

ساختار مولتی پلکس در خودرو های رنو

RENAULT IRAN

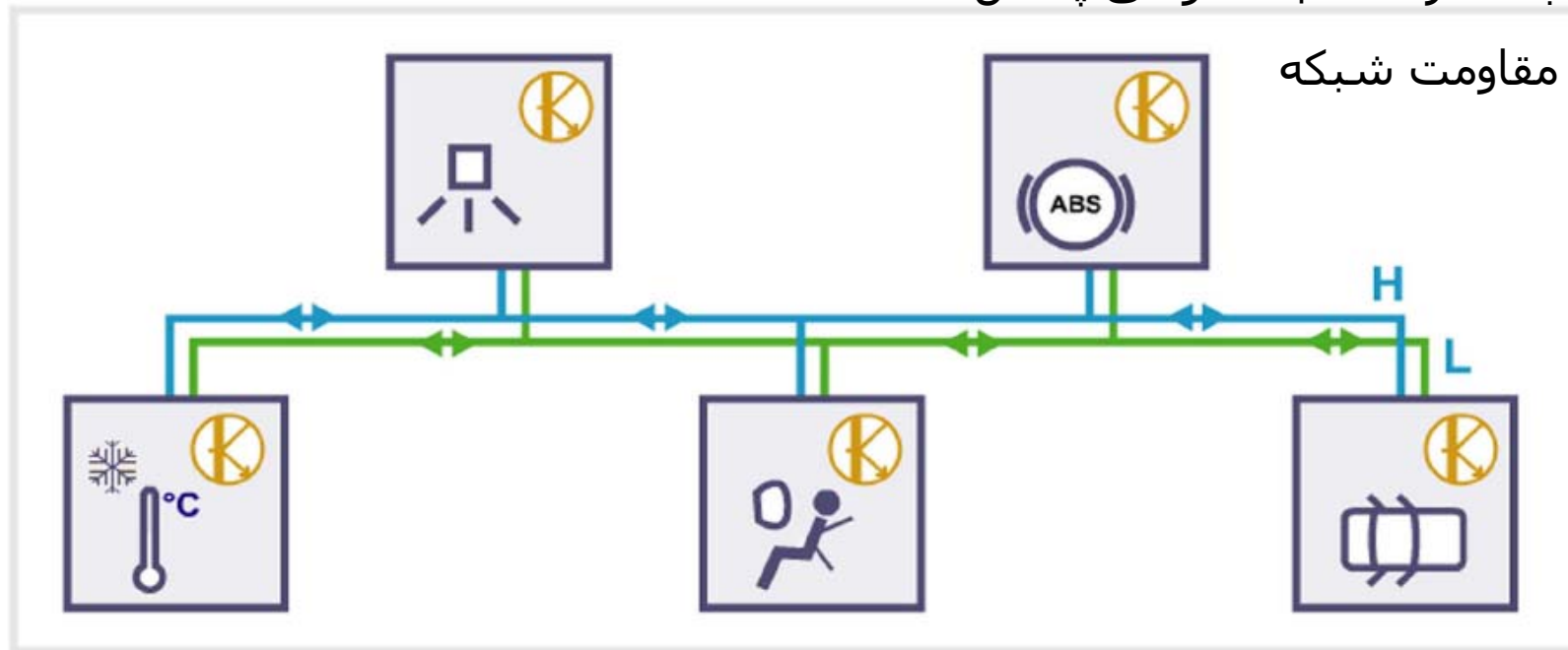


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مولتی پلکس رنو

- ارتباط بین کامپیوتر های خودرو
- مولتی پلکس خودرو های رنو
- پیکربندی مولتی پلکس خودرو های رنو
- اتصال دستگاه کلپ به خودرو از طریق شبکه مولتی پلکس
- چک کردن شبکه مولتی پلکس
- مقاومت شبکه



مولتی پلکس رنو

- امپدانس پایانه ای
- پدیده تداخل امواج
- ایزولاسیون شبکه مولتی پلکس
- چک کردن شبکه مولتی پلکس با دو کامپیوتر خودرو
- چک کردن ارتباط شبکه ای بین کامپیوترها
- رفع ایراد بر بروی شبکه مولتی پلکس

مقاومت شبکه مولتی پلکس

CA13C 7703297354 NO

8	7	6	5	4	3	2	1
	HK	133B	NAM	MK			
	X	X	NO	NO			
	X						
16	15	14	13	12	11	10	9
BP32		133C	107W	107X			
RG		X	X	X			

225

Ω

60 Ω

0 Ω

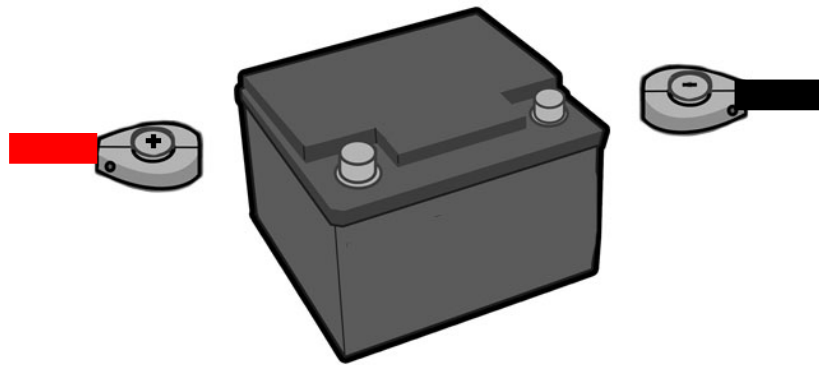
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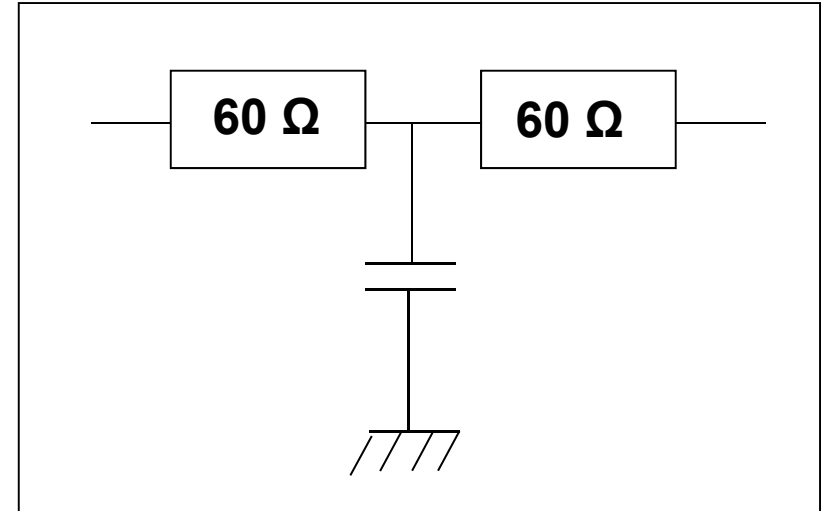
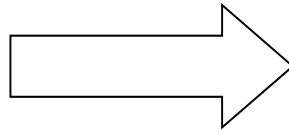
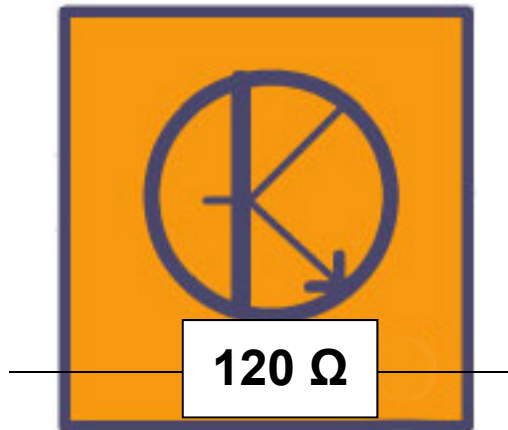
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مقاومت شبکه مولتی پلکس



A resistance of 120 ohms in a computer is made up of two 60-ohm resistors in series and a capacitor. A measurement taken with an ohmmeter without first disconnecting the battery is erroneous.



ولتاژ شبکه مولتی پلکس

- برای اطمینان از ایزوله بودن سیم های مولتی پلکس ارتباط باس بالا را به بدنه و برق دوازده ولت چک کنید

	8	7	6	5	4	3	2	1
		HK	133B	NAM	MK			
		X	X	NO	NO			
	16	15	14	13	12	11	10	9
	BP32		133C	107W	107X			
	RG		X	X	X			

225

V

$2.5V < V < 3.5V$ ✓

0V ✗

12V / 5V ✗

ولتاژ شبکه مولتی پلکس

- برای اطمینان از ایزوله بودن سیم های مولتی پلکس ارتباط باس پائین را به بدنه و برق دوازده ولت چک کنید

	8	7	6	5	4	3	2	1
		HK	133B	NAM	MK			
		X	X	NO	NO			
	16	15	14	13	12	11	10	9
	BP32		133C	107W	107X			
	RG		X	X	X			

$2.5V < V < 3.5V$	✓
0V	✗
12V / 5V	✗

چک کردن ایزوله بودن شبکه مولتی پلکس

بسته به دسترسی آسان، یکایک کامپیوتر ها را از مدار جدا کنید

از محل سوکت عیب یاب بوسیله مولتی متر پیک کردن رو انجام دهید

ارتباط سیم مولتی پلکس بین موتور و داخل اطاق را از طریق یکی از کامپیوترها یا کانکتورها قطع کنید

ارتباط را نقطه به نقطه بررسی کنید

پیکربندی شبکه مالتی پلکس

■ همیشه به راهنمای تعمیرات رجوع کنید



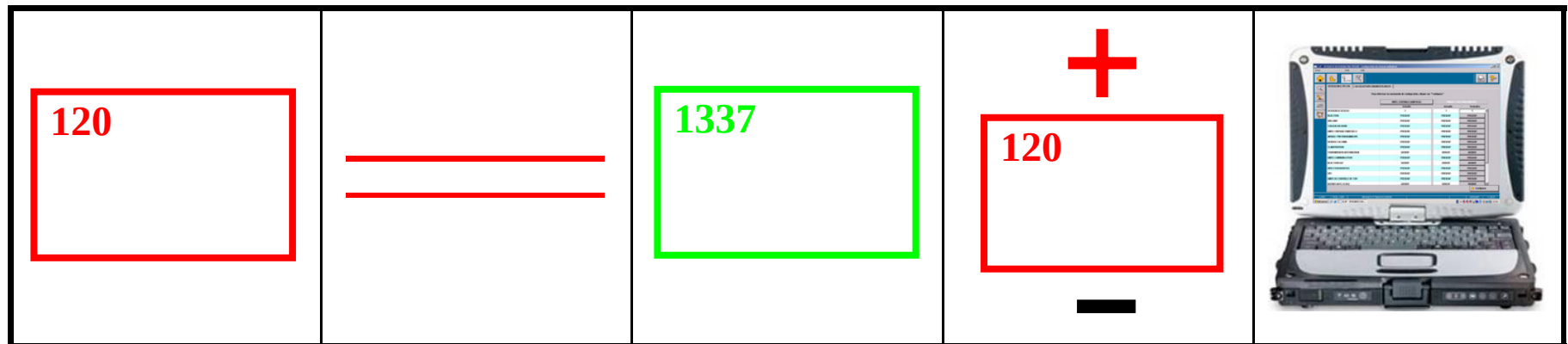
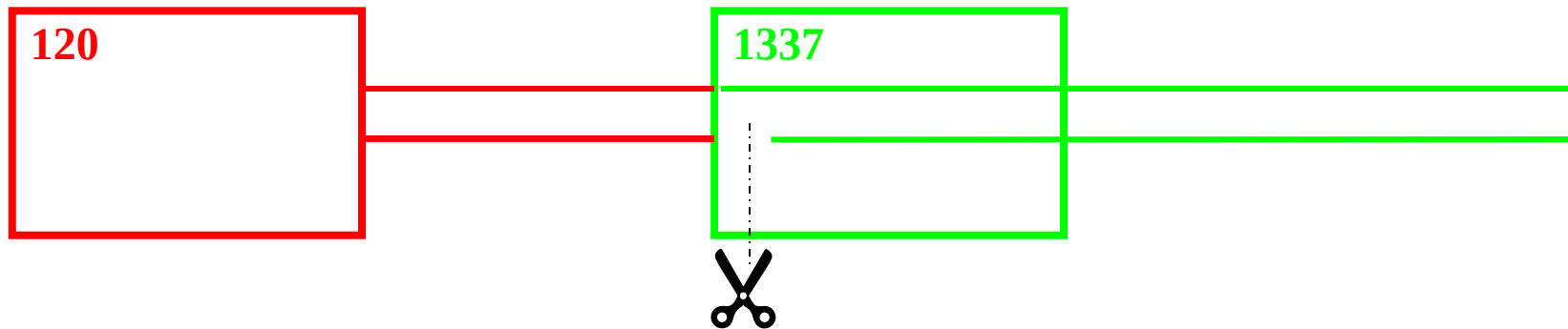
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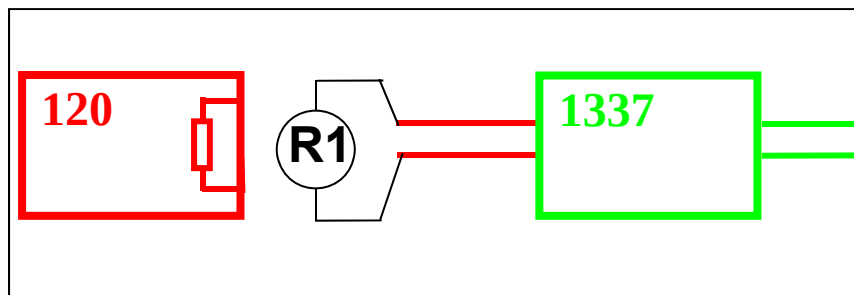


کامپیوتر های که خطا دارند در شبکه مالتی پلکس مشخص هستند

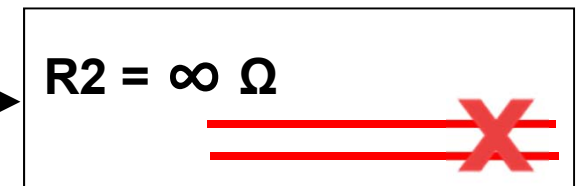
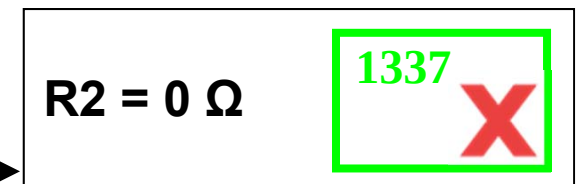
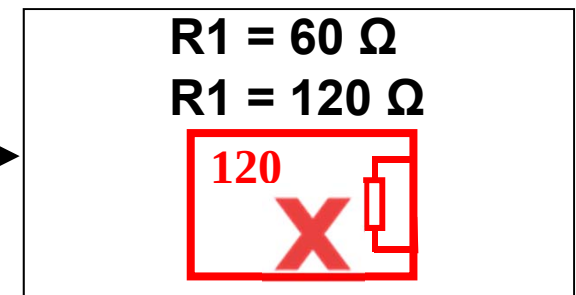
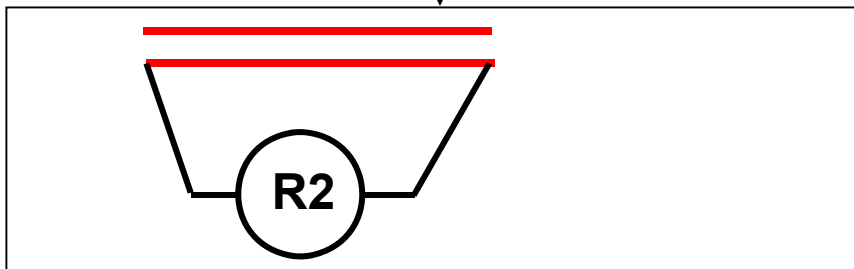


کامپیوتر های که خطا دارند در شبکه مالتی پلکس توسط کلیپ مشخص می شوند

Component to be replaced



$$R1 = \infty \Omega$$



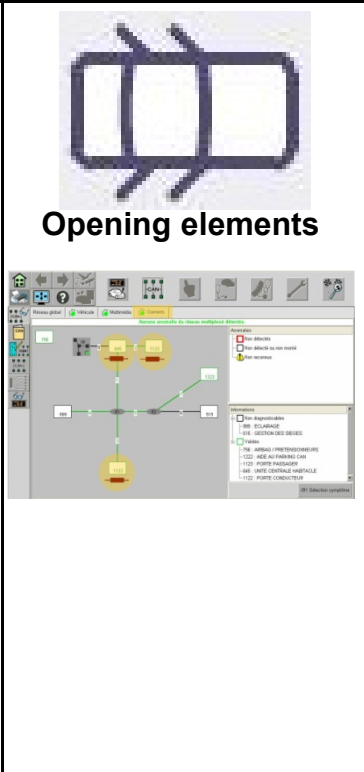
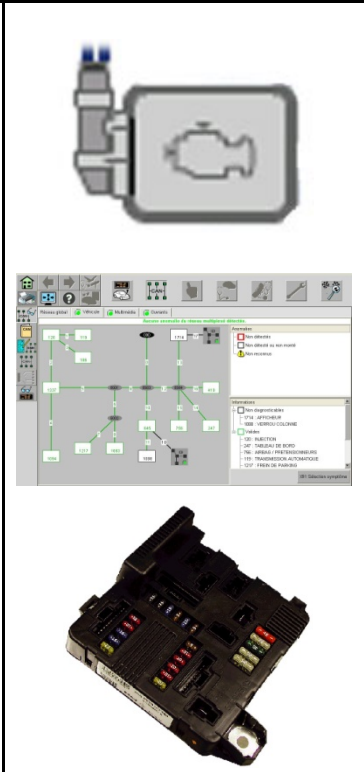
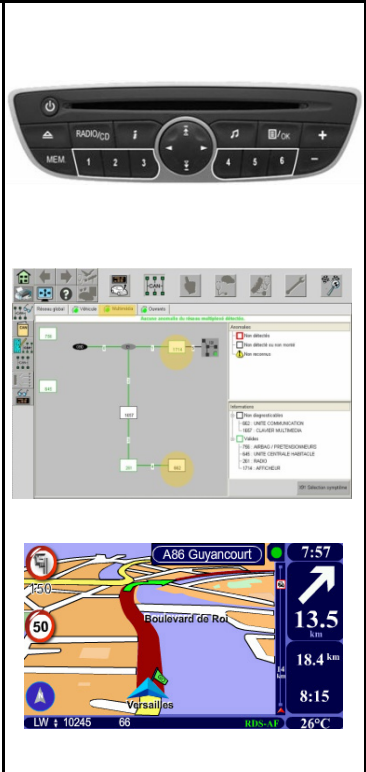
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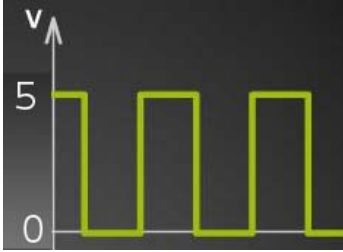
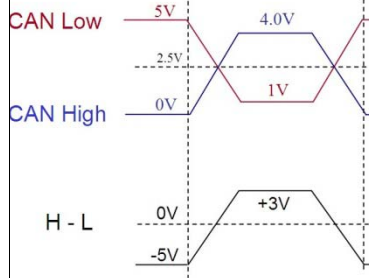
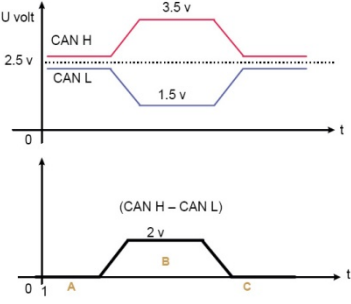
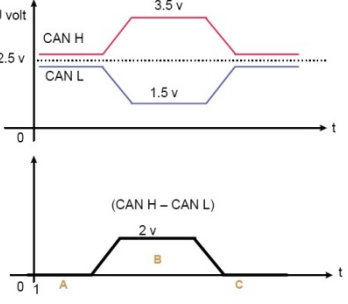
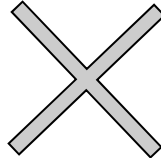
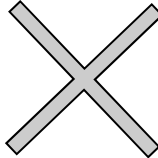
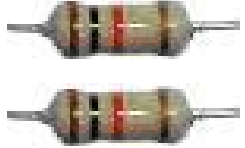


انواع ارتباط مالتی پلکسی در خودر

LIN	LSFT	Vehicle CAN	Multimedia CAN
	Opening elements 		

Links between computers

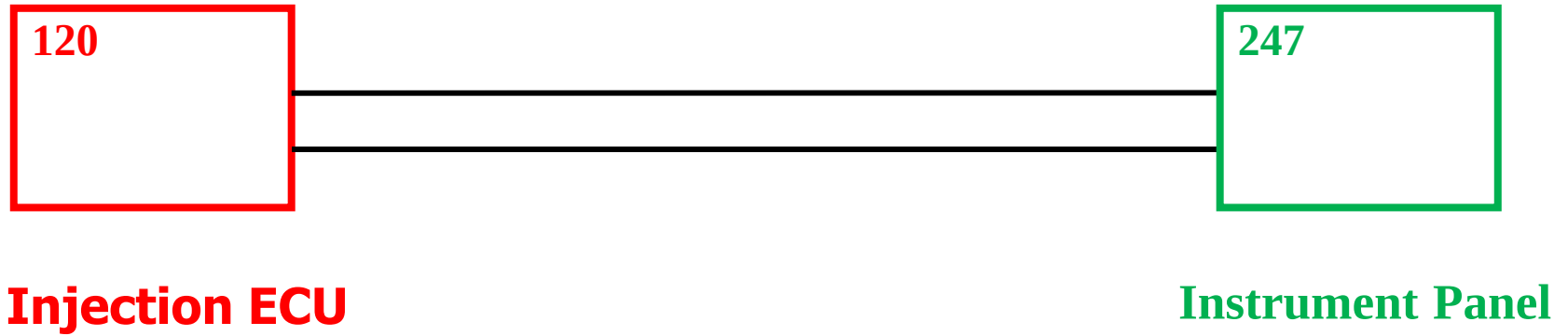
■ Characteristics of the various links

	LIN	LSFT	Vehicle CAN	Multimedia CAN
Signal				
Number of wires				
Terminating resistors				

شبکه مالتی پلکس در خودرو Captur

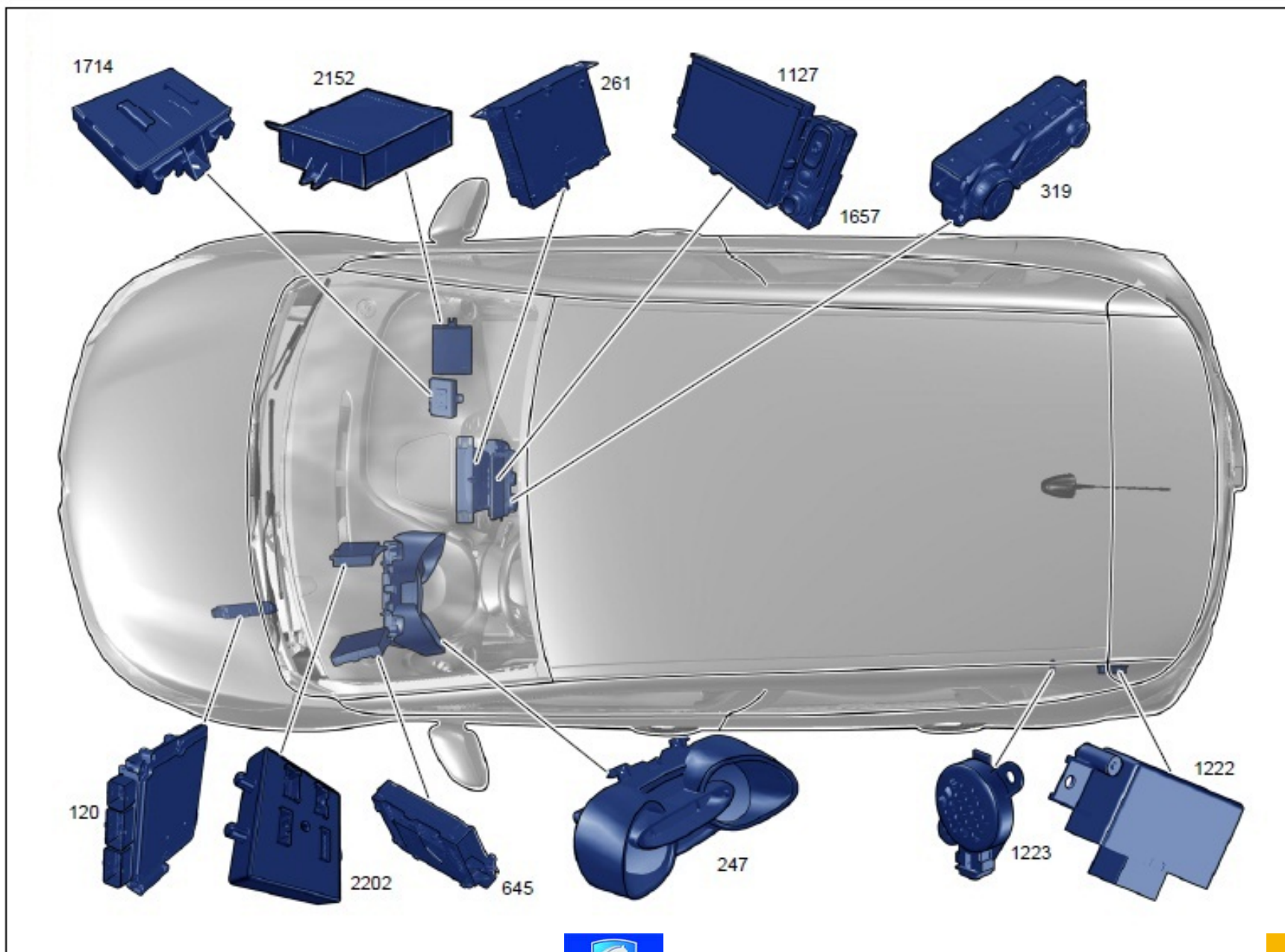
- پروتکلهاي بکار رفته در شبکه مالتی پلکس خودرو از نوع CAN با سرعت 512Kbps و LIN با سرعت 128 Kbps میباشد
- خودرو دارای دو شبکه مالتی پلکس مجزا Vehicle Network و Multimedia Network میباشد.
- خودرو دارای شبکه مالتی پلکس عیب یابی K_Line میباشد.
- ارتباط بین اجزای اصلی در شبکه از نوع CAN و ارتباط اجزای غیر اصلی (آپشن ها) با اجزای اصلی از نوع LIN میباشد
- مقاومتهای 120 اهمی شبکه Vehicle در Instrument Panel و Injection ECU میباشدند

تست شبکه مالتی پلکس در Captur



		16	15	14	13	12	11	10	9
1	reserved	B+		CAN_L	Rx(N-Bus)	Tx(N-Bus)	-	-	-
2	reserved								
3	reserved	8	7	6	5	4	3	2	1
4	Chassis ground	IGN SW	K_Line	CAN_H	GND	GND			
5	Signal ground								
6	CAN_H main network								
7	K_line according to ISO 9141-2 and ISO 14230-4								
8	Ignition								
9	reserved								
10	reserved								
11	reserved								
12	CAN_L secondary network(multimedia)/DDL1-Tx								
13	CAN_H secondary network(multimedia)/DDL1-Rx								
14	CAN_L main network								
15	L_line according to ISO 9141-2 and ISO 14230-4 or ACL_line for airbags end or life recycling								
16	Permanent positive voltage(+Bat)								





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جعبه فیوز و رله های داخل اتاق سرنشین :
اتاق سرنشین دارای دو جعبه فیوز و رله می باشند که در کنار هم قرار گرفته اند. (1531 – 260)



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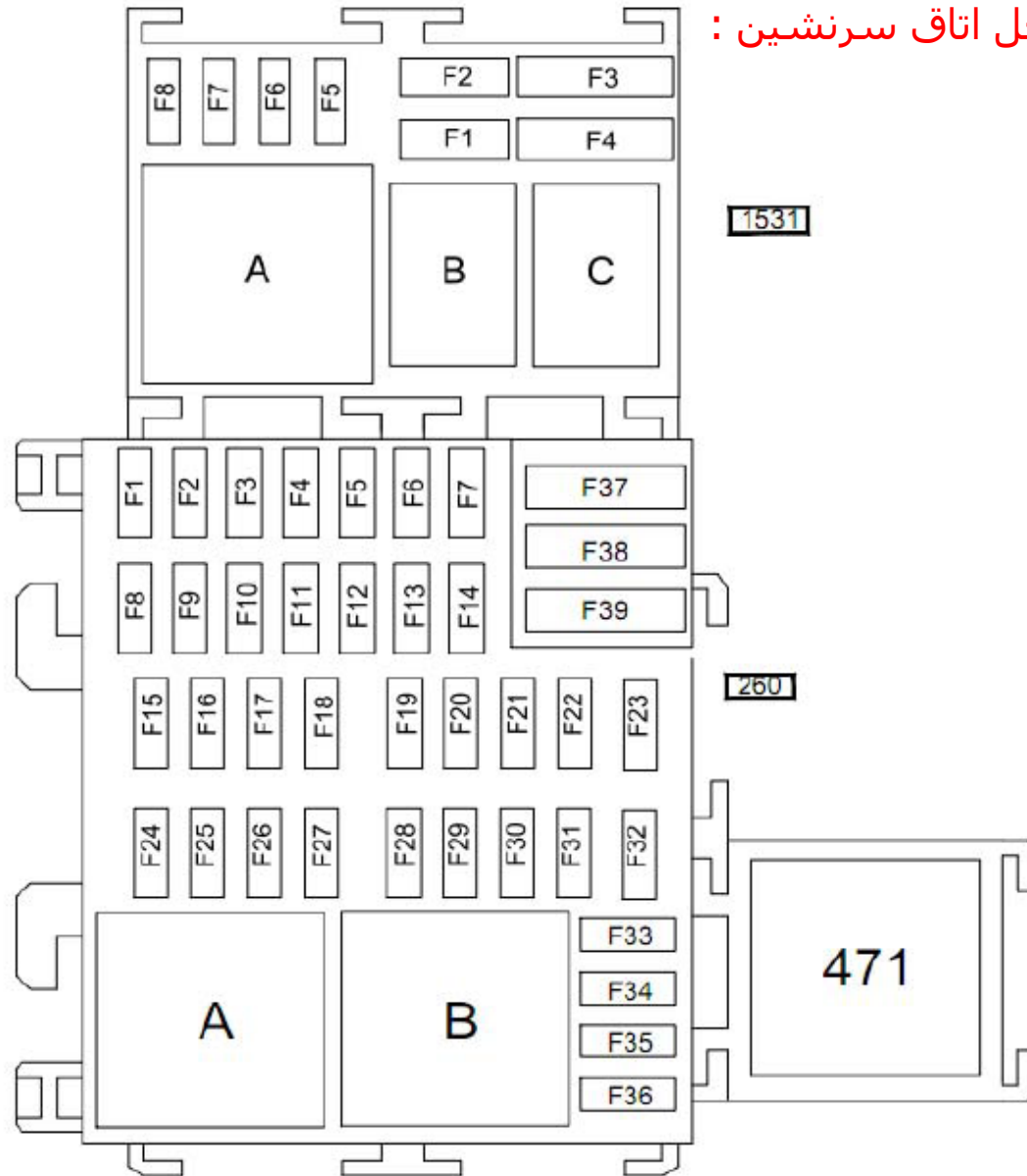
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جعبه فیوز و رله های داخل اتاق سرنشین :



مربوط به جعبه فیوز و رله داخل اتاق سرنشین 1531

Allocation of fuses (according to equipment level)

No.	Amps	Connection	Description
F1	30A	23EB	Fuse via driver's dual rear electric window control (1511): Rear right-hand and left-hand electric window control (130-131) - Rear right-hand and left-hand electric window motor (201-202)
F2	30A	22W	Fuse: via driver's dual front electric window control (1512): passenger electric window control (133) - driver's and passenger electric window motor (203-204)
F3	30A	BP1	Fuse: air conditioning fan assembly power module (1023) via accessories relay 1 (1155) on passenger compartment fuse and relay box (260) - accessories relay control no. 1 (1155) on passenger compartment fuse and relay box (260)
F4	--	--	Fuse: Not used
F5	25A	BPTA	Fuse: Driver's electric window motor (203) via timed non-load shed battery + relay (1762) on passenger compartment fuse and relay box 2 (1531)
F6	15A	SP2	Fuse: radio (261) - UCH (645)
F7	10A	8B	Fuse: front left-hand and right-hand fog lights (176-177) - UCH (645)
F8	20A	BP23	Fuse: via heated rear screen relay (235) on passenger compartment fuse and relay box 2 (1531): - Supply to fuse (F35) on passenger compartment fuse and relay box (260) - Heated rear screen (200) via heated rear screen anti-interference filter (1886)

Allocation of relays (depending on equipment level)

No.	Amps	Description
A	40A	Relay: Child safety relay (750)
B	20A	Relay: timed non-load shed + battery feed (1762)
C	20A	Relay: heated rear screen relay (235)

مربوط به جعبه فیوز و رله داخل اتاق سرنشین 260

No.	Amps	Connection	Description
F1	5A	AP23	Fuse on engine other than EURO 6: electric power-assisted steering system (1232)
	10A	AP10	Fuse on EURO 6 engine: RIGHT-HAND AND LEFT-HAND HEATED SEAT CONTROL (1513-1514) - DRIVER AND PASSENGER HEATED SEAT SUPPLY RELAY CONTROL (1649-1650) - RADIO (261) - VARIABLE POWER-ASSISTED STEERING RELAY (302) on board (777)
F2	5A	AP29	Fuse on engine other than EURO 6: injection electric control unit (120) - UCH (645) - starter relay control (232) on engine fuse and relay box (597-2) - fuel pump relay (236) control on engine fuse and relay box (597 - 1) on H4B and H5F engines
	10A	AP72	Fuse on versions with EURO 6 engine and WITHOUT AUTOMATIC LIGHTS OR WIPERS: FRONT LEFT-HAND AND RIGHT-HAND DAYTIME RUNNING LIGHT (1757 - 1758) via MONOLEVER (209)

مربوط به جعبه فیوز و رله داخل اتاق سرنشین 260

No.	Amps	Connection	Description
F3	5A	AP25	Fuse: airbag/pretensioner electric control unit (756) - electric steering column lock (1088)
F4	5A	AP4	Fuse: - Automatic gearbox electric control unit (119) on AUTOMATIC GEARBOX VERSION - MANUAL GEARBOX NEUTRAL SENSOR/ REVERSING LIGHTS (1109) on MANUAL GEARBOX version with K9K646 engine
F5	5A	BPA2	Fuse: Via monolever (209):
	20A		5A - On version with automatic lights and wipers: Electric control unit energy management (2202) - Passenger compartment electric control unit (645) 20A - On version without automatic lights or wipers: Supply for fuses (F10-F11-F33) on passenger compartment fuse and relay box (260-1)
F6	25A	BPA3	Fuse on version without automatic lights or wipers: Via monolever (209): - Supply to fuse (F7) on passenger compartment fuse and relay box (260-1) via cruise control and airbag switch (689) and steering wheel horn control (1385) - Supply to fuses (F8-F9-F12-F13-F33) on passenger compartment fuse and relay box (260-1) - Supply to fuse (F7) on passenger compartment fuse and relay box (1531)
F7	15A	67CP	Fuse: main electromagnetic horn (105) - secondary electromagnetic horn (403)

مربوط به جعبه فیوز و رله داخل اتاق سرنشین 260

No.	Amps	Connection	Description
F8	10A	RPG	Fuse on version without automatic lights and wiper: left-hand headlight (227) - passenger compartment electric control unit (645)
F9	10A	RPD	Fuse on version without automatic lights and wiper: right-hand headlight (226)
F10	10A	CPD	Fuse on version without automatic lights and wiper: right-hand headlight (226)
	25A	BP2M	Fuse on version with automatic lights and wiper: Via energy management electric control unit (2202): Front right-hand daytime running light (1757) - Left-hand rear light (173) - Right-hand and left-hand headlights (226 - 227)
F11	10A	CPG	Fuse on version without automatic lights and wiper: left-hand headlight (227) - passenger compartment electric control unit (645)
F12	25A	BP2N	Fuse on version with automatic lights and wiper: Via energy management electric control unit (2202): Front left-hand daytime running light (1758) - Right-hand rear light (172) - Right-hand and left-hand headlights (226 - 227)
	10A	LPG	Fuse on version with engine other than EURO 6 and WITHOUT AUTOMATIC LIGHTS OR WIPERS: rear left-hand side light (173) - left-hand headlight (227) - passenger compartment electric control unit (645)
		LPAV	Fuse on version with EURO 6 engine and WITHOUT AUTOMATIC LIGHTS OR WIPERS: PASSENGER COMPARTMENT ELECTRIC CONTROL UNIT (645) - LEFT-HAND AND RIGHT-HAND HEADLIGHTS (226 - 227)

مربوط به جعبه فیوز و رله داخل اتاق سرنشینان 260

Allocation of fuses (according to equipment level)

No.	Amps	Connection	Description
F13	25A	BP2Q	Fuse on version with automatic lights and wipers: Via energy management electric control unit (2202): Speed limiter/cruise control on/off control (1081) - Electric door locking control (123) - Hazard warning lights control (125) - Rear right-hand and left-hand electric window control (130-131) - Passenger's electric window control (133) - Passenger's electric window control (135) - Headlight adjustment rheostat switch (1390) - Driver's dual rear and front electric window control (1511 - 1512) - Economy mode control (automatic gearbox) (1629) - right-hand and left-hand number plate light (166-167) - Dashboard ambient light (1753) - Stop and Start switch (2099) - radio (261) - Front right-hand and left-hand fog light (176 - 177) - parking distance control switch (1440) - Rear right-hand fog light (174) on right-hand drive version - Rear left-hand fog light (175) on left-hand drive version
	10A	LPD	Fuse on version with engine other than EURO 6 and WITHOUT AUTOMATIC LIGHTS OR WIPERS: rear right-hand side light (172) - Right-hand headlight (226) - Left-hand and right-hand number plate light (166-167) - Parking proximity sensor switch (1440) - Speed limiter and cruise control on/off switch (1081) - Central door locking switch (123) - Hazard warning lights control (125) - Rear right-hand and left-hand electric window control (130-131) - Passenger electric window control (133) - Passenger electric window control (135) - Headlight adjustment rheostat switch (1390) - Driver's dual rear and front electric window controls (1511-1512) - Economy mode control (automatic gearbox) (1629) - Stop and Start switch (2099) - air conditioning control panel (319) - radio (261) - Dashboard ambient lighting (1753)
		LPAR	Fuse on version with EURO 6 engine and WITHOUT AUTOMATIC LIGHTS OR WIPERS: rear right-hand side light (172) - LEFT-HAND REAR LIGHT (173) - Left-hand and right-hand number plate light (166-167) - Parking proximity sensor switch (1440) - Speed limiter and cruise control on/off switch (1081) - Central door locking switch (123) - Hazard warning lights control (125) - Rear right-hand and left-hand electric window control (130-131) - Passenger electric window control (133) - Passenger electric window control (135) - Headlight adjustment rheostat switch (1390) - Driver's dual rear and front electric window controls (1511-1512) - Economy mode control (automatic gearbox) (1629) - Stop and Start switch (2099) - air conditioning control panel (319) - radio (261) - Dashboard ambient lighting (1753) - parking distance control switch (1440)

مربوط به جعبه فیوز و رله داخل اتاق سرنشین 260

No.	Amps	Connection	Description
F14	15A	AP9	Fuse: UCH (645) - Wash/wipe combination switch (145) - Manual gearbox TDC sensor and reversing lights (1109) On automatic gearbox version: reversing light relay control (602) on engine fuse and relay box (597-3) Via reversing light relay (602) on engine fuse and relay box (597-3): - Right-hand reversing light (182) on left-hand drive version - Left-hand reversing light (183) on right-hand drive version
F15	5A	AP23	Fuse: Electric power-assisted steering system (1232) on EURO 6 engine
F16	10A	AP10	Fuse: additional heater 1 and 2 relay control (1067-1068) on board (1067) - parking distance control electronic control unit (1222) - seat belt reminder module (1601) - radio (261) - heated rear screen relay control (235) on passenger compartment fuse and relay box 2 (1531) - Speed limiter and cruise control on/off switch (1081) - Headlight adjustment rheostat switch (1390) - Right-hand and left-hand heated seat controls (1513-1514) - Driver and passenger heated seat supply relay control (1649-1650) - Left-hand and right-hand headlight adjustment motor (537-538) - Variable power-assisted steering relay (302) on board (777) - Shift pattern control (129) on automatic gearbox version
	5A	AP29	Fuse on EURO 6 engine: injection electric control unit (120) - UCH (645) - starter relay control (232) on engine fuse and relay box (597-2) - energy management electric control unit (2202)

مربوط به جعبه فیوز و رله داخل اتاق سرنشین 260

No.	Amps	Connection	Description
F17	10A	AP72	Fuse on version with engine other than EURO 6 and WITHOUT AUTOMATIC LIGHTS OR WIPERS: Front left-hand and right-hand daytime running light (1757 - 1758) via monolever (209)
		AP1	Fuse on EURO 6 engine: via brake light switch (160): rear left-hand and right-hand side light (172 - 173) - high level brake light (639) - Passenger compartment electric control unit (645)
F18	10A	AP1	Fuse on engine other than EURO 6: via brake light switch (160): rear left-hand and right-hand side light (172 - 173) - high level brake light (639) - Passenger compartment electric control unit (645)
	5A	AP22	Fuse on EURO 6 engine: Additional heater relay 1 and 2 (1067-1068) on board (1067) - parking distance control electronic control unit (1222) - seat belt reminder module (1601) - heated rear screen relay control (235) on passenger compartment fuse and relay box 2 (1531) - Speed limiter and cruise control on/off switch (1081) - Headlight adjustment rheostat switch (1390) - Left-hand and right-hand headlight adjustment Motor (537-538)
F19	5A	BPT4	Fuse: Driver and passenger door mirrors (239-240) - electric door mirror control (134)
F20	5A	BPT8	Fuse: anti-lock braking system and ESP electric control unit (1094) – brake light switch (160) On EURO 6 engine: Steering wheel angle sensor (583) - CLUTCH END OF TRAVEL SWITCH (1759) - CLUTCH PEDAL SWITCH (675)

مربوط به جعبه فیوز و رله داخل اتاق سرنشین 260

No.	Amps	Connection	Description
F21	10A	BPT2	Fuse: luggage compartment light (165) - front courtesy light (213) - air conditioning control panel (319) - electric window control relay control (471) - timed non-load shed battery + relay control (1762) on passenger compartment fuse and relay box 2 (1531) - 2nd row courtesy light (2126) - dashboard ambiance light (1753) On climate control version: air conditioning control unit (419) - passenger compartment temperature sensor (1872)
F22	5A	BPT5	Fuse: Steering wheel angle sensor (583) on engine other than EURO 6 - Child safety relay control (750) on passenger compartment fuse and relay box 2 (1531) - Rain/light sensor (1415) - Driving mode control (2376) On version without key: Keyless engine starting and stopping button (1087) - Accesses audible warning unit (WAC) (1920)
F23	15A	BC	Fuse: diagnostic socket (225) - radio (261) - video display (1127) - multimedia keypad (1657)
F24	15A	BP76	Fuse: via UCH (645): supply to fuses (F19-F20-F21-F22) on passenger compartment fuse and relay box (260)
F25	10A	BP77	Fuse on engine other than EURO 6: Hands-free access electric control unit (2003) on version without key - UCH (645) - Telematics electronic control unit (2152)
	15A		Fuse on EURO 6 engine: Hands-free access electric control unit (2003) on version without key - Telematics electronic control unit (2152) - Energy management electric control unit (2202)
F26	15A	BP56	Fuse: via UCH (645): rear left-hand and right-hand side light (172-173) - left-hand and right-hand headlight (226-227) - passenger and driver's electric door mirror (239-240) - hazard warning lights control (125)

مربوط به جعبه فیوز و رله داخل اتاق سرنشین 260

No.	Amps	Connection	Description
F27	20A	BP3	Fuse via UCH (645): Rear right-hand and left-hand door central locking (138-139) - Driver's door central locking (140) - Passenger door central locking (141) - Fuel filler flap locking motor (844) - Tailgate lock (1322)
F28	15A	BP2S	Fuse: Supply to fuses (F1-F2-F3-F4-F15-F16-F17-F18) on passenger compartment fuse and relay box (260-1) via energy management electric control unit (2202)
F29	20A	BP2R	Fuse: Supply to fuse (F32) on passenger compartment fuse and relay box (260) and supply to fuse (F6) on passenger compartment fuse and relay box 2 (1531) via energy management electric control unit (2202)
F30	15A	BP75	Fuse: monolever (209) - alarm warning (1838) - alarm electronic control unit (427) - cruise control and airbag switch (689)
F31	5A	BP69	Fuse: instrument panel (247) - multiplex line interface unit (multiplexing) (1714) - telematics electronic control unit (2152)
F32	15A	SP4G	Fuse: cigarette lighter (101)
F33	7.5A	9P	Fuse: UCH (645) - Rear right-hand fog light (174) on right-hand drive version - Rear left-hand fog light (175) on left-hand drive version

مربوط به جعبه فیوز و رله داخل اتاق سرنشین 260

No.	Amps	Connection	Description
F34	15A	BP1B	Fuse: - Driver's seatback and seat base heated pads (1645 - 1646) via driver's heated seat supply relay (1649) - Passenger seatback and seat base heated pads (1647 - 1648) via passenger's heated seat supply relay (1650)
F35	5A	15RP	Fuse: driver and passenger electric door mirrors (239-240)
F36	20A	BP47	Fuse: towbar pre-equipment
F37	30A	BP2L	Fuse on version with automatic lights and wipers: Windscreen wiper motor (212) via energy management electric control unit (2202)
F38	--	--	Fuse: Not used
F39	30A	AP7	Fuse on version without automatic lights and wiper: Wash/wipe combination switch (145) - Windscreen wiper motor (212) - UCH (645)

Allocation of relays (depending on equipment level)

No.	Amps	Description
A	40A	Relay: after ignition no. 2 relay (752)
B	40A	Relay: accessories relay 1 (1155)

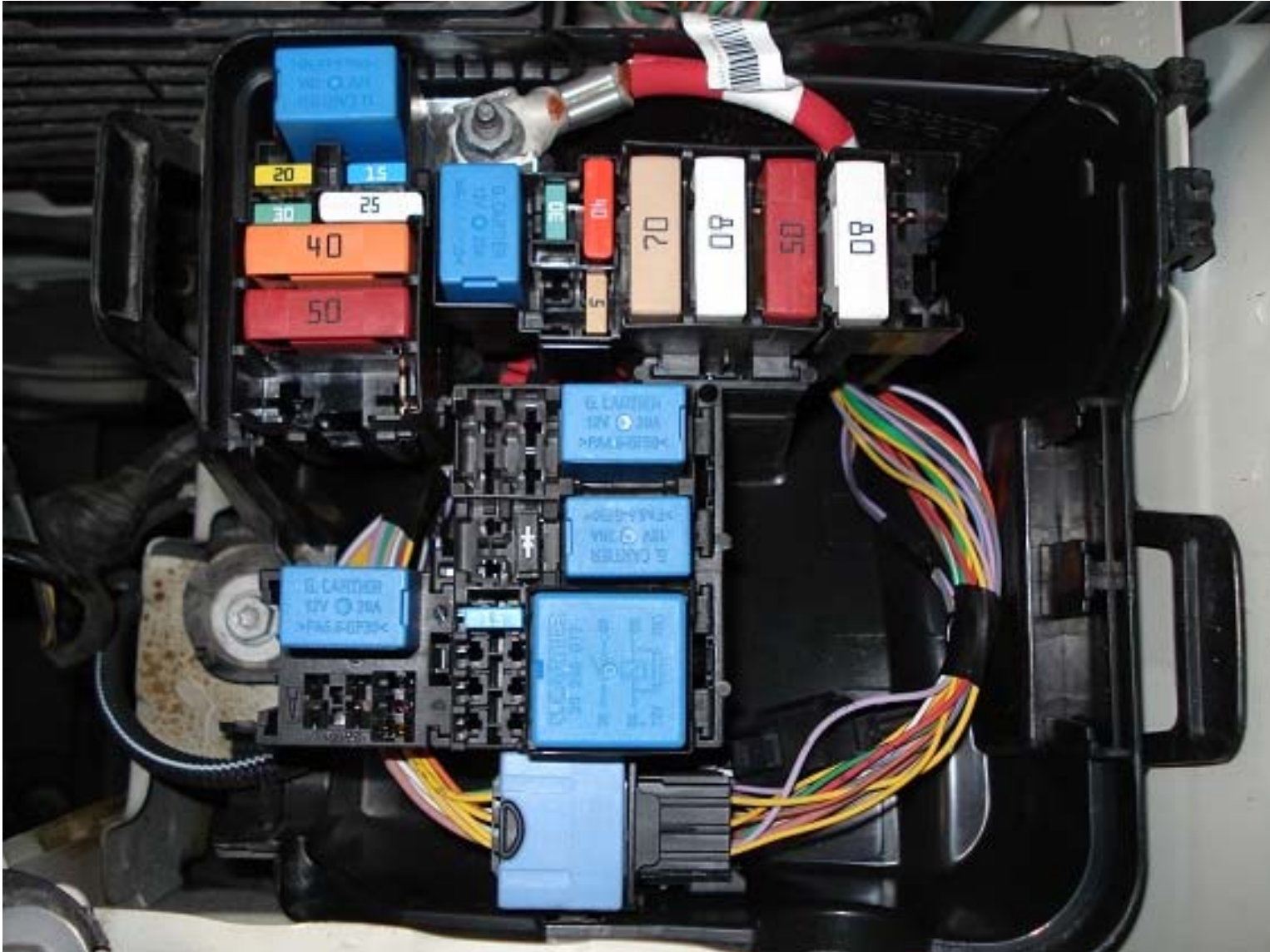
Board (471)

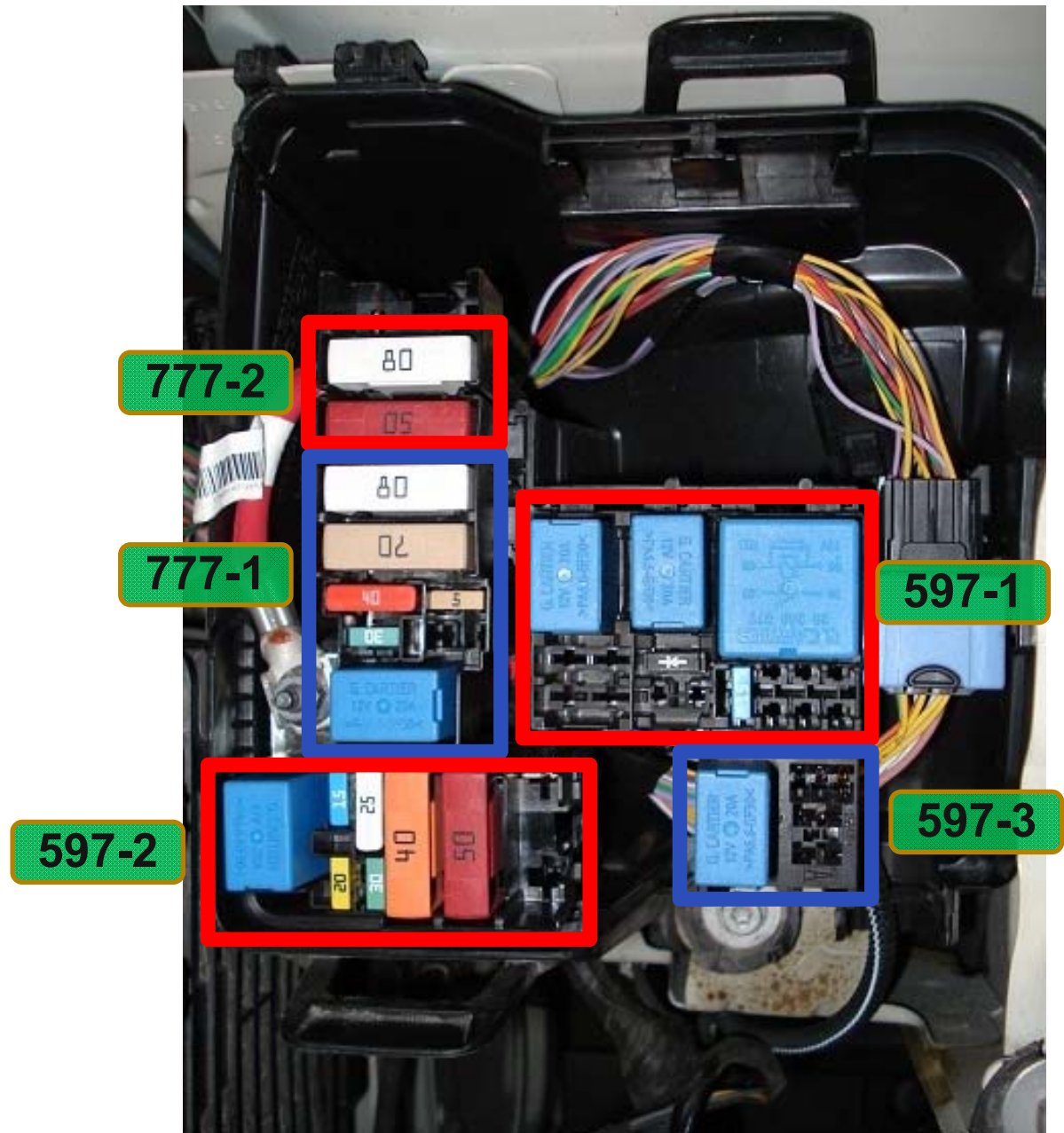
No.	Amps	Description
471	70A	Relay: electric window control

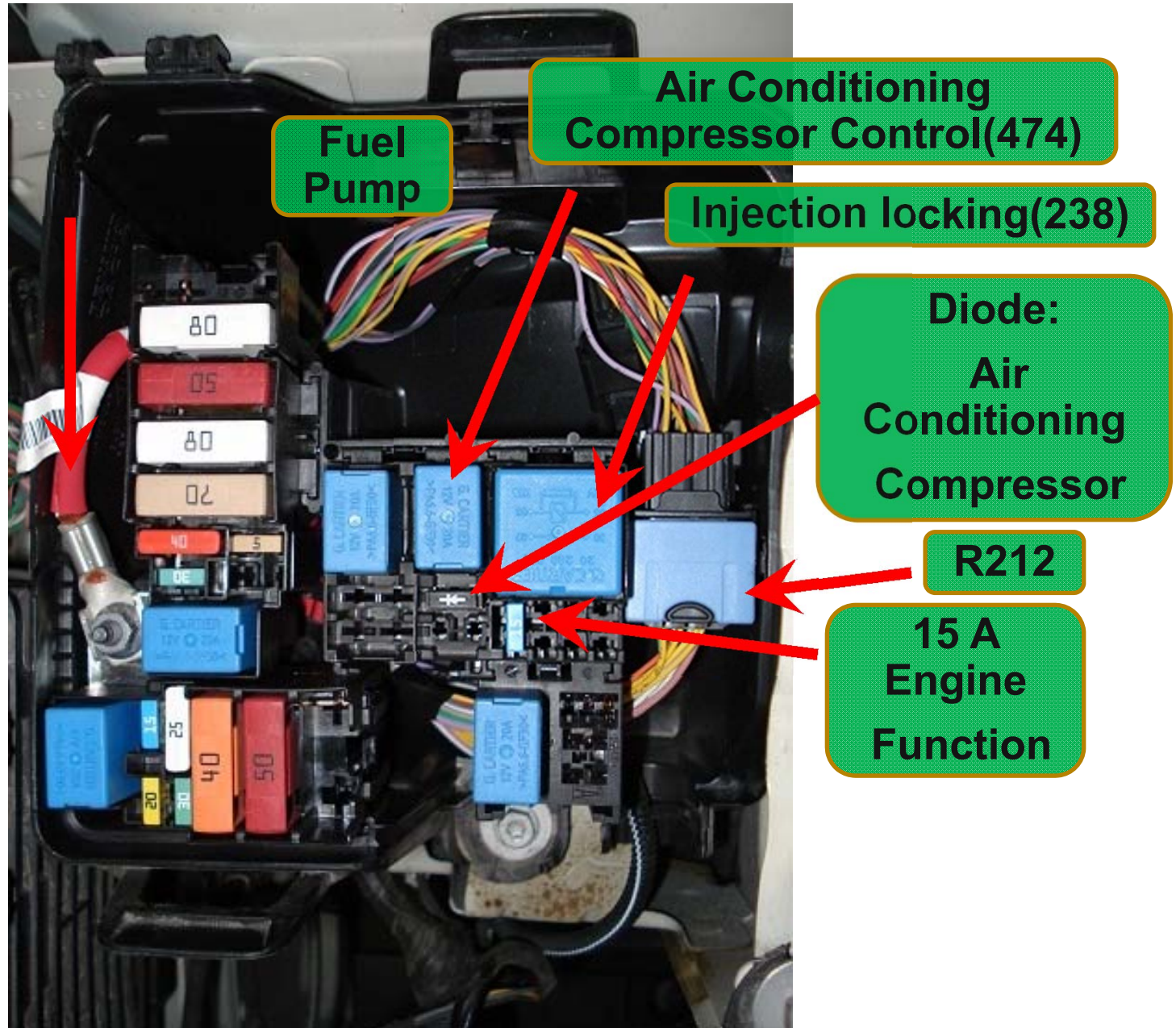
On EURO 6 engine: Board (751)

No.	Amps	Description
A	20A	Relay: AFTER IGNITION RELAY NO. 1 (751)
B	20A	Relay: ACCESSORIES RELAY NO. 2 (1389)

جعبه فیوز و رله داخل اتاق موتور







مربوط به جعبه فیوز و رله داخل اتاق موتور 597-1

597-1

No.	Amps	Connection	Description
D1	--	38R	Diode: air conditioning compressor (171)
D2	--	--	Fuse: Not used
F3	--	--	Fuse: Not used
F4	--	--	Fuse: Not used
F5	15A	3FB1	Fuse: engine functions
F6	--	--	Fuse: Not used
F7	--	--	Fuse: Not used
F8	--	--	Fuse: Not used

Allocation of relays (depending on equipment level)

597-1

No.	Amps	Description
A	40A	Relay: injection locking (238) on petrol version
B	20A	Relay: air conditioning compressor control (474) on air conditioning version
C	20A	Relay: fuel pump (236)

مربوط به جعبه فیوز و رله داخل اتاق موتور 597-2

597-2

No.	Amps	Connection	Description
F1	30A	BP1D	Fuse: starter (163) via starter relay (232) on unit (597-2)
F2	20A	BP4A	Fuse: automatic gearbox electric control unit (119)
F3	15A	BP1G	Fuse on air conditioning version: air conditioning clutch (171) via air conditioning compressor control relay control (474) on unit (597-1) - air conditioning control panel (319) on normal air conditioning version - air conditioning control unit (419) on climate control version - variable cylinder actuator (1150)
F4	25A	BP31	Fuse Via injection locking supply relay (238) on unit (597-1): air conditioning compressor control relay control (474) on unit (597-1) on air conditioning version - supply to F5 fuse on unit (597-1) - injection electric control unit (120) - via fuel pump relay (236) on unit (597-1): fuel pump and sender (833) - transistorised coil 1-2-3-4 (1309-1310-1311-1312)
F5	40A	BP7	Fuse: engine fan assembly control relay unit (1839) on dual speed engine fan assembly version
F6	50A	BP42	Fuse: automatic gearbox electric control unit (119)
F7	--	--	Fuse: not used

مربوط به جعبه فیوز و رله داخل اتاق موتور 597-2 و 597-3

597-2

No.	Amps	Description
A	20A	Relay: starter (232)

Allocation of relays (depending on equipment level)

597-3

No.	Amps	Description
D	20A	Relay: reversing light (602)
E	--	Relay: not used

RENAULT IRAN



DRIVE THE CHANGE



مربوط به جعبه فیوز و رله داخل اتاق موتور 777-1

777-1

No.	Amps	Connection	Description
F1	7.5A or 5A	BP1C	Fuse: Battery current sensor (928) On EURO 6 engine: HANDS-FREE ACCESS ELECTRIC CONTROL UNIT (2003) - PASSENGER COMPARTMENT ELECTRIC CONTROL UNIT (645) On engine other than EURO 6: ENERGY MANAGEMENT ELECTRIC CONTROL UNIT (2202) 7.5A - On EURO 6 engine 5A - On engine other than EURO 6
F2	--	--	Fuse: Not used
F3	30A	BP14	Fuse: anti-lock braking system and electronic stability program electric control unit (1094)
F4	40A	BP15	Fuse: supply to fuse (F34) on passenger compartment fuse and relay box (260) - supply to fuse (F8) on passenger compartment fuse and relay box 2 (1531)
F5	70A	BP11	Fuse: supply to fuses (F5-F10-F23-F24-F25-F26-F27-F36) on passenger compartment fuse and relay box (260) - supply to fuse (F3) on passenger compartment fuse and relay box 2 (1531)

RENAULT IRAN



DRIVE THE CHANGE



مربوط به جعبه فیوز و رله داخل اتاق موتور 777-1

777-1

No.	Amps	Connection	Description
F6	80A	BP13	Fuse: supply to fuses (F6-F12-F13-F28-F29-F30-F31-F37) on passenger compartment fuse and relay box (260) - after-ignition relay control no. 2 (752) on passenger compartment fuse and relay box (260) - supply to fuse (F5) on passenger compartment fuse and relay box 2 (1531) - Via electric window control relay (471): supply to fuses F1 and F2 on passenger compartment fuse and relay box 2 (1531) On engine other than EURO6: Via after-ignition relay no. 2 (752) on passenger compartment fuse and relay box (260): Supply to fuses F14 and F39 on passenger compartment fuse and relay box (260) On EURO 6 engine: AFTER-IGNITION RELAY control no. 1 (751) on board (751) - ACCESSORIES RELAY control No.2 (1389) on board (751) - Via after-ignition relay no. 2 (752) on passenger compartment fuse and relay box (260): Supply to fuses (F1-F2-F14-F39) on passenger compartment fuse and relay box (260) - Via ACCESSORIES RELAY No. 2 (1389) on board (751): Supply to fuse F6 on passenger compartment fuse and relay box 2 (1531) - Supply to fuse F32 on passenger compartment fuse and relay box (260) - Via AFTER IGNITION RELAY No.1 (751) on board (751): Supply to fuses (F3-F4-F15-F16-F17-F18) on passenger compartment fuse and relay box (260)
F7	50A	BP8	Fuse: anti-lock braking system and electronic stability program electric control unit (1094)

مربوط به جعبه فیوز و رله داخل اتاق موتور 777-1 & 777-2

777-2

No.	Amps	Connection	Description
F8	80A	BP81	Fuse: electric power-assisted steering system (1232)
F9	80A	BP91	Fuse: passenger compartment additional heater (1113) via additional heater relays 1 and 2 (1067-1068) on board (1067)

Allocation of relays (depending on equipment level)

777-1

No.	Amps	Description
A	20A	Relay: variable power assisted steering relay (302)

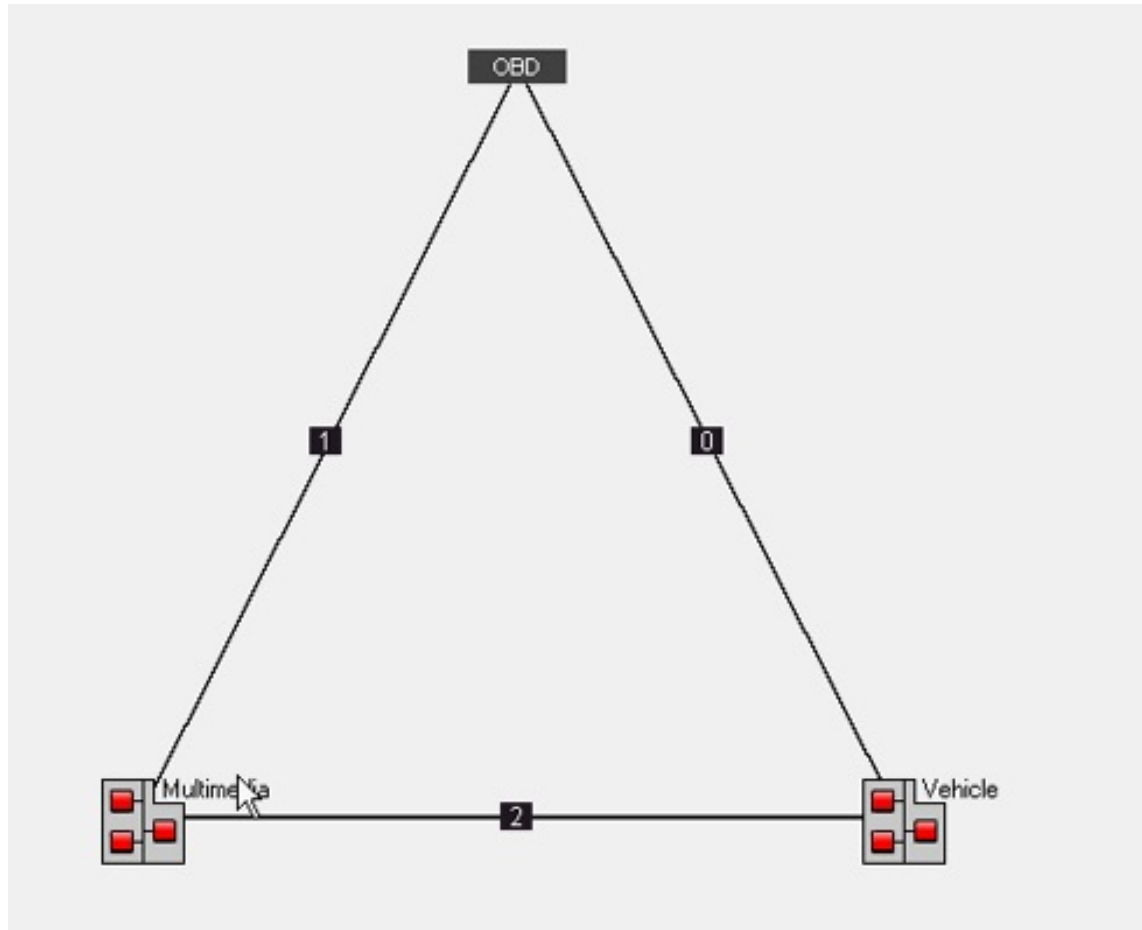
خودرو Captur دارای نوع چیدمان الکتریکی جدیدی می باشد:

این خودرو دارای دو زیر شاخه Multiplex می باشد:

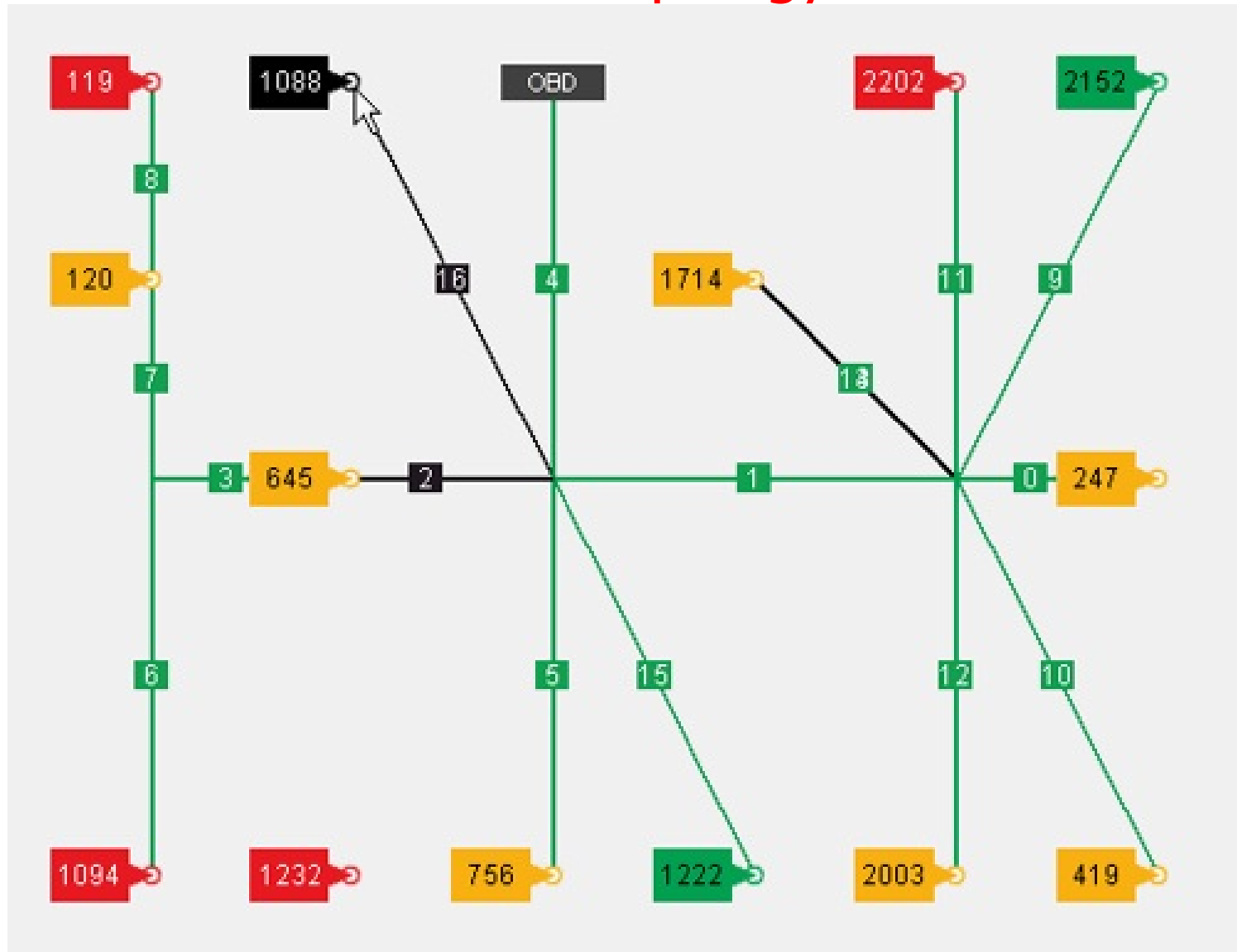
- a vehicle network
- a multimedia network

عیب یابی خودرو Captur بوسیله سیستم Borneo 3 انجام می شود.

ساختار شبکه در خودرو Captur



Vehicle Topology



RENAULT IRAN



DRIVE THE CHANGE



Multimedia Topology

