ELECTRICAL SYSTEM

SECTION EL

CONTENTS

CONTENTS (Cont'd)

CONTENTS (Cont'd)

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:

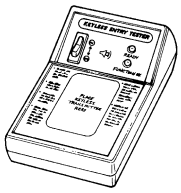
- ***GI-34***, “How to Follow Test Groups in Trouble Diagnoses”
- ***GI-23***, “HOW TO PERFORM EFFICIENT DIAGNOSIS FOR AN ELECTRICAL INCIDENT”

Check for any Service bulletins before servicing the vehicle.

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	 LEL946A Used to test keyfobs

*: Special tool or commercial equivalent

Description

NEEL0003

HARNESS CONNECTOR (TAB-LOCKING TYPE)

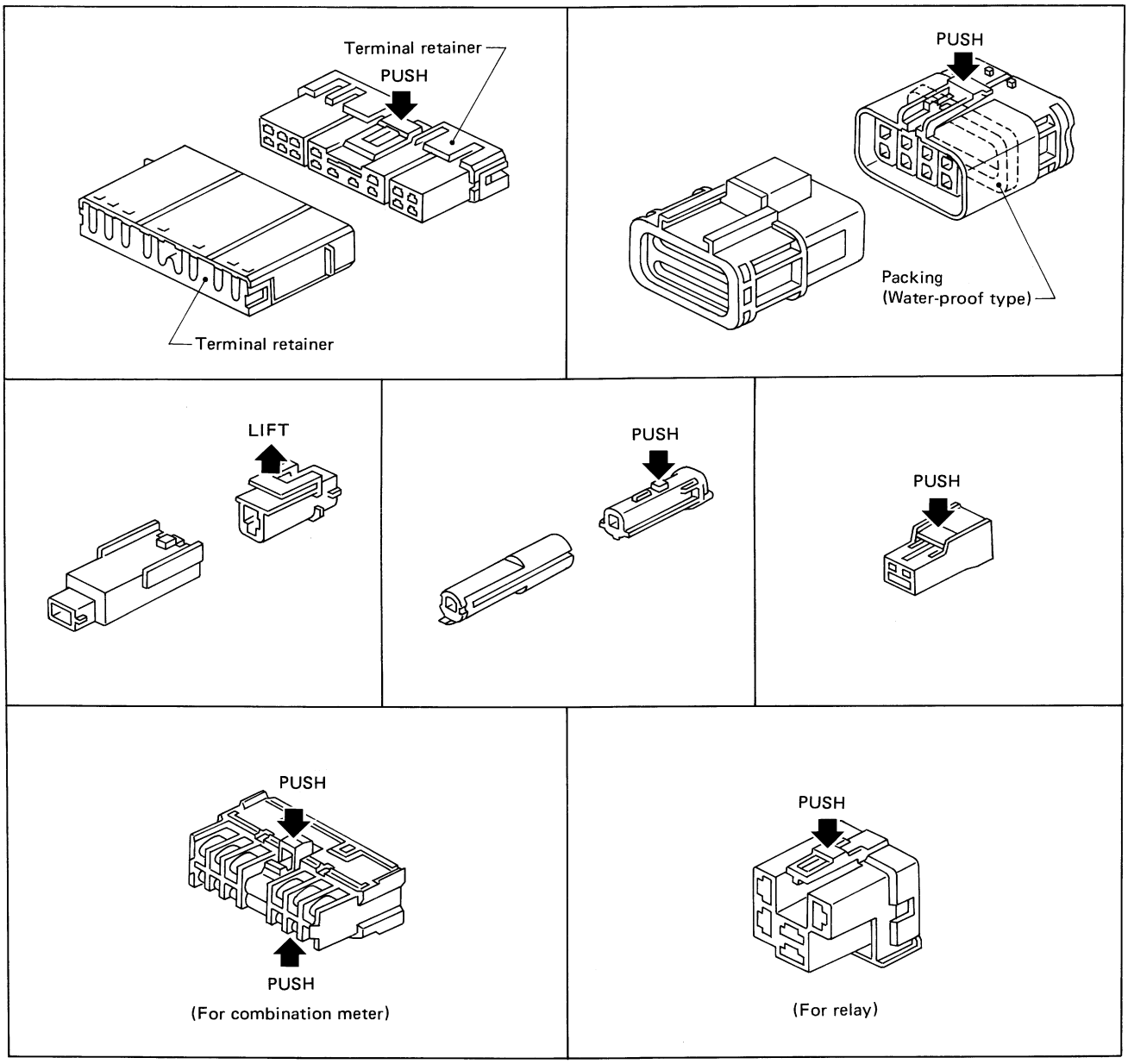
NEEL0003S01

- 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 (SLIDE-LOCKING TYPE)

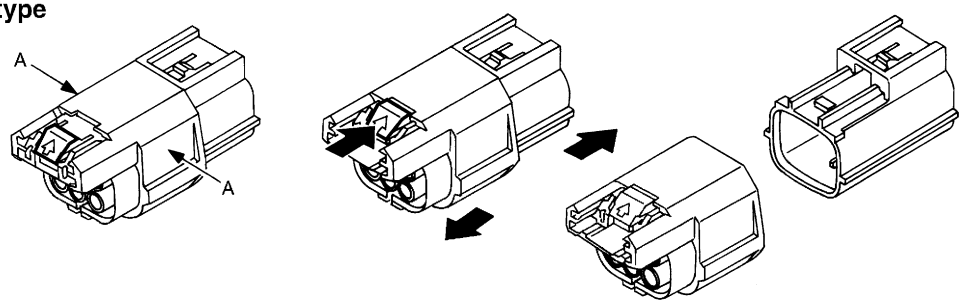
=NEEL0003S02

- 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.

Waterproof type

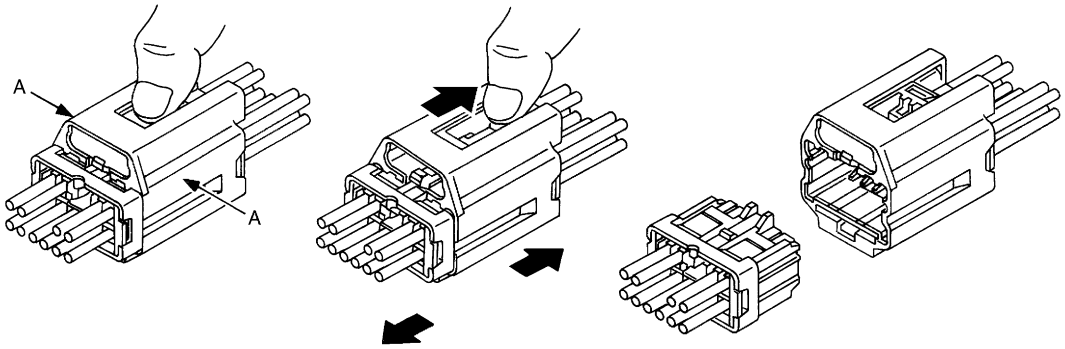


① Firmly grasp shell of connector housing at A.

② Push slider until connector pops or snaps apart.

③ Disconnect harness connector.

Non-waterproof type



① Firmly grasp shell of connector housing at A.

② Pull back on the slider while pulling apart male and female halves of connector.

③ Disconnect harness connector.

AEL299C

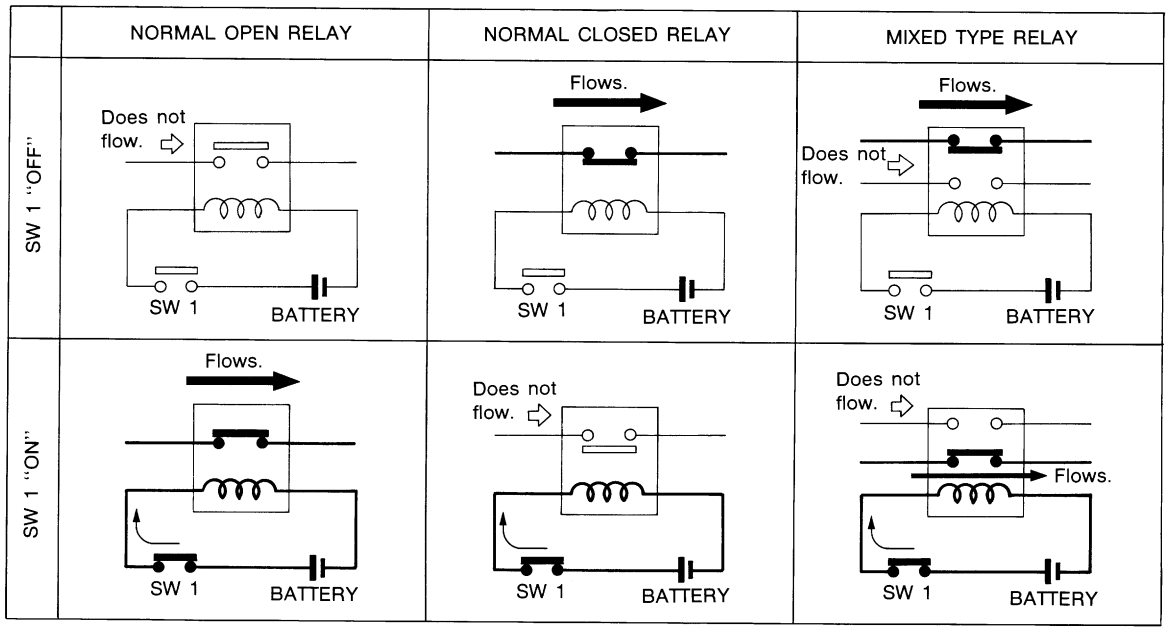
Description

NEEL0004

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

NEEL0004S01

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

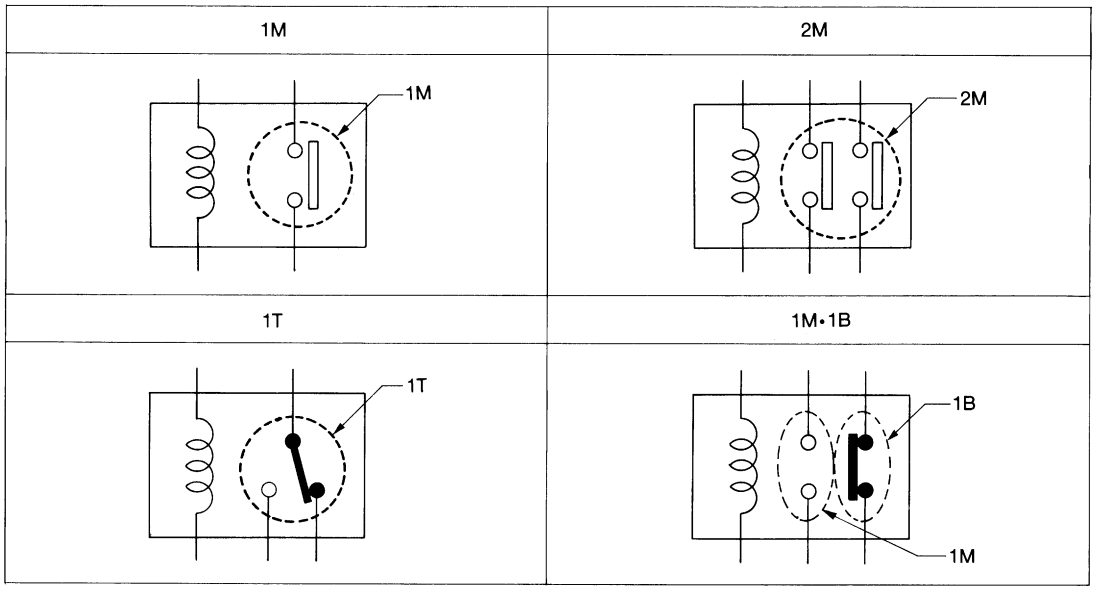


SEL881H

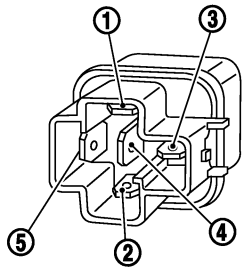
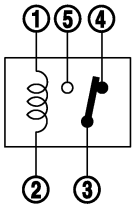
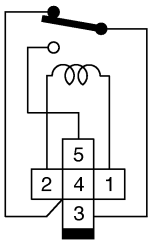
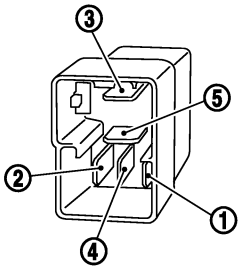
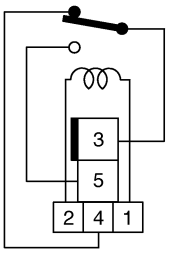
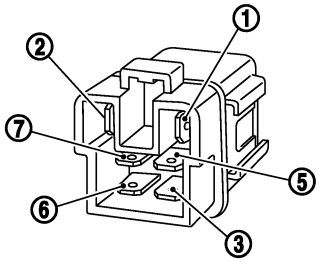
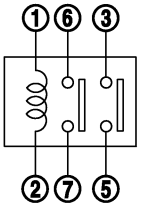
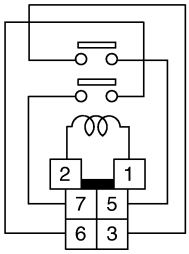
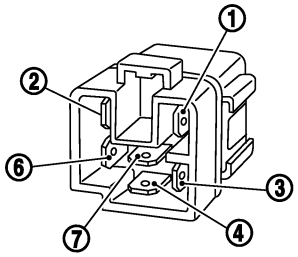
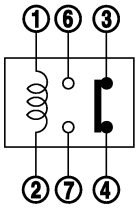
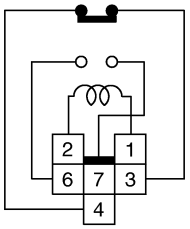
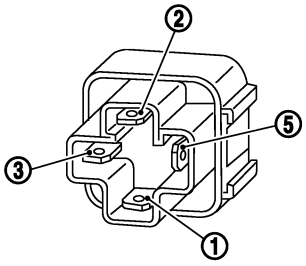
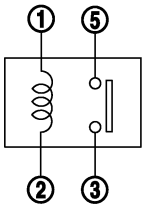
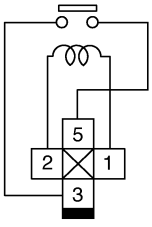
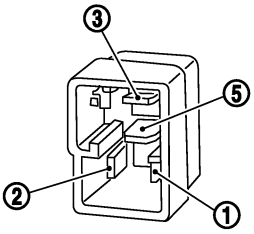
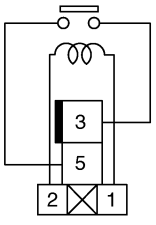
TYPE OF STANDARDIZED RELAYS

NEEL0004S02

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



SEL882H

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

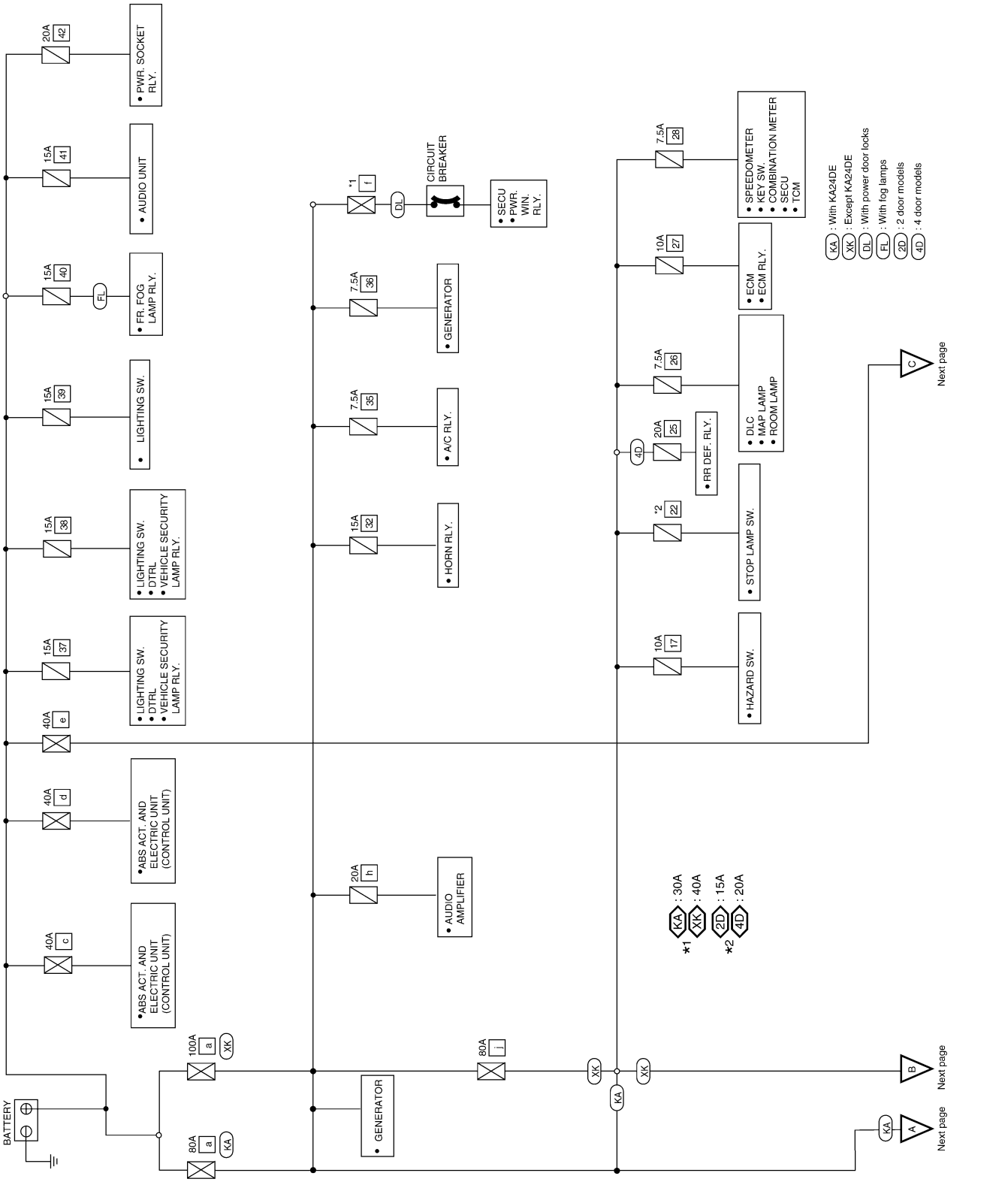
The arrangement of terminal numbers on the actual relays may differ from those shown above.

GEL264

Circuit Diagram

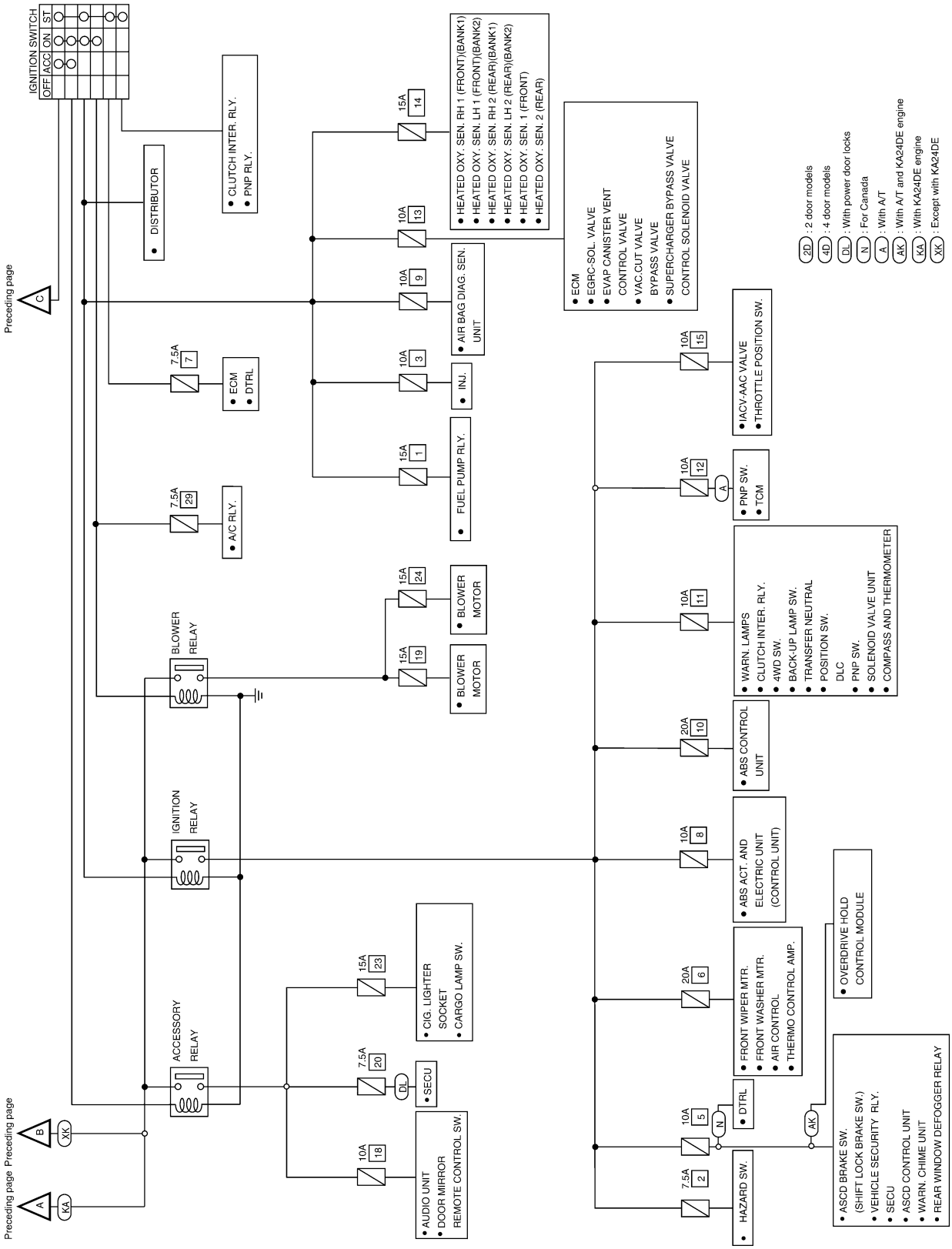
NEEL0005

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



WEL091B

Circuit Diagram (Cont'd)



WEL092B

Wiring Diagram — POWER —

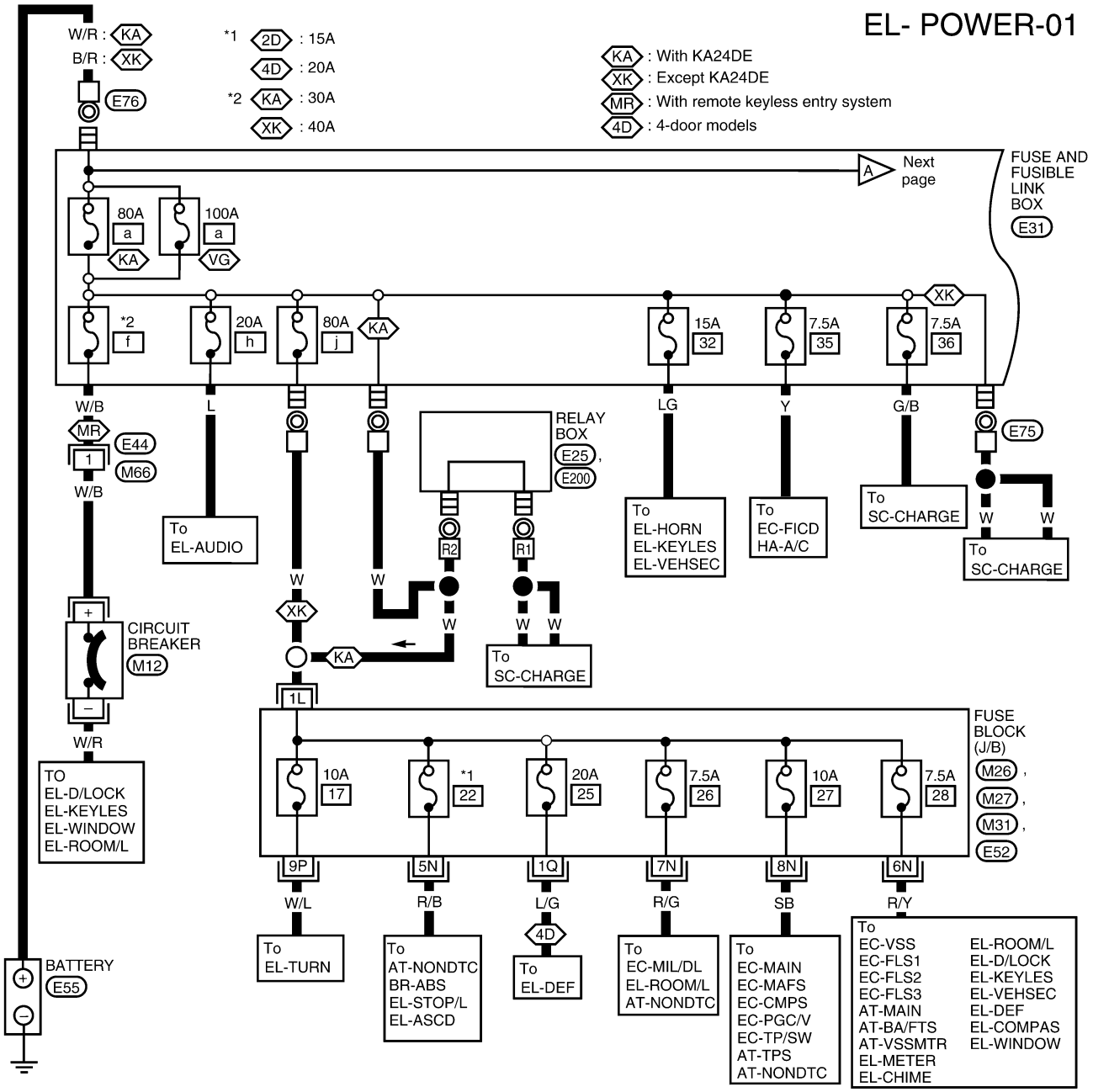
NEEL0006

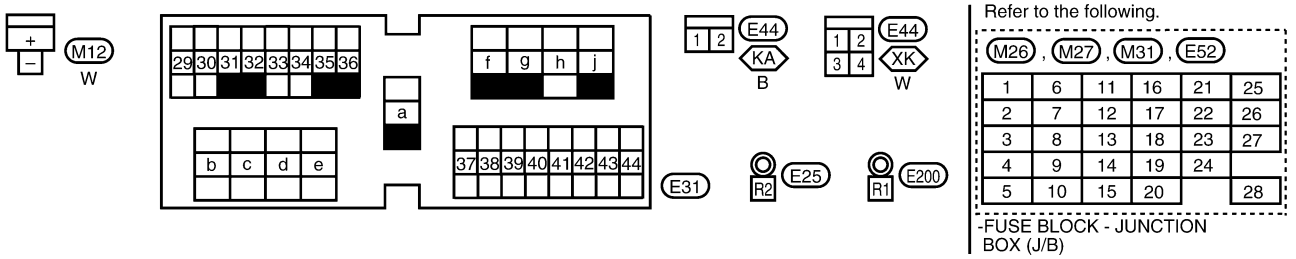
BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

NEEL0006S01

NOTE:

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

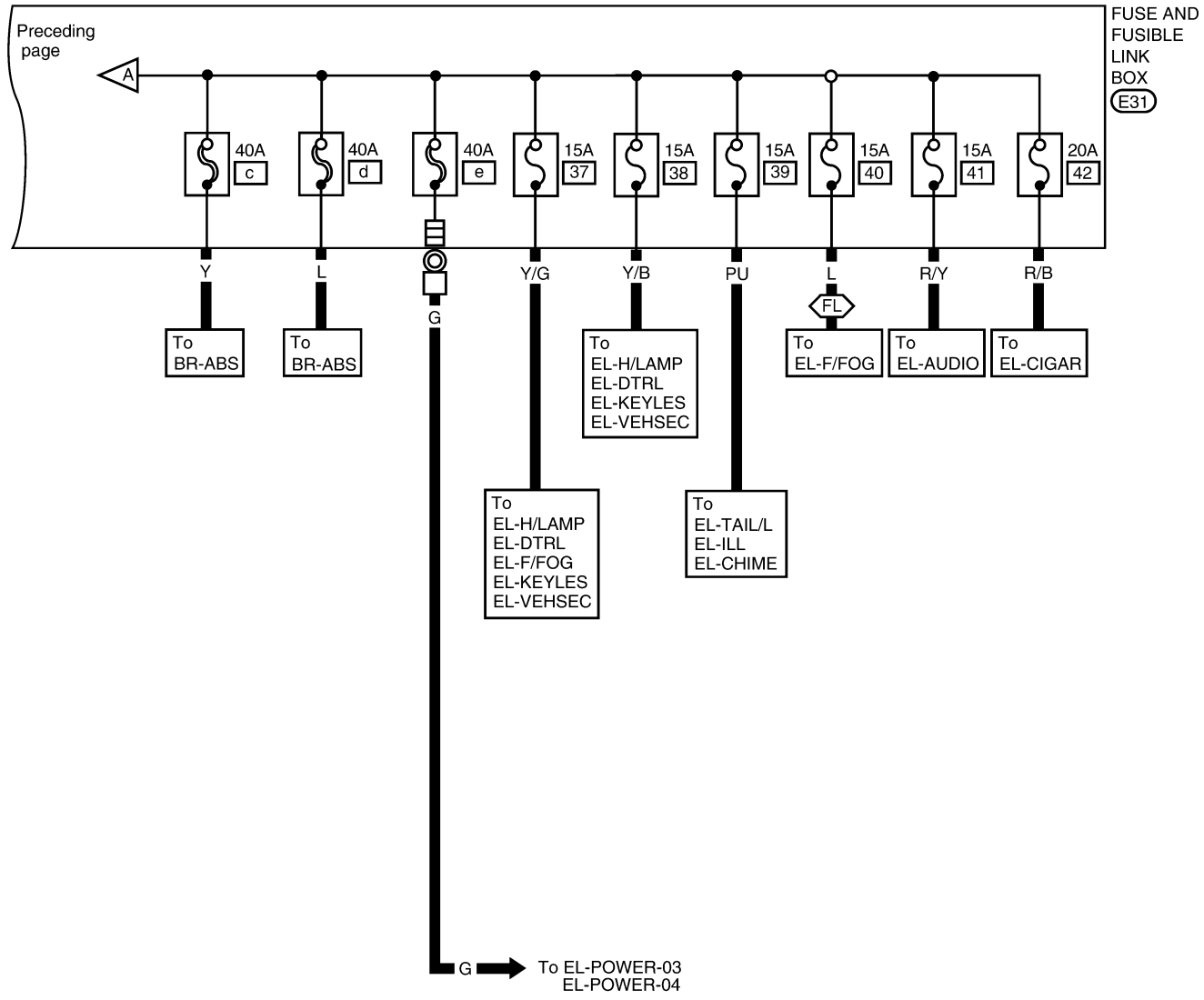


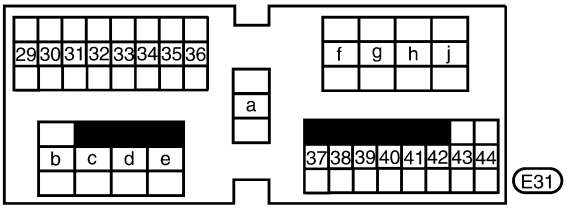


WEL093B

EL-POWER-02

FL : With fog lamps





WEL840A

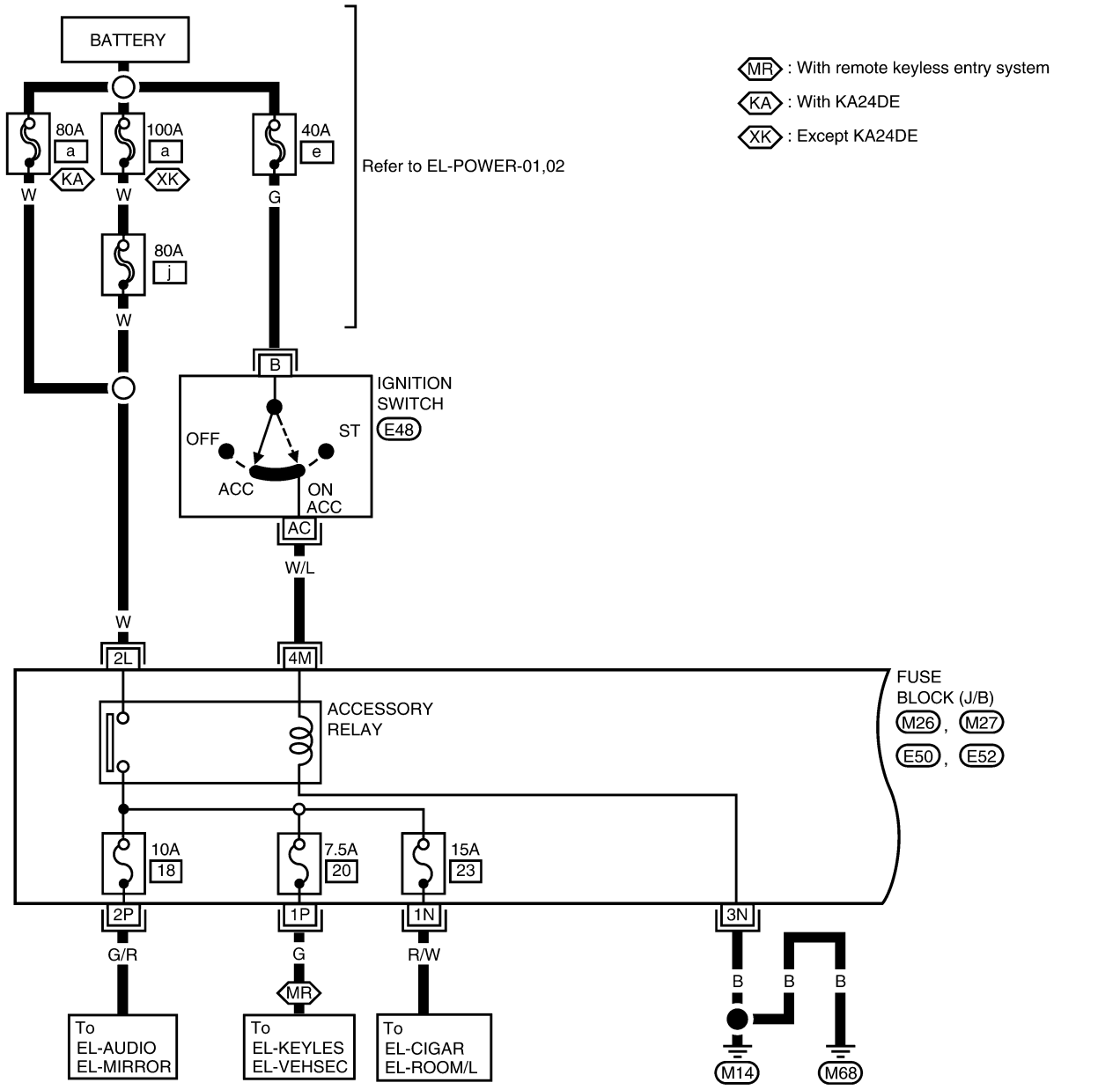
ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON

=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

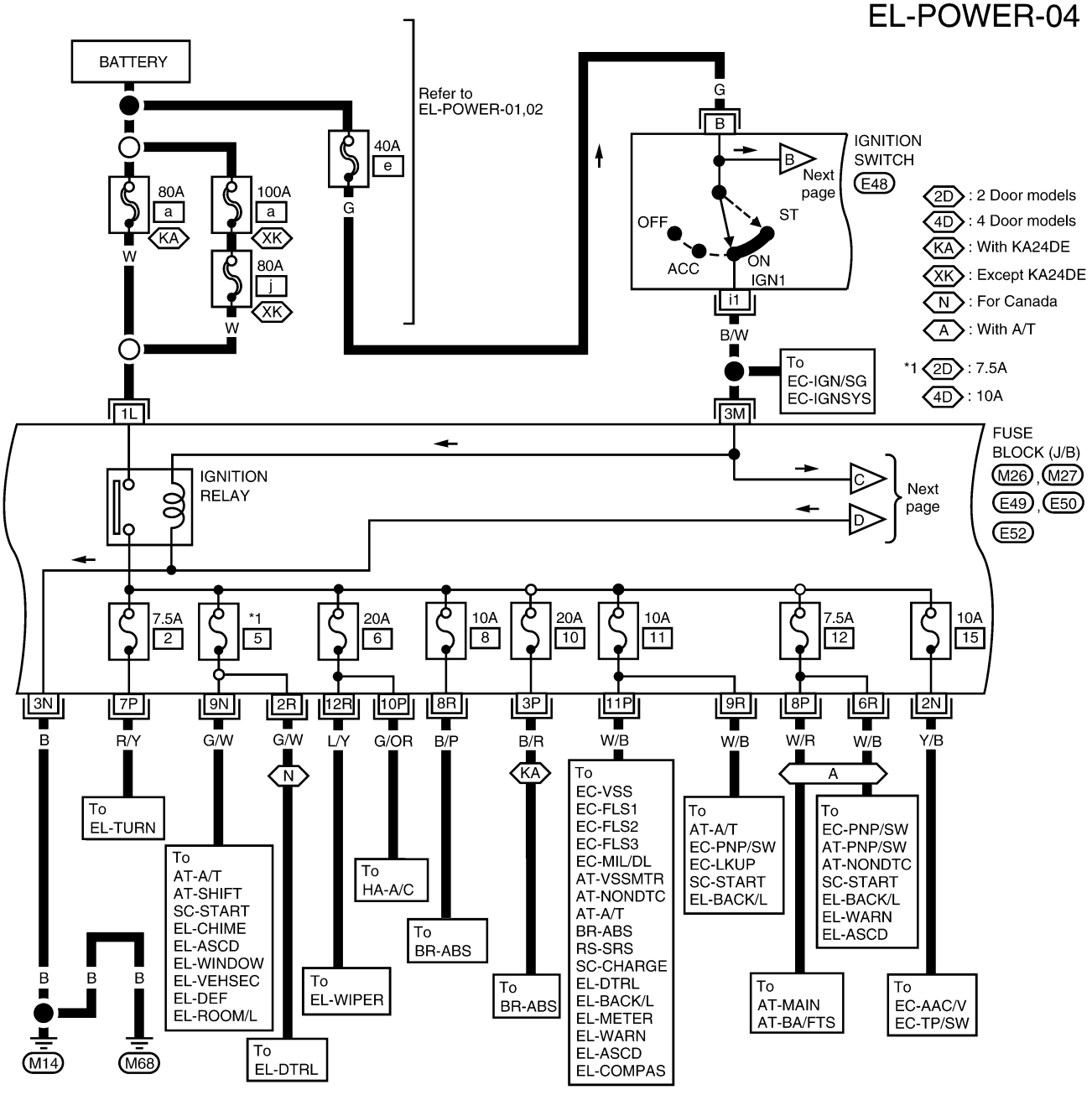
IGNITION POWER SUPPLY — IGNITION SW. IN ON AND/OR START

=NEEL0006S03

NOTE:

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

EL-POWER-04



Refer to the following.

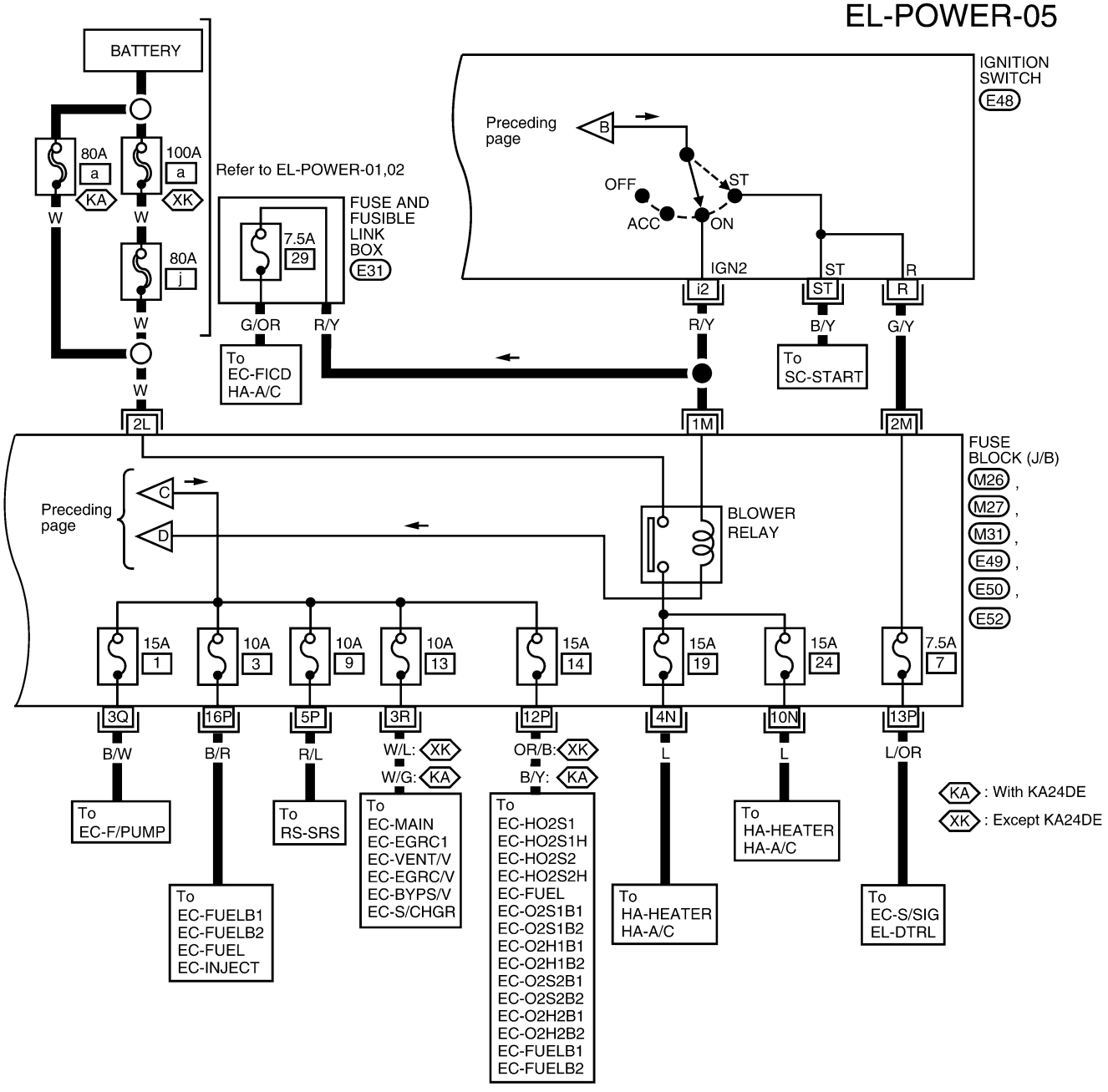
M26, M27, E49, E50, E52

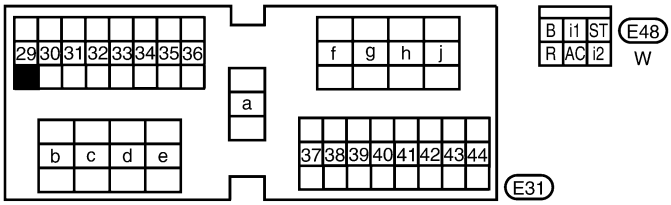
1	6	11	16	21	25
2	7	12	17	22	26
3	8	13	18	23	27
4	9	14	19	24	
5	10	15	20		28

-FUSE BLOCK - JUNCTION BOX (J/B)

WEL094B

EL-POWER-05





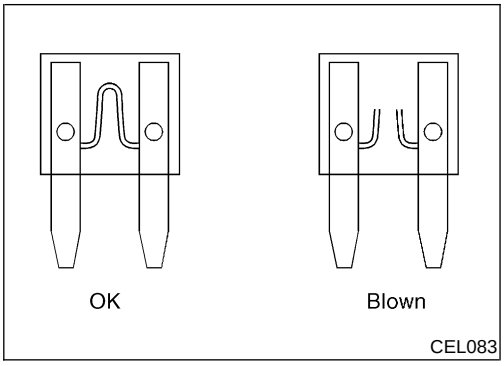
Refer to the following.

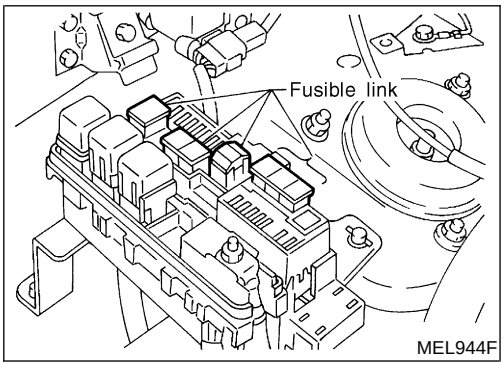
M26 , M27 , M31 , E49 , E50 , E52

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

NEEL0007

FUSE

NEEL0007S01

- **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.**

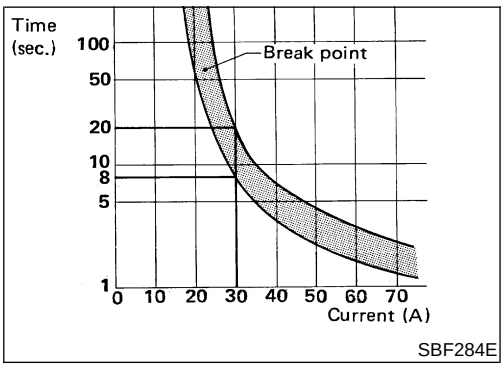
FUSIBLE LINK

NEEL0007S02

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.**



CIRCUIT BREAKER

NEEL0007S03

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.

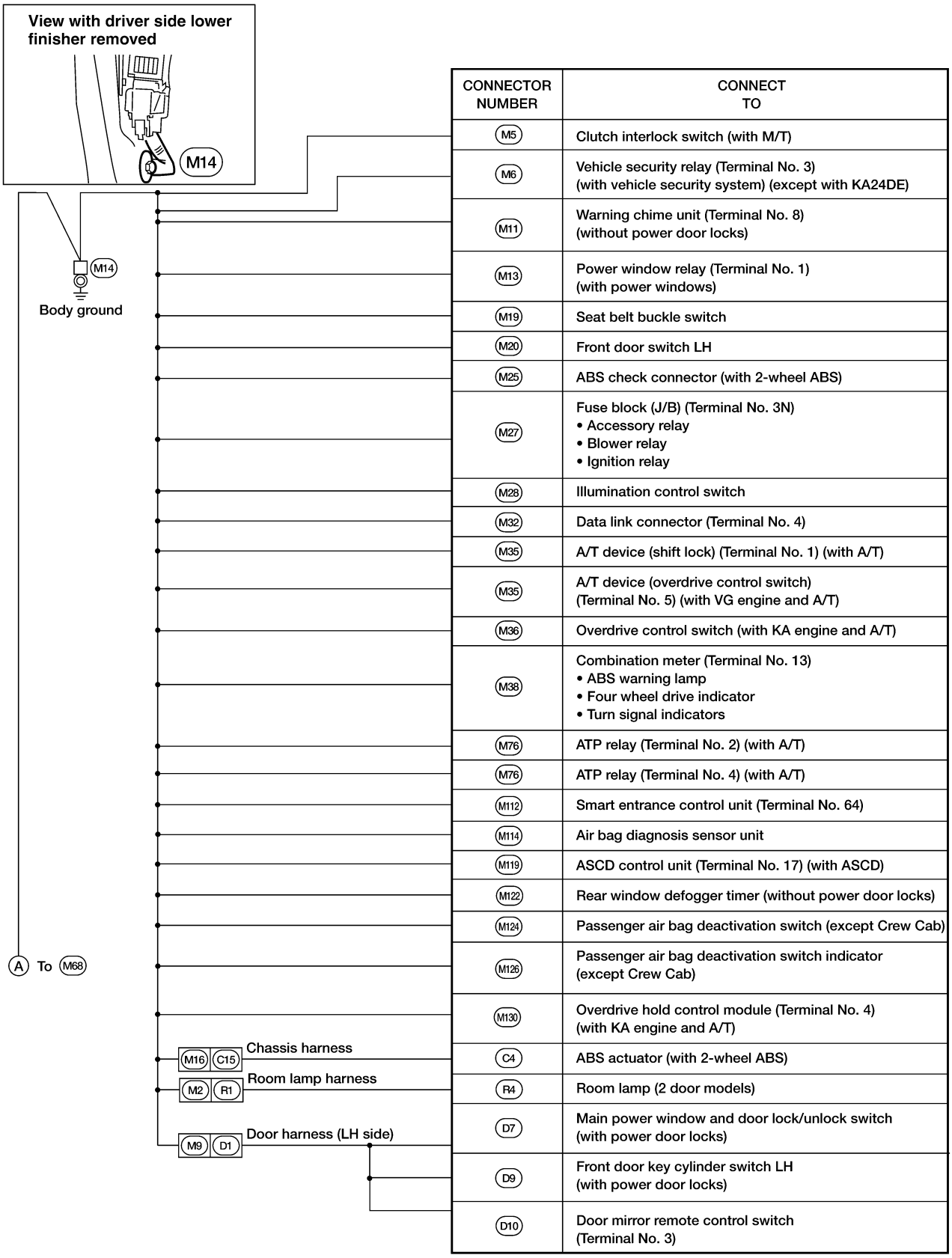
Ground Distribution

MAIN HARNESS

NEEL0171

NEEL0171S01

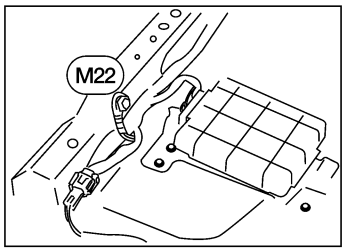
Body ground



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) • 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) • 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)

WEL844A

Body ground



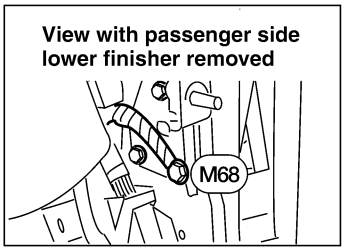
CONNECTOR NUMBER	CONNECT TO
M23	ABS control unit (Terminal No. 11) (With 2-wheel ABS)

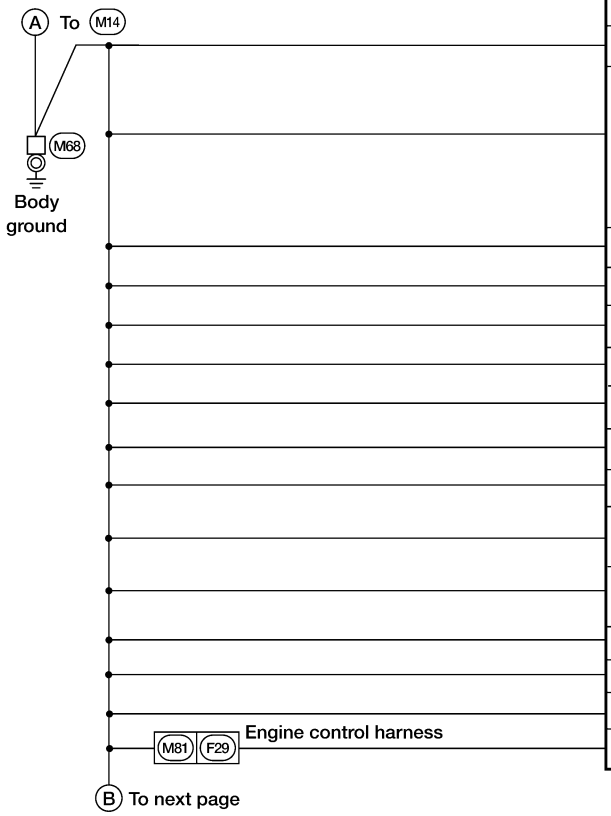
M22

Body ground

LEL795

Body ground





CONNECTOR NUMBER	CONNECT TO
M38	Combination meter (high beam indicator) (Terminal No.10)
M39	Combination meter (Terminal No. 33) • Air bag warning lamp • Fuel gauge • Speedometer • Water temperature gauge • Tachometer
M45	Combination flasher unit
M52	Cigarette lighter socket
M54	Power socket
M57	Fan switch (Terminal No. 6)
M95	Air control (Terminal No. 8) (with A/C)
M111	Smart entrance control unit (Terminal No. 43)
M128	ASCD relay (Terminal No. 2)
M129	Overdrive cancel relay (Terminal No. 2) (with KA engine and A/T) (if equipped)
M129	Overdrive cancel relay (Terminal No. 5) (with KA engine and A/T) (if equipped)
M132	Audio amplifier (Terminal No. 4)
M132	Audio amplifier (Terminal No. 11)
M136	Cargo lamp switch (Terminal No. 5)
F29	ECM (Terminal No. 66)

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