

SECTION **PG**

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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RHD : Front Door Harness		

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SERVICE DATA AND SPECIFICATIONS
(SDS) 120

SERVICE DATA AND SPECIFICATIONS
(SDS) 120
Battery 120

BASIC INSPECTION

BATTERY

How to Handle Battery

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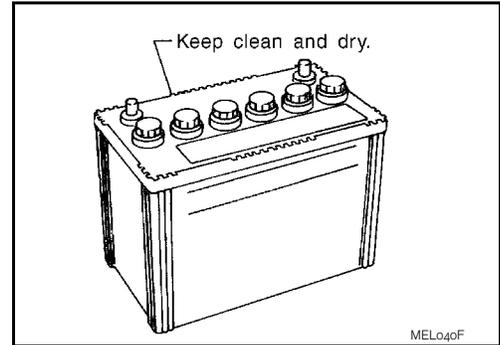
CAUTION:

- If it becomes necessary to start the engine with a booster battery and jumper cables, use a 12-volt booster battery.
- After connecting battery cables, ensure that they are tightly clamped to battery terminals for good contact.
- Never add distilled water through the hole used to check specific gravity.

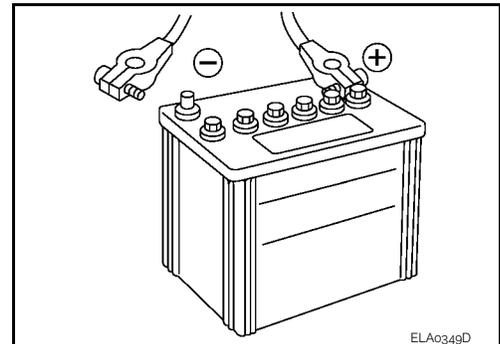
METHODS OF PREVENTING OVER-DISCHARGE

The following precautions must be taken to prevent over-discharging a battery.

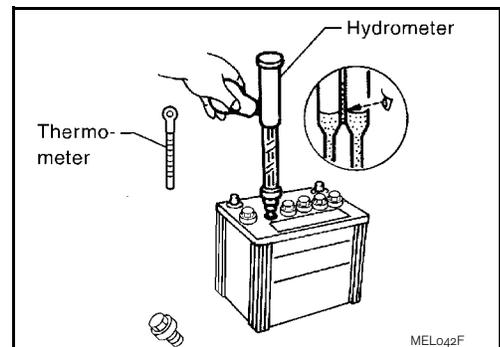
- The battery surface (particularly its top) should always be kept clean and dry.
- The terminal connections should be clean and tight.
- At every routine maintenance, check the electrolyte level. This also applies to batteries designated as "low maintenance" and "maintenance-free".



- When the vehicle is not going to be used over a long period of time, disconnect the battery cable from the negative terminal. (If the vehicle has an extended storage switch, turn it off.)



- Check the charge condition of the battery. Periodically check the specific gravity of the electrolyte. Keep a close check on charge condition to prevent over-discharge.



CHECKING ELECTROLYTE LEVEL

WARNING:

Never allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical attention.

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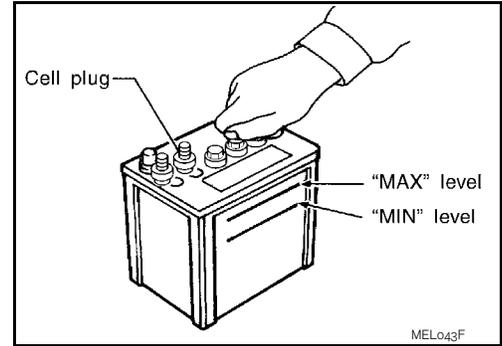
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BATTERY

< BASIC INSPECTION >

[POWER SUPPLY & GROUND CIRCUIT]

- Remove the cell plug using a suitable tool.
- Add distilled water up to the MAX level.

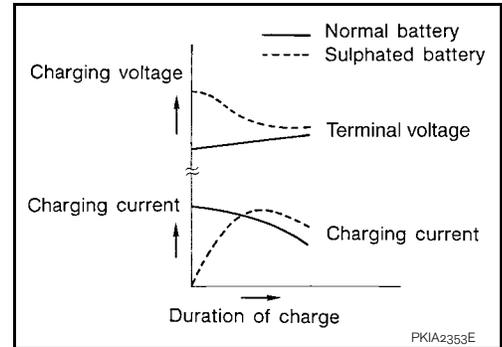


Sulphation

A battery will be completely discharged if it is left unattended for a long time and the specific gravity will become less than 1.100. This may result in sulphation on the cell plates.

To determine if a battery has been "sulphated", note its voltage and current when charging it. As shown in the figure, less current and higher voltage are observed in the initial stage of charging sulphated batteries.

A sulphated battery may sometimes be brought back into service by means of a long, slow charge, 12 hours or more, followed by a battery capacity test.

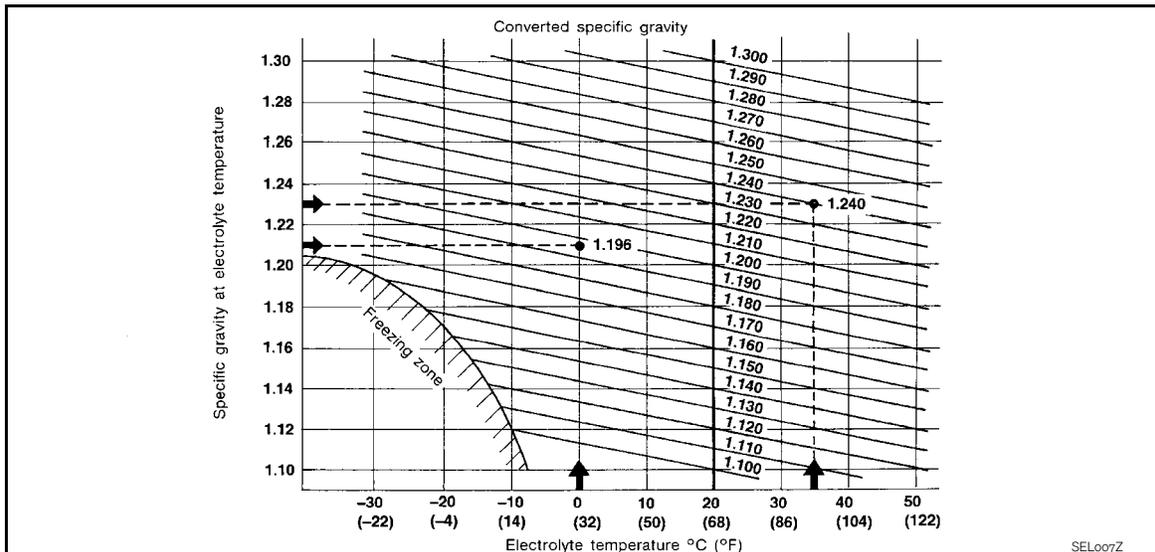
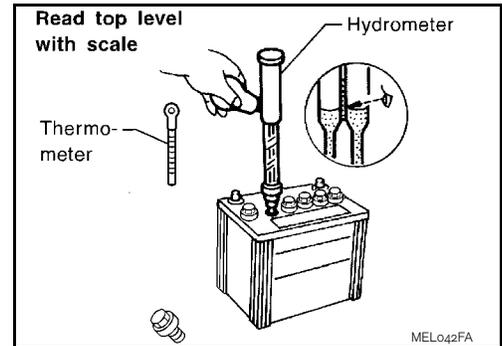


SPECIFIC GRAVITY CHECK

1. Read hydrometer and thermometer indications at eye level.
2. Convert into specific gravity at 20°C (68°F).

Example:

- When electrolyte temperature is 35°C (95°F) and specific gravity of electrolyte is 1.230, converted specific gravity at 20°C (68°F) is 1.240.
- When electrolyte temperature is 0°C (32°F) and specific gravity of electrolyte is 1.210, converted specific gravity at 20°C (68°F) is 1.196.



Work Flow

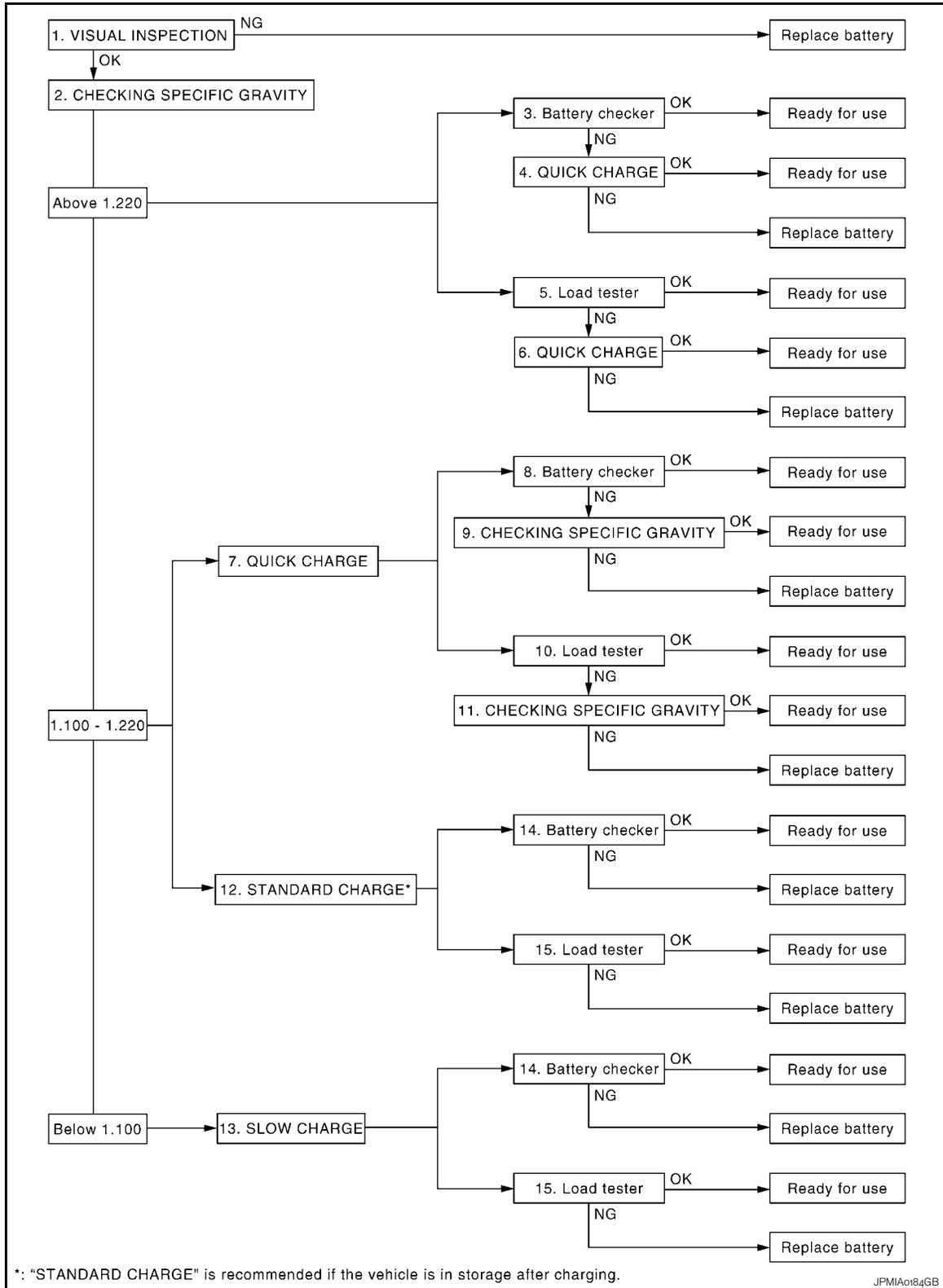
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BATTERY

< BASIC INSPECTION >

[POWER SUPPLY & GROUND CIRCUIT]

OVERALL SEQUENCE



DETAILED FLOW

1. VISUAL INSPECTION

1. Check battery case for cracks or bends.
2. Check battery terminals for damage.
3. If the difference between the max. and min. electrolyte level in cells is within 10 mm (0.39 in), it is OK.

Are these inspection results normal?

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BATTERY

< BASIC INSPECTION >

[POWER SUPPLY & GROUND CIRCUIT]

- YES >> GO TO 2.
NO >> Replace battery.

2.CHECKING SPECIFIC GRAVITY

Check specific gravity. Refer to [PG-3, "How to Handle Battery"](#).

Inspection results

- Above 1.220 (Test using battery checker)>>GO TO 3.
Above 1.220 (Test using load tester)>>GO TO 5.
1.100 - 1.220 (When performing quick charge)>>GO TO 7.
1.100 - 1.220 (When performing standard charge)>>GO TO 12.
Below 1.100>>GO TO 13.

3.CAPACITY TEST

Test using battery checker.

Is the battery usable, according to the manufacturer's instructions?

- YES >> Ready for use. Mount battery again and check loose terminals. Also check other related circuits.
NO >> GO TO 4.

4.QUICK CHARGE

1. Perform quick charge. Time required: 45 min. Refer to [PG-116, "Quick Charge"](#).
2. Test using battery checker.

Is the battery usable, according to the manufacturer's instructions?

- YES >> Ready for use.
NO >> Replace battery.

5.CAPACITY TEST

1. Test using load tester.
2. Check battery type and determine the specified current using the table.

Discharging Current (Load Tester)

Type	Current (A)
28B19R(L)	90
34B19R(L)	99
46B24R(L)	135
55B24R(L)	
50D23R(L)	150
55D23R(L)	180
80D23R(L)	195
65D26R(L)	
80D26R(L)	
75D31R(L)	210
95D31R(L)	240
115D31R(L)	
025 [YUASA type code]	
027 [YUASA type code]	285
110D26R(L)	300
95E41R(L)	
067 [YUASA type code]	325
130E41R(L)	330
096 [YUASA type code]	375
LB1 (330)	—
LB1+ (420)	—

BATTERY

< BASIC INSPECTION >

[POWER SUPPLY & GROUND CIRCUIT]

Type	Current (A)
LB2 (510)	—
LB2+ (600)	—
LB3 (720)	—
L3 (720)	—

3. Read load tester voltage when specified discharging current flows through battery for 15 seconds.

Is the voltage 9.6 V or more?

YES >> Ready for use.

NO >> GO TO 6.

6. QUICK CHARGE

1. Perform quick charge. Time required: 45 min. Refer to [PG-116, "Quick Charge"](#).

2. Test using load tester.

Is the voltage 9.6 V or more?

YES >> Ready for use.

NO >> Replace battery.

7. QUICK CHARGE

1. Perform quick charge. Refer to [PG-116, "Quick Charge"](#).

2. Perform capacity test.

Test using battery checker.>>GO TO 8.

Test using load tester.>>GO TO 10.

8. CAPACITY TEST

Test using battery checker.

Is the battery usable, according to the manufacturer's instructions?

YES >> Ready for use.

NO >> GO TO 9.

9. CHECKING SPECIFIC GRAVITY

1. Check specific gravity. Refer to [PG-3, "How to Handle Battery"](#).

2. Perform recharge. Refer to [PG-116, "Quick Charge"](#).

NOTE:

If battery temperature rises above 55°C (131°F), stop charging. Always charge battery when its temperature is below 55°C (131°F).

3. Test using battery checker.

Is the battery usable, according to the manufacturer's instructions?

YES >> Ready for use.

NO >> Replace battery.

10. CAPACITY TEST

1. Test using load tester.

2. Check battery type and determine the specified current using the table.

Discharging Current (Load Tester)

Type	Current (A)
28B19R(L)	90
34B19R(L)	99
46B24R(L)	135
55B24R(L)	
50D23R(L)	150
55D23R(L)	180

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BATTERY

< BASIC INSPECTION >

[POWER SUPPLY & GROUND CIRCUIT]

Type	Current (A)
80D23R(L)	195
65D26R(L)	
80D26R(L)	
75D31R(L)	210
95D31R(L)	
115D31R(L)	240
025 [YUASA type code]	
027 [YUASA type code]	
110D26R(L)	300
95E41R(L)	
067 [YUASA type code]	325
130E41R(L)	330
096 [YUASA type code]	375
LB1 (330)	—
LB1+ (420)	—
LB2 (510)	—
LB2+ (600)	—
LB3 (720)	—
L3 (720)	—

3. Read load tester voltage when specified discharging current flows through battery for 15 seconds.

Is the voltage 9.6 V or more?

YES >> Ready for use.

NO >> GO TO 11.

11. CHECKING SPECIFIC GRAVITY

1. Check specific gravity. Refer to [PG-3, "How to Handle Battery"](#).

2. Perform recharge. Refer to [PG-116, "Quick Charge"](#).

NOTE:

If battery temperature rises above 55°C (131°F), stop charging. Always charge battery when its temperature is below 55°C (131°F).

3. Test using load tester.

Is the voltage 9.6 V or more?

YES >> Ready for use.

NO >> Replace battery.

12. STANDARD CHARGE

NOTE:

"STANDARD CHARGE" is recommended if the vehicle is in storage after charging.

1. Perform standard charge. Refer to [PG-115, "Standard Charge"](#).

2. Perform capacity test.

Test using battery checker.>>GO TO 14.

Test using load tester.>>GO TO 15.

13. SLOW CHARGE

1. Perform slow charge. Refer to [PG-114, "Slow Charge"](#).

2. Perform capacity test.

Test using battery checker.>>GO TO 14.

Test using load tester.>>GO TO 15.

BATTERY

< BASIC INSPECTION >

[POWER SUPPLY & GROUND CIRCUIT]

14. CAPACITY TEST

Test using battery checker.

Is the battery usable, according to the manufacturer's instructions?

YES >> Ready for use.

NO >> Replace battery.

15. CAPACITY TEST

1. Test using load tester.
2. Check battery type and determine the specified current using the table.

Discharging Current (Load Tester)

Type	Current (A)
28B19R(L)	90
34B19R(L)	99
46B24R(L)	135
55B24R(L)	
50D23R(L)	150
55D23R(L)	180
80D23R(L)	195
65D26R(L)	
80D26R(L)	
75D31R(L)	210
95D31R(L)	240
115D31R(L)	
025 [YUASA type code]	
027 [YUASA type code]	285
110D26R(L)	300
95E41R(L)	
067 [YUASA type code]	325
130E41R(L)	330
096 [YUASA type code]	375
LB1 (330)	—
LB1+ (420)	—
LB2 (510)	—
LB2+ (600)	—
LB3 (720)	—
L3 (720)	—

3. Read load tester voltage when specified discharging current flows through battery for 15 seconds.

Is the voltage 9.6 V or more?

YES >> Ready for use.

NO >> Replace battery.

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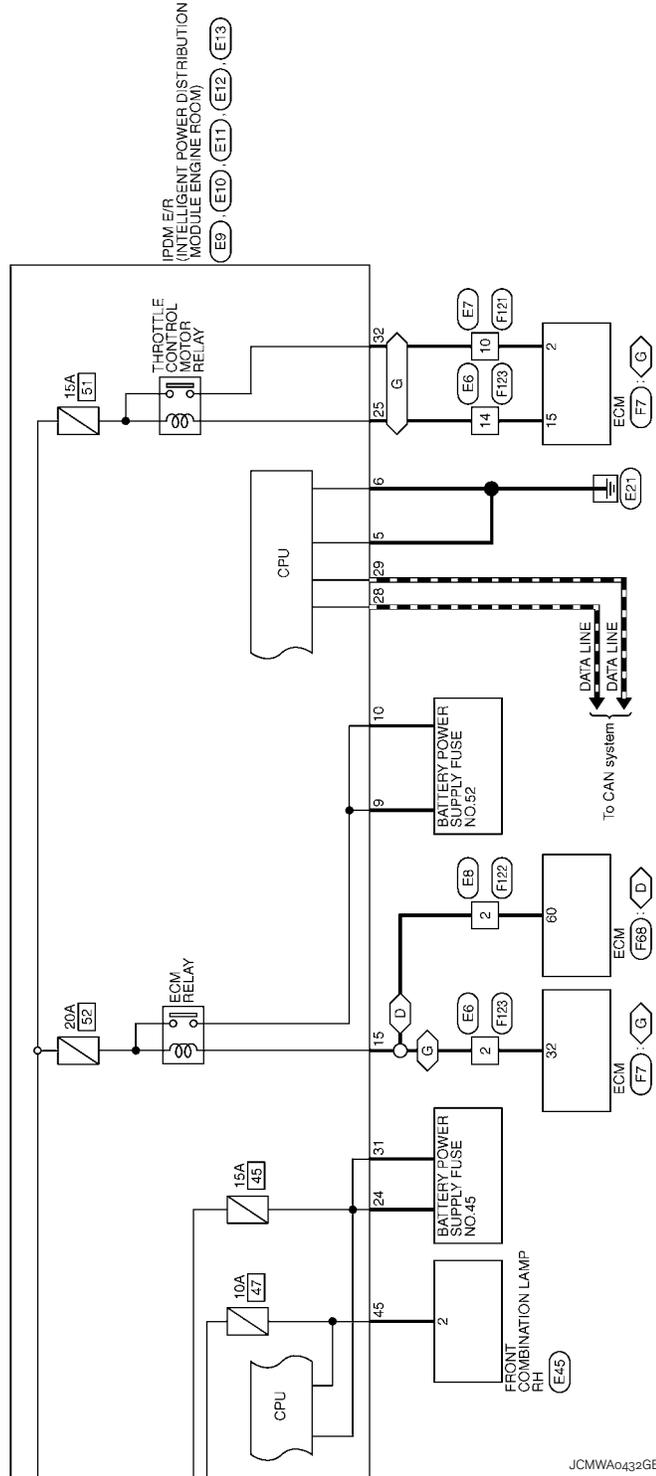
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

⬡ : With gasoline engine
 ⬢ : With diesel engine



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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY

Connector No.	E1
Connector Name	FUSIBLE LINK HOLDER
Connector Type	LO2FGY-AC



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Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	G	-

Connector No.	E2
Connector Name	FUSIBLE LINK HOLDER
Connector Type	LO2FBR-MC-B



3	4
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Terminal No.	Color of Wire	Signal Name [Specification]
3	W	-
4	R	-

Connector No.	E5
Connector Name	HORN RELAY
Connector Type	-



2	3
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Terminal No.	Color of Wire	Signal Name [Specification]
2	GR/L	-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-TV



1	2	3	4	5	6	7	8	9	10	11		
12	13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	Color of Wire	Signal Name [Specification]
2	Y/L	-
14	G/L	-
22	Y/R	-

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



1	2	3	4	5	6	7		
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
9	R/B	-
10	R/Y	-[With gasoline engine]
11	L/B	-[With diesel engine]

Connector No.	E8
Connector Name	WIRE TO WIRE
Connector Type	MR2MW-LC



1	2
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Terminal No.	Color of Wire	Signal Name [Specification]
2	B/R	-

Connector No.	E9
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	LO2FB-AC



1	2
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	MR2FB-LC



5	4	3
8	7	6

Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	B	-

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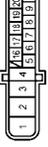
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POWER SUPPLY ROUTING CIRCUIT

[POWER SUPPLY & GROUND CIRCUIT]

< COMPONENT DIAGNOSIS >

BATTERY POWER SUPPLY

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15	B/R	-[With diesel engine]																																
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Connector No.	E12																																	
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)																																	
Connector Type	NS12FW-CS																																	
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24	R/Y	-																																
25	G/L	-																																
28	L	-																																
29	P	-																																
31	R	-																																
32	R/Y	-																																
<table border="1"> <tr><td>Connector No.</td><td>E13</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>NS18FW-CS</td></tr> </table>  	Connector No.	E13	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	NS18FW-CS	<table border="1"> <thead> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> </thead> <tbody> <tr><td>38</td><td>W</td><td>-</td></tr> <tr><td>37</td><td>R/W</td><td>-</td></tr> <tr><td>38</td><td>R/L</td><td>-</td></tr> <tr><td>43</td><td>W/B</td><td>-</td></tr> <tr><td>44</td><td>L</td><td>-</td></tr> <tr><td>45</td><td>L/W</td><td>-</td></tr> <tr><td>46</td><td>G</td><td>-</td></tr> <tr><td>47</td><td>R/L</td><td>-</td></tr> </tbody> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	38	W	-	37	R/W	-	38	R/L	-	43	W/B	-	44	L	-	45	L/W	-	46	G	-	47	R/L	-
Connector No.	E13																																	
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38	W	-																																
37	R/W	-																																
38	R/L	-																																
43	W/B	-																																
44	L	-																																
45	L/W	-																																
46	G	-																																
47	R/L	-																																
<table border="1"> <tr><td>Connector No.</td><td>E14</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>YZK 7283-5531-40-F</td></tr> </table>  	Connector No.	E14	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	YZK 7283-5531-40-F	<table border="1"> <thead> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> </thead> <tbody> <tr><td>33</td><td>W/B</td><td>-</td></tr> </tbody> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	33	W/B	-																					
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Connector Type	YZK 7283-5531-40-F																																	
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33	W/B	-																																
<table border="1"> <tr><td>Connector No.</td><td>E16</td></tr> <tr><td>Connector Name</td><td>FRONT COMBINATION LAMP LH</td></tr> <tr><td>Connector Type</td><td>AMP 353800-1</td></tr> </table>  	Connector No.	E16	Connector Name	FRONT COMBINATION LAMP LH	Connector Type	AMP 353800-1	<table border="1"> <thead> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> </thead> <tbody> <tr><td>2</td><td>L</td><td>-</td></tr> <tr><td>2</td><td>G</td><td>-</td></tr> </tbody> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	2	L	-	2	G	-																		
Connector No.	E16																																	
Connector Name	FRONT COMBINATION LAMP LH																																	
Connector Type	AMP 353800-1																																	
Terminal No.	Color of Wire	Signal Name [Specification]																																
2	L	-																																
2	G	-																																
<table border="1"> <tr><td>Connector No.</td><td>E26</td></tr> <tr><td>Connector Name</td><td>FRONT COMBINATION LAMP LH</td></tr> <tr><td>Connector Type</td><td>AMP 353800-1</td></tr> </table>  	Connector No.	E26	Connector Name	FRONT COMBINATION LAMP LH	Connector Type	AMP 353800-1	<table border="1"> <thead> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> </thead> <tbody> <tr><td>1</td><td>L</td><td>-</td></tr> <tr><td>1</td><td>G</td><td>-</td></tr> </tbody> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	L	-	1	G	-																		
Connector No.	E26																																	
Connector Name	FRONT COMBINATION LAMP LH																																	
Connector Type	AMP 353800-1																																	
Terminal No.	Color of Wire	Signal Name [Specification]																																
1	L	-																																
1	G	-																																
<table border="1"> <tr><td>Connector No.</td><td>E30</td></tr> <tr><td>Connector Name</td><td>FRONT FOG LAMP LH</td></tr> <tr><td>Connector Type</td><td>FCI 240PC023S/019</td></tr> </table>  	Connector No.	E30	Connector Name	FRONT FOG LAMP LH	Connector Type	FCI 240PC023S/019	<table border="1"> <thead> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> </thead> <tbody> <tr><td>1</td><td>W/B</td><td>-</td></tr> </tbody> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	W/B	-																					
Connector No.	E30																																	
Connector Name	FRONT FOG LAMP LH																																	
Connector Type	FCI 240PC023S/019																																	
Terminal No.	Color of Wire	Signal Name [Specification]																																
1	W/B	-																																
<table border="1"> <tr><td>Connector No.</td><td>E32</td></tr> <tr><td>Connector Name</td><td>HEADLAMP WASHER RELAY</td></tr> <tr><td>Connector Type</td><td>MS02EL-M2</td></tr> </table>  	Connector No.	E32	Connector Name	HEADLAMP WASHER RELAY	Connector Type	MS02EL-M2	<table border="1"> <thead> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> </thead> <tbody> <tr><td>2</td><td>G</td><td>-</td></tr> <tr><td>3</td><td>G</td><td>-</td></tr> </tbody> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	2	G	-	3	G	-																		
Connector No.	E32																																	
Connector Name	HEADLAMP WASHER RELAY																																	
Connector Type	MS02EL-M2																																	
Terminal No.	Color of Wire	Signal Name [Specification]																																
2	G	-																																
3	G	-																																
<table border="1"> <tr><td>Connector No.</td><td>E34</td></tr> <tr><td>Connector Name</td><td>ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)</td></tr> <tr><td>Connector Type</td><td>BA42ZF-ANZF-LH</td></tr> </table>  	Connector No.	E34	Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)	Connector Type	BA42ZF-ANZF-LH	<table border="1"> <thead> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> </thead> <tbody> <tr><td>2</td><td>Y</td><td>+BMTFI</td></tr> <tr><td>3</td><td>W/R</td><td>+BSOL</td></tr> </tbody> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	2	Y	+BMTFI	3	W/R	+BSOL																		
Connector No.	E34																																	
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)																																	
Connector Type	BA42ZF-ANZF-LH																																	
Terminal No.	Color of Wire	Signal Name [Specification]																																
2	Y	+BMTFI																																
3	W/R	+BSOL																																

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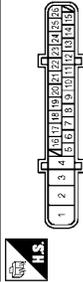
POWER SUPPLY ROUTING CIRCUIT

[POWER SUPPLY & GROUND CIRCUIT]

< COMPONENT DIAGNOSIS >

BATTERY POWER SUPPLY

Connector No.	E36
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAAZ2FE-AH24-LH



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-B(MTR)
2	W/R	-B(SOL)
3	W/R	

Connector No.	E45
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	AMP 953000-1



Terminal No.	Color of Wire	Signal Name [Specification]
1	L/W	
2	L/W	

Connector No.	E48
Connector Name	FRONT FOG LAMP RH
Connector Type	FCI 24DF023S4019



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	
2	W	

Connector No.	E53
Connector Name	PTC RELAY-1
Connector Type	24347 9F300



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	G	
3	G	

Connector No.	E54
Connector Name	PTC RELAY-2
Connector Type	24347 9F300



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	
2	R	
3	R	

Connector No.	E59
Connector Name	COOLING FAN RELAY-3
Connector Type	24347 9F300



Terminal No.	Color of Wire	Signal Name [Specification]
1	W/B	
2	W/B	
3	W/B	

Connector No.	E63
Connector Name	FUSIBLE LINK HOLDER
Connector Type	LG2FGY-MC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	
2	G	

Connector No.	E64
Connector Name	FUSIBLE LINK HOLDER
Connector Type	LG2FBR-MC-B



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	
2	R	
3	R	
4	R	

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POWER SUPPLY ROUTING CIRCUIT

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[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH6D0WV-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
7	R/B	--
38	G/R	--
62	V	--
71	L	--
76	Y	--

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	L02MB-AC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	--
2	W	--

Connector No.	E114
Connector Name	STOP LAMP SWITCH
Connector Type	M02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	--

Connector No.	E115
Connector Name	STOP LAMP SWITCH
Connector Type	N04FW-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	--

Connector No.	F2
Connector Name	FUSIBLE LINK HOLDER
Connector Type	24340 78807



Terminal No.	Color of Wire	Signal Name [Specification]
7	B/Y	--

Connector No.	F3
Connector Name	FUSIBLE LINK HOLDER
Connector Type	24340 78806



Terminal No.	Color of Wire	Signal Name [Specification]
5	B/Y	--

Connector No.	F4
Connector Name	FUSIBLE LINK HOLDER
Connector Type	24348 51E09



Terminal No.	Color of Wire	Signal Name [Specification]
5	B/Y	--

Connector No.	F5
Connector Name	FUSIBLE LINK HOLDER
Connector Type	L01FB-AC



Terminal No.	Color of Wire	Signal Name [Specification]
6	W	--

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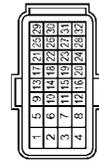
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY

Connector No.	F7
Connector Name	ECM
Connector Type	MAA24FG-ME-A&B-RH



Terminal No.	Color of Wire	Signal Name [Specification]
15	R/Y	VMOT
32	G/L	MOTRLY
	Y/L	SSOFF

Connector No.	F10
Connector Name	STARTER MOTOR
Connector Type	-



Terminal No.	Color of Wire	Signal Name [Specification]
2	-	-

Connector No.	F14
Connector Name	ALTERNATOR
Connector Type	-



Terminal No.	Color of Wire	Signal Name [Specification]
1	B/Y	B

Connector No.	F15
Connector Name	ALTERNATOR
Connector Type	HSC03FB



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y/R	S

Connector No.	F25
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	MOLEX 500304-4111



Terminal No.	Color of Wire	Signal Name [Specification]
45	R/B	BATT
47	R/B	BATT

Connector No.	F49
Connector Name	STARTER MOTOR
Connector Type	-



Terminal No.	Color of Wire	Signal Name [Specification]
2	B/Y	-

Connector No.	F52
Connector Name	STARTER MOTOR
Connector Type	-



Terminal No.	Color of Wire	Signal Name [Specification]
2	B/Y	-

Connector No.	F55
Connector Name	ALTERNATOR
Connector Type	-



Terminal No.	Color of Wire	Signal Name [Specification]
1	B/Y	L

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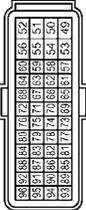
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY

Connector No.	F68
Connector Name	ECM
Connector Type	MAA40FBR-MEA8-LH



Terminal No.	Color of Wire	Signal Name [Specification]
68	L/B	CU RELAY DRIVE VBD (DIRECT VBAT)

Connector No.	F34
Connector Name	GLOW RELAY
Connector Type	FCG 240FC08S0015



Terminal No.	Color of Wire	Signal Name [Specification]
4	W	-

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS1BF1W-CS



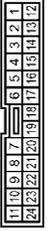
Terminal No.	Color of Wire	Signal Name [Specification]
9	R/B	-
10	R/Y	-[With gasoline engine]
11	L/B	-[With diesel engine]

Connector No.	F122
Connector Name	WIRE TO WIRE
Connector Type	M02FW-LC



Terminal No.	Color of Wire	Signal Name [Specification]
2	B/R	-

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V



Terminal No.	Color of Wire	Signal Name [Specification]
2	Y/L	-
14	G/L	-
22	Y/R	-

Connector No.	M1
Connector Name	FUSE BLOCK
Connector Type	-



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-

Connector No.	M29
Connector Name	IGNITION SWITCH
Connector Type	M06FW-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-

Connector No.	M38
Connector Name	EPS CONTROL UNIT
Connector Type	TYGO D-1544567-1



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-

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POWER SUPPLY ROUTING CIRCUIT

[POWER SUPPLY & GROUND CIRCUIT]

< COMPONENT DIAGNOSIS >

BATTERY POWER SUPPLY

Connector No.	M67
Connector Name	PCM (BODY CONTROL MODULE)
Connector Type	FC121IFC093S0017



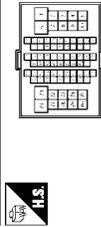
Terminal No.	Color of Wire	Signal Name [Specification]
57	Y	BAT1(F/L)

Connector No.	M69
Connector Name	4WD CONTROL UNIT
Connector Type	T1116FW



Terminal No.	Color of Wire	Signal Name [Specification]
9	G	SOL BATT

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	T116FW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
7	R/B	
39	G	
62	V	
71	L	
76	Y	

Connector No.	M78
Connector Name	WIRE TO WIRE
Connector Type	L02FB-1MC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	
2	W	

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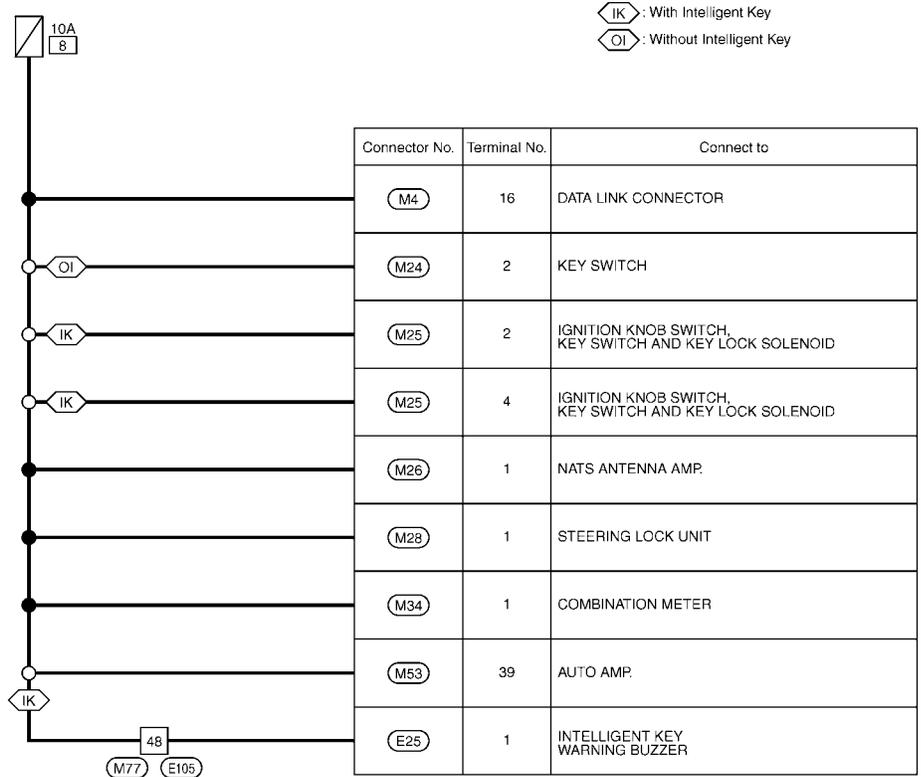
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.8



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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.8

Connector No.	E25
Connector Name	INTELLIGENT KEY WARNING BUZZER
Connector Type	RKQ3FBS-D3V



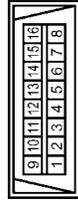
Terminal No.	1	Y	—	—	—
Color of Wire	Y	—	—	—	—
Signal Name [Specification]					

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS 6-TM4



Terminal No.	48	Y	—	—	—
Color of Wire	Y	—	—	—	—
Signal Name [Specification]					

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



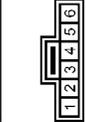
Terminal No.	16	Y	—	—	—
Color of Wire	Y	—	—	—	—
Signal Name [Specification]					

Connector No.	M24
Connector Name	KEY SWITCH
Connector Type	A02AW



Terminal No.	2	Y	—	—	—
Color of Wire	Y	—	—	—	—
Signal Name [Specification]					

Connector No.	M25
Connector Name	IGNITION KNOB SWITCH KEY SWITCH AND KEY LOCK SOLENOID
Connector Type	TK6RNGY



Terminal No.	2	Y	—	—	—
Color of Wire	Y	—	—	—	—
Signal Name [Specification]					

Connector No.	M26
Connector Name	NAIS ANTENNA AMP.
Connector Type	TH04FW



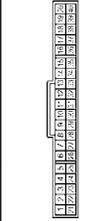
Terminal No.	1	Y	—	—	—
Color of Wire	Y	—	—	—	—
Signal Name [Specification]					

Connector No.	M28
Connector Name	STEERING LOCK UNIT
Connector Type	TK04FW



Terminal No.	1	Y	—	—	—
Color of Wire	Y	—	—	—	—
Signal Name [Specification]					

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAE40FW



Terminal No.	1	Y	—	—	BAT
Color of Wire	Y	—	—	—	
Signal Name [Specification]					

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.8

Connector No.	M53
Connector Name	AUTO AMP.
Connector Type	SABR01FW



Terminal No.	Color of Wire	Signal Name (Specification)
39	Y	BAT

Connector No.	M77
Connector Name	WIRE TO WME
Connector Type	T-180DFW-NS16-TM4



Terminal No.	Color of Wire	Signal Name (Specification)
48	Y	-

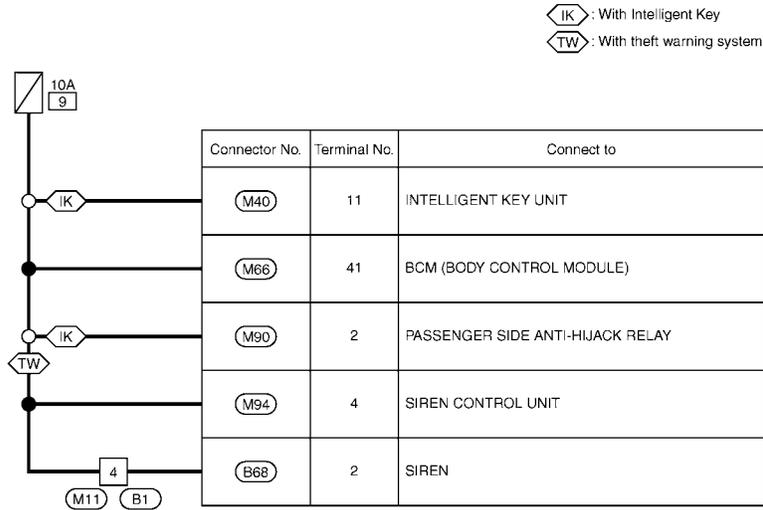
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.9



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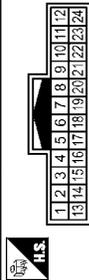
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.9

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH24NW



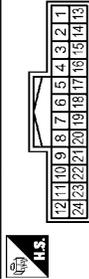
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Connector No.	B68
Connector Name	SIREN
Connector Type	RH08FB



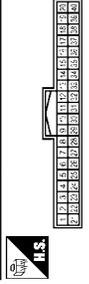
Terminal No.	2	Color of Wire	V	Signal Name [Specification]	B+
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Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH24FW



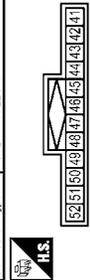
Terminal No.	4	Color of Wire	R	Signal Name [Specification]	-
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Connector No.	M40
Connector Name	INTELLIGENT KEY UNIT
Connector Type	TH40FW



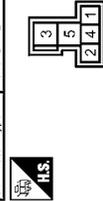
Terminal No.	11	Color of Wire	V	Signal Name [Specification]	BATT+
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Connector No.	M68
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21PG12S1017



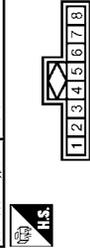
Terminal No.	41	Color of Wire	V	Signal Name [Specification]	BAT(FUSE)
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Connector No.	M90
Connector Name	PASSENGER SIDE ANTI-HLACK RELAY
Connector Type	MSQ3FB-M2



Terminal No.	2	Color of Wire	V	Signal Name [Specification]	-
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Connector No.	M94
Connector Name	SIREN CONTROL UNIT
Connector Type	J408FW



Terminal No.	4	Color of Wire	R	Signal Name [Specification]	B+
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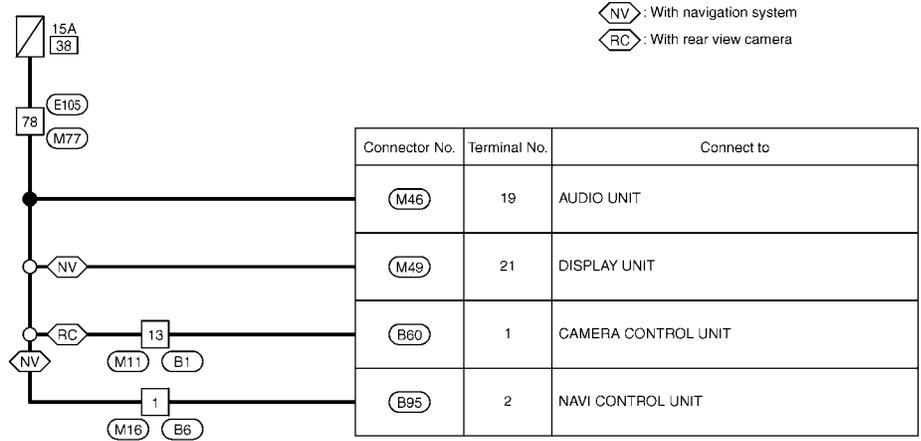
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.38



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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.38

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH124MW



Terminal No.	13	Color of Wire	LG	Signal Name [Specification]	-
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Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Type	TH124MW



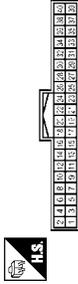
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Connector No.	B60
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH18FW



Terminal No.	1	Color of Wire	LG	Signal Name [Specification]	BATTERY
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Connector No.	B85
Connector Name	NAVY CONTROL UNIT
Connector Type	TH40FW



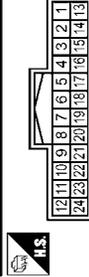
Terminal No.	2	Color of Wire	LG	Signal Name [Specification]	BATTERY
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Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS16-TM4



Terminal No.	78	Color of Wire	LG	Signal Name [Specification]	-
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Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH24FW



Terminal No.	13	Color of Wire	LG	Signal Name [Specification]	-
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Connector No.	M16
Connector Name	WIRE TO WIRE
Connector Type	TH12FW



Terminal No.	1	Color of Wire	LG	Signal Name [Specification]	-
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Connector No.	M46
Connector Name	AUDIO UNIT
Connector Type	TH18FW-GS2



Terminal No.	19	Color of Wire	LG	Signal Name [Specification]	BATTERY
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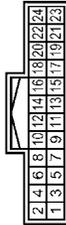
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.38

Connector No.	M48
Connector Name	DISPLAY UNIT
Connector Type	TH124FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	LG	BATTERY

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH180FW/NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
78	LG	-

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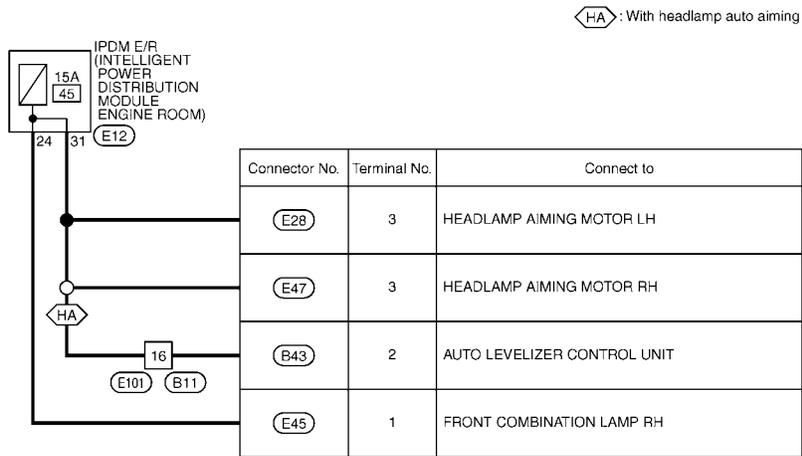
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.45



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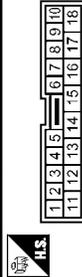
POWER SUPPLY ROUTING CIRCUIT

[POWER SUPPLY & GROUND CIRCUIT]

< COMPONENT DIAGNOSIS >

BATTERY POWER SUPPLY FUSE NO.45

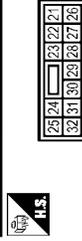
Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Connector No.	B43
Connector Name	AUTO LEVELIZER CONTROL UNIT
Connector Type	AMP 1394416-1



Connector No.	E12
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	NS12FW-CS



Connector No.	E28
Connector Name	HEADLAMP AIMING MOTOR LH
Connector Type	FCI211P033S0003



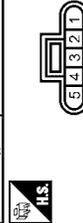
Terminal No.	16	Color of Wire	R	Signal Name [Specification]	
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Terminal No.	2	Color of Wire	R	Signal Name [Specification]	USUP
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Terminal No.	24	Color of Wire	R/Y	Signal Name [Specification]	
Terminal No.	31	Color of Wire	R	Signal Name [Specification]	

Terminal No.	3	Color of Wire	R	Signal Name [Specification]	
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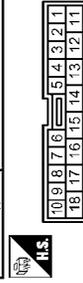
Connector No.	E45
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	AMP 863000-1



Connector No.	E47
Connector Name	HEADLAMP AIMING MOTOR RH
Connector Type	FCI211P033S0003



Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK10PW-NS8



Terminal No.	1	Color of Wire	R/Y	Signal Name [Specification]	
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Terminal No.	3	Color of Wire	R	Signal Name [Specification]	
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Terminal No.	18	Color of Wire	R	Signal Name [Specification]	
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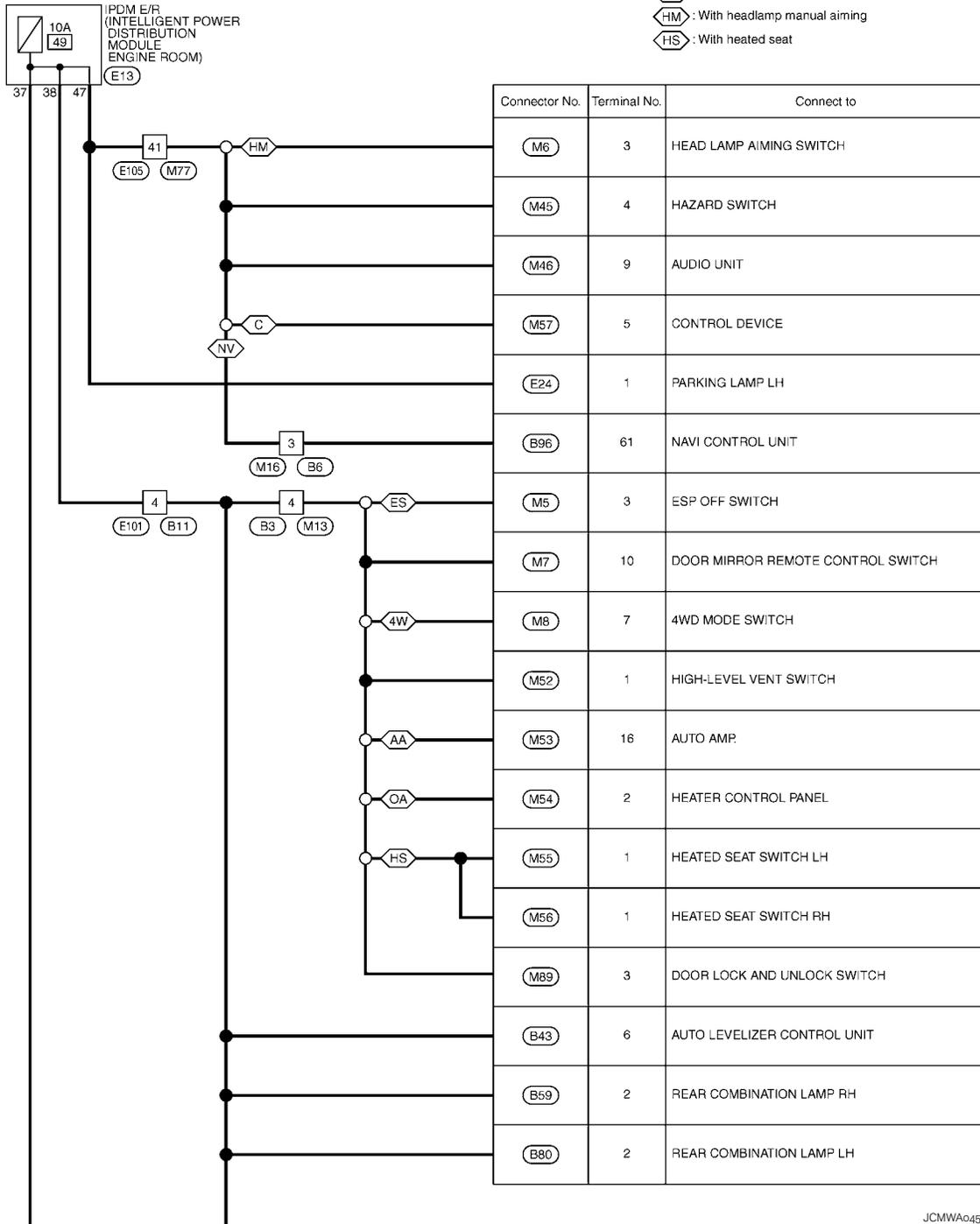
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.49

- : With CVT
- : 4WD models
- : With ESP
- : With navigation system
- : With auto A/C
- : Without auto A/C
- : With headlamp manual aiming
- : With heated seat



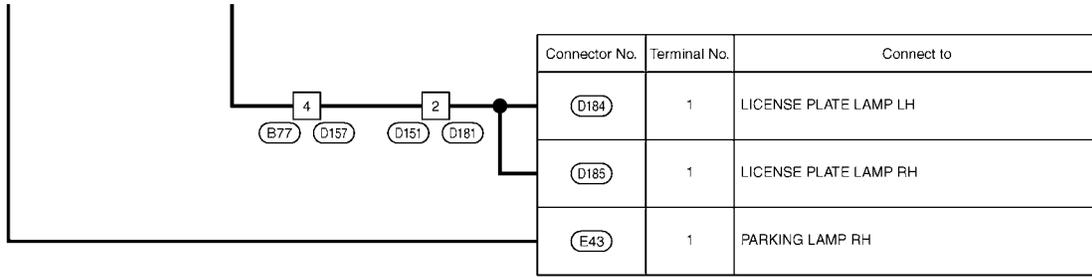
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]



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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.49

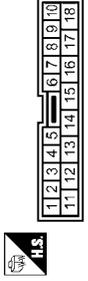
Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH124MW



Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Type	TH124MW



Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS3



Connector No.	B43
Connector Name	AUTO LEVELIZER CONTROL UNIT
Connector Type	AMP 139441B-1



Terminal No.	4	Color of Wire		Signal Name [Specification]	
		R/L			

Terminal No.	3	Color of Wire		Signal Name [Specification]	
		R/L			

Terminal No.	4	Color of Wire		Signal Name [Specification]	
		R/L			

Terminal No.	5	Color of Wire		Signal Name [Specification]	A/D
		R/L			

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	FC121PG042S4021



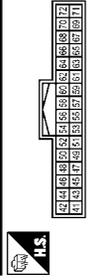
Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Type	TH03FW



Connector No.	B60
Connector Name	REAR COMBINATION LAMP LH
Connector Type	FC121PG042S4021



Connector No.	B96
Connector Name	NAVY CONTROL UNIT
Connector Type	TH02EW



Terminal No.	2	Color of Wire		Signal Name [Specification]	
		R/L			

Terminal No.	4	Color of Wire		Signal Name [Specification]	
		R/L			

Terminal No.	2	Color of Wire		Signal Name [Specification]	
		R/L			

Terminal No.	6	Color of Wire		Signal Name [Specification]	ILLUMINATION
		R/L			

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.49

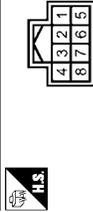
Connector No.	D151
Connector Name	WIRE TO WIRE
Connector Type	TH03MW



Connector No.	D157
Connector Name	WIRE TO WIRE
Connector Type	TH03MW



Connector No.	D181
Connector Name	WIRE TO WIRE
Connector Type	TH03FW



Connector No.	D184
Connector Name	LICENSE PLATE LAMP LH
Connector Type	TRW 3029423100D



Terminal No.	2	Color of Wire	R/L	Signal Name [Specification]

Terminal No.	4	Color of Wire	R/L	Signal Name [Specification]

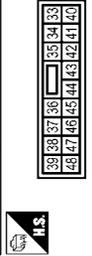
Terminal No.	2	Color of Wire	R/L	Signal Name [Specification]

Terminal No.	1	Color of Wire	R/L	Signal Name [Specification]

Connector No.	D185
Connector Name	LICENSE PLATE LAMP RH
Connector Type	TRW 3029423100D



Connector No.	E13
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	HS16FW-CS



Connector No.	E24
Connector Name	PARKING LAMP LH
Connector Type	FR02EB



Connector No.	E43
Connector Name	PARKING LAMP RH
Connector Type	FR02EB



Terminal No.	1	Color of Wire	R/L	Signal Name [Specification]

Terminal No.	37	Color of Wire	R/W	Signal Name [Specification]
	38	R/L	-	-
	47	R/L	-	-

Terminal No.	1	Color of Wire	R/L	Signal Name [Specification]

Terminal No.	1	Color of Wire	R/W	Signal Name [Specification]

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.49

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TK18DMW-NS16-TM4



Terminal No.	4	R/L	—	Signal Name [Specification]
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Terminal No.	41	R/L	—	Signal Name [Specification]
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Connector No.	M5
Connector Name	ESP OFF SWITCH
Connector Type	TK08FGY



Terminal No.	3	R	—	Signal Name [Specification]
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Connector No.	M6
Connector Name	HEADLAMP AIMING SWITCH
Connector Type	AC4FW



Terminal No.	3	R	—	Signal Name [Specification]
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Connector No.	M7
Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH
Connector Type	NS10FW-CS



Terminal No.	10	R	—	Signal Name [Specification]
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Connector No.	M8
Connector Name	4WD MODE SWITCH
Connector Type	TK08FW



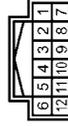
Terminal No.	7	R	—	Signal Name [Specification]
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Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TK24FW



Terminal No.	4	R	—	Signal Name [Specification]
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Connector No.	M16
Connector Name	WIRE TO WIRE
Connector Type	TK12FW



Terminal No.	3	R	—	Signal Name [Specification]
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

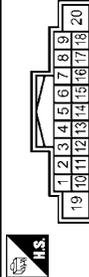
[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.49

Connector No.	M45
Connector Name	HAZARD SWITCH
Connector Type	CINCH REF 49309EVMS (WHITE)



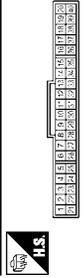
Connector No.	M46
Connector Name	AUDIO UNIT
Connector Type	TH18FW-C32



Connector No.	M52
Connector Name	HIGH LEVEL VENT SWITCH
Connector Type	CINCH 49309EVMS



Connector No.	M53
Connector Name	AUTO AMP.
Connector Type	SAE40FW



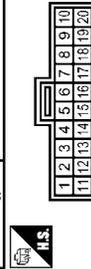
Terminal No.	4	R	Signal Name [Specification]	
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Terminal No.	9	R	Signal Name [Specification]	ILLUMINATION
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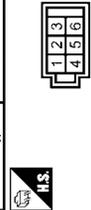
Terminal No.	1	R	Signal Name [Specification]	
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Terminal No.	16	R	Signal Name [Specification]	ILL*
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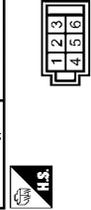
Connector No.	M54
Connector Name	HEATER CONTROL PANEL
Connector Type	TK20FY



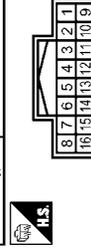
Connector No.	M55
Connector Name	HEATED SEAT SWITCH LH
Connector Type	MOLEX 98172-1005 (BROWN)



Connector No.	M56
Connector Name	HEATED SEAT SWITCH RH
Connector Type	MOLEX 98172-1002 (BLACK)



Connector No.	M57
Connector Name	CONTROL DEVICE
Connector Type	TH18FW



Terminal No.	2	R	Signal Name [Specification]	
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Terminal No.	1	R	Signal Name [Specification]	
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Terminal No.	1	R	Signal Name [Specification]	
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Terminal No.	5	R	Signal Name [Specification]	
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.49

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	THEDFW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
41	R	-

Connector No.	M89
Connector Name	DOOR LOCK AND UNLOCK SWITCH
Connector Type	7703197674



Terminal No.	Color of Wire	Signal Name [Specification]
3	R	-

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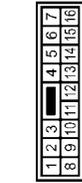
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

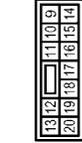
BATTERY POWER SUPPLY FUSE NO.52

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



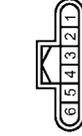
Terminal No.	Color of Wire	Signal Name [Specification]
11	L/R	- [With gasoline engine]
12	G	-

Connector No.	E11
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	NS12FBR-CS



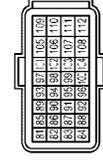
Terminal No.	Color of Wire	Signal Name [Specification]
9	G	-
10	L/R	-

Connector No.	E15
Connector Name	MASS AIR FLOW SENSOR
Connector Type	RH08FB



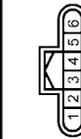
Terminal No.	Color of Wire	Signal Name [Specification]
4	G	-

Connector No.	E16
Connector Name	ECM
Connector Type	MAA24FB-MAA8-LH



Terminal No.	Color of Wire	Signal Name [Specification]
105	G	VBR

Connector No.	E18
Connector Name	MASS AIR FLOW SENSOR
Connector Type	RH08FB



Terminal No.	Color of Wire	Signal Name [Specification]
5	G	-

Connector No.	E55
Connector Name	TURBOCHARGER BOOST CONTROL SOLENOID VALVE
Connector Type	SUPPLURE REF 282788-1



Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-

Connector No.	F13
Connector Name	CONDENSER
Connector Type	MUZFW-GY-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	L/R	-

Connector No.	F32
Connector Name	EVAP CANISTER PURGE VOLUME CONTROL SOLENOID VALVE
Connector Type	E02FL-RS-LGY



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.52

Connector No.	F33
Connector Name	IGNITION COIL No.1 (WITH POWER TRANSISTOR)
Connector Type	EC03GY-RS



Terminal No.	3	Color of Wire		Signal Name [Specification]	
		L/R			

Connector No.	F34
Connector Name	IGNITION COIL No.2 (WITH POWER TRANSISTOR)
Connector Type	EC03GY-RS



Terminal No.	3	Color of Wire		Signal Name [Specification]	
		L/R			

Connector No.	F35
Connector Name	IGNITION COIL No.3 (WITH POWER TRANSISTOR)
Connector Type	EC03GY-RS



Terminal No.	3	Color of Wire		Signal Name [Specification]	
		L/R			

Connector No.	F36
Connector Name	IGNITION COIL No.4 (WITH POWER TRANSISTOR)
Connector Type	EC03GY-RS



Terminal No.	3	Color of Wire		Signal Name [Specification]	
		L/R			

Connector No.	E41
Connector Name	INTAKE VALVE TIMING CONTROL SOLENOID VALVE
Connector Type	EC03G-RS-LGY



Terminal No.	2	Color of Wire		Signal Name [Specification]	
		L/R			

Connector No.	F88
Connector Name	ECM
Connector Type	MAA40FBR-MEA8-LH



Terminal No.	54	Color of Wire		Signal Name [Specification]	
		G		VBATT	
		G		VBATT	

Connector No.	F81
Connector Name	ELECTRIC THROTTLE CONTROL ACTUATOR
Connector Type	FEP-4212-200



Terminal No.	1	Color of Wire		Signal Name [Specification]	
		G			

Connector No.	F87
Connector Name	CAMSHAFT POSITION SENSOR (PHASE)
Connector Type	FEA03FB



Terminal No.	3	Color of Wire		Signal Name [Specification]	
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

BATTERY POWER SUPPLY FUSE NO.52

Connector No.	F105
Connector Name	HIGH PRESSURE SUPPLY PUMP
Connector Type	FEA02FO



Connector No.	F107
Connector Name	HIGH PRESSURE SUPPLY PUMP
Connector Type	FEA02FN



Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



Terminal No.	Color of Wire	Signal Name (Specification)
1	G	-

Terminal No.	Color of Wire	Signal Name (Specification)
3	G	-

Terminal No.	Color of Wire	Signal Name (Specification)
11	L/R	-[With gasoline engine]
12	G	-

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

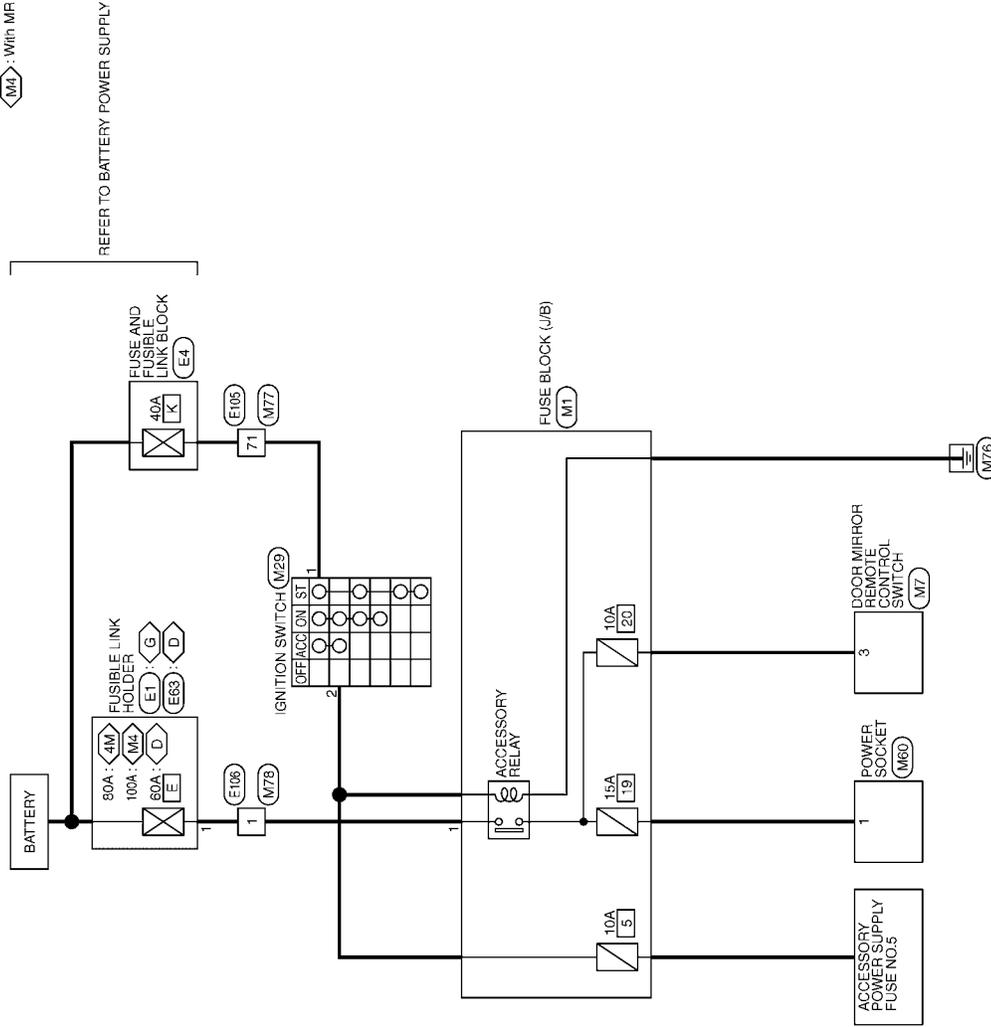
[POWER SUPPLY & GROUND CIRCUIT]

Wiring Diagram - ACCESSORY POWER SUPPLY -

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ACCESSORY POWER SUPPLY

- G : With gasoline engine
- D : With diesel engine
- 4M : With H-R engine and 4WD models with M/T
- M4 : With MR engine except 4WD models with M/T



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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

ACCESSORY POWER SUPPLY

Connector No.	E1
Connector Name	FUSIBLE LINK HOLDER
Connector Type	LOZFGY-MC



Terminal No.	1	W	Signal Name [Specification]
2	W	-	-

Connector No.	E63
Connector Name	FUSIBLE LINK HOLDER
Connector Type	LOZFGY-MC



Terminal No.	1	W	Signal Name [Specification]
2	W	-	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	T-60DMY-NS16-TM4



Terminal No.	71	L	Signal Name [Specification]
72	L	-	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	LO2MB-MC



Terminal No.	1	W	Signal Name [Specification]
2	W	-	-

Connector No.	M1
Connector Name	FUSE BLOCK
Connector Type	-



Terminal No.	1	W	Signal Name [Specification]
2	W	-	-

Connector No.	M7
Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH
Connector Type	NS10FW-CS



Terminal No.	3	R	Signal Name [Specification]
4	R	-	-

Connector No.	M29
Connector Name	IGNITION SWITCH
Connector Type	M08FW-LC



Terminal No.	1	L	Signal Name [Specification]
2	BR	-	-

Connector No.	M60
Connector Name	POWER SOCKET
Connector Type	P02FB-Z



Terminal No.	1	LG	Signal Name [Specification]
2	-	-	-

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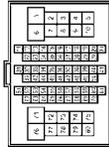
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

ACCESSORY POWER SUPPLY

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-1S10-TM4



Terminal No.	Color of Wire	Signal Name (Specification)
71	L	-

Connector No.	M78
Connector Name	WIRE TO WIRE
Connector Type	LOGFE-MC



Terminal No.	Color of Wire	Signal Name (Specification)
1	W	-

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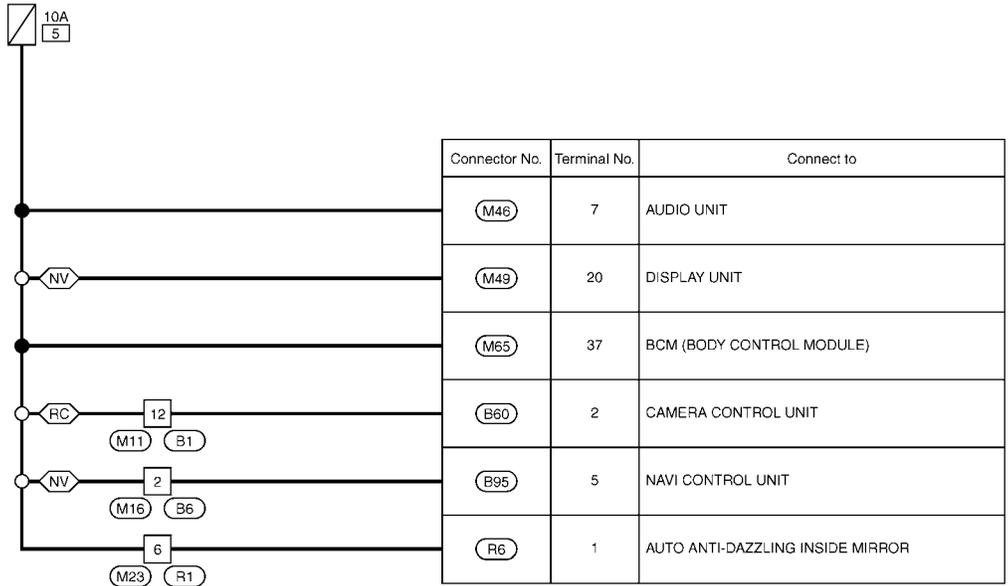
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

ACCESSORY POWER SUPPLY FUSE NO.5

◁NV▷ : With navigation system
 ▷RC◁ : With rear view camera



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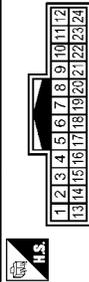
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

ACCESSORY POWER SUPPLY FUSE NO.5

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH124MW



Terminal No.	12	R	Color of Wire	-	Signal Name [Specification]	-
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Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Type	TH12MW



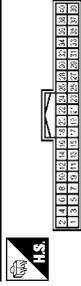
Terminal No.	2	R	Color of Wire	-	Signal Name [Specification]	-
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Connector No.	B60
Connector Name	CAMERA CONTROL UNIT
Connector Type	TH18FW



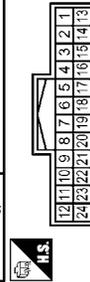
Terminal No.	2	R	Color of Wire	-	Signal Name [Specification]	ACC
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Connector No.	B85
Connector Name	NAVY CONTROL UNIT
Connector Type	TH40FW



Terminal No.	5	R	Color of Wire	-	Signal Name [Specification]	ACC
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Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH24FW



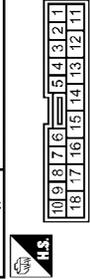
Terminal No.	12	R	Color of Wire	-	Signal Name [Specification]	-
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Connector No.	M16
Connector Name	WIRE TO WIRE
Connector Type	TH12FW



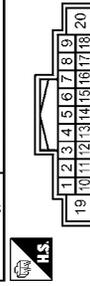
Terminal No.	2	R	Color of Wire	-	Signal Name [Specification]	-
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Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NSS



Terminal No.	6	R	Color of Wire	-	Signal Name [Specification]	-
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Connector No.	M46
Connector Name	AUDIO UNIT
Connector Type	TH18FW-GS2



Terminal No.	7	R	Color of Wire	-	Signal Name [Specification]	ACC
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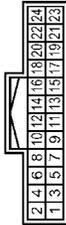
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

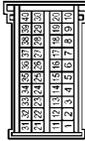
ACCESSORY POWER SUPPLY FUSE NO.5

Connector No.	IM48
Connector Name	DISPLAY UNIT
Connector Type	TH124FW



Terminal No.	Color of Wire	Signal Name (Specification)
20	R	ACC

Connector No.	ME5
Connector Name	BGM (BODY CONTROL MODULE)
Connector Type	AAAB40FB



Terminal No.	Color of Wire	Signal Name (Specification)
37	R	ACC SW

Connector No.	RI
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS3



Terminal No.	Color of Wire	Signal Name (Specification)
5	R	-

Connector No.	R6
Connector Name	AUTO ANTI-DAZZLING INSIDE MIRROR
Connector Type	CINCHI 49503223



Terminal No.	Color of Wire	Signal Name (Specification)
1	R	-

POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8




Terminal No.	Color of Wire	Signal Name [Specification]
18	B/Y	-

Connector No.	B40
Connector Name	FUEL LEVEL SENSOR UNIT AND FUEL PUMP
Connector Type	EDHFGY-RS




Terminal No.	Color of Wire	Signal Name [Specification]
1	B/Y	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TK16FW




Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TK08MGY




Terminal No.	Color of Wire	Signal Name [Specification]
7	G	-

Connector No.	D21
Connector Name	WIRE TO WIRE
Connector Type	TK16FW




Terminal No.	Color of Wire	Signal Name [Specification]
2	P	-

Connector No.	D23
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TK08MGY




Terminal No.	Color of Wire	Signal Name [Specification]
7	G	-

Connector No.	D41
Connector Name	WIRE TO WIRE
Connector Type	TK16FW




Terminal No.	Color of Wire	Signal Name [Specification]
2	P	-

Connector No.	D43
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TK08MGY




Terminal No.	Color of Wire	Signal Name [Specification]
7	G	-

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY

Connector No.	D61	Connector No.	E1	Connector No.	E3	Connector No.	E6
Connector Name	WIRE TO WIRE	Connector Name	FUSIBLE LINK HOLDER	Connector Name	FUSIBLE LINK HOLDER	Connector Name	WIRE TO WIRE
Connector Type	TK10FW	Connector Type	LO2FCY-MC	Connector Type	LO2FBR-MC-B	Connector Type	TK24MW-1V
Terminal No.	2	Terminal No.	1	Terminal No.	4	Terminal No.	1
Color of Wire	G	Color of Wire	W	Color of Wire	R	Color of Wire	G
Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-

Connector No.	E6	Connector No.	E7	Connector No.	E9	Connector No.	E10
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	IPDM ER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)	Connector Name	IPDM ER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TK24MW-1V	Connector Type	INS16MW-CS	Connector Type	LO2FBR-MC	Connector Type	IMRFB-FC
Terminal No.	13	Terminal No.	3	Terminal No.	1	Terminal No.	5
Color of Wire	B/O	Color of Wire	Y/R	Color of Wire	G	Color of Wire	B
Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-	Signal Name [Specification]	-

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
14	R/B	-
16	Y/R	-
19	R/O	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FRW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
23	Y/B	-
28	L	-
29	P	-

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FRW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
33	B/O	-
35	W/L	-
40	SB	-(With MR engine)
41	P	-
42	B/Y	-

Connector No.	E14
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	YZK 7283-5581-40-F



Terminal No.	Color of Wire	Signal Name [Specification]
49	B	-
52	W	-
53	W/B	-
54	R	-

Connector No.	E20
Connector Name	FRONT WIPER MOTOR
Connector Type	AMP 35360P-1



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y/R	-
2	Y	-

Connector No.	E57
Connector Name	RESISTOR
Connector Type	P801038951602



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-

Connector No.	E58
Connector Name	HEATED OXYGEN SENSOR 2
Connector Type	4F204FB



Terminal No.	Color of Wire	Signal Name [Specification]
2	R/O	-

Connector No.	E63
Connector Name	FUSIBLE LINK HOLDER
Connector Type	102FGY-MC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	G	-

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POWER SUPPLY ROUTING CIRCUIT

[POWER SUPPLY & GROUND CIRCUIT]

< COMPONENT DIAGNOSIS >

IGNITION POWER SUPPLY

Connector No.	E64	Connector No.	E108
Connector Name	FUSIBLE LINK HOLDER	Connector Name	WIRE TO WIRE
Connector Type	LOZFBR-MC-B	Connector Type	LO2MB-MC




Terminal No.	Color of Wire	Signal Name [Specification]
4	R	-

Connector No.	E105	Connector No.	F21
Connector Name	WIRE TO WIRE	Connector Name	PARK/NEUTRAL POSITION SWITCH
Connector Type	TH60MVF-NS16-TM4	Connector Type	FR08FG




Terminal No.	Color of Wire	Signal Name [Specification]
63	W/L	-
71	L	-
74	G	-

Connector No.	E101	Connector No.	F17
Connector Name	WIRE TO WIRE	Connector Name	COMPRESSOR
Connector Type	TK10FW-NS8	Connector Type	RH02FB




Terminal No.	Color of Wire	Signal Name [Specification]
18	B/Y	-

Connector No.	F7	Connector No.	F18
Connector Name	ECM	Connector Name	COMPRESSOR
Connector Type	MAA24FCY-MEAB-RH	Connector Type	DEL-PHE12162017




Terminal No.	Color of Wire	Signal Name [Specification]
23	B/O	FPR

Connector No.	F21	Connector No.	F12
Connector Name	PARK/NEUTRAL POSITION SWITCH	Connector Name	COMPRESSOR
Connector Type	FR08FG	Connector Type	DEL-PHE12162017




Terminal No.	Color of Wire	Signal Name [Specification]
7	R/B	-

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY

Connector No.	F30
Connector Name	HEATED OXYGEN SENSOR 1
Connector Type	AFZ04FB



Terminal No.	Color of Wire	Signal Name [Specification]
2	R/O	—

Connector No.	F46
Connector Name	PARK/NEUTRAL POSITION SWITCH
Connector Type	FEA03FG



Terminal No.	Color of Wire	Signal Name [Specification]
2	R/B	—

Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	PK02FB



Terminal No.	Color of Wire	Signal Name [Specification]
2	R/B	—

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS16FN-GS



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y/R	—
15	Y/B	—

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-TV



Terminal No.	Color of Wire	Signal Name [Specification]
13	B/O	—
21	R/B	—

Connector No.	M1
Connector Name	FUSE BLOCK
Connector Type	—



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	—

Connector No.	M2
Connector Name	FUSE BLOCK
Connector Type	—



Terminal No.	Color of Wire	Signal Name [Specification]
2	G	—

Connector No.	M18
Connector Name	WIRE TO WIRE
Connector Type	TK16MW



Terminal No.	Color of Wire	Signal Name [Specification]
2	G	—

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POWER SUPPLY ROUTING CIRCUIT

[POWER SUPPLY & GROUND CIRCUIT]

< COMPONENT DIAGNOSIS >

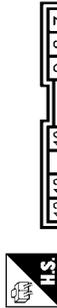
IGNITION POWER SUPPLY

Connector No.	M20
Connector Name	WIRE TO WIRE
Connector Type	TK16MW



Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



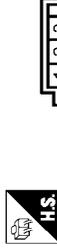
Terminal No.	Color of Wire	Signal Name [Specification]
14	GR	IGN

Connector No.	M29
Connector Name	IGNITION SWITCH
Connector Type	M09FW-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
3	G	-
4	Y	-

Connector No.	M35
Connector Name	HEATED SEAT SWITCH LH
Connector Type	MOLEX 38172-1005 (BROWN)



Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-

Connector No.	M36
Connector Name	HEATED SEAT SWITCH RH
Connector Type	MOLEX 38172-1002 (BLACK)



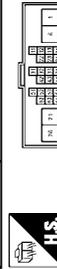
Terminal No.	Color of Wire	Signal Name [Specification]
3	G	-

Connector No.	M39
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	TK28FY-EK-SC



Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	IGN

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
68	W	-
71	L	-
74	R	-

Connector No.	M78
Connector Name	WIRE TO WIRE
Connector Type	LU2FB-MC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY

Connector No.	M81
Connector Name	WIRE TO WIRE
Connector Type	TK1(BMW)



Terminal No.	Color of Wire	Signal Name [Specification]
2	G	—

Connector No.	M83
Connector Name	WIRE TO WIRE
Connector Type	TK1(BMW)



Terminal No.	Color of Wire	Signal Name [Specification]
2	G	—

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Type	M06PW-LC



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	—
6	Y	—

Connector No.	M301
Connector Name	WIRE TO WIRE
Connector Type	M06MW-LC



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	—
6	Y	—

Connector No.	M312
Connector Name	BLOWER MOTOR
Connector Type	M06PW-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	—

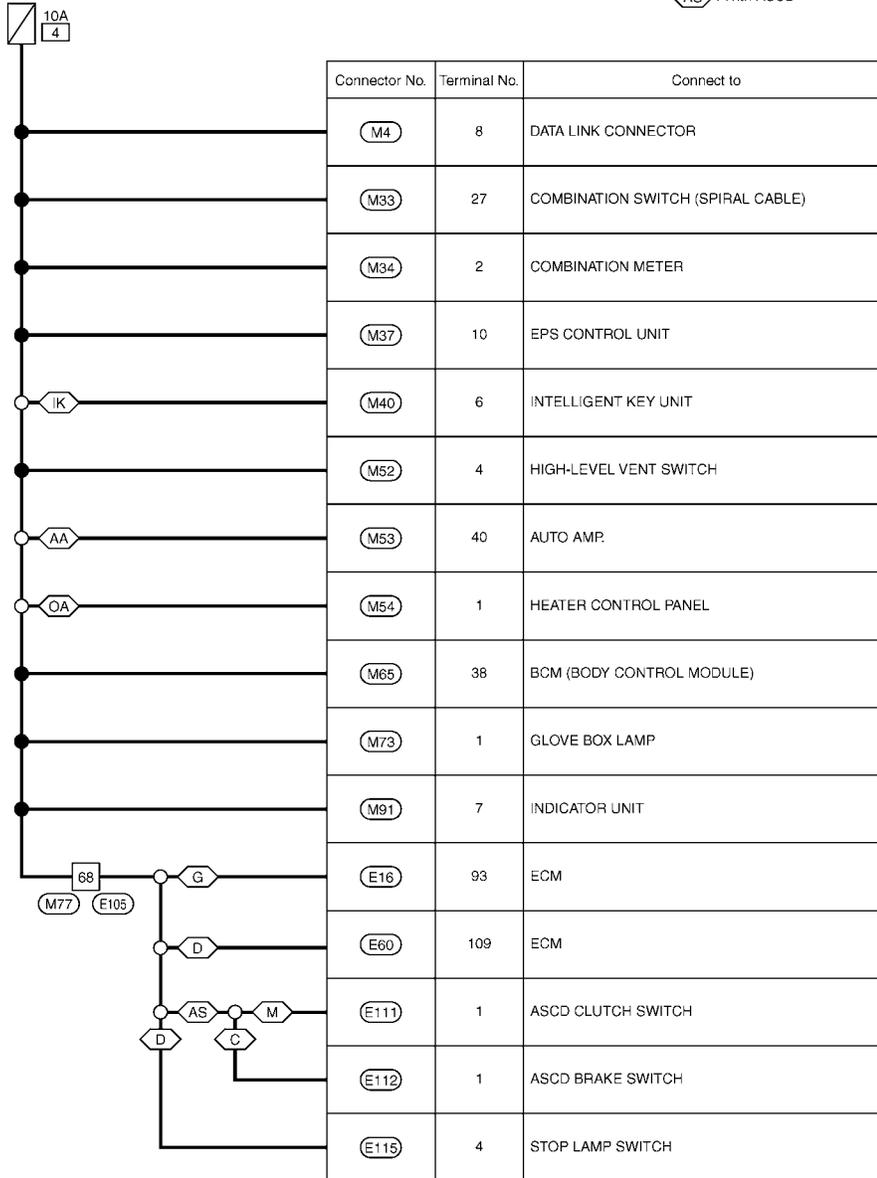
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.4

-  : With gasoline engine
-  : With diesel engine
-  : With MT
-  : With CVT
-  : With Intelligent Key
-  : With auto A/C
-  : Without auto A/C
-  : With ASCD



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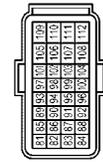
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.4

Connector No.	E16
Connector Name	ECM
Connector Type	MAAZ4FB-MEA8-LH



Terminal No.	Color of Wire	Signal Name [Specification]
93	W/L	IGN SW

Connector No.	E10
Connector Name	ECM
Connector Type	MAAZ4FB-MEA3-LH



Terminal No.	Color of Wire	Signal Name [Specification]
109	W/L	IGN

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	THIGM4V-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
88	W/L	-

Connector No.	E111
Connector Name	ASCD CLUTCH SWITCH
Connector Type	MOZFBR-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	-[With gasoline engine]

Connector No.	E112
Connector Name	ASCD BRAKE SWITCH
Connector Type	MOZFBR-LC



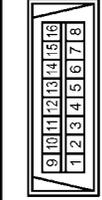
Terminal No.	Color of Wire	Signal Name [Specification]
1	W/L	-[With CVT]

Connector No.	E115
Connector Name	STOP LAMP SWITCH
Connector Type	MM4FW-LC



Terminal No.	Color of Wire	Signal Name [Specification]
4	W/L	-[With diesel engine]

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
8	W	-

Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-1V



Terminal No.	Color of Wire	Signal Name [Specification]
27	W/L	-

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.4

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB10FW



Terminal No.	2	Color of Wire	GR	Signal Name [Specification]	IGN
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Connector No.	M37
Connector Name	EPS CONTROL UNIT
Connector Type	Malex 96545-0001



Terminal No.	10	Color of Wire	Q	Signal Name [Specification]	-
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Connector No.	M40
Connector Name	INTELLIGENT KEY UNIT
Connector Type	TH140FW



Terminal No.	38	Color of Wire	W/L	Signal Name [Specification]	IGN SW
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Connector No.	M52
Connector Name	HIGH LEVEL VENT SWITCH
Connector Type	CINCHI 49303E/VM5



Terminal No.	4	Color of Wire	GR	Signal Name [Specification]	-
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Connector No.	M53
Connector Name	AUTO AMP.
Connector Type	SAB10FW



Terminal No.	40	Color of Wire	GR	Signal Name [Specification]	IGN
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Connector No.	M54
Connector Name	HEATER CONTROL PANEL
Connector Type	TK20FGY



Terminal No.	1	Color of Wire	GR	Signal Name [Specification]	-
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Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AA840FB



Terminal No.	33	Color of Wire	W/L	Signal Name [Specification]	IGN SW
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Connector No.	M73
Connector Name	GLOVE BOX LAMP
Connector Type	MBS-10GRN



Terminal No.	1	Color of Wire	W	Signal Name [Specification]	-
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.4

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH8DFW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
68	W	-

Connector No.	M81
Connector Name	INDICATOR UNIT
Connector Type	TH8DFW-IV



Terminal No.	Color of Wire	Signal Name [Specification]
7	W/L	-

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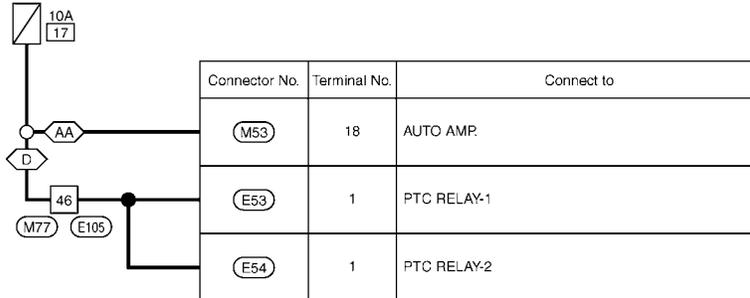
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.17

 : With diesel engine
 : With auto A/C



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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.17

Connector No.	E33
Connector Name	PTC RELAY-1
Connector Type	24347 9F300



Terminal No.	1	Color of Wire	Y	Signal Name [Specification]	-
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Connector No.	E54
Connector Name	PTC RELAY-2
Connector Type	24347 9F300



Terminal No.	1	Color of Wire	Y	Signal Name [Specification]	-
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Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH60MF-NS16-TM4



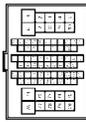
Terminal No.	46	Color of Wire	Y	Signal Name [Specification]	-
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Connector No.	ME33
Connector Name	AUTO AMP
Connector Type	SAB40FW



Terminal No.	18	Color of Wire	Y	Signal Name [Specification]	IGN-2
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Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-NS16-TM4



Terminal No.	46	Color of Wire	Y	Signal Name [Specification]	-
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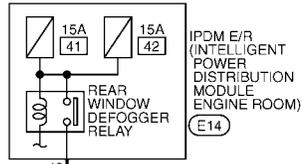
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.41,42

AA : With auto A/C
 OA : Without auto A/C



Connector No.	Terminal No.	Connect to
M53	22	AUTO AMP.
M54	19	HEATER CONTROL PANEL
B58	1	REAR WINDOW DEFOGGER

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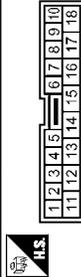
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.41,42

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	17	Color of Wire	B	Signal Name [Specification]	
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Connector No.	B58
Connector Name	REAR WINDOW DEFOGGER
Connector Type	POTFE-A



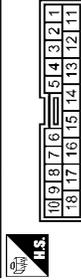
Terminal No.	1	Color of Wire	B	Signal Name [Specification]	
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Connector No.	E14
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION (MODULE ENGINE ROOM)
Connector Type	TYZK 7283-5591-40-F



Terminal No.	48	Color of Wire	B	Signal Name [Specification]	
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Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK10PW-NS3



Terminal No.	17	Color of Wire	G	Signal Name [Specification]	
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Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-NS10-TM4



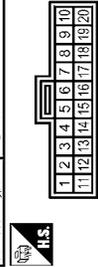
Terminal No.	74	Color of Wire	G	Signal Name [Specification]	
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Connector No.	M53
Connector Name	AUTO AMP
Connector Type	SAB40FW



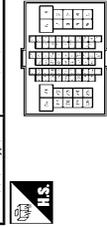
Terminal No.	22	Color of Wire	R	Signal Name [Specification]	RR DEF F/B
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Connector No.	M54
Connector Name	HEATER CONTROL PANEL
Connector Type	TR2DFCY



Terminal No.	18	Color of Wire	R	Signal Name [Specification]	RR DEF F/B
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Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-NS10-TM4



Terminal No.	74	Color of Wire	R	Signal Name [Specification]	
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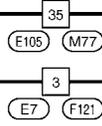
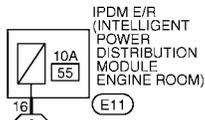
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.55

 : With CVT



Connector No.	Terminal No.	Connect to
	3	CONTROL DEVICE
	3	SECONDARY SPEED SENSOR
	5	PARK/NEUTRAL POSITION SWITCH
	46	TCM (TRANSMISSION CONTROL MODULE)
	48	TCM (TRANSMISSION CONTROL MODULE)
	3	PRIMARY SPEED SENSOR

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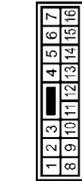
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

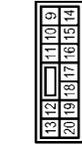
IGNITION POWER SUPPLY FUSE NO.55

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name (Specification)
3	Y/R	—

Connector No.	E11
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name (Specification)
16	Y/R	—

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH60MVF-NS16-TM4



Terminal No.	Color of Wire	Signal Name (Specification)
35	Y/R	—

Connector No.	F19
Connector Name	SECONDARY SPEED SENSOR
Connector Type	RV03FB



Terminal No.	Color of Wire	Signal Name (Specification)
3	Y	—

Connector No.	F21
Connector Name	PARK/NEUTRAL POSITION SWITCH
Connector Type	RV08FG



Terminal No.	Color of Wire	Signal Name (Specification)
5	Y/R	—

Connector No.	F25
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	MOLEX 500994-4111



Terminal No.	Color of Wire	Signal Name (Specification)
46	Y/R	VIGN
48	Y/R	VIGN

Connector No.	F55
Connector Name	PRIMARY SPEED SENSOR
Connector Type	RV03FB



Terminal No.	Color of Wire	Signal Name (Specification)
3	Y/R	—

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS18FV-CS



Terminal No.	Color of Wire	Signal Name (Specification)
3	Y/R	—

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.55

Connector No.	M57
Connector Name	CONTROL DEVICE
Connector Type	TH16FW



Terminal No.	3	Color of Wire	Y	Signal Name [Specification]	-
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Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH16DFW-NS16-TM4



Terminal No.	35	Color of Wire	Y	Signal Name [Specification]	-
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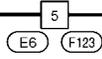
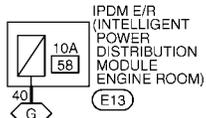
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.58

 : With gasoline engine



Connector No.	Terminal No.	Connect to
(F37)	1	FUEL INJECTOR NO.1
(F38)	1	FUEL INJECTOR NO.2
(F39)	1	FUEL INJECTOR NO.3
(F40)	1	FUEL INJECTOR NO.4

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POWER SUPPLY ROUTING CIRCUIT

[POWER SUPPLY & GROUND CIRCUIT]

< COMPONENT DIAGNOSIS >

IGNITION POWER SUPPLY FUSE NO.58

Connector No.	E13
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	HS22FGY



38	37	36	35	34	33			
48	47	46	45	44	43	42	41	40

Terminal No.	Color of Wire	Signal Name [Specification]
5	SB	—

Connector No.	F13
Connector Name	FUEL INJECTOR No.1
Connector Type	HS22FGY



1	2	3	4	5	6	7	8	9	10	11
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Terminal No.	Color of Wire	Signal Name [Specification]
40	SB	— [With MR engine]
40	BR/Y	— [With HR engine]

Connector No.	F37
Connector Name	FUEL INJECTOR No.1
Connector Type	HS22FGY



1	2	3	4	5	6	7	8	9	10	11
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Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	—

Connector No.	F38
Connector Name	FUEL INJECTOR No.2
Connector Type	HS22FGY



1	2	3	4	5	6	7	8	9	10	11
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Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	—

Connector No.	F39
Connector Name	FUEL INJECTOR No.3
Connector Type	HS22FGY



1	2	3	4	5	6	7	8	9	10	11
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Connector No.	F40
Connector Name	FUEL INJECTOR No.4
Connector Type	HS22FGY



38	37	36	35	34	33			
48	47	46	45	44	43	42	41	40

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V



11	10	9	8	7	6	5	4	3	2	1		
24	23	22	21	20	19	18	17	16	15	14	13	12

Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	—

Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	—

Terminal No.	Color of Wire	Signal Name [Specification]
5	SB	—

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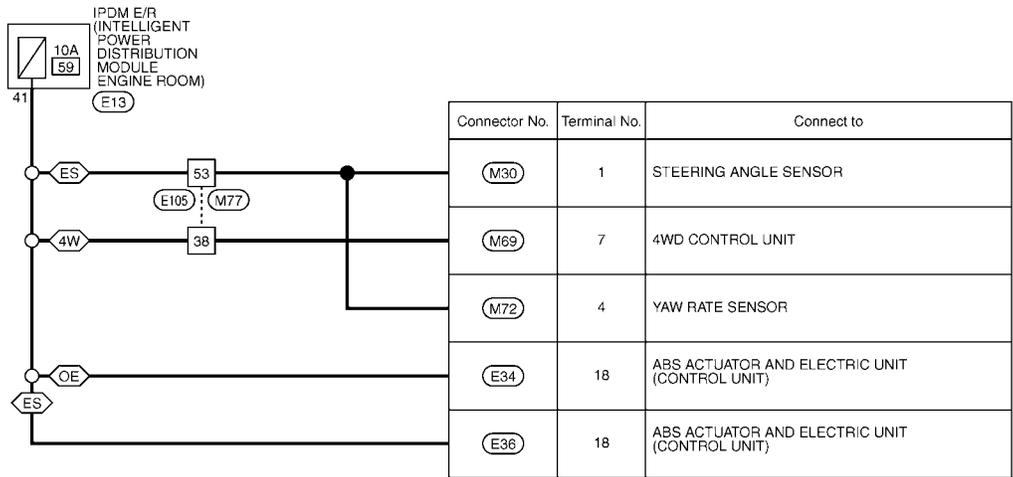
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.59

-  : 4WD models
-  : With ESP
-  : Without ESP



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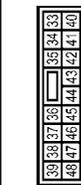
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IGNITION POWER SUPPLY FUSE NO.59

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	MS16FW-CS



Terminal No.	41	Color of Wire	P	Signal Name [Specification]	
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Connector No.	E4
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAA2ZFB-AH24-LH



Terminal No.	18	Color of Wire	P	Signal Name [Specification]	IGN
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Connector No.	E36
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAA2ZFB-AH24-LH



Terminal No.	18	Color of Wire	P	Signal Name [Specification]	IGN
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Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-NS16-TM4



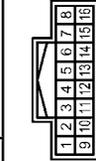
Terminal No.	38	Color of Wire	P	Signal Name [Specification]	
	53	Color of Wire	P	Signal Name [Specification]	
	59	Color of Wire	L	Signal Name [Specification]	

Connector No.	M30
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH8BFW



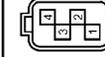
Terminal No.	1	Color of Wire	W/L	Signal Name [Specification]	IGN SAS
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Connector No.	M69
Connector Name	4WD CONTROL UNIT
Connector Type	TH18FW



Terminal No.	7	Color of Wire	P	Signal Name [Specification]	IGN
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Connector No.	M72
Connector Name	YAW RATE SENSOR
Connector Type	AAZ04FB



Terminal No.	4	Color of Wire	P	Signal Name [Specification]	IGN(YRS)
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Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-NS16-TM4



Terminal No.	38	Color of Wire	P	Signal Name [Specification]	
	53	Color of Wire	P	Signal Name [Specification]	
	59	Color of Wire	L	Signal Name [Specification]	

Fuse

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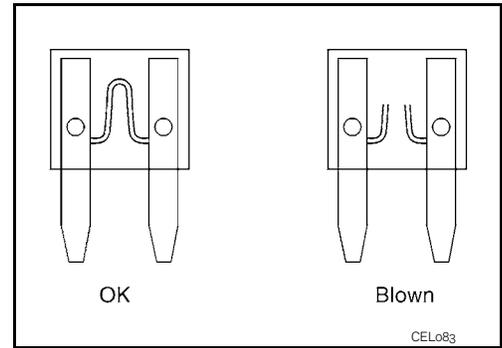
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

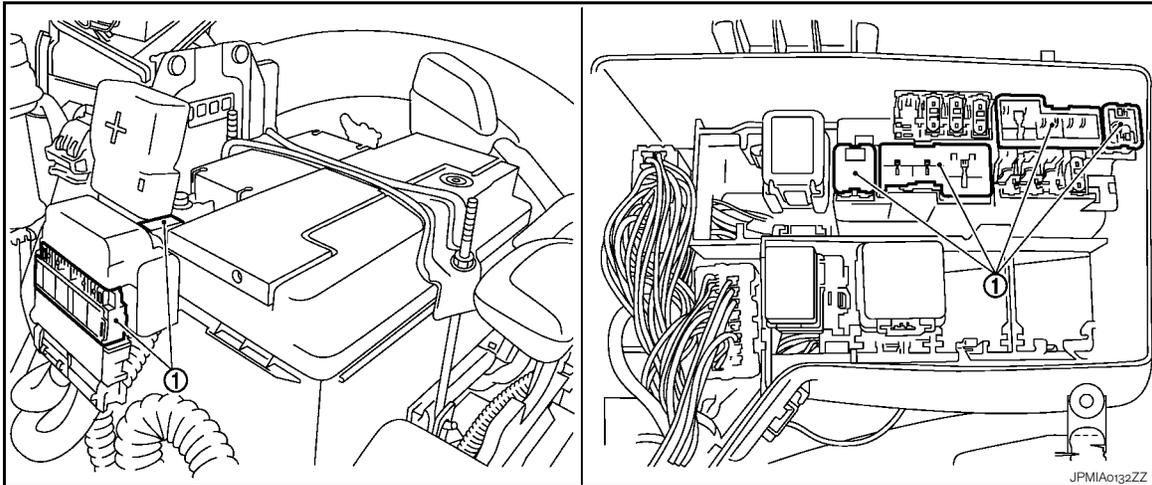
- If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.
- Use fuse of specified rating. Never use fuse of more than specified rating.
- Do not partially install fuse; always insert it into fuse holder properly.
- Remove fuse for "ELECTRICAL PARTS (BAT)" if vehicle is not used for a long period of time.



Fusible Link

INFOID:000000000956067

A melted fusible link can be detected either by visual inspection or by feeling with finger tip. If its condition is questionable, use circuit tester or test lamp.



1 : Fusible link

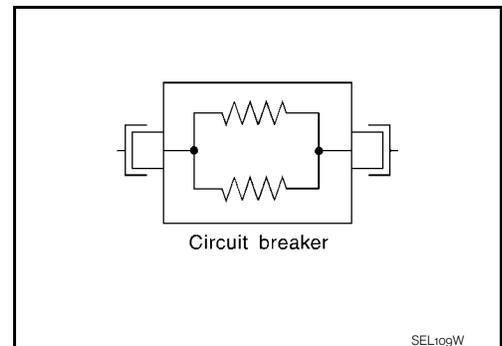
CAUTION:

- If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of malfunction.
- Never wrap outside of fusible link with vinyl tape. Important: Never let fusible link touch any other wiring harness, vinyl or rubber parts.

Circuit Breaker

INFOID:000000000956068

The PTC thermistor generates heat in response to current flow. The temperature (and resistance) of the thermistor element varies with current flow. Excessive current flow will cause the element's temperature to rise. When the temperature reaches a specified level, the electrical resistance will rise sharply to control the circuit current. Reduced current flow will cause the element to cool. Resistance falls accordingly and normal circuit current flow is allowed to resume.



HARNESS LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

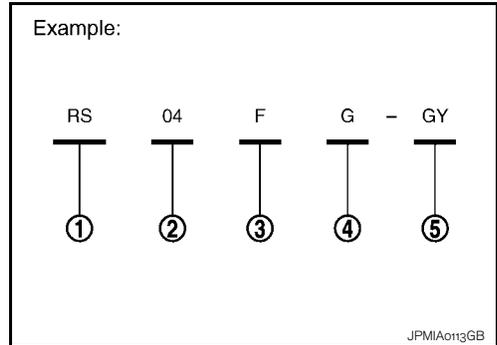
HARNESS LAYOUT

LHD

LHD : How To Read Harness Layout

INFOID:000000000956069

- 1 : Connector model
- 2 : Cavity
- 3 : Male (M) and female (F) terminals
- 4 : Connector color
- 5 : Special type



CONNECTOR SYMBOL

Main symbols of connector (in Harness Layout) are indicated in the below.

Connector type	Water proof type		Standard type	
	Male	Female	Male	Female
Connector symbol				
Ground terminal etc.	—			

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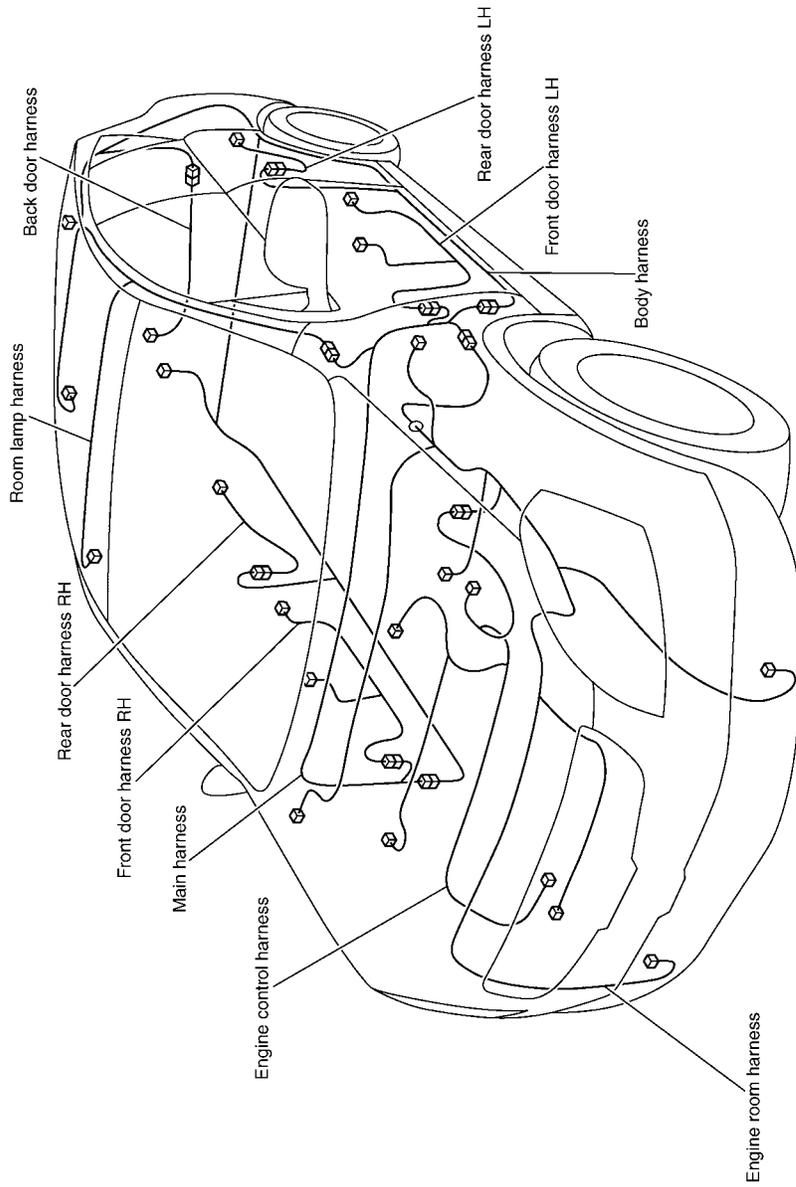
HARNESS LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

LHD : Outline

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Outline

2006/12/06

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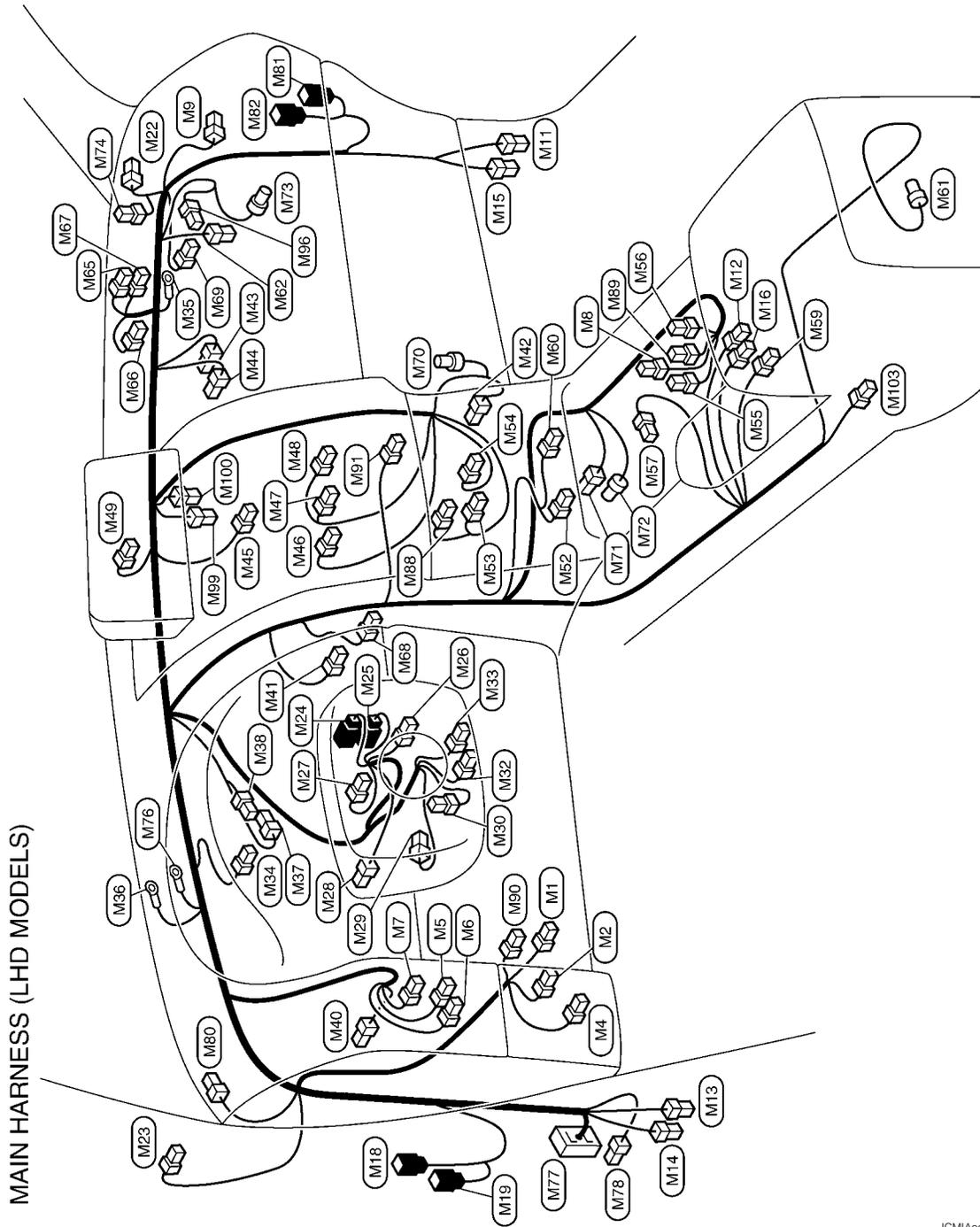
HARNESS LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

LHD : Main Harness

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LHD : Engine Room Harness

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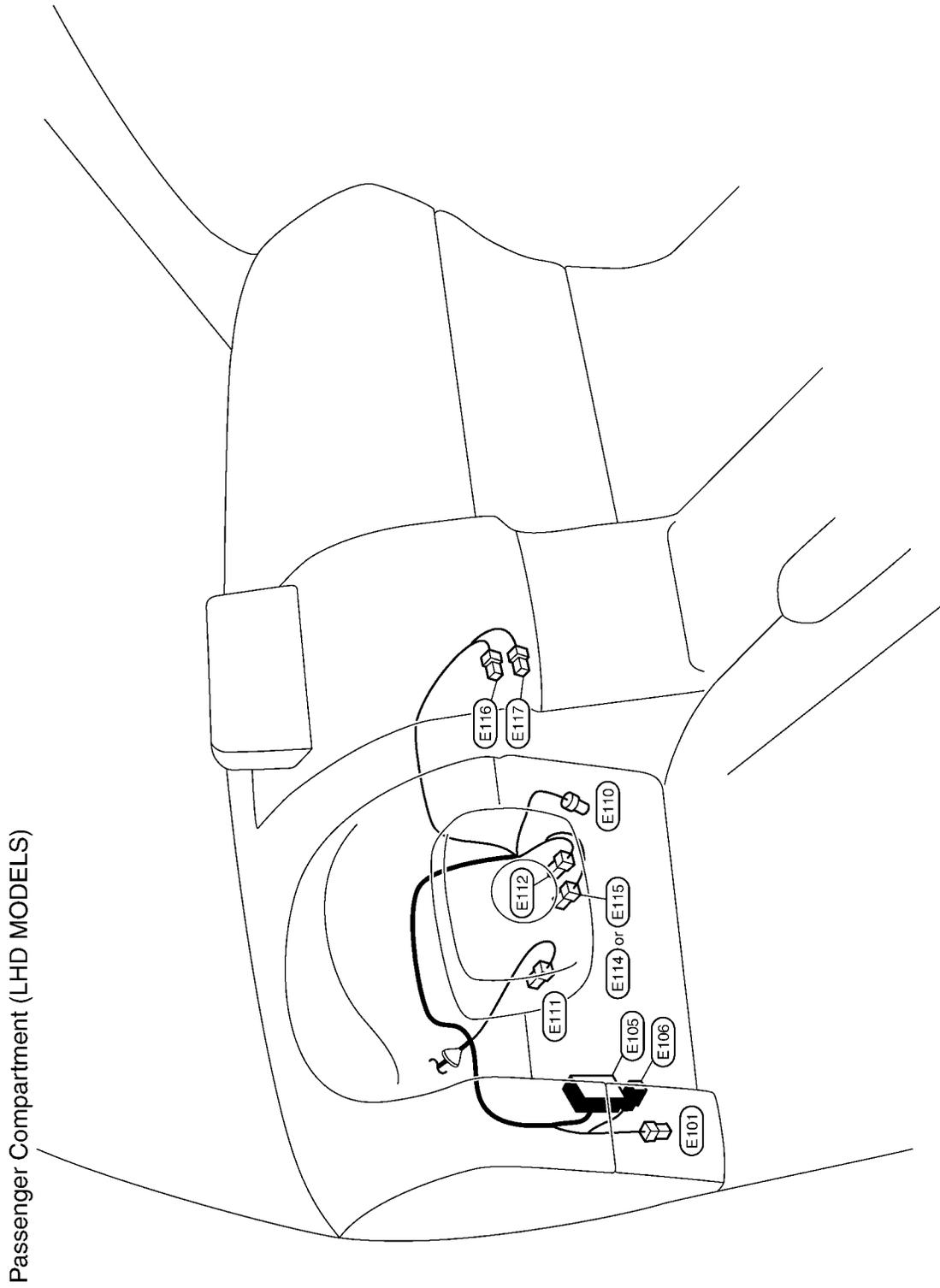
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HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

PASSENGER COMPARTMENT



Passenger Compartment (LHD MODELS)

LHD : Engine Control Harness

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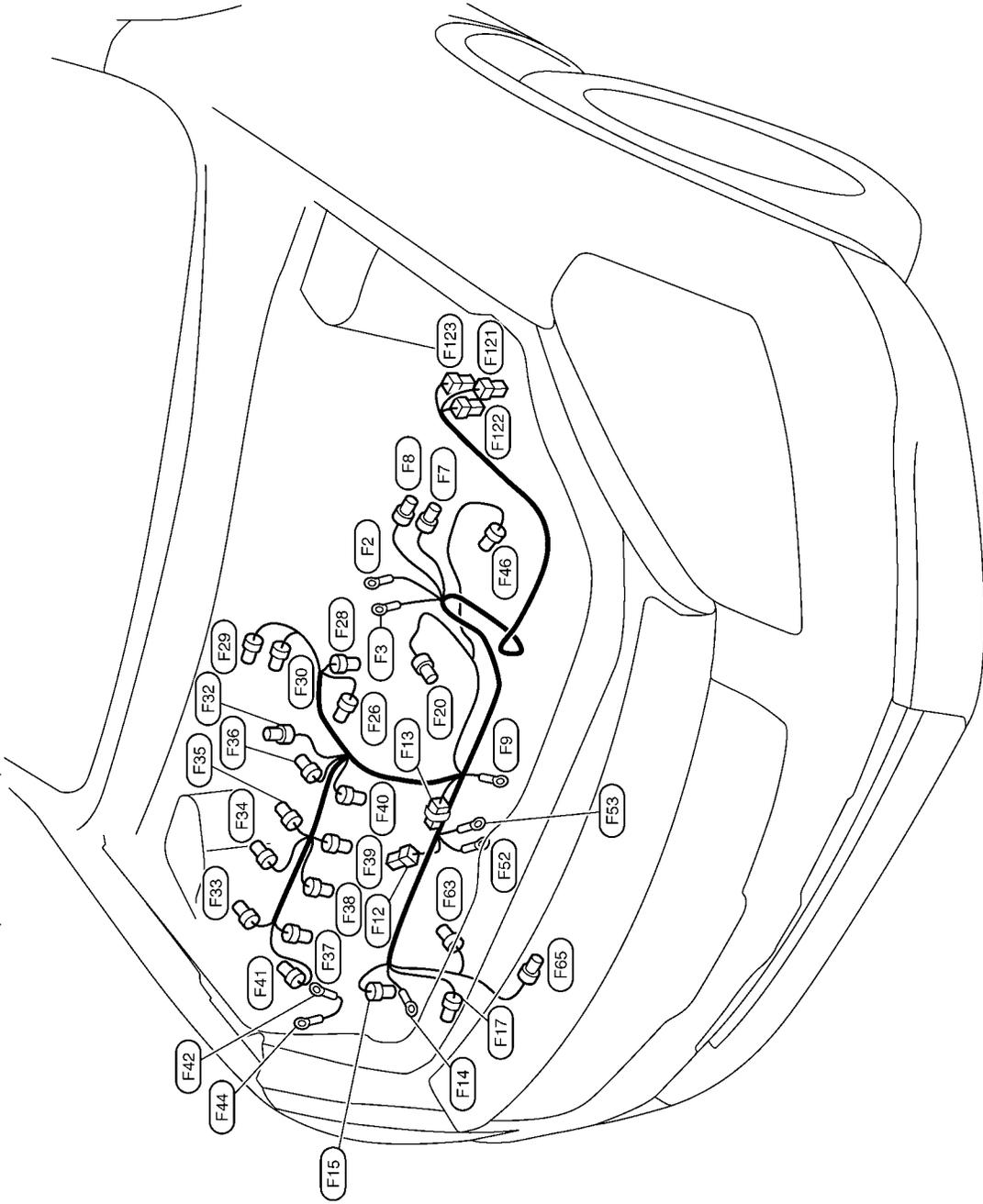
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

HR ENGINE

ENGINE CONTROL HARNESS (HR ENGINE)



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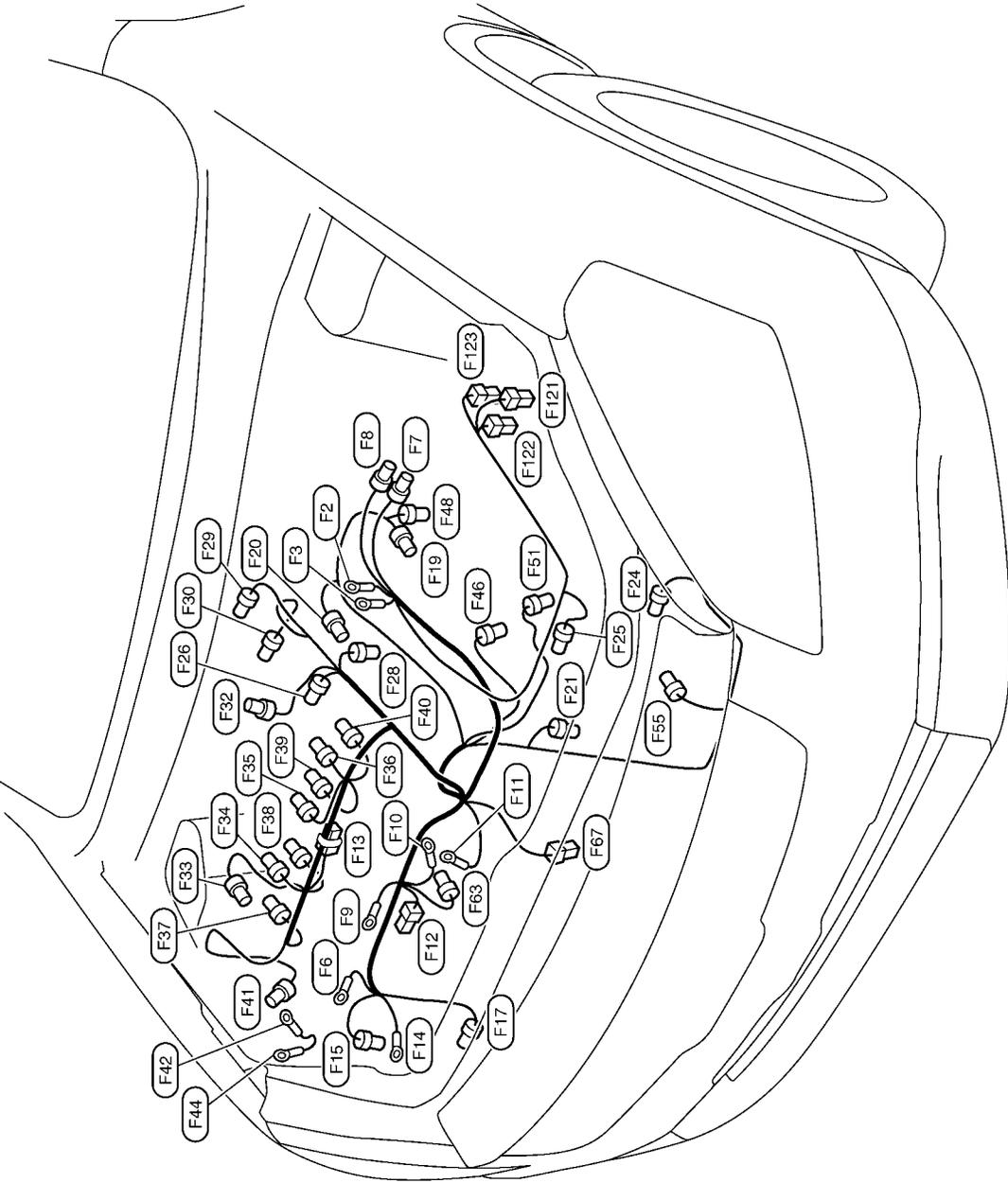
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

MR ENGINE

ENGINE CONTROL HARNESS (MR ENGINE)



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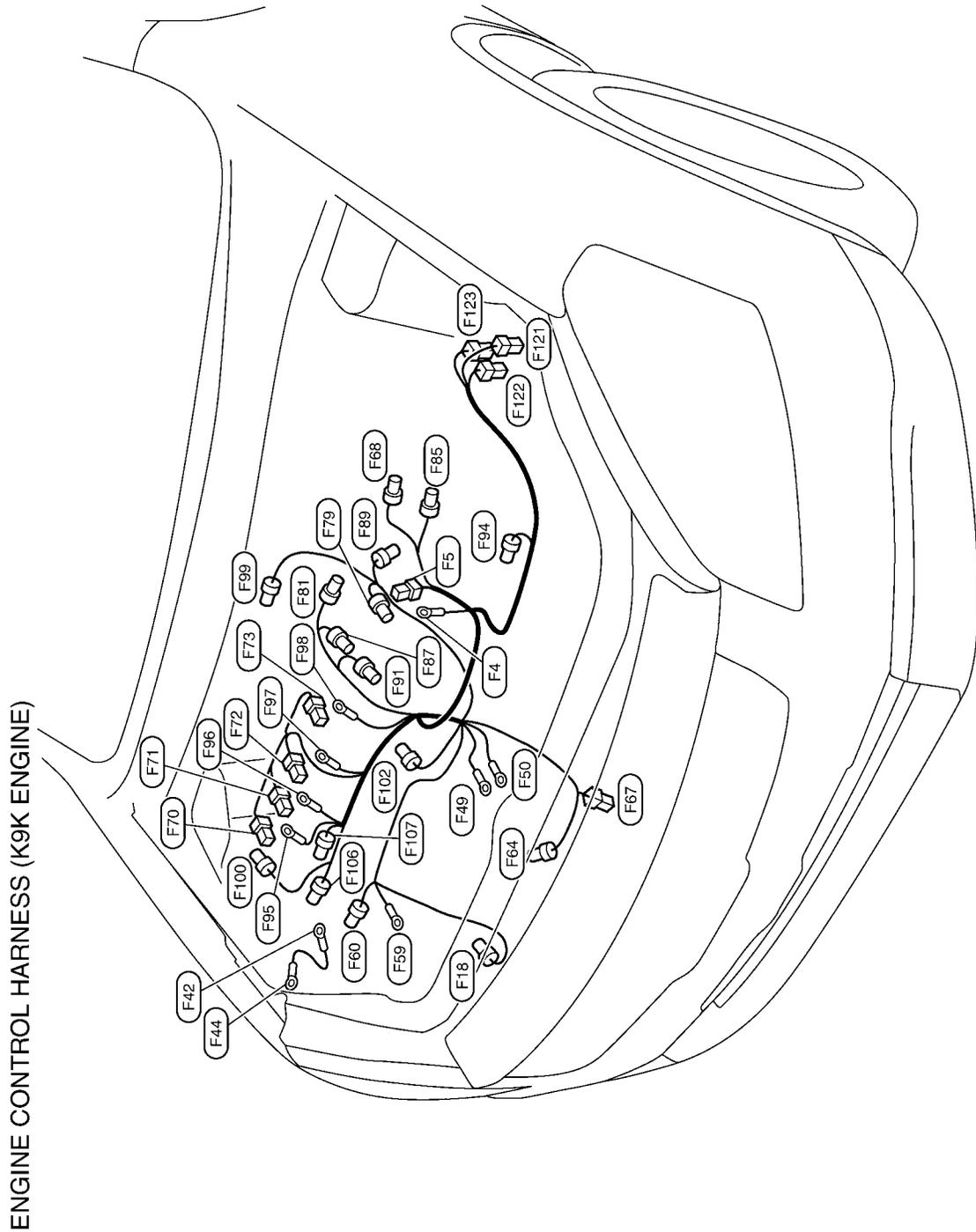
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HARNESS LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

K9K ENGINE



ENGINE CONTROL HARNESS (K9K ENGINE)

LHD : Body Harness

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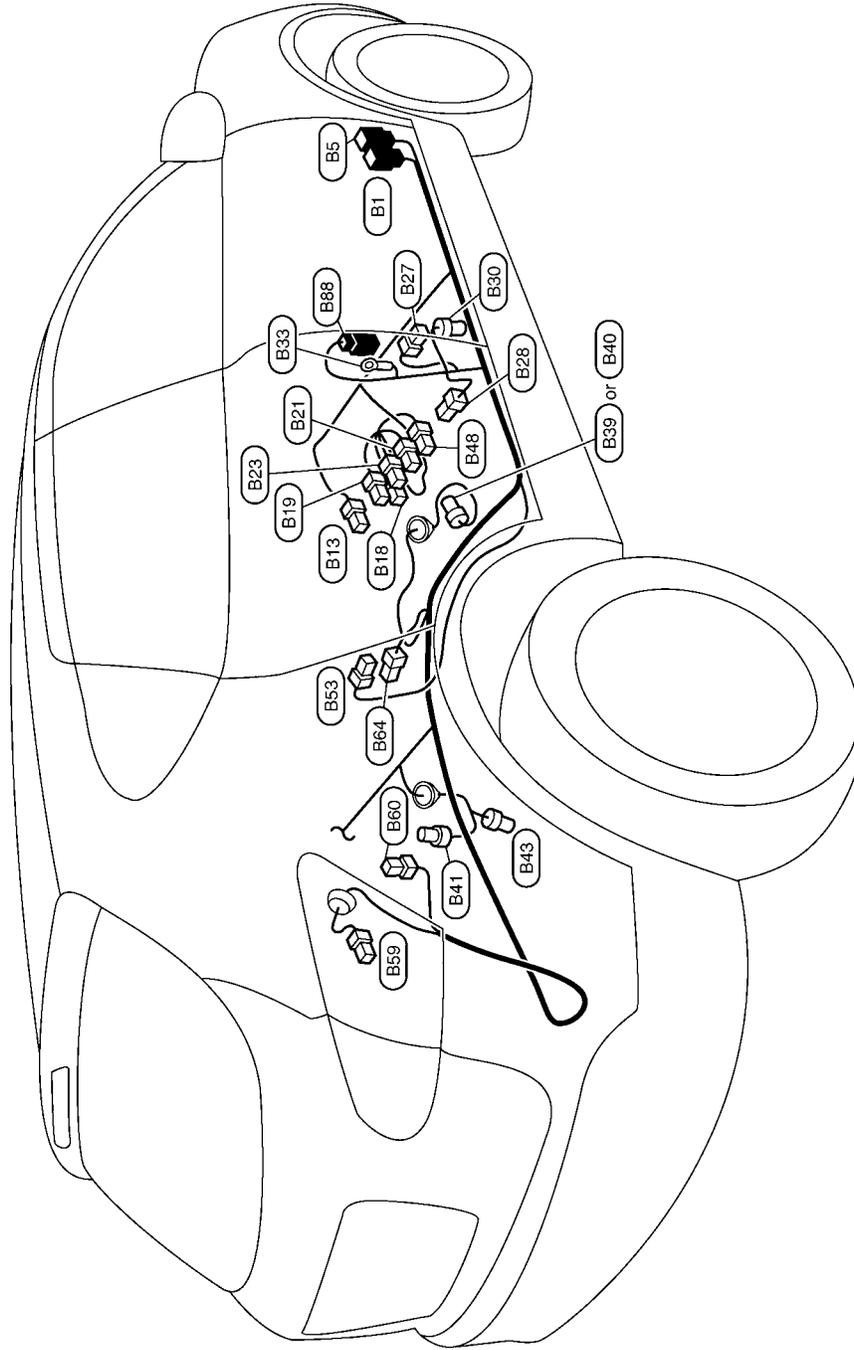
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

RH SIDE

BODY HARNES RH (LHD MODELS)



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HARNES LAYOUT

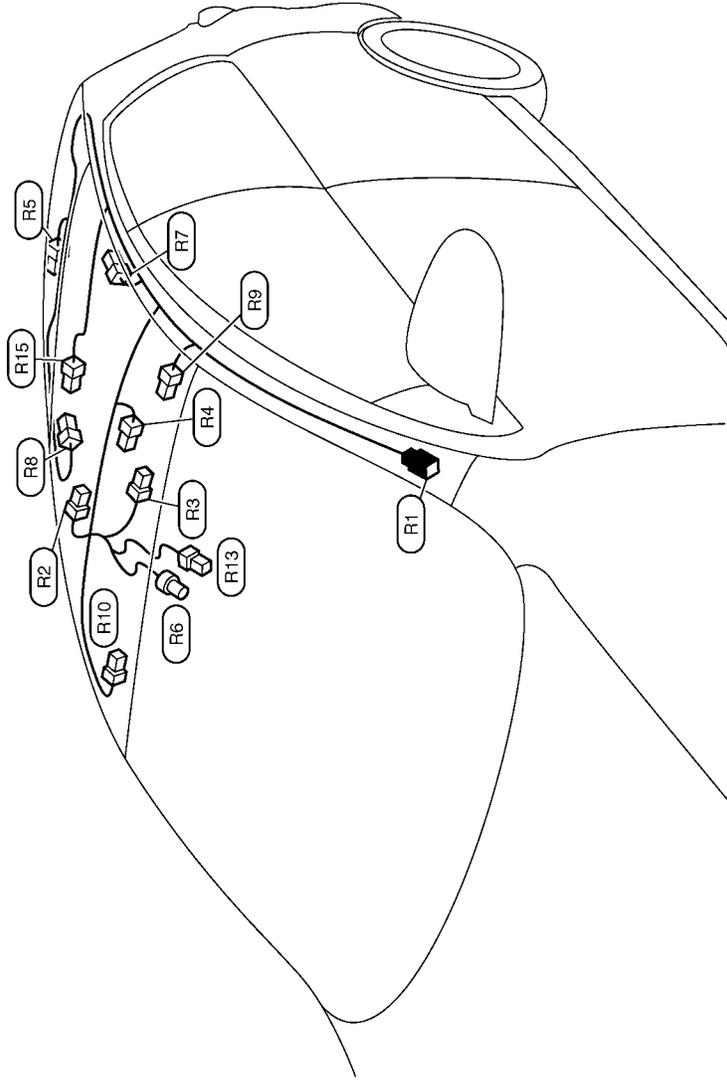
< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

LHD : Room Lamp Harness

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ROOM LAMP HARNESS (LHD MODELS)



LHD : Front Door Harness

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2006/12/06

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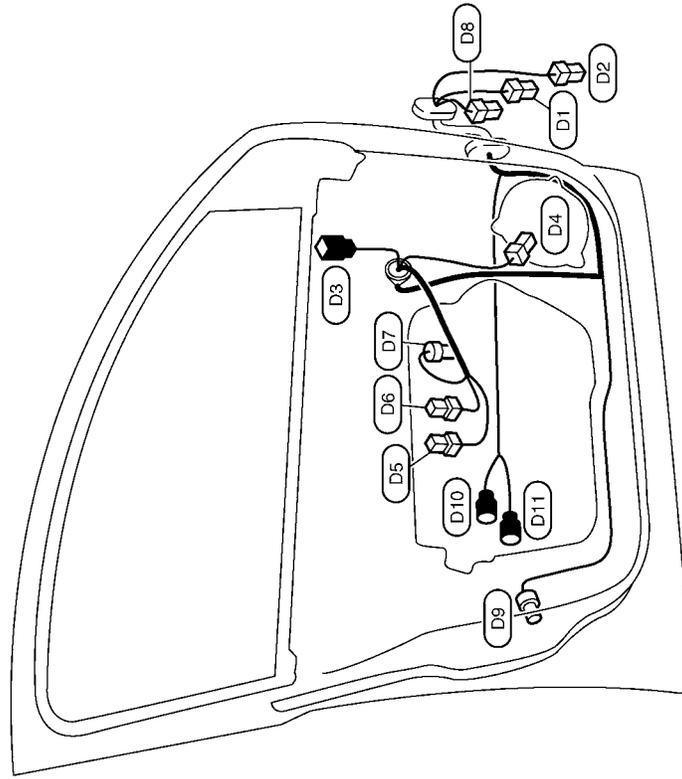
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

LH SIDE

FRONT DOOR HARNES LH (LHD MODELS)



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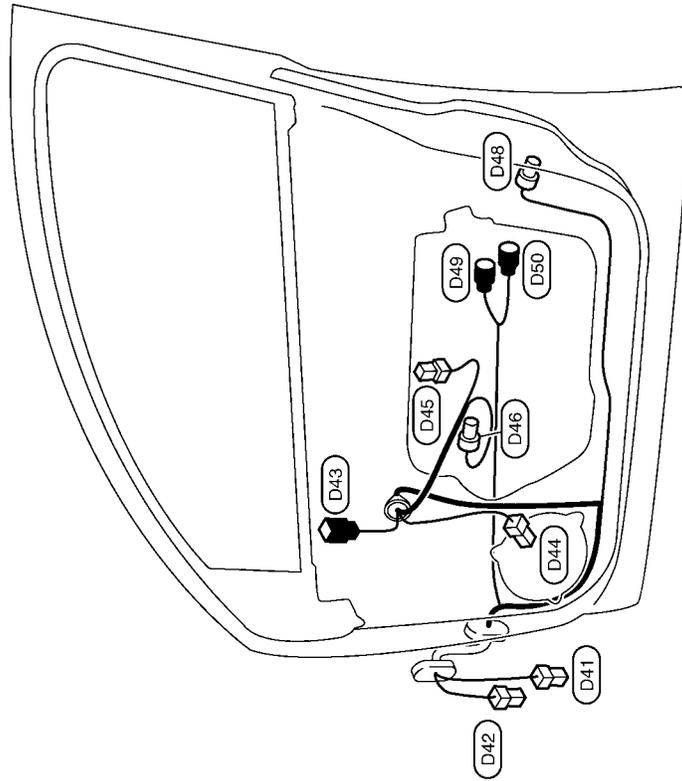
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

RH SIDE

FRONT DOOR HARNES RH (LHD MODELS)



LHD : Rear Door Harness

2006/12/06

JCMI/A0105GB

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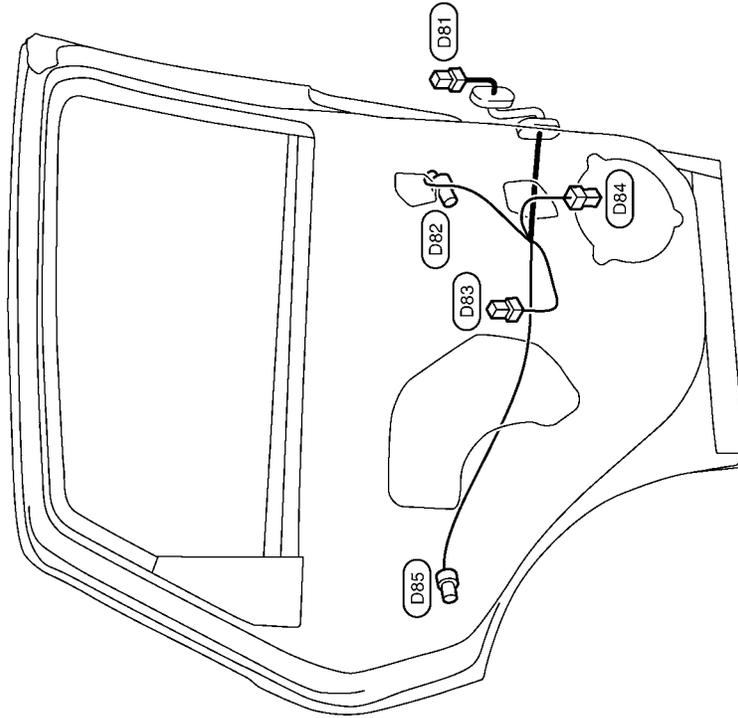
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

LH SIDE

REAR DOOR HARNES LH (LHD MODELS)



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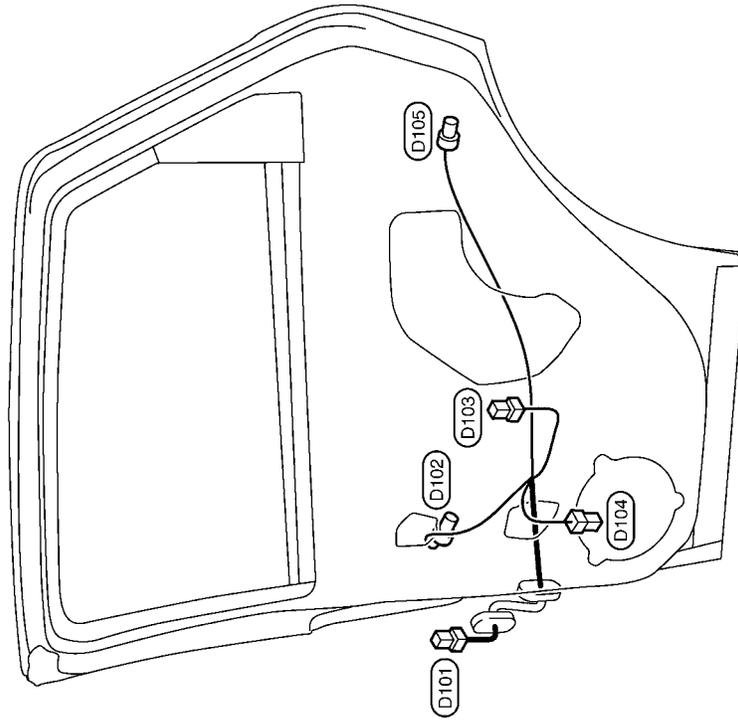
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

RH SIDE

REAR DOOR HARNES RH (LHD MODELS)



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HARNES LAYOUT

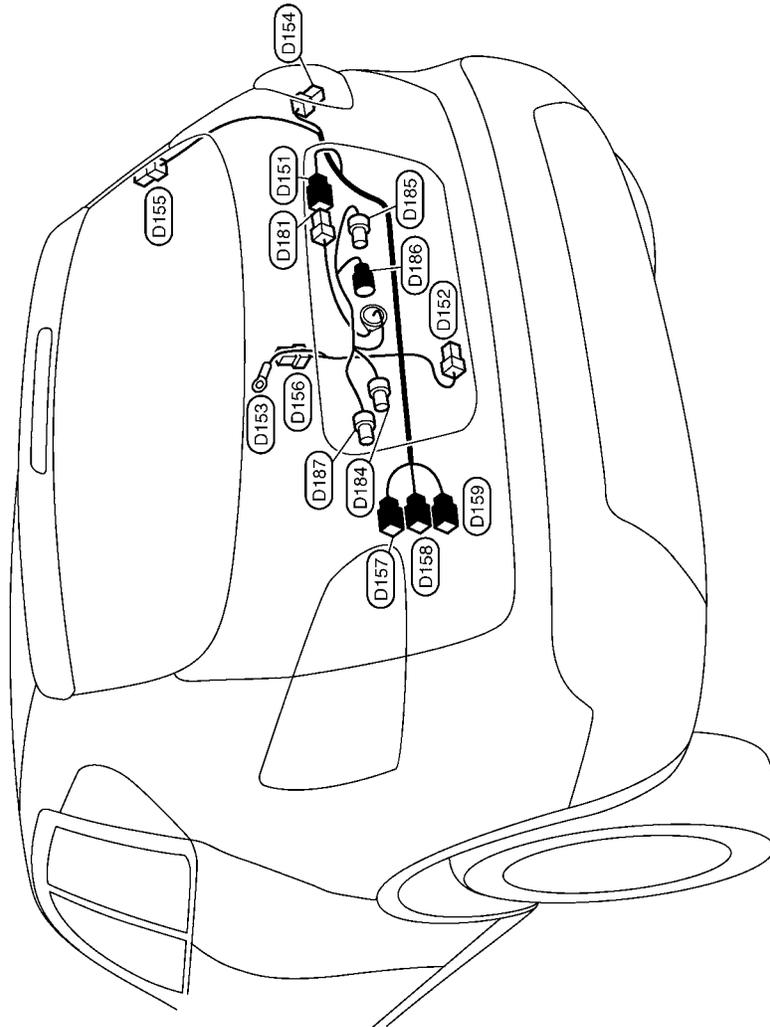
< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

LHD : Back Door Harness

INFOID:000000001125410

BACK DOOR HARNESS (LHD MODELS)



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RHD

RHD : How To Read Harness Layout

INFOID:000000000987917

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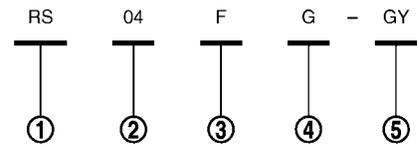
HARNESS LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

- 1 : Connector model
- 2 : Cavity
- 3 : Male (M) and female (F) terminals
- 4 : Connector color
- 5 : Special type

Example:



JPMIA0113GB

CONNECTOR SYMBOL

Main symbols of connector (in Harness Layout) are indicated in the below.

Connector type	Water proof type		Standard type	
	Male	Female	Male	Female
Connector symbol				
Ground terminal etc.	—			

JPMIA0114GB

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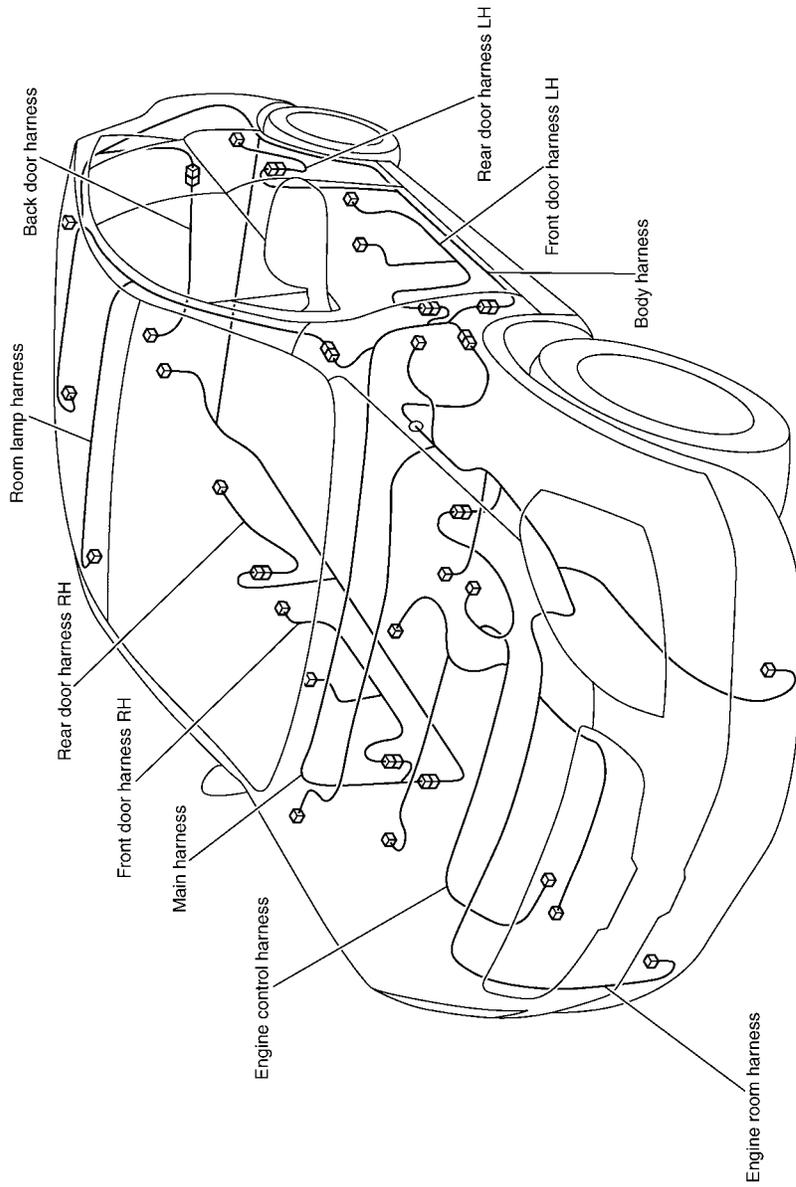
HARNESS LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

RHD : Outline

INFOID:000000000987918



Outline

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HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

RHD : Main Harness

INFOID:000000000987926



RHD : Engine Room Harness

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INFOID:000000000987920

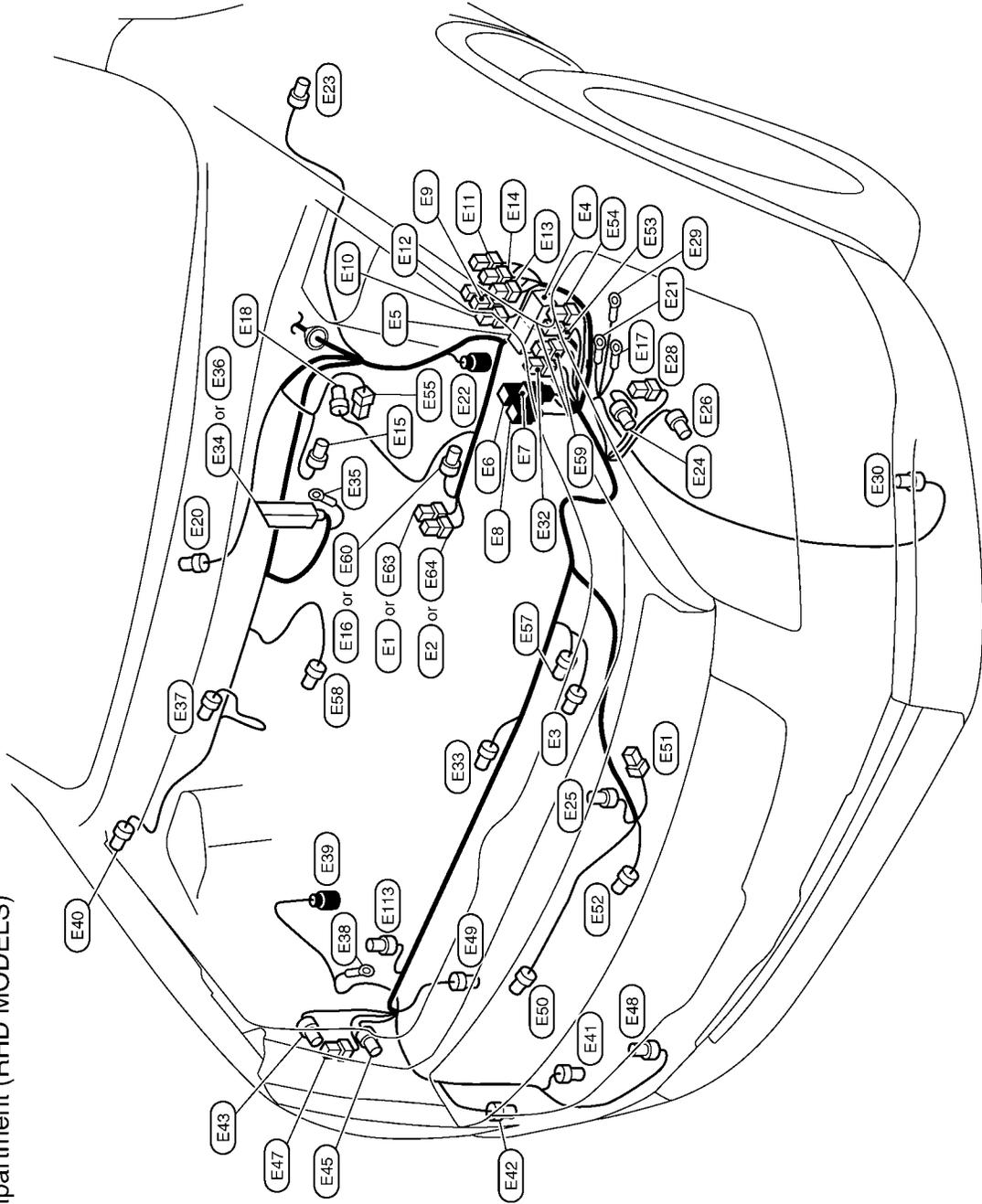
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

ENGINE COMPARTMENT

ENGINE ROOM HARNESS/
Engine Compartment (RHD MODELS)



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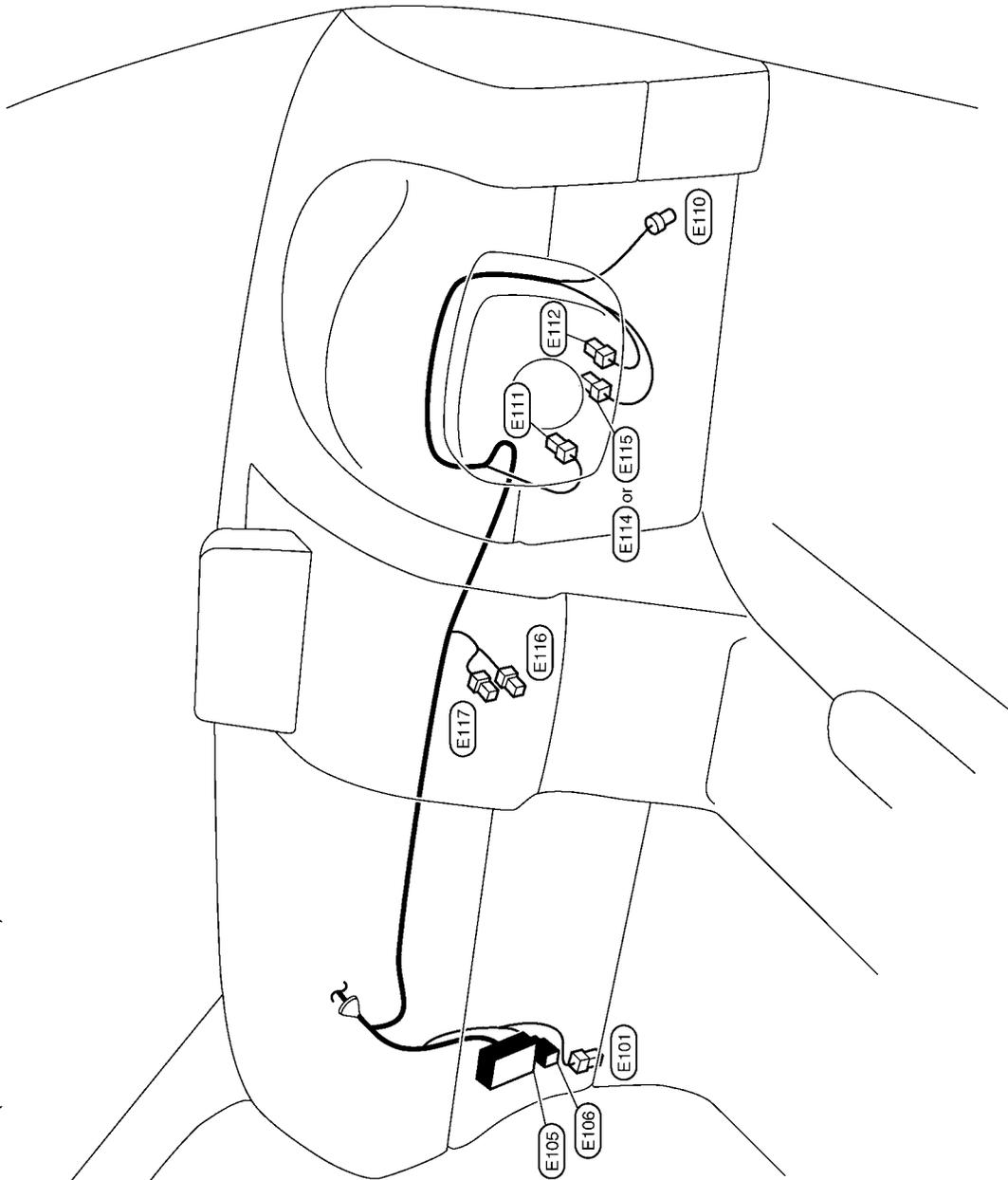
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

PASSENGER COMPARTMENT

Passenger Compartment (RHD MODELS)



RHD : Engine Control Harness

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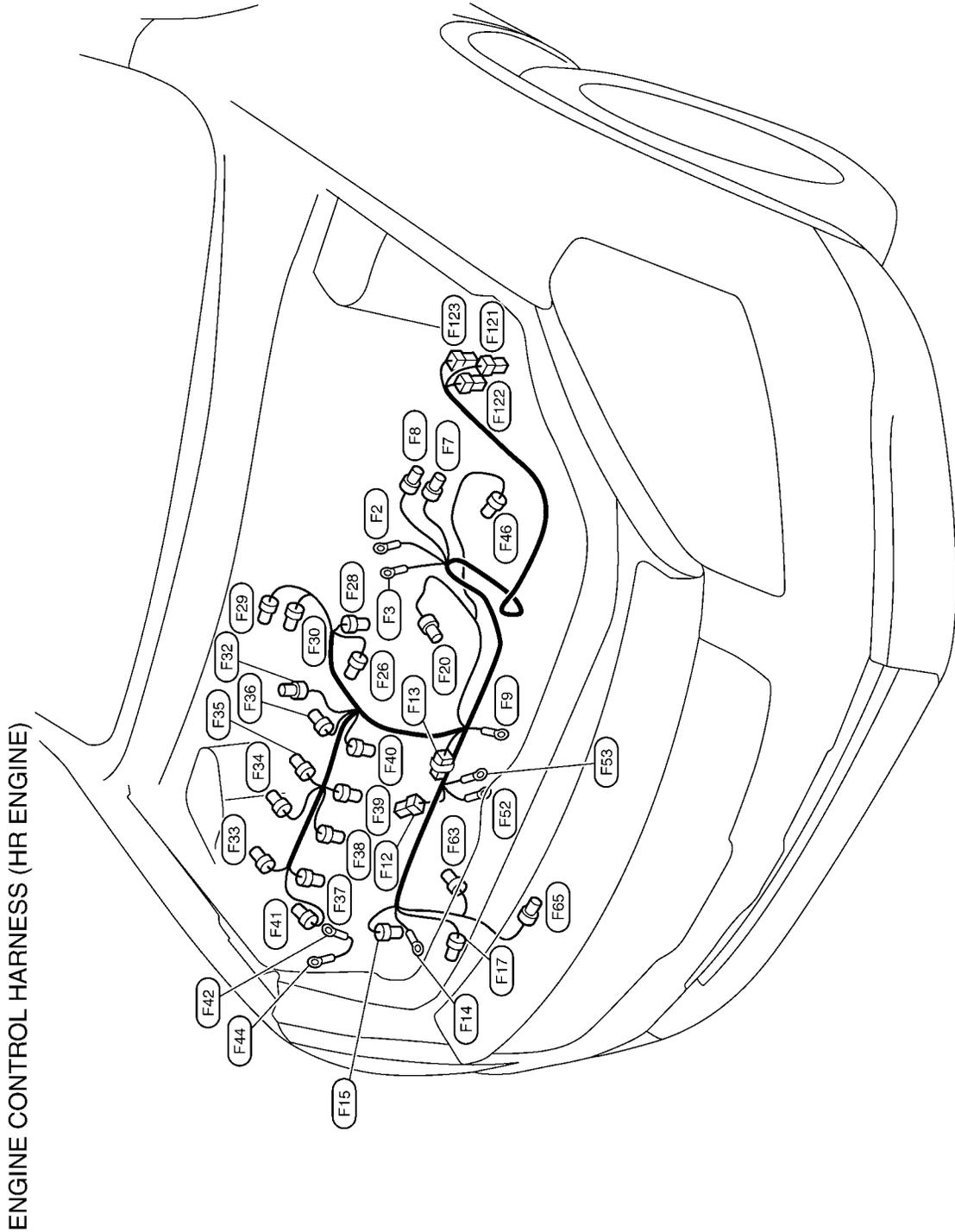
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HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

HR ENGINE



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JCMA0095GB

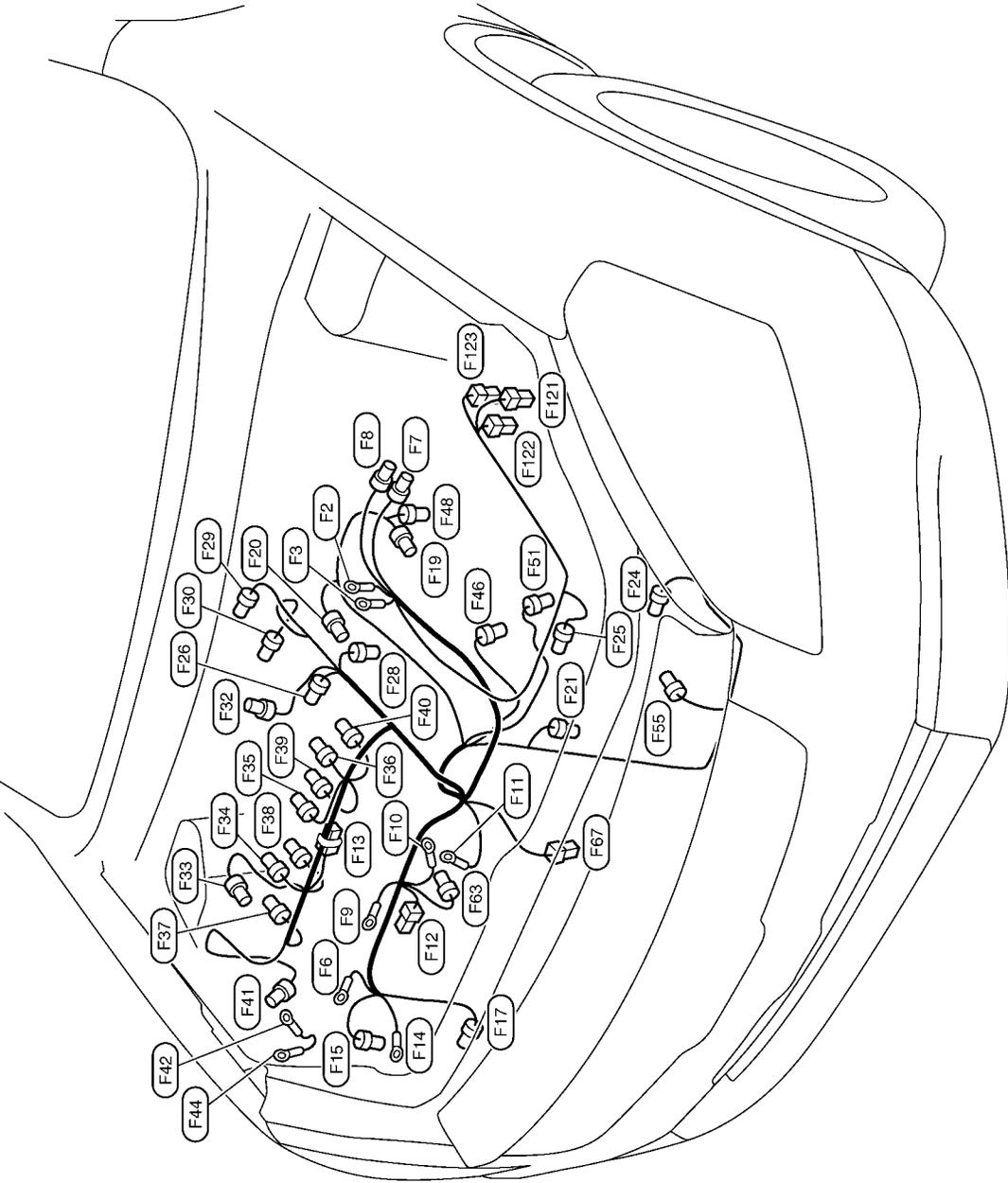
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

MR ENGINE

ENGINE CONTROL HARNESS (MR ENGINE)



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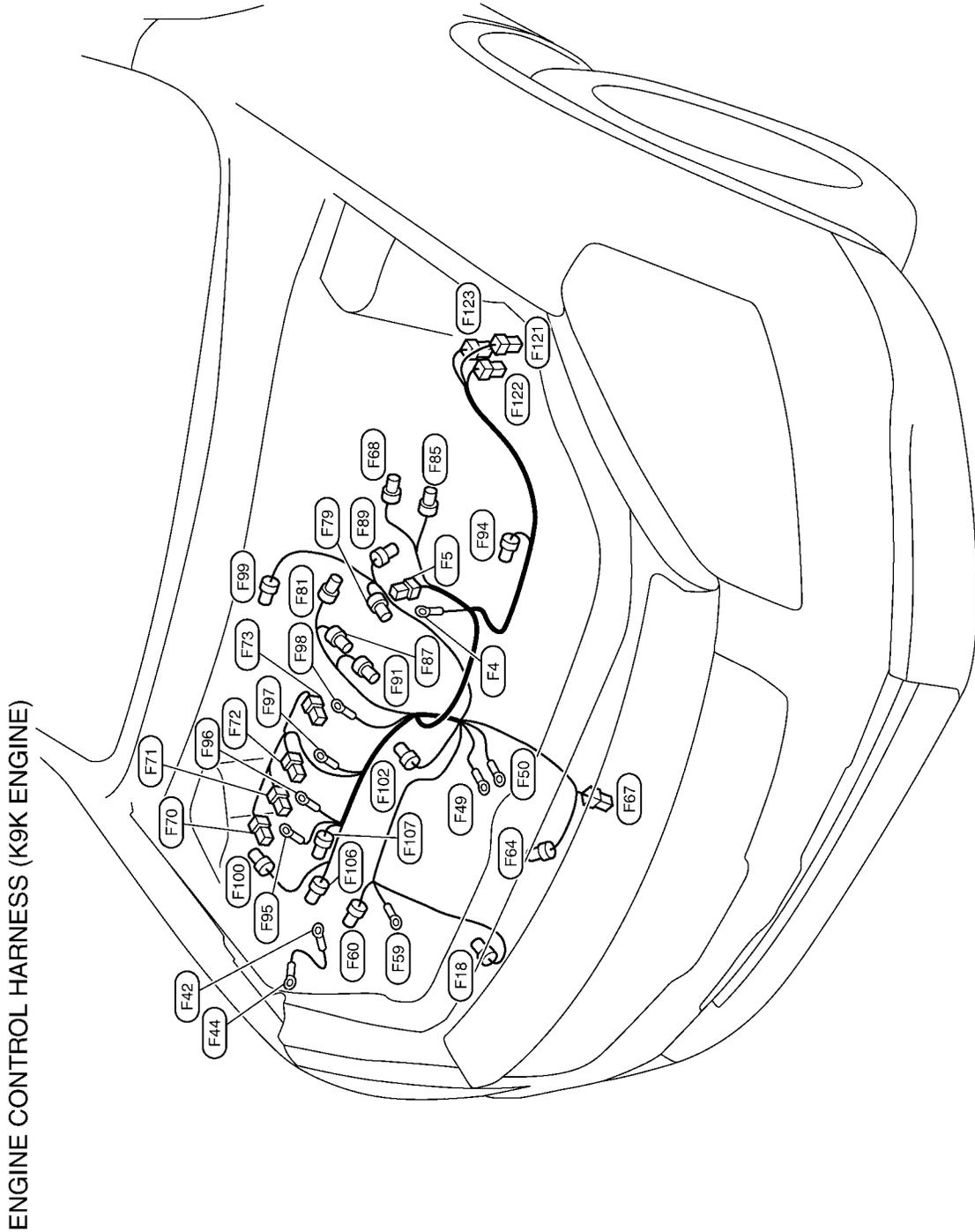
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HARNESS LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

K9K ENGINE



RHD : Body Harness

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INFOID:000000000987922

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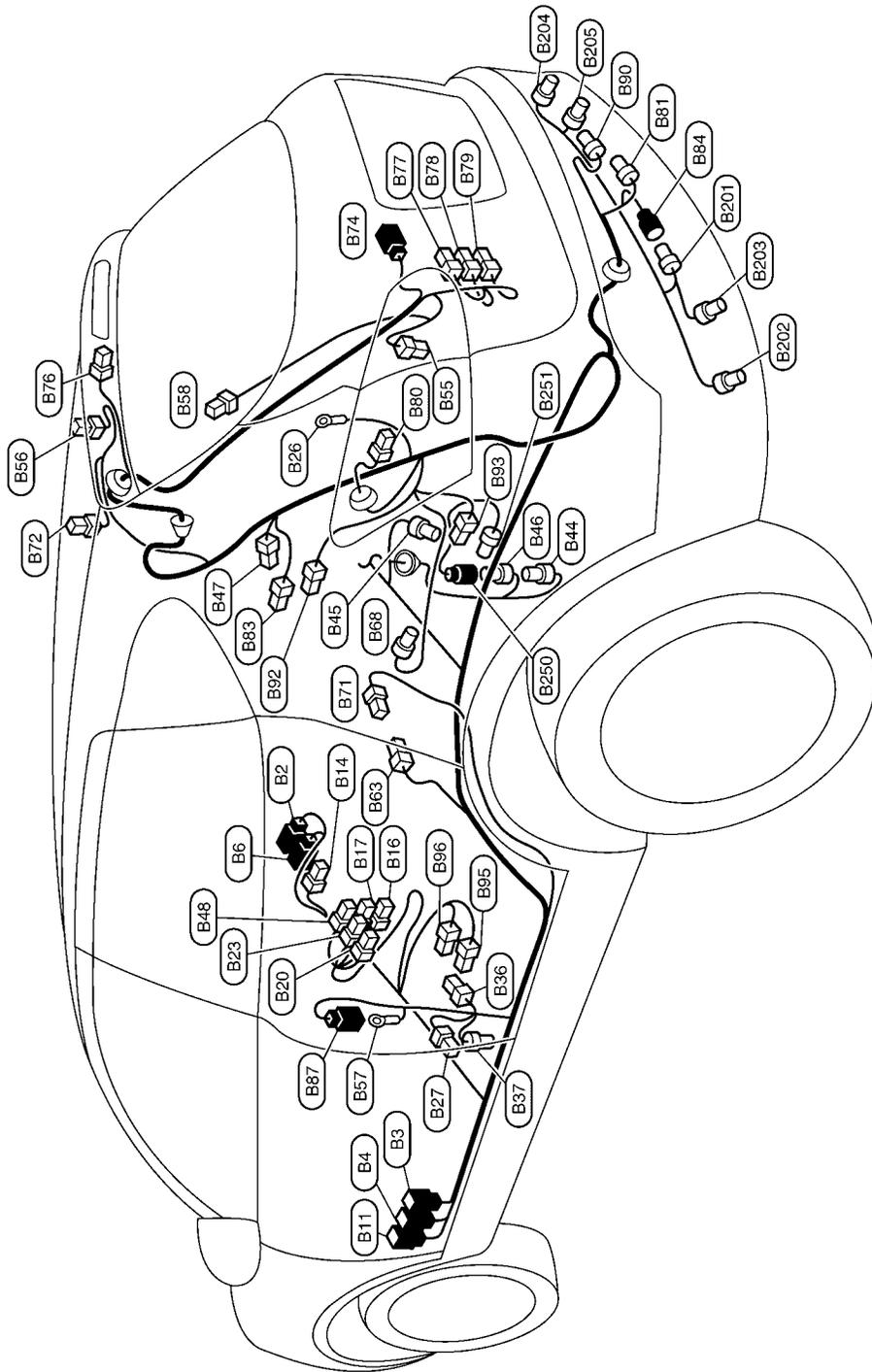
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

LH SIDE

BODY HARNESS LH (RHD MODELS)



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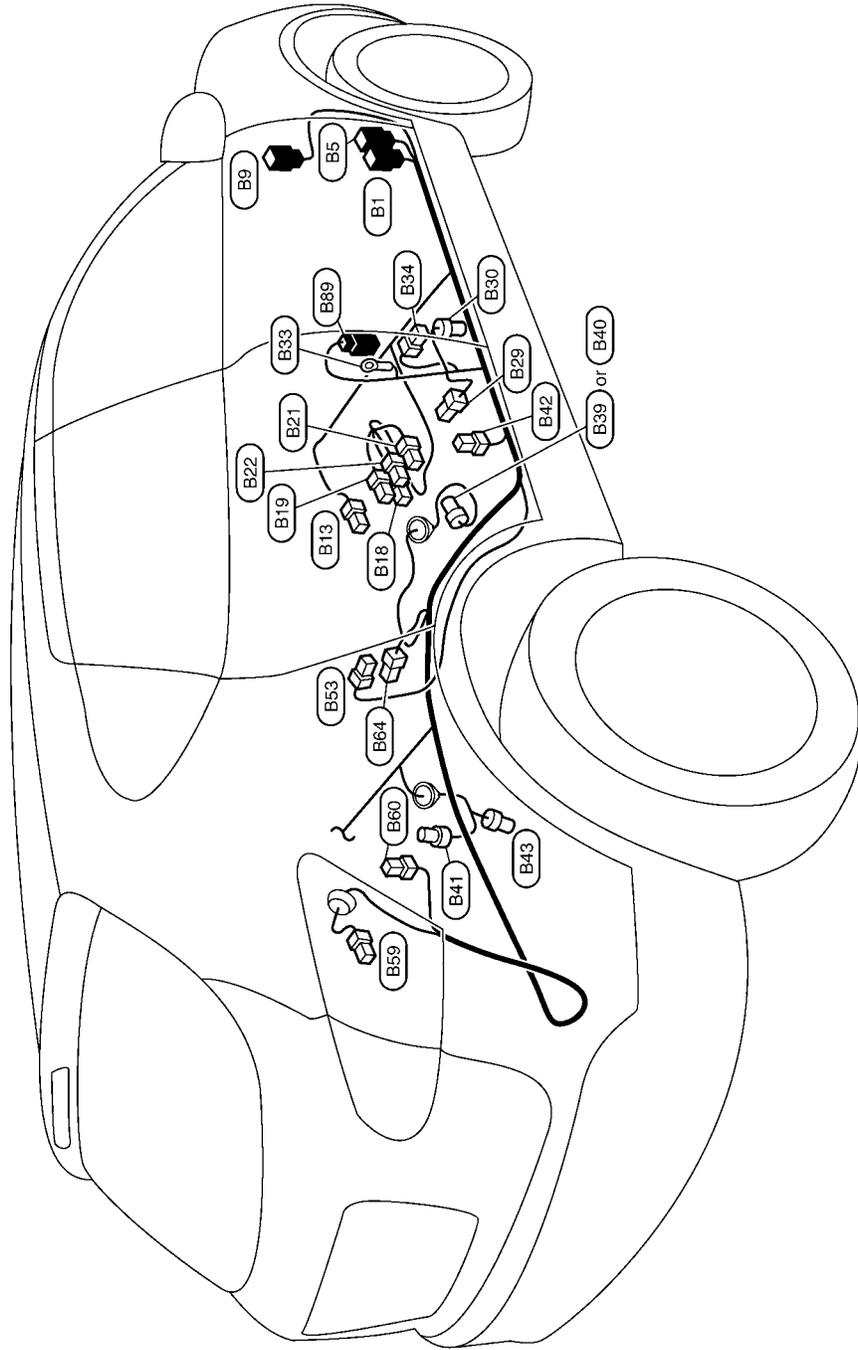
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

RH SIDE

BODY HARNES RH (RHD MODELS)



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HARNES LAYOUT

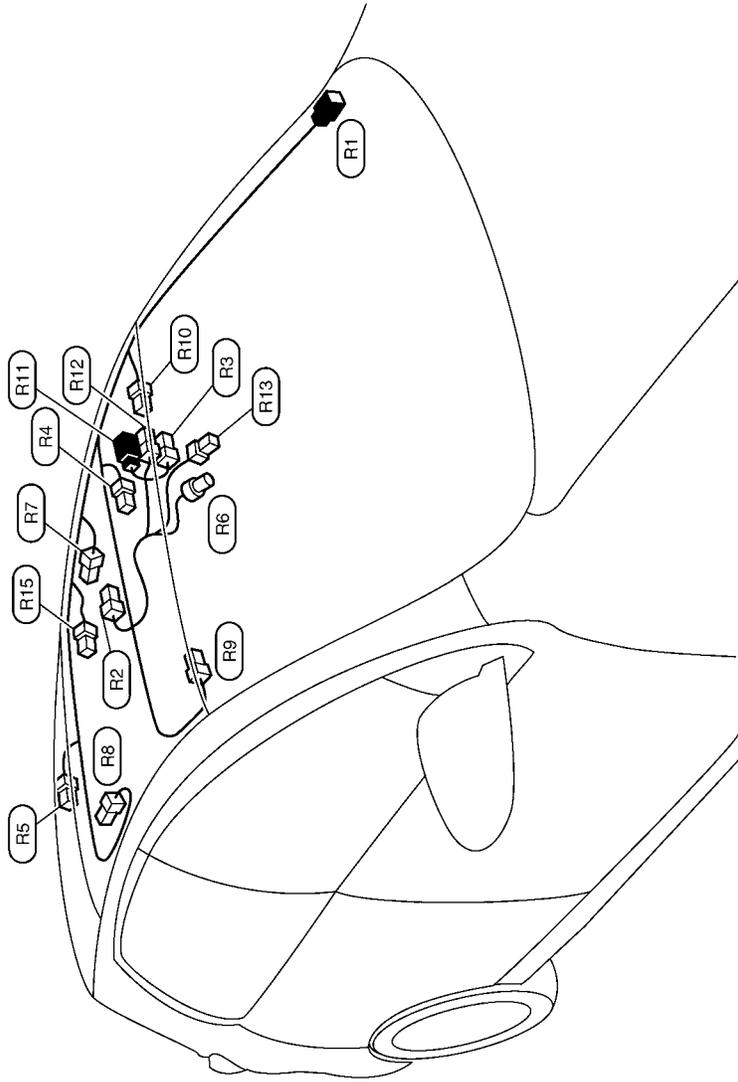
< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

RHD : Room Lamp Harness

INFOID:000000000987923

ROOM LAMP HARNESS (RHD MODELS)



RHD : Front Door Harness

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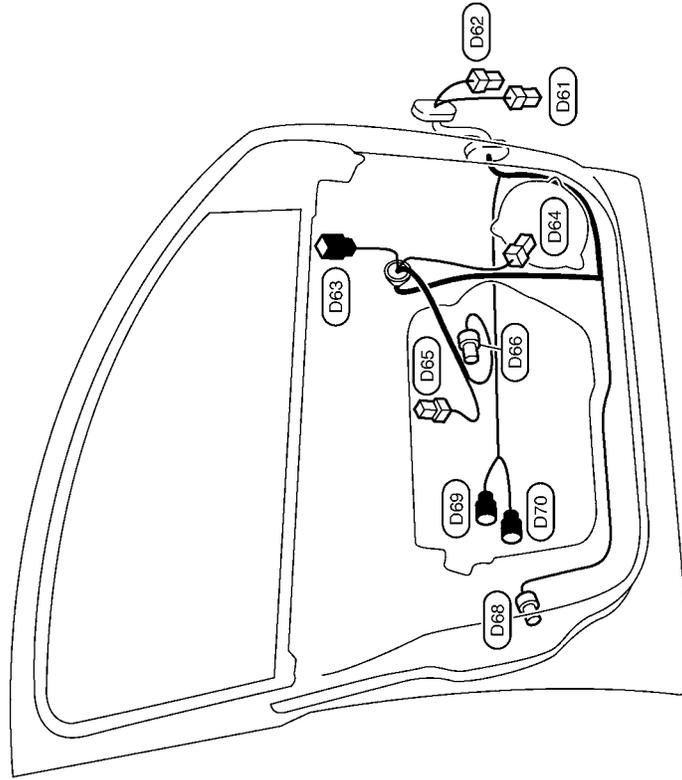
HARNESS LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

LH SIDE

FRONT DOOR HARNESS LH (RHD MODELS)



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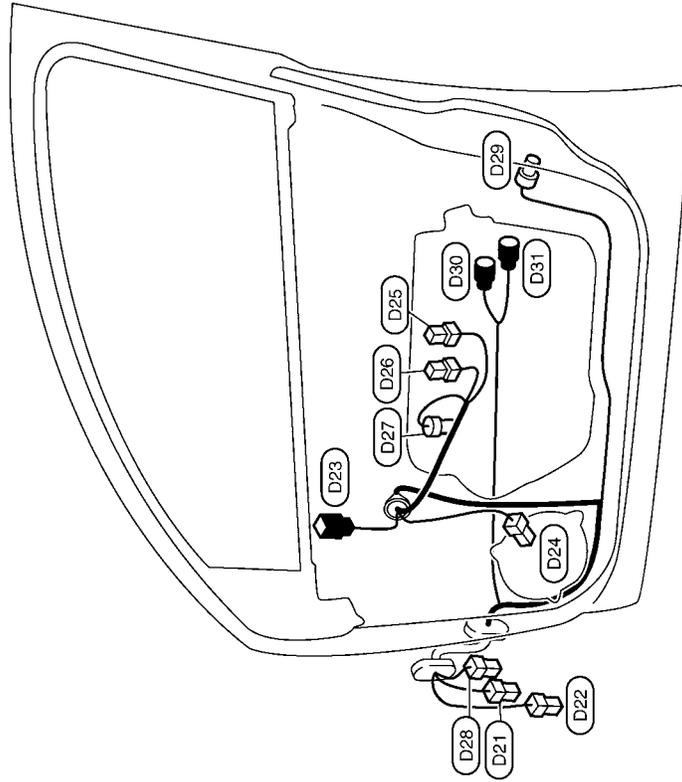
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

RH SIDE

FRONT DOOR HARNESS RH (RHD MODELS)



RHD : Rear Door Harness

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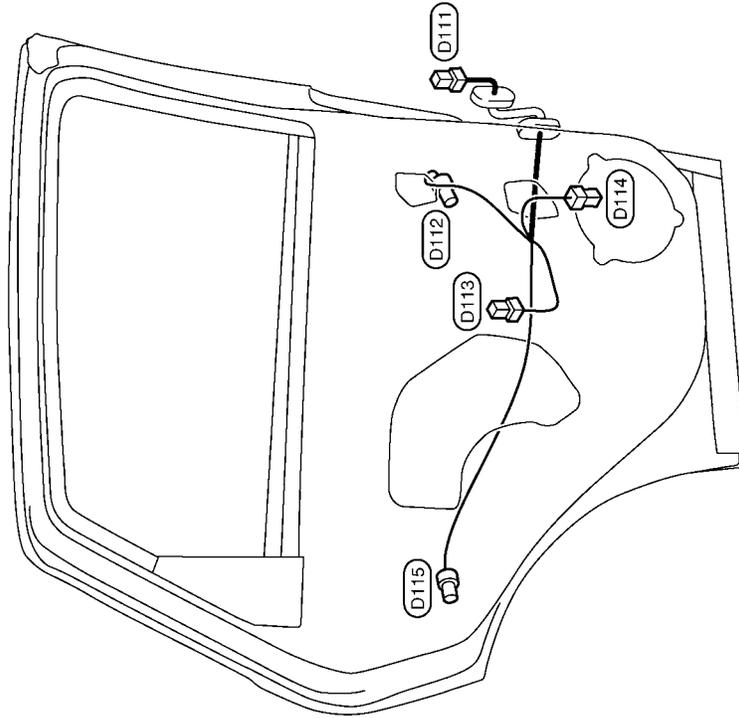
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HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

LH SIDE



REAR DOOR HARNES LH (RHD MODELS)

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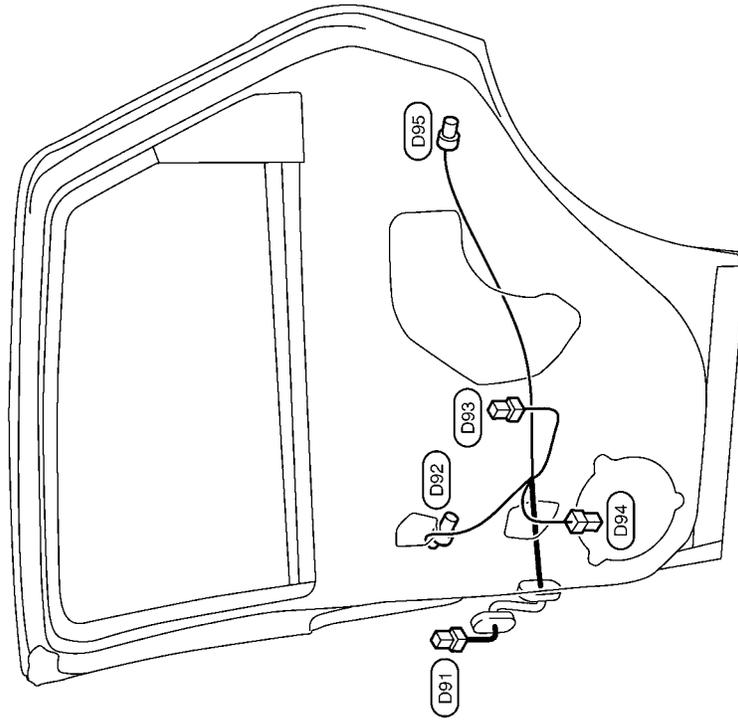
HARNES LAYOUT

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

RH SIDE

REAR DOOR HARNES RH (RHD MODELS)



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HARNES LAYOUT

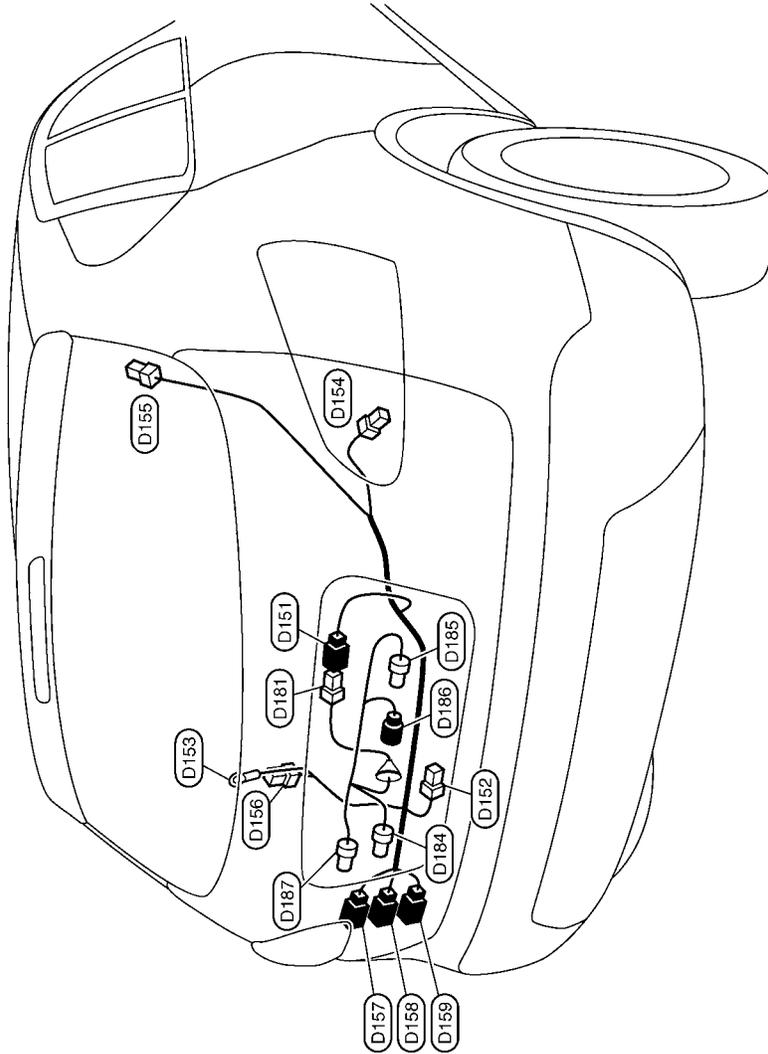
< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

RHD : Back Door Harness

INFOID:000000001125414

BACK DOOR HARNESS (RHD MODELS)



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HARNESS CONNECTOR

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

HARNESS CONNECTOR

Description

INFOID:000000000956079

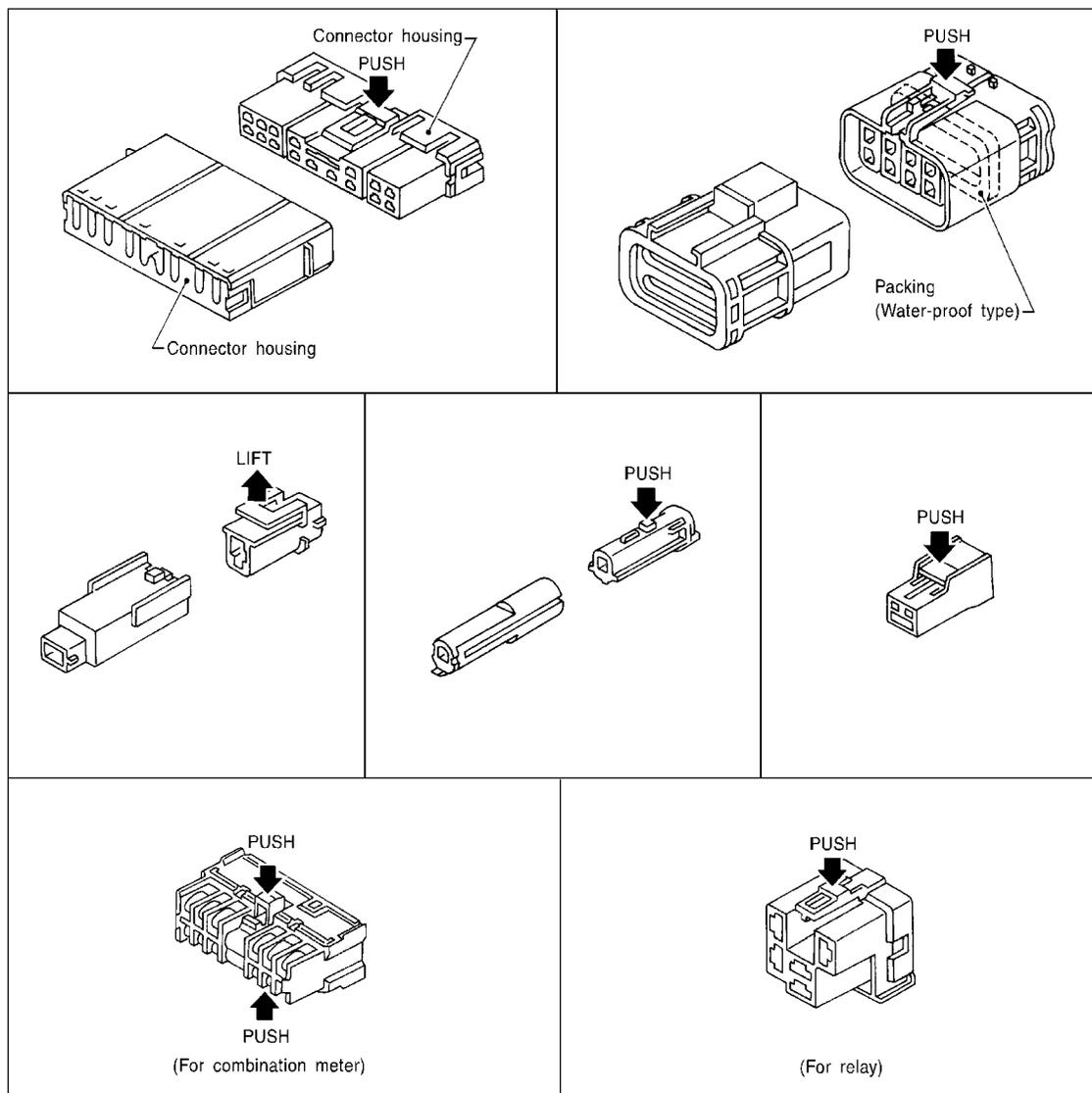
HARNESS CONNECTOR (TAB-LOCKING TYPE)

- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the figure below.

CAUTION:

Never pull the harness or wires when disconnecting the connector.

[Example]



SEL769DA

HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- A new style slide-locking type connector is used on certain systems and components, especially those related to OBD.
- The slide-locking type connectors help prevent incomplete locking and accidental looseness or disconnection.
- The slide-locking type connectors are disconnected by pushing or pulling the slider. Refer to the figure below.

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HARNESS CONNECTOR

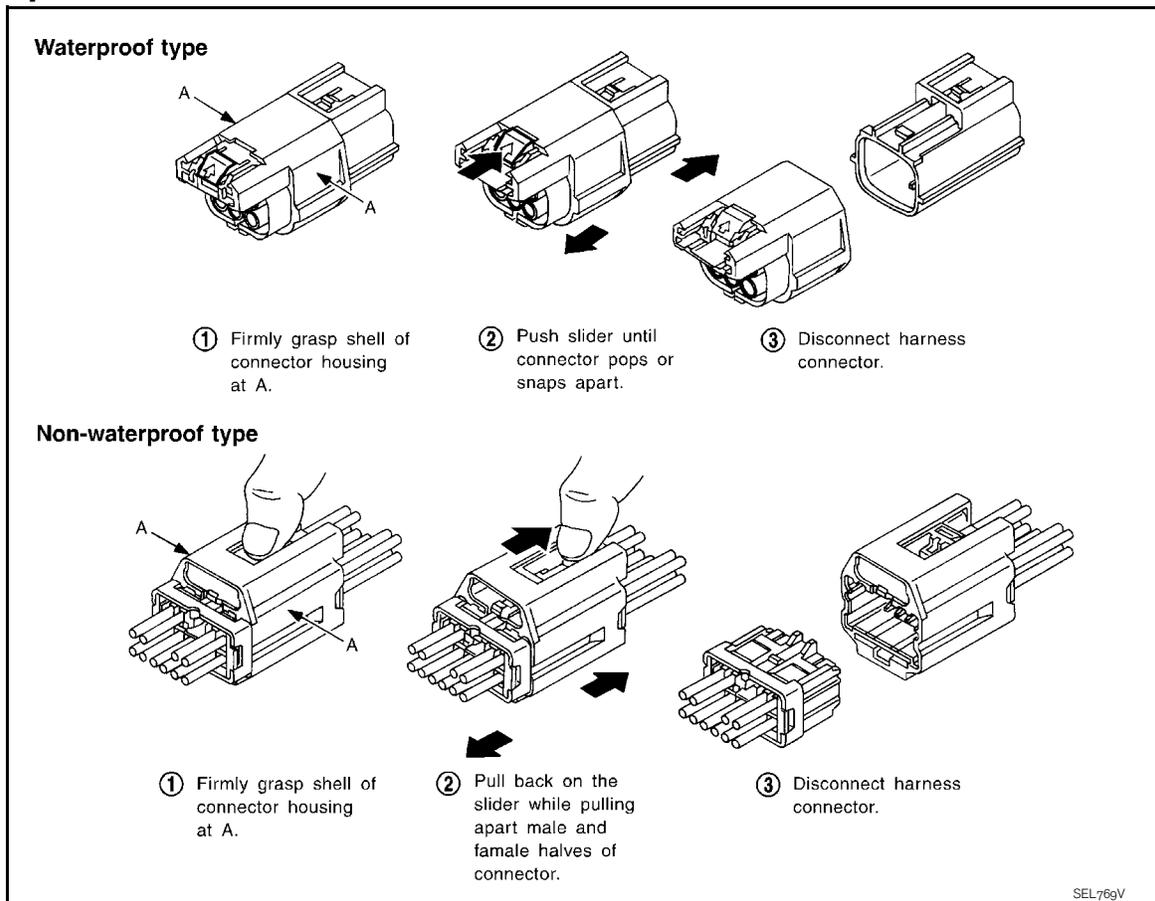
< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

CAUTION:

- Never pull the harness or wires when disconnecting the connector.
- Be careful not to damage the connector support bracket when disconnecting the connector.

[Example]



HARNESS CONNECTOR (LEVER LOCKING TYPE)

- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked in place by moving the lever as far as it will go to ensure full connection.

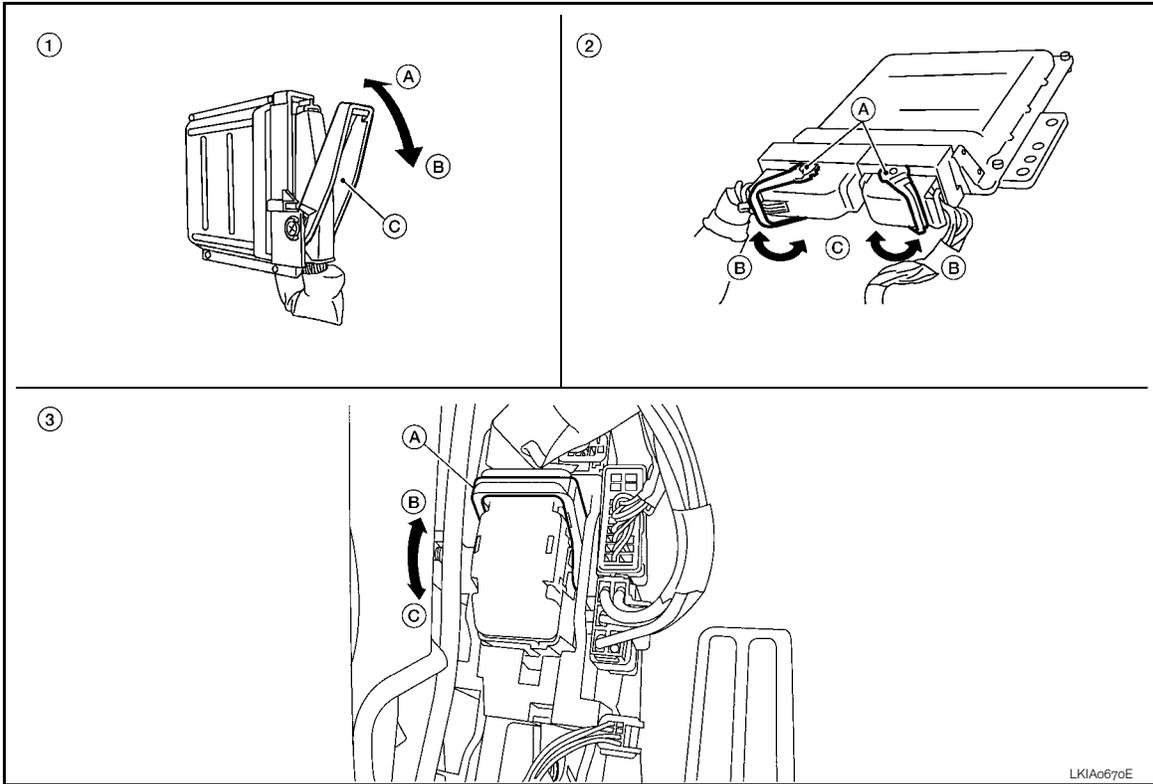
CAUTION:

HARNESS CONNECTOR

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

Always confirm the lever is fully released (loosened) before attempting to disconnect or connect these connectors to avoid damage to the connector housing or terminals.



1. Control unit with single lever
A. Fasten
B. Loosen
C. Lever

2. Control unit with dual levers
A. Levers
B. Fasten
C. Loosen

3. SMJ connector
A. Lever
B. Fasten
C. Loosen

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STANDARDIZED RELAY

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

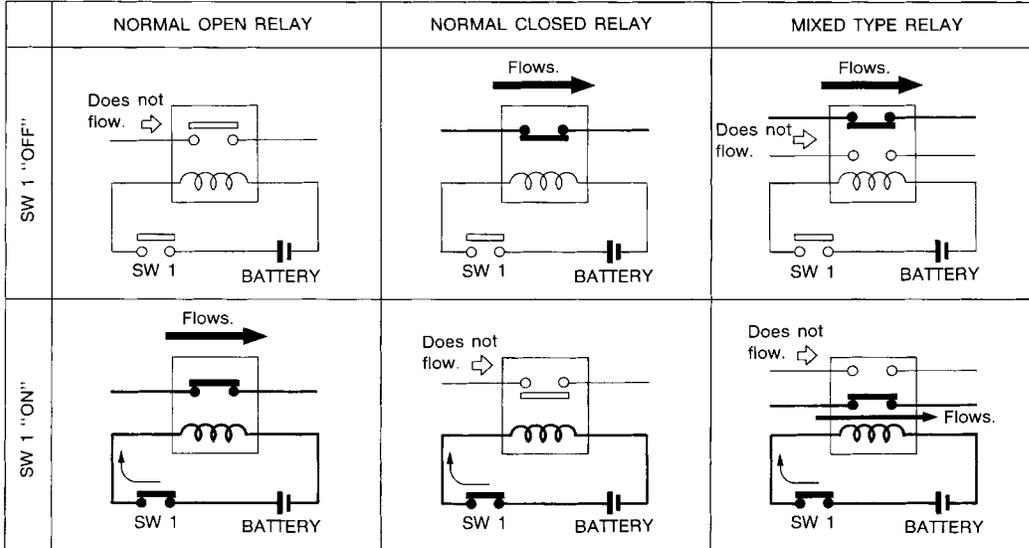
STANDARDIZED RELAY

Description

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NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

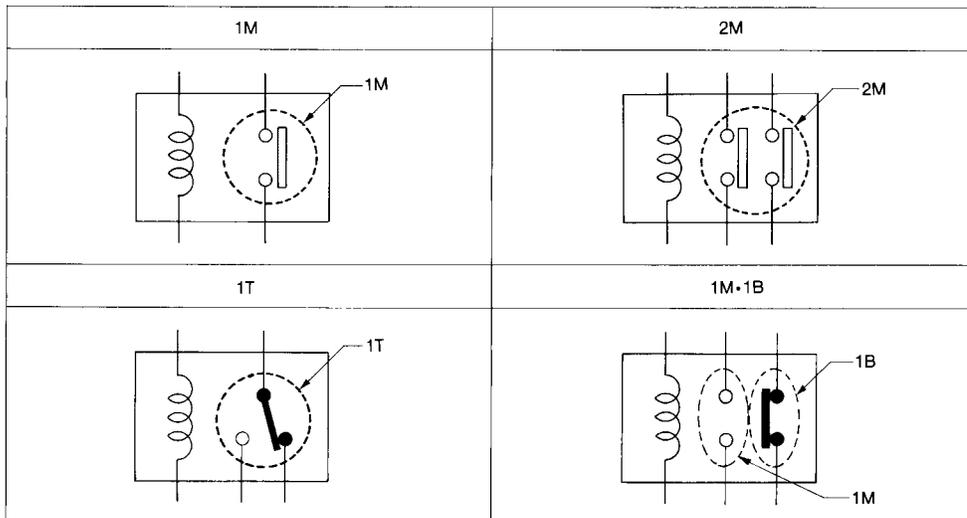
TYPE OF STANDARDIZED RELAYS

1M 1 Make

2M 2 Make

1T 1 Transfer

1M-1B 1 Make 1 Break



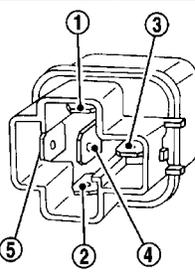
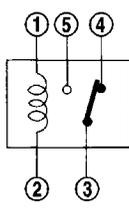
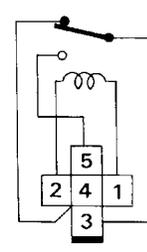
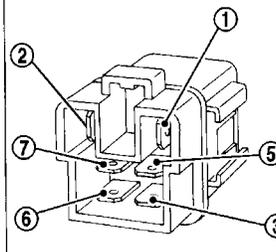
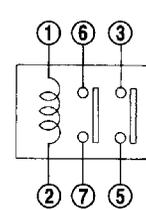
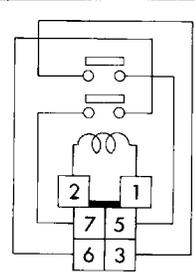
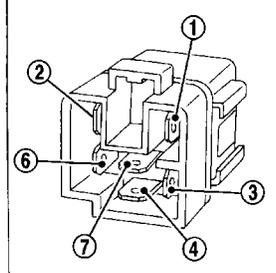
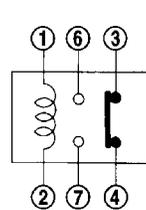
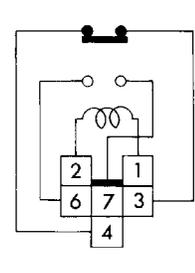
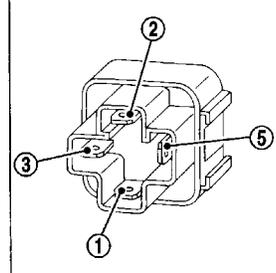
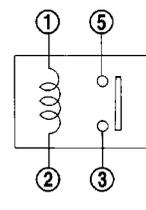
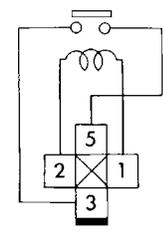
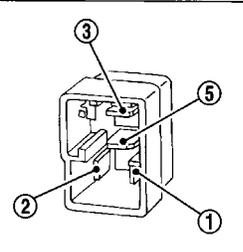
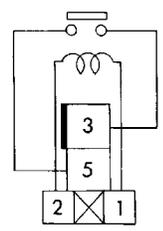
SEL882H

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STANDARDIZED RELAY

< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

Type	Outer view	Circuit	Connector symbol and connection	Case color
1T				BLACK
2M				BROWN
1M•1B				GRAY
1M				BLUE
				

The arrangement of terminal numbers on the actual relays may differ from those shown above.

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FUSE BLOCK - JUNCTION BOX (J/B)

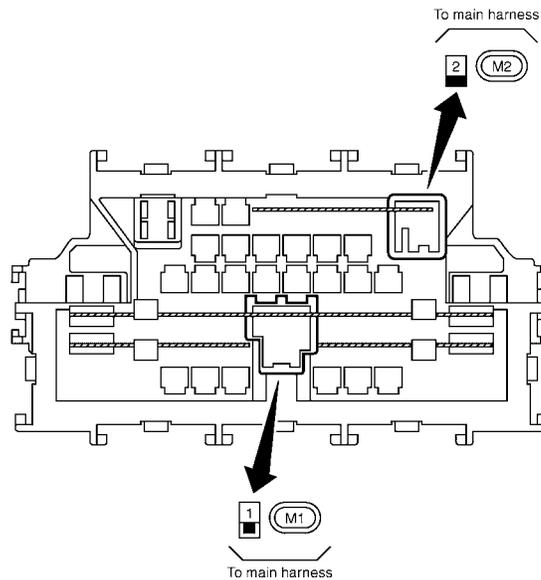
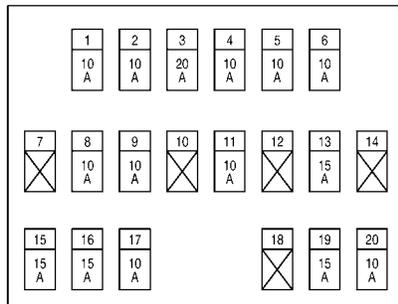
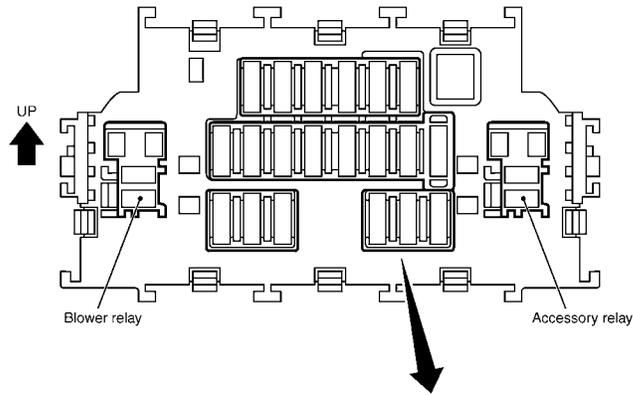
< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

FUSE BLOCK - JUNCTION BOX (J/B)

Fuse, Connector and Terminal Arrangement

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FUSE, FUSIBLE LINK AND RELAY BOX

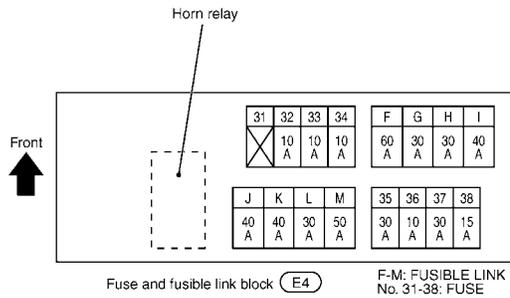
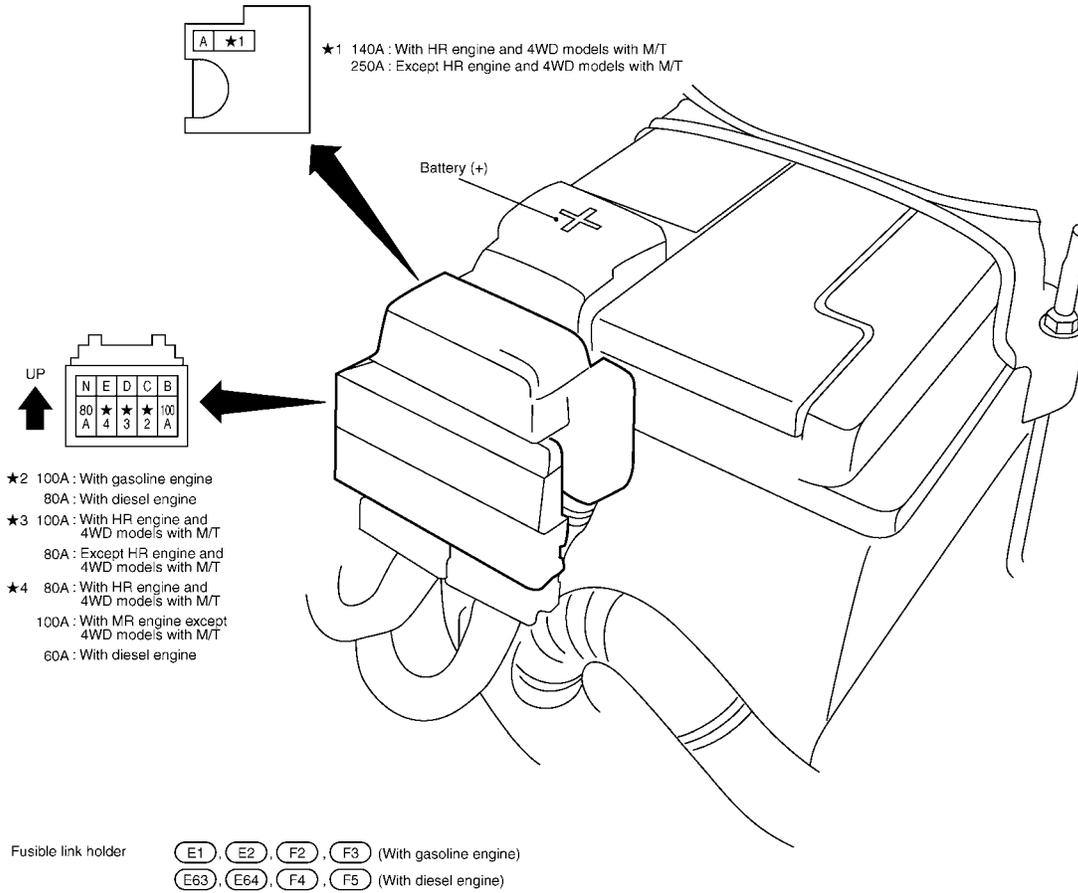
< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

FUSE, FUSIBLE LINK AND RELAY BOX

Fuse and Fusible Link Arrangement

INFOID:00000000956082



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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

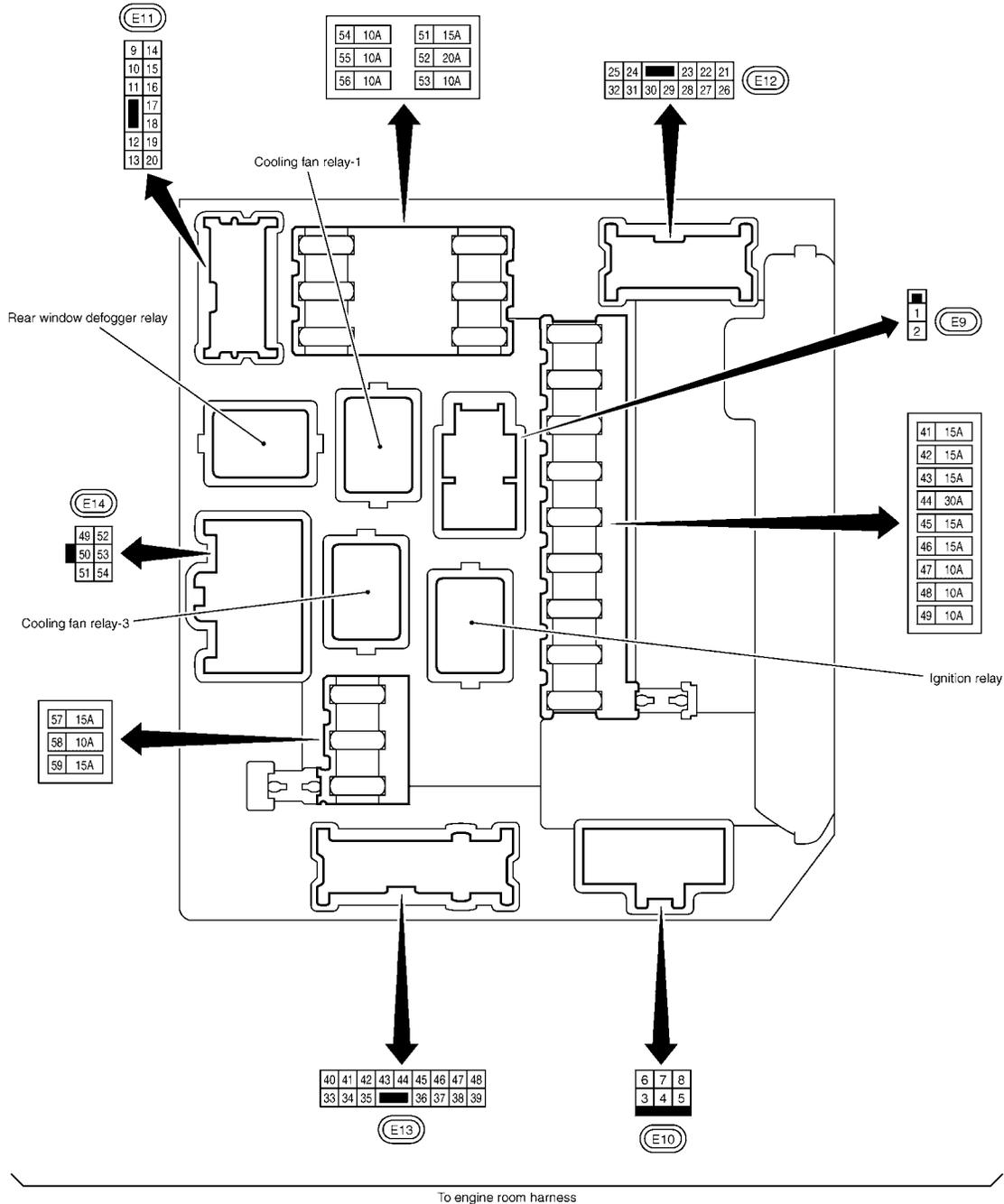
< COMPONENT DIAGNOSIS >

[POWER SUPPLY & GROUND CIRCUIT]

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Fuse, Connector and Terminal Arrangement

INFOID:000000000956083



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PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000001125420

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRC and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRC section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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BATTERY CHARGING CHART

< ON-VEHICLE MAINTENANCE >

[POWER SUPPLY & GROUND CIRCUIT]

ON-VEHICLE MAINTENANCE

BATTERY CHARGING CHART

Slow Charge

INFOID:000000000978183

1. DETERMINE INITIAL CHARGING CURRENT

1. Determine initial charging current from specific gravity.
2. Check battery type and determine the specified current using the table.

NOTE:

After starting charging, adjustment of charging current is not necessary.

Initial Charging Current Setting (Slow Charge)

CONVERTED SPECIFIC GRAVITY	BATTERY TYPE																										
	28B19R(L)	34B19R(L)	46B24R(L)	55B24R(L)	50D23R(L)	55D23R(L)	025 [YUASA type code]	027 [YUASA type code]	80D23R(L)	65D26R(L)	80D26R(L)	067 [YUASA type code]	096 [YUASA type code]	75D31R(L)	95D31R(L)	115D31R(L)	110D26R(L)	95E41R(L)	130E41R(L)	LB1 (330)	LB1+ (420)	LB2 (510)	LB2+ (600)	LB3 (720)	L3 (720)		
Below 1.100	4.0 (A)	5.0 (A)	7.0 (A)		8.0 (A)				8.5 (A)	9.0 (A)	10.0 (A)			14.0 (A)	—	—	—	—	—	—	—	—	—	—	—	—	—

>> GO TO 2.

2. CHARGE BATTERY

1. Charge battery.
2. Check charge voltage 30 minutes after starting the battery charge.

Is the voltage between 12 V and 15 V?

- YES >> GO TO 3.
NO >> Replace battery.

3. CHARGE BATTERY

Continue to charge for 12 hours.

>> GO TO 4.

4. CHECKING SPECIFIC GRAVITY

Check specific gravity. Refer to [PG-3. "How to Handle Battery"](#).

Is the specific gravity 1.240 or more?

- YES >> Complete slow charge. Perform "CAPACITY TEST". Refer to [PG-4. "Work Flow"](#).
NO >> GO TO 5.

5. CONDUCT ADDITIONAL CHARGE

Add charging time depending on specific gravity.

Additional Charge (Slow Charge)

SPECIFIC GRAVITY	CHARGING TIME (h)
Below 1.150	5
1.150 - 1.200	4
1.200 - 1.240	2

>> Complete slow charge. Perform "CAPACITY TEST". Refer to [PG-4. "Work Flow"](#).

CAUTION:

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BATTERY CHARGING CHART

< ON-VEHICLE MAINTENANCE >

[POWER SUPPLY & GROUND CIRCUIT]

- Set charging current to value specified in "Initial Charging Current Setting (Slow Charge)". If charger is not capable of producing specified current value, set its charging current as close to that value as possible.
- Keep battery away from open flame while it is being charged.
- When connecting charger, connect leads first, then turn on charger. Never turn on charger first, as this may cause a spark.
- If battery temperature rises above 55°C (131°F), stop charging. Always charge battery when its temperature is below 55°C (131°F).

Standard Charge

INFOID:000000000978184

1. DETERMINE INITIAL CHARGING CURRENT

1. Determine initial charging current from specific gravity.
2. Check battery type and determine the specified current using the table.

NOTE:

After starting charging, adjustment of charging current is not necessary.

Initial Charging Current Setting (Standard Charge)

CONVERTED SPECIFIC GRAVITY	BATTERY TYPE																									
	28B19R(L)	34B19R(L)	46B24R(L)	55B24R(L)	50D23R(L)	55D23R(L)	025 [YUASA type code]	027 [YUASA type code]	80D23R(L)	65D26R(L)	80D26R(L)	067 [YUASA type code]	096 [YUASA type code]	75D31R(L)	95D31R(L)	115D31R(L)	110D26R(L)	95E41R(L)	130E41R(L)	LB1 (330)	LB1+ (420)	LB2 (510)	LB2+ (600)	LB3 (720)	L3 (720)	
1.100 - 1.130	4.0 (A)	5.0 (A)	6.0 (A)	7.0 (A)	8.0 (A)	9.0 (A)	13.0 (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1.130 - 1.160	3.0 (A)	4.0 (A)	5.0 (A)	6.0 (A)	7.0 (A)	8.0 (A)	11.0 (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1.160 - 1.190	2.0 (A)	3.0 (A)	4.0 (A)	5.0 (A)	6.0 (A)	7.0 (A)	9.0 (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1.190 - 1.220	2.0 (A)	2.0 (A)	3.0 (A)	4.0 (A)	5.0 (A)	6.0 (A)	7.0 (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

>> GO TO 2.

2. CHARGE BATTERY

Charge battery for 8 hours.

>> GO TO 3.

3. CHECKING SPECIFIC GRAVITY

Check specific gravity. Refer to [PG-3, "How to Handle Battery"](#).

Is the specific gravity 1.240 or more?

YES >> Complete standard charge. Perform "CAPACITY TEST". Refer to [PG-4, "Work Flow"](#).

NO >> GO TO 4.

4. CONDUCT ADDITIONAL CHARGE

Add charging time depending on specific gravity.

Additional Charge (Standard Charge)

SPECIFIC GRAVITY	CHARGING TIME (h)
Below 1.150	3.5
1.150 - 1.200	2.5
1.200 - 1.240	1.5

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BATTERY CHARGING CHART

< ON-VEHICLE MAINTENANCE >

[POWER SUPPLY & GROUND CIRCUIT]

>> Complete standard charge. Perform "CAPACITY TEST". Refer to [PG-4, "Work Flow"](#).

CAUTION:

- Never use standard charge method on a battery whose specific gravity is less than 1.100.
- Set charging current to value specified in "Initial Charging Current Setting (Standard Charge)". If charger is not capable of producing specified current value, set its charging current as close to that value as possible.
- Keep battery away from open flame while it is being charged.
- When connecting charger, connect leads first, then turn on charger. Never turn on charger first, as this may cause a spark.
- If battery temperature rises above 55°C (131°F), stop charging. Always charge battery when its temperature is below 55°C (131°F).

Quick Charge

INFOID:000000000978185

1. DETERMINE INITIAL CHARGING CURRENT

1. Determine initial charging current setting and charging time from specific gravity.
2. Check battery type and determine the specified current using the table.

NOTE:

After starting charging, adjustment of charging current is not necessary.

Initial Charging Current Setting and Charging Time (Quick Charge)

BATTERY TYPE		28B19R(L)	34B19R(L)	46B24R(L)	55B24R(L)	50D23R(L)	55D23R(L)	80D23R(L)	65D26R(L)	80D26R(L)	025 [YUASA type code]	027 [YUASA type code]	067 [YUASA type code]	096 [YUASA type code]	75D31R(L)	95D31R(L)	115D31R(L)	110D26R(L)	95E41R(L)	130E41R(L)	LB1 (330)	LB1+ (420)	LB2 (510)	LB2+ (600)	LB3 (720)	L3 (720)
CURRENT [A]		10		15				20					25			30			40	—	—	—	—	—	—	—
CONVERTED SPECIFIC GRAVITY	1.100 - 1.130	2.5 hours																								
	1.130 - 1.160	2.0 hours																								
	1.160 - 1.190	1.5 hours																								
	1.190 - 1.220	1.0 hour																								
	Above 1.220	0.75 hour (45 min.)																								

CAUTION:

- Never use quick charge method on a battery whose specific gravity is less than 1.100.
- Set initial charging current to value specified in "Initial Charging Current Setting and Charging Time (Quick Time)". If charger is not capable of producing specified current value, set its charging current as close to that value as possible.
- Keep battery away from open flame while it is being charged.
- When connecting charger, connect leads first, then turn on charger. Never turn on charger first, as this may cause a spark.
- Be careful of a rise in battery temperature because a large current flow is required during quick-charge operation.
If battery temperature rises above 55°C (131°F), stop charging. Always charge battery when its temperature is below 55°C (131°F).
- Never exceed the charging time specified in "Initial Charging Current Setting and Charging Time (Quick Charge)", because charging battery over the charging time can cause deterioration of the battery.

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BATTERY CHARGING CHART

< ON-VEHICLE MAINTENANCE >

[POWER SUPPLY & GROUND CIRCUIT]

>> GO TO 2.

2. CHARGE BATTERY

Charge battery.

>> Complete quick charge. Perform "CAPACITY TEST". Refer to [PG-4, "Work Flow"](#).

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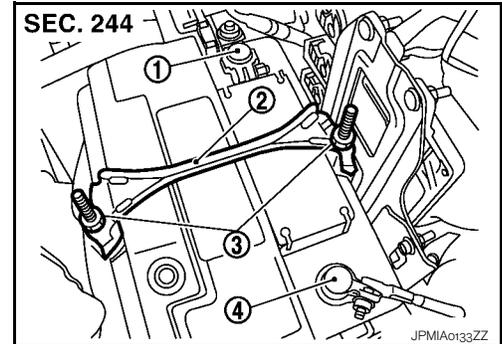
ON-VEHICLE REPAIR

BATTERY

Exploded View

INFOID:000000000956086

- 1 : Battery terminal (+)
- 2 : Battery fix frame
- 3 : Battery fix frame mounting nuts
- 4 : Battery terminal (-)

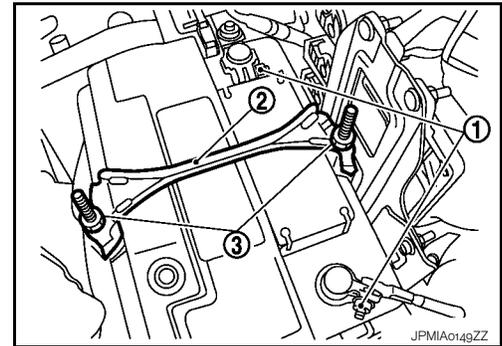


Removal and Installation

INFOID:000000000956087

REMOVAL

1. Loosen battery terminal nuts (1), and disconnect both battery cables from battery terminals.
CAUTION:
When disconnecting, disconnect the battery cable from the negative terminal first.
2. Remove battery fix frame mounting nuts (3) to remove battery fix frame (2).
3. Remove battery.



INSTALLATION

Install in the reverse order of removal.

CAUTION:

When connecting, connect the battery cable to the positive terminal first.

Battery fix frame mounting nut

: 5.4 N·m (0.55 kg-m, 48 in-lb)

Battery terminal nut

: 5.4 N·m (0.55 kg-m, 48 in-lb)

BATTERY TERMINAL WITH FUSIBLE LINK

< ON-VEHICLE REPAIR >

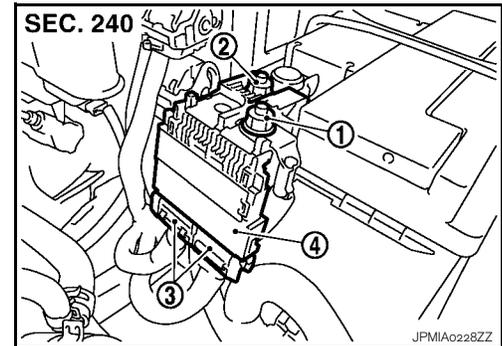
[POWER SUPPLY & GROUND CIRCUIT]

BATTERY TERMINAL WITH FUSIBLE LINK

Exploded View

INFOID:000000000956088

- 1 : Harness mounting nut
- 2 : Fusible link holder mounting nut
- 3 : Harness connector
- 4 : Battery terminal with fusible link

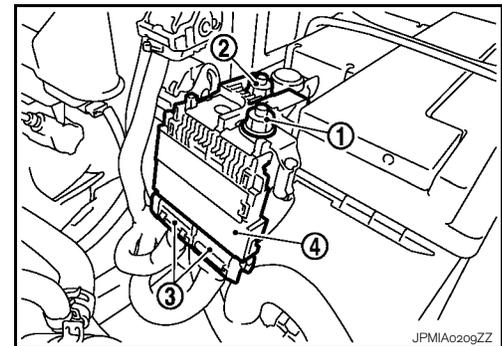


Removal and Installation

INFOID:000000000956089

REMOVAL

1. Disconnect the battery cable from the negative terminal.
2. Remove cover of battery positive terminal.
3. Remove harness mounting nut (1) to disconnect harness connector (3).
4. Remove fusible link holder mounting nut (2) to remove battery terminal with fusible link (4).



INSTALLATION

Install in the reverse order of removal.

Harness mounting nut

: 10.3 N·m (1.1 kg-m, 8 ft-lb)

Fusible link holder mounting nut

: 10.3 N·m (1.1 kg-m, 8 ft-lb)

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PG

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[POWER SUPPLY & GROUND CIRCUIT]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Battery

INFOID:000000000956090

Type		L1	L2	L3
20 hour rate capacity	[V - Ah]	12 - 50	12 - 60	12 - 70
Cold cranking current (For reference value)	[A]	420	600	720

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