
GROUP 90

CIRCUIT DIAGRAMS

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CENTRALIZED JUNCTION <VEHICLES FOR RUSSIA>

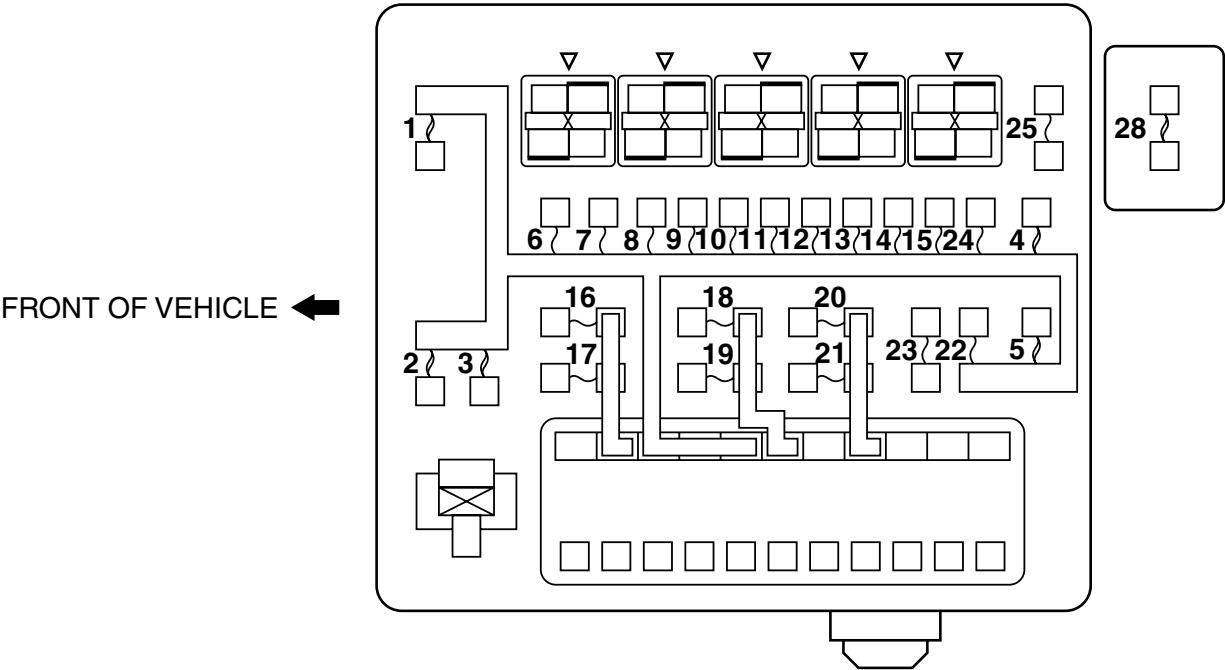
M1901000301819

FUSIBLE LINK AND FUSE**ENGINE COMPARTMENT**

NO.	POWER SUPPLY CIRCUIT	NAME	RATED CAPACITY (A)	HOUSING COLOR	LOAD CIRCUIT
1	Battery/Generator (Fusible link No.27)	Fusible link	80	Black	Fuse Nos.5, 6, 9 and 10 (in junction block) circuit
2			30	Pink	Radiator fan motor
3			60	Yellow	ABS-ECU
4			40	Green	Ignition switch circuit
5			30	Pink	Fuse No.4 (in junction block circuit), front power window regulator motor, power seat assembly, power window main switch and rear power window regulator motor
6		Fuse	15	Blue	Front fog light and front fog light relay
7			20	Yellow	Heated seat assembly and heated seat switch
8			15	Red	Horn (High), horn (Low) and horn relay
9			20	Yellow	Camshaft position sensor, crankshaft position sensor, engine oil control valve, evaporative emission purge solenoid, evaporative emission ventilation solenoid, exhaust gas recirculation valve, heated oxygen sensor, injector, mass airflow sensor, MFI relay, powertrain control module and throttle actuator control motor relay
10			10	Red	A/C compressor assembly and A/C-ECU
11			15	Blue	ABS-ECU, high-mounted stoplight, powertrain control module and rear combination light
12			10	Red	Rear fog light and rear fog light relay
13			7.5	Brown	Generator
14			10	Red	ETACS-ECU
15			20	Yellow	A/T control solenoid valve and powertrain control module
16	Front-ECU (Headlight relay: High)		10	Red	Headlight (RH)
17			10	Red	Headlight (LH)
18	Front-ECU (Headlight relay: Low)		10	Red	Headlight (RH)
19			10	Red	Headlight (LH), headlight leveling switch and headlight leveling unit

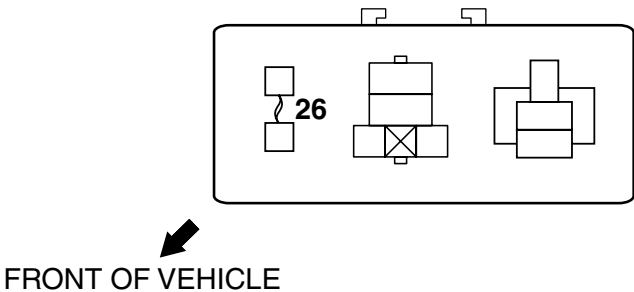
NO.	POWER SUPPLY CIRCUIT	NAME	RATED CAPACITY (A)	HOUSING COLOR	LOAD CIRCUIT
20	Front-ECU (Taillight relay)		7.5	Brown	A/C-ECU, A/T selector lever position illumination light, air bag off indicator light (passenger's side), combination meter, fog light switch, front combination light (RH), front side marker light (RH), glove box light, hazard warning light switch, heated seat switch, multi-center display unit, radio, CD player, CD changer, rear combination light (RH), rheostat and seat belt warning light (passenger's side)
21			7.5	Brown	Front combination light (LH), front side marker light (LH), license plate light and rear combination light (LH)
22	Battery/Generator (Fusible link No.27)		10	Red	A/C-ECU, column switch, combination meter, ETACS-ECU, front-ECU, key reminder switch, multi-center display unit, radio, CD player, CD changer and vanity mirror light
23	Ignition switch (ACC)		10	Red	A/C-ECU, accessory socket relay, ETACS-ECU, multi-center display unit, radio, CD player and CD changer
24	Battery/Generator (Fusible link No.27)		15	Blue	Fuel pump module
25	Ignition switch (ACC)		30	Green	Front-ECU and windshield wiper motor
26	Battery/Generator (Fusible link No.27)	Fusible link	20	Light blue	Condenser fan motor
27	Generator		120	—	Battery, front-ECU, fusible link Nos.1, 2, 3, 4, 5 and 26 and fuse Nos.6, 7, 8, 9, 10, 11, 13, 14, 15, 22 and 24 (in relay box)
28	Battery/Generator (Fusible link No.27)		40	Green	Fuse No.3 (in junction block circuit)

(RELAY BOX IN ENGINE COMPARTMENT)



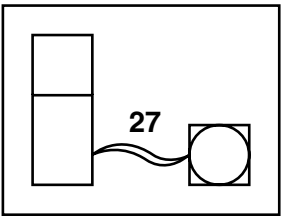
AC509528AB

(RELAY BOX IN ENGINE COMPARTMENT)



AC303418AB

(CONNECTED DIRECTLY TO BATTERY POSITIVE TERMINAL)



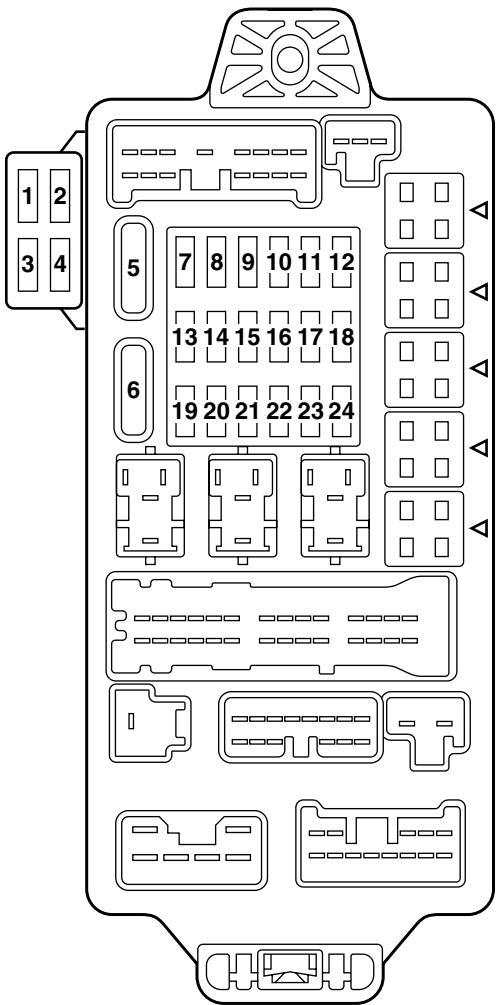
AC207745AG

PASSENGER COMPARTMENT

NO.	POWER SUPPLY CIRCUIT	NAME	RATED CAPACITY (A)	HOUSING COLOR	LOAD CIRCUIT
1	—	Fuse	—	—	—
2	—		—	—	—
3	Fusible link No.28		30	Green	Audio amplifier
4	Fusible link No.5		20	Yellow	Sunroof assembly
5	Fusible link No.1		30	Green	Capacitor and rear window defogger
6			30	Green	Blower motor and resistor
7			—	—	—
8			—	—	—
9			15	Blue	Accessory socket
10			15	Blue	Data link connector and ETACS-ECU
11	Ignition switch (ACC)		15	Blue	ETACS-ECU
12			—	—	—
13	Ignition switch (IG2)		7.5	Brown	Automatic anti-dazzling mirror and sunroof assembly
14	Ignition switch (ACC)		7.5	Brown	Remote controlled mirror
15			—	—	—
16			—	—	—
17	Ignition switch (IG1)		7.5	Brown	Fuel pump relay and powertrain control module
18	Ignition switch (ACC)		—	—	—
19	Fusible link No.1 (Fuse No.5 in junction block)		7.5	Brown	Remote controlled mirror (mirror heater)
20	Ignition switch (IG2)		7.5	Brown	A/C compressor clutch relay, A/C-ECU, blower relay, condenser fan motor, fan control relay, front-ECU, heated seat relay, outside/inside air selection damper control motor, radiator fan relay and rear window defogger relay
21	Ignition switch (IG1)		—	—	—

NO.	POWER SUPPLY CIRCUIT	NAME	RATED CAPACITY (A)	HOUSING COLOR	LOAD CIRCUIT
22			7.5	Brown	A/T control relay, air bag off indicator light (passenger's side), input shaft speed sensor, occupant classification-ECU, output shaft speed sensor, powertrain control module, rear combination light, seat belt warning light (passenger's side) and SRS-ECU
23			7.5	Brown	ABS-ECU, column switch, combination meter, ETACS-ECU, multi-center display unit and SRS-ECU
24			10	Red	Ignition coil

(IN JUNCTION BLOCK)

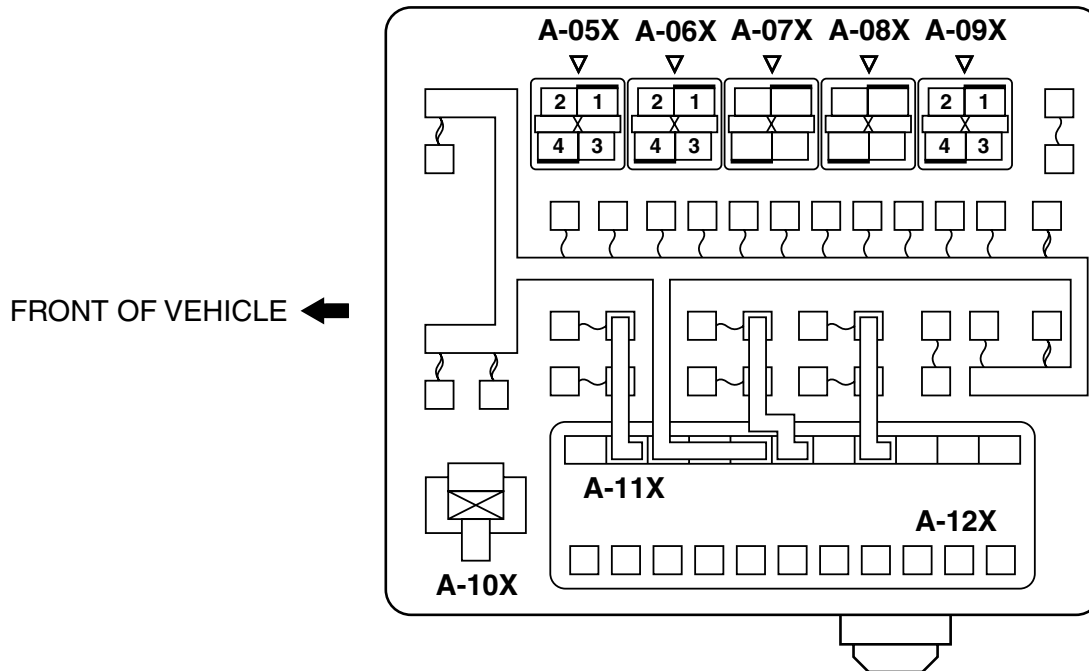


AC401615AB

CENTRALIZED RELAY

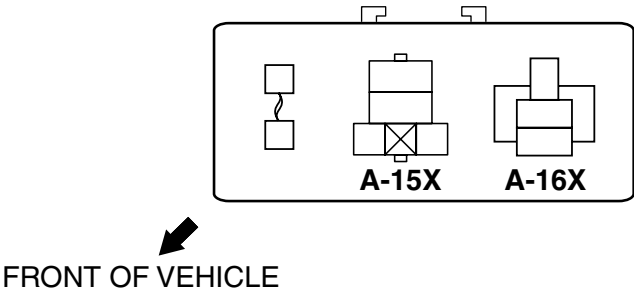
CONNECTOR NO.	NAME	CONNECTOR NO.	NAME
A-05X	Front fog light relay	A-16X	Radiator fan relay
A-06X	Horn relay	B-11X	–
A-07X	–	B-12X	–
A-08X	–	B-13X	–
A-09X	Rear fog light relay	B-14X	Throttle actuator control motor relay
A-10X	Fan control relay	B-15X	–
A-11X	Front-ECU	B-16X	A/T control relay
A-12X	Front-ECU	B-17X	MFI relay
A-15X	Condenser fan relay	B-18X	A/C compressor clutch relay

(RELAY BOX IN ENGINE COMPARTMENT)

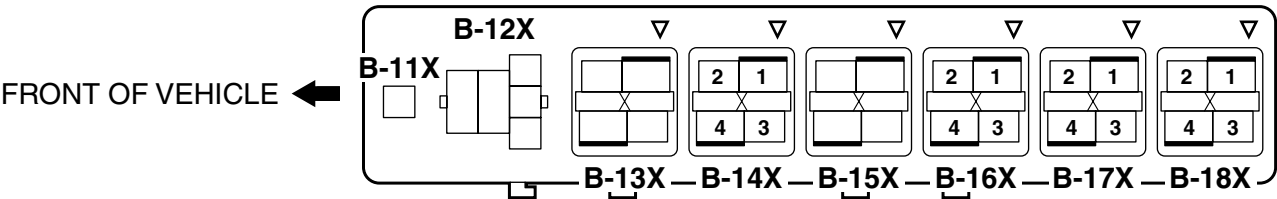


AC208462AH

(RELAY BOX IN ENGINE COMPARTMENT)



AC303418AC

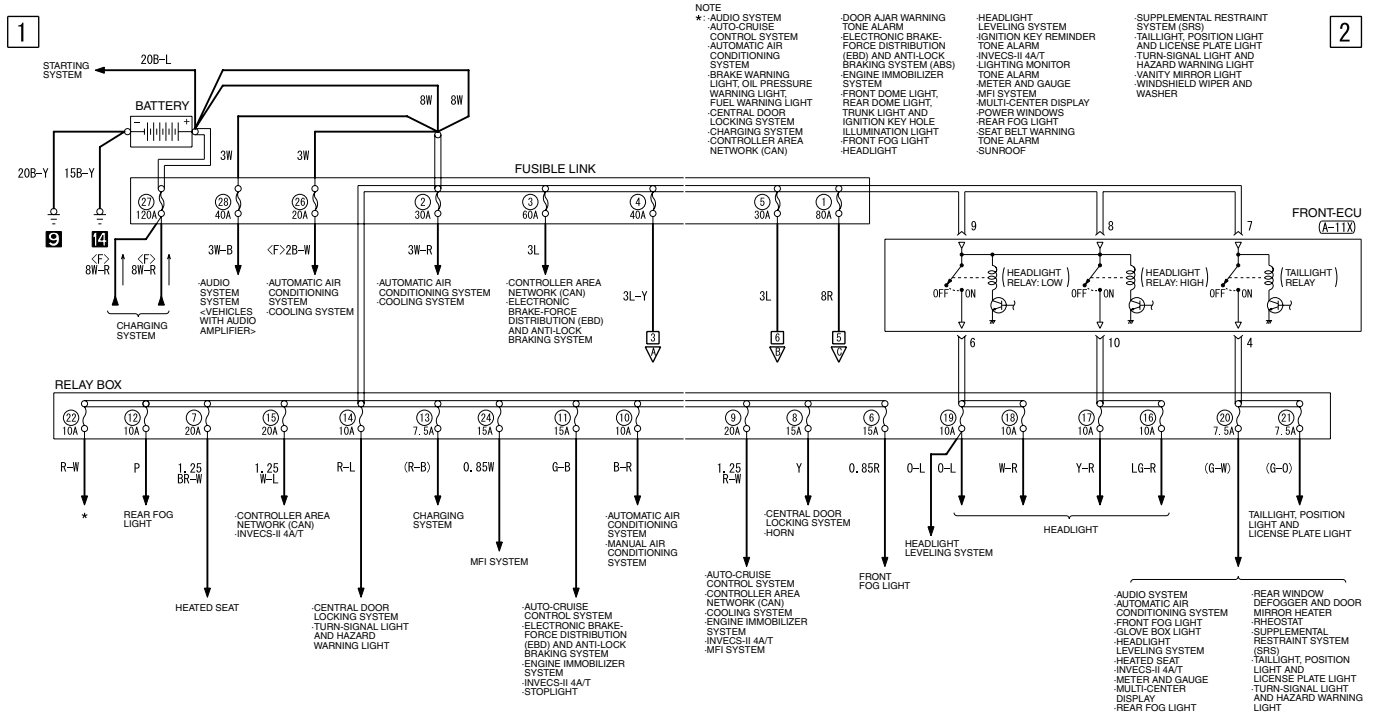


AC208464AL

NOTE: The triangle mark on the relay housing should face that on the relay box.

POWER DISTRIBUTION SYSTEM <VEHICLES FOR RUSSIA>

M1901000402488



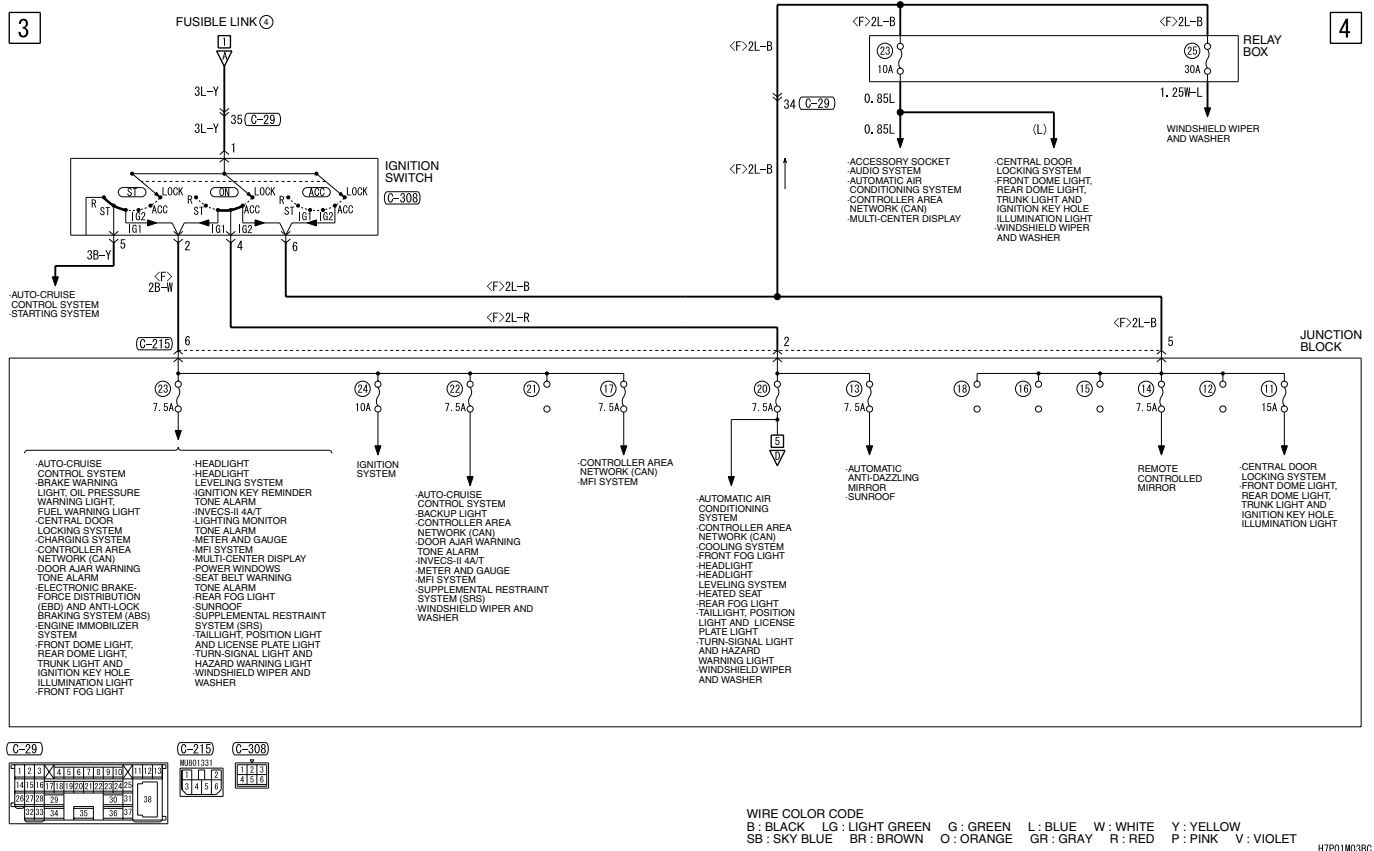
(A-11X)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

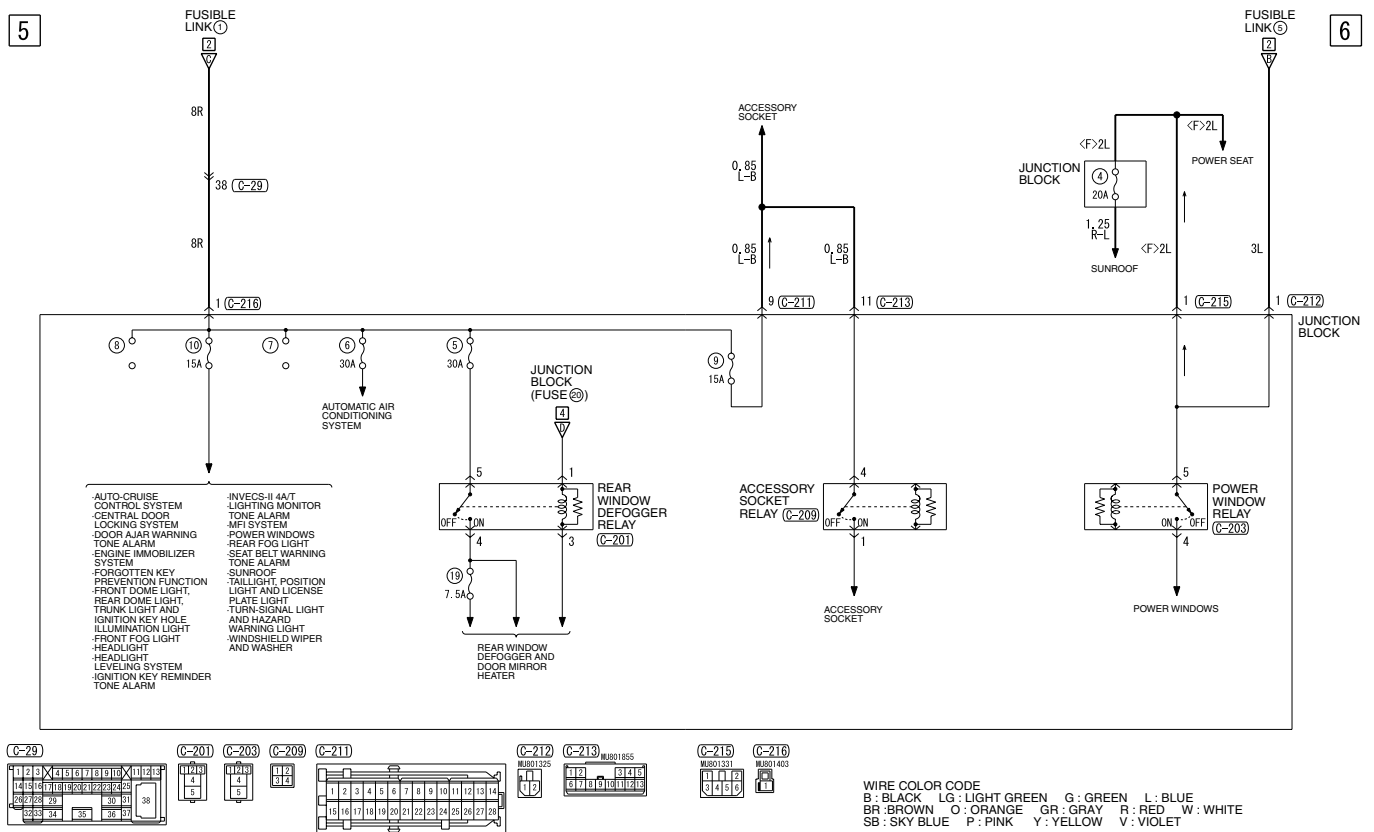
WIRE COLOR CODE
 B : BLACK LG : LIGHT GREEN G : GREEN L : BLUE W : WHITE Y : YELLOW
 SB : SKY BLUE BR : BROWN O : ORANGE GR : GRAY R : RED P : PINK V : VIOLET

H7P01M03AC

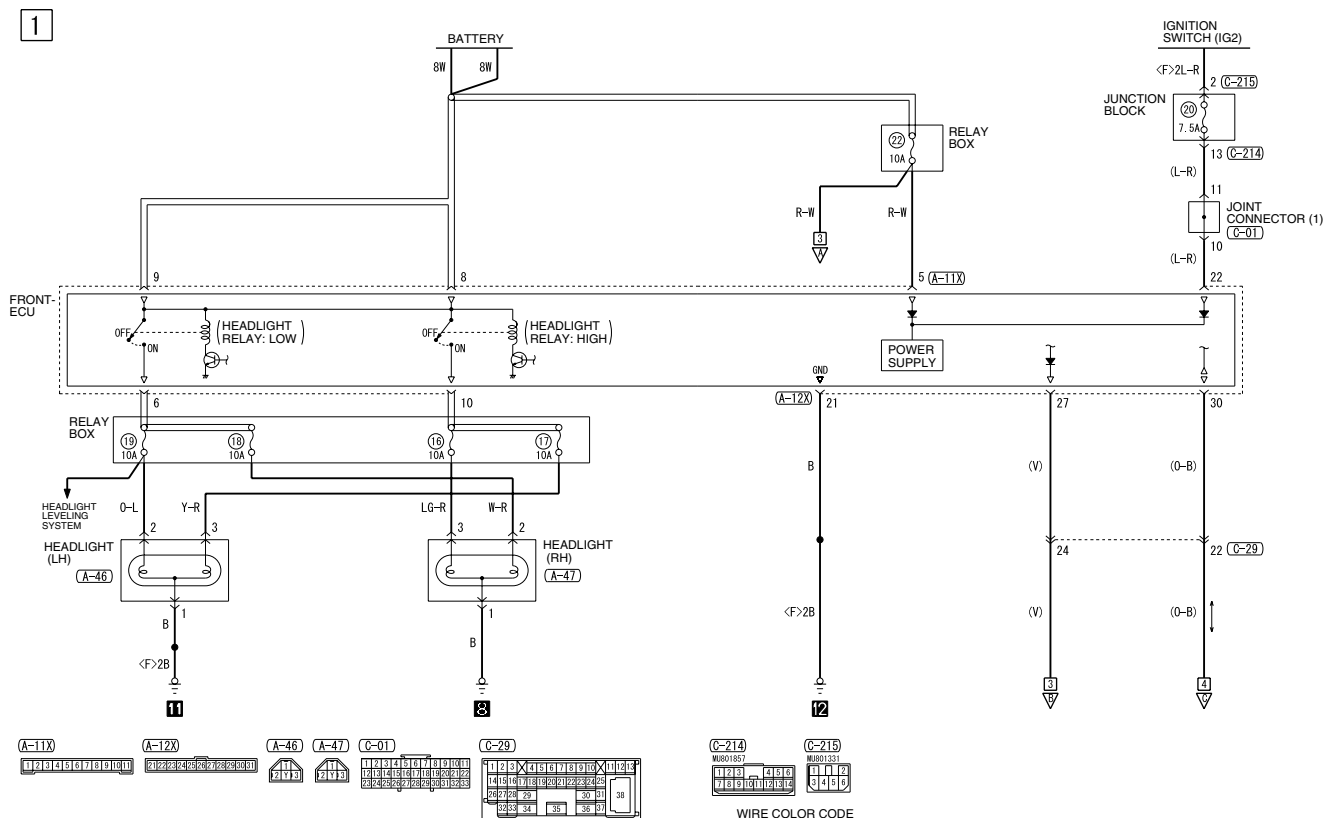
POWER DISTRIBUTION SYSTEM <VEHICLES FOR RUSSIA> (CONTINUED)



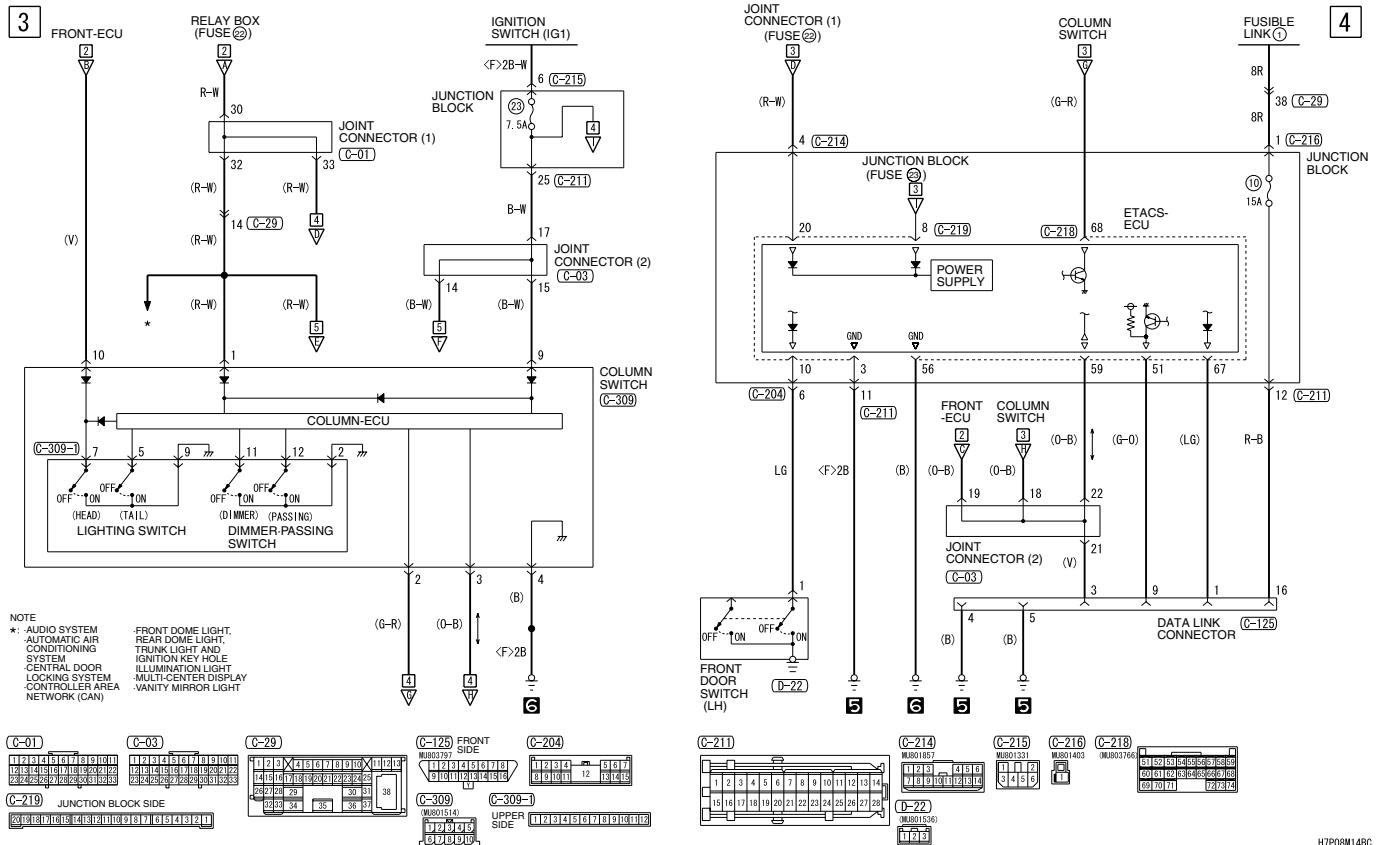
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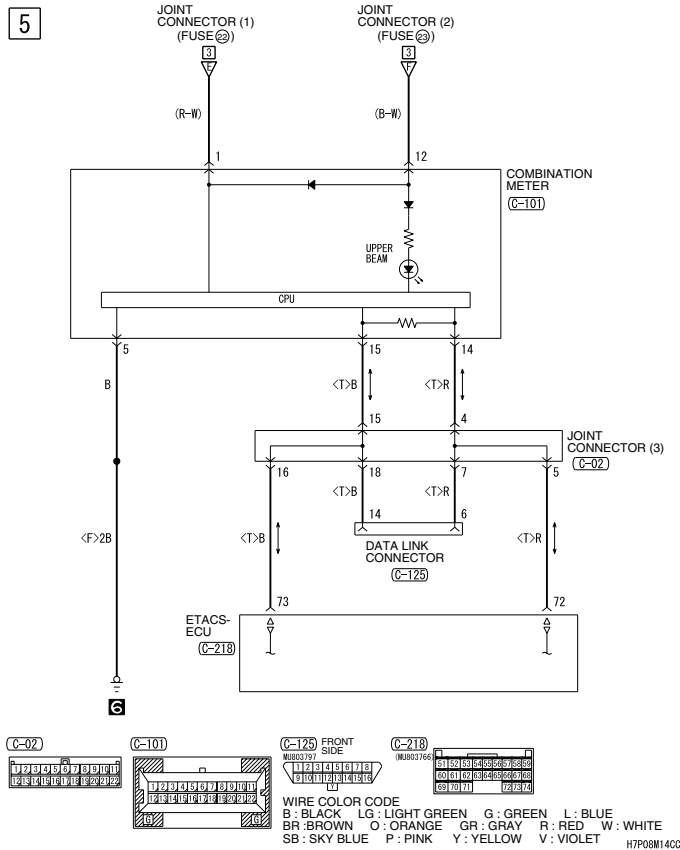
HEADLIGHT <VEHICLES FOR RUSSIA>



HEADLIGHT <VEHICLES FOR RUSSIA> (CONTINUED)



HEADLIGHT <VEHICLES FOR RUSSIA> (CONTINUED)

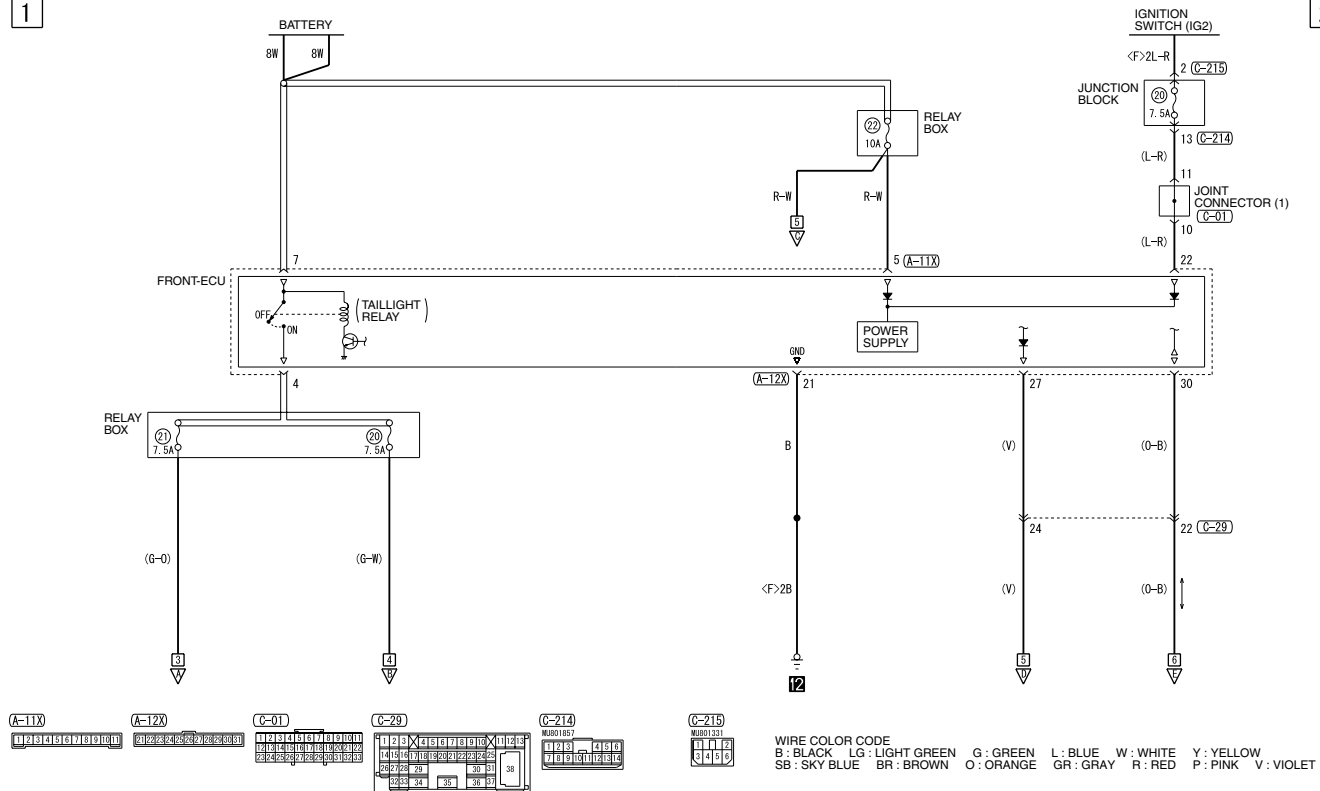


TAILLIGHT, POSITION LIGHT AND LICENSE PLATE LIGHT <VEHICLES FOR RUSSIA>

M1901012600375

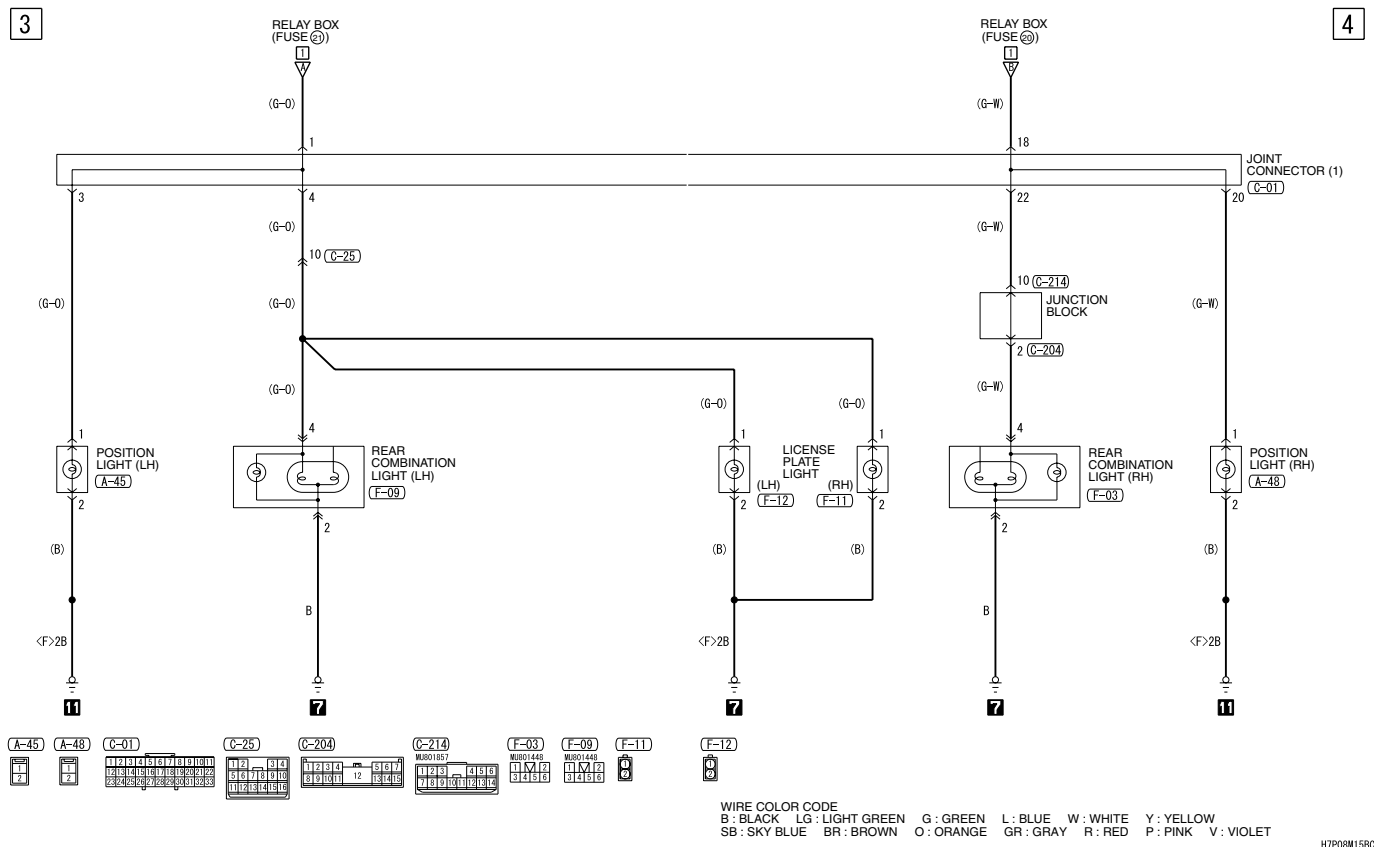
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2

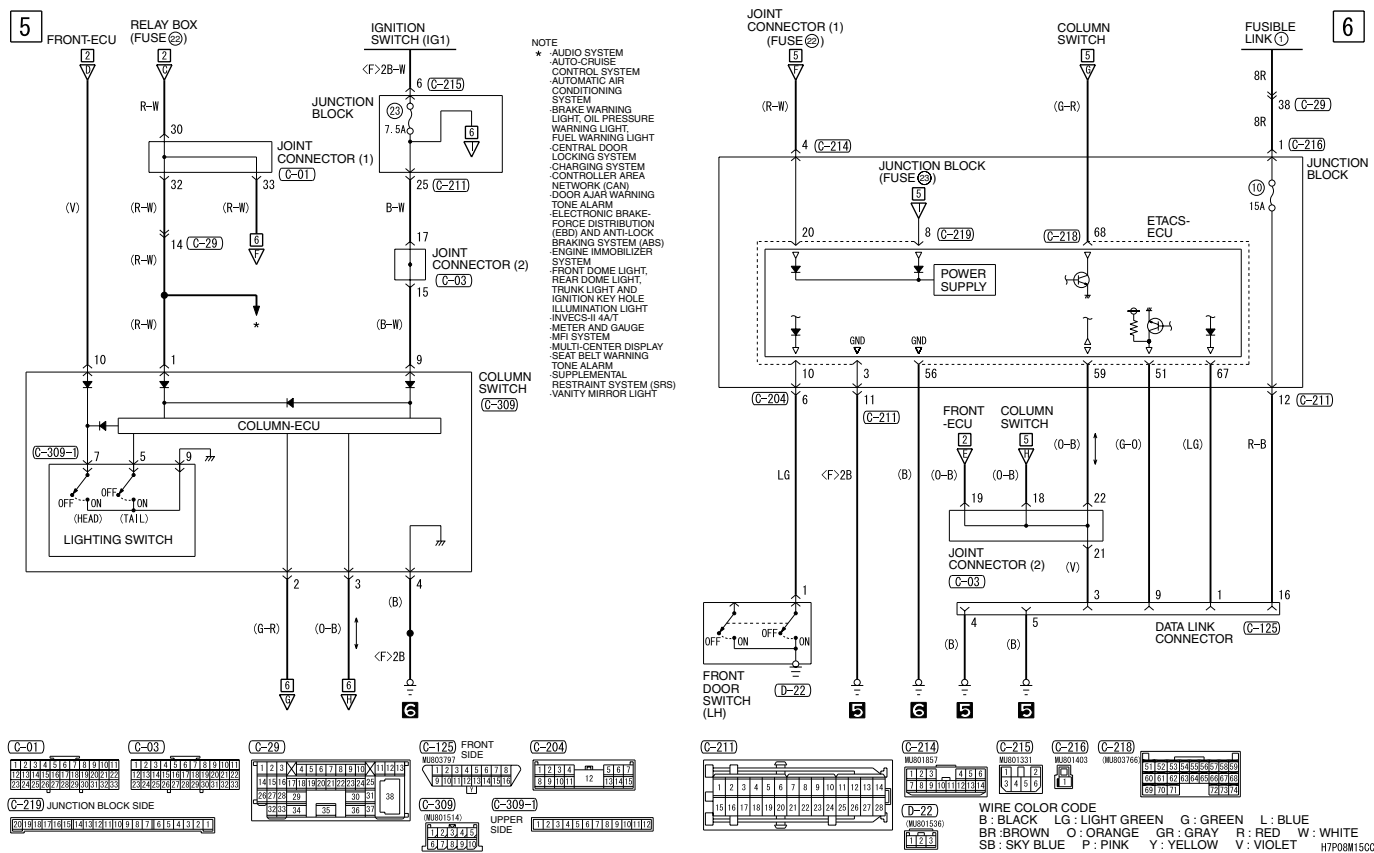


H7P08M15AC

TAILLIGHT, POSITION LIGHT AND LICENSE PLATE LIGHT <VEHICLES FOR RUSSIA> (CONTINUED)



TAILLIGHT, POSITION LIGHT AND LICENSE PLATE LIGHT <VEHICLES FOR RUSSIA> (CONTINUED)



M1901012000823



3 FRONT-ECU

RELAY BOX (FUSE #2)

IGNITION SWITCH (IG1)

JUNCTION BLOCK

JOINT CONNECTOR (1)

JOINT CONNECTOR (2)

COLUMN SWITCH (C-309)

COLUMN-ECU

Lighting Switch

Switch

NOTE

- *: AUDIO SYSTEM
- FRONT DOME LIGHT,
- REAR DOME LIGHT,
- TRUNK LIGHT AND
- SYSTEM
- IGNITION KEY HOLE
- ILLUMINATION LIGHT
- MULTI-CENTER DISPLAY
- CONTROLLER AREA
- NETWORK (CAN)
- SYSTEM
- ILLUMINATION LIGHT
- MULTI-CENTER DISPLAY
- CONTROLLER AREA
- NETWORK (CAN)

WIRE COLOR CODE

BR: BROWN O: ORANGE GR: GRAY R: RED W: WHITE
SB: SKY BLUE P: PINK Y: YELLOW V: VIOLET

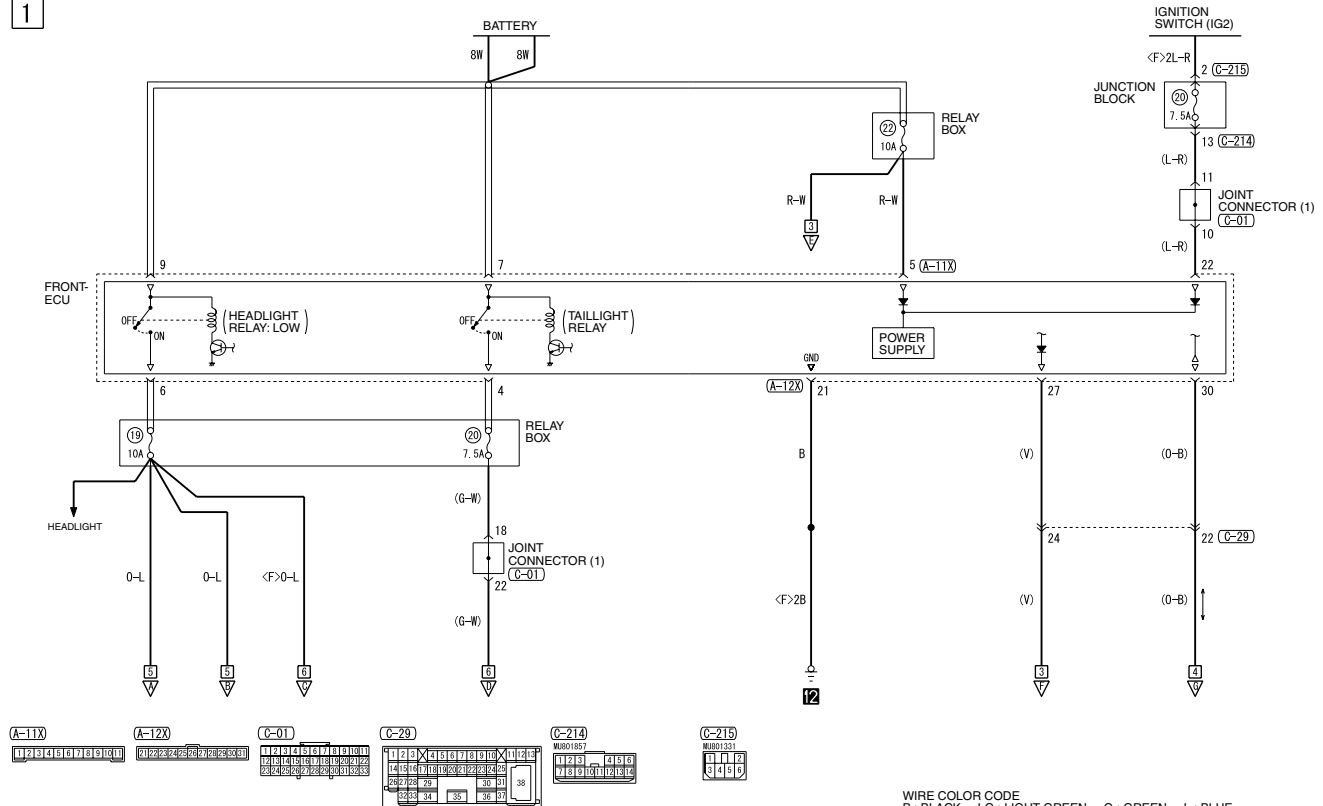
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HEADLIGHT LEVELING SYSTEM <VEHICLES FOR RUSSIA>

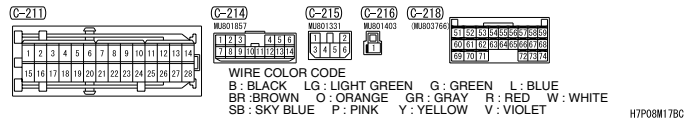
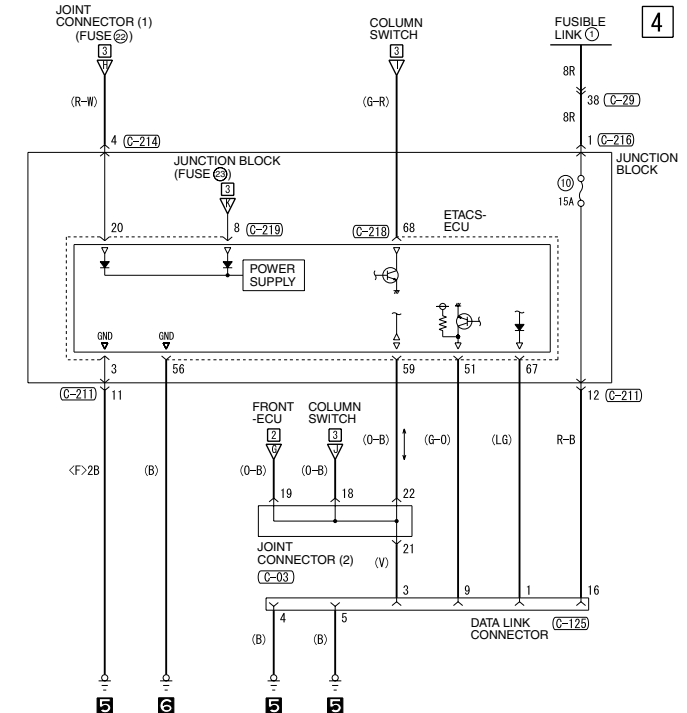
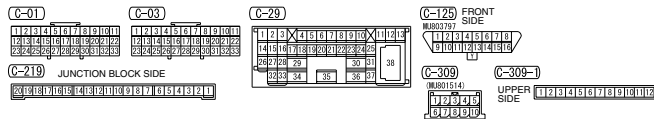
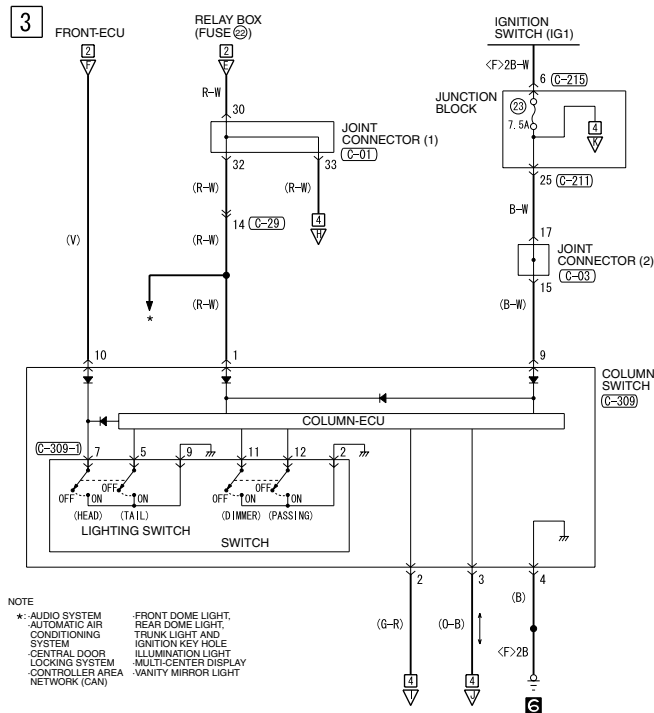
M1901012500981

1

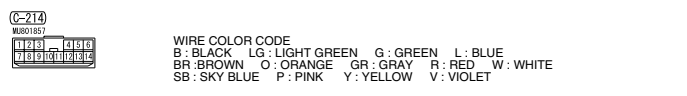
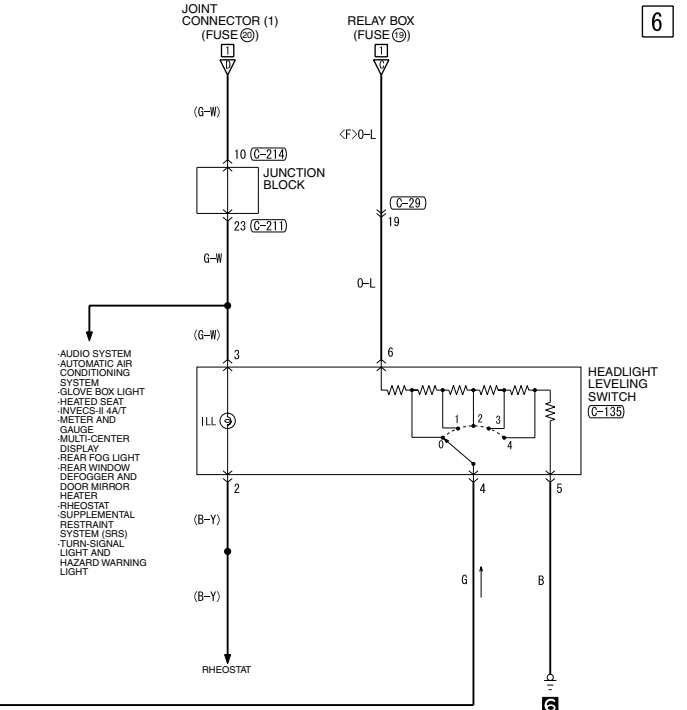
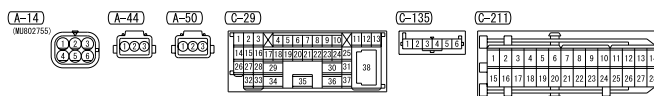
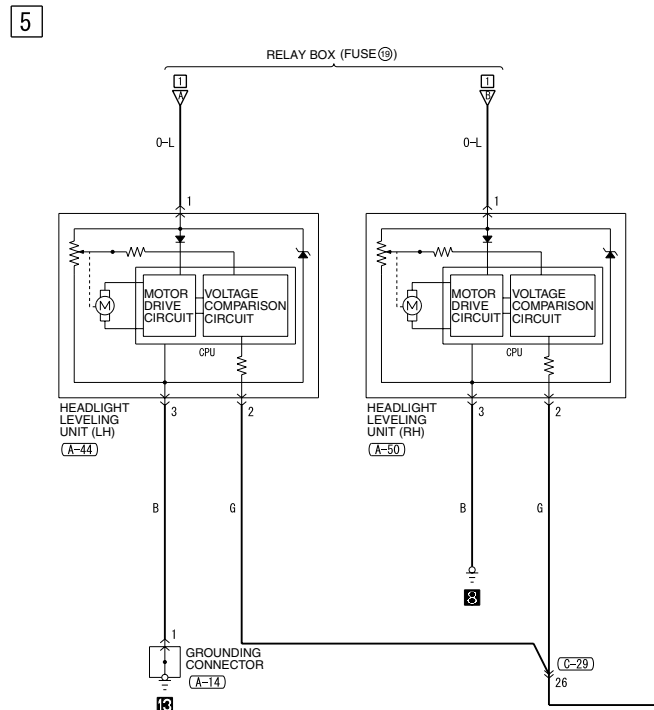
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HEADLIGHT LEVELING SYSTEM <VEHICLES FOR RUSSIA> (CONTINUED)

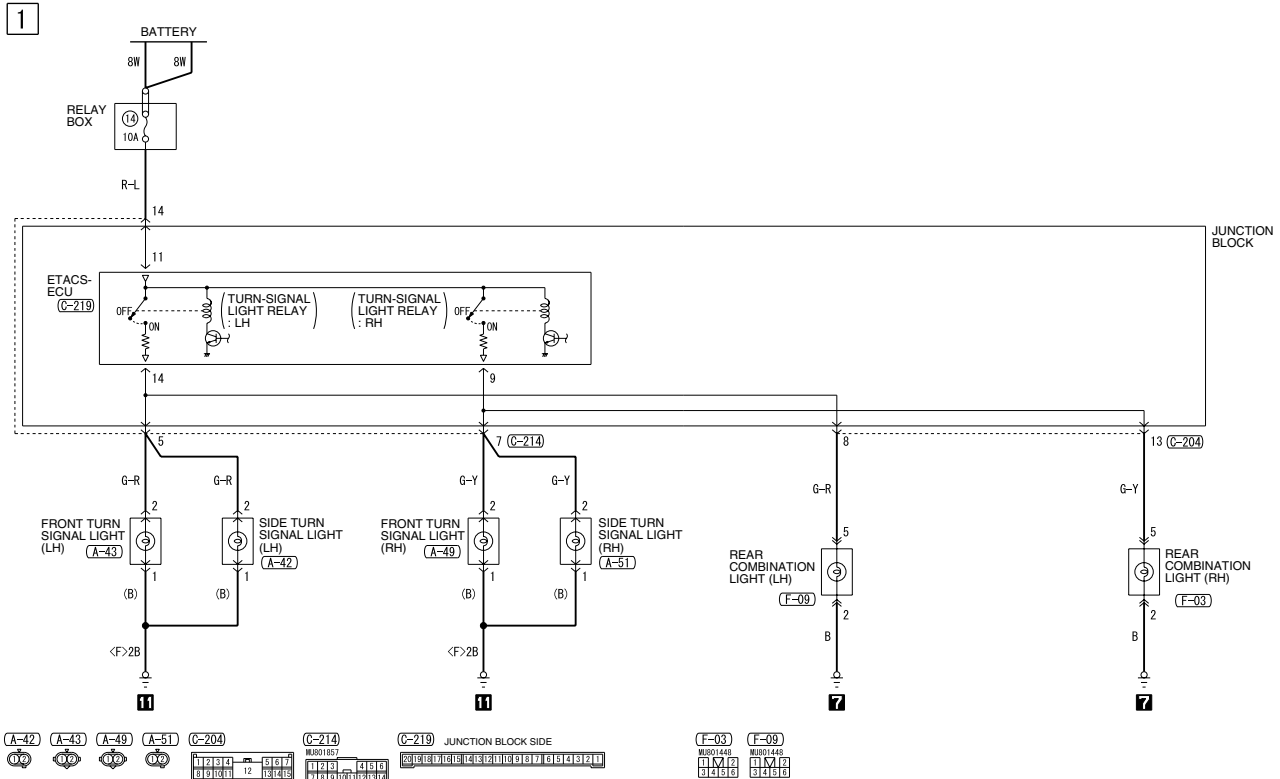


HEADLIGHT LEVELING SYSTEM <VEHICLES FOR RUSSIA> (CONTINUED)



TURN-SIGNAL LIGHT AND HAZARD WARNING LIGHT <VEHICLES FOR RUSSIA>

M1901002902188



3

BATTERY

8W 8W

RELAY BOX

10A

R-W

R-W

4

5 (A-11X)

(TAILLIGHT) RELAY

OFF ON

POWER SUPPLY

GND

21

(A-12X)

B

RELAY BOX

7.5A

(G-W)

18

JOINT CONNECTOR (1)

(C-01)

(G-W)

22

6

IGNITION SWITCH (IG2)

<F>2L-R

2

(C-215)

13

(C-214)

(L-R)

11

JOINT CONNECTOR (1)

(C-01)

(L-R)

10

22

FRONT-ECU

(0-B)

22 (C-29)

7

IGNITION SWITCH (IG1)

<F>2B-W

6 (C-215)

7.5A

25

(C-211)

B-W

17

JOINT CONNECTOR (2)

(C-03)

15

(B-W)

14

(B-W)

9

COLUMN SWITCH

(C-309)

COLUMN-ECU

1

2

3

4

(G-R)

(0-B)

(B)

<F>2B

6

RELAY BOX (FUSE 29)

3

R-W

30

32

14

33

7

5

1

JOINT CONNECTOR (1)

(C-01)

TURN-SIGNAL SWITCH

(C-309-1)

1

3

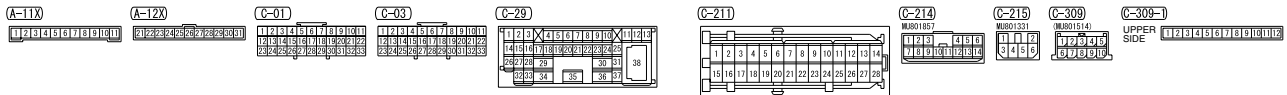
2

OFF ON OFF ON

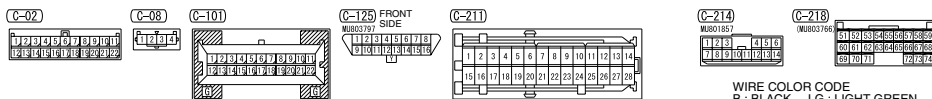
(LH) (RH)

Audio System

- AUDIO SYSTEM
- AUTOMATIC AIR CONDITIONING SYSTEM
- CENTRAL DOOR LOCKING SYSTEM
- CONTROLLER AREA NETWORK (CAN)
- FRONT DOME LIGHT
- REAR DOME LIGHT
- TRUNK LIGHT AND IGNITION KEY HOLE ILLUMINATION LIGHT
- MULTI-CENTER DISPLAY
- VANITY MIRROR LIGHT



The left diagram illustrates the ETACS-ECU (C-218) connected to the CPU (C-101) via a combination meter (C-101) and joint connectors (1, 2, 3). The right diagram illustrates the ETACS-ECU (C-218) connected to the ILL (C-211) via a junction block and joint connectors (1, 2, 3).



H7P09M09CC

The diagram illustrates the electrical connections for the ETACS-ECU. Key components and their connections include:

- Power Supply:** Connected to the ETACS-ECU via a junction block (FUSE 2) and a joint connector (1) (FUSE 2).
- Grounding:** Multiple ground points are shown, including GND, (R-W), (G-R), (G-Y), (O-B), (V), (B), and (G-O).
- ETACS-ECU:** The central unit with various input and output pins.
- Front ECU:** Connected to the ETACS-ECU via a joint connector (2) (C-03).
- Column Switch:** Connected to the ETACS-ECU via a joint connector (2) (C-03).
- Joint Connector (1) (FUSE 2):** Connects the power supply to the ETACS-ECU.
- Joint Connector (2) (C-03):** Connects the Front ECU and Column Switch to the ETACS-ECU.
- Junction Block:** Connects the power supply to the ETACS-ECU.
- ETACS-ECU:** The central unit with various input and output pins.
- Front ECU:** Connected to the ETACS-ECU via a joint connector (2) (C-03).
- Column Switch:** Connected to the ETACS-ECU via a joint connector (2) (C-03).
- Joint Connector (1) (FUSE 2):** Connects the power supply to the ETACS-ECU.
- Joint Connector (2) (C-03):** Connects the Front ECU and Column Switch to the ETACS-ECU.
- Junction Block:** Connects the power supply to the ETACS-ECU.

The diagram also includes several tables for component identification and wiring details:

(C-03)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-29)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-125) FRONT SIDE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-211)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-214)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-216)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-218)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-219)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-215) DATA LINK CONNECTOR

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-216) DATA LINK CONNECTOR

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-218) DATA LINK CONNECTOR

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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(C-219) DATA LINK CONNECTOR

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

(C-215) DATA LINK CONNECTOR

1	2	3	4	5	6	7	8
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CENTRAL DOOR LOCKING SYSTEM <VEHICLES FOR RUSSIA>

[illegible]

3



234

B: BLACK LG: LIGHT GREEN G: GREEN L: BLUE W: WHITE Y: YELLOW
SB: SKY BLUE BR: BROWN O: ORANGE GR: GRAY R: RED P: PINK V: VIOLET

5



53	56	57	58	59
64	65	66	67	68
		72	73	74

D-37
WJ801685


B: BLACK LG: LIGHT GREEN G: GREEN L: BLUE
 BR: BROWN O: ORANGE GR: GRAY R: RED W: WHITE
 SB: SKY BLUE P: PINK Y: YELLOW V: VIOLET

7

BATTERY

RELAY BOX

R-L

ETACS-ECU (C-219)

(TURN-SIGNAL LIGHT RELAY : LH)

(TURN-SIGNAL LIGHT RELAY : RH)

RECEIVER

JUNCTION BLOCK

TRANSMITTER

CONTROL CIRCUIT

UNLOCK OFF ON

LOCK OFF ON

TRUNK OFF ON

FRONT TURN SIGNAL LIGHT (LH) (A-43)

SIDE TURN SIGNAL LIGHT (LH) (A-42)

FRONT TURN SIGNAL LIGHT (RH) (A-49)

SIDE TURN SIGNAL LIGHT (RH) (A-51)

REAR COMBINATION LIGHT (LH) (F-09)

REAR COMBINATION LIGHT (RH) (F-03)

WIRE COLOR CODE

B: BLACK LG: LIGHT GREEN G: GREEN L: BLUE
W: WHITE Y: YELLOW SB: SKY BLUE BR: BROWN
O: ORANGE GR: GRAY R: RED P: PINK V: VIOLET

H7P11M06DC

The diagram illustrates the electrical connections for the ETACS-ECU. Key components and their connections include:

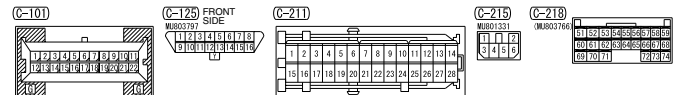
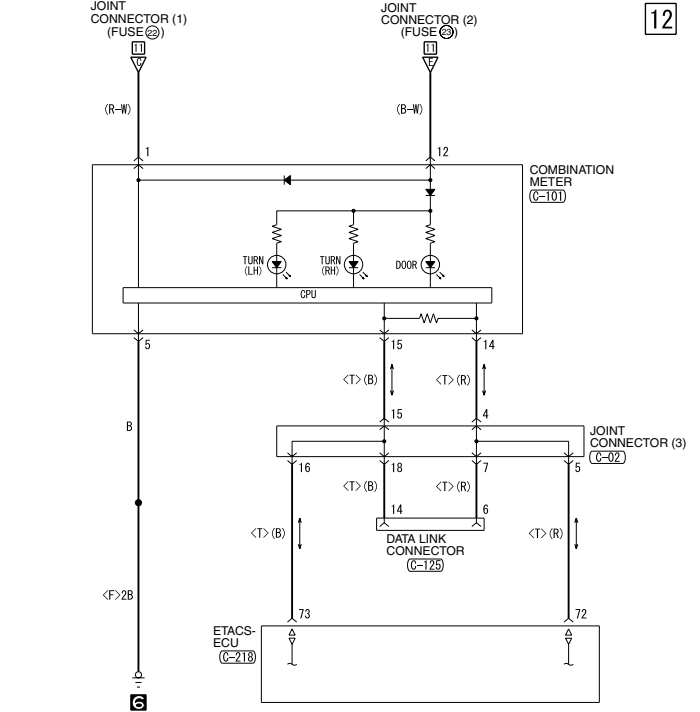
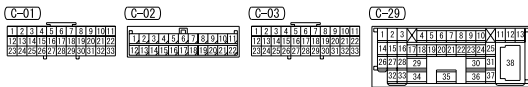
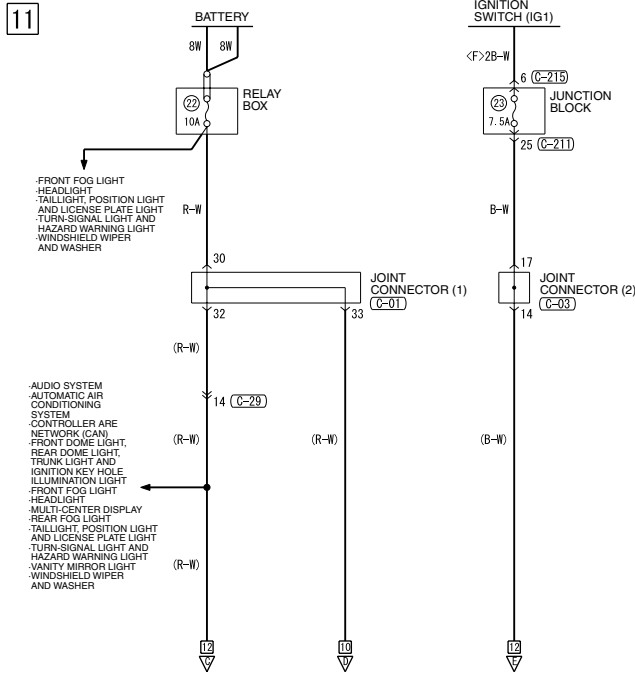
- WINDSHIELD WIPER AND WASHER:** Connected to the <F>2L-B line.
- AUDIO SYSTEM, AUTOMATIC AIR CONDITIONING SYSTEM, CONTROLLER, AREA NETWORK (CAN), MULTI-CENTER DISPLAY:** Connected to the <F>2L-B line.
- RELAY BOX:** Contains a 0.85L relay connected to the <F>2L-B line.
- IGNITION SWITCH (ACC):** Connected to the <F>2L-B line.
- IGNITION SWITCH (IG1):** Connected to the <F>2B-W line.
- JOINT CONNECTOR (FUSE ②):** Connected to the <F>2B-W line.
- FUSIBLE LINK ①:** Connected to the <F>2B-W line.
- ETACS-ECU:** The central control unit, containing a CPU, POWER SUPPLY, CURRENT DETECTION, and KEEP RELAY.
- DATA LINK CONNECTOR (C-125):** Connected to the ETACS-ECU.
- CONNECTORS:** C-29, C-125 (FRONT SIDE), C-205, C-211, C-214, C-215, C-216, C-218, C-219 (JUNCTION BLOCK SIDE).

WIRE COLOR CODE:

B: BLACK LG: LIGHT GREEN G: GREEN L: BLUE W: WHITE Y: YELLOW
 SB: SKY BLUE BR: BROWN O: ORANGE GR: GRAY R: RED P: PINK V: VIOLET

H7P11M06EC

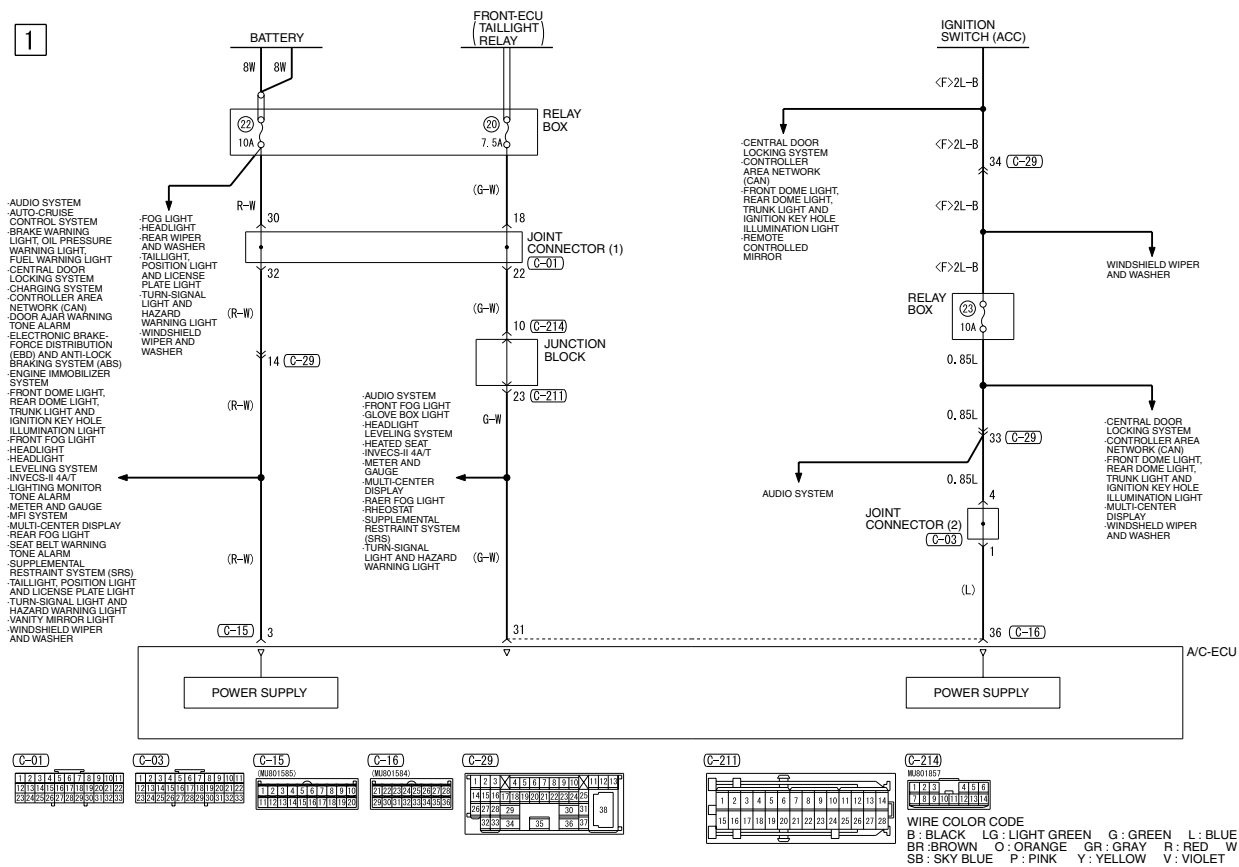
CENTRAL DOOR LOCKING SYSTEM <VEHICLES FOR RUSSIA> (CONTINUED)



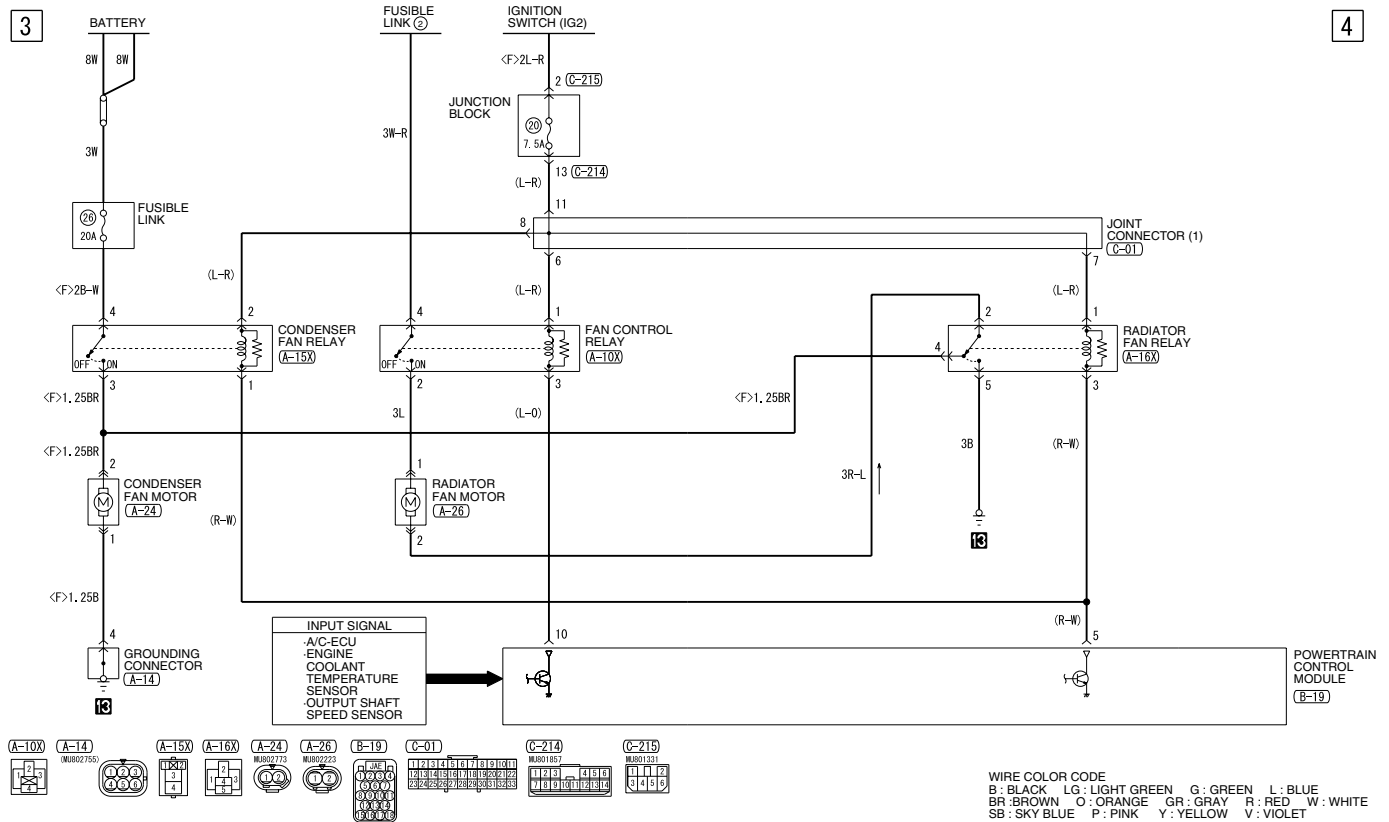
H7P11M06FC

AUTOMATIC AIR CONDITIONING SYSTEM <VEHICLES FOR RUSSIA>

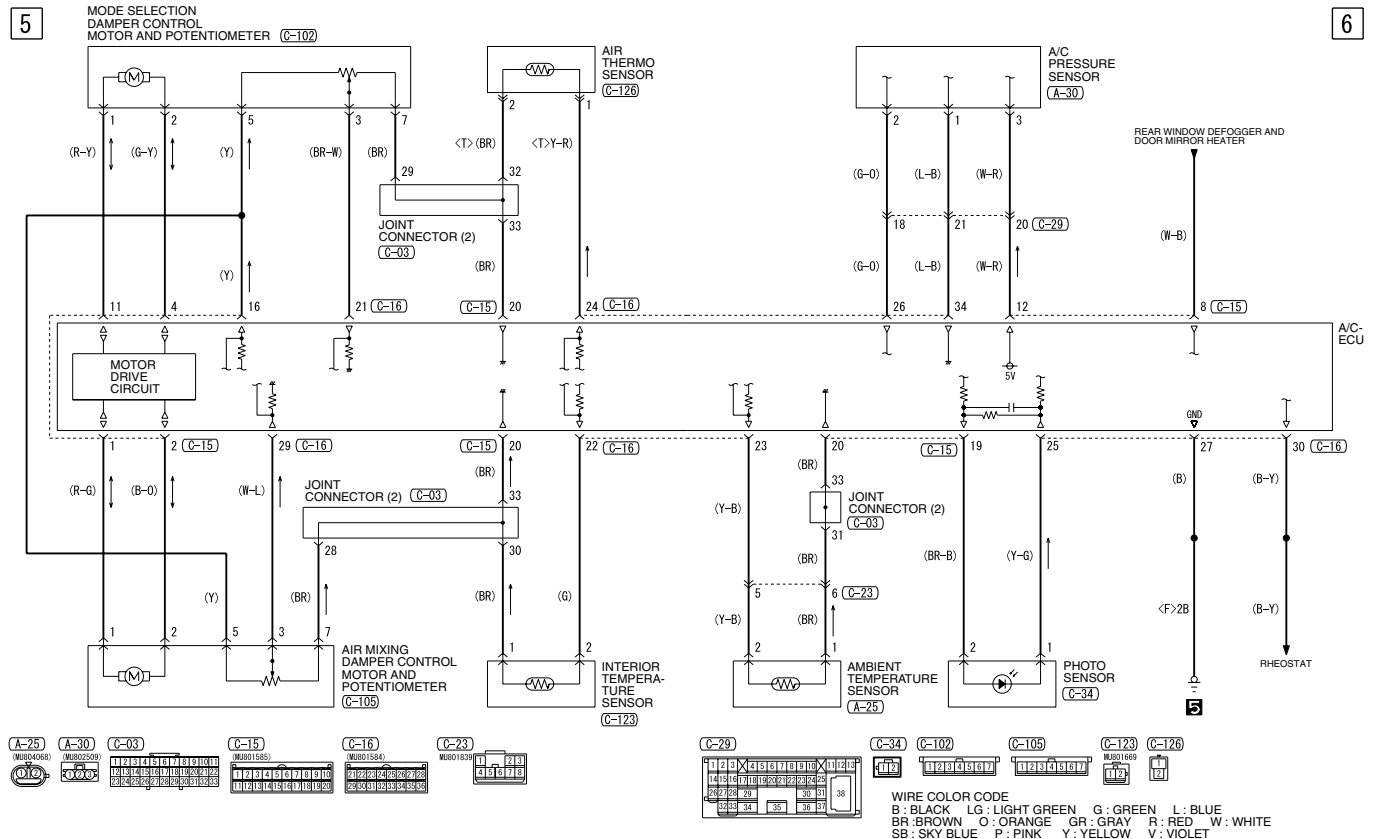
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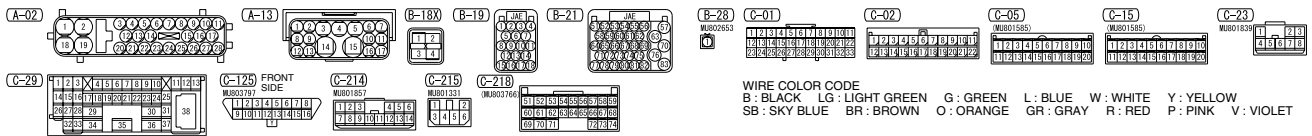
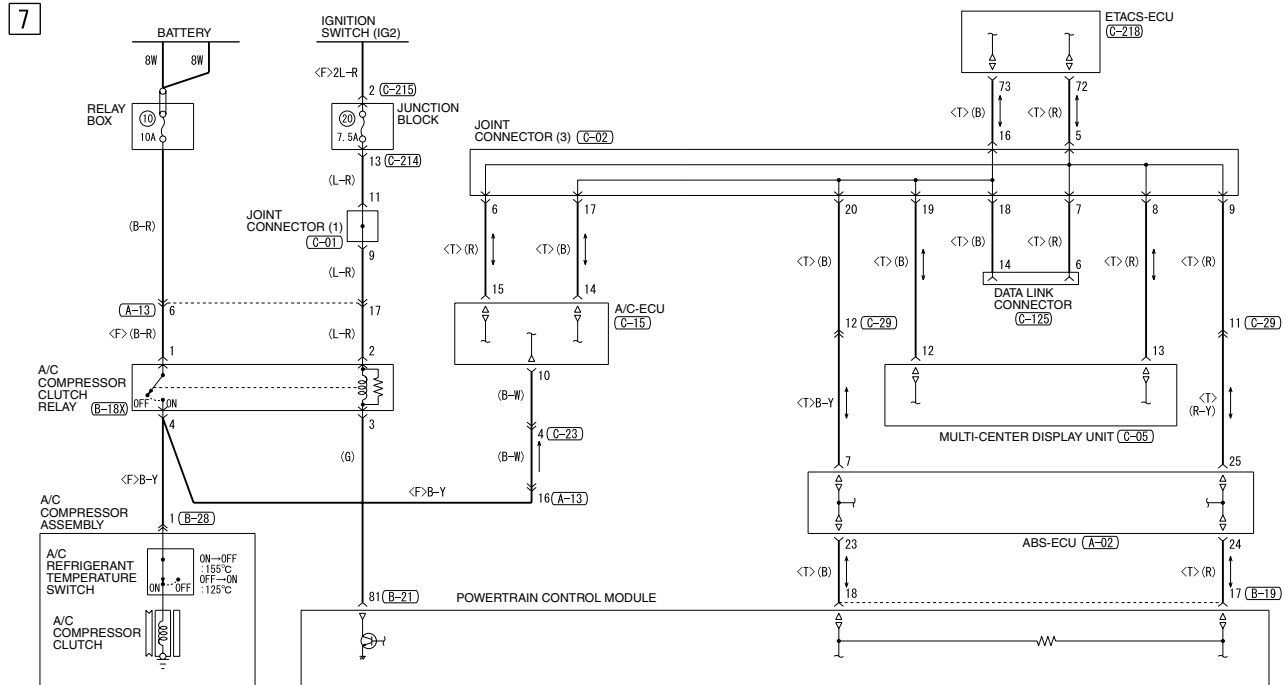
AUTOMATIC AIR CONDITIONING SYSTEM <VEHICLES FOR RUSSIA> (CONTINUED)



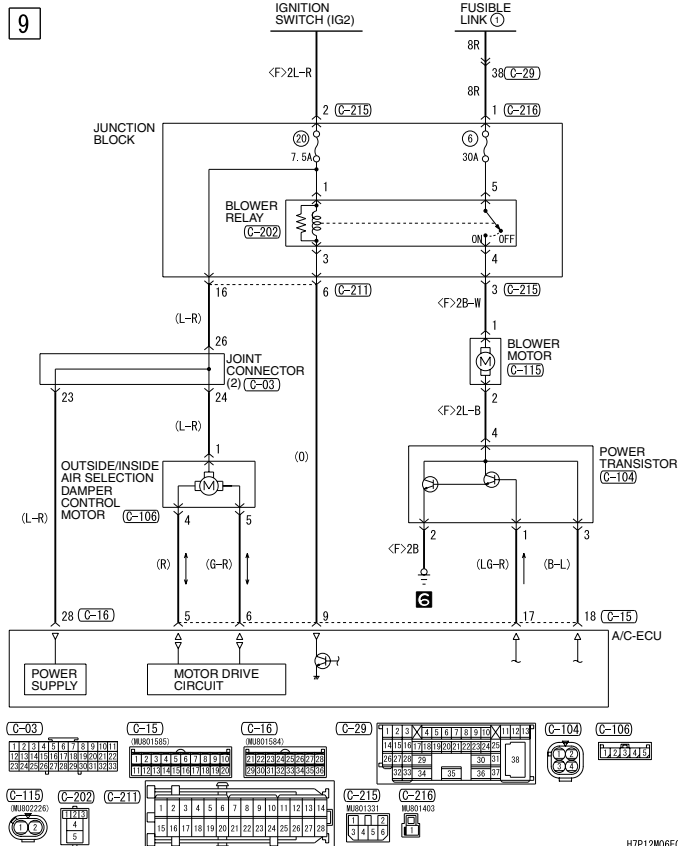
AUTOMATIC AIR CONDITIONING SYSTEM <VEHICLES FOR RUSSIA> (CONTINUED)



AUTOMATIC AIR CONDITIONING SYSTEM <VEHICLES FOR RUSSIA> (CONTINUED)



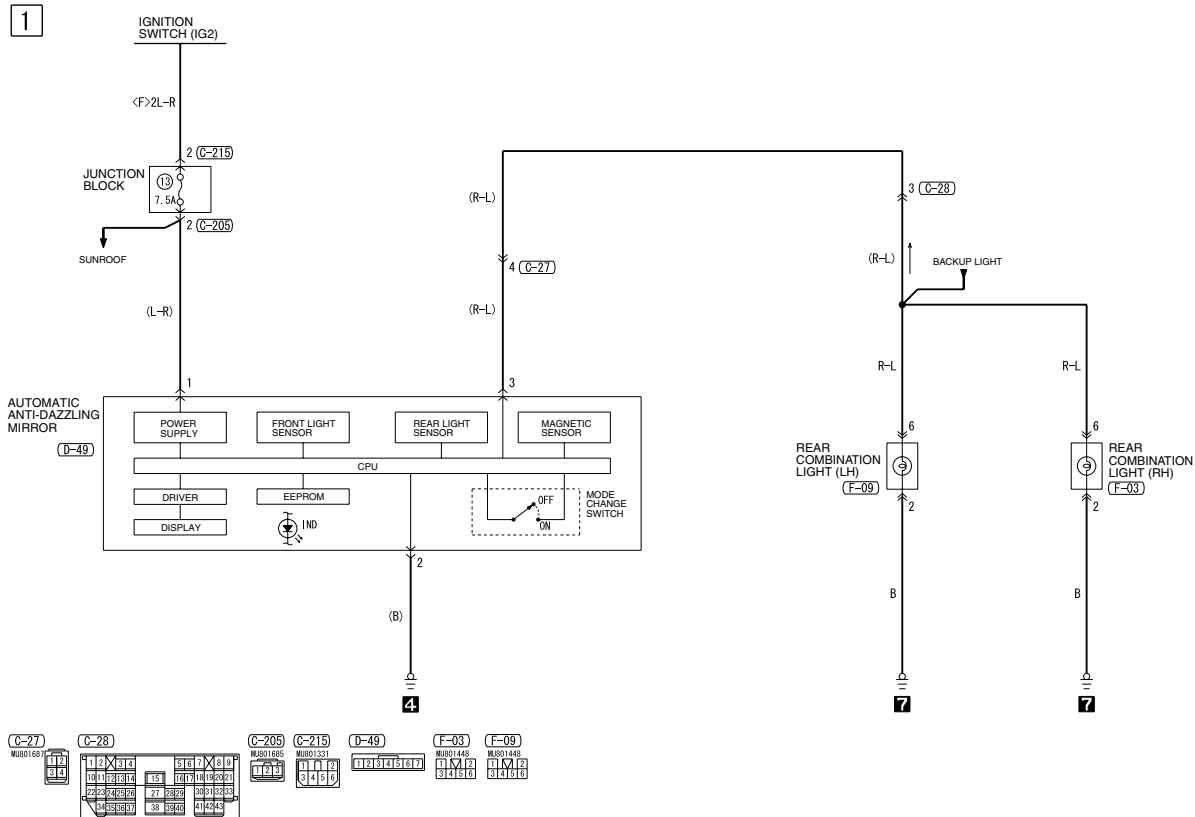
H7P12M06DC

AUTOMATIC AIR CONDITIONING SYSTEM <VEHICLES FOR RUSSIA> (CONTINUED)

H7P12M06EC

AUTOMATIC ANTI-DAZZLING MIRROR <VEHICLES FOR RUSSIA>

M1901006800347



H7P13M15AC