

ELECTRICAL SYSTEM

SECTION **EL**

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HARNESS CONNECTOR

Description

Description

NEEL0003

NEEL0003S01

HARNESS CONNECTOR (TAB-LOCKING TYPE)

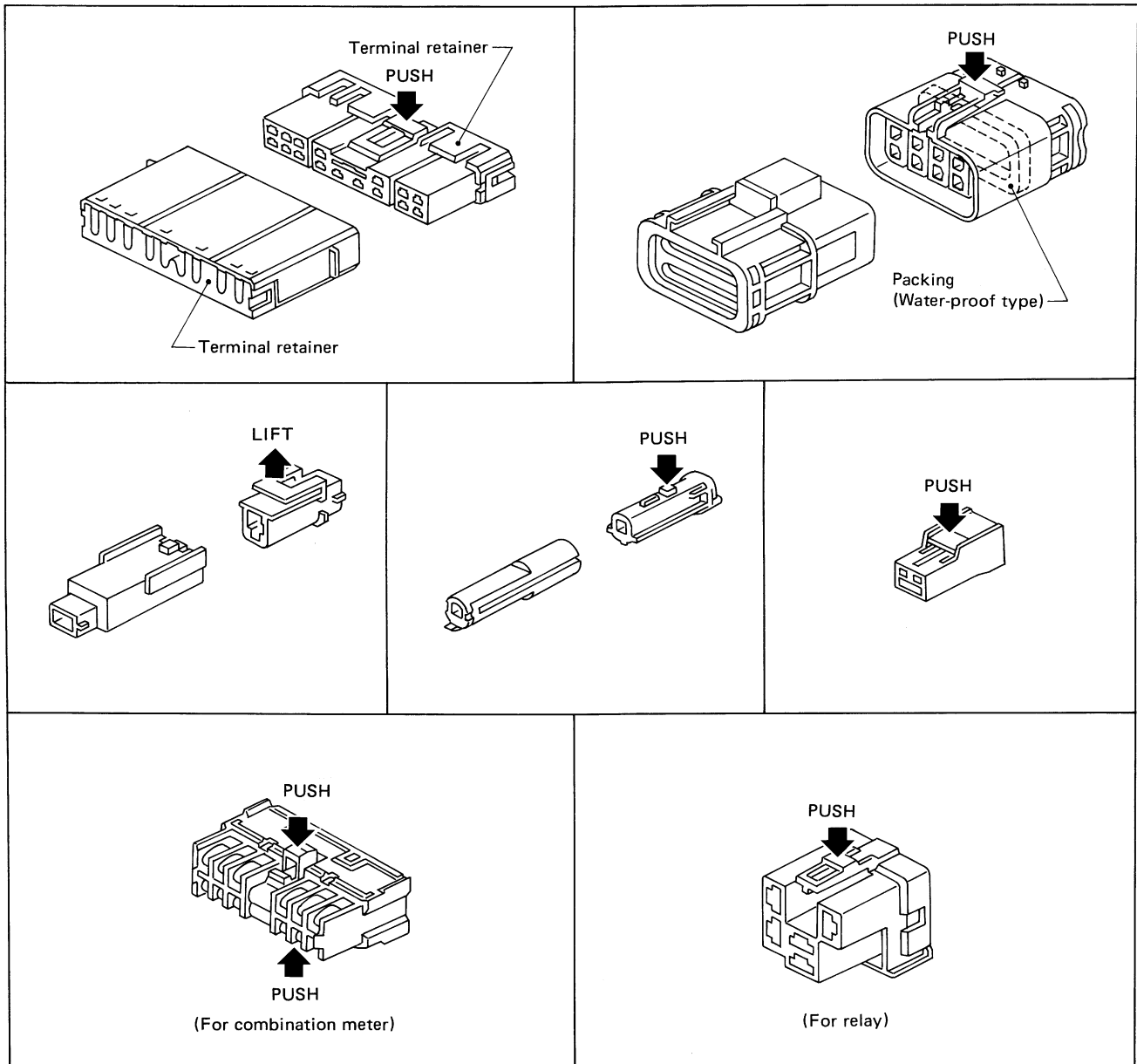
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

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

CAUTION:

Do not pull the harness when disconnecting the connector.

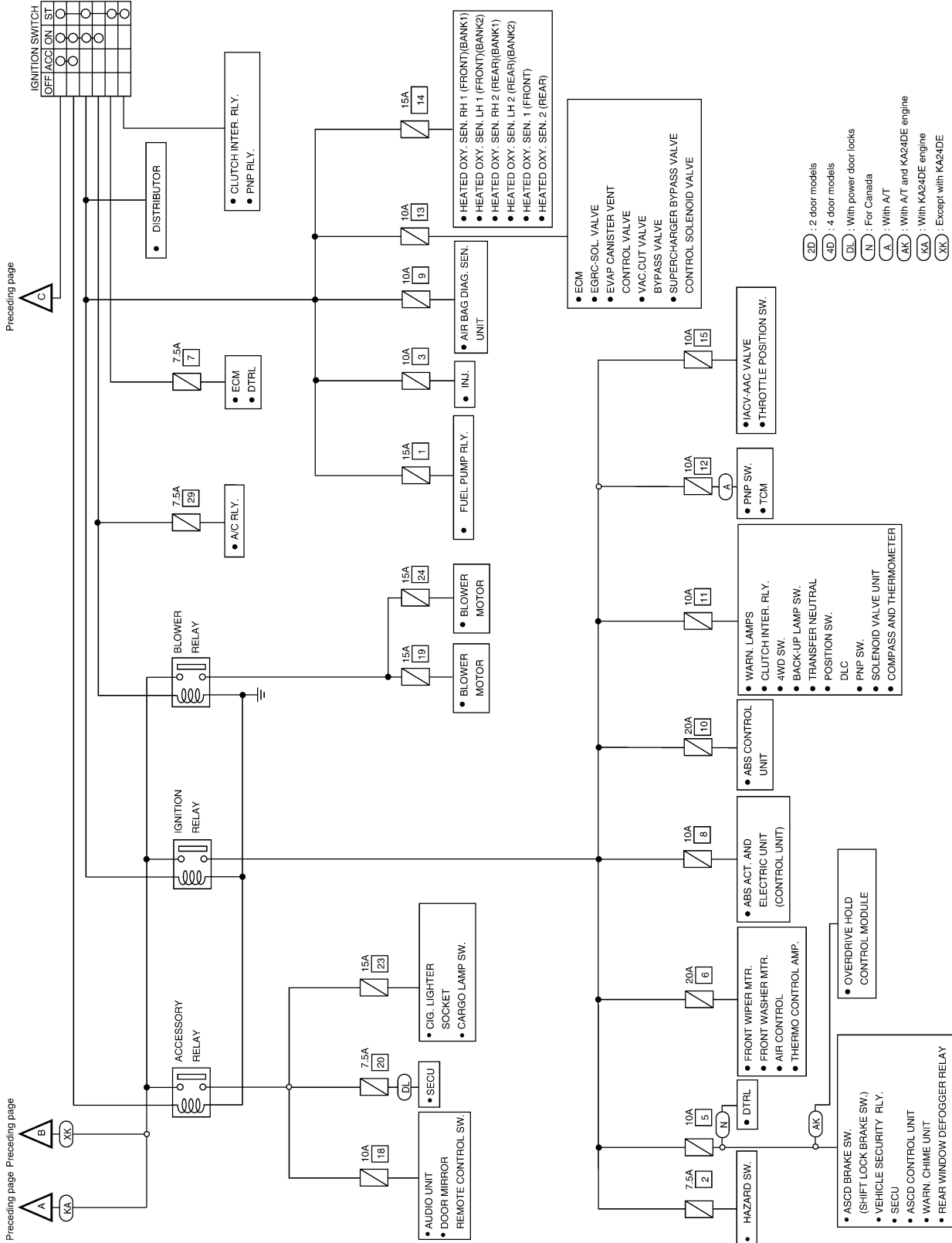
[Example]



SEL769D

POWER SUPPLY ROUTING

Circuit Diagram (Cont'd)



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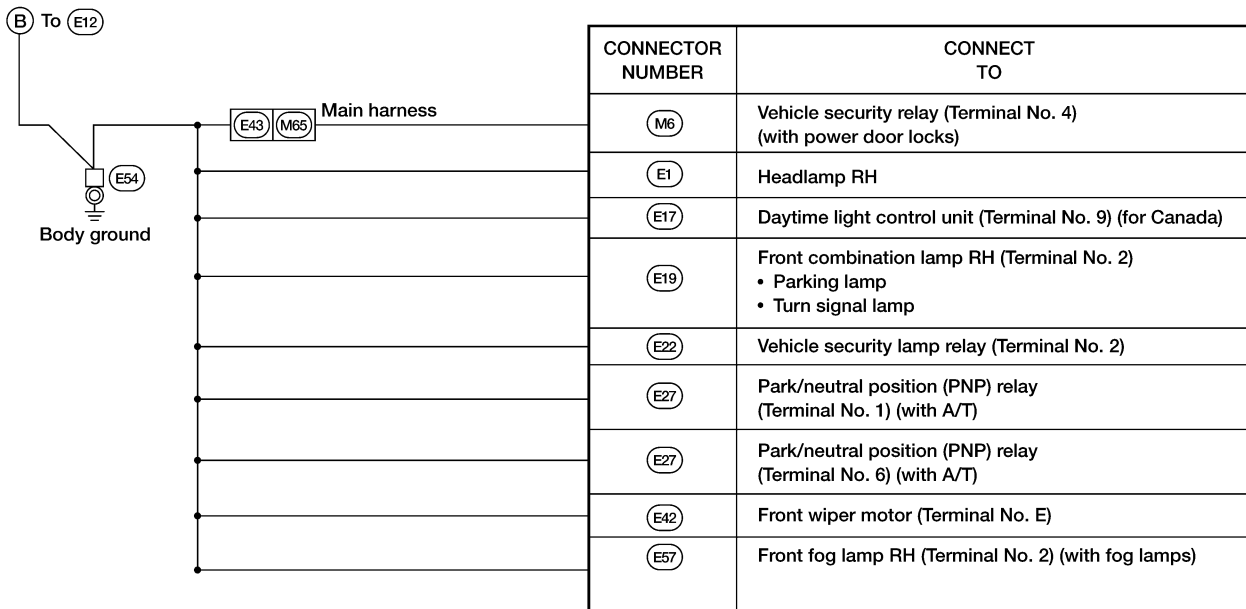
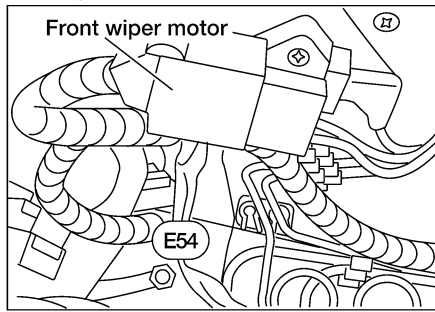
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GROUND

Ground Distribution (Cont'd)

Body ground



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HEADLAMP (FOR CANADA) — DAYTIME LIGHT SYSTEM —

Trouble Diagnoses

Trouble Diagnoses

NEEL0021

DAYTIME LIGHT CONTROL UNIT INSPECTION TABLE

NEEL0021S01

Terminal No.	Wire color	Item	Condition	Voltage (Approx.)
1	L/OR	Ignition switch start signal	Ignition switch in START position	12
			All other conditions	0
2	Y/G	Power source for headlamp RH	—	12
3	Y/B	Power source for headlamp LH	—	12
4	R/B	Lighting switch headlamp RH low beam output	Lighting switch in the headlamp ON (2ND) position and LOW BEAM (B) position	12
			All other conditions	0
5	R/G	Lighting switch headlamp LH high beam output	Lighting switch in the FLASH TO PASS (C) position or headlamp ON (2ND) position and HIGH BEAM (A) position	12
			All other conditions	0
6	R/Y	Headlamp LH high beam	Lighting switch in the FLASH TO PASS (C) position or headlamp ON (2ND) position and HIGH BEAM (A) position	12
			With parking brake released, engine running and lighting switch in OFF or parking and tail lamp ON (1ST) positions CAUTION: Block wheels and ensure selector lever is in P or N position.	12
			All other conditions	0
7	B/W	Headlamp LH control (ground)	Lighting switch in the FLASH TO PASS (C) position or headlamp ON (2ND) position	0
			All other conditions	6
8	R/W	Lighting switch headlamp RH high beam output	Lighting switch in the FLASH TO PASS (C) position or headlamp ON (2ND) position and HIGH BEAM (A) position	12
			With parking brake released, engine running and lighting switch in OFF or parking and tail lamp ON (1ST) positions CAUTION: Block wheels and ensure selector lever is in P or N position.	6
			All other conditions	0
9	B	Ground	—	—
10	Y	Parking brake switch	Parking brake released	12
			Parking brake set	0
11	Y/B	Generator (L terminal)	When engine is running	12
			All other conditions	0

INTERIOR ROOM LAMP

Trouble Diagnosis

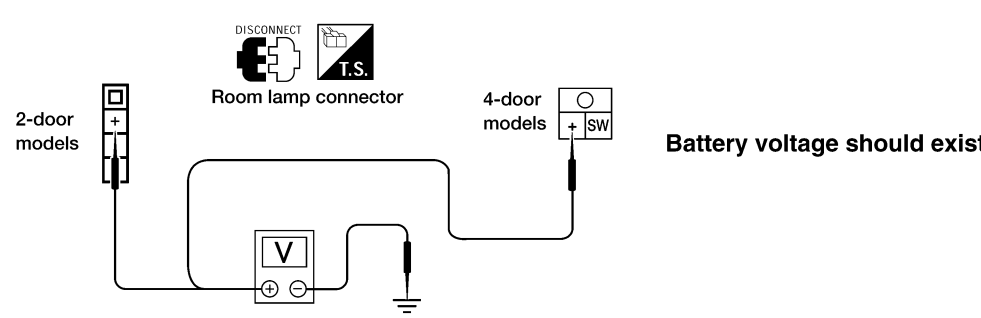
Trouble Diagnosis

NEEL0225

SYMPTOM: Room lamp does not turn on or off properly.

1	CHECK ROOM LAMP FUSE	
Check 7.5 A fuse [No. 26 (without power door locks), 28 (with power door locks), located in fuse block].		
OK or NG		
OK	▶	GO TO 2.
NG	▶	Replace fuse and check harness for short between fuse and room lamp.

2	CHECK ROOM LAMP SWITCH SIGNALS	
1. Close all doors, turn ON room lamp switch. Do room lamps turn on?		
2. Turn off room lamp switch. Do room lamps turn off?		
OK or NG		
OK	▶	GO TO 3.
NG	▶	Check the following. <ul style="list-style-type: none"> ● Room lamp switch ● Room lamp switch ground circuit ● Harness for open or short between room lamp switch and smart entrance control unit (models with power door locks)

3	CHECK ROOM LAMP POWER SUPPLY	
Check voltage between room lamp connector R4 terminal + (R/G) and ground.		
		
OK or NG		
OK	▶	GO TO 4.
NG	▶	Check harness for open between fuse and room lamp.

4	CHECK INTERIOR ROOM LAMP BULB	
Check interior room lamp bulb.		
OK or NG		
OK	▶	<ul style="list-style-type: none"> ● For models without power door locks, inspection end. ● For models with power door locks, GO TO 5.
NG	▶	Replace bulb.

COMPASS AND THERMOMETER

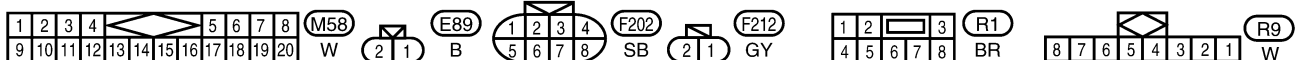
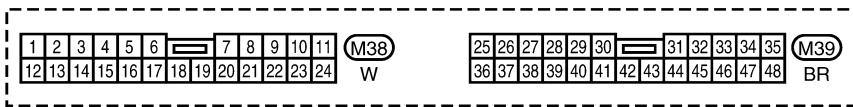
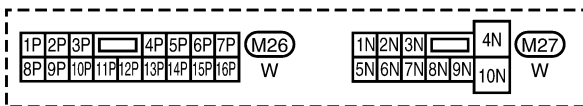
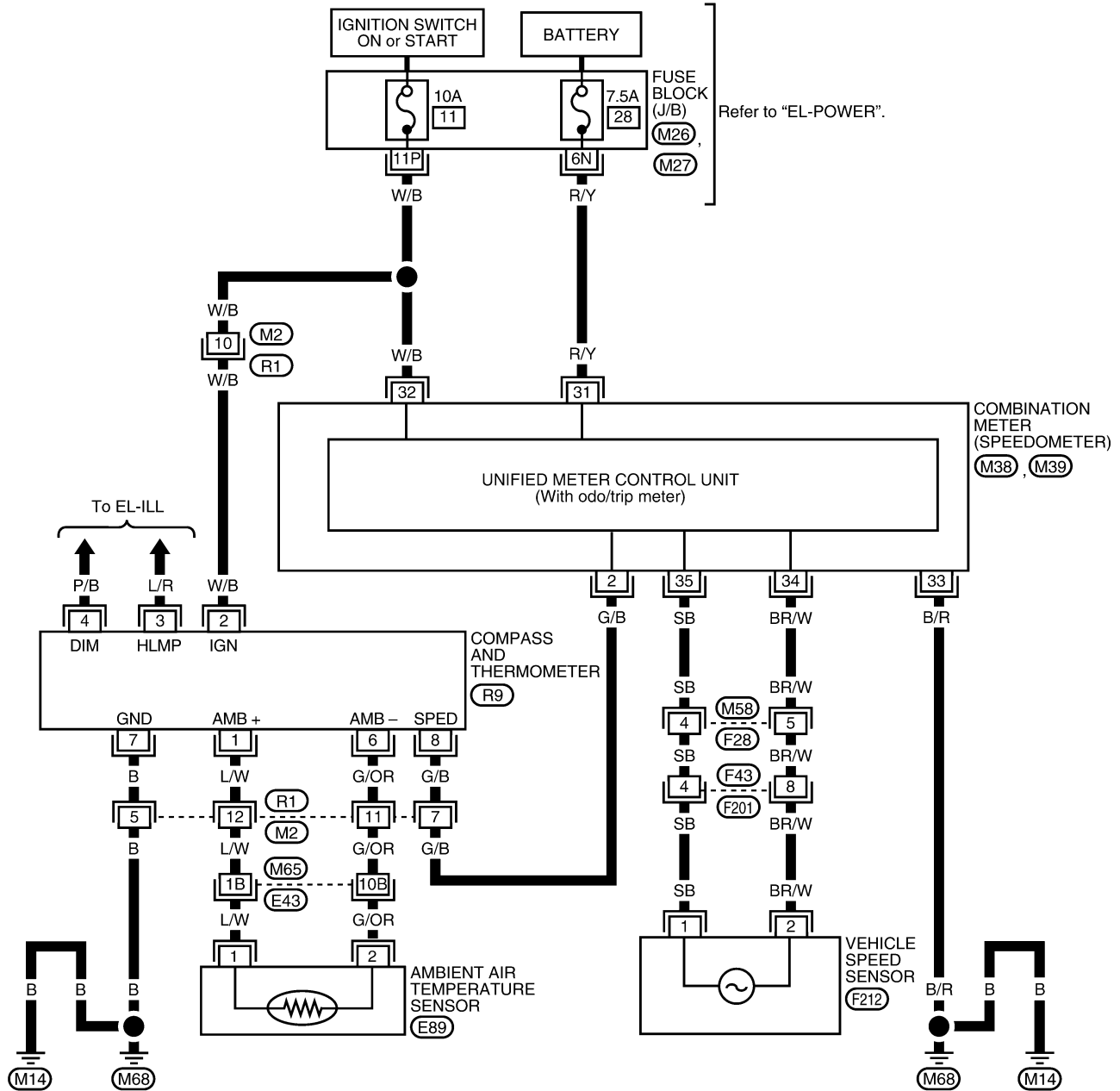
Wiring Diagram — COMPAS —

Wiring Diagram — COMPAS — KING CAB

NEEL0229

NEEL0229S01

EL-COMPAS-01



Refer to the following.
 (M65), (E43) - SUPER
 MULTIPLE JUNCTION (SMJ)

LEL762A

WARNING CHIME

Trouble Diagnoses (Cont'd)

SEAT BELT BUCKLE SWITCH CHECK Models without Power Door Locks

-NEEL0055S05

NEEL0055S0501

1	CHECK SEAT BELT BUCKLE SWITCH INPUT SIGNAL	
<p>1. Turn ignition switch ON. 2. Check voltage between warning chime unit terminal 2 and ground.</p> <div style="text-align: center;"> </div> <p>Voltage [V]: Condition of seat belt buckle switch: FASTENED Approx. 12 Condition of seat belt buckle switch: UNFASTENED 0</p> <p style="text-align: center;">OK or NG</p>		
OK	▶	Seat belt buckle switch is OK.
NG	▶	GO TO 2.

2	CHECK SEAT BELT BUCKLE SWITCH	
<p>Check continuity between terminals 1 and 2 when seat belt is fastened and unfastened.</p> <div style="text-align: center;"> </div> <p>Continuity: Seat belt is fastened. No Seat belt is unfastened. Yes</p> <p style="text-align: center;">OK or NG</p>		
OK	▶	<p>Check the following.</p> <ul style="list-style-type: none"> ● Seat belt buckle switch ground circuit ● Harness for open or short between warning chime unit and seat belt buckle switch
NG	▶	Replace seat belt buckle switch.

REAR WINDOW DEFOGGER

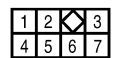
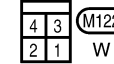
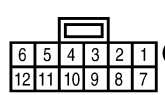
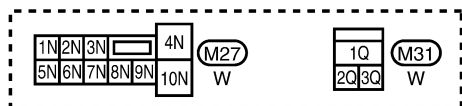
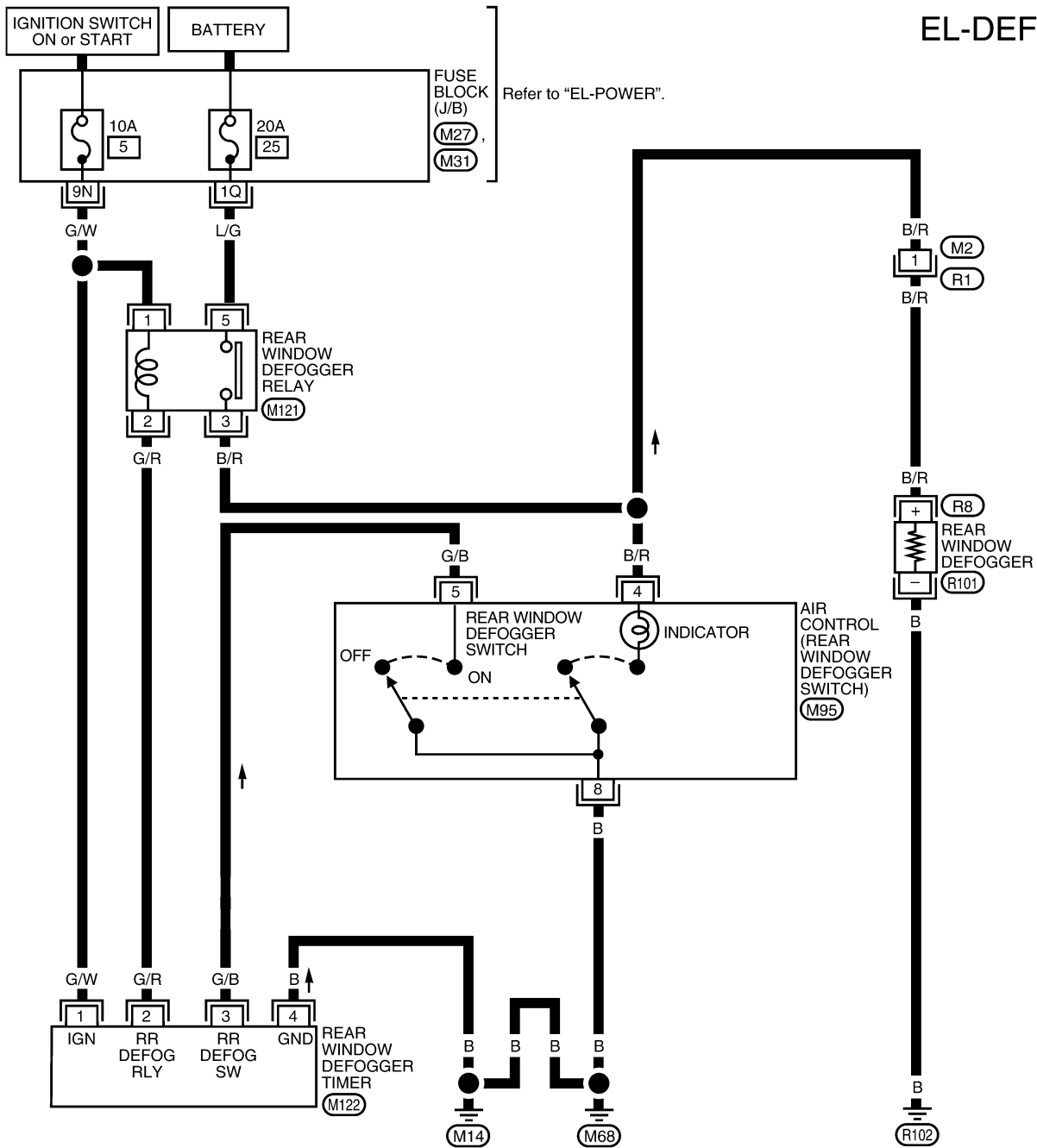
Wiring Diagram — DEF —

Wiring Diagram — DEF — WITHOUT POWER DOOR LOCKS

NEEL0217

NEEL0217S01

EL-DEF-01



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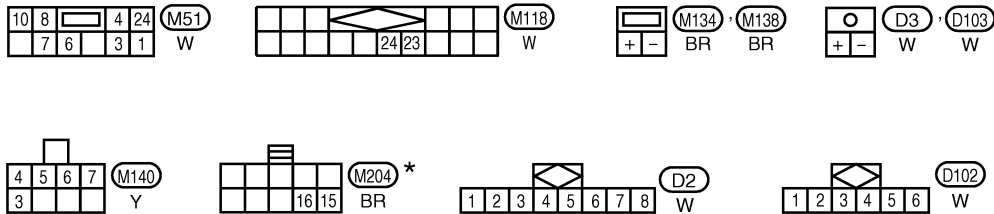
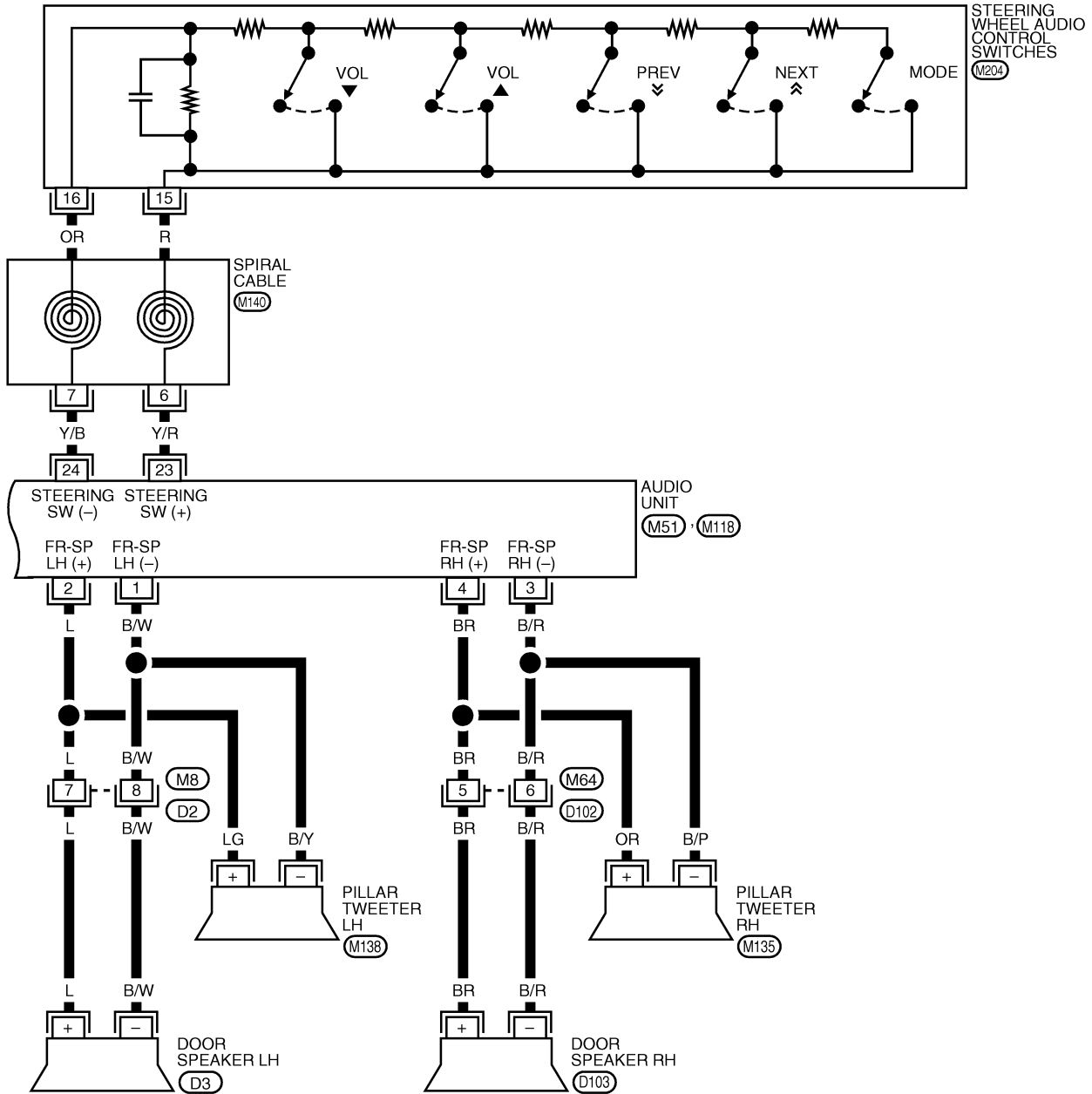
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WEL747A

AUDIO

Wiring Diagram — AUDIO — (Cont'd)

EL-AUDIO-03



*: This connector is not shown in "HARNESS LAYOUT" of EL section.

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AUTOMATIC SPEED CONTROL DEVICE (ASCD)

Wiring Diagram — ASCD —

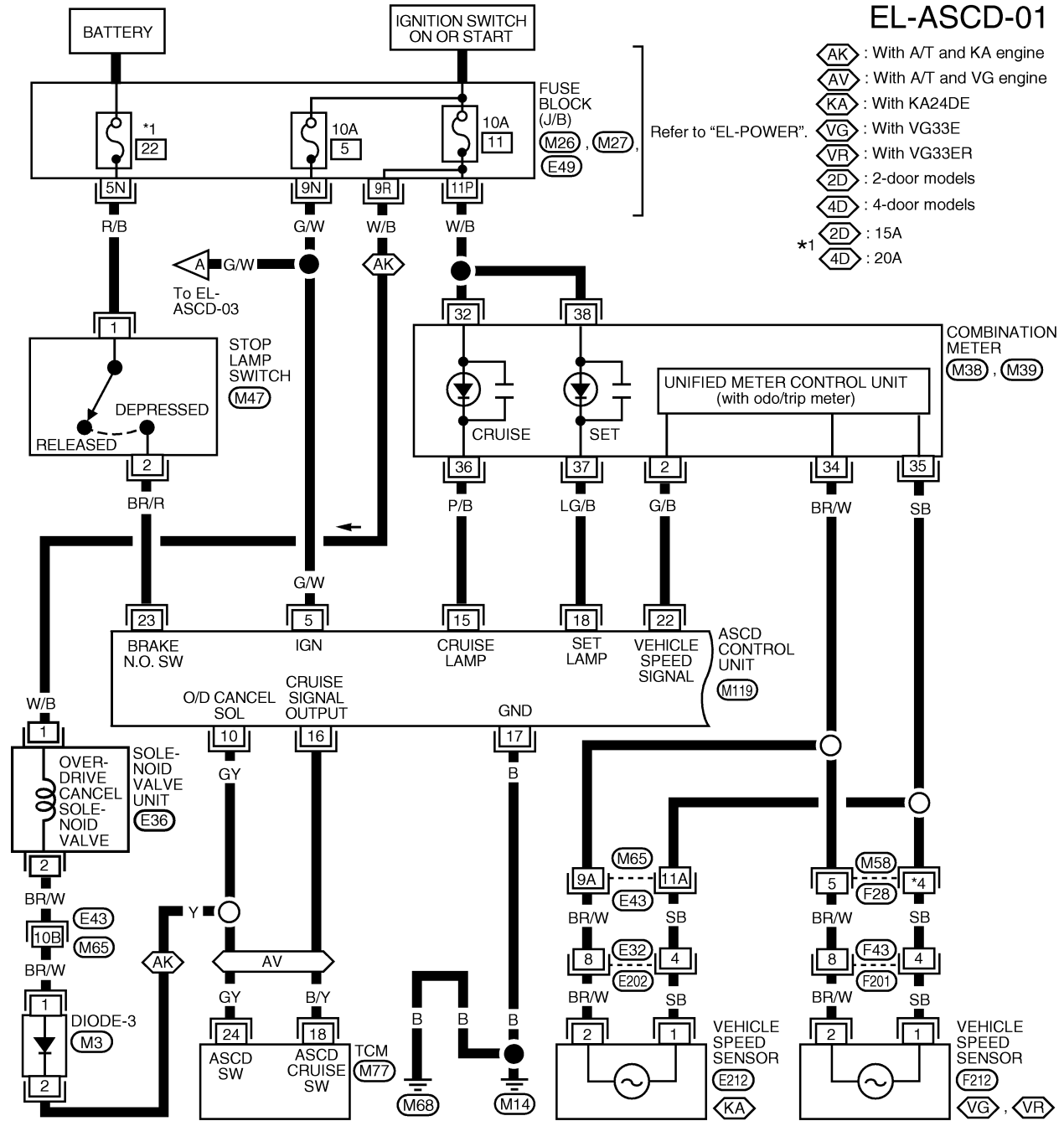
Wiring Diagram — ASCD —

NEEL0097

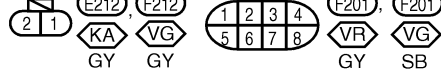
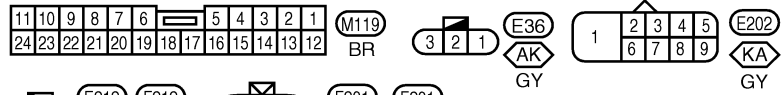
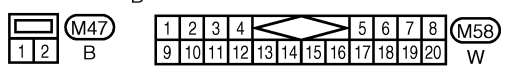
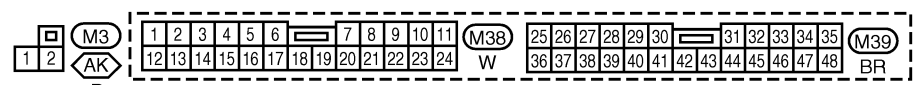
NEEL0097S01

FIG. 1

EL-ASCD-01



- AK : With A/T and KA engine
- AV : With A/T and VG engine
- KA : With KA24DE
- VG : With VG33E
- VR : With VG33ER
- 2D : 2-door models
- 4D : 4-door models
- *1 2D : 15A
- 4D : 20A



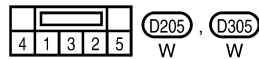
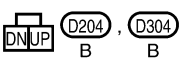
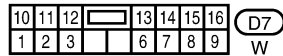
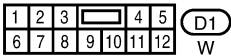
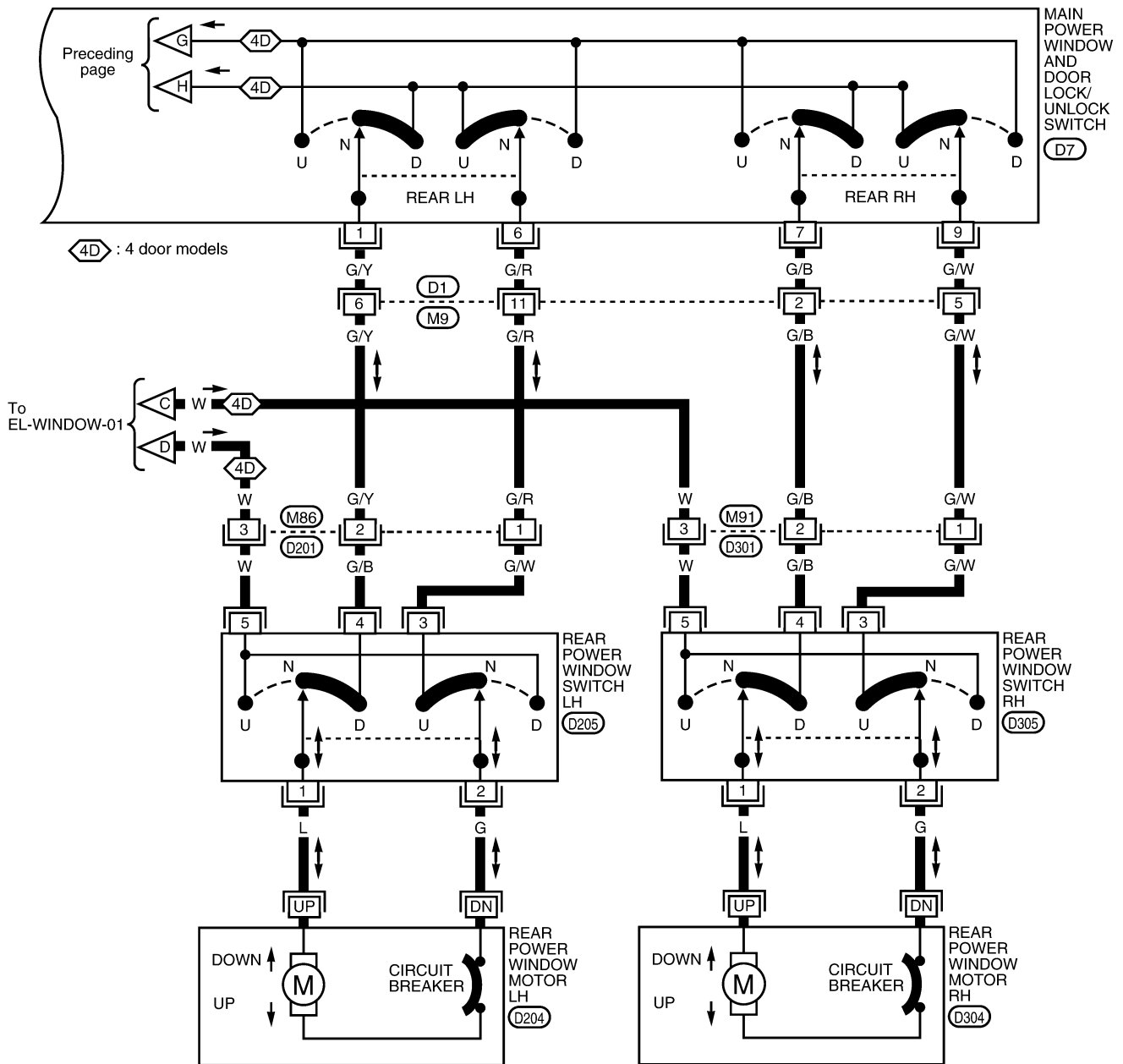
Refer to the following.
 M65, E43 - SUPER MULTIPLE JUNCTION (SMJ)
 M77 - ELECTRICAL UNITS
 M26, M27, E49 - FUSE BLOCK-JUNCTION BOX (J/B)

WEL759A

POWER WINDOW

Wiring Diagram — WINDOW — (Cont'd)

EL-WINDOW-04



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System Description

POWER SUPPLY AND GROUND

NEEL0112

NEEL0112S03

Power is supplied at all times

- through 30A fusible link [letter f, located in the fuse and fusible link box (with KA24DE)] or
- through 40A fusible link [letter f, located in the fuse and fusible link box (with VG33E and VG33ER)]
- to circuit breaker terminal +
- through circuit breaker terminal –
- to smart entrance control unit terminal 51.

GI

MA

EM

With the ignition switch in the ACC or ON position, power is supplied

- through 7.5A fuse [No. 20, located in the fuse block (J/B)]
- to smart entrance control unit terminal 26.

LC

Power is supplied at all times

- through 7.5A fuse [No. 28, located in the fuse block (J/B)]
- to key switch terminal 1 and
- to smart entrance control unit terminal 49.

EC

FE

Power is supplied at all times

- through 15A fuse (No. 37, located in the fuse and fusible link box)
- to vehicle security lamp relay terminal 7.

CL

Power is supplied at all times

- through 15A fuse (No. 38, located in the fuse and fusible link box)
- to vehicle security lamp relay terminal 5.

MT

Power is supplied at all times

- through 15A fuse (No. 32, located in the fuse and fusible link box)
- to horn relay terminal 1
- through horn relay terminal 2

AT

TF

Ground is supplied

- to smart entrance control unit terminals 43 and 64
- through body grounds M14 and M68.

PD

INPUTS

NEEL0112S01

With the key switch in the INSERTED (key is in ignition key cylinder) position, power is supplied

- through key switch terminal 2
- to smart entrance control unit terminal 25.

AX

SU

With front door LH open, ground is supplied

- to smart entrance control unit terminal 1
- through front door switch LH terminal 2
- through front door switch LH terminal 3
- through body grounds M14 and M68.

BR

ST

With front door RH open, ground is supplied

- to smart entrance control unit terminal 2
- through front door switch RH terminal +.

RS

With rear door LH or RH (Crew Cab) open, ground is supplied

- to smart entrance control unit terminal 3 (with vehicle security system), or
- to smart entrance control unit terminal 2 (without vehicle security system)
- through rear door switch LH or RH terminal +.

BT

HA

Keyfob signal input

- through internal antenna.

SC

The remote keyless entry system controls operation of the

- power door locks
- interior lamp
- panic alarm

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System Description

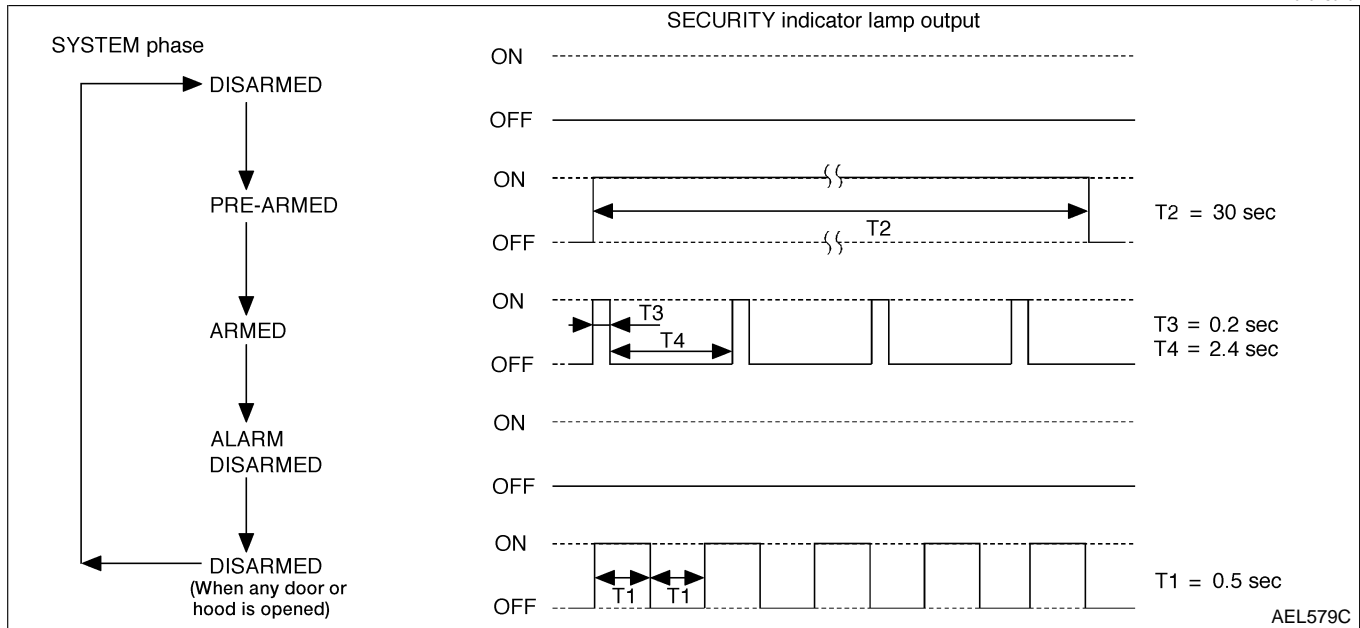
DESCRIPTION

NEEL0197

1. Operation Flow

NEEL0197S01

NEEL0197S0101



2. Setting the Vehicle Security System

Initial condition

- 1) Close all doors.
- 2) Close hood.

Disarmed phase

The vehicle security system is in the disarmed phase when any door(s) or hood is opened. The security indicator lamp blinks every second.

Pre-armed phase and armed phase

The vehicle security system turns into the "pre-armed" phase when hood and all doors are closed and the doors are locked by key or keyfob. (The security indicator lamp illuminates.)

After about 30 seconds, the system automatically shifts into the "armed" phase (the system is set). (The security indicator lamp blinks every 2.6 seconds.)

3. Canceling the Set Vehicle Security System

When the doors are unlocked with the key or keyfob, the armed phase is canceled.

4. Activating the Alarm Operation of the Vehicle Security System

Make sure the system is in the armed phase. (The security indicator lamp blinks every 2.6 seconds.)

When the following operation 1) or 2) is performed, the horn and headlamps operate intermittently for about 50 seconds. (At the same time, the system disconnects the starting system circuit.)

- 1) Engine hood or any door is opened before unlocking door with key or keyfob.
- 2) Door is opened without first using key or keyfob.

POWER SUPPLY AND GROUND

Power is supplied at all times

- through 7.5A fuse [No. 28, located in the fuse block (J/B)]
- to smart entrance control unit terminal 49
- to key switch terminal 1 and
- to security indicator lamp terminal 1.

With the ignition switch in the ACC or ON position, power is supplied

- through 7.5A fuse [No. 20, located in the fuse block (J/B)]
- to smart entrance control unit terminal 26.

With the ignition switch in the ON or START position, power is supplied

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