

ELECTRICAL SYSTEM

SECTION EL

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CONTENTS

<p>PRECAUTIONS4</p> <p style="padding-left: 20px;">Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"4</p> <p style="padding-left: 20px;">Wiring Diagrams and Trouble Diagnosis4</p> <p>PREPARATION5</p> <p style="padding-left: 20px;">Special Service Tools5</p> <p>HARNESS CONNECTOR6</p> <p style="padding-left: 20px;">Description6</p> <p>STANDARDIZED RELAY8</p> <p style="padding-left: 20px;">Description8</p> <p>POWER SUPPLY ROUTING10</p> <p style="padding-left: 20px;">Circuit Diagram10</p> <p style="padding-left: 20px;">Wiring Diagram - POWER -12</p> <p style="padding-left: 20px;">Inspection17</p> <p>GROUND18</p> <p style="padding-left: 20px;">Ground Distribution18</p> <p>COMBINATION SWITCH32</p> <p style="padding-left: 20px;">Check32</p> <p style="padding-left: 20px;">Replacement33</p> <p>STEERING SWITCH34</p> <p style="padding-left: 20px;">Check34</p> <p>HEADLAMP (FOR USA)35</p> <p style="padding-left: 20px;">System Description35</p> <p style="padding-left: 20px;">Wiring Diagram - H/LAMP -36</p> <p style="padding-left: 20px;">Trouble Diagnoses37</p> <p style="padding-left: 20px;">Bulb Replacement38</p> <p style="padding-left: 20px;">Aiming Adjustment38</p> <p>HEADLAMP (FOR CANADA) - DAYTIME LIGHT SYSTEM -40</p> <p style="padding-left: 20px;">System Description (For Canada)40</p> <p style="padding-left: 20px;">Circuit Diagram42</p> <p style="padding-left: 20px;">Wiring Diagram - DTRL -43</p> <p style="padding-left: 20px;">Trouble Diagnoses46</p> <p style="padding-left: 20px;">Bulb Replacement47</p> <p style="padding-left: 20px;">Aiming Adjustment47</p> <p>PARKING, LICENSE AND TAIL LAMPS48</p> <p style="padding-left: 20px;">Wiring Diagram - TAIL/L -48</p> <p>STOP LAMP49</p> <p style="padding-left: 20px;">Wiring Diagram - STOP/L -49</p>	<p>BACK-UP LAMP50</p> <p style="padding-left: 20px;">Wiring Diagram - BACK/L -50</p> <p>FRONT FOG LAMP51</p> <p style="padding-left: 20px;">System Description51</p> <p style="padding-left: 20px;">Wiring Diagram - F/FOG -52</p> <p style="padding-left: 20px;">Aiming Adjustment53</p> <p style="padding-left: 20px;">Removal and Installation54</p> <p style="padding-left: 20px;">Bulb and Lens Replacement54</p> <p>TURN SIGNAL AND HAZARD WARNING LAMPS55</p> <p style="padding-left: 20px;">System Description55</p> <p style="padding-left: 20px;">Wiring Diagram - TURN -57</p> <p style="padding-left: 20px;">Trouble Diagnoses59</p> <p style="padding-left: 20px;">Electrical Components Inspection60</p> <p>ILLUMINATION61</p> <p style="padding-left: 20px;">System Description61</p> <p style="padding-left: 20px;">Wiring Diagram - ILL -62</p> <p>INTERIOR ROOM LAMP64</p> <p style="padding-left: 20px;">Component Parts and Harness Connector Location64</p> <p style="padding-left: 20px;">System Description65</p> <p style="padding-left: 20px;">Wiring Diagram - ROOM/L -68</p> <p style="padding-left: 20px;">Trouble Diagnosis72</p> <p>METERS AND GAUGES74</p> <p style="padding-left: 20px;">Component Parts and Harness Connector Location74</p> <p style="padding-left: 20px;">System Description75</p> <p style="padding-left: 20px;">Combination Meter77</p> <p style="padding-left: 20px;">Wiring Diagram - METER -79</p> <p style="padding-left: 20px;">Meter/Gauge Operation and Odo/Trip Meter Segment Check in Diagnosis Mode80</p> <p style="padding-left: 20px;">Trouble Diagnoses81</p> <p style="padding-left: 20px;">Electrical Components Inspection87</p> <p>COMPASS AND THERMOMETER89</p> <p style="padding-left: 20px;">System Description89</p> <p style="padding-left: 20px;">Wiring Diagram - COMPAS -90</p> <p style="padding-left: 20px;">Trouble Diagnoses92</p> <p style="padding-left: 20px;">Calibration Procedure for Compass93</p> <p>WARNING LAMPS94</p> <p style="padding-left: 20px;">Circuit Diagram94</p>
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CONTENTS (Cont'd)

Wiring Diagram - WARN -	95	Trouble Diagnoses.....	184
Electrical Components Inspection	103	POWER DOOR LOCK	186
WARNING CHIME	104	Component Parts and Harness Connector	
Component Parts and Harness Connector		Location	186
Location	104	System Description.....	187
System Description.....	105	Circuit Diagram.....	189
Wiring Diagram - CHIME -	107	Wiring Diagram - D/LOCK -	190
Trouble Diagnoses.....	109	Trouble Diagnoses.....	193
FRONT WIPER AND WASHER	118	REMOTE KEYLESS ENTRY SYSTEM	200
System Description.....	118	Component Parts and Harness Connector	
Wiring Diagram - WIPER -	120	Location	200
Removal and Installation	122	System Description.....	201
Washer Nozzle Adjustment	123	Wiring Diagram - KEYLES -	204
Washer Tube Layout	123	Trouble Diagnoses.....	206
HORN	124	ID Code Entry Procedure	215
Wiring Diagram - HORN -	124	Keyfob Battery Replacement.....	216
CIGARETTE LIGHTER	125	VEHICLE SECURITY (THEFT WARNING)	
Wiring Diagram - CIGAR -	125	SYSTEM	217
REAR WINDOW DEFOGGER	126	Component Parts and Harness Connector	
Component Parts and Harness Connector		Location	217
Location	126	System Description.....	219
System Description.....	127	Circuit Diagram	222
Wiring Diagram - DEF -	129	Wiring Diagram - VEHSEC -	223
Trouble Diagnoses.....	131	Trouble Diagnoses.....	226
Electrical Components Inspection	135	SMART ENTRANCE CONTROL UNIT	240
Filament Check.....	136	Description	240
Filament Repair	137	Circuit Diagram	241
AUDIO	138	Smart Entrance Control Unit Inspection Table	243
System Description.....	138	ELECTRICAL UNITS LOCATION	245
Schematic - With Audio Amplifier	140	Engine Compartment.....	245
Wiring Diagram - AUDIO -	141	Passenger Compartment.....	246
Trouble Diagnoses.....	149	HARNES LAYOUT	248
Inspection.....	150	How to Read Harness Layout	248
AUDIO ANTENNA	153	Outline.....	249
Location of Antenna.....	153	Main Harness (KA24DE Models)	250
Fixed Antenna Rod Replacement.....	153	Main Harness (VG33E and VG33ER Models)	252
DOOR MIRROR	154	Engine Room Harness (KA24DE Models)	254
Wiring Diagram - MIRROR -	154	Engine Room Harness (VG33E and VG33ER	
AUTOMATIC SPEED CONTROL DEVICE (ASCD) ...	155	Models)	257
Component Parts and Harness Connector		Engine Control Harness (KA24DE Models)	260
Location	155	Engine No. 2 Harness (KA24DE Models)	262
System Description.....	157	Engine Control Harness (VG33E Models)	263
Circuit Diagram	159	Engine Control Harness (VG33ER Models).....	265
Wiring Diagram - ASCD -	160	Engine No. 2 Harness (VG33E and VG33ER	
Fail-safe System.....	163	Models)	267
Trouble Diagnoses.....	164	Chassis and Tail Harness (KA24DE Models).....	268
Electrical Component Inspection	172	Chassis and Tail Harness (VG33E and VG33ER	
ASCD Wire Adjustment	174	Models)	269
POWER WINDOW	176	Room Lamp Harness.....	270
System Description.....	176	Front Door Harness	271
Circuit Diagram	179	Rear Door Harness.....	273
Wiring Diagram - WINDOW -	180	BULB SPECIFICATIONS	275

CONTENTS (Cont'd)

Headlamp.....	275	Interior Lamp.....	275	GI
Exterior Lamp	275	WIRING DIAGRAM CODES (CELL CODES).....	276	
				MA
				EM
				LC
				EC
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PRECAUTIONS

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

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

NEEL0001

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER" used along with a seat belt, help to reduce the risk or severity of injury to the driver and front passenger in a frontal collision. The Supplemental Restraint System consists of air bag modules (located in the center of the steering wheel and in the instrument panel on the passenger side), seat belt pre-tensioners, a diagnosis sensor unit, warning lamp, wiring harness, and spiral cable.

The vehicle (except Crew Cab model) is equipped with a passenger air bag deactivation switch. Because no rear seat exists where a rear-facing child restraint can be placed, the switch is designed to turn off the passenger air bag so that a rear-facing child restraint can be used in the front passenger seat. The switch is located in the center of the instrument panel, near the ashtray. When the switch is turned to the ON position, the passenger air bag is enabled and could inflate in a frontal collision. When the switch is turned to the OFF position, the passenger air bag is disabled and will not inflate in a frontal collision. A passenger air bag OFF indicator on the instrument panel lights up when the passenger air bag is switched OFF. The driver air bag always remains enabled and is not affected by the passenger air bag deactivation switch.

Information necessary to service the system safely is included in the **RS 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 should be performed by an authorized NISSAN 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 RS 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 harness connectors.**
- **The vehicle (except Crew Cab model) is equipped with a passenger air bag deactivation switch which can be operated by the customer. When the passenger air bag is switched OFF, the passenger air bag is disabled and will not inflate in a frontal collision. When the passenger air bag is switched ON, the passenger air bag is enabled and could inflate in a frontal collision. After SRS maintenance or repair, make sure the passenger air bag deactivation switch is in the same position (ON or OFF) as when the vehicle arrived for service.**

Wiring Diagrams and Trouble Diagnosis

NEEL0002

When you read wiring diagrams, refer to the following:

- **GI-11**, "HOW TO READ WIRING DIAGRAMS"
- "POWER SUPPLY ROUTING" for power distribution circuit, EL-10

When you perform trouble diagnosis, refer to the following:

- **GI-34**, "How to Follow Test Groups in Trouble Diagnoses"
- **GI-23**, "HOW TO PERFORM EFFICIENT DIAGNOSIS FOR AN ELECTRICAL INCIDENT"

Check for any Service bulletins before servicing the vehicle.

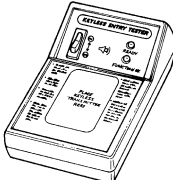
PREPARATION

Special Service Tools

Special Service Tools

=NEEL0234

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
(J-43241) Remote keyless entry tester	<div style="text-align: center;">  </div> <p style="text-align: center;">Used to test keyfobs</p> <p>LEL946A</p>

*: Special tool or commercial equivalent

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HARNESS CONNECTOR

Description

Description

NEEL0003

NEEL0003S01

HARNESS CONNECTOR (TAB-LOCKING TYPE)

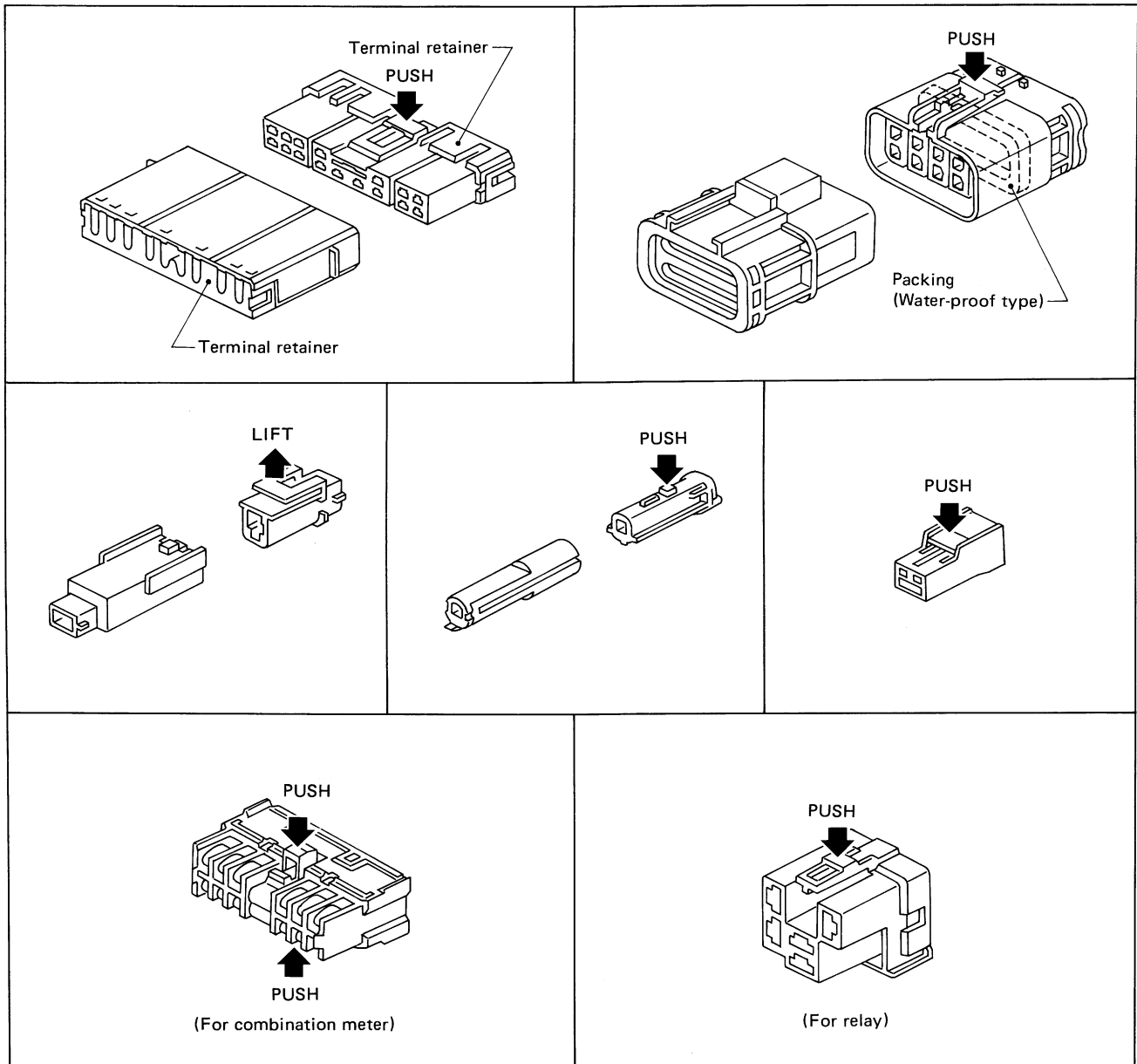
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

Refer to EL-7 for description of the slide-locking type connector.

CAUTION:

Do not pull the harness when disconnecting the connector.

[Example]



SEL769D

HARNESS CONNECTOR

Description (Cont'd)

HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

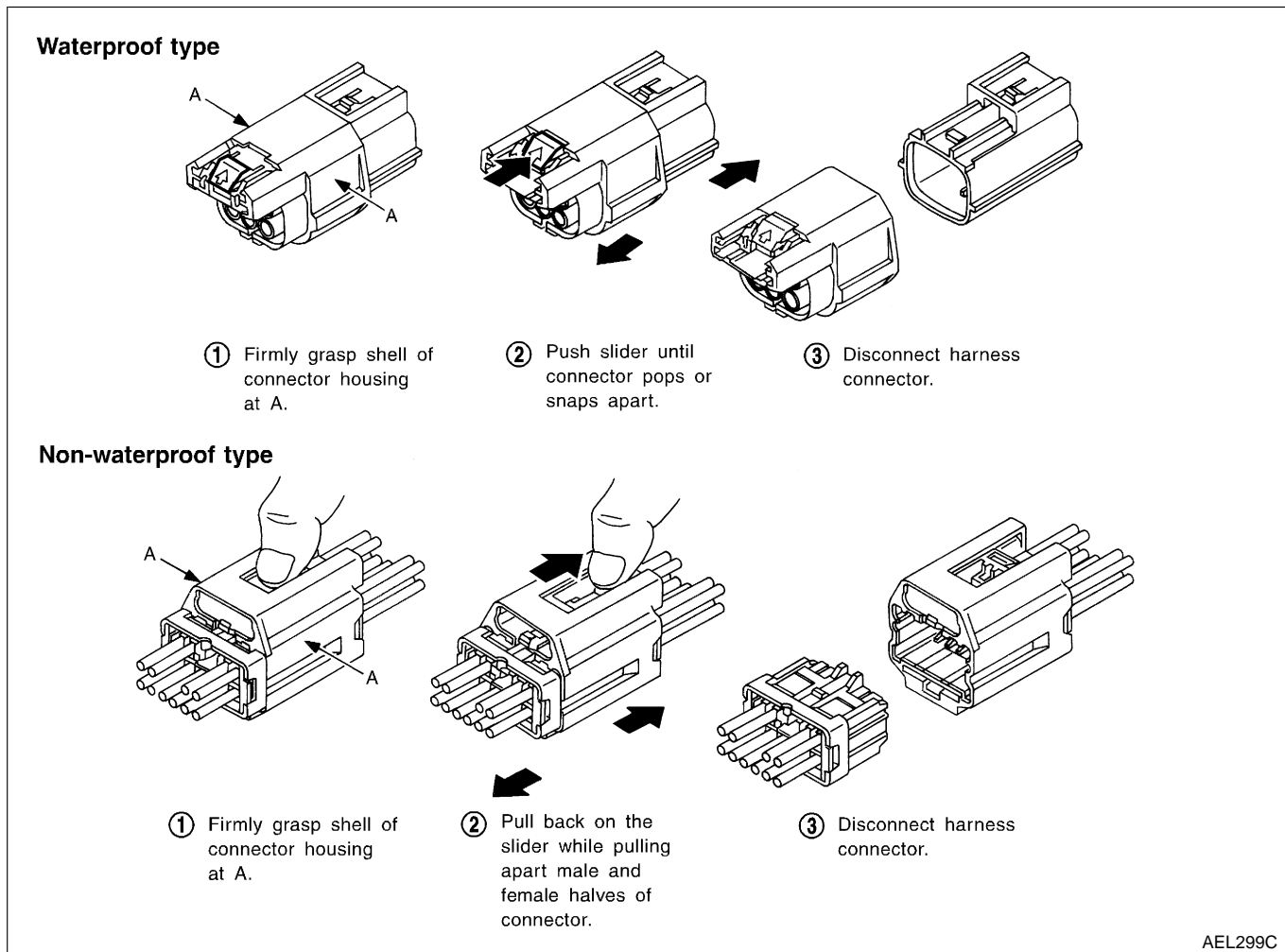
-NEEL0003S02

- A new style slide-locking 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 illustration below.

CAUTION:

Do not pull the harness or wires when disconnecting the connector.

Be careful not to damage the connector support bracket when disconnecting the connector.



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STANDARDIZED RELAY

Description

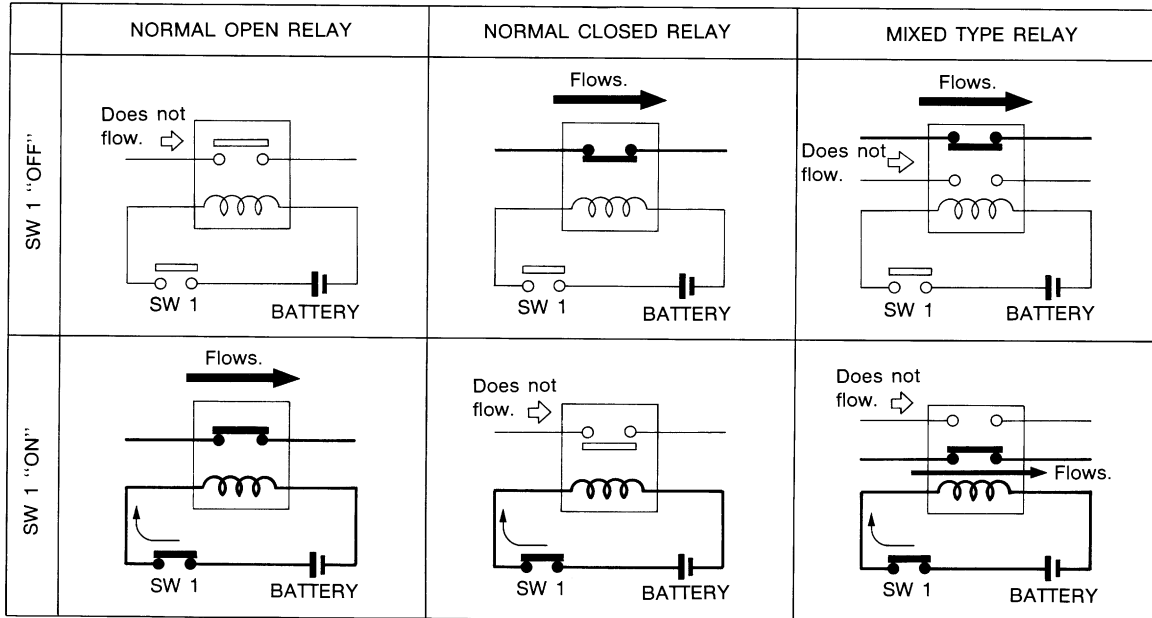
Description

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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

NEEL0004

NEEL0004S01

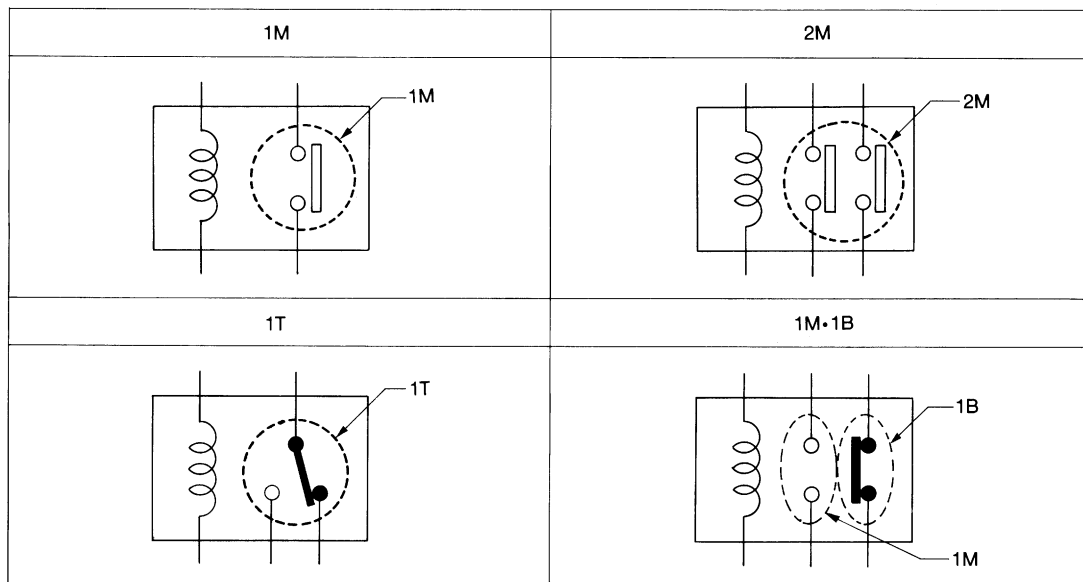


SEL881H

TYPE OF STANDARDIZED RELAYS

NEEL0004S02

1M	1 Make	2M	2 Make
1T	1 Transfer	1M·1B	1 Make 1 Break



SEL882H

STANDARDIZED RELAY

Description (Cont'd)

Type	Outer view	Circuit	Connector symbol and connector	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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POWER SUPPLY ROUTING

Wiring Diagram — POWER —

Wiring Diagram — POWER —

NEEL0006

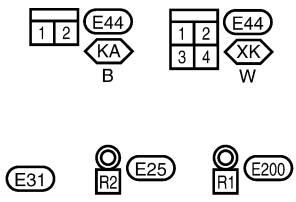
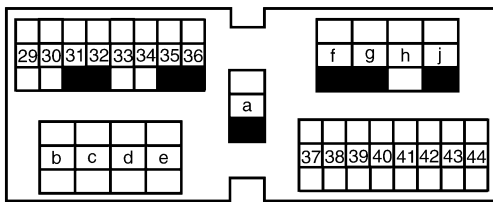
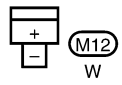
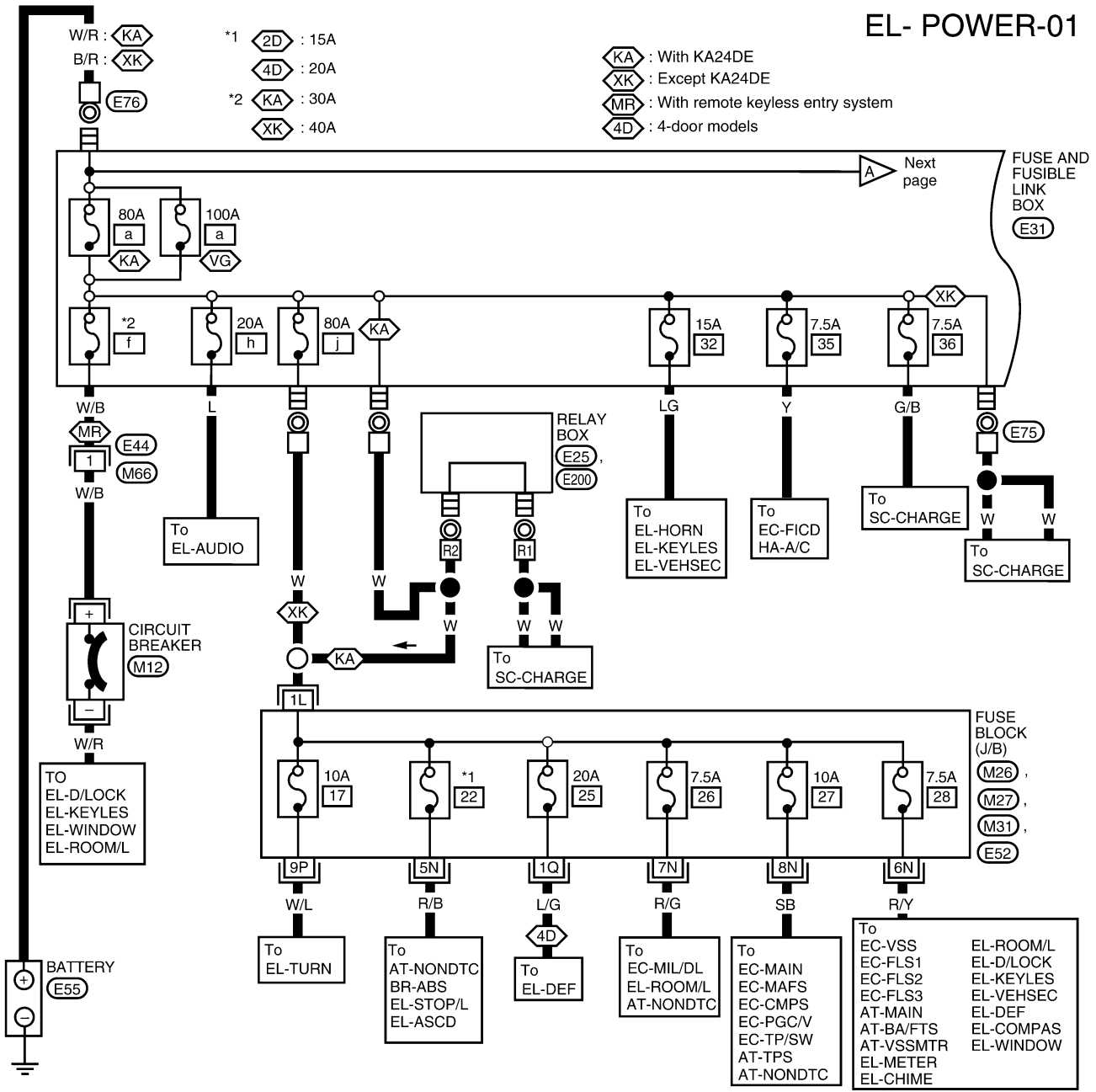
NEEL0006S01

BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

NOTE:

For detailed ground distribution information, refer to “GROUND DISTRIBUTION”, EL-18.

EL- POWER-01



Refer to the following.

M26, M27, M31, E52					
1	6	11	16	21	25
2	7	12	17	22	26
3	8	13	18	23	27
4	9	14	19	24	
5	10	15	20	28	


FUSE BLOCK - JUNCTION BOX (J/B)

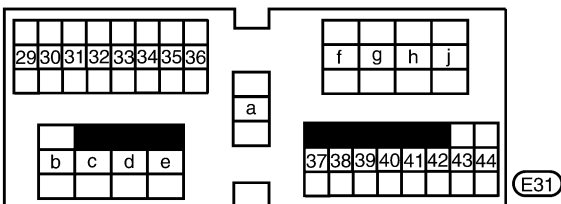
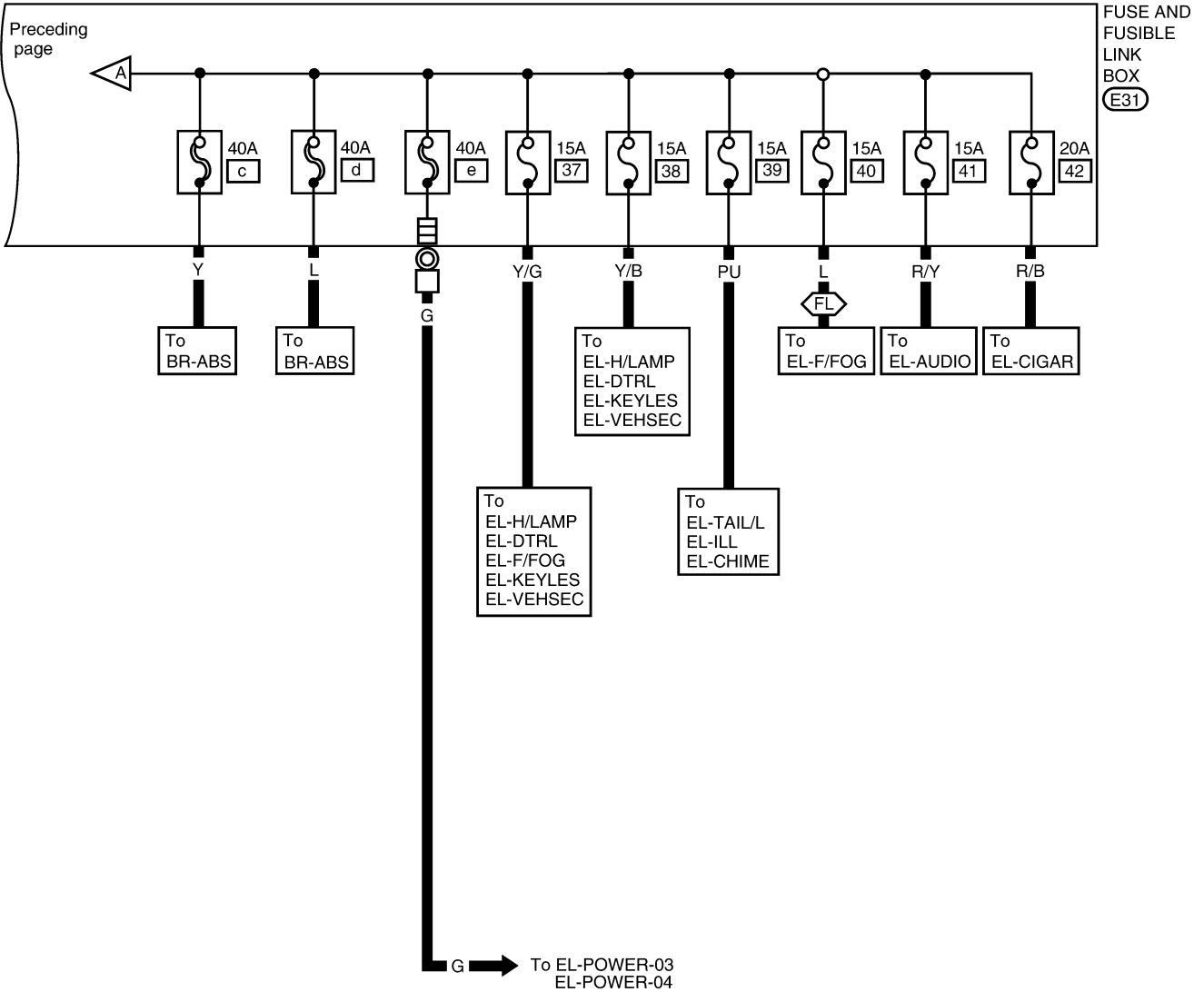
WEL093B

POWER SUPPLY ROUTING

Wiring Diagram — POWER — (Cont'd)

EL-POWER-02

 : With fog lamps



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POWER SUPPLY ROUTING

Wiring Diagram — POWER — (Cont'd)

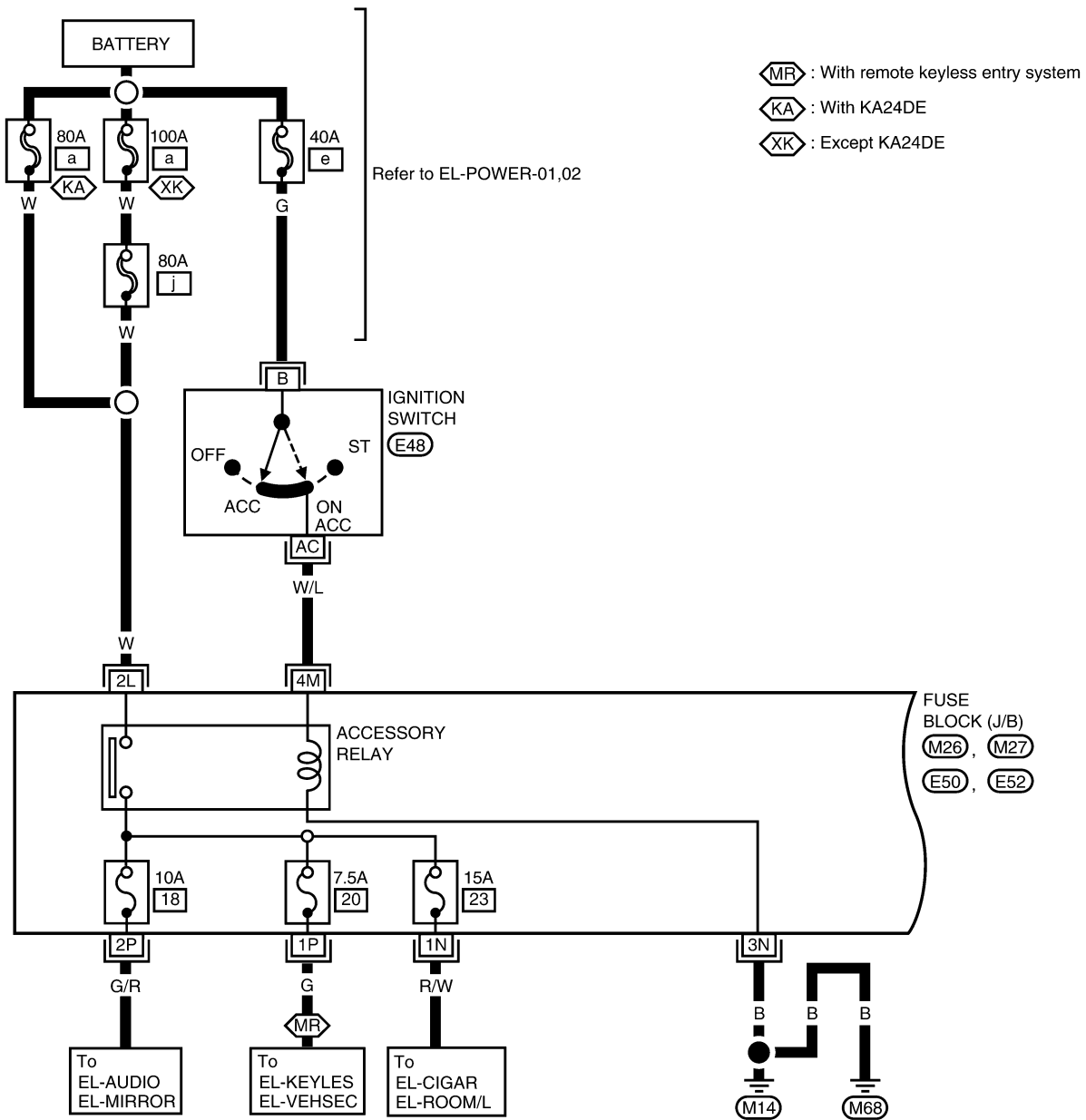
ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON

-NEEL0006S02

NOTE:

For detailed ground distribution information, refer to "GROUND DISTRIBUTION", EL-18.

EL-POWER-03



Refer to the following.

(M26), (M27), (E50), (E52)					
1	6	11	16	21	25
2	7	12	17	22	26
3	8	13	18	23	27
4	9	14	19	24	
5	10	15	20		28

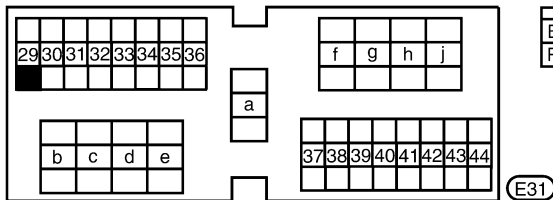
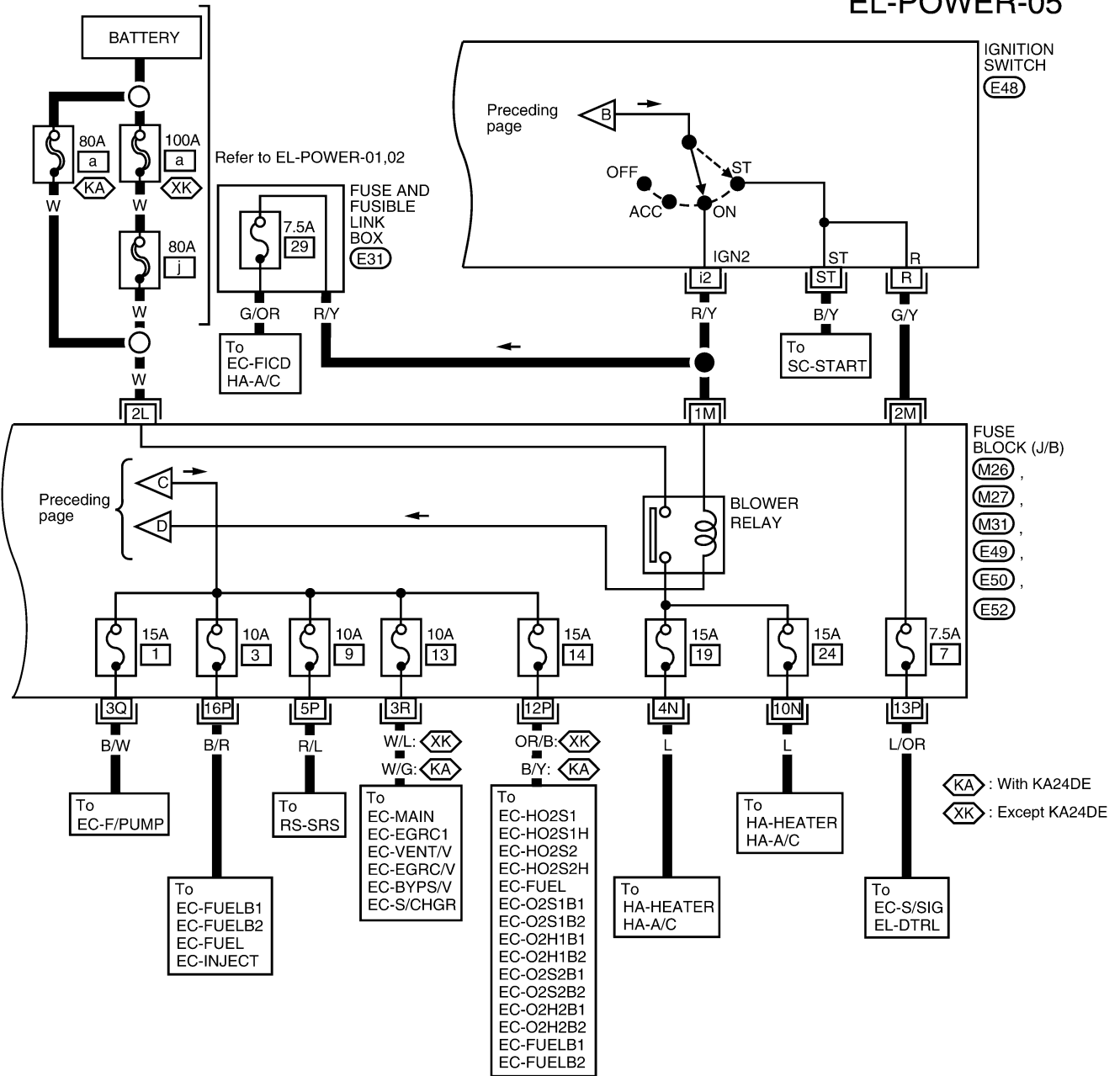
-FUSE BLOCK - JUNCTION BOX (J/B)

WEL841A

POWER SUPPLY ROUTING

Wiring Diagram — POWER — (Cont'd)

EL-POWER-05

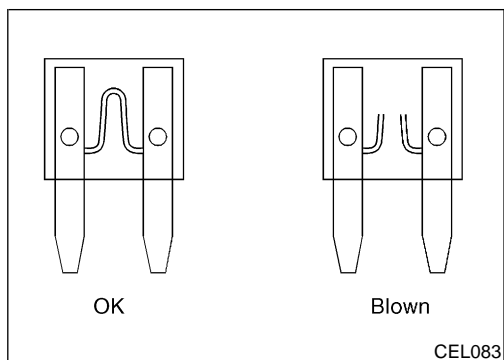


Refer to the following.

M26, M27, M31, E49					
E50, E52					
1	6	11	16	21	25
2	7	12	17	22	26
3	8	13	18	23	27
4	9	14	19	24	
5	10	15	20		28

-FUSE BLOCK - JUNCTION BOX (J/B)

WEL843A



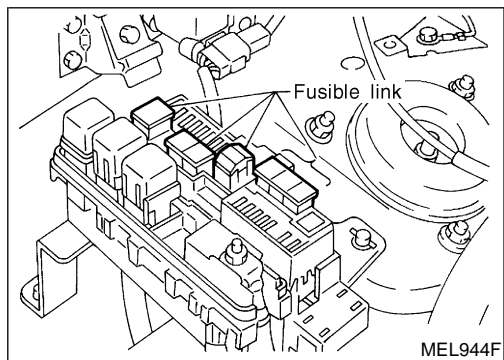
Inspection

FUSE

- If fuse is blown, be sure to eliminate cause of problem 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.

NEEL0007

NEEL0007S01



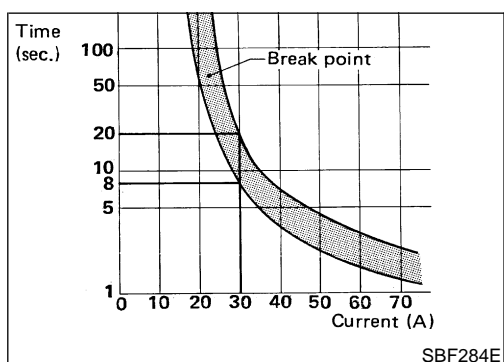
FUSIBLE LINK

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

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 problem.
- Never wrap outside of fusible link with vinyl tape. Important: Never let fusible link touch any other wiring harness, vinyl or rubber parts.

NEEL0007S02



CIRCUIT BREAKER

For example, when current is 30A, the circuit is broken within 8 to 20 seconds.

Circuit breakers are used in the following systems:

- Power windows
- Power door locks
- Remote keyless entry.

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GROUND

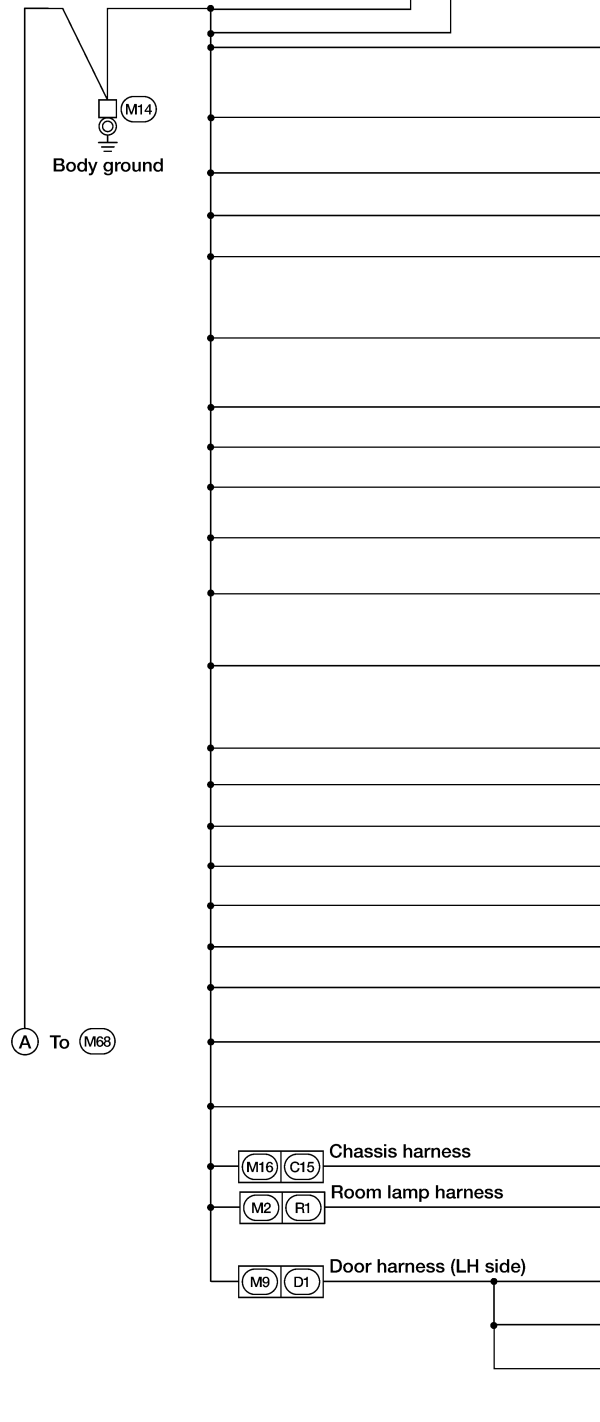
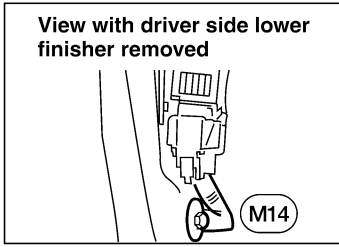
Ground Distribution

Ground Distribution MAIN HARNESS

NEEL0171

NEEL0171S01

Body ground



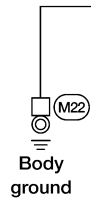
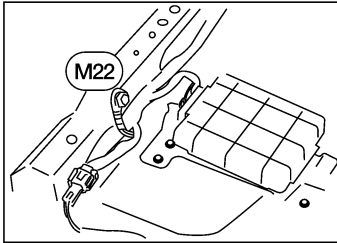
CONNECTOR NUMBER	CONNECT TO
(M5)	Clutch interlock switch (with M/T)
(M6)	Vehicle security relay (Terminal No. 3) (with vehicle security system) (except with KA24DE)
(M11)	Warning chime unit (Terminal No. 8) (without power door locks)
(M13)	Power window relay (Terminal No. 1) (with power windows)
(M19)	Seat belt buckle switch
(M20)	Front door switch LH
(M25)	ABS check connector (with 2-wheel ABS)
(M27)	Fuse block (J/B) (Terminal No. 3N) <ul style="list-style-type: none"> • Accessory relay • Blower relay • Ignition relay
(M28)	Illumination control switch
(M32)	Data link connector (Terminal No. 4)
(M35)	A/T device (shift lock) (Terminal No. 1) (with A/T)
(M35)	A/T device (overdrive control switch) (Terminal No. 5) (with VG engine and A/T)
(M36)	Overdrive control switch (with KA engine and A/T)
(M38)	Combination meter (Terminal No. 13) <ul style="list-style-type: none"> • ABS warning lamp • Four wheel drive indicator • Turn signal indicators
(M76)	ATP relay (Terminal No. 2) (with A/T)
(M76)	ATP relay (Terminal No. 4) (with A/T)
(M112)	Smart entrance control unit (Terminal No. 64)
(M114)	Air bag diagnosis sensor unit
(M119)	ASCD control unit (Terminal No. 17) (with ASCD)
(M122)	Rear window defogger timer (without power door locks)
(M124)	Passenger air bag deactivation switch (except Crew Cab)
(M126)	Passenger air bag deactivation switch indicator (except Crew Cab)
(M130)	Overdrive hold control module (Terminal No. 4) (with KA engine and A/T)
(C4)	ABS actuator (with 2-wheel ABS)
(R4)	Room lamp (2 door models)
(D7)	Main power window and door lock/unlock switch (with power door locks)
(D9)	Front door key cylinder switch LH (with power door locks)
(D10)	Door mirror remote control switch (Terminal No. 3)

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GROUND

Ground Distribution (Cont'd)

Body ground



CONNECTOR NUMBER	CONNECT TO
M23	ABS control unit (Terminal No. 11) (With 2-wheel ABS)

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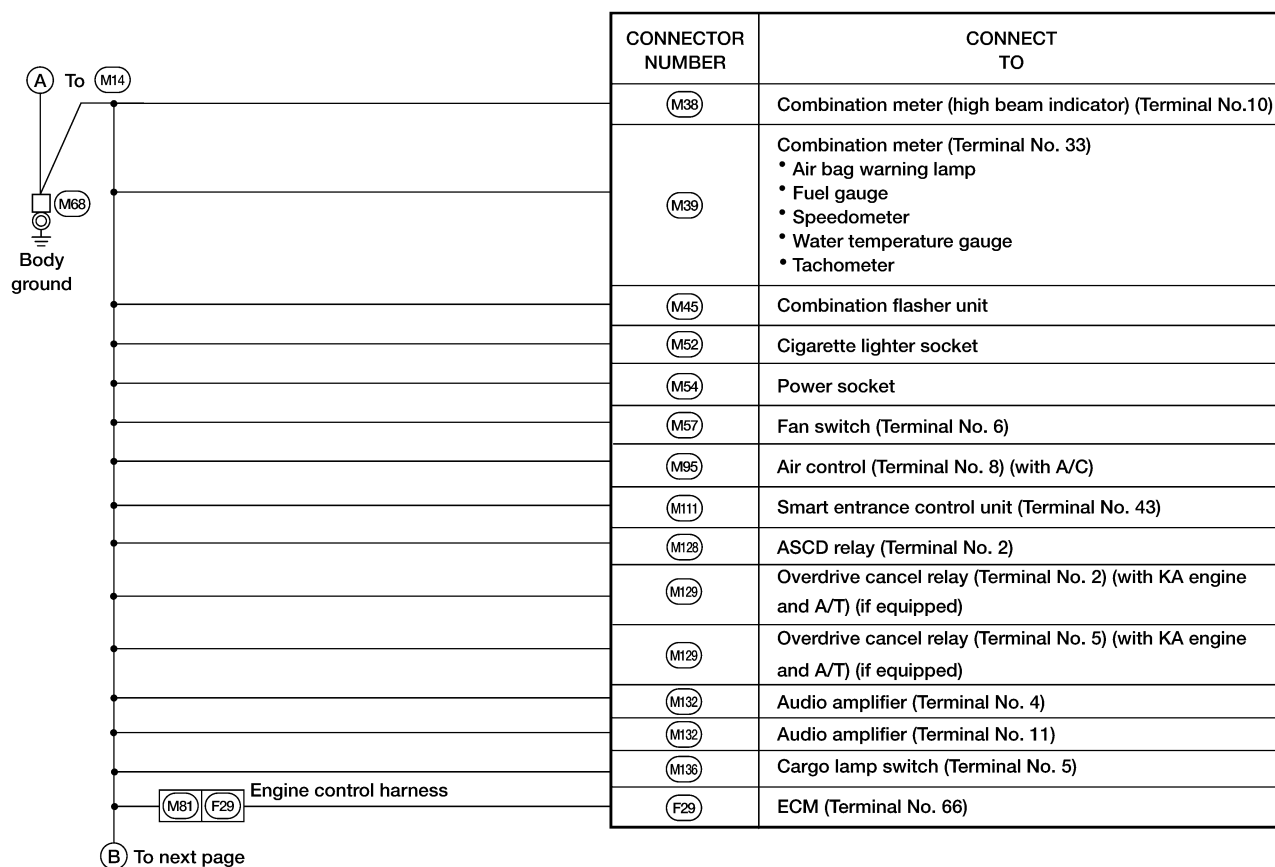
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GROUND

Ground Distribution (Cont'd)

Body ground



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