

General Electronic Module

	Pin	Description and Characteristic
S	IP5-18	SCP -
S	IP5-19	SCP +
I	IP6-18	SEAT BELT AND AIRBAG AUDIBLE WARNING REQUEST: AUDIBLE WARNING REQUEST ACTIVE = GROUND

Instrument Cluster

	Pin	Description and Characteristic
I	IP10-01	REVERSE LAMP SWITCH: B+ WHEN ACTIVATED
I	IP10-07	FUEL LEVEL SENSOR 1 SIGNAL: VARIABLE RESISTANCE: 20 R = EMPTY; 160 R = FULL
I	IP10-08	FUEL LEVEL SENSOR 2 SIGNAL: VARIABLE RESISTANCE: 20 R = EMPTY; 160 R = FULL
SG	IP10-09	FUEL LEVEL SENSOR REFERENCE: GROUND
I	IP10-10	MAIN BEAM STATUS: B+ WHEN ACTIVATED
I	IP10-11	WASHER FLUID LEVEL LOW SIGNAL: FLUID LEVEL LOW = GROUND
I	IP10-12	BRAKE FLUID LEVEL WARNING SIGNAL: FLUID LEVEL LOW = GROUND
I	IP10-15	PARKING BRAKE SIGNAL: PARKING BRAKE ON = GROUND
I	IP10-16	TRIP COMPUTER CYCLE SWITCH: GROUND WHEN ACTIVATED
C	IP10-17	CAN +
C	IP10-18	CAN -
I	IP10-19	FRONT FOG STATUS (HARD WIRED TO INDICATOR): B+ WHEN ACTIVATED
I	IP10-20	REAR FOG STATUS (HARD WIRED TO INDICATOR): B+ WHEN ACTIVATED
S	IP10-22	SCP +
S	IP10-23	SCP -
I	IP10-24	TRIP COMPUTER MODE SIGNAL: STEPPED RESISTANCE
SG	IP10-25	TRIP COMPUTER SWITCH PACK REFERENCE: GROUND
I	IP11-05	ENGINE OIL PRESSURE SIGNAL: ENGINE OIL PRESSURE PRESENT = GROUND
I	IP11-07	BATTERY POWER SUPPLY: B+
I	IP11-08	POWER GROUND: GROUND
I	IP11-11	IGNITION SWITCHED POWER SUPPLY (II): B+
I	IP11-13	IGNITION SWITCHED POWER SUPPLY (I): B+
I	IP11-15	SIDE LAMPS STATUS: B+ WHEN ACTIVATED
I	IP11-17	DIP BEAM STATUS: B+ WHEN ACTIVATED
I	IP11-19	AIR BAG WARNING: HARD WIRED TO AIR BAG INDICATOR
I	IP11-21	DIMMER CONTROLLED ILLUMINATION: PWM, 80 Hz, GROUND = 0% DUTY CYCLE, B+ = 100% DUTY CYCLE; HARD WIRED TO BACK LIGHTING; MICRO SENSED FOR DISPLAY

Fig. 07.1

COMPONENTS

Component	Connector(s)	Connector Description	Location
BRAKE FLUID LEVEL SWITCH	JB70	3-WAY / BLACK	BRAKE MASTER CYLINDER
FUEL LEVEL SENSOR - 2.0 L, Diesel	CA415	6-WAY / BLACK	FUEL TANK
FUEL LEVEL SENSOR 1 - 2.5 L, 3.0 L (NAS)	FT6	6-WAY / BLACK	FUEL TANK
FUEL LEVEL SENSOR 1 - 2.5 L, 3.0 L (ROW)	FT2	4-WAY / BLACK	FUEL TANK
FUEL LEVEL SENSOR 2 - 2.5 L, 3.0 L (NAS)	FT6	6-WAY / BLACK	FUEL TANK
FUEL LEVEL SENSOR 2 - 2.5 L, 3.0 L (ROW)	FT3	4-WAY / BLACK	FUEL TANK
GENERAL ELECTRONIC MODULE	CA86	23-WAY / GREY	BEHIND INSTRUMENT PANEL / RH SIDE
	CA87	23-WAY / GREEN	
	IP5	23-WAY / BROWN	
	IP6	23-WAY / NATURAL	
	JB172	23-WAY / BLUE	
INSTRUMENT CLUSTER	IP10	26-WAY / WHITE	INSTRUMENT PANEL
	IP11	26-WAY / WHITE	
MASTER LIGHTING SWITCH	IP17	16-WAY / BLACK	INSTRUMENT PANEL
OIL PRESSURE SWITCH - Diesel	DE4	1-WAY / BLACK	ABOVE ENGINE OIL FILTER
OIL PRESSURE SWITCH - 2.0 L, 2.5 L, 3.0 L	EN19	1-WAY / BLACK	ADJACENT TO ENGINE OIL FILTER
PARKING BRAKE SWITCH	IP72	1-WAY / ORANGE	PARKING BRAKE
RESTRAINTS CONTROL MODULE - ALL WHEEL DRIVE VEHICLES	CA450	40-WAY / BLACK	UNDER CENTER CONSOLE
	IP74	24-WAY / BLACK	
RESTRAINTS CONTROL MODULE - FRONT WHEEL DRIVE VEHICLES	CA165	40-WAY / BLACK	UNDER CENTER CONSOLE
	IP74	24-WAY / BLACK	
TURN SIGNAL SWITCH	IP53	10-WAY / GREY	STEERING COLUMN
WASHER FLUID LEVEL SWITCH	JB103	2-WAY / BLACK	ENGINE COMPARTMENT / RH FRONT

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CA1	22-WAY / NATURAL / INSTRUMENT PANEL HARNESS TO CABIN HARNESS	LH 'A' POST / 'A' POST TRIM
CA5	12-WAY / BLACK / FUEL TANK LINK HARNESS TO CABIN HARNESS	TOP OF FUEL TANK
CA169	4-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	LH LOWER A POST / A POST TRIM
CA240	12-WAY / GREY / CABIN HARNESS TO INSTRUMENT PANEL HARNESS	LH LOWER 'A' POST / 'A' POST TRIM
DL2	42-WAY / BLACK / ENGINE HARNESS TO ENGINE MANAGEMENT HARNESS	ENGINE COMPARTMENT / RH SIDE
JB1	42-WAY / BLACK / ENGINE MANAGEMENT HARNESS TO JUNCTION BOX HARNESS	ENGINE COMPARTMENT / LH SIDE
JB129	22-WAY / GREY / JUNCTION BOX HARNESS TO INSTRUMENT PANEL HARNESS	BELOW INSTRUMENT PANEL / LH SIDE

GROUNDS

Ground	Harness	Location
G10	JB	ENGINE COMPARTMENT / BEHIND RH HEADLAMP
G14	JB	ENGINE COMPARTMENT / BEHIND POWER DISTRIBUTION FUSEBOX
G36	IP	BEHIND INSTRUMENT PANEL / LH SIDE OF CROSS CAR BEAM
G37	IP	BEHIND INSTRUMENT PANEL / RH SIDE OF CROSS CAR BEAM

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

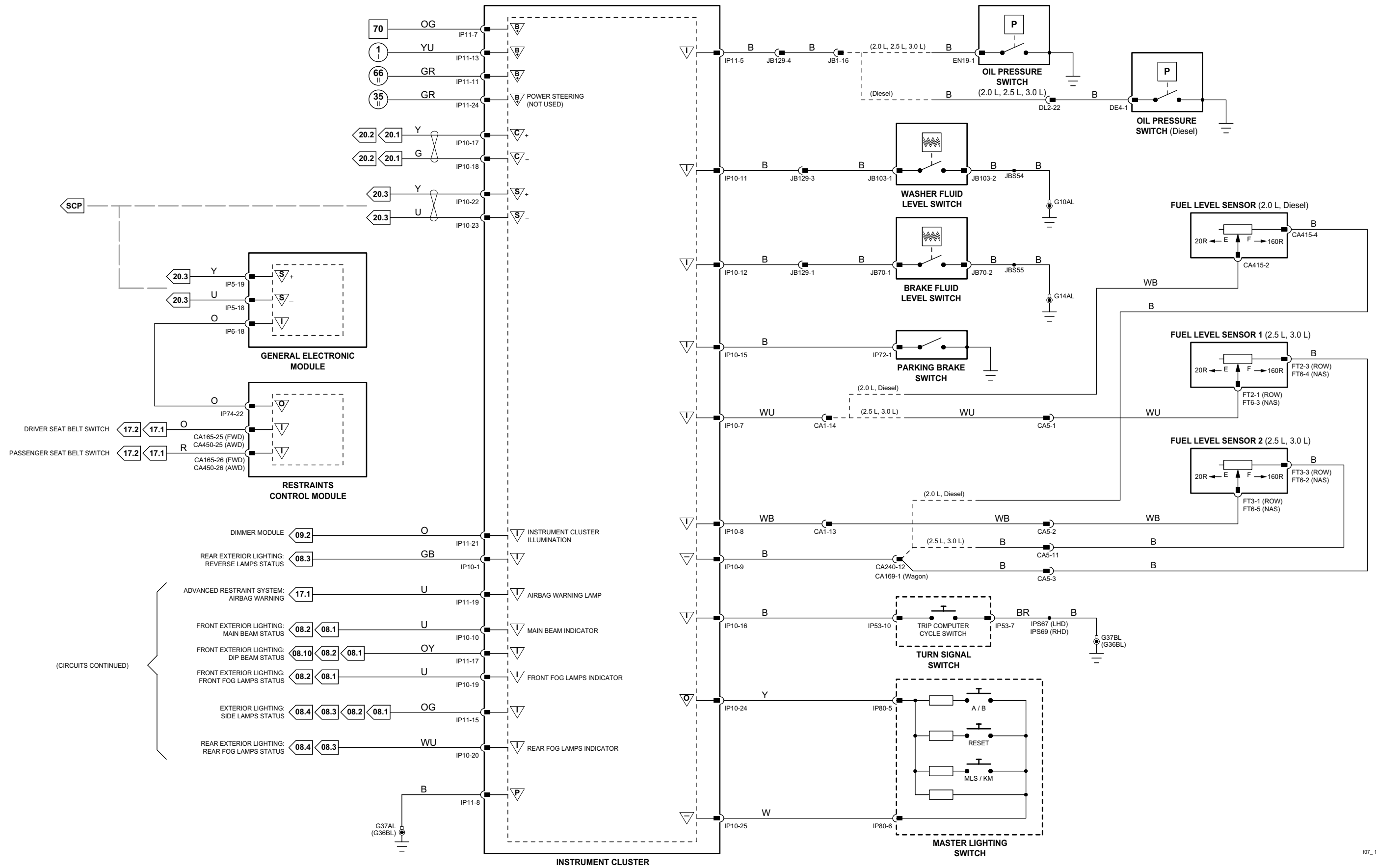
The following abbreviations are used to represent values for Control Module Pin-Out data

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

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

NOTE: The values listed are approximately those that can be expected at the control module connector pins with all circuit connections made and all components connected and fitted.

Refer to the front of this book for detailed information and illustrations regarding the location and identification of harnesses, relays, fuses, grounds, control modules and control module pins.



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Fig. 07.2

General Electronic Module

	Pin	Description and Characteristic
PG	CA86-05	POWER GROUND
S	IP5-18	SCP -
S	IP5-19	SCP +
SG	IP6-01	LOGIC GROUND: GROUND
I	IP6-08	KEY-IN IGNITION SWITCH: B+ WHEN KEY IN
I	IP6-15	NOT-IN-PARK SWITCH: PARK = OPEN CIRCUIT; NOT-IN-PARK = GROUND
I	IP6-18	SEAT BELT AND AIRBAG AUDIBLE WARNING REQUEST: AUDIBLE WARNING REQUEST ACTIVE = GROUND
I	IP6-22	DRIVER DOOR AJAR: DOOR OPEN = OPEN CIRCUIT; DOOR CLOSED = GROUND
B+	JB172-05	BATTERY POWER SUPPLY (TURN SIGNALS): B+

Instrument Cluster

	Pin	Description and Characteristic
S	IP10-22	SCP +
S	IP10-23	SCP -

COMPONENTS

Component	Connector(s)	Connector Description	Location
DOOR LATCH - DRIVER	DD3	8-WAY / BLACK	DRIVER DOOR
	DD9	2-WAY / BLACK	
GENERAL ELECTRONIC MODULE	CA86	23-WAY / GREY	BEHIND INSTRUMENT PANEL / RH SIDE
	CA87	23-WAY / GREEN	
	IP5	23-WAY / BROWN	
	IP6	23-WAY / NATURAL	
	JB172	23-WAY / BLUE	
IGNITION SWITCH	IP18	7-WAY / BLACK	STEERING COLUMN
INSTRUMENT CLUSTER	IP10	26-WAY / WHITE	INSTRUMENT PANEL
	IP11	26-WAY / WHITE	
J-GATE MODULE	IP14	16-WAY / GREY	CENTER CONSOLE
RESTRAINTS CONTROL MODULE - ALL WHEEL DRIVE VEHICLES	CA450	40-WAY / BLACK	UNDER CENTER CONSOLE
	IP74	24-WAY / BLACK	
RESTRAINTS CONTROL MODULE - FRONT WHEEL DRIVE VEHICLES	CA165	40-WAY / BLACK	UNDER CENTER CONSOLE
	IP74	24-WAY / BLACK	

HARNESS IN-LINE CONNECTORS

Connector	Connector Description / Location	Location
CA1	22-WAY / NATURAL / INSTRUMENT PANEL HARNESS TO CABIN HARNESS	LH 'A' POST / 'A' POST TRIM
CA15	20-WAY / BLACK / CABIN HARNESS TO DRIVER DOOR HARNESS	DRIVER DOOR / DOOR CASING

GROUNDS

Ground	Harness	Location
G4	CA	LOWER RH 'A' POST
G5	IP	UPPER RH 'A' POST

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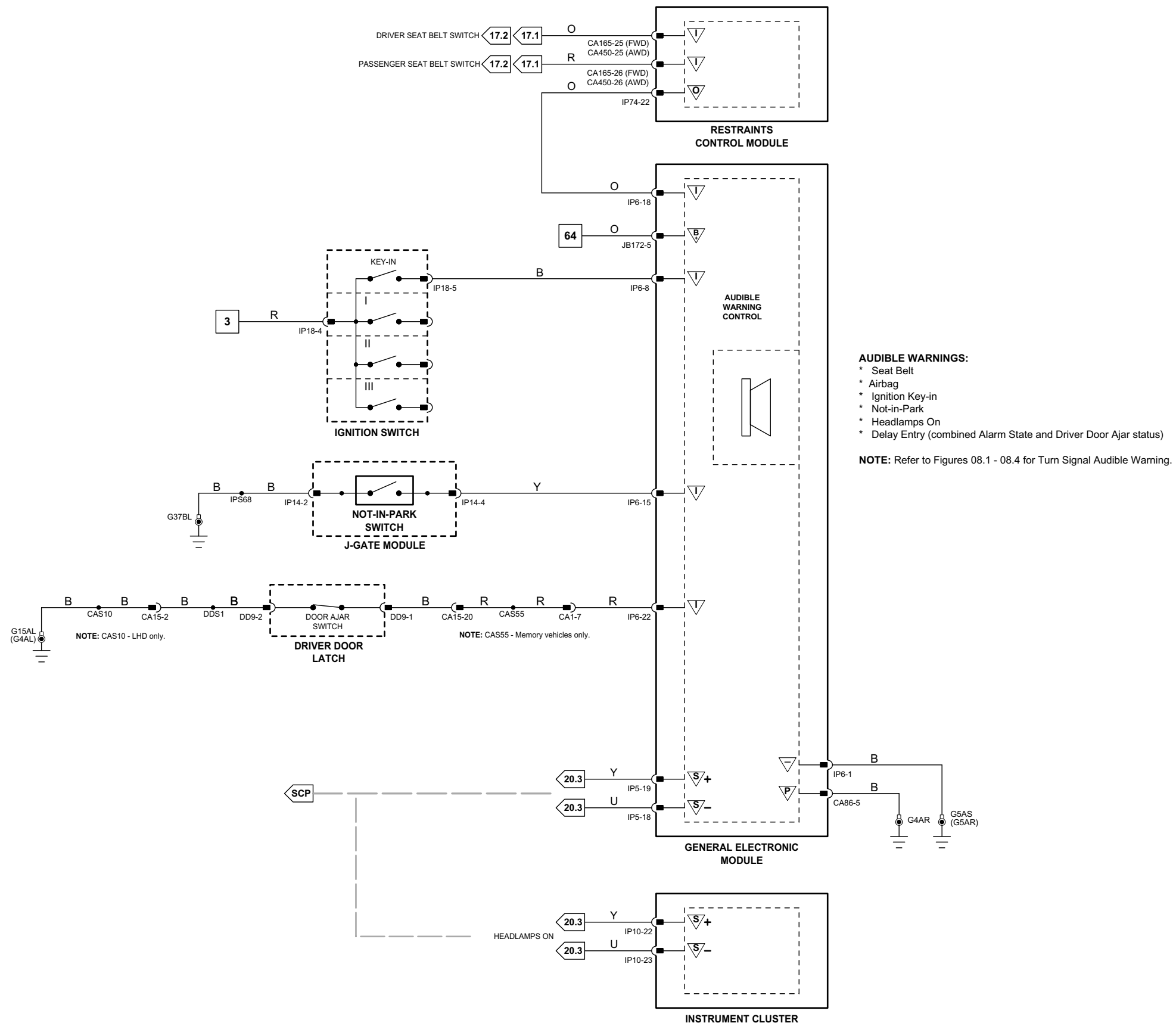
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B+	Battery Voltage	SG	Sensor / Signal Ground	D2	D2B Network	PWM	Pulse Width Modulated

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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: All Vehicles
VIN RANGE: All
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