



مدیران خودرو
خدمات پس از فروش



CHERY

سیستم الکتریکی

خودروی MVM 550

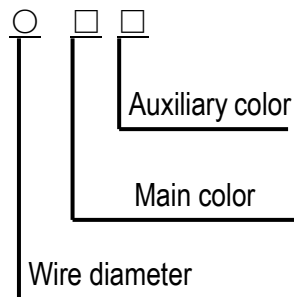
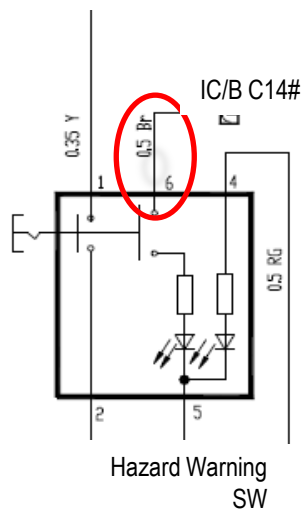


مدیریت فنی و مهندسی
تهیه کننده: محمد صادق قناعتیان
ویرایش چهارم
کد: ELC-45-04

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شناسایی رنگ و سایز سیم ها



Example:

06 0.5 Br

Connect with hazard warning SW pin 6,

The wire color is Brown;

The wire diameter is 0.5 mm.

B: سیاه



P: صورتی



W: سفید



Br: قهوه ای



R: قرمز



Gr: خاکستری



G: سبز



O: نارنجی



L: آبی



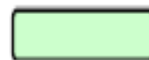
Y: زرد



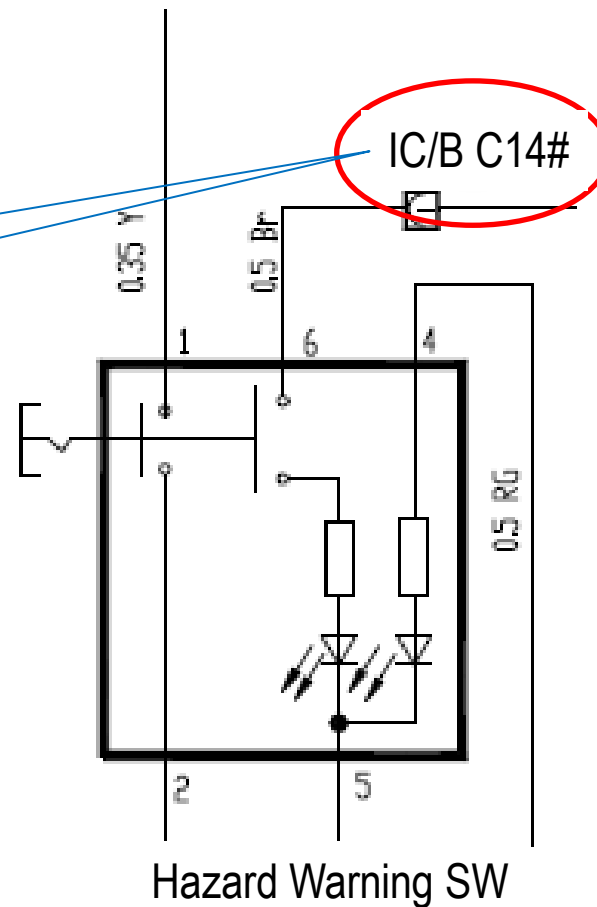
V: بنفش



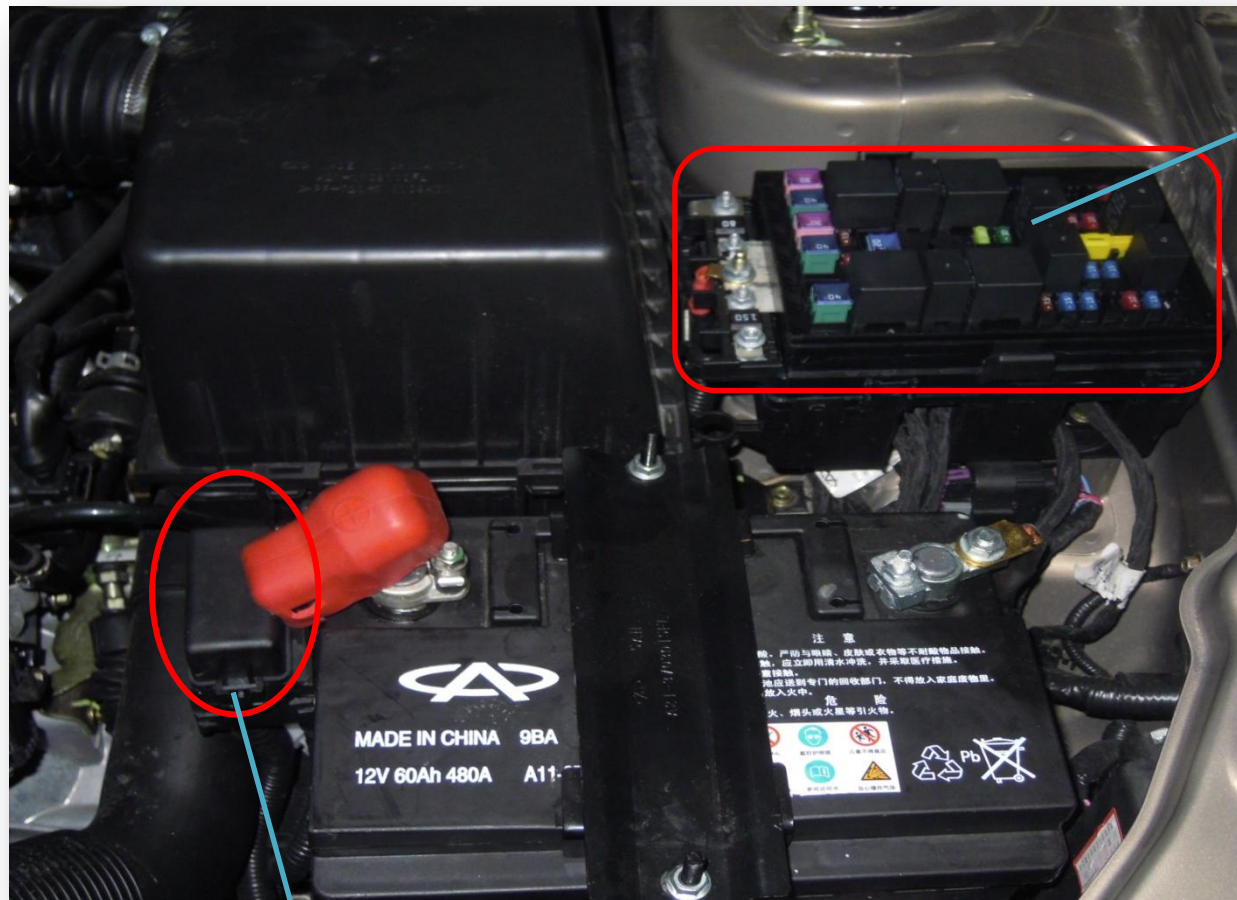
Lg: سبز روشن



The connector pin 14 of instrument cluster and body wire

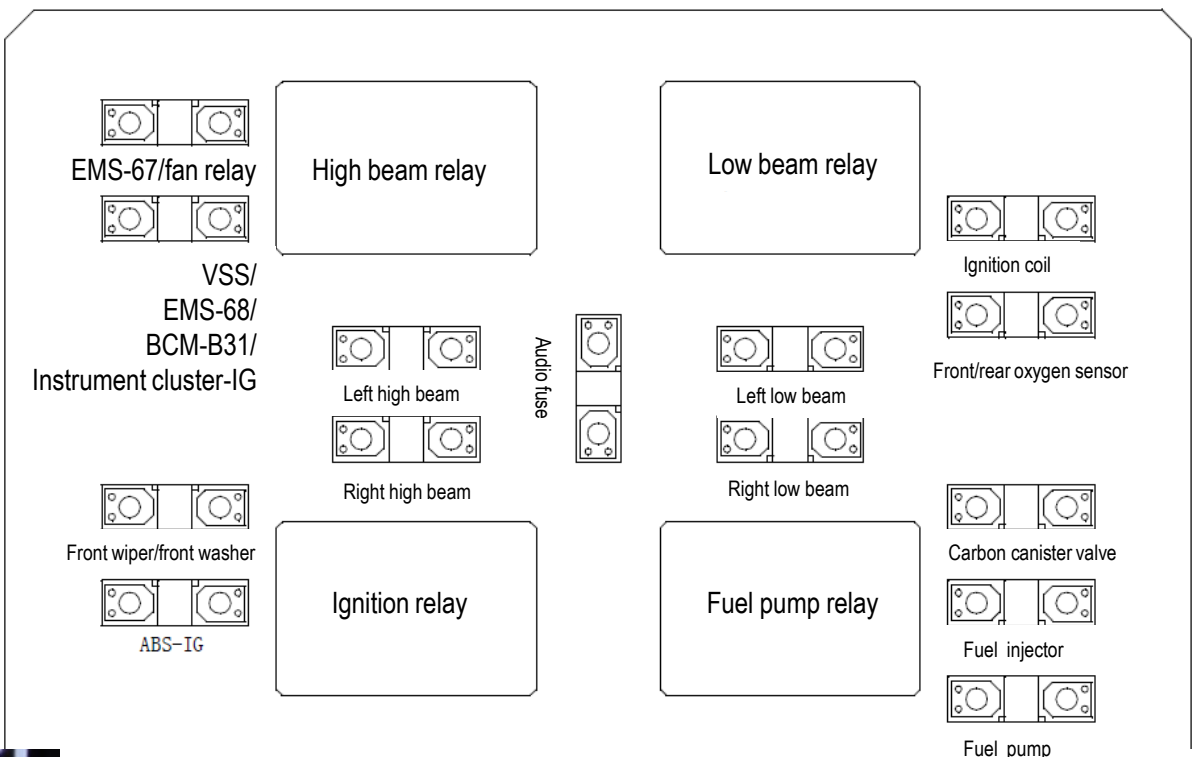
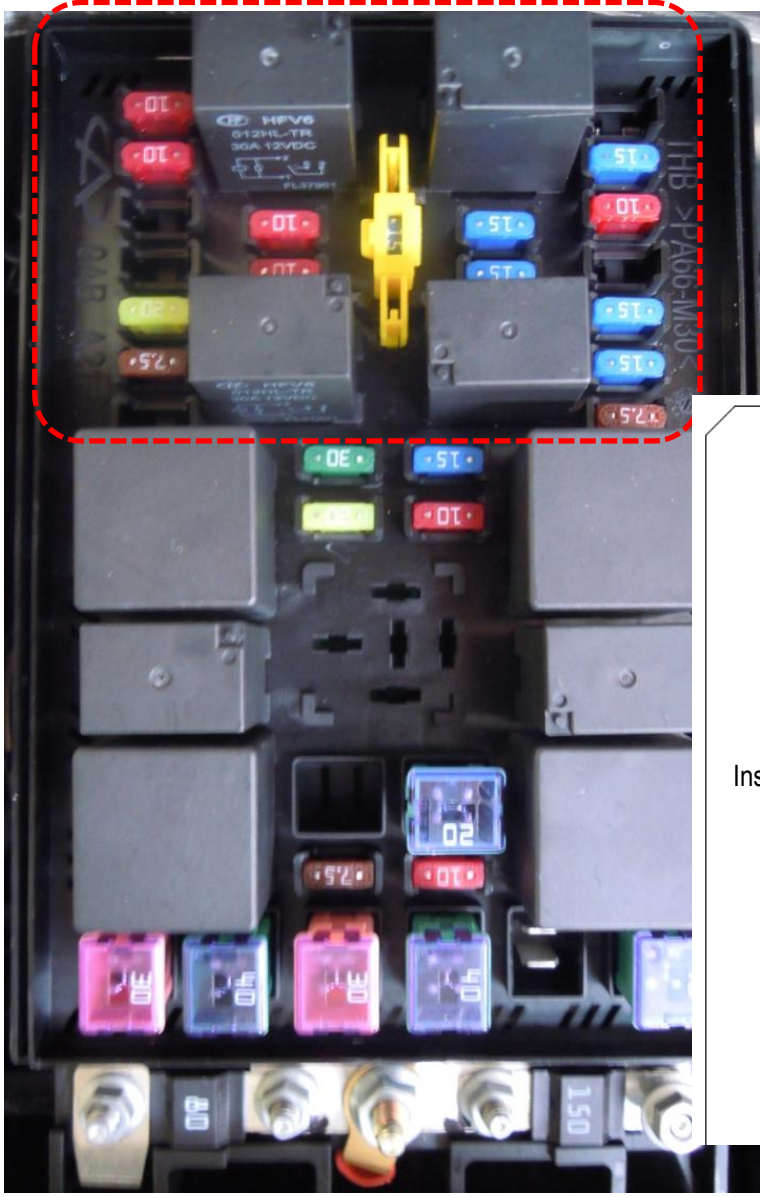


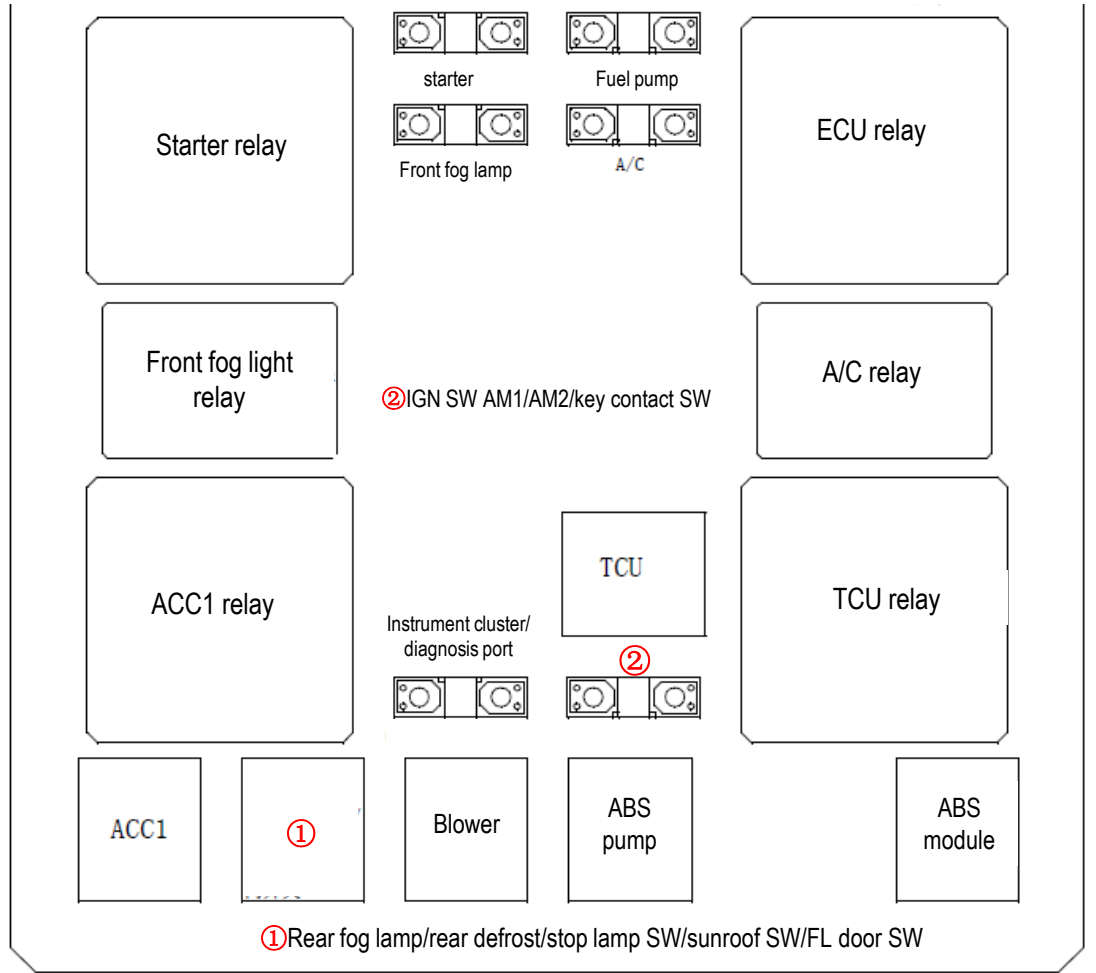
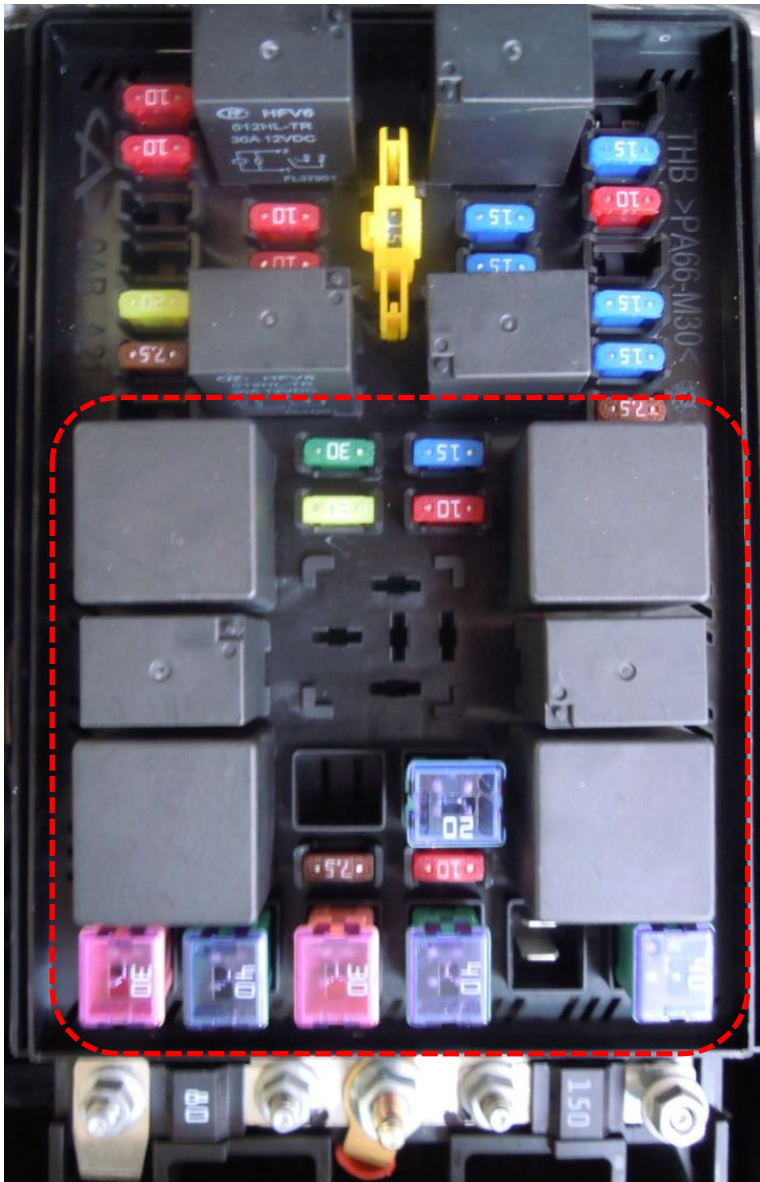
جعبه فیوز داخل محفظه موتور



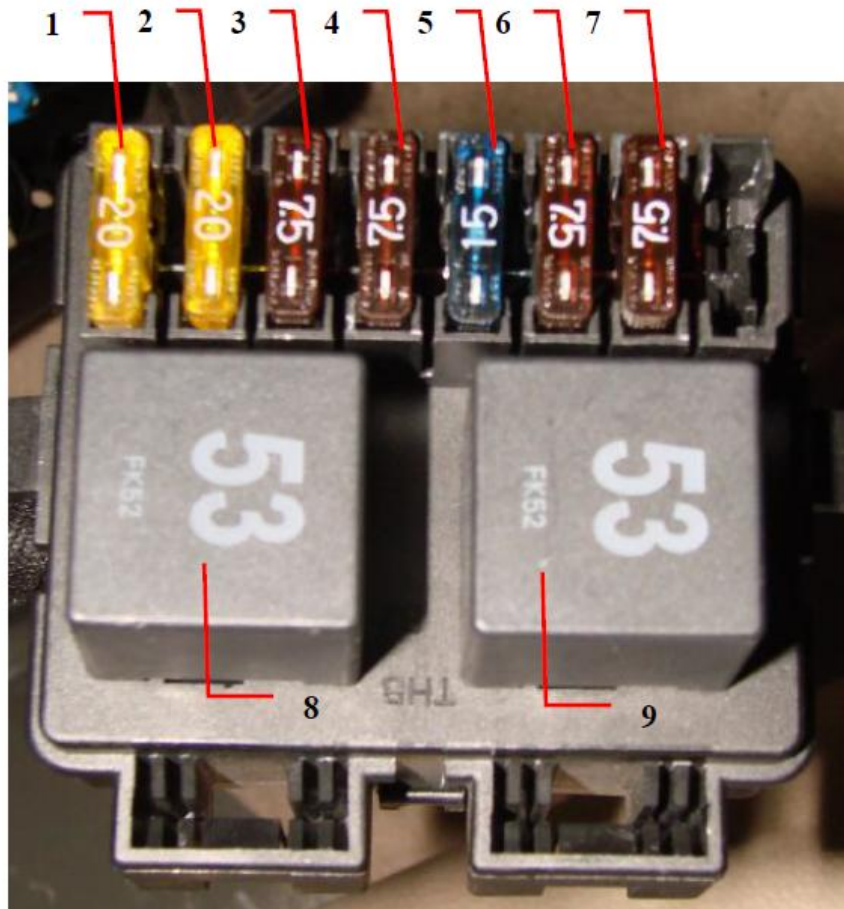
جعبه فیوز موتور

جعبه فیوز باتری



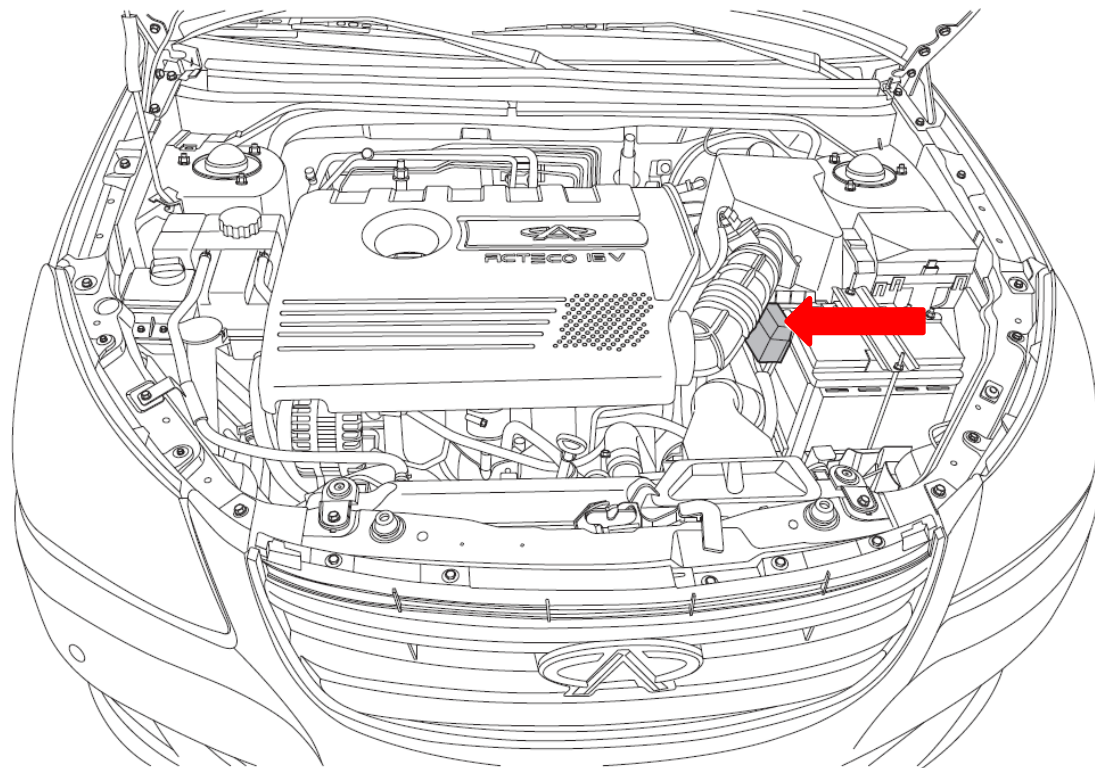


جعبه فیوز اتاق

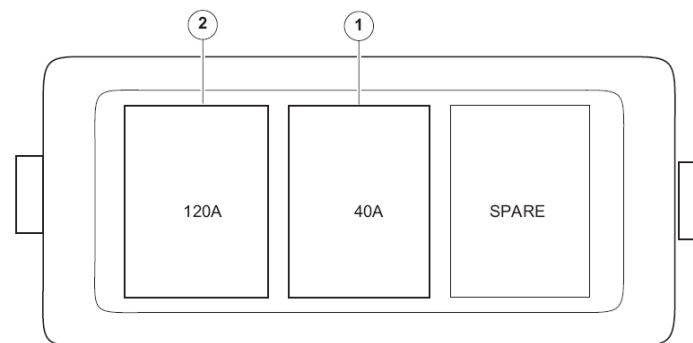


Passenger compartment fuse box(SQR477F)

No.	fuse/relay No.	capacity(A)	function
1	RF-01	20	rear defrost relay 30#, 85#
2	RF-02	20	sunroof motor 1#, sunroof SW 4#
3	RF-03	7.5	rear fog lamp relay 30#, 85#, stop lamp switch 3#, FL door SW 9#
4	RF-04	7.5	right/left rearview mirror 5#
5	RF-05	15	audio main connector 10# , cigaret lighter 2#, rearview mirror regulating SW 5#
6	RF-06	7.5	airbag module 1#
7	RF-07	7.5	A/C connector 3#, audio auxiliary connector 13#
8	RLY1	\	blower relay
9	RLY2	\	rear defrost relay

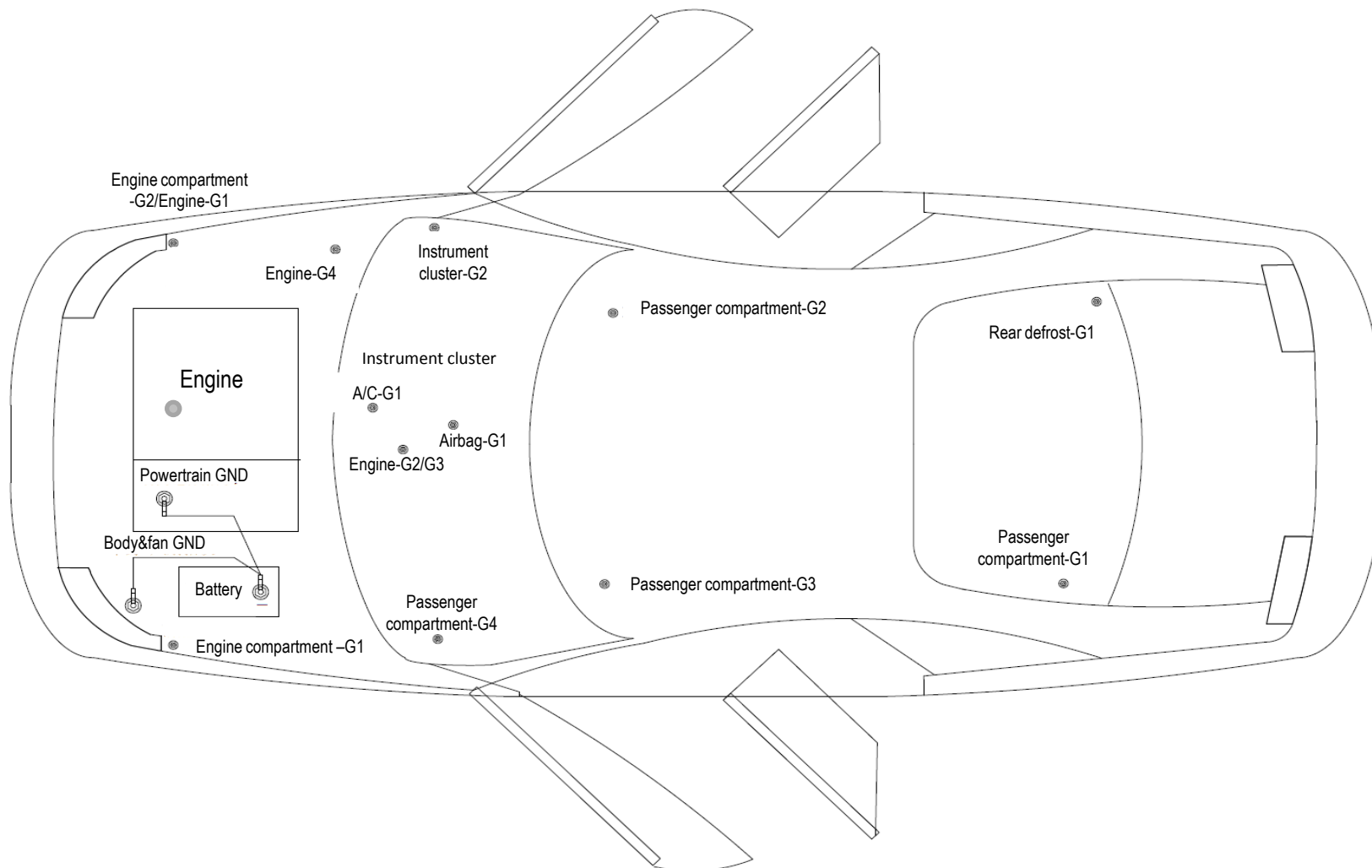


جعبه فیوز باتری



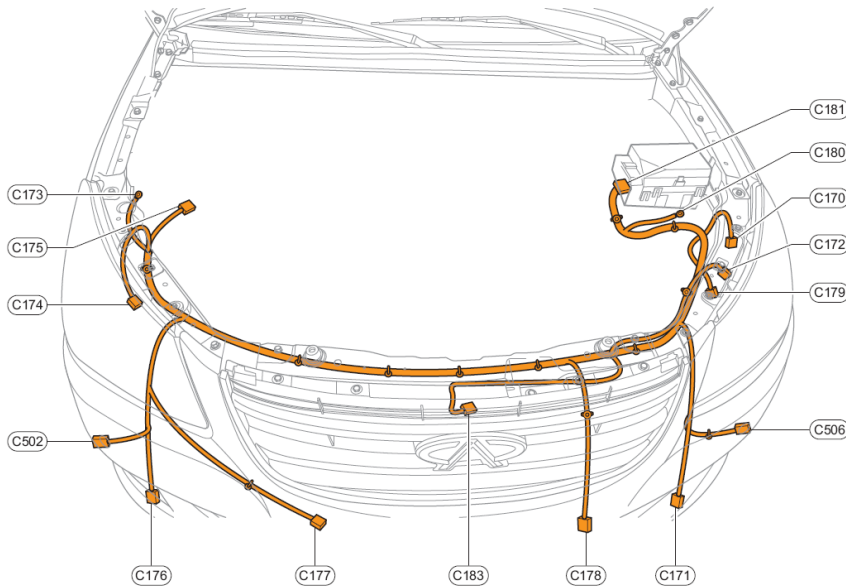
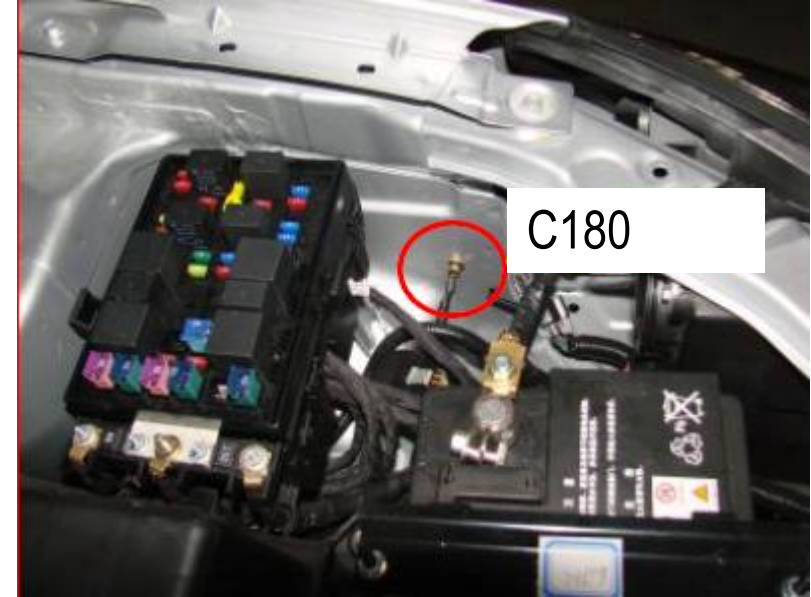
Item	Capacity	Item	Capacity
1. FAN BAT	40 A	2. GENERATOR	120 A

اتصالات بدنه



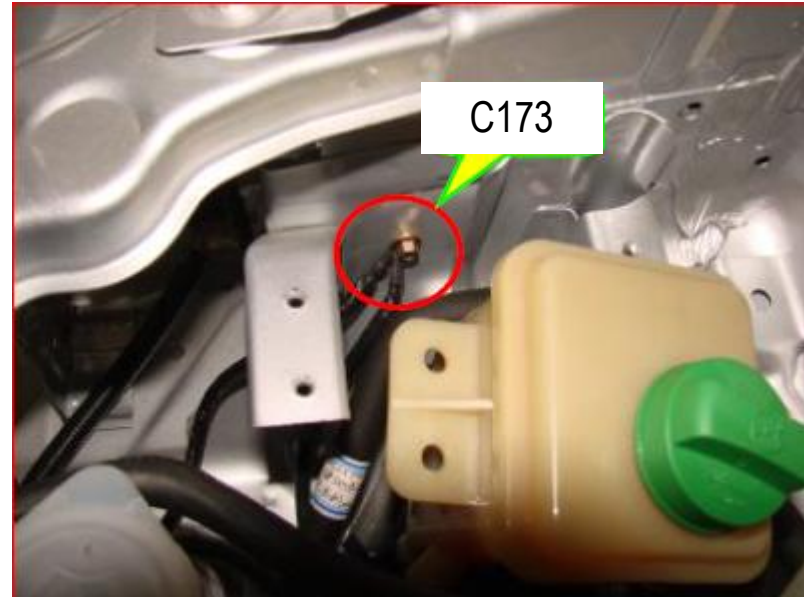
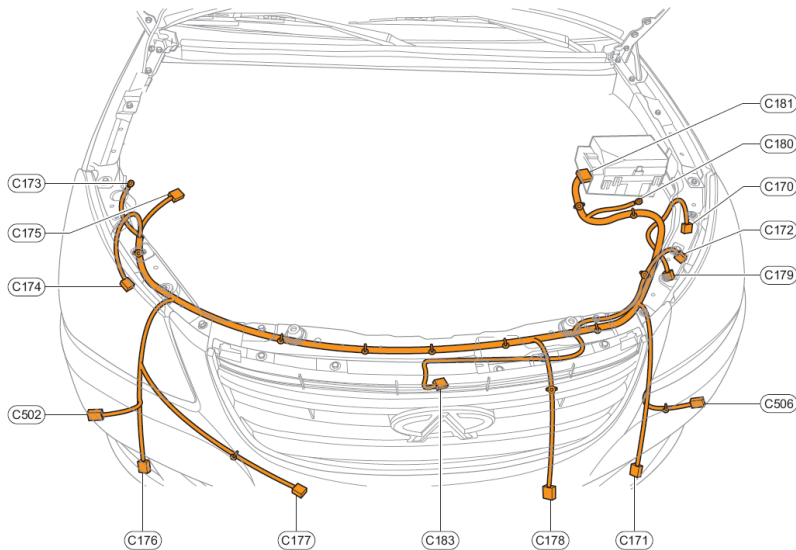
اتصال بدنه محفظه موتور G1

- FL lamp 6#(FL low beam regulating motor)
- FL lamp 5#(FL low beam/high beam)
- Engine compartment fuse box B6#
- FL fog lamp 2#
- FL combination lamp 2#(FL turning lamp)



اتصال بدنه محفظه موتور G2

- FR fog lamp 2#
- FR combination lamp 5#(FR high/low beam)
- FR combination lamp 6#(regulating motor of FR low beam)
- FR combination lamp 2#(FR turning lamp)



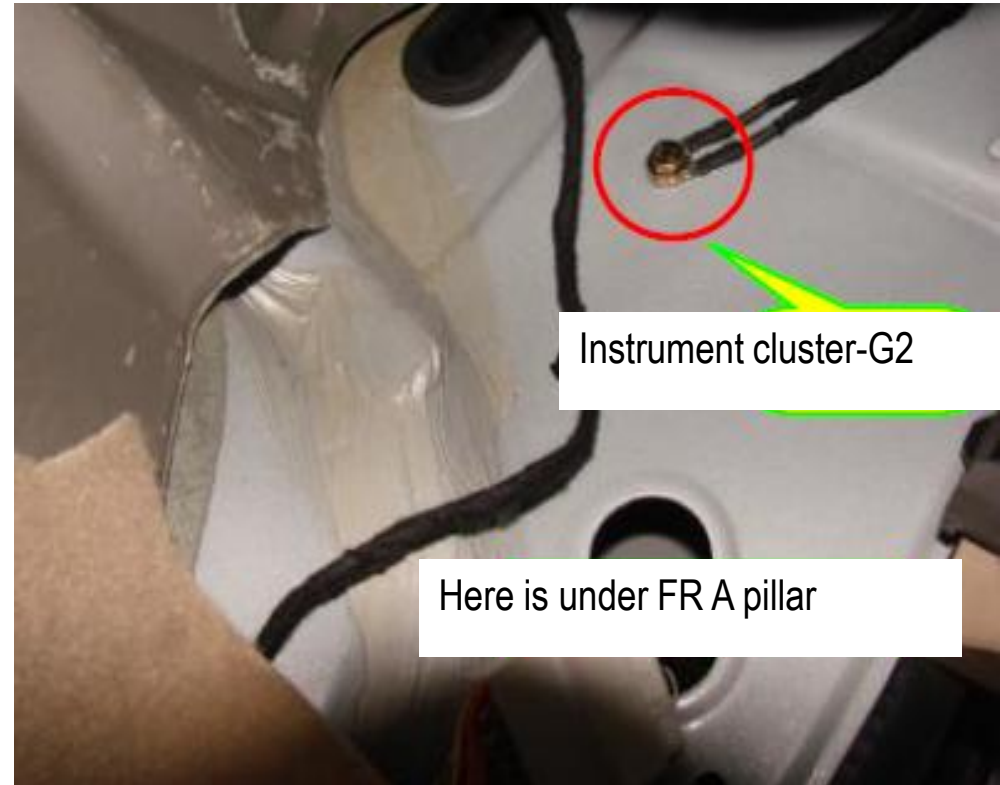
اتصال بدنه کنار کنسول- سمت سرنشین

- Combination lamp SW
- Luggage boot SW
- Diagnosis module 5#
- Diagnosis module 4#
- Instrument cluster
- HVAC Fan



اتصال بدنه - ستون جلو سمت سر نشین

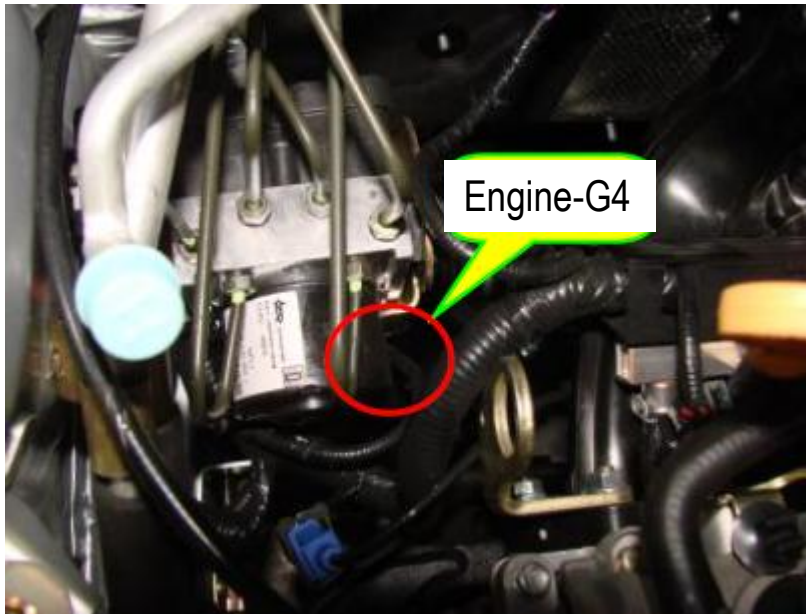
- Hazard warning SW 5#(backlight, indicator)
- Cigarette lighter 1#
- Audio main connector 1#
- Hazard warning SW 2#(switch)



اتصال بدنه زیر بلوک ABS

② Engine-G4

- ABS module 26#



اتصال بدنه کنار کنسول سمت راست



اتصال بدنه اتاق سمت راننده - ستون عقب

① Passenger compartment-G1

- Fuel level sensor 4#(Fuel pump)
- Rear fog lamp 1#
- Luggage boot lock 3#
- Backup radar module 16#
- License plate lamp 1#
- High mount stop lamp 1#
- left/right backup probes 2#
- RL tail lamp 2#(RL width lamp, RL stop lamp, RL backup lamp, RL turning lamp)
- RR tail lamp 2#(RR width lamp, RR stop lamp, RR backup lamp, RR turning lamp)
- RR door contact SW 4#



اتصال بدنه کف اتاق- سمت راسته

③ Passenger compartment-G3

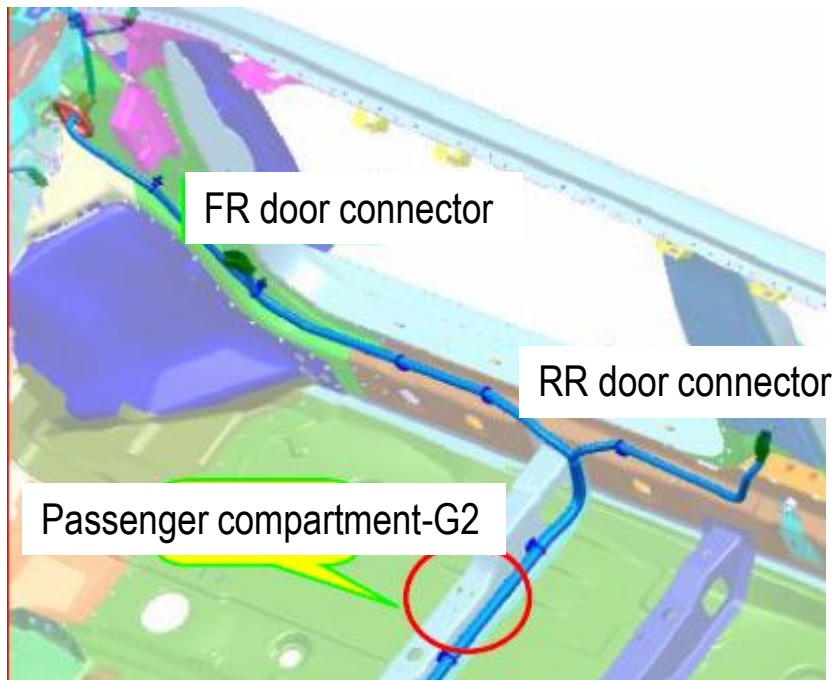
- Left turning lamp 2#
- Safety belt unfasten warning SW 1#
- Right turning lamp 2#
- RL door SW 1#
- FL door SW 11#
FL door combination SW B#
- sunroof motor 2#, make-up mirror lamp 2#, front ceiling lamp 2#
- 3 door contact switch (FR,FL,RL)



اتصال بدنه کف اتاق

② Passenger compartment-G2

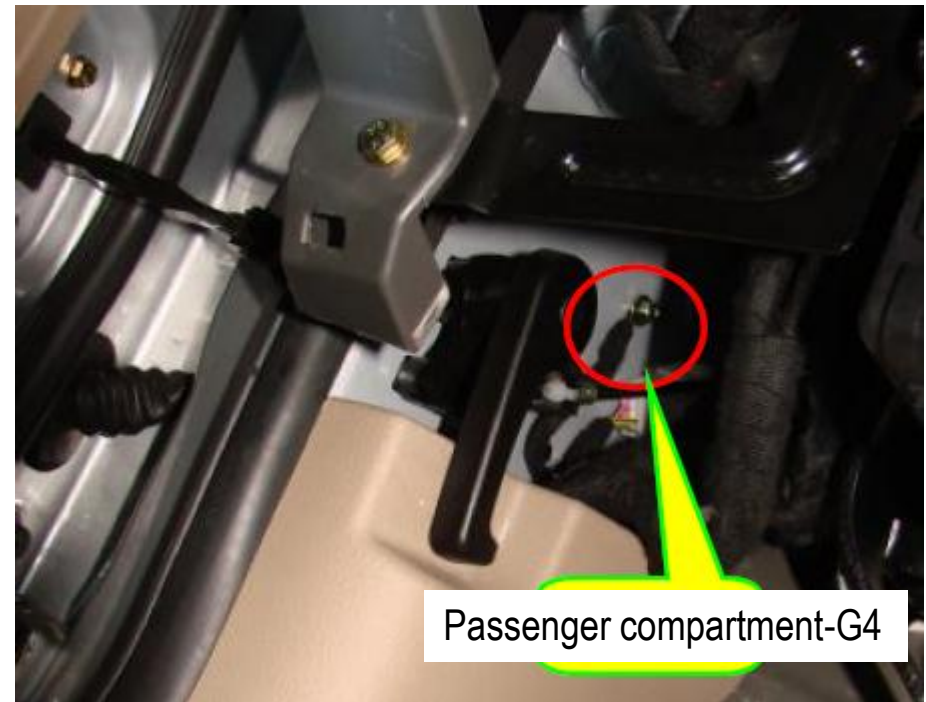
- Fuel level sensor 2#(Sensor)



اتصال بدنه اتاق سمت راننده زیر ستون چپ

④ Passenger compartment-G4

- BCM E#

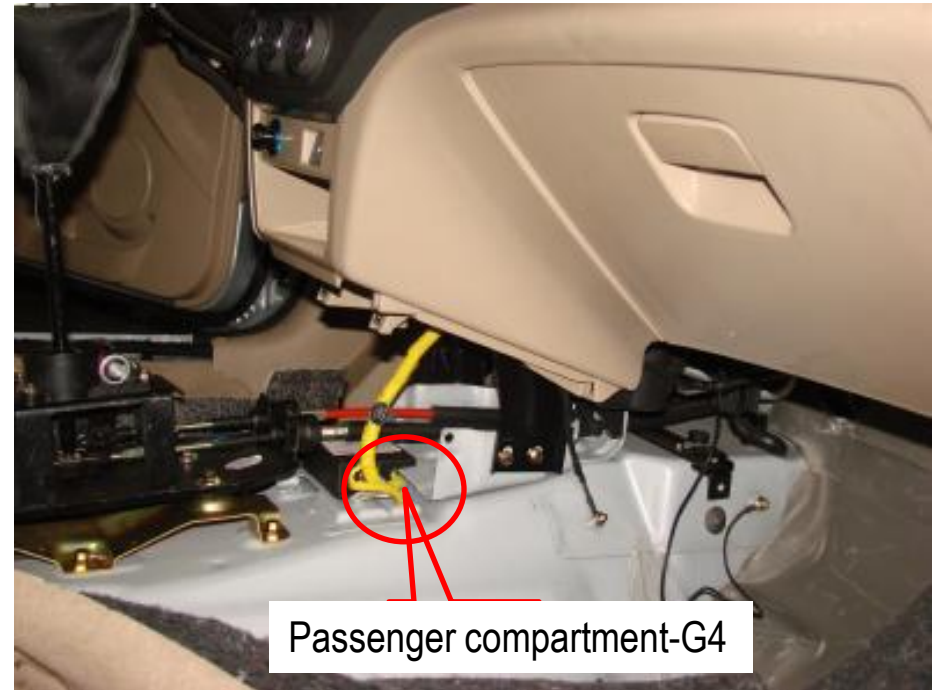
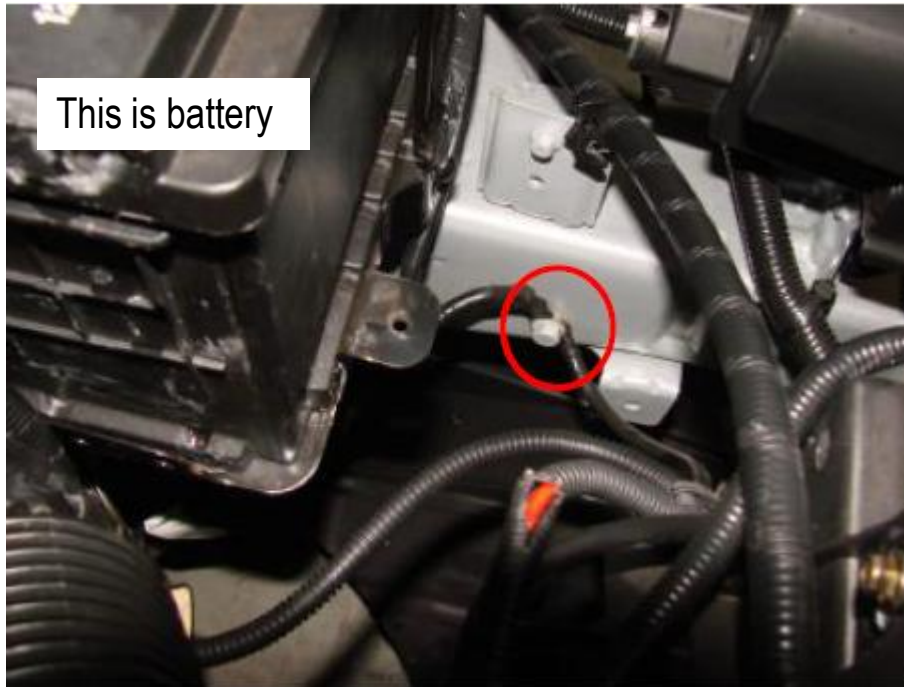


اتصال بدنه ایربگ

اتصال بدنه فن رادیاتور

① Airbag-G1

- Airbag module 16#
- From airbag/instrument cluster F# to instrument cluster-G2

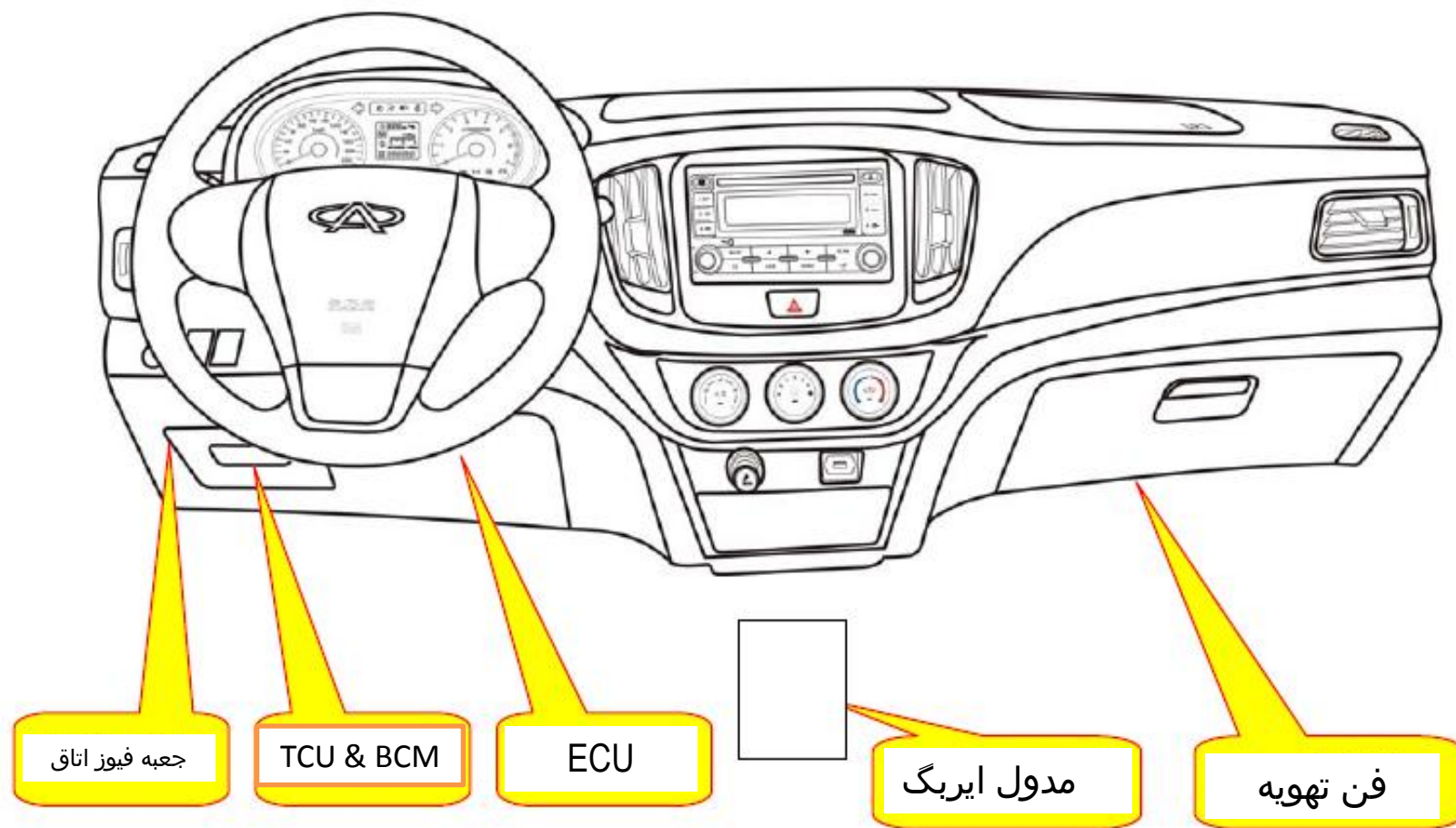


اتصال بدنه گرمکن شیشه عقب

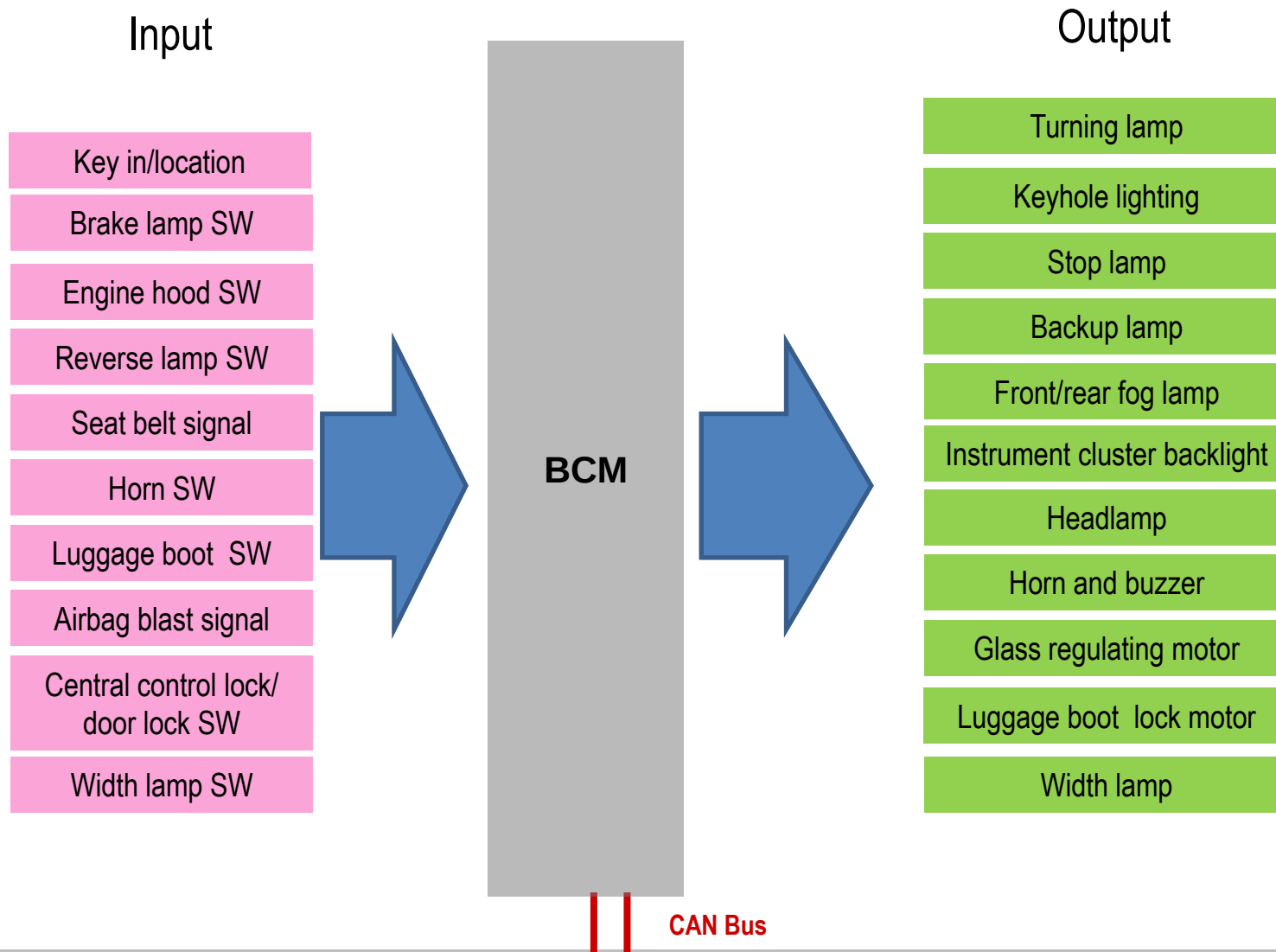


اتصال بدنه گیربکس

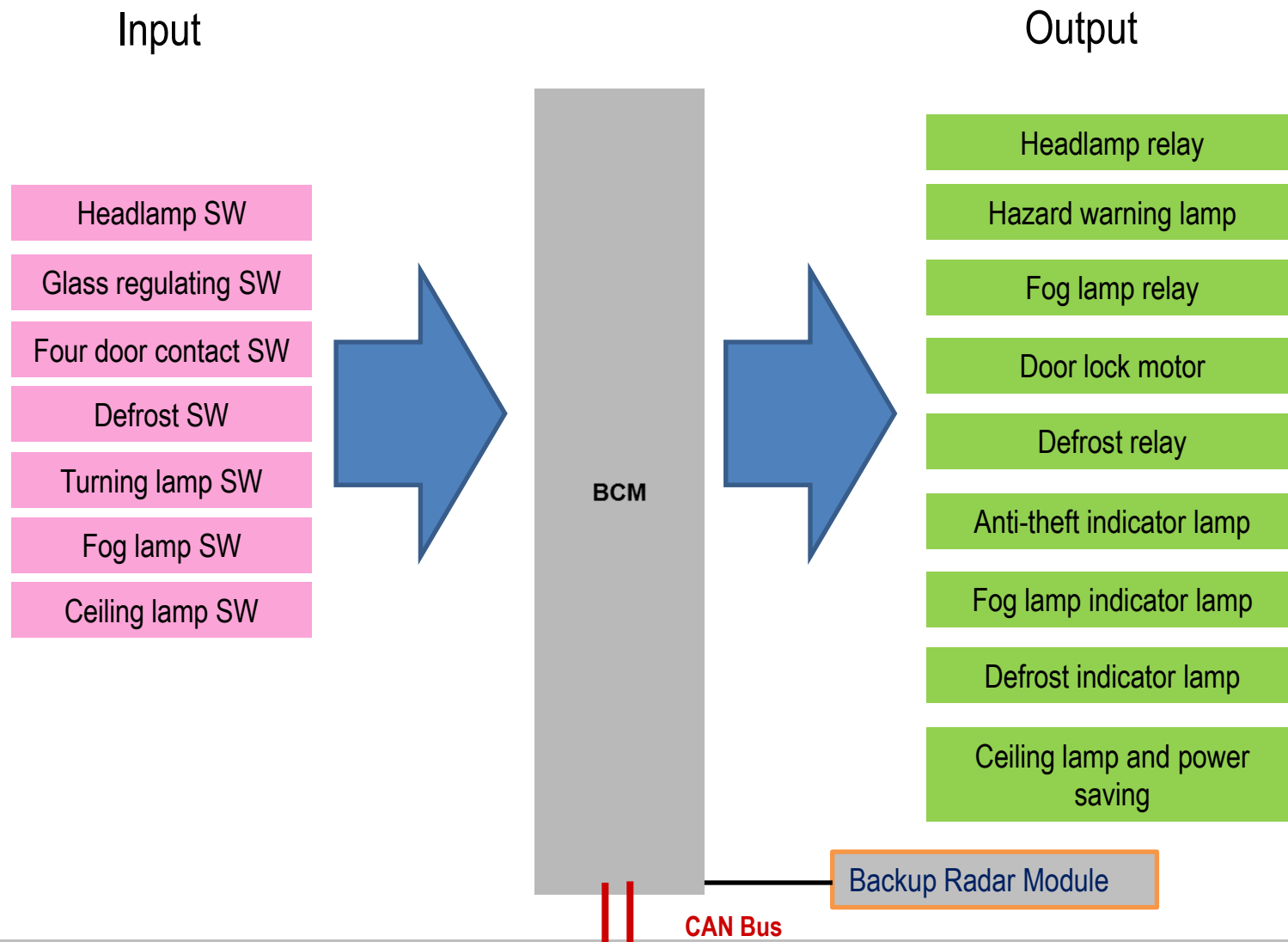


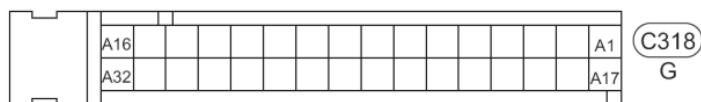
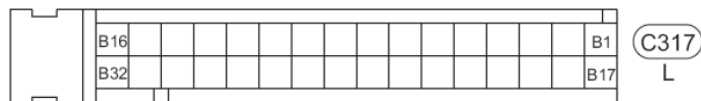
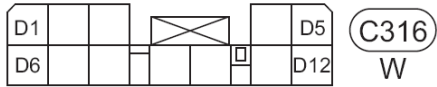
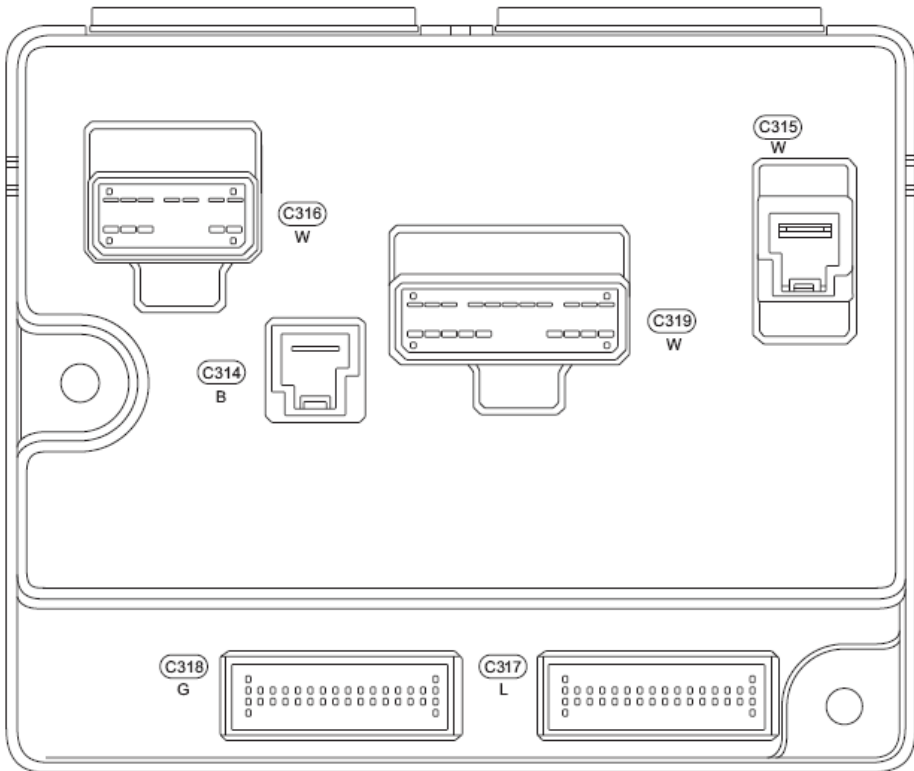


بلوک دیاگرام ورودی و خروجی های BCM



بلوک دیاگرام ورودی و خروجی های BCM





C-318: BCM 32-pin Connector

Pin No.	Function Descriptions	Pin No.	Function Descriptions
A1	PARK LIGHT IN	A17	WIPER PARK IN
A2	WIPER HIGH IN	A18	WIPER LOW IN
A3	RADAR DATA	A19	BOOT AJAR IN
A4	RR DOOR AJAR IN	A20	RL DOOR AJAR IN
A5	WASHER IN	A21	REVERSE IN
A6	HAZARD IN	A22	HORN IN
A7	REAR FOG SW ILLUM	A23	RIGHT TURNS IN
A8	RADAR CLK	A24	LOW BEAM OUT
A9	LEFT TURNS IN	A25	HIGH BEAM OUT
A10	WIPER INT IN	A26	KEY LAMP OUT
A11	FRONT FOG OUT	A27	REAR FOG OUT

Pin No.	Function Descriptions	Pin No.	Function Descriptions
A12	HIGH BEAM IN	A28	FRONT FOG IND OUT
A13	--	A29	DEFRO IND
A14	FRONT FOG SW ILLUM	A30	REAR DEFRO IN
A15	DEFRO SW ILLUM	A31	REAR FOG IND OUT
A16	DEFRO OUT	A32	ANTENNA (optional)

C-317: BCM 32-pin Connector

Pin No.	Function Descriptions	Pin No.	Function Descriptions
B1	CAN L	B17	CAN GND
B2	CAN WAKE UP	B18	CAN H
B3	--	B19	K-LINE
B4	LOCK IN	B20	--
B5	UNLOCK IN	B21	WINDOW REAR RIGHT DWN IN
B6	PASSNGR DOOR AJAR IN	B22	WINDOW REAR LEFT DWN IN
B7	DRIVER DOOR AJAR IN	B23	WINDOW REAR RIGHT UP IN
B8	REAR FOG IN	B24	WINDOW REAR LEFT UP IN
B9	FRONT FOG IN	B25	WINDOW FRONT RIGHT DWN IN
B10	KEY IN	B26	WINDOW FRONT LEFT DWN IN
B11	SEAT BELT IN	B27	WINDOW FRONT RIGHT UP IN
B12	LOW BEAM IN	B28	WINDOW FRONT LEFT UP IN
B13	AIRBAG UNLOCK IN	B29	--
B14	BOOT REL IN	B30	TAMPER IN
B15	ACC IN	B31	IGN IN
B16	BRAKE IN	B32	HOOD AJAR

C-319: BCM 20-pin Connector

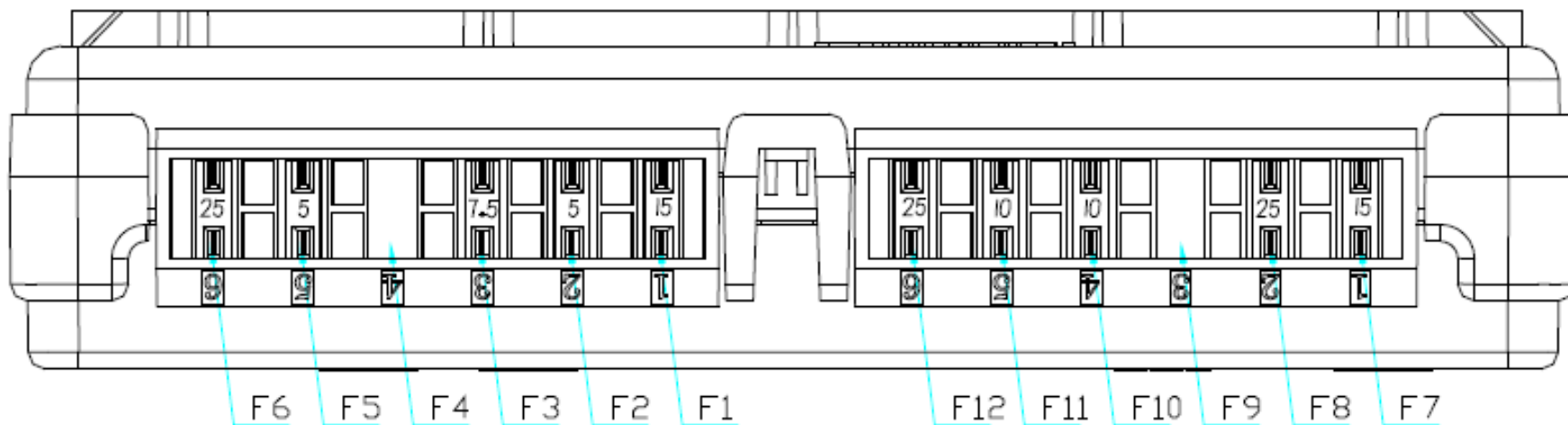
Pin No.	Function Descriptions	Pin No.	Function Descriptions
C1	ACC IN (75) (reserved)	C11	--
C2	DOME LAMPS OUT	C12	UNLOCK OUT
C3	SECURITY IND OUT	C13	LOCK OUT
C4	R TURN OUT	C14	BRAKE LAMP OUT
C5	L TURN OUT	C15	BOOT RELEASE OUT
C6	WINDOW RR UP OUT	C16	WIPER LOW OUT
C7	WINDOW RR DN OUT	C17	WIPER HIGH OUT
C8	WINDOW RL UP OUT	C18	SECURITY LED PWR
C9	WINDOW RL DWN OUT	C19	BATTERY SAVER OUT
C10	SIREN OUT	C20	HORN OUT

C-316: BCM 12-pin Connector

Pin No.	Function Descriptions	Pin No.	Function Descriptions
D1	WINDOW FL UP OUT	D7	RADIO (75) FUSE (reserved)
D2	WINDOW FL DWN OUT	D8	AMT START (50) FUSE (reserved)
D3	REVERSE LAMP OUT	D9	AMT START (50) (reserved)
D4	WINDOW FR UP OUT	D10	PARK LIGHT 2 OUT
D5	WINDOW FR DWN OUT	D11	IP ILLUM OUT
D6	RADIO (75) (reserved)	D12	PARK LIGHT 1 OUT

فیوزهای BCM

BCM fuse



BCM fuse definition

No.	Capacity(A)	Definition
F1	15	Luggage boot motor
F2	5	Rear Width lamp
F3	7.5	Key Backlights, Front Width lamp
F4	\	Spare
F5	5	-----
F6	25	Front window glass

BCM fuse definition

No.	Capacity(A)	Definition
F7	15	-----
F8	25	Rear window glass
F9	\	Spare
F10	10	Horn
F11	10	Ceiling lamp
F12	25	-----

① CAN Bus

Controller Area Network Bus

② LIN-line

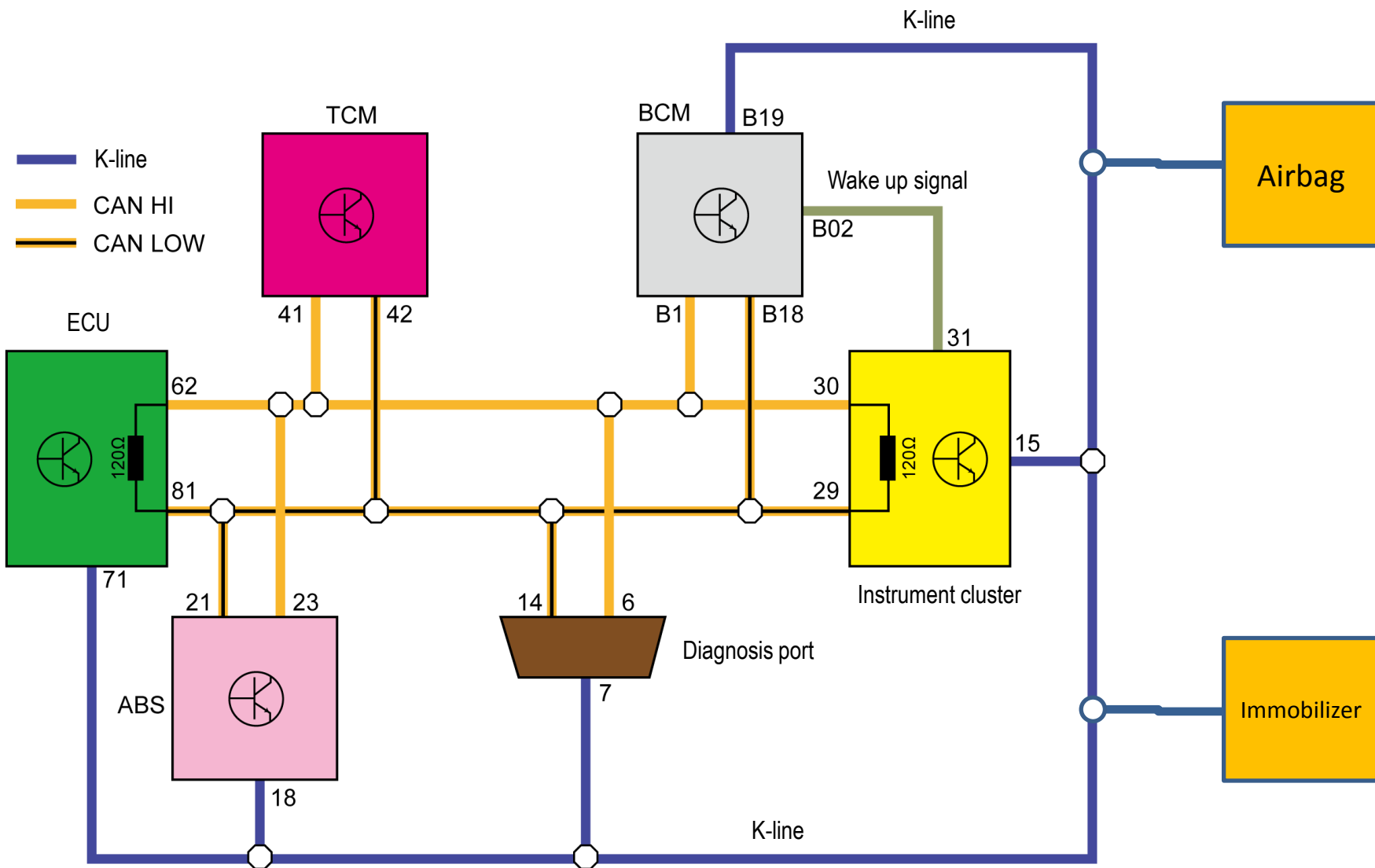
Local Interconnect Network

③ K-line

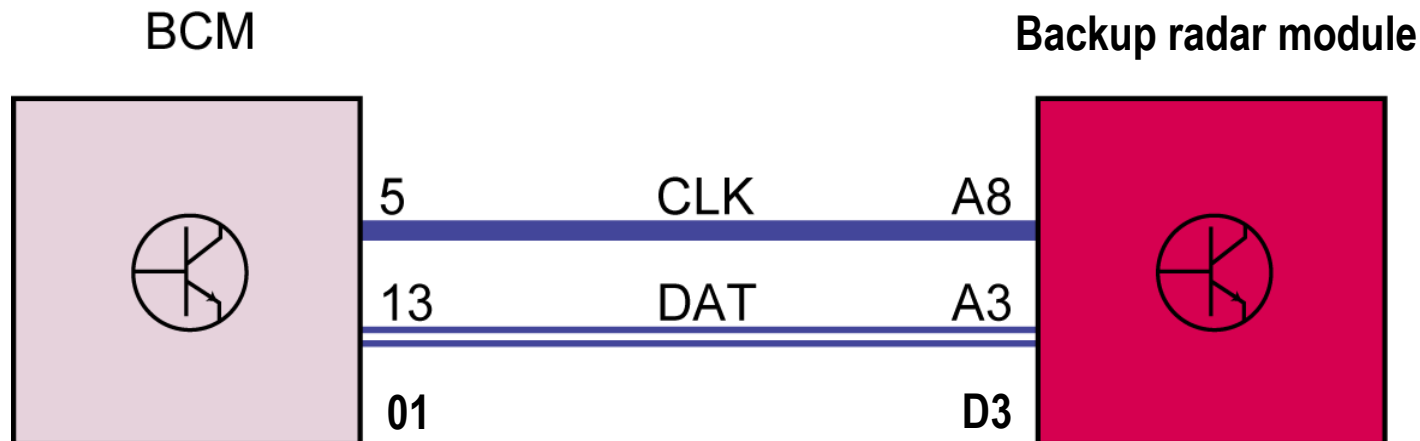
Line	Transmission Rate
CAN Line	500Kb/s
LIN Line	20Kb/s
K Line	9.6Kb/s

HS-CAN (Twisted pair)	
Applied in	Power train system and chassis system
Transmission rate	500kb/s
Wiring technology	Twisted pair cable
Topology	Linear
Bus cut resistor	Per end resistant is 120Ω
The utmost No. of units	16 (15+tester)
The utmost cable length	25m

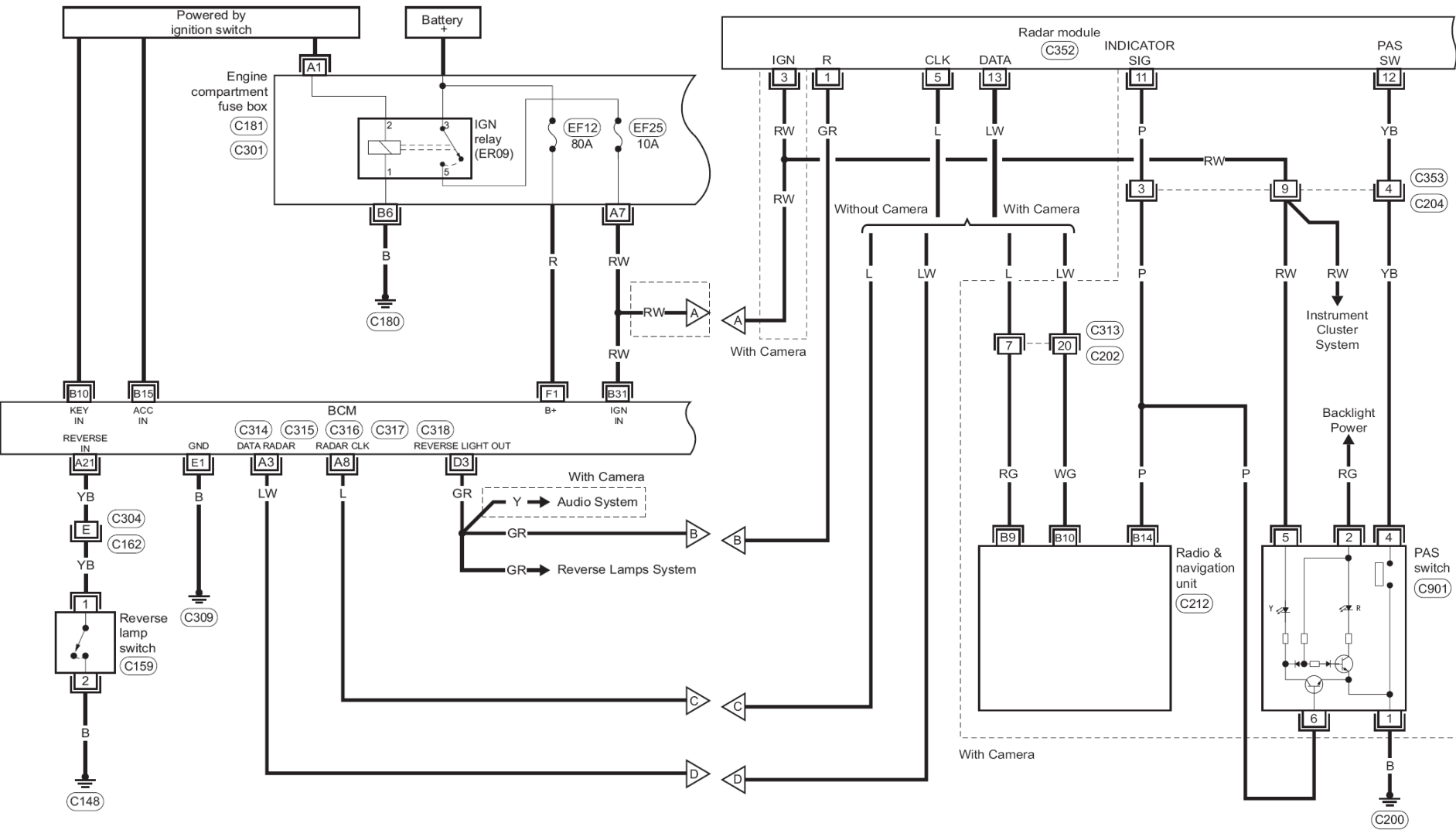
بلوک دیاگرام ارتباط شبکه

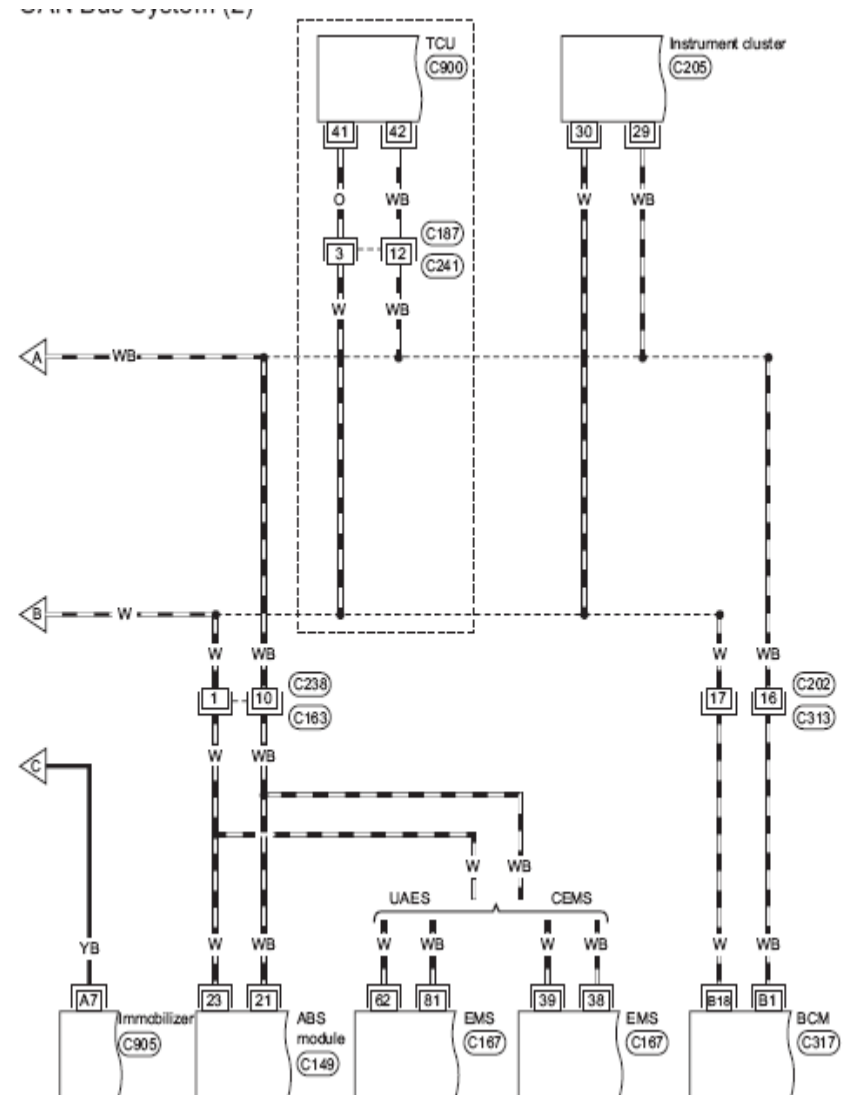
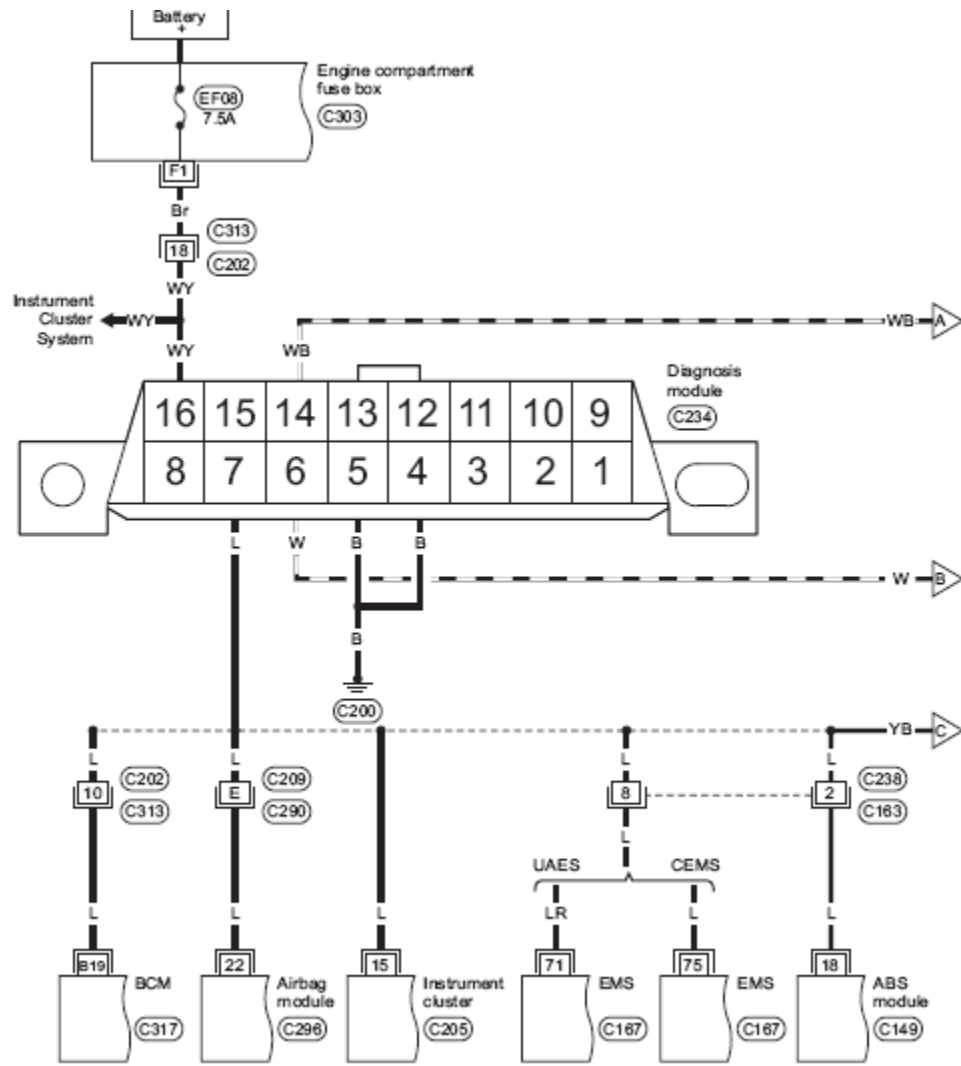


انتقال دیتا بین BCM و مدول دنده عقب

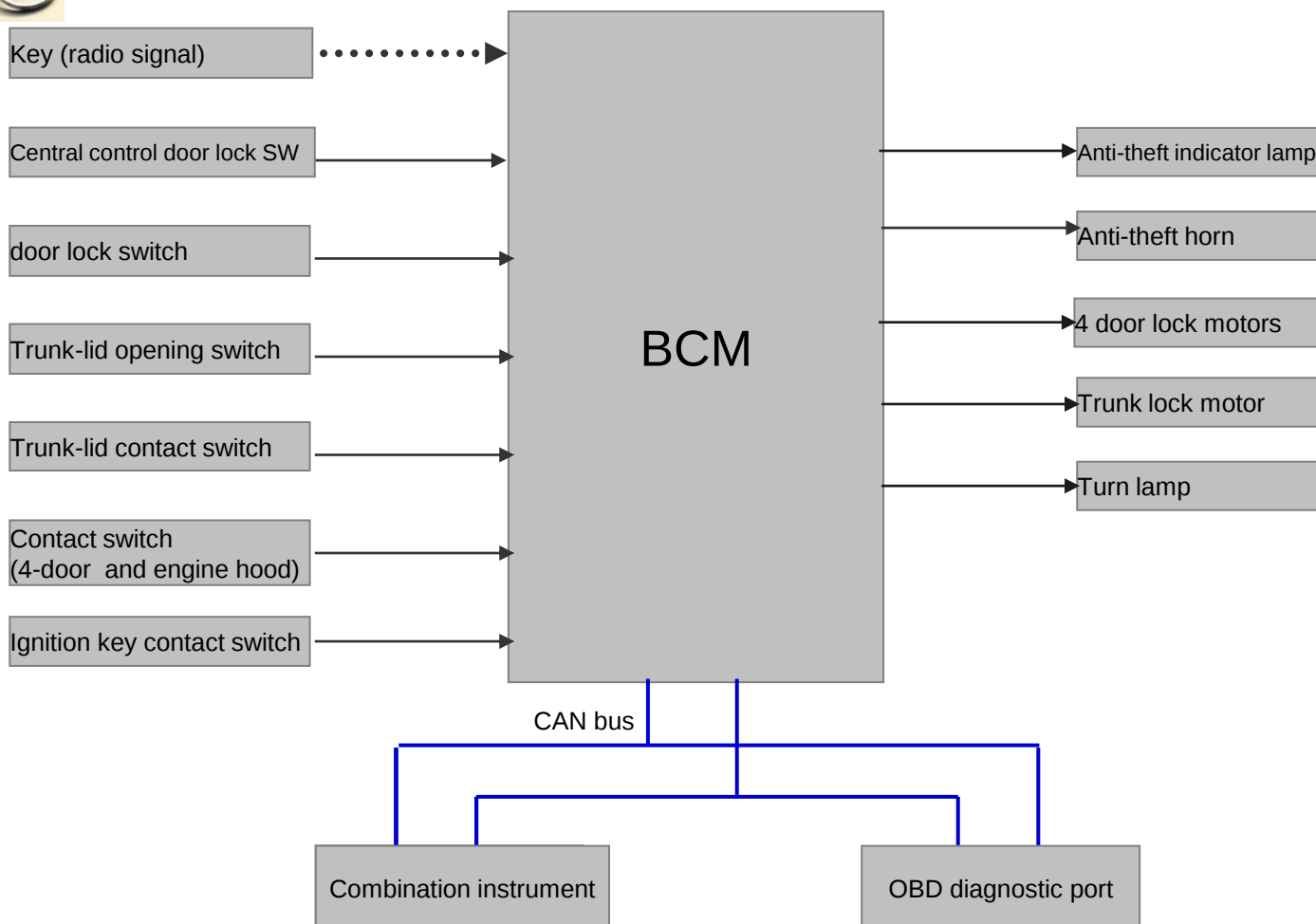


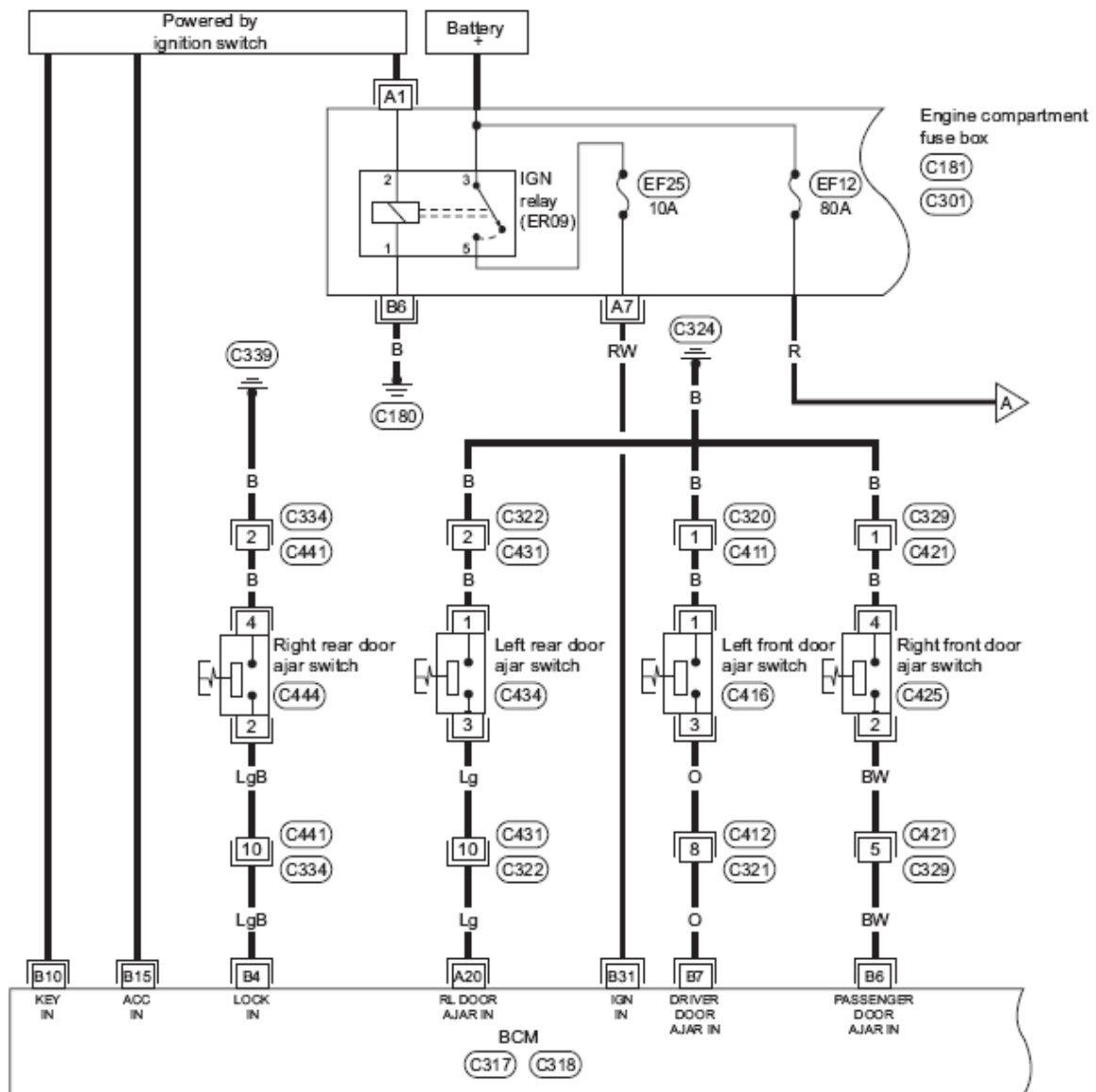
سوال :
روش انتقال دیتای مدول دنده عقب در خودروی X33 نسبت به این خودرو چیست ؟

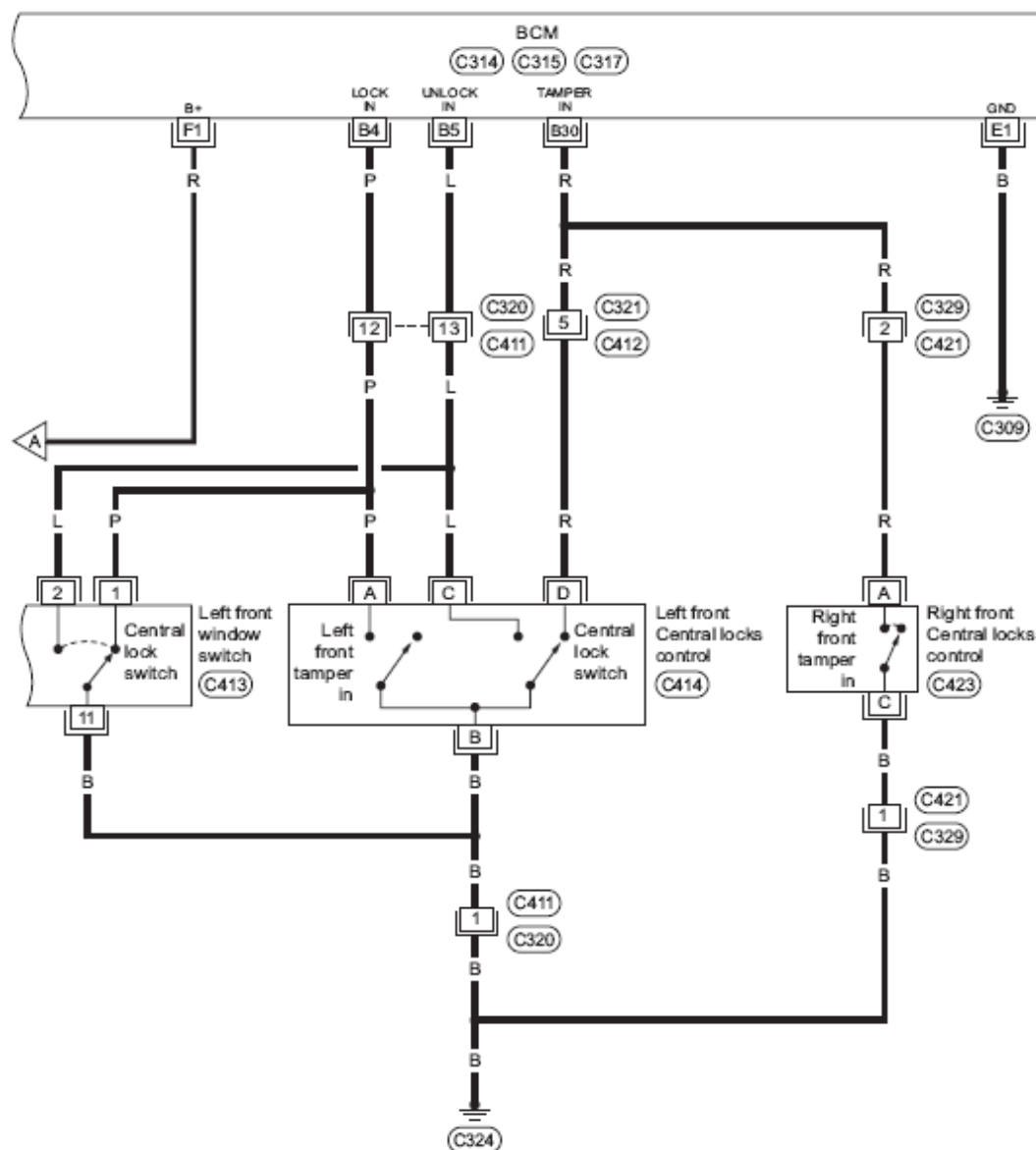


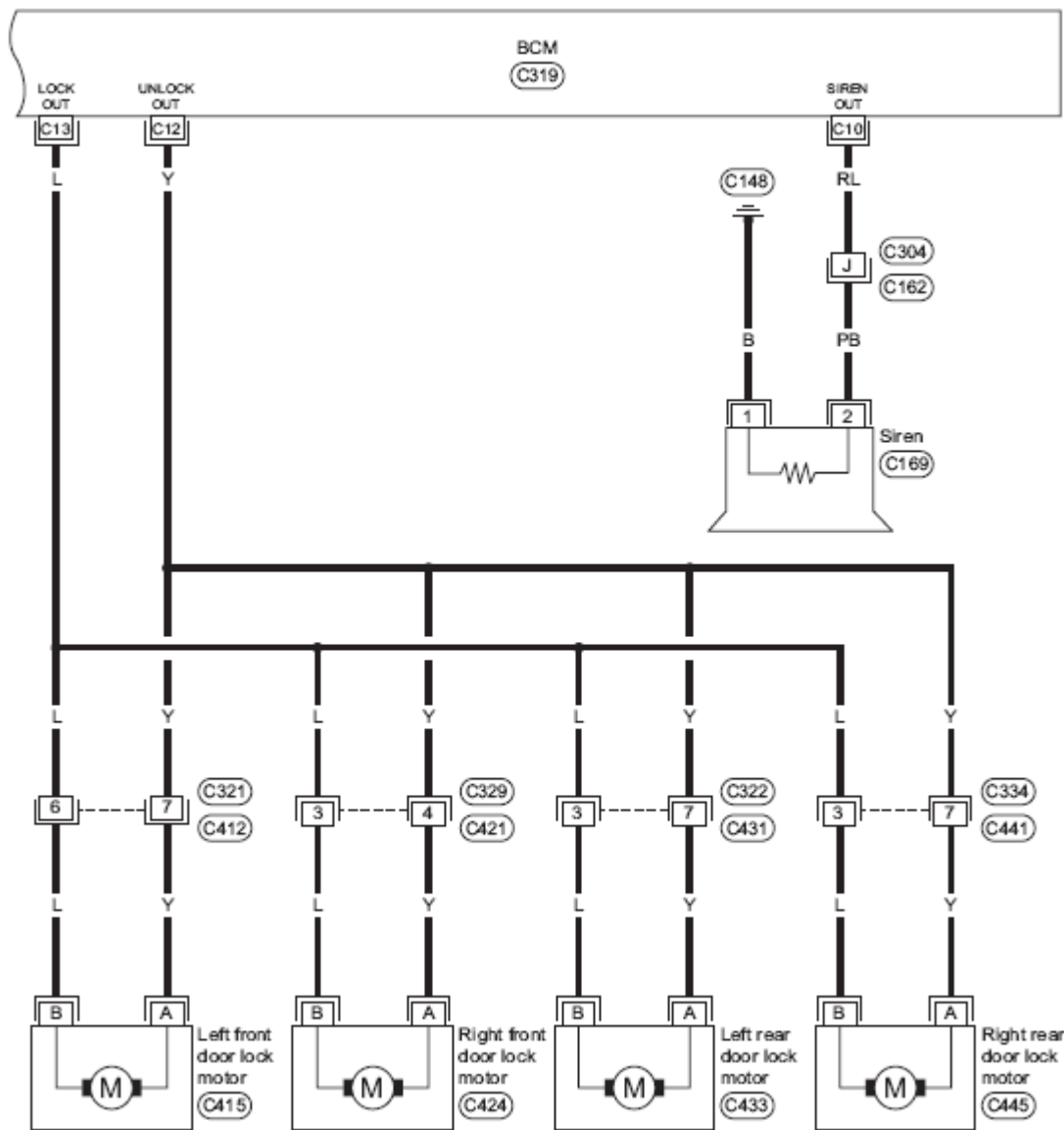


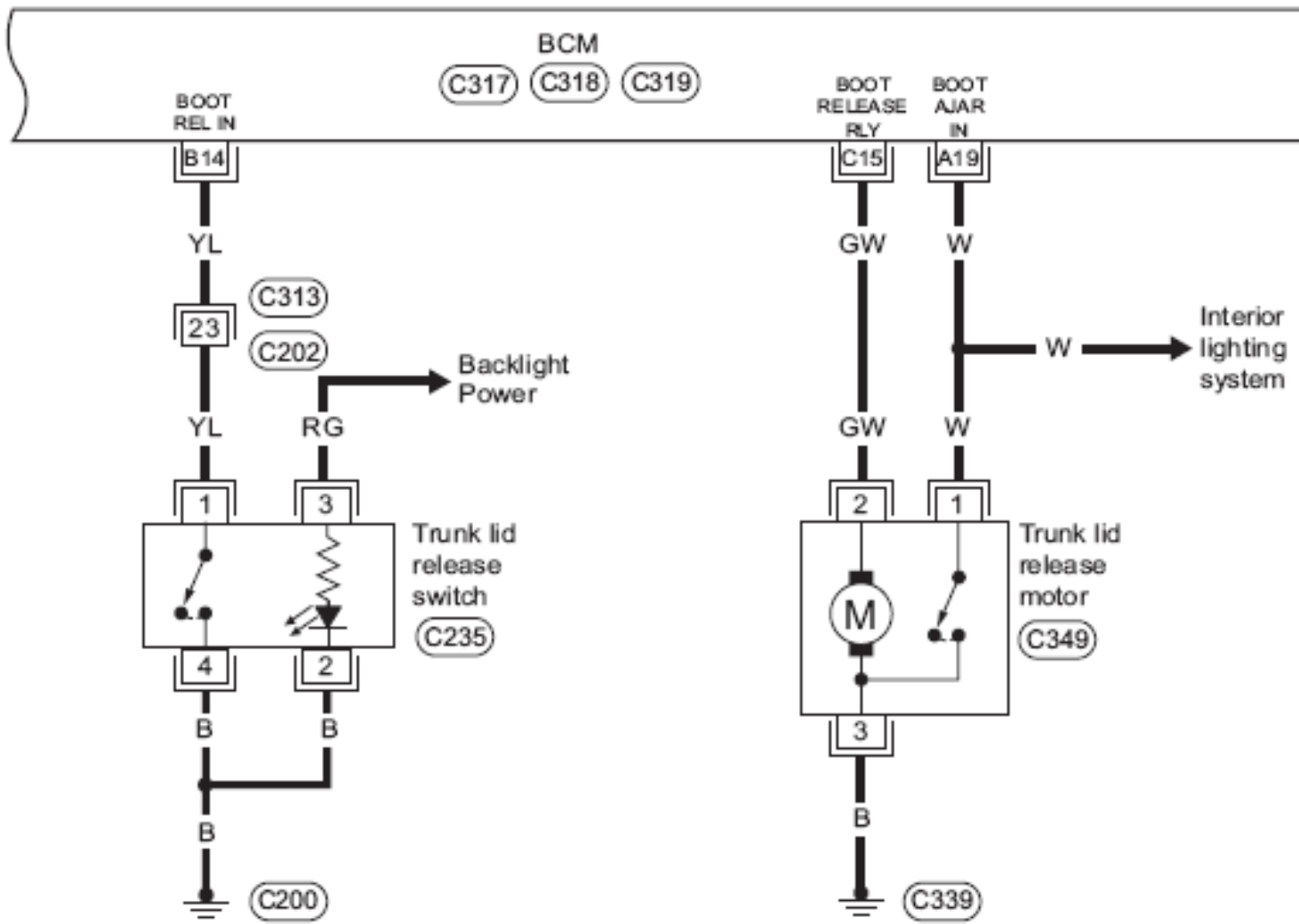
بلوک دیاگرام عملکرد سیستم قفل مرکزی



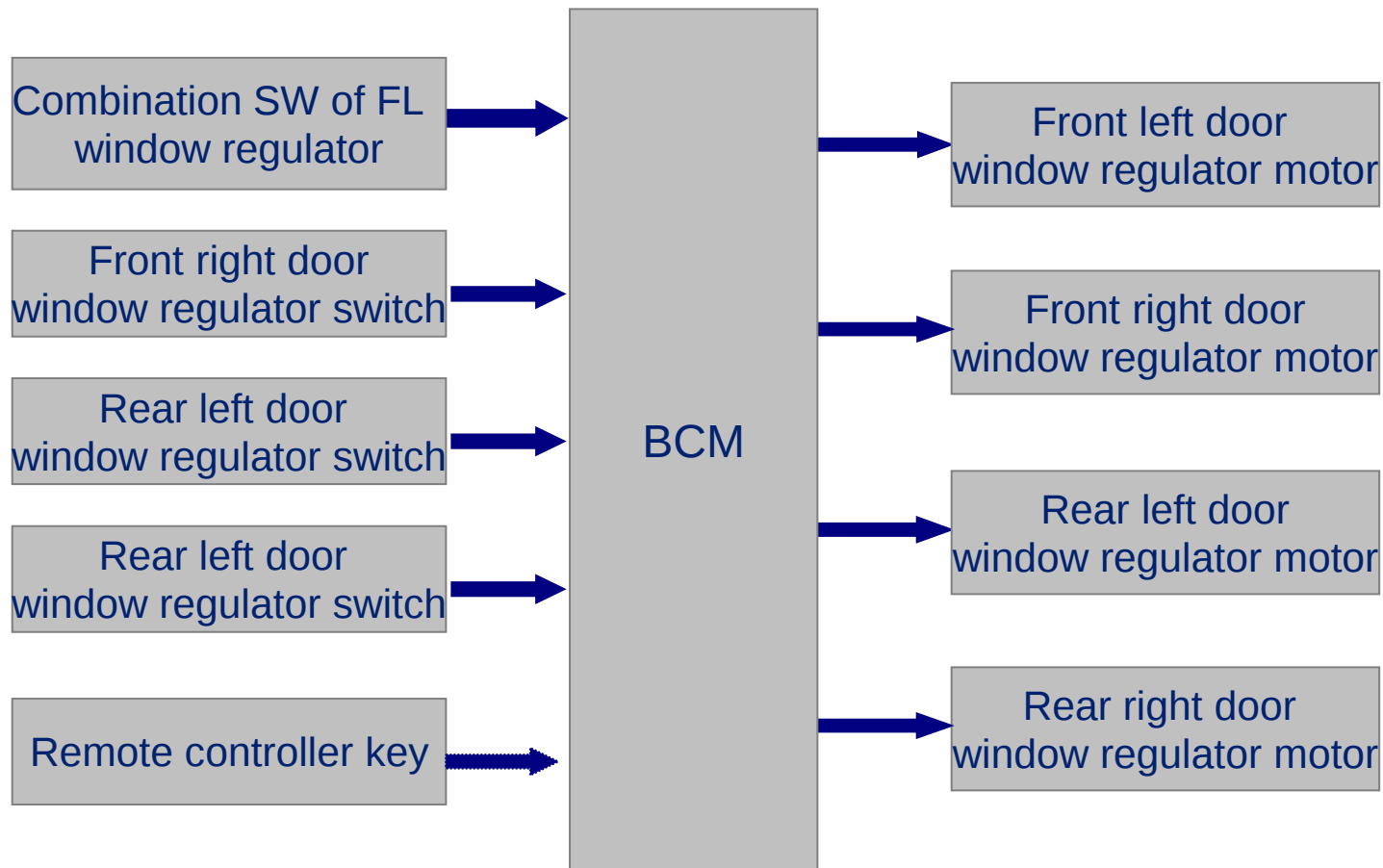


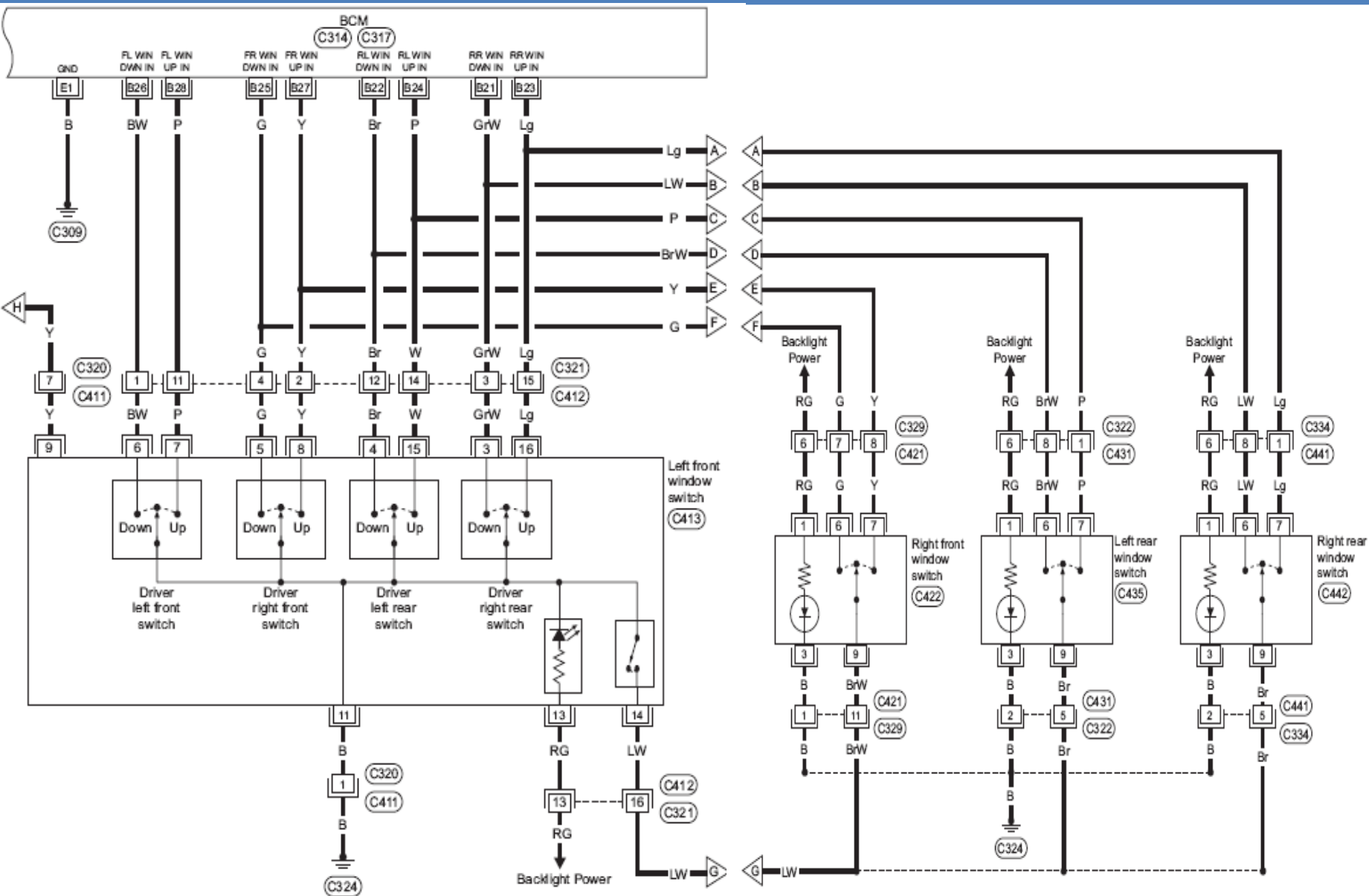


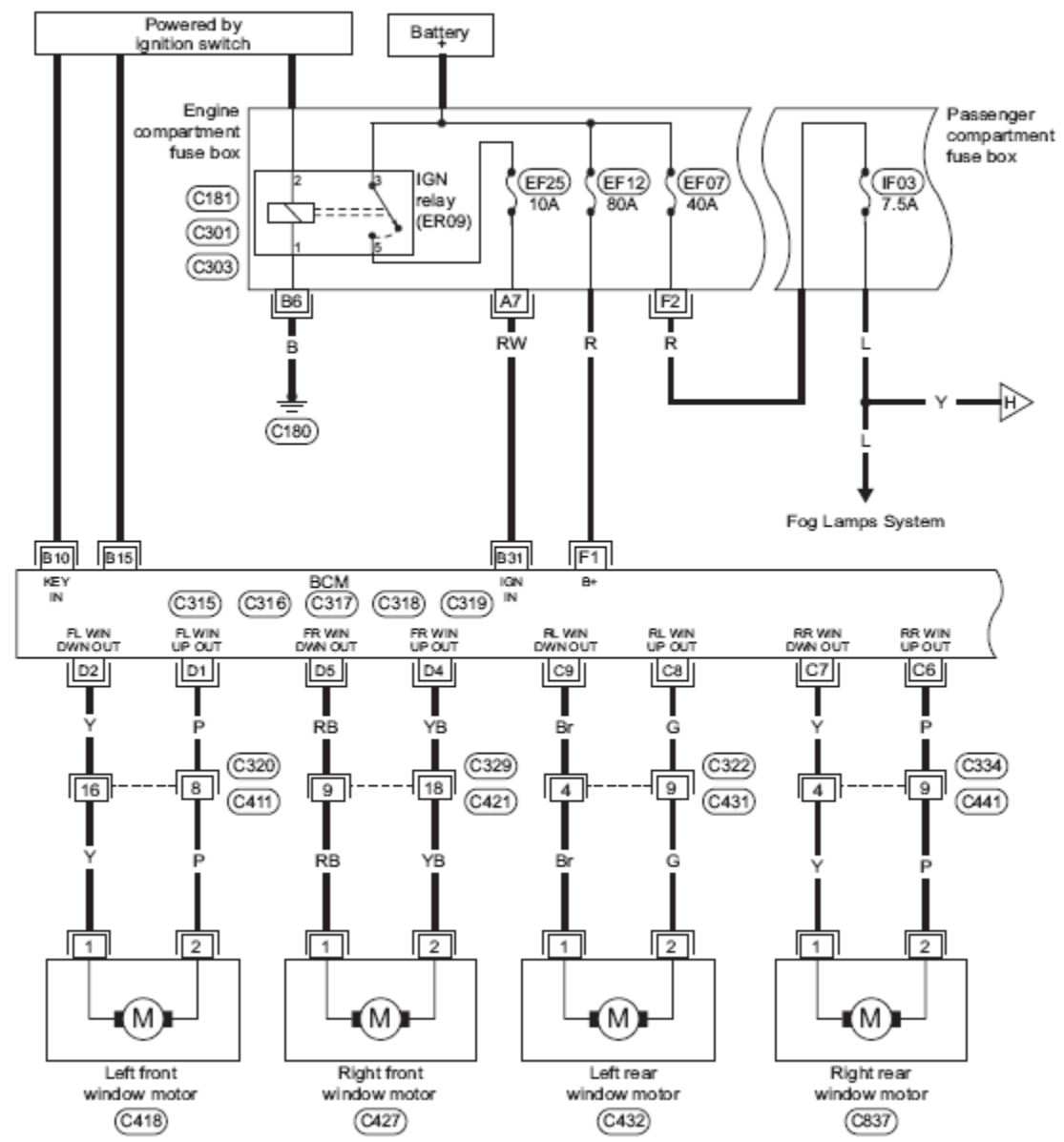


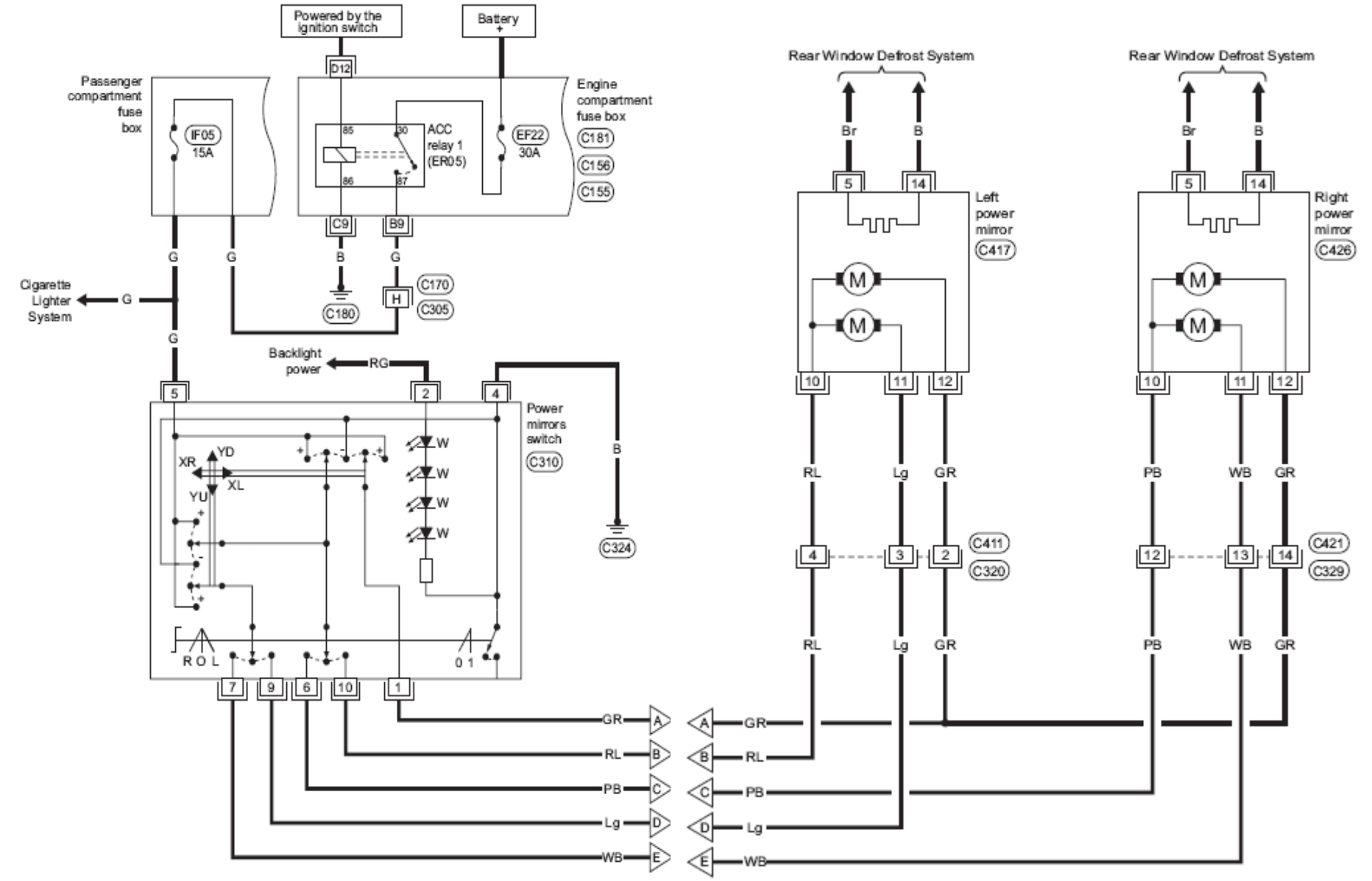


بلوک دیاگرام عملکرد شیشه بالابر

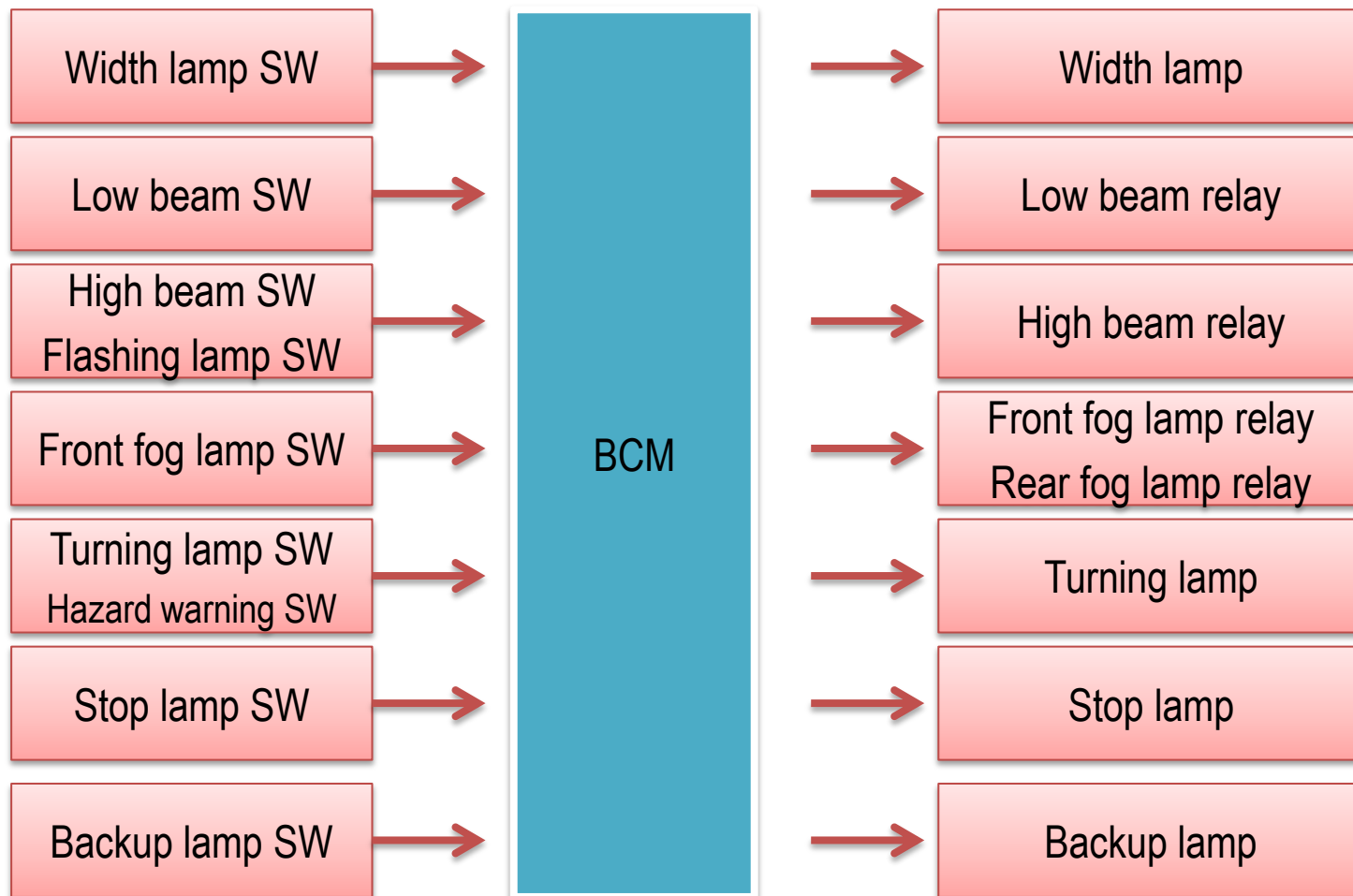


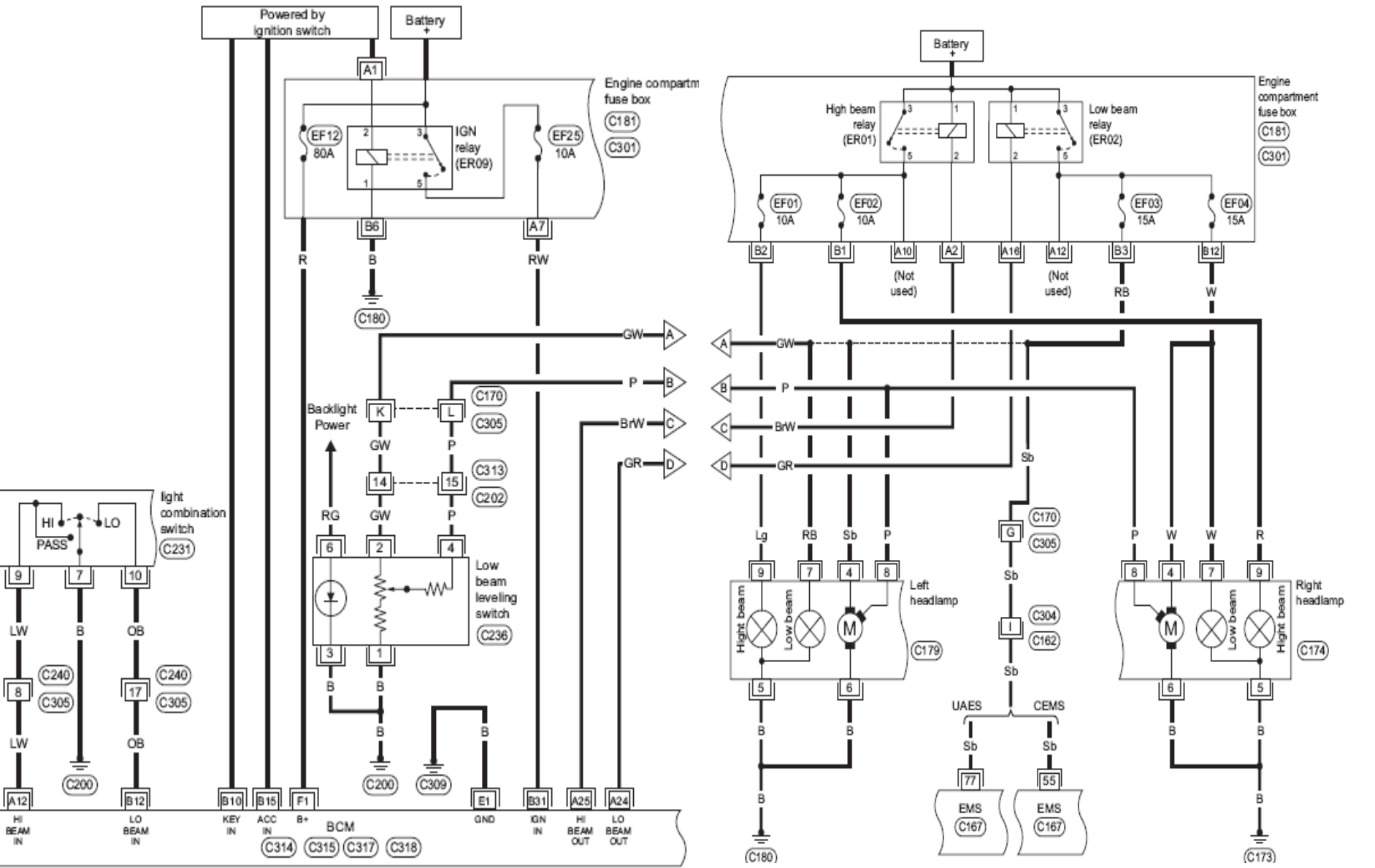


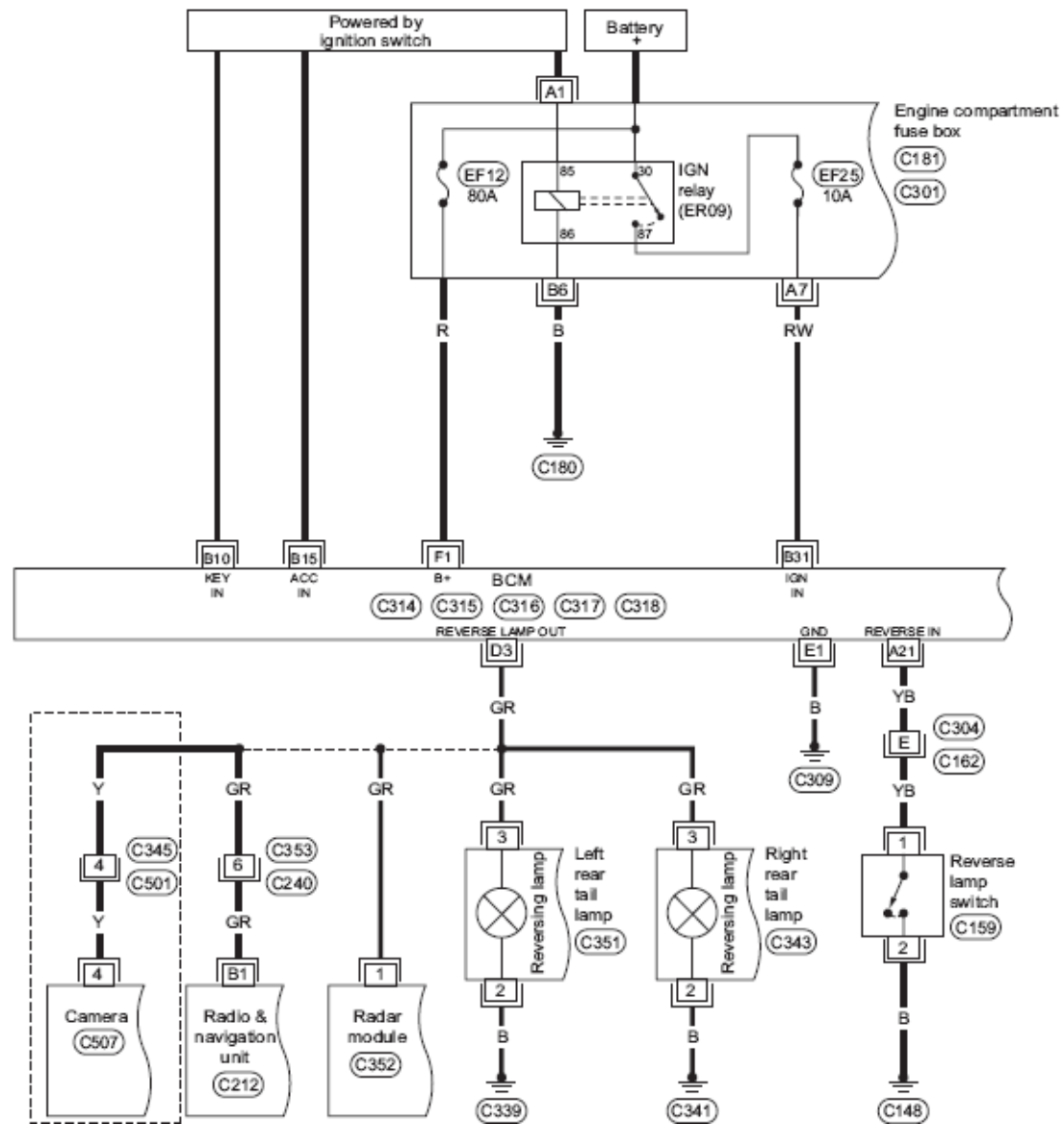


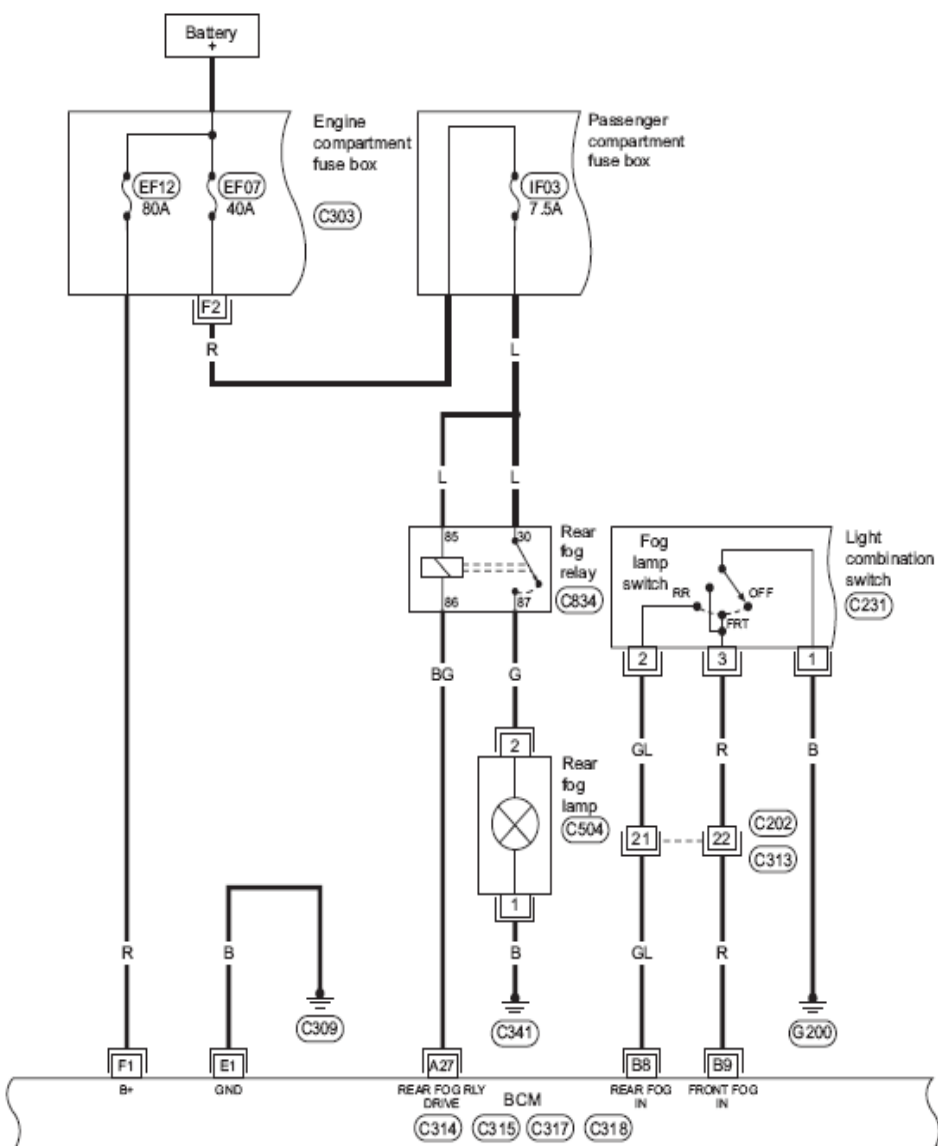
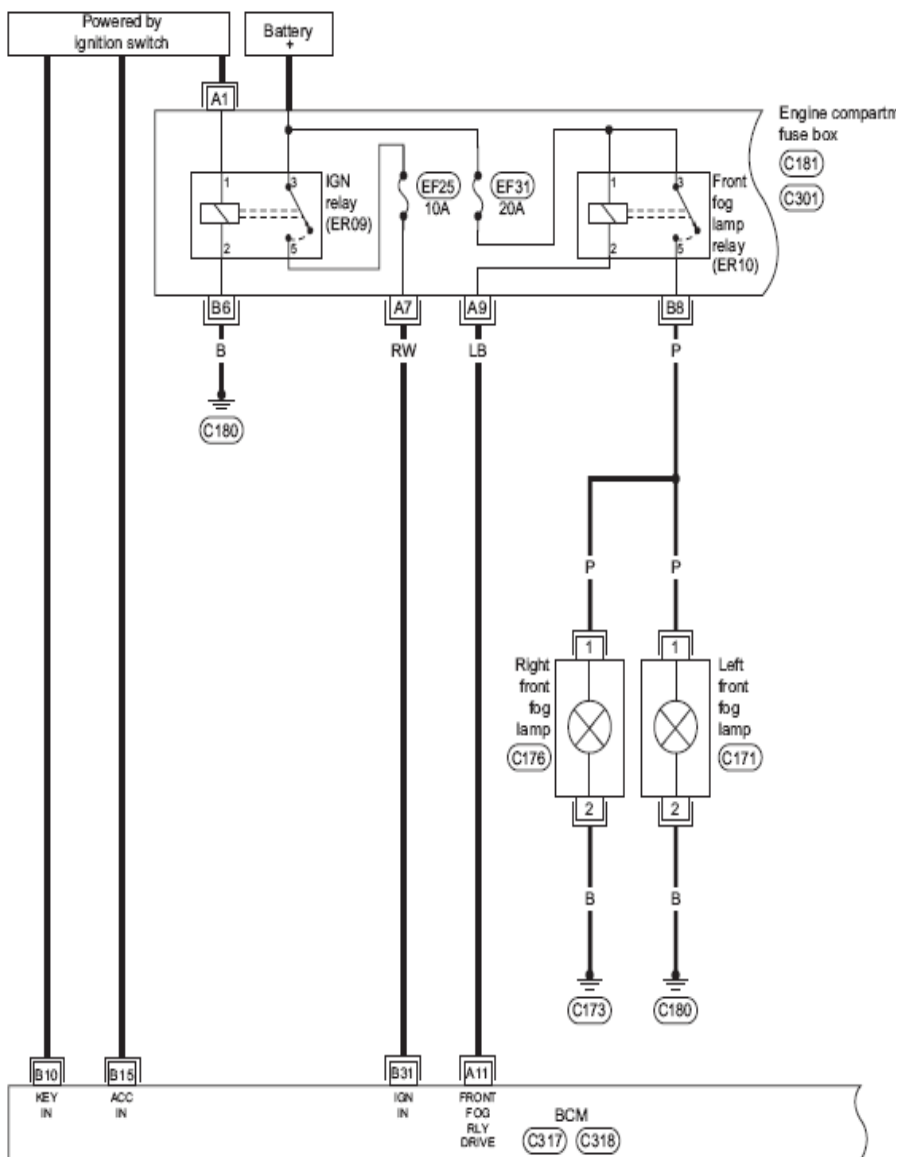


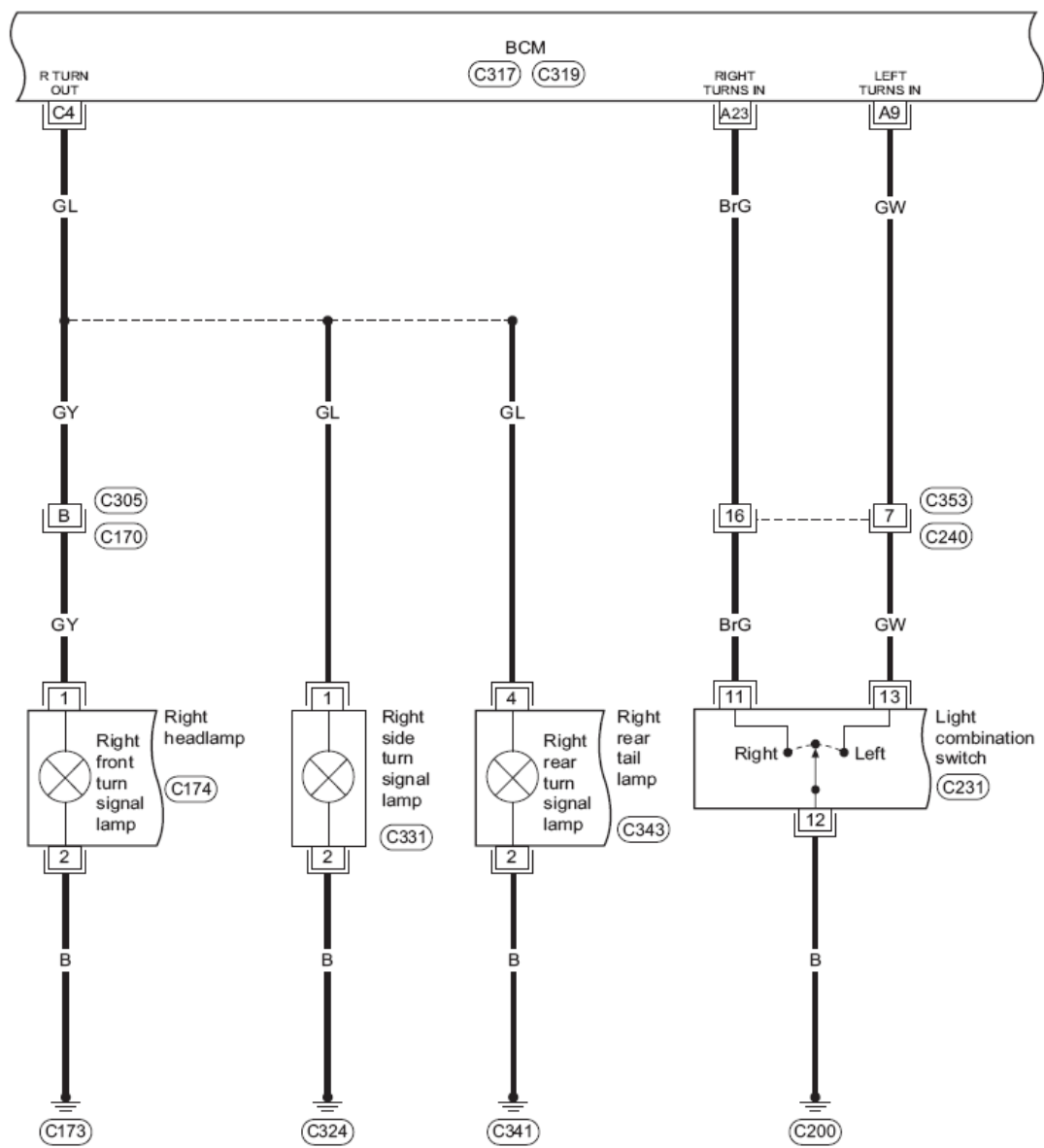
بلوک دیاگرام

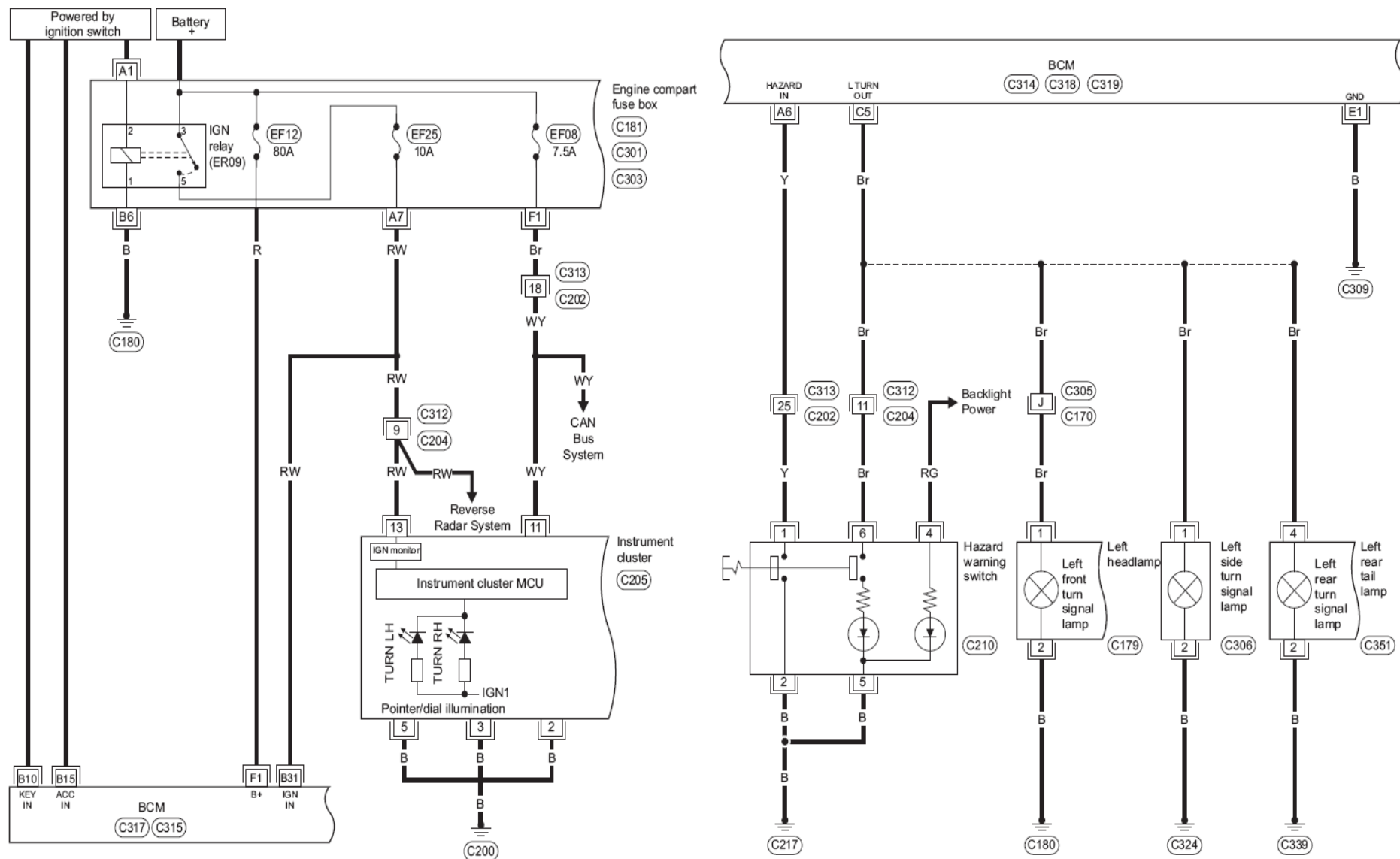


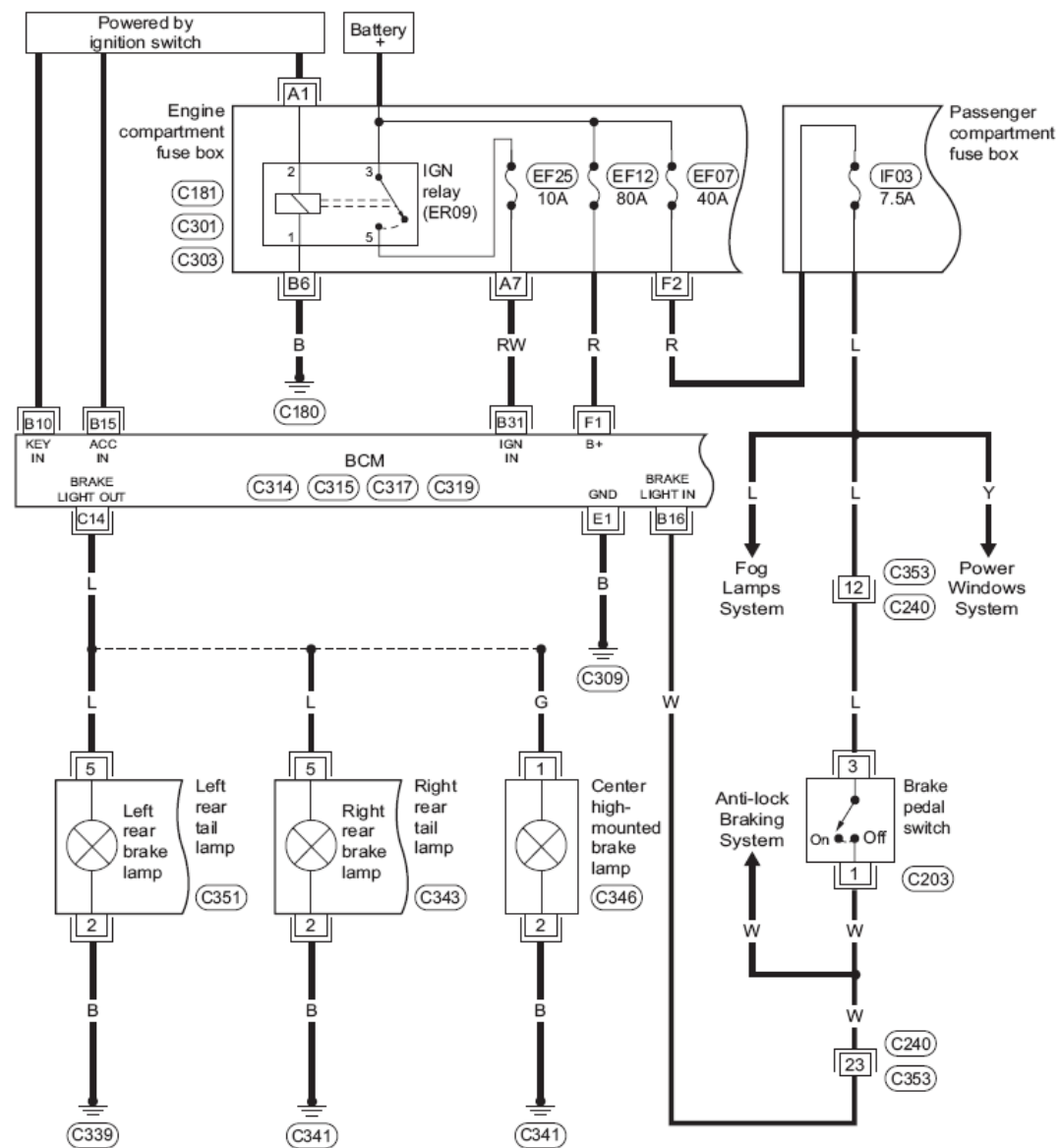






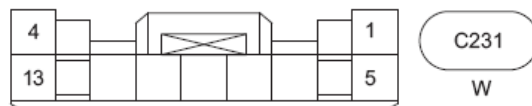






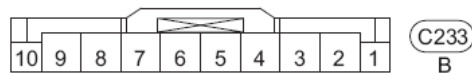
پین های دسته راهنما :

PIN		1	2	3	5	6	7	8	9	10	11	12	13
	OFF												
HEAD LAMP ON	LOW												
	HIGH												
	PASS												
HEAD LAMP ON	LOW												
	HIGH												
	PASS												
TURN SW	L												
	N												
	R												
FOG SW	FRT												
	RR												

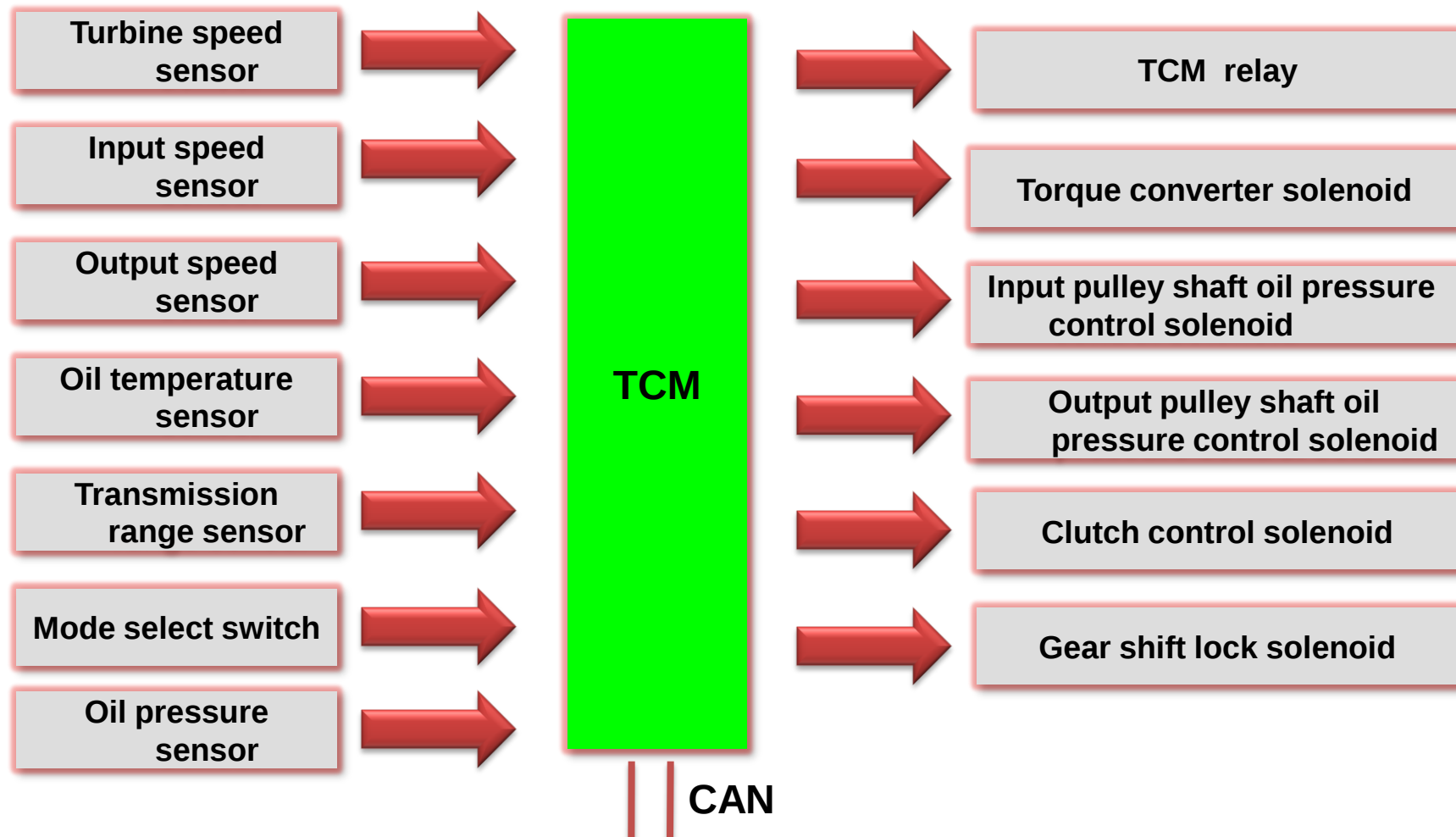


پین های دسته برف پاک کن:

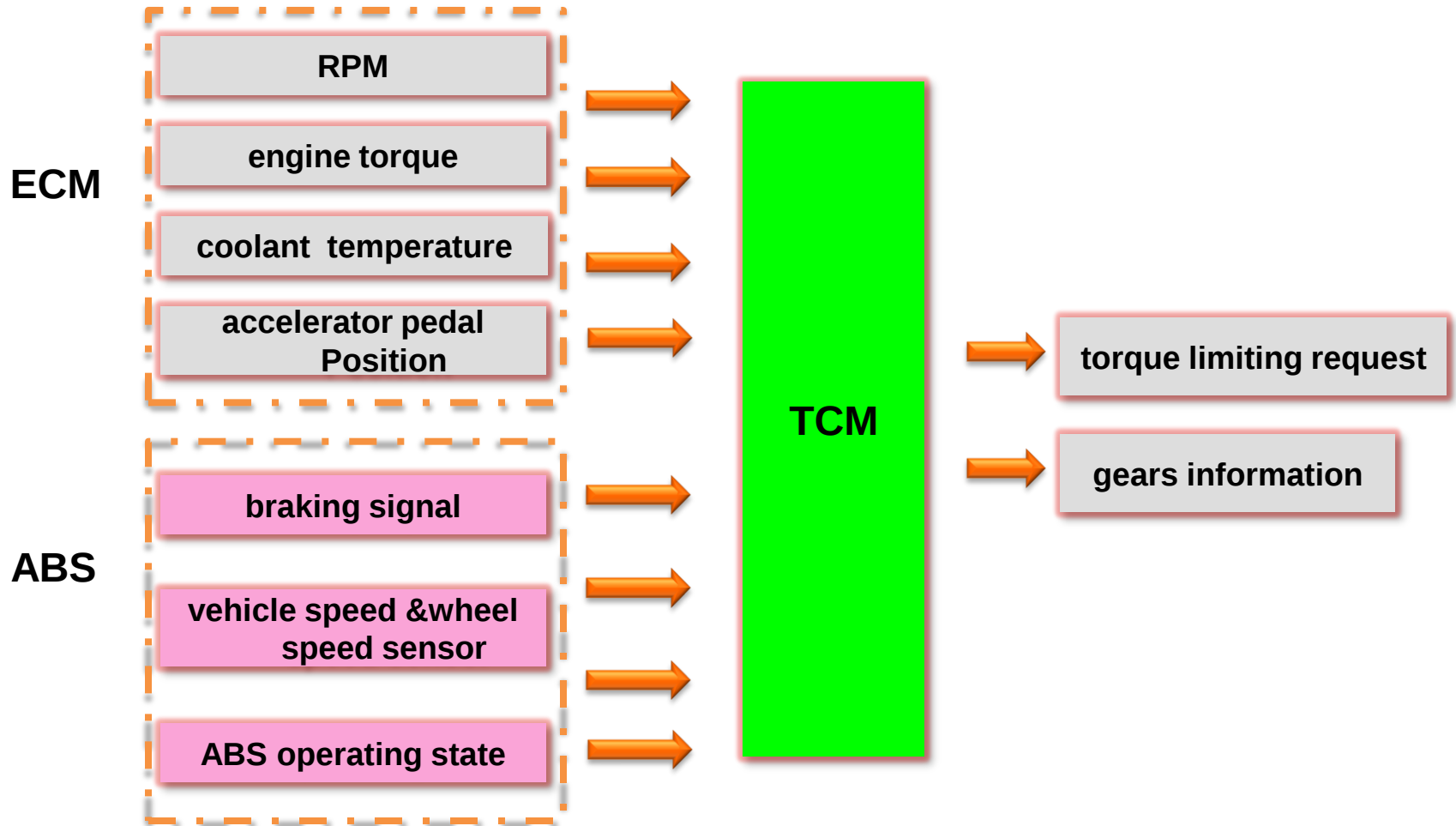
Wiper Switch Position	MIST												
	OFF												
	INT												
	LO												
	HI												
	WASH												
Connector Pins		2	3	4					5	6	7	8	9

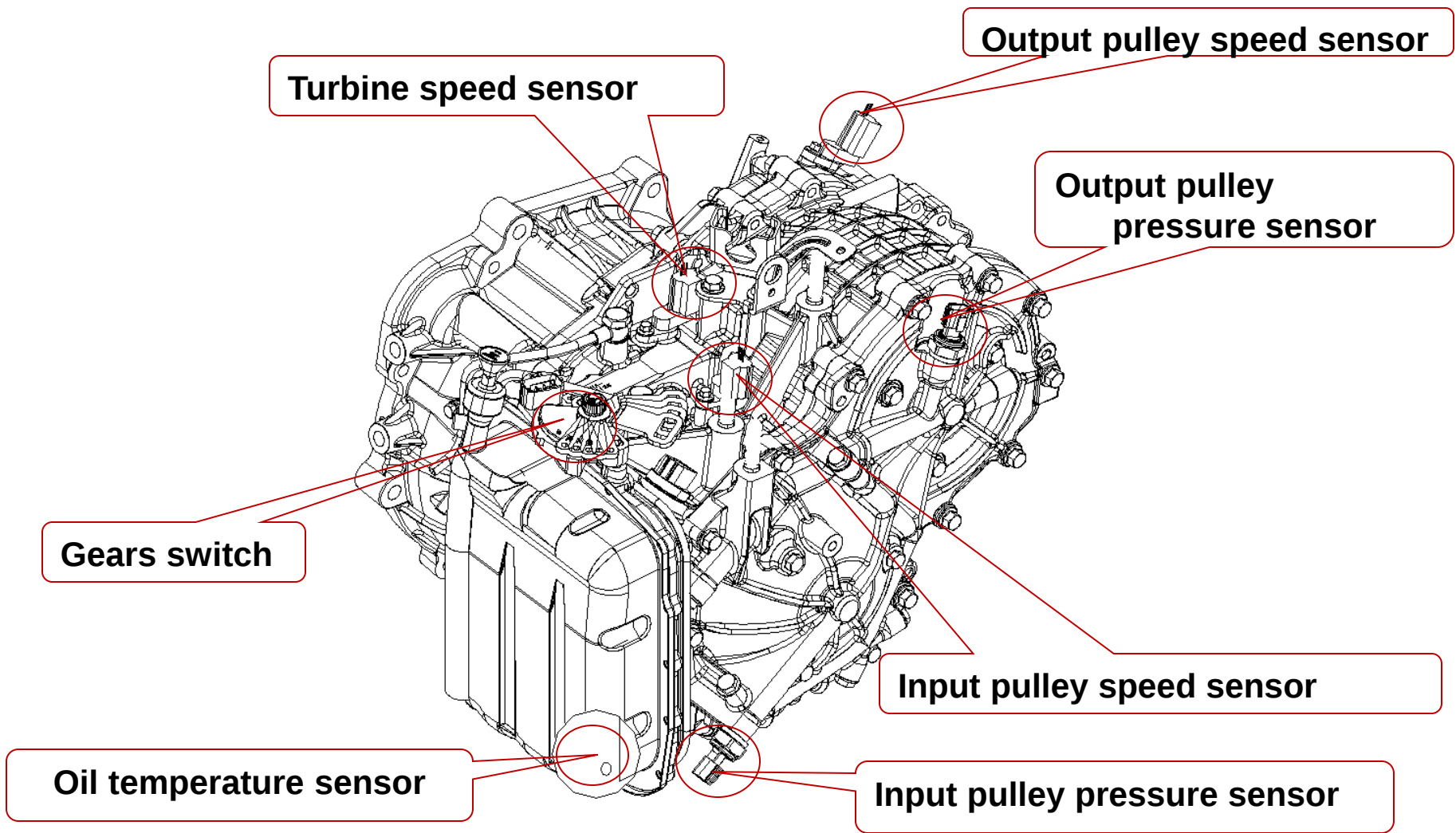


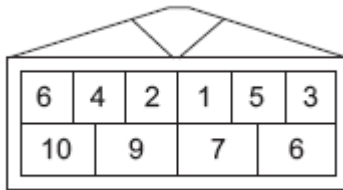
بلوک دیاگرام عملکرد TCU



ارتباط TCU با شبکه CAN







PIN No.	P	R	N	D	L
1	•				
2	•		•		
3	•		•	•	
4	•				•
5	•				•
6	•				•
7	•	•	•	•	•
8		•			
9	•		•		
10	•		•		

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Gearshift Positions	Pins	Conduction
"P"	1 - 7, 9 - 10	Yes * Other positions have no conduction except for the specified positions
"R"	7 - 8	
"N"	2 - 7, 9 - 10	
"D"	3 - 7	
"L"	4 - 7	

High and low temperature protection

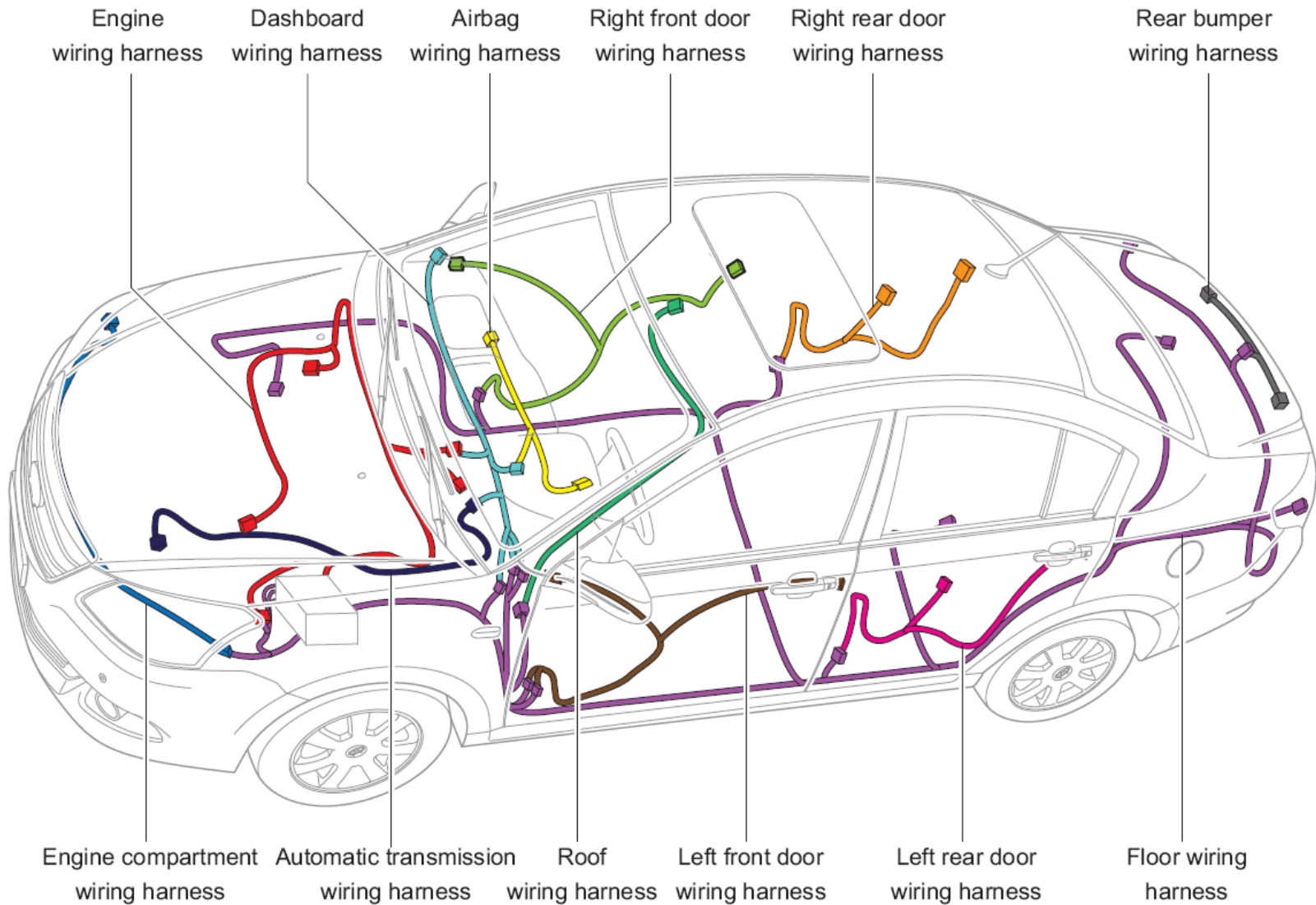
- When the temperature of transmission is low ,TCM would control the transmission to delay the shift time .It can increase RPM to warm up.;
- TCM controls and adjusts the temperature of the transmission by changing shift curve.

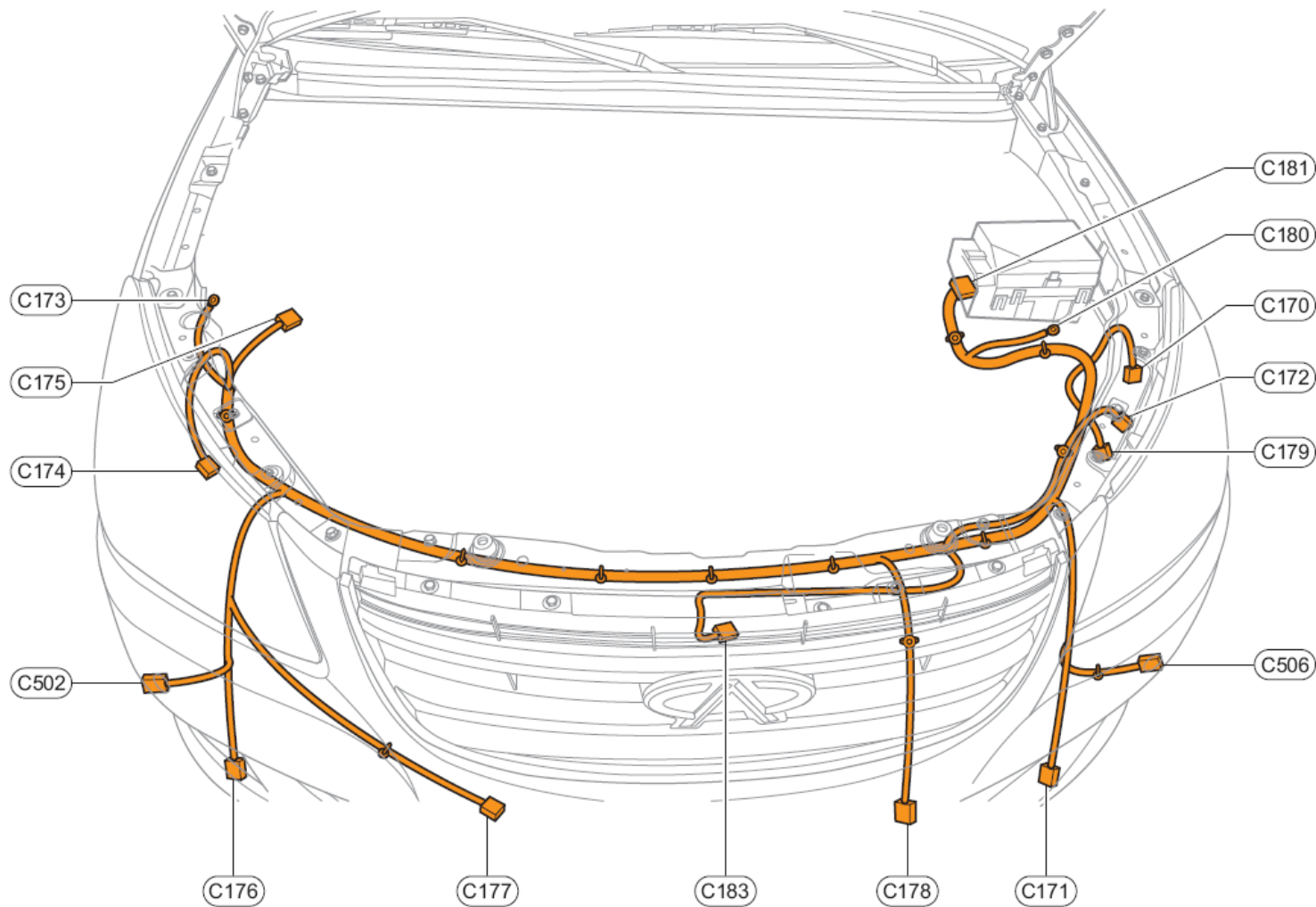
Protection mode of failure.

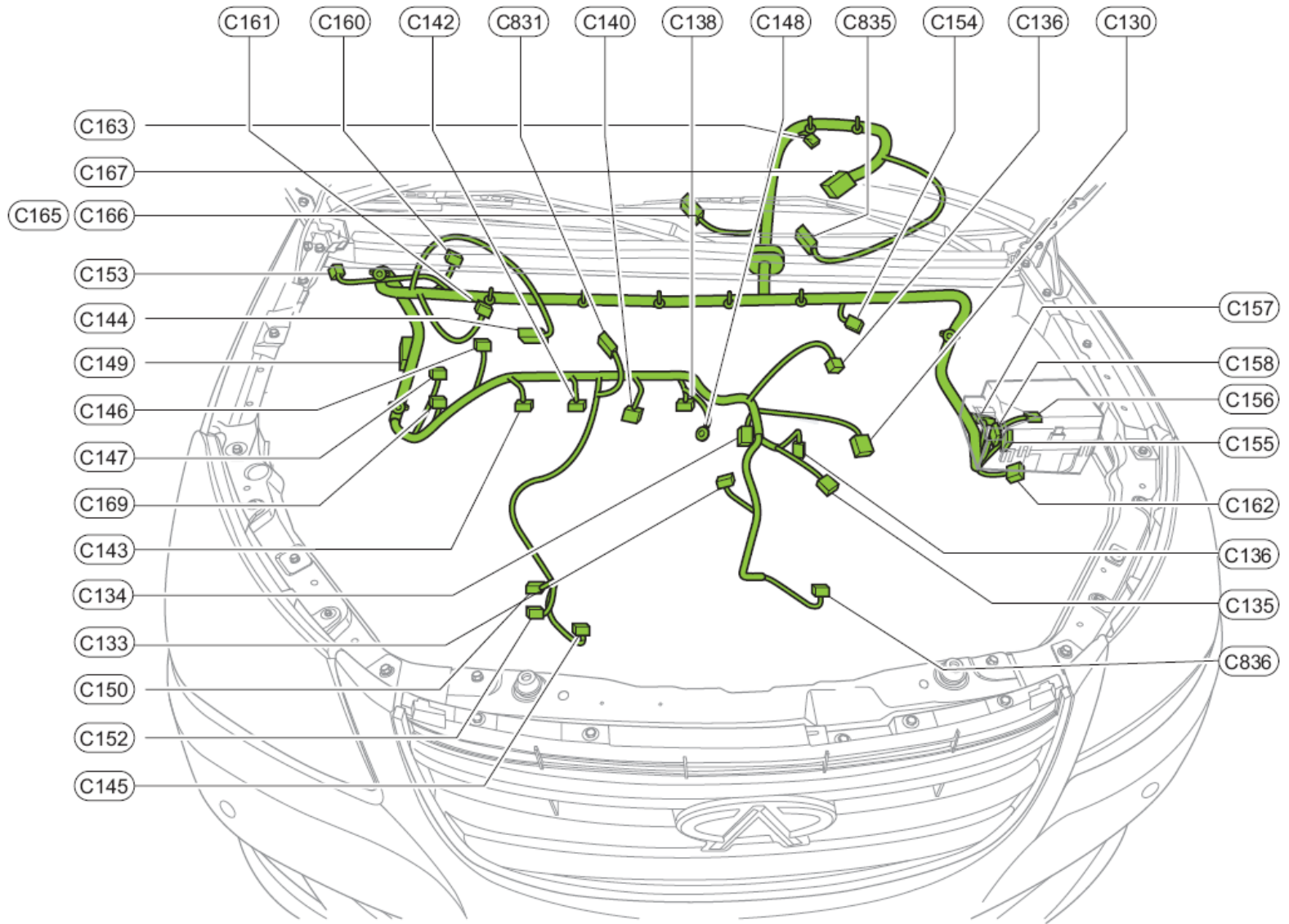
- If primary sensors or actuator loose effectiveness ,the transmission would keep operating with the highest gear. The vehicle would have no enough power to accelerate;
- If CAN BUS network failed to communicate, the transmission would keep operating with the lowest gear.
The vehicle speed is hard to increase.

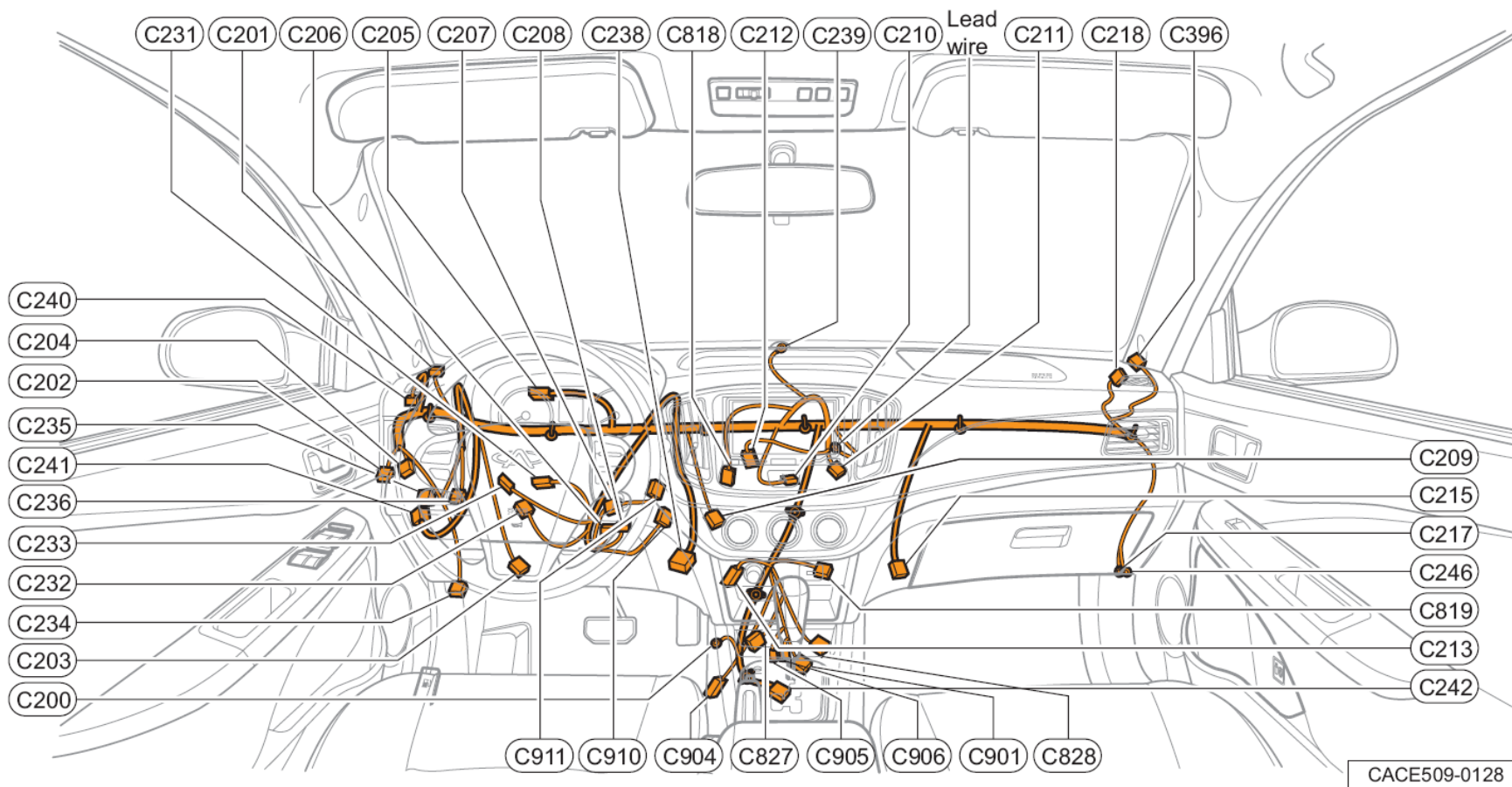
Replacing program of operating

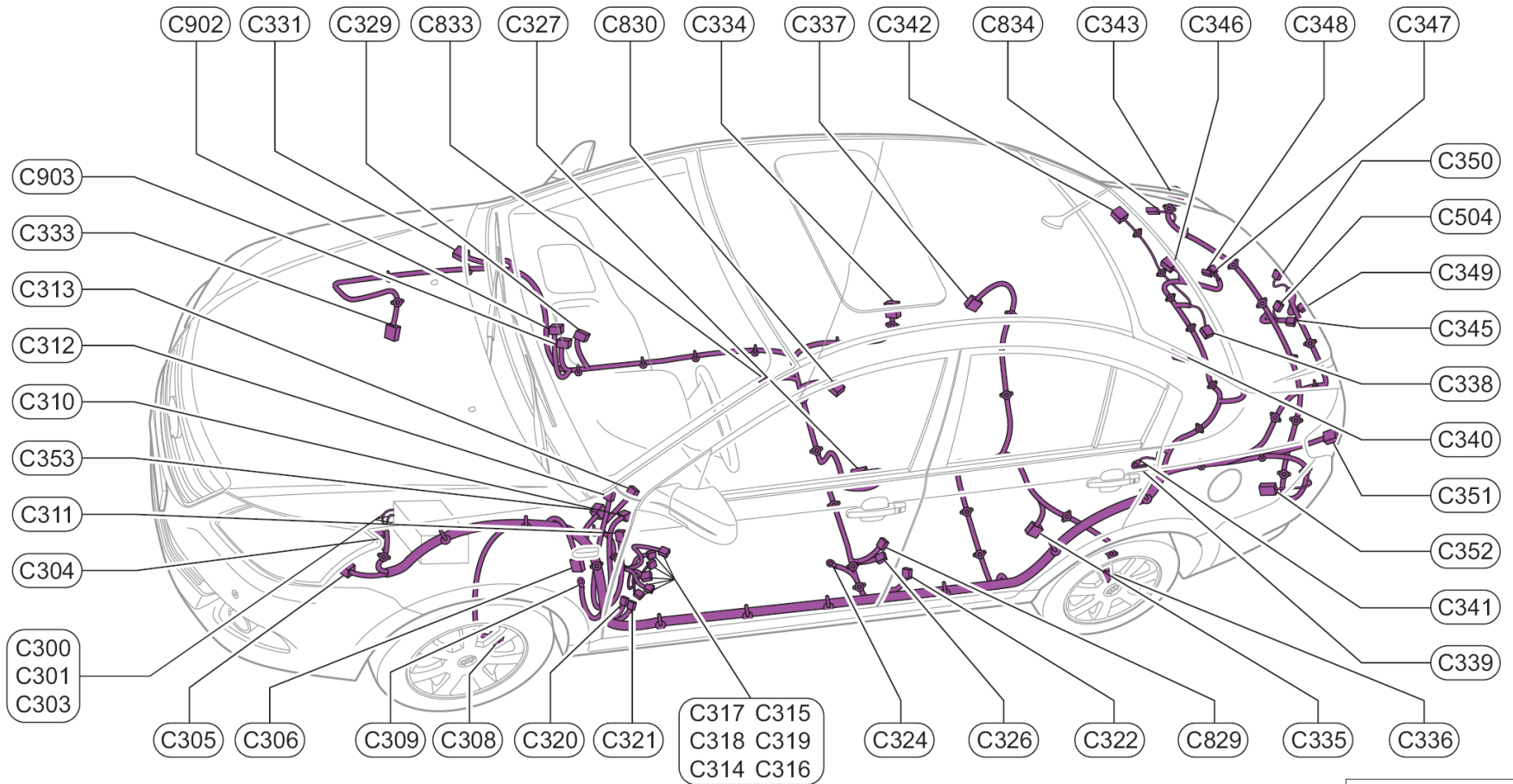
- When turbine speed sensor broke down , TCM would adopt the signal of engine speed to calculate ;
- When input pulley speed sensor broke down, TCM would adopt the signal of turbine speed sensor to calculate;
- When output pulley speed sensor broke down, TCM would adopt the signal of vehicle speed to calculate.

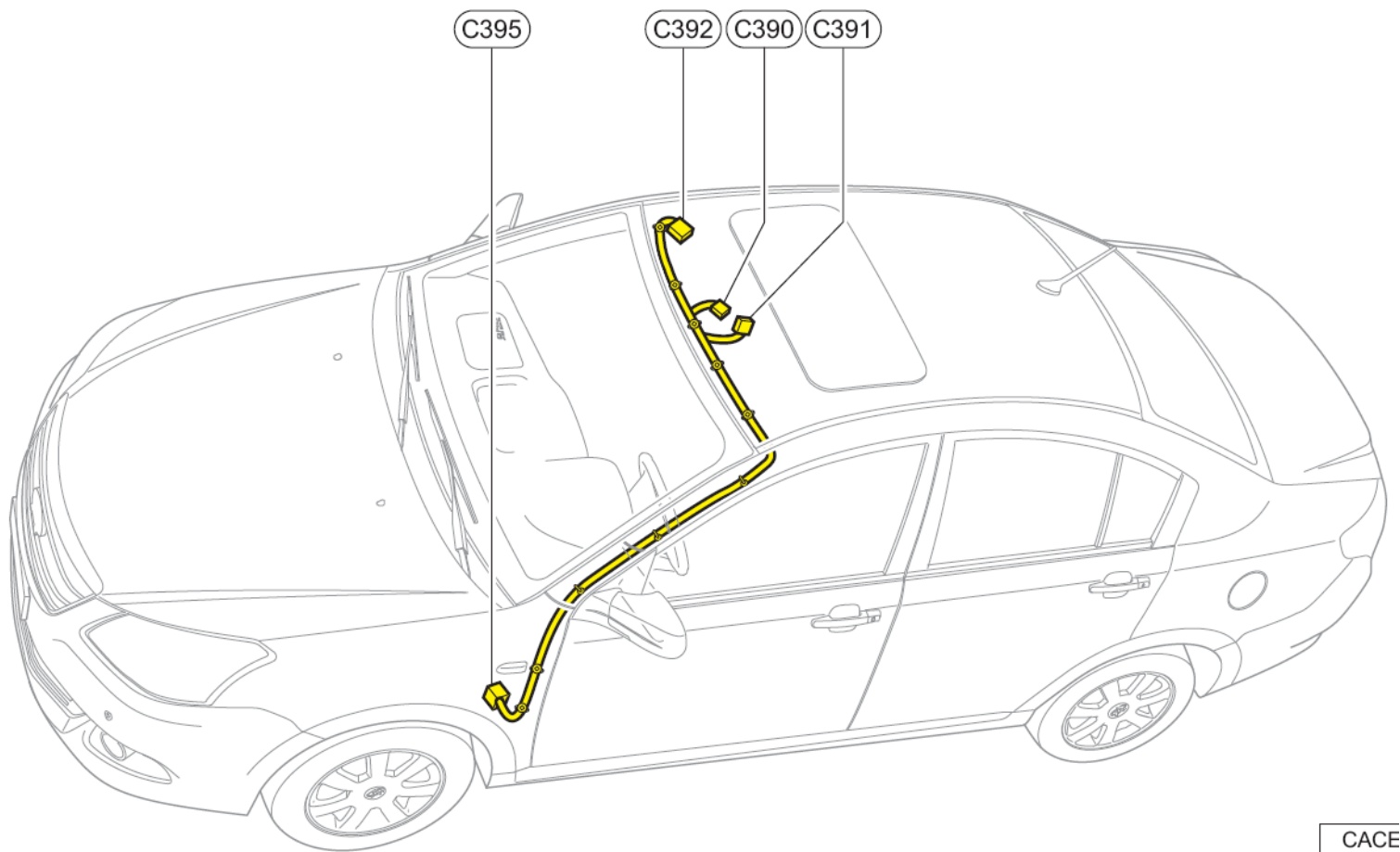


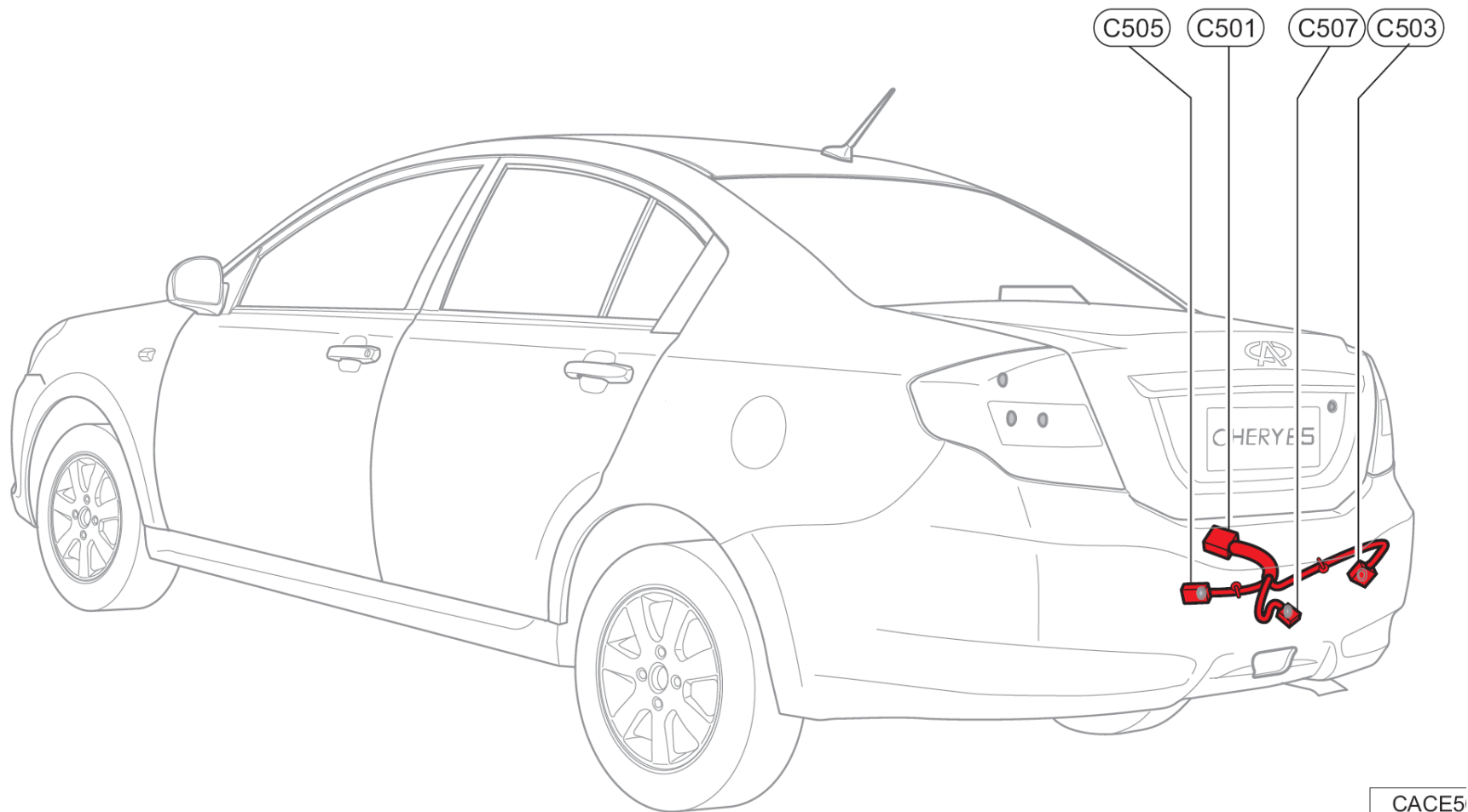


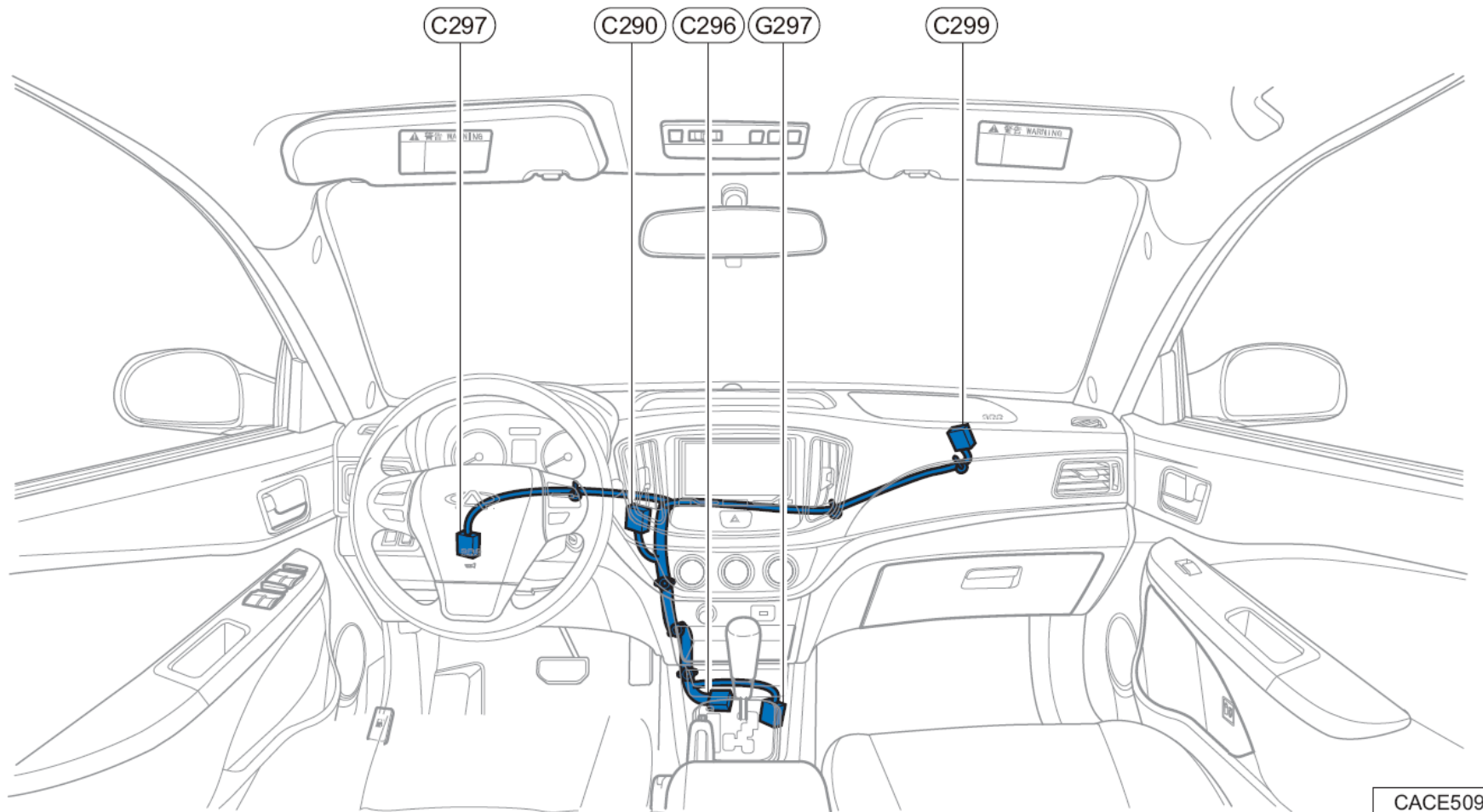












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