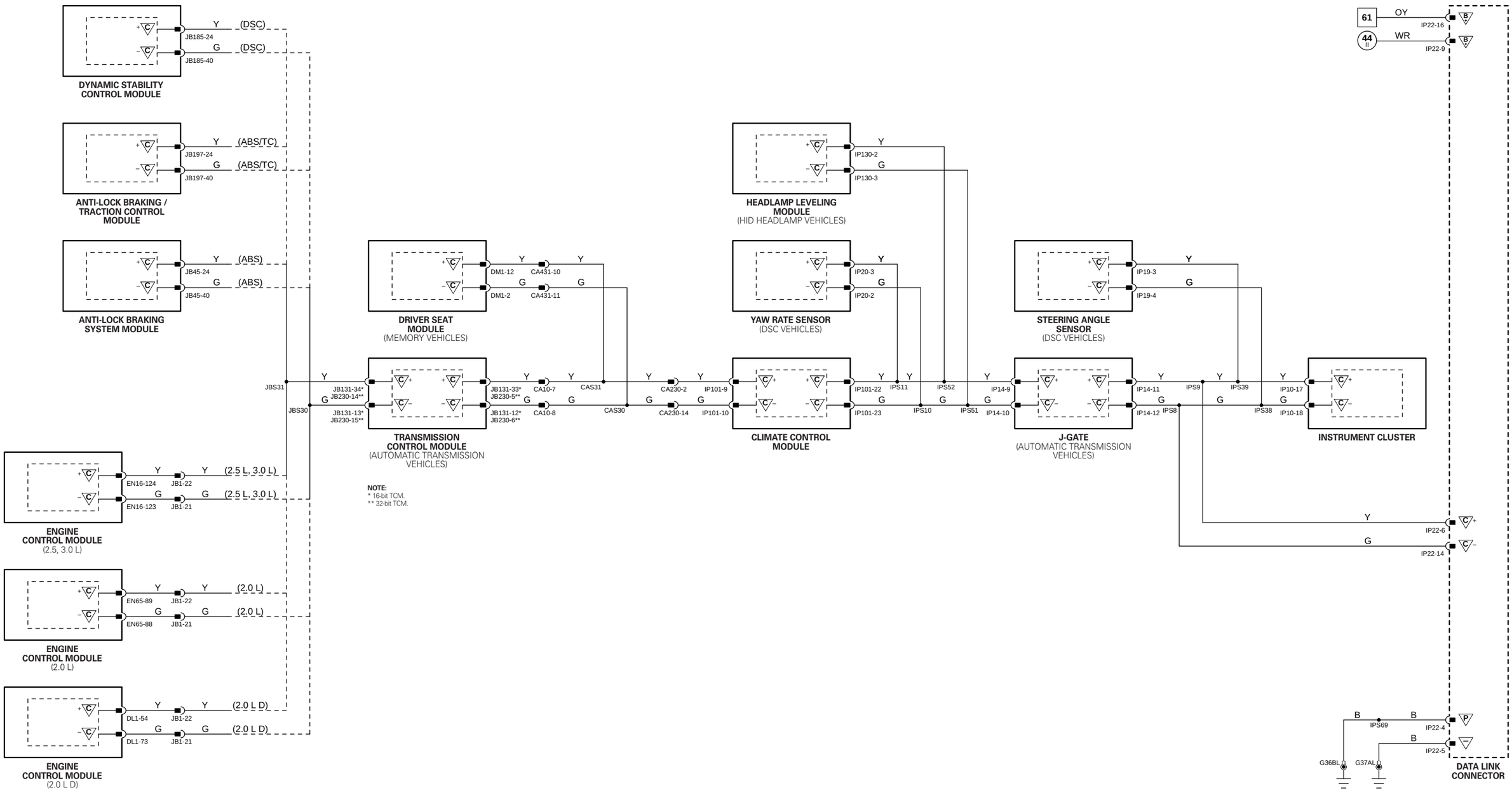
I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



1 → 6 Fig. 01.1	34 → 79 Fig. 01.3	11 U → 31 U Fig. 01.5	67 B → 76 B Fig. 01.7	98 E → 107 E Fig. 01.9	I Input	B Battery Voltage	+ Sensor/Signal Supply V	A CAN	S D2B Network
7 → 33 Fig. 01.2	1 I → 10 I Fig. 01.4	32 U → 66 U Fig. 01.6	77 E → 97 E Fig. 01.8		O Output	P Power Ground	− Sensor/Signal Ground	C SCP	D Serial and Encoded Data

VARIANT: LHD Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)

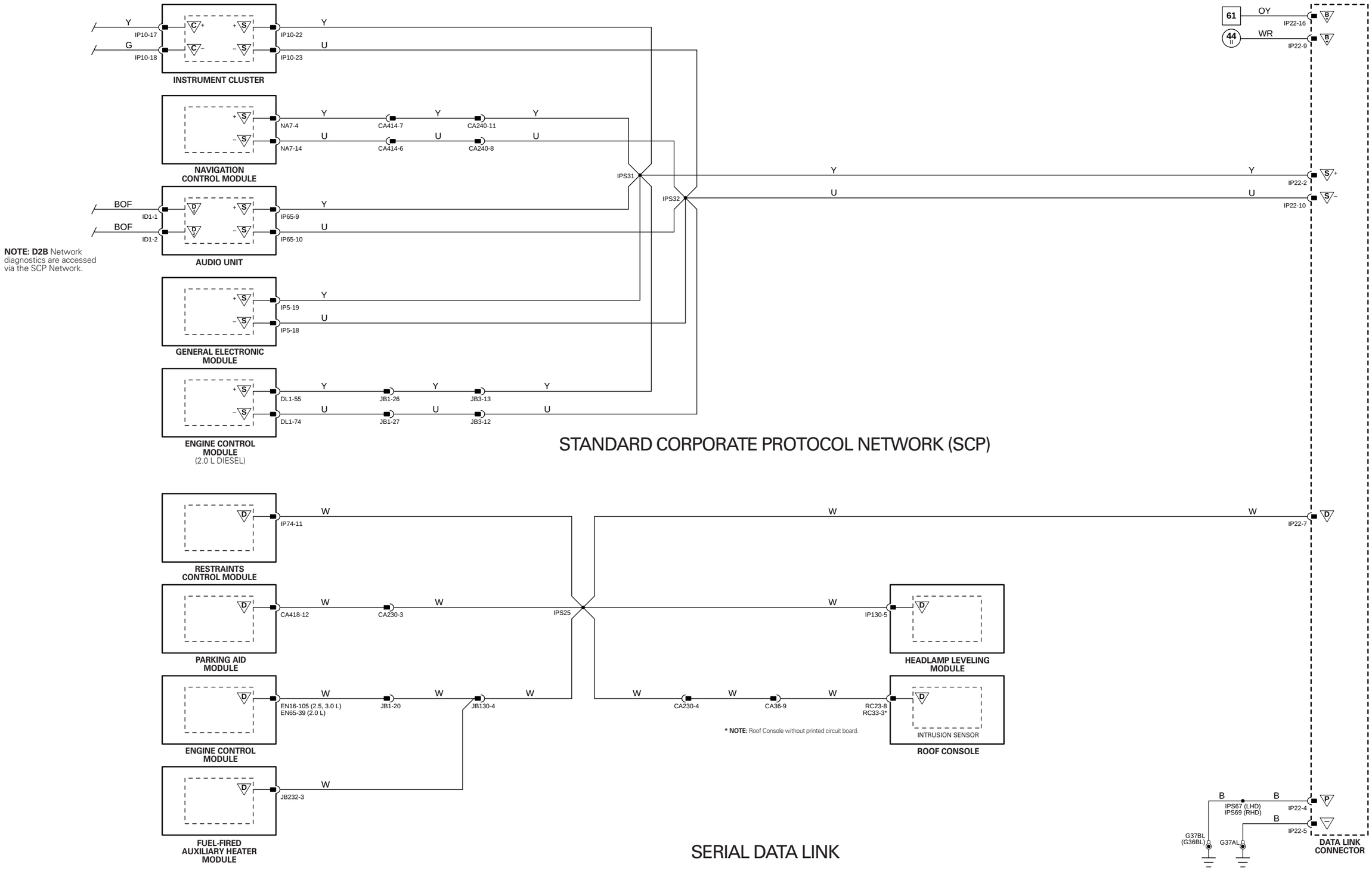


NOTE:
* 16-bit TCM.
** 32-bit TCM.

1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 → 31 Fig. 01.5
32 → 66 Fig. 01.6
67 → 76 Fig. 01.7
77 → 97 Fig. 01.8
98 → 107 Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: RHD Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



NOTE: D2B Network diagnostics are accessed via the SCP Network.

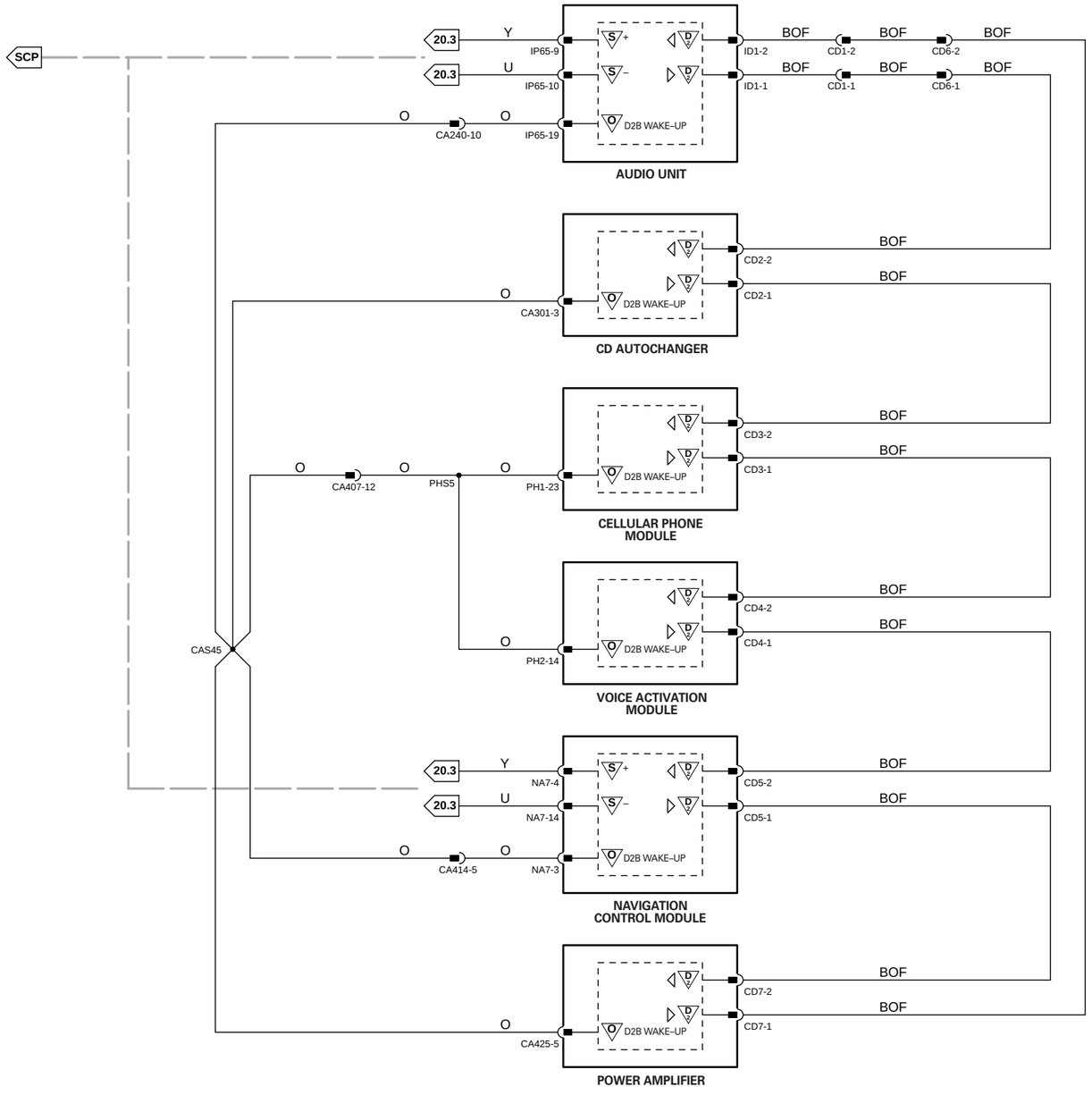
STANDARD CORPORATE PROTOCOL NETWORK (SCP)

SERIAL DATA LINK

1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 → 10 Fig. 01.4
11 II → 31 II Fig. 01.5
32 II → 66 II Fig. 01.6
67 B → 76 B Fig. 01.7
77 E → 97 E Fig. 01.8
98 E → 107 E Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
− Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)



NOTES:

The 6-module D2B Network shown depicts the greatest number of modules available. D2B Networks containing less than 6 modules are always connected in the sequence shown from top to bottom.

Audio Unit – Master Module
1 – CD Autochanger
2 – Cellular Phone Module
3 – Voice Activation Module
4 – Navigation Control Module
5 – Power Amplifier

When modules are not fitted to the vehicle, the fiber optic cables and the connectors are deleted. Therefore, each Network containing less than 6 modules has a unique fiber optic and "wake up" circuit.

D2B Network diagnostics via SCP Network – refer to Figure 20.3.

1 → 6 Fig. 01.1
7 → 33 Fig. 01.2
34 → 79 Fig. 01.3
1 (I) → 10 (I) Fig. 01.4
11 (II) → 31 (II) Fig. 01.5
32 (II) → 66 (II) Fig. 01.6
67 (B) → 76 (B) Fig. 01.7
77 (E) → 97 (E) Fig. 01.8
98 (E) → 107 (E) Fig. 01.9

I Input
O Output
B Battery Voltage
P Power Ground
+ Sensor/Signal Supply V
– Sensor/Signal Ground
A CAN
C SCP
S D2B Network
D Serial and Encoded Data

VARIANT: All Vehicles
VIN RANGE: All
DATE OF ISSUE: June 2003 (PROVISIONAL)