مدیران خودرو
خدمات پس از فروش

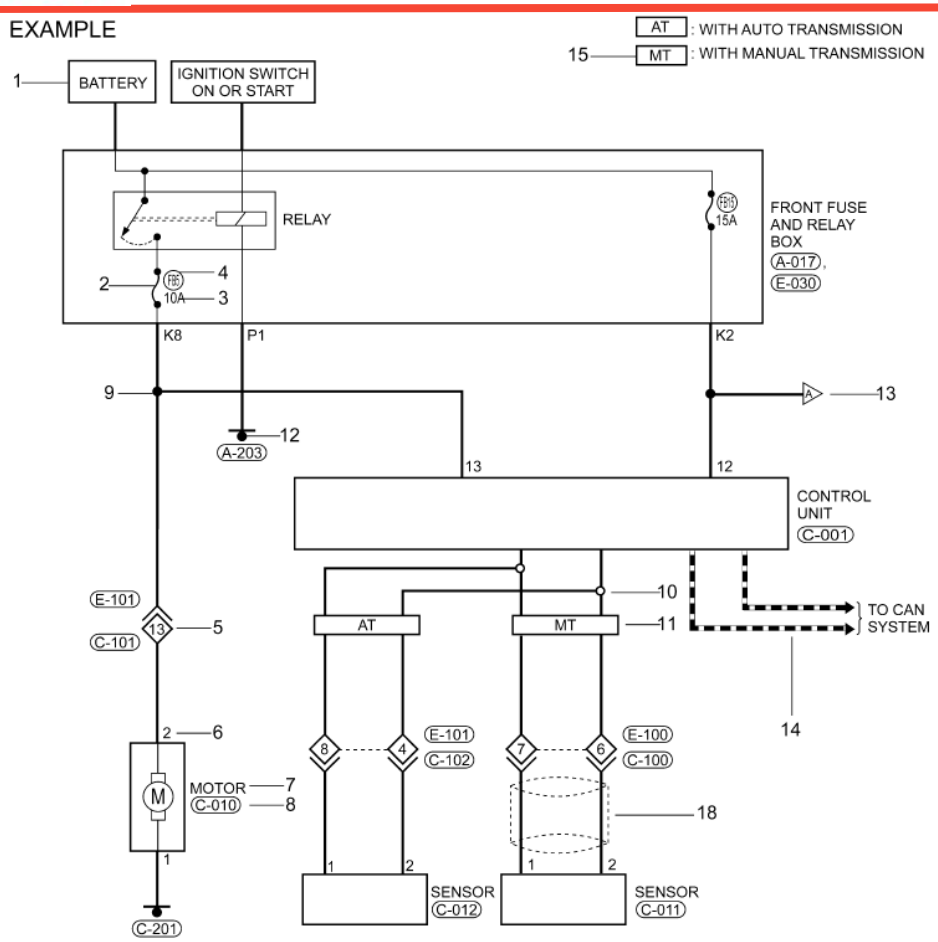
CHERY

سیستم برق
خودروی MVM530

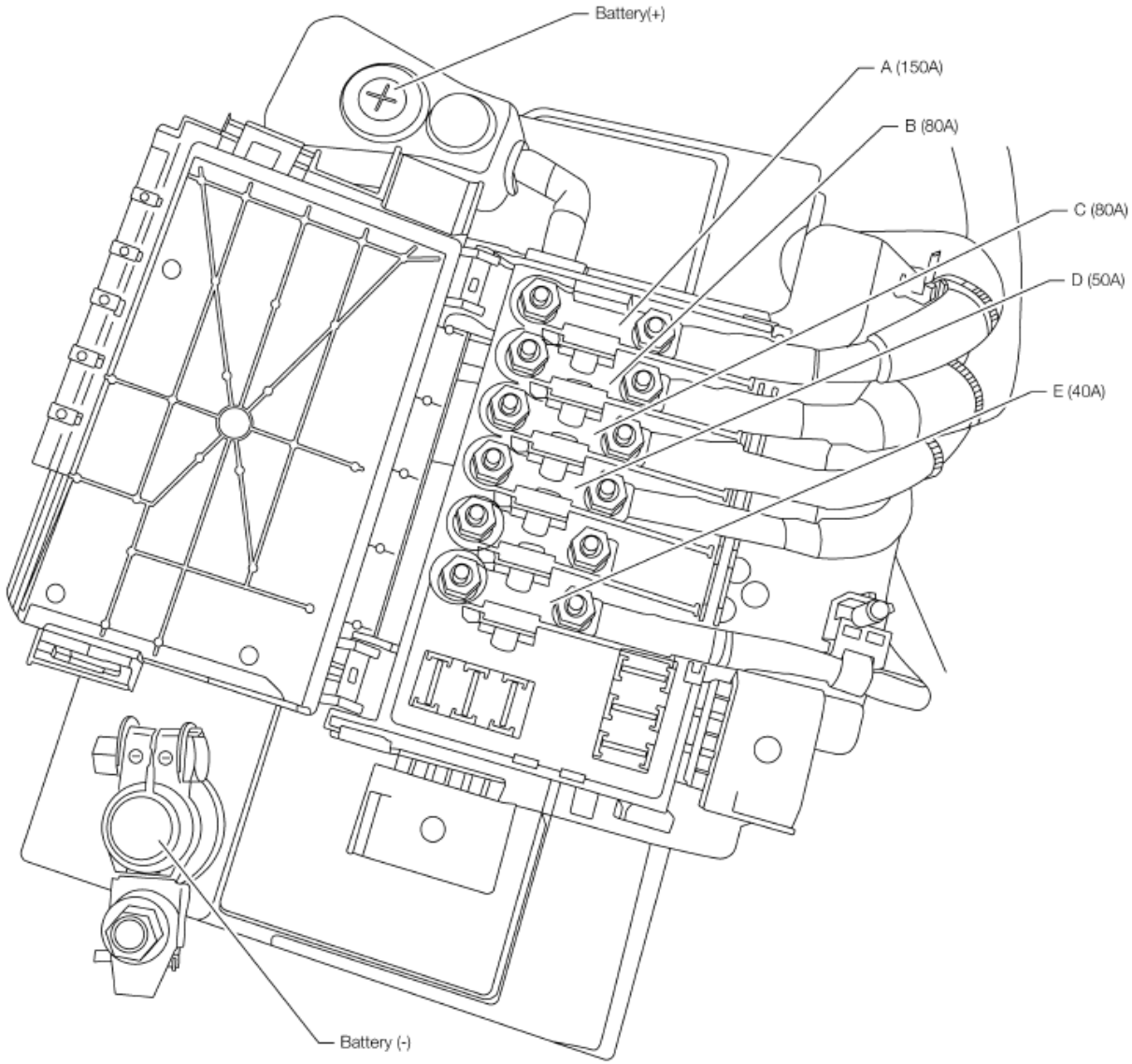
مدیریت فنی و مهندسی
تهیه کننده: محمد صادق قناعتیان
ویرایش اول
کد: ELC-23-01

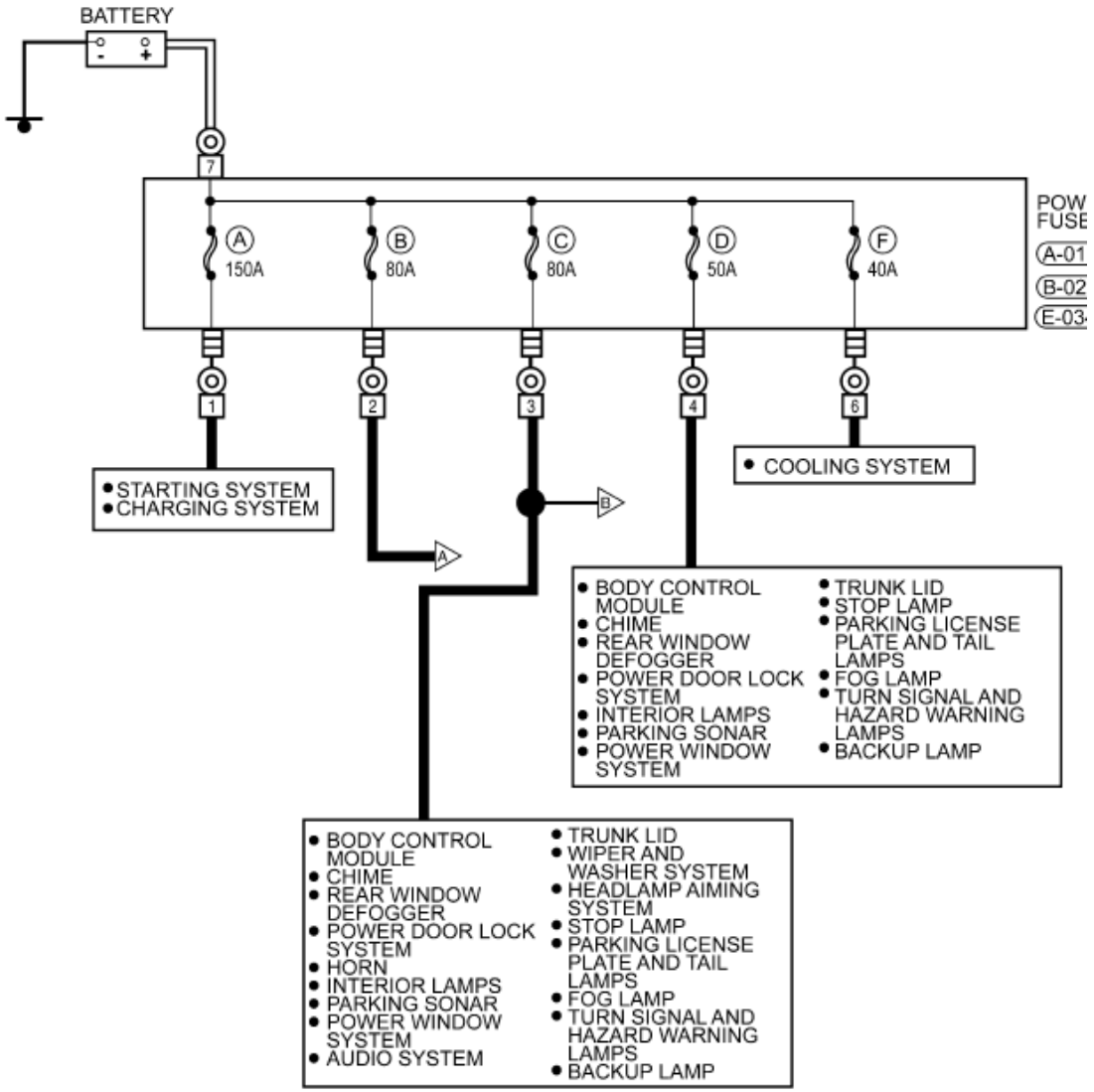
فهرست مطالب :

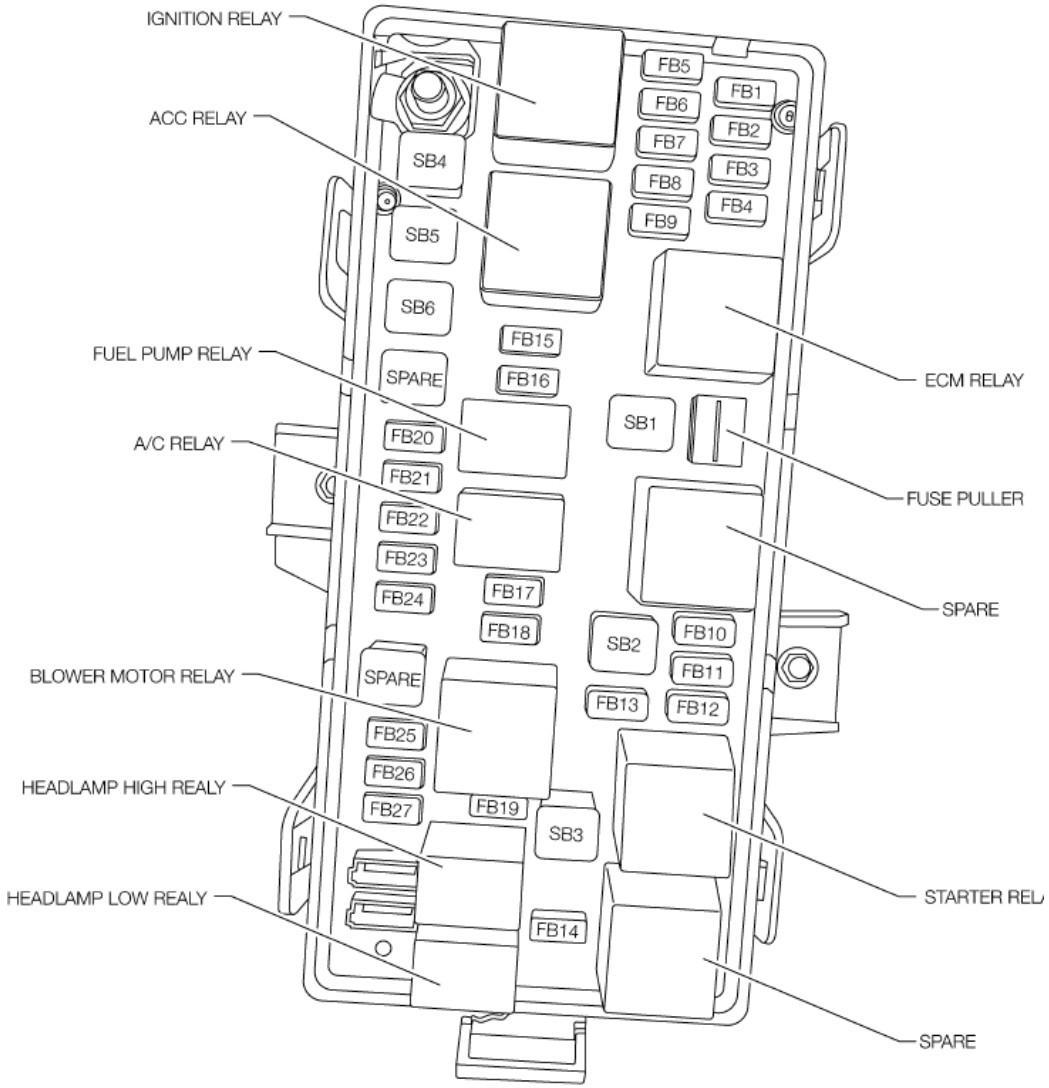
EXAMPLE

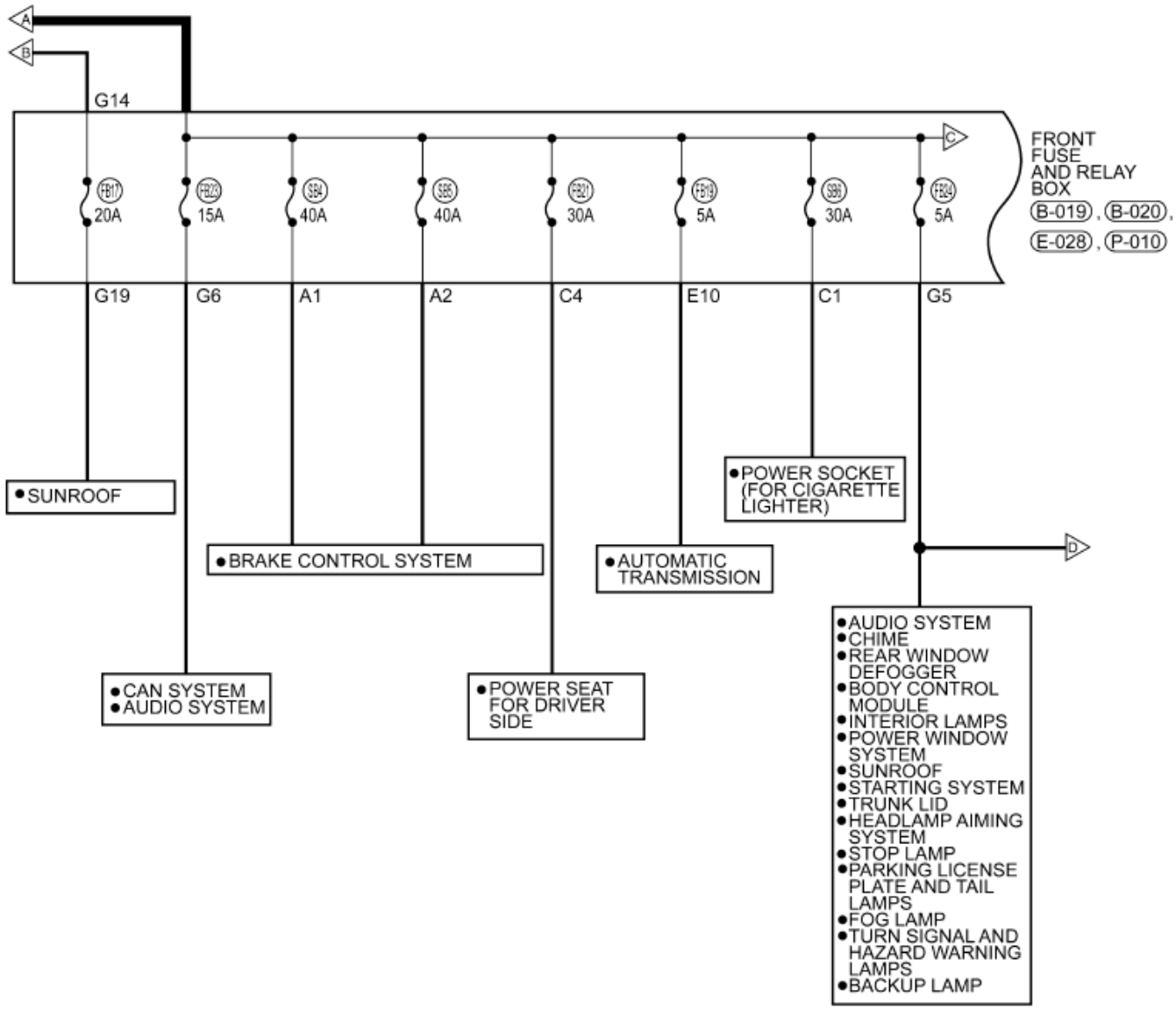


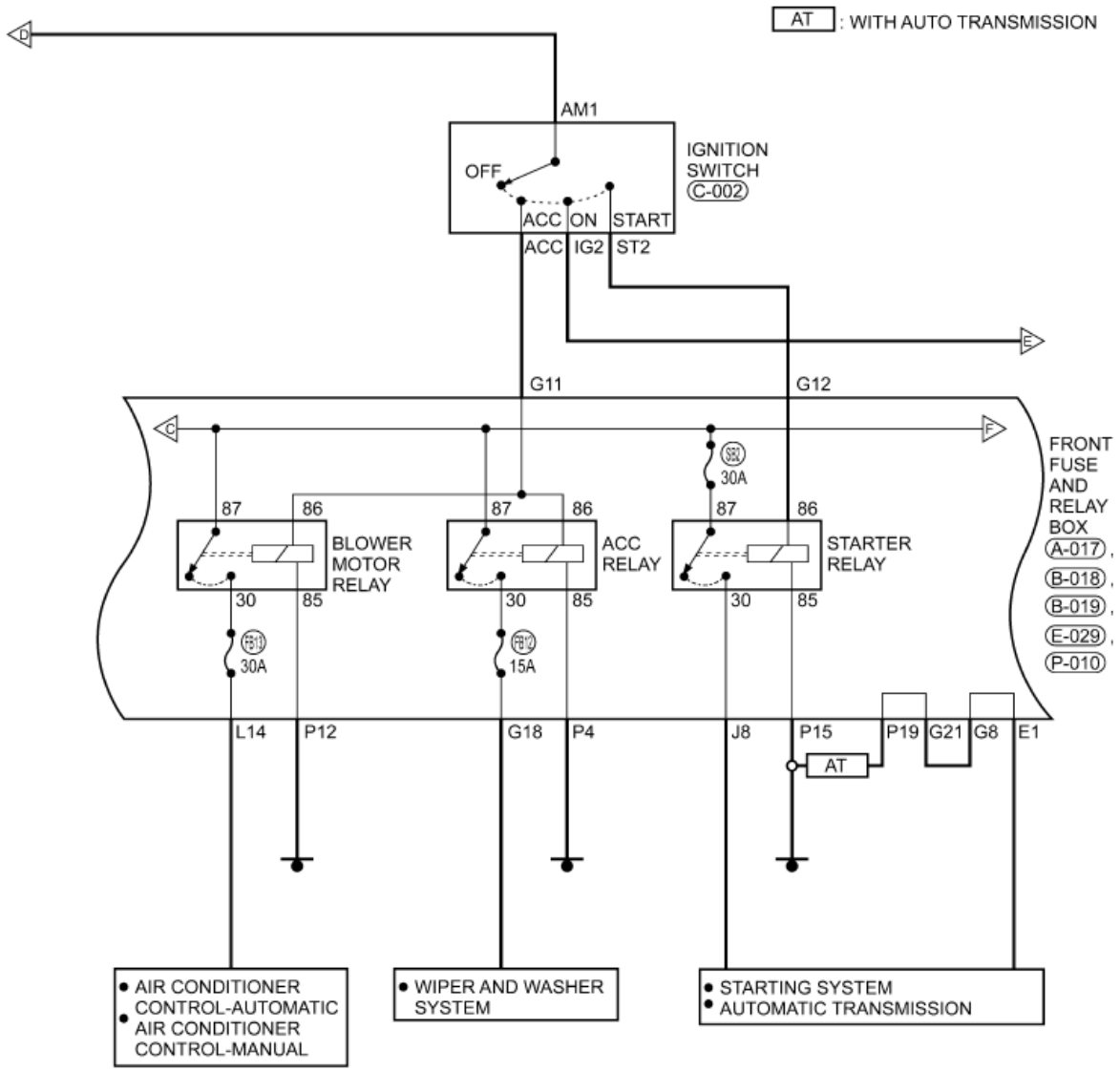
Number	Item	Description
1	Power source	This represents the condition when the system receives battery positive voltage.
2	Fuse	The single line represents that this is a fuse.
3	Current rating	This represents the current rating of the fuse.
4	Fuse location	This represents the location of the fuse in the Power Fuse Box or Front Fuse and Relay Box.
5	Connectors	This represents connector E-101 is female and connector C-101 is male.
6	Terminal number	This represents the terminal number of a connector.
7	Component name	This represents the name of a component.
8	Connector number	This represents the connector number. The letter represents which harness the connector is located in.
9	Splice	The shaded circle represents that the splice is always on the vehicle.
10	Optional splice	The open circle represents that the splice is optional depending on vehicle application.
11	Option abbreviation	This represents that the circuit is optional depending on vehicle application.
12	Ground (GND)	This represents the ground connection. (See Ground Distribution in Section 16 Wiring). Ground connector number has no view face.
13	Page crossing	This arrow represents that the circuit continues to an adjacent page. The "A" corresponds with the "A" on the adjoining page of the electrical schematic.
14	Data link	This represents that the system branches to another system identified by cell data code.
15	Option description	This represents a description of the option abbreviation used on the page.
16	Connector views	This represents the connector information. This component side is described by the connector symbols.
17	Connector color	This shows a code for the color of the connector: B = Black W = White R = Red G = Green L = Blue Y = Yellow BR = Brown O = Orange GR = Gray
18	Shielded line	The line enclosed by broken line circle represents shielded wire.

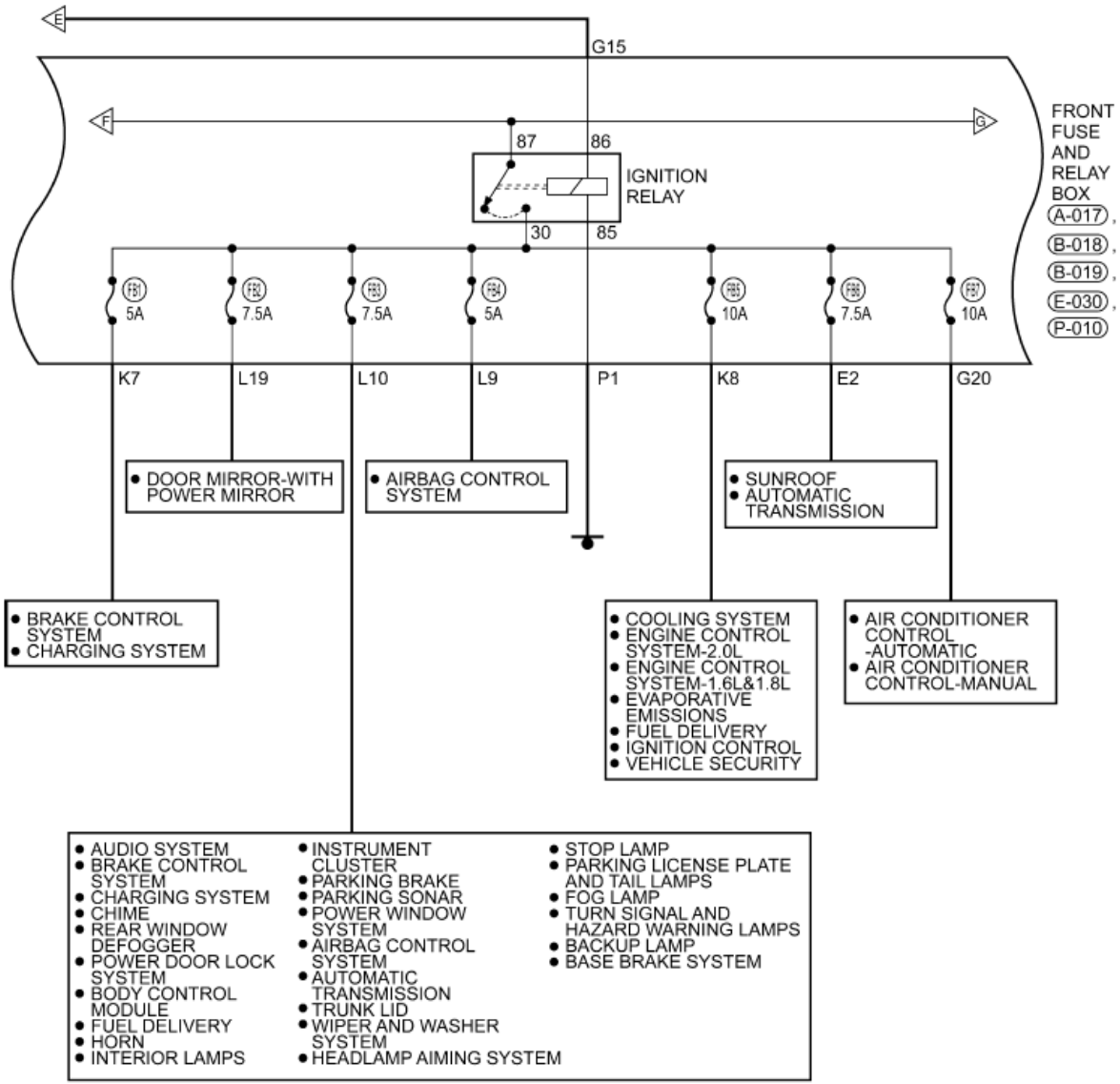


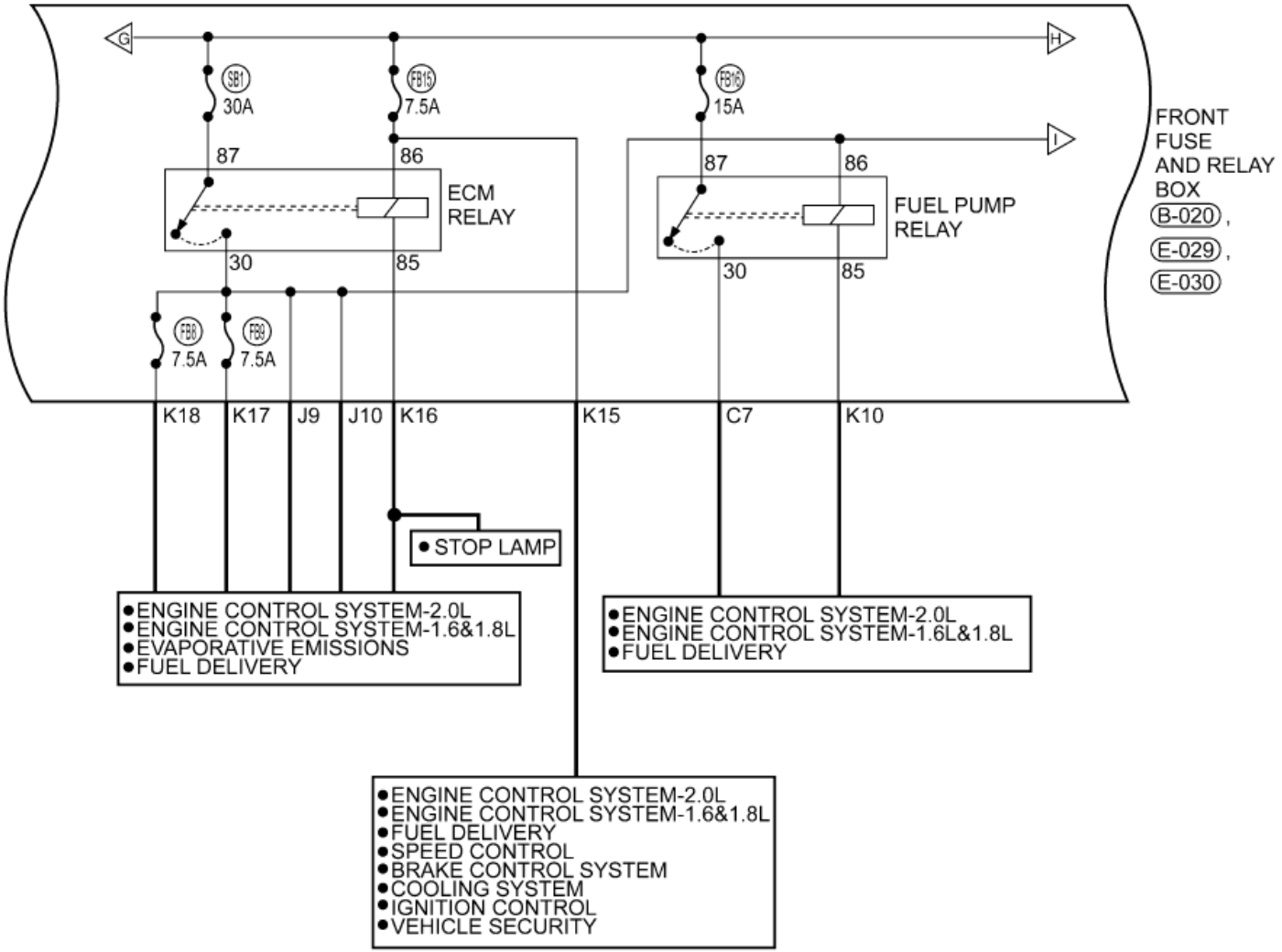


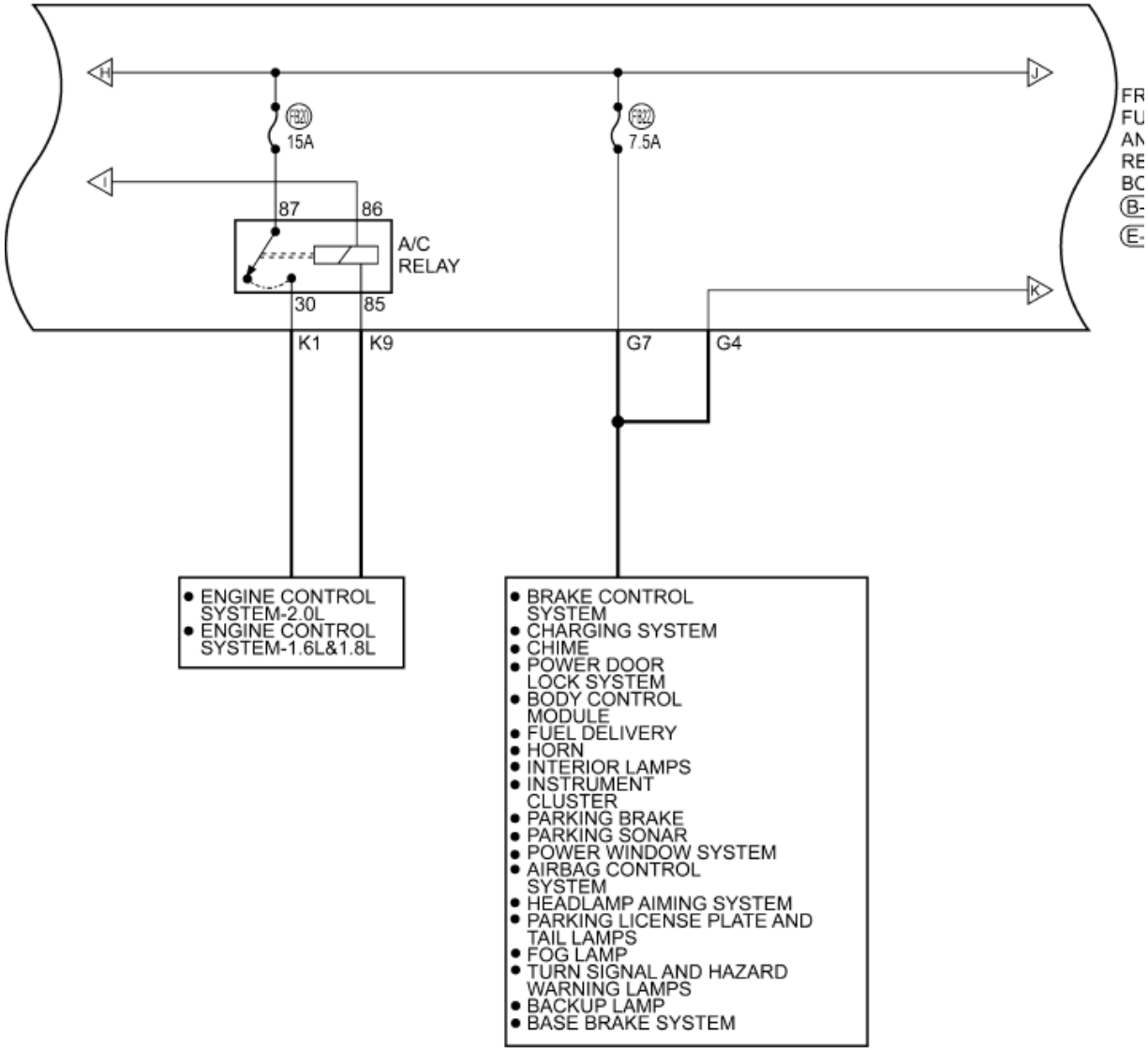


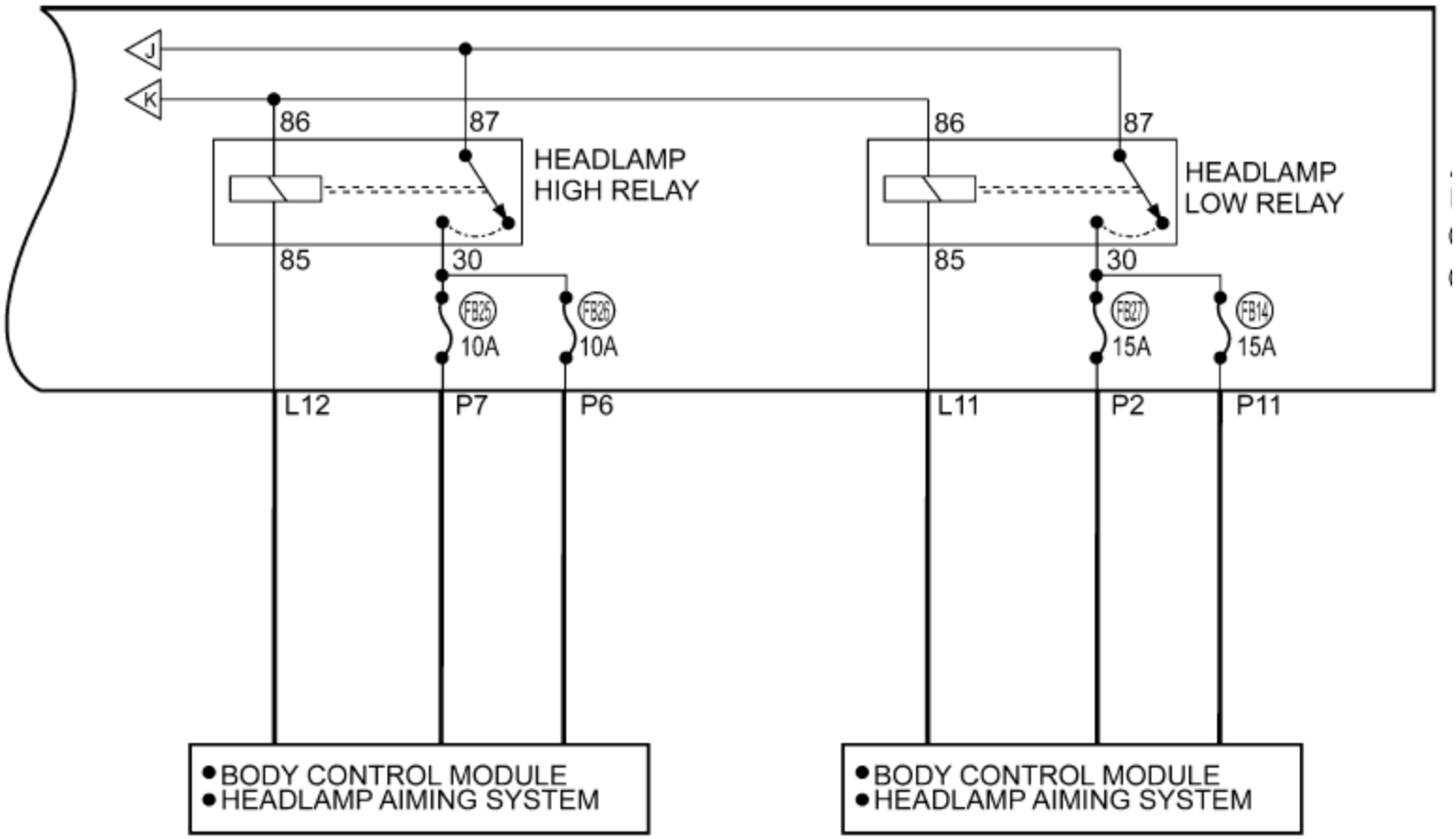


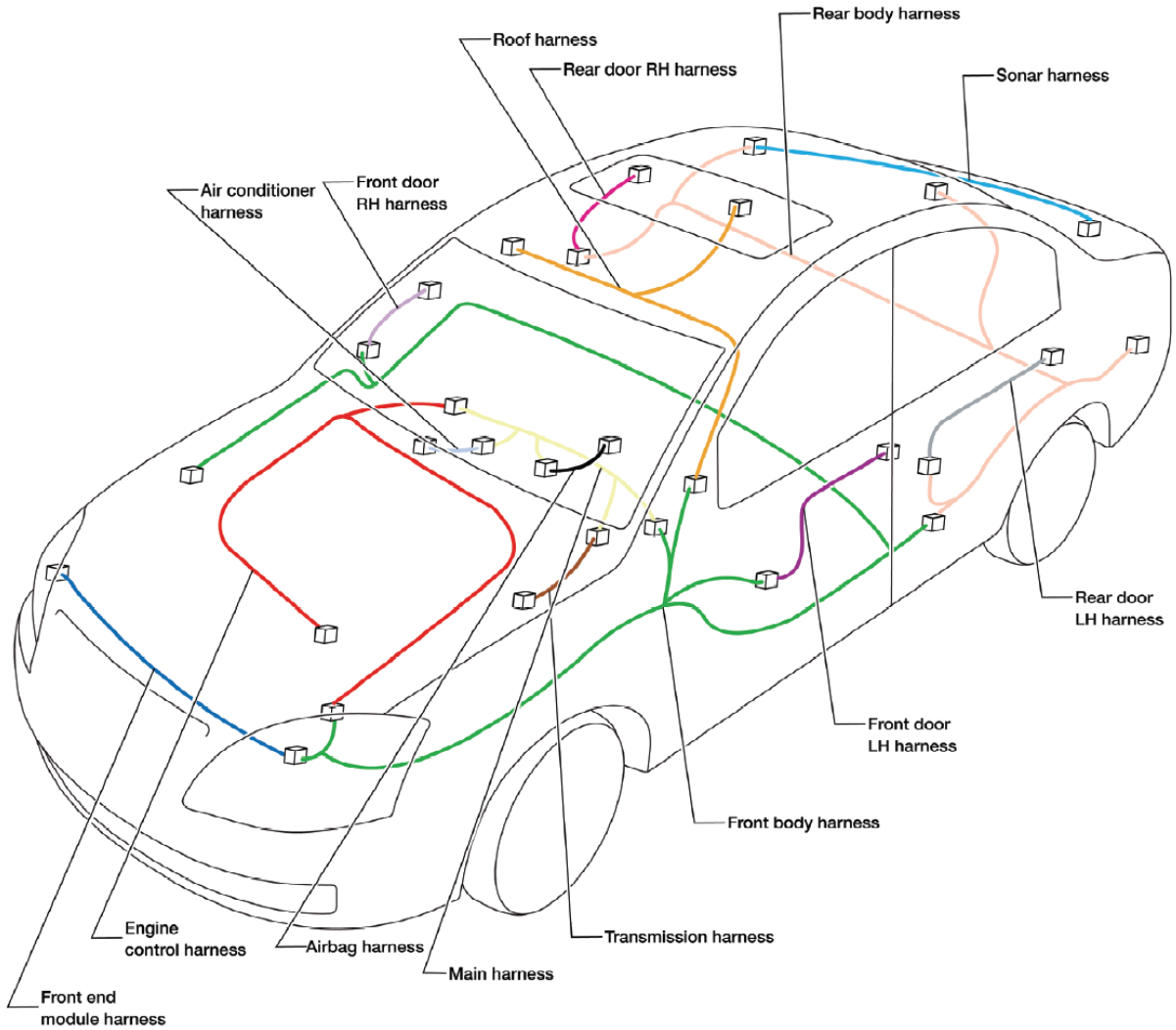


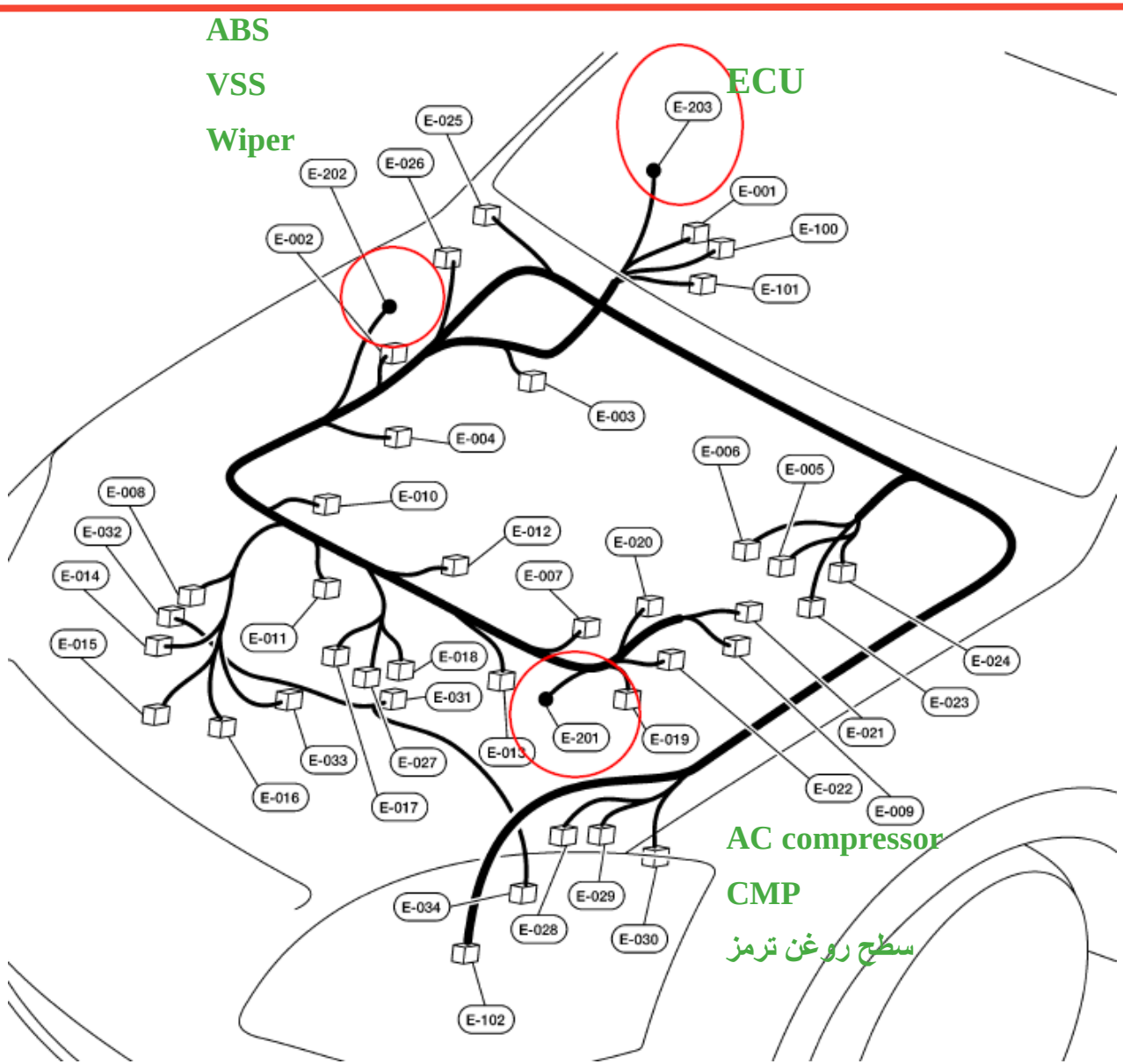


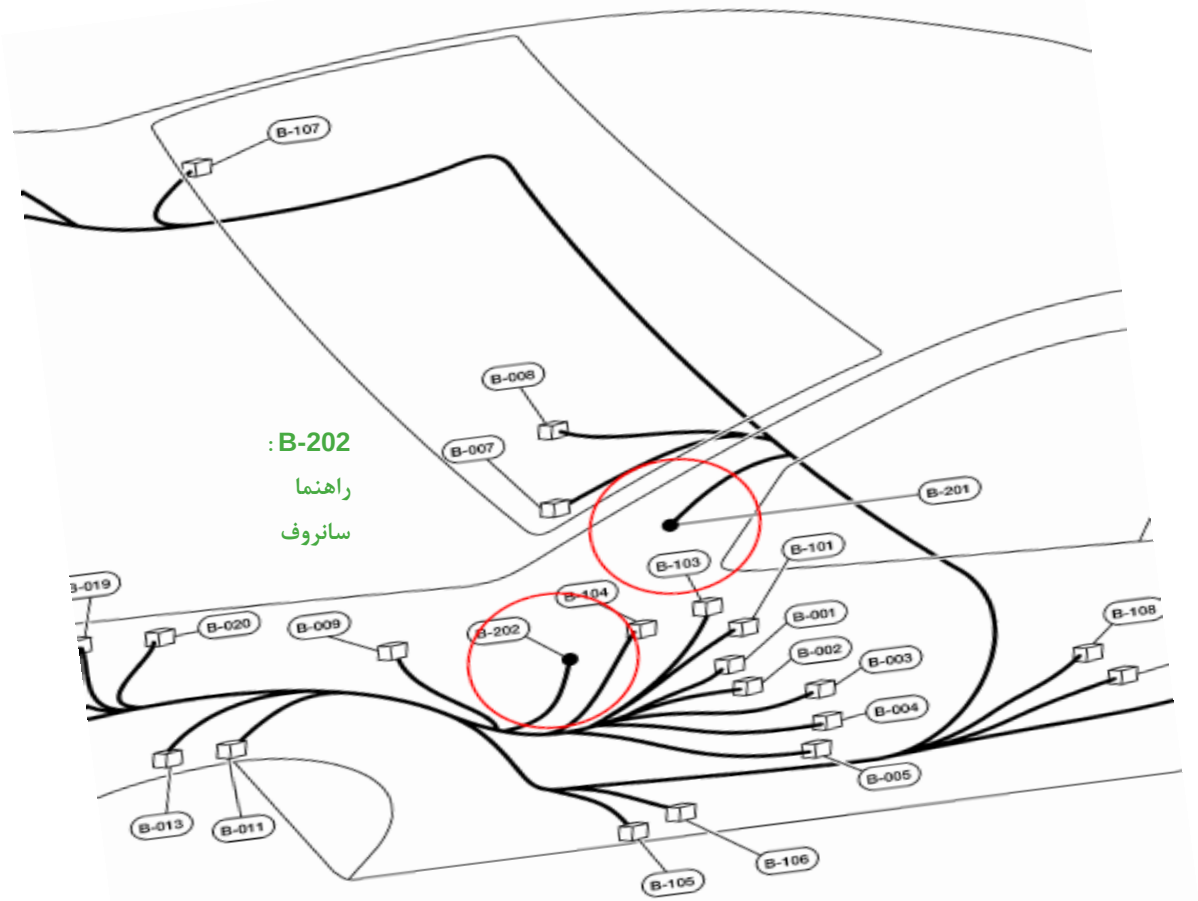








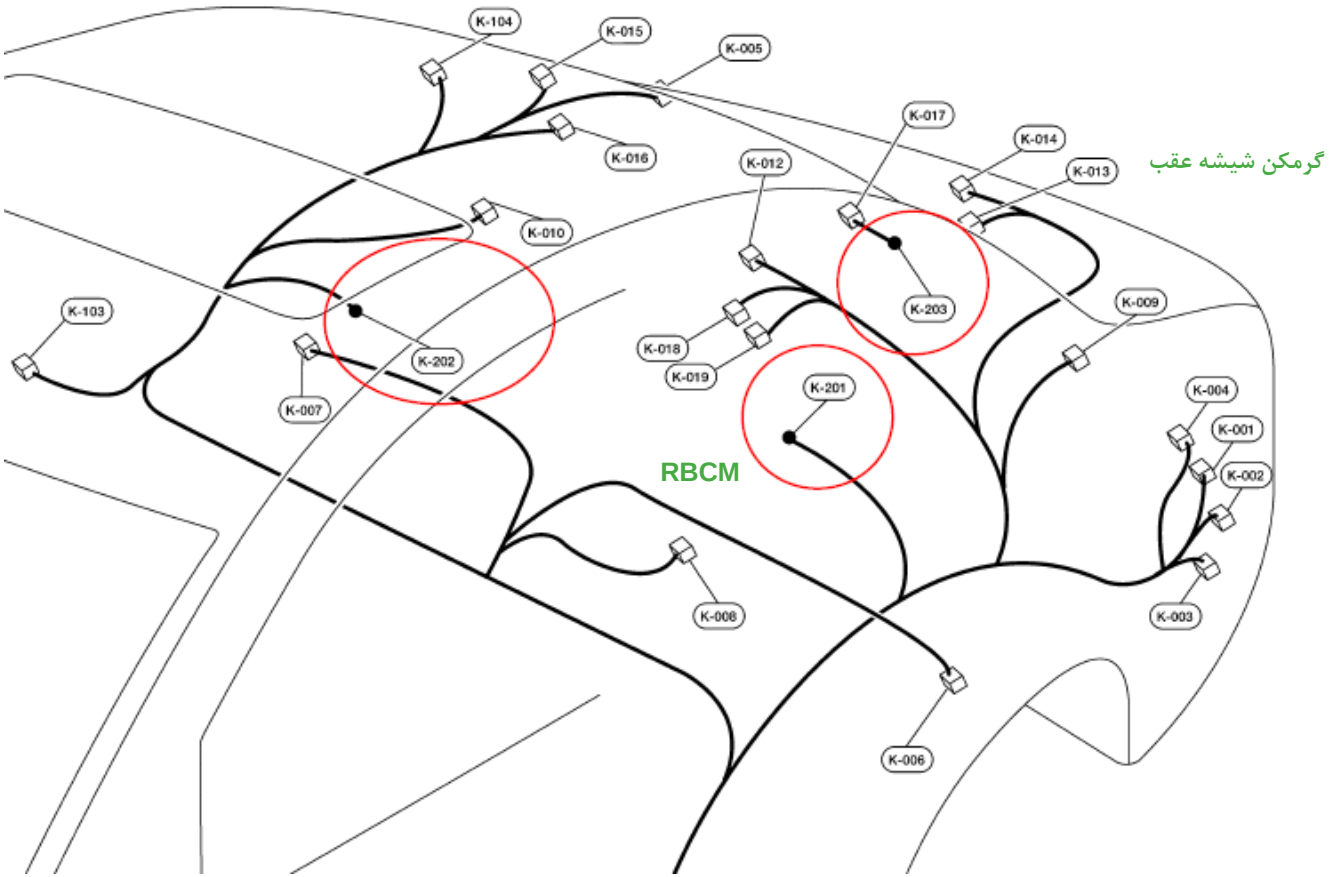


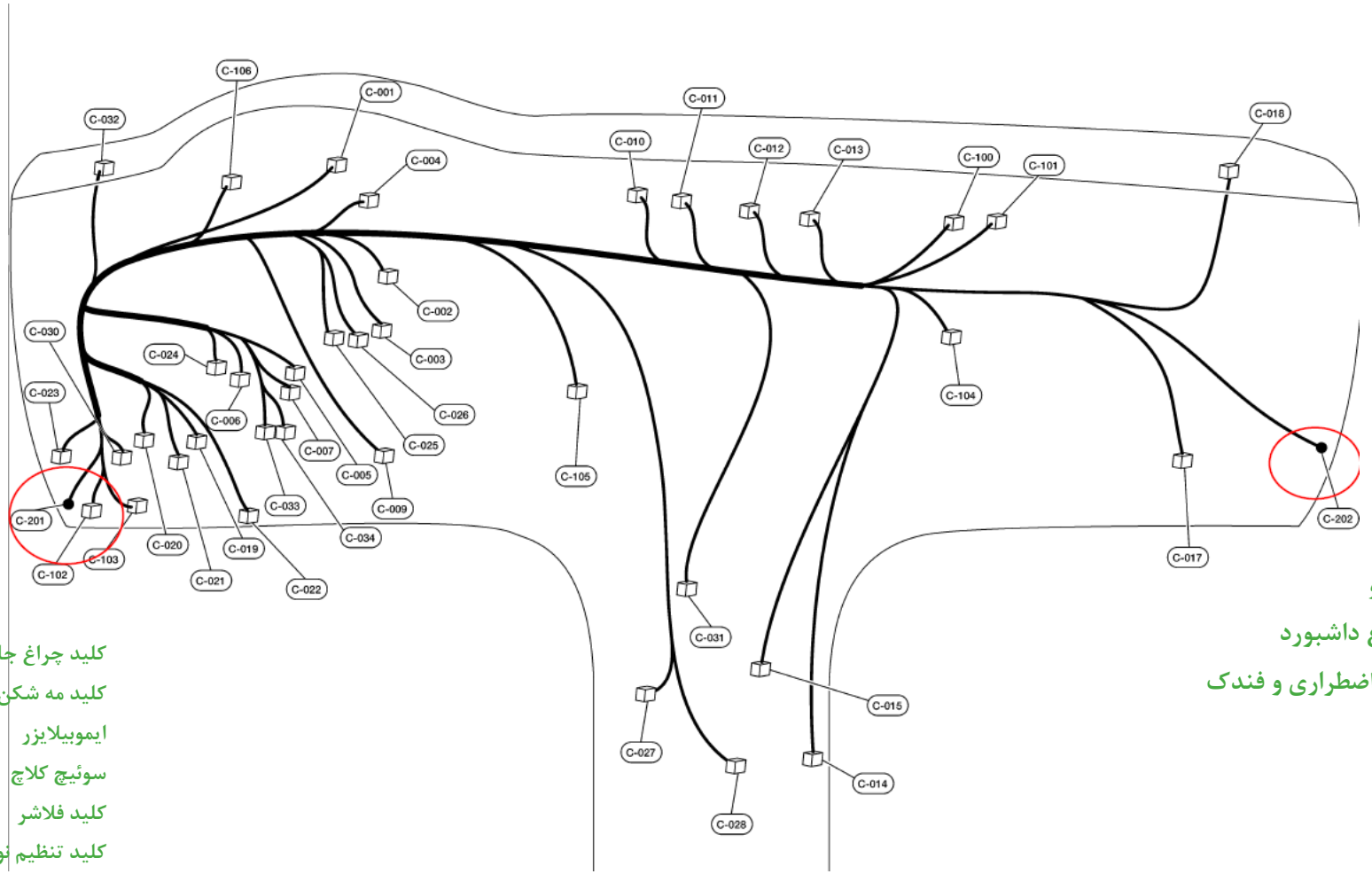


B-202 :
راهنما
سانروف

B-201 :
لنت ترمز چپ و راست
راهنما
قفل درب
شیشه بالابر
آیینه جانبی
سوئیچ آیینه جانبی
چراغ سقفی
چراغ روی آیینه
سانروف

K-202:
قفل درب عقب
شیشه بالابر عقب
مجموعه چراغ های عقب
چراغ صندوق عقب
درجه باک
مدول دنده عقب
چراغ پلاک
سنسورهای دنده عقب





رادیو

چراغ داشبورد

برق اضطراری و فندک

کلید چراغ جلو

کلید مه شکن عقب

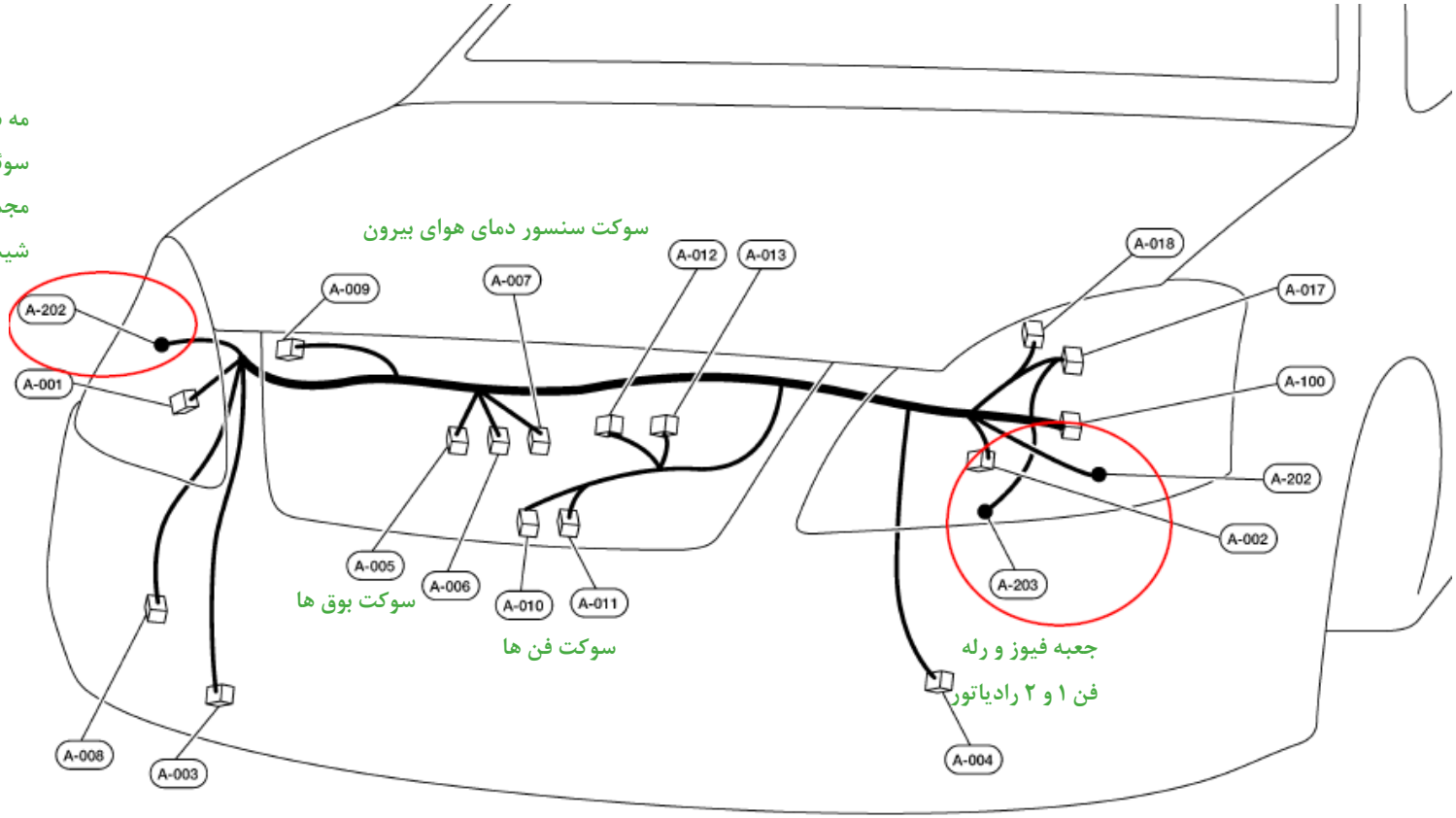
ایموبیلایزر

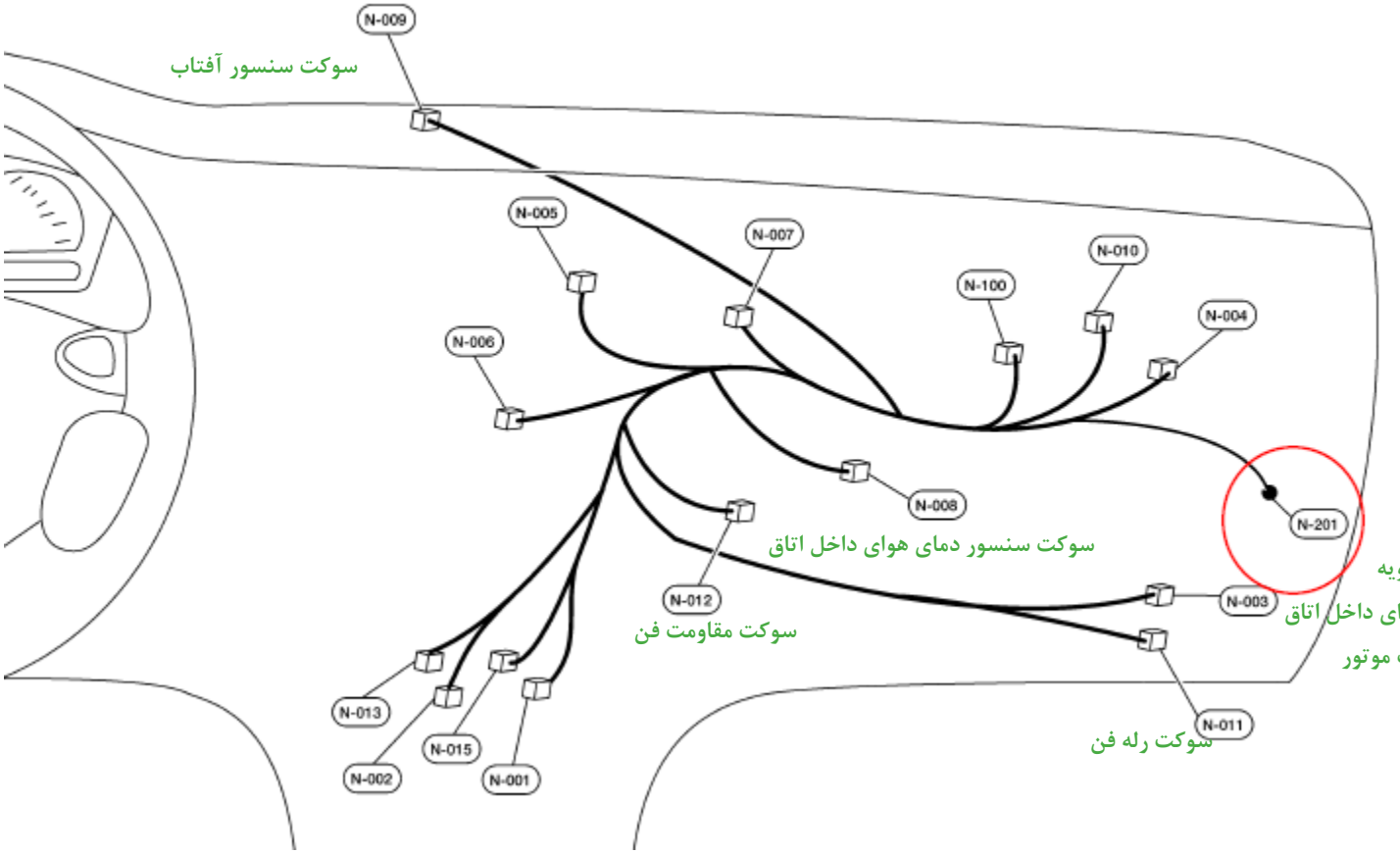
سوئیچ کلاچ

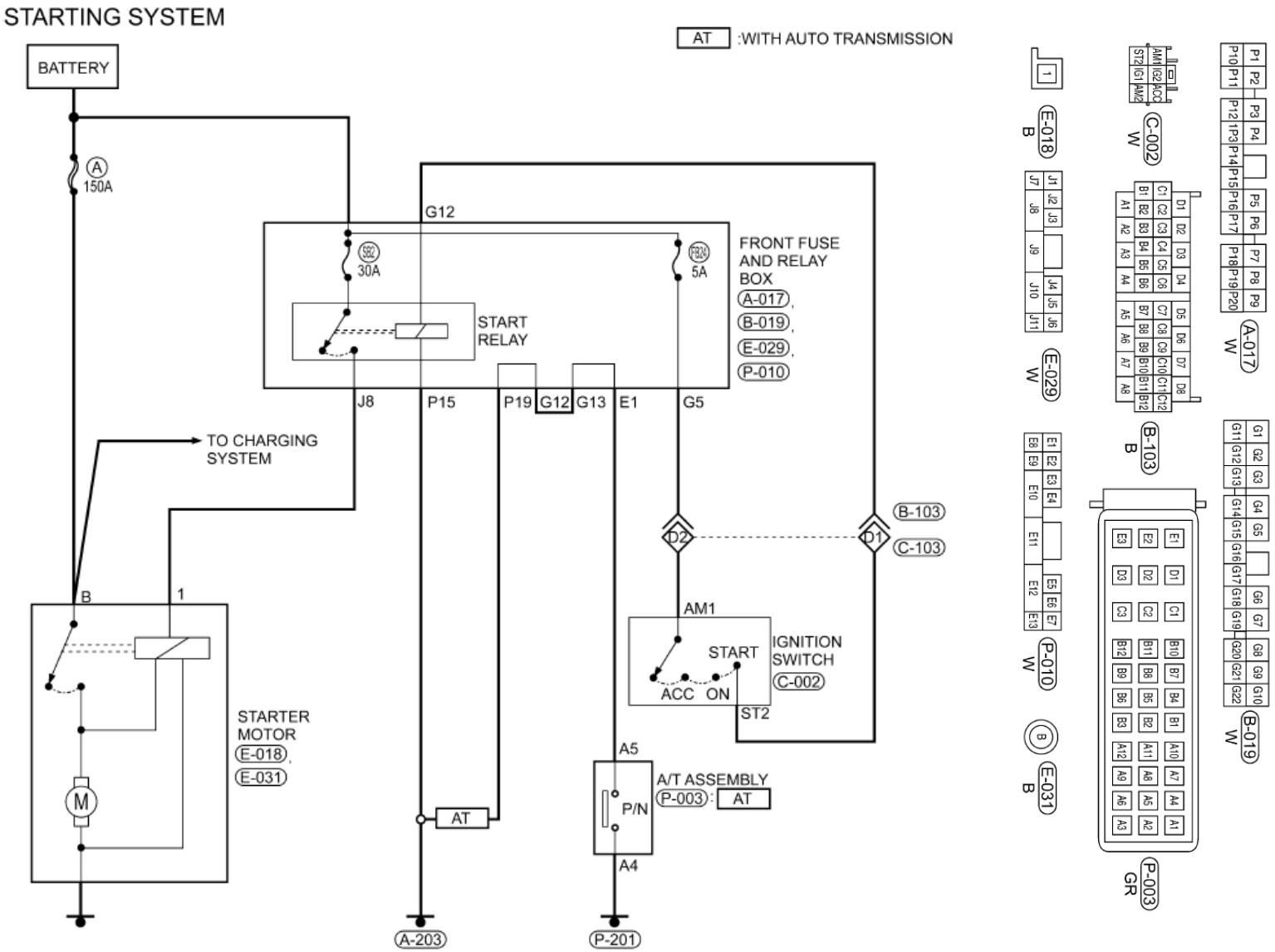
کلید فلاشر

کلید تنظیم نور پشت آمپر

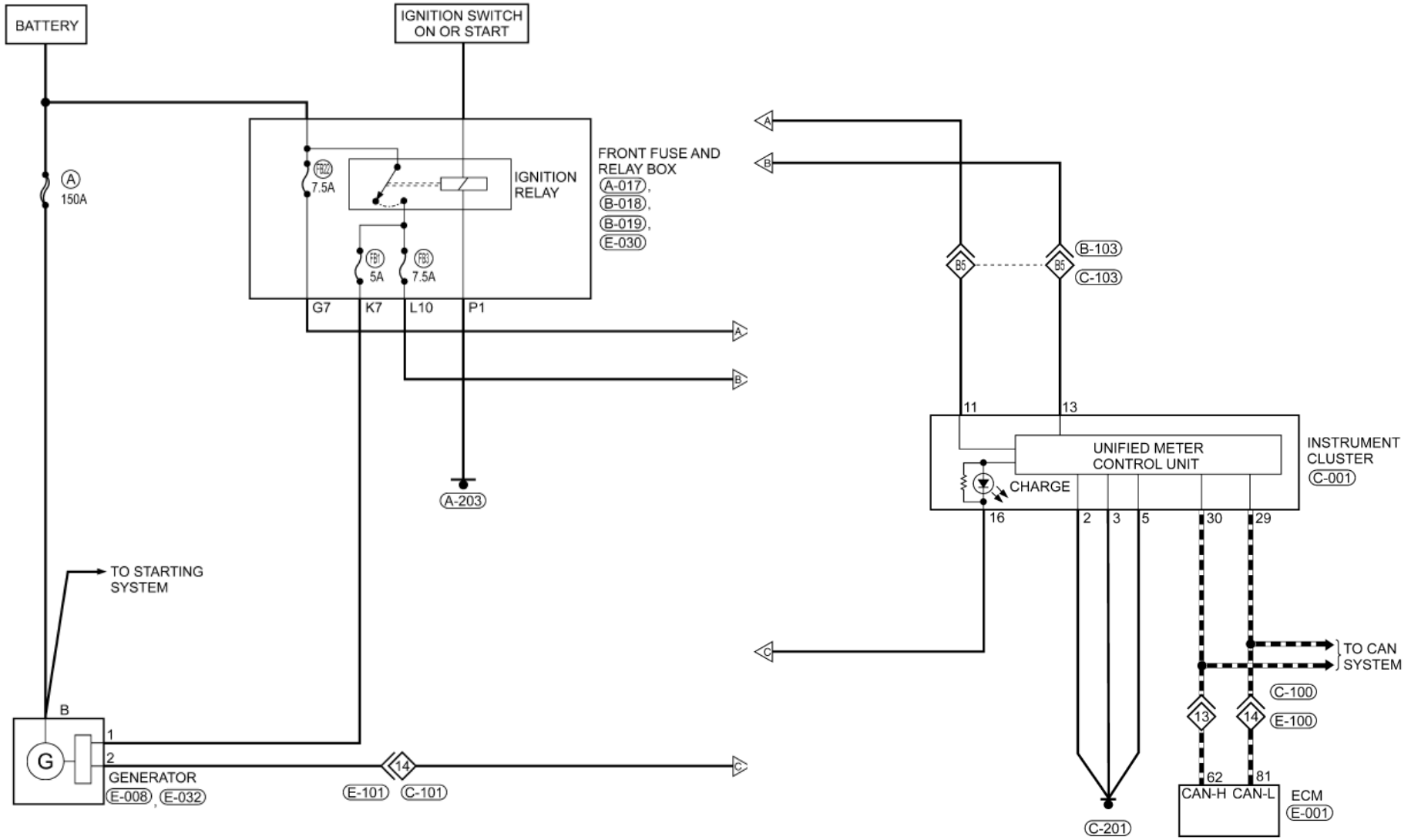
پشت آمپر



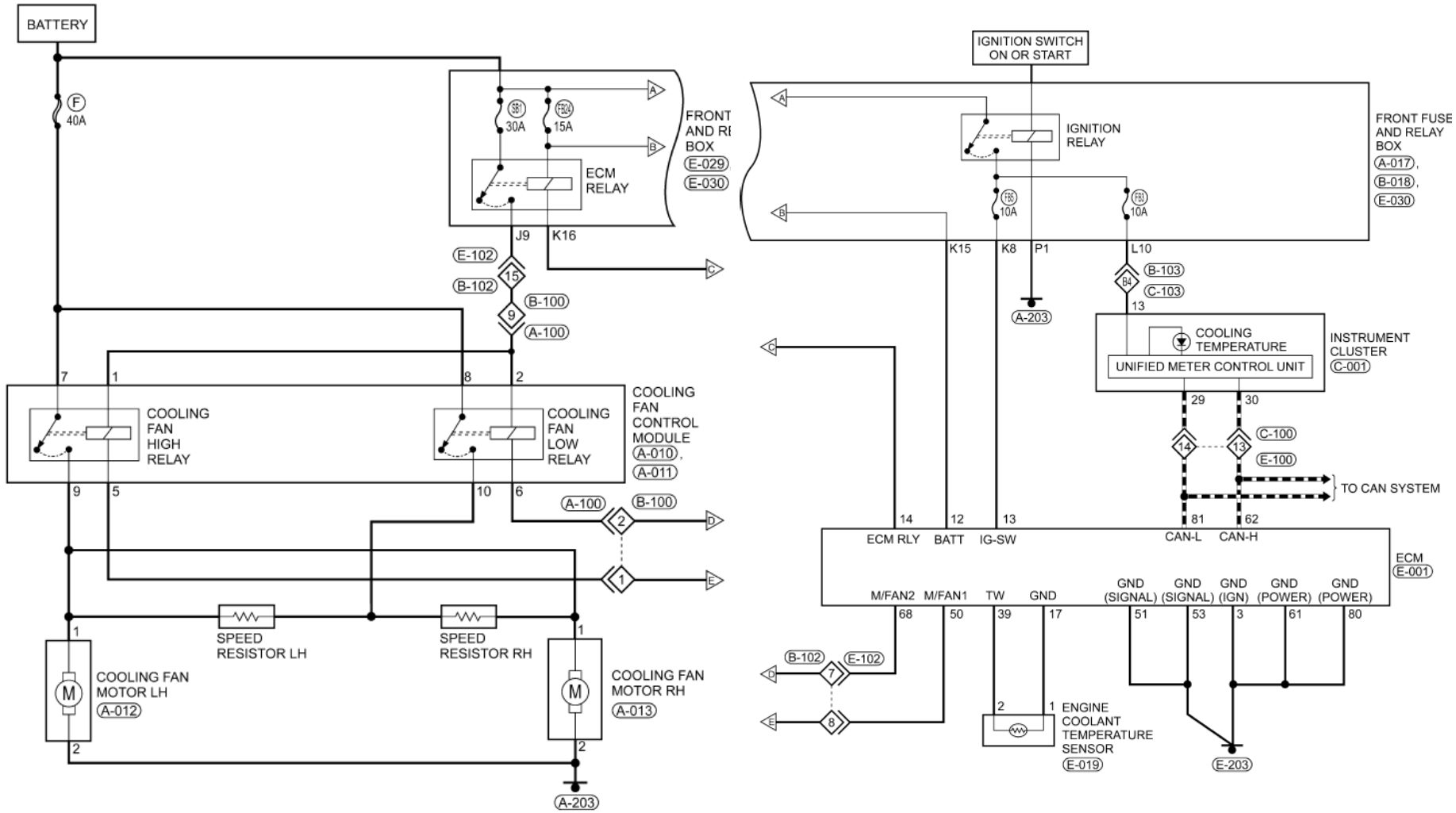




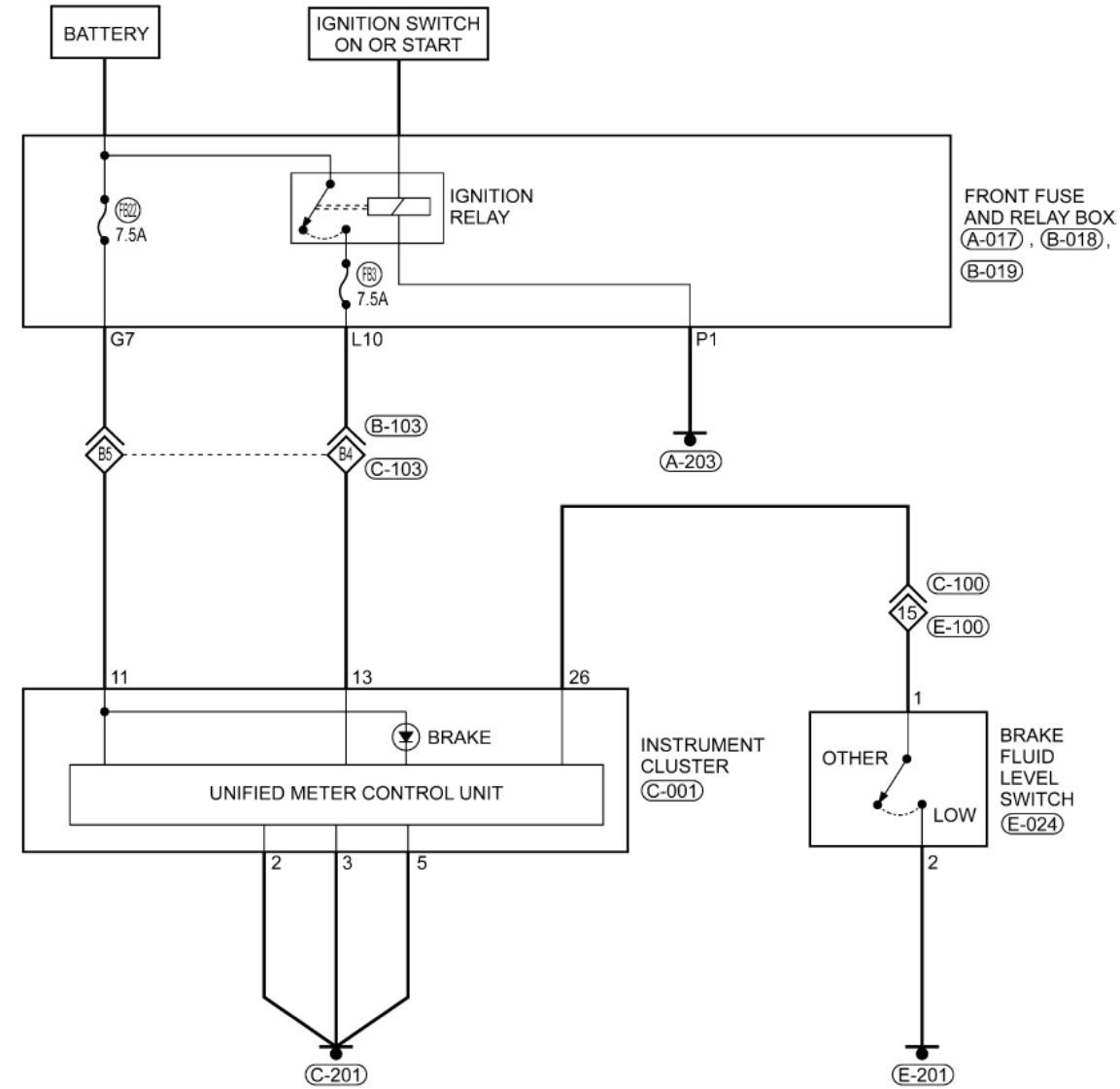
CHARGING SYSTEM

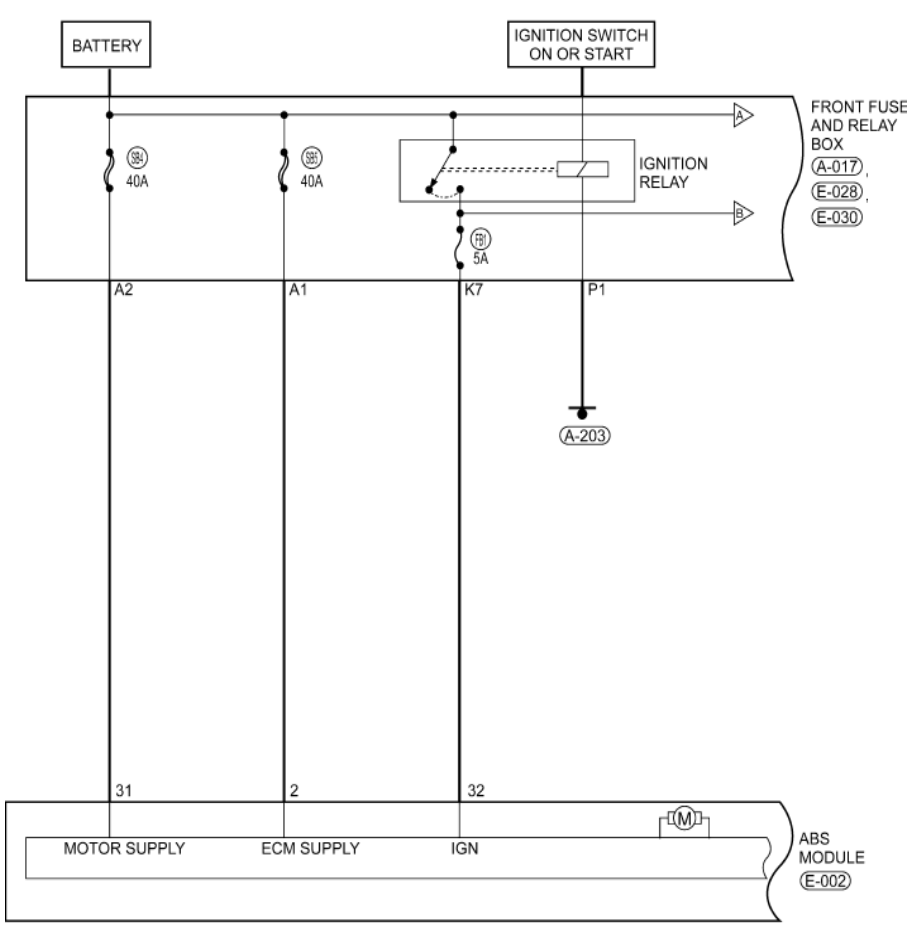


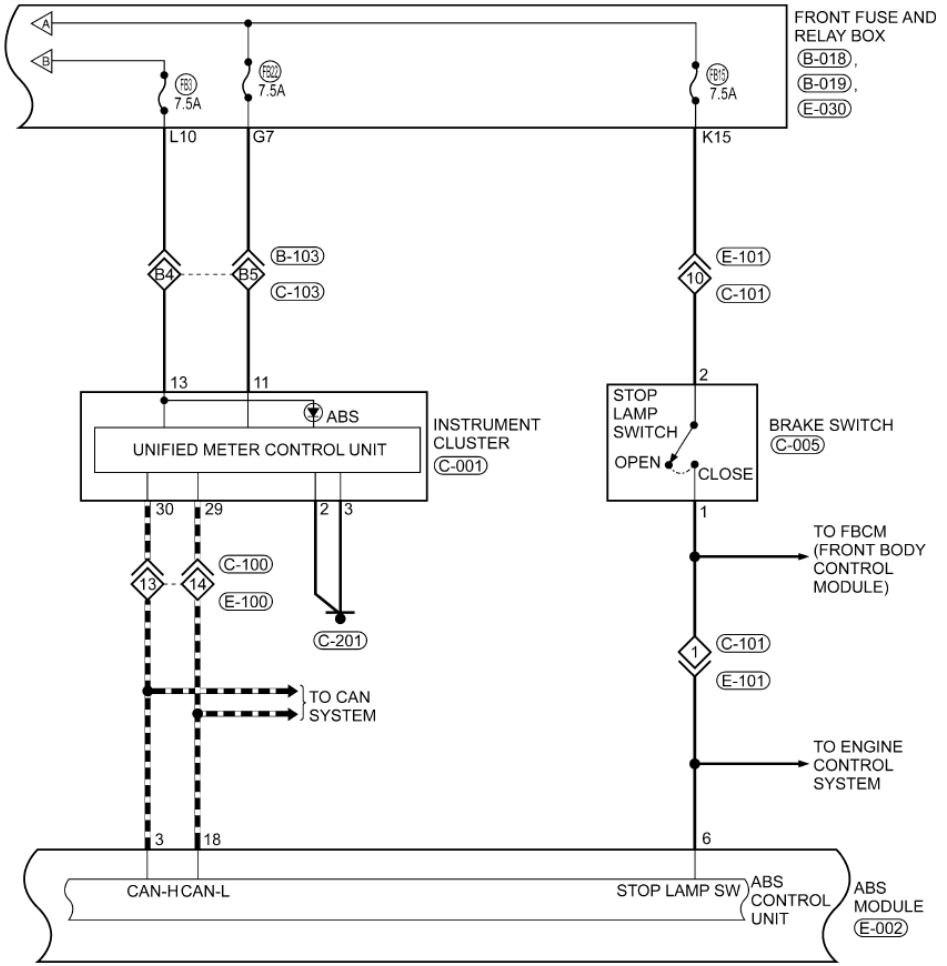
COOLING SYSTEM

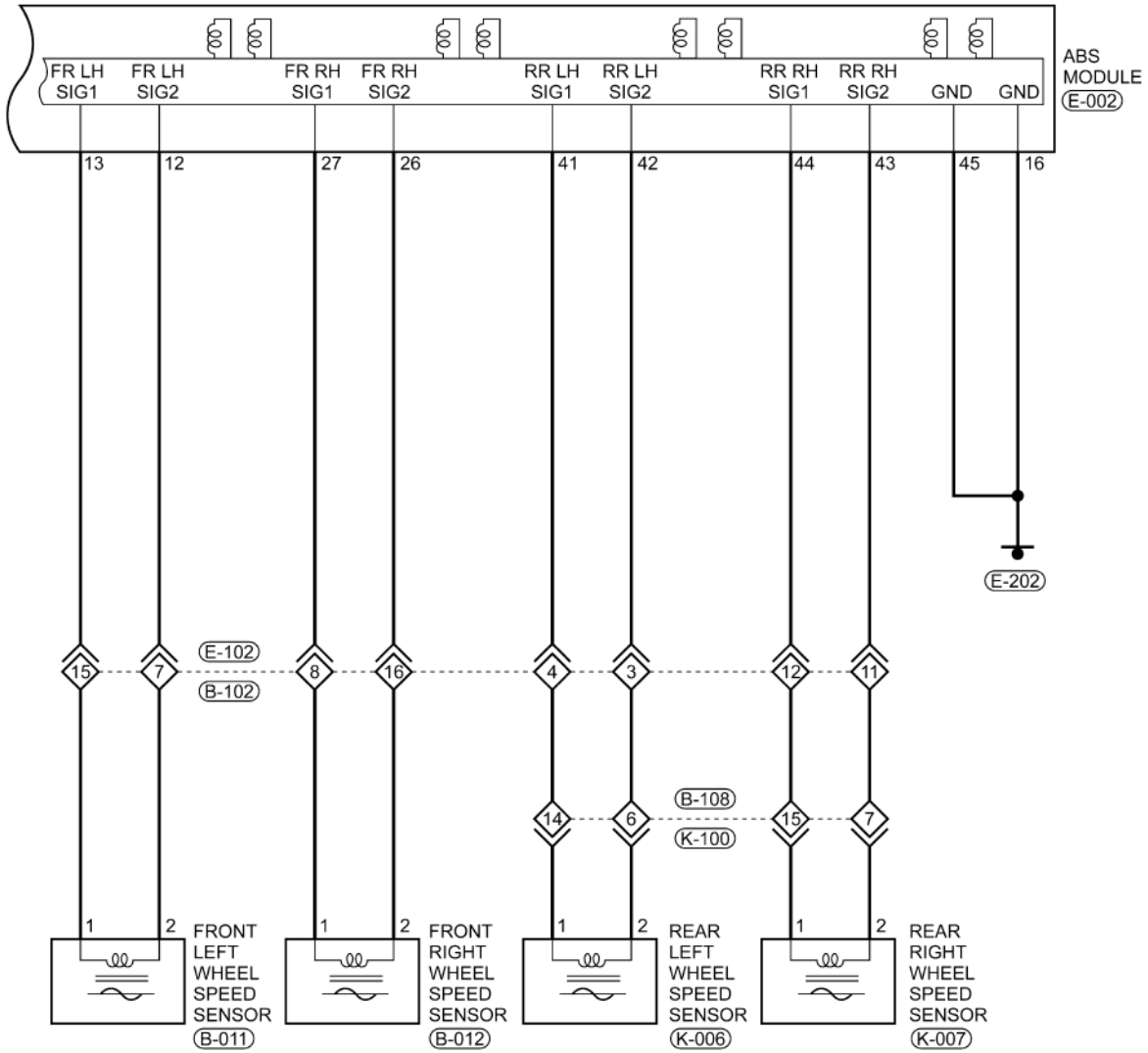


BASE BRAKE SYSTEM





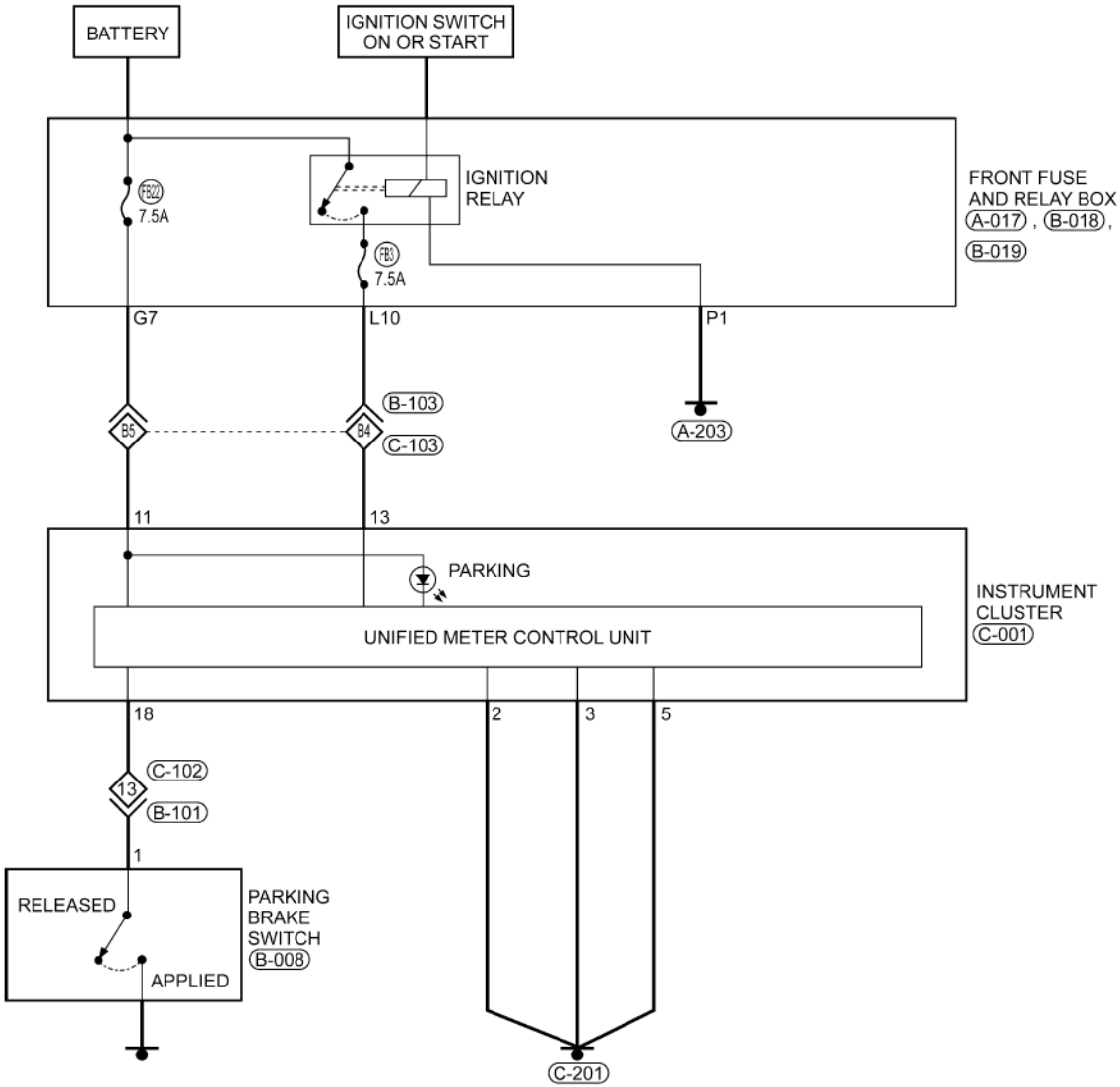


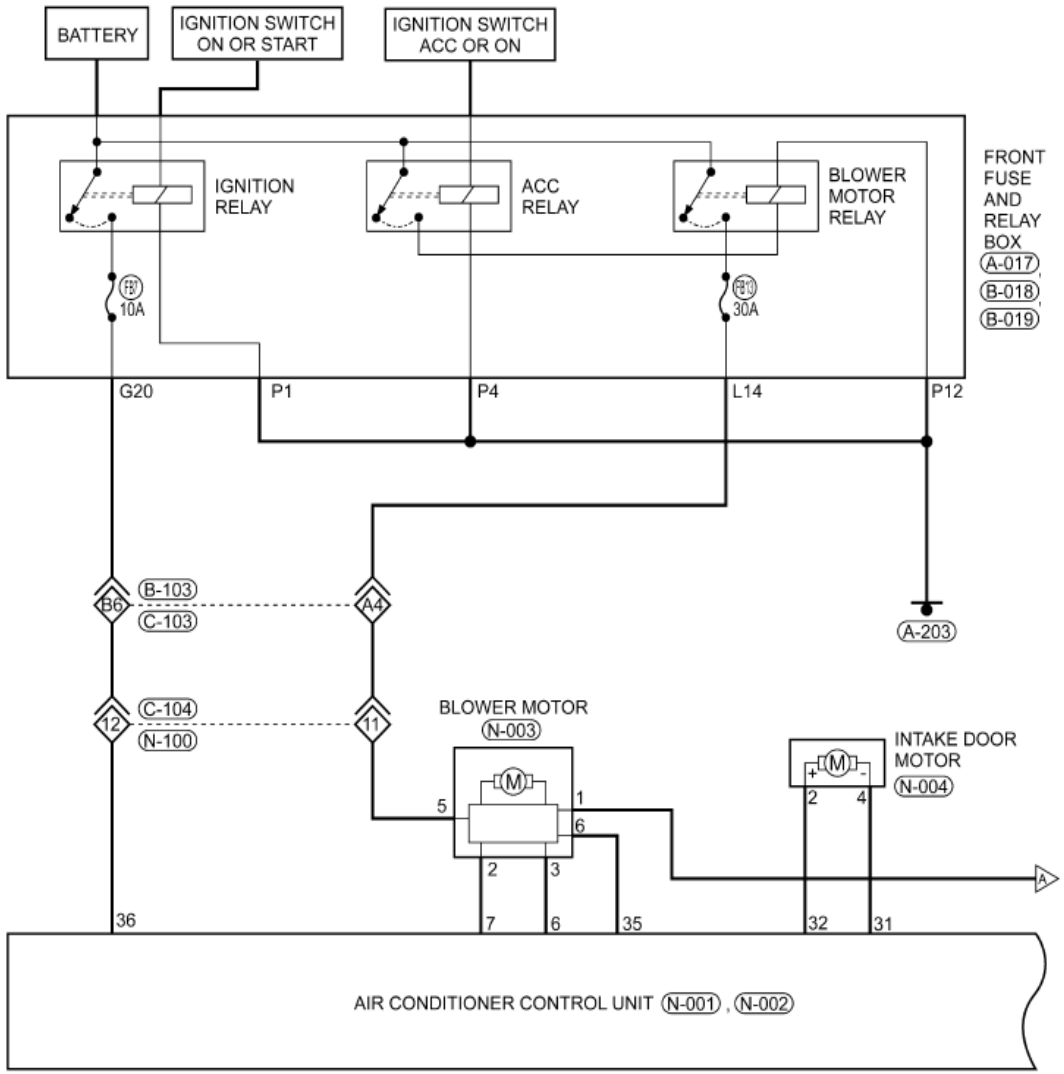


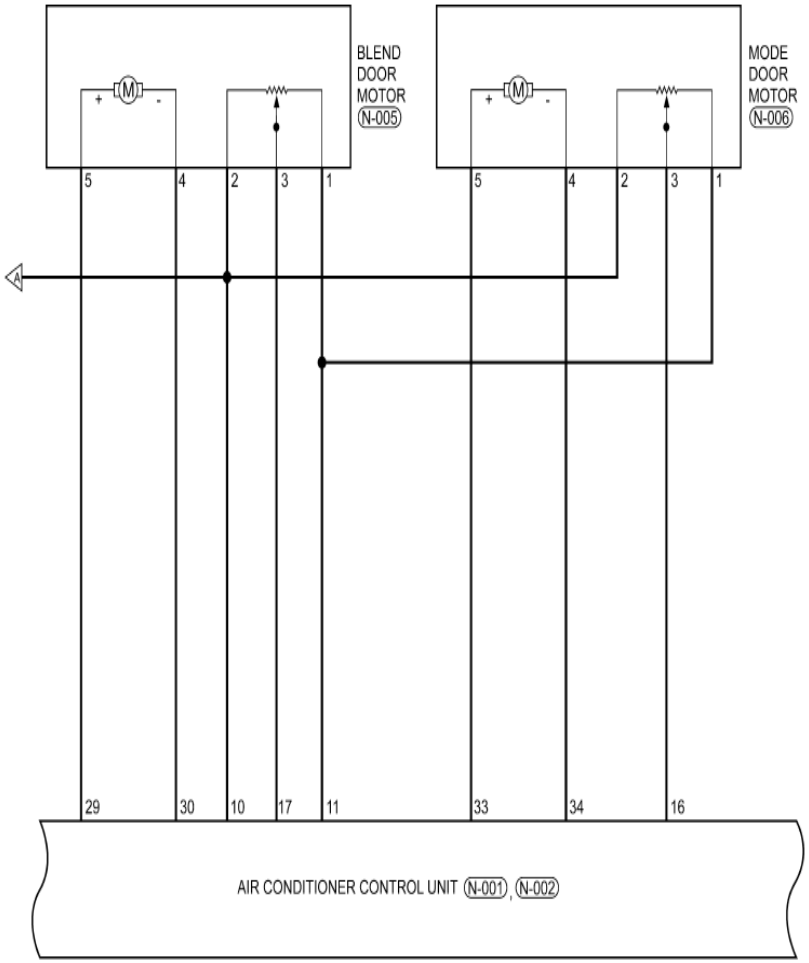
Antilock Brake System (ABS) Module Connector Pin-Out Table

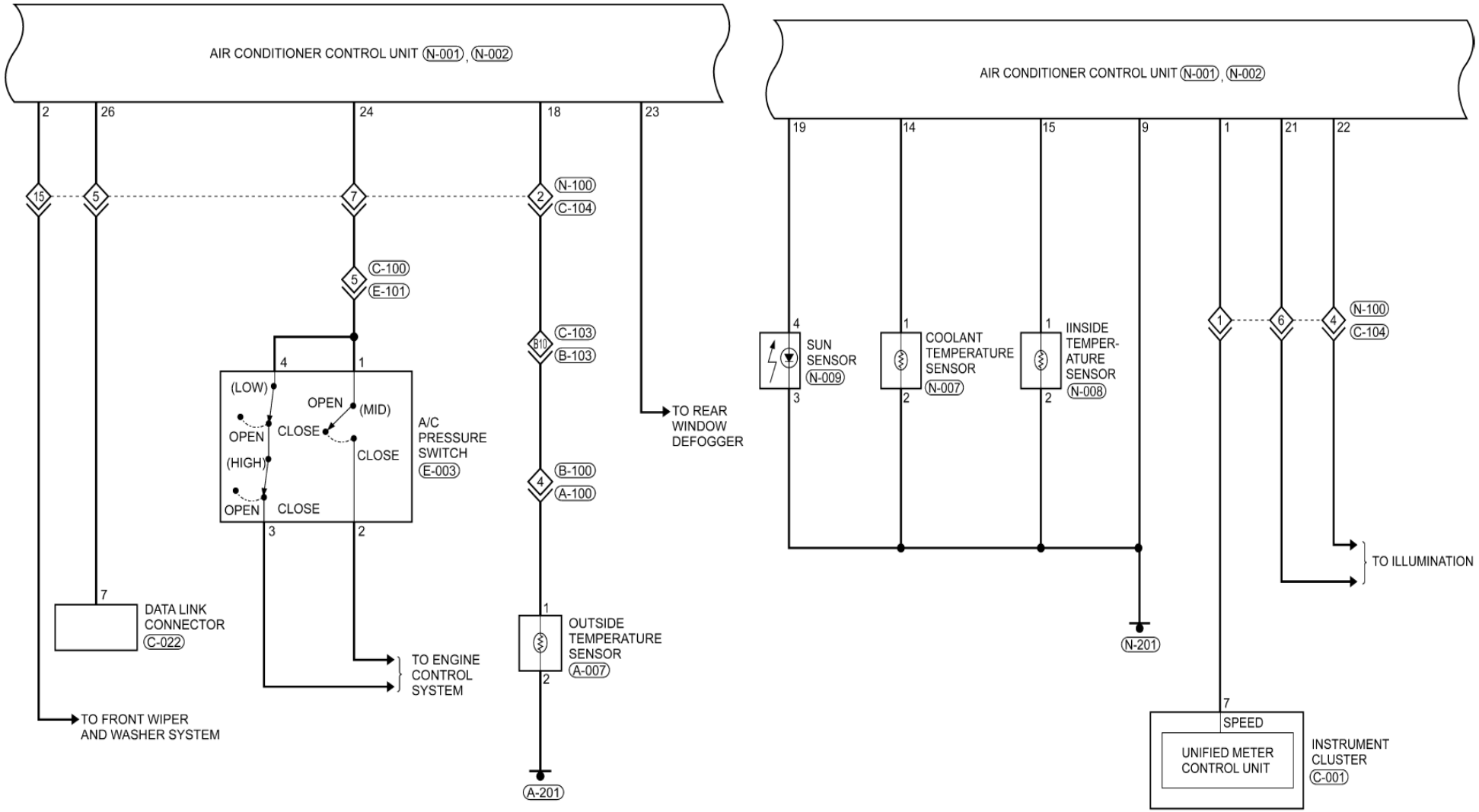
PIN	CIRCUIT IDENTIFICATION	PIN	CIRCUIT IDENTIFICATION
1	—	24	—
2	ECM Supply	25	—
3	CAN-H	26	FR RH SIG2
4	—	27	FR RH SIG1
5	—	28	—
6	Stop Lamp Switch	29	—
7	—	30	—
8	—	31	Motor Supply
9	—	32	Ignition
10	—	33	—
11	—	34	—
12	FR LH SIG2	35	—
13	FR LH SIG1	36	—
14	—	37	—
15	—	38	—
16	Ground	39	—
17	—	40	—
18	CAN-L	41	RR LH SIG1
19	—	42	RR LH SIG2
20	—	43	RR RH SIG2
21	—	44	RR RH SIG1
22	—	45	Ground
23	—	46	—

PARKING BRAKE









PIN	CIRCUIT IDENTIFICATION	PIN	CIRCUIT IDENTIFICATION
1	Speed Signal	19	Sun Sensor
2	Wiper Signal	20	—
3	Coolant Valve Motor (+)	21	To Illumination (night light)
4	Coolant Valve Motor (-)	22	—
5	—	23	Rear Window Defogger
6	Blower Motor Adjust Speed Signal	24	To ECM
7	Blower Motor Voltage Feedback	25	—
8	Coolant Valve Motor Feedback	26	K-Line
9	Sensor Signal GND	27	—
10	Motor Potentiometer Common GND	28	—
11	Air Mix Door Motor Potentiometer (+)	29	Air Mix Door Motor (+)
12	—	30	Air Mix Door Motor (-)
13	—	31	Intake Door Motor (±)
14	Coolant Temperature Sensor	32	Intake Door Motor (±)
15	In-Vehicle Sensor	33	Air Mix Door Motor (+)
16	Mode Door Motor Feedback	34	Air Mix Door Motor (-)
17	Air Mix Door Motor Voltage Feedback	35	Controller GND
18	Outside Temperature Sensor	36	IGN SIG

How To Enter HVAC Module Self Diagnostic Mode

The Automatic Temperature Control (ATC) module cannot be accessed with the X-431 scan tool. The following must be done in order to read the DTC information in the ATC module:

1. Push the up knob of the air volume, and push the mode control knob 3 times continuously.
2. The ATC display will now display any DTCs.

Turn the ignition switch on.

Adjust the temperature control knob on the panel, set the temperature at 29.5°.

While push the Upper air volume control knob switches, push the mode control knob 3 times continuously. The control panel will enter the self-check mode.

Automatic Temperature Control System DTC List

DTC	DTC DEFINITION
01	Inside Temperature Sensor Fault
02	Outside Temperature Sensor Fault
03	Coolant Temperature Sensor Fault
04	Sun Sensor Fault
05	Blower Motor Fault
06	Blend Door Fault
07	Mode Door Fault
08	Coolant Valve Modulation Fault

Description

Available occupant restraints for this vehicle include both active and passive types. Active restraints are those which require the vehicle occupants to take some action to employ, such as fastening a seat belt; while passive restraints require no action by the vehicle occupants to be employed.

Active Restraints

- Front Seat belts
- Rear Seat belts

Passive Restraints

- Driver Airbag
- Passenger Airbag
- Seat Belt Tensioner

Operation

Active Restraints

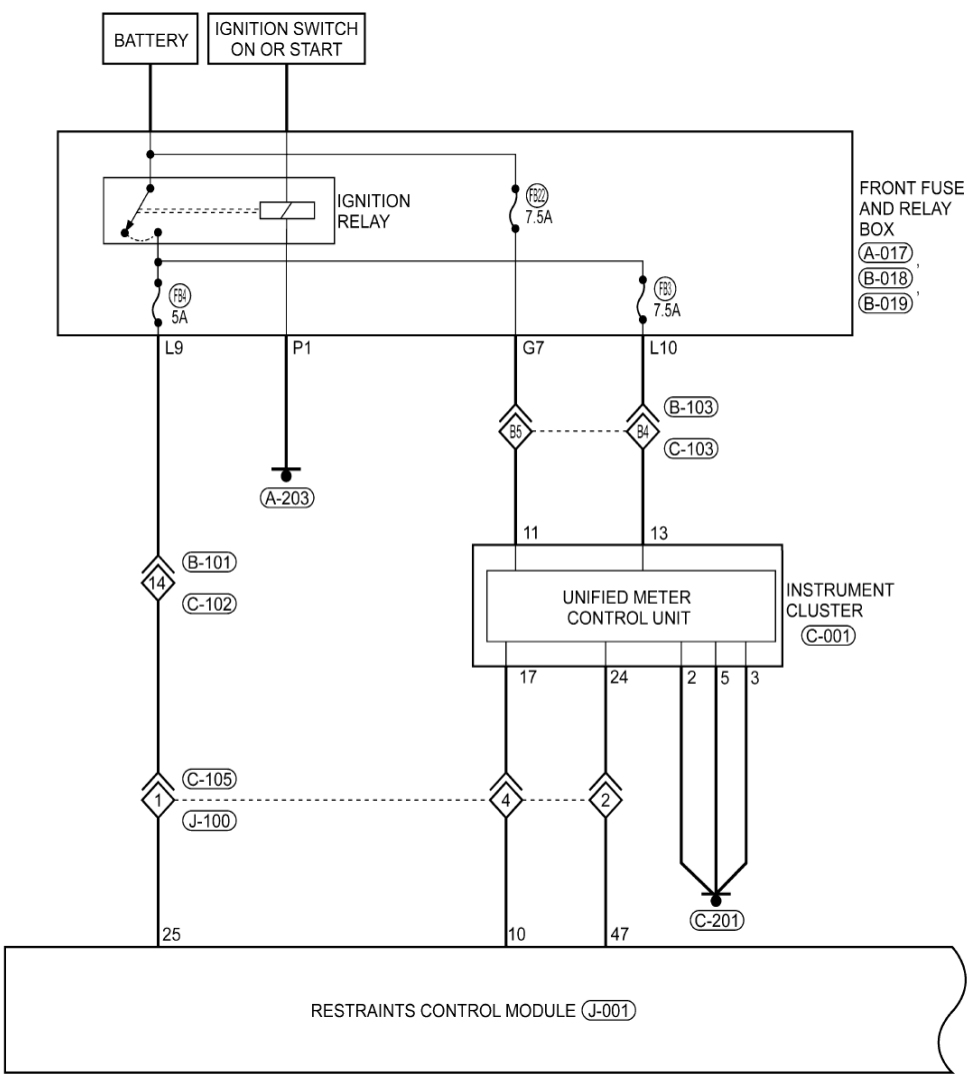
The primary passenger restraints are the seat belts. Seat belts are referred to as an active restraint because the vehicle occupants are required to physically fasten and properly adjust these restraints in order to benefit from them.

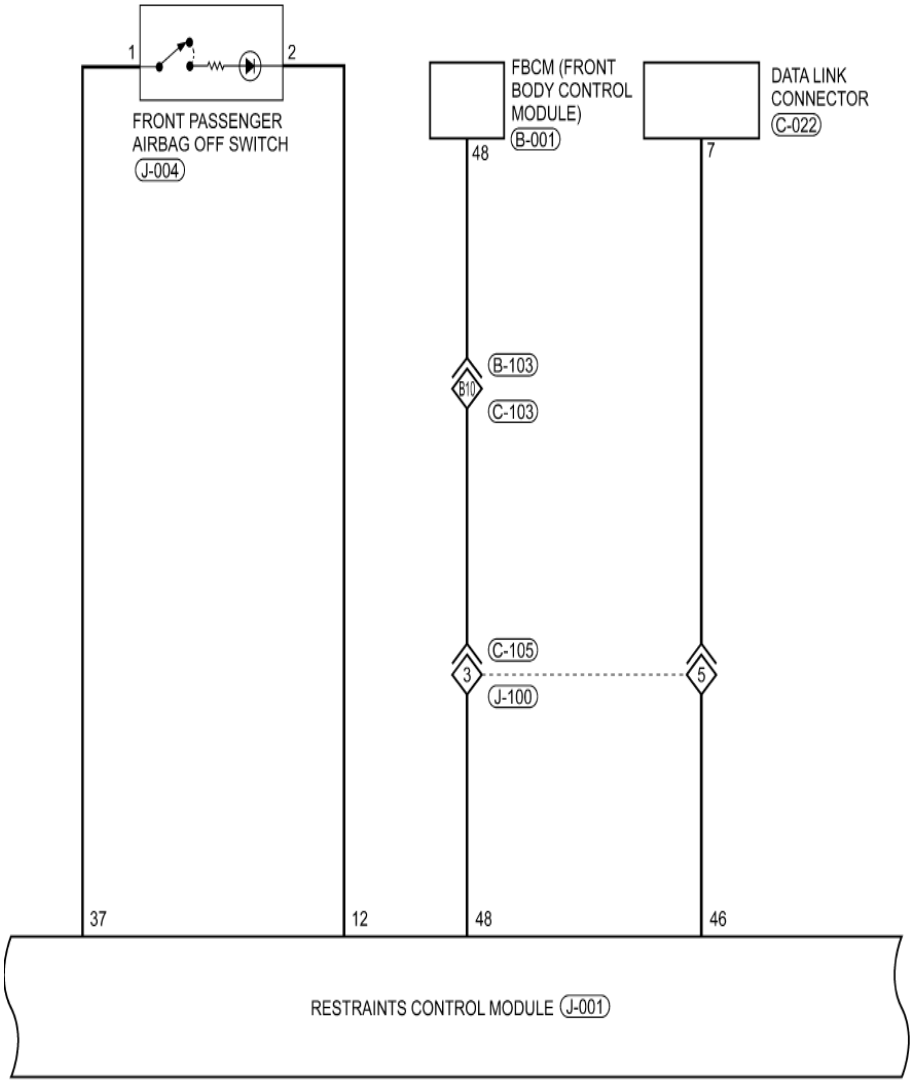
Passive Restraints

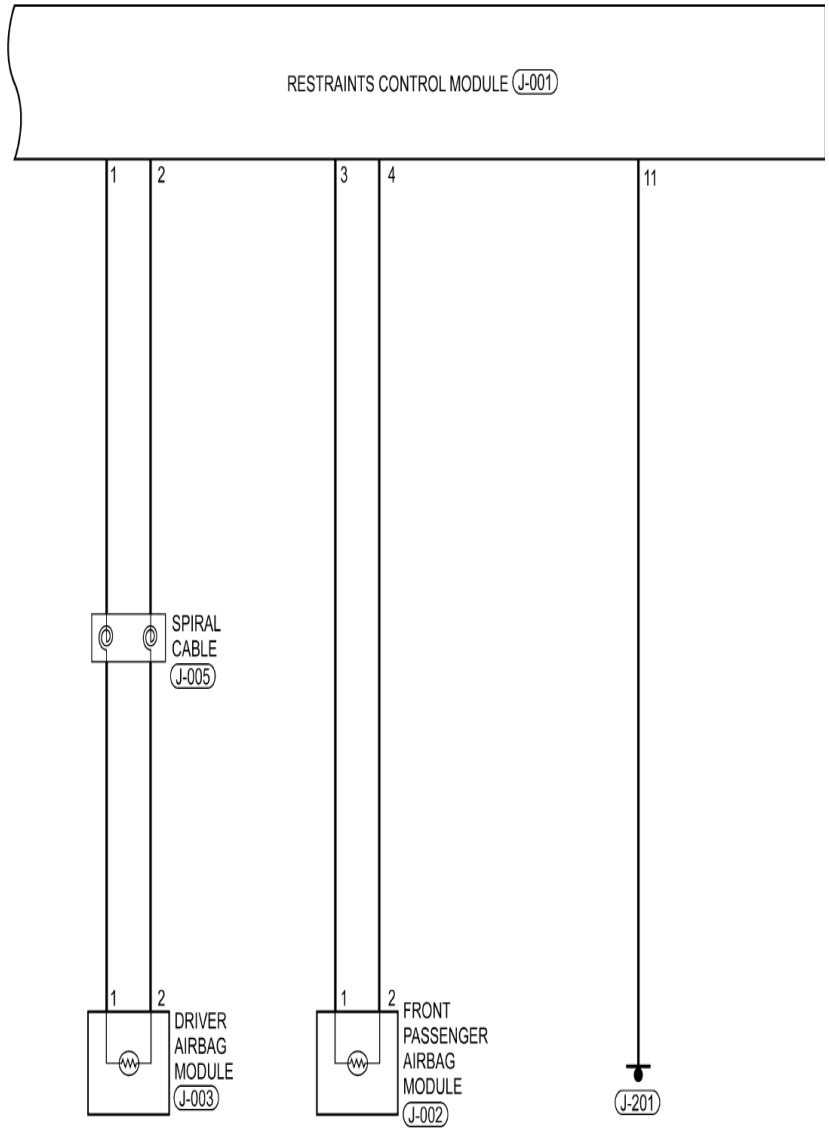
The passive restraints are referred to as a supplemental restraint system because they were designed and are intended to enhance the protection for the occupants of the vehicle only when used in conjunction with the seat belts. They are referred to as passive restraints because the vehicle occupants are not required to do anything to make them operate; however, the vehicle occupants must be wearing their seat belts in order to obtain the maximum safety benefit from the supplemental restraint system.

The supplemental restraint system electrical circuits are continuously monitored and controlled by a microprocessor and software contained within the Restraints Control Module (RCM). An airbag indicator in the Instrument Cluster illuminates for about seven seconds as a bulb test each time the ignition switch is turned to the ON or START positions. Following the bulb test, the airbag indicator is turned ON or OFF by the RCM to indicate the status of the supplemental restraint system. If the airbag indicator comes ON at any time other than during the bulb test, it indicates that there is a problem in the supplemental restraint system electrical circuits. Such a problem may cause airbags not to deploy when required, or to deploy when not required.

Deployment of the supplemental restraints depends upon the angle and severity of an impact. When an impact is severe enough, the microprocessor in the RCM signals the inflator of the appropriate airbag units to deploy their airbag cushions. The front seat belt tensioners are provided with a deployment signal by the RCM in conjunction with the front airbags.







Airbag Control Module Connector Pin-Out Table

PIN	CIRCUIT IDENTIFICATION	PIN	CIRCUIT IDENTIFICATION
1	Driver Airbag	26	—
2	Driver Airbag	27	—
3	Passenger Airbag	28	—
4	Passenger Airbag	29	—
5	—	30	—
6	—	31	—
7	—	32	—
8	—	33	—
9	—	34	—
10	Driver Airbag Indicator	35	—
11	GND	36	—
12	Airbag Switch	37	Airbag Switch
13	—	38	—
14	—	39	—
15	—	40	—
16	—	41	—
17	—	42	—
18	—	43	—
19	—	44	—
20	—	45	—
21	—	46	K-Line
22	—	47	Passenger Airbag Indicator
23	—	48	Airbag Unlock Input
24	—	49	—
25	BATT	50	—

Airbag System Disarming Procedure

Airbag System Disarming Procedure

WARNING!

The steering column contains the driver's airbag. The airbag system is a sensitive, complex electro-mechanical unit. Before attempting to diagnose, remove or install the airbag system components, you must first disconnect and isolate the negative battery (ground) cable. Then wait two minutes for the system capacitor to discharge. Failure to do so could result in accidental deployment of the airbag and possible personal injury. The fasteners, screws, and bolts, originally used for the airbag components, have special coatings and are specifically designed for the airbag system. They must never be replaced with any substitutes. Anytime a new fastener is needed, replace with the correct fasteners provided in the service package or fasteners listed in the parts books.

1. Turn the ignition switch off.
2. Disconnect and isolate the negative battery cable.
3. Wait two minutes for the system capacitor to discharge.
4. The airbag system can now be serviced safely.

CAN VEHICLE COMMUNICATIONS

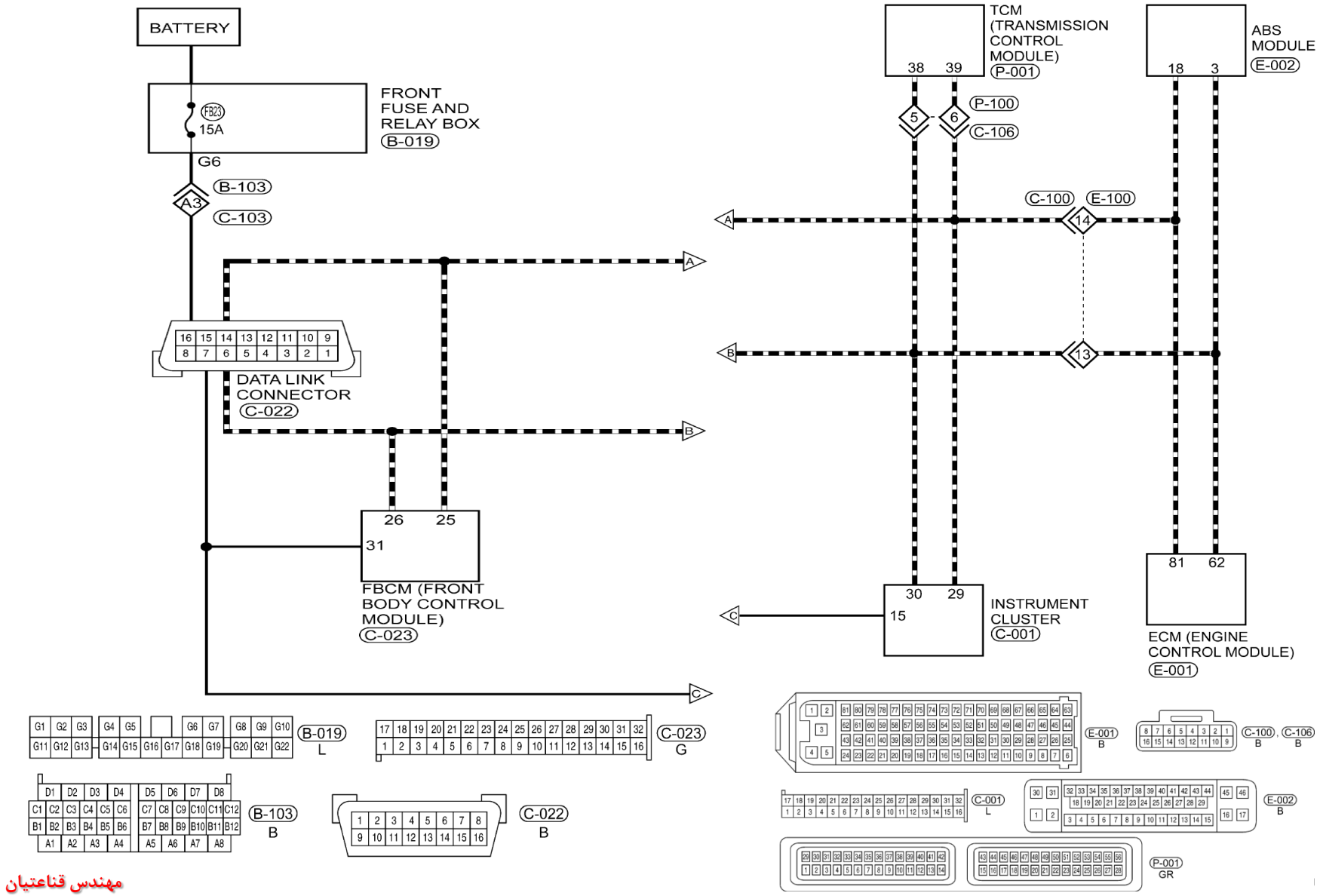
Description

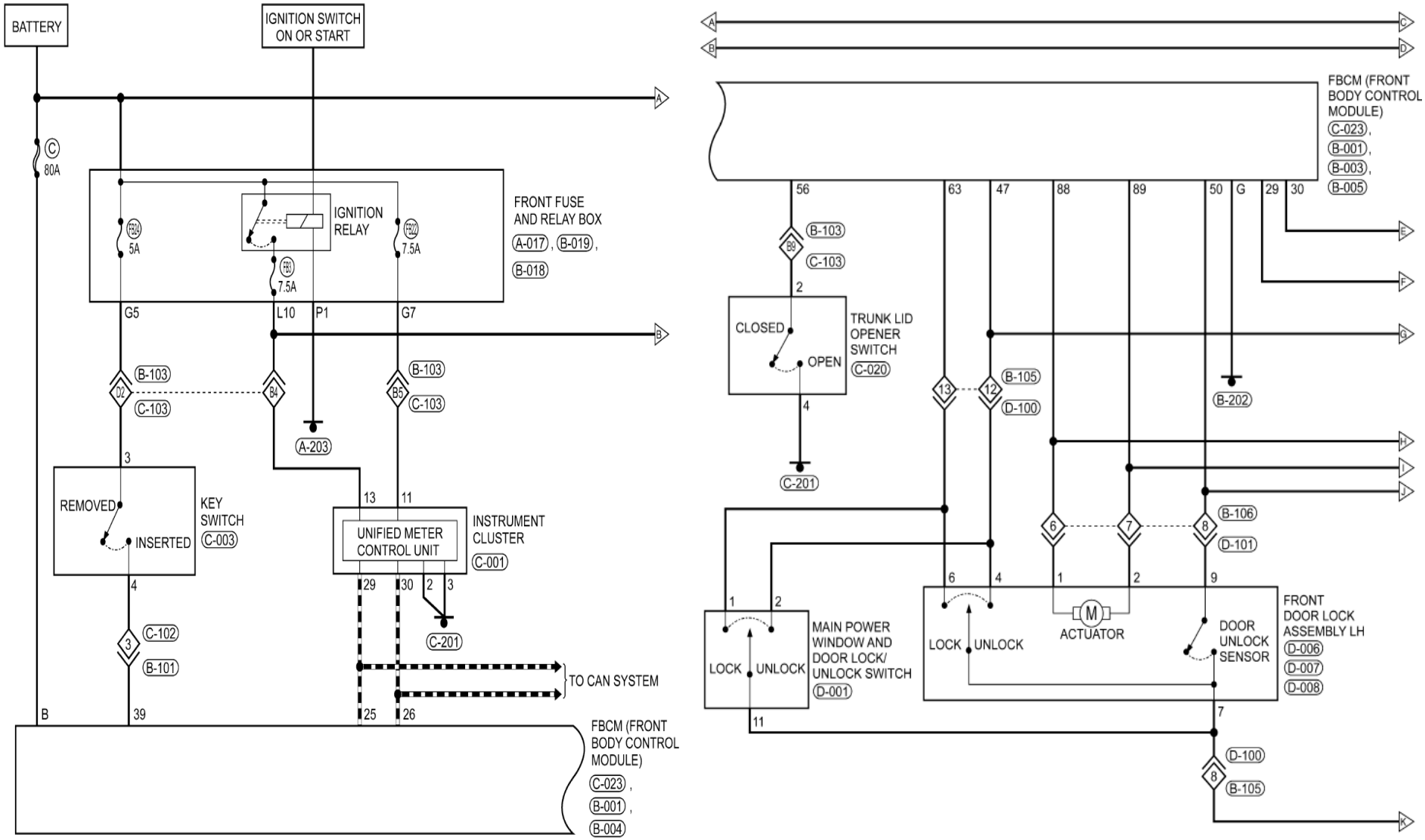
Controller Area Network (CAN) vehicle communication is a multiplex communication system. This enables the system to transmit and receive large quantities of data at high speed by connecting various vehicle modules with two communication lines (CAN-H and CAN-L). CAN vehicle communication consists of the following:

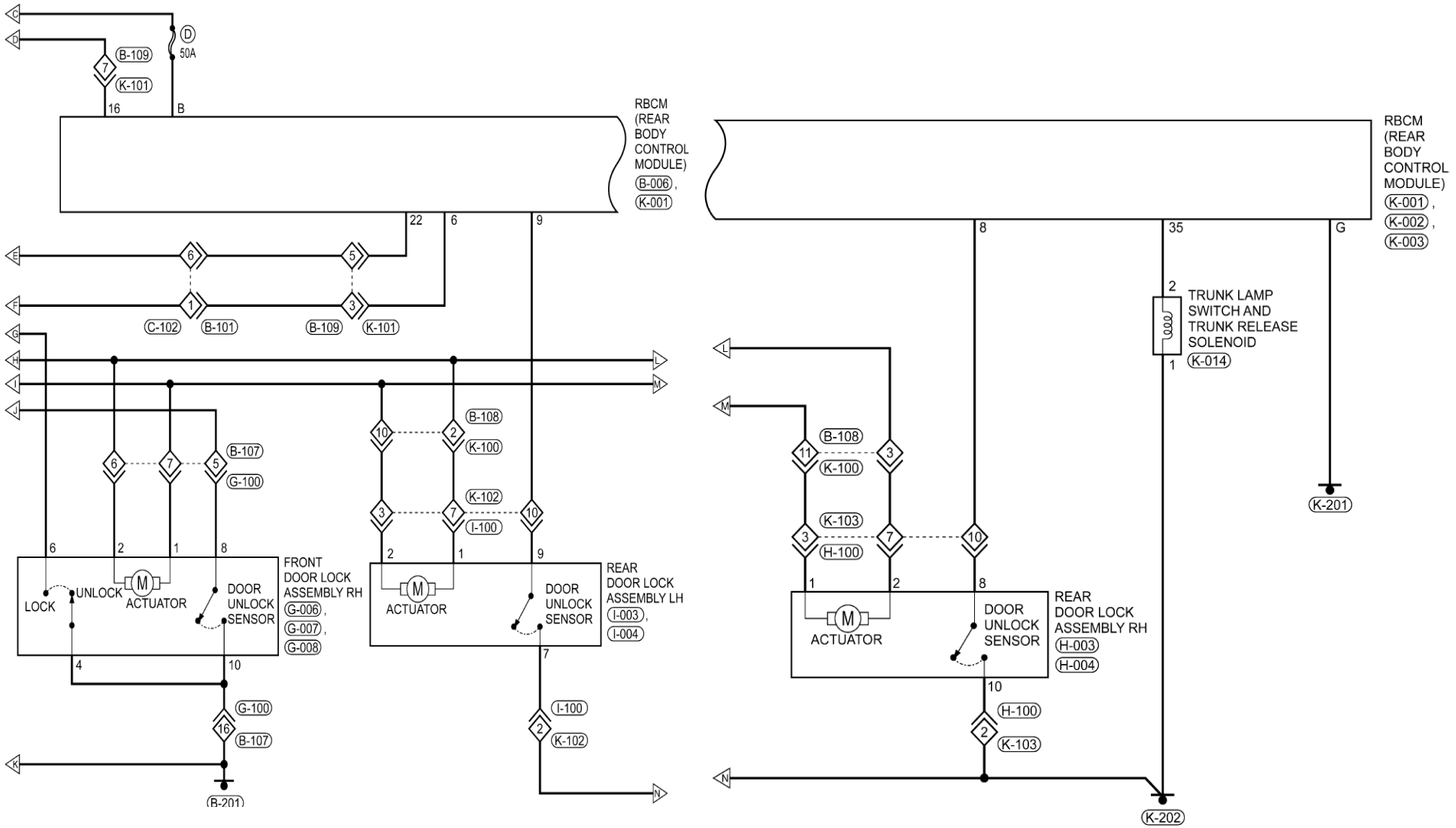
- Front Body Control Module (FBCM)
- Transaxle Control Module (TCM)
- Antilock Brake System (ABS) Module
- Instrument Cluster
- Engine Control Module (ECM)

Operation

Control units on the CAN network transmit signals using the CAN communication control circuit. They receive only necessary signals from other vehicle modules to operate various functions. Each vehicle module passes an electric current to the termination potential difference between CAN-H and CAN-L.





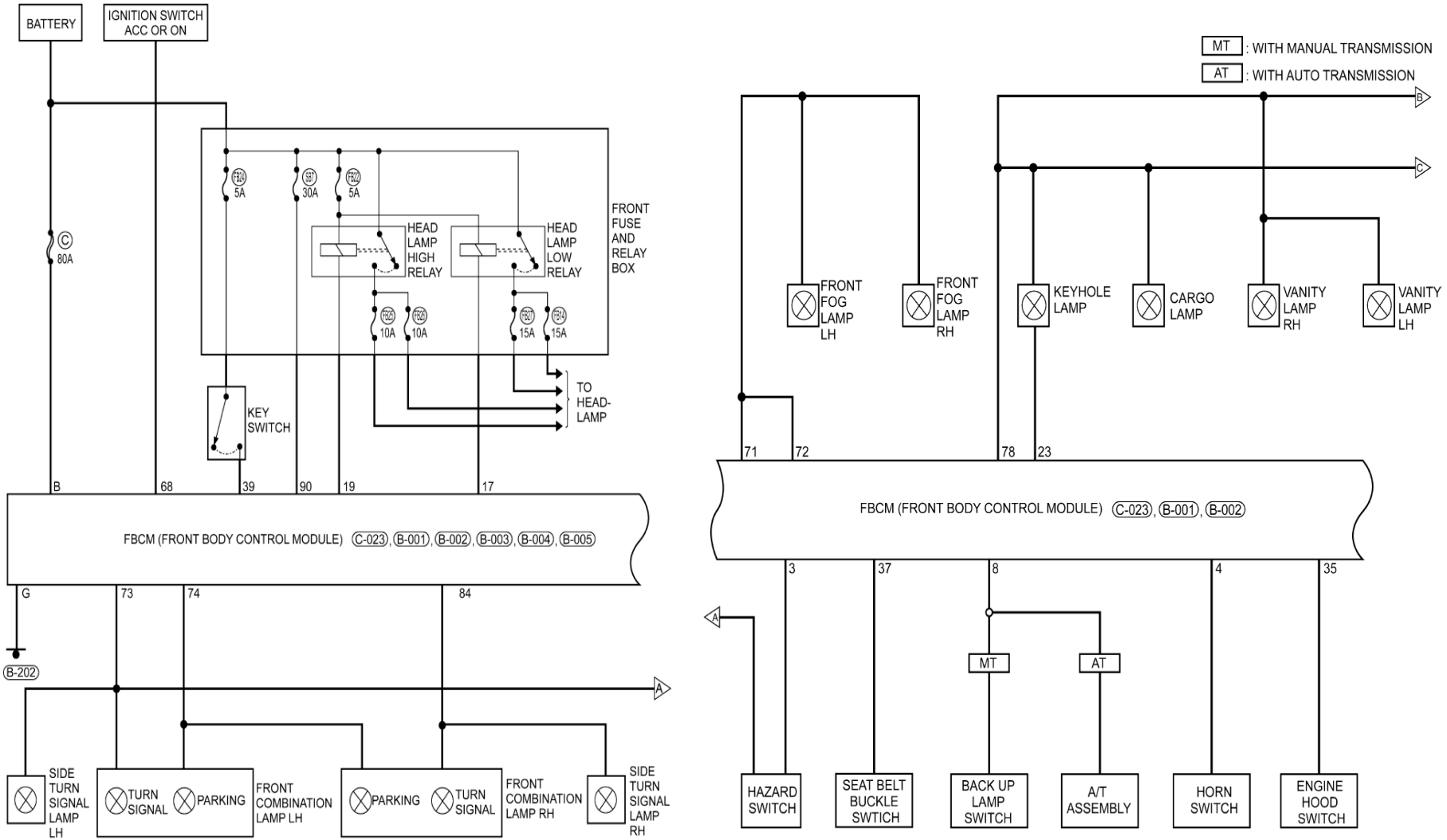


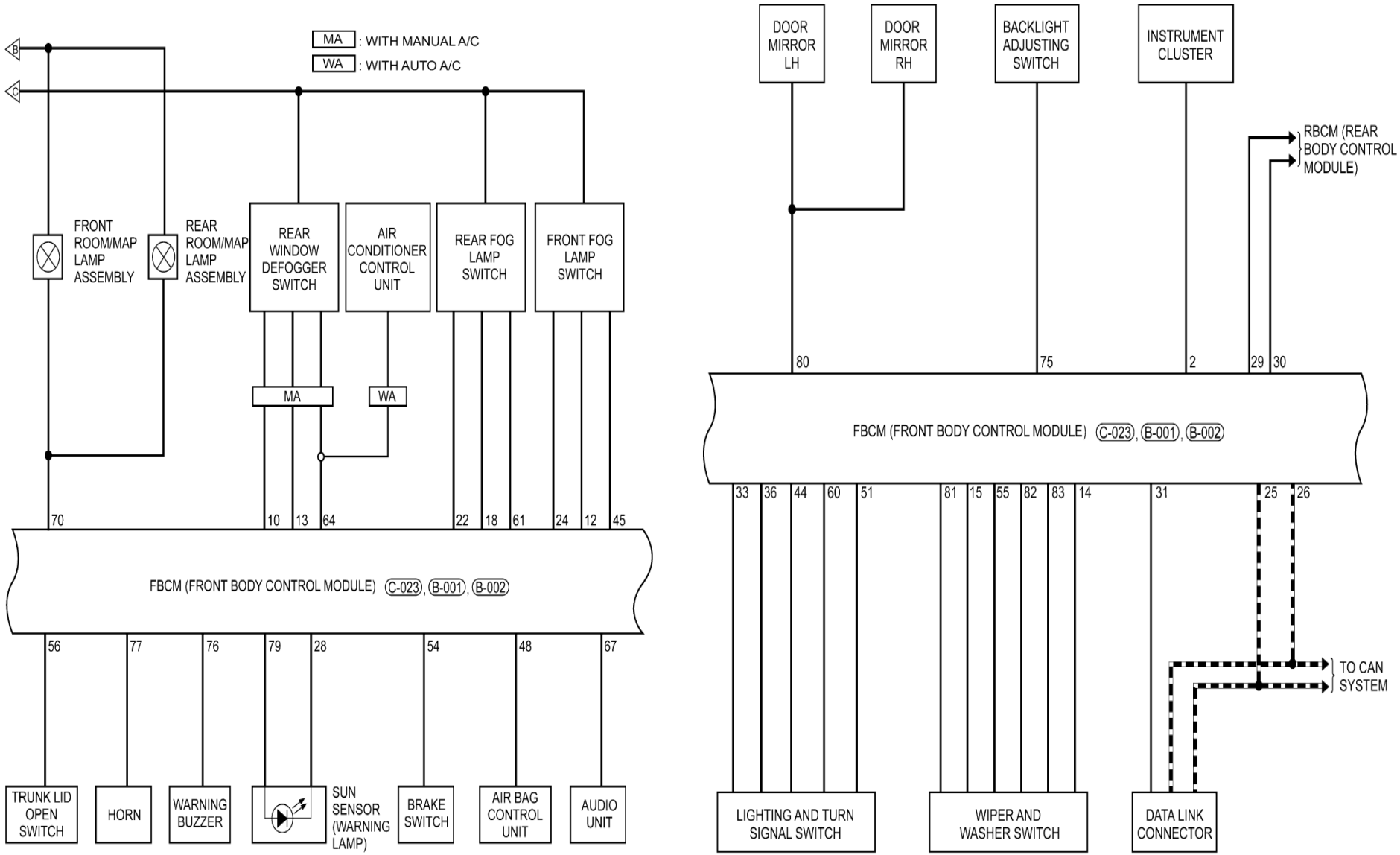
The Front Body Control Module (FBCM) is designed to control and integrate many of the electronic features and functions of the vehicle. The microprocessor-based FBCM hardware and software monitors many hard-wired switch and sensor inputs as well as those resources it shares with other electronic modules in the vehicle through its communication over the Controller Area Network (CAN) bus. The internal programming of the FBCM microprocessor allows the FBCM to determine the tasks it needs to perform and their priorities. The FBCM programming then performs those tasks and provides features through both CAN bus communication with other electronic modules and hard-wired outputs to a number of relays. These relays provide the FBCM with the ability to control numerous high current accessory systems in the vehicle.

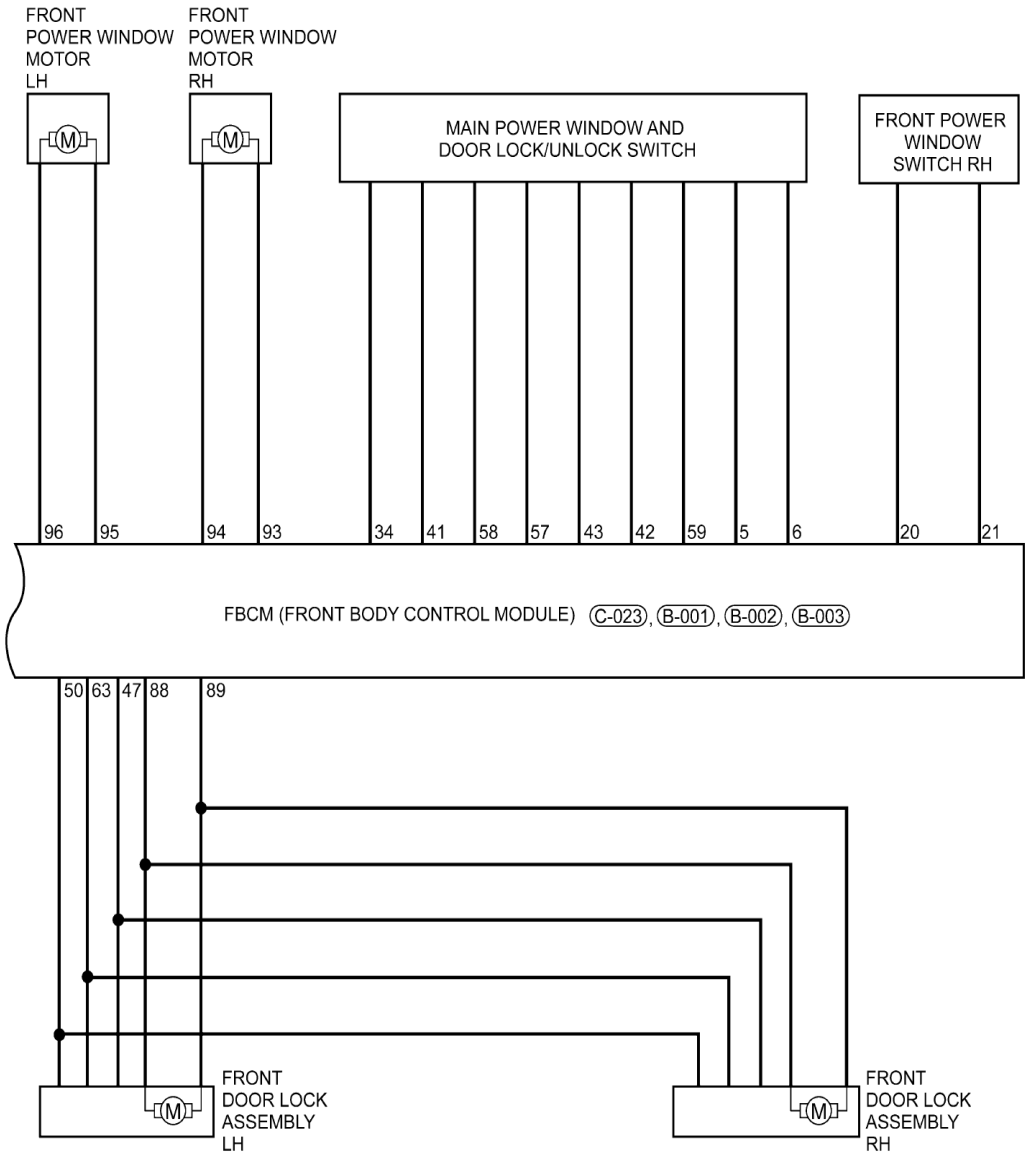
جلو : A21-3600030MA
عقب : A21-3600050DA

جلو : A21-3600030KA
عقب : A21-3600050KA

FUSE NO.	AMPERAGE RATING	FUNCTION
1	5A	Radio
2	10A	Parking Brake
3	10A	Horn
4	7.5A	Battery Energy Conservation
5	5A	ATM (Transaxle)
6	7.5A	Heated Side View Mirror
7	25A	Front Fog Light
8	15A	Power Door Lock
9	—	Not Used
10	—	Not Used
11	—	Not Used
12	30A	Power Window

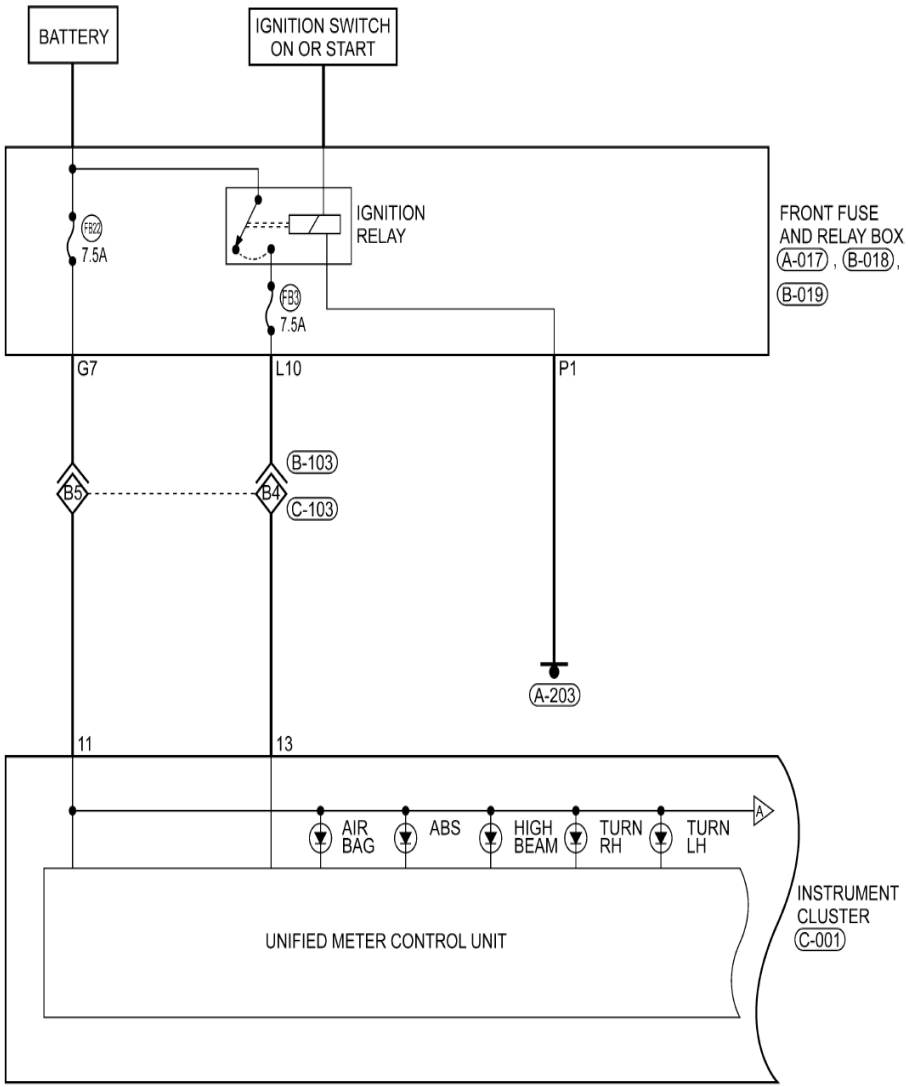


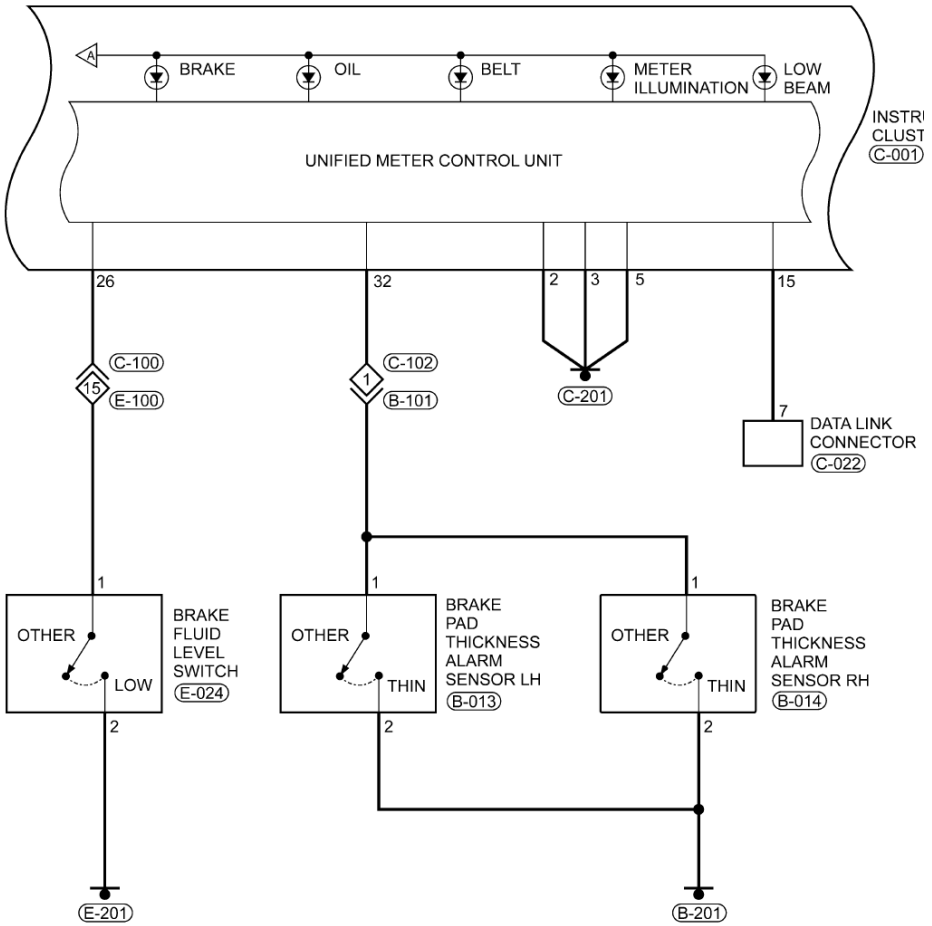


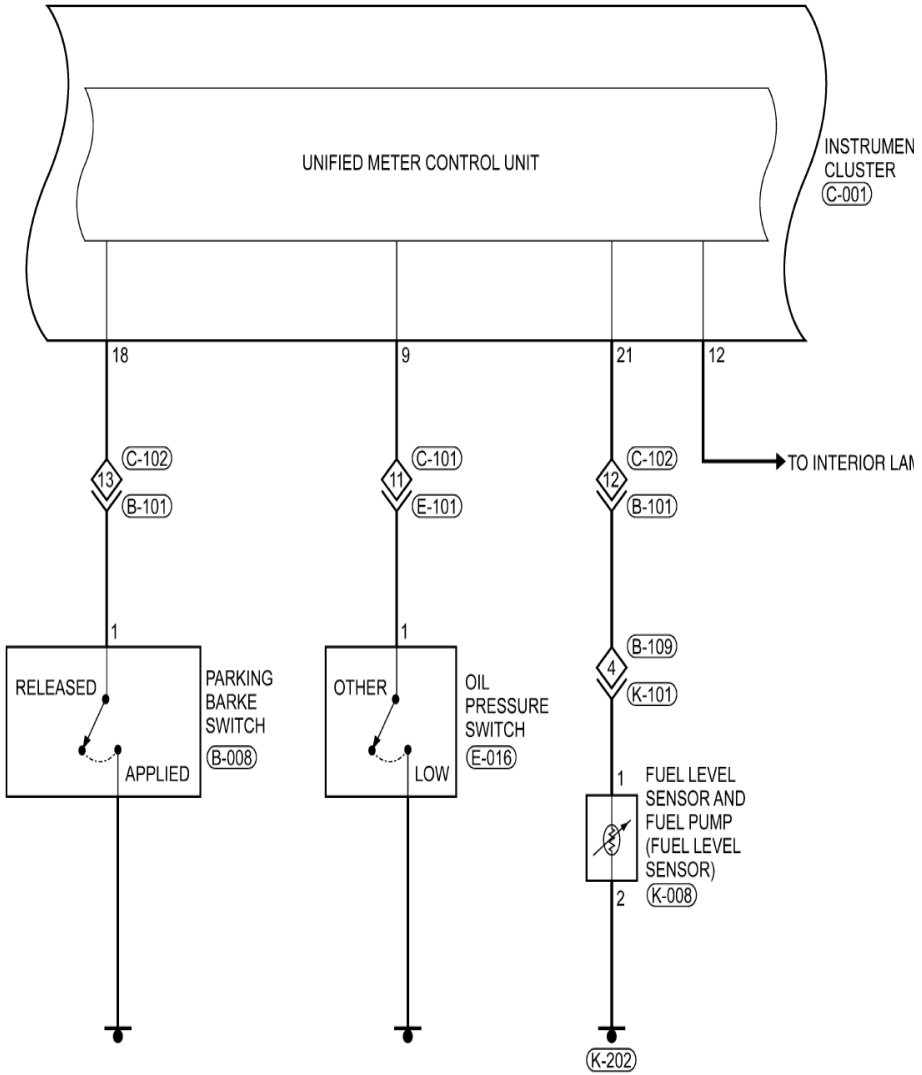


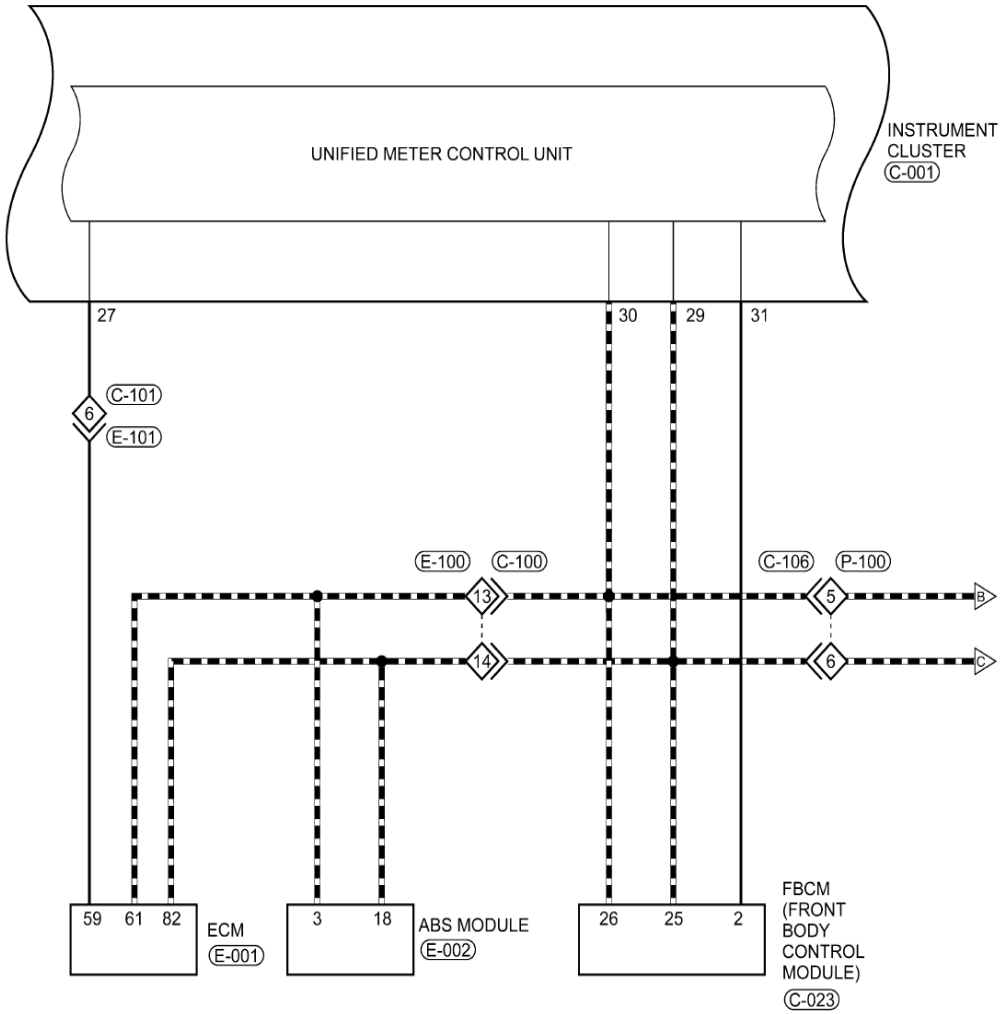
PIN	CIRCUIT IDENTIFICATION	PIN	CIRCUIT IDENTIFICATION
1	—	50	Tamper Input
2	CAN Wake Up	51	Left Turn Input
3	Hazard Input	52	—
4	Horn Input	53	—
5	Window Left Front DWN	54	Brake Input
6	Window Left Front DWN	55	Washer Input
7	—	56	Boot REL Input
8	Reverse Input	57	Driver WIN RL DWN
9	—	58	Driver WIN RR UP
10	DEFR SW ILLUM	59	Driver WIN Right Front UP
11	IGN	60	High Beam CONST Input
12	Front Fog IND Out	61	Rear Fog Input
13	DEFR IND	62	—
14	—	63	Lock Input
15	Wiper INT AN	64	DEFR Input
16	—	65	—
17	Low Beam Relay	66	—
18	Rear Fog IND Out	67	Radio (75) Fuse
19	High Beam Relay	68	Radio (75)
20	Pass WIN Right Front DWN	69	—
21	Passenger WIN Right Front UP	70	Dome Lights
22	Rear Fog SW ILLUM	71	Right Front Fog Output
23	Key Lamp	72	Right Front Fog Output
24	Front Fog SW ILLUM	73	Left Turn Output
25	CAN L	74	Front Park Output
26	CAN H	75	IP ILLUM Output
27	—	76	Siren Output
28	SEC IND	77	Horn
29	INTER BCM	78	Right Front BAT Saver
30	INTER BCM	79	SEC LED PWR
31	K-Line	80	MIR DEFR
32	Vehicle Speed Input (RSD)	81	Wiper Output
33	Park Light Input	82	Wiper Park
34	Passenger WIN Input	83	ACC (75) Wiper
35	Hood Ajar	84	Right Turn Output
36	—	85	—
37	Seat Belt Input	86	—
38	—	87	—
39	Key Input	88	Lock Output

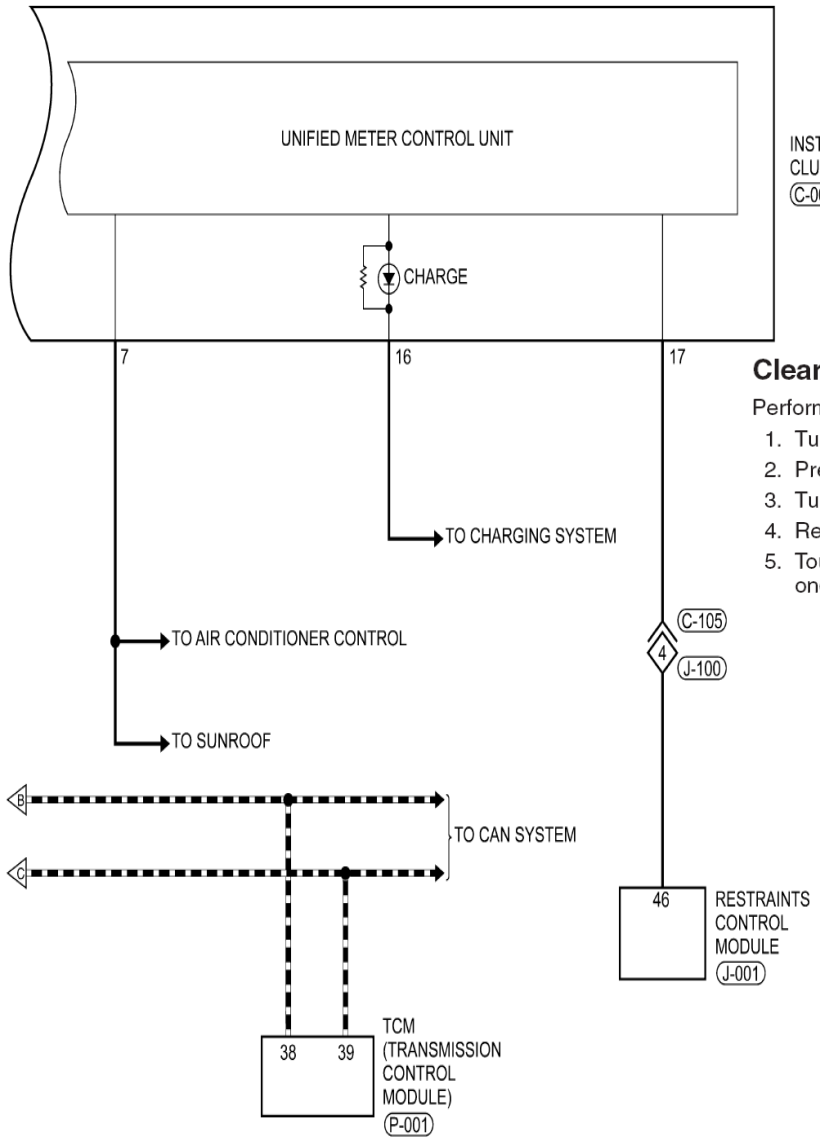
PIN	CIRCUIT IDENTIFICATION	PIN	CIRCUIT IDENTIFICATION
40	—	89	Unlock Output
41	Driver WIN RR DWN	90	Spare Fuse VBAT
42	Driver WIN Right Front DWN	91	—
43	Driver WIN RL UP	92	—
44	Low Beam Input	93	Window Right Front DWN Output
45	Front Fog Input	94	Window Right Front UP Output
46	—	95	Window Left Front DWN Output
47	Unlock Input	96	Window Left Front UP Output
48	Airbag Unlock Input	B	BATT Power Supply
49	—	G	GND Power supply









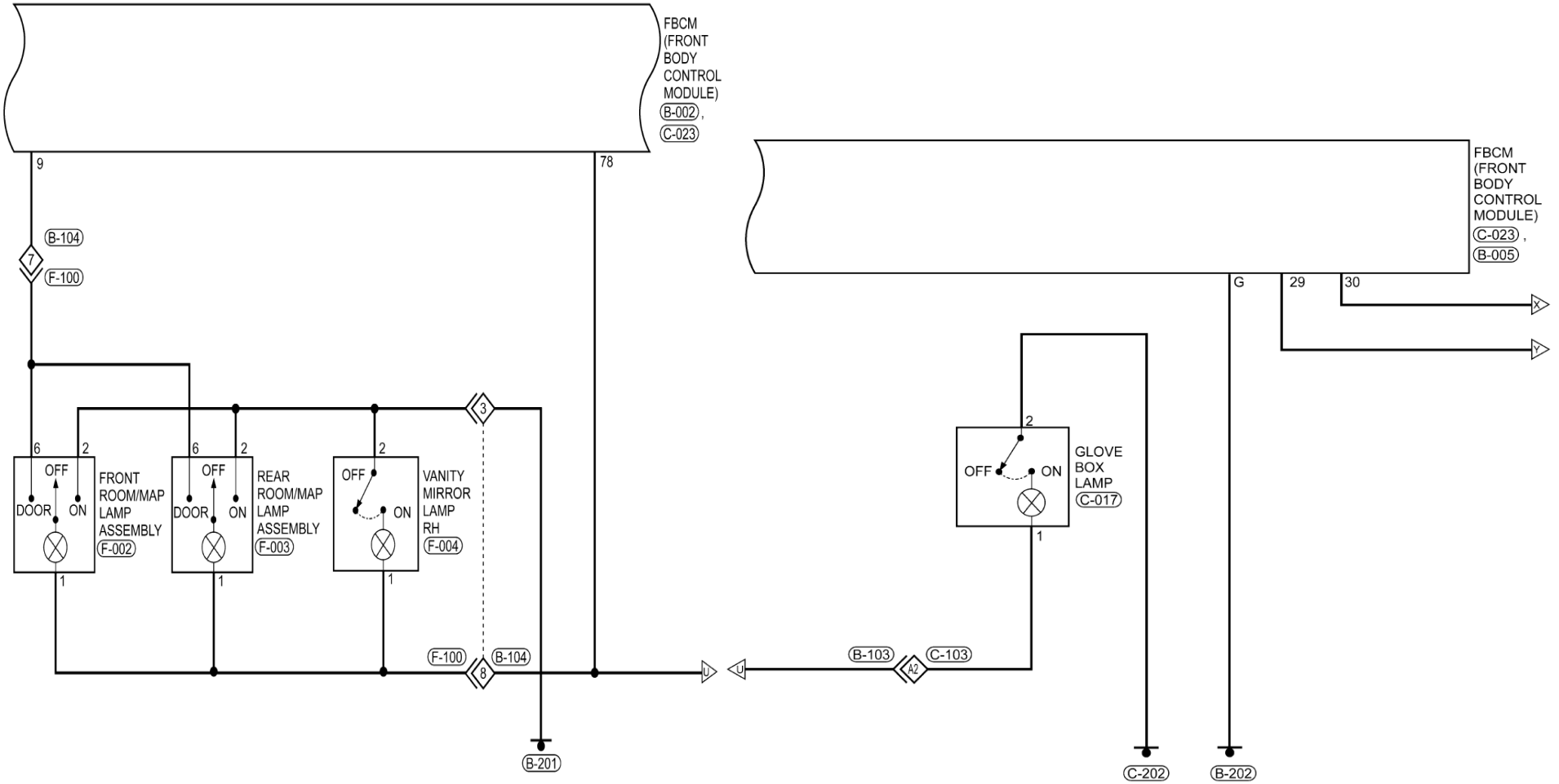


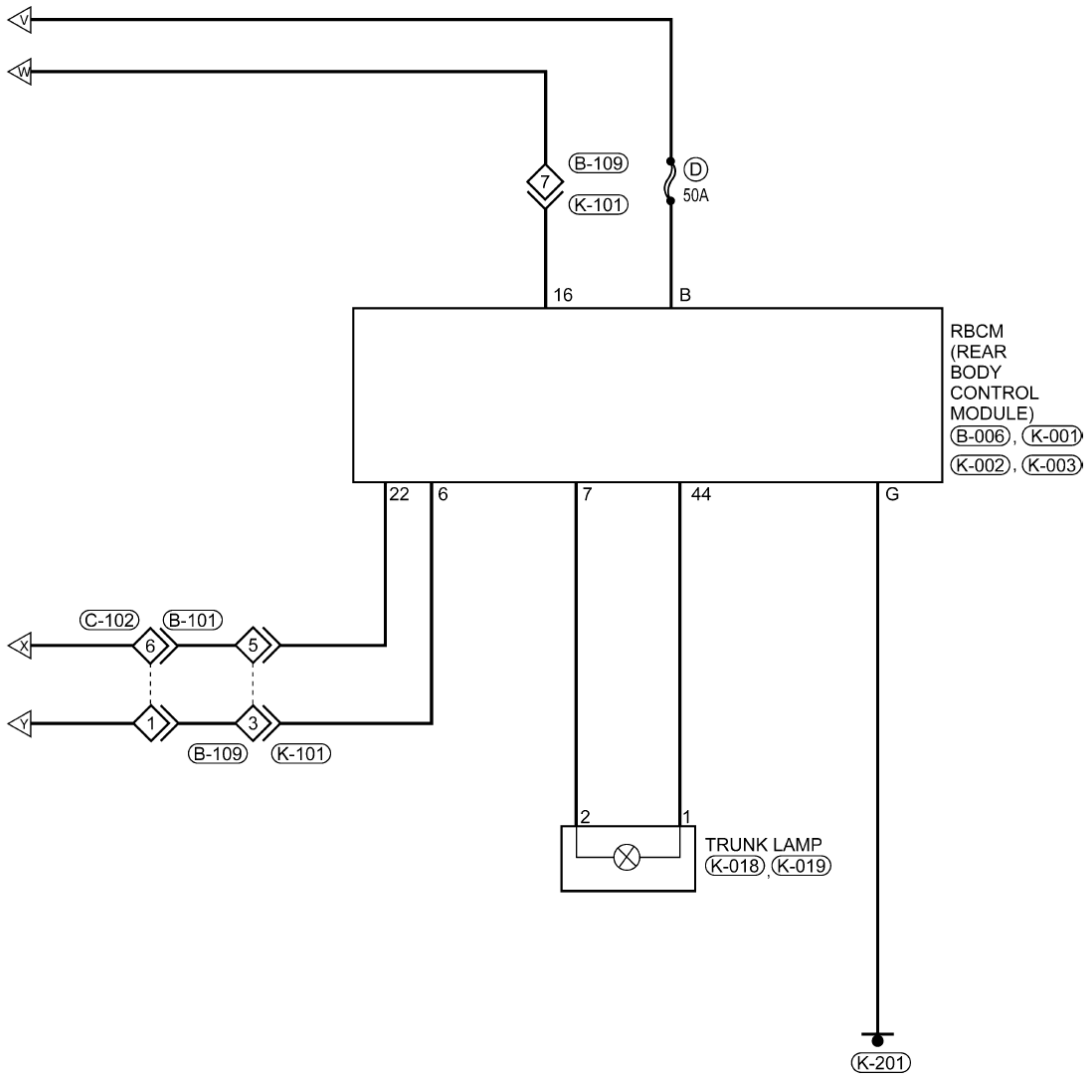
Clearing Service Monitor Lamp

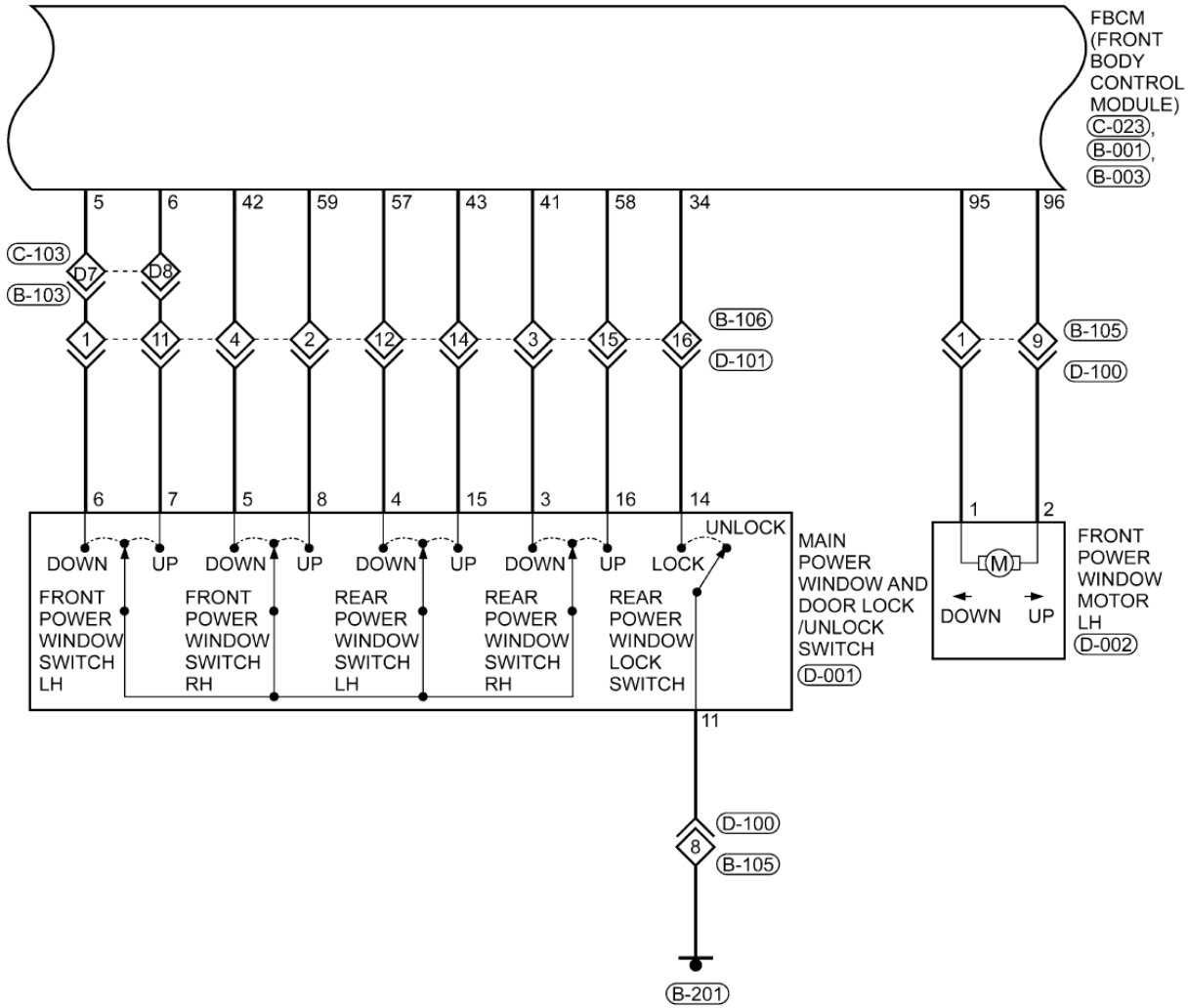
Perform the following to clear the service monitor lamp:

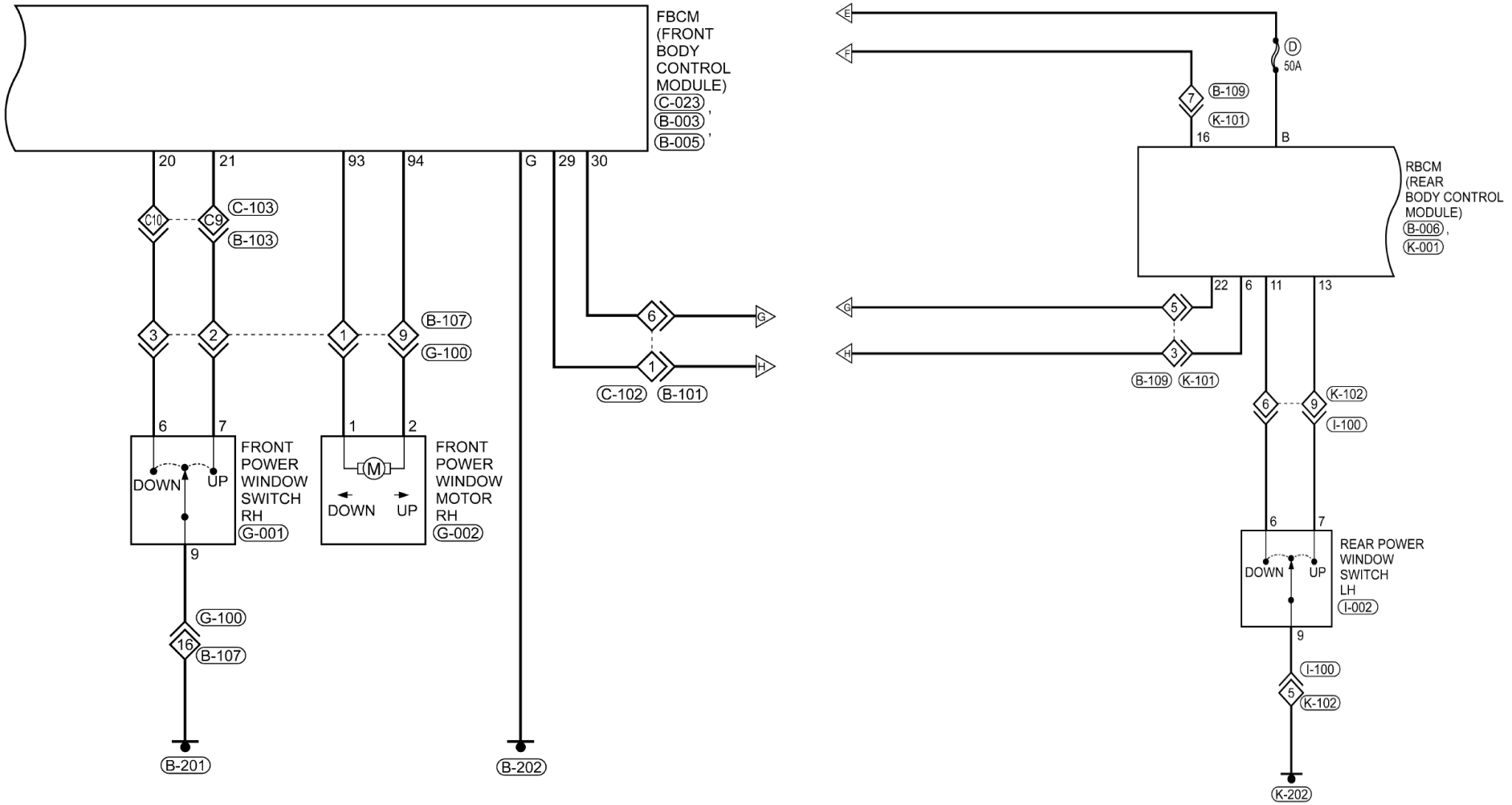
1. Turn the ignition switch off.
2. Press down and hold the Mode switch.
3. Turn the ignition switch on.
4. Release the Mode switch.
5. Touch the Mode switch and the Clock switch simultaneously in 30 seconds with a touch time less than 2 seconds to clear the mileage maintenance identification.

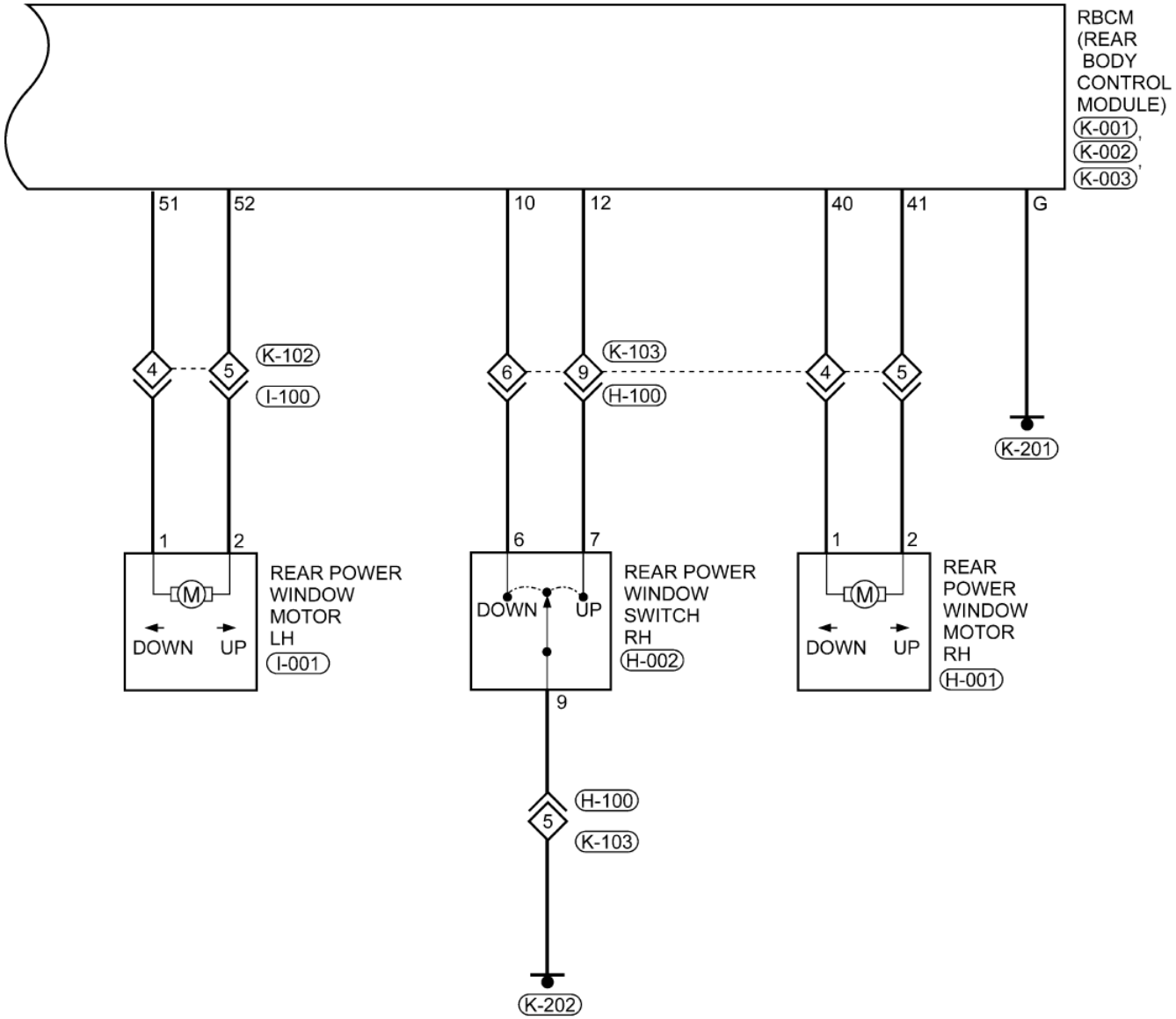
PIN	CIRCUIT IDENTIFICATION	PIN	CIRCUIT IDENTIFICATION
1	—	17	Airbag
2	GND Power Supply	18	Parking Brake Switch
3	Sensor GND	19	—
4	—	20	—
5	Body GND	21	Fuel Level Input
6	—	22	—
7	Speed Input	23	—
8	—	24	—
9	Oil Pressure Switch	25	—
10	—	26	Brake Fluid Level Input
11	Power Supply	27	Vehicle Speed Input
12	IP ILLUM Input	28	—
13	Key Input	29	CAN - L
14	—	30	CAN - H
15	K-Line	31	CAN Wake Up
16	Charge	32	Brake Pad Alarm Input





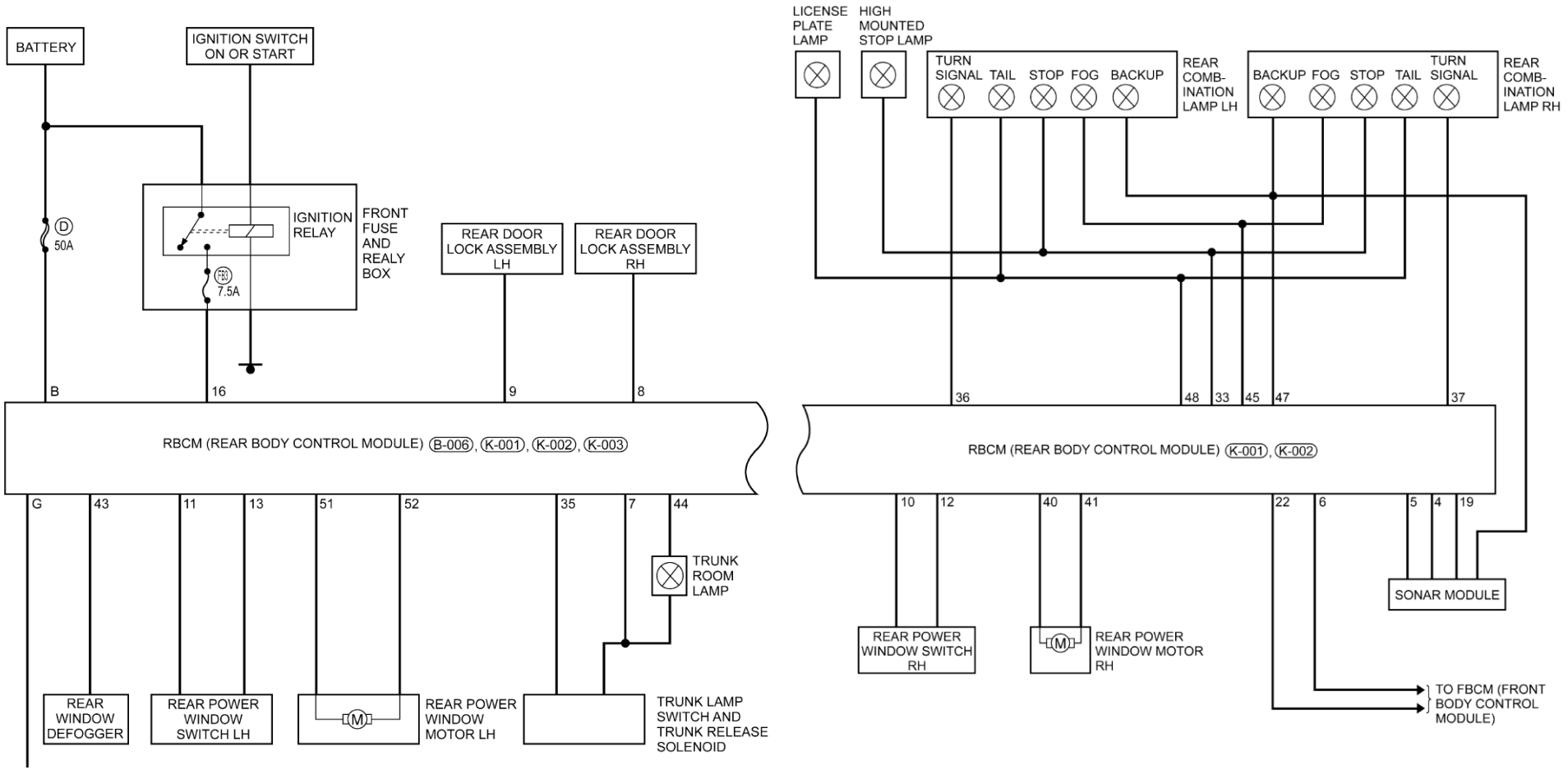


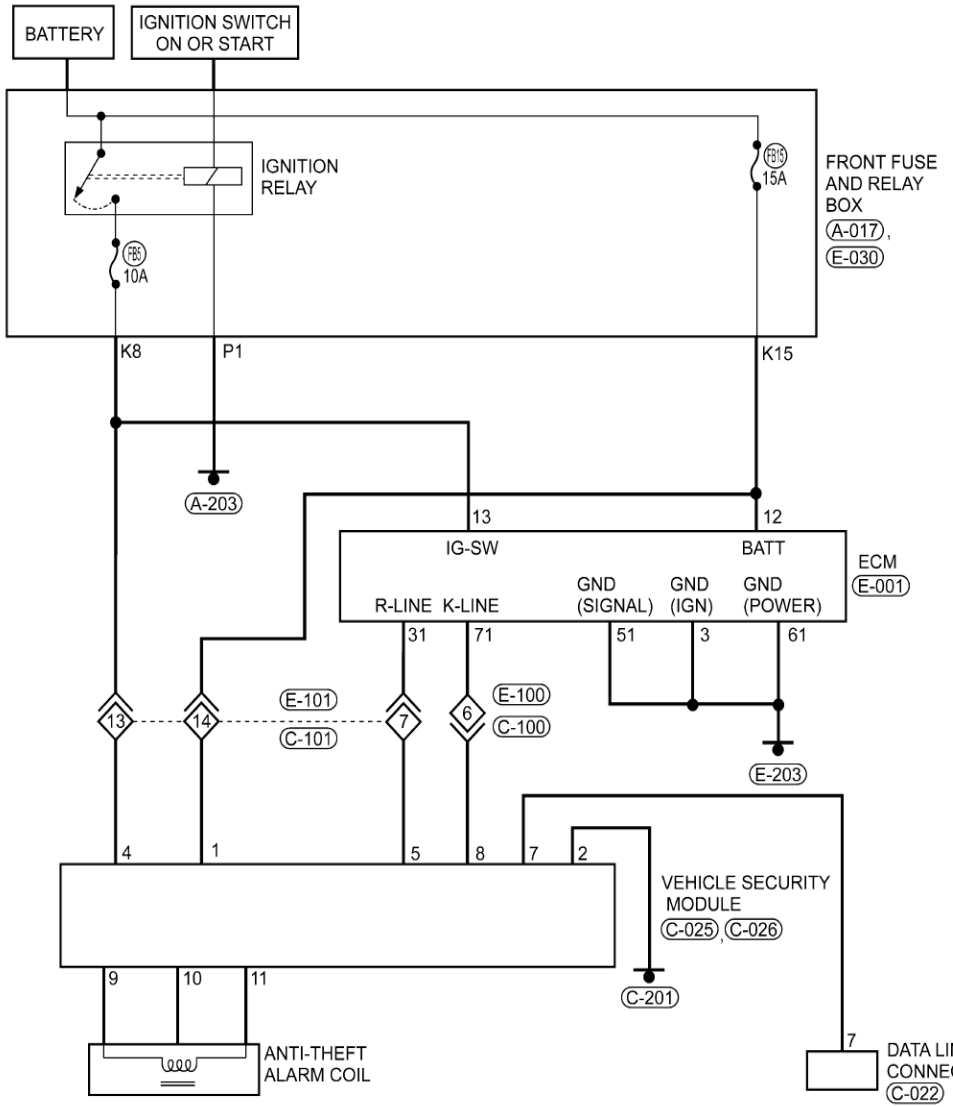




PIN	CIRCUIT IDENTIFICATION	PIN	CIRCUIT IDENTIFICATION
1	—	28	—
2	—	29	—
3	—	30	—
4	Reverse RAD CLK	31	—
5	Sensor GND	32	—
6	INTER BCM	33	Brake Light
7	Trunk Ajar	34	—
8	RR Door Ajar	35	Trunk Release
9	LR Door Ajar	36	Left Turn Output
10	Passenger RR WIN UP	37	Right Turn Output
11	Passenger LR WIN Down	38	—
12	Passenger RR WIN Down	39	—
13	Passenger LR WIN Up	40	WIN RR UP Output
14	—	41	WIN RR Down Output
15	—	42	—
16	—	43	Defroster
17	—	44	Battery Saver
18	—	45	Fog Light
19	Reverse RAD Data	46	—
20	—	47	Reverse Light
21	—	48	Park Light
22	INTER BCM (2)	49	—
23	—	50	—
24	—	51	WIN LR Down Output
25	—	52	WIN LR UP Output
26	—	B	BATT Power supply
27	—	G	GND Power supply

FUSE NO.	AMPERAGE RATING	FUNCTION
1	25A	Heated Rear Window
2	15A	Rear Fog Light
3	15A	Trunk Lid, Turning Light, Reversing Light
4	—	Not Used
5	—	Not Used
6	30A	Rear Power Window





Turn the ignition switch on.
Replace the electronic chip.

- With the X-431 scan tool, choose A520 series.
- Choose "immobilize".
- Choose "input code".
- Input the safety code.
- Click the small keyboard.
- Click "OK".
- Choose "immobilizer adapt".
- Choose "Key learning" immediately.
- Click "OK".

Try to start the engine.

Turn the ignition switch on.
Using the X-431 scan tool, program the vehicle security system

- With the X-431 scan tool, choose A520 series.
- Choose "immobilize".
- Choose "input code".
- Input the safety code.
- Click the small keyboard.
- Click "OK".
- Choose "immobilizer adapt".
  - Choose "read immobilizer to EMS" immediately.
  - Choose "read EMS to immobilizer".
  - Choose "key learning".
- Click "OK".

Try to start the engine.