ELECTRICAL SYSTEM

SECTION EL

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

NJEL0001

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER” used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. The SRS system composition which is available to NISSAN MODEL N16 is as follows (The composition varies according to the destination and optional equipment.):

- For a frontal collision
  The Supplemental Restraint System consists of driver air bag module (located in the center of the steering wheel), front passenger air bag module (located on the instrument panel on passenger side), front seat belt pre-tensioners, a diagnosis sensor unit, warning lamp, wiring harness and spiral cable.
- For a side collision
  The Supplemental Restraint System consists of front side air bag module (located in the outer side of front seat), side air bag (satellite) sensor, diagnosis sensor unit (one of components of air bags for a frontal collision), wiring harness, warning lamp (one of components of air bags for a frontal collision).

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 connector.**

Wiring Diagrams and Trouble Diagnosis

NJEL0002

When you read wiring diagrams, refer to the following:

- Refer to GI-11, “HOW TO READ WIRING DIAGRAMS”
- Refer to EL-10, “POWER SUPPLY ROUTING” for power distribution circuit

When you perform trouble diagnosis, refer to the following:

- Refer to GI-32, “HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES”
- Refer to GI-21, “HOW TO PERFORM EFFICIENT DIAGNOSIS FOR AN ELECTRICAL INCIDENT”

Check for any Service bulletins before servicing the vehicle.

Description

NJEL0003

HARNESS CONNECTOR (TAB-LOCKING TYPE)

NJEL0003S01

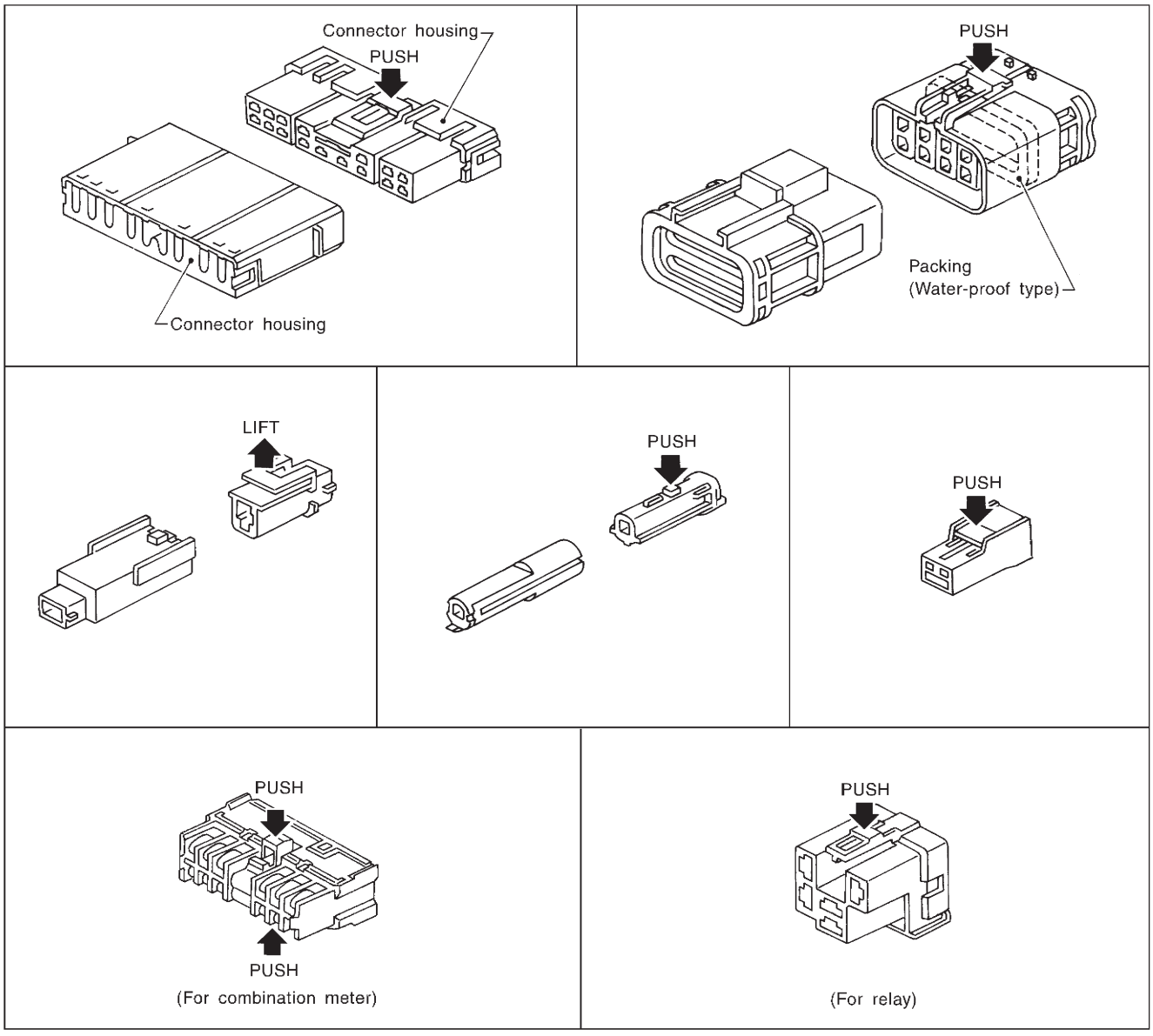
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

Refer to the next page for description of the slide-locking type connector.

CAUTION:

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

[Example]



SEL769DA

HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

=NJEL0003S02

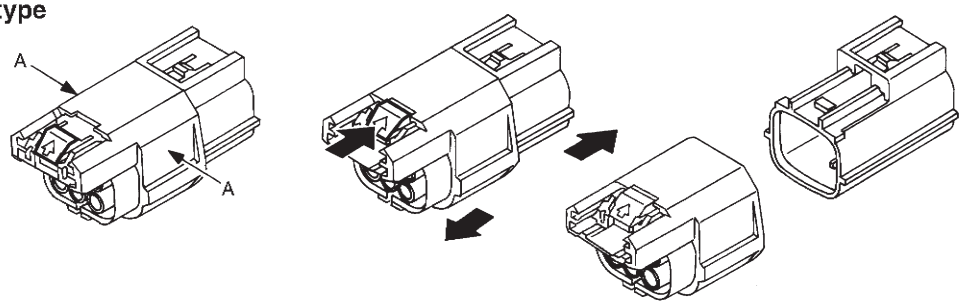
- A new style slide-locking type connector is used on certain systems and components, especially those related to OBD.
- The slide-locking type connectors help prevent incomplete locking and accidental looseness or disconnection.
- The slide-locking type connectors are disconnected by pushing or pulling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

[Example]

Waterproof type

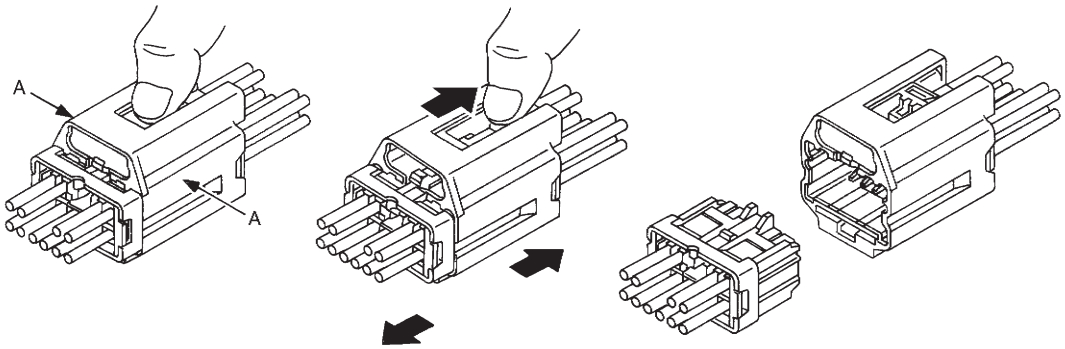


① Firmly grasp shell of connector housing at A.

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 famale halves of connector.

③ Disconnect harness connector.

SEL769V

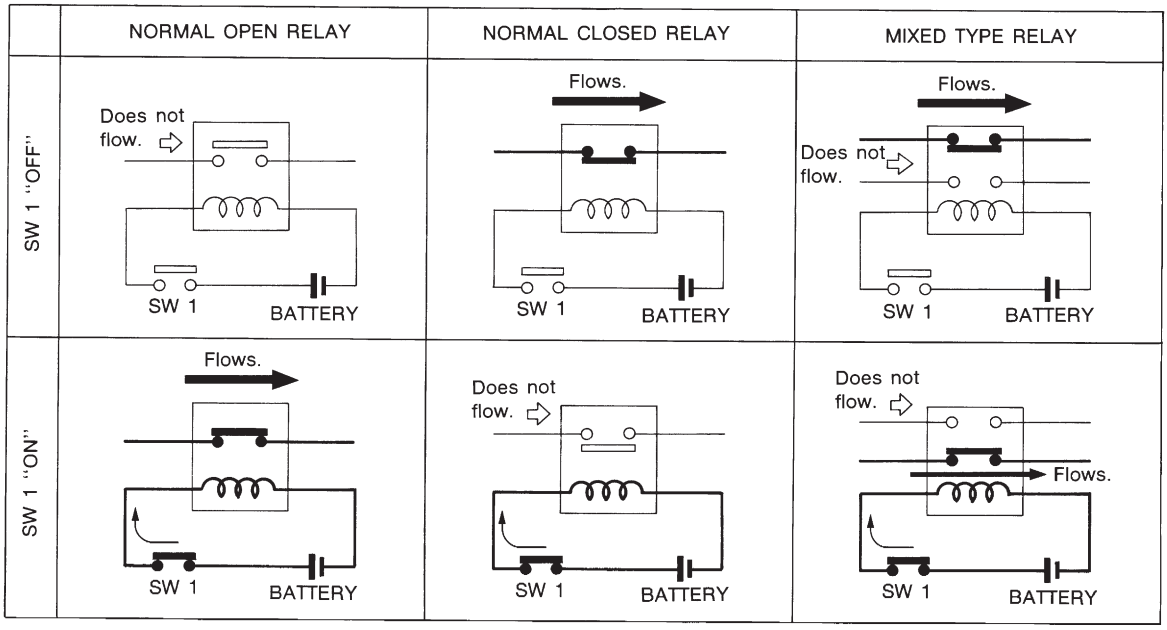
Description

NJEL0004

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

NJEL0004S01

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

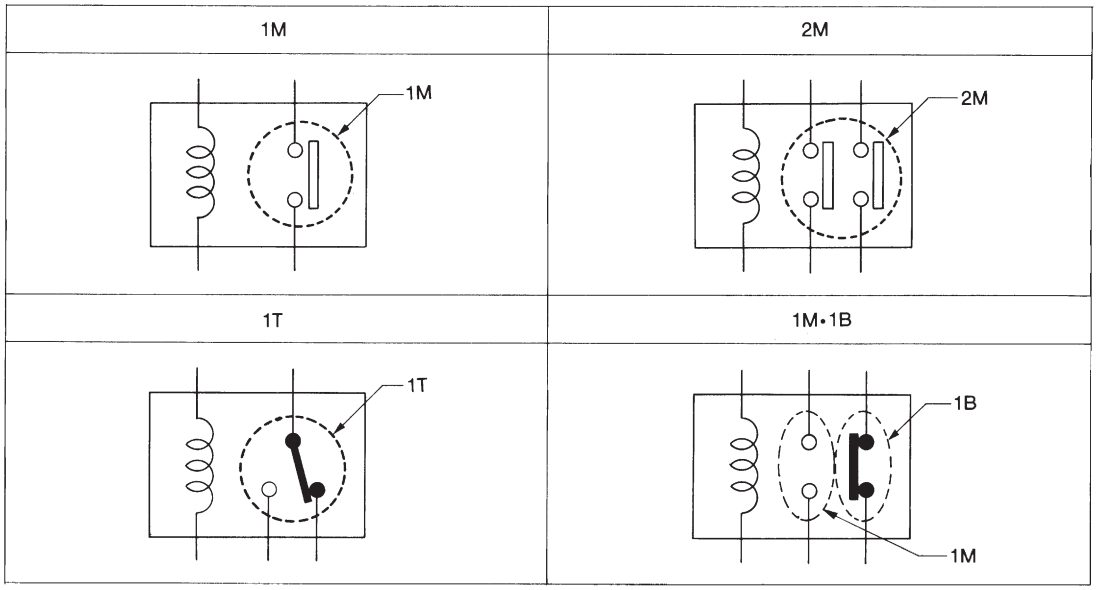


SEL881H

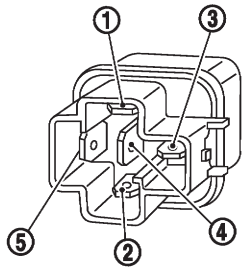
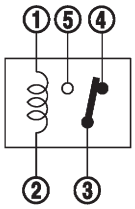
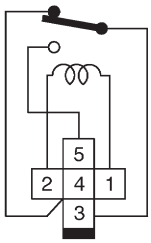
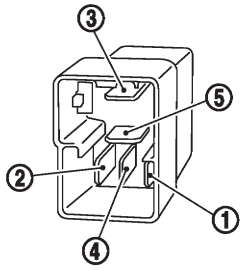
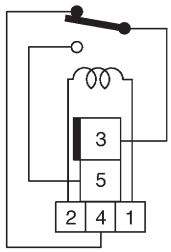
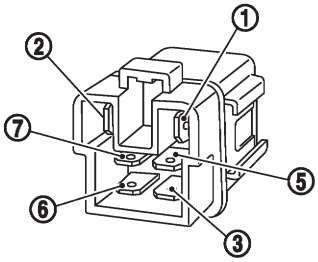
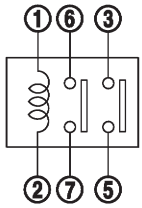
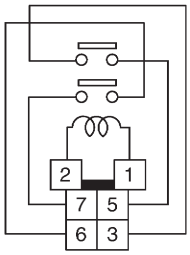
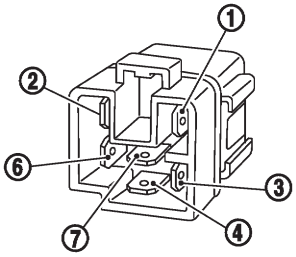
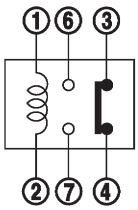
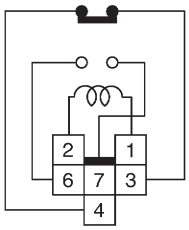
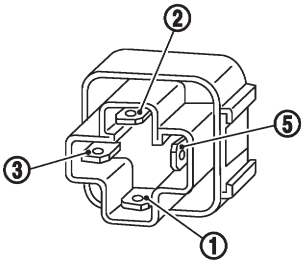
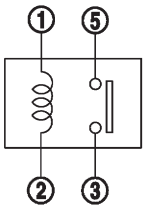
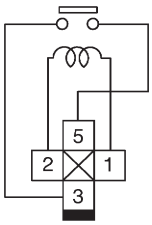
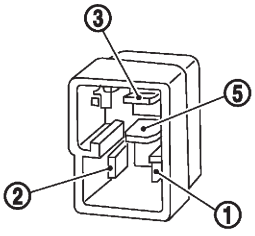
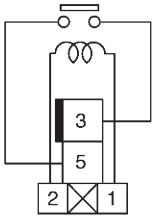
TYPE OF STANDARDIZED RELAYS

NJEL0004S02

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
				

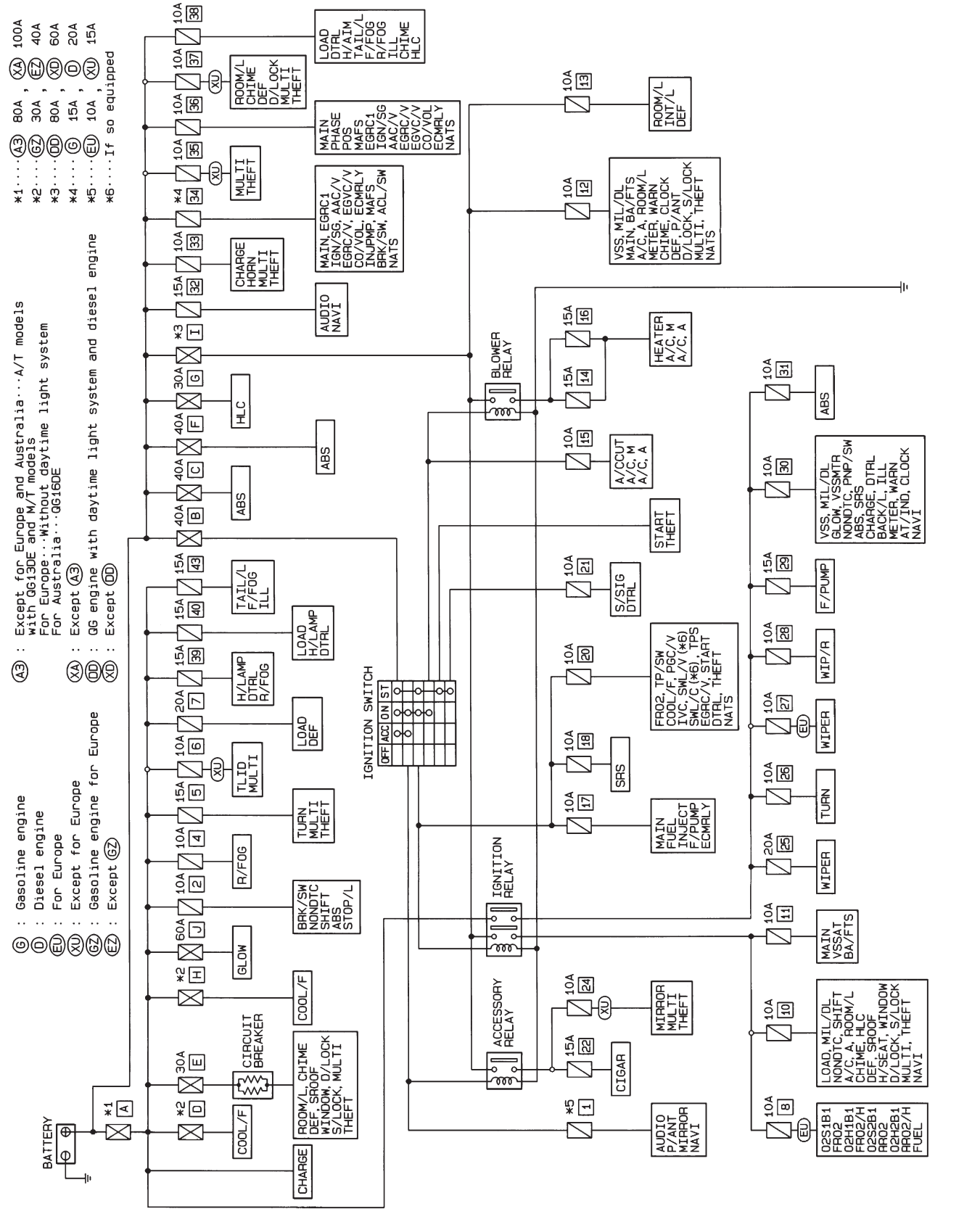
The arrangement of terminal numbers on the actual relays may differ from those shown above.

GEL264

Schematic/Sedan

NJEL0005

For detailed ground distribution information, refer to “GROUND DISTRIBUTION”, EL-39.



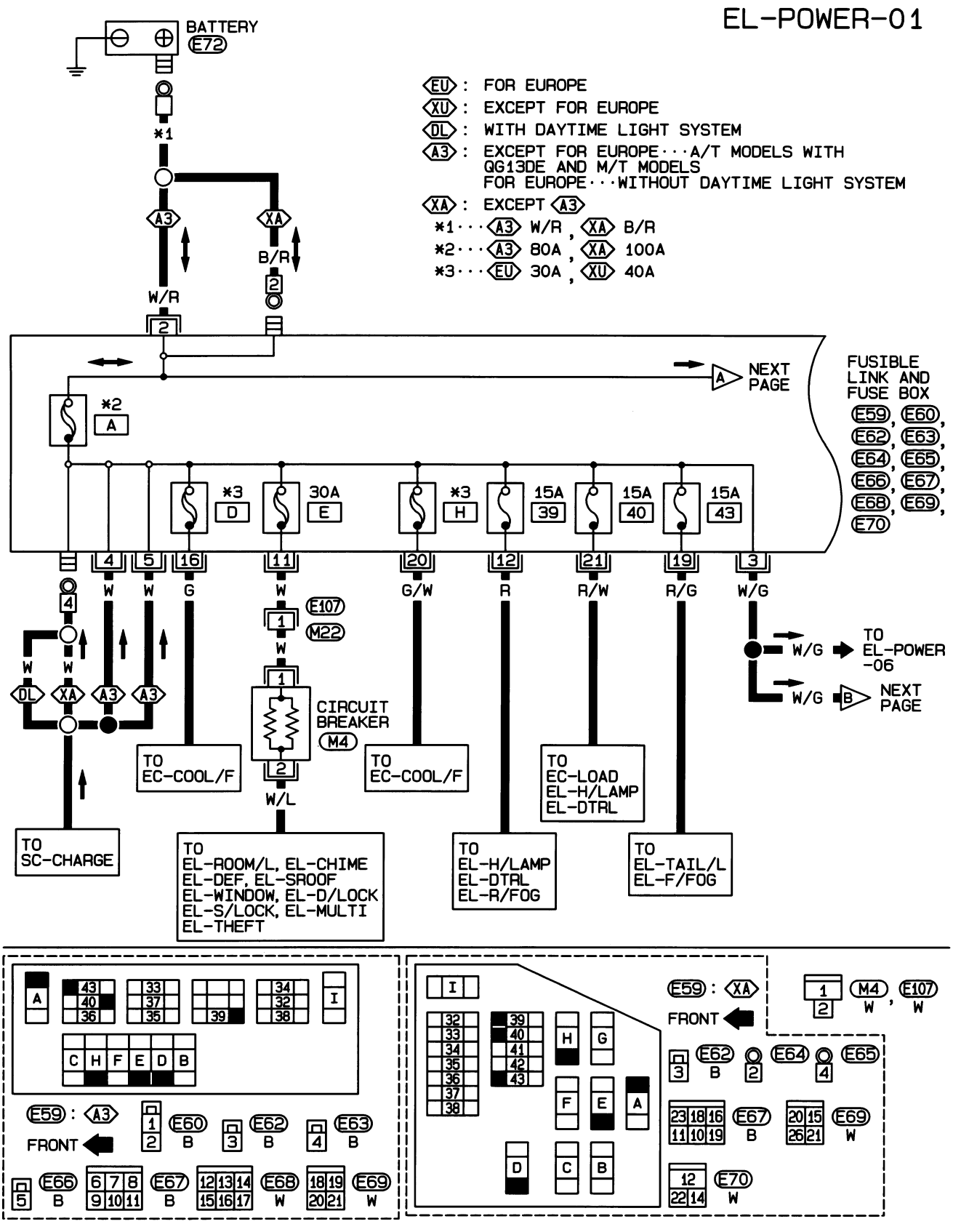
HEL663B

Wiring Diagram — POWER —/Sedan With Gasoline Engine

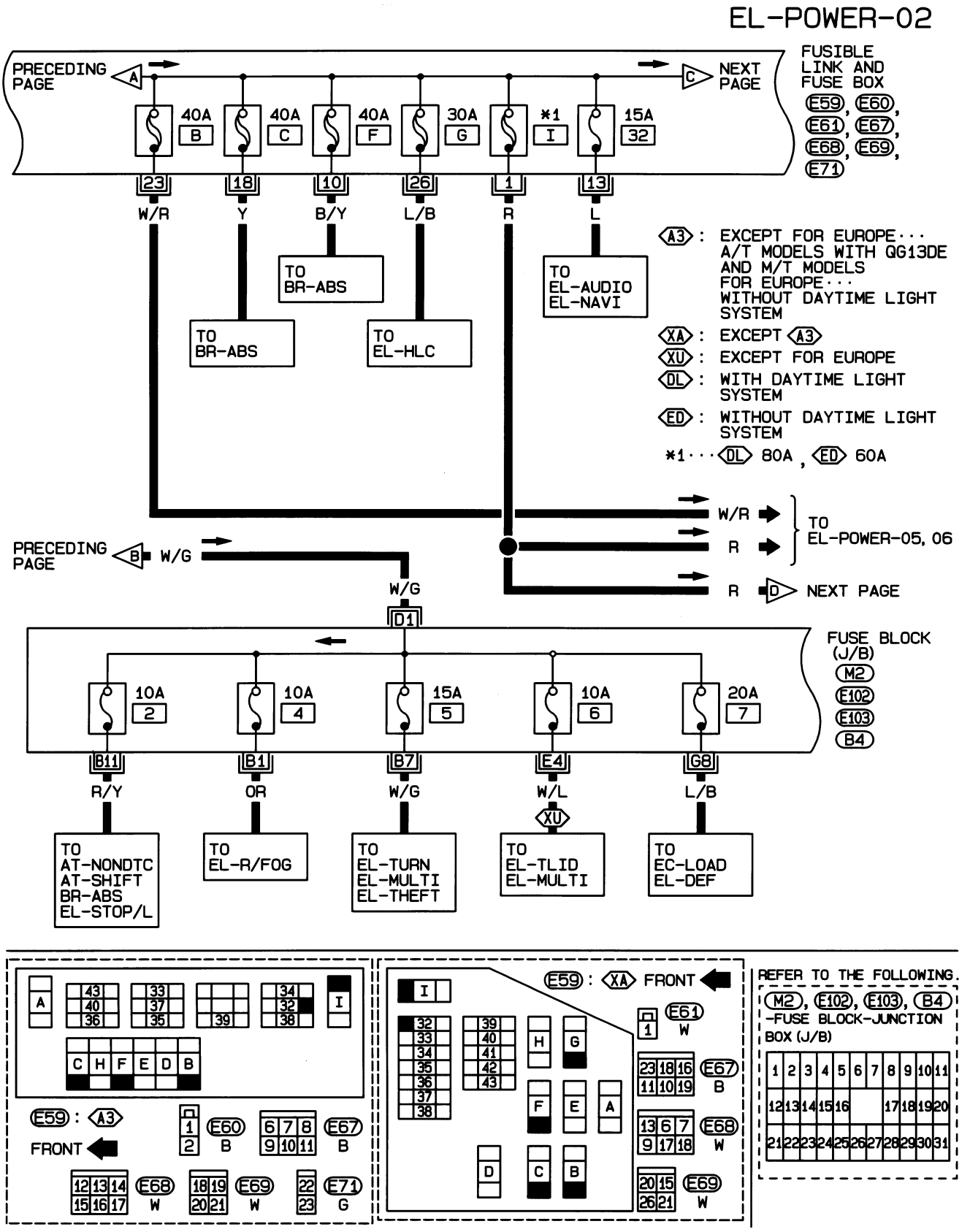
NJEL0006

BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

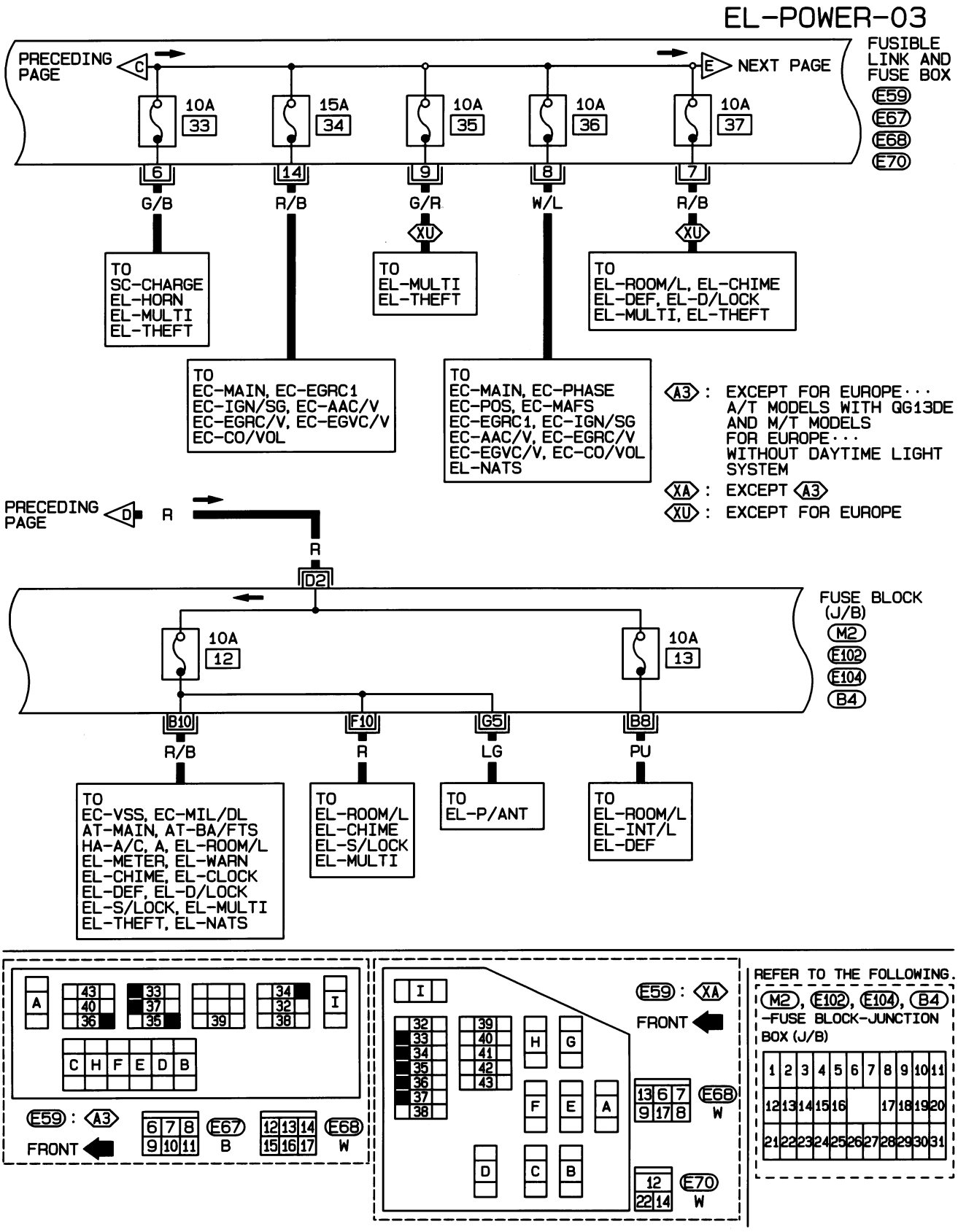
NJEL0006S01



HEL451B

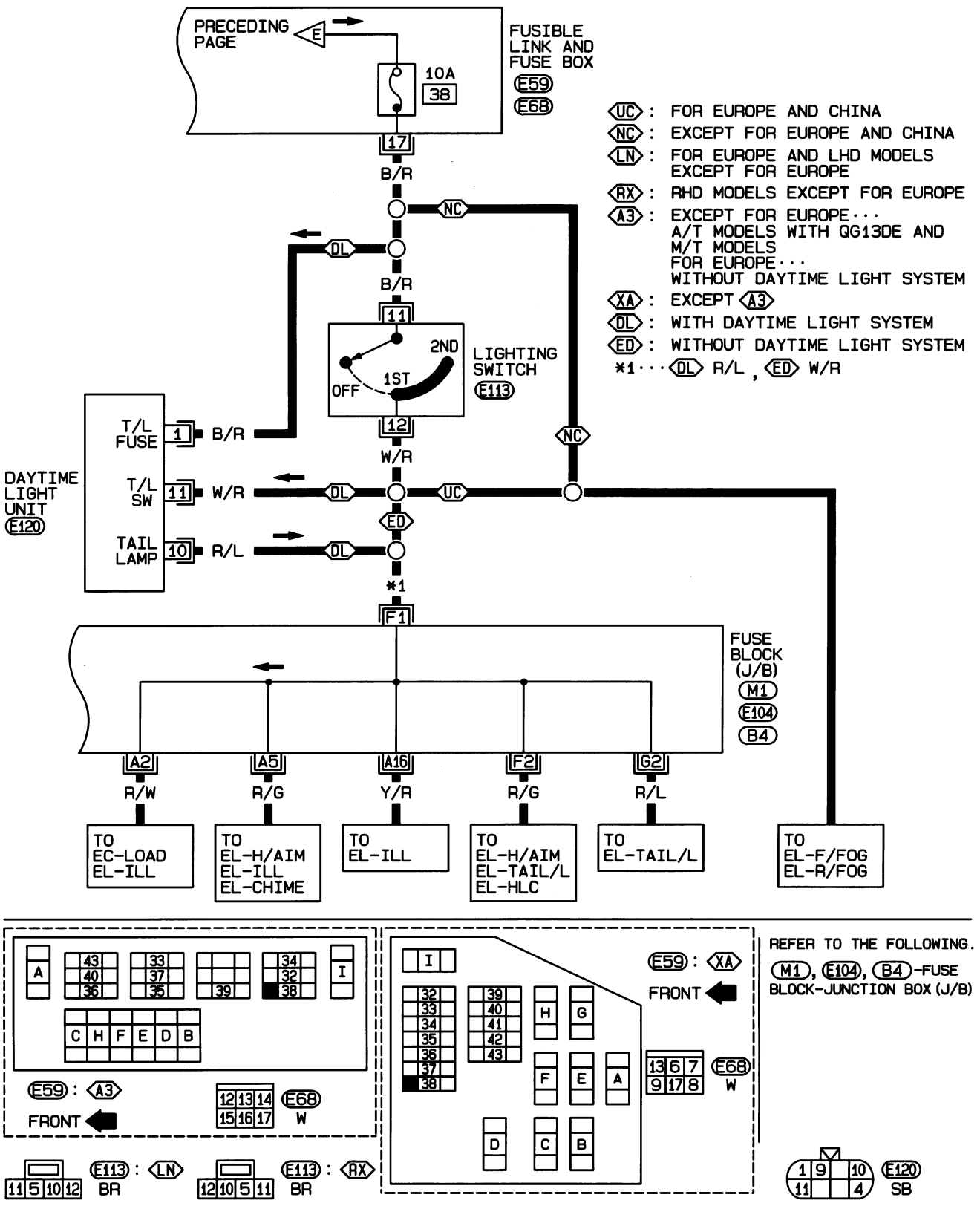

EL-POWER-02
PRECEDING PAGE
NEXT PAGE
FUSIBLE LINK AND FUSE BOX
E59, E60, E61, E67, E68, E69, E71
40A B
40A C
40A F
30A G
*1 I
15A 32
23 W/R
18 Y
10 B/Y
26 L/B
1 R
13 L
TO BR-ABS
TO BR-ABS
TO EL-HLC
TO EL-AUDIO EL-NAVI
A3 : EXCEPT FOR EUROPE··· A/T MODELS WITH QG13DE AND M/T MODELS FOR EUROPE··· WITHOUT DAYTIME LIGHT SYSTEM
XA : EXCEPT A3
XU : EXCEPT FOR EUROPE
DL : WITH DAYTIME LIGHT SYSTEM
ED : WITHOUT DAYTIME LIGHT SYSTEM
*1 ··· DL 80A , ED 60A
W/R
R
TO EL-POWER-05, 06
R
NEXT PAGE
PRECEDING PAGE
W/G
W/G
D1
FUSE BLOCK (J/B)
M2
E102
E103
B4
10A 2
10A 4
15A 5
10A 6
20A 7
B11 R/Y
B1 OR
B7 W/G
E4 W/L
XU
G8 L/B
TO AT-NONDTC AT-SHIFT BR-ABS EL-STOP/L
TO EL-R/FOG
TO EL-TURN EL-MULTI EL-THEFT
TO EL-TLID EL-MULTI
TO EC-LOAD EL-DEF
E59 : A3
FRONT
E60 B
E67 B
E68 W
E69 W
E71 G
E59 : XA
FRONT
E61 W
E67 B
E68 W
E69 W
REFER TO THE FOLLOWING.
M2, E102, E103, B4
-FUSE BLOCK-JUNCTION BOX (J/B)

HEL352B


EL-POWER-03
PRECEDING PAGE
C
E
NEXT PAGE
FUSIBLE LINK AND FUSE BOX
E59
E67
E68
E70
10A 33
15A 34
10A 35
10A 36
10A 37
6
14
9
8
7
G/B
R/B
G/R
W/L
R/B
XU
XU
TO SC-CHARGE EL-HORN EL-MULTI EL-THEFT
TO EC-MAIN, EC-EGRC1 EC-IGN/SG, EC-AAC/V EC-EGRC/V, EC-EGVC/V EC-CO/VOL
TO EL-MULTI EL-THEFT
TO EC-MAIN, EC-PHASE EC-POS, EC-MAFS EC-EGRC1, EC-IGN/SG EC-AAC/V, EC-EGRC/V EC-EGVC/V, EC-CO/VOL EL-NATS
TO EL-ROOM/L, EL-CHIME EL-DEF, EL-D/LOCK EL-MULTI, EL-THEFT
A3 : EXCEPT FOR EUROPE··· A/T MODELS WITH QG13DE AND M/T MODELS FOR EUROPE··· WITHOUT DAYTIME LIGHT SYSTEM
XA : EXCEPT A3
XU : EXCEPT FOR EUROPE
PRECEDING PAGE
D
R
R
D2
FUSE BLOCK (J/B)
M2
E102
E104
B4
10A 12
10A 13
B10
F10
G5
B8
R/B
R
LG
PU
TO EC-VSS, EC-MIL/DL AT-MAIN, AT-BA/FTS HA-A/C, A, EL-ROOM/L EL-METER, EL-WARN EL-CHIME, EL-CLOCK EL-DEF, EL-D/LOCK EL-S/LOCK, EL-MULTI EL-THEFT, EL-NATS
TO EL-ROOM/L EL-CHIME EL-S/LOCK EL-MULTI
TO EL-P/ANT
TO EL-ROOM/L EL-INT/L EL-DEF
A I C H F E D B
E59 : A3
FRONT
6 7 8 9 10 11
E67 B
12 13 14 15 16 17
E68 W
I 32 33 34 35 36 37 38 39 40 41 42 43 H G F E A D C B
E59 : XA
FRONT
13 6 7 9 17 8
E68 W
12 22 14
E70 W
REFER TO THE FOLLOWING.
M2, E102, E104, B4
-FUSE BLOCK-JUNCTION BOX (J/B)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

HEL353B

EL-POWER-04

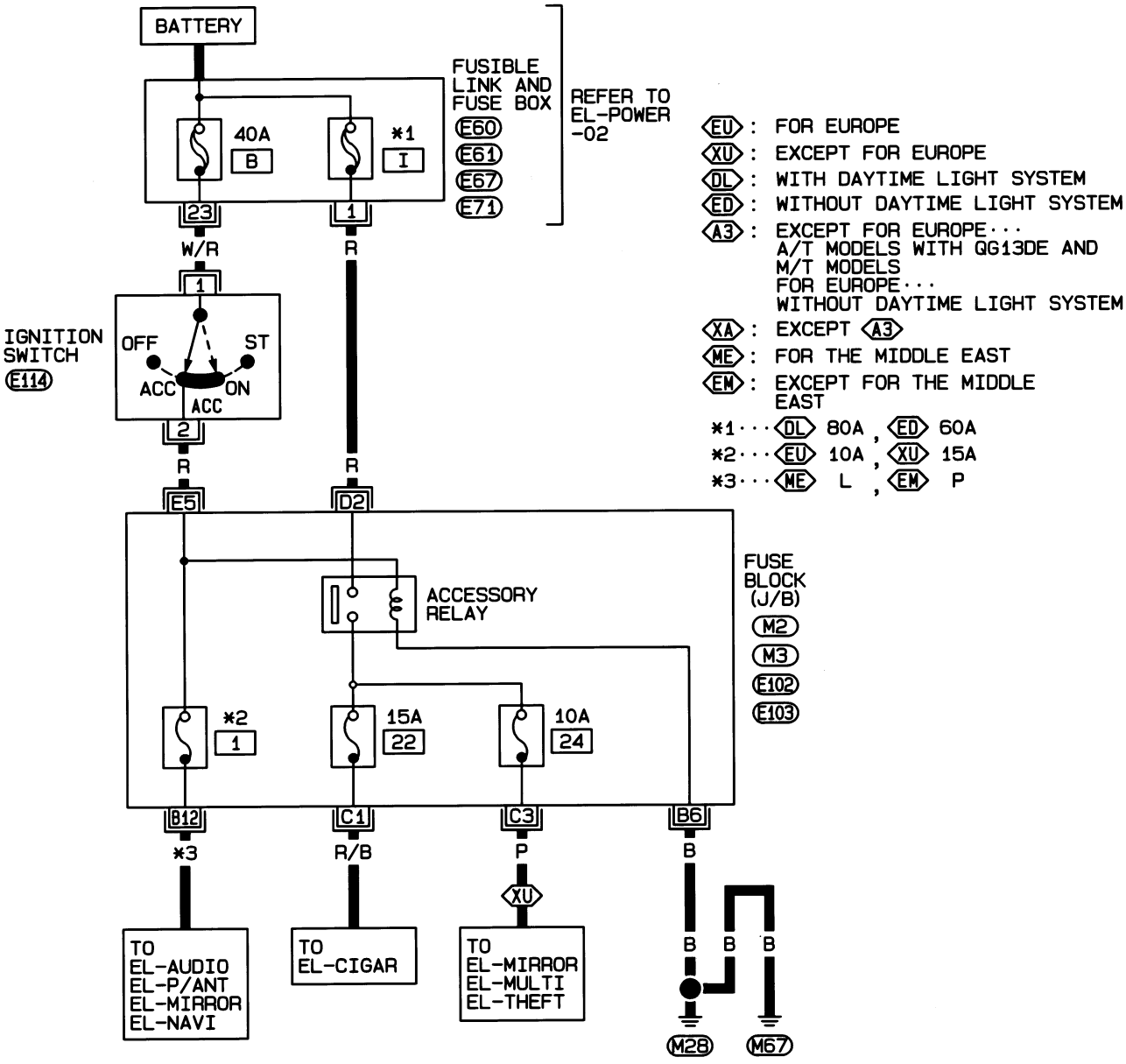


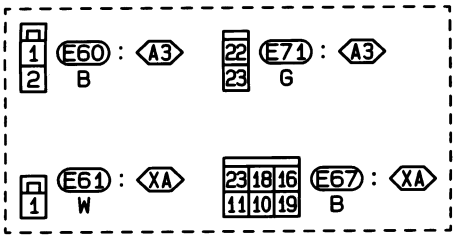
HEL354B

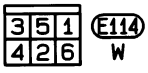
ACCESSORY POWER SUPPLY — IGNITION SW. IN "ACC" OR "ON"

NJEL0006S02

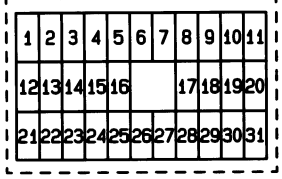
EL-POWER-05







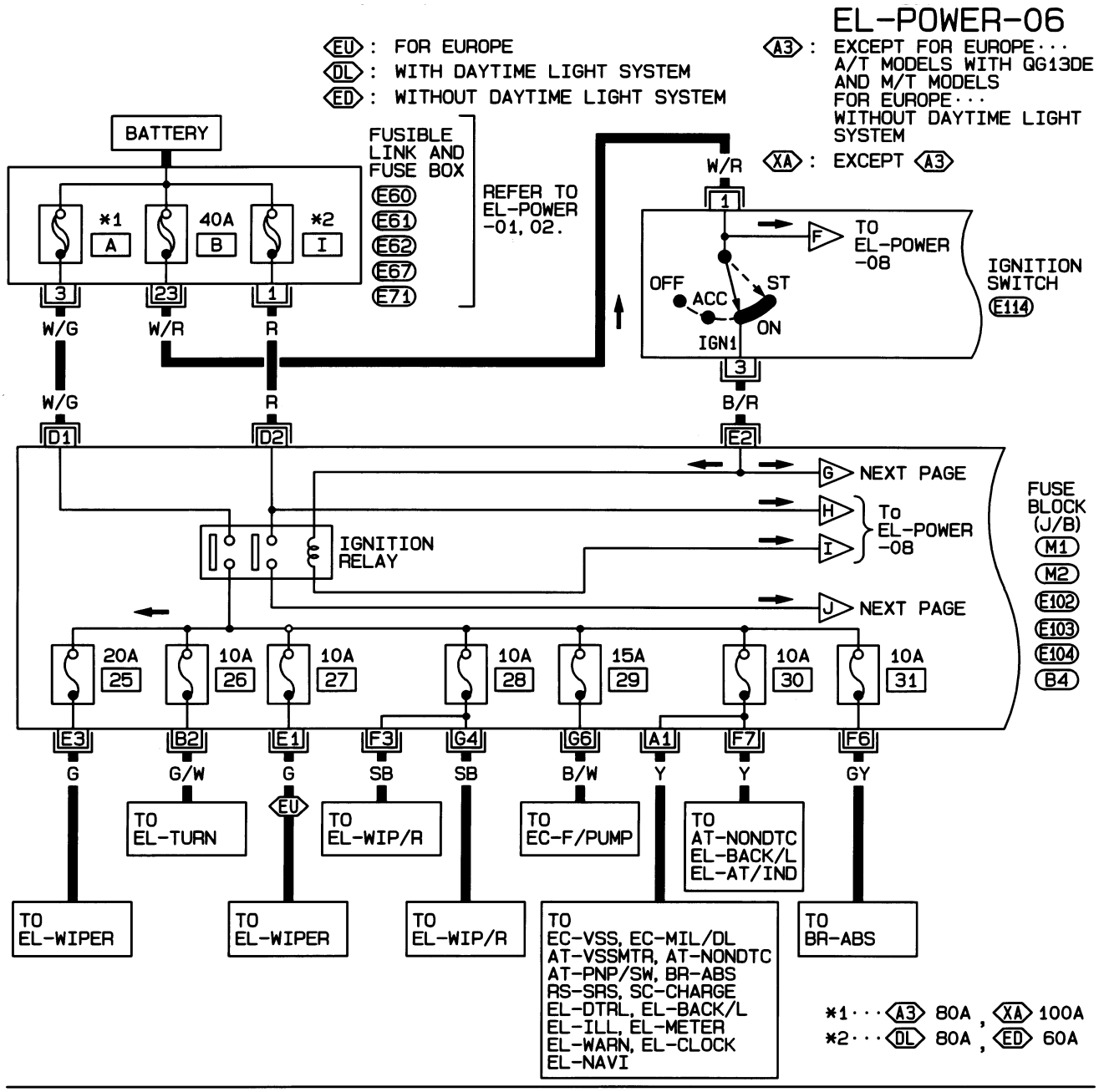
REFER TO THE FOLLOWING.
M2, M3, E102, E103
-FUSE BLOCK-JUNCTION BOX (J/B)

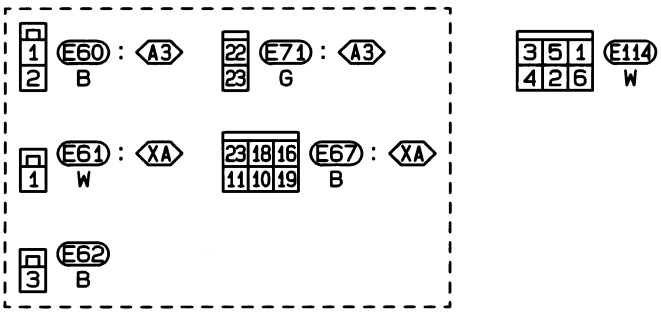


HEL355B

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

NJEL0006S03





REFER TO THE FOLLOWING.

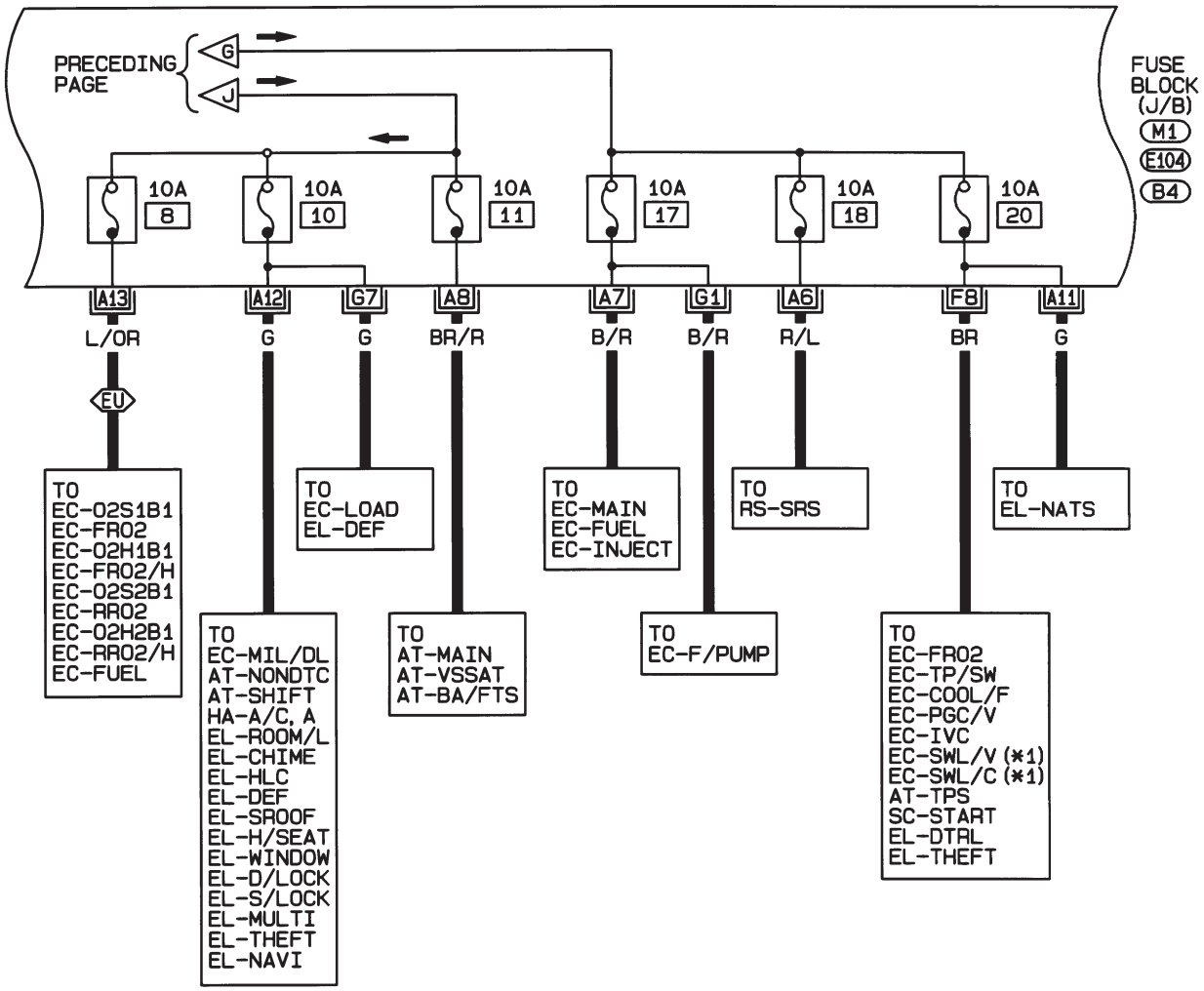
M1, M2, E102, E103, E104, B4
-FUSE BLOCK-JUNCTION BOX (J/B)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

HEL356B

EL-POWER-07

EU : FOR EUROPE
*1 : IF SO EQUIPPED

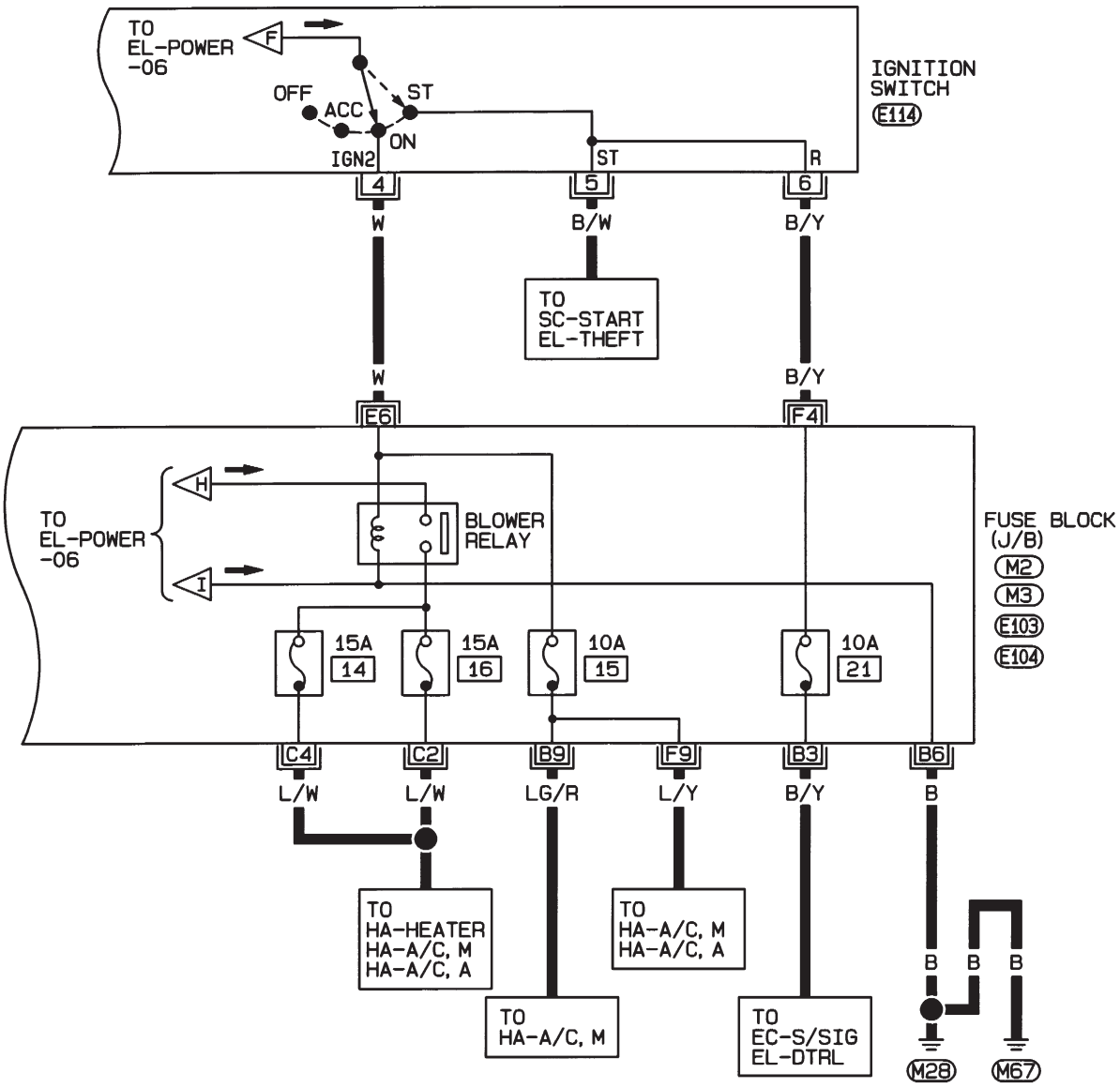


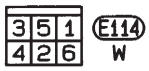
REFER TO THE FOLLOWING.
M1, E104, B4 -FUSE BLOCK-JUNCTION BOX (J/B)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

HEL664B

EL-POWER-08





REFER TO THE FOLLOWING.
M2, M3, E103, E104
-FUSE BLOCK-JUNCTION
BOX (J/B)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

HEL009B

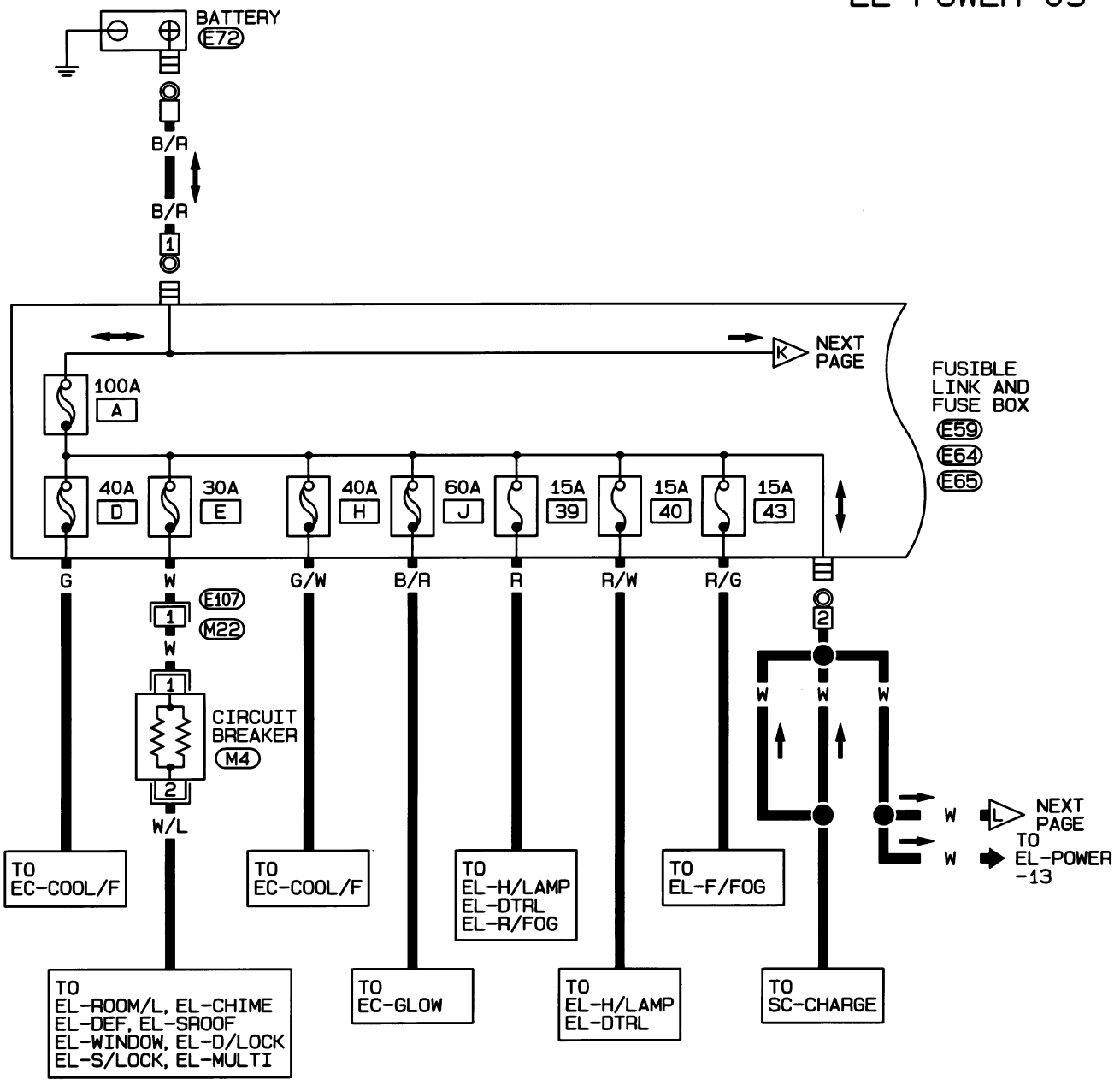
Wiring Diagram — POWER —/Sedan With Diesel Engine

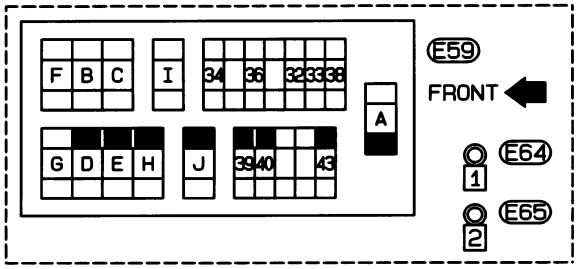
NJEL0313

NJEL0313S01

BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

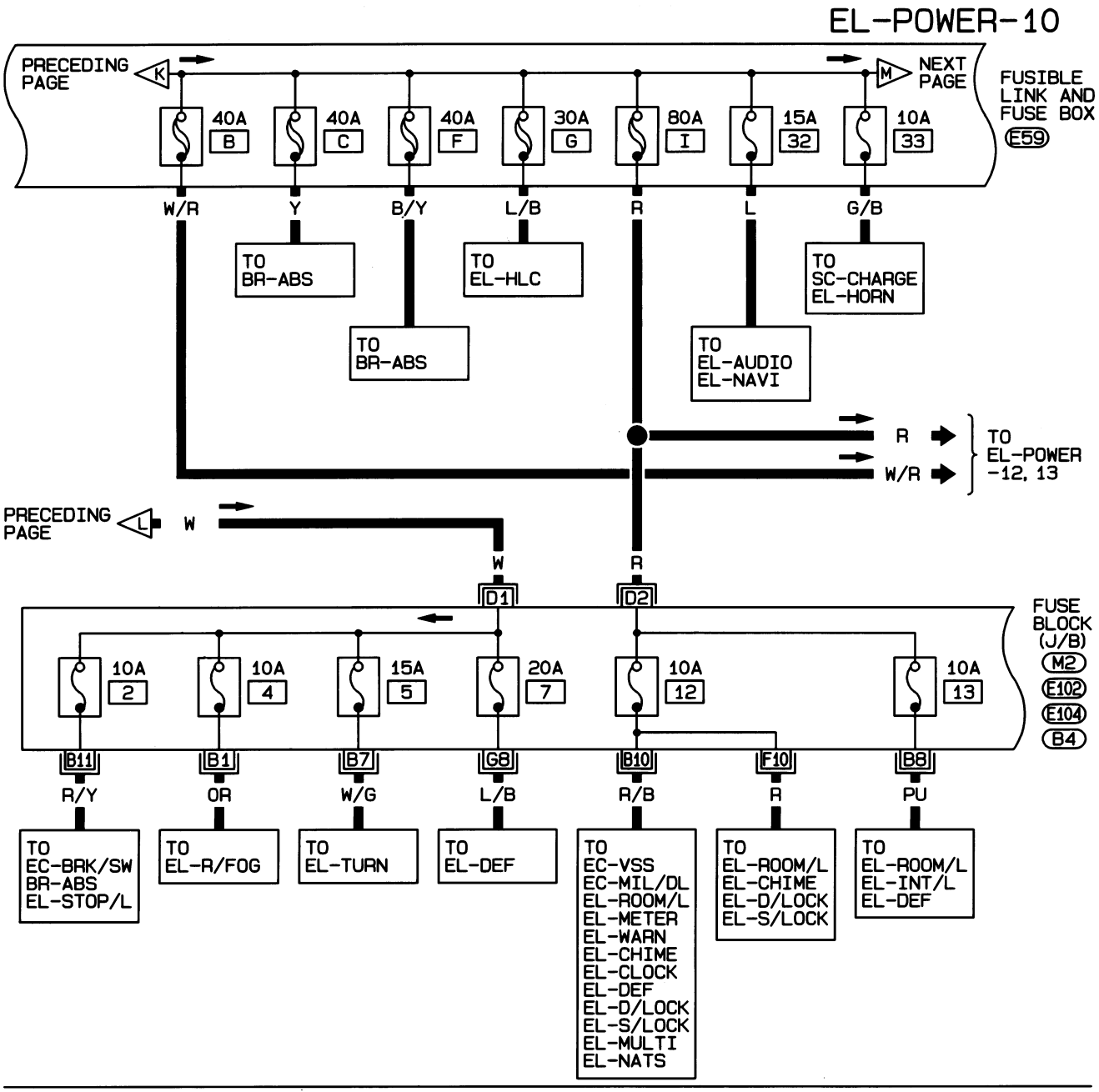
EL-POWER-09

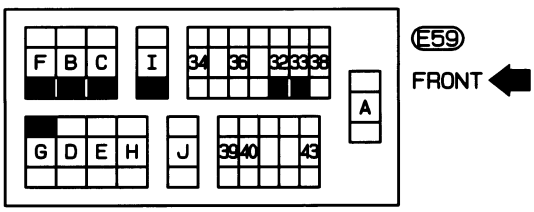






HEL452B

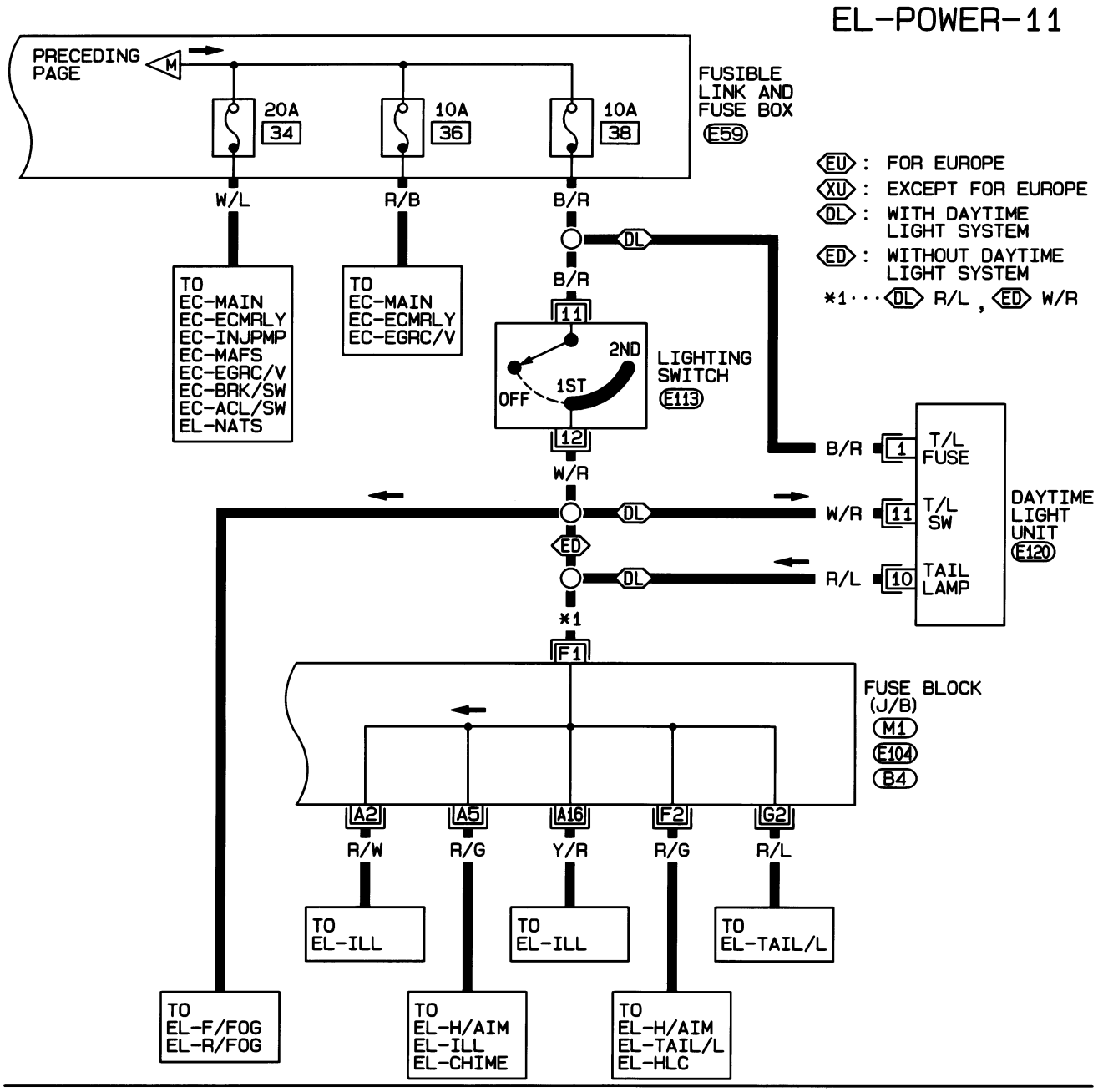




REFER TO THE FOLLOWING.
M2, E102, E104, B4
-FUSE BLOCK-JUNCTION BOX (J/B)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

HEL358B

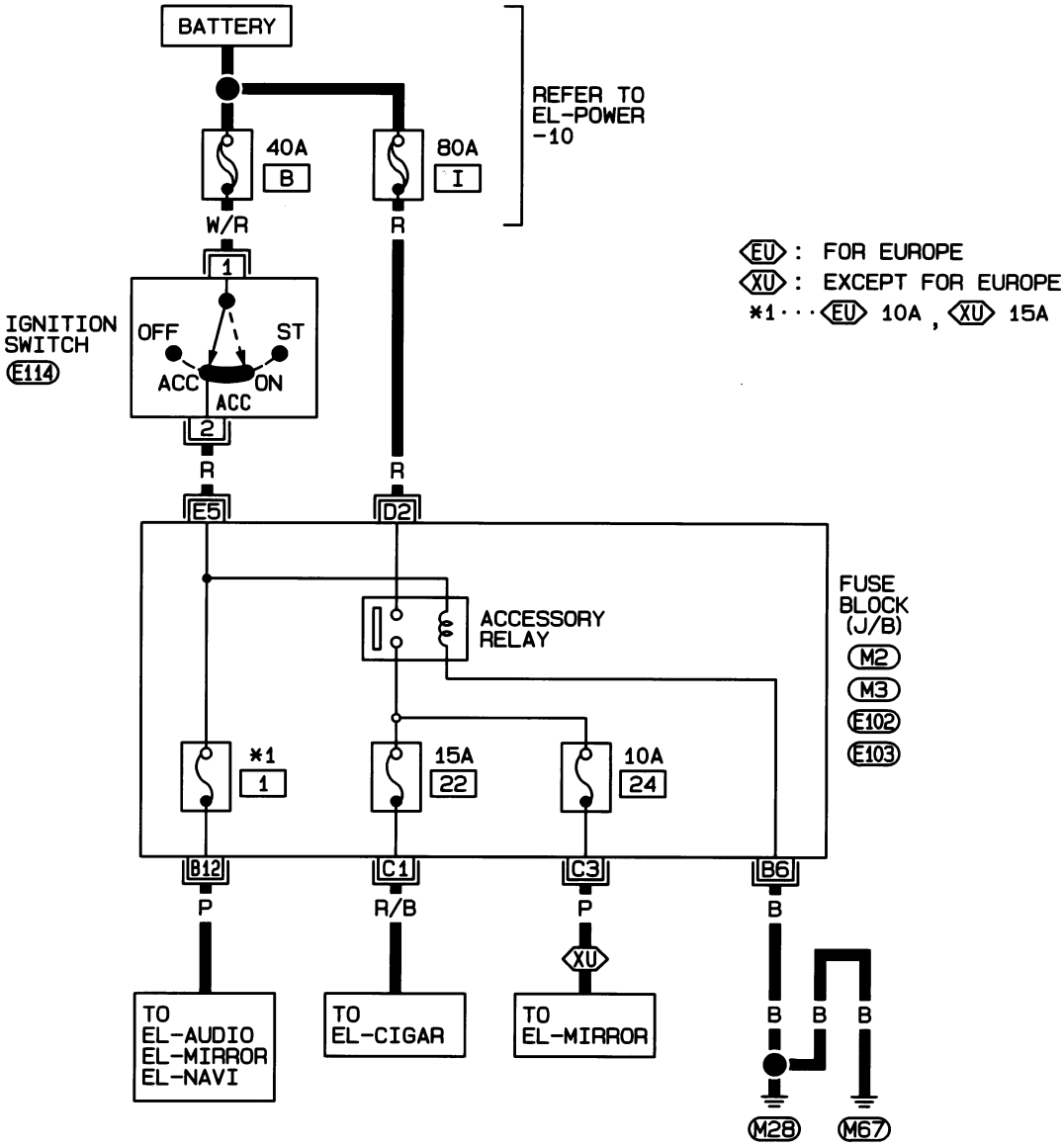

EL-POWER-11
PRECEDING PAGE
M
20A 34
10A 36
10A 38
FUSIBLE LINK AND FUSE BOX
E59
EU : FOR EUROPE
XU : EXCEPT FOR EUROPE
DL : WITH DAYTIME LIGHT SYSTEM
ED : WITHOUT DAYTIME LIGHT SYSTEM
*1 ··· DL R/L , ED W/R
W/L
R/B
B/R
TO EC-MAIN EC-ECMRLY EC-INJPMP EC-MAFS EC-EGRC/V EC-BRK/SW EC-ACL/SW EL-NATS
TO EC-MAIN EC-ECMRLY EC-EGRC/V
B/R
11
2ND
1ST
OFF
LIGHTING SWITCH
E113
12
W/R
B/R
1
T/L FUSE
W/R
11
T/L SW
R/L
10
TAIL LAMP
DAYTIME LIGHT UNIT
E120
*1
F1
FUSE BLOCK (J/B)
M1
E104
B4
A2
A5
A16
F2
G2
R/W
R/G
Y/R
R/G
R/L
TO EL-ILL
TO EL-ILL
TO EL-TAIL/L
TO EL-F/FOG EL-R/FOG
TO EL-H/AIM EL-ILL EL-CHIME
TO EL-H/AIM EL-TAIL/L EL-HLC
F B C I 34 36 32 33 38 A
G D E H J 39 40 43
E59
FRONT
E113 : EU
11 5 10 12
BR
E113 : XU
12 10 5 11
BR
1 9 10 11 4
E120
SB
REFER TO THE FOLLOWING.
M1, E104, B4 -FUSE BLOCK-JUNCTION BOX (J/B)

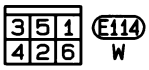
HEL359B

ACCESSORY POWER SUPPLY — IGNITION SW. IN "ACC" OR "ON"

NJEL0313S02

EL-POWER-12





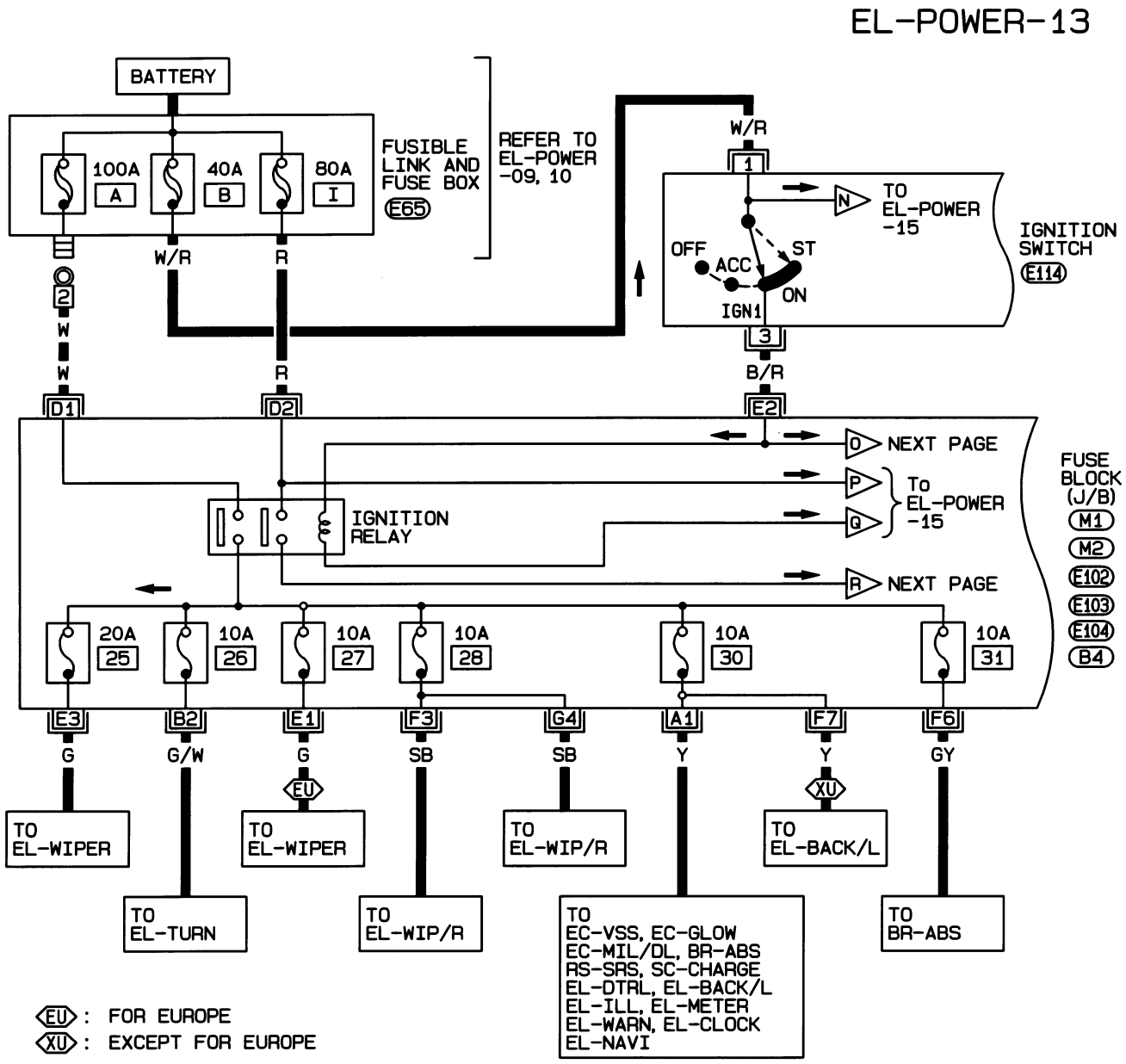
REFER TO THE FOLLOWING.
M2, M3, E102, E103
-FUSE BLOCK-JUNCTION BOX (J/B)

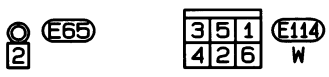
1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

HEL360B

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

NJEL0313S03



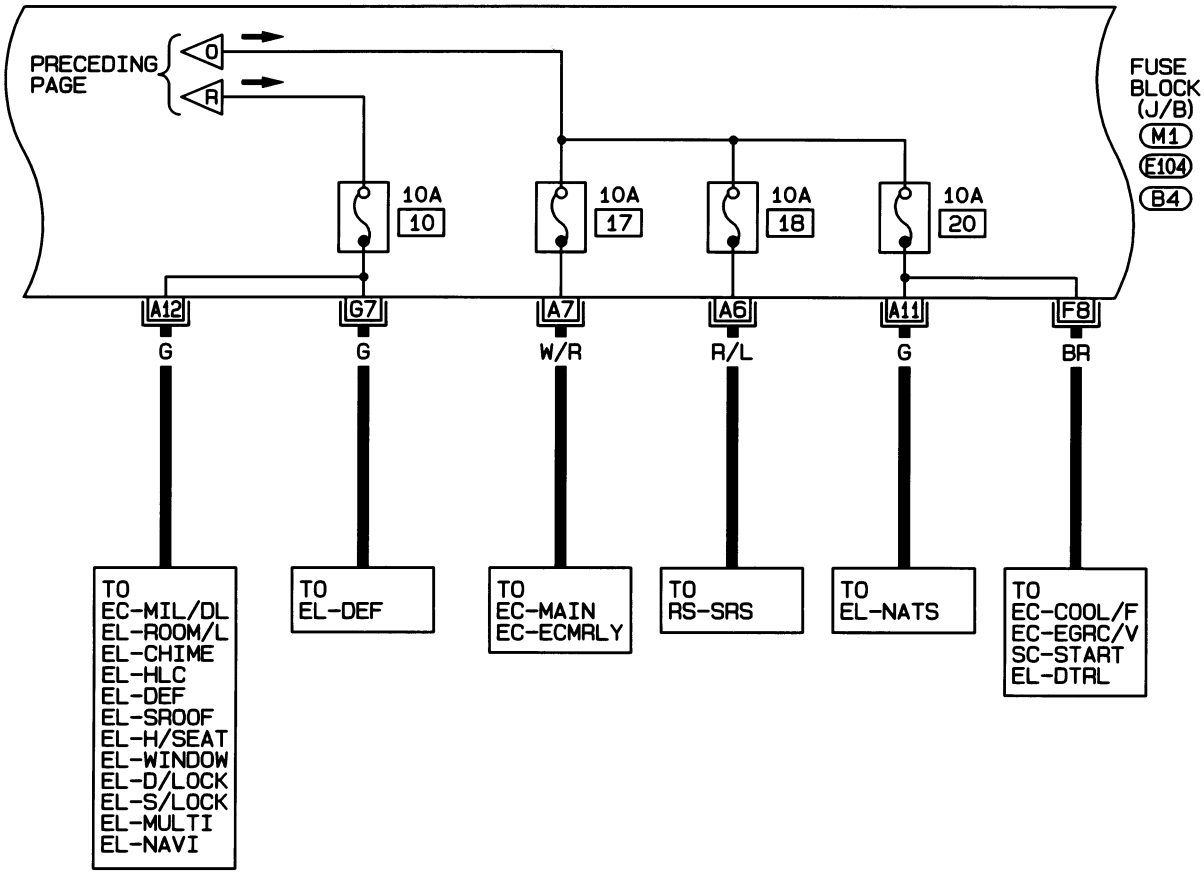


REFER TO THE FOLLOWING.
M1, M2, E102, E103, E104, B4
-FUSE BLOCK-JUNCTION BOX (J/B)

1	2	3	4	5	6	7	8	9	10	11	
12	13	14	15	16			17	18	19	20	
21	22	23	24	25	26	27	28	29	30	31	

HEL361B

EL-POWER-14

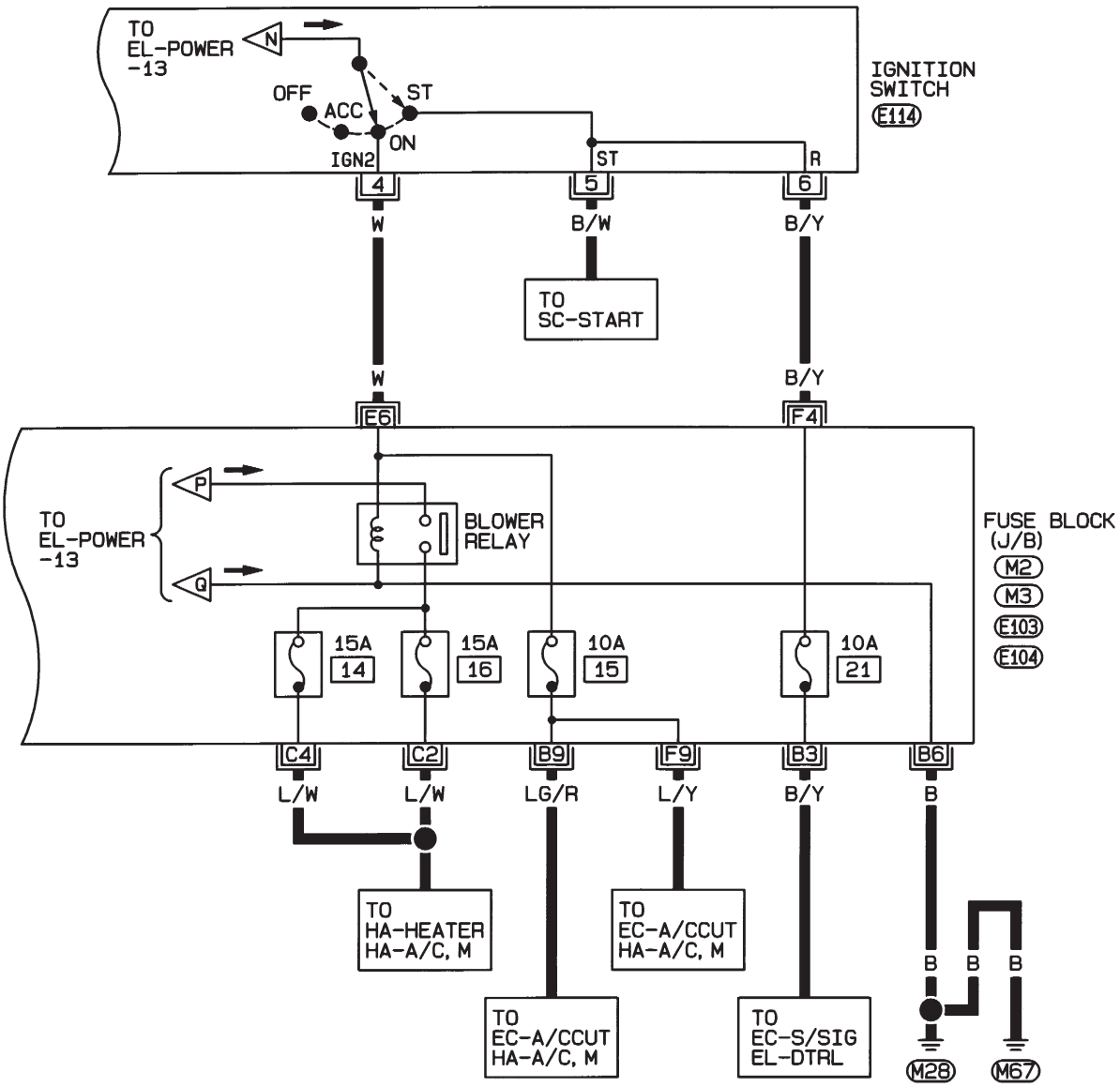


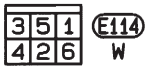
REFER TO THE FOLLOWING.
M1, E104, B4 -FUSE BLOCK-JUNCTION BOX (J/B)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

HEL362B

EL-POWER-15





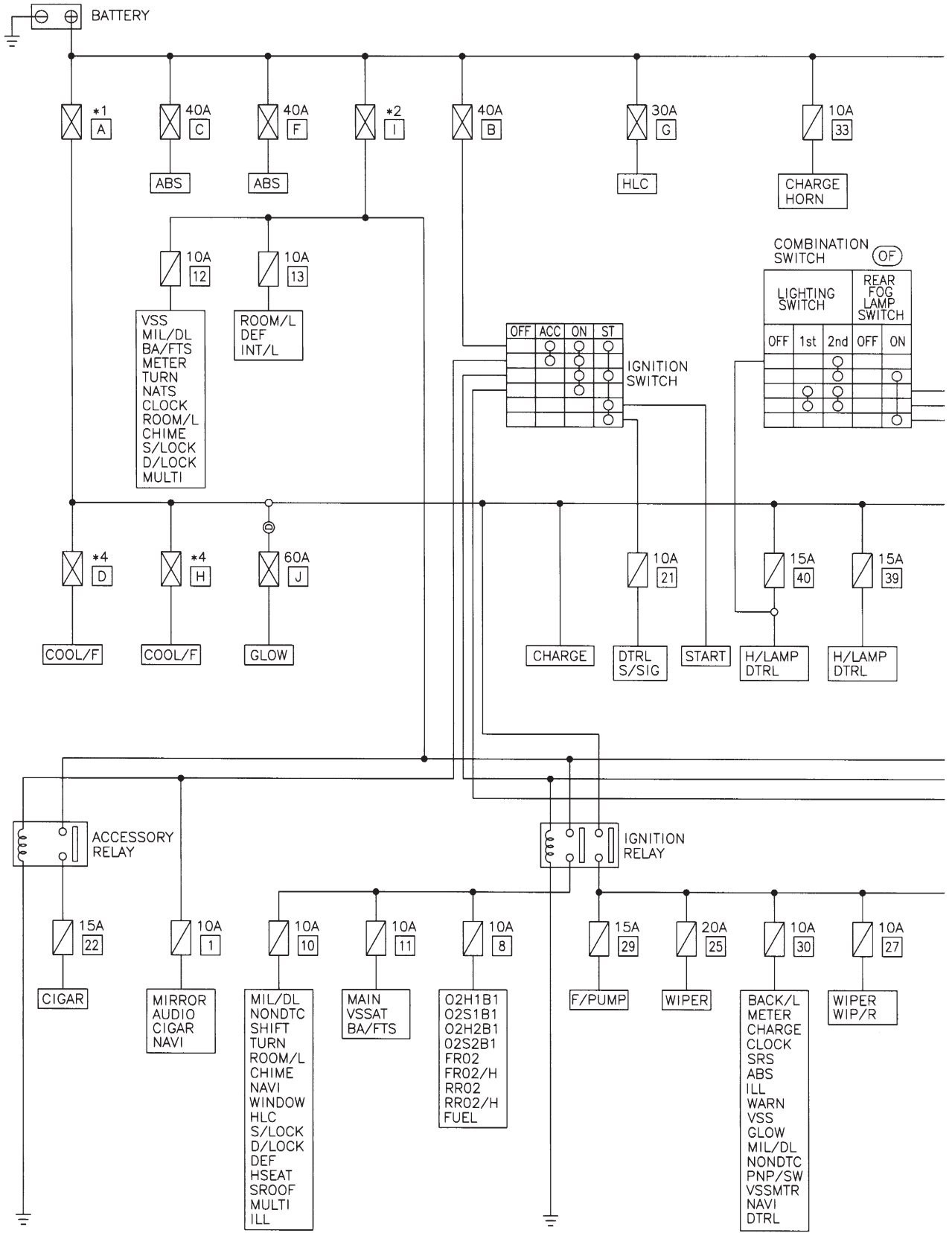
REFER TO THE FOLLOWING.
M2, M3, E103, E104
-FUSE BLOCK-JUNCTION
BOX (J/B)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

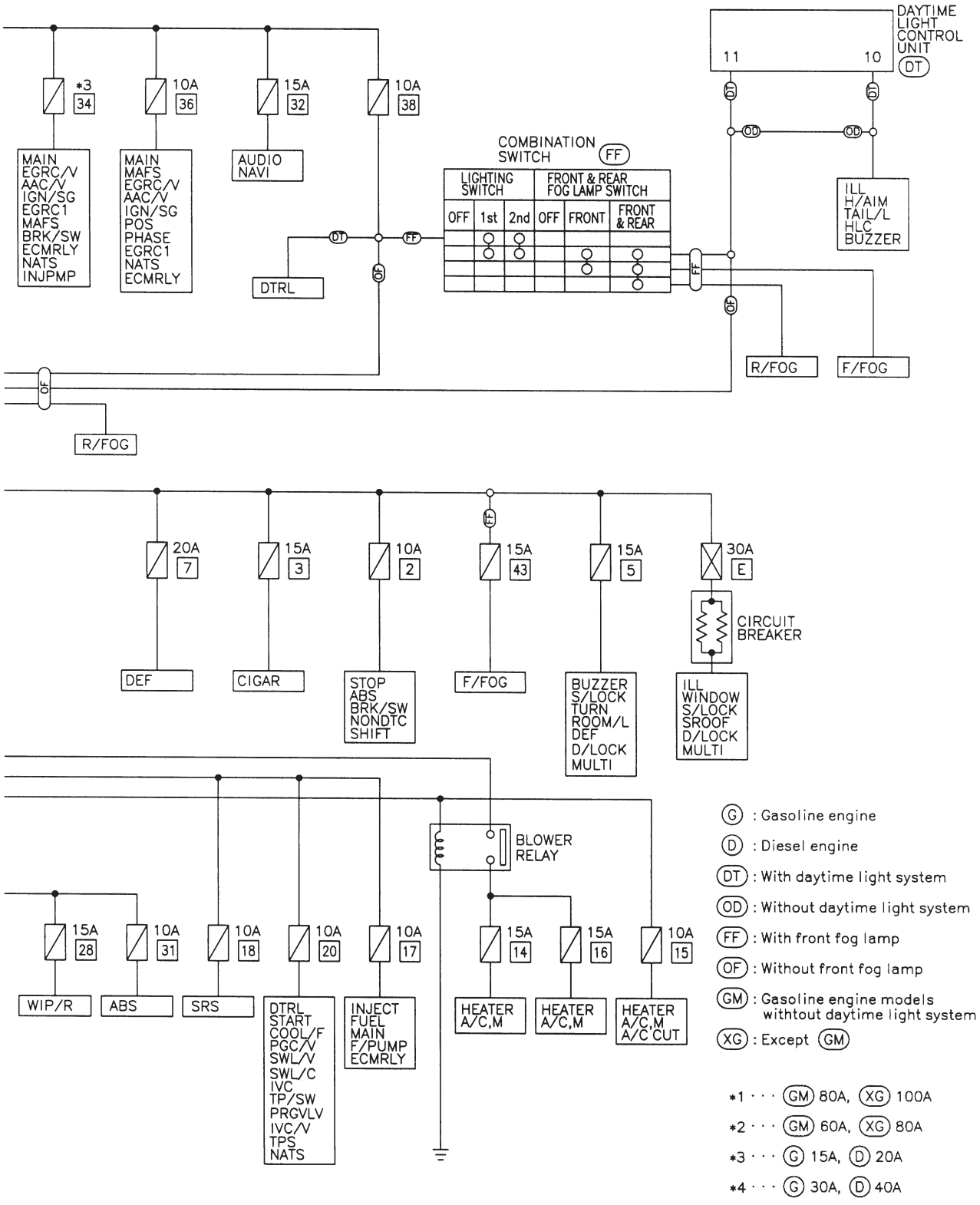
HEL016B

Schematic/Hatchback

NJEL0418



MEL960L


DAYTIME LIGHT CONTROL UNIT
11
10
DT
*3
34
10A
36
15A
32
10A
38
MAIN
EGRC/V
AAC/V
IGN/SG
EGRC1
MAFS
BRK/SW
ECMRLY
NATS
INJPMP
MAIN
MAFS
EGRC/V
AAC/V
IGN/SG
POS
PHASE
EGRC1
NATS
ECMRLY
AUDIO
NAVI
DTRL
COMBINATION SWITCH
FF
LIGHTING SWITCH
FRONT & REAR FOG LAMP SWITCH
OFF
1st
2nd
OFF
FRONT
FRONT & REAR
OD
ILL
H/AIM
TAIL/L
HLC
BUZZER
OF
R/FOG
F/FOG
R/FOG
20A
7
15A
3
10A
2
15A
43
15A
5
30A
E
CIRCUIT BREAKER
DEF
CIGAR
STOP
ABS
BRK/SW
NONDTC
SHIFT
F/FOG
BUZZER
S/LOCK
TURN
ROOM/L
DEF
D/LOCK
MULTI
ILL
WINDOW
S/LOCK
SROOF
D/LOCK
MULTI
BLOWER RELAY
15A
28
10A
31
10A
18
10A
20
10A
17
15A
14
15A
16
10A
15
WIP/R
ABS
SRS
DTRL
START
COOL/F
PGC/V
SWL/V
SWL/C
IVC
TP/SW
PRGVLV
IVC/V
TPS
NATS
INJECT
FUEL
MAIN
F/PUMP
ECMRLY
HEATER
A/C,M
HEATER
A/C,M
HEATER
A/C,M
A/C CUT
G : Gasoline engine
D : Diesel engine
DT : With daytime light system
OD : Without daytime light system
FF : With front fog lamp
OF : Without front fog lamp
GM : Gasoline engine models withtout daytime light system
XG : Except GM
*1 · · · GM 80A, XG 100A
*2 · · · GM 60A, XG 80A
*3 · · · G 15A, D 20A
*4 · · · G 30A, D 40A

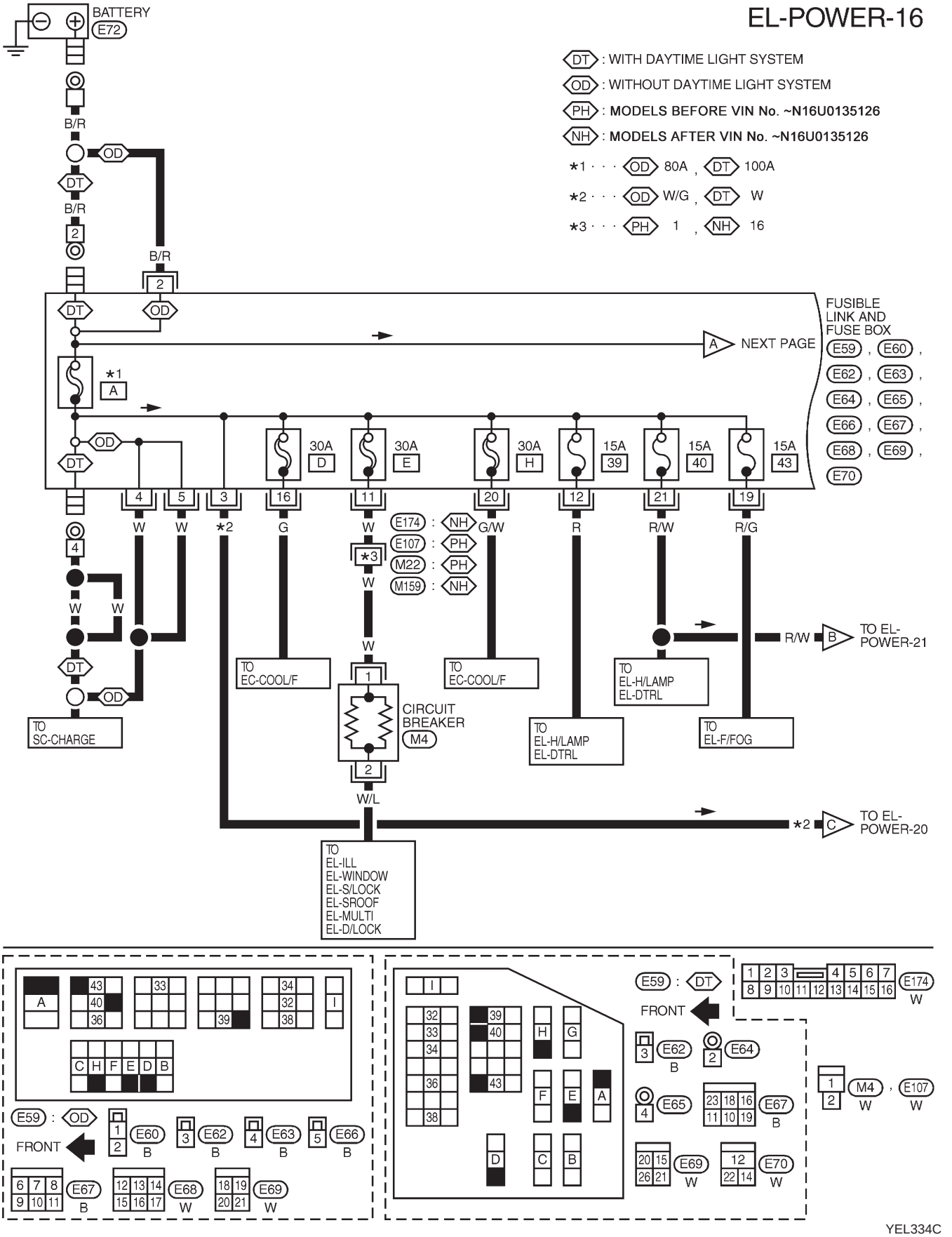
YEL333C

Wiring Diagram — POWER —/Hatchback

NJEL0419

BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

NJEL0419S01

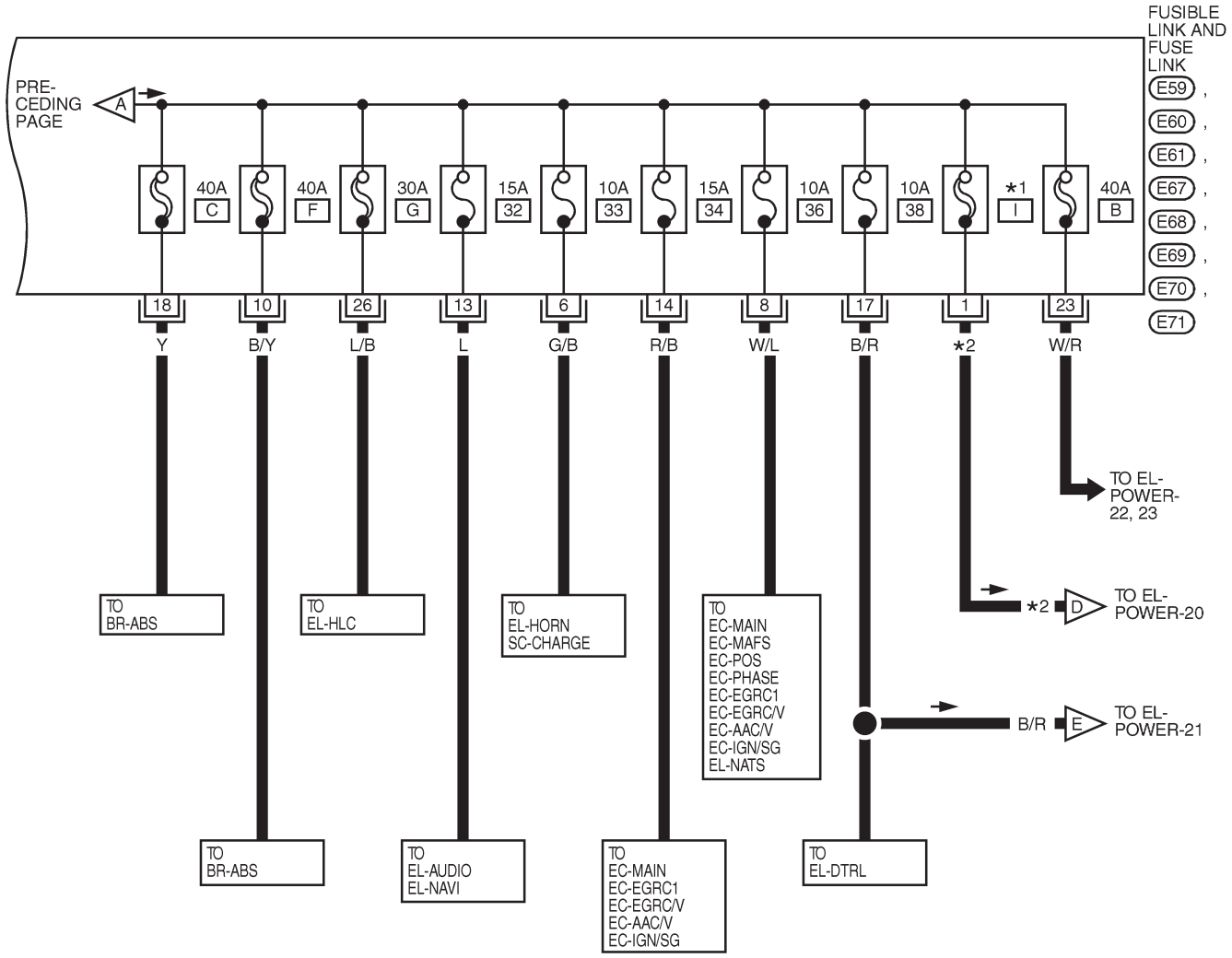


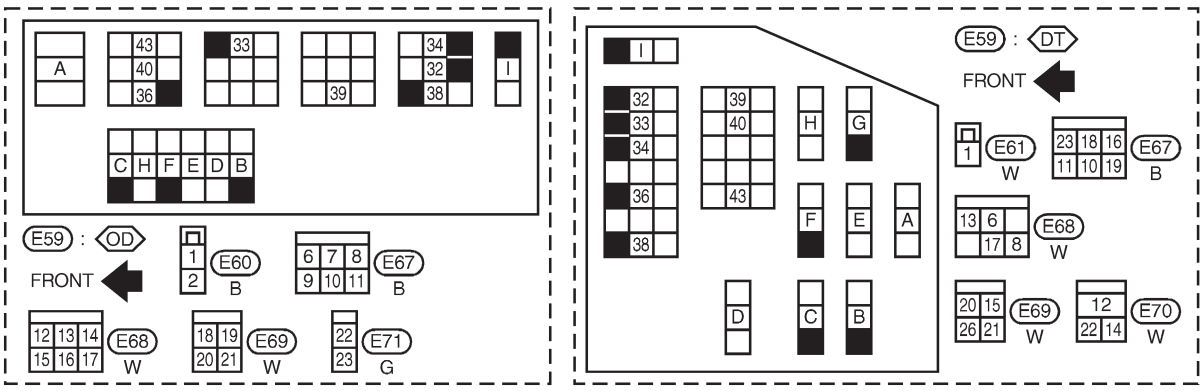
YEL334C

EL-POWER-17

DT : WITH DAYTIME LIGHT SYSTEM
OD : WITHOUT DAYTIME LIGHT SYSTEM

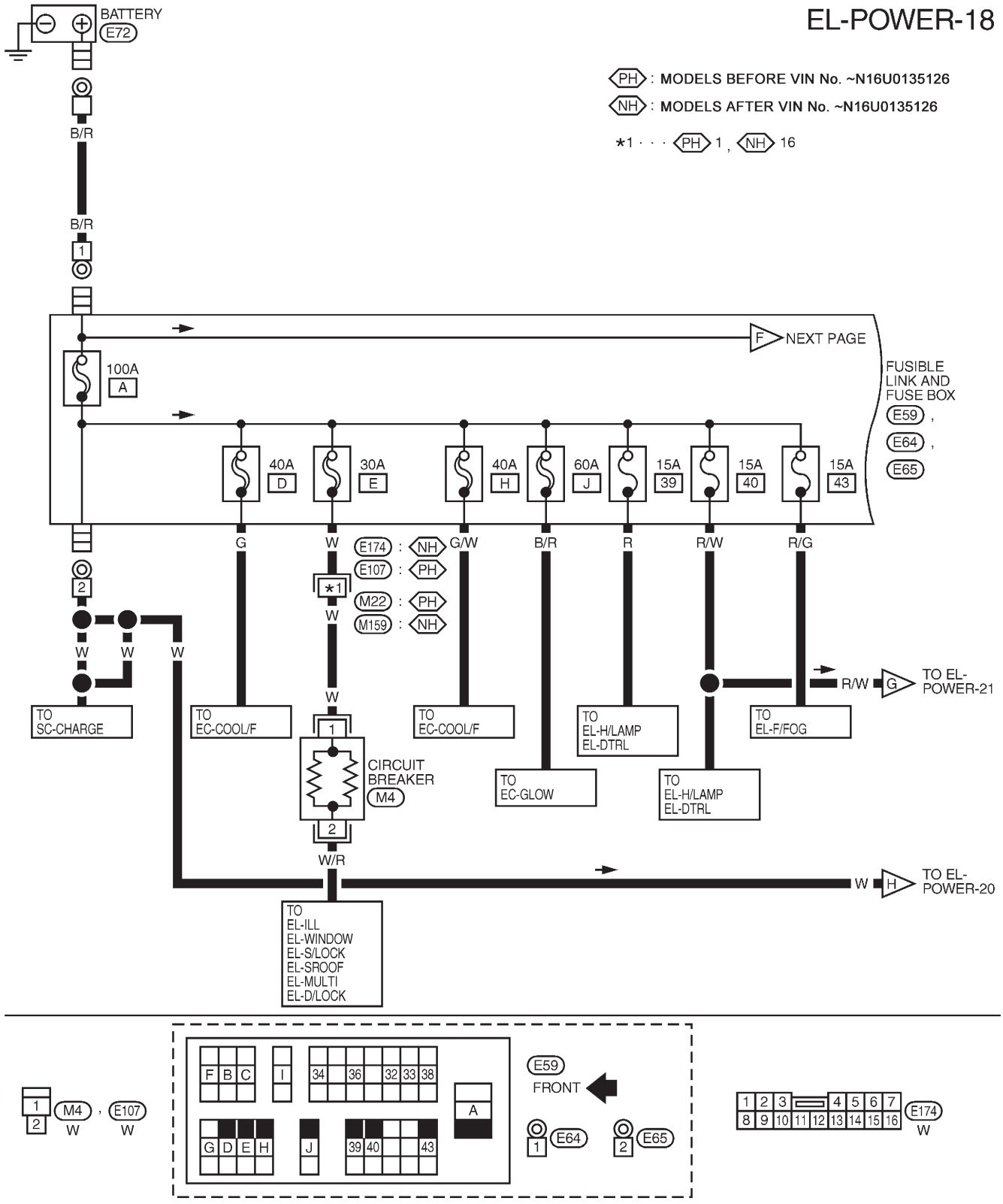
*1 · · · OD 60A , DT 80A
*2 · · · OD R/G , DT R





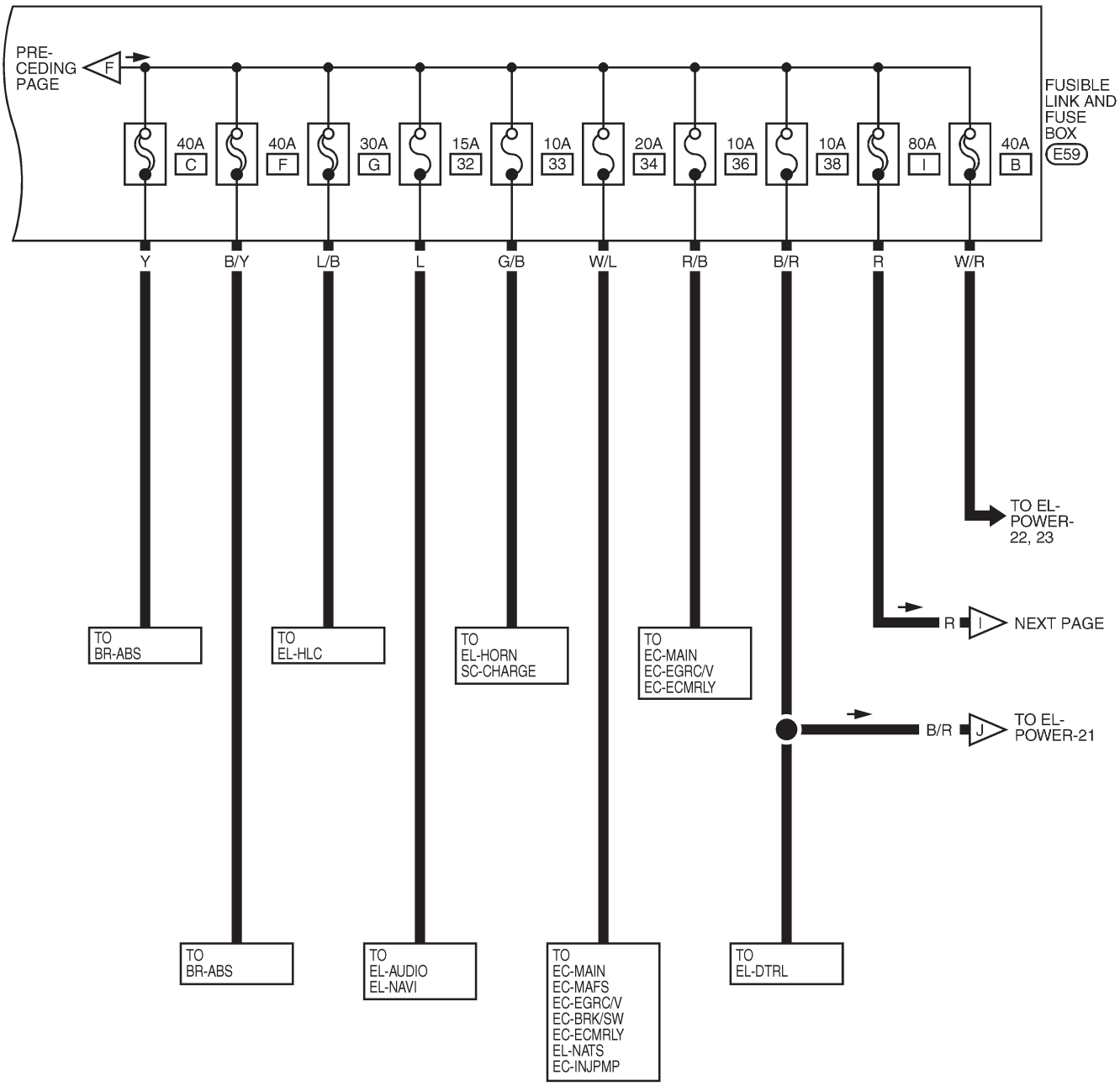
MEL963L

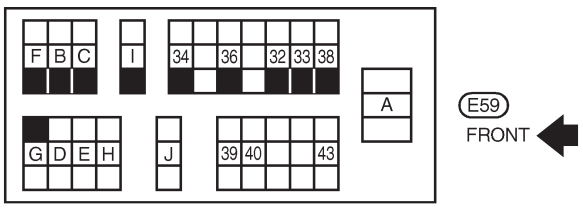
Wiring Diagram — POWER —/Hatchback (Cont'd)



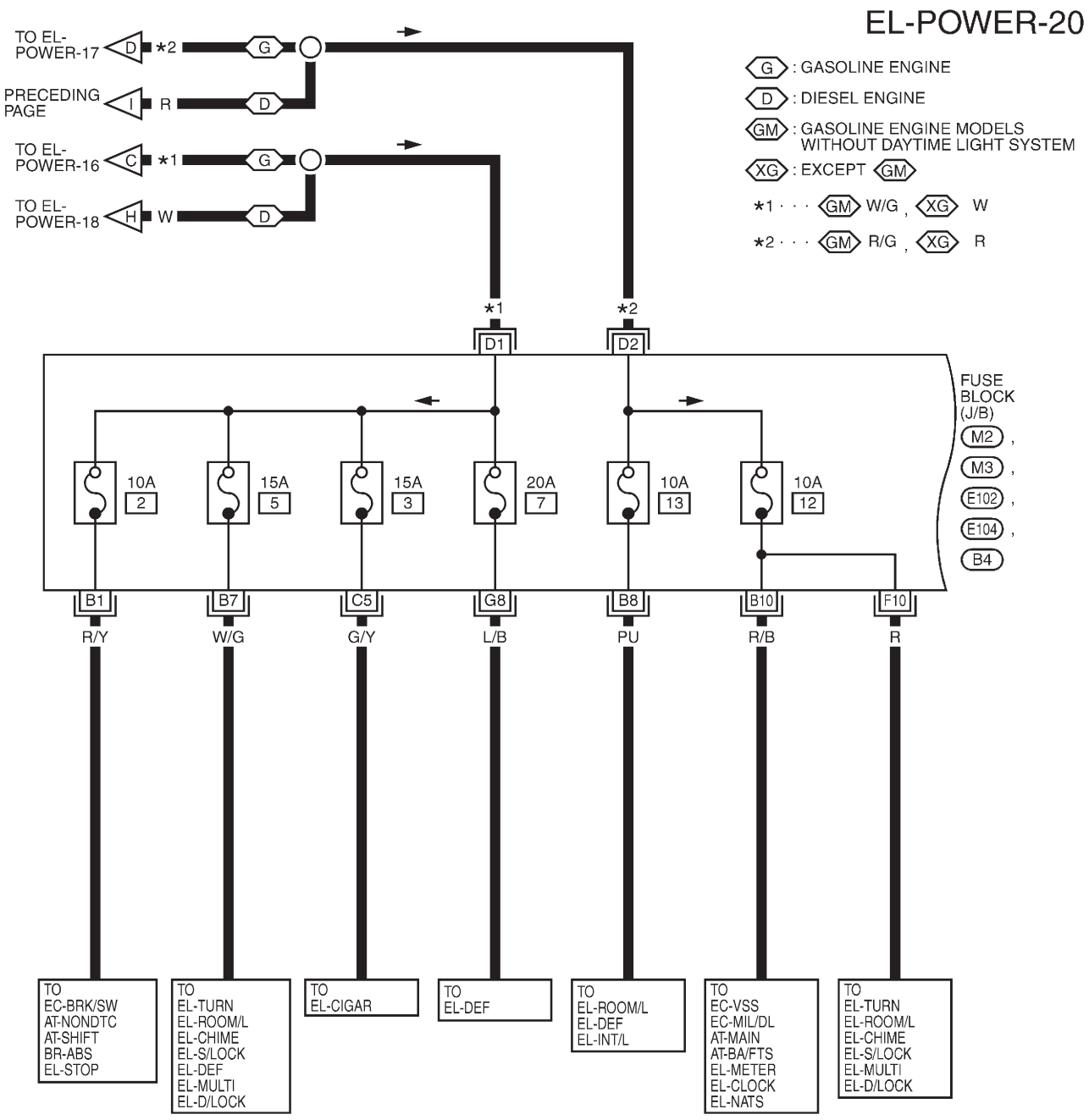
YEL335C

EL-POWER-19





MEL965L



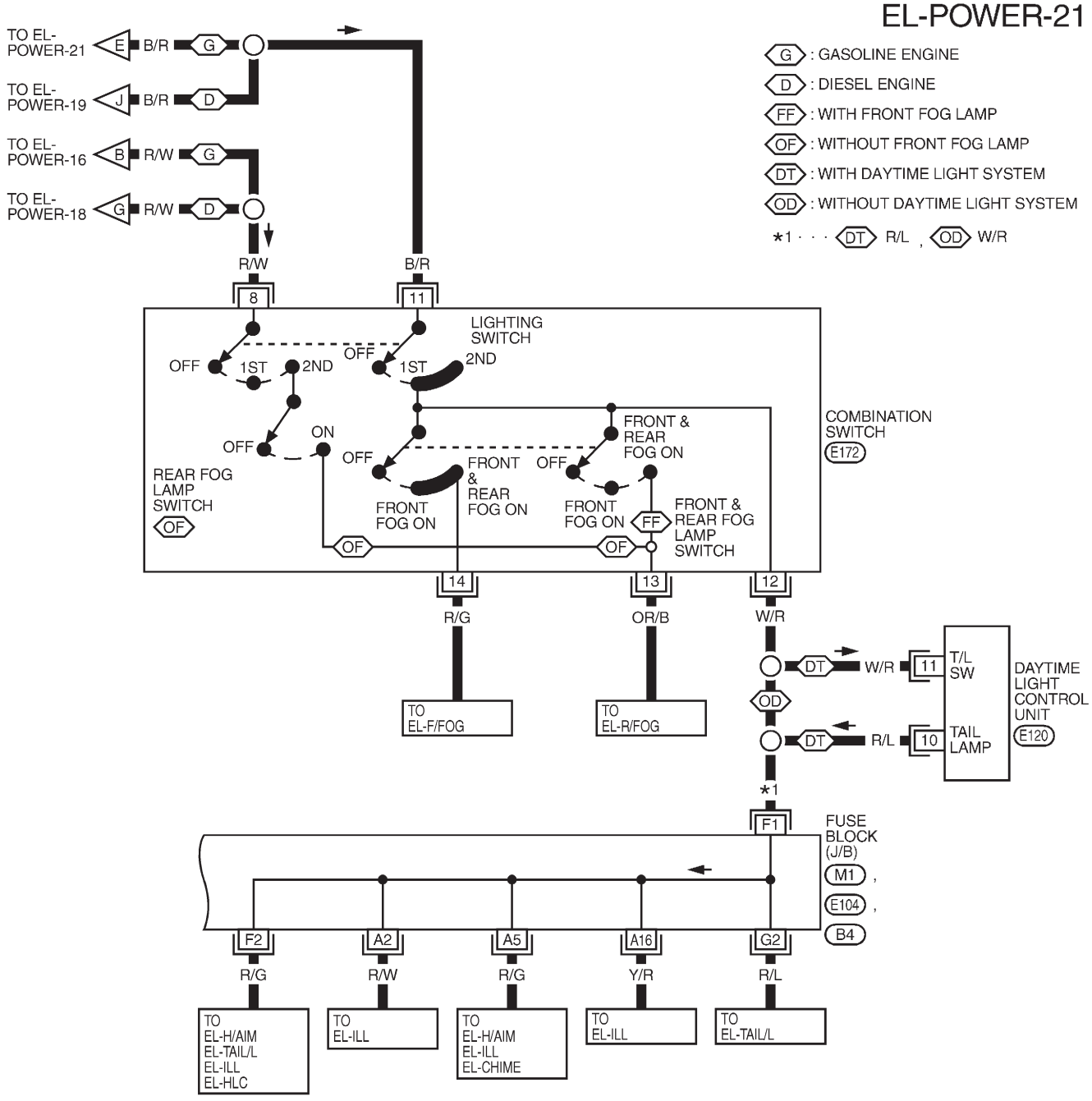
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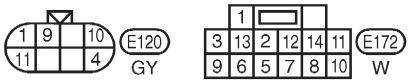
M2 , M3 , E102 , E104 , B4

-FUSE BLOCK-
JUNCTION BOX (J/B)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

MEL966L





REFER TO THE FOLLOWING.

M1 , E104 , B4

-FUSE BLOCK-
JUNCTION BOX (J/B)

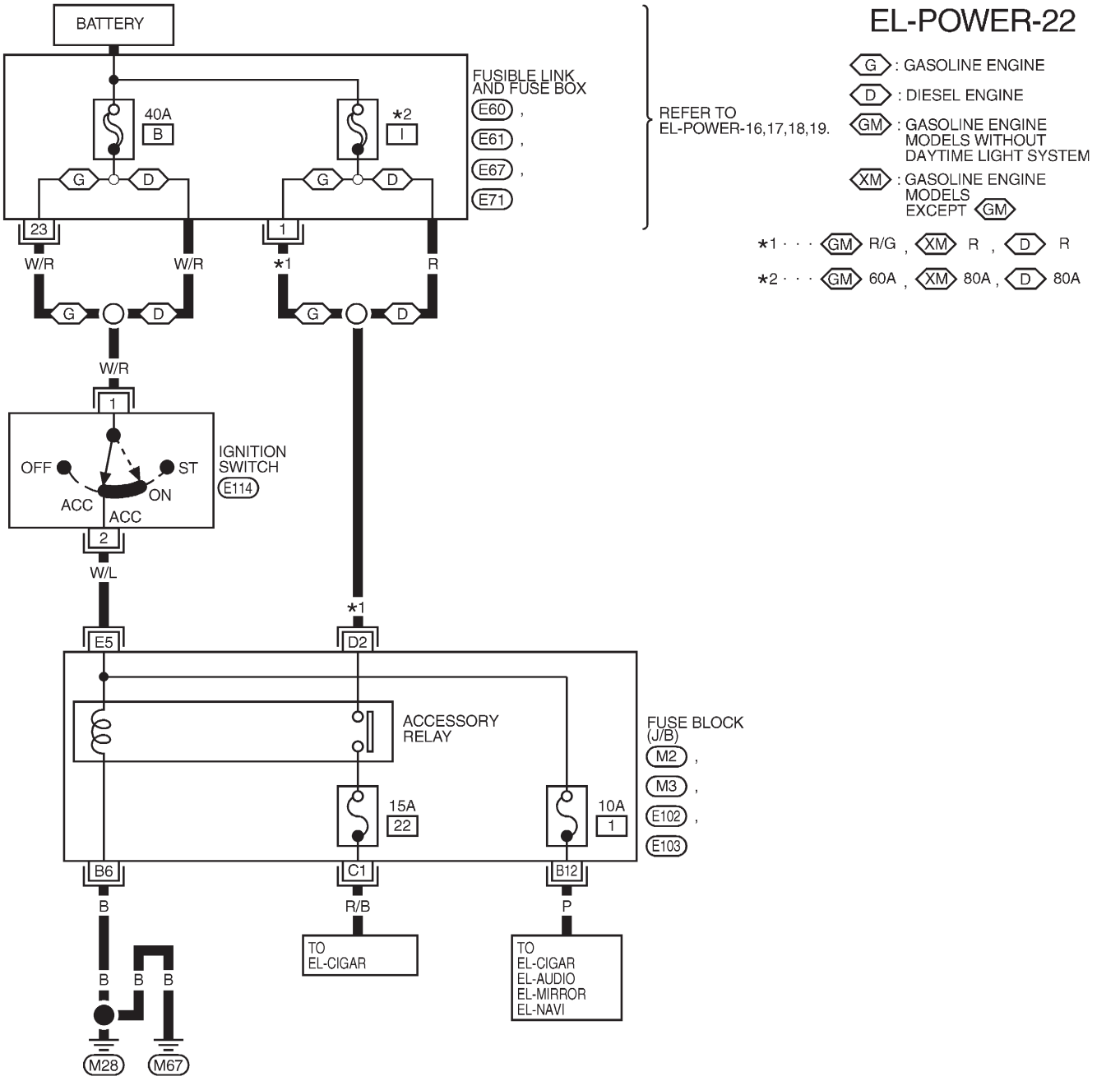
1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

YEL336C

Wiring Diagram — POWER —/Hatchback (Cont'd)

ACCESSORY POWER SUPPLY — IGNITION SWITCH IN "ACC" OR "ON"

NJEL0419S04



REFER TO EL-POWER-16,17,18,19.

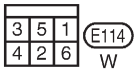
EL-POWER-22

G : GASOLINE ENGINE
D : DIESEL ENGINE
GM : GASOLINE ENGINE MODELS WITHOUT DAYTIME LIGHT SYSTEM
XM : GASOLINE ENGINE MODELS EXCEPT GM

*1 · · · GM R/G , XM R , D R

*2 · · · GM 60A , XM 80A , D 80A

E60 : GM — B
E61 : XM — W
E67 : XM — B
E71 : GM — G



REFER TO THE FOLLOWING.

M2 , M3 , E102 , E103

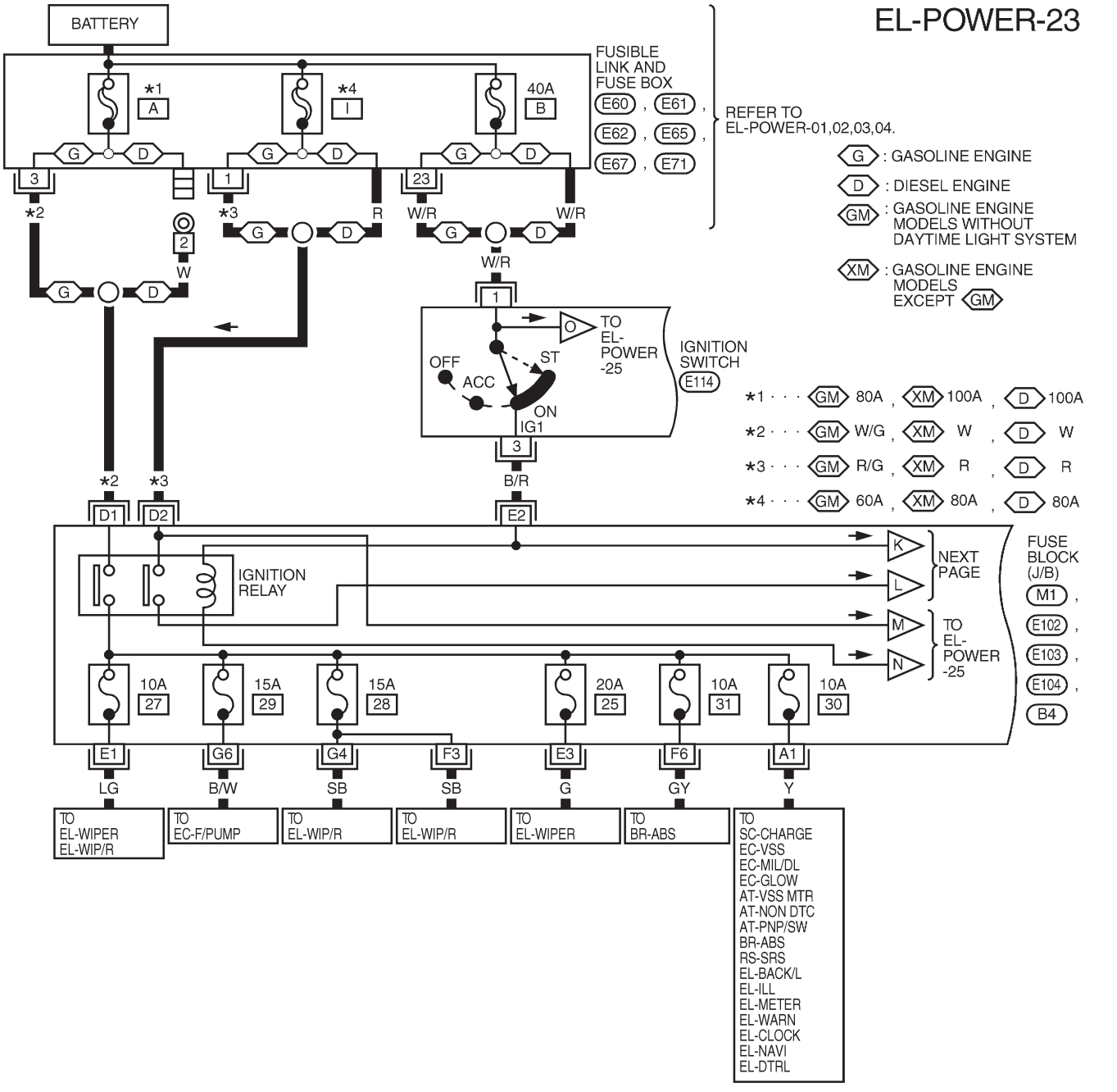
-FUSE BLOCK-
JUNCTION BOX (J/B)

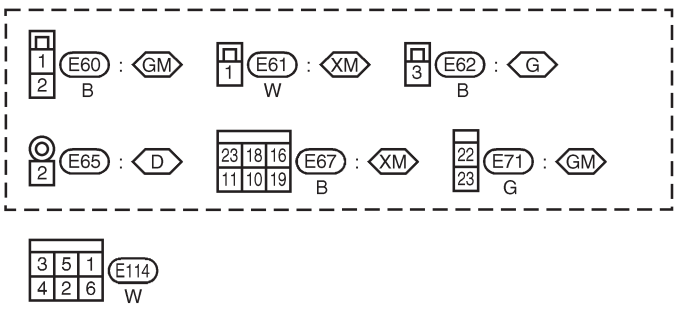
1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

MEL968L

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

NJEL0419S05





REFER TO THE FOLLOWING.

M1 , E102 , E103 , E104 , B4

-FUSE BLOCK-
JUNCTION BOX (J/B)

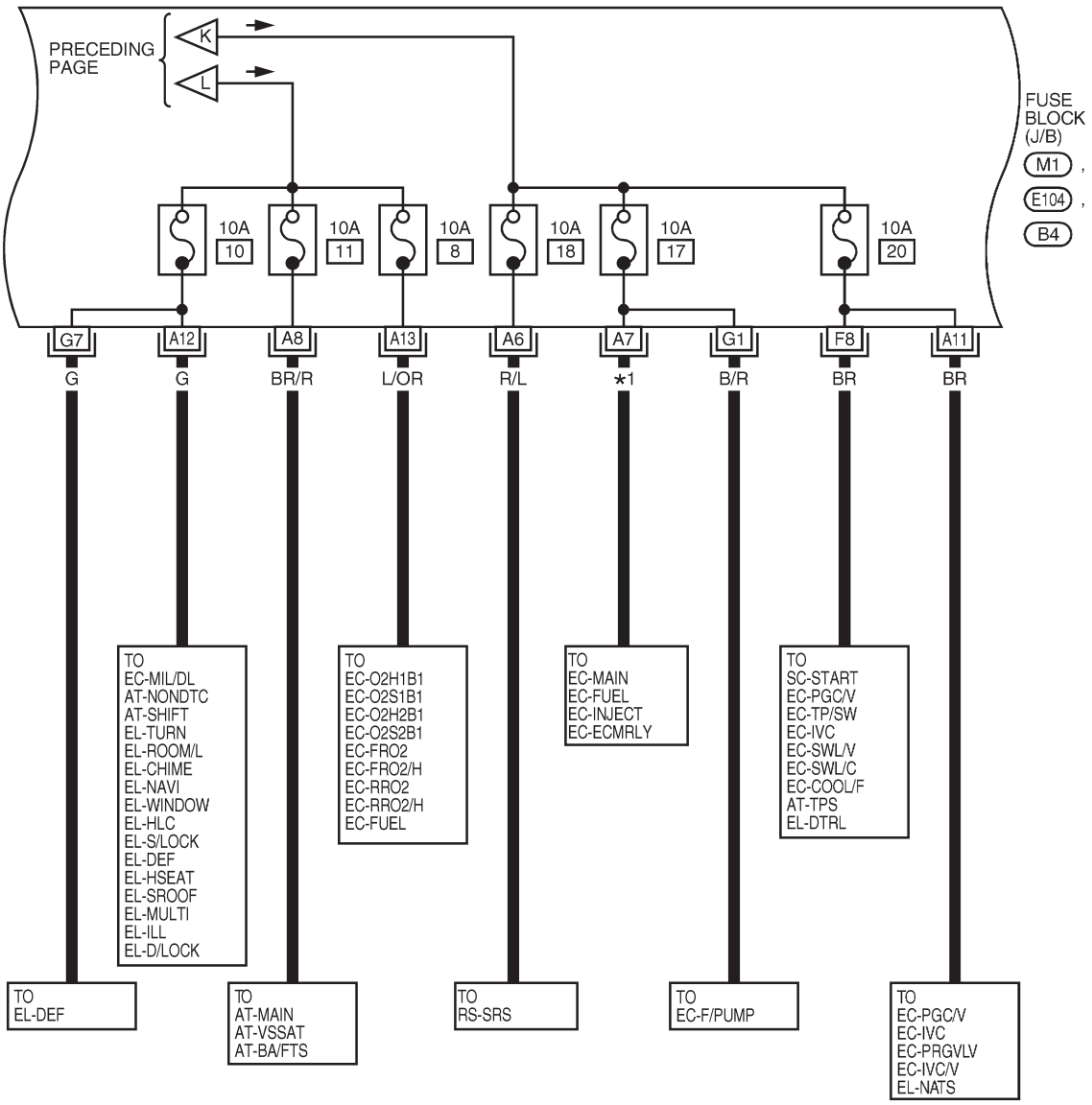
1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

MEL969L

EL-POWER-24

G : GASOLINE ENGINE
D : DIESEL ENGINE

*1 · · · G B/R , D W/R



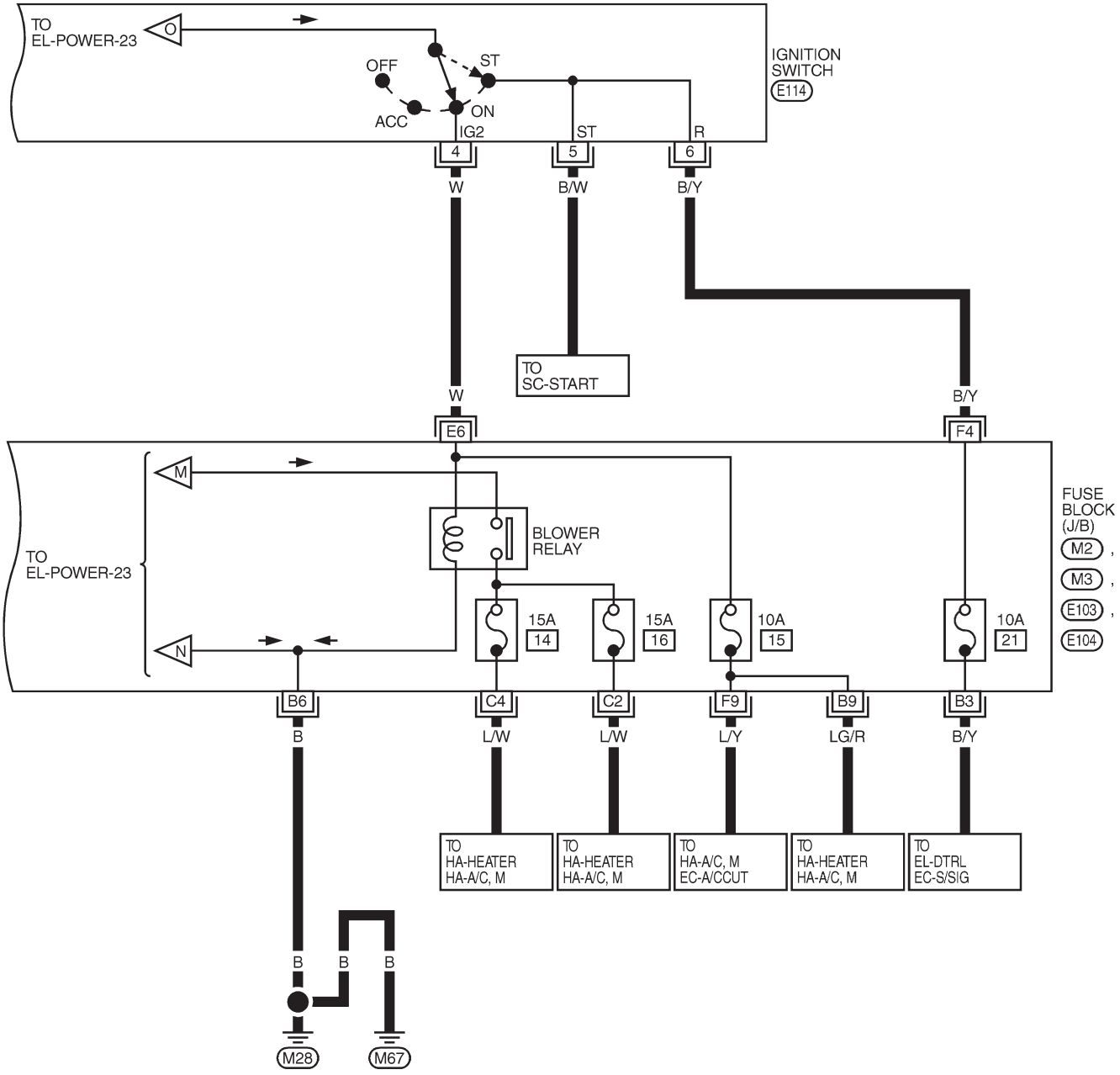
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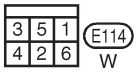
M1 , E104 , B4 -FUSE BLOCK- JUNCTION BOX (J/B)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

YEL337C

EL-POWER-25





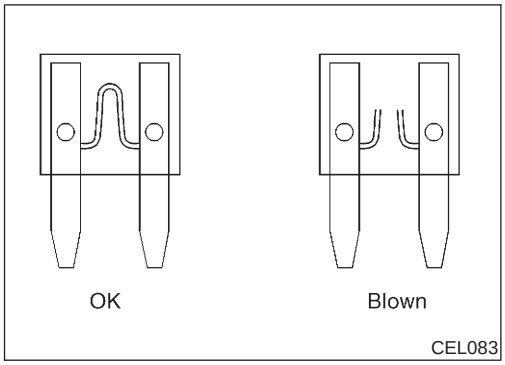
REFER TO THE FOLLOWING.

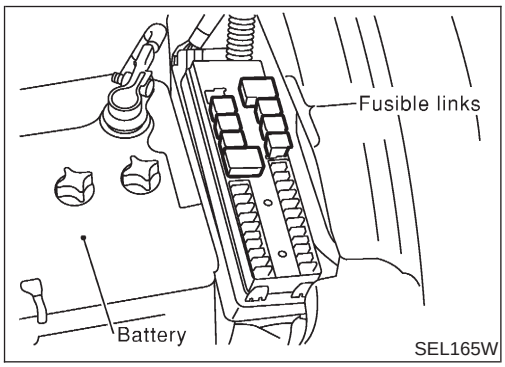
M2 , M3 , E103 , E104

-FUSE BLOCK-
JUNCTION BOX (J/B)

1	2	3	4	5	6	7	8	9	10	11
12	13	14	15	16			17	18	19	20
21	22	23	24	25	26	27	28	29	30	31

MEL971L





Inspection

NJEL0007

FUSE

NJEL0007S01

- **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.**

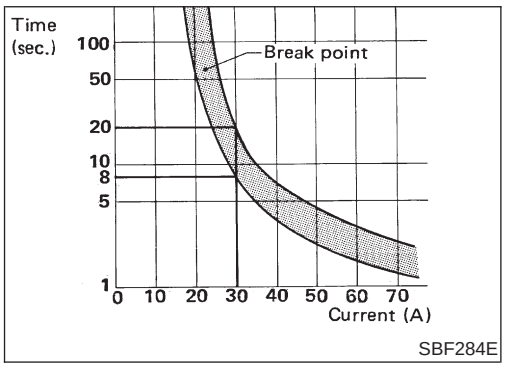
FUSIBLE LINK

NJEL0007S02

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.

CAUTION:

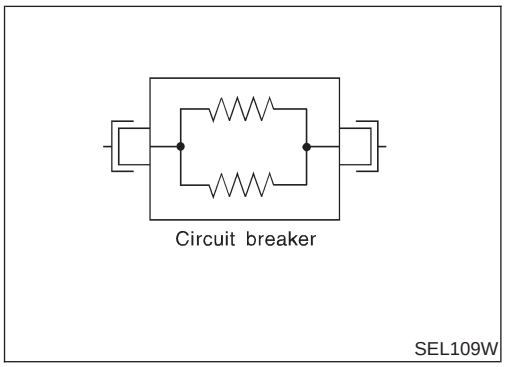
- **If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of problem.**
- **Never wrap outside of fusible link with vinyl tape. Important: Never let fusible link touch any other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



CIRCUIT BREAKER

NJEL0007S03

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



CIRCUIT BREAKER (PTC THERMISTOR TYPE)

NJEL0007S04

The PTC thermister generates heat in response to current flow. The temperature (and resistance) of the thermister 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.

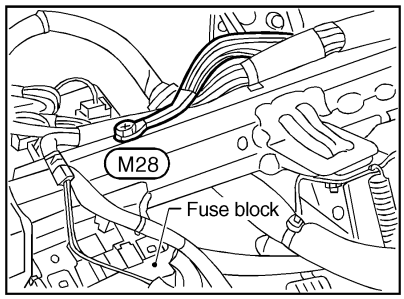
Reduced current flow will cause the element to cool. Resistance falls accordingly and normal circuit current flow is allowed to resume.

Ground Distribution

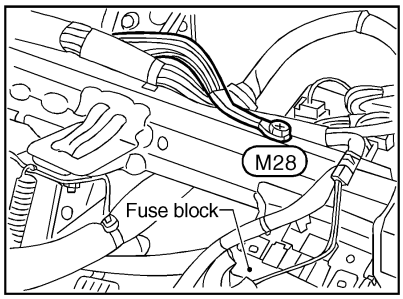
NJEL0008

MAIN HARNESS

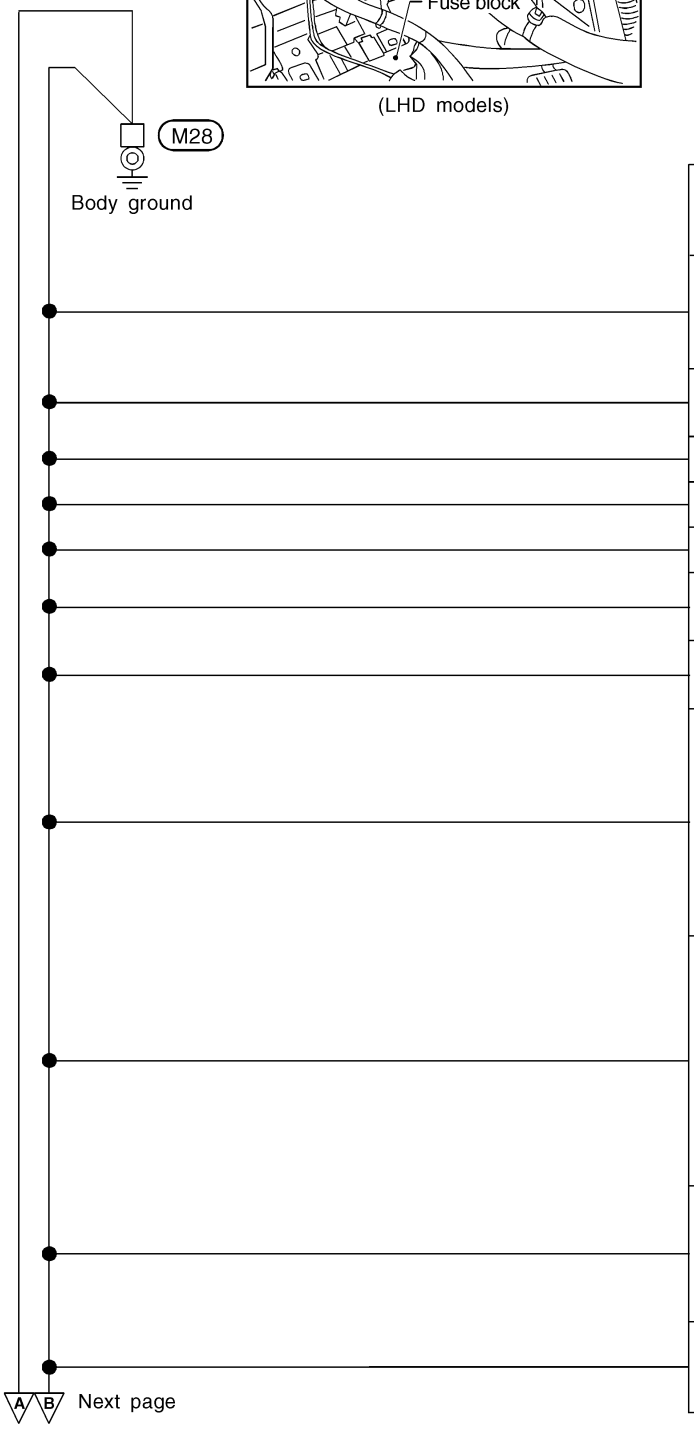
NJEL0008S01



(LHD models)



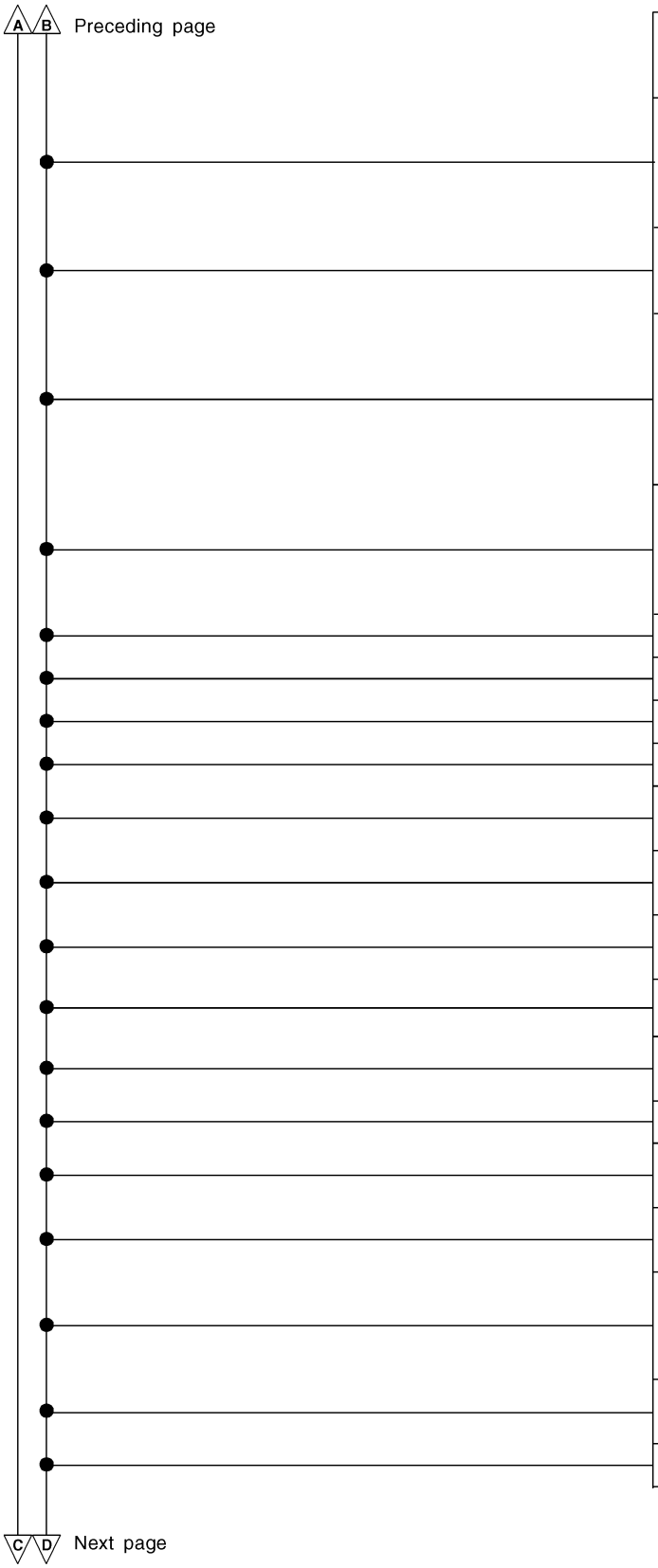
(RHD models)



CON-NECTOR NUMBER	CONNECT TO
M2	Fuse block (J/B) • Accessory relay • Ignition relay • Blower relay
M6	Trunk lid opener relay (With multi-remote control system except for Europe)
M7	Power window relay
M8	Rear fog lamp relay (Sedan)
M15	Door mirror remote control switch
M16	Trunk lid opener switch (With multi-remote control system except for Europe)
M29	Data link connector (For Europe) (Terminal No.4)
M32	Combination meter (Sedan with tachometer) (Terminal No.24) • 120km/h buzzer • Air bag warning lamp • Clock • Fuel gauge • Reset switch • Unified meter control unit(With odo/trip meter) • Water temperature gauge
M34	Combination meter (Without tachometer) (Terminal No.23) • 120km/h buzzer • Air bag warning lamp • A/T indicator lamp • Clock • Fuel gauge • Reset switch • Unified meter control unit(With odo/trip meter) • Water temperature gauge
M35	Combination meter (Without tachometer) (Terminal No.46) • Clock illumination • Meter illumination • Odo/trip meter illumination
M35	Combination meter (Without tachometer) (Terminal No.50) • High beam indicator

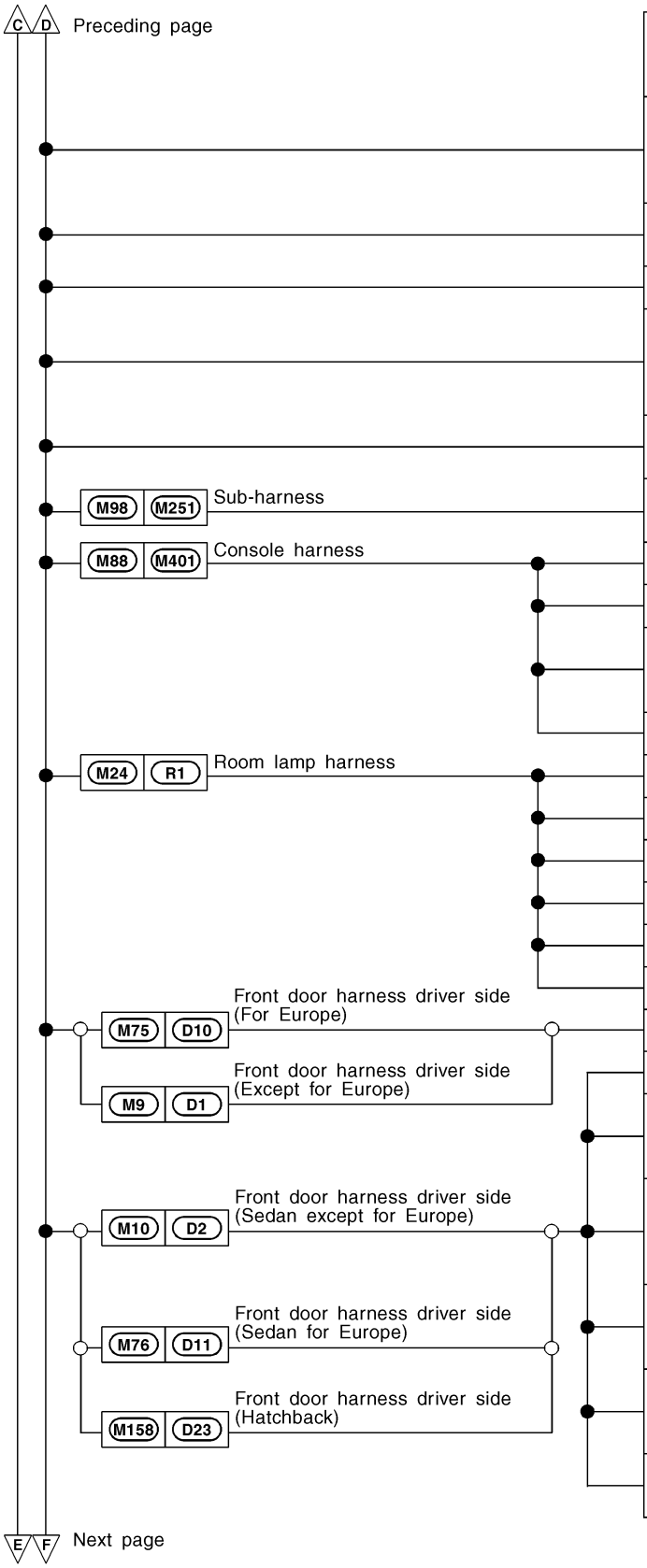
HEL435B

Ground Distribution (Cont'd)



CON-NECTOR NUMBER	CONNECT TO
M35	Combination meter (Without tachometer) (Terminal No.60) • ABS warning lamp • Rear fog indicator lamp • Turn signal and hazard warning lamp
M36	Combination meter (Sedan with tachometer) (Terminal No.47) • High beam indicator
M36	Combination meter (Sedan with tachometer) (Terminal No.56) • ABS warning lamp • A/T indicator lamp • Clock/ambient (outside) temperature display • Rear fog indicator lamp • Turn signal and hazard warning lamp
M36	Combination meter (Sedan with tachometer) (Terminal No.60) • Clock illumination • Meter illumination • Odo/trip meter illumination
M39	Air mix door motor (With auto A/C)
M40	Fan control amplifier (With auto A/C)
M44	A/C auto amp. (Terminal No.3) (With auto A/C)
M44	A/C auto amp. (Terminal No.11) (With auto A/C)
M46	Heater control panel (Fan switch) (Without auto A/C)
M47	Heater control panel (Illumination) (Without auto A/C except for Europe)
M50	Air bag diagnosis sensor unit (LHD models except for Europe)
M60	Time control unit (With power door lock without multi-remote control system except for Europe)
M61	Smart entrance control unit (With multi-remote control system except for Europe)
M77	Multi-remote control unit (Sedan for Europe)
M83	Headlamp washer switch (Washer switch) (Terminal No.3)
M83	Headlamp washer switch (Illumination) (Terminal No.5)
M87	Heater control panel (RHD models for Europe) (Terminal No.5) • Rear window defogger switch • Recirculation switch
M87	Heater control panel (Illumination) (RHD models for Europe) (Terminal No.6)
M102	Dongle unit (Sedan RHD models for Europe)

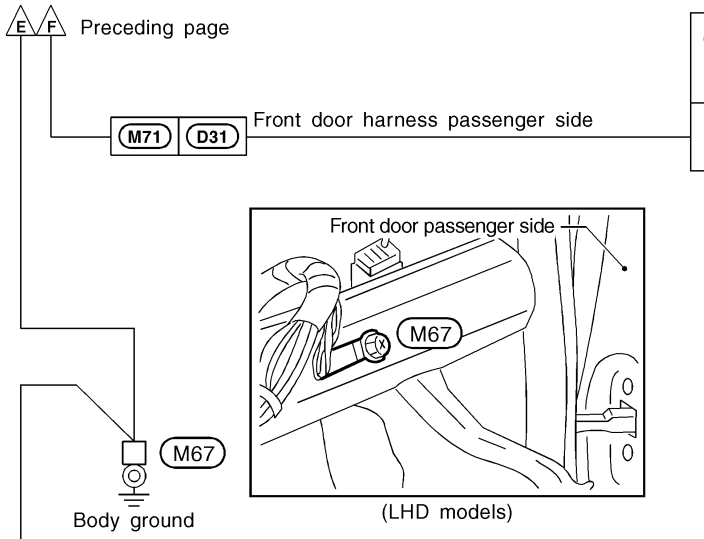
HEL436B



CON-NECTOR NUMBER	CONNECT TO
M112	Heater control panel (LHD models for Europe) (Terminal No.5) • Rear window defogger switch • Recirculation switch
M112	Heater control panel (Illumination) (LHD models for Europe) (Terminal No.6)
M148	Cigarette lighter socket (Hatchback)
M152	Combination meter (Hatchback) (Terminal No.27) • Air bag warning lamp • Clock • Unified meter control unit (With odo/trip meter)
M152	Combination meter (Hatchback) (Terminal No.35) • Illumination
M252	Front monitor (RHD models with navigation system)
M402	Heated seat switch LH
M403	Heated seat switch RH
M404	Door lock/unlock switch (With power door lock without power window except Sedan RHD models)
M421	Power socket (Hatchback with heated seat)
R3	Spot lamp (Sedan LHD models)
R9	Vanity mirror lamp RH (Sedan LHD models)
R22	Spot lamp (Hatchback LHD models)
R23	Vanity mirror lamp RH (Hatchback LHD models)
R24	Vanity mirror lamp LH (Hatchback LHD models)
R25	Personal lamp (Hatchback LHD models)
D4	Door mirror defogger driver side (Sedan)
D5	Power window main switch
D6	Door key cylinder switch driver side (With theft warning system except for Europe and with power door lock for Europe)
D7	Door lock actuator driver side (With multi-remote control system except for Europe and Sedan without super lock for Europe)
D8	Door unlock sensor (With power door lock without multi-remote control system except for Europe)
D14	Door lock actuator assembly driver side (Sedan with super lock and Hatchback RHD models)
D27	Door lock actuator assembly driver side (Hatchback LHD models)

HEL437B

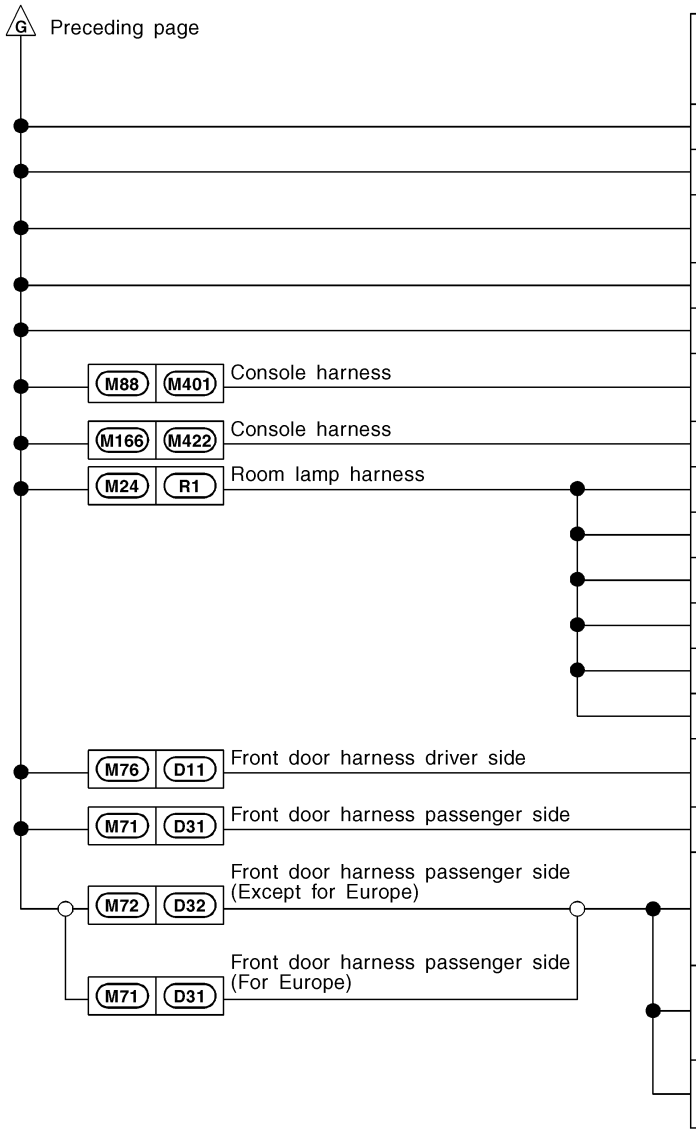
Ground Distribution (Cont'd)



CONNECTOR NUMBER	CONNECT TO
D46	Door mirror defogger (Passenger side) (Hatchback LHD models with door mirror defogger)
M29	Data link connector (Except for Europe) (Terminal No.4)
M37	Mode door motor (With auto A/C)
M38	Combination flasher unit (Sedan)
M47	Heater control panel (Rear window defogger switch) (Without auto A/C except for Europe)
M48	Cigarette lighter (Sedan)
M49	Ashtray illumination (Hatchback)
M50	Air bag diagnosis sensor unit (LHD models for Europe and RHD models)
M51	A/T device (Terminal No.3) • Park position switch • Shift lock solenoid
M51	A/T device (Illumination) (Terminal No.5)
M51	A/T device (O/D control switch) (Terminal No.7)
M54	Hazard switch
M56	Intake door motor (With auto A/C)
M60	Time control unit (Without power door lock except for Europe)
M95	NAVI control unit (Terminal No.3)
M95	NAVI control unit (Terminal No.4)
M96	NAVI control unit (Terminal No.29)
M99	Front monitor (LHD models with navigation system)
M101	CD auto-changer (For Europe)

G Next page

HEL438B

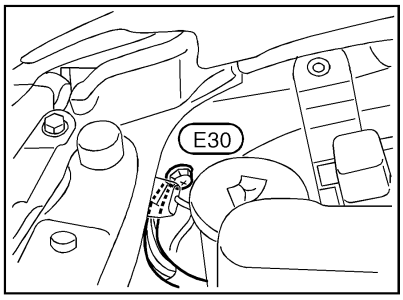


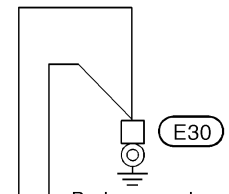
CON-NECTOR NUMBER	CONNECT TO
M106	Time control unit (Sedan for Europe)
M108	Glove box lamp (Hatchback)
M113	Full hot door motor (LHD models with manual A/C for Europe)
M154	Time control unit (Hatchback)
M168	Power socket relay (Hatchback)
M404	Door lock/unlock switch (Sedan RHD models with power door lock without power window)
M421	Power socket (Hatchback without heated seat)
R3	Spot lamp (Sedan RHD models)
R8	Vanity mirror lamp LH (Sedan RHD models)
R22	Spot lamp (Hatchback RHD models)
R23	Vanity mirror lamp RH (Hatchback RHD models)
R24	Vanity mirror lamp LH (Hatchback RHD models)
R25	Personal lamp (Hatchback RHD models)
D24	Door mirror defogger (Driver side) (Hatchback LHD models with door mirror defogger)
D34	Door mirror defogger passenger side (Sedan)
D36	Door key cylinder switch passenger side (With theft warning system except for Europe and with power door lock without multi-remote control system for Europe)
D38	Door lock actuator assembly passenger side (Sedan with super lock and Hatchback RHD models)
D48	Door lock actuator assembly passenger side (Hatchback LHD models)

HEL439B

ENGINE ROOM HARNESS

NJEL0008S02





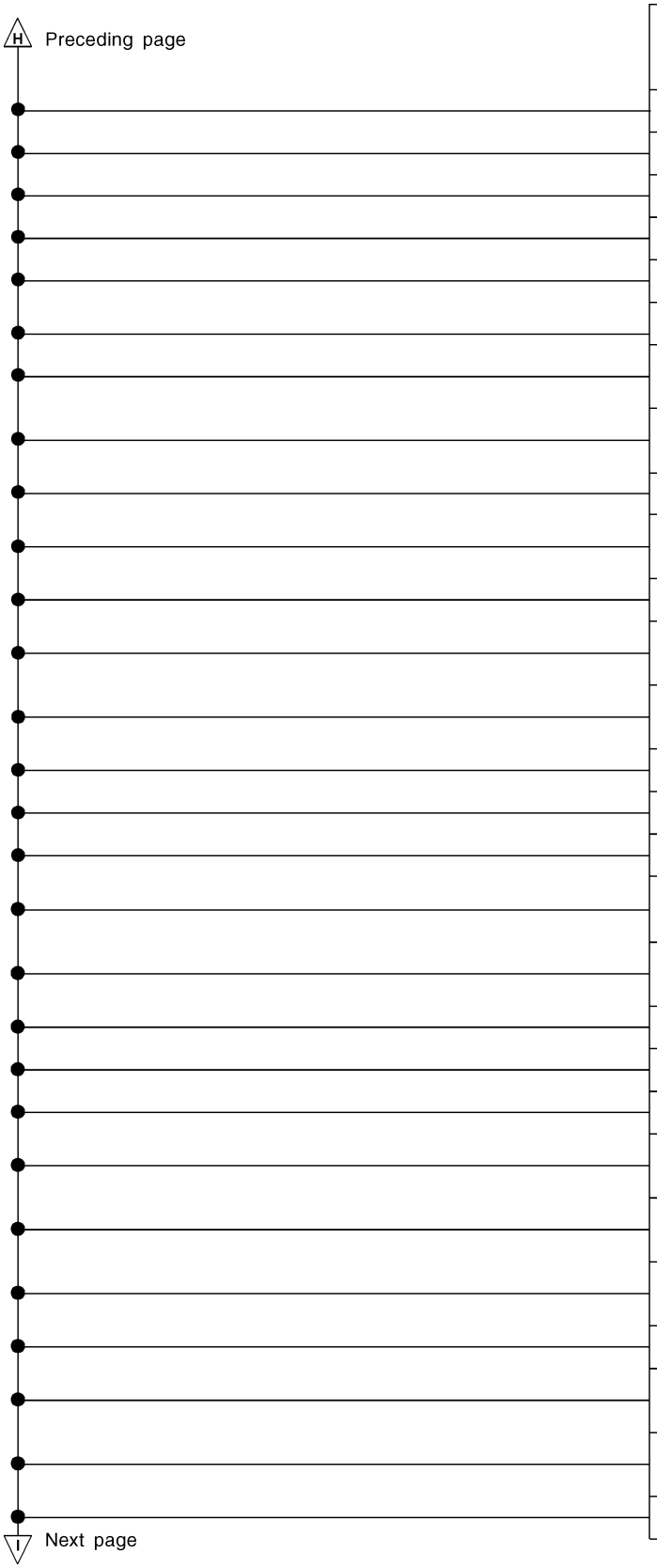
CON-NECTOR NUMBER	CONNECT TO
E13	Cooling fan relay-2 (Sedan)
E43	Cooling fan motor-1 (Sedan except gasoline engine for Europe)
E44	Headlamp LH (2-blubs type headlamp)
E45	Headlamp LH (4-blubs type headlamp)
E49	Front fog lamp LH
E171	Combination meter (Hatchback RHD models) (Terminal No.7) • ABS warning lamp • High beam indicator • Front fog indicator lamp • Rear fog indicator lamp • Turn signal and hazard warning lamp
E185	Cooling fan relay-2 (Hatchback with diesel engine)
E187	Cooling fan relay-4 (Hatchback with diesel engine)

E105 M20 Main harness (For China)
E118 M79 Main harness (Sedan for Europe)
E174 M159 Main harness (Hatchback)

M14	Headlamp aiming switch
E3	Side turn signal lamp RH (Hatchback)
E11	Front fog lamp relay (For Europe and China)
E12	Headlamp washer timer
E14	Headlamp relay RH (Hatchback)
E14	Theft warning horn relay (With theft warning system except for Europe)
E16	Headlamp relay (Sedan for Europe)
E16	Headlamp relay LH (Hatchback)
E17	Headlamp relay RH (4-blubs type headlamp except for Europe)
E20	Headlamp relay LH (4-blubs type headlamp except for Europe)
E31	Front turn signal lamp RH (2-blubs type headlamp)
E32	Front turn signal lamp RH (4-blubs type headlamp)
E33	Headlamp aiming motor RH

H Next page

HEL440B



CON-NECTOR NUMBER	CONNECT TO
E34	Parking lamp RH (2-blubs type headlamp)
E35	Parking lamp RH (4-blubs type headlamp)
E46	Parking lamp LH (2-blubs type headlamp)
E47	Parking lamp LH (4-blubs type headlamp)
E48	Headlamp aiming motor LH
E52	Hood switch (Sedan with theft warning system)
E53	Front turn signal lamp LH (2-blubs type headlamp)
E54	Front turn signal lamp LH (4-blubs type headlamp)
E77	Side turn signal lamp LH (Hatchback)
E78	Brake fluid level switch (Except Hatchback with ABS)
E80	Front wiper motor (Sedan)
E82	Cooling fan motor-2 (Sedan with gasoline engine for Europe)
E83	Cooling fan motor-1 (Sedan with gasoline engine for Europe)
E85	Side turn signal lamp LH (Sedan)
E86	Side turn signal lamp RH (Sedan)
E101	Rear wiper amplifier (Sedan)
E110	Front fog lamp switch (LHD models except for Europe)
E112	Front fog lamp switch (RHD models except for Europe)
E116	Rear wiper and washer switch (Sedan)
E117	Front wiper and washer switch (Sedan)
E120	Daytime light unit
E172	Combination switch (Hatchback) (Terminal No.1) • Turn signal switch
E178	Cooling fan motor-1 (Hatchback with gasoline engine)
E179	Cooling fan motor-2 (Hatchback with gasoline engine)
E188	Brake fluid level switch (Hatchback with ABS)
E189	Combination switch (Hatchback) (Terminal No.4) • Rear wiper switch
E189	Combination switch (Hatchback) (Terminal No.17) • Front wiper switch
E191	Front wiper motor (Hatchback)

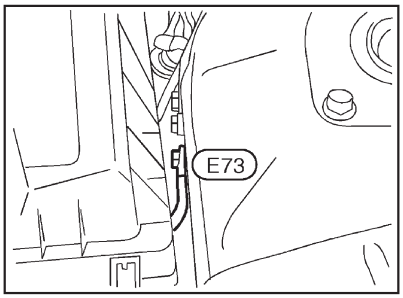
HEL441B

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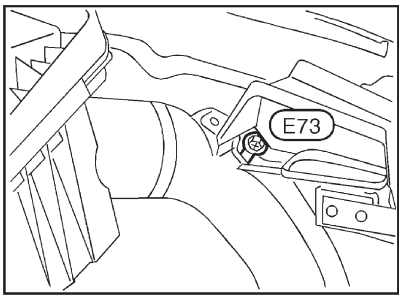
CON-NECTOR NUMBER	CONNECT TO
E193	Rear wiper relay (Hatchback)
E194	Front wiper relay (Hatchback)

E73

Body ground

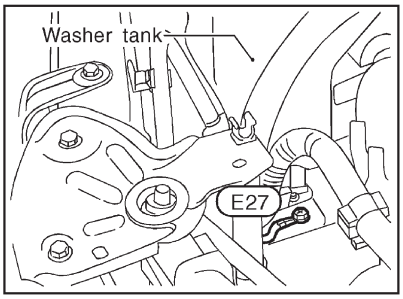


(LHD models)



(RHD models)

E15	Cooling fan relay-3 (Sedan)
E36	Headlamp RH (2-bulbs type headlamp)
E37	Headlamp RH (4-bulbs type headlamp)
E38	Front fog lamp RH
E42	Cooling fan motor-2 (Sedan except gasoline engine for Europe)
E171	Combination meter (Hatchback LHD models) (Terminal No.7) • ABS warning lamp • High beam indicator • Front fog indicator lamp • Rear fog indicator lamp
E183	Cooling fan motor-2 (Hatchback with diesel engine)

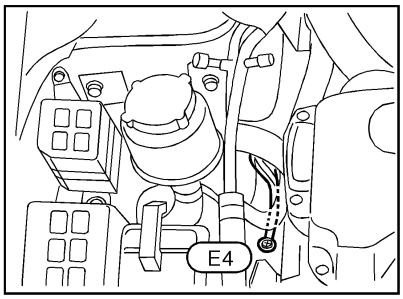


CON-NECTOR NUMBER	CONNECT TO
E23	Alternator (E)

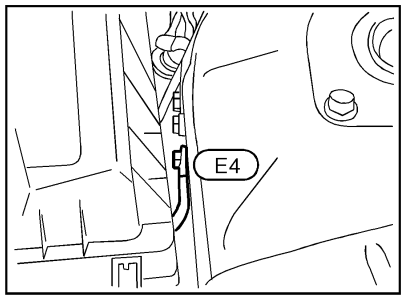
E27

Body ground

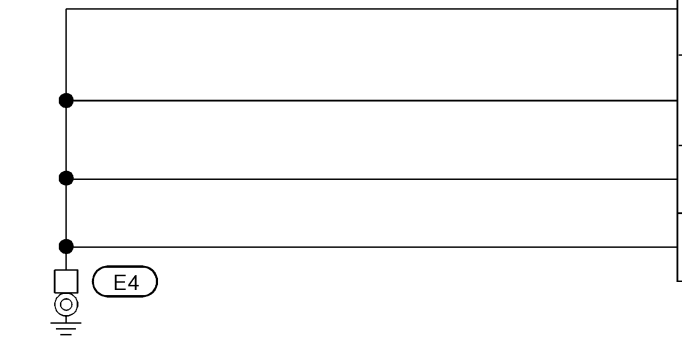
HEL164B



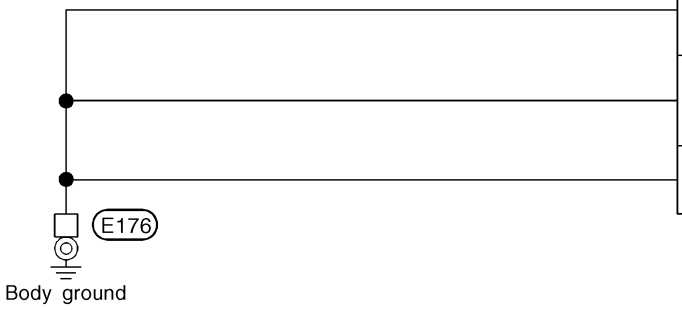
(LHD models)



(RHD models)



CON-NECTOR NUMBER	CONNECT TO
E1	ABS actuator and electric unit (Actuator) (Except Hatchback LHD models with gasoline engine) (Terminal No.16)
E1	ABS actuator and electric unit (Control unit) (Except Hatchback LHD models with gasoline engine) (Terminal No.19)
E5	Shield wire (Front wheel sensor RH) (Hatchback RHD models)
E76	Shield wire (Front wheel sensor LH) (Hatchback LHD models with diesel engine)

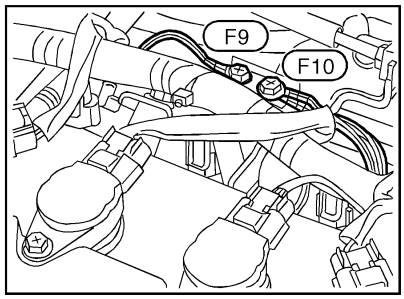


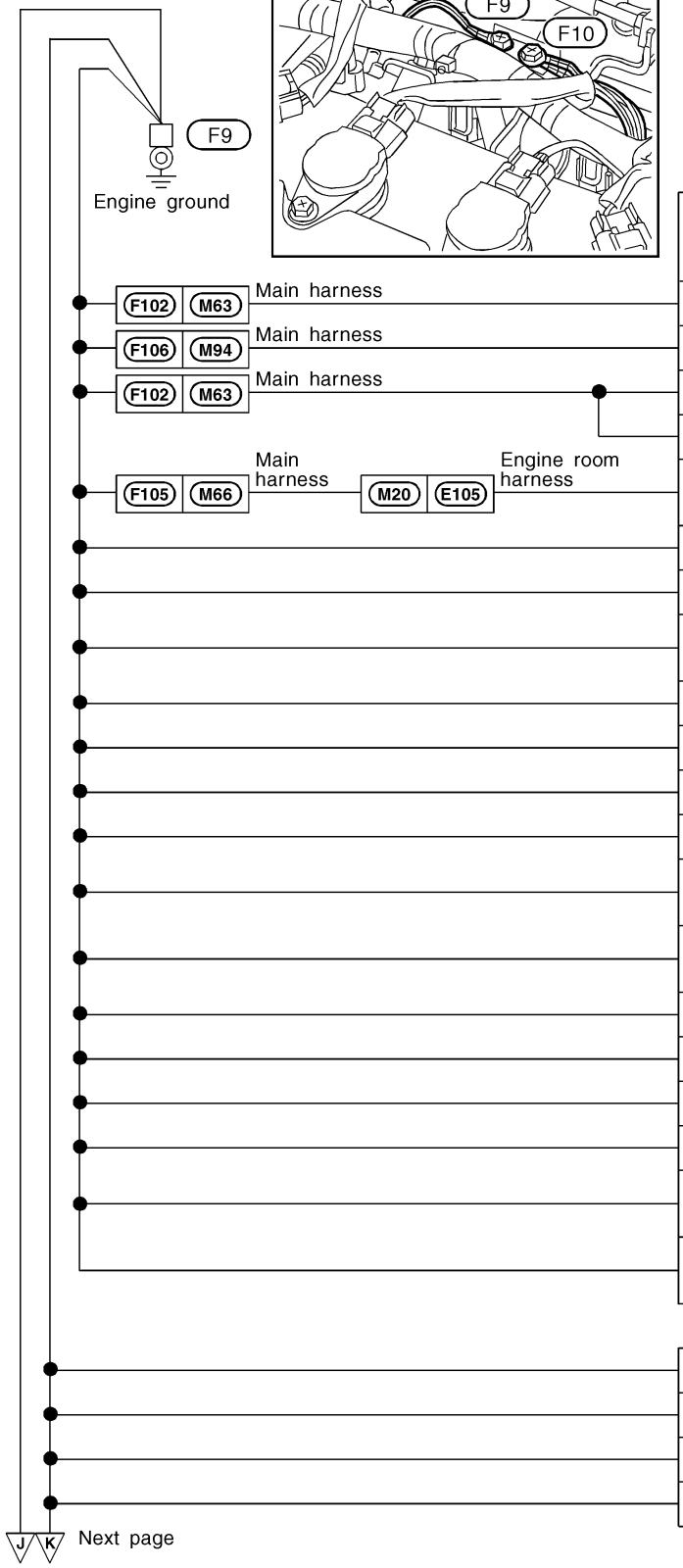
CON-NECTOR NUMBER	CONNECT TO
E1	ABS actuator and electric unit (Actuator) (Hatchback LHD models with gasoline engine) (Terminal No.16)
E1	ABS actuator and electric unit (Control unit) (Hatchback LHD models with gasoline engine) (Terminal No.19)
E76	Shield wire (Front wheel sensor LH) (Hatchback LHD models with gasoline engine)

HEL442B

ENGINE CONTROL HARNESS/QG ENGINE MODELS

NJEL0008S03

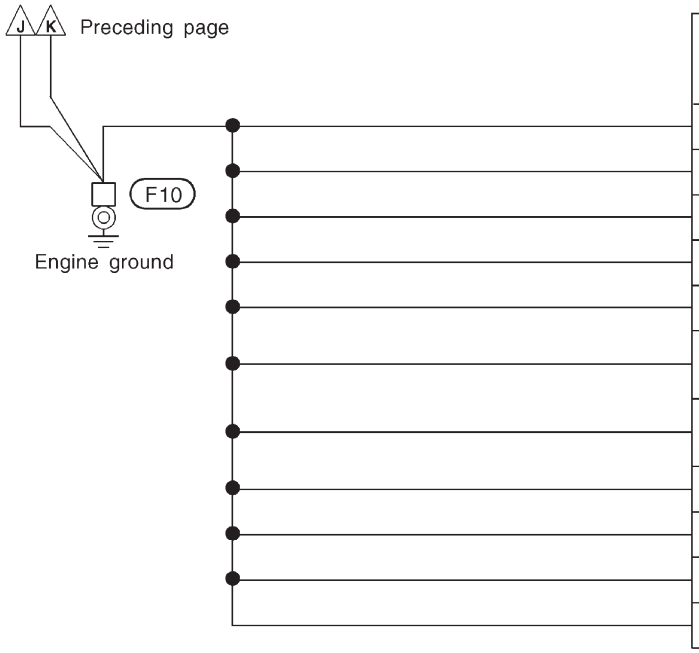




CON-NECTOR NUMBER	CONNECT TO
M29	Data link connector (Terminal No.5)
M31	NATS IMMU (Sedan)
M31	NATS IMMU (Hatchback)
M102	Dongle unit (Hatchback RHD models)
E12	CO adjustment resistor (Without three way catalyst)
F2	Camshaft position sensor (PHASE)
F2	Shield wire [Camshaft position sensor (PHASE)]
F17	Shield wire [Heated oxygen sensor 1 (Fornt)] (With three way catalyst)
F22	Shield wire (Throttle position sensor)
F27	Crankshaft position sensor (POS)
F27	Shield wire [Crankshaft position sensor (POS)]
F34	Shield wire (Mass air flow sensor)
F41	Heated oxygen sensor 2 (Rear) (Sedan for Europe)
F41	Shield wire [Heated oxygen sensor 2 (Rear)] (For Europe)
F51	ECM (Except for Europe) (Terminal No.34)
F51	ECM (Except for Europe) (Terminal No.35)
F56	ECM (For Europe) (Terminal No.48)
F56	ECM (For Europe) (Terminal No.57)
F110	TCM (Transmission control module) (Terminal No.25)
F110	TCM (Transmission control module) (Terminal No.48)

F26	Power steering oil pressure switch
F28	Vehicle speed sensor (Sedan)
F31	Park/neutral position (PNP) switch (M/T models)
F32	Park/neutral position (PNP) switch (A/T models)

HEL443B

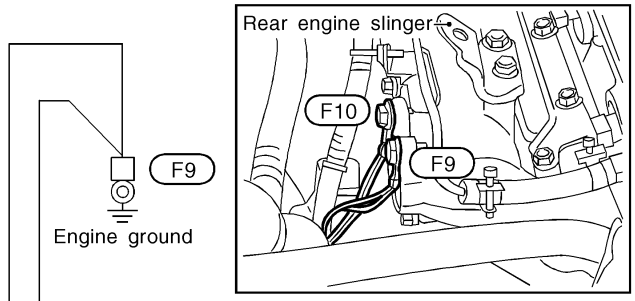


CON-NECTOR NUMBER	CONNECT TO
F4	Condenser
F11	Ignition coil No.1 (With power transistor)
F12	Ignition coil No.2 (With power transistor)
F14	Ignition coil No.3 (With power transistor)
F15	Ignition coil No.4 (With power transistor)
F17	Heated oxygen sensor 1 (Front) (With three way catalyst except for Europe)
F41	Heated oxygen sensor 2 (Rear) (Hatchback models)
F51	ECM (Except for Europe) (Terminal No.105)
F51	ECM (Except for Europe) (Terminal No.106)
F56	ECM (For Europe) (Terminal No.106)
F56	ECM (For Europe) (Terminal No.108)

HEL111B

ENGINE CONTROL HARNESS/YD ENGINE MODELS

NJEL0008S09

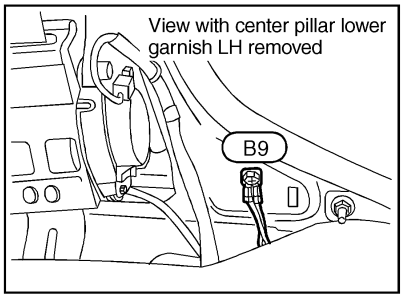


CON-NECTOR NUMBER	CONNECT TO
F15	Electronic control fuel injection pump
F27	Park/neutral position (PNP) and back-up lamp switch
F28	Vehicle speed sensor (Sedan)
F31	Fuel filter switch
M29	Data link connector (Terminal No.5)
M31	NATS IMMU (Sedan)
M31	NATS IMMU (Hatchback)
M102	Dongle unit (Hatchback RHD models)
M86	Shield wire (Accelerator position sensor) (Sedan)
F34	Shield wire (Mass air flow sensor) (Sedan)
F57	ECM (Terminal No.104)
F57	ECM (Terminal No.105)
F57	ECM (Terminal No.106)
F134	Shield wire [Crankshaft position sensor (TDC)] (Sedan)

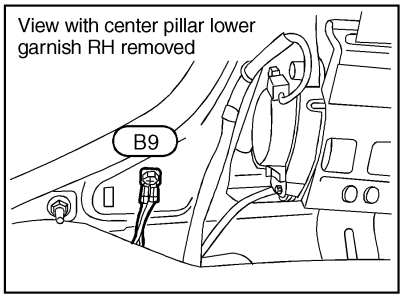
HEL444B

BODY HARNESS/SEDAN

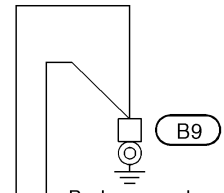
NJEL0008S04



(LHD models)

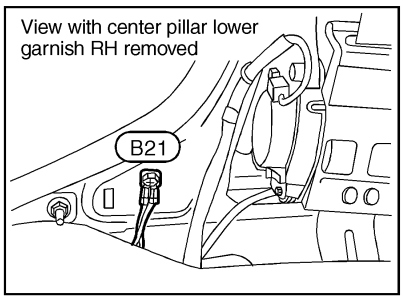


(RHD models)

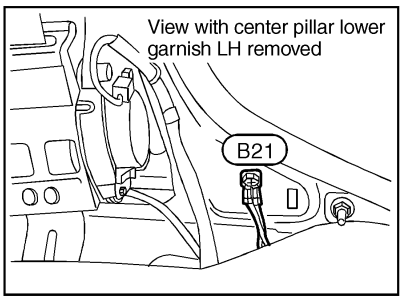


CON-NECTOR NUMBER	CONNECT TO
B11	Shield wire [LH side air bag (satellite) sensor] (LHD models)
B22	Shield wire [RH side air bag (satellite) sensor] (RHD models)
B29	Fuel level sensor unit and fuel pump (Fuel lever sensor unit) (QG engine) (Terminal No.1)
B30	Fuel level sensor unit (YD engine)

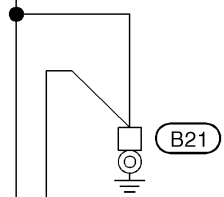
B8	Door switch driver side
B13	Seat belt switch (Except for Europe)
B29	Fuel level sensor unit and fuel pump (Fuel pump) (QG engine) (Terminal No.3)
B32	High-mounted stop lamp (On the rear parcel shelf)
B33	Rear wiper motor
B41	Front seat LH (With heated seat)
B42	Front seat RH (With heated seat)



(LHD models)



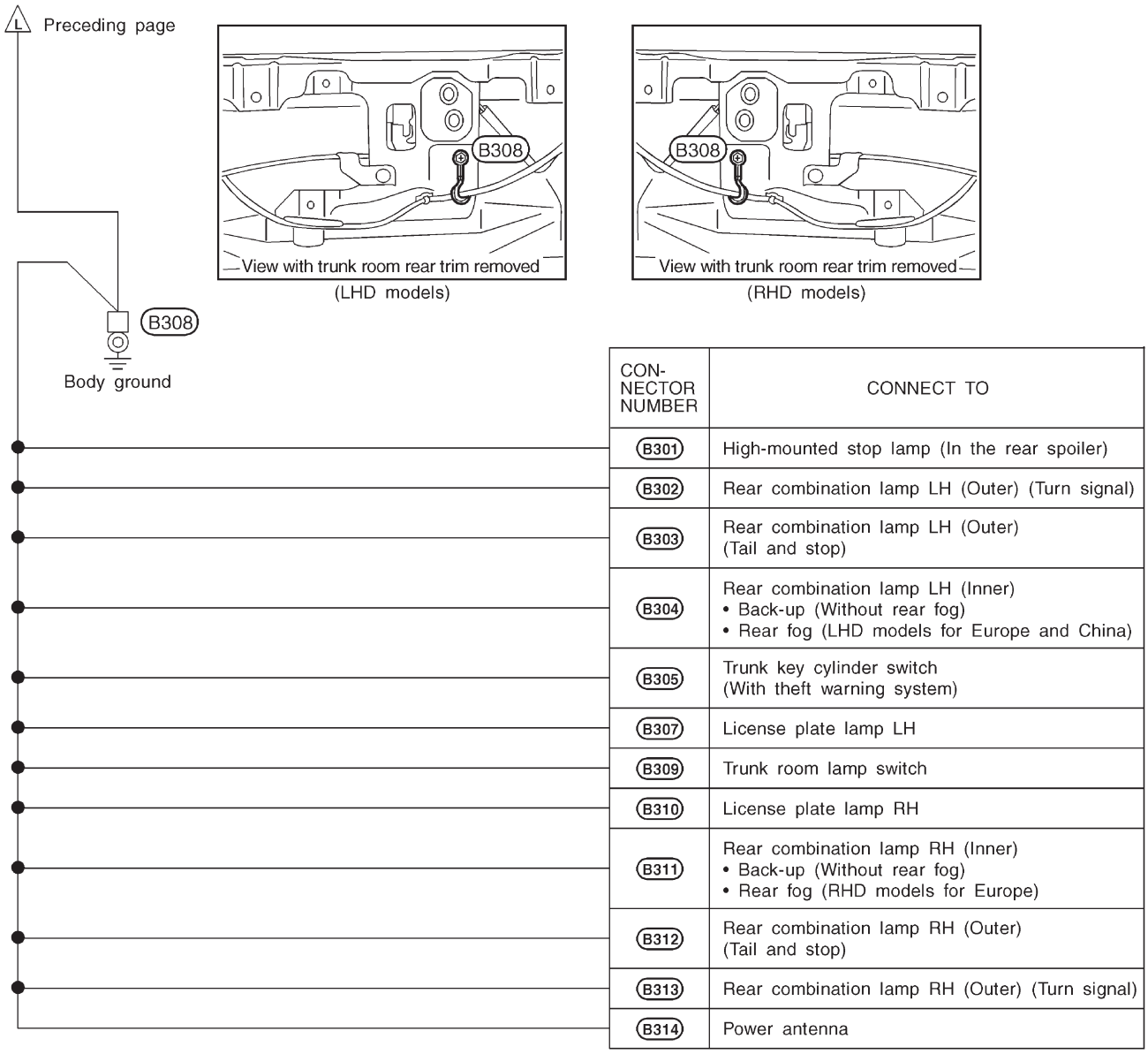
(RHD models)



B11	Shield wire [LH side air bag (satellite) sensor] (RHD models)
B22	Shield wire [RH side air bag (satellite) sensor] (LHD models)

Next page

HEL459B

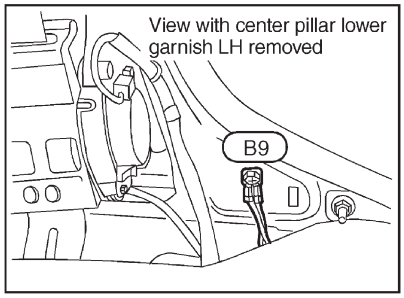


CON-NECTOR NUMBER	CONNECT TO
B301	High-mounted stop lamp (In the rear spoiler)
B302	Rear combination lamp LH (Outer) (Turn signal)
B303	Rear combination lamp LH (Outer) (Tail and stop)
B304	Rear combination lamp LH (Inner) • Back-up (Without rear fog) • Rear fog (LHD models for Europe and China)
B305	Trunk key cylinder switch (With theft warning system)
B307	License plate lamp LH
B309	Trunk room lamp switch
B310	License plate lamp RH
B311	Rear combination lamp RH (Inner) • Back-up (Without rear fog) • Rear fog (RHD models for Europe)
B312	Rear combination lamp RH (Outer) (Tail and stop)
B313	Rear combination lamp RH (Outer) (Turn signal)
B314	Power antenna

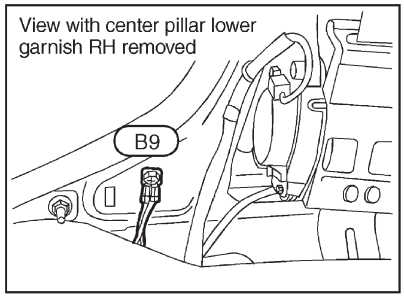
HEL114B

BODY HARNESS/HATCHBACK

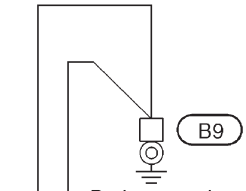
NJEL0008S10



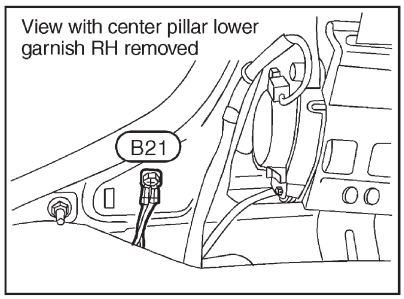
(LHD models)



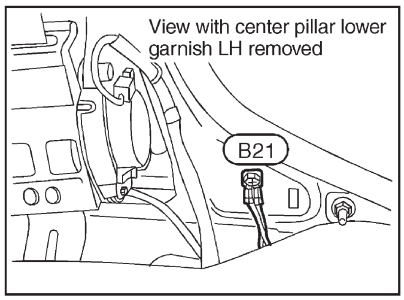
(RHD models)



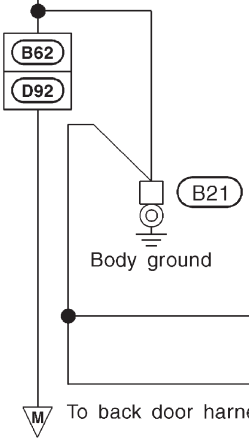
CON-NECTOR NUMBER	CONNECT TO
B11	Shield wire [LH side air bag (satellite) sensor] (LHD models)
B22	Shield wire [RH side air bag (satellite) sensor] (RHD models)
B8	Door switch driver side
B29	Fuel level sensor unit and fuel pump (Fuel pump) (QG engine) (Terminal No.3)
B41	Heated seat LH
B42	Heated seat RH
B63	Rear combination lamp LH • Back-up lamp • Rear fog lamp • Stop lamp • Tail lamp • Turn signal
B64	Rear combination lamp RH • Back-up lamp • Rear fog lamp • Stop lamp • Tail lamp • Turn signal



(LHD models)



(RHD models)



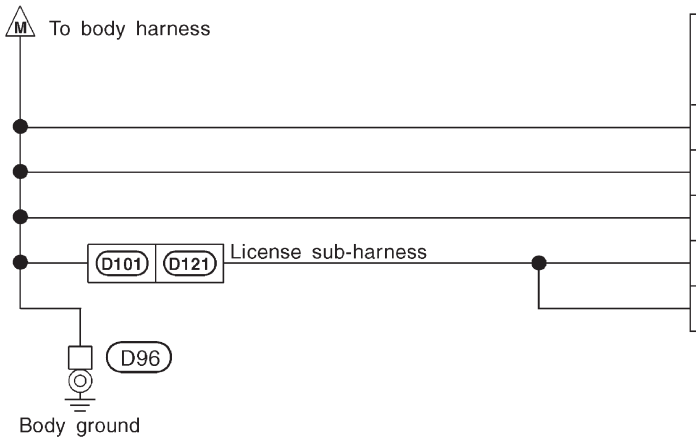
B11	Shield wire [LH side air bag (satellite) sensor] (RHD models)
B22	Shield wire [RH side air bag (satellite) sensor] (LHD models)

HEL166B

Ground Distribution (Cont'd)

BACK DOOR HARNESS

NJEL0008S11



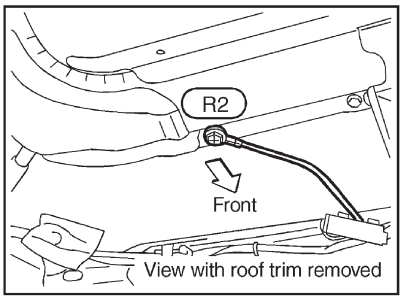
CON-NECTOR NUMBER	CONNECT TO
D93	High-mounted stop lamp
D99	Luggage room lamp switch
D100	Rear wiper motor
D122	License plate lamp LH
D123	License plate lamp RH

HEL167B

ROOM LAMP AND REAR WINDOW DEFOGGER HARNESS

NJEL0008S08

ROOM LAMP HARNESS

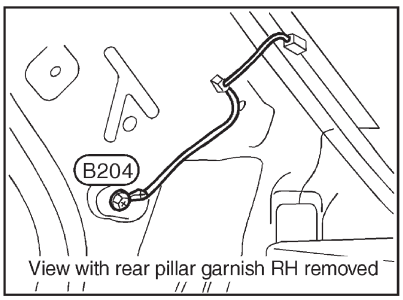


CON-NECTOR NUMBER	CONNECT TO
R5	Sunroof moter assembly

R2

Body ground

REAR WINDOW DEFOGGER HARNESS (SEDAN)

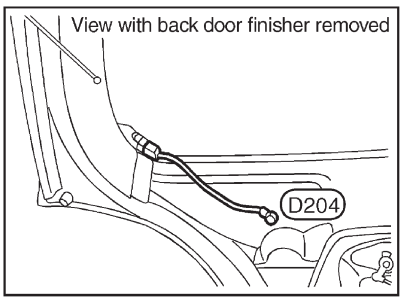


CON-NECTOR NUMBER	CONNECT TO
B203	Rear window defogger (—)

B204

Body ground

REAR WINDOW DEFOGGER HARNESS (HATCHBACK)



CON-NECTOR NUMBER	CONNECT TO
D203	Rear window defogger (—)

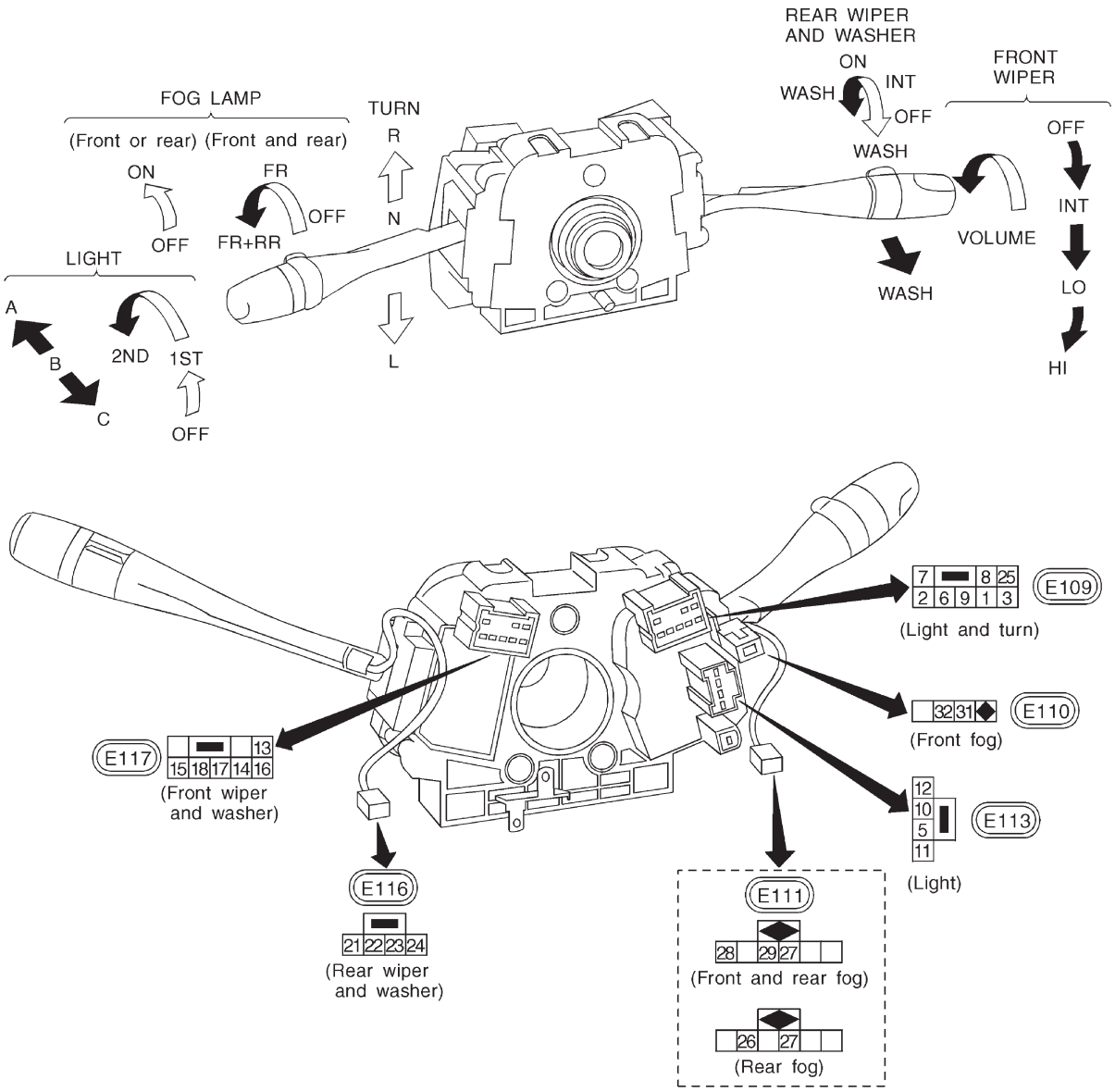
D204

Body ground

HEL165B

Check/Sedan

NJEL0009



TURN SIGNAL LAMP SWITCH

	L	N	R
1	○		○
2			○
3	○		

LIGHTING SWITCH

	OFF			1ST			2ND		
	A	B	C	A	B	C	A	B	C
5			○			○	○	○	○
6			○			○			
7									
8			○			○	○	○	○
9			○			○	○		
10								○	
11				○	○	○	○	○	○
12				○	○	○	○	○	○
25								○	○

FRONT WIPER AND WASHER SWITCH

	OFF	INT	LO	HI	WASH
13					○
14	○	○	○		
		○			
15					○
16				○	
17		○	○	○	○
18					○

WIPER AMPLIFIRE (In combination switch)

VARIABLE INTERMITTENT WIPER VOLUME

REAR WIPER AND WASHER SWITCH

	WASH	OFF	INT	ON	WASH
21			○		
22				○	○
23	○				○
24	○		○	○	○

FOG LAMP SWITCH (Front)

	OFF	ON
31		○
32		○

FOG LAMP SWITCH (Rear)

	OFF	ON
26		○
27		○

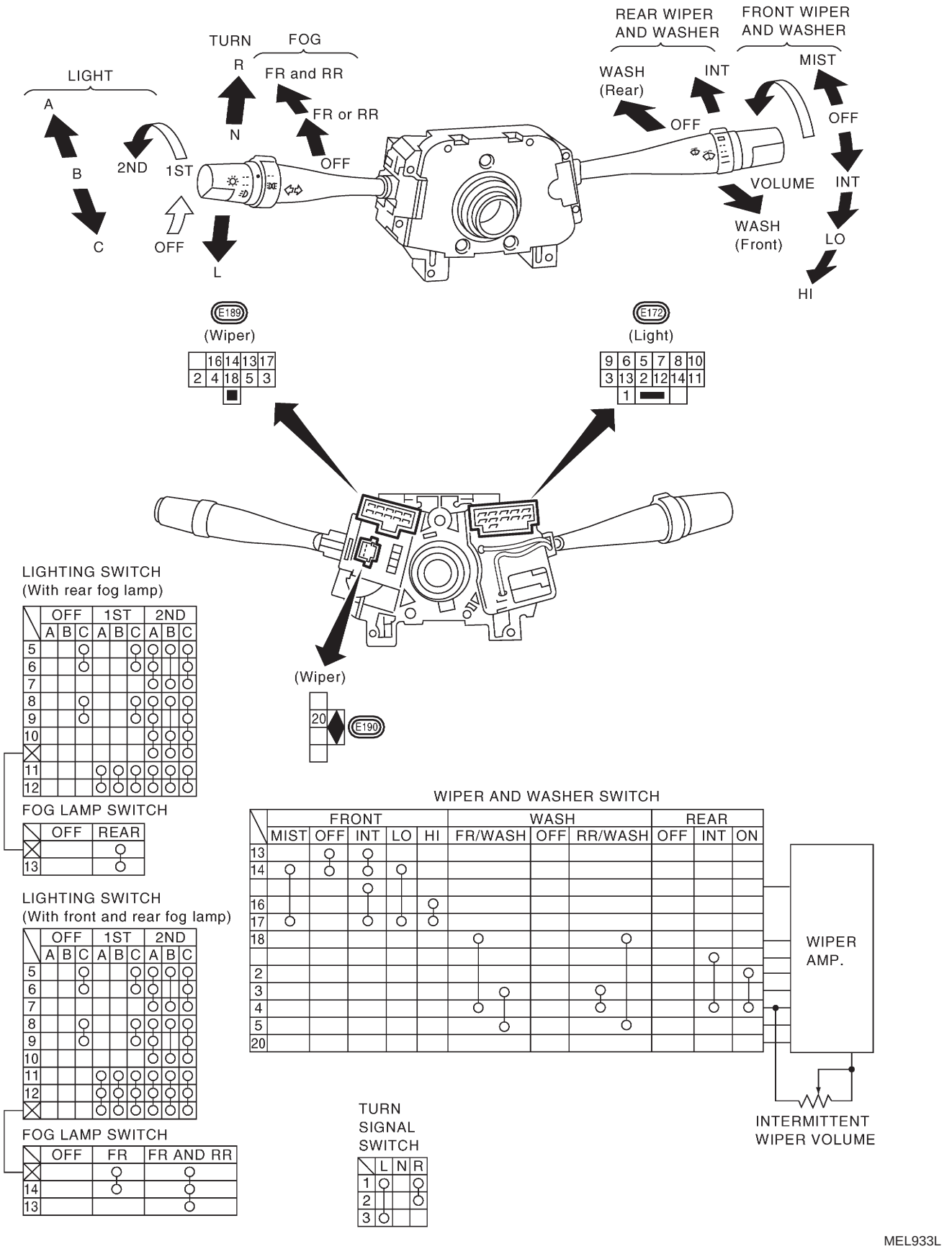
FOG LAMP SWITCH (Front and rear)

	OFF	FR	FR+RR
28		○	○
29		○	○
27			○

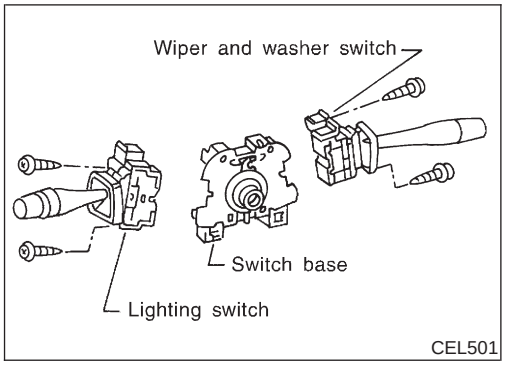
HEL851A

Check/Hatchback

NJEL0423



MEL933L

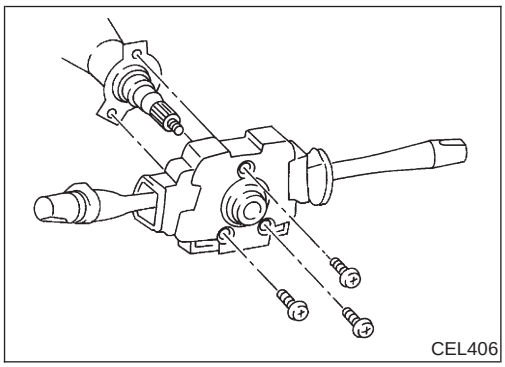


Replacement

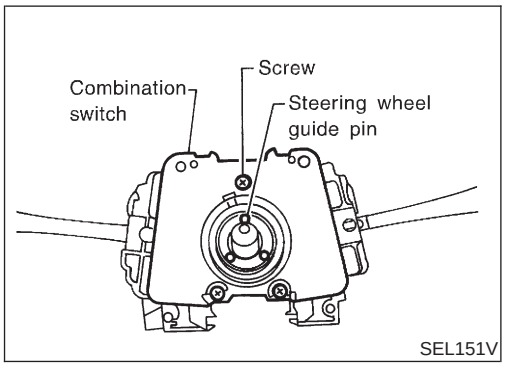
NJEL0010

For removal and installation of spiral cable, refer to RS-32, RS-29, " Installation — Air Bag Module and Spiral Cable".

- Each switch can be replaced without removing combination switch base.



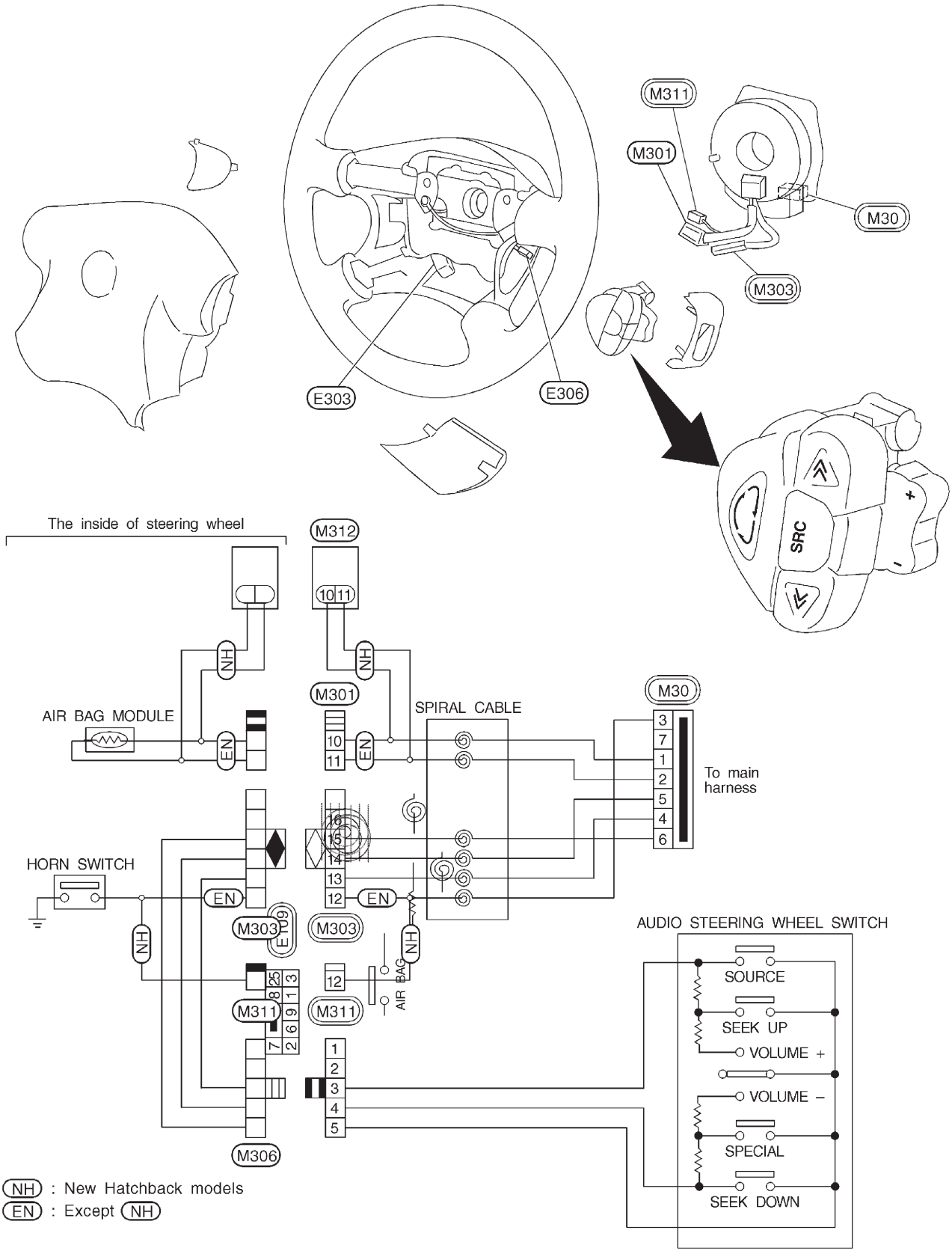
- To remove combination switch base, remove base attaching screw.



- Before installing the steering wheel, align the steering wheel guide pins with the screws which secure the combination switch as shown in the left figure.

Check

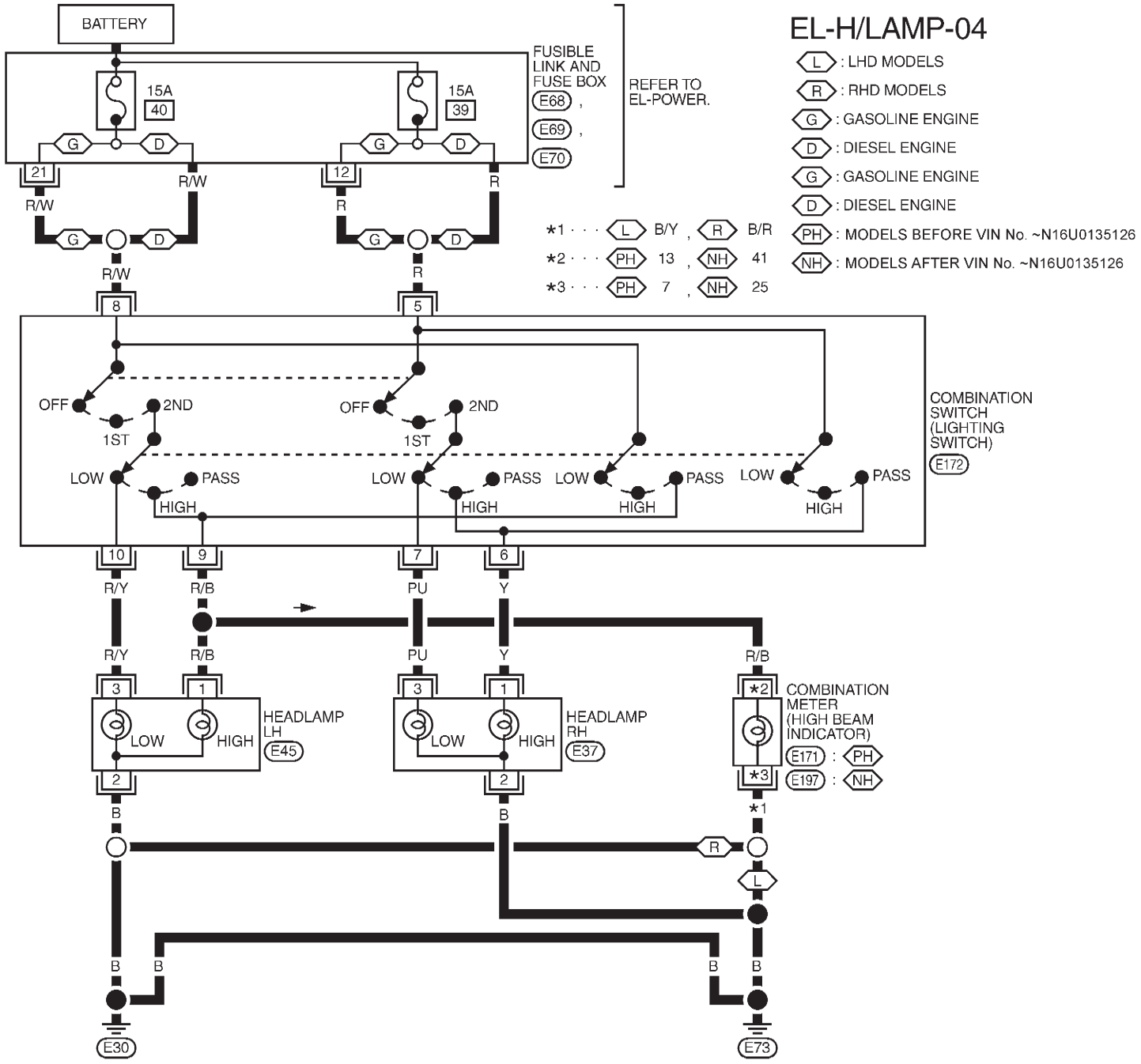
NJEL0350



NEL826

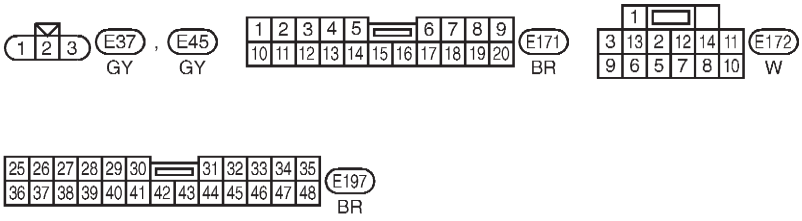
Wiring Diagram — H/LAMP —/Hatchback

NJEL0420



EL-H/LAMP-04

- L : LHD MODELS
- R : RHD MODELS
- G : GASOLINE ENGINE
- D : DIESEL ENGINE
- G : GASOLINE ENGINE
- D : DIESEL ENGINE
- PH : MODELS BEFORE VIN No. ~N16U0135126
- NH : MODELS AFTER VIN No. ~N16U0135126



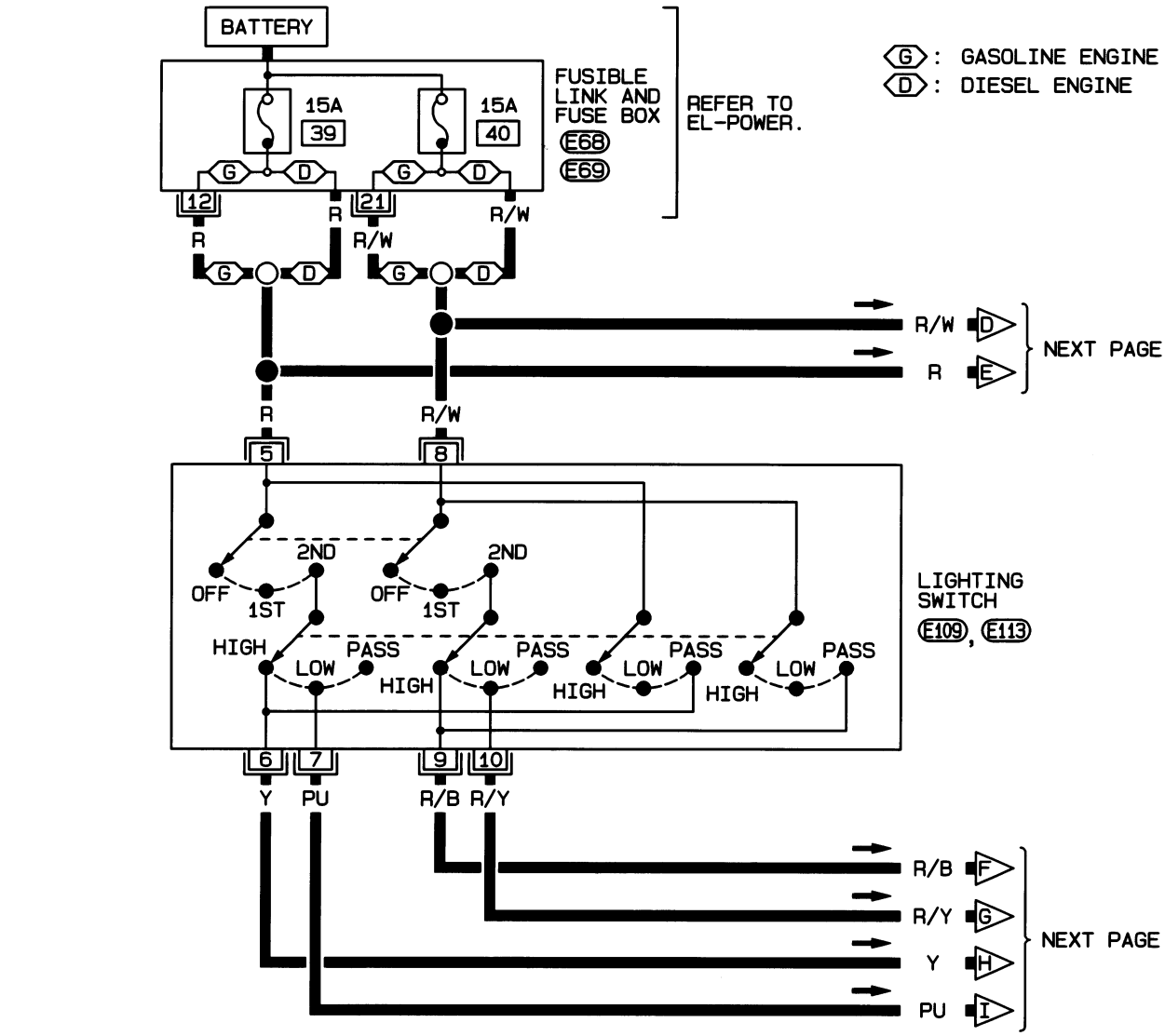
REFER TO THE FOLLOWING.
E68 , E69 , E70 -FUSE AND FUSIBLE LINK BOX

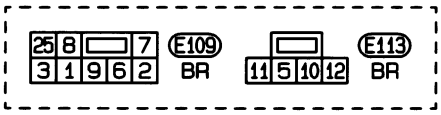
YEL338C

Wiring Diagram — H/LAMP —/Sedan

NJEL0508

EL-H/LAMP-05

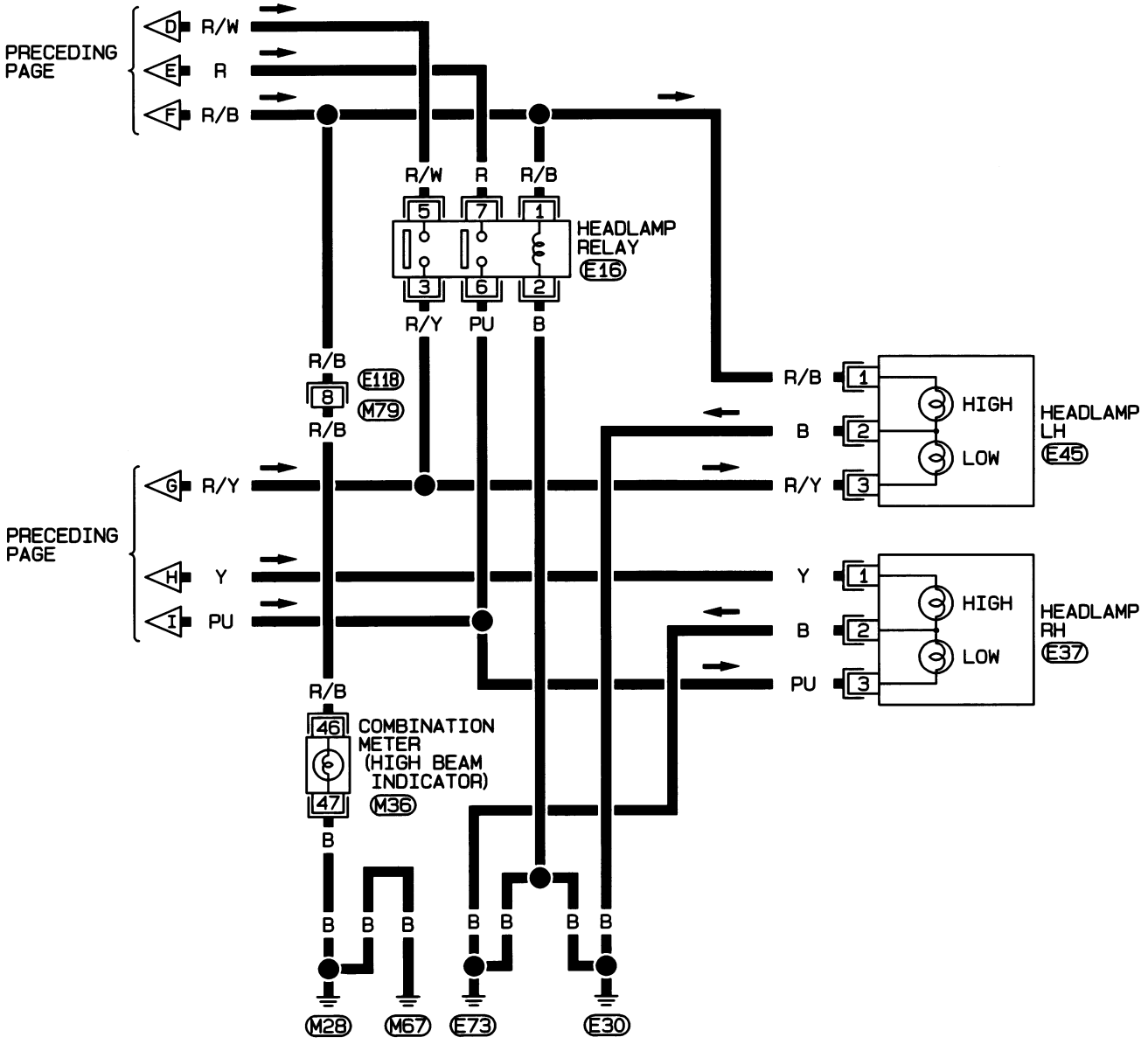


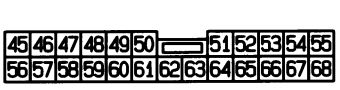


REFER TO THE FOLLOWING.
E68, E69 -FUSE AND FUSIBLE LINK BOX

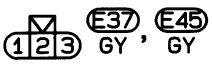
HEL363B

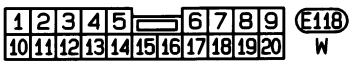
EL-H/LAMP-06









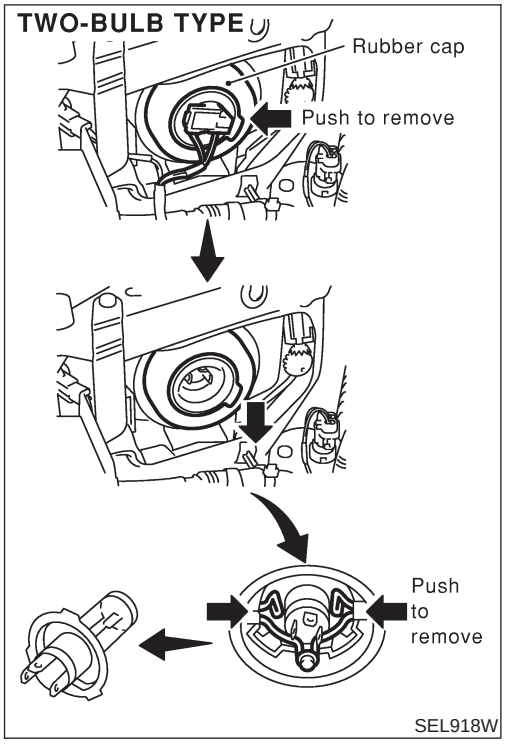


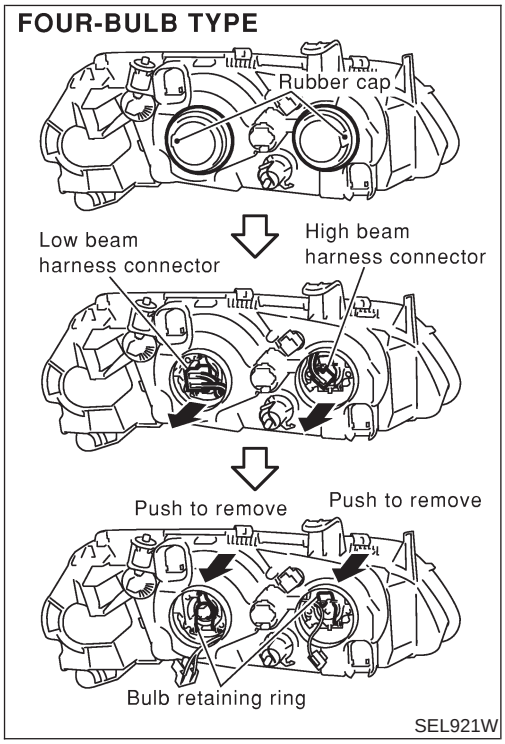
HEL364B

Trouble Diagnoses

NJEL0202

Symptom	Possible cause	Repair order
Neither headlamp operates.	1. Lighting switch	1. Check Lighting switch.
LH headlamp (low and high beam) does not operate, but RH headlamp (low and high beam) does operate.	1. 15A fuse 2. Headlamp LH ground circuit 3. Lighting switch	1. Check 15A fuse (No. 40, located in fusible link and fuse box). Verify battery positive voltage is present at lighting switch terminal 8 (Hatchback), or headlamp relay terminal 5 (Sedan). 2. Check headlamp LH ground circuit. 3. Check lighting switch.
RH headlamp (low and high beam) does not operate, but LH headlamp (low and high beam) does operate.	1. 15A fuse 2. Headlamp RH ground circuit 3. Lighting switch	1. Check 15A fuse (No. 39, located in fusible link and fuse box). Verify battery positive voltage is present at lighting switch terminal 5 (Hatchback), or headlamp relay terminal 7 (Sedan). 2. Check headlamp RH ground circuit. 3. Check lighting switch.
LH high beam does not operate, but LH low beam does operate.	1. Bulb 2. Open in LH high beam circuit 3. Lighting switch	1. Check bulb. 2. Check the harness between lighting switch and LH high beam for an open circuit. 3. Check lighting switch.
LH low beam does not operate, but LH high beam does operate.	1. Bulb 2. Open in LH low beam circuit 3. Lighting switch	1. Check bulb. 2. Check the harness between lighting switch and LH low beam for an open circuit. 3. Check lighting switch.
RH high beam does not operate, but RH low beam does operate.	1. Bulb 2. Open in RH high beam circuit 3. Lighting switch	1. Check bulb. 2. Check the harness between lighting switch and RH high beam for an open circuit. 3. Check lighting switch.
RH low beam does not operate, but RH high beam does operate.	1. Bulb 2. Open in RH low beam circuit 3. Lighting switch	1. Check bulb. 2. Check the harness between lighting switch and RH low beam for an open circuit. 3. Check lighting switch.
High beam indicator does not work.	1. Bulb 2. Ground circuit 3. Open in high beam circuit	1. Check bulb in combination meter. 2. Check harness between high beam indicator and ground. 3. Check the harness between lighting switch and combination meter for an open circuit.





Bulb Replacement

NJEL0015

The headlamp is a semi-sealed beam type which uses a replaceable halogen bulb. The bulb can be replaced from the engine compartment side without removing the headlamp body.

- **Grasp only the plastic base when handling the bulb. Never touch the glass envelope.**

1. Disconnect the battery cable.
2. Disconnect the harness connector from the back side of the bulb (two-bulb type).
   Pull off the rubber cap (four-bulb type).
3. Pull off the rubber cap (two-bulb type).
   Disconnect the harness connector from the back side of the bulb (four-bulb type).
4. Remove the bulb retaining ring.
5. Remove the headlamp bulb carefully. Do not shake or rotate the bulb when removing it.
6. Install in the reverse order of removal.

CAUTION:

Do not leave headlamp reflector without bulb for a long period of time. Dust, moisture, smoke, etc. entering headlamp body may affect the performance of the headlamp. Remove headlamp bulb from the headlamp reflector just before a replacement bulb is installed.

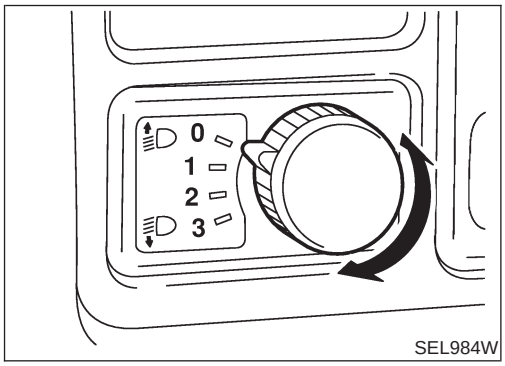
Aiming Adjustment

NJEL0016

For details, refer to the regulations in your own country.

Before performing aiming adjustment, check the following.

1) Keep all tires inflated to correct pressures.
2) Place vehicle on flat surface.
3) See that there is no-load in vehicle (coolant, engine oil filled up to correct level and full fuel tank) other than the driver (or equivalent weight placed in driver's position).

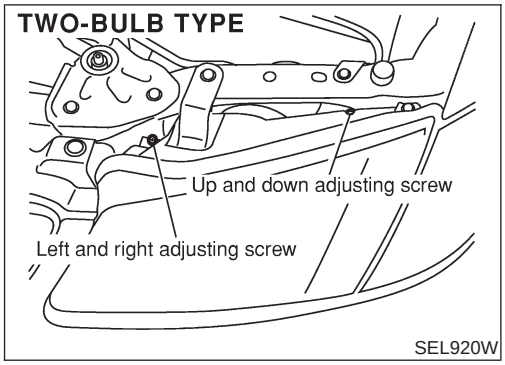


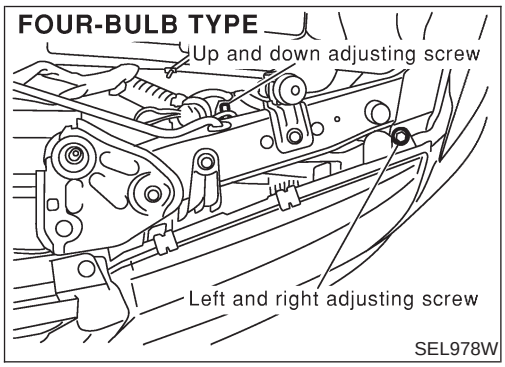
SEL984W

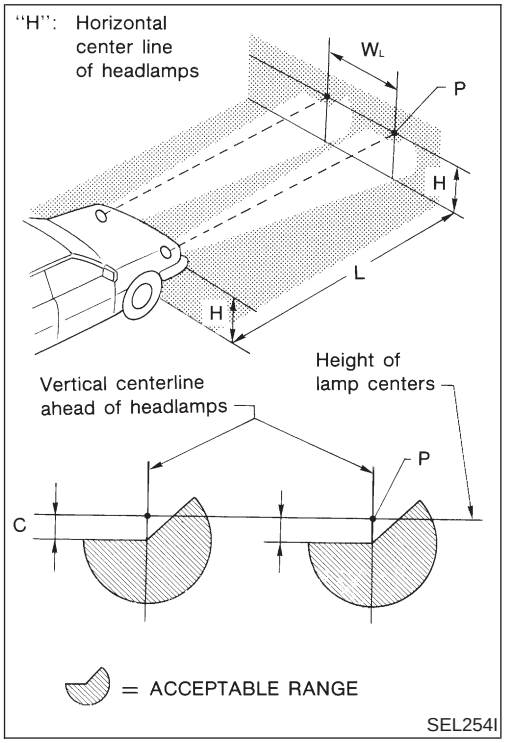
CAUTION:

Be sure aiming switch is set to "0" when performing aiming adjustment on vehicles equipped with headlamp aiming control.

Aiming Adjustment (Cont'd)







LOW BEAM

=NJEL0016S02

1. Turn headlamp low beam on.
2. Use adjusting screws to perform aiming adjustment.

- **First tighten the adjusting screw all the way and then make adjustment by loosening the screw.**
- **Adjust headlamps so that main axis of light is parallel to center line of body and is aligned with point P shown in illustration.**
- **Figure to the left shows headlamp aiming pattern for driving on right side of road; for driving on left side of road, aiming pattern is reversed.**
- **Dotted lines to point P in illustration show center of headlamp.**

"H": Horizontal center line of headlamps
"W_L": Distance between each headlamp center
"L": 5,000 mm (196.85 in)
"C": 65 mm (2.56 in)

System Description

NJEL0351

The headlamp system on vehicles for North Europe contains a daytime light unit. The unit activates the following whenever the engine is running with the lighting switch in the OFF position:

- Low beam headlamps
- Parking, license, tail and illumination lamps

Power is supplied at all times

- through 10A fuse (No. 38, located in the fusible link and fuse box)
- to daytime light unit terminal 1 and
- to lighting switch terminal 11.

Power is also supplied at all times

- through 15A fuse (No. 39, located in the fusible link and fuse box)
- to daytime light unit terminal 3 and
- to lighting switch terminal 5.

Power is also supplied at all times

- through 15A fuse (No. 40, located in the fusible link and fuse box)
- to daytime light unit terminal 2 and
- to lighting switch terminal 8.

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

- through 10A fuse [No. 20, located in the fuse block (J/B)]
- to daytime light unit terminal 7.

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

- through 10A fuse [No. 21, located in the fuse block (J/B)]
- to daytime light unit terminal 6.

Ground is supplied to daytime light unit terminal 9 through body grounds E30 and E73.

HEADLAMP OPERATION (DAYTIME LIGHT CANCEL OPERATION)

NJEL0351S01

When the lighting switch is turned to the 1st or 2nd position, power is supplied

- through lighting switch terminal 12,
- to daytime light unit terminal 11.

Then daytime light will be canceled. And the lighting system operation will be the same as no daytime light system.

DAYTIME LIGHT OPERATION

NJEL0351S02

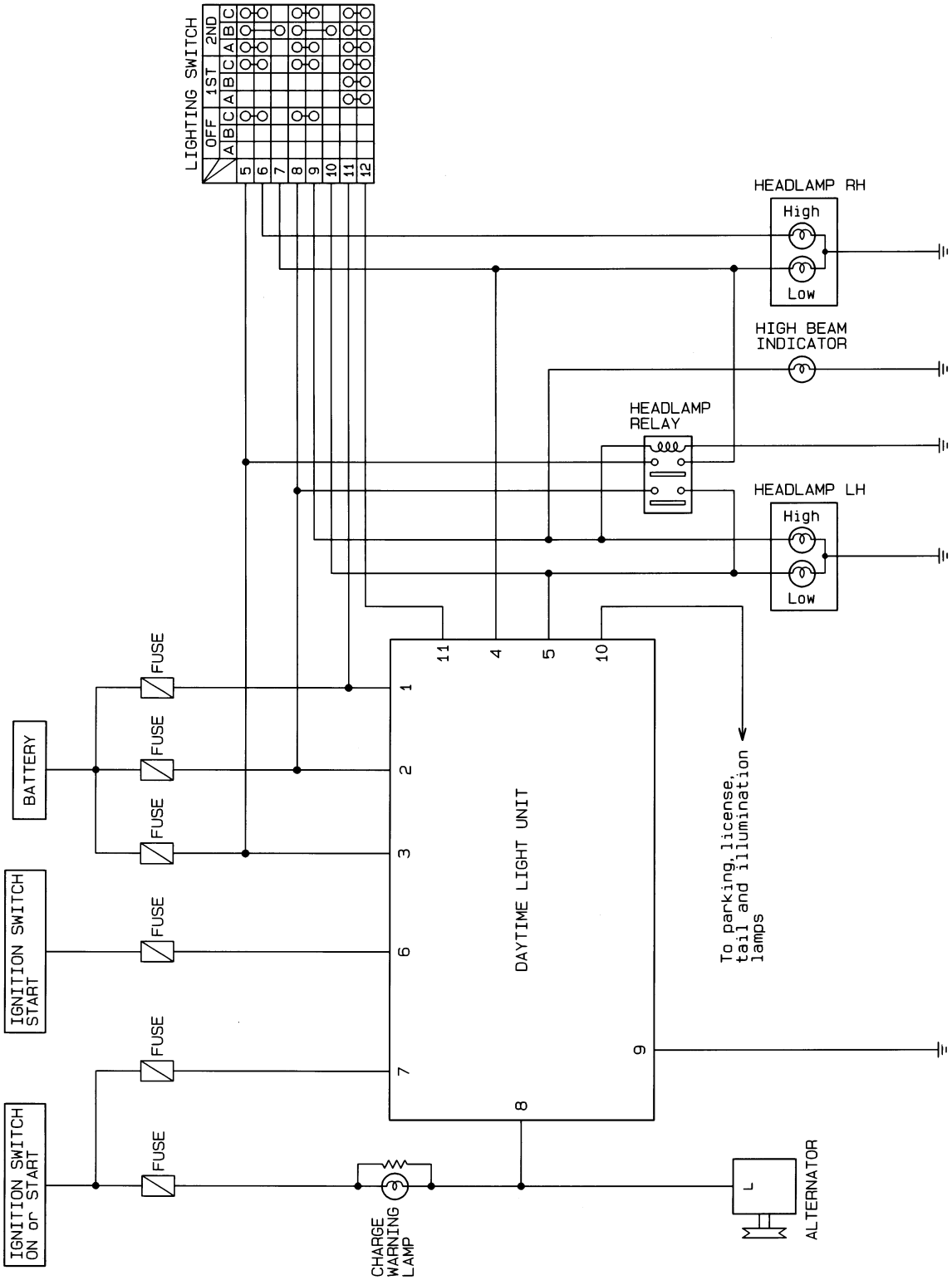
With the engine running and the lighting switch in the OFF position, power is supplied

- from alternator terminal 3
- to daytime light unit terminal 8,
- through daytime light unit terminal 5
- to terminal 3 of headlamp LH,
- through daytime light unit terminal 4
- to terminal 3 of headlamp RH and
- through daytime light unit terminal 10
- to tail lamp and illumination.

Ground is supplied to terminal 2 of each headlamp through body grounds E30 and E73.

Schematic/Sedan

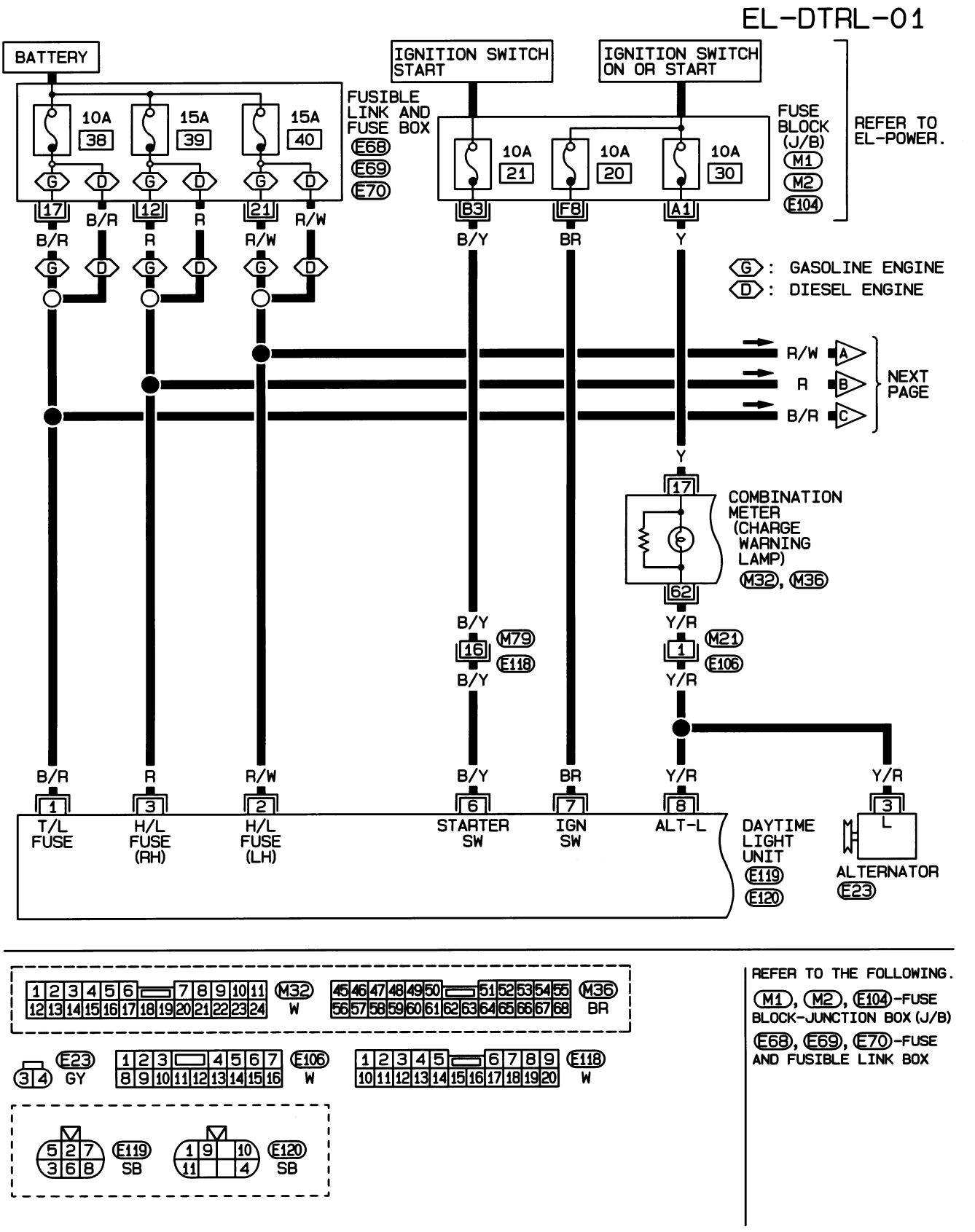
NJEL0352



HEL365B

Wiring Diagram — DTRL —/Sedan

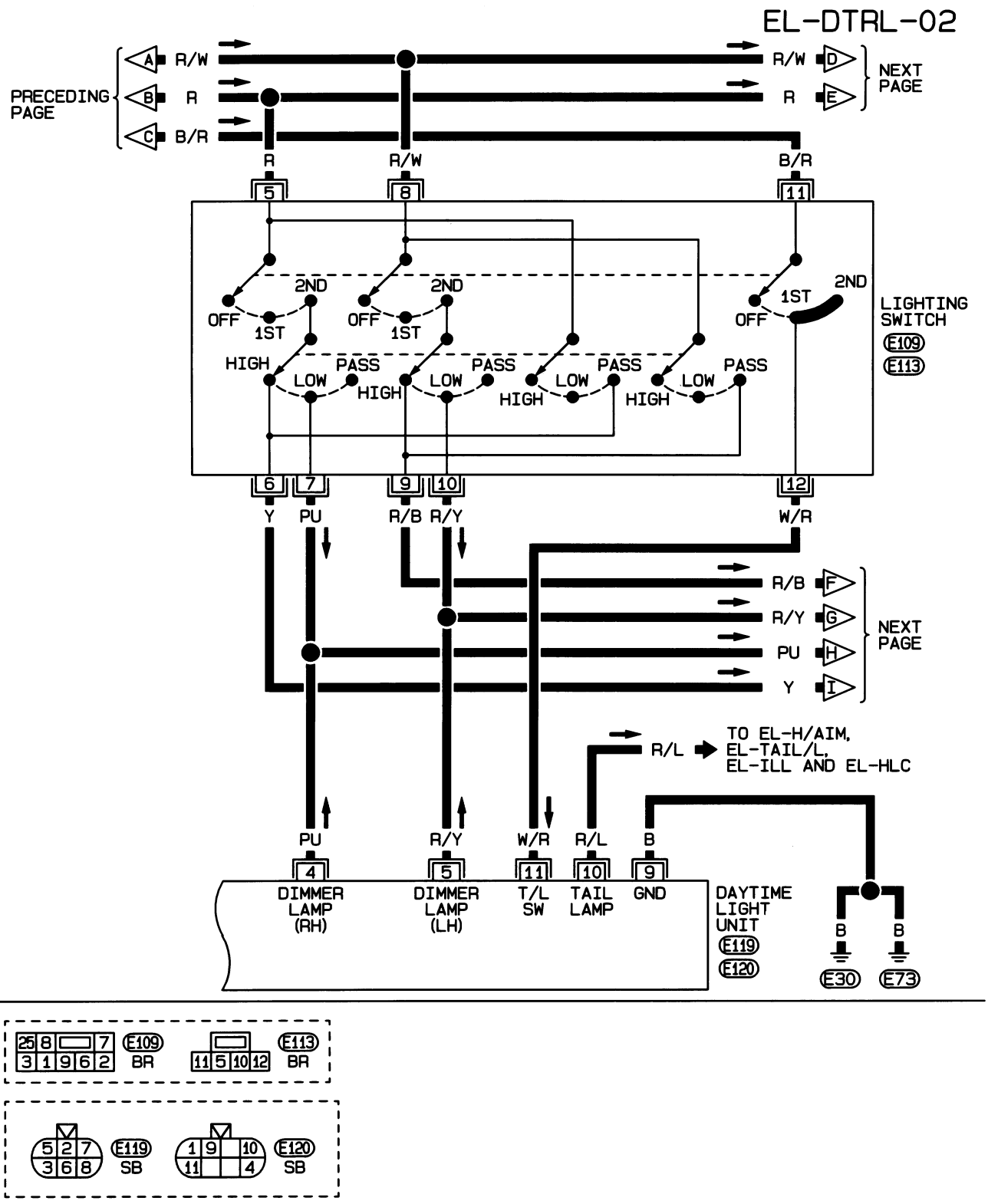
NJEL0353



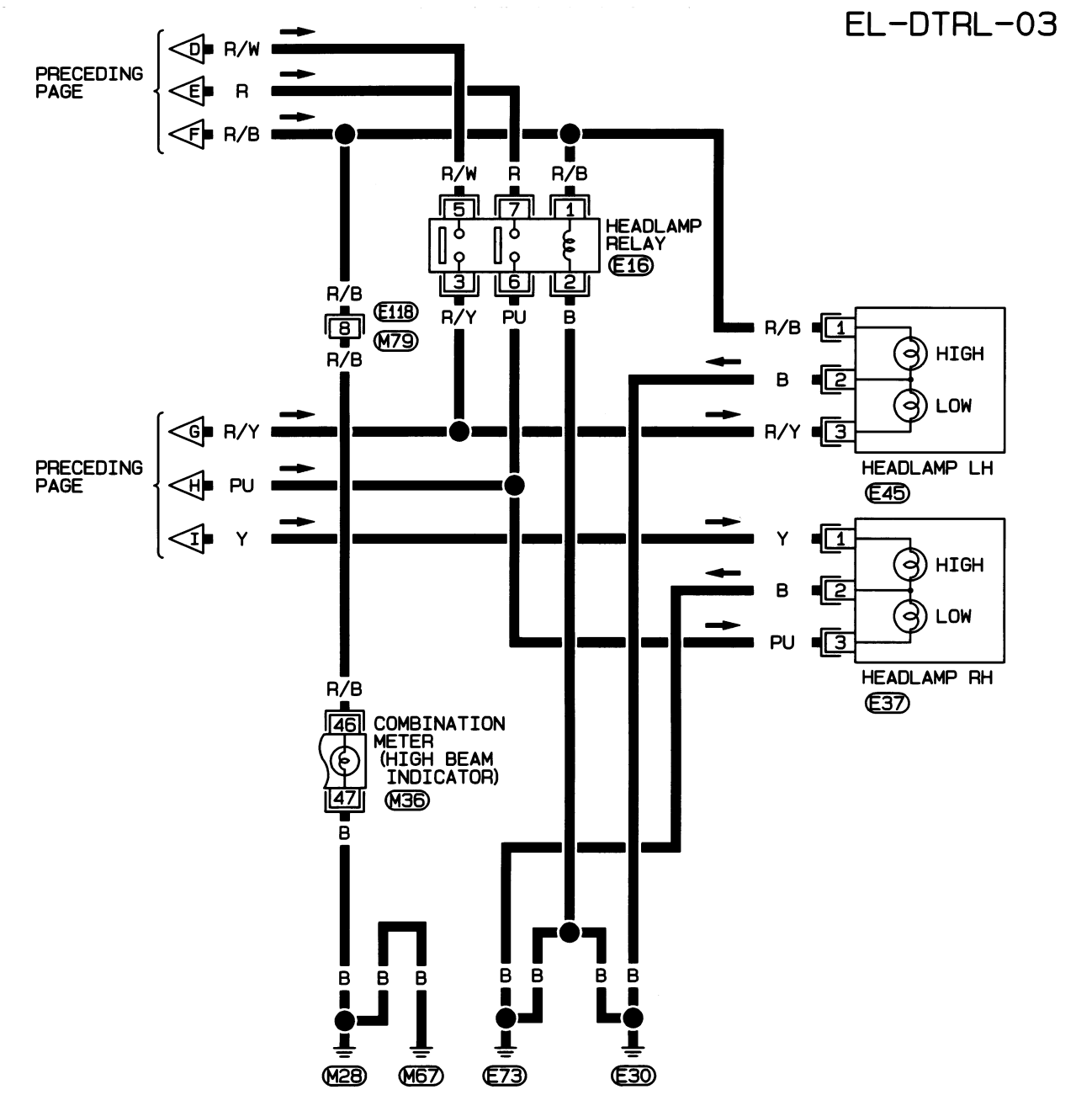
REFER TO THE FOLLOWING.
M1, M2, E104-FUSE BLOCK-JUNCTION BOX (J/B)
E68, E69, E70-FUSE AND FUSIBLE LINK BOX

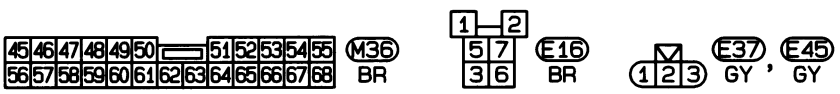
HEL366B

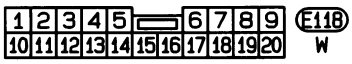
Wiring Diagram — DTRL —/Sedan (Cont'd)



HEL367B


EL-DTRL-03
PRECEDING PAGE
D R/W
E R
F R/B
R/W R R/B
5 7 1
HEADLAMP RELAY
E16
3 6 2
R/B
E118
8
M79
R/B
R/Y PU B
R/B 1
B 2
R/Y 3
HIGH
LOW
HEADLAMP LH
E45
PRECEDING PAGE
G R/Y
H PU
I Y
Y 1
B 2
PU 3
HIGH
LOW
HEADLAMP RH
E37
R/B
46
COMBINATION METER
(HIGH BEAM INDICATOR)
47
M36
B
B B B B B B B
M28 M67 E73 E30

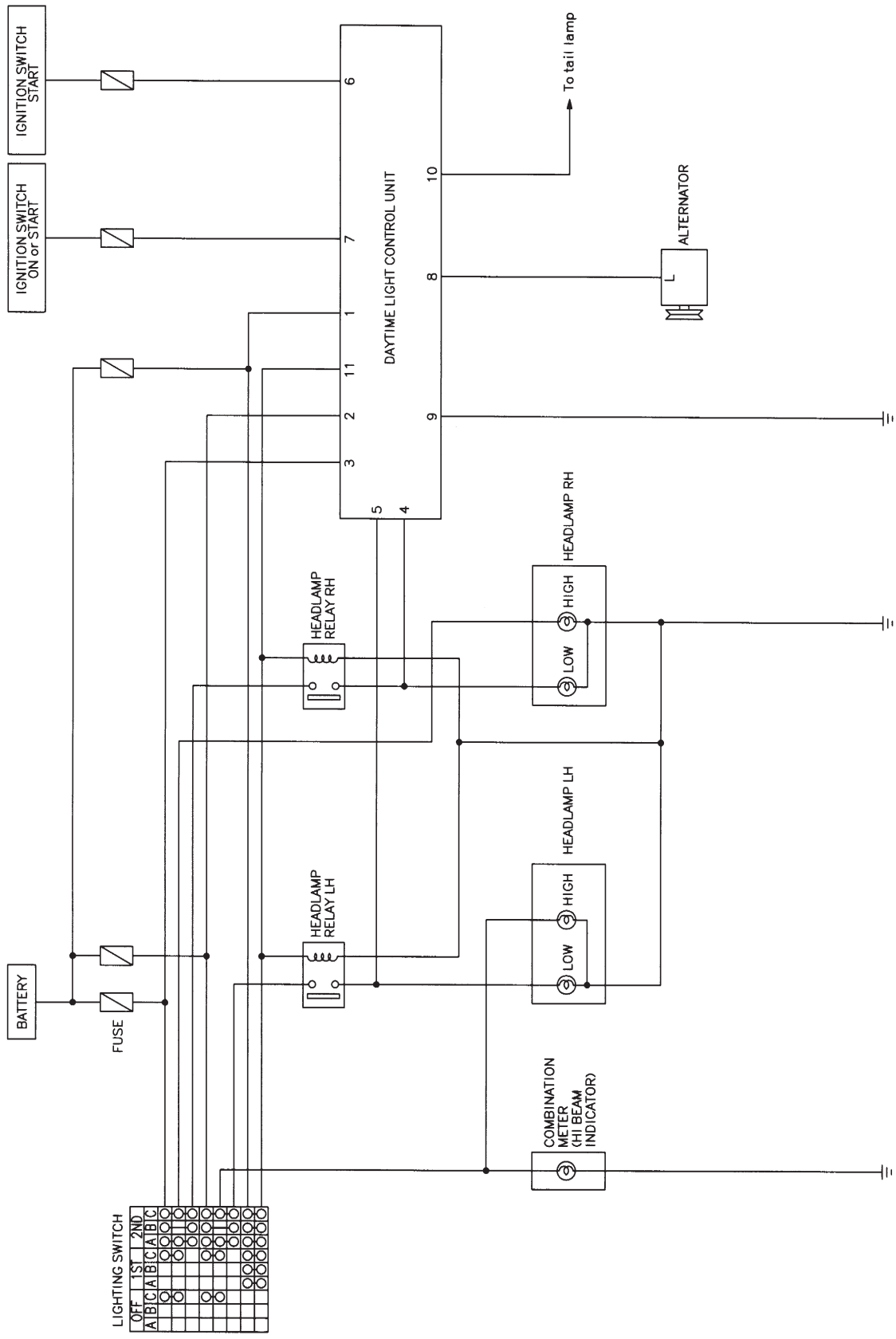

45 46 47 48 49 50 51 52 53 54 55
56 57 58 59 60 61 62 63 64 65 66 67 68
M36
BR
1 2
5 7
3 6
E16
BR
1 2 3
E37 GY, E45 GY


1 2 3 4 5 6 7 8 9
10 11 12 13 14 15 16 17 18 19 20
E118
W

HEL368B

Schematic/Hatchback

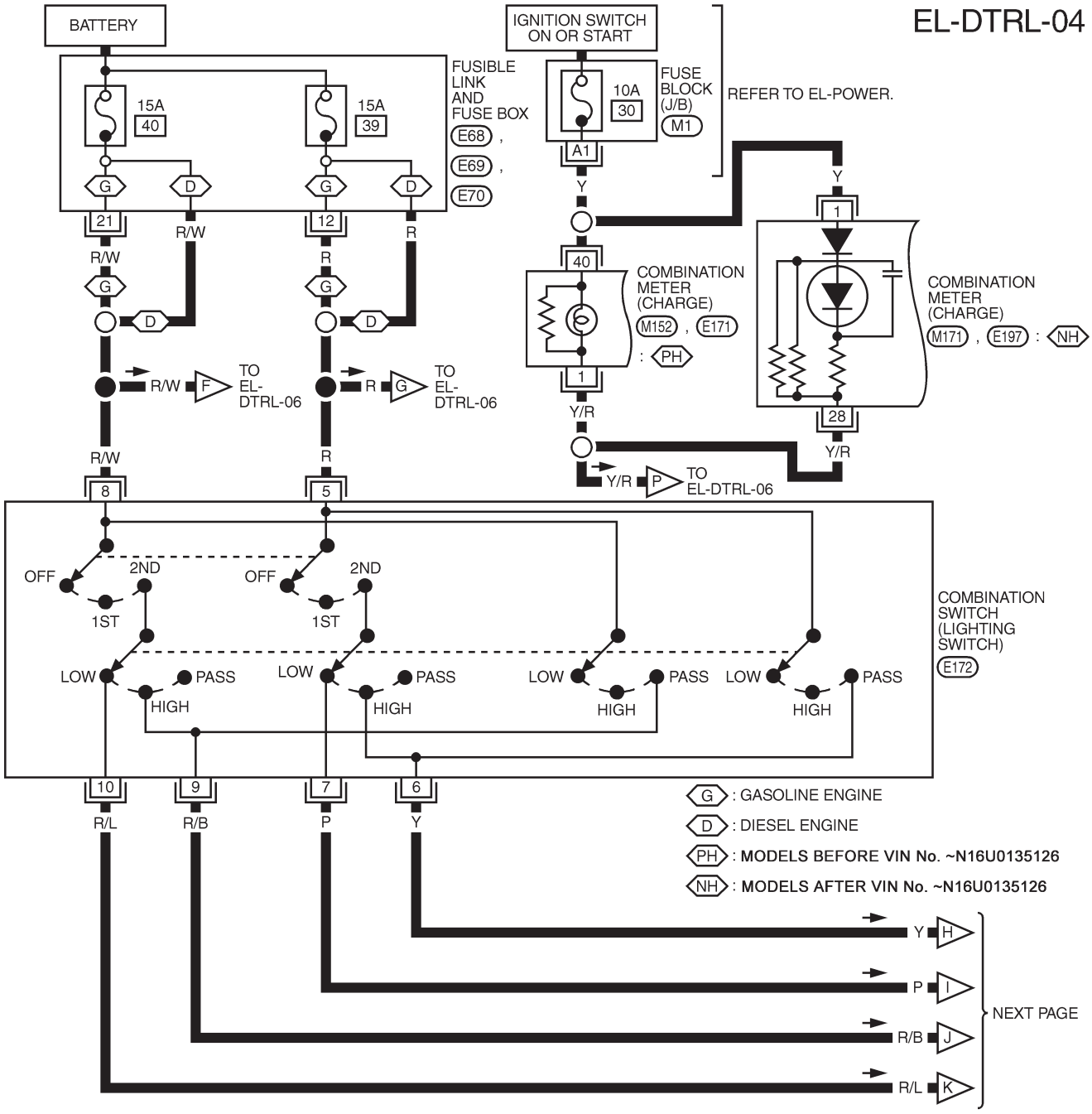
NJEL0421

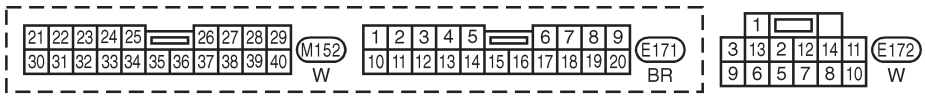


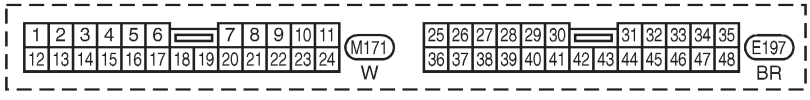
MEL729L

Wiring Diagram — DTRL —/Hatchback

NJEL0422





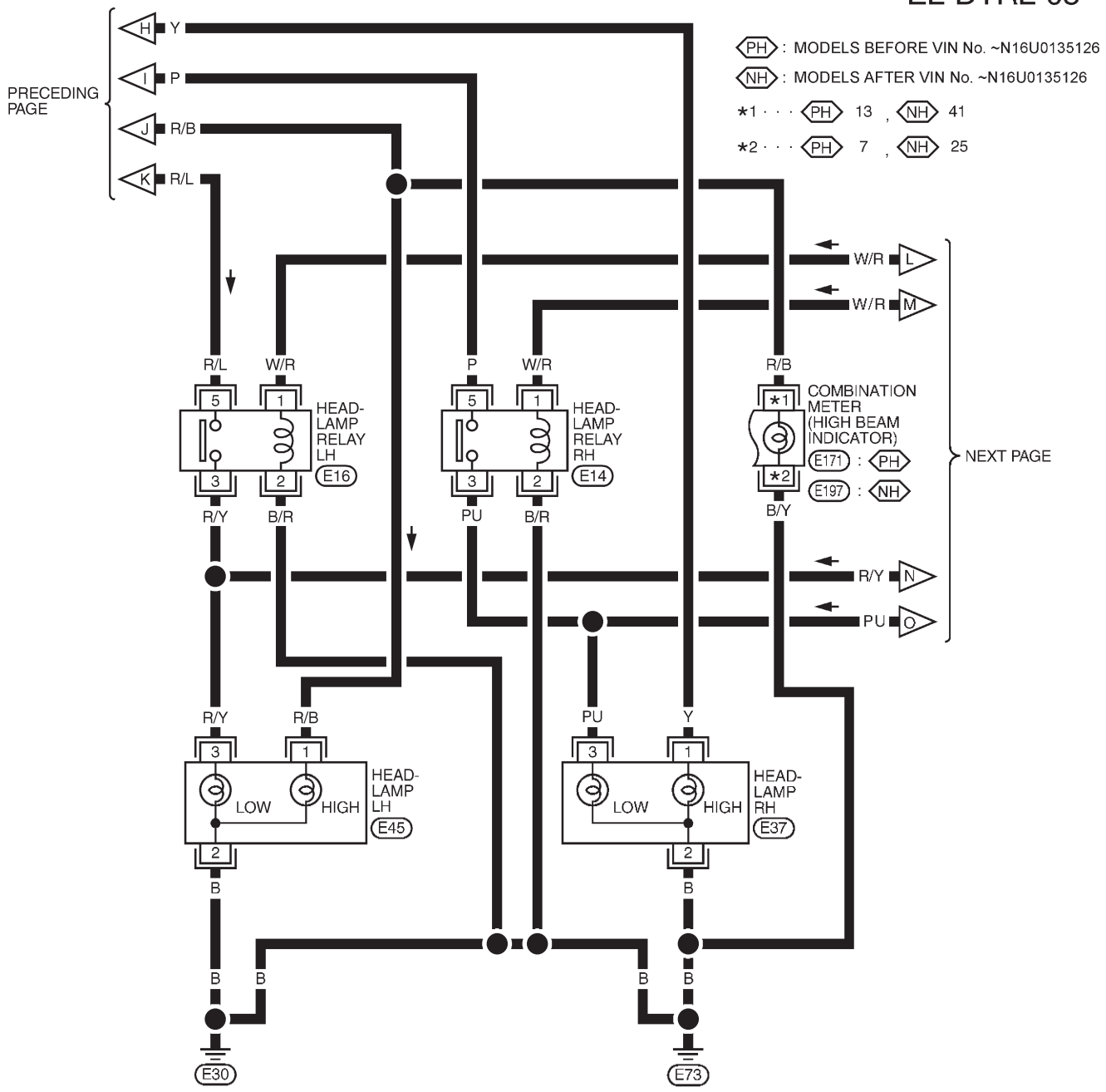


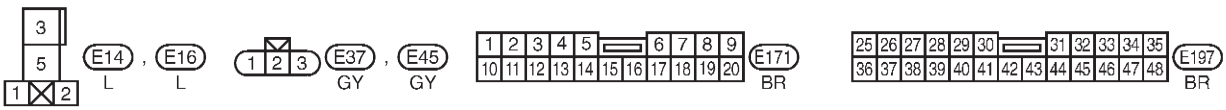
REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 , E69 , E70 -FUSE AND FUSIBLE LINK BOX

YEL340C

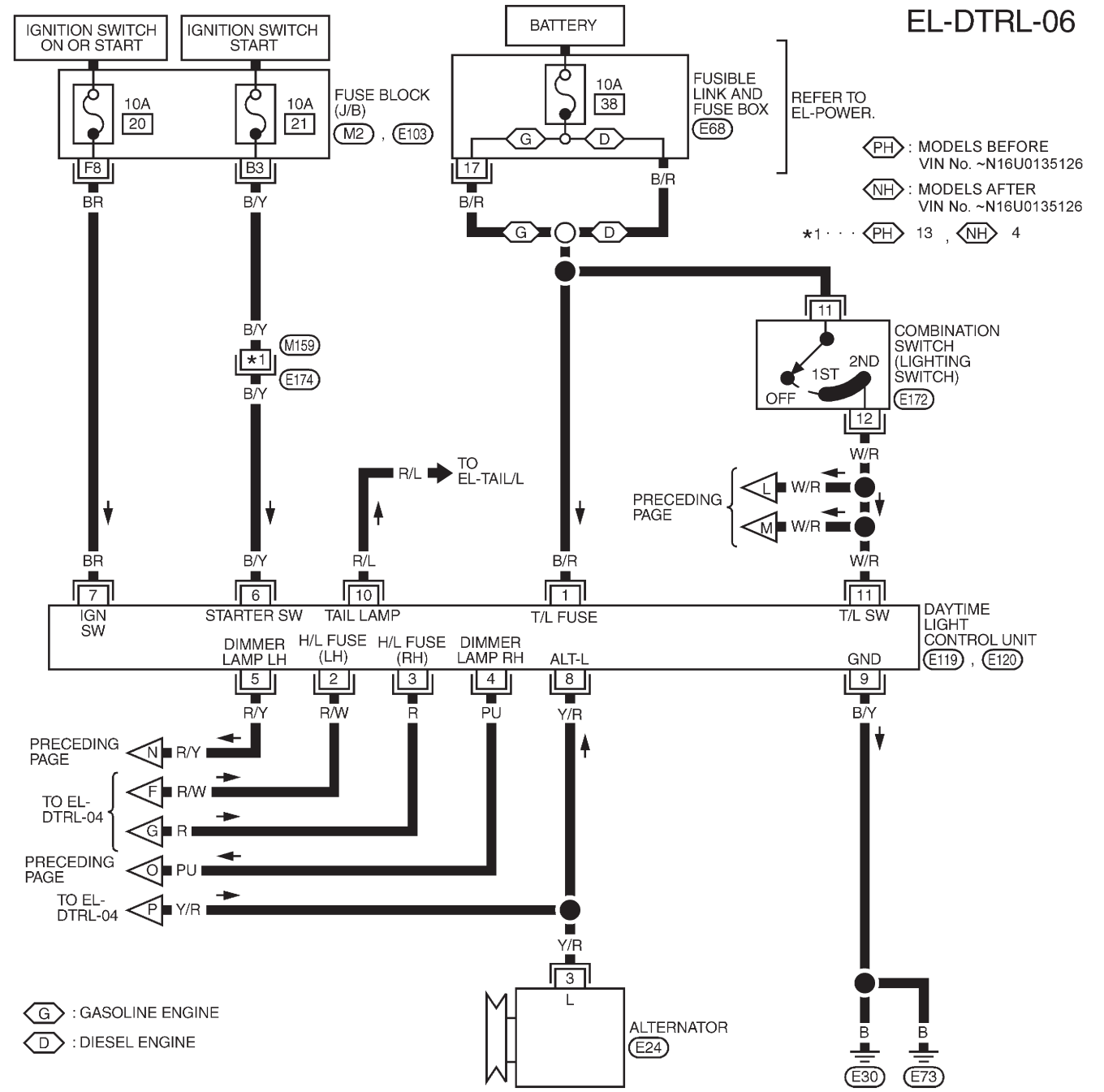
Wiring Diagram — DTRL —/Hatchback (Cont'd)

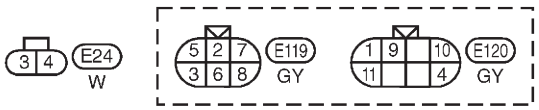
EL-DTRL-05

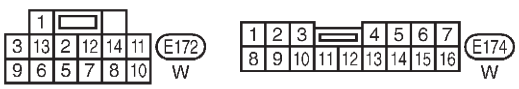




YEL341C







REFER TO THE FOLLOWING.
M2 , E103 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 -FUSE AND FUSIBLE LINK BOX

YEL342C

Trouble Diagnoses

NJEL0354

DAYTIME LIGHT UNIT INSPECTION TABLE

NJEL0354S01

Terminal No.	Connections	INPUT (I)/ OUTPUT (O)	Operated condition		Voltage (V) (Approximate values)
1	Power source for illumination & tail lamp	—	—		12
2	Power source for headlamp LH	—	—		12
3	Power source for headlamp RH	—	—		12
4	Headlamp RH	O	ON (daytime light operating*)		12
			OFF		0
5	Headlamp LH	O	ON (daytime light operating*)		12
			OFF		0
6	Start signal	I	Ignition switch	START	12
				ON, ACC or OFF	0
7	Power source	—	Ignition switch	ON or START	12
				ACC or OFF	0
8	Alternator “L” terminal	I	Engine	Running	12
				Stopped	0
9	Ground	—	—		—
10	Illumination & tail lamp	O	ON (daytime light operating*)		12
			OFF		0
11	Lighting switch	I	1ST·2ND position		12
			OFF		0

*: Daytime light operating: Lighting switch in “OFF” position with engine running.

Bulb Replacement

NJEL0355

Refer to “HEADLAMP” (EL-64).

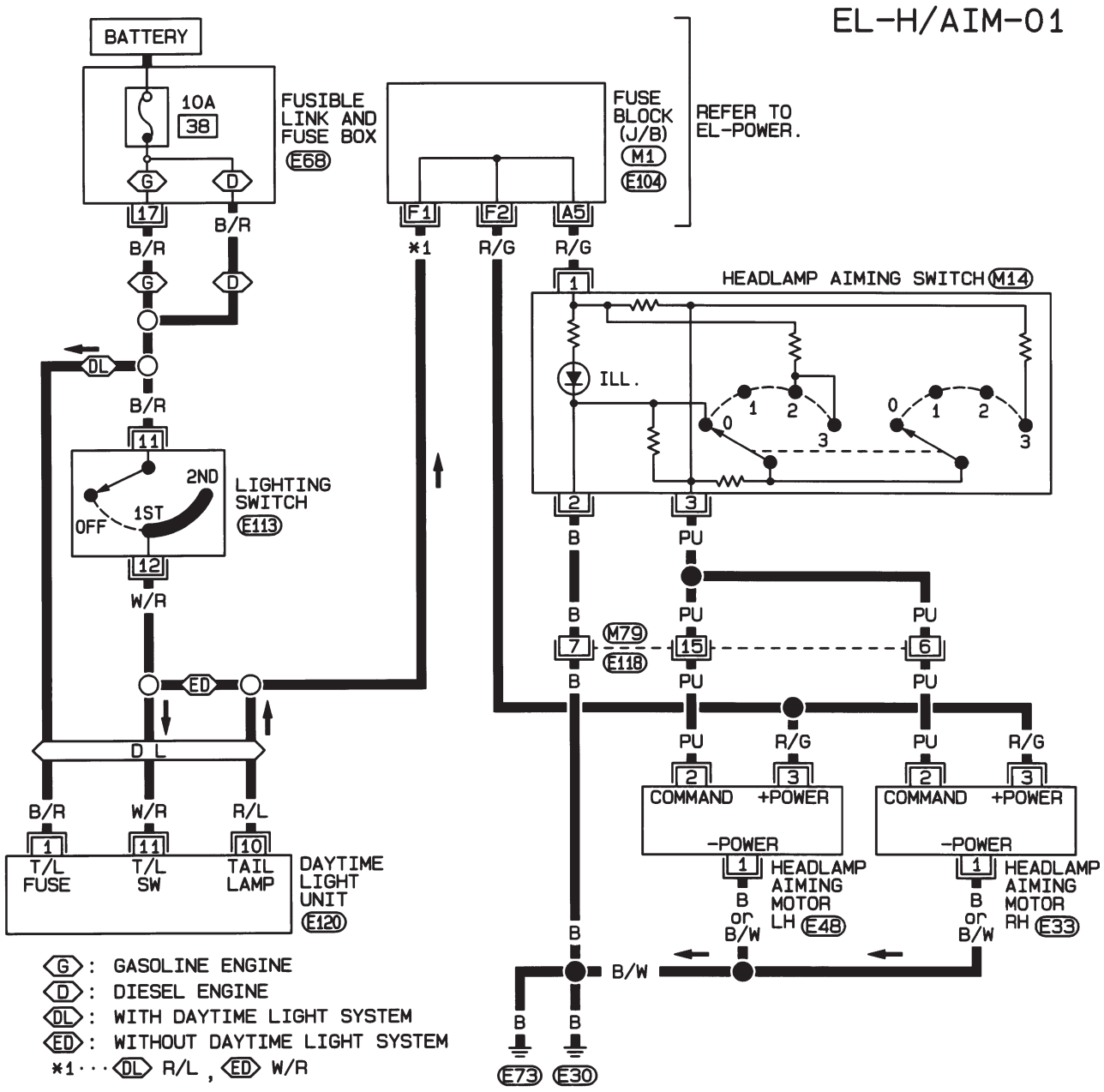
Aiming Adjustment

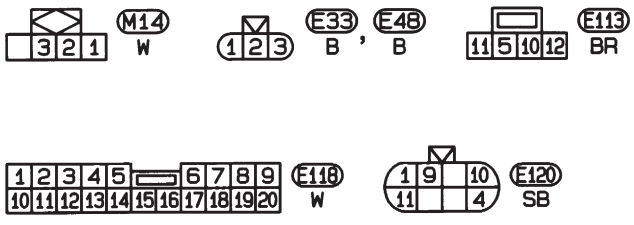
NJEL0356

Refer to “HEADLAMP” (EL-65).

Wiring Diagram — H/AIM —/Sedan

NJEL0357





REFER TO THE FOLLOWING.

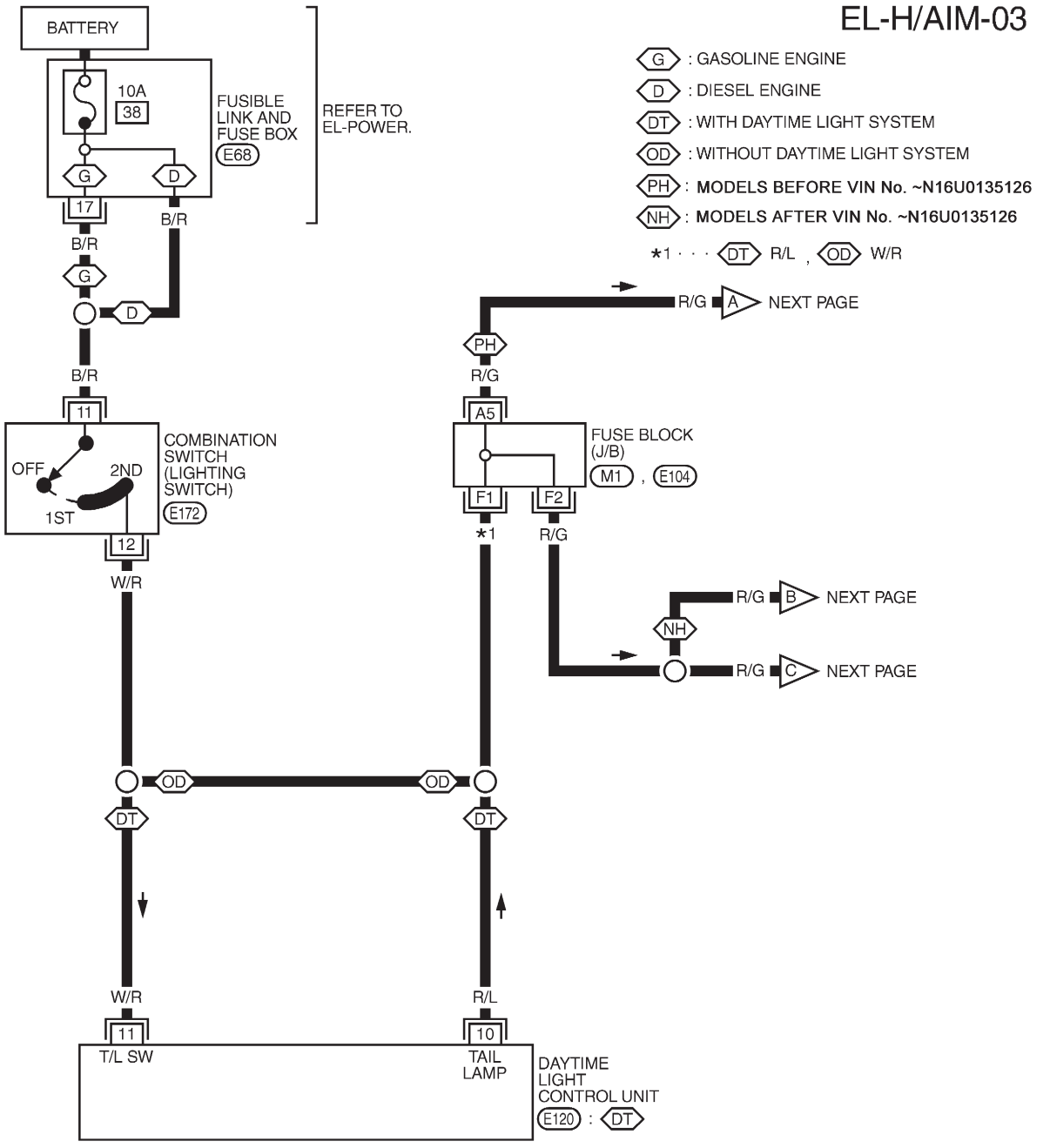
M1, E104 -FUSE BLOCK-JUNCTION BOX (J/B)

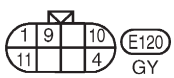
E68 -FUSE AND FUSIBLE LINK BOX

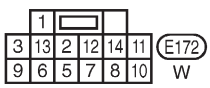
HEL665B

Wiring Diagram — H/AIM —/Hatchback

NJEL0424



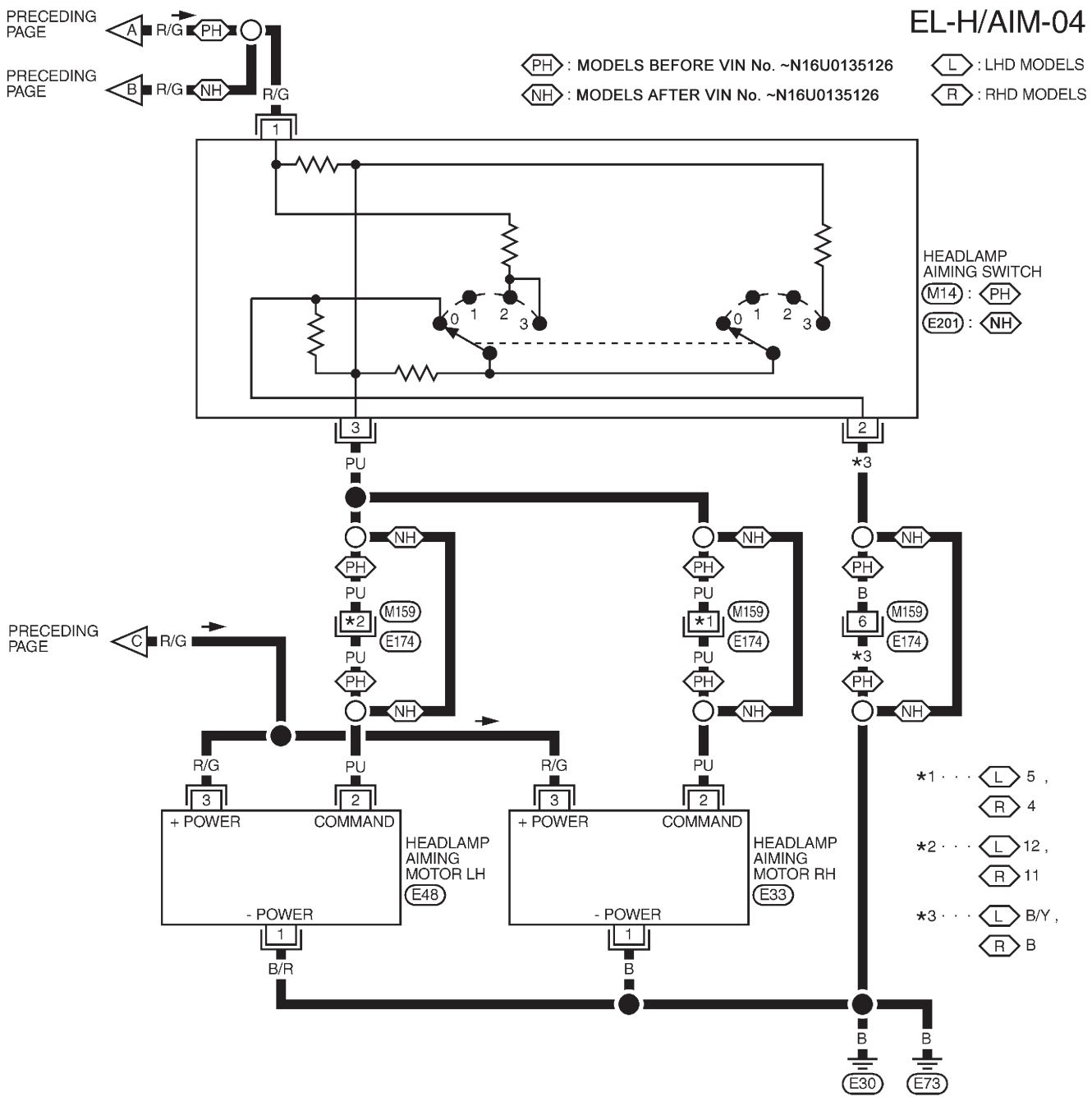


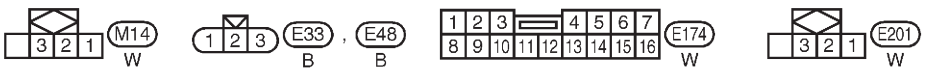


REFER TO THE FOLLOWING.
M1 , E104 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 -FUSE AND FUSIBLE LINK BOX

YEL343C

Wiring Diagram — H/AIM —/Hatchback (Cont'd)



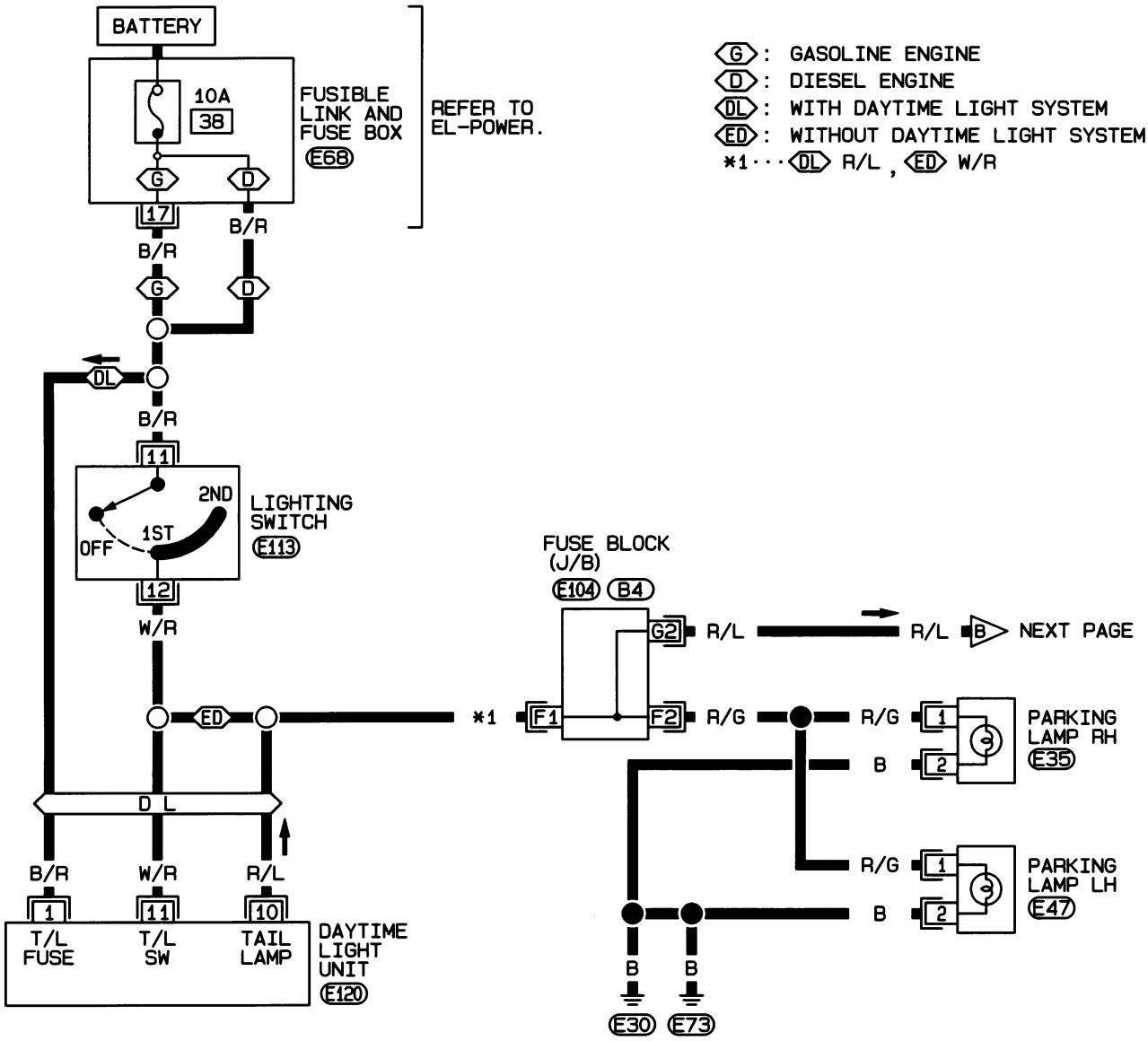


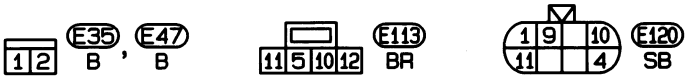
YEL344C

Wiring Diagram — TAIL/L —/Sedan

NJEL0359

EL-TAIL/L-03

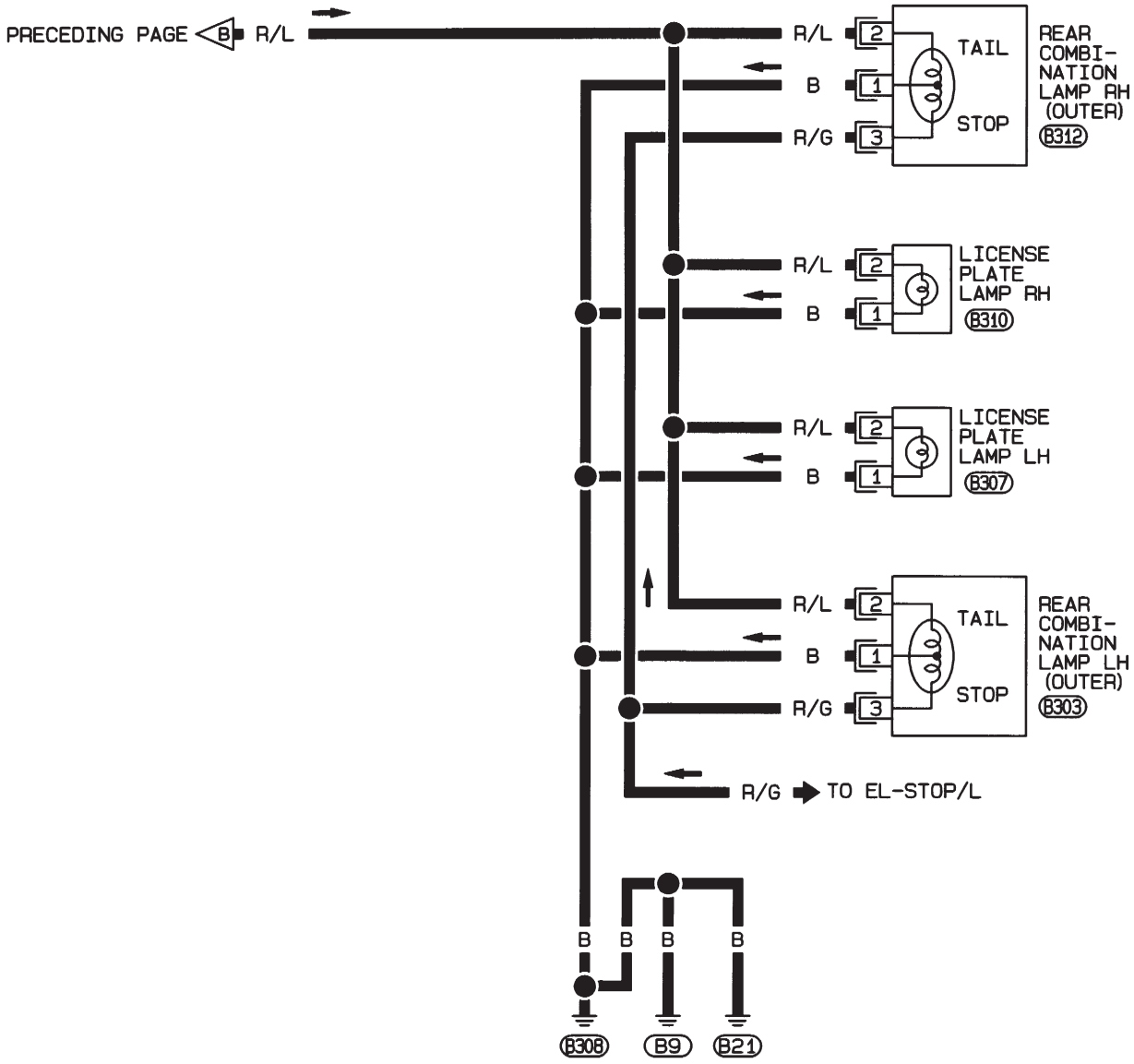




REFER TO THE FOLLOWING.
E104, B4 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 -FUSE AND FUSIBLE LINK BOX

HEL370B

EL-TAIL/L-04

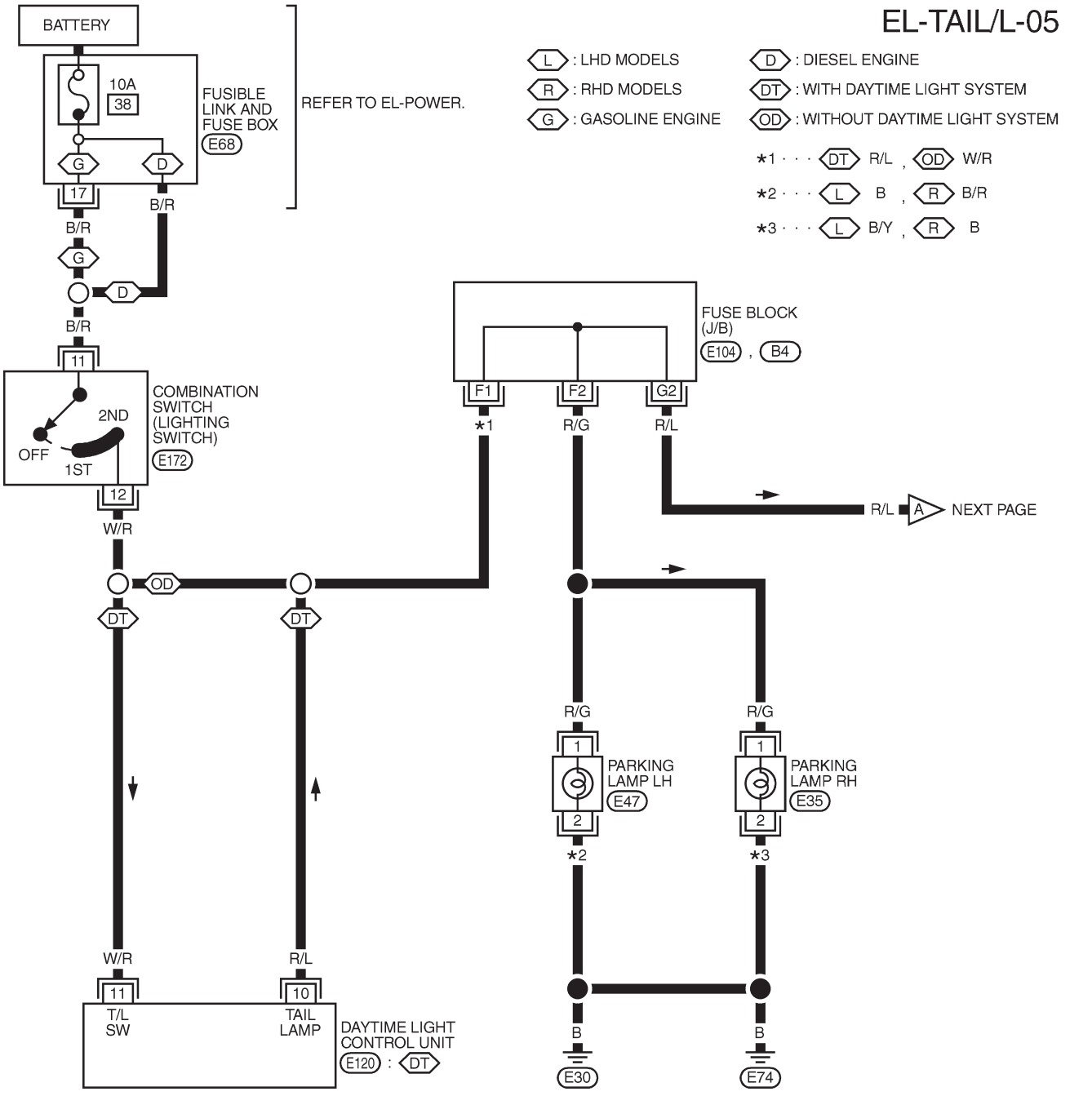




HEL027B

Wiring Diagram — TAIL/L —/Hatchback

NJEL0425

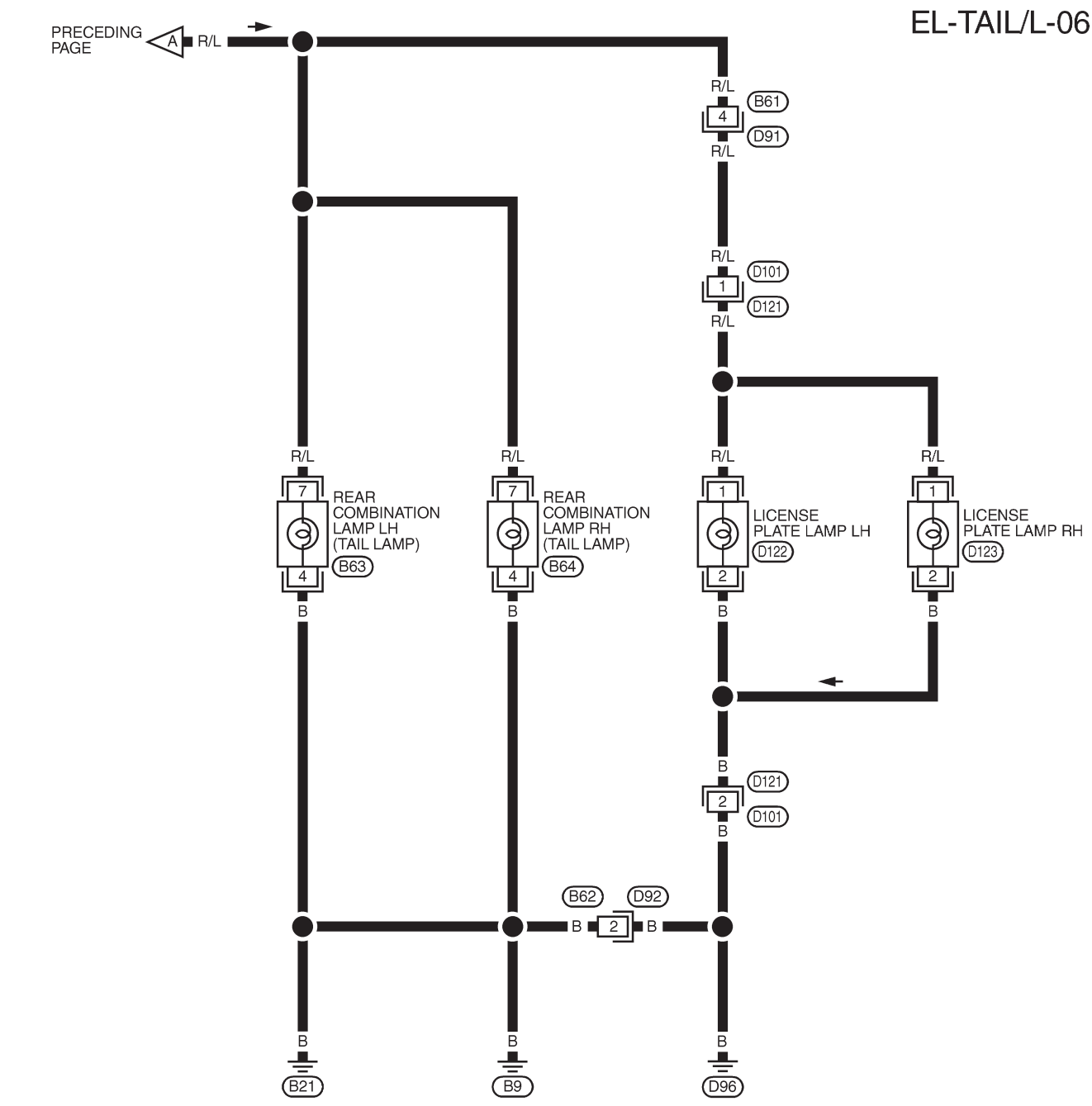


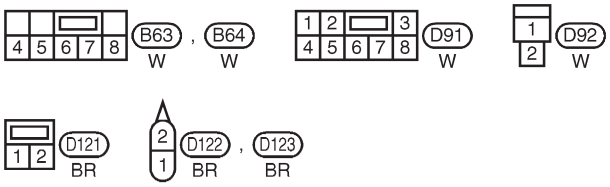


REFER TO THE FOLLOWING.
E104 , B4 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 -FUSE AND FUSIBLE LINK BOX

MEL735L

Wiring Diagram — TAIL/L —/Hatchback (Cont'd)



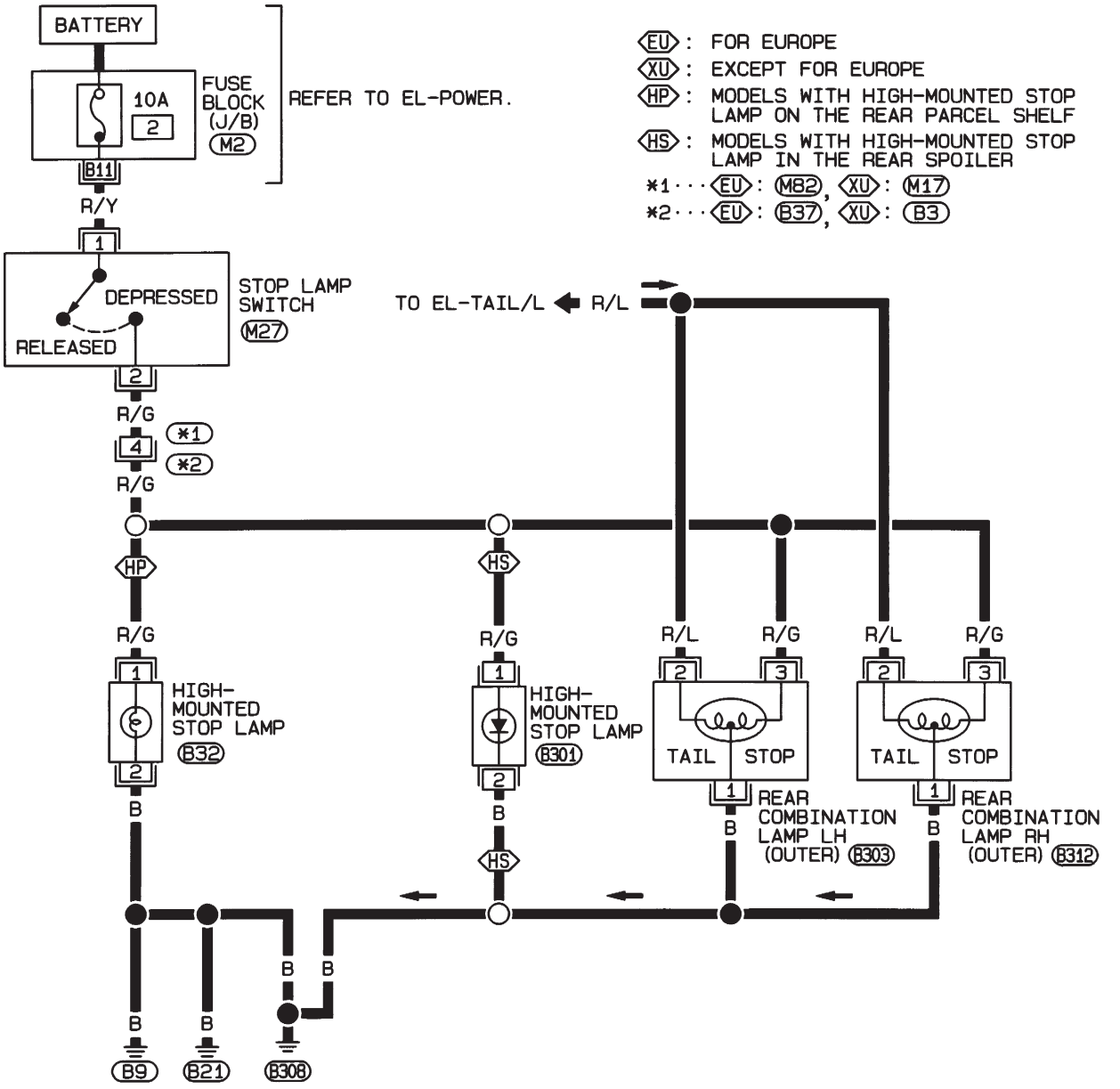


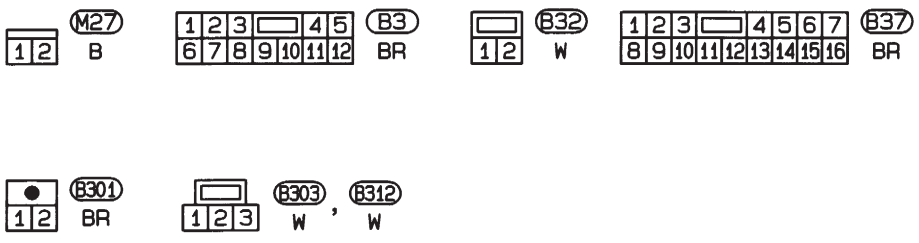
MEL736L

Wiring Diagram — STOP/L —/Sedan

NJEL0025

EL-STOP/L-01





REFER TO THE FOLLOWING.

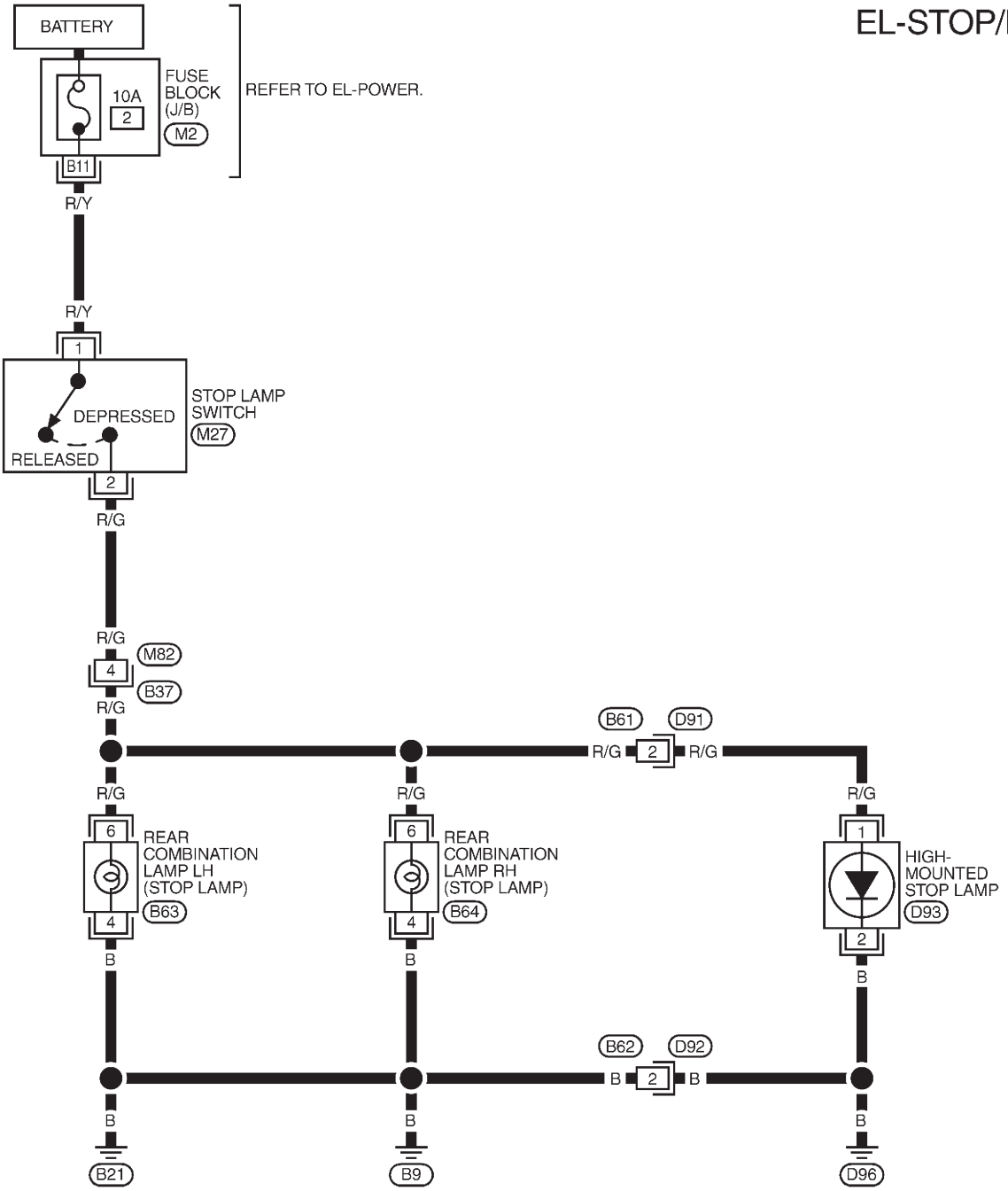
M2 -FUSE BLOCK-JUNCTION BOX (J/B)

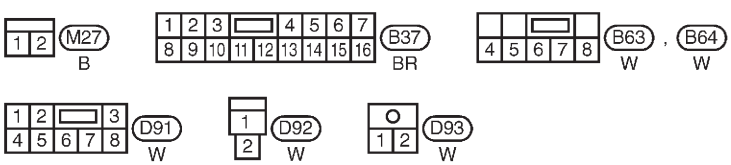
HEL028B

Wiring Diagram — STOP/L —/Hatchback

NJEL0426

EL-STOP/L-02





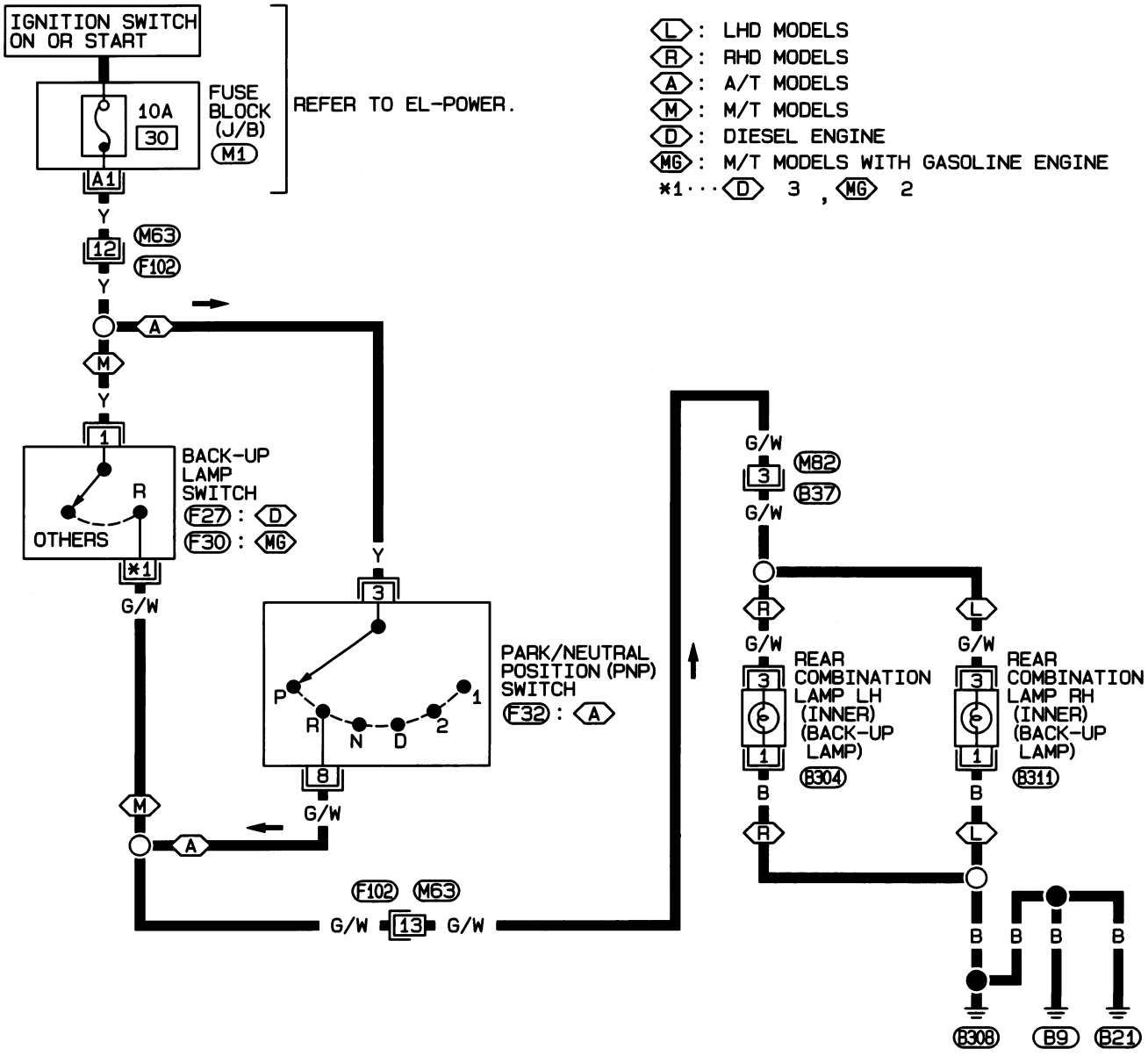
REFER TO THE FOLLOWING.
M2 -FUSE BLOCK-
JUNCTION BOX (J/B)

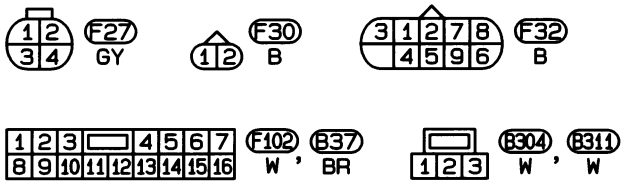
MEL737L

Wiring Diagram — BACK/L —/Sedan

NJEL0360

EL-BACK/L-02



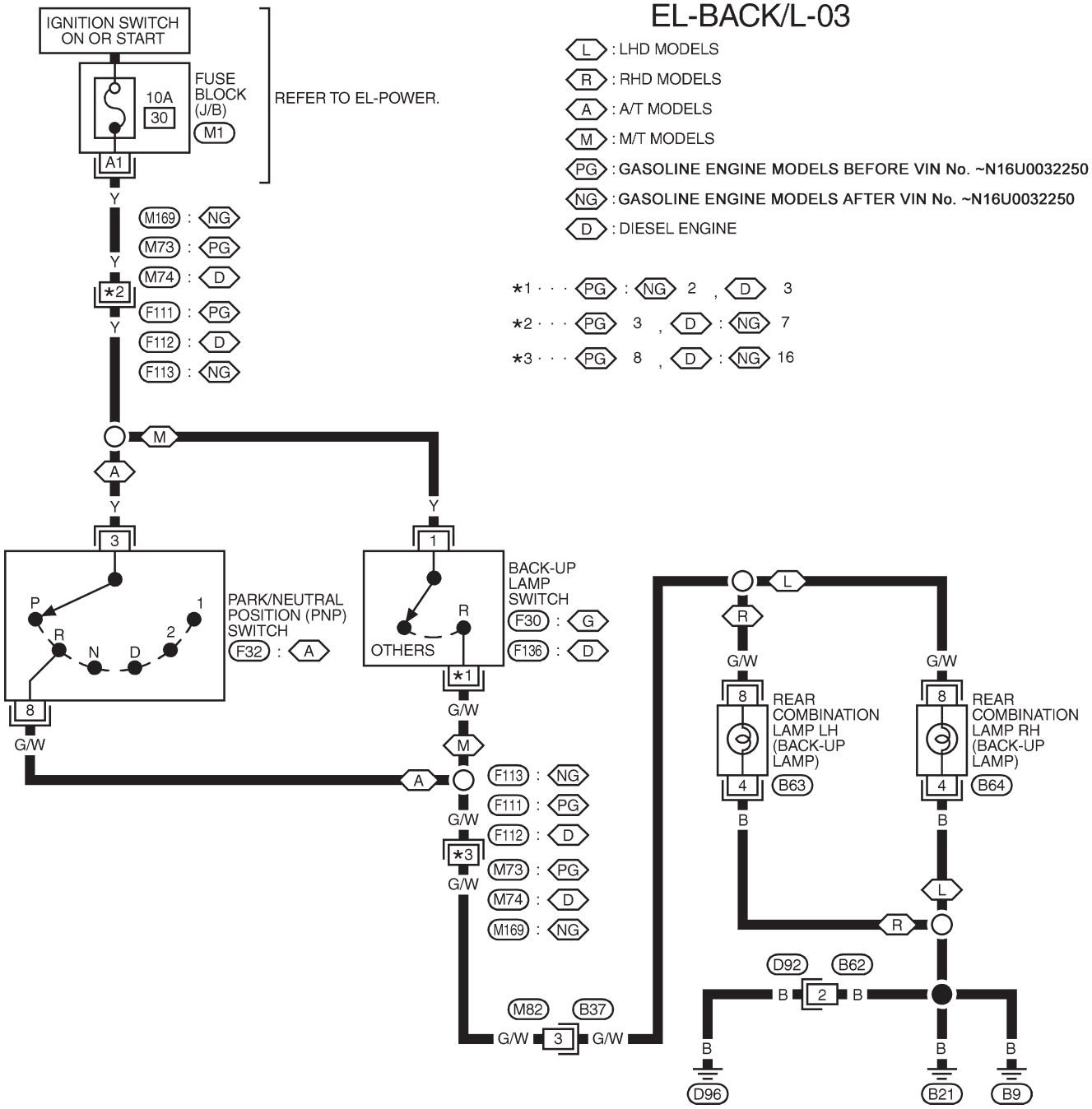


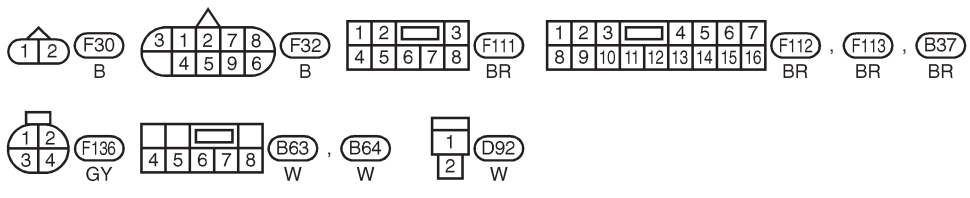
REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL371B

Wiring Diagram — BACK/L —/Hatchback

NJEL0427





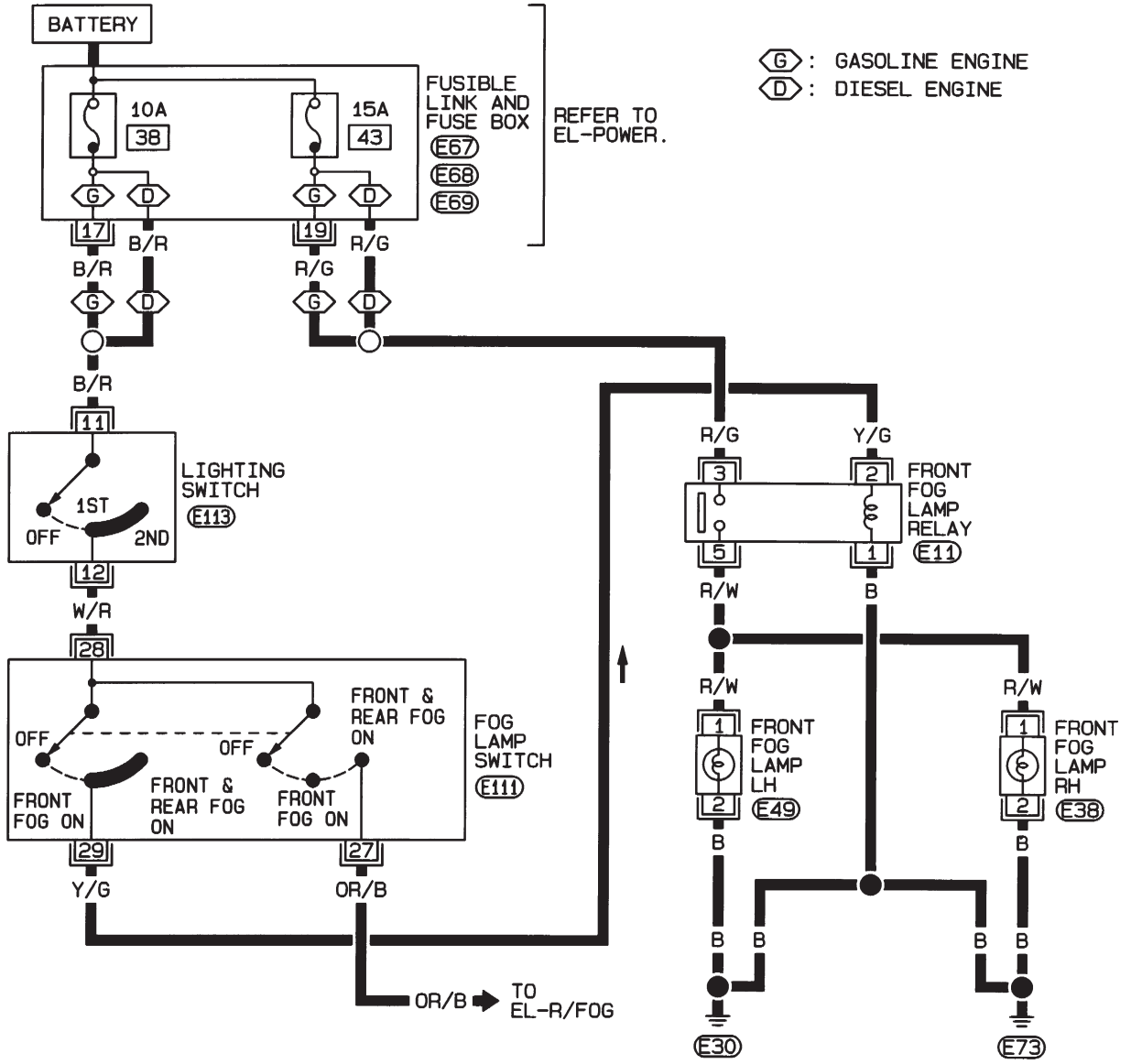
REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B)

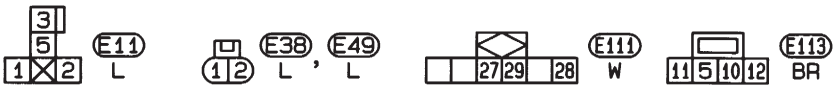
YEL345C

Wiring Diagram — F/FOG —/Sedan

NJEL0361

EL-F/FOG-02



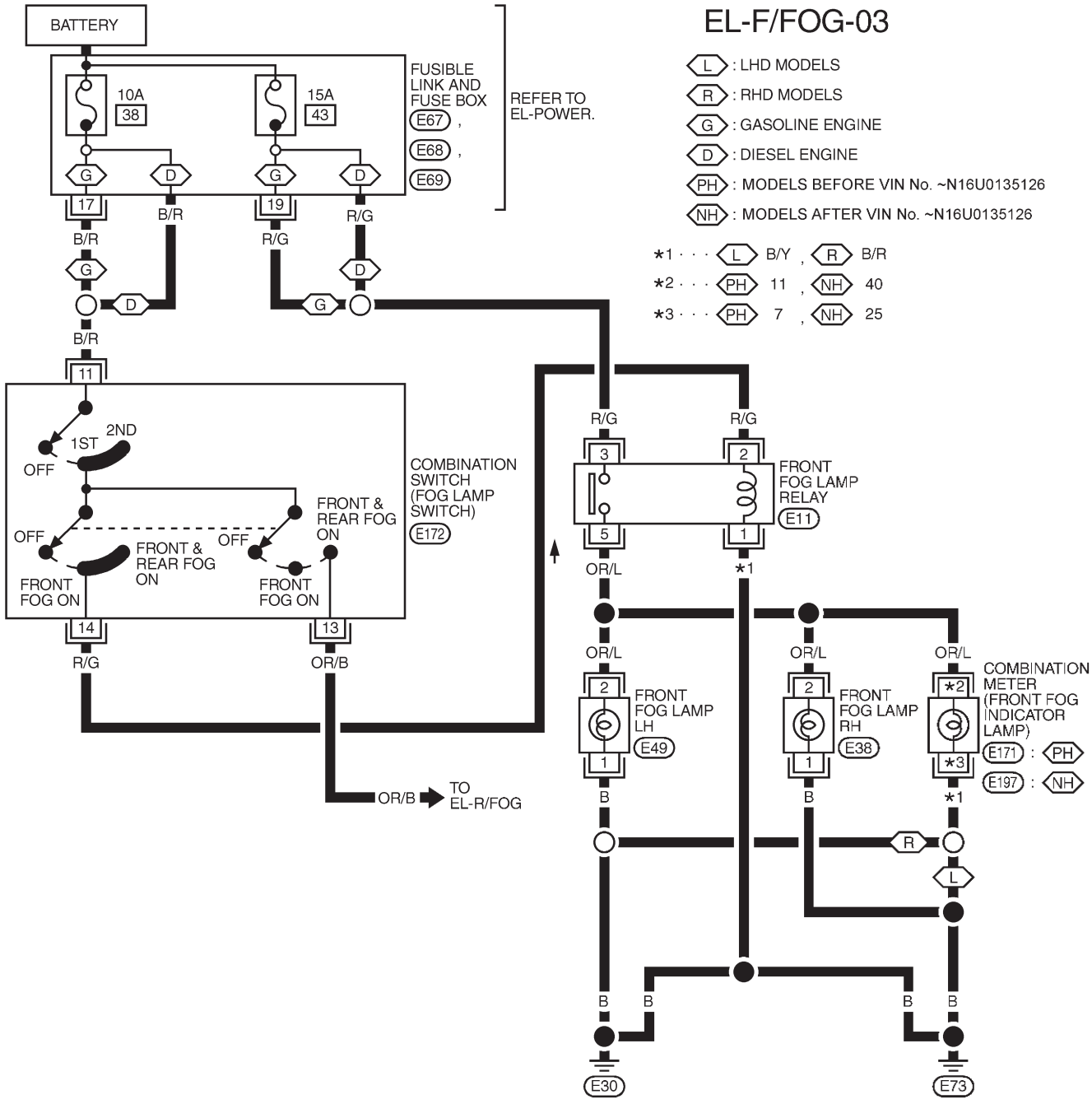


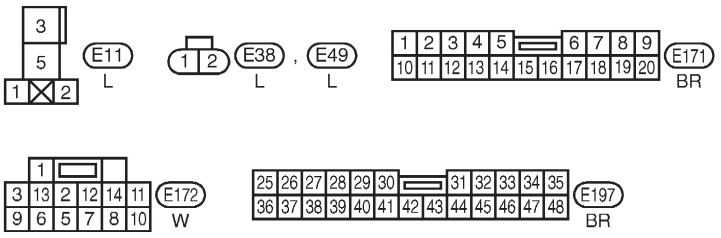
REFER TO THE FOLLOWING.
E67, E68, E69 -FUSE AND FUSIBLE LINK BOX

HEL030B

Wiring Diagram — F/FOG —/Hatchback

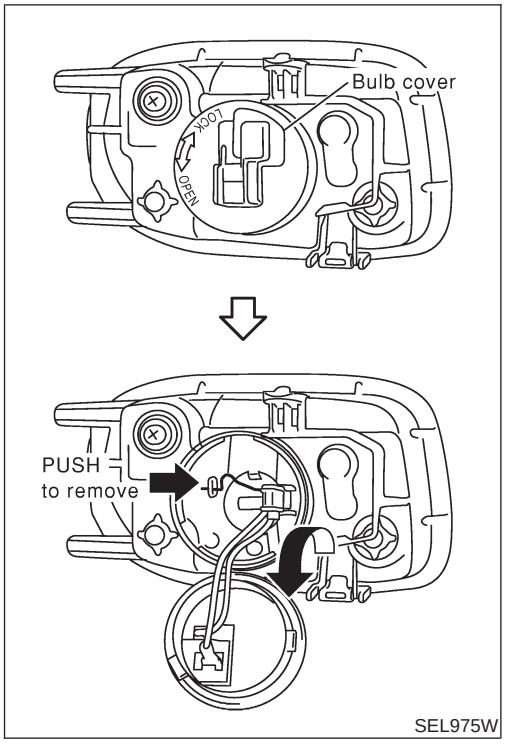
NJEL0428





REFER TO THE FOLLOWING.
E67 , E68 , E69 -FUSE AND FUSIBLE LINK BOX

YEL346C



Bulb Replacement

NJEL0314

The front fog lamp is a semi-sealed beam type which uses a replaceable halogen bulb.

- **Grasp only the plastic base when handling the bulb. Never touch the glass envelope.**

1. Disconnect the battery cable.
2. Disconnect the harness connector from the back side of the bulb.
3. Pull off the bulb cover.
4. Remove the front fog lamp bulb carefully. Do not shake or rotate the bulb when removing it.
5. Install in the reverse order of removal.

CAUTION:

- **Do not leave front fog lamp reflector without bulb for a long period of time. Dust, moisture, smoke, etc. entering front fog lamp body may affect the performance of the front fog lamp. Remove front fog lamp bulb from the front fog lamp reflector just before a replacement bulb is installed.**

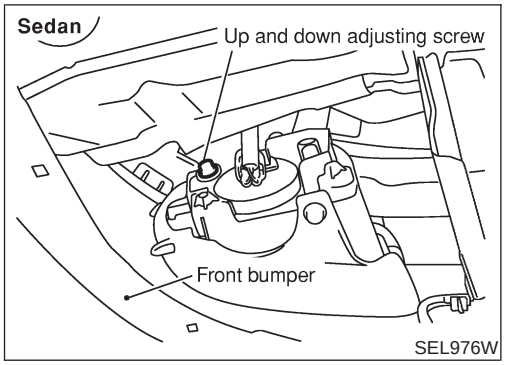
Aiming Adjustment

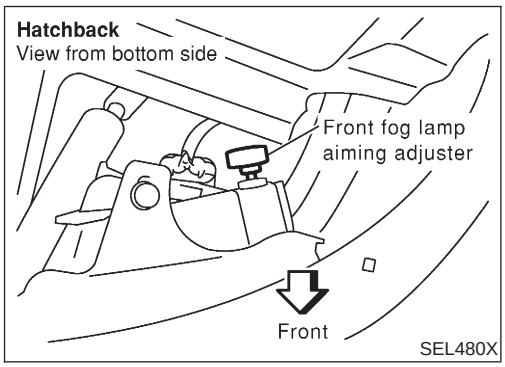
=NJEL0029

Before performing aiming adjustment, make sure of the following.

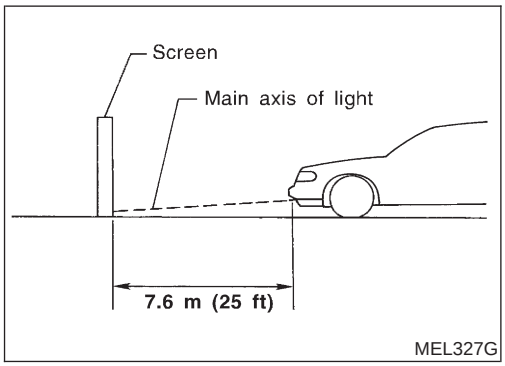
1) Keep all tires inflated to correct pressure.
2) Place vehicle on level ground.
3) See that vehicle is unloaded (except for full levels of coolant, engine oil and fuel, and spare tire, jack, and tools). Have the driver or equivalent weight placed in driver's seat.

Adjust aiming in the vertical direction by turning the adjusting screw.



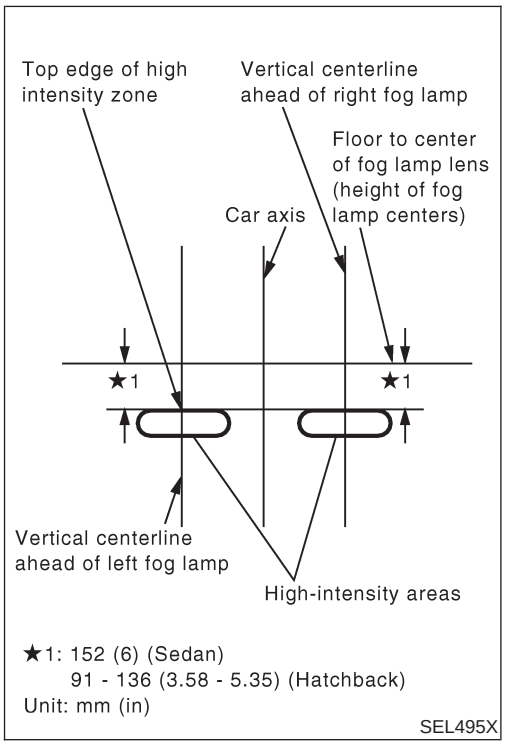


1. Set the distance between the screen and the center of the fog lamp lens as shown at left.
2. Remove front fog lamp rim. For detail, refer to "BODY END" in BT section.
3. Turn front fog lamps ON.



4. Adjust front fog lamps so that the top edge of the high intensity zone is 152 mm (6.0 in) (Sedan) or 91 to 136 mm (3.58 to 5.35 in) (Hatchback) below the height of the fog lamp centers as shown at left.

● When performing adjustment, if necessary, cover the headlamps and opposite fog lamp.

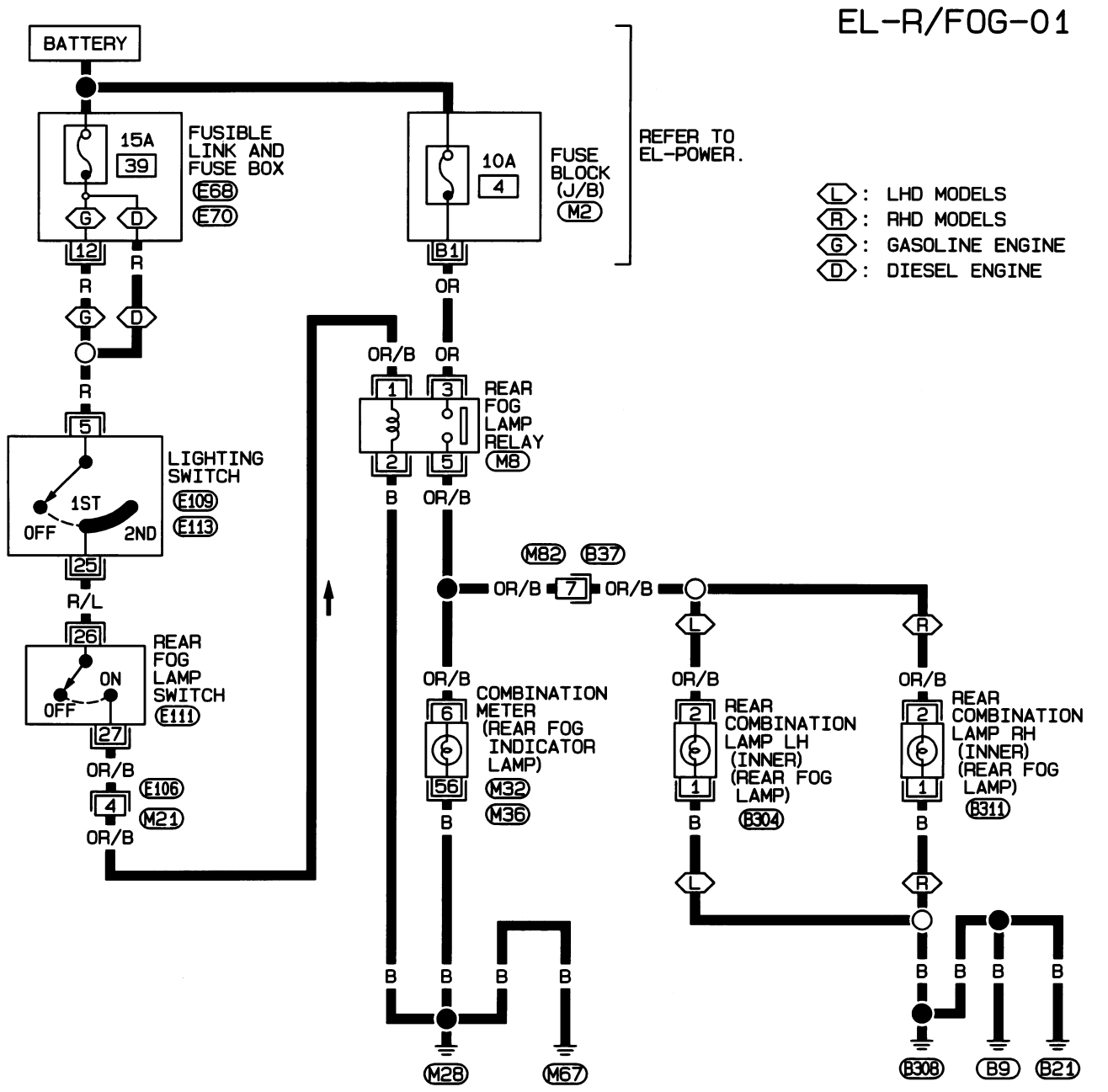


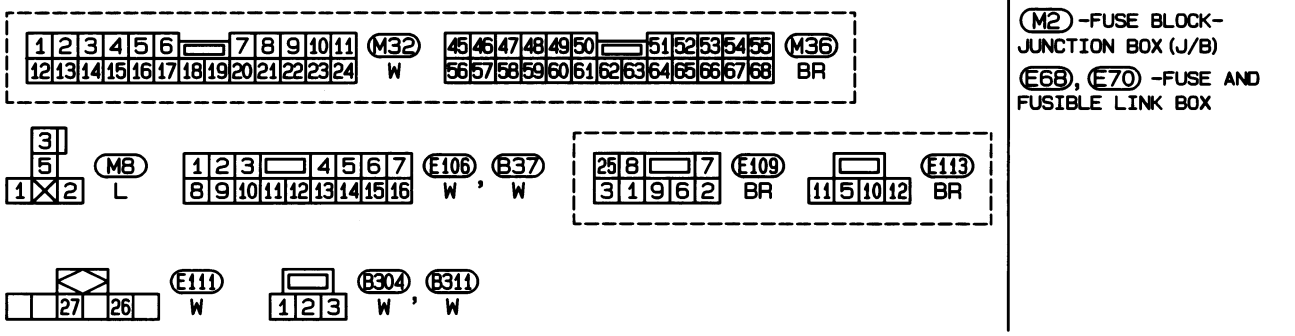
Wiring Diagram — R/FOG —/Sedan

NJEL0362

WITHOUT FRONT FOG LAMP

NJEL0362S01





REFER TO THE FOLLOWING.

M2 -FUSE BLOCK-JUNCTION BOX (J/B)

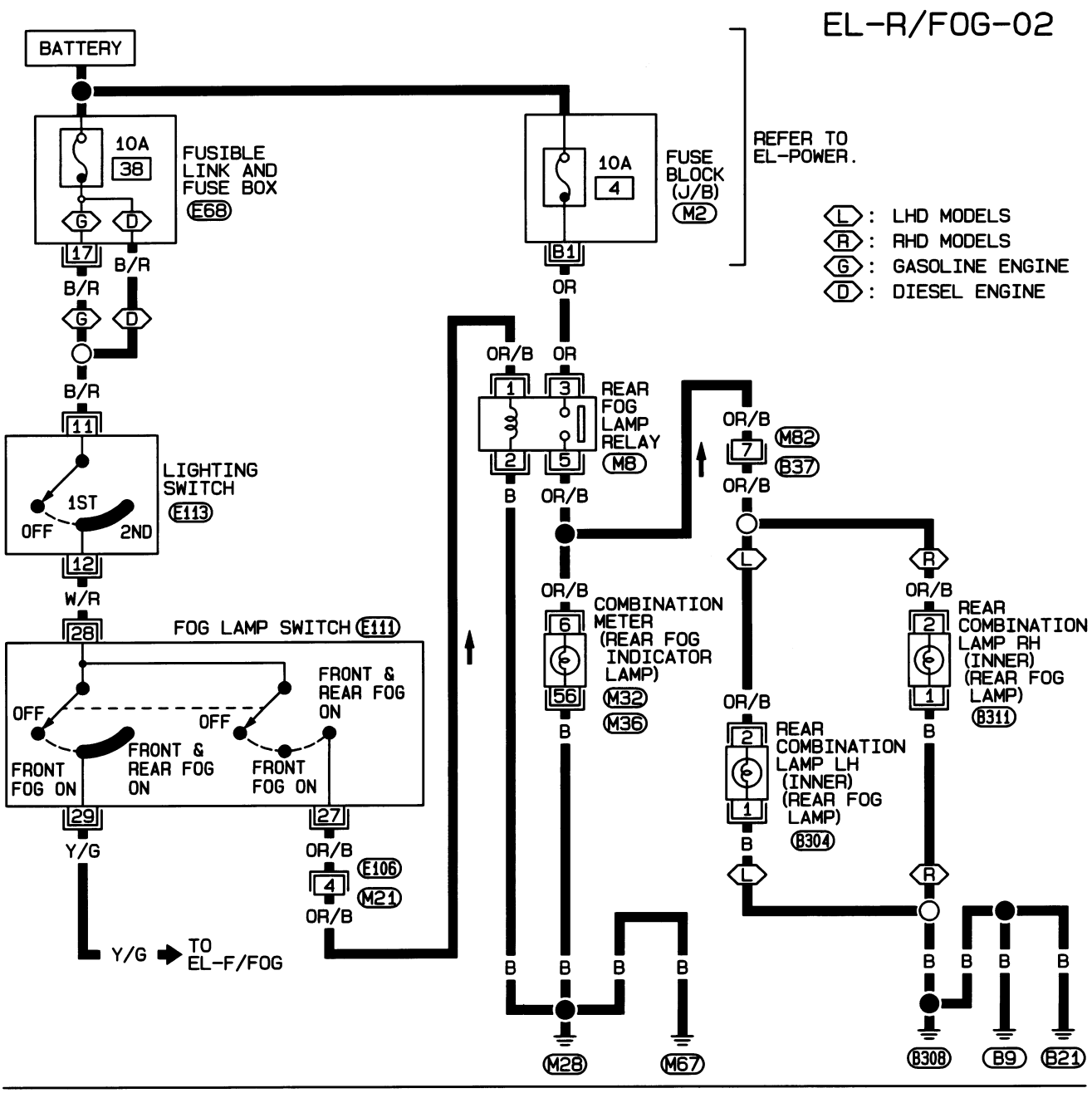
E68, E70 -FUSE AND FUSIBLE LINK BOX

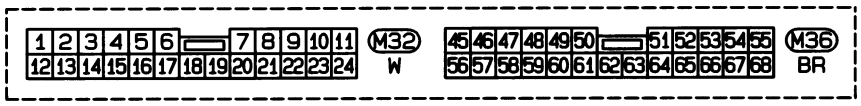
HEL372B

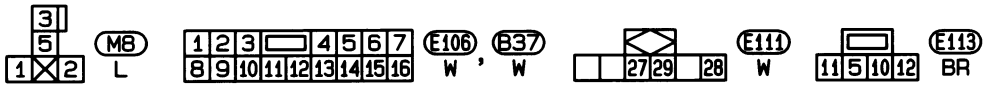
Wiring Diagram — R/FOG —/Sedan (Cont'd)

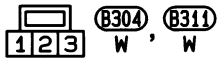
WITH FRONT FOG LAMP

NJEL0362S02









REFER TO THE FOLLOWING.

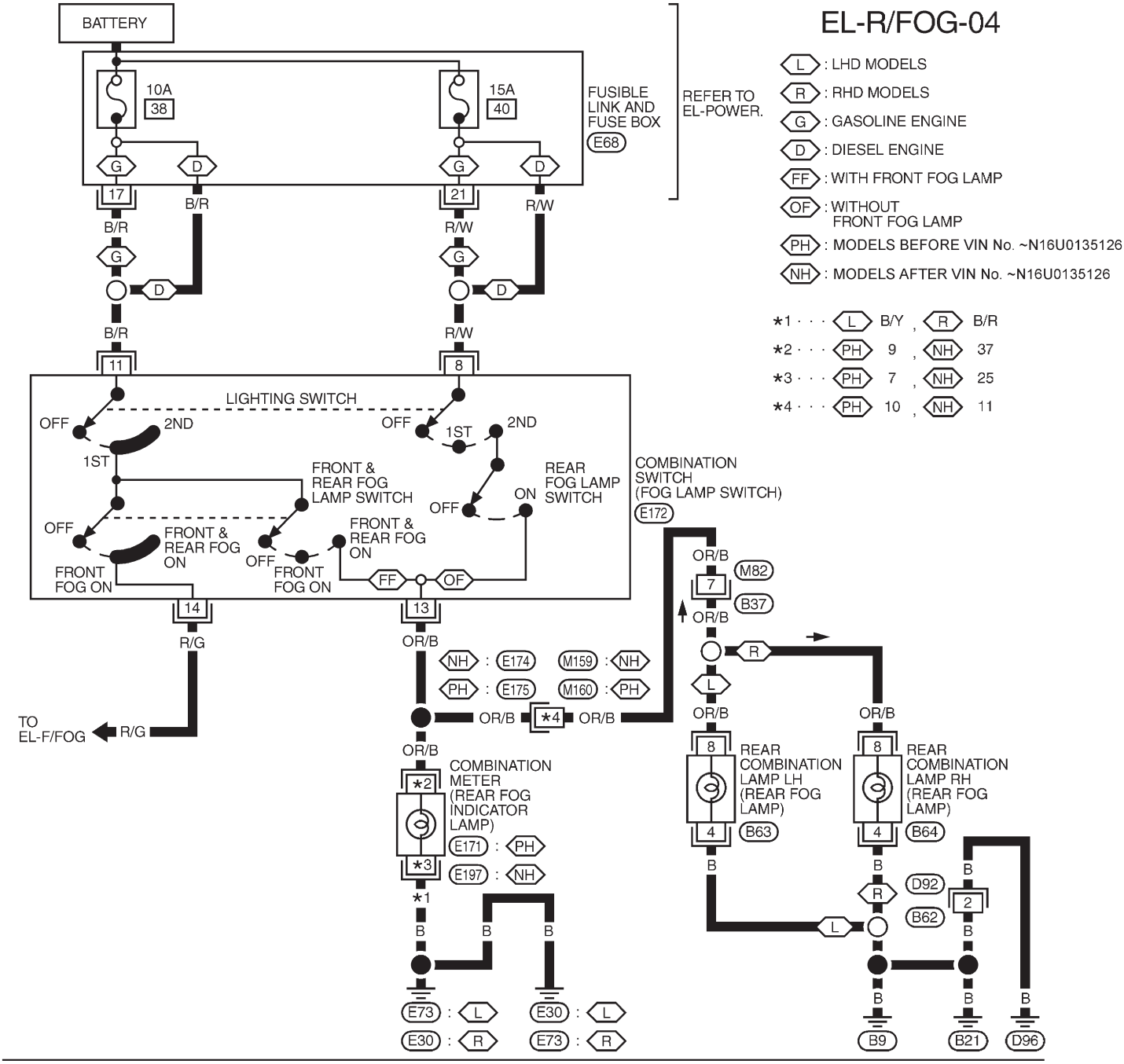
M2 -FUSE BLOCK-JUNCTION BOX (J/B)

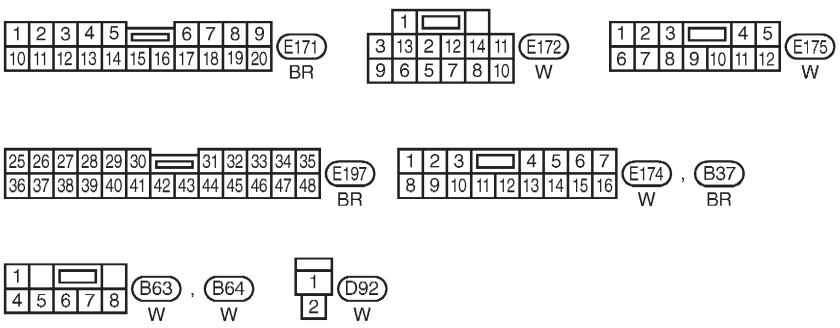
E68 -FUSE AND FUSIBLE LINK BOX

HEL373B

Wiring Diagram — R/FOG —/Hatchback

NJEL0429





REFER TO THE FOLLOWING.
E68 -FUSE AND FUSIBLE LINK BOX

YEL347C

System Description/Sedan

NJEL0030

TURN SIGNAL OPERATION

NJEL0030S01

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

- through 10A fuse [No. 26, located in the fuse block (J/B)]
- to hazard switch terminal 2
- through terminal 1 of the hazard switch
- to combination flasher unit terminal 1
- through terminal 3 of the combination flasher unit
- to turn signal lamp switch terminal 1.

Ground is supplied to combination flasher unit terminal 2 through body grounds M28 and M67.

LH Turn

NJEL0030S0101

When the turn signal lamp switch is moved to the L position, power is supplied from turn signal lamp switch terminal 3 to

- front turn signal lamp LH terminal 1 and side turn signal lamp LH terminal 1
- combination meter terminal 11 (with tachometer) or 6 (without tachometer).
- rear combination lamp LH (turn signal) terminal 2.

Ground is supplied to the front turn signal lamp LH terminal 2 and side turn signal lamp LH terminal 2 through body grounds E30 and E73.
Ground is supplied to the rear combination lamp LH (turn signal) terminal 1 through body grounds B9, B21 and B308.
Ground is supplied to combination meter terminal 56 (with tachometer) or 60 (without tachometer) through body grounds M28 and M67.
With power and ground supplied, the combination flasher unit controls the flashing of the LH turn signal lamps.

RH Turn

NJEL0030S0102

When the turn signal lamp switch is moved to the R position, power is supplied from turn signal lamp switch terminal 2 to

- front turn signal lamp RH terminal 1 and side turn signal lamp RH terminal 1
- combination meter terminal 48 (with tachometer) or 64 (without tachometer)
- rear combination lamp RH (turn signal) terminal 2.

Ground is supplied to the front turn signal lamp RH terminal 2 and side turn signal lamp RH terminal 2 through body grounds E30 and E73.
Ground is supplied to the rear combination lamp RH (turn signal) terminal 1 through body grounds B9, B21 and B308.
Ground is supplied to combination meter terminal 56 (with tachometer) or 60 (without tachometer) through body grounds M28 and M67.
With power and ground supplied, the combination flasher unit controls the flashing of the RH turn signal lamps.

HAZARD LAMP OPERATION

NJEL0030S02

Power is supplied at all times to hazard switch terminal 3 through:

- 15A fuse [No. 5, located in the fuse block (J/B)].

With the hazard switch in the ON position, power is supplied

- through terminal 1 of the hazard switch
- to combination flasher unit terminal 1
- through terminal 3 of the combination flasher unit
- to hazard switch terminal 4.

Ground is supplied to combination flasher unit terminal 2 through body grounds M28 and M67.
Power is supplied through terminal 5 of the hazard switch to

- front turn signal lamp LH terminal 1 and side turn signal lamp LH terminal 1
- combination meter terminal 11 (with tachometer) or 6 (without tachometer)
- rear combination lamp LH (turn signal) terminal 2.

Power is supplied through terminal 6 of the hazard switch to

- front turn signal lamp RH terminal 1 and side turn signal lamp RH terminal 1

- combination meter terminal 48 (with tachometer) or 64 (without tachometer)
- rear combination lamp RH (turn signal) terminal 2.

Ground is supplied to terminal 2 of each front turn signal lamp and terminal 2 of each side turn signal lamp through body grounds E30 and E73.
Ground is supplied to terminal 1 of each rear combination lamp (turn signal) through body grounds B9, B21 and B308.
Ground is supplied to combination meter terminal 56 (with tachometer) or 60 (without tachometer) through body grounds M28 and M67.
With power and ground supplied, the combination flasher unit controls the flashing of the hazard warning lamps.

MULTI-REMOTE CONTROL SYSTEM OPERATION

NJEL0030S03

When the multi-remote control system is triggered,
power is supplied through terminal 8 of the multi-remote control unit.

- to front turn signal lamp LH terminal 1 and side turn signal lamp LH terminal 1
- to combination meter terminal 11
- to rear combination lamp LH terminal 2, and

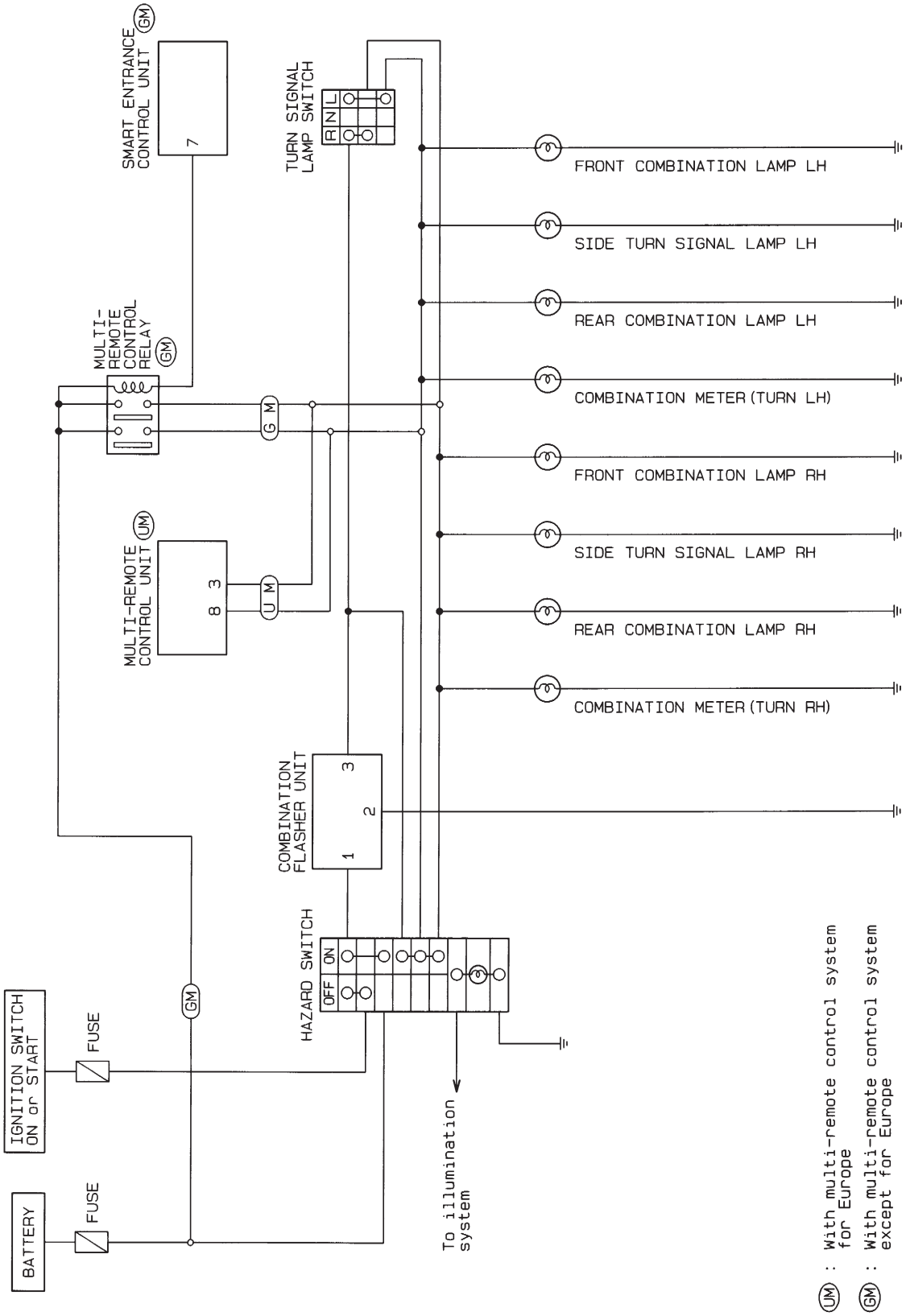
power is supplied through terminal 3 of the multi-remote control unit.

- to front turn signal lamp RH terminal 1 and side turn signal lamp RH terminal 1
- to combination meter terminal 48
- to rear combination lamp RH terminal 2.

Ground is supplied to terminal 2 of each front turn signal lamp and terminal 2 of each side turn signal lamp through body grounds E30 and E73.
Ground is supplied to terminal 1 of each rear combination lamp through body grounds B9, B21 and B308.
Ground is supplied to combination meter terminal 56 through body grounds M28 and M67.
With power and ground supplied, the multi-remote control unit controls the flashing of the hazard warning lamps.
For details, refer to "MULTI-REMOTE CONTROL SYSTEM" in EL-392.

Schematic/Sedan

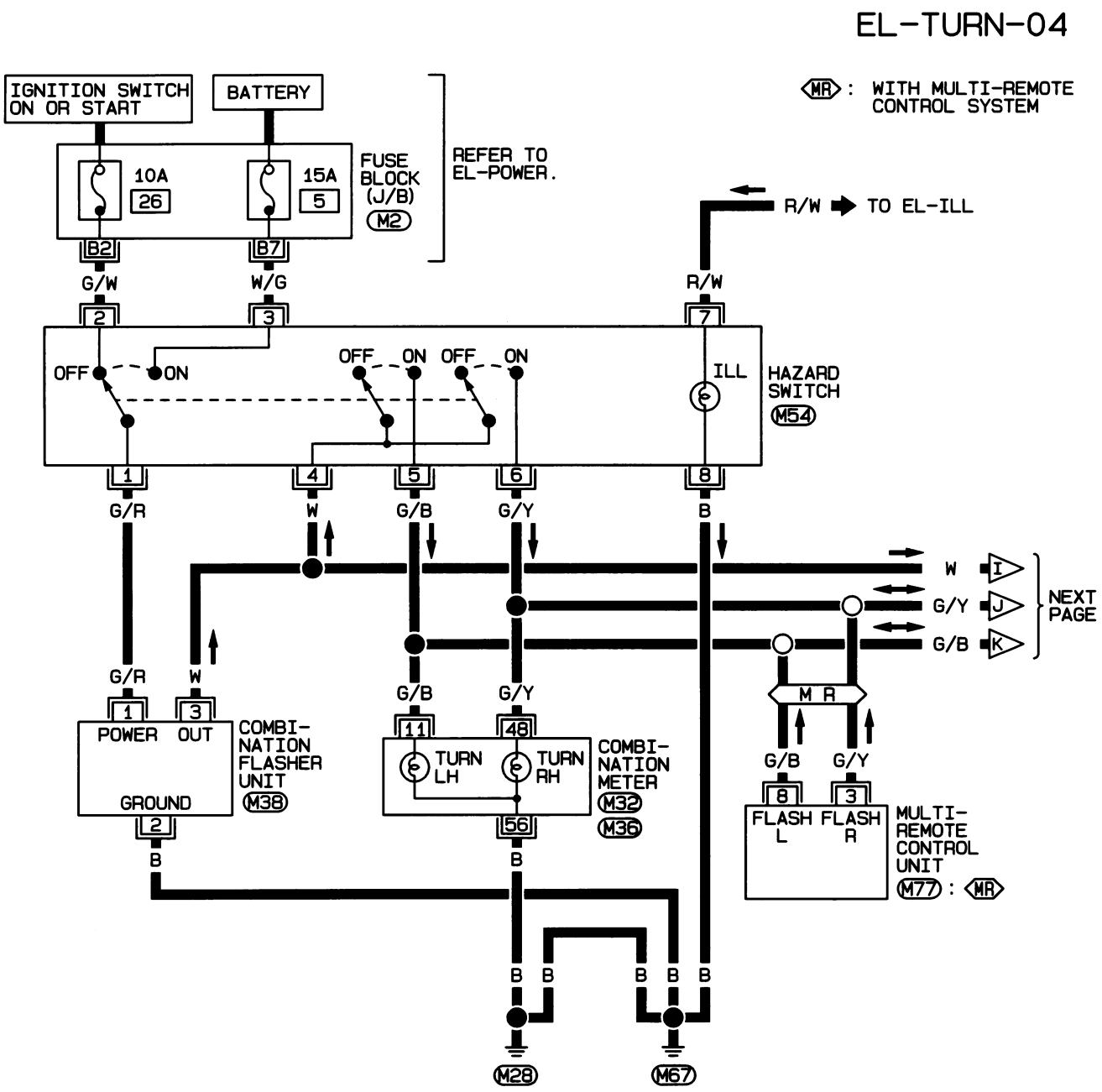
NJEL0295

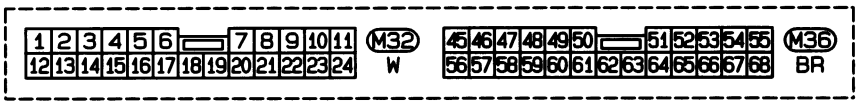


HEL034B

Wiring Diagram — TURN —/Sedan

NJEL0364



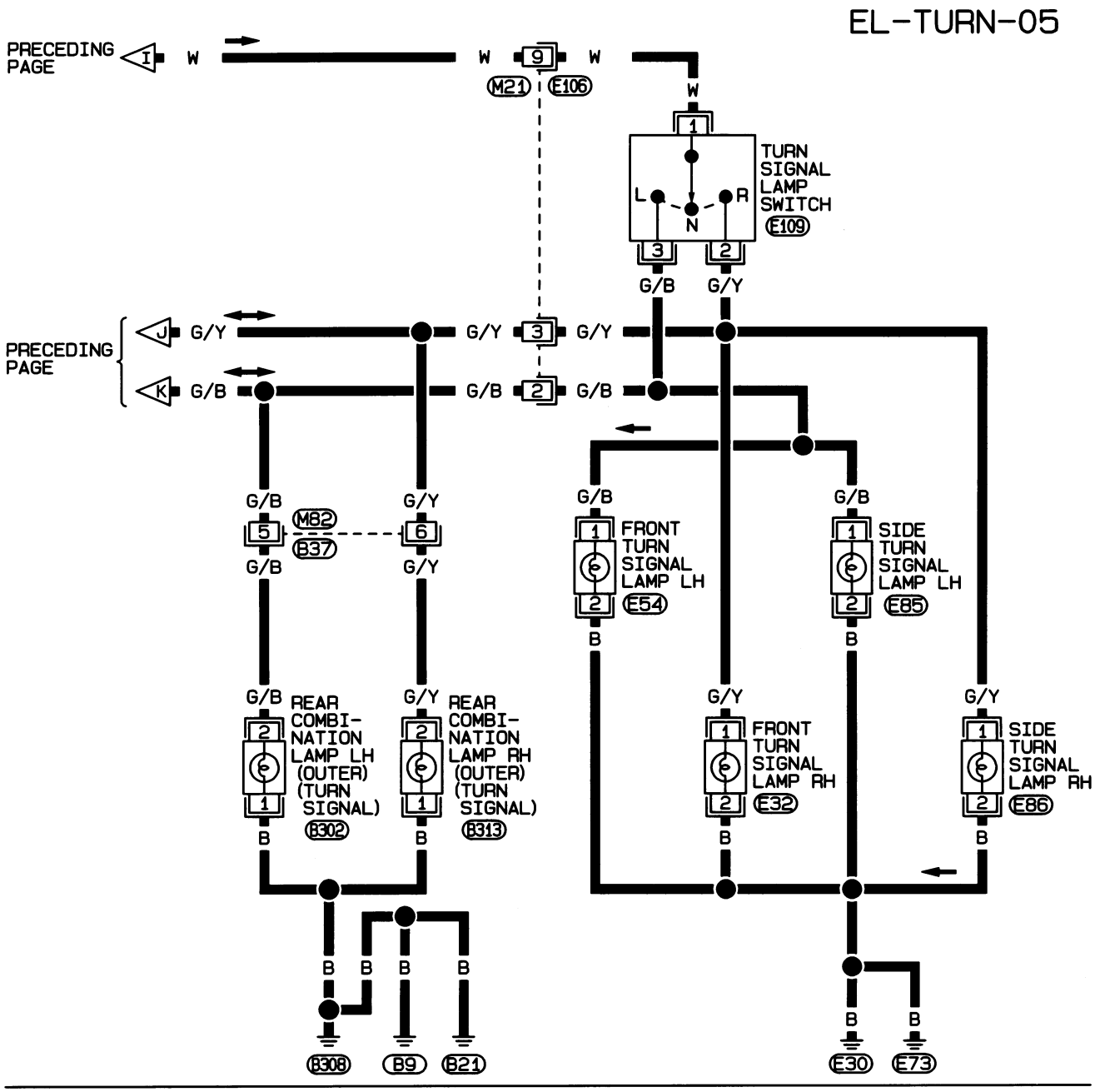


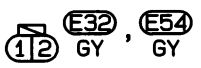


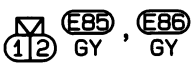
REFER TO THE FOLLOWING.

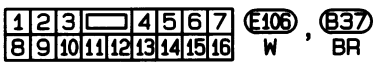
M2 -FUSE BLOCK-JUNCTION BOX (J/B)

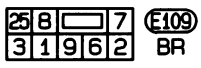
HEL374B

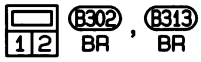

EL-TURN-05
PRECEDING PAGE
I
W
W
9
W
M21
E106
W
1
TURN SIGNAL LAMP SWITCH
E109
L
R
N
3
2
G/B
G/Y
PRECEDING PAGE
J
G/Y
K
G/B
G/Y
3
G/Y
G/B
2
G/B
G/B
G/Y
5
M82
6
B37
G/B
G/Y
G/B
1
FRONT TURN SIGNAL LAMP LH
2
E54
B
G/B
1
SIDE TURN SIGNAL LAMP LH
2
E85
B
G/B
REAR COMBI-NATION LAMP LH (OUTER) (TURN SIGNAL)
2
1
B
B302
G/Y
REAR COMBI-NATION LAMP RH (OUTER) (TURN SIGNAL)
2
1
B
B313
G/Y
1
FRONT TURN SIGNAL LAMP RH
2
E32
B
G/Y
1
SIDE TURN SIGNAL LAMP RH
2
E86
B
B
B
B
B
B308
B9
B21
B
B
E30
E73


E32
GY
E54
GY


E85
GY
E86
GY


1 2 3 4 5 6 7
8 9 10 11 12 13 14 15 16
E106
W
B37
BR


25 8 7
3 1 9 6 2
E109
BR

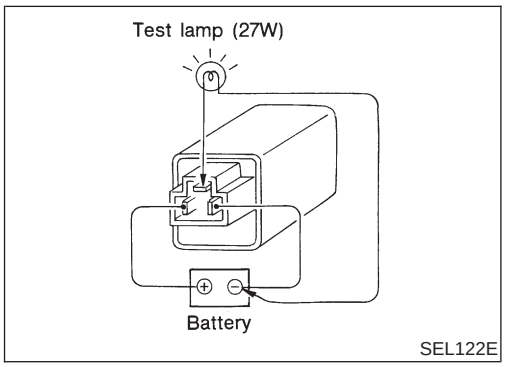

B302
BR
B313
BR

HEL375B

Trouble Diagnoses/Sedan

NJEL0033

Symptom	Possible cause	Repair order
Turn signal and hazard warning lamps do not operate.	1. Hazard switch 2. Combination flasher unit 3. Open in combination flasher unit circuit 4. Combination flasher unit ground circuit	1. Check hazard switch. 2. Refer to combination flasher unit check. 3. Check wiring to combination flasher unit for open circuit. 4. Check combination flasher unit ground circuit.
Turn signal lamps do not operate but hazard warning lamps operate.	1. 10A fuse 2. Hazard switch 3. Turn signal lamp switch 4. Open in turn signal lamp switch circuit	1. Check 10A fuse [No. 26, located in fuse block (J/B)]. Turn ignition switch ON and verify battery positive voltage is present at terminal 2 of hazard switch. 2. Check hazard switch. 3. Check turn signal lamp switch. 4. Check the wire between combination flasher unit terminal 3 and turn signal lamp switch terminal 1 for open circuit.
Hazard warning lamps do not operate but turn signal lamps operate.	1. 15A fuse 2. Hazard switch 3. Open in hazard switch circuit	1. Check 15A fuse [No. 5, located in fuse block (J/B)]. Verify battery positive voltage is present at terminal 3 of hazard switch. 2. Check hazard switch. 3. Check the wire between combination flasher unit terminal 3 and hazard switch terminal 4 for open circuit.
Front turn signal lamp LH or RH does not operate.	1. Bulb 2. Grounds E30 and E73 3. Open in front turn signal lamp circuit	1. Check bulb. 2. Check grounds E30 and E73. 3. Check the wire between front turn signal lamp and turn signal lamp switch.
Rear turn signal lamp LH or RH does not operate.	1. Bulb 2. Grounds B9, B21 and B308 3. Open in rear turn signal lamp circuit	1. Check bulb. 2. Check grounds B9, B21 and B308. 3. Check the wire between rear turn signal lamp and turn signal lamp switch.
LH and RH turn indicators do not operate.	1. Ground	1. Check grounds M28 and M67.
LH or RH turn indicator does not operate.	1. Bulb 2. Open combination meter circuit	1. Check bulb in combination meter. 2. Check the wire between hazard switch and combination meter.



Electrical Components Inspection

NJEL0034

COMBINATION FLASHER UNIT CHECK

NJEL0034S01

- Before checking, ensure that bulbs meet specifications.
- Connect a battery and test lamp to the combination flasher unit, as shown. Combination flasher unit is properly functioning if it blinks when power is supplied to the circuit.

System Description/Hatchback

NJEL0430

TURN SIGNAL OPERATION

NJEL0430S01

Power is supplied at all times

- through 30A fusible link (letter E, located in fuse and fusible link box)
- to circuit breaker terminal 1
- through circuit breaker terminal 2
- to time control unit terminal 8, and
- through 15A fuse [No. 5, located in fuse block (J/B)]
- to time control unit terminal 9

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

- through 10A fuse [No. 10, located in fuse block (J/B)]
- to time control unit terminal 1

Ground is supplied to time control unit terminal 16 through body grounds M28 and M67.

LH Turn

NJEL0430S0101

When the turn signal switch is moved to the L position, ground is supplied from body grounds E30 and E73 to

- time control unit terminal 2
- through turn signal switch terminal 3

With ground is supplied, time control unit controls the flashing of the LH turn signal lamps.

RH Turn

NJEL0430S0102

When the turn signal switch is moved to the R position, ground is supplied from body grounds E30 and E73 to

- time control unit terminal 4
- through turn signal switch terminal 2

With ground is supplied, time control unit controls the flashing of the RH turn signal lamps.

HAZARD LAMP OPERATION

NJEL0430S02

Power is supplied at all times

- through 30A fusible link (letter E, located in fuse and fusible link box)
- to circuit breaker terminal 1
- through circuit breaker 2
- to time control unit terminal 8
- through 15A fuse [No. 5, located in fuse block (J/B)]
- to time control unit terminal 9

Ground is supplied to time control unit terminal 16 through body grounds M28 and M67.
With the hazard switch in the ON position, ground is supplied from body grounds M28 and M67 to

- time control unit terminal 5
- through hazard switch terminal 3

With ground is supplied, time control unit controls the flashing of the hazard warning lamps.

HAZARD REMINDER OPERATION FOR MULTI-REMOTE CONTROL SYSTEM

NJEL0430S04

When the doors are locked or unlocked by multi-remote controller, time control unit controls turn lamps hazard reminder flashes as follows.

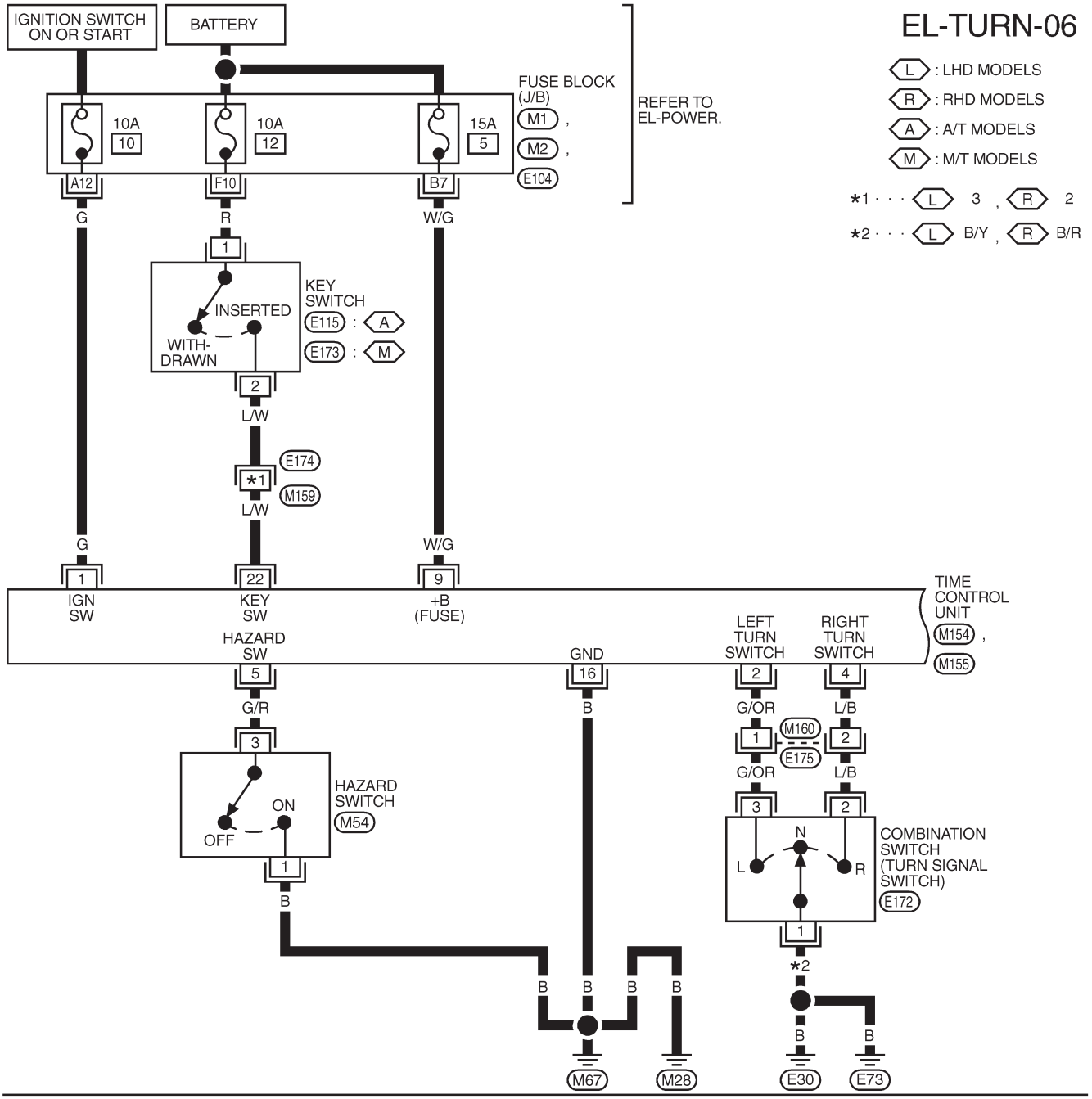
- Locked operation: Flash once
- Unlock operation: Flash twice

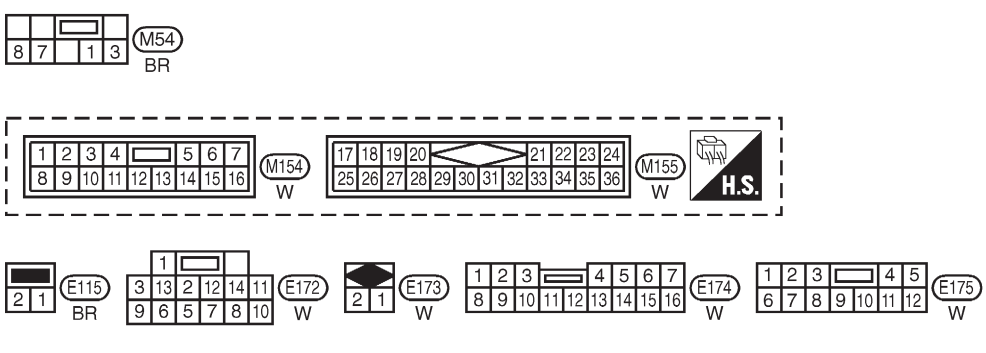
Wiring Diagram — TURN —/Hatchback

NJEL0431

MODELS BEFORE VIN NO. — N16U0135126

NJEL0431S01

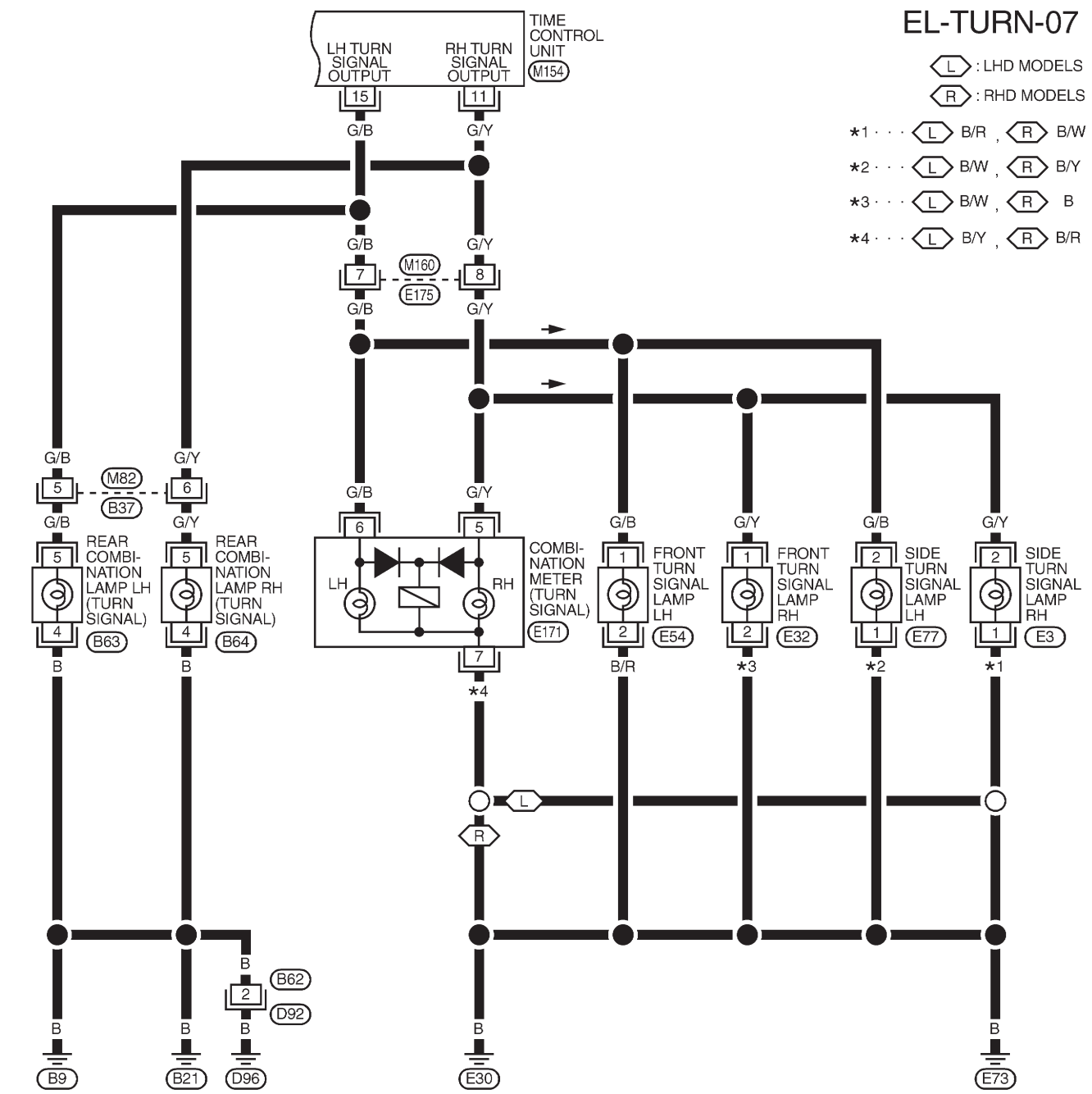


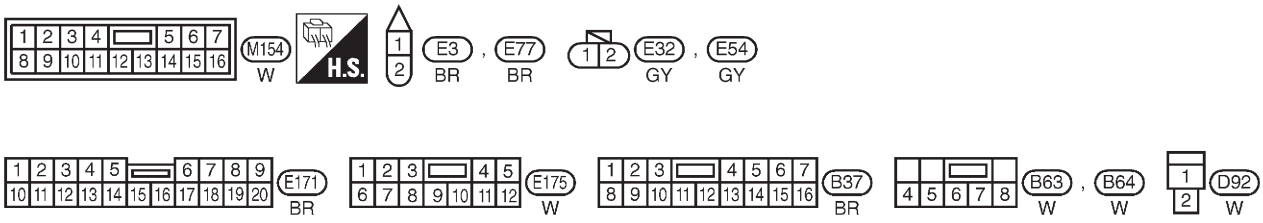


REFER TO THE FOLLOWING.
M1 , M2 , E104 -FUSE BLOCK- JUNCTION BOX (J/B)

MEL741L

Wiring Diagram — TURN —/Hatchback (Cont'd)

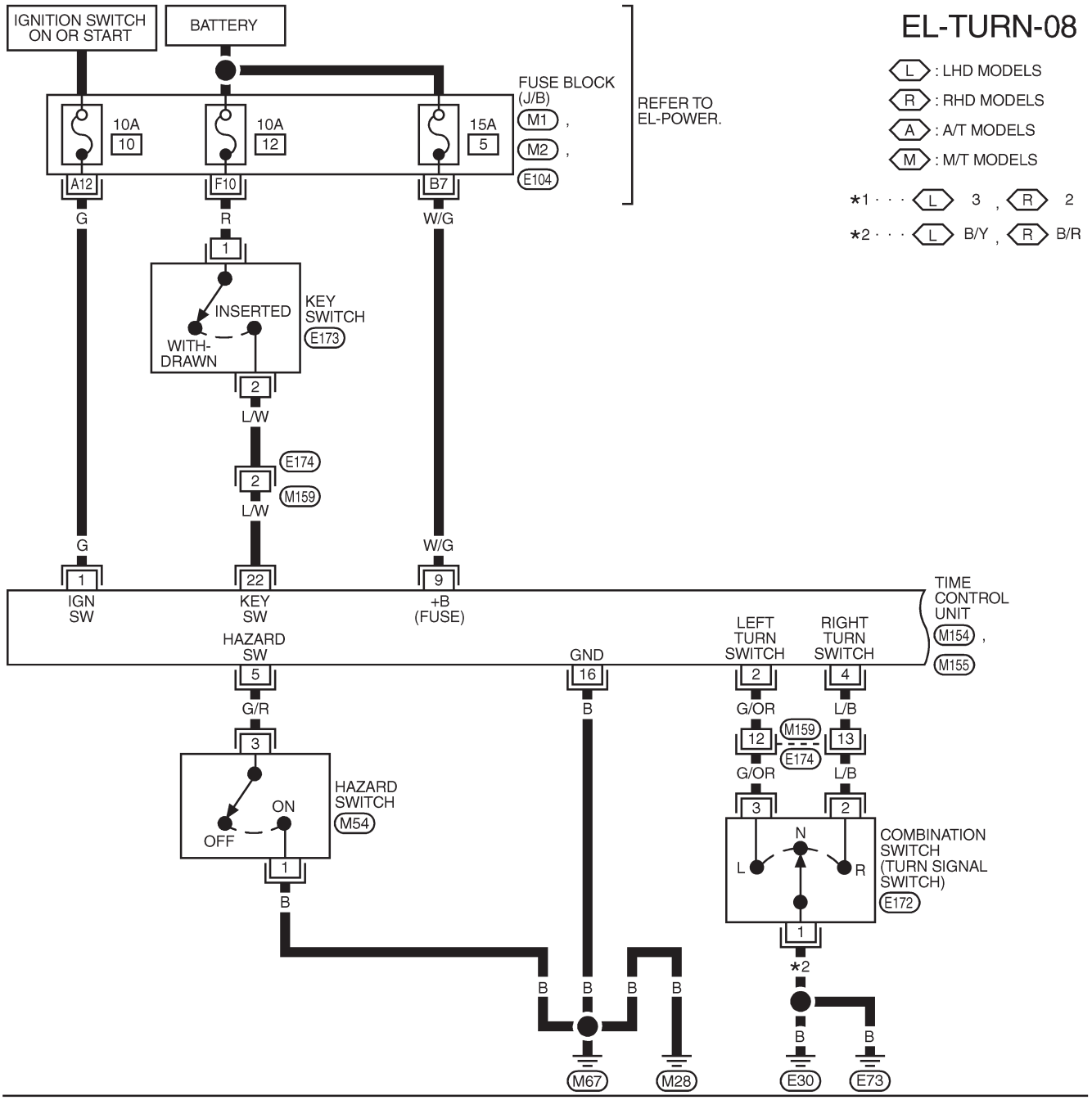


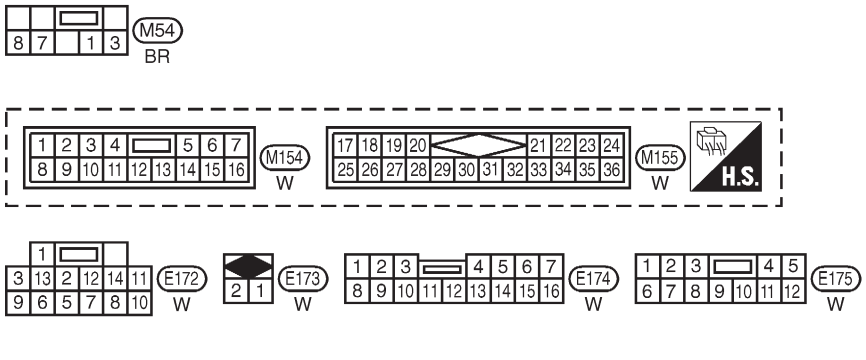


MEL742L

MODELS AFTER VIN NO. — N16U0135126

NJEL0431S02

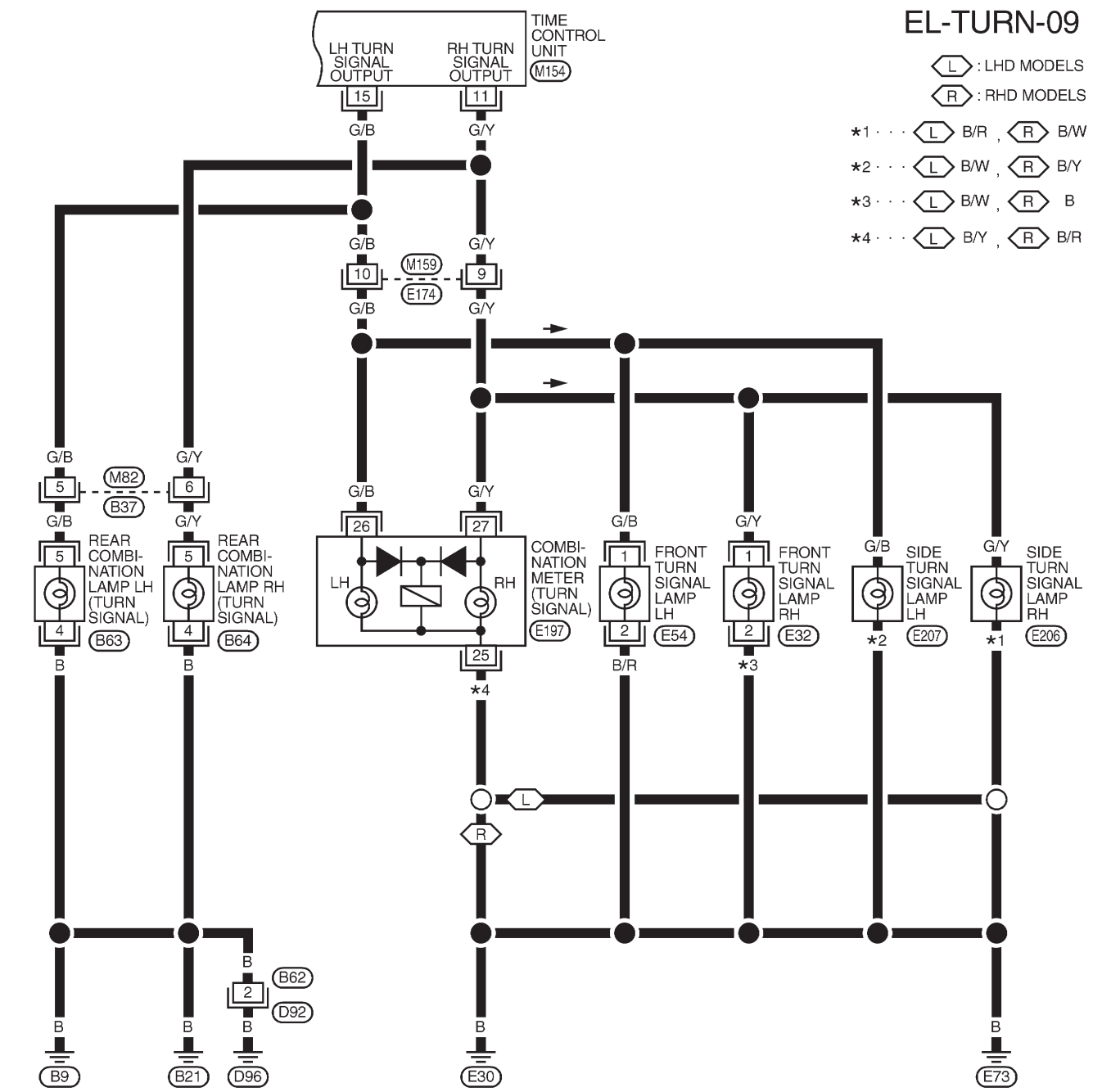


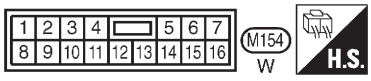


REFER TO THE FOLLOWING.
M1 , M2 , E104 -FUSE BLOCK- JUNCTION BOX (J/B)

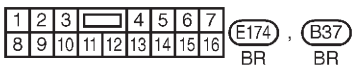
YEL348C

Wiring Diagram — TURN —/Hatchback (Cont'd)

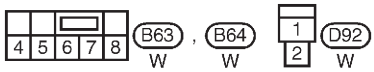












YEL349C

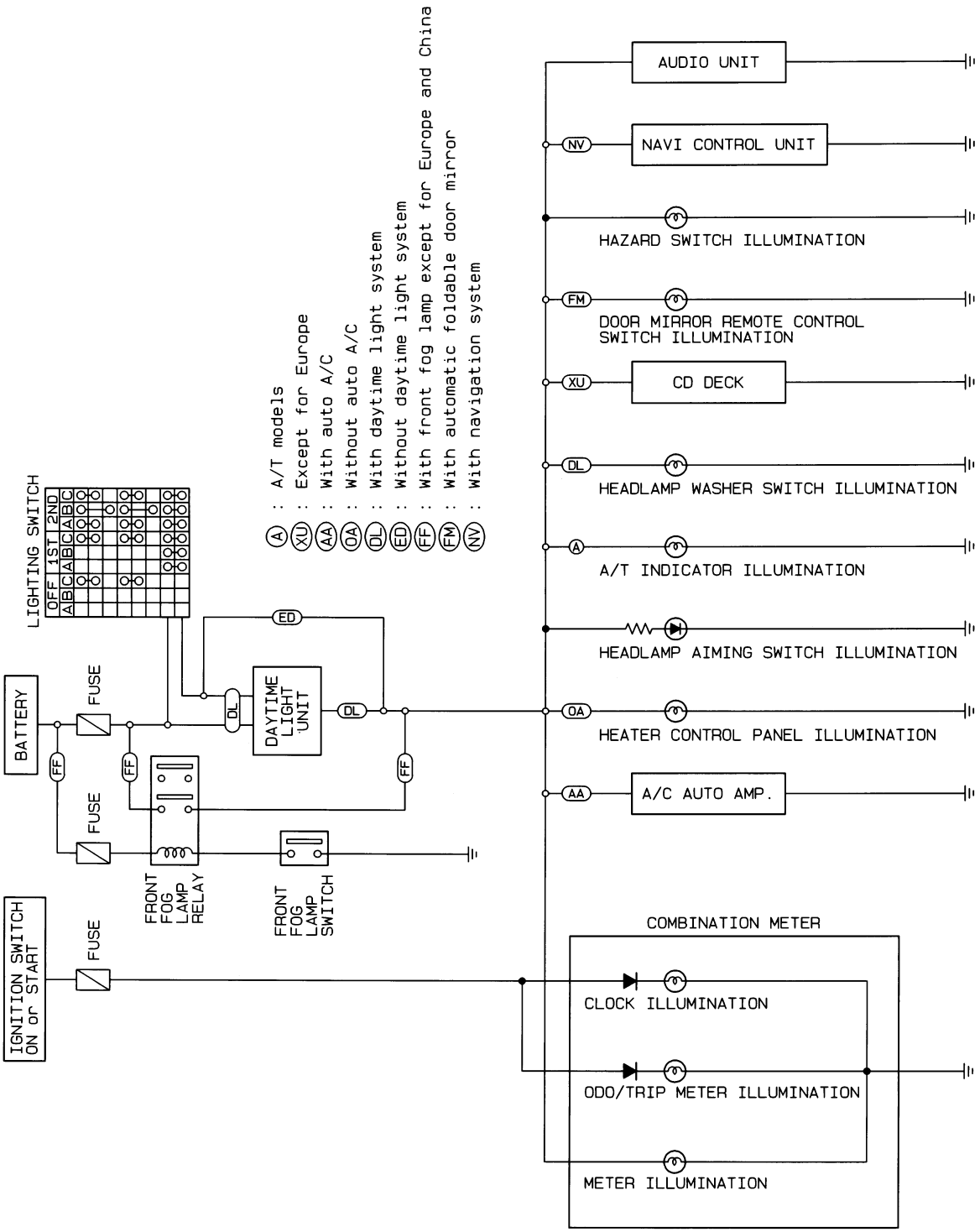
Trouble Diagnoses/Hatchback

NJEL0432

Symptom	Possible cause	Repair order
Turn signal and hazard warning lamps do not operate.	1. Time control unit 2. Time control unit circuit	1. Check power door lock operation. 2. Check power supply and ground circuit for time control unit.
Turn signal lamps do not operate but hazard warning lamps operate.	1. Turn signal switch 2. Open in turn signal switch circuit	1. Check turn signal switch. 2. Check turn signal switch ground for open circuit.
Hazard warning lamps do not operate but turn signal lamps operate.	1. Hazard switch 2. Open in hazard switch circuit	1. Check hazard switch. 2. Check hazard switch ground for open circuit.
Front turn signal lamp LH or RH does not operate.	1. Bulb 2. Open in front turn signal lamp circuit	1. Check bulb. 2. Check power supply and ground circuit for front turn signal lamp.
Side turn signal lamp LH or RH does not operate.	1. Bulb 2. Open in rear combination lamp circuit	1. Check bulb. 2. Check power supply and ground circuit for rear combination lamp.
Rear combination lamp LH or RH does not operate.	1. Bulb 2. Open in side turn signal lamp circuit	1. Check bulb. 2. Check grounds check power supply and ground circuit for rear combination lamp.
LH and RH turn indicators do not operate.	1. Ground	1. Check grounds E30 (RHD models) and E73 (LHD models)
LH or RH turn indicator does not operate.	1. Bulb	1. Check bulb in combination meter.

Schematic/Sedan

NJEL0036

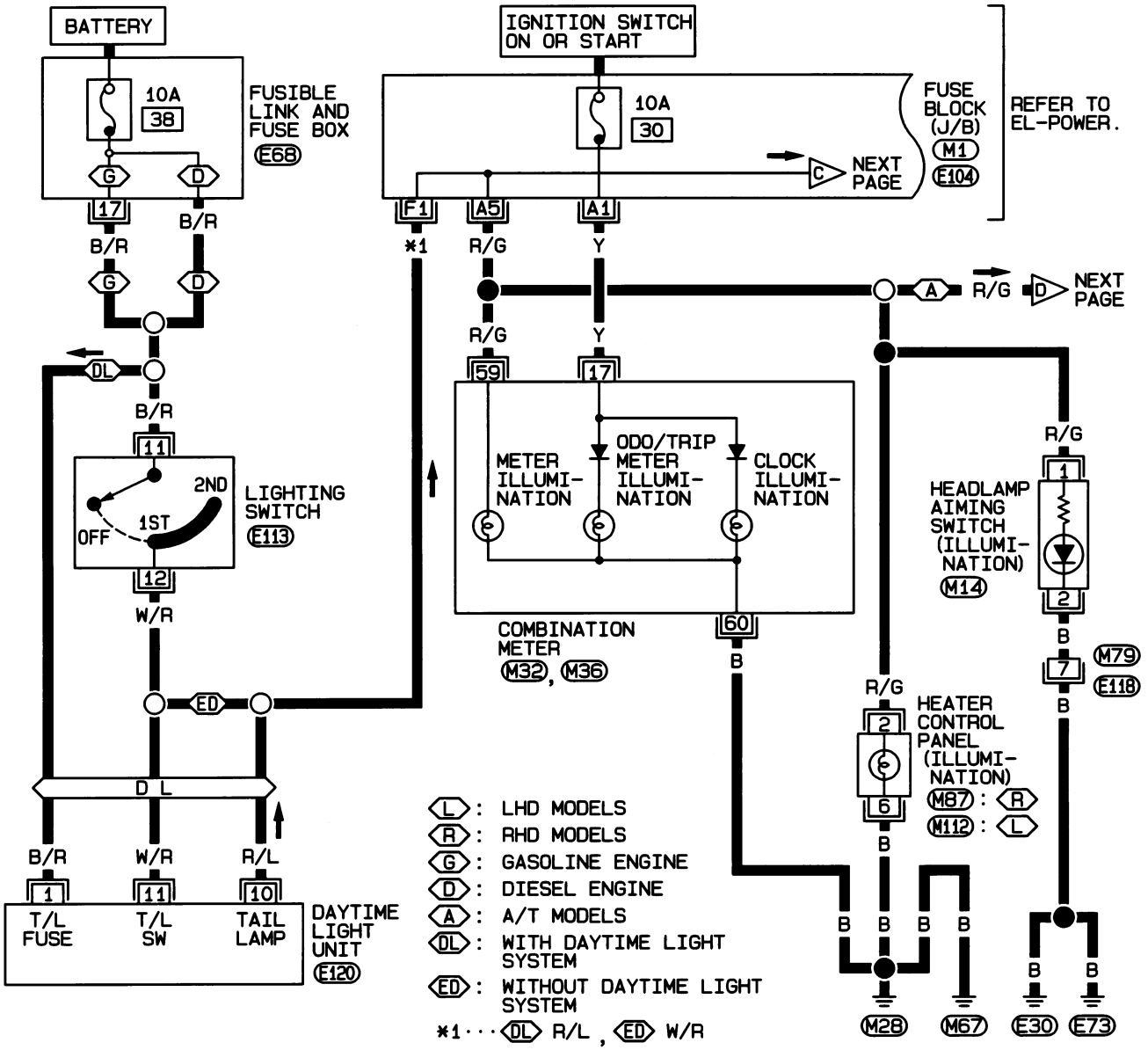


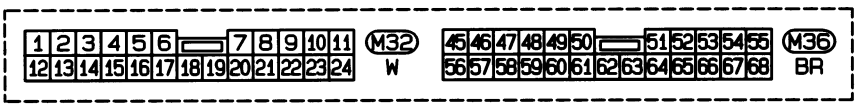
HEL376B

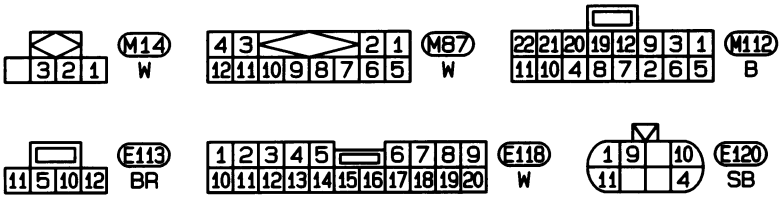
Wiring Diagram — ILL —/Sedan

NJEL0365

EL-ILL-04







REFER TO THE FOLLOWING.

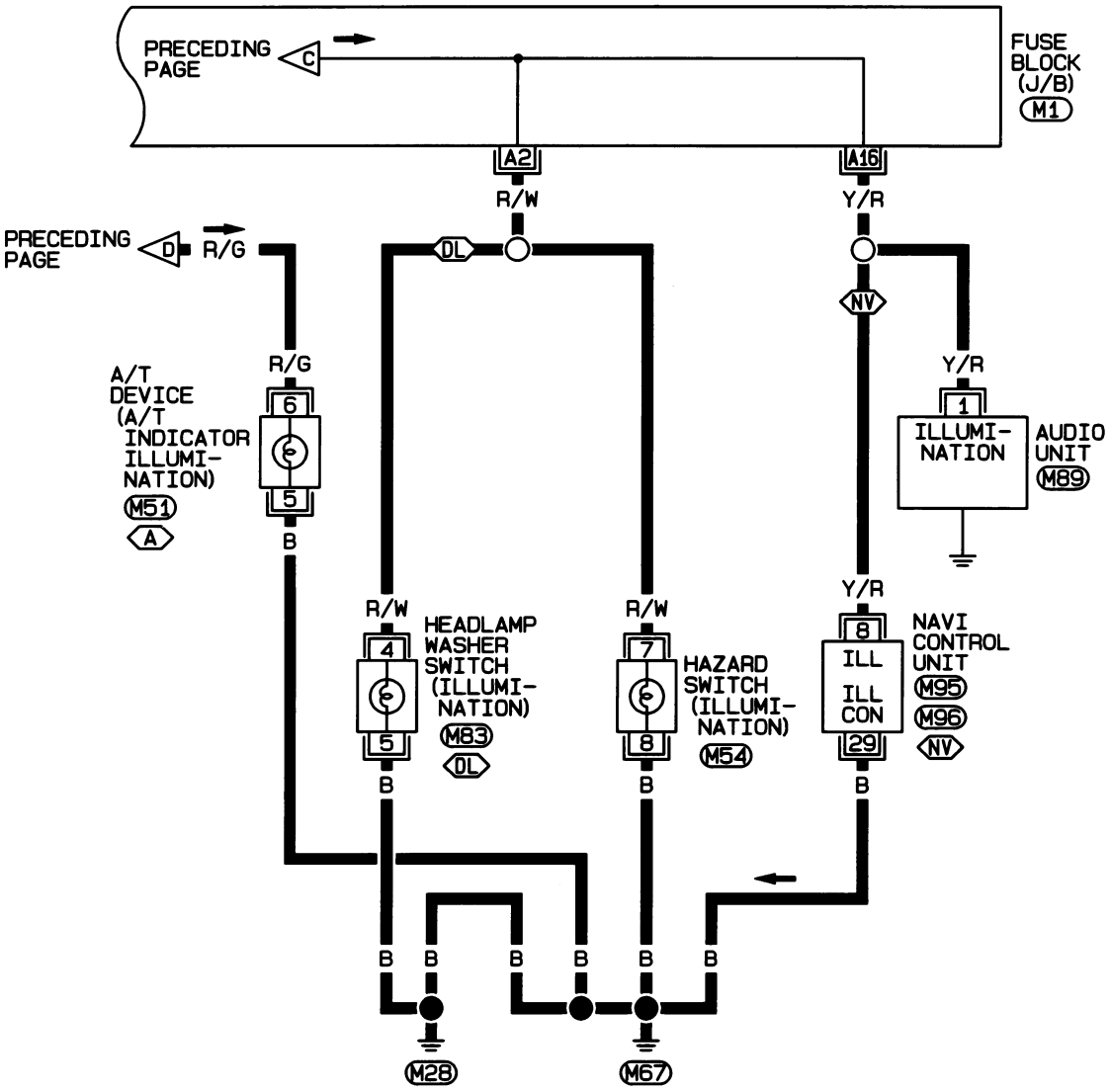
M1, E104 -FUSE BLOCK-JUNCTION BOX (J/B)

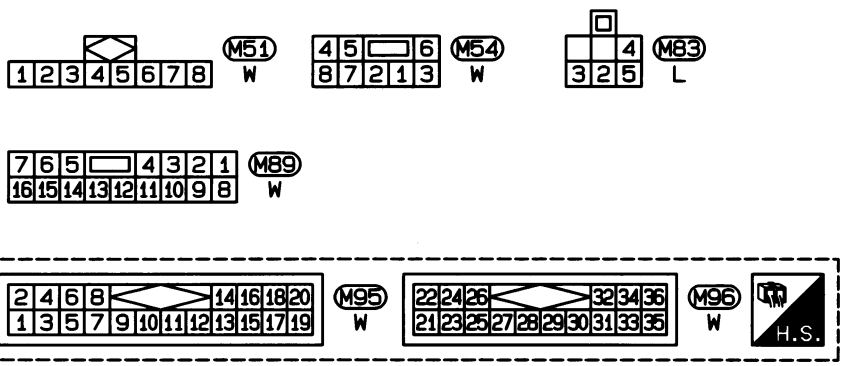
E68 -FUSE AND FUSIBLE LINK BOX

HEL377B

EL-ILL-05

Ⓐ : A/T MODELS
ⒹⓁ : WITH DAYTIME LIGHT SYSTEM
ⓃⓋ : WITH NAVIGATION SYSTEM



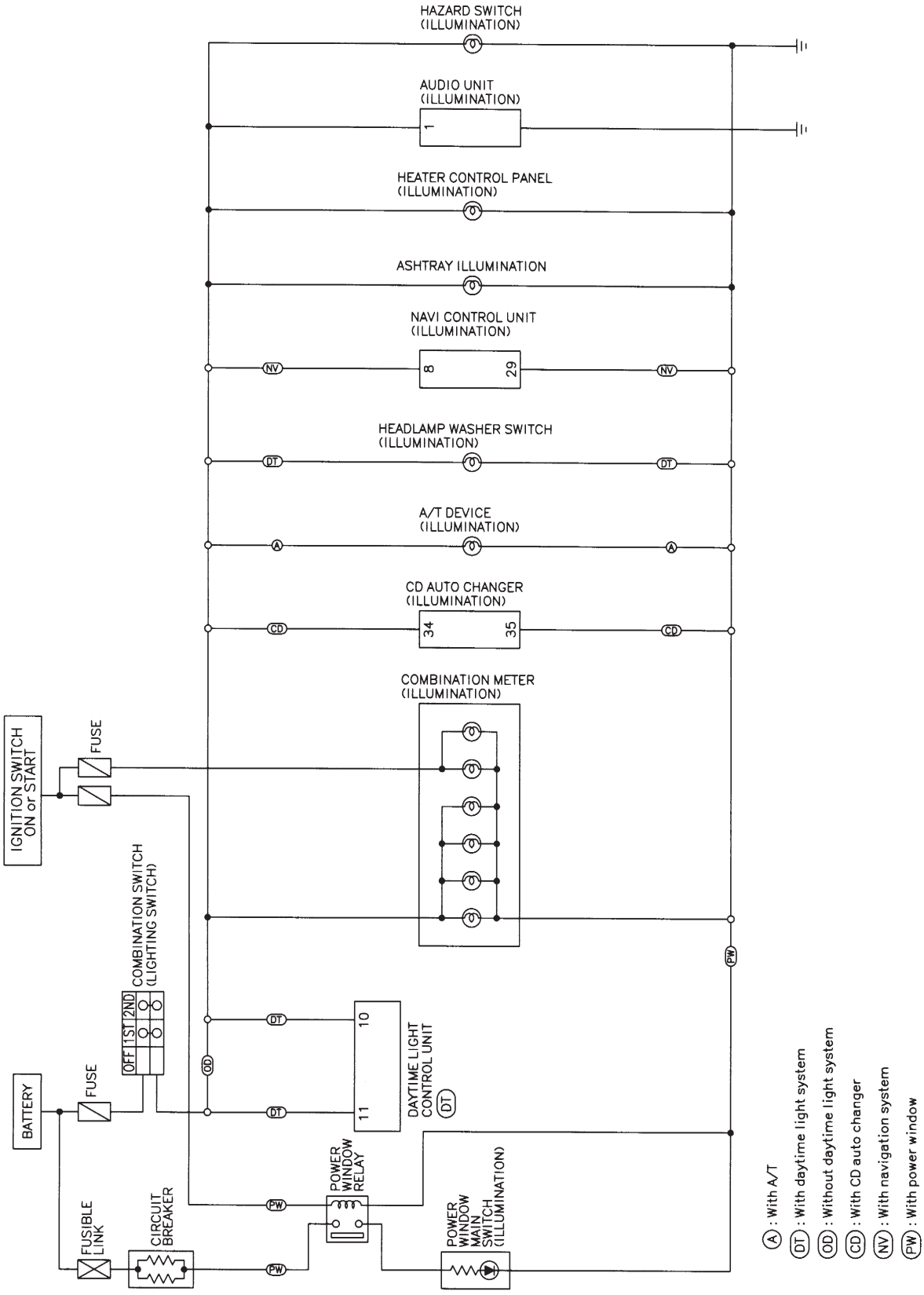


REFER TO THE FOLLOWING.
Ⓜ1 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL378B

Schematic/Hatchback

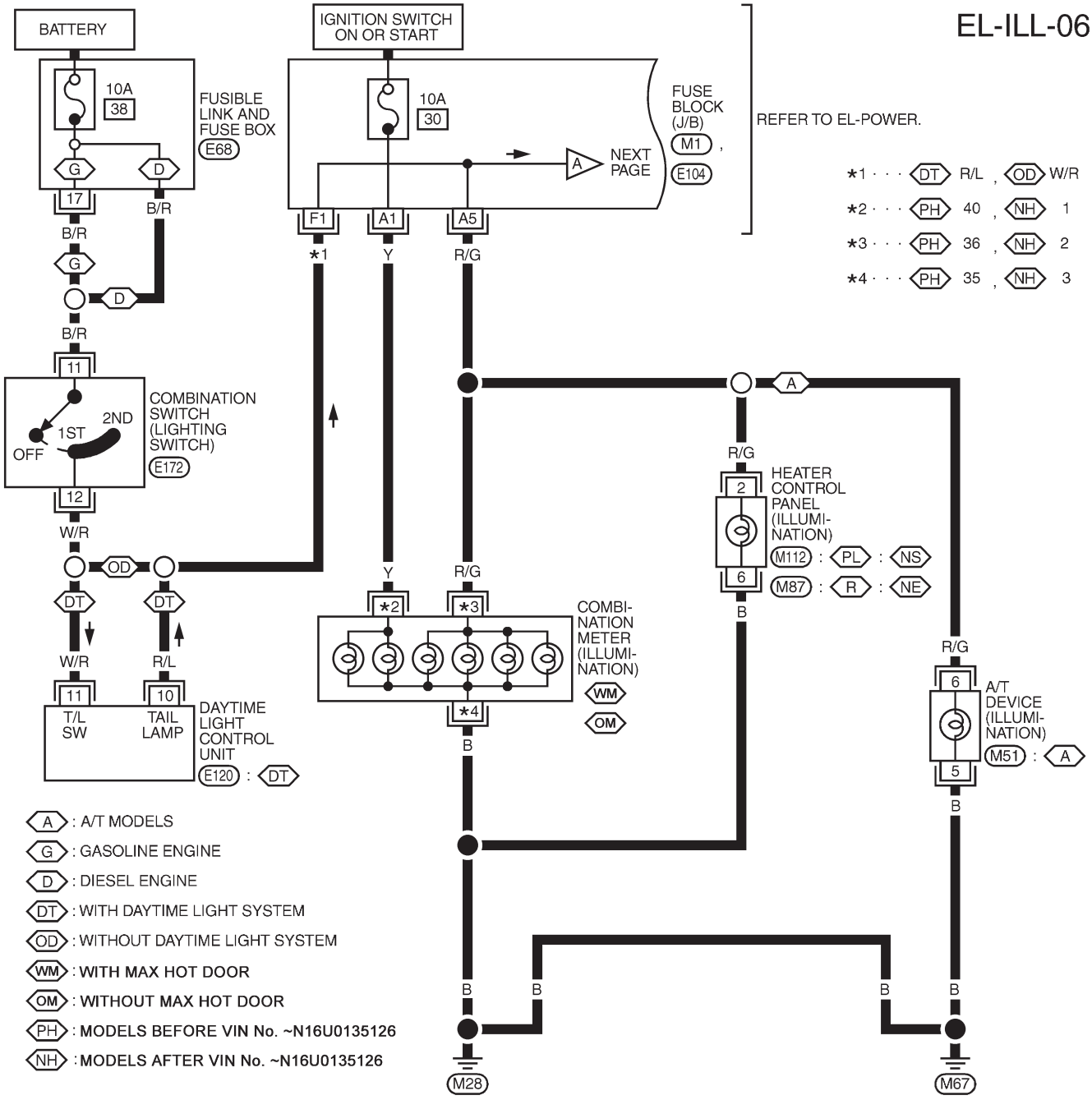
NJEL0433

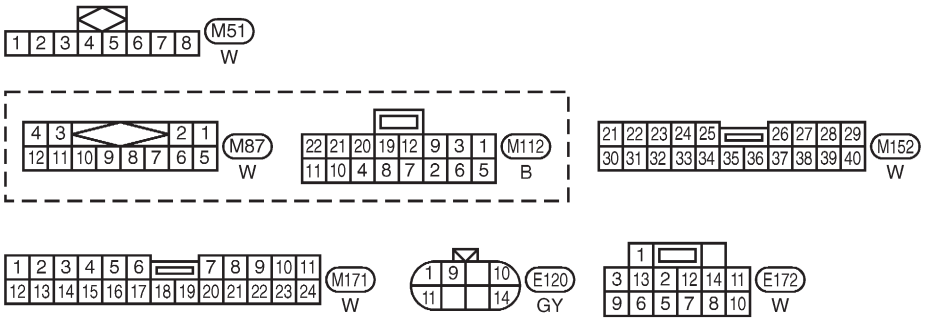


MEL747L

Wiring Diagram — ILL —/Hatchback

NJEL0434

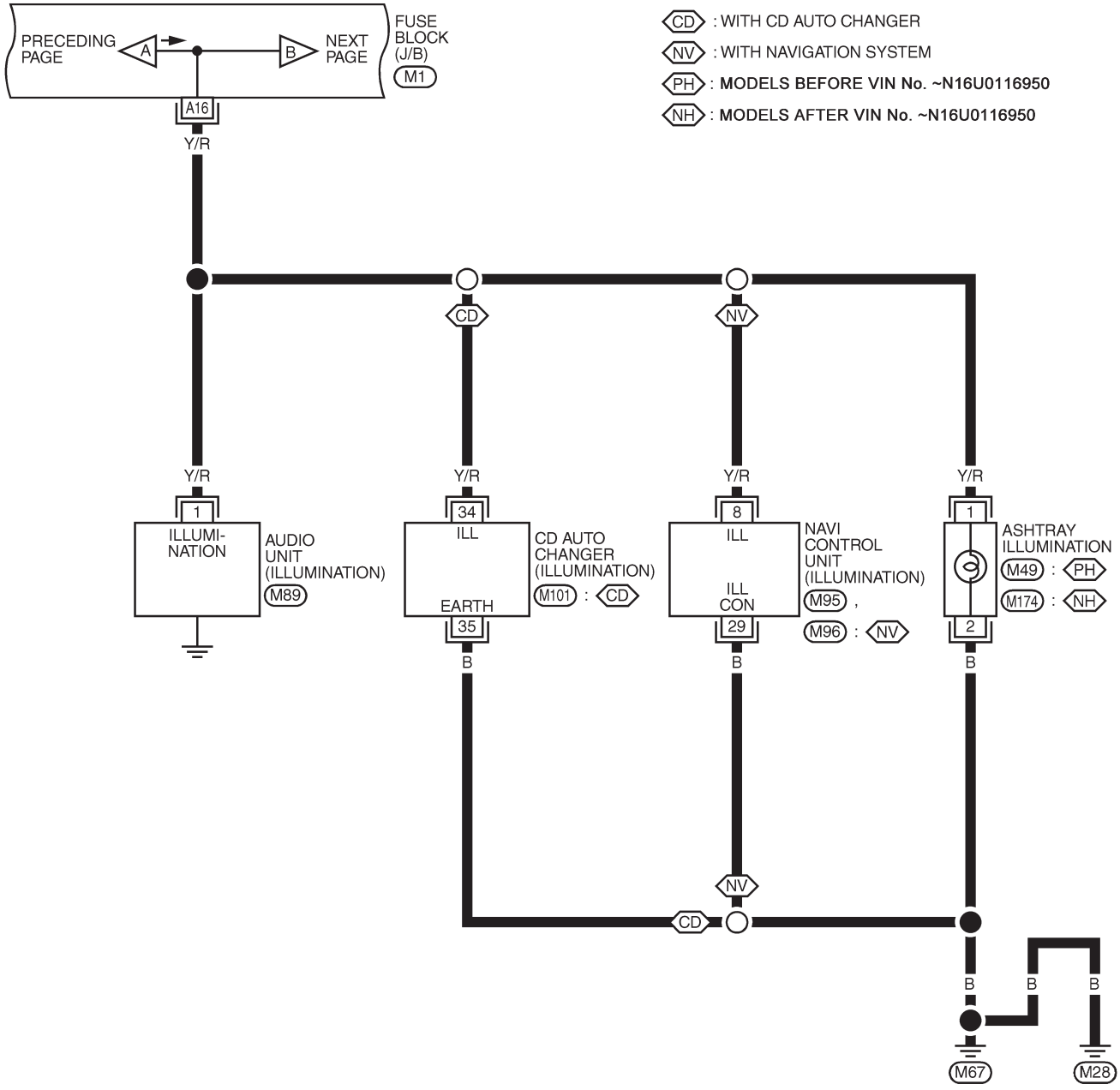


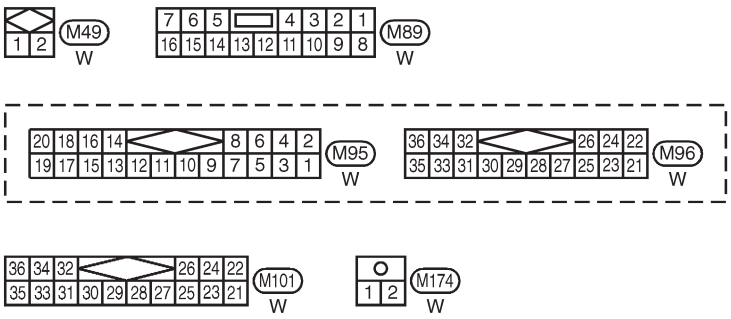


REFER TO THE FOLLOWING.
M1 , E104 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 -FUSE AND FUSIBLE LINK BOX

YEL350C

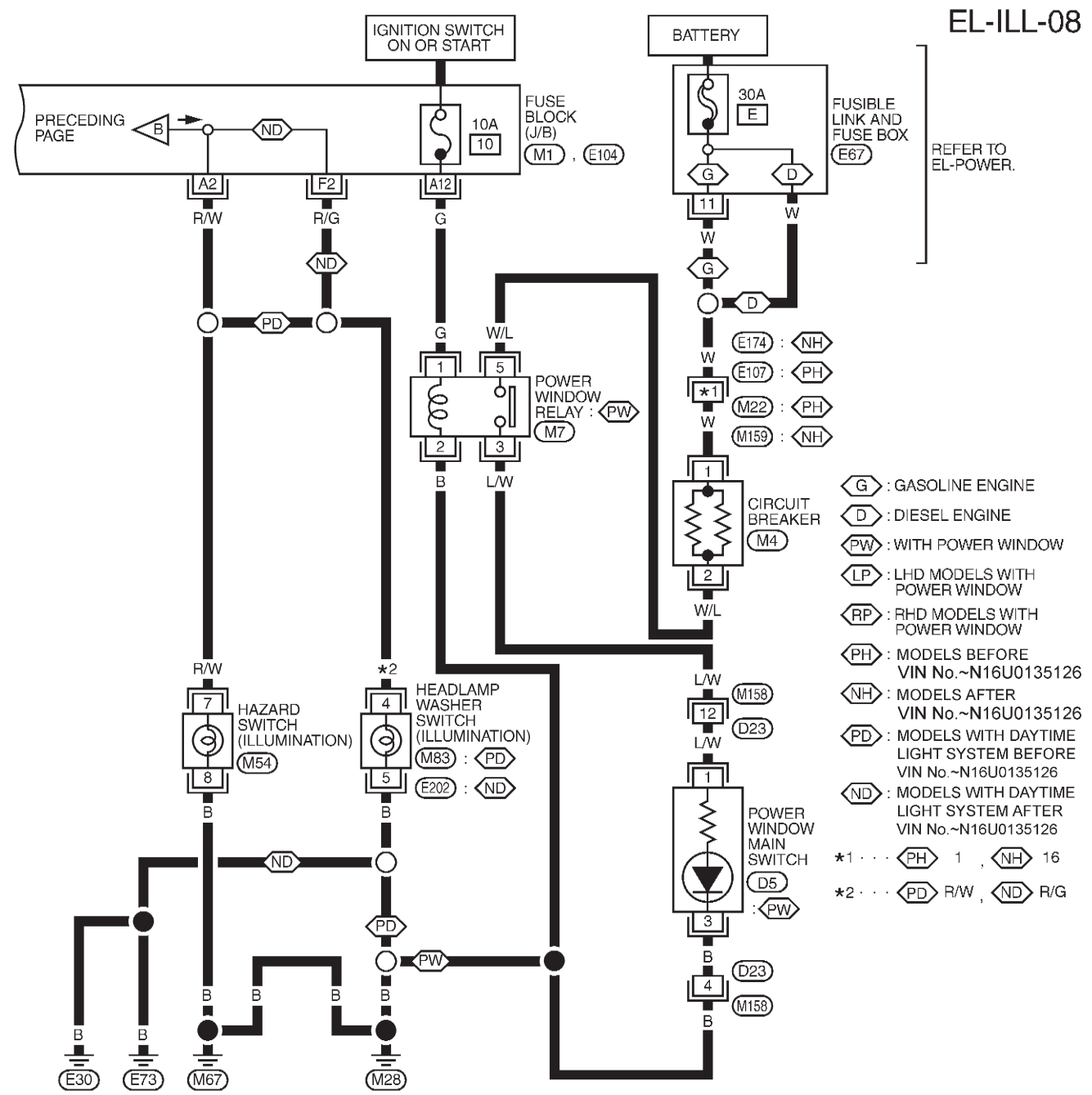
EL-ILL-07

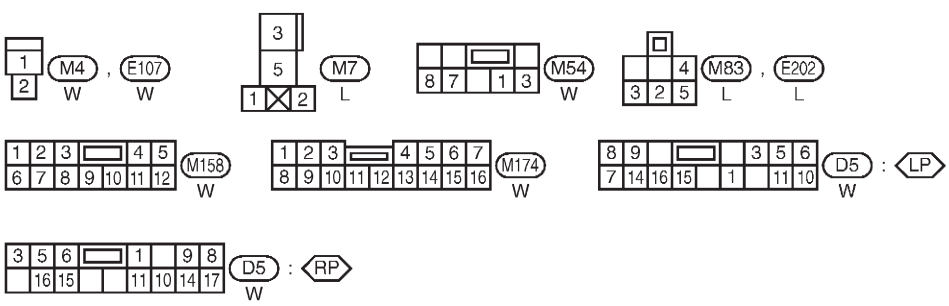




REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B)

YEL351C





REFER TO THE FOLLOWING.
M1 , E104 -FUSE BLOCK-JUNCTION BOX (J/B)
E67 -FUSE AND FUSIBLE LINK BOX

YEL352C

System Description/Sedan With Interior Room Lamp Timer

=NJEL0366

POWER SUPPLY AND GROUND

NJEL0366S01

Power is supplied at all times:

- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to key switch terminal 1 and
- to time control unit terminal 1
- through 10A fuse [No. 13, located in the fuse block (J/B)]
- to interior room lamp terminal 1.

When the key is removed from ignition key cylinder, power is interrupted:

- through key switch terminal 2
- to time control unit terminal 18.

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

- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to time control unit terminal 17.

Ground is supplied:

- through body grounds terminals M28 and M67
- to time control unit terminal 16

When the driver side door is opened, ground is supplied:

- through body grounds B9, B21 and B308
- to door switch driver side terminal 3
- from door switch driver side terminal 2
- to time control unit terminal 30.

When any door is opened, ground is supplied:

- through case ground of each door switch
- to each door switch terminal 1
- to time control unit terminal 31.

When the driver side door is unlocked, the time control unit receives a ground signal:

- through body grounds terminals M28 and M67
- to door unlock sensor terminal 2
- from door unlock sensor terminal 5
- to time control unit terminal 28.

When a signal, or combination of signals is received by the time control unit, ground is supplied:

- through time control unit terminal 26
- to interior room lamp terminal 2.

With power and ground supplied, the interior room lamp illuminates.

SWITCH OPERATION

NJEL0366S02

When interior room lamp switch is ON, ground is supplied:

- through case grounds of interior room lamp
- to interior room lamp.

INTERIOR ROOM LAMP TIMER OPERATION

NJEL0366S03

When interior room lamp switch is in the “DOOR” position, the time control unit keeps the interior room lamp illuminated for about 30 seconds when:

- unlock signal is supplied from driver’s door unlock sensor or multi-remote controller while all doors are closed and key is out of ignition key cylinder
- key is removed from ignition key cylinder while all doors are closed
- driver’s door is opened and then closed while key is out of the iginition key cylinder. (However, if the driver’s door is closed with the key inserted in the ignition key cylinder after the driver’s door is opened with the key removed, the timer is operated.)

The timer is canceled when:

- driver’s door is locked,

- driver's door is opened, or
- ignition switch is turned ON.

ON-OFF CONTROL

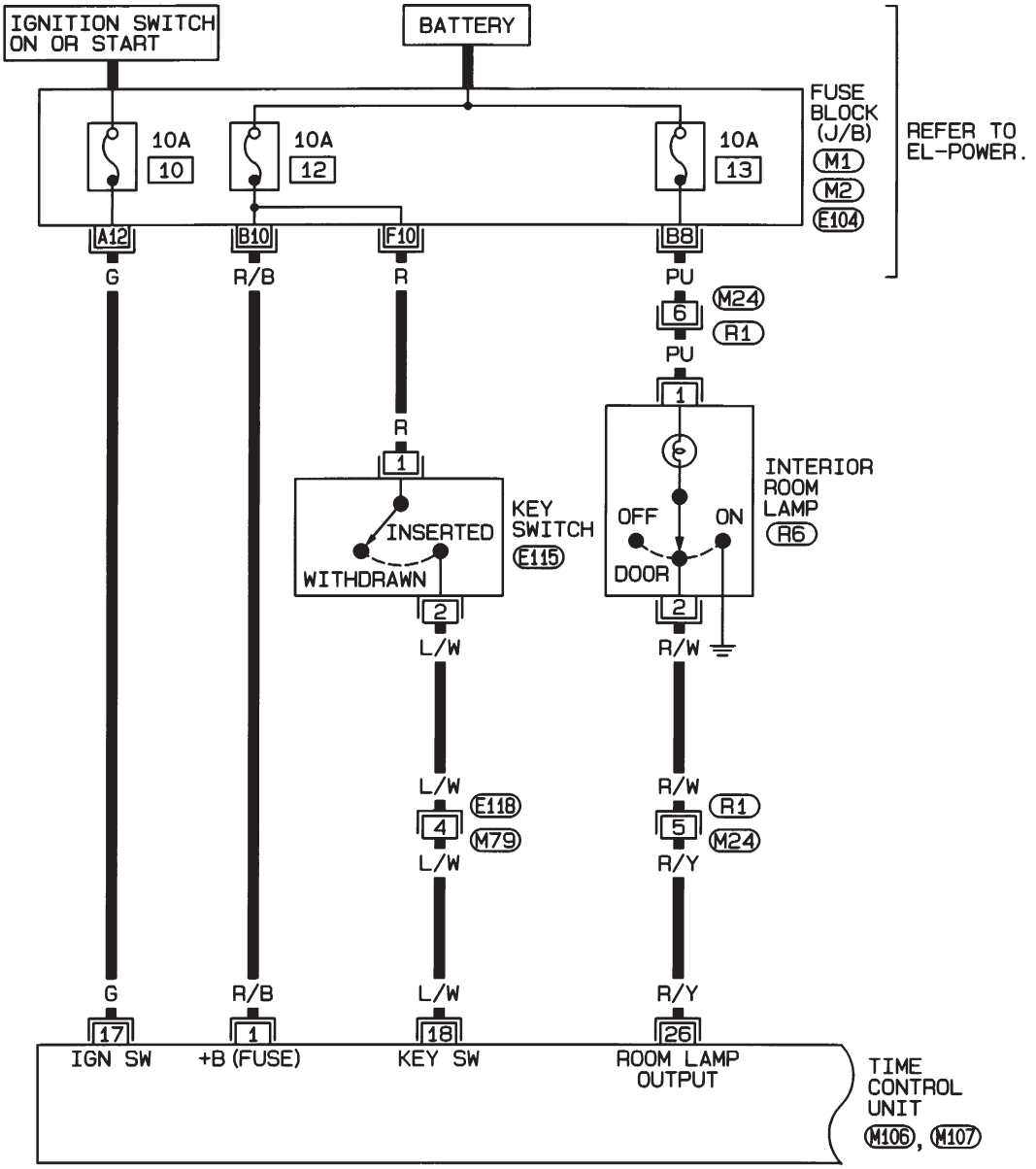
NJEL0366S04

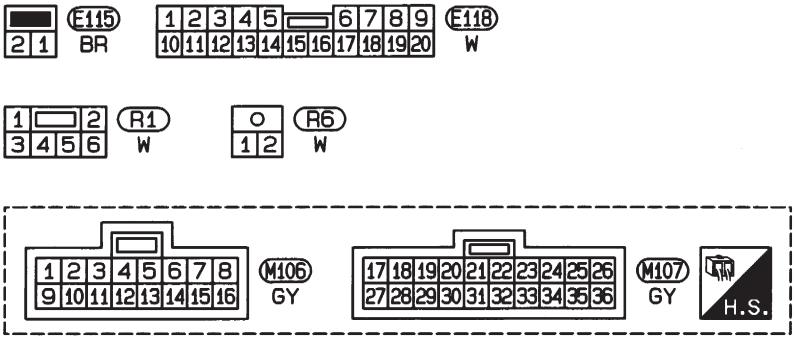
When the driver side door, front passenger door, rear LH or RH door is opened, the interior room lamp turns on while the interior room lamp switch is in the "DOOR" position.

Wiring Diagram — ROOM/L —/Sedan With Interior Room Lamp Timer

NJEL0367

EL-ROOM/L-05

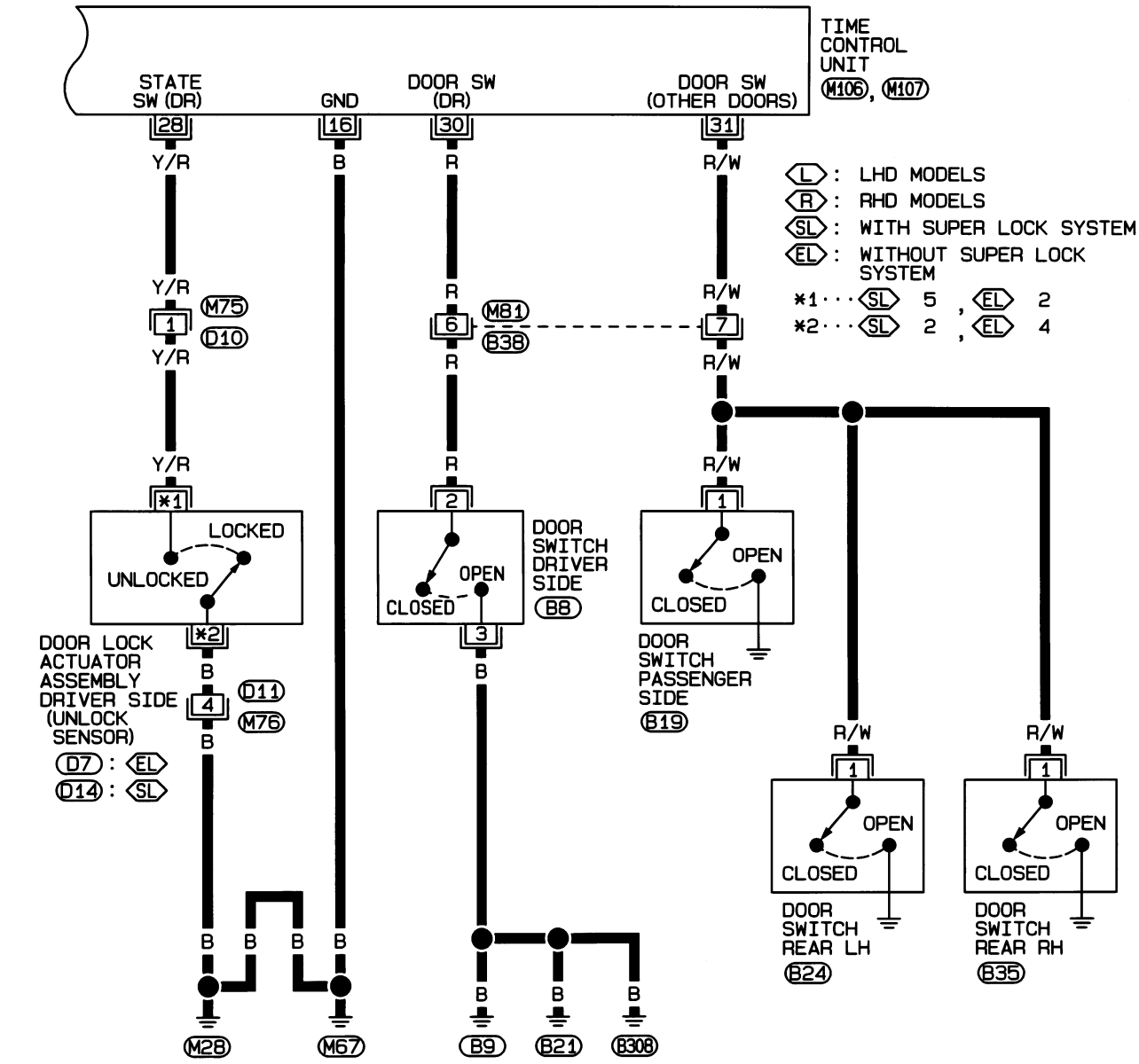


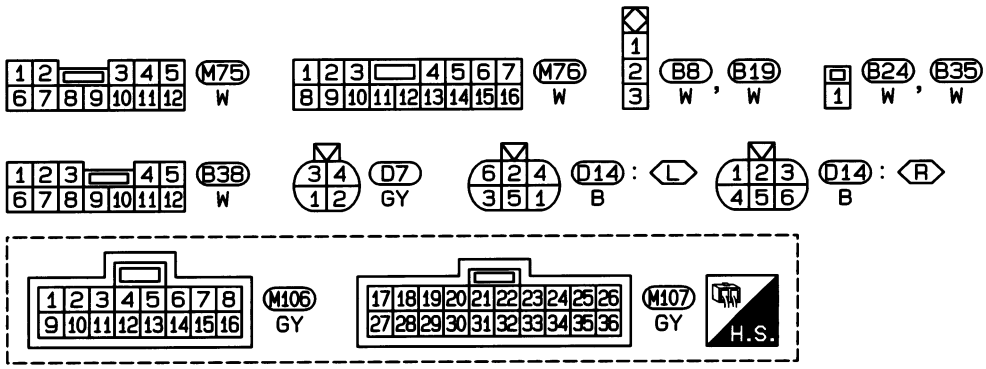


REFER TO THE FOLLOWING.
M1, M2, E104-FUSE BLOCK-JUNCTION BOX (J/B)

HEL040B

EL-ROOM/L-06





HEL454B

Trouble Diagnoses/Sedan With Interior Room Lamp Timer

=NJEL0368

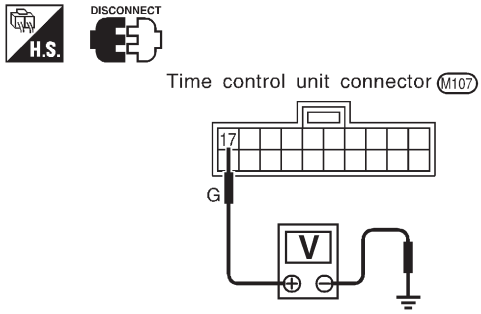
DIAGNOSTIC PROCEDURE 1

NJEL0368S01

SYMPTOM: Interior room lamp timer does not operate.

1	CHECK IGNITION ON SIGNAL

Check voltage between time control unit harness connector terminal 17 and ground.



Terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
17	Ground	0V	0V	Battery voltage

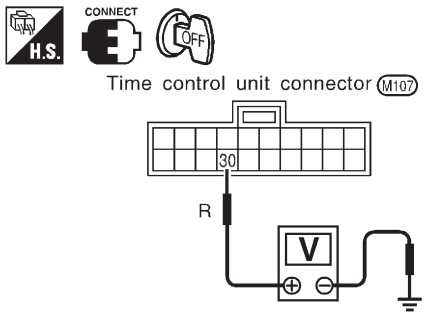
SEL985W

OK or NG

OK	▶	GO TO 2.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in fuse block (J/B)] ● Harness for open or short between time control unit and fuse

2	CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector terminal 30 and ground.



Voltage [V]:
Condition of driver's door: CLOSED
Approx. 5
Condition of driver's door: OPEN
0

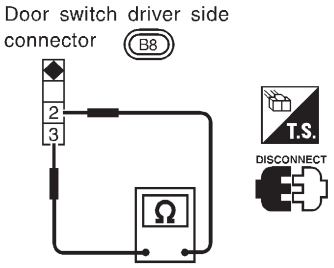
SEL986W

OK or NG

OK	▶	GO TO 4.
NG	▶	GO TO 3.

3	CHECK DRIVER SIDE DOOR SWITCH

Check continuity between door switch terminals 2 and 3.



Continuity:
Door switch is pushed.
No
Door switch is released.
Yes

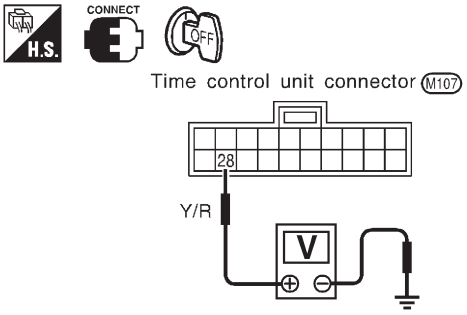
SEL325WA

OK or NG

OK	▶	**Check the following.** ● Driver side door switch ground circuit and condition ● Harness for open or short between time control unit and driver side door switch
NG	▶	Replace driver side door switch.

4	CHECK FRONT DOOR UNLOCK SENSOR INPUT SIGNAL

Check voltage between time control unit harness connector terminal 28 and ground.



Terminals (+)	Terminals (–)	Condition (Driver's door)	Voltage [V]
28	Ground	Locked	Approx. 5
		Unlocked	0

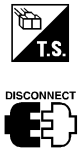
SEL987W

OK or NG

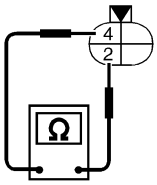
OK	▶	GO TO 6.
NG	▶	GO TO 5.

5	CHECK FRONT DOOR UNLOCK SENSOR

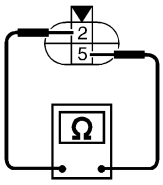
1. Disconnect front door unlock sensor harness connector.
2. Check continuity between door unlock sensor terminals.



Front door unlock sensor/ without super lock system (D7)



Front door unlock sensor connector/ with super lock system (D14)



Continuity:
Condition: Locked
No
Condition: Unlocked
Yes

SEL908X

OK or NG

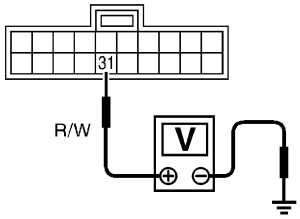
OK	▶	**Check the following.** ● Door unlock sensor ground circuit ● Harness for open or short between time control unit and door unlock sensor
NG	▶	Replace door unlock sensor.

6	CHECK DOOR SWITCHES INPUT SIGNAL

Check voltage between time control unit harness connector terminal 31 and ground.



Time control unit connector (M107)



Terminals (+)	Terminals (−)	Condition (All doors)	Voltage [v]
31	Ground	Open	0
		Closed	Approx. 5

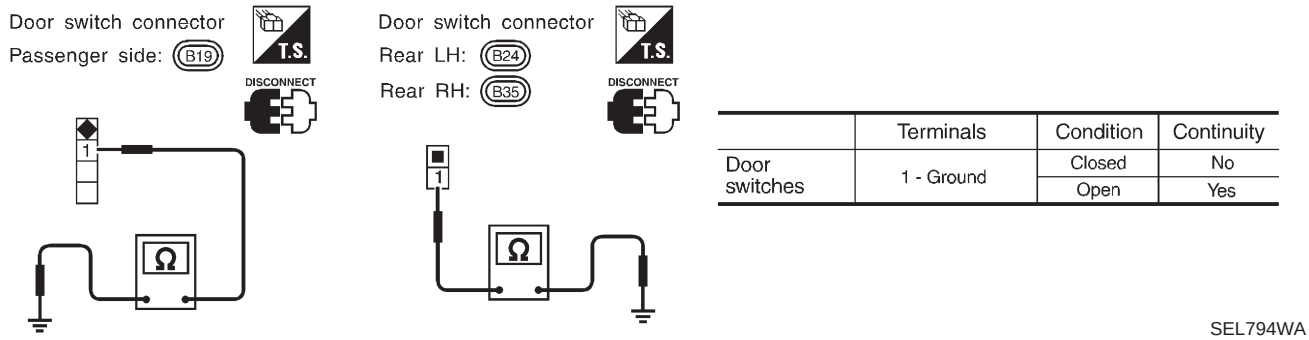
SEL989W

OK or NG

OK	▶	GO TO 8.
NG	▶	GO TO 7.

7	CHECK DOOR SWITCHES

1. Disconnect door switch harness connector.
2. Check continuity between door switch terminal 1 and ground.



	Terminals	Condition	Continuity
Door switches	1 - Ground	Closed	No
		Open	Yes

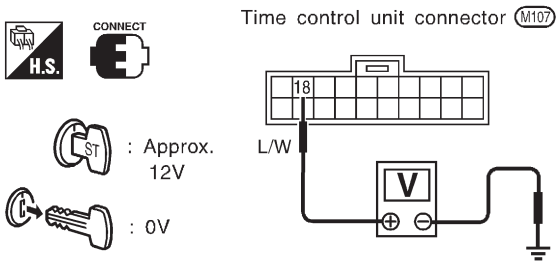
SEL794WA

OK or NG

OK	▶	**Check the following.** ● Door switch ground condition ● Harness for open or short between time control unit and door switch
NG	▶	Replace door switch.

8	CHECK KEY SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector terminal 18 and ground.



Voltage [V]:
Condition of switch: Key is inserted.
Approx. 12
Condition of switch: Key is removed.
0

SEL990W

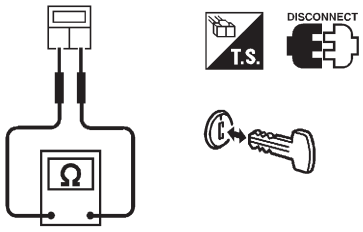
OK or NG

OK	▶	Replace time control unit.
NG	▶	GO TO 9.

9	CHECK KEY SWITCH (INSERT)

Check continuity between terminals 1 and 2.

Key switch connector E115



Continuity:

Condition of key switch: Key is inserted.
Yes
Condition of key switch: Key is removed.
No

SEL922W

OK or NG

OK	▶	**Check the following.** ● 10A fuse [No. 12, located in fuse block (J/B)] ● Harness for open or short between key switch and fuse ● Harness for open or short between time control unit and key switch
NG	▶	Replace key switch.

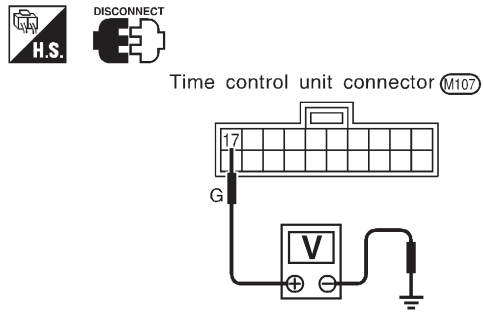
DIAGNOSTIC PROCEDURE 2

=NJEL0368S02

SYMPTOM: Interior lamp timer does not cancel properly.

1	CHECK IGNITION ON SIGNAL

Check voltage between time control unit harness connector terminal 17 and ground.



Terminals		Ignition switch position		
(+)	(–)	OFF	ACC	ON
17	Ground	0V	0V	Battery voltage

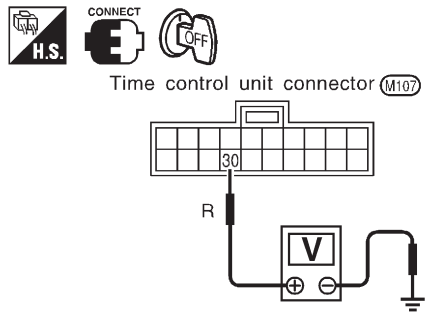
SEL985W

OK or NG

OK	▶	GO TO 2.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in fuse block (J/B)] ● Harness for open or short between time control unit and fuse

2	CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector terminal 30 and ground.



Voltage [V]:
Condition of driver's door: CLOSED
Approx. 5
Condition of driver's door: OPEN
0

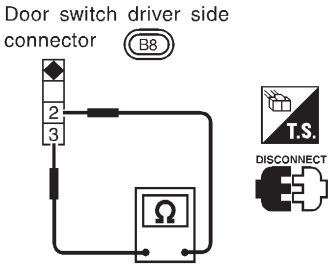
SEL986W

OK or NG

OK	▶	GO TO 4.
NG	▶	GO TO 3.

3	CHECK DRIVER SIDE DOOR SWITCH

Check continuity between terminals 2 and 3.



Continuity:
Door switch is pushed.
No
Door switch is released.
Yes

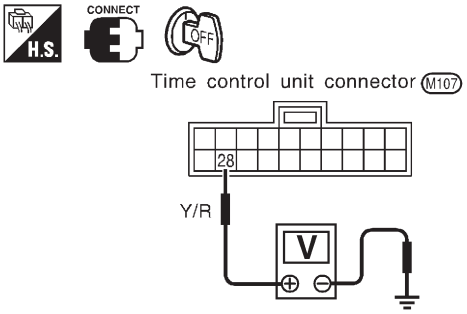
SEL325WA

OK or NG

OK	▶	**Check the following.** ● Driver side door switch ground circuit and condition ● Harness for open or short between time control unit and driver side door switch
NG	▶	Replace driver side door switch.

4	CHECK FRONT DOOR UNLOCK SENSOR INPUT SIGNAL

Check voltage between time control unit harness connector terminal 28 and ground.



Terminals (+)	Terminals (–)	Condition (Driver's door)	Voltage [V]
28	Ground	Locked	Approx. 5
		Unlocked	0

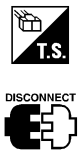
SEL987W

OK or NG

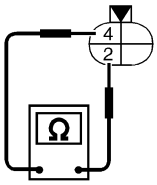
OK	▶	Replace time control unit.
NG	▶	GO TO 5.

5	CHECK FRONT DOOR UNLOCK SENSOR

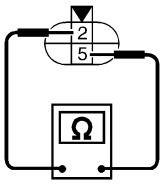
1. Disconnect front door unlock sensor harness connector.
2. Check continuity between door unlock sensor terminals.



Front door unlock sensor/ without super lock system (D7)



Front door unlock sensor connector/ with super lock system (D14)



Continuity:
Condition: Locked
No
Condition: Unlocked
Yes

SEL908X

OK or NG

OK	▶	**Check the following.** ● Door unlock sensor ground circuit ● Harness for open or short between time control unit and door unlock sensor
NG	▶	Replace door unlock sensor.

System Description/Hatchback With Interior Room Lamp Timer

=NJEL0435

POWER SUPPLY AND GROUND

NJEL0435S01

Power is supplied at all times:

- through 15A fuse [No. 5, located in the fuse block (J/B)]
- to time control unit terminal 9,
- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to key switch terminal 1 and
- through 10A fuse [No. 13, located in the fuse block (J/B)]
- to interior room lamp terminal 1.

When the key is removed from ignition key cylinder, power is interrupted:

- through key switch terminal 2
- to time control unit terminal 22.

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

- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to time control unit terminal 1.

Ground is supplied:

- through body grounds terminals M28 and M67
- to time control unit terminal 16

When the driver side door is opened, ground is supplied:

- through body grounds B9, B21 and D96
- to door switch driver side terminal 3
- from door switch driver side terminal 2
- to time control unit terminal 6.

When any door is opened, ground is supplied:

- through case ground of each door switch
- to each door switch terminal 1
- to time control unit terminal 7.

When the driver side door is unlocked, the time control unit receives a ground signal:

- through body grounds terminals M28 and M67
- to door unlock sensor terminal 2
- from door unlock sensor terminal 5
- to time control unit terminal 35.

When a signal, or combination of signals is received by the time control unit, ground is supplied:

- through time control unit terminal 12
- to interior room lamp terminal 2.

With power and ground supplied, the interior room lamp illuminates when interior room lamp switch is in “DOOR” position.

SWITCH OPERATION

NJEL0435S02

When interior room lamp switch is in “ON” position, ground is supplied:

- through case grounds of interior room lamp
- to interior room lamp.

With power and ground supplied, the interior room lamp illuminates.

INTERIOR ROOM LAMP TIMER OPERATION

NJEL0435S03

When interior room lamp switch is in the “DOOR” position, the time control unit keeps the interior room lamp illuminated for about 30 seconds when:

- unlock signal is supplied from driver’s door unlock sensor while all doors are closed
- key is removed from ignition key cylinder while all doors are closed
- driver’s door is opened and then closed

The timer is canceled when:

- driver's door is locked,
- driver's door is opened, or
- ignition switch is turned ON.

ON-OFF CONTROL

NJEL0435S04

When the driver side door, front passenger door, rear LH or RH door is opened, the interior room lamp turns on while the interior room lamp switch is in the "DOOR" position.

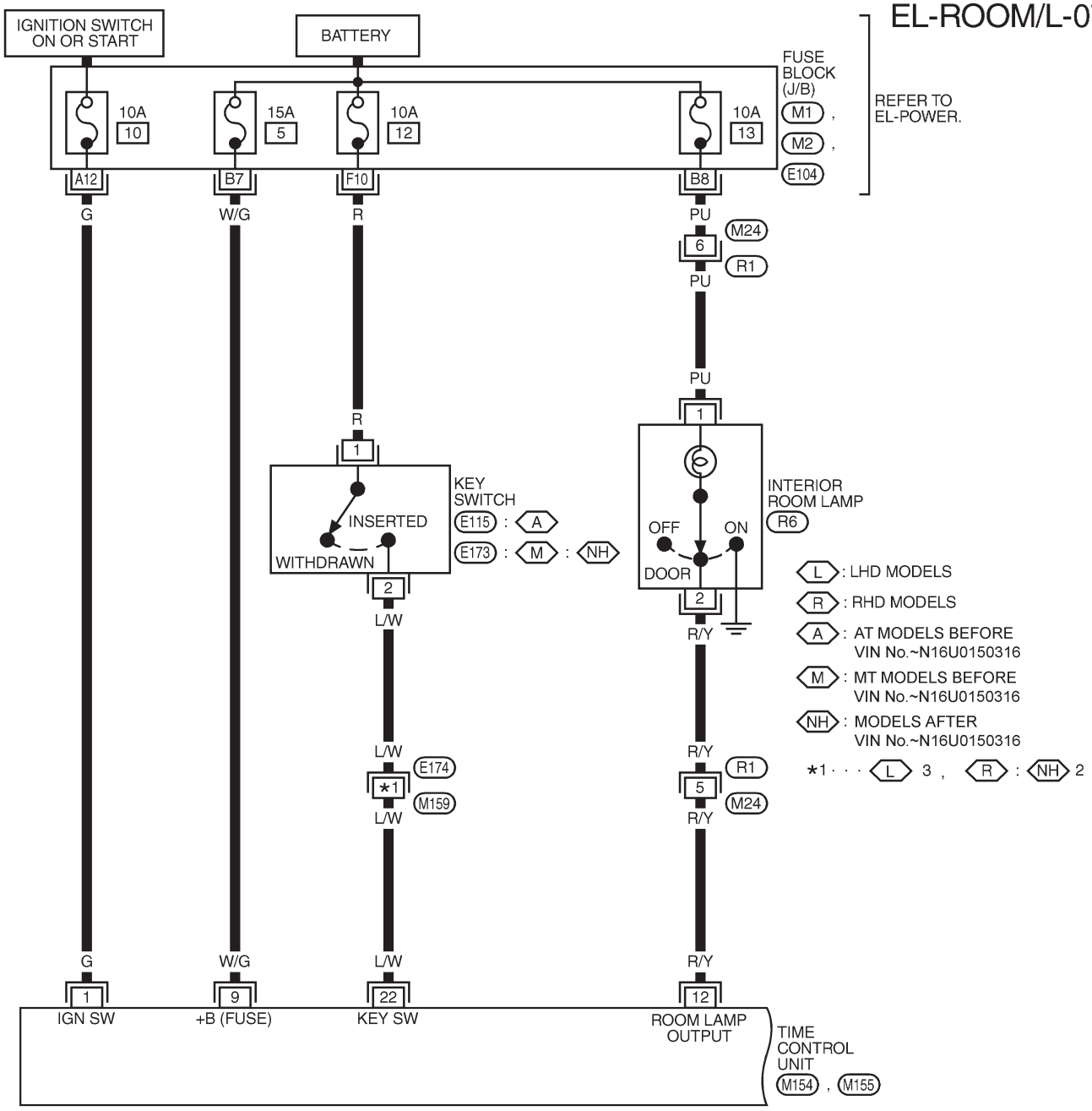
BATTERY SAVER

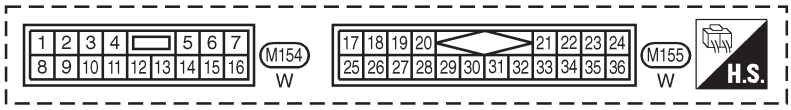
NJEL0435S11

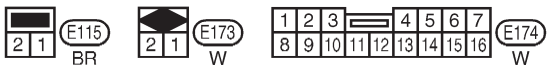
The interior room lamp is turned OFF automatically with the lamp switch in the "DOOR" position after about 30 minutes, if the lamp remains lit by the door switch open signal.

Wiring Diagram — ROOM/L —/Hatchback With Interior Room Lamp Timer

NJEL0436





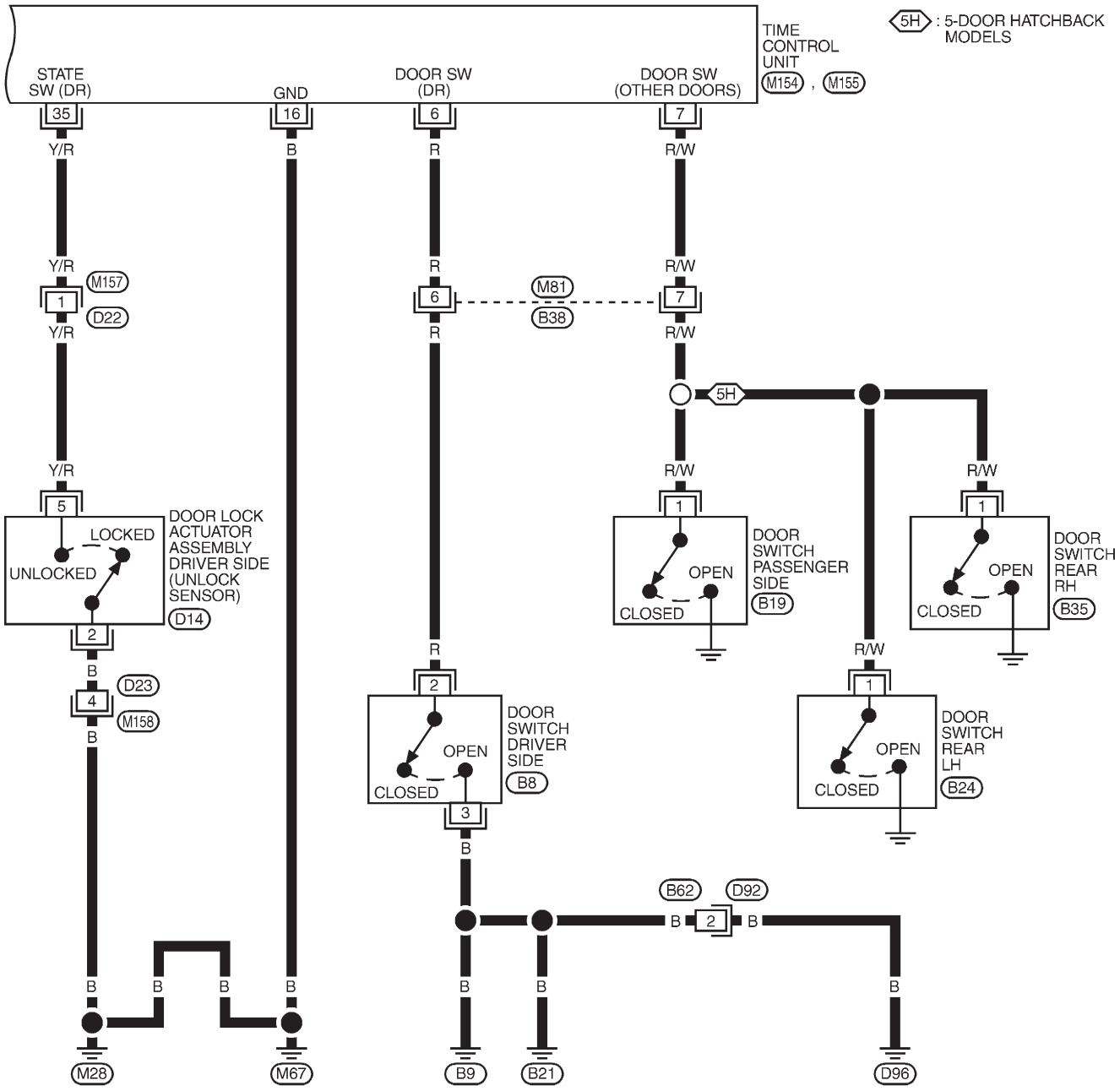


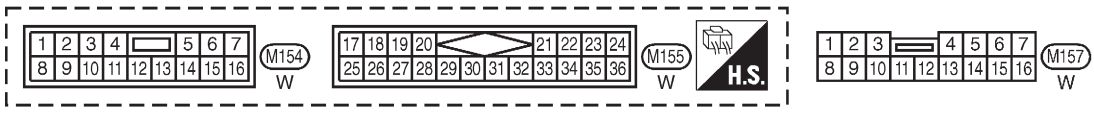


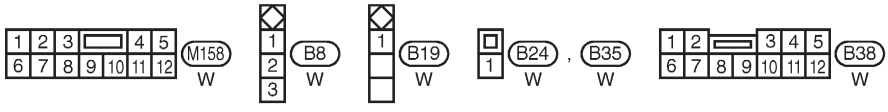
REFER TO THE FOLLOWING.
M1 , M2 , E104 -FUSE BLOCK-JUNCTION BOX (J/B)

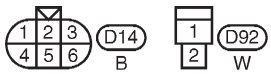
YEL353C

EL-ROOM/L-08









MEL745L

Trouble Diagnoses/Hatchback With Interior Room Lamp Timer

=NJEL0437

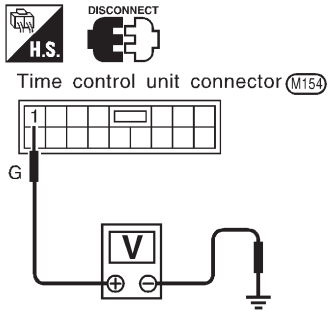
DIAGNOSTIC PROCEDURE 1

NJEL0437S01

SYMPTOM: Interior room lamp timer does not operate.

1	CHECK IGNITION ON SIGNAL

Check voltage between time control unit harness connector terminal 1 and ground.



Terminals		Ignition switch position		
(+)	(–)	OFF	ACC	ON
1	Ground	0V	0V	Battery voltage

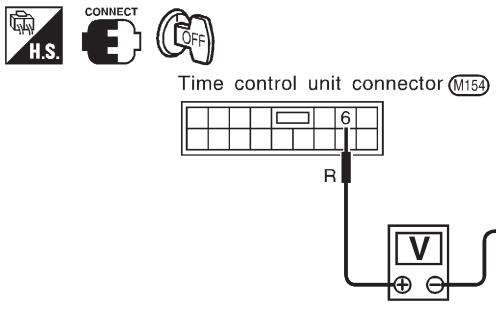
SEL429X

OK or NG

OK	▶	GO TO 2.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in fuse block (J/B)] ● Harness for open or short between time control unit and fuse

2	CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector terminal 6 and ground.



Voltage [V]:
Condition of driver's door: CLOSED
Approx. 5
Condition of driver's door: OPEN
0

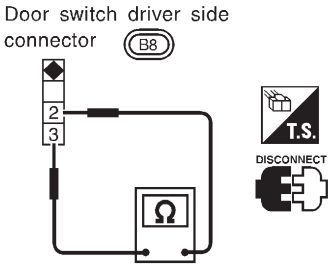
SEL430X

OK or NG

OK	▶	GO TO 4.
NG	▶	GO TO 3.

3	CHECK DRIVER SIDE DOOR SWITCH

Check continuity between door switch terminals 2 and 3.



Continuity:
Door switch is pushed.
No
Door switch is released.
Yes

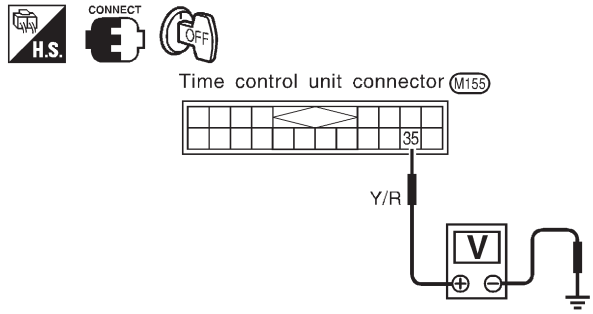
SEL325WA

OK or NG

OK	▶	**Check the following.** ● Driver side door switch ground circuit and condition ● Harness for open or short between time control unit and driver side door switch
NG	▶	Replace driver side door switch.

4	CHECK FRONT DOOR UNLOCK SENSOR INPUT SIGNAL

Check voltage between time control unit harness connector terminal 35 and ground.



Terminals		Condition (Driver's door)	Voltage [V]
(+)	(−)		
35	Ground	Locked	Approx. 5
		Unlocked	0

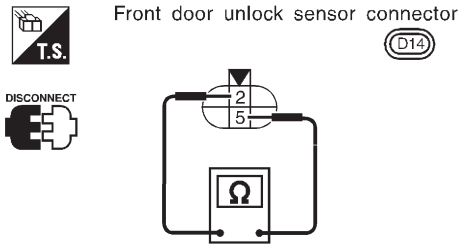
SEL431X

OK or NG

OK	▶	GO TO 6.
NG	▶	GO TO 5.

5	CHECK FRONT DOOR UNLOCK SENSOR

1. Disconnect front door unlock sensor harness connector.
2. Check continuity between door unlock sensor terminals.



Continuity:
Condition: Locked
No
Condition: Unlocked
Yes

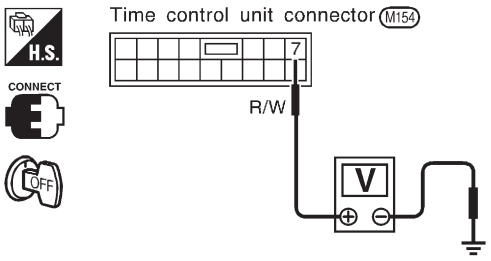
SEL988W

OK or NG

OK	▶	**Check the following.** ● Door unlock sensor ground circuit ● Harness for open or short between time control unit and door unlock sensor
NG	▶	Replace door unlock sensor.

6	CHECK DOOR SWITCHES INPUT SIGNAL

Check voltage between time control unit harness connector terminal 7 and ground.



Terminals		Condition (All doors)	Voltage [V]
(+)	(–)		
7	Ground	Open	0
		Closed	Approx. 5

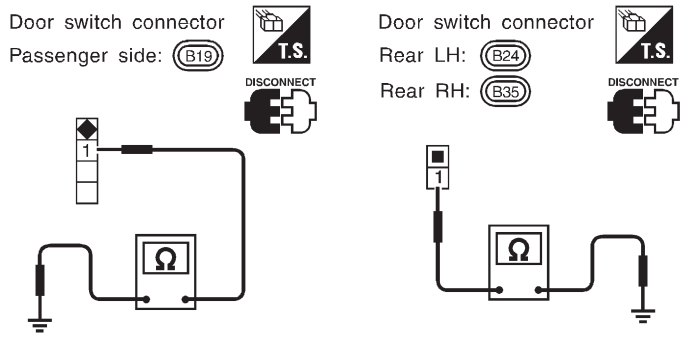
SEL432X

OK or NG

OK	▶	GO TO 8.
NG	▶	GO TO 7.

7	CHECK DOOR SWITCHES

1. Disconnect door switch harness connector.
2. Check continuity between door switch terminal 1 and ground.



	Terminals	Condition	Continuity
Door switches	1 - Ground	Closed	No
		Open	Yes

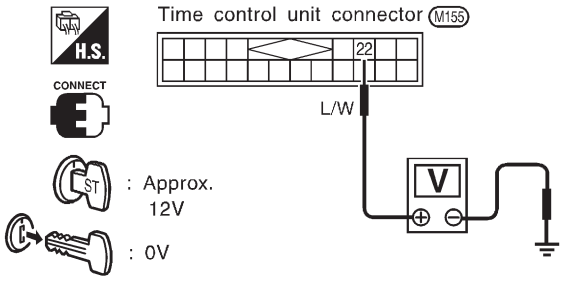
SEL794WA

OK or NG

OK	▶	**Check the following.** ● Door switch ground condition ● Harness for open or short between time control unit and door switch
NG	▶	Replace door switch.

8	CHECK KEY SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector terminal 22 and ground.



Voltage [V]:
Condition of switch: Key is inserted.
Approx. 12
Condition of switch: Key is removed.
0

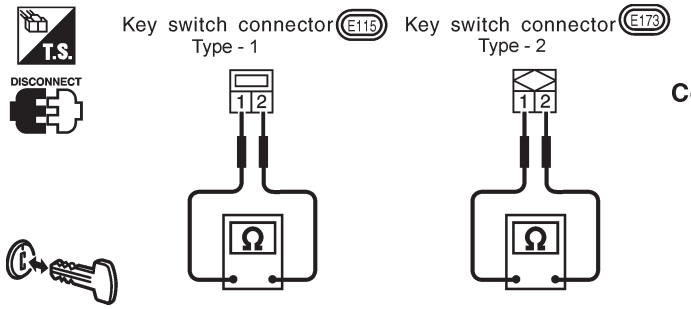
SEL433X

OK or NG

OK	▶	Replace time control unit.
NG	▶	GO TO 9.

9	CHECK KEY SWITCH (INSERT)

Check continuity between terminals 1 and 2.



Continuity:
Condition of key switch: Key is inserted.
Yes
Condition of key switch: Key is removed.
No

YEL786C

OK or NG

OK	▶	**Check the following.** ● 10A fuse [No. 12, located in fuse block (J/B)] ● Harness for open or short between key switch and fuse ● Harness for open or short between time control unit and key switch
NG	▶	Replace key switch.

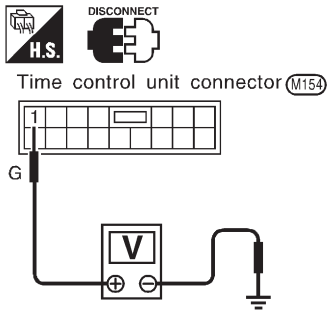
DIAGNOSTIC PROCEDURE 2

=NJEL0437S02

SYMPTOM: Interior lamp timer does not cancel properly.

1	CHECK IGNITION ON SIGNAL

Check voltage between time control unit harness connector terminal 1 and ground.



Terminals		Ignition switch position		
(+)	(–)	OFF	ACC	ON
1	Ground	0V	0V	Battery voltage

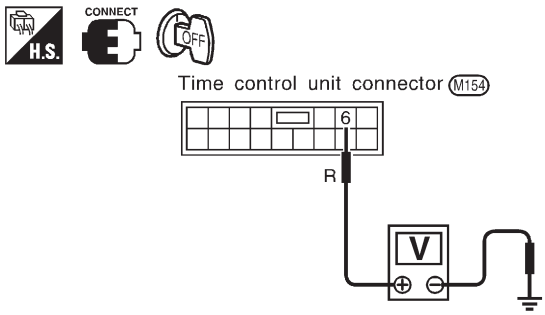
SEL429X

OK or NG

OK	▶	GO TO 2.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in fuse block (J/B)] ● Harness for open or short between time control unit and fuse

2	CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector terminal 6 and ground.



Voltage [V]:
Condition of driver's door: CLOSED
Approx. 5
Condition of driver's door: OPEN
0

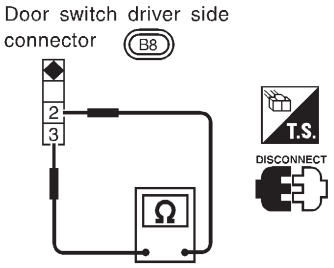
SEL430X

OK or NG

OK	▶	GO TO 4.
NG	▶	GO TO 3.

3	CHECK DRIVER SIDE DOOR SWITCH

Check continuity between terminals 2 and 3.



Continuity:
Door switch is pushed.
No
Door switch is released.
Yes

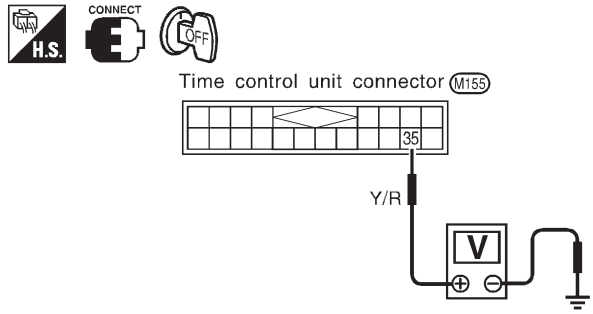
SEL325WA

OK or NG

OK	▶	**Check the following.** ● Driver side door switch ground circuit and condition ● Harness for open or short between time control unit and driver side door switch
NG	▶	Replace driver side door switch.

4	CHECK FRONT DOOR UNLOCK SENSOR INPUT SIGNAL

Check voltage between time control unit harness connector terminal 35 and ground.



Terminals		Condition (Driver's door)	Voltage [V]
(+)	(−)		
35	Ground	Locked	Approx. 5
		Unlocked	0

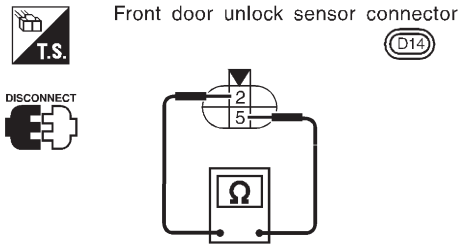
SEL431X

OK or NG

OK	▶	Replace time control unit.
NG	▶	GO TO 5.

5	CHECK FRONT DOOR UNLOCK SENSOR

1. Disconnect front door unlock sensor harness connector.
2. Check continuity between door unlock sensor terminals.



Continuity:
Condition: Locked
No
Condition: Unlocked
Yes

SEL988W

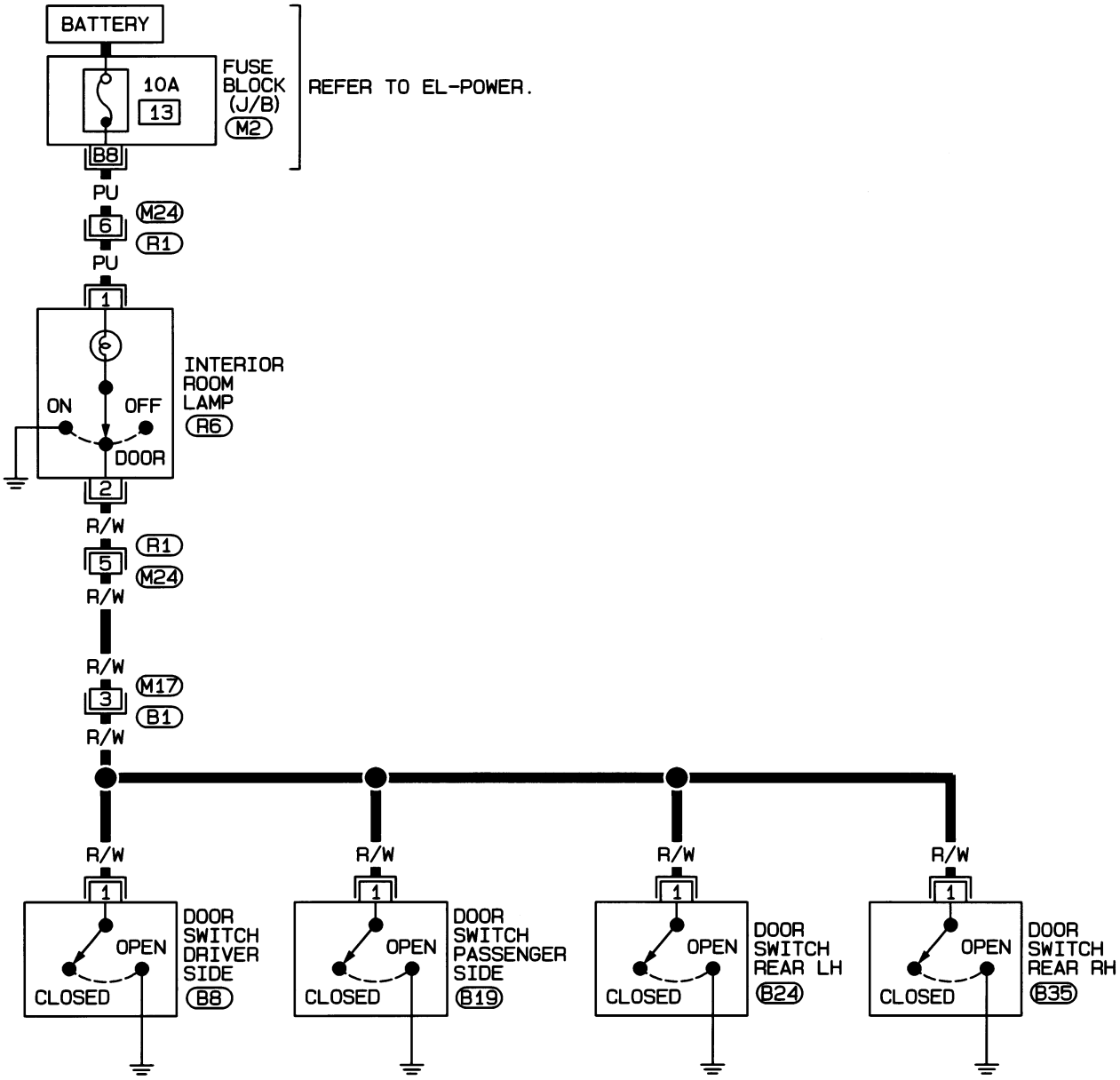
OK or NG

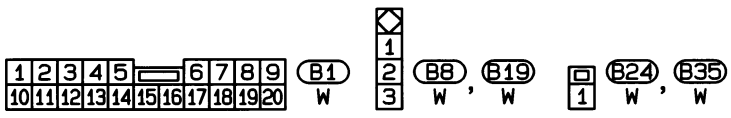
OK	▶	**Check the following.** ● Door unlock sensor ground circuit ● Harness for open or short between time control unit and door unlock sensor
NG	▶	Replace door unlock sensor.

Wiring Diagram — ROOM/L —/Sedan Without Timer

NJEL0318

EL-ROOM/L-09







REFER TO THE FOLLOWING.
M2 -FUSE BLOCK-JUNCTION BOX (J/B)

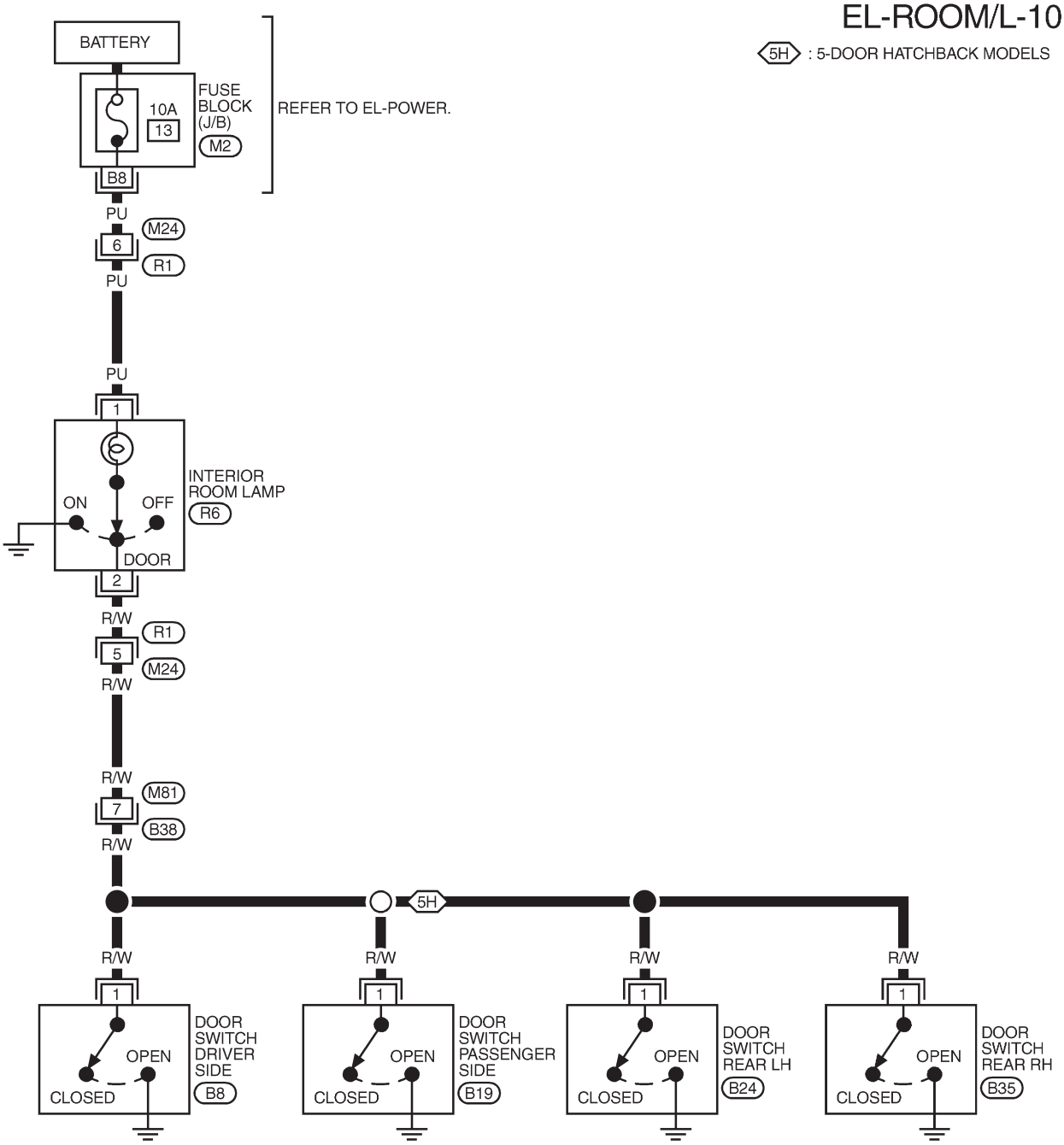
HEL379B

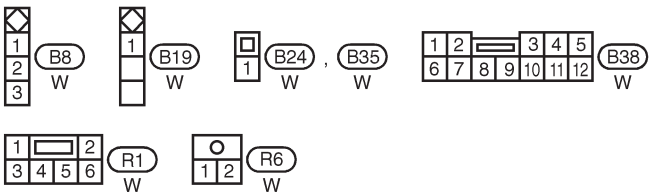
Wiring Diagram — ROOM/L —/Hatchback Without Timer

NJEL0438

EL-ROOM/L-10

5H : 5-DOOR HATCHBACK MODELS



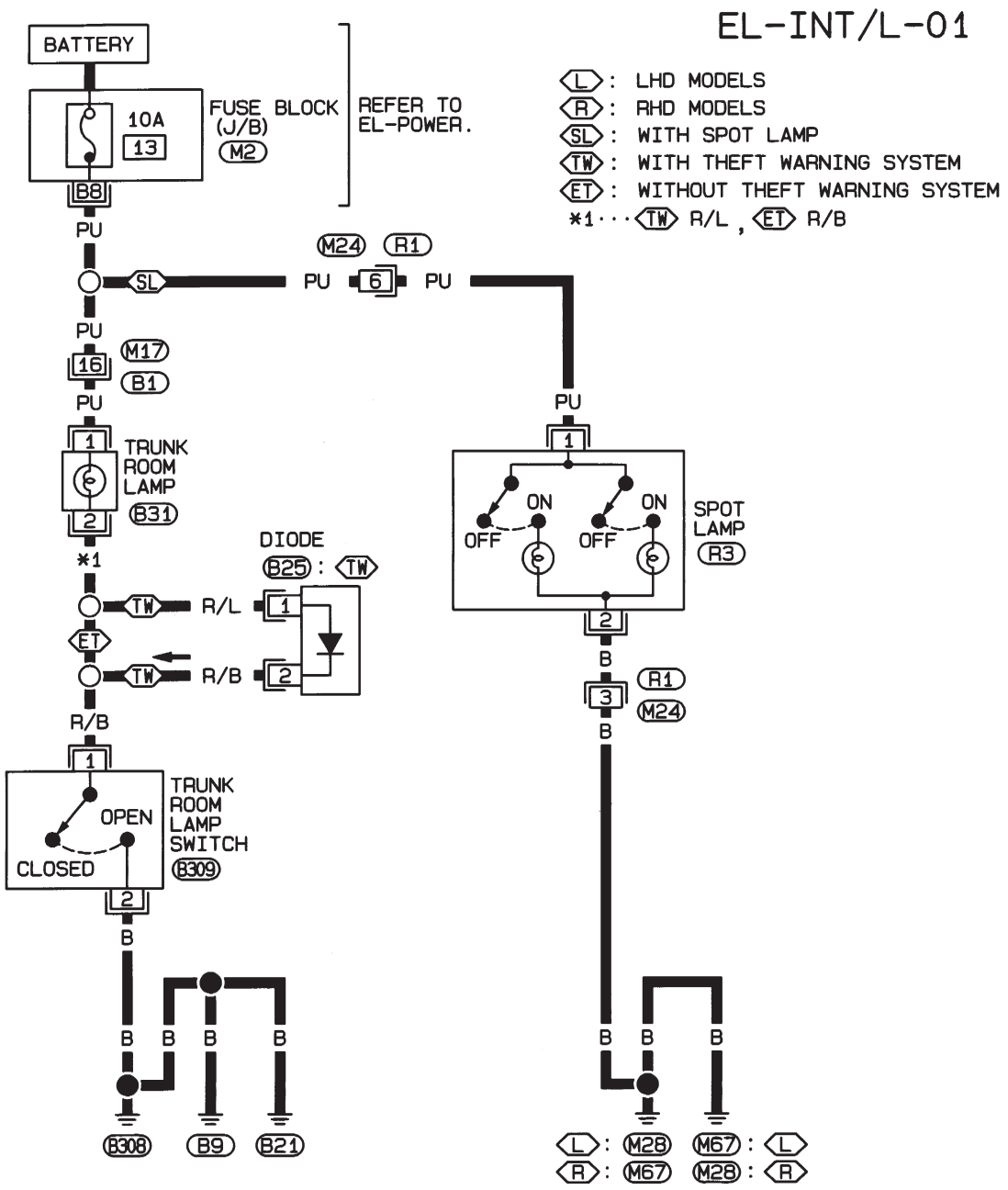


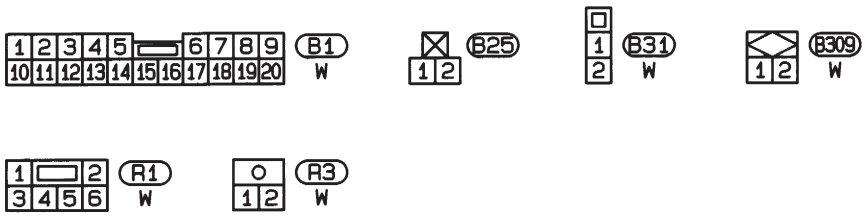
REFER TO THE FOLLOWING.
M2 -FUSE BLOCK-
JUNCTION BOX (J/B)

MEL945L

Wiring Diagram — INT/L —/Sedan

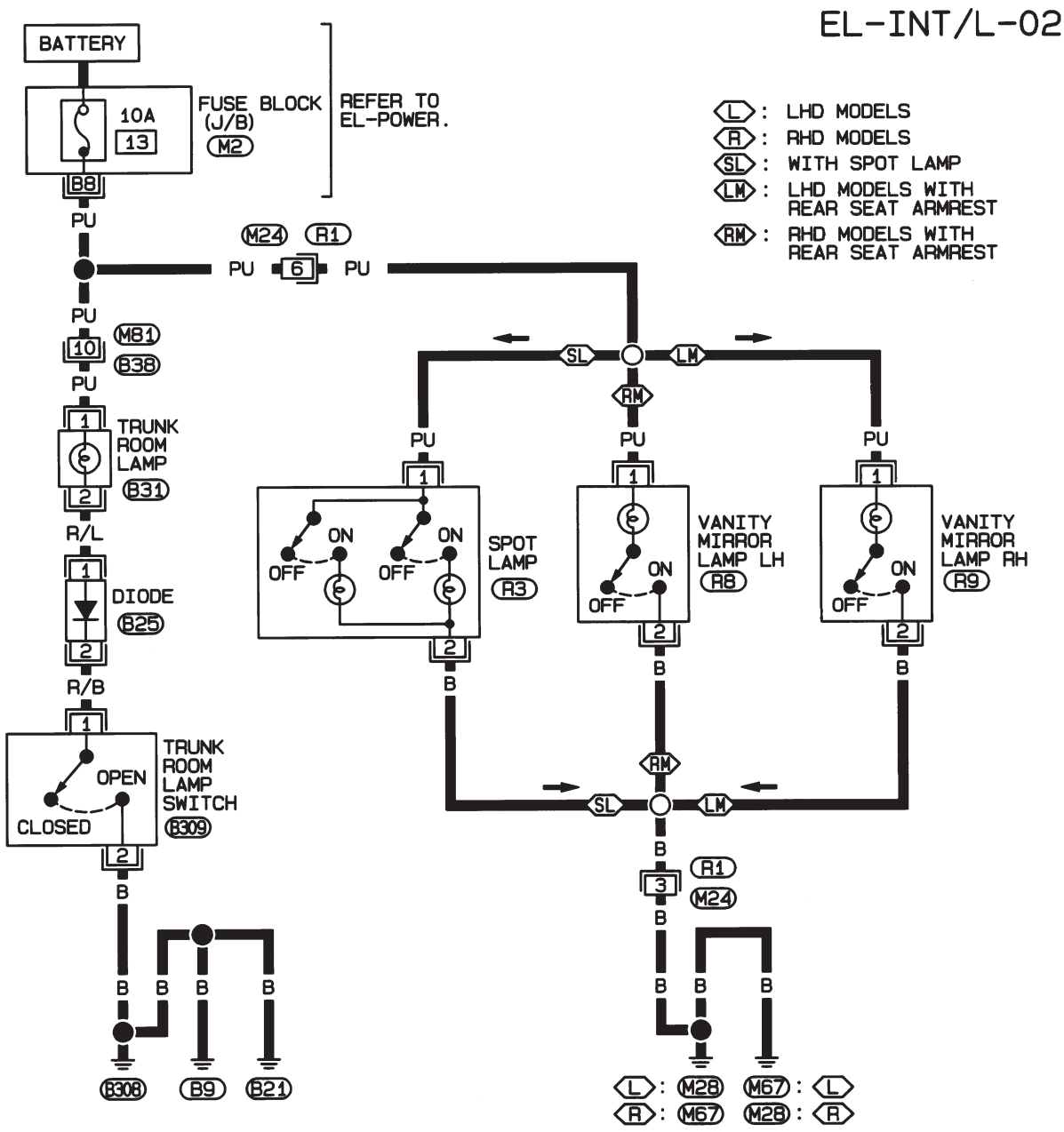
NJEL0319

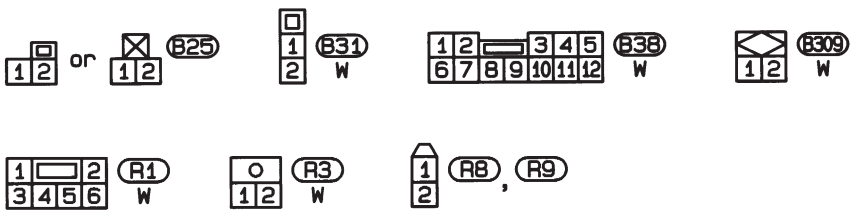




REFER TO THE FOLLOWING.
M2 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL875A



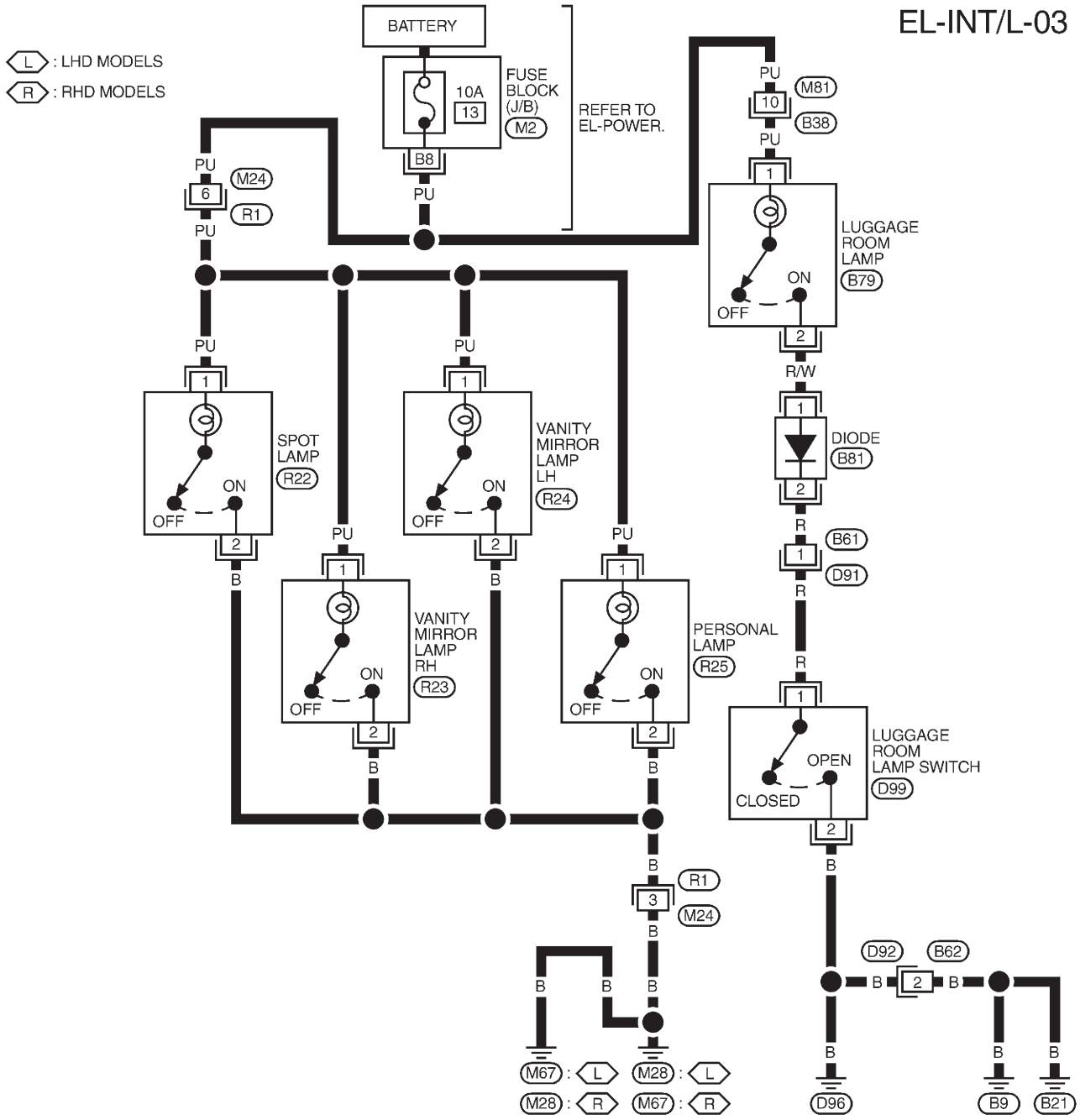


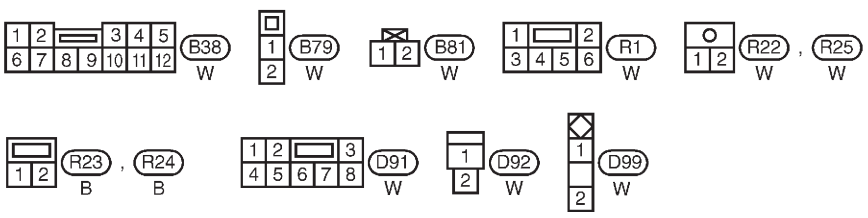
REFER TO THE FOLLOWING.
M2 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL666B

Wiring Diagram — INT/L —/Hatchback

NJEL0439



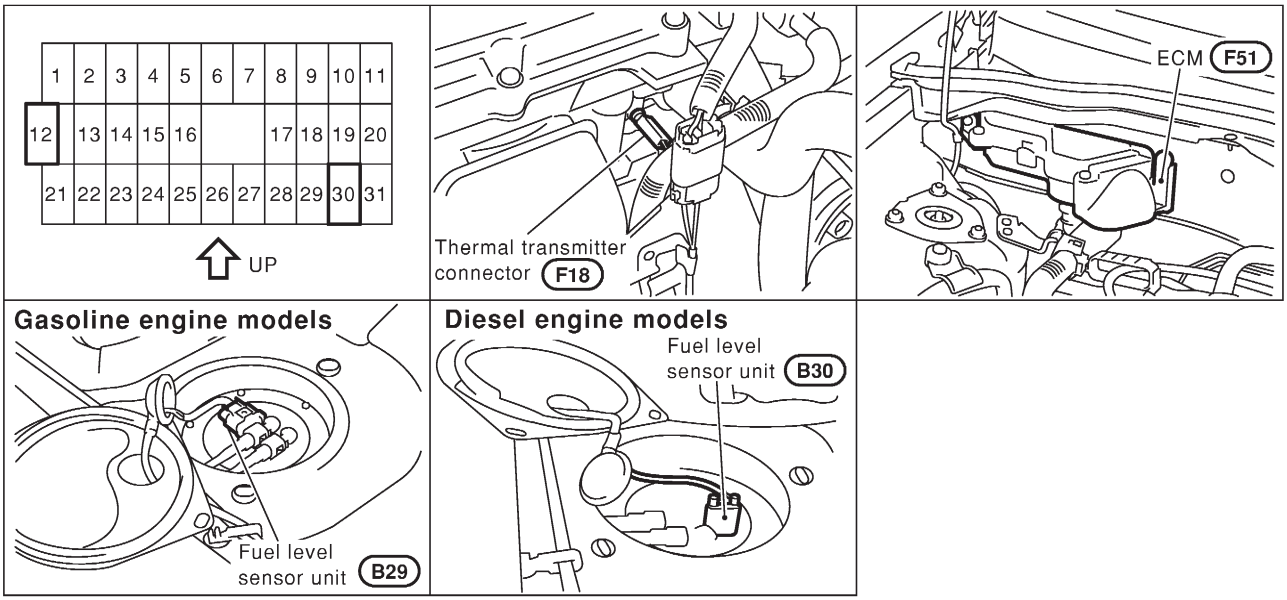


REFER TO THE FOLLOWING.
M2 -FUSE BLOCK-JUNCTION BOX (J/B)

MEL746L

Component Parts and Harness Connector Location/Sedan

NJEL0041



SEL919W

System Description/Sedan

NJEL0042

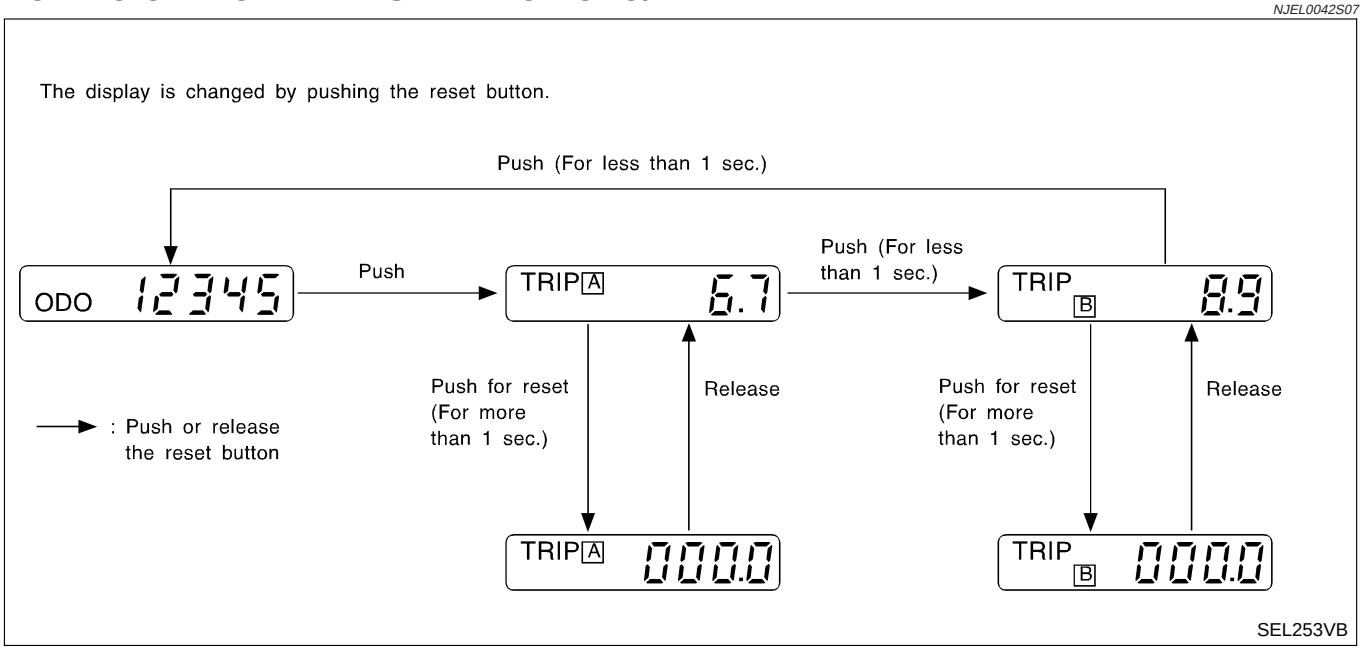
UNIFIED CONTROL METER

NJEL0042S06

- Speedometer, odo/trip meter, tachometer, fuel gauge and water temperature gauge are controlled totally by control unit built-in combination meter.
- Digital meter is adopted for odo/trip meter.*
  *The record of the odo meter is kept even if the battery cable is disconnected. The record of the trip meter is erased when the battery cable is disconnected.
- Odo/trip meter segment can be checked in diagnosis mode.
- Meter/gauge can be checked in diagnosis mode.

HOW TO CHANGE THE DISPLAY FOR ODO/TRIP METER

NJEL0042S07



SEL253VB

NOTE:
Turn ignition switch to the “ON” position to operate odo/trip meter.

POWER SUPPLY AND GROUND CIRCUIT

NJEL0042S08

Power is supplied at all times

- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to combination meter terminal 18 (with tachometer) or 21 (without tachometer).

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

- through 10A fuse [No. 30, located in the fuse block (J/B)]
- to combination meter terminal 17 (with tachometer) or 22 (without tachometer).

Ground is supplied

- through body grounds M28 and M67
- to combination meter terminal 24 (with tachometer) or 23 (without tachometer).

WATER TEMPERATURE GAUGE

NJEL0042S01

The water temperature gauge indicates the engine coolant temperature. The reading on the gauge is based on the resistance of the thermal transmitter.
As the temperature of the coolant increases, the resistance of the thermal transmitter decreases. A variable ground is supplied to terminal 19 (with tachometer) or 34 (without tachometer) of the combination meter for the water temperature gauge. The needle on the gauge moves from "C" to "H".

TACHOMETER

NJEL0042S02

The tachometer indicates engine speed in revolutions per minute (rpm).
The tachometer is regulated by a signal

- from terminal 32 (Gasoline engine models) or 439 (Diesel engine models) of the ECM
- to combination meter terminal 21 for the tachometer.

FUEL GAUGE

NJEL0042S03

The fuel gauge indicates the approximate fuel level in the fuel tank.
The fuel gauge is regulated by a variable ground signal supplied

- from body grounds B9, B21 and B308
- through terminal 1 (Gasoline engine models) or 3 (Diesel engine models) of the fuel level sensor unit and
- through terminal 4 (Gasoline engine models) or 1 (Diesel engine models) of the fuel level sensor unit
- to combination meter terminal 20 (with tachometer) or 35 (without tachometer) for the fuel gauge.

SPEEDOMETER

NJEL0042S04

The combination meter provides a voltage signal to the vehicle speed sensor for the speedometer.
The voltage is supplied

- from combination meter terminal 23 (with tachometer) or 37 (without tachometer) for the speedometer
- to terminal 1 of the vehicle speed sensor.

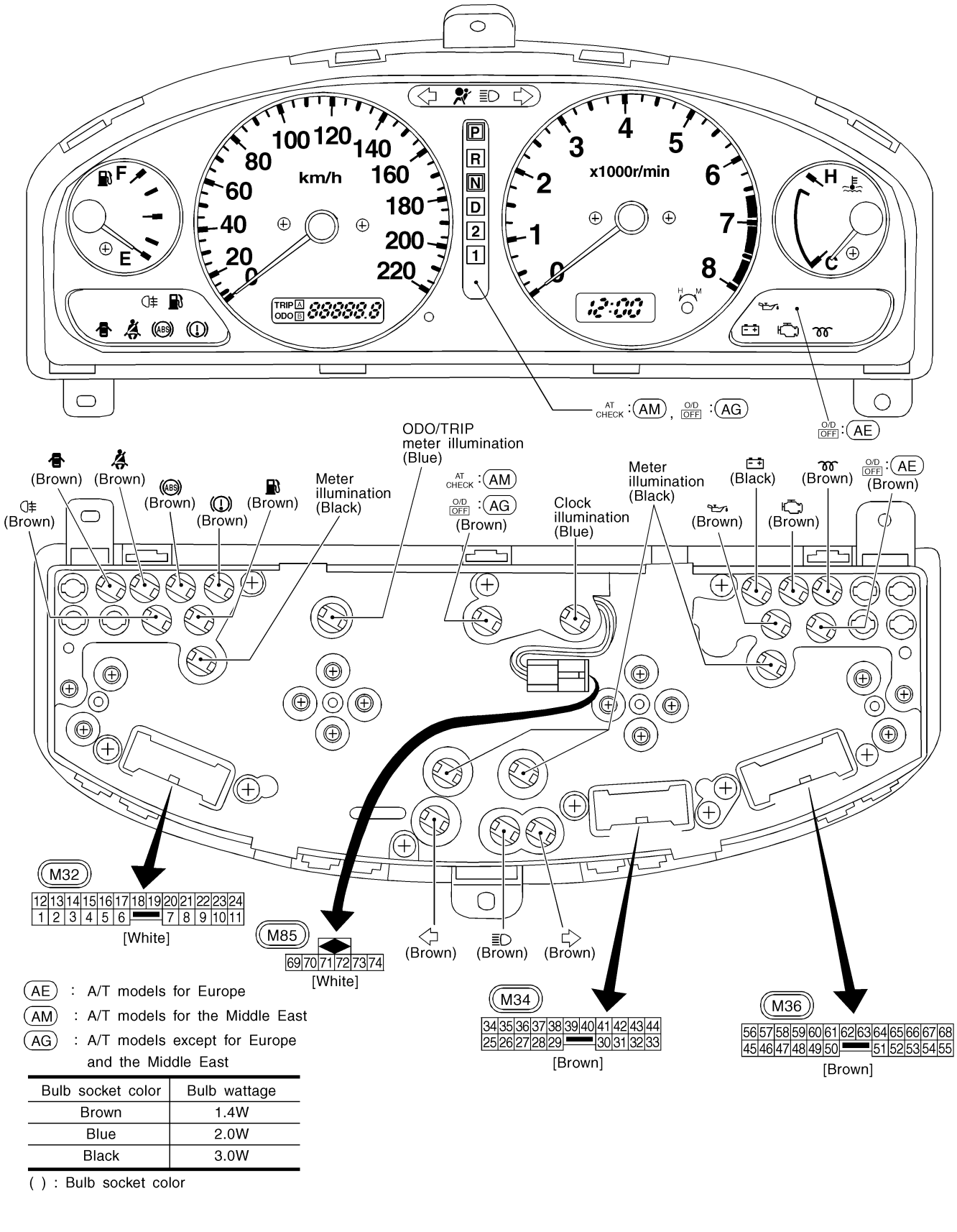
The speedometer converts the voltage into the vehicle speed displayed.

Combination Meter/Sedan With Tachometer

NJEL0043

CHECK

NJEL0043S01



(AE) : A/T models for Europe
(AM) : A/T models for the Middle East
(AG) : A/T models except for Europe and the Middle East

Bulb socket color	Bulb wattage
Brown	1.4W
Blue	2.0W
Black	3.0W

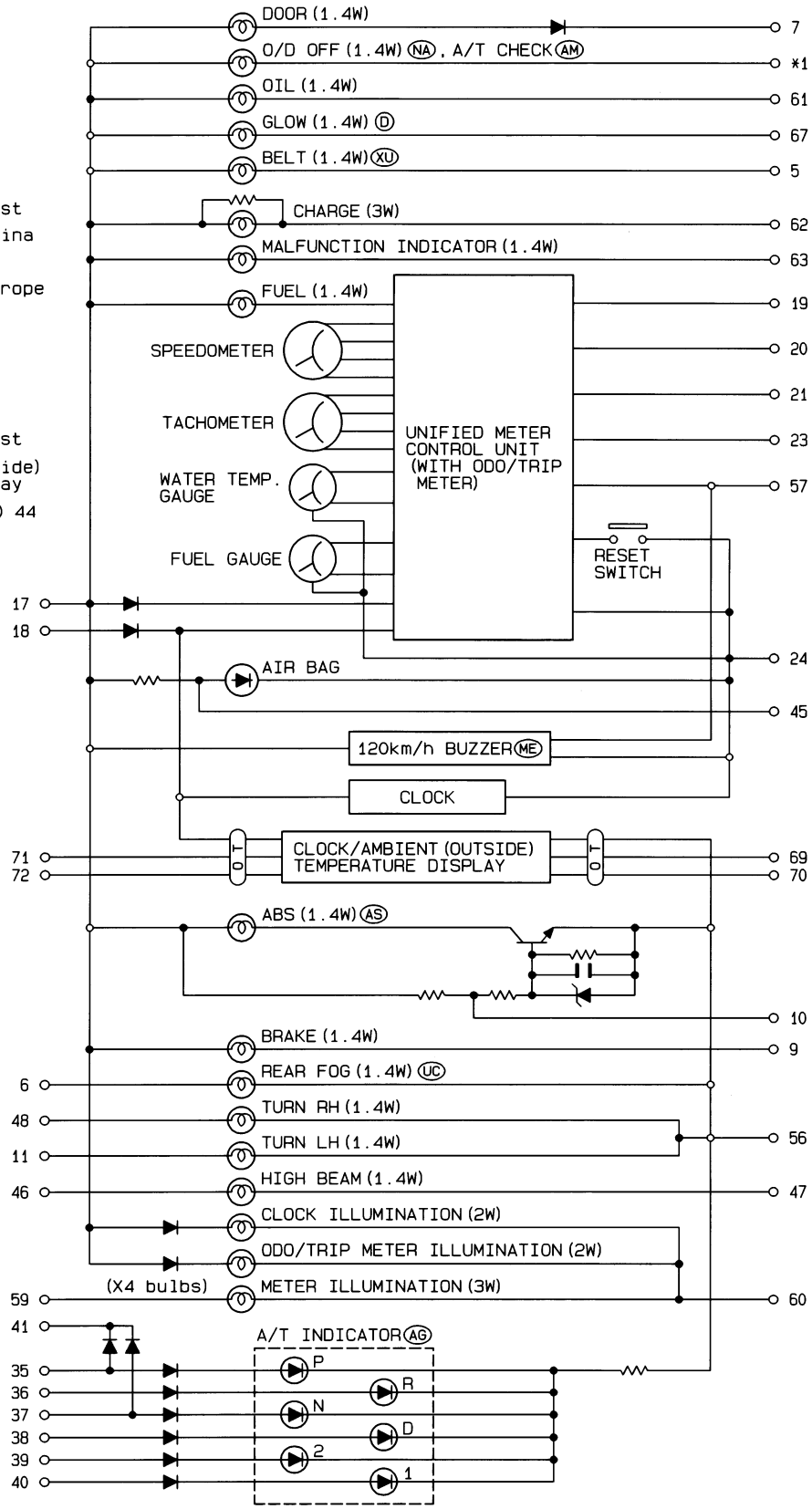
( ) : Bulb socket color

HEL381B

Schematic/Sedan With Tachometer

NJEL0320

(D) : Diesel engine
(XU) : Except for Europe
(ME) : For the Middle East
(UC) : For Europe and China
(AS) : With ABS
(AE) : A/T models for Europe
(AG) : A/T models except for Europe and the Middle East
(AM) : A/T models for the Middle East
(NA) : A/T models except for the Middle East
(OT) : With ambient (outside) temperature display
*1 · · · · (AE) 65, (AG) 44, (AM) 44



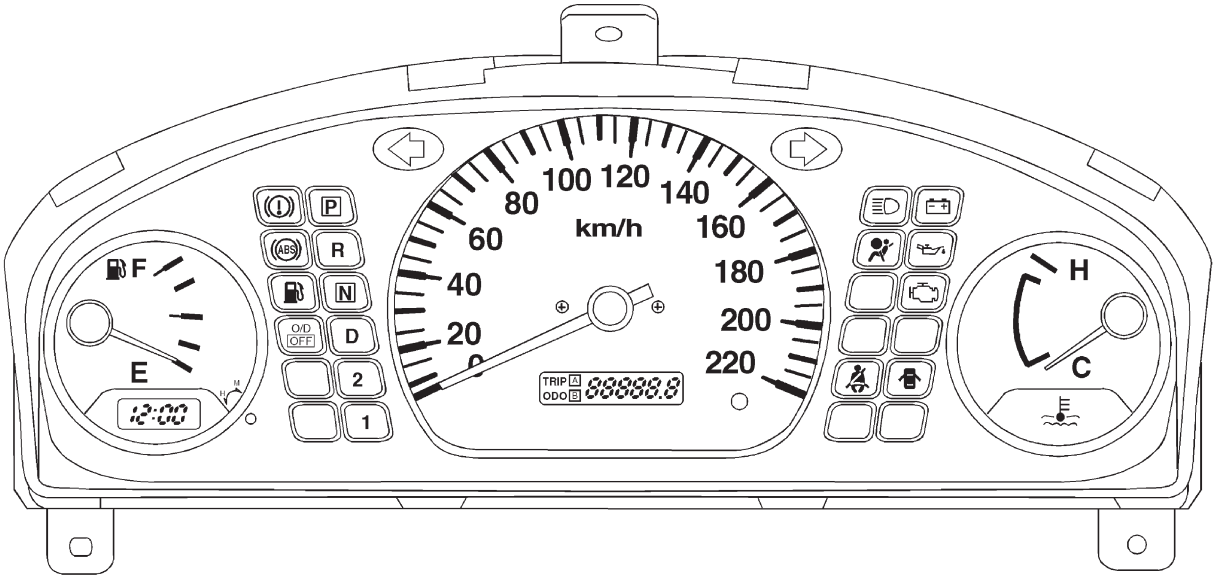
HEL382B

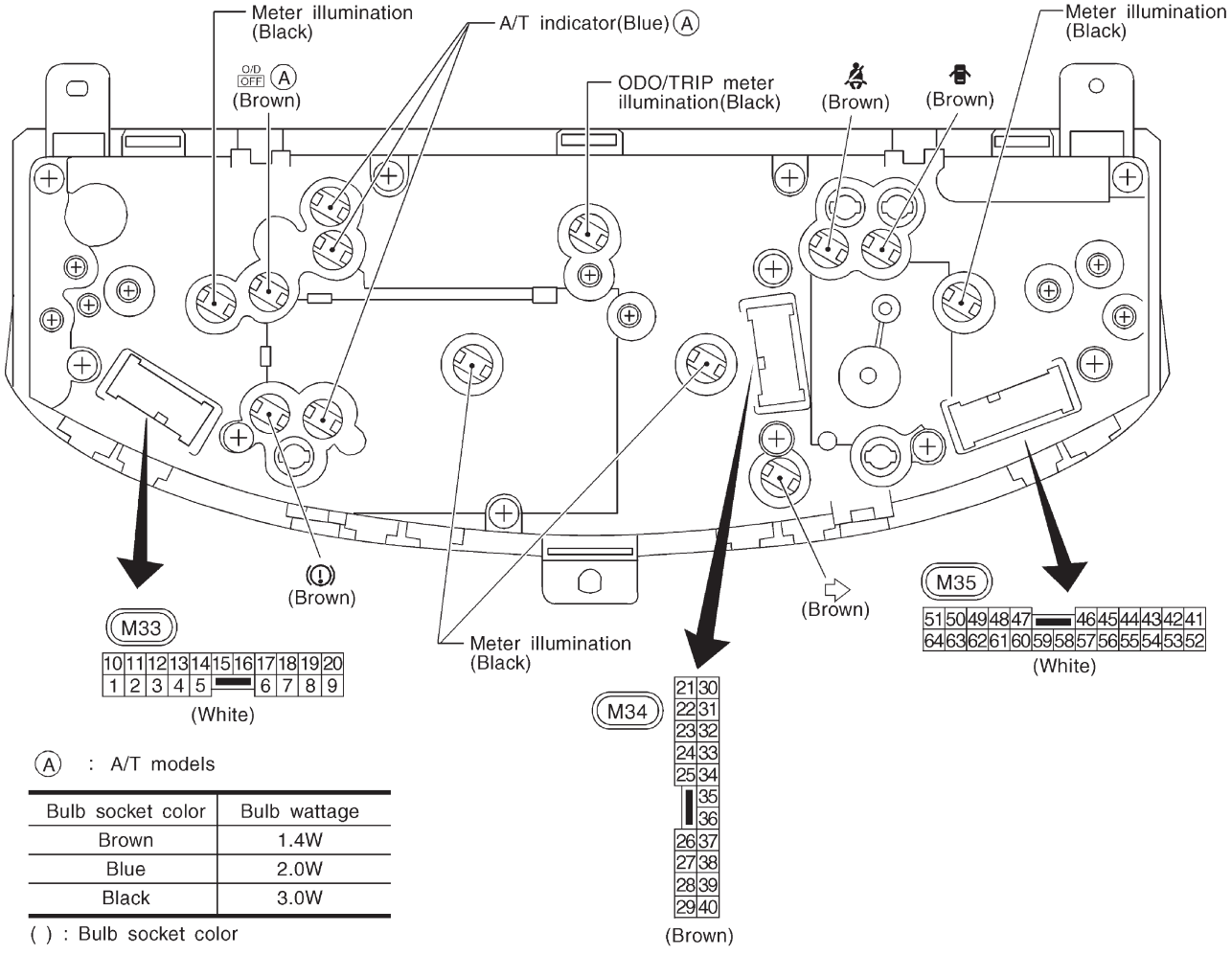
Combination Meter/Without Tachometer

NJEL0321

CHECK

NJEL0321S01





A : A/T models

Bulb socket color	Bulb wattage
Brown	1.4W
Blue	2.0W
Black	3.0W

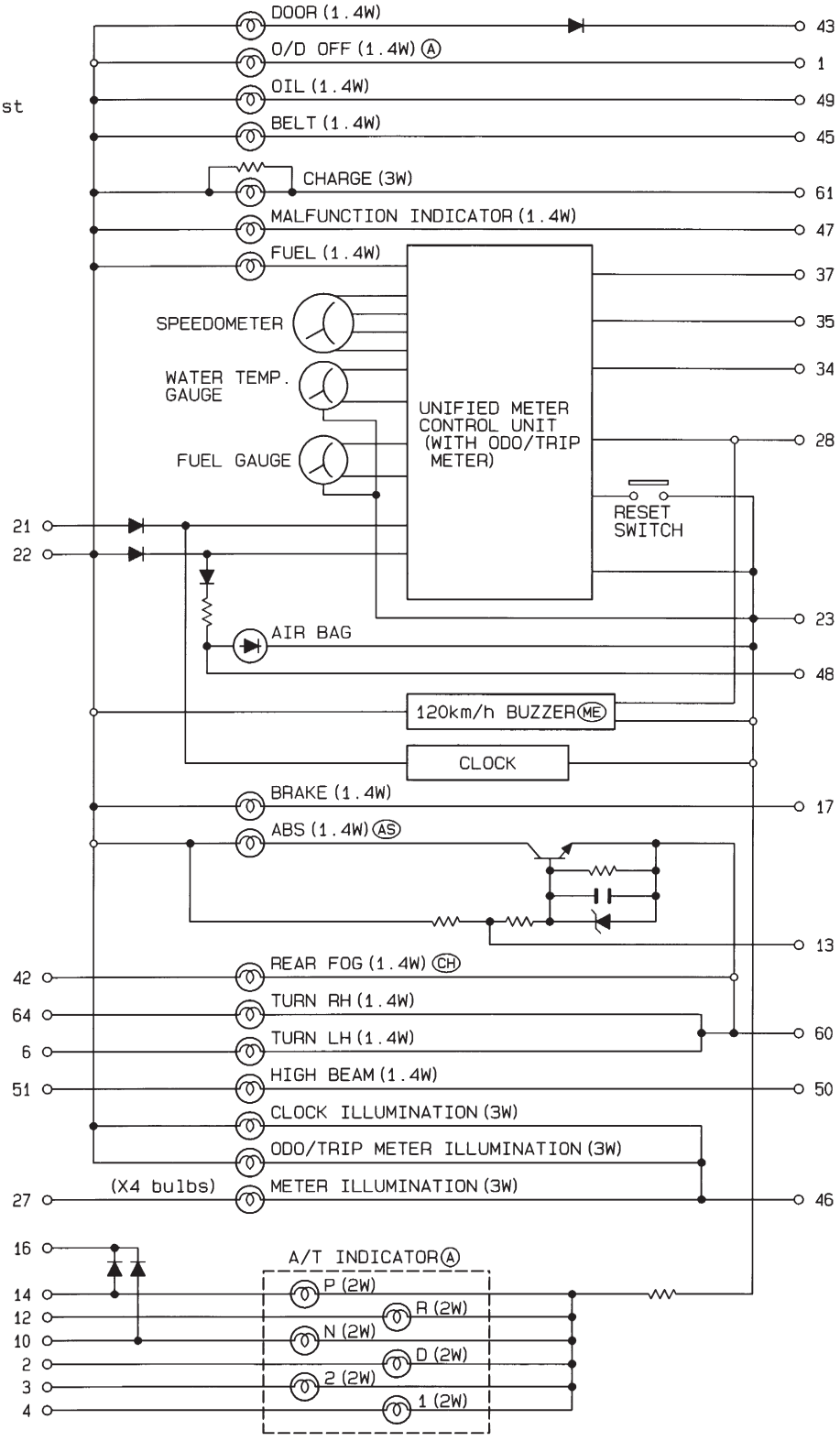
( ) : Bulb socket color

HEL878A

Schematic/Without Tachometer

NJEL0322

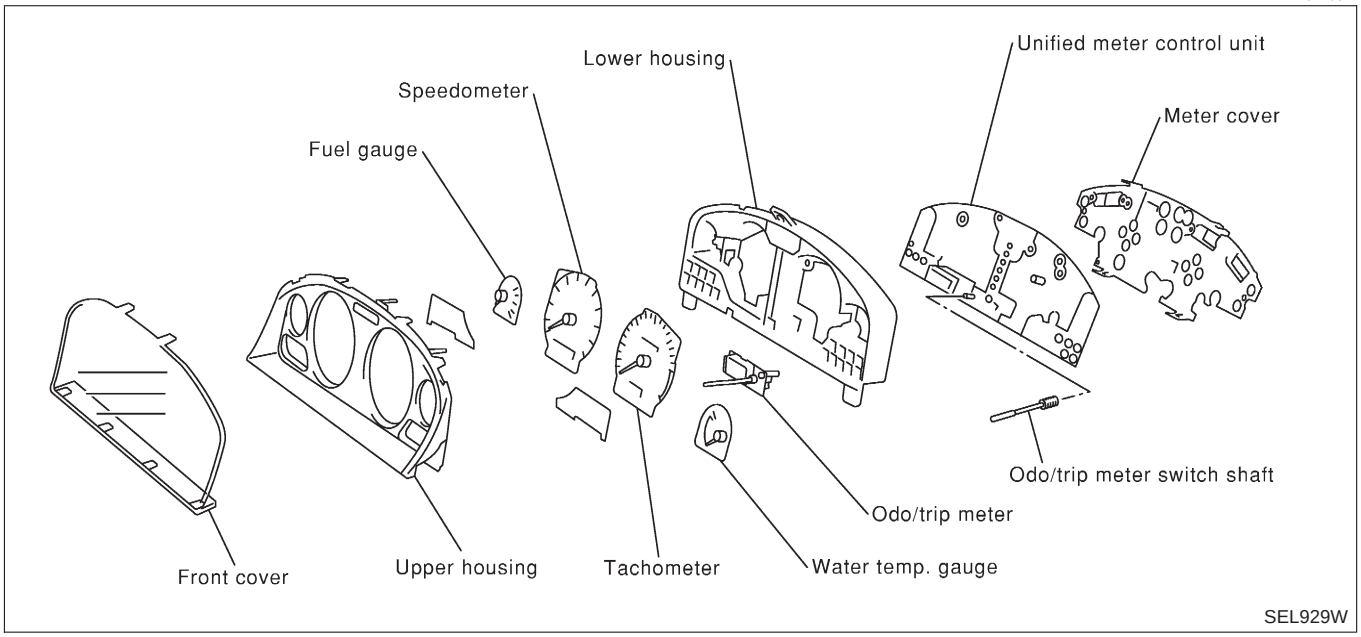
Ⓐ : A/T models
ⓐⓢ : With ABS
ⓜⓔ : For the Middle East
ⓒⓗ : For China



HEL879A

Construction/Sedan

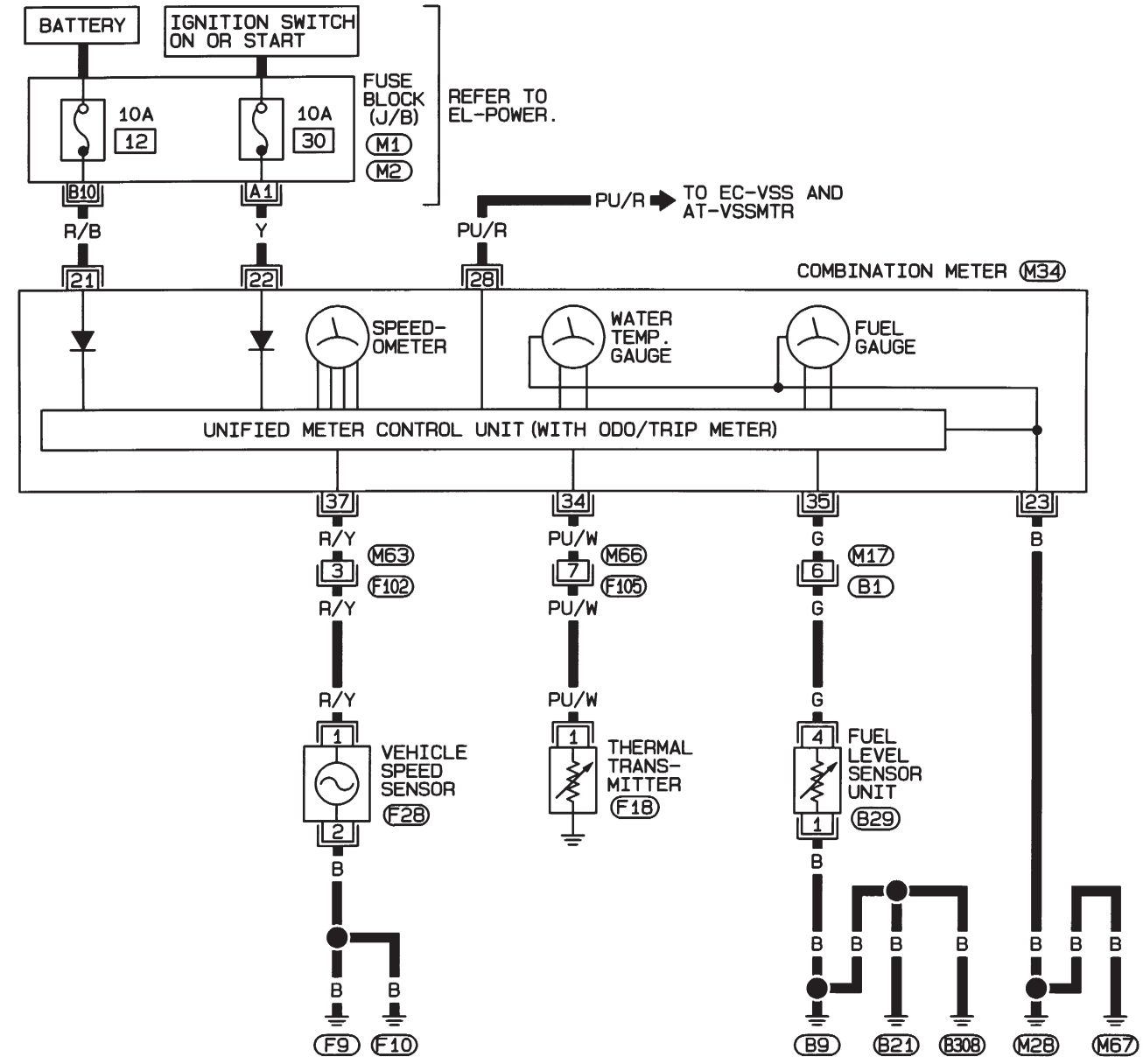
NJEL0324

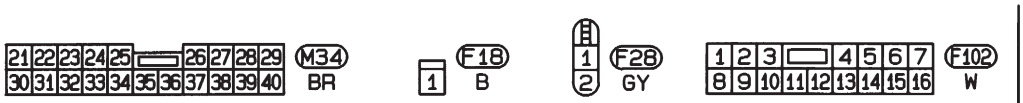


Wiring Diagram — METER —/Without Tachometer

NJEL0323

EL-METER-02



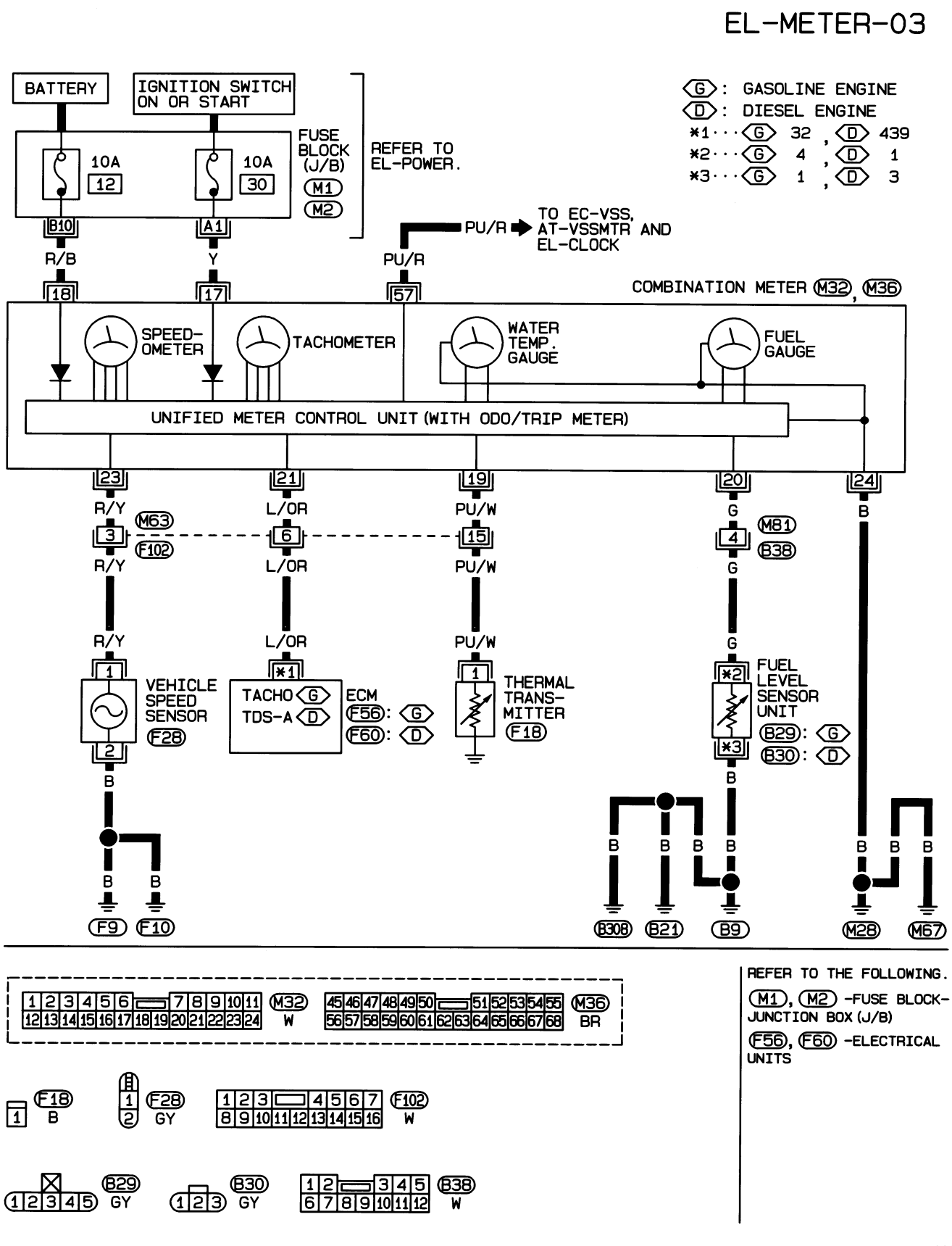


REFER TO THE FOLLOWING.
M1, M2 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL881A

Wiring Diagram — METER —/Sedan

NJEL0369



HEL383B

Meter/Gauge Operation and Odo/Trip Meter Segment Check in Diagnosis Mode/Sedan

NJEL0151

DIAGNOSIS FUNCTION

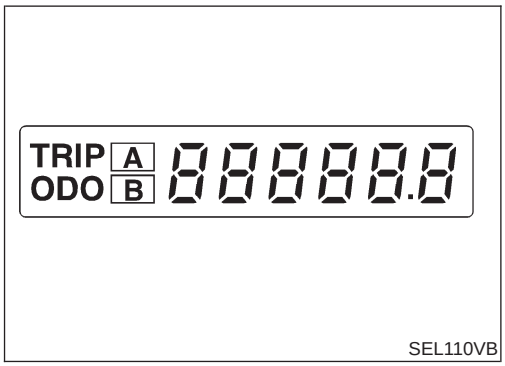
NJEL0151S01

- Odo/trip meter segment can be checked in diagnosis mode.
- Meters/gauges can be checked in diagnosis mode.

HOW TO ALTERNATE DIAGNOSIS MODE

NJEL0151S02

1. Turn ignition switch to ON and change odo/trip meter to “TRIP A” or “TRIP B”.
2. Turn ignition switch to OFF.
3. Turn ignition switch to ON when pushing odo/trip meter switch.
4. Confirm that trip meter indicates “000.0”.
5. Push odo/trip meter switch more than three times within 5 seconds.

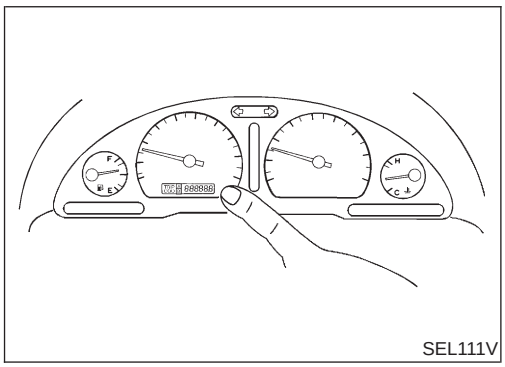


SEL110VB

6. All odo/trip meter segments should be turned on.

NOTE:
If some segments are not turned on, unified meter control unit with odo/trip meter should be replaced.

At this point, the unified control meter is turned to diagnosis mode.


SEL111V

7. Push odo/trip meter switch. Indication of each meter/gauge should be as shown left during pushing odo/trip meter switch if it is no malfunctioning.

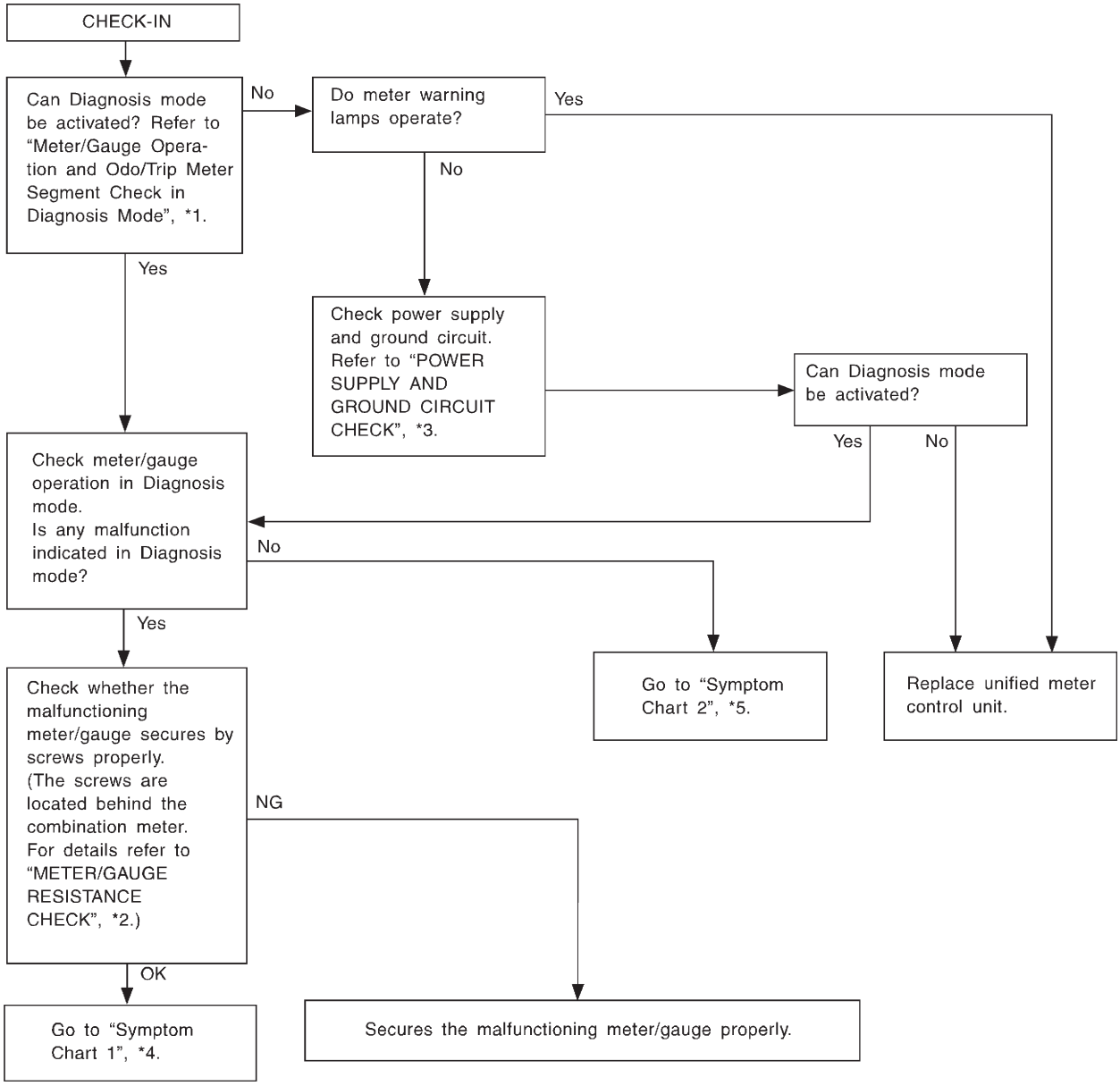
NOTE:
It takes about a few seconds for indication of fuel gauge and water temperature gauge to become stable.

Trouble Diagnoses/Sedan

NJEL0046

PRELIMINARY CHECK

NJEL0046S04



SEL361W

*1: Meter/Gauge Operation and Odo/Trip Meter Segment Check in Diagnosis Mode (EL-153)

*2: METER/GAUGE RESISTANCE CHECK (EL-162)

*3: POWER SUPPLY AND GROUND CIRCUIT CHECK (EL-156)

*4: Symptom Chart 1 (EL-155)

*5: Symptom Chart 2 (EL-155)

SYMPTOM CHART

NJEL0046S10

Symptom Chart 1 (Malfunction is Indicated in Diagnosis Mode)

NJEL0046S1001

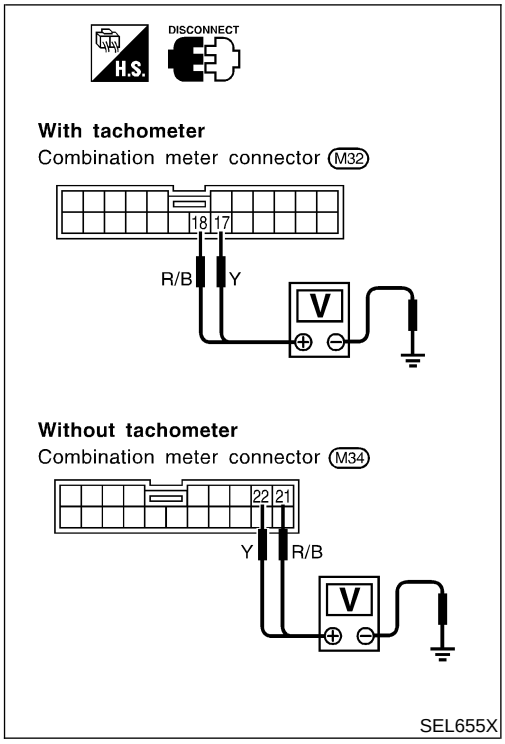
Symptom	Possible causes	Repair order
Odo/trip meter indicates malfunction in Diagnosis mode.	Unified meter control unit	Replace unified meter control unit.
Multiple meter/gauge indicate malfunction in Diagnosis mode.		
One of speedometer/ tachometer/fuel gauge/ water temp. gauge indicates malfunction in Diagnosis mode.	1. Meter/Gauge 2. Unified meter control unit	1. Check resistance of meter/gauge indicating malfunction. If the resistance is NG, replace the meter/gauge. Refer to "METER/GAUGE RESISTANCE CHECK", EL-162. 2. If the resistance of meter/gauge is OK, replace unified meter control unit.

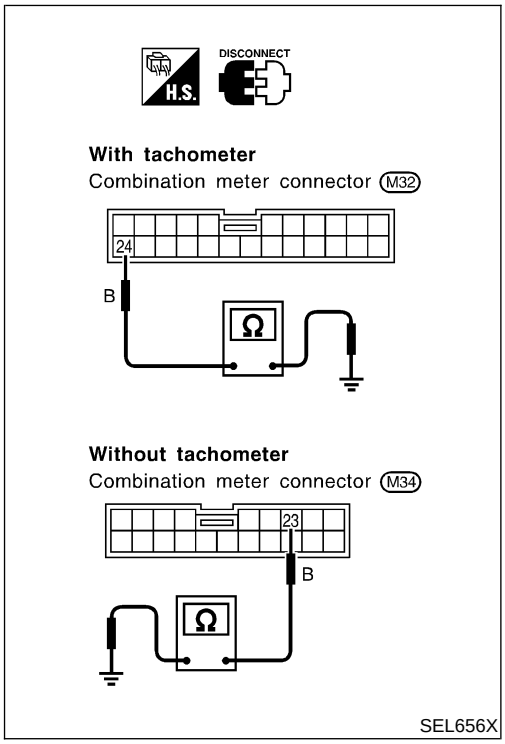
Symptom Chart 2 (No Malfunction is Indicated in Diagnosis Mode)

NJEL0046S1002

Symptom	Possible causes	Repair order
One of speedometer/ tachometer/fuel gauge/ water temp. gauge is malfunctioning.	1. Sensor signal - Vehicle speed signal - Engine revolution signal - Fuel gauge - Water temp. gauge 2. Unified meter control unit	1. Check the sensor for malfunctioning meter/gauge. INSPECTION/VEHICLE SPEED SENSOR (Refer to EL-157.) INSPECTION/ENGINE REVOLUTION SIGNAL (Refer to EL-158.) INSPECTION/FUEL LEVEL SENSOR UNIT (Refer to EL-159.) INSPECTION/THERMAL TRANSMITTER (Refer to EL-161.) 2. Replace unified meter control unit.
Multiple meter/gauge are malfunctioning. (except odo/trip meter)		

Before starting trouble diagnoses below, perform PRELIMINARY CHECK, EL-154.





POWER SUPPLY AND GROUND CIRCUIT CHECK

=NJEL0046S07

Power Supply Circuit Check

NJEL0046S0701

Terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
18 (with tachometer) or 21 (without tachometer)	Ground	Battery voltage	Battery voltage	Battery voltage
17 (with tachometer) or 22 (without tachometer)	Ground	0V	0V	Battery voltage

If NG, check the following.

- 10A fuse [No. 12, located in fuse block (J/B)]
- 10A fuse [No. 30, located in fuse block (J/B)]
- Harness for open or short between fuse and combination meter

Ground Circuit Check

NJEL0046S0702

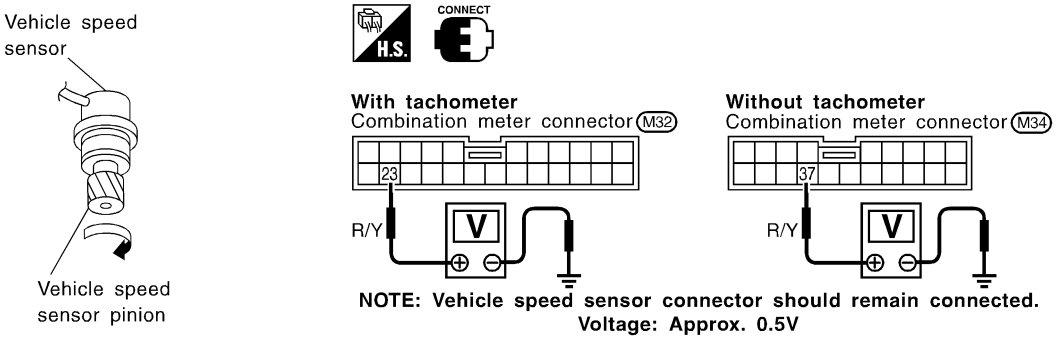
Terminals	Continuity
24 - Ground (with tachometer) or 23 - Ground (without tachometer)	Yes

INSPECTION/VEHICLE SPEED SENSOR

=NJEL0046S03

1	CHECK VEHICLE SPEED SENSOR OUTPUT

1. Remove vehicle speed sensor from transmission.
2. Check voltage between combination meter terminal 23 (with tachometer) or 37 (without tachometer) and ground while quickly turning speed sensor pinion.



NOTE: Vehicle speed sensor connector should remain connected.
Voltage: Approx. 0.5V

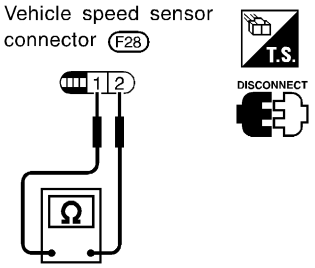
SEL657X

OK or NG

OK	▶	Vehicle speed sensor is OK.
NG	▶	GO TO 2.

2	CHECK VEHICLE SPEED SENSOR

Check resistance between vehicle speed sensor terminals 1 and 2.



Resistance: Approx. 300 Ω

SEL645WA

OK or NG

OK	▶	**Check the following.** ● Harness between combination meter and vehicle speed sensor ● Vehicle speed sensor ground circuit
NG	▶	Replace vehicle speed sensor.

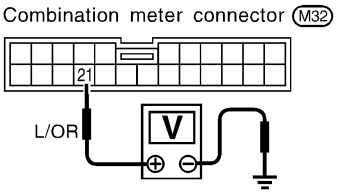
INSPECTION/ENGINE REVOLUTION SIGNAL

=NJEL0046S02

1	CHECK ECM OUTPUT

1. Start engine.
2. Check voltage between combination meter terminals 21 and ground at idle and 2,000 rpm.





Higher rpm = Higher voltage
Lower rpm = Lower voltage
Voltage should change with rpm.

SEL658X

OK or NG

OK	▶	Engine revolution signal is OK.
NG	▶	Harness for open or short between ECM and combination meter

INSPECTION/FUEL LEVEL SENSOR UNIT

=NJEL0046S08

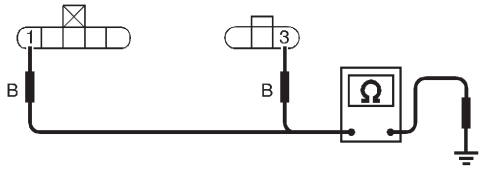
1	CHECK GROUND CIRCUIT FOR FUEL LEVEL SENSOR UNIT

Check harness continuity between fuel level sensor unit connector terminal 1 (Gasoline engine models) or 3 (Diesel engine models) and ground.



Fuel level sensor unit connector (Gasoline engine models) B29

Fuel level sensor unit (Diesel engine models) connector B30



Continuity should exist.

SEL963W

OK or NG

OK	▶	GO TO 2.
NG	▶	Repair harness or connector.

2	CHECK FUEL LEVEL SENSOR UNIT

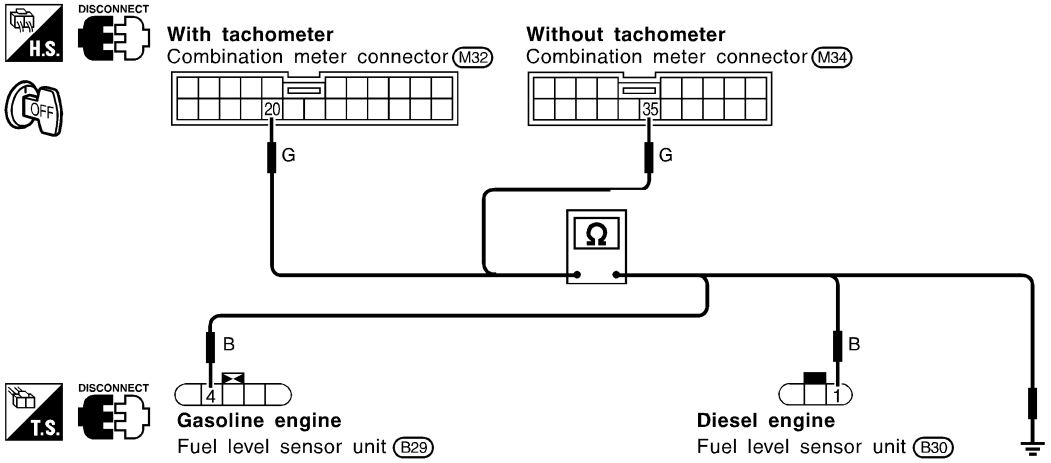
Refer to "FUEL LEVEL SENSOR UNIT CHECK" (EL-162).

OK or NG

OK	▶	GO TO 3.
NG	▶	Replace fuel level sensor unit.

3	CHECK HARNESS FOR OPEN OR SHORT

1. Disconnect combination meter connector and fuel level sensor unit connector.
2. Check continuity between combination meter terminal 20 (with tachometer) or 35 (without tachometer) or and fuel level sensor unit connector terminal 4 (Gasoline engine) or 1 (Diesel engine).
   Continuity should exist.
3. Check continuity between combination meter terminal 20 (with tachometer) or 35 (without tachometer) or and ground.
   Continuity should not exist.



SEL659X

OK or NG

OK	▶	Fuel level sensor unit is OK.
NG	▶	Repair harness or connector.

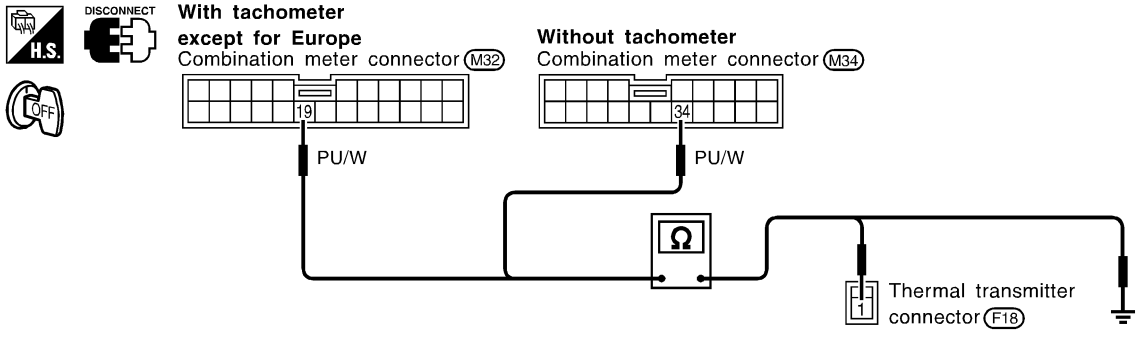
INSPECTION/THERMAL TRANSMITTER

=NJEL0046S09

1	CHECK THERMAL TRANSMITTER	
Refer to "THERMAL TRANSMITTER CHECK" (EL-163).		
OK or NG		
OK	▶	GO TO 2.
NG	▶	Replace.

2	CHECK HARNESS FOR OPEN OR SHORT	

1. Disconnect combination meter connector and thermal transmitter connector.
2. Check continuity between combination meter terminal 19 (with tachometer) or 34 (without tachometer) and thermal transmitter terminal 1.
   Continuity should exist.
3. Check continuity between combination meter terminal 19 (with tachometer) or 34 (without tachometer) and ground.
   Continuity should not exist.



SEL660X

OK or NG

OK	▶	Thermal transmitter is OK.
NG	▶	Repair harness or connector.

Electrical Components Inspection/Sedan

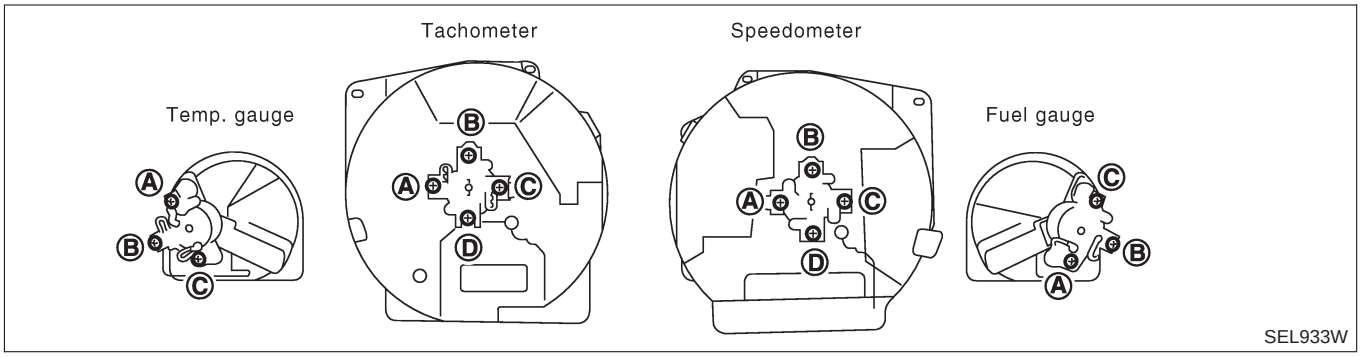
=NJEL0047

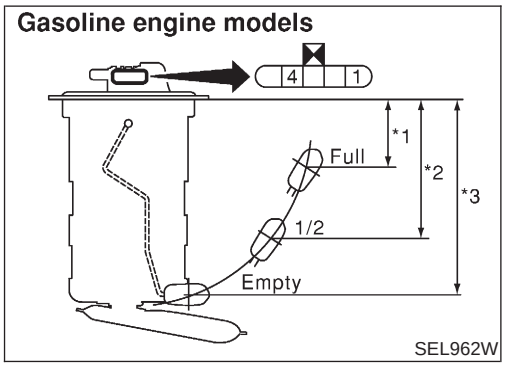
METER/GAUGE RESISTANCE CHECK

NJEL0047S04

Check resistance between installation screws of meter/gauge after removing meter/gauge.

Screws		Resistance Ω
Tacho/Speedometer	Fuel/Temp. gauge	
A - C	A - C	Approx. 190 - Approx. 260
B - D	B - C	Approx. 230 - Approx. 310





FUEL LEVEL SENSOR UNIT CHECK

NJEL0047S01

- For removal, refer to FE-6, FE-23, “FUEL SYSTEM”.

Gasoline Engine Models

NJEL0047S0103

Check the resistance between terminals 4 and 1.

Ohmmeter		Float position mm (in)			Resistance value Ω
(+)	(−)				
4	1	*1	Full	38 (1.50)	Approx. 5 - 6
		*2	1/2	89 (3.50)	32 - 33
		*3	Empty	162 (6.38)	80 - 83

*1 and *3: When float rod is in contact with stopper.

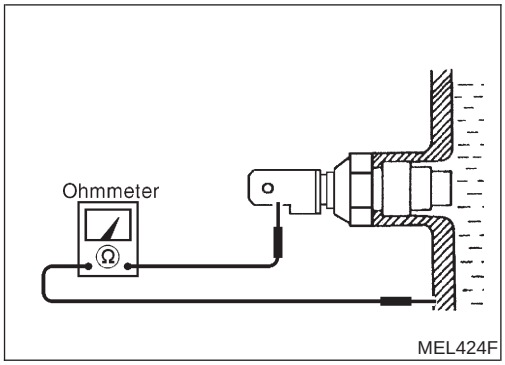
Diesel Engine

NJEL0047S0104

Check the resistance between terminals 1 and 3.

Ohmmeter		Float position mm (in)			Resistance value Ω
(+)	(−)				
1	3	*1	Full	38 (1.50)	Approx. 5 - 6
		*2	1/2	90 (3.50)	32 - 33
		*3	Empty	162 (6.38)	80 - 83

*1 and *3: When float rod is in contact with stopper.



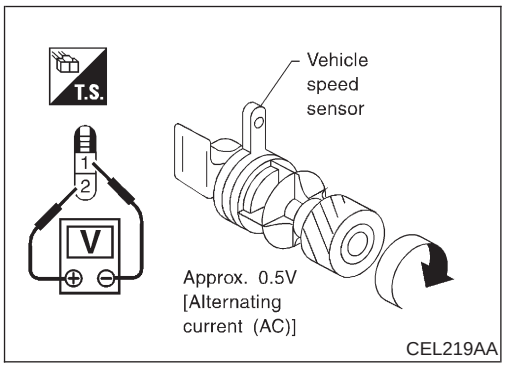
MEL424F

THERMAL TRANSMITTER CHECK

NJEL0047S02

Check the resistance between the terminals of thermal transmitter and body ground.

Water temperature	Resistance
60°C (140°F)	Approx. 170 - 210Ω
100°C (212°F)	Approx. 47 - 53Ω



CEL219AA

VEHICLE SPEED SENSOR SIGNAL CHECK

NJEL0047S03

1. Remove vehicle speed sensor from transmission.
2. Turn vehicle speed sensor pinion quickly and measure voltage across 1 and 2.

Component Parts and Harness Connector Location/Hatchback

=NJEL0441

For details, refer to “ELECTRICAL UNITS LOCATION” (EL-517) and “HARNESS LAYOUT” (EL-522).

System Description/Hatchback

NJEL0442

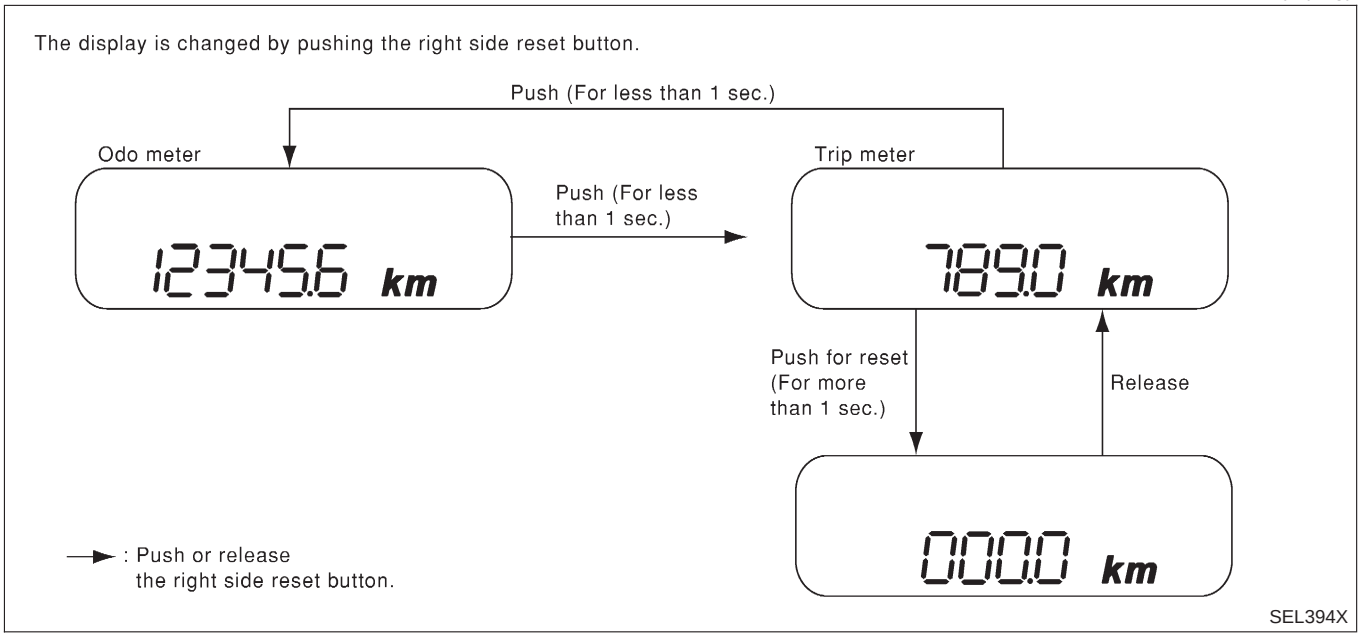
UNIFIED CONTROL METER

NJEL0442S01

- Speedometer, odo/trip meter, tachometer, fuel gauge and water temperature gauge are controlled totally by control unit built-in combination meter.
- Digital meter is adopted for odo/trip meter.*
  *The record of the odo meter is kept even if the battery cable is disconnected. The record of the trip meter is erased when the battery cable is disconnected.
- Odo/trip meter segment can be checked in diagnosis mode.
- Meter/gauge can be checked in diagnosis mode.

HOW TO CHANGE THE DISPLAY FOR ODO/TRIP METER

NJEL0442S02



NOTE:
Turn ignition switch to the “ON” position to operate odo/trip meter.

POWER SUPPLY AND GROUND CIRCUIT

NJEL0442S03

Power is supplied at all times

- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to combination meter terminal 28 (*1) or 23 (*2)

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

- through 10A fuse [No. 30, located in the fuse block (J/B)]
- to combination meter terminal 40 (*1) or 1 (*2)

Ground is supplied

- through body grounds M28 and M67
- to combination meter terminal 27 (*1) or 10 (*2)

WATER TEMPERATURE GAUGE

NJEL0442S04

The water temperature gauge indicates the engine coolant temperature. The reading on the gauge is based on the resistance of the thermal transmitter.
As the temperature of the coolant increases, the resistance of the thermal transmitter decreases. A variable ground is supplied to terminal 32 (*1) or 20 (*2) of the combination meter for the water temperature gauge. The needle on the gauge moves from "C" to "H".

TACHOMETER

NJEL0442S05

The tachometer indicates engine speed in revolutions per minute (rpm).
The tachometer is regulated by a signal

- from terminal 32 (Gasoline engine models) or 439 (Diesel engine models) of the ECM
- to combination meter terminal 30 (*1) or 22 (*2) for the tachometer.

FUEL GAUGE

NJEL0442S06

The fuel gauge indicates the approximate fuel level in the fuel tank.
The fuel gauge is regulated by a variable ground signal supplied

- from body grounds M28 and M67
- through terminals 26 and 27 (*1) or 9 and 10 (*2) of combination meter,
- through terminal 1 of the fuel level sensor unit and
- through terminal 4 of the fuel level sensor unit
- to combination meter terminal 31 (*1) or 24 (*2) for the fuel gauge.

SPEEDOMETER

NJEL0442S07

The combination meter provides a voltage signal to the vehicle speed sensor for the speedometer.
The voltage is supplied

- from combination meter terminal 29 (*1) or 5 (*2) for the speedometer
- to terminal 1 of the vehicle speed sensor.

Ground is supplied

- from body grounds M28 and M67
- through terminals 25 and 27 (*1) or 10 and 11 (*2) of combination meter
- to teminal 2 of the vehicle speed sensor.

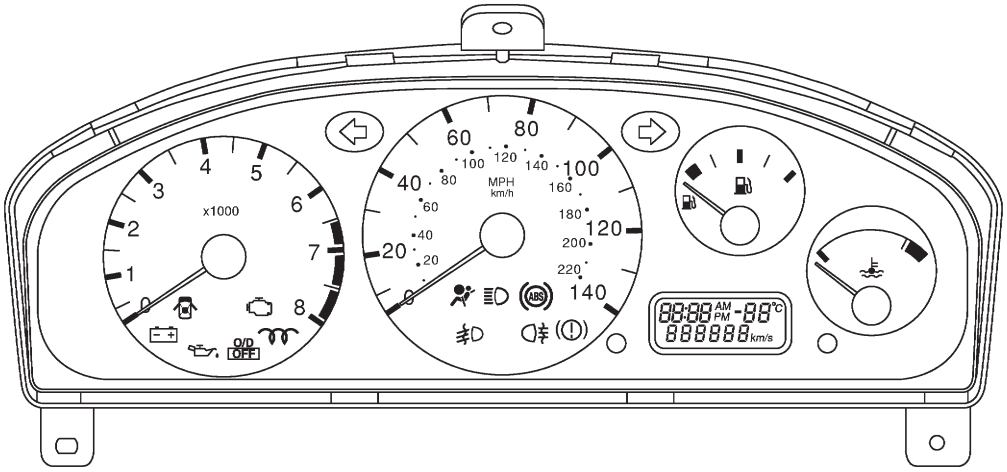
The speedometer converts the voltage into the vehicle speed displayed.
*1: Models before VIN No. — N16U0135126
*2: Models after VIN No. — N16U0135126

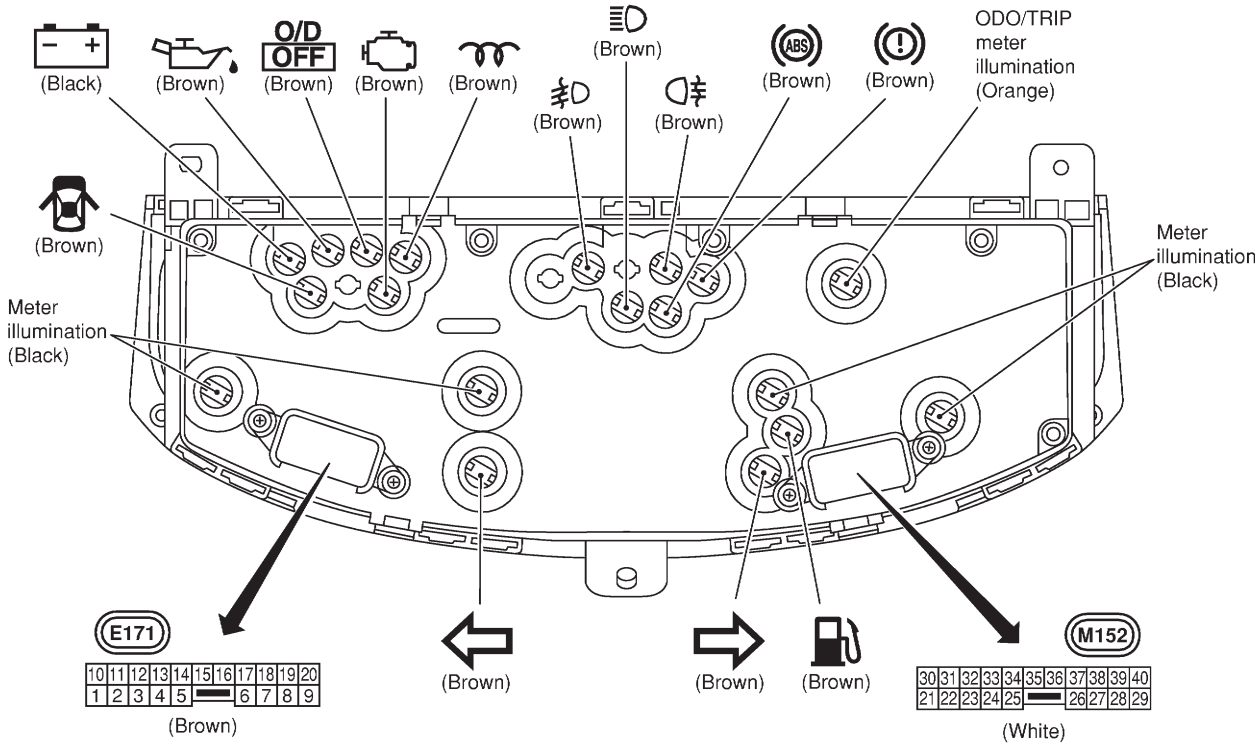
Combination Meter/Hatchback (Models before VIN No. — N16U0135126)

NJEL0443

CHECK

NJEL0443S01





Bulb socket color	Bulb wattage
Brown	1.4W
Black	3.0W
Orange	3.0W

( ): Warning bulb socket color

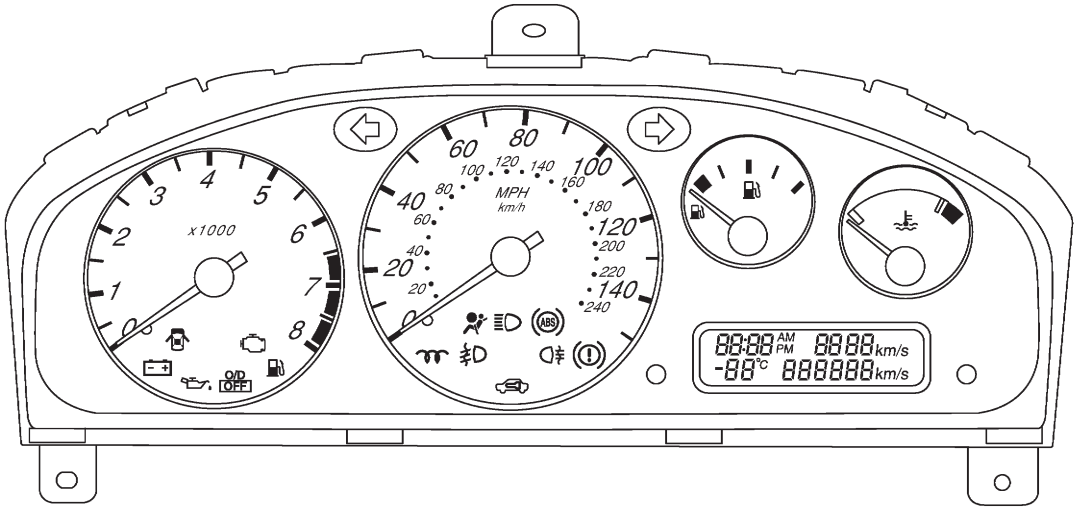
MEL934L

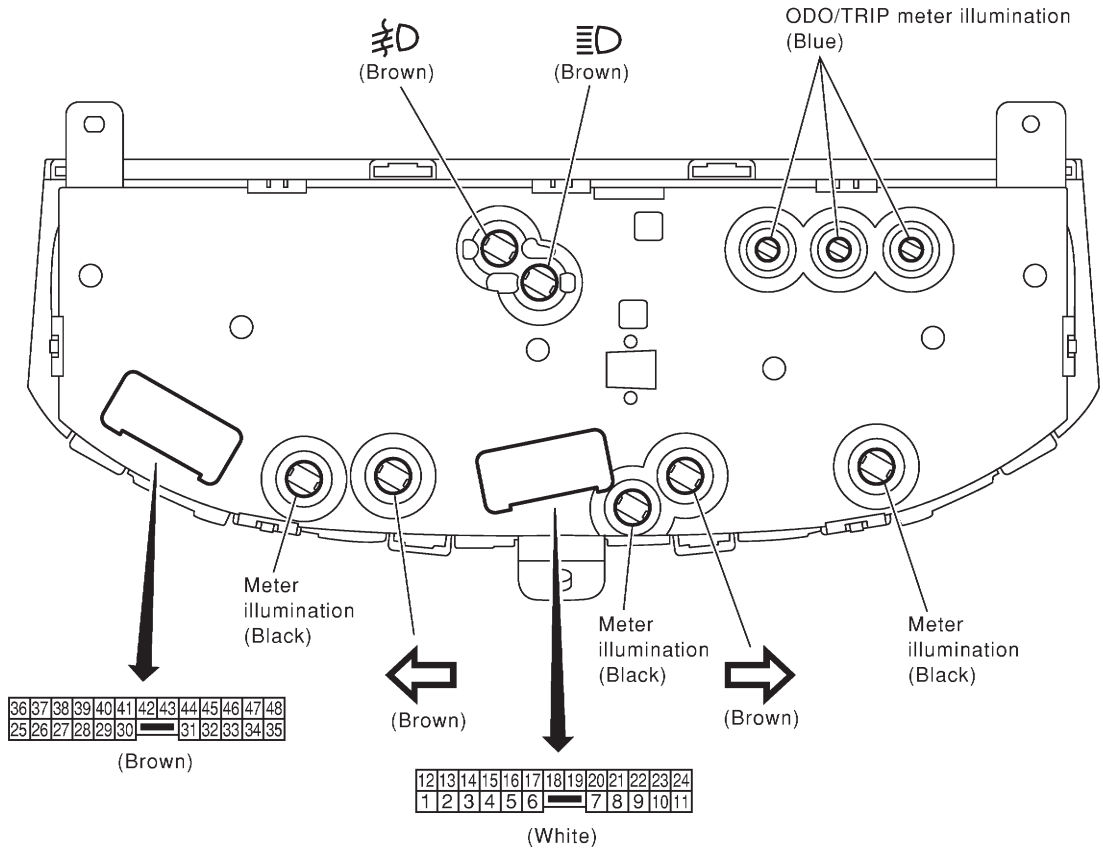
Combination Meter/Hatchback (Models after VIN No. — N16U0135126)

NJEL0528

CHECK

NJEL0528S01





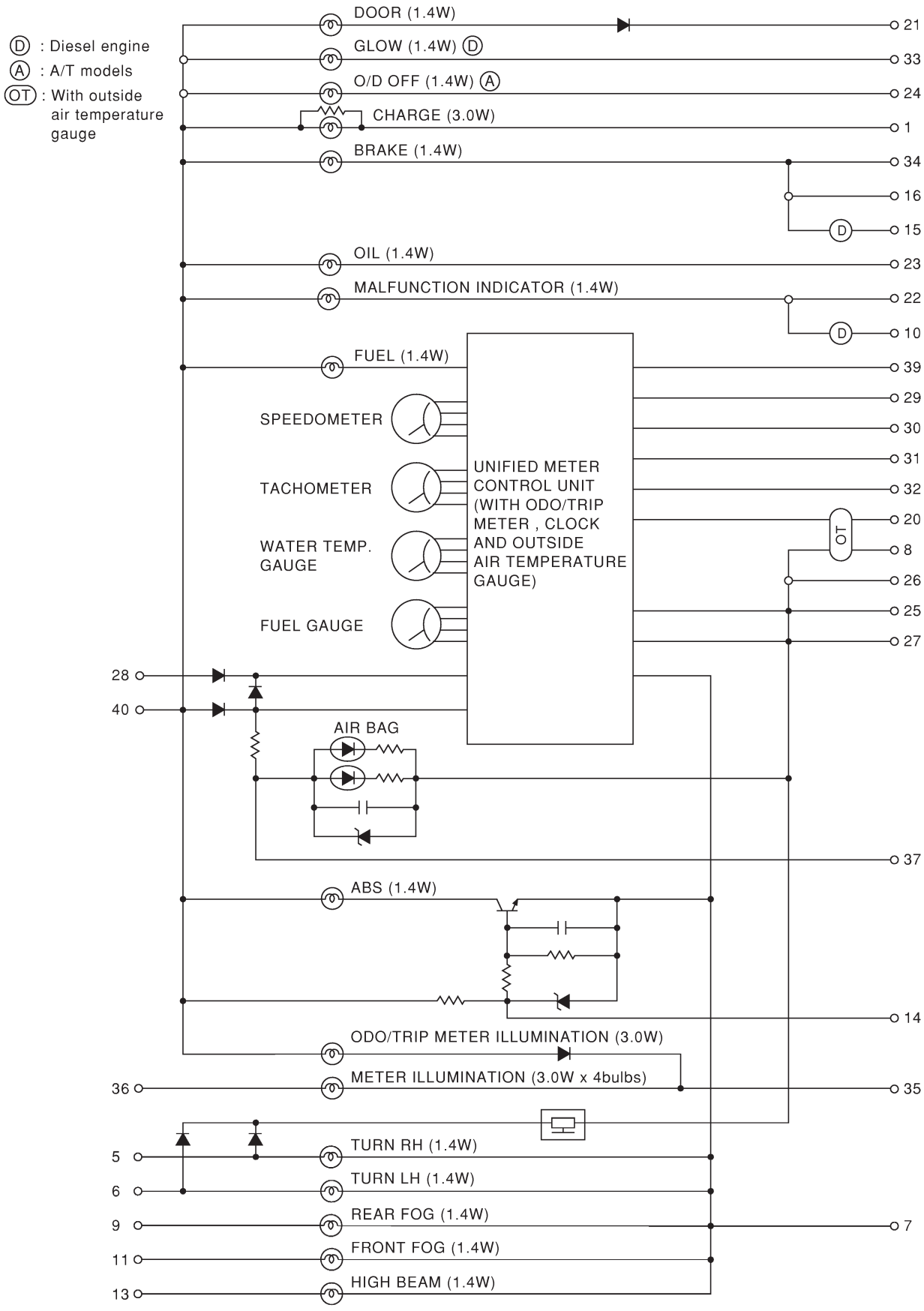
Bulb socket color	Bulb wattage
Brown	1.4 W
Black	3.0 W
Blue	0.56 W

( ): Warning bulb socket color

YEL331C

Schematic/Hatchback (Models before VIN No. — N160135126)

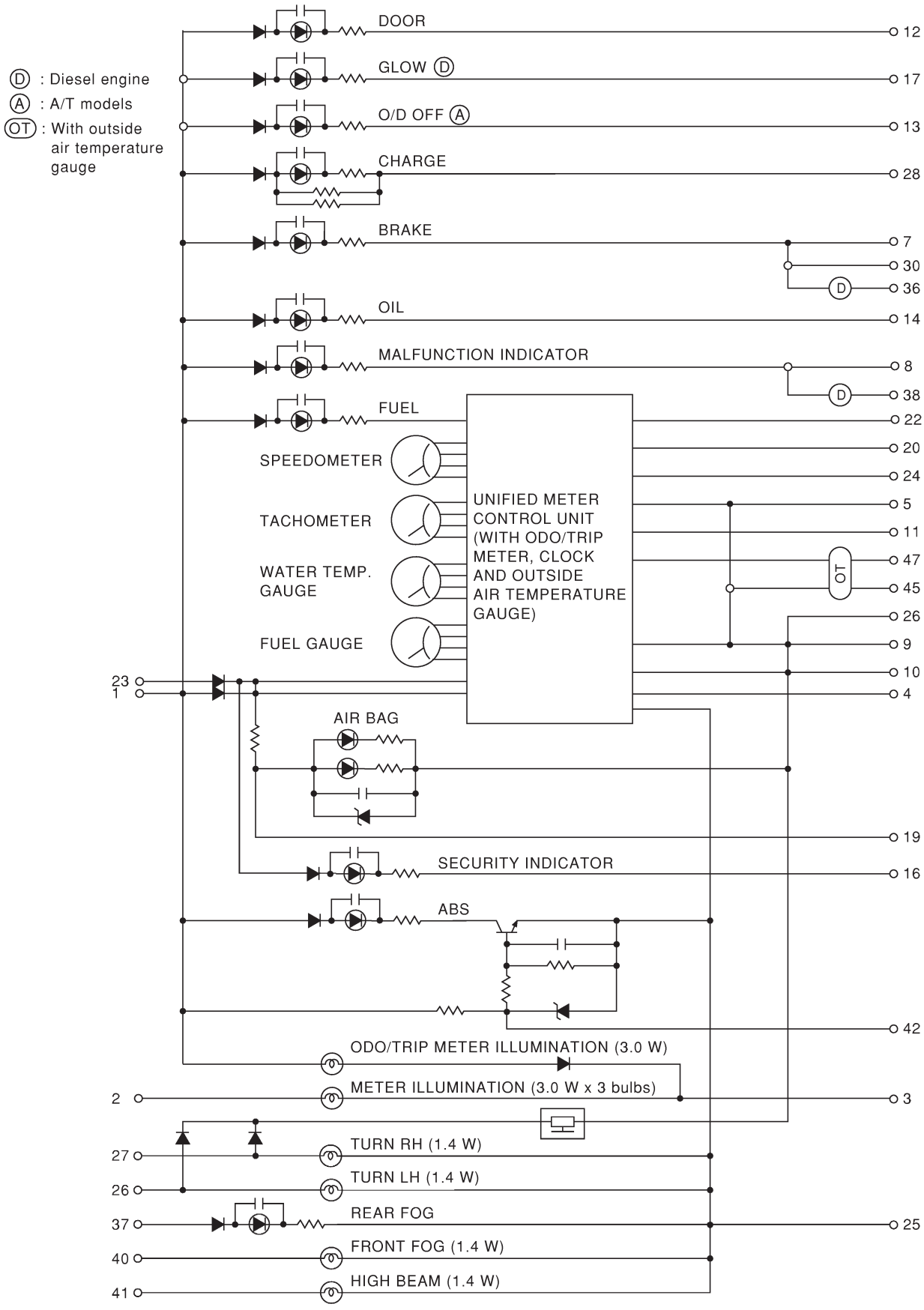
NJEL0444



MEL935L

Schematic/Hatchback (Models after VIN No. — N16U0135126)

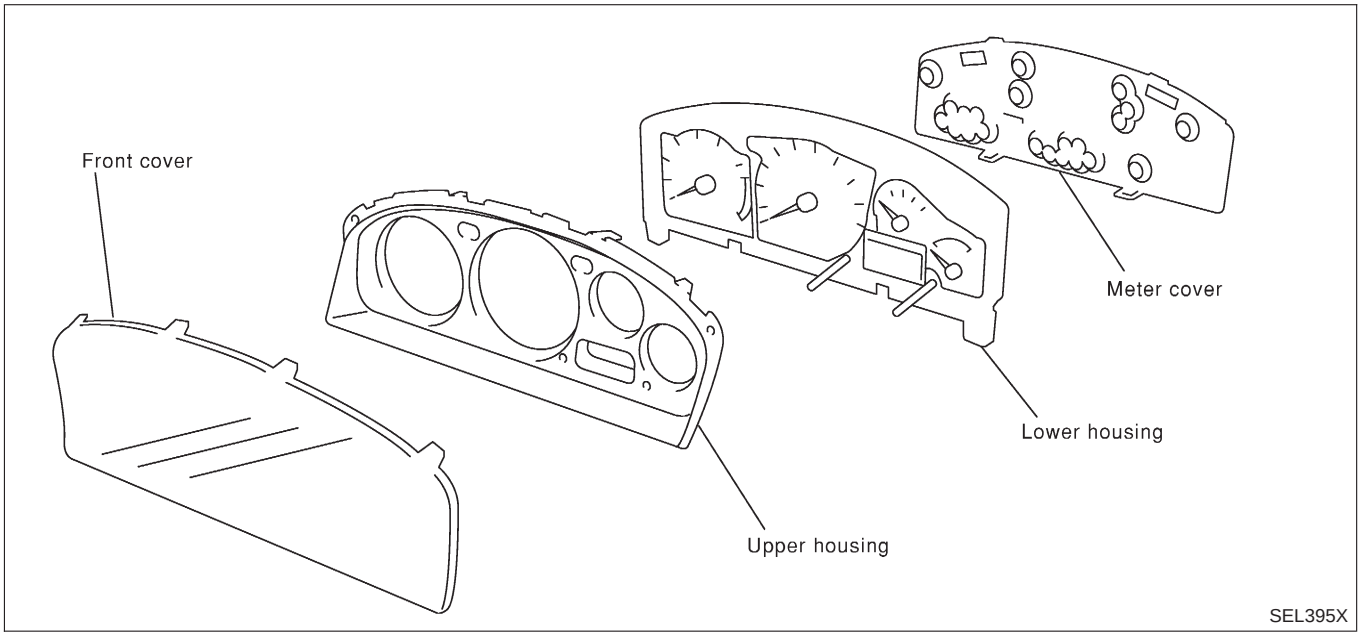
NJEL0529



YEL332C

Construction/Hatchback

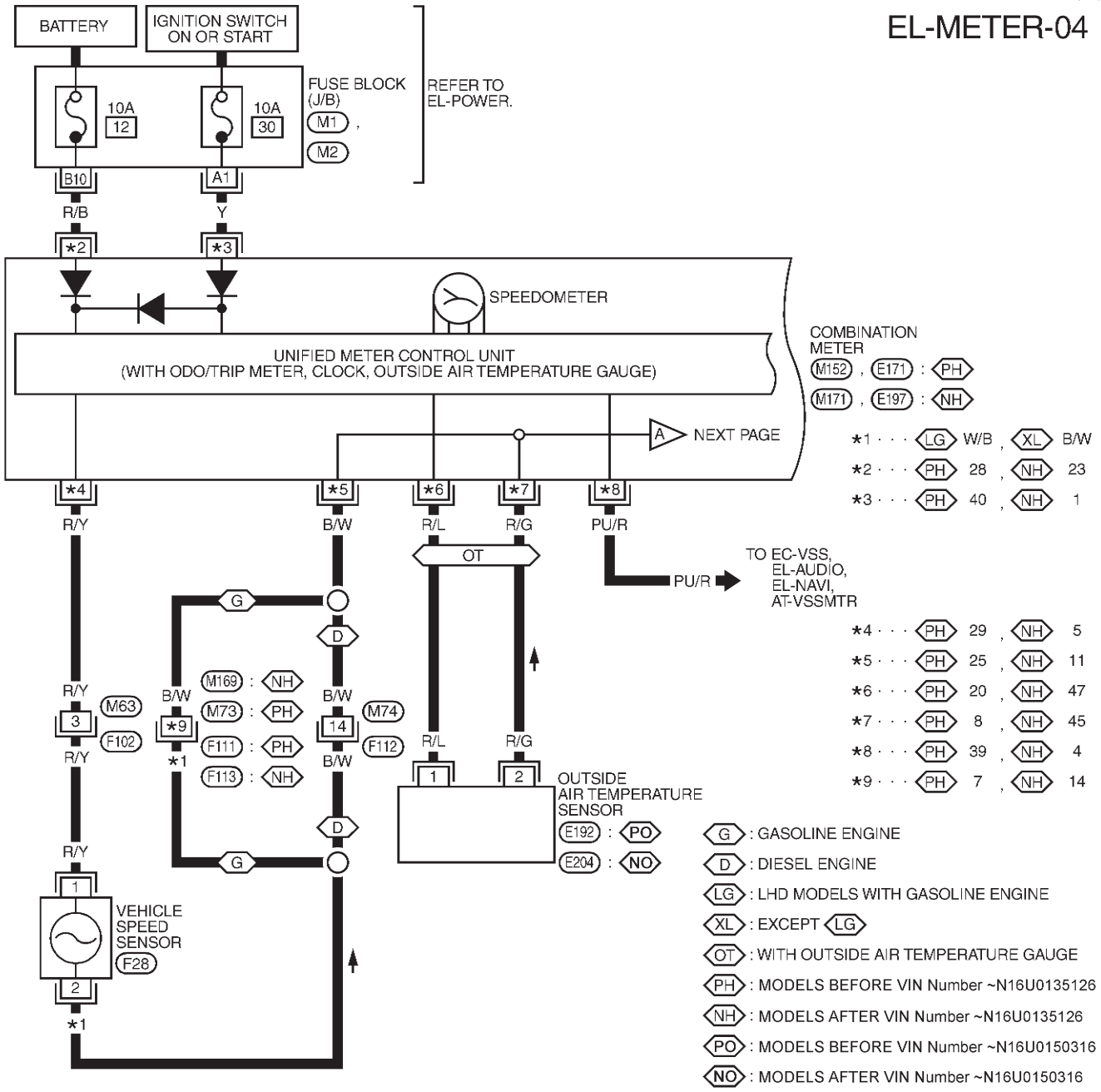
NJEL0445

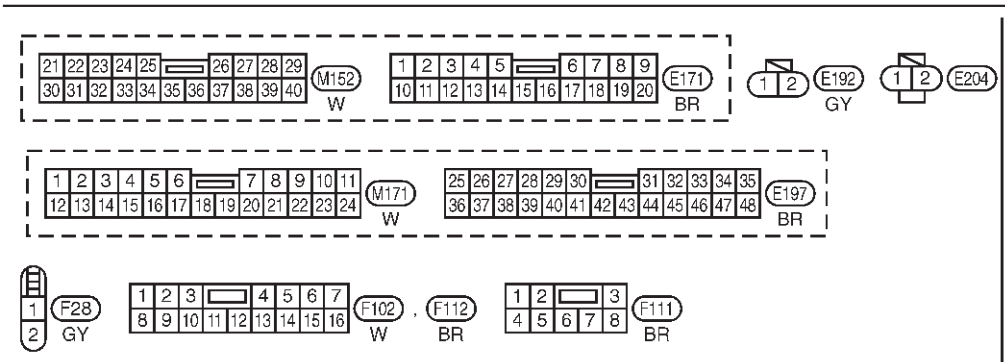


Wiring Diagram — METER —/Hatchback

NJEL0446

EL-METER-04

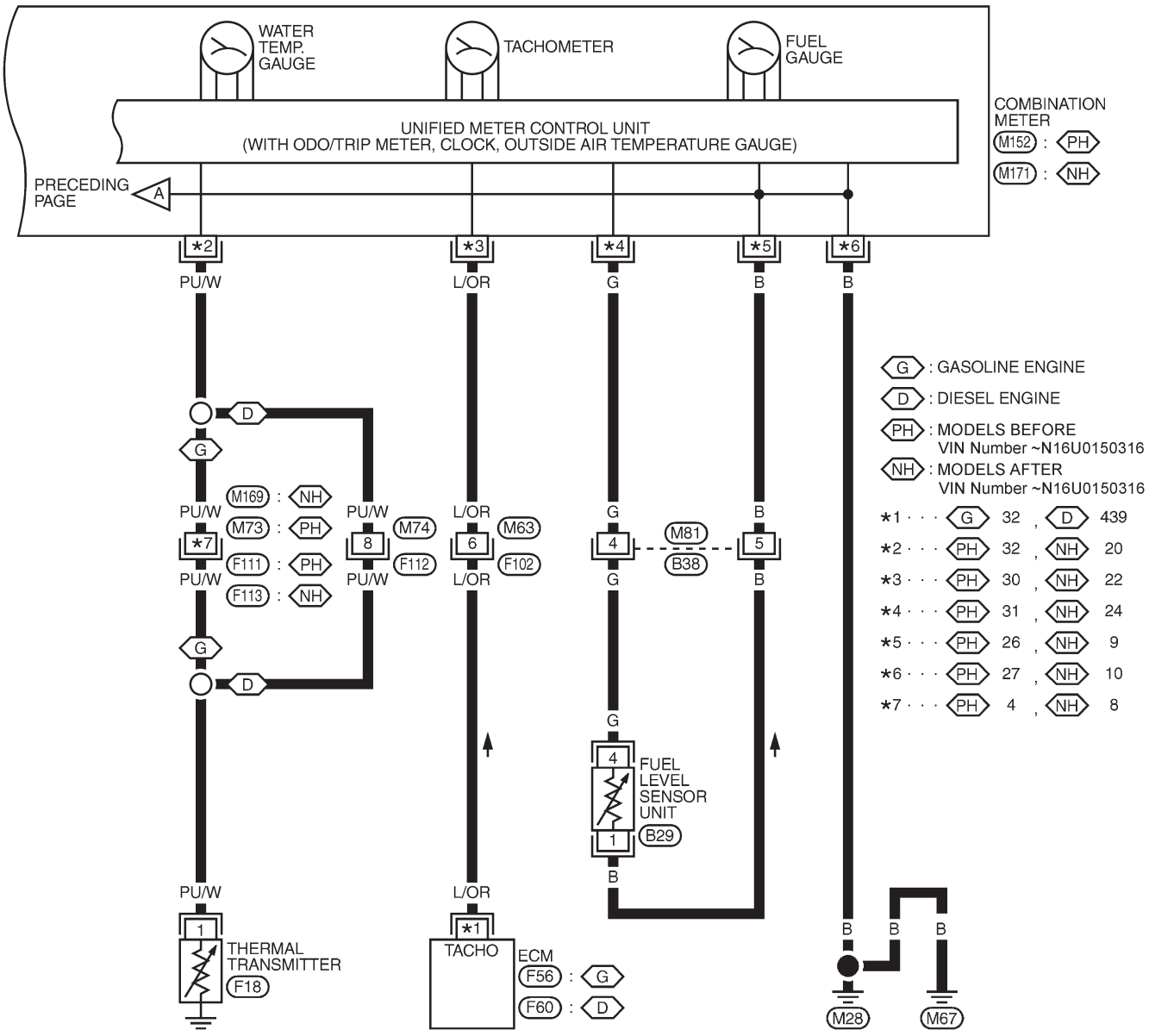


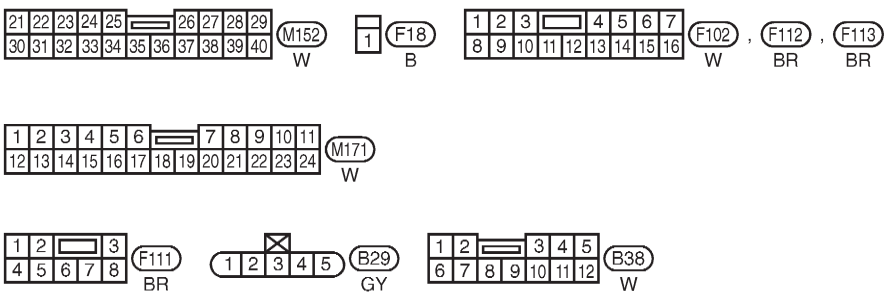


REFER TO THE FOLLOWING.
M1, M2 -FUSE BLOCK-JUNCTION BOX (J/B)

YEL354C

EL-METER-05





REFER TO THE FOLLOWING.
F56 , F60 -ELECTRICAL UNITS

YEL355C

Combination Meter Self-Diagnosis/Hatchback

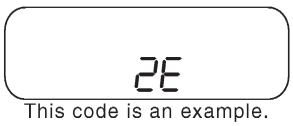
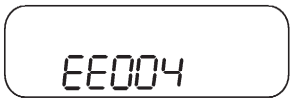
NJEL0447

PERFORMING SELF-DIAGNOSIS MODE

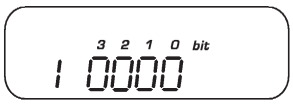
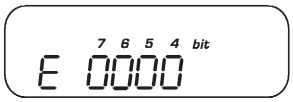
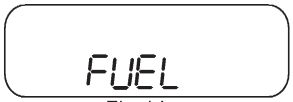
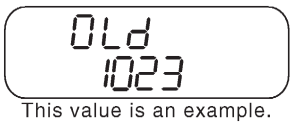
NJEL0447S01

1. Turn the ignition switch to the “LOCK” position.
2. Press both reset buttons on the combination meter and keep them depressed.
3. Turn the ignition switch to the “ON” position, while keeping the reset buttons pressed.
4. Release both reset buttons then self-diagnosis will start. The sequence (A to L) is activated by press the either reset buttons.

NOTE:
If either reset button is not pressed for 20 seconds at each step or if the ignition switch is turned OFF, the self-diagnosis mode is exited.

	Check items	Display	Remarks
A)	Odometer segment test	 SEL434X	All odo trip meter segments are ON.
B)	Work instruction code	 This code is an example. SEL435X	This information is not used for service. Please skip this step.
C)	Software code	 SEL436X	This information is not used for service. Please skip this step.
D)	EEPROM code	 SEL437X	This information is not used for service. Please skip this step.
E)	Hardware code	 SEL438X	This information is not used for service. Please skip this step.
F)	PCB code	 SEL439X	This information is not used for service. Please skip this step.
G)	Meter/gauge test (Sweeping movement)	 Flashing SEL440X	Tachometer, speedometer, fuel level gauge and water temperature gauge have sweeping movement test. (The meter/gauges operate MIN. → MAX., MAX. → MIN. for 2 times) The odo trip meter segment flushes during the sweep movement.

Combination Meter Self-Diagnosis/Hatchback (Cont'd)

	Check items	Display	Remarks
H)	Error 1 (Bit 0 - Bit 3)	 SEL441X	The segment of each bit displays "0", meaning no failure. If the bit(s) displays figures other than "0", the item of the bit has failed. For details, refer to "Failure chart for Error 1 and Error E" below.
I)	Error E (Bit 4 - Bit 7)	 SEL442X	
J)	Fuel warning lamp test	 Flashing SEL443X	Fuel warning lamp is on and odo trip meter segment "FUEL" flashes.
K)	Fuel gauge calibration (CAL)	 This value is an example. SEL444X	This information is not used for service. Please skip this step.
L)	Fuel gauge calibration (OLD)	 This value is an example. SEL445X	This information is not used for service. Please skip this step.

Failure Chart for "Error 1" and "Error E"

NJEL0447S0101

Bit	Detectable items	Description of the failure	Displayed figure on the bit	
			Failure	No failure
0	Speedometer input signal	No input signal When no signal is detected for 30 minutes continuously with the ignition ON, it should be judged as signal failure. (If input signal is detected later, then the judgement will be canceled immediately.)	1	0
		Abnormal input signal When any signal of frequency which would not exist in normal conditions is detected, it should be judged as signal failure.	2	
1	Tachometer input signal	No input signal When no signal is detected for 30 minutes continuously with the ignition ON, it should be judged as signal failure. (If input signal is detected later, then the judgement will be canceled immediately.)	1	0
		Abnormal input signal When any signal of frequency which would not exist in normal conditions is detected, it should be judged as signal failure.	2	

Bit	Detectable items	Description of the failure		Displayed figure on the bit	
				Failure	No failure
2	Fuel level input signal	Short circuit When short circuit of the signal line is detected for 5 seconds or more, it should be judged as short-circuit failure.		1	0
		Open circuit When open circuit of the signal line is detected for 5 seconds or more, it should be judged as open-circuit failure.		2	
3	Water temperature input signal	Short circuit When short circuit of the signal line is detected for 5 seconds or more, it should be judged as short-circuit failure.		1	0
		Open circuit When open circuit of the signal line is detected for 5 seconds or more, it should be judged as open-circuit failure.		2	
4	Outside air temperature input signal	Short circuit When short circuit of the signal line is detected for 5 seconds or more, it should be judged as short-circuit failure.		1	0
		Open circuit When open circuit of the signal line is detected for 5 seconds or more, it should be judged as open-circuit failure.		2	
5	Reset buttons	Short circuit for reset buttons When the short circuit is continuously detected for 5 minutes or more, it should be judged as short-circuit failure.	Right side reset button has failed.	1	0
			Left side reset button has failed.	2	
			Both reset buttons have failed.	3	
6	—	—		0	0
7	CPU	EEPROM failure		1	0
		CPU RAM failure		2	

Combination Meter Calibration

After replacing a combination meter, it might be necessary to calibrate the fuel gauge/low fuel warning lamp. In case the fuel warning lamp is flashing after replacing the combination meter perform the following:

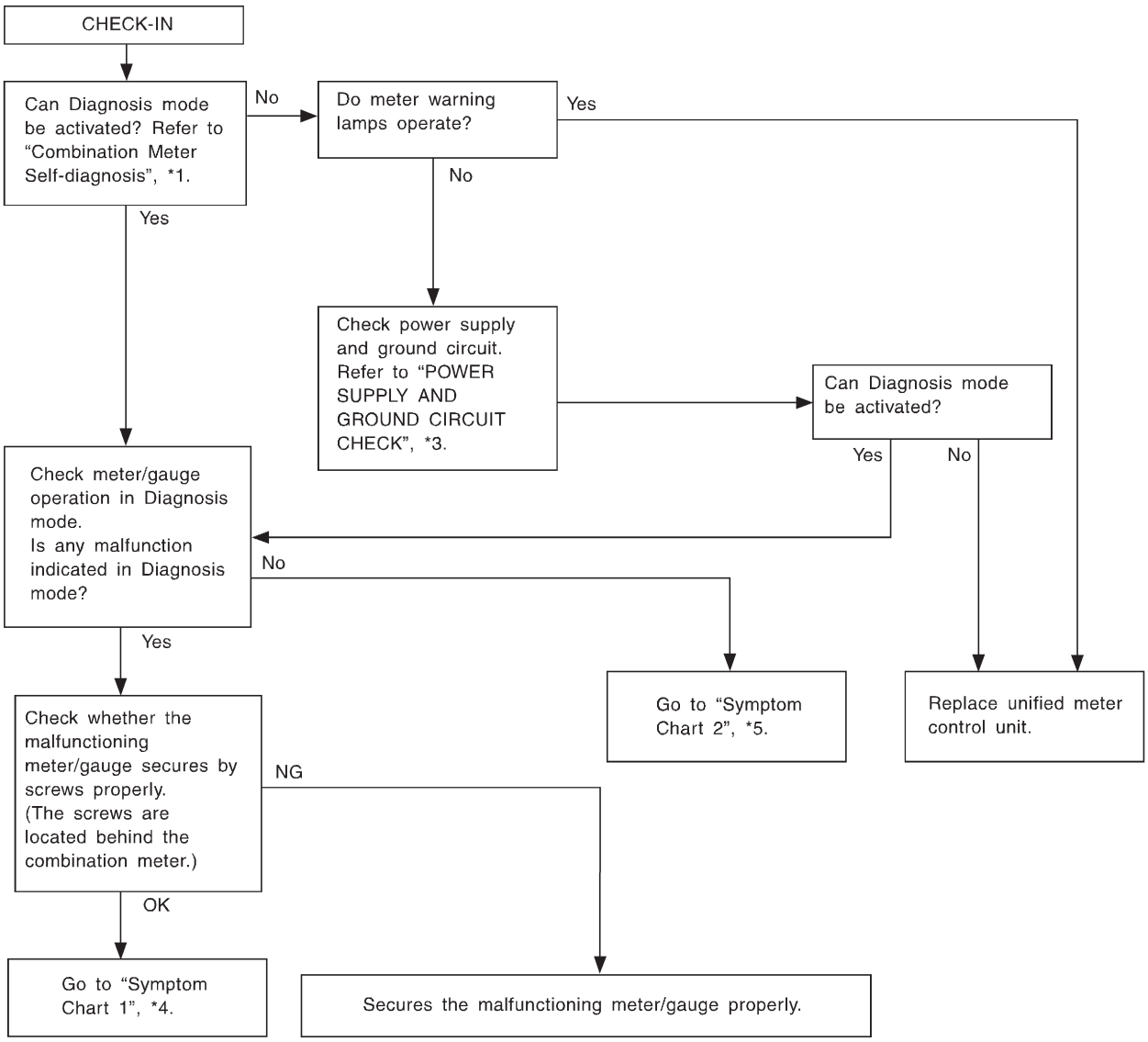
1. Press both reset buttons.
2. Turn the ignition ON **and keep the reset buttons depressed for at least 5 seconds.**
3. Release both reset buttons.
   The low fuel warning lamp will stop flashing and the combination meter will show CALL and possibly CALL FAIL. Showing CALL FAIL does not indicate a concern as this might be related to the current (unexpected) amount of fuel in the tank.

Trouble Diagnoses/Hatchback

NJEL0448

PRELIMINARY CHECK

NJEL0448S01



SEL361WA

*1: Combination Meter Self-Diagnosis (EL-173)

*3: POWER SUPPLY AND GROUND CIRCUIT CHECK (EL-178)

*4: Symptom Chart 1 (EL-177)

*5: Symptom Chart 2 (EL-177)

SYMPTOM CHART

NJEL0448S02

Symptom Chart 1 (Malfunction is Indicated in Diagnosis Mode)

NJEL0448S0201

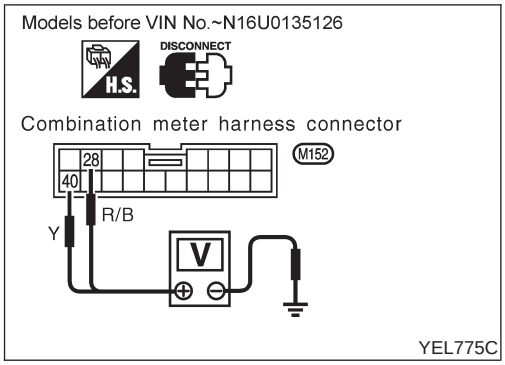
Symptom	Possible causes	Repair order
Odo/trip meter indicates malfunction in Diagnosis mode.	Unified meter control unit	Replace unified meter control unit.
Multiple meter/gauge indicate malfunction in Diagnosis mode.		
One of speedometer/ tachometer/fuel gauge/ water temp. gauge indicates malfunction in Diagnosis mode.	1. Meter/Gauge 2. Unified meter control unit	1. Check resistance of meter/gauge indicating malfunction. If the resistance is NG, replace the meter/ gauge. 2. If the resistance of meter/gauge is OK, replace unified meter control unit.

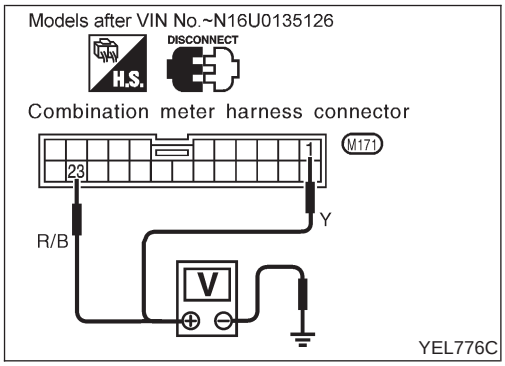
Symptom Chart 2 (No Malfunction is Indicated in Diagnosis Mode)

NJEL0448S0202

Symptom	Possible causes	Repair order
One of speedometer/ tachometer/fuel gauge/ water temp. gauge is malfunctioning.	1. Sensor signal - Vehicle speed signal - Engine revolution signal - Fuel gauge - Water temp. gauge 2. Unified meter control unit	1. Check the sensor for malfunctioning meter/gauge. INSPECTION/VEHICLE SPEED SENSOR (Refer to EL-179.) INSPECTION/ENGINE REVOLUTION SIGNAL (Refer to EL-180.) INSPECTION/FUEL LEVEL SENSOR UNIT (Refer to EL-181.) INSPECTION/THERMAL TRANSMITTER (Refer to EL-182.) 2. Replace unified meter control unit.
Multiple meter/gauge are malfunctioning. (except odo/trip meter)		

Before starting trouble diagnoses below, perform PRELIMINARY CHECK, EL-176.





POWER SUPPLY AND GROUND CIRCUIT CHECK

=NJEL0448S03

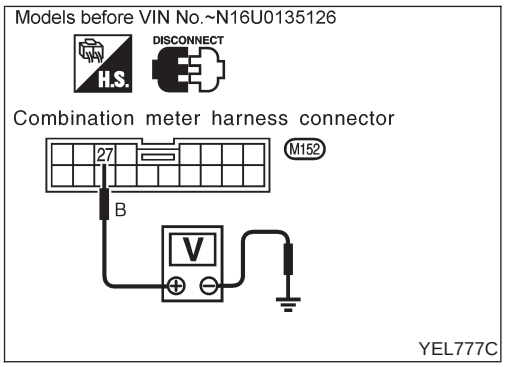
Power Supply Circuit Check

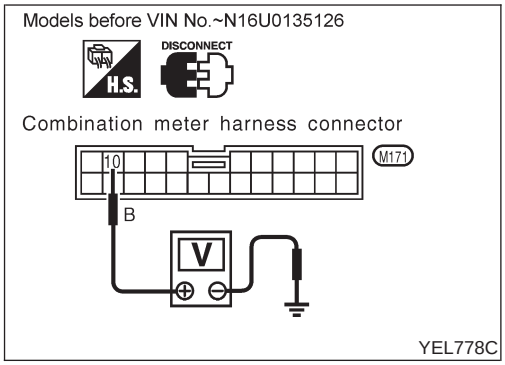
NJEL0448S0301

Models	Terminals		Ignition switch position		
	(+)	(−)	OFF	ACC	ON
before VIN No. — N16U0135126	28	Ground	Battery voltage	Battery voltage	Battery voltage
after VIN No. — N16U0135126	23				
before VIN No. — N16U0135126	40	Ground	0V	0V	Battery voltage
after VIN No. — N16U0135126	1				

If NG, check the following.

- 10A fuse [No. 12, located in fuse block (J/B)]
- 10A fuse [No. 30, located in fuse block (J/B)]
- Harness for open or short between fuse and combination meter





Ground Circuit Check

NJEL0448S0302

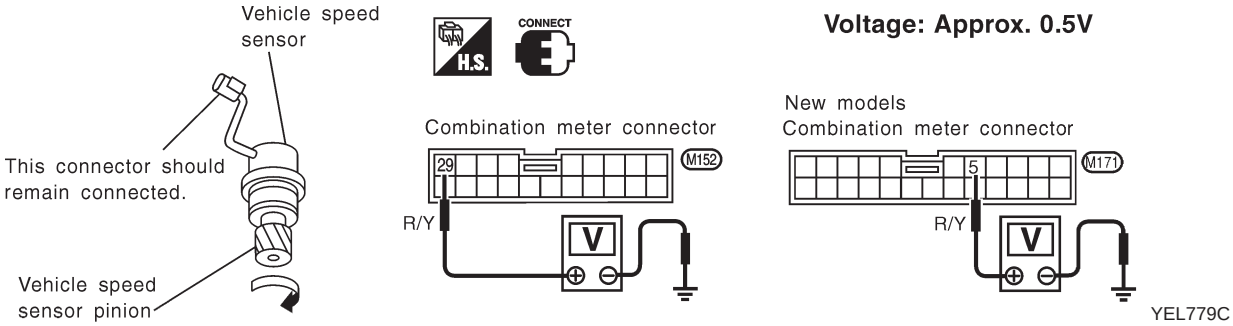
Models	Terminals	Continuity
before VIN No. — N16U0135126	27 - Ground	Yes
after VIN No. — N16U0135126	10 - Ground	

INSPECTION/VEHICLE SPEED SENSOR

=NJEL0448S04

1	CHECK VEHICLE SPEED SENSOR OUTPUT

1. Remove vehicle speed sensor from transmission.
2. Check voltage between combination meter terminal 29 (M152), 5 (M171) and ground while quickly turning speed sensor pinion.

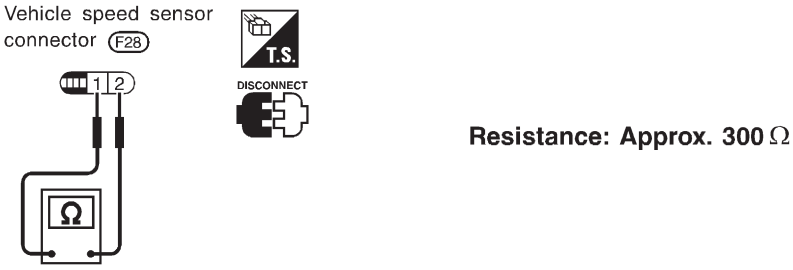


OK or NG

OK	▶	Vehicle speed sensor is OK.
NG	▶	GO TO 2.

2	CHECK VEHICLE SPEED SENSOR

Check resistance between vehicle speed sensor terminals 1 and 2.



OK or NG

OK	▶	**Check the following.** ● Harness between combination meter and vehicle speed sensor ● Vehicle speed sensor ground circuit
NG	▶	Replace vehicle speed sensor.

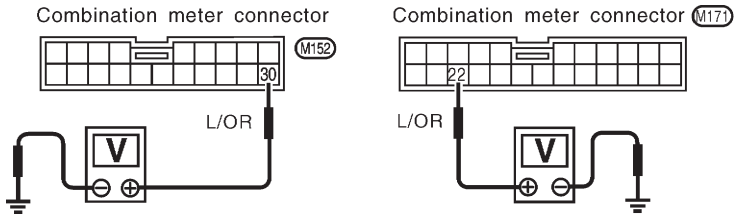
INSPECTION/ENGINE REVOLUTION SIGNAL

=NJEL0448S05

1	CHECK ECM OUTPUT

1. Start engine.
2. Check voltage between combination meter terminals 30 (M152), 22 (M171) and ground at idle and 2,000 rpm.





Higher rpm = Higher voltage
Lower rpm = Lower voltage
Voltage should change with rpm.

YEL780C

OK or NG

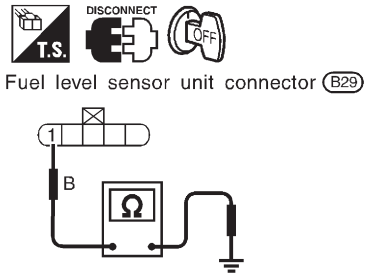
OK	▶	Engine revolution signal is OK.
NG	▶	Harness for open or short between ECM and combination meter

INSPECTION/FUEL LEVEL SENSOR UNIT

=NJEL0448S06

1	CHECK GROUND CIRCUIT FOR FUEL LEVEL SENSOR UNIT

Check harness continuity between fuel level sensor unit connector terminal 1 and ground.



Continuity should exist.

SEL400X

OK or NG

OK	▶	GO TO 2.
NG	▶	Repair harness or connector.

2	CHECK FUEL LEVEL SENSOR UNIT

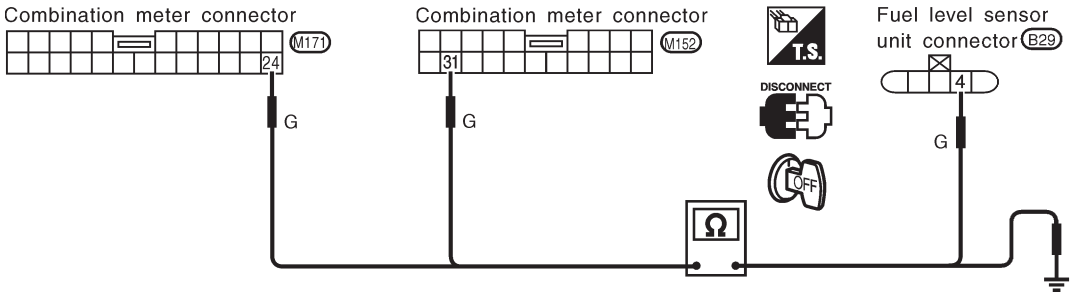
Refer to "FUEL LEVEL SENSOR UNIT CHECK" (EL-183).

OK or NG

OK	▶	GO TO 3.
NG	▶	Replace fuel level sensor unit.

3	CHECK HARNESS FOR OPEN OR SHORT

1. Disconnect combination meter connector and fuel level sensor unit connector.
2. Check continuity between combination meter terminal 31 (M152), 24 (M171) and fuel level sensor unit connector terminal 4.
   Continuity should exist.
3. Check continuity between combination meter terminal 31 (M152), 24 (M171) and ground.
   Continuity should not exist.



YEL781C

OK or NG

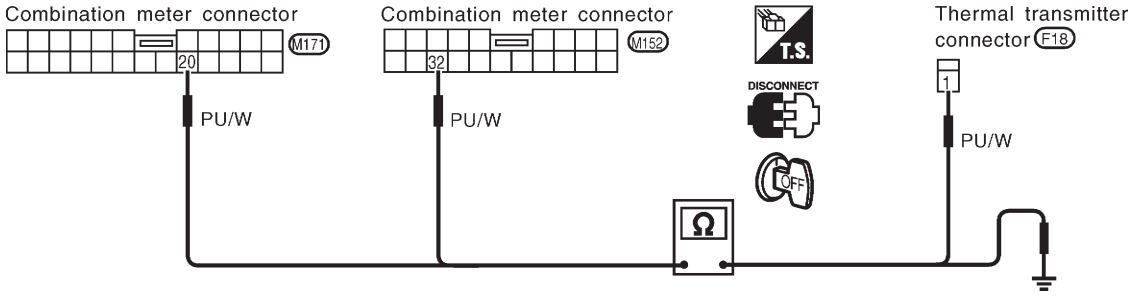
OK	▶	Fuel level sensor unit is OK.
NG	▶	Repair harness or connector.

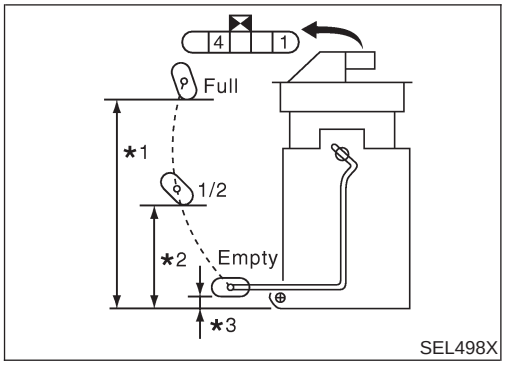
INSPECTION/THERMAL TRANSMITTER

=NJEL0448S07

1	CHECK THERMAL TRANSMITTER	
Refer to "THERMAL TRANSMITTER CHECK" (EL-183).		
OK or NG		
OK	▶	GO TO 2.
NG	▶	Replace.

2	CHECK HARNESS FOR OPEN OR SHORT	
1. Disconnect combination meter connector and thermal transmitter connector. 2. Check continuity between combination meter terminal 32 (M152), 20 (M171) and thermal transmitter terminal 1. **Continuity should exist.** 3. Check continuity between combination meter terminal 32 (M152), 20 (M171) and ground. **Continuity should not exist.**		
OK or NG		
OK	▶	Thermal transmitter is OK.
NG	▶	Repair harness or connector.





Electrical Components Inspection/Hatchback

=NJEL0449

FUEL LEVEL SENSOR UNIT CHECK

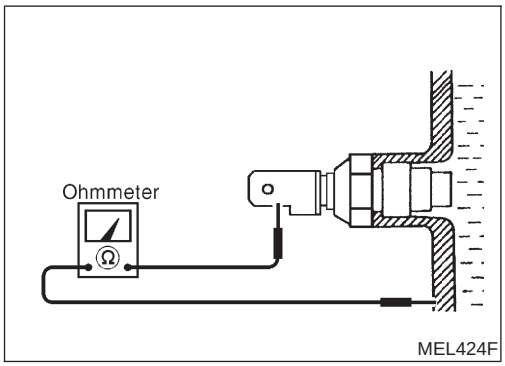
NJEL0449S02

- For removal, refer to FE-6, FE-23, “FUEL SYSTEM”.

Check the resistance between terminals 4 and 1.

Ohmmeter		Float position mm (in)			Resistance value Ω
(+)	(−)				
4	1	*1	Full	142.5 (5.61)	Approx. 4 - 6
		*2	1/2	88.7 (3.492)	32 - 33
		*3	Empty	11.1 (0.437)	80 - 83

*1 and *3: When float rod is in contact with stopper.

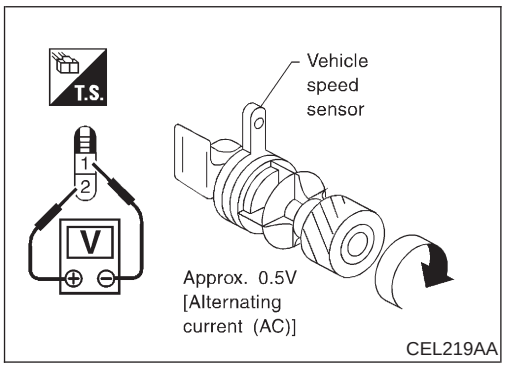


THERMAL TRANSMITTER CHECK

NJEL0449S03

Check the resistance between the terminals of thermal transmitter and body ground.

Water temperature	Resistance
65°C (149°F)	Approx. 1,179 - 1,417Ω
91°C (196°F)	Approx. 474 - 568Ω



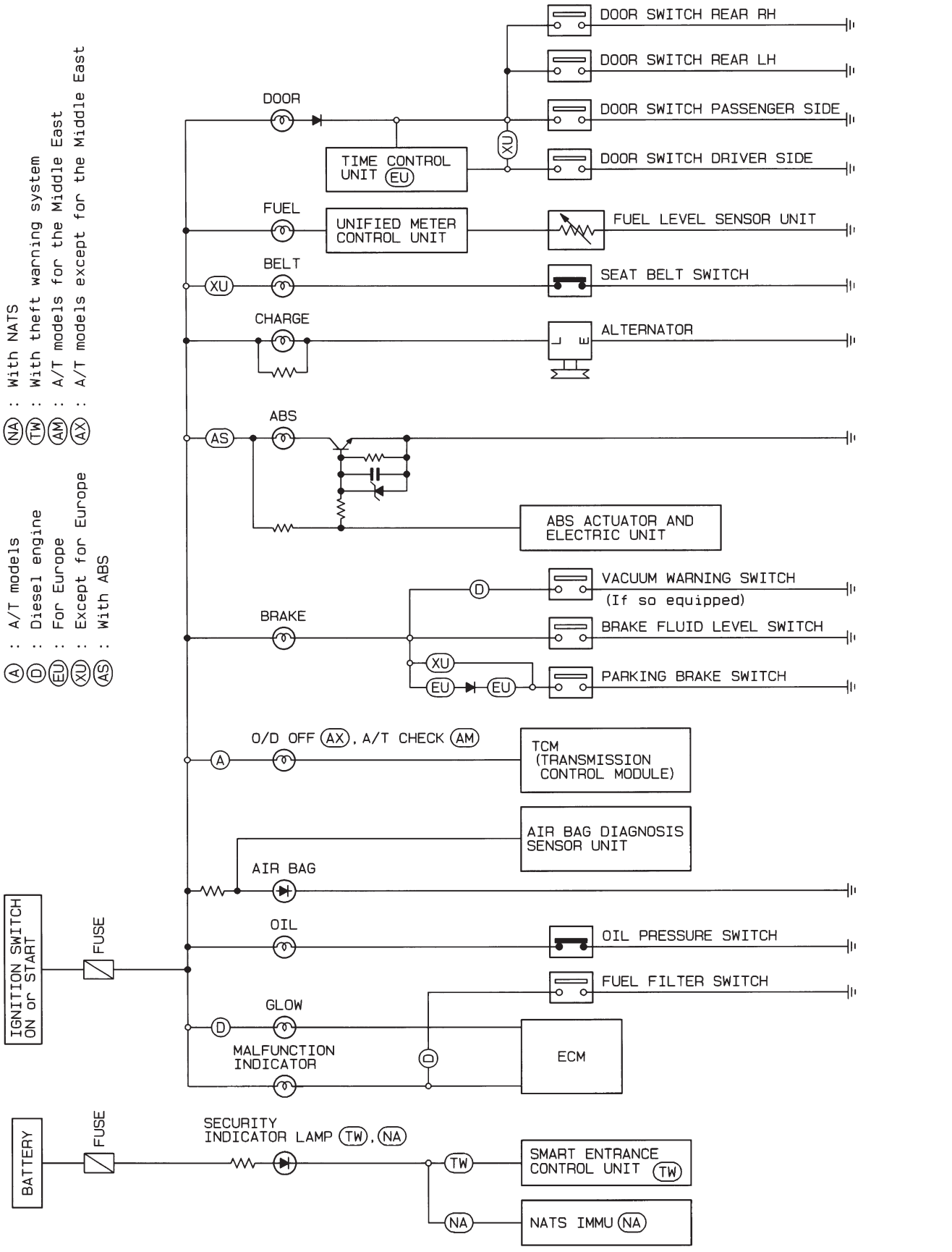
VEHICLE SPEED SENSOR SIGNAL CHECK

NJEL0449S04

1. Remove vehicle speed sensor from transmission.
2. Turn vehicle speed sensor pinion quickly and measure voltage across 1 and 2.

Schematic/Sedan

NJEL0049

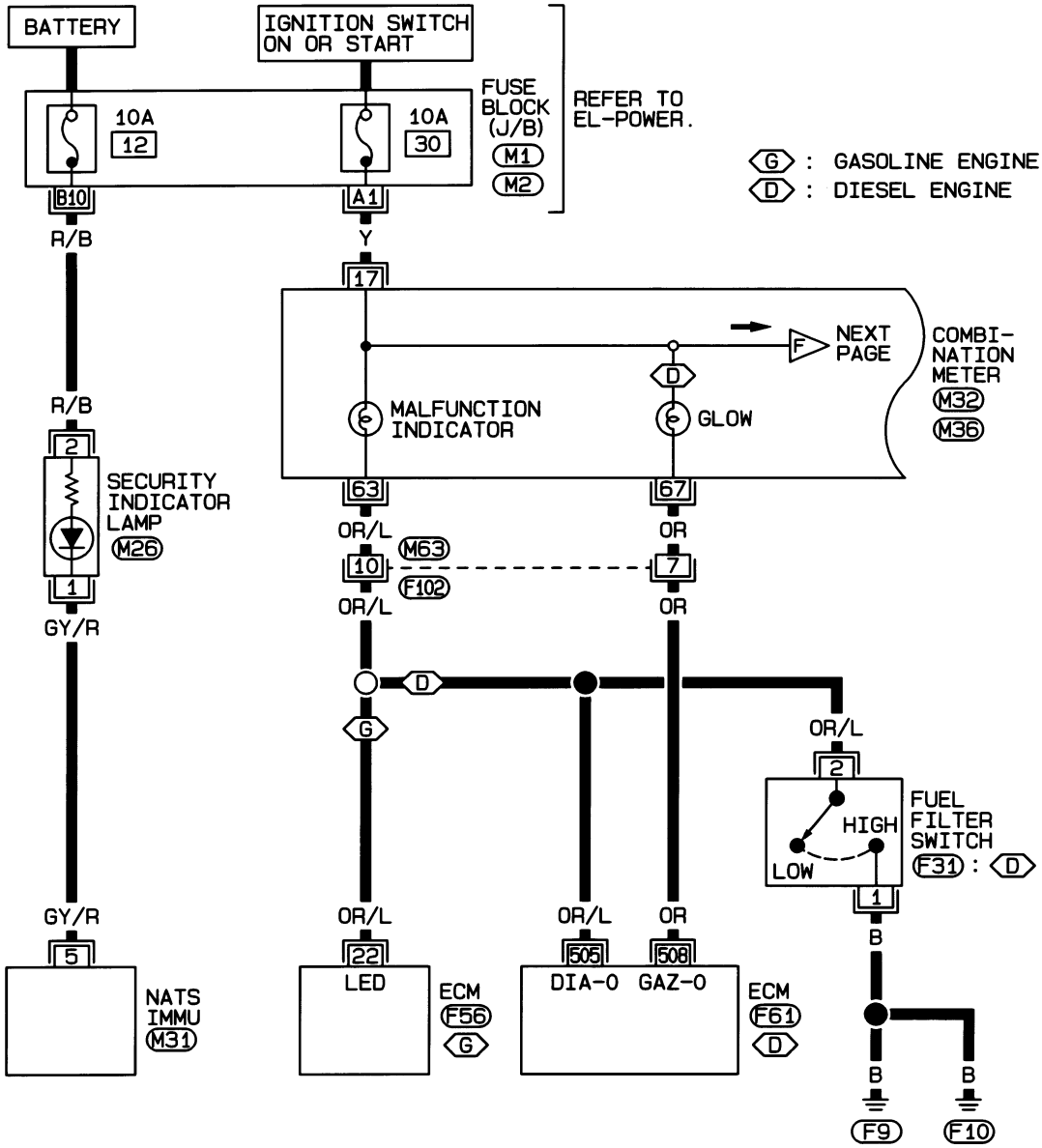


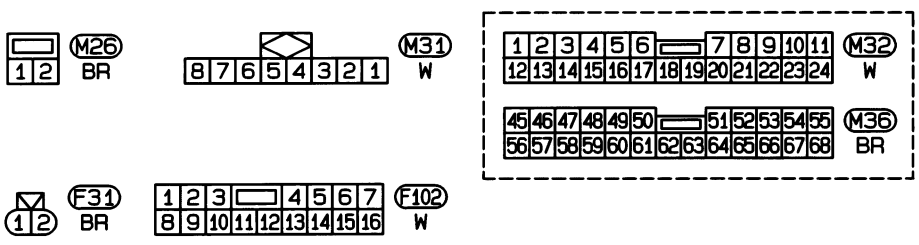
HEL678B

Wiring Diagram — WARN —/Sedan

NJEL0370

EL-WARN-08

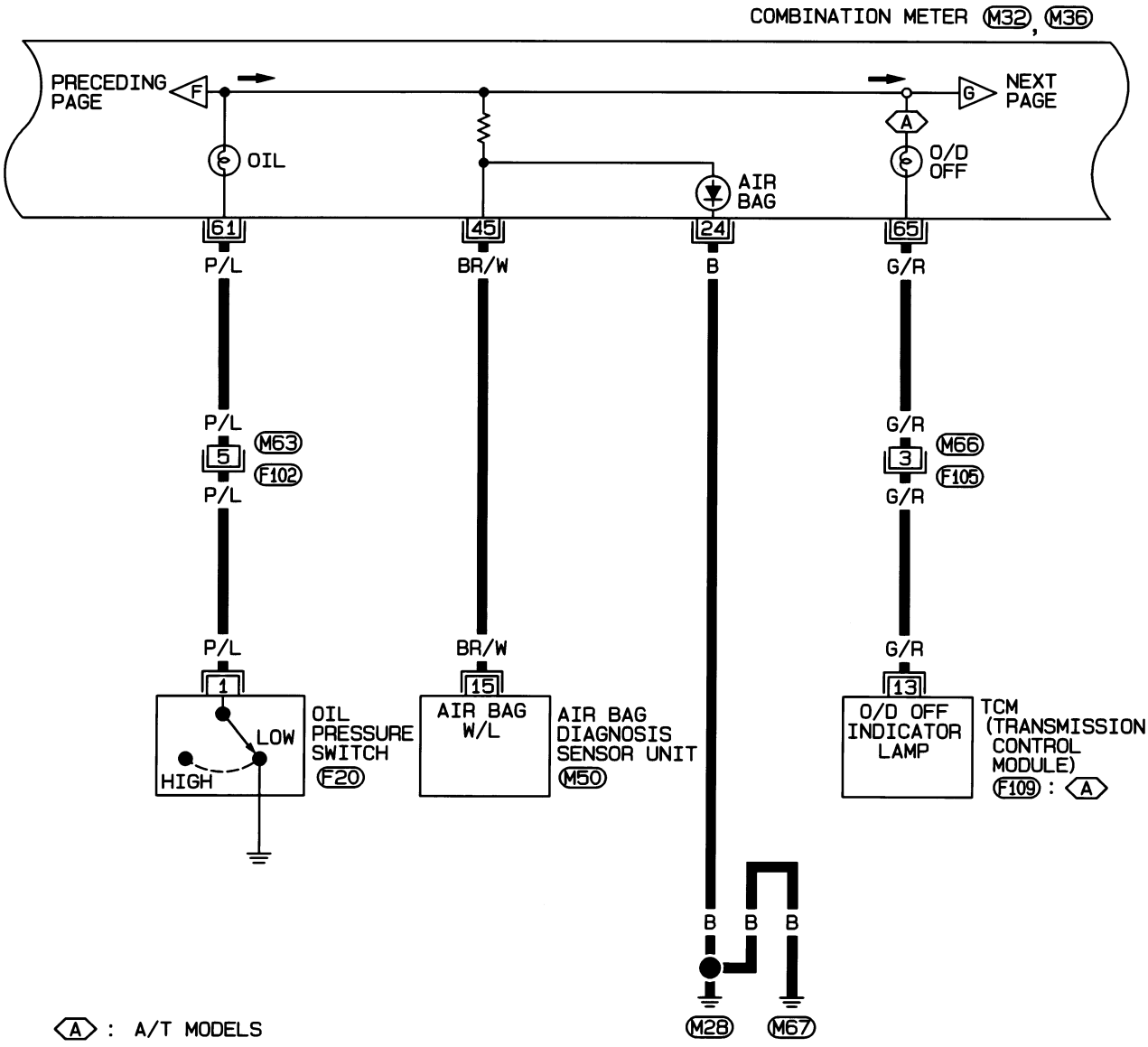


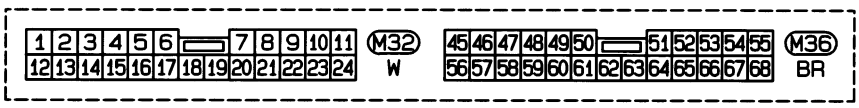


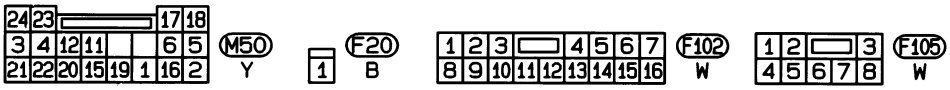
REFER TO THE FOLLOWING.
M1, M2 -FUSE BLOCK-JUNCTION BOX (J/B)
F56, F61 -ELECTRICAL UNITS

HEL385B

EL-WARN-09



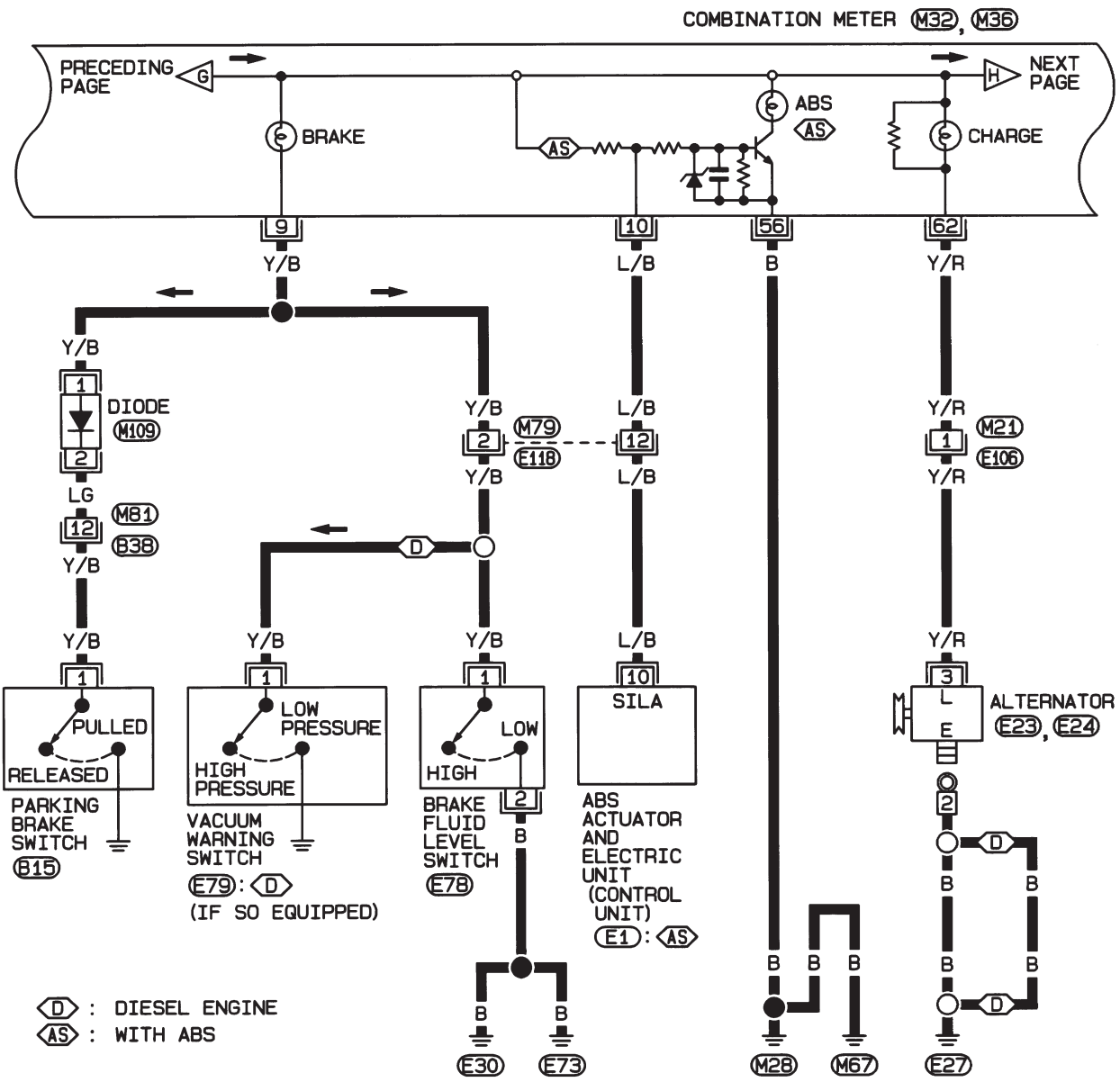


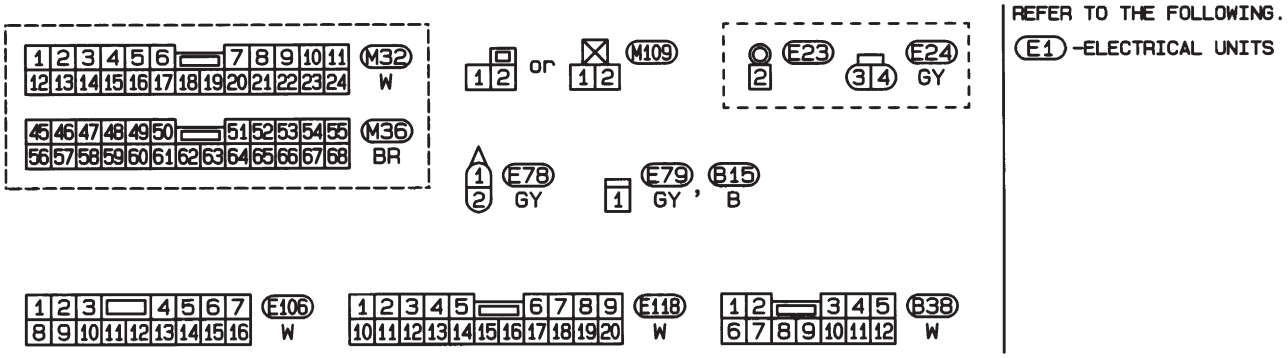


REFER TO THE FOLLOWING.
F109 -ELECTRICAL UNITS

HEL386B

EL-WARN-10

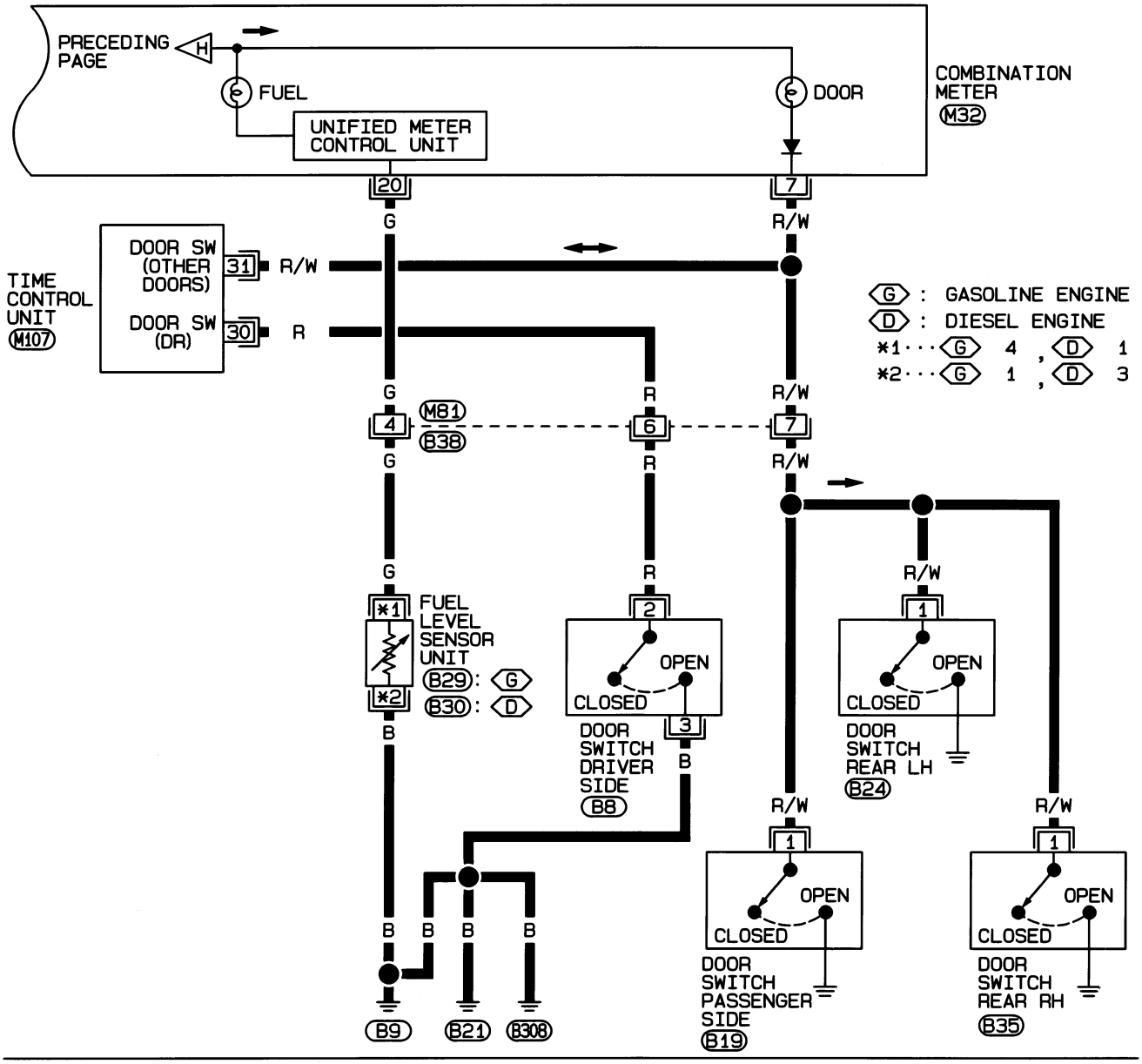


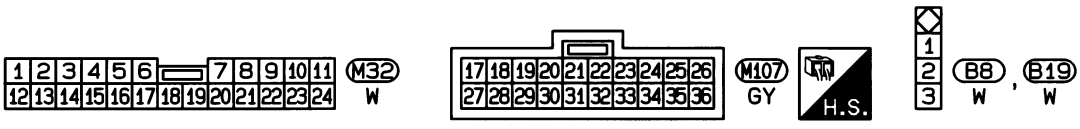


REFER TO THE FOLLOWING.
E1 -ELECTRICAL UNITS

HEL667B

EL-WARN-11

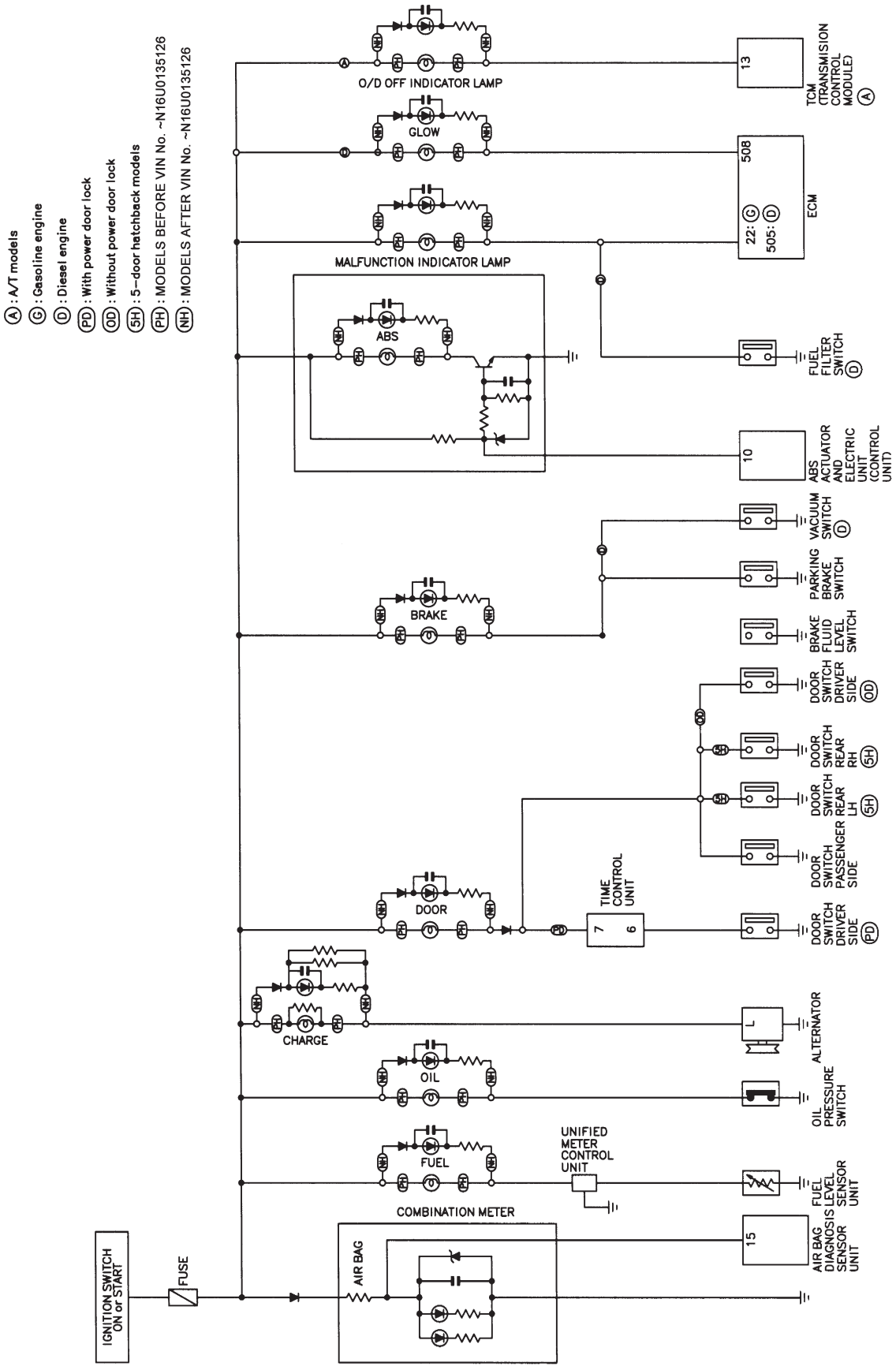




HEL388B

Schematic/Hatchback

NJEL0450

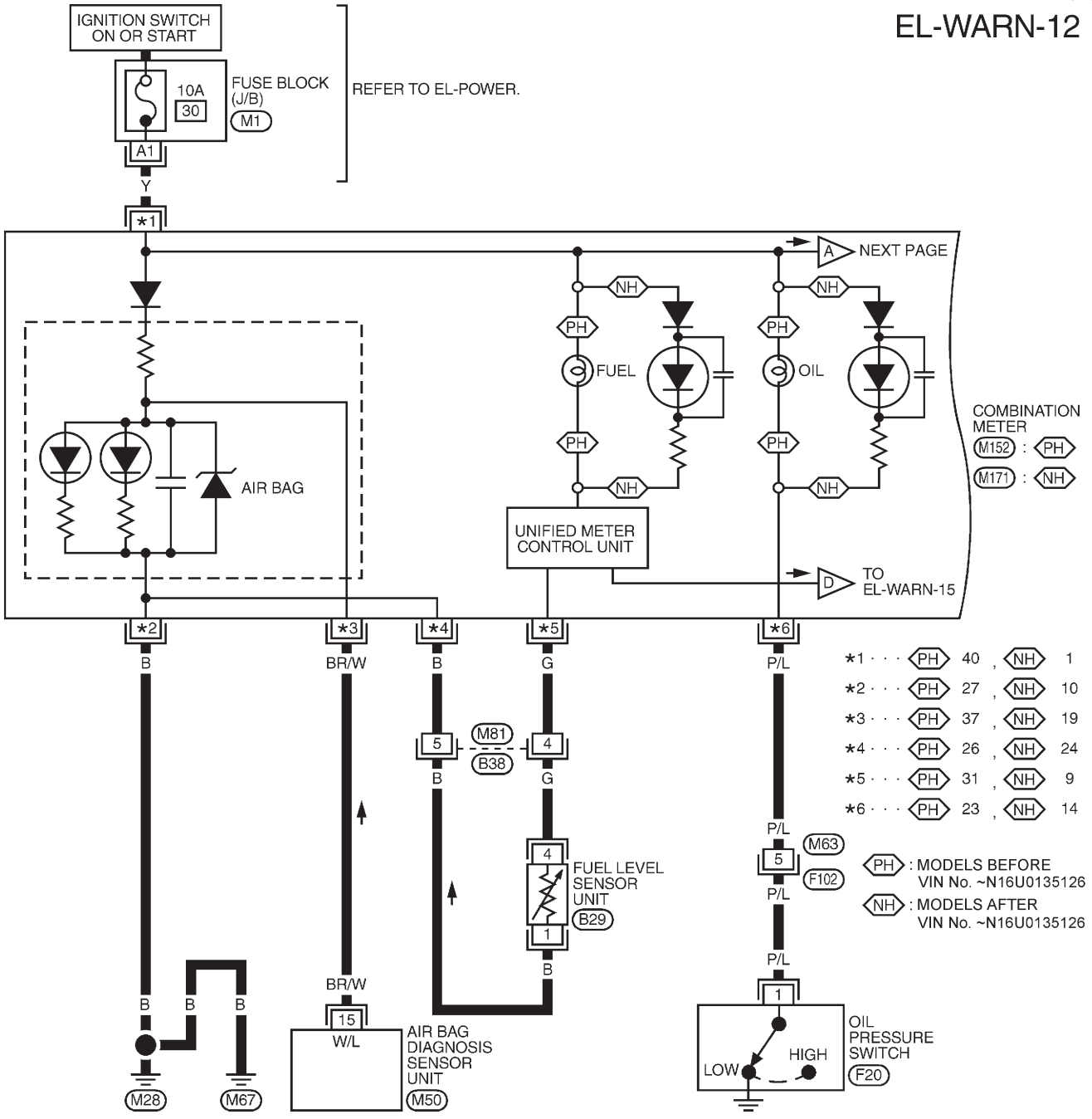


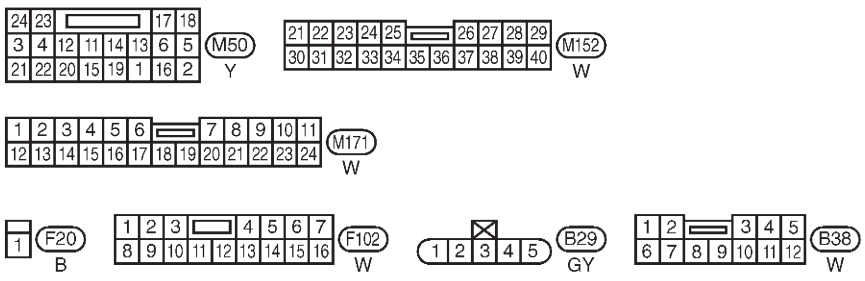
YEL356C

Wiring Diagram — WARN —/Hatchback

NJEL0451

EL-WARN-12

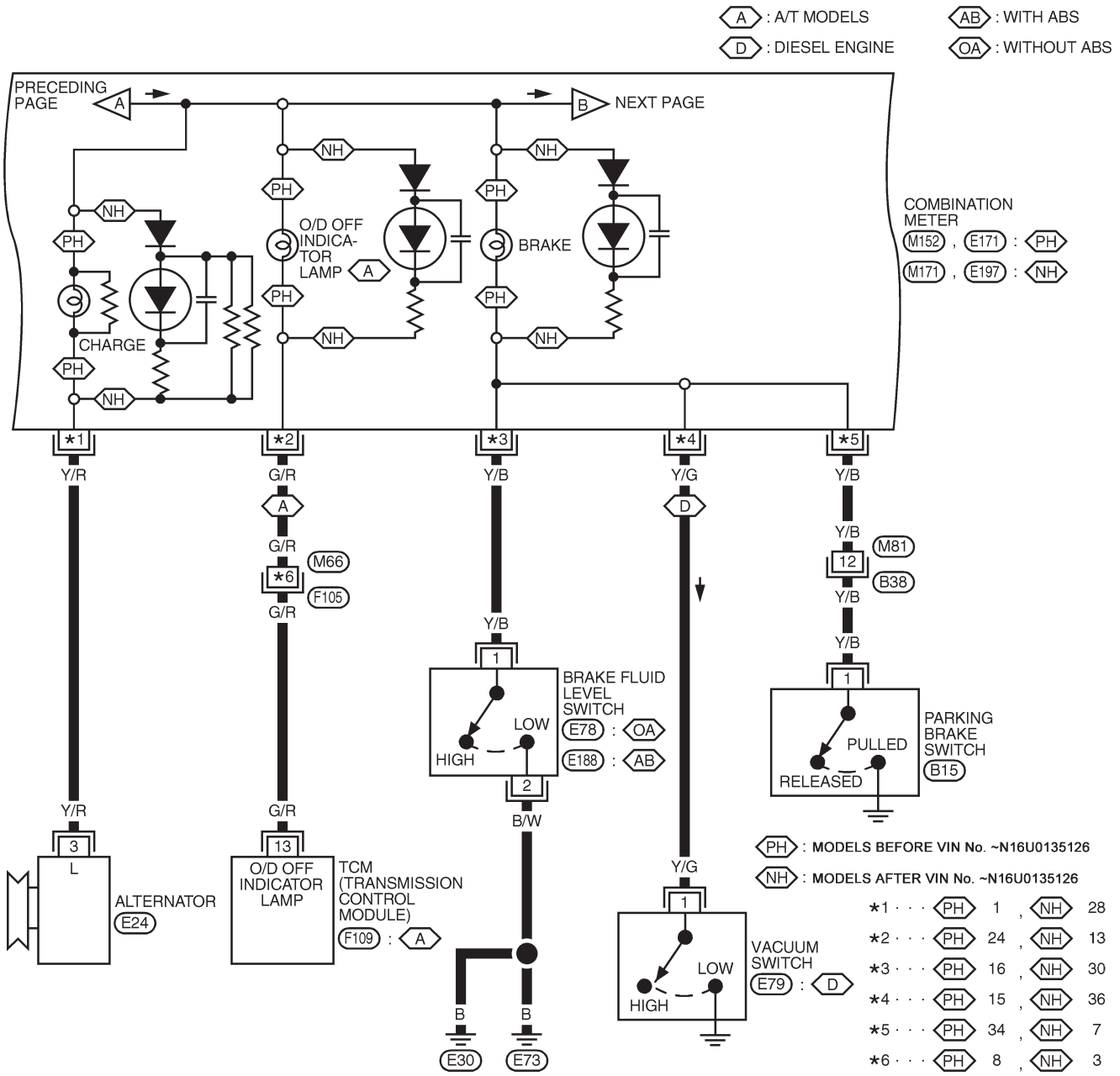




REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B)

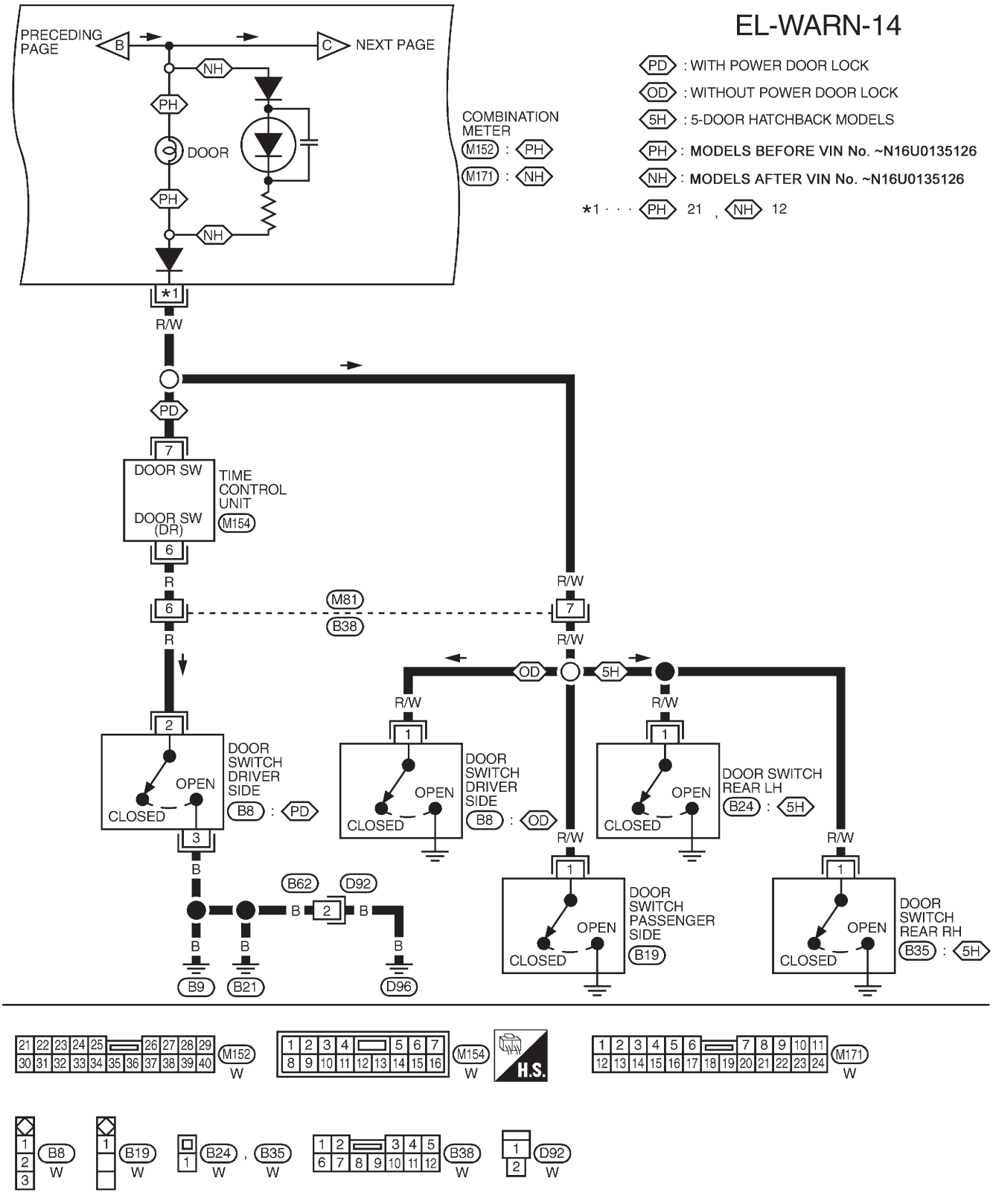
YEL357C

EL-WARN-13

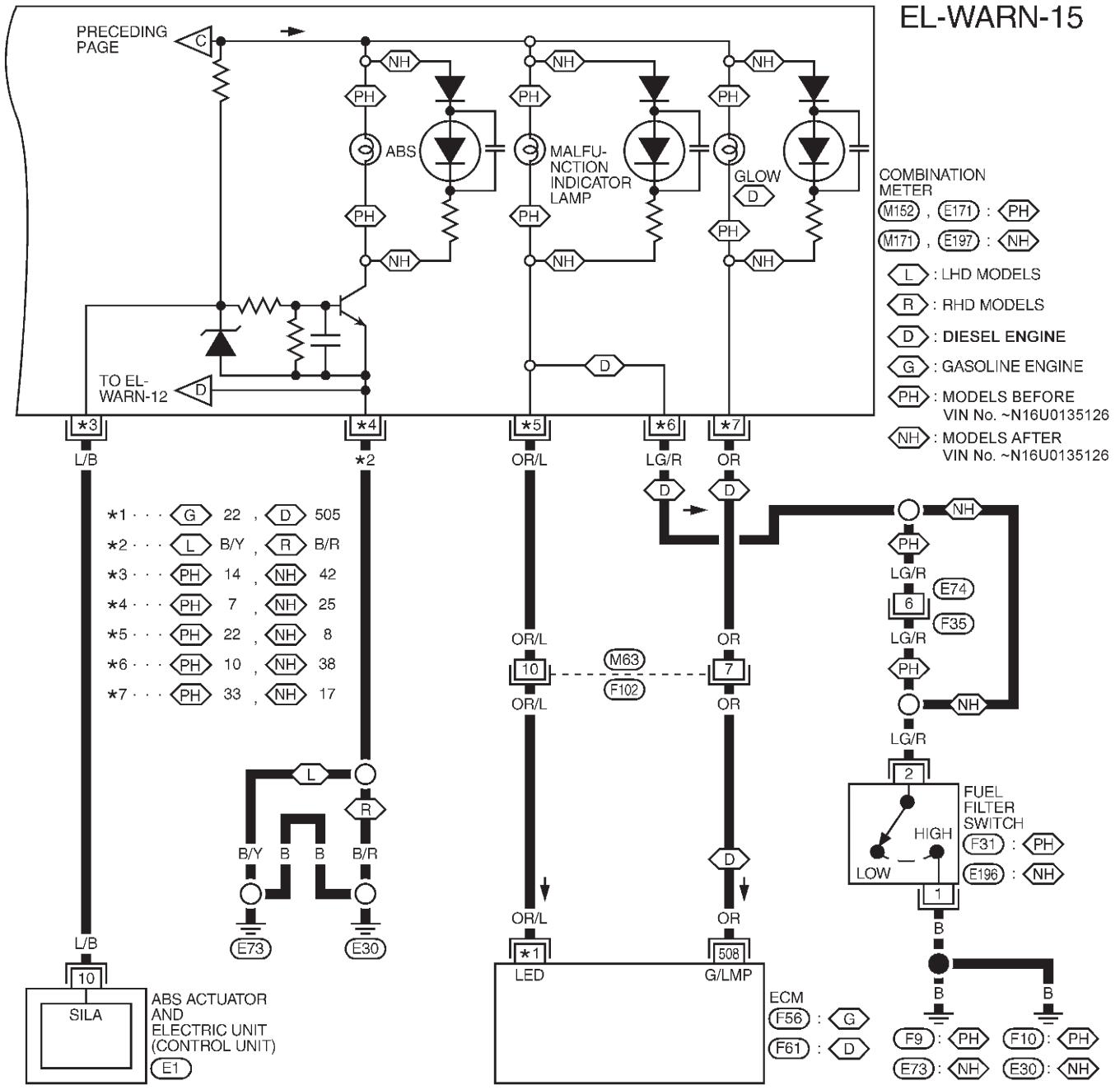


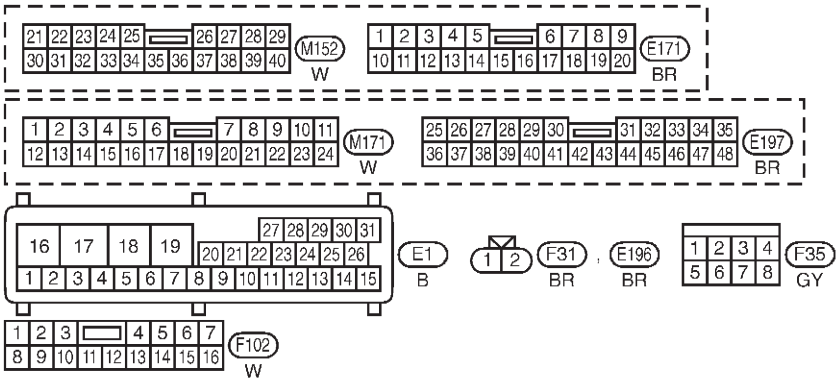
YEL358C

Wiring Diagram — WARN —/Hatchback (Cont'd)



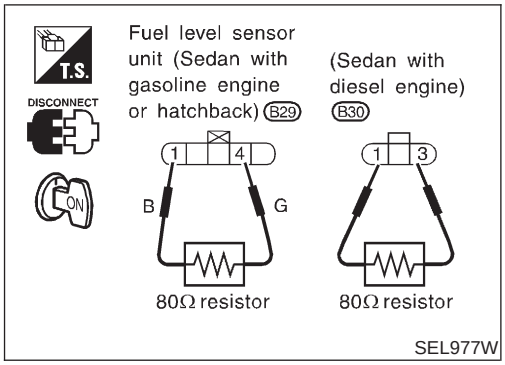
YEL359C





REFER TO THE FOLLOWING.
F56 , F61 -ELECTRICAL UNITS

YEL360C



Electrical Components Inspection

NJEL0051

FUEL WARNING LAMP OPERATION CHECK

NJEL0051S01

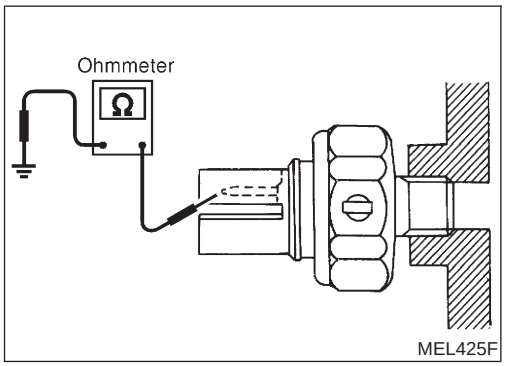
1. Turn ignition switch “OFF”.
2. Disconnect fuel level sensor unit harness connector B29 (Sedan with Gasoline engine or Hatchback) or B30 (Sedan with Diesel engine).
3. Connect a resistor (80Ω) between fuel level sensor unit harness connector terminals 4 and 1 (Sedan with Gasoline engine or Hatchback) or 1 and 3 (Sedan with Diesel engine).
4. Turn ignition switch “ON”.

The fuel warning lamp should come on.

NOTE:

For QG Engine Only

ECM might store the DTC P0180 during this inspection. If the DTC is stored in ECM memory, erase the DTC after reconnecting the fuel level sensor unit and fuel pump harness connector. Refer to EC-70, “HOW TO ERASE EMISSION-RELATED DIAGNOSTIC INFORMATION”, “Emission-related Diagnostic Information”, “ON BOARD DIAGNOSTIC SYSTEM DESCRIPTION”.

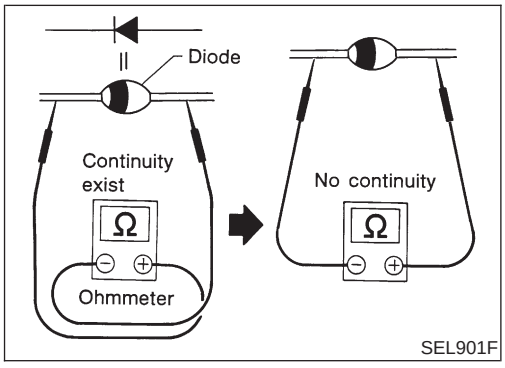


OIL PRESSURE SWITCH CHECK

NJEL0051S02

	Oil pressure kPa (bar, kg/cm^2, psi)	Continuity
Engine running	More than 10 - 20 (0.10 - 0.20, 0.1 - 0.2, 1 - 3)	No
Engine not running	Less than 10 - 20 (0.10 - 0.20, 0.1 - 0.2, 1 - 3)	Yes

Check the continuity between the terminals of oil pressure switch and body ground.



DIODE CHECK

NJEL0051S03

- Check continuity using an ohmmeter.
- Diode is functioning properly if test results are as shown in the figure at left.
- Check diodes at the combination meter harness connector instead of on the combination meter assembly. Refer to EL-185, “WARNING LAMP” wiring diagrams.

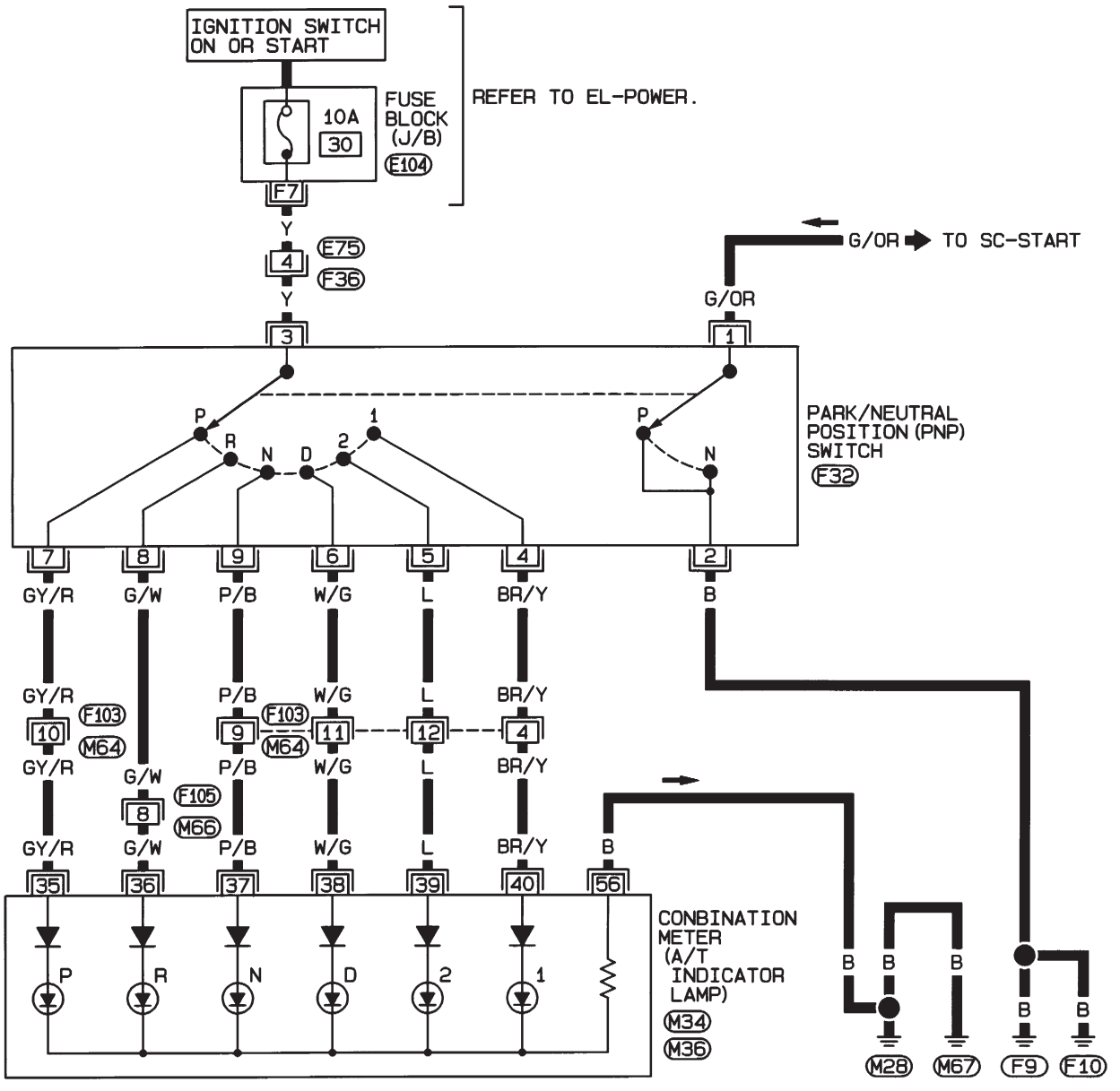
NOTE:

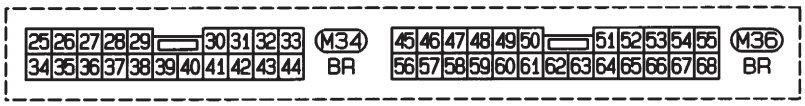
Specification may vary depending on the type of tester. Before performing this inspection, be sure to refer to the instruction manual for the tester to be used.

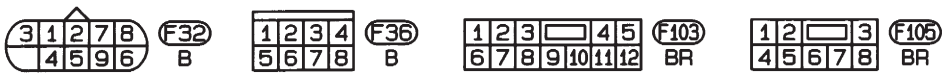
Wiring Diagram — AT/IND —/With Tachometer

NJEL0159

EL-AT/IND-01







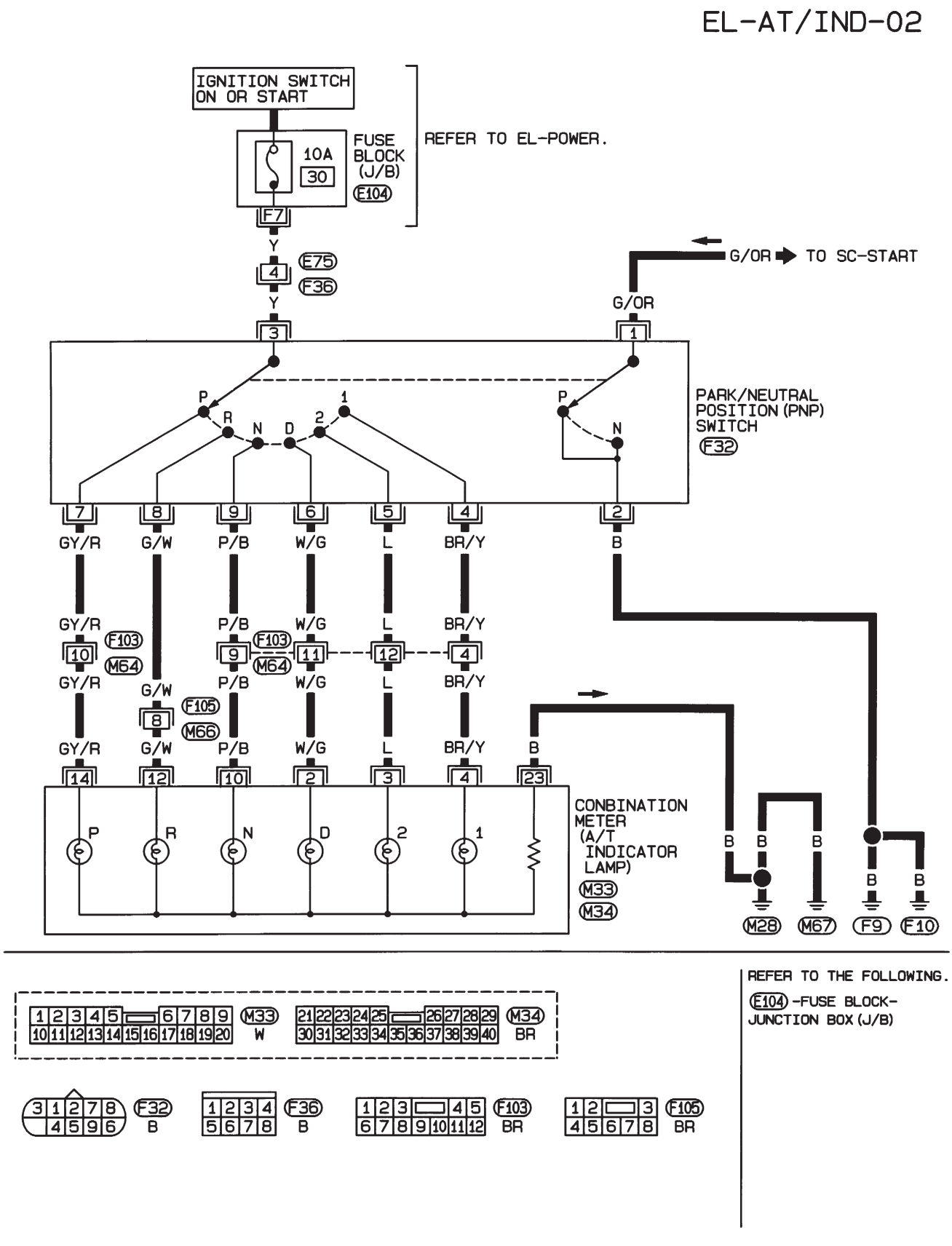
REFER TO THE FOLLOWING.

E104 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL890A

Wiring Diagram — AT/IND —/Without Tachometer

NJEL0326



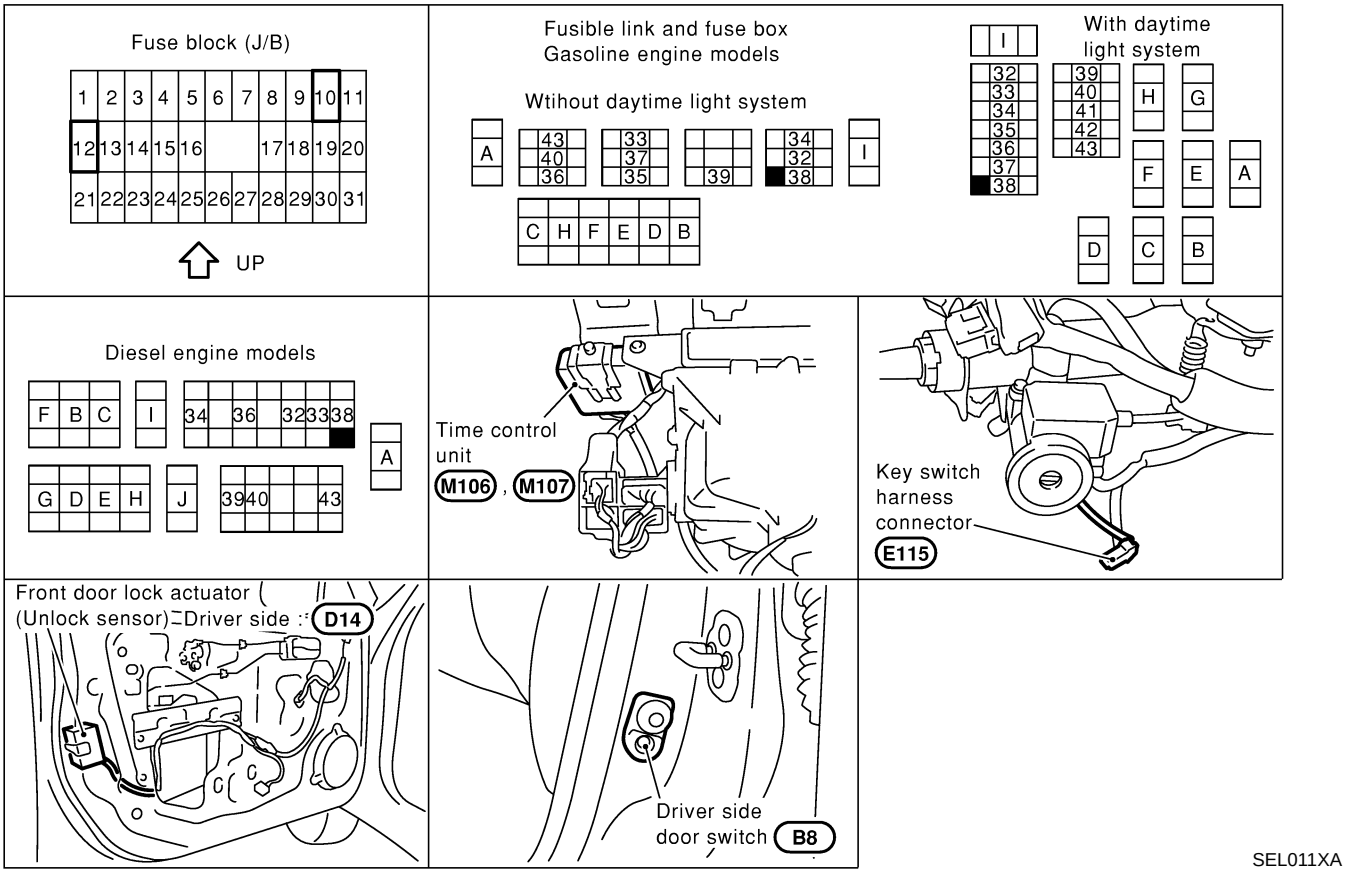
REFER TO THE FOLLOWING.

E104 -FUSE BLOCK- JUNCTION BOX (J/B)

HEL891A

Component Parts and Harness Connector Location/Sedan

NJEL0371



SEL011XA

System Description/Sedan

=NJEL0372

The warning chime is controlled by the time control unit.
The warning chime is located in the time control unit.
Power is supplied at all times

- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to key switch terminal 1,
- to time control unit terminal 1,
- through 10A fuse (No. 38, located in the fuse and fusible link box)
- to lighting switch terminal 11, and
- to daytime light unit terminal 1 (with daytime light system)

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

- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to time control unit terminal 17.

Ground is supplied to time control unit terminal 16 through body grounds M28 and M67.
When a signal, or combination of signals, is received by the time control unit, the warning chime will sound.

IGNITION KEY WARNING CHIME

NJEL0372S01

With the key in the ignition switch in the OFF position, the driver's door open and driver's door locked, the warning chime will sound. Power is supplied

- from key switch terminal 2
- to time control unit terminal 18.

Ground is supplied

- from body grounds B9, B21 and B308
- to time control unit terminal 30, and

Ground is interrupted,

- from body grounds M28, M67 and B308
- to time control unit terminal 28

LIGHT WARNING CHIME

NJEL0372S02

With ignition switch OFF, driver's door open, and lighting switch in 1ST or 2ND position, warning chime will sound. Power is supplied.

- from lighting switch terminal 12 or daytime light control unit terminal 10 (with daytime light system) to time control unit terminal 19

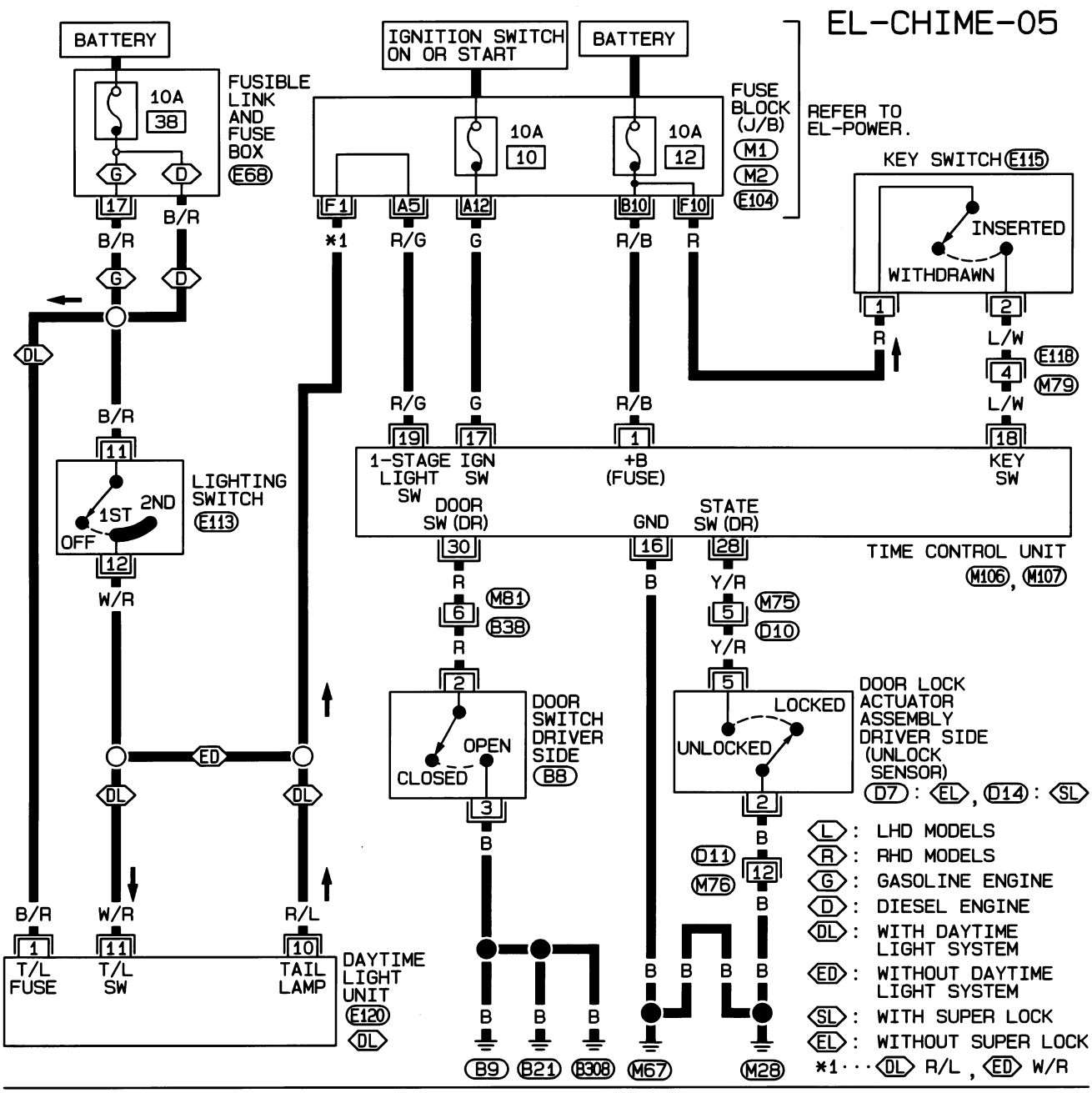
Ground is supplied

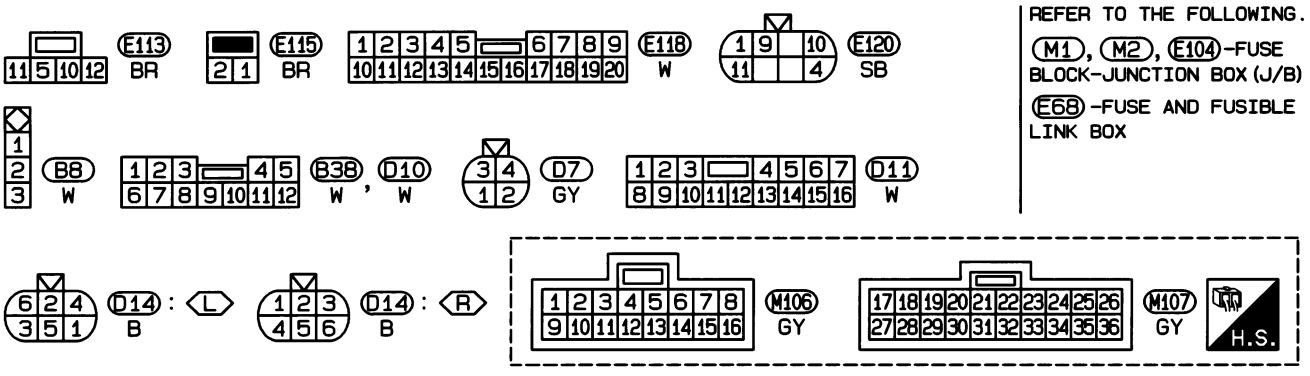
- from door switch driver side terminal 2
- to time control unit terminal 30.

Door switch driver side terminal 3 is grounded through body grounds B9, B21 and B308.

Wiring Diagram — CHIME —/Sedan

NJEL0373





REFER TO THE FOLLOWING.
M1, M2, E104 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 -FUSE AND FUSIBLE LINK BOX

HEL389B

Trouble Diagnoses/Sedan

NJEL0374

SYMPTOM CHART

NJEL0374S01

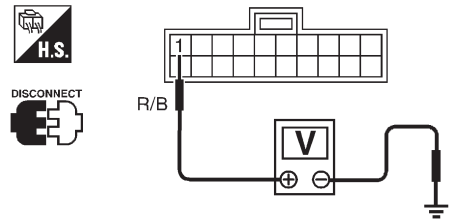
REFERENCE PAGE (EL-)	200	201	202	203	204
SYMPTOM	POWER SUPPLY AND GROUND CIRCUIT CHECK	DIAGNOSTIC PROCEDURE 1 (LIGHTING SWITCH INPUT SIGNAL CHECK)	DIAGNOSTIC PROCEDURE 2 (KEY SWITCH INSERT SIGNAL CHECK)	DIAGNOSTIC PROCEDURE 3 (DOOR UNLOCK SENSOR CHECK)	DIAGNOSTIC PROCEDURE 4
Light warning chime does not activate.	X	X			X
Ignition key warning chime does not activate.	X		X	X	X
All warning chimes do not activate.	X				X

POWER SUPPLY AND GROUND CIRCUIT CHECK

NJEL0374S02

Power Supply Circuit Check

NJEL0374S0201

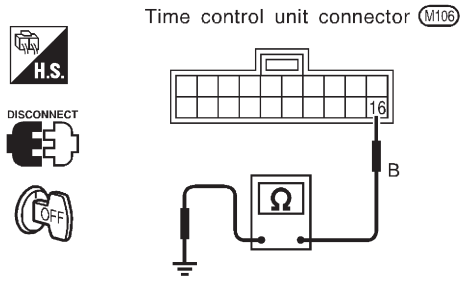


Terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
1	Ground	Battery voltage		

SEL991W

Ground Circuit Check

NJEL0374S0202



Continuity should exist.

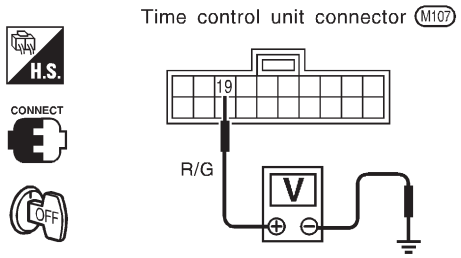
SEL992W

DIAGNOSTIC PROCEDURE 1 (LIGHTING SWITCH INPUT SIGNAL CHECK)

=NJEL0374S03

1	CHECK LIGHTING SWITCH INPUT SIGNAL

Check voltage between time control unit terminal 19 and ground.



Voltage [V]:
Condition of lighting switch: 1st or 2nd
Approx. 12
Condition of lighting switch: OFF
0

SEL993WA

OK or NG

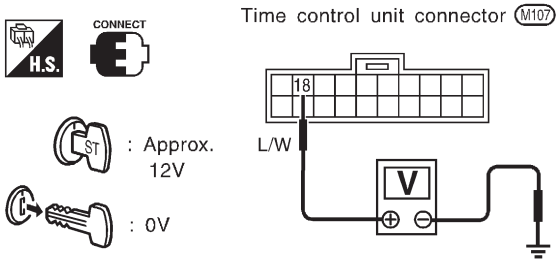
OK	▶	Lighting switch is OK.
NG	▶	**Check the following.** ● 10A fuse (No. 38, located in the fuse and fusible link box) ● Harness for open or short between time control unit and lighting switch/daytime light control unit ● Lighting switch

DIAGNOSTIC PROCEDURE 2 (KEY SWITCH INSERT SIGNAL CHECK)

=NJEL0374S04

1	CHECK KEY SWITCH INPUT SIGNAL

Check voltage between time control unit terminal 18 and ground.



Voltage [V]:
Condition of switch: Key is inserted.
Approx. 12
Condition of switch: Key is removed.
0

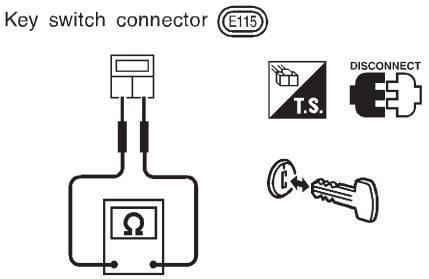
SEL990W

OK or NG

OK	▶	Key switch is OK.
NG	▶	GO TO 2.

2	CHECK KEY SWITCH (INSERT)

Check continuity between terminals 1 and 2.



Continuity:
Condition of key switch: Key is inserted.
Yes
Condition of key switch: Key is removed.
No

SEL922W

OK or NG

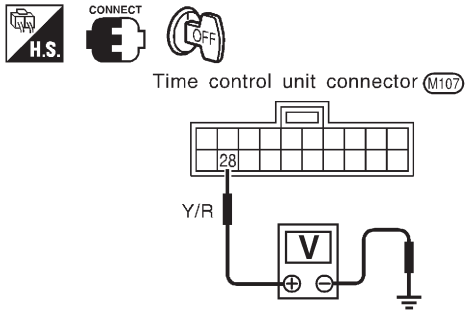
OK	▶	**Check the following.** ● 10A fuse [No. 12, located in fuse block (J/B)] ● Harness for open or short between key switch and fuse ● Harness for open or short between time control unit and key switch
NG	▶	Replace key switch.

DIAGNOSTIC PROCEDURE 3 (DOOR UNLOCK SENSOR CHECK)

NJEL0374S08

1	CHECK DOOR UNLOCK SENSOR INPUT SIGNAL

Check voltage between time control unit terminal 28 and ground.



Terminals (+)	Terminals (–)	Condition (Driver's door)	Voltage [V]
28	Ground	Locked	Approx. 5
		Unlocked	0

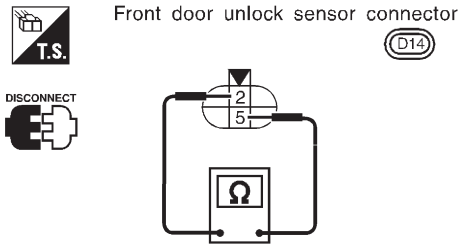
SEL987W

OK or NG

OK	▶	Door unlock sensor is OK.
NG	▶	GO TO 2.

2	CHECK DOOR UNLOCK SENSOR

1. Disconnect door unlock sensor connector.
2. Check continuity between door unlock sensor terminals 2 and 5.



Continuity:
Condition: Locked
No
Condition: Unlocked
Yes

SEL988W

OK or NG

OK	▶	**Check the following.** ● Door unlock sensor ground circuit ● Harness for open or short between time control unit and door unlock sensor
NG	▶	Replace door unlock sensor.

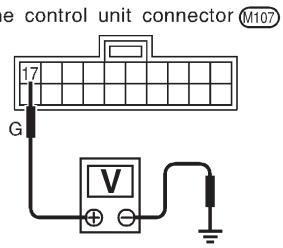
DIAGNOSTIC PROCEDURE 4

NJEL0374S05

1	CHECK IGNITION ON SIGNAL

Check voltage between time control unit terminal 17 and ground.





Terminals		Ignition switch position		
(+)	(–)	OFF	ACC	ON
17	Ground	0V	0V	Battery voltage

SEL985W

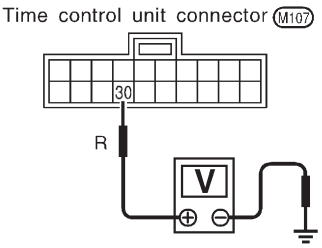
OK or NG

OK	▶	GO TO 2.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in fuse block (J/B)] ● Harness for open or short between time control unit and fuse

2	CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between time control unit terminal 30 and ground.





Voltage [V]:
Condition of driver's door: CLOSED
Approx. 5
Condition of driver's door: OPEN
0

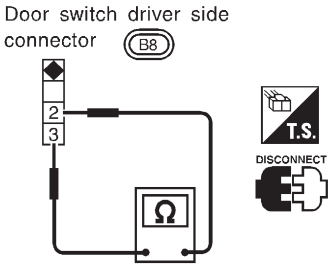
SEL986W

OK or NG

OK	▶	System is OK.
NG	▶	GO TO 3.

3	CHECK DRIVER SIDE DOOR SWITCH

Check continuity between terminals 2 and 3.



Continuity:
Door switch is pushed.
No
Door switch is released.
Yes

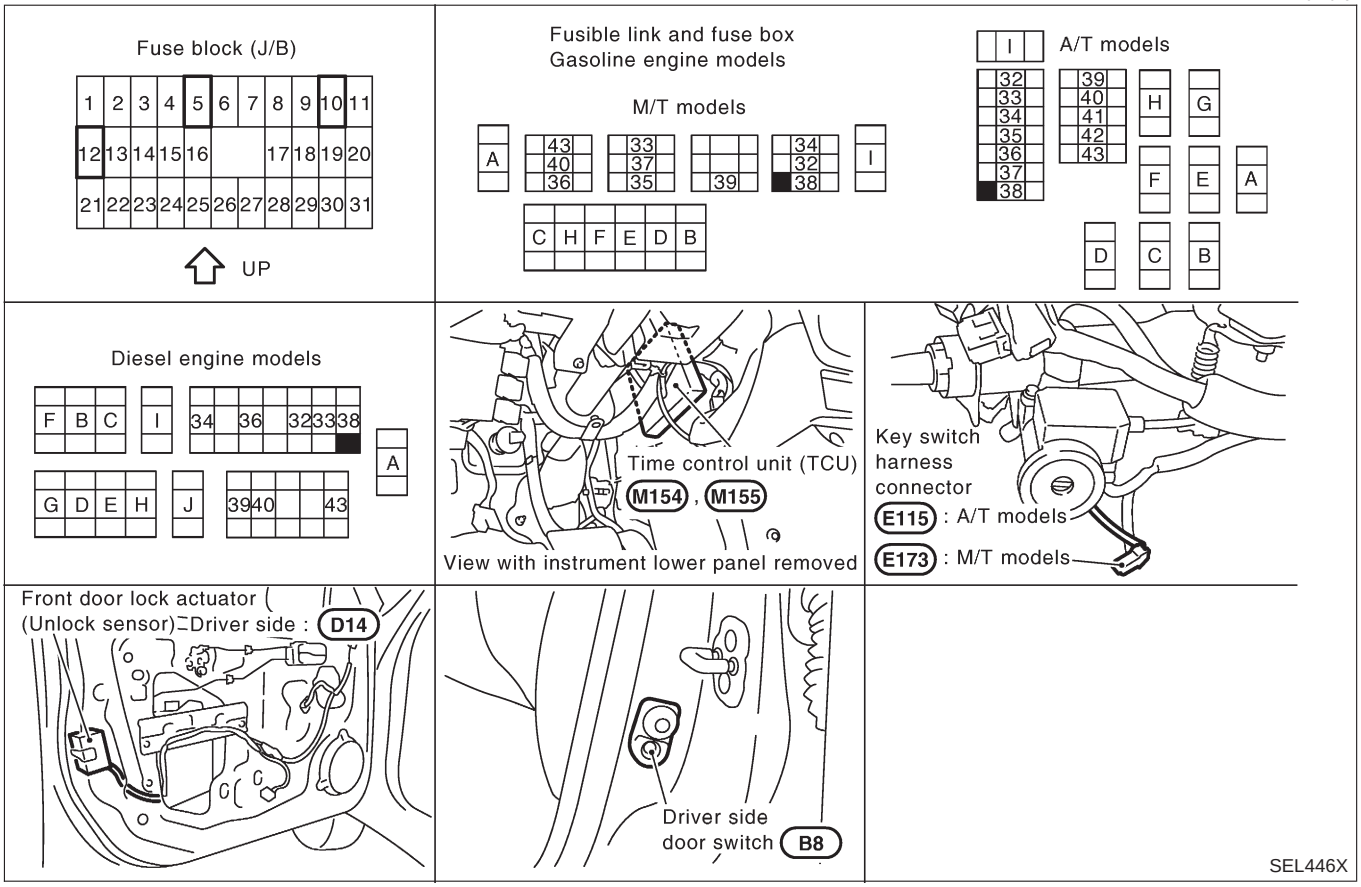
SEL325WA

OK or NG

OK	▶	**Check the following.** ● Driver side door switch ground circuit and condition ● Harness for open or short between time control unit and driver side door switch
NG	▶	Replace driver side door switch.

Component Parts and Harness Connector Location/Hatchback

NJEL0452



SEL446X

System Description/Hatchback

NJEL0453

The warning chime is controlled by the time control unit.
The warning chime is located in the time control unit.
Power is supplied at all times

- through 15A fuse [No. 5, located in fuse block (J/B)]
- to time control unit terminal 9.
- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to key switch terminal 1.
- through 10A fuse (No. 38, located in the fuse and fusible link box)
- to lighting switch terminal 11.

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

- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to time control unit terminal 1.

Ground is supplied to time control unit terminal 16 through body grounds M28 and M67.
When a signal, or combination of signals, is received by the time control unit, the warning chime will sound.

IGNITION KEY WARNING CHIME

NJEL0453S01

With the key in the ignition switch in the OFF position, the driver's door open and driver's door locked, the warning chime will sound. Power is supplied

- from key switch terminal 2
- to time control unit terminal 22.

Ground is supplied

- from body grounds B9 and B21
- through front door switch (driver side) terminal 2
- to time control unit terminal 6, and

Ground is interrupted,

- from body grounds M28 and M67
- to time control unit terminal 35

LIGHT WARNING CHIME

NJEL0453S02

With ignition switch OFF, driver's door open, and lighting switch in 1ST or 2ND position, warning chime will sound. Power is supplied.

- from lighting switch terminal 12
- to time control unit terminal 10

Ground is supplied

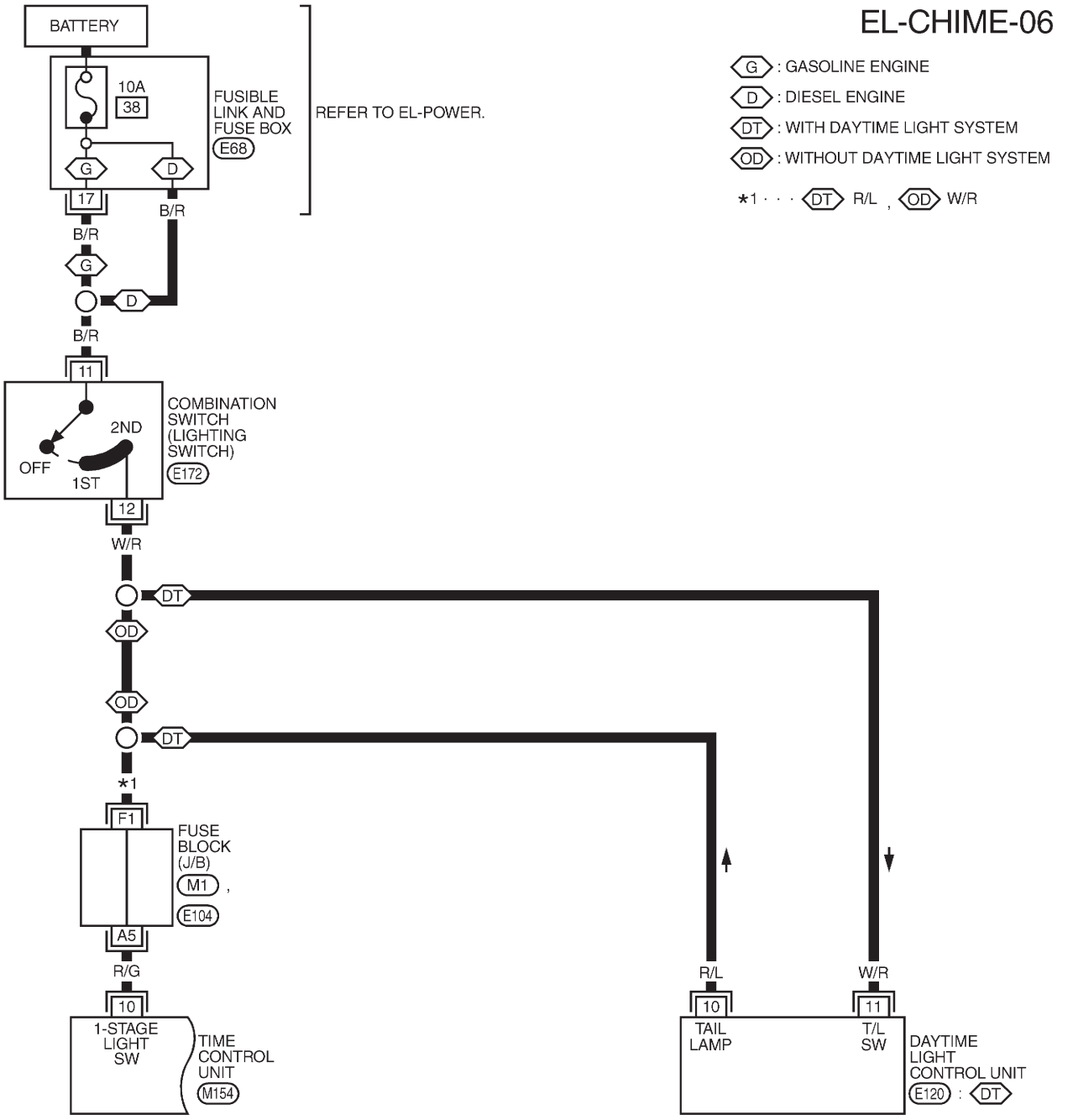
- from front door switch (driver side) terminal 2
- to time control unit terminal 6.

Front door switch (driver side) terminal 3 is grounded through body grounds B9 and B21.

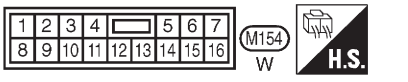
Wiring Diagram — CHIME —/Hatchback

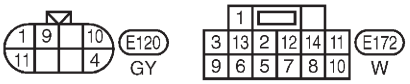
NJEL0454

EL-CHIME-06



G : GASOLINE ENGINE
D : DIESEL ENGINE
DT : WITH DAYTIME LIGHT SYSTEM
OD : WITHOUT DAYTIME LIGHT SYSTEM
*1 · · · DT R/L , OD W/R

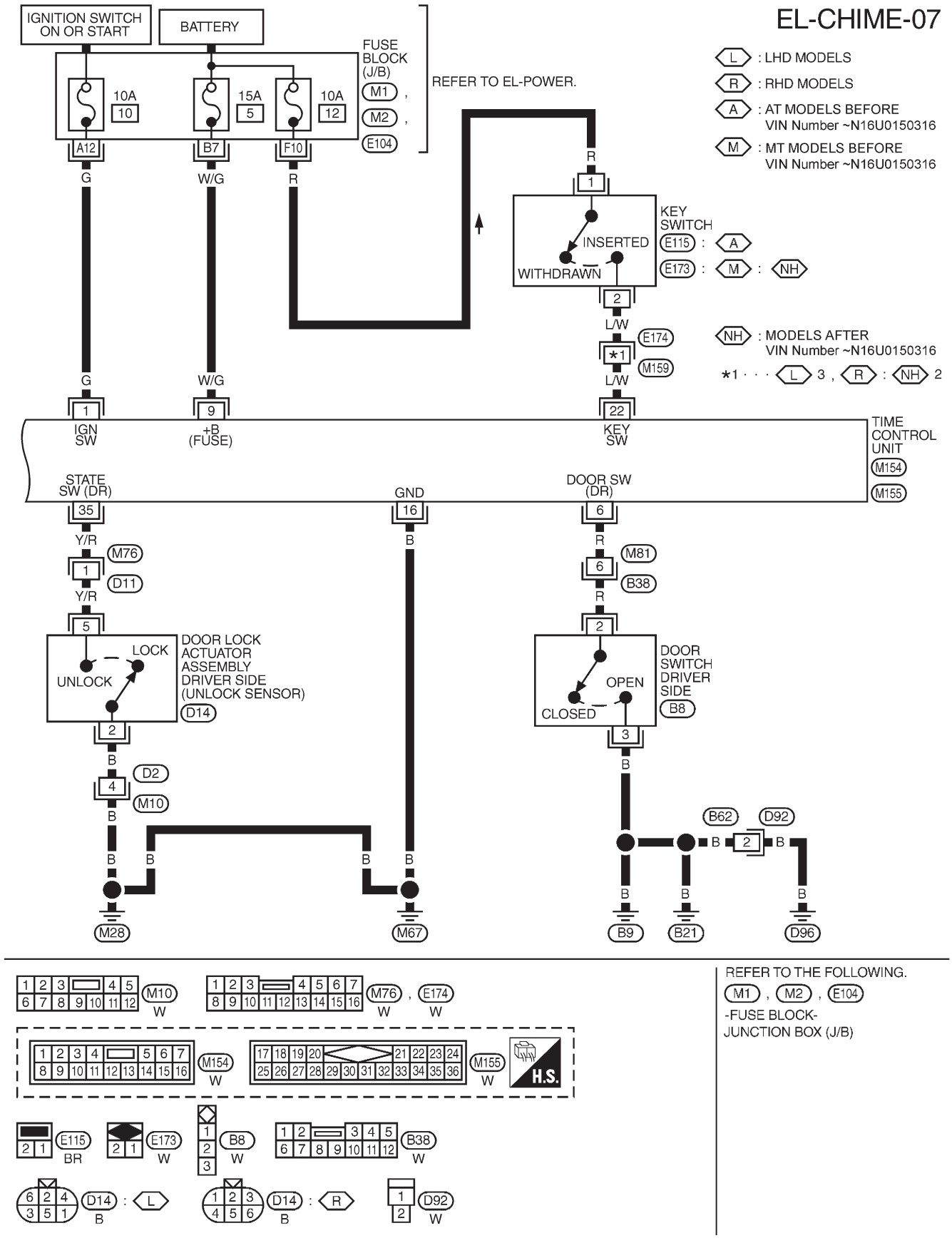




REFER TO THE FOLLOWING.
M1 , E104 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 -FUSE AND FUSIBLE LINK BOX

MEL882L

Wiring Diagram — CHIME —/Hatchback (Cont'd)



REFER TO THE FOLLOWING.
M1 , M2 , E104
-FUSE BLOCK-
JUNCTION BOX (J/B)

YEL361C

Trouble Diagnoses/Hatchback

NJEL0455

SYMPTOM CHART

NJEL0455S01

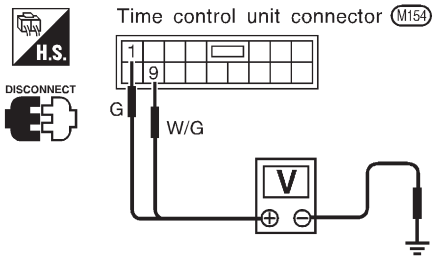
REFERENCE PAGE (EL-)	209	210	211	212	213
SYMPTOM	POWER SUPPLY AND GROUND CIRCUIT CHECK	DIAGNOSTIC PROCEDURE 1 (LIGHTING SWITCH INPUT SIGNAL CHECK)	DIAGNOSTIC PROCEDURE 2 (KEY SWITCH INSERT SIGNAL CHECK)	DIAGNOSTIC PROCEDURE 3 (DOOR UNLOCK SENSOR CHECK)	DIAGNOSTIC PROCEDURE 4
Light warning chime does not activate.	X	X			X
Ignition key warning chime does not activate.	X		X	X	X
All warning chimes do not activate.	X				X

POWER SUPPLY AND GROUND CIRCUIT CHECK

NJEL0455S02

Power Supply Circuit Check

NJEL0455S0201

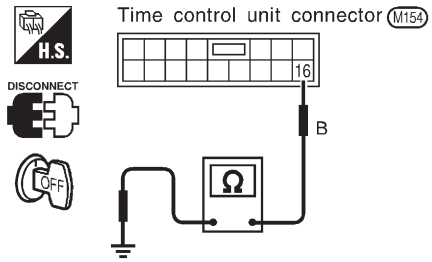


Terminals		Ignition switch position		
(+)	(–)	OFF	ACC	ON
9	Ground	Battery voltage	Battery voltage	Battery voltage
1	Ground	0V	0V	Battery voltage

SEL447X

Ground Circuit Check

NJEL0455S0202



Continuity should exist.

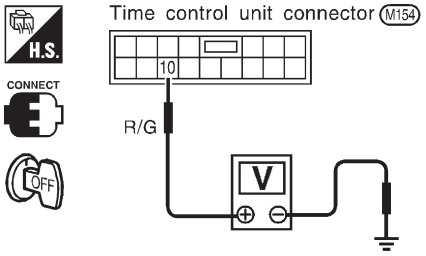
SEL448X

DIAGNOSTIC PROCEDURE 1 (LIGHTING SWITCH INPUT SIGNAL CHECK)

=NJEL0455S03

1	CHECK LIGHTING SWITCH INPUT SIGNAL

Check voltage between time control unit terminal 10 and ground.



Voltage [V]:
Condition of lighting switch: 1st or 2nd
Approx. 12
Condition of lighting switch: OFF

SEL449X

OK or NG

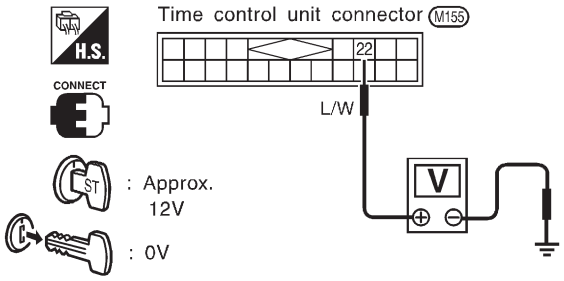
OK	▶	Lighting switch is OK.
NG	▶	**Check the following.** ● 10A fuse (No. 38, located in the fuse and fusible link box) ● Harness for open or short between time control unit and lighting switch/daytime light control unit ● Lighting switch

DIAGNOSTIC PROCEDURE 2 (KEY SWITCH INSERT SIGNAL CHECK)

=NJEL0455S04

1	CHECK KEY SWITCH INPUT SIGNAL

Check voltage between time control unit terminal 22 and ground.



Voltage [V]:
Condition of switch: Key is inserted.
Approx. 12
Condition of switch: Key is removed.
0

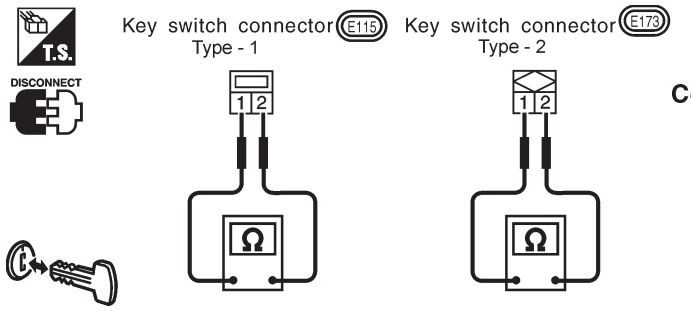
SEL433X

OK or NG

OK	▶	Key switch is OK.
NG	▶	GO TO 2.

2	CHECK KEY SWITCH (INSERT)

Check continuity between terminals 1 and 2.



Continuity:
Condition of key switch: Key is inserted.
Yes
Condition of key switch: Key is removed.
No

YEL786C

OK or NG

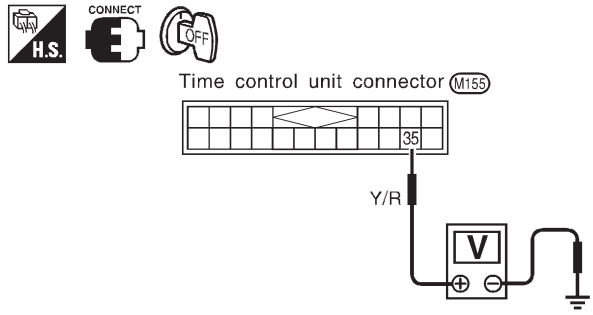
OK	▶	**Check the following.** ● 10A fuse [No. 12, located in fuse block (J/B)] ● Harness for open or short between key switch and fuse ● Harness for open or short between time control unit and key switch
NG	▶	Replace key switch.

DIAGNOSTIC PROCEDURE 3 (DOOR UNLOCK SENSOR CHECK)

NJEL0455S05

1	CHECK DOOR UNLOCK SENSOR INPUT SIGNAL

Check voltage between time control unit terminal 35 and ground.



Terminals		Condition (Driver's door)	Voltage [V]
(+)	(−)		
35	Ground	Locked	Approx. 5
		Unlocked	0

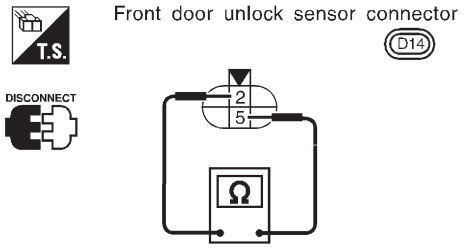
SEL431X

OK or NG

OK	▶	Door unlock sensor is OK.
NG	▶	GO TO 2.

2	CHECK DOOR UNLOCK SENSOR

1. Disconnect door unlock sensor connector.
2. Check continuity between door unlock sensor terminals 2 and 5.



Continuity:
Condition: Locked
No
Condition: Unlocked
Yes

SEL988W

OK or NG

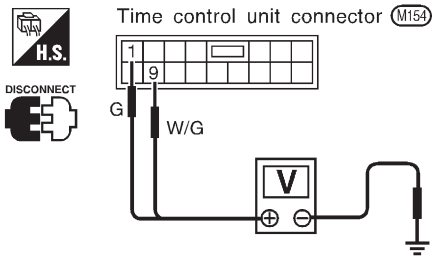
OK	▶	**Check the following.** ● Door unlock sensor ground circuit ● Harness for open or short between time control unit and door unlock sensor
NG	▶	Replace door unlock sensor.

DIAGNOSTIC PROCEDURE 4

NJEL0455S06

1	CHECK IGNITION ON SIGNAL

Check voltage between time control unit terminal 1 or 9 and ground.



Terminals		Ignition switch position		
(+)	(–)	OFF	ACC	ON
9	Ground	Battery voltage	Battery voltage	Battery voltage
1	Ground	0V	0V	Battery voltage

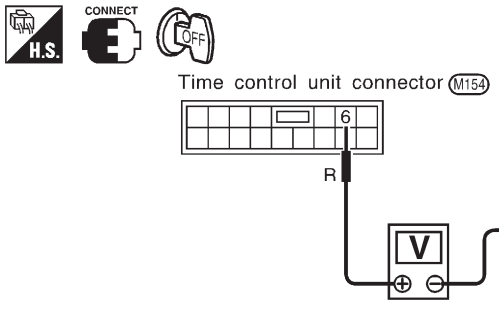
SEL447X

OK or NG

OK	▶	GO TO 2.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in fuse block (J/B)] ● 15A fuse [No. 5, located in the fuse block (J/B)] ● Harness for open or short between time control unit and fuse

2	CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between time control unit terminal 6 and ground.



Voltage [V]:
Condition of driver's door: CLOSED
Approx. 5
Condition of driver's door: OPEN
0

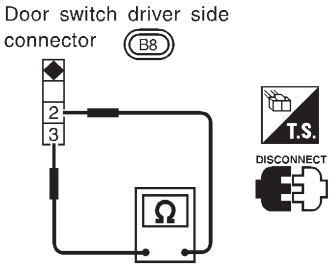
SEL430X

OK or NG

OK	▶	System is OK.
NG	▶	Check voltage between time control unit terminal 6 and body ground with disconnecting front door switch (driver side). If approx. 5V is supplied, GO TO 3. If approx. 5V is not supplied, replace time control unit.

3	CHECK DRIVER SIDE DOOR SWITCH

Check continuity between terminals 2 and 3.



Continuity:
Door switch is pushed.
No
Door switch is released.
Yes

SEL325WA

OK or NG

OK	▶	**Check the following.** ● Driver side door switch ground circuit and condition ● Harness for open or short between time control unit and driver side door switch
NG	▶	Replace driver side door switch.

System Description/Sedan

NJEL0057

WIPER OPERATION

NJEL0057S01

The wiper switch is controlled by a lever built into the combination switch.
There are three wiper switch positions:

- LO speed
- HI speed
- INT (Intermittent)

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

- through 20A fuse [No. 25, located in the fuse block (J/B)]
- to front wiper motor terminal 1.

Low and High Speed Wiper Operation

NJEL0057S0101

Ground is supplied to wiper and washer switch terminal 17 through body grounds E30 and E73.
When the wiper switch is placed in the LO position, ground is supplied

- through terminal 14 of the front wiper and washer switch
- to front wiper motor terminal 3.

With power and ground supplied, the wiper motor operates at low speed.
When the wiper switch is placed in the HI position, ground is supplied

- through terminal 16 of the front wiper and washer switch
- to wiper motor terminal 2.

With power and ground supplied, the wiper motor operates at high speed.

Auto Stop Operation

NJEL0057S0102

With wiper switch turned OFF, wiper motor will continue to operate until wiper arms reach windshield base.
When wiper arms are not located at base of windshield with wiper switch OFF, ground is provided

- from terminal 14 of the front wiper and washer switch
- to front wiper motor terminal 3, in order to continue wiper motor operation at low speed.

Ground is also supplied

- through terminal 13 of the front wiper and washer switch
- to front wiper motor terminal 6
- through terminal 4 of the front wiper motor, and
- through body grounds E30 and E73.

When wiper arms reach base of windshield, front wiper motor terminals 1 and 6 are connected instead of terminals 4 and 6. Wiper motor will then stop wiper arms at the STOP position.

Intermittent Operation

NJEL0057S0103

The front wiper motor operates the wiper arms one time at low speed at a set interval of approximately 1 to 13 seconds. This feature is controlled by the wiper amplifier (INT SW) combined with front wiper and washer switch.
When the wiper switch is placed in the INT position, ground is supplied to wiper amplifier.
The desired interval time is input to wiper amplifier (INT VR) from wiper volume switch combined with front wiper and washer switch.
Then intermittent ground is supplied

- through wiper amplifier (OUTPUT) and
- through terminal 14 of front wiper and washer switch
- to front wiper motor terminal 3

The wiper motor operates at low speed at the desired interval.

WASHER OPERATION

NJEL0057S02

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

- through 20A fuse [No. 25, located in the fuse block (J/B)]
- to washer motor terminal 1.

When the lever is pulled to the WASH position, ground is supplied

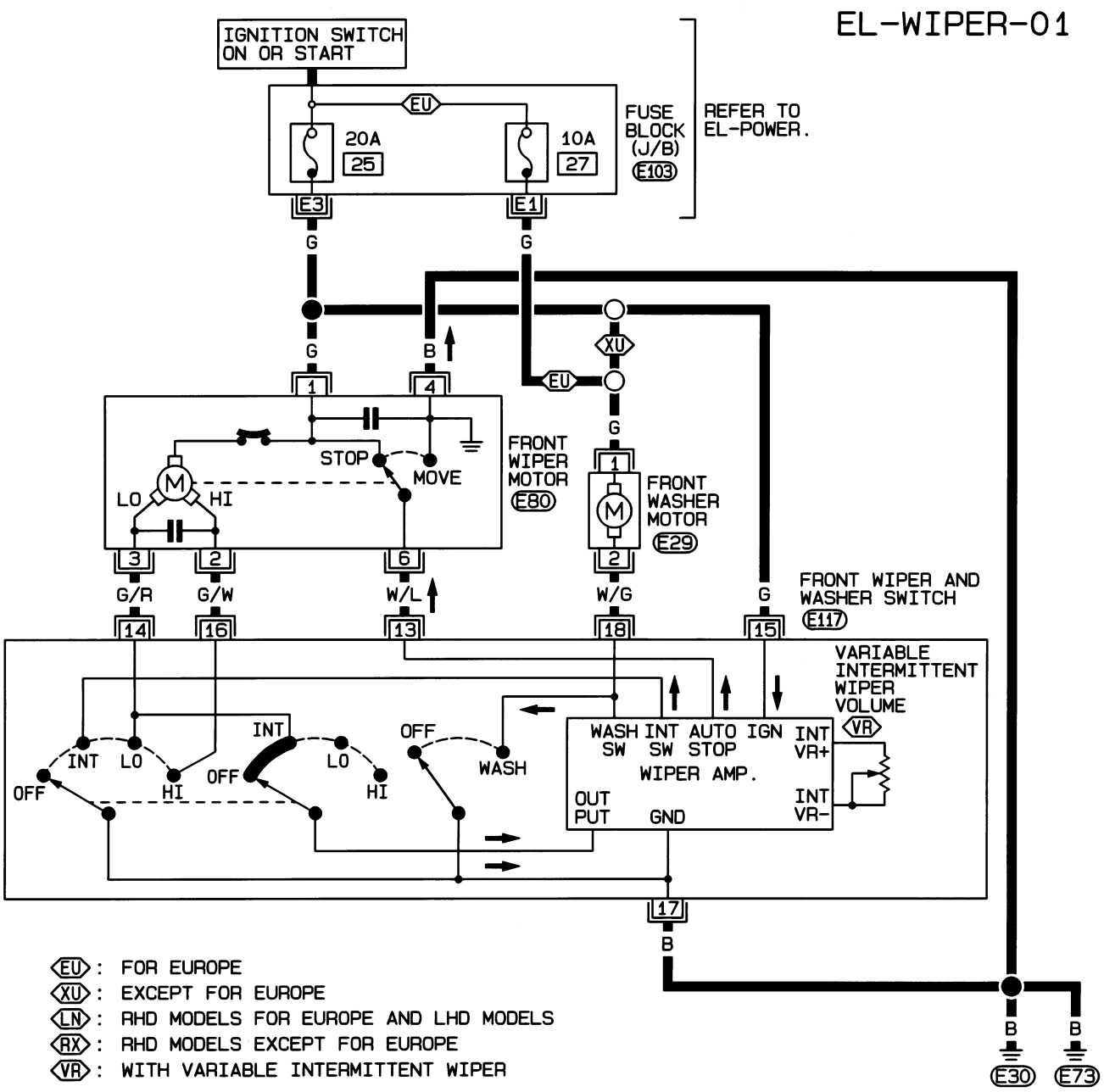
- from body grounds E30 and E73
- through terminal 17 of the front wiper and washer switch, and

- through terminal 18 of the wiper switch
- to front washer motor terminal 2.

With power and ground supplied, the washer motor operates.
When the lever is pulled to the WASH position for one second or more, the wiper motor operates at low speed for approximately 3 seconds to clean windshield. This feature is controlled by the wiper amplifier in the same manner as the intermittent operation.

Wiring Diagram — WIPER —/Sedan

NJEL0058





REFER TO THE FOLLOWING.

E103 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL390B

System Description/Hatchback

NJEL0456

WIPER OPERATION

NJEL0456S01

The wiper switch is controlled by a lever built into the combination switch.
There are three wiper switch positions:

- LO speed
- HI speed
- INT (Intermittent)

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

- through 20A fuse [No. 25, located in the fuse block (J/B)]
- to front wiper motor terminal 5 and front wiper relay terminal 2.

Low and High Speed Wiper Operation

NJEL0456S0101

Ground is supplied to wiper and washer switch terminal 17 through body grounds E30 and E73.
When the wiper switch is placed in the LO position, ground is supplied

- through terminal 14 of the front wiper and washer switch
- to front wiper motor terminal 2.

With power and ground supplied, the wiper motor operates at low speed.
When the wiper switch is placed in the HI position, ground is supplied

- through terminal 16 of the front wiper and washer switch
- to wiper motor terminal 1.

With power and ground supplied, the wiper motor operates at high speed.

Auto Stop Operation

NJEL0456S0102

With wiper switch turned OFF, wiper motor will continue to operate until wiper arms reach windshield base.
When wiper arms are not located at base of windshield with wiper switch OFF, ground is provided

- from terminal 14 of the front wiper and washer switch
- to front wiper motor terminal 2, in order to continue wiper motor operation at low speed.

Ground is also supplied

- through terminal 13 of the front wiper and washer switch
- to front wiper relay terminal 3
- through terminal 4 of the front wiper relay.
- to front wiper motor terminal 3
- through terminal 4 of front wiper motor
- through body grounds E30 and E73.

When wiper arms reach base of windshield, front wiper motor terminals 3 and 5 are connected instead of terminals 3 and 4. Wiper motor will then stop wiper arms at the STOP position.

Intermittent Operation

NJEL0456S0103

The front wiper motor operates the wiper arms one time at low speed at a set interval of approximately 1 to 13 seconds. This feature is controlled by the wiper amplifier (INT SW) combined with front wiper switch.
When the wiper switch is placed in the INT position, ground is supplied to wiper amplifier (WIPER SW INT) and (ACC).
The desired interval time is input to wiper amplifier (INT VR) from wiper volume switch combined with front wiper and washer switch.
Then intermittent ground is supplied

- from body grounds E30 and E73
- through terminal 5 of front wiper relay,
- through terminal 3 of front wiper relay,
- through terminal 13 of front wiper switch and,
- through terminal 14 of front wiper switch
- to terminal 2 of front wiper motor.

The desired interval time is input

- to front wiper relay terminal 1
- from terminal 20 of front wiper switch

WASHER OPERATION

NJEL0456S02

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

- through 10A fuse [No. 27, located in the fuse block (J/B)]
- to front wiper switch terminal 5.

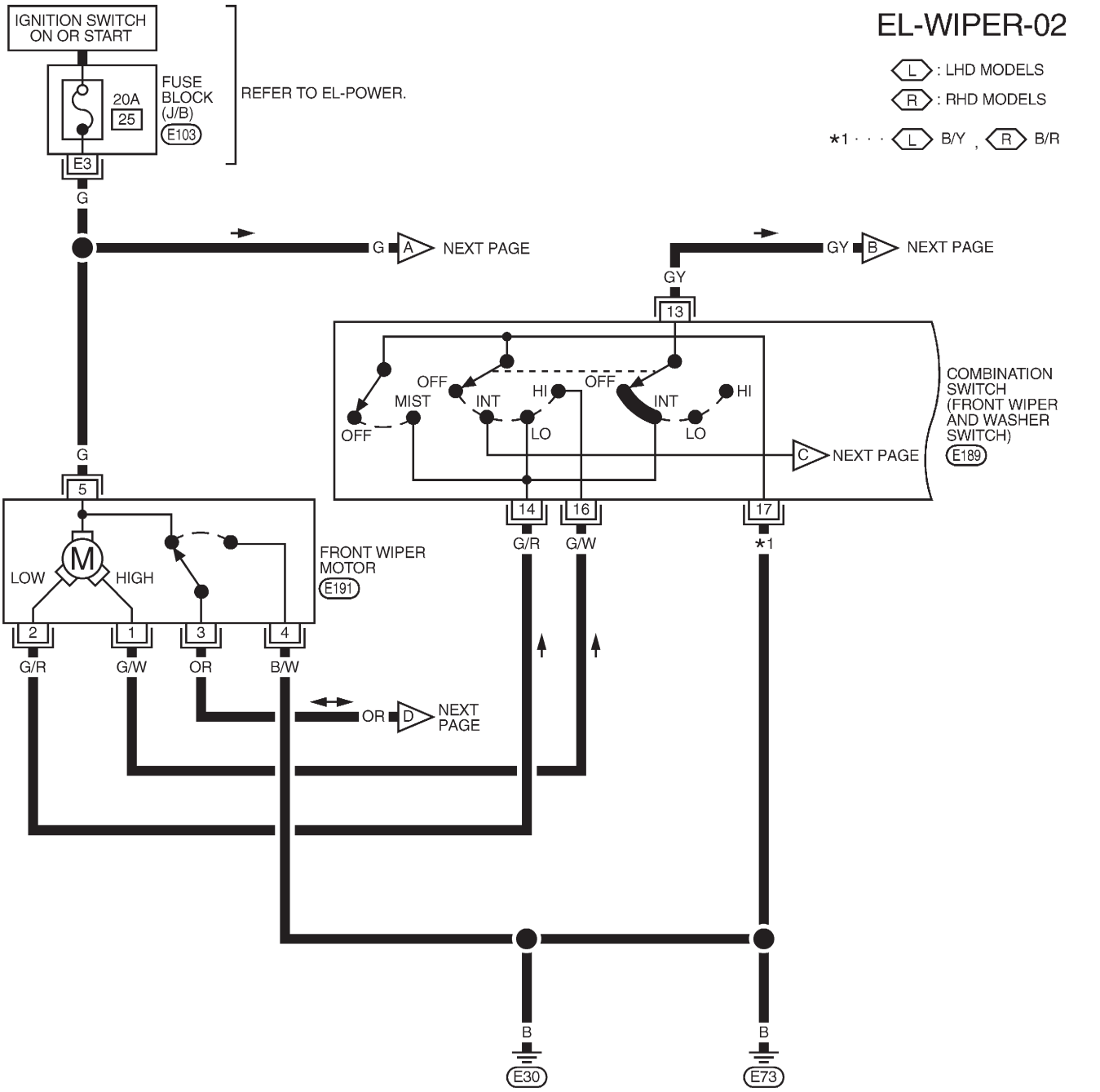
When the lever is pulled to the WASH/F position, ground is supplied

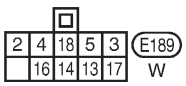
- from body grounds E30 and E73,
- through terminal 4 of the front wiper switch, and
- through terminal 18 of the frotn wiper switch
- to front washer motor terminal 2.

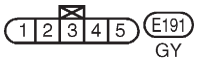
With power and ground supplied, the washer motor operates.
When the lever is pulled to the WASH position for one second or more, the wiper motor operates at low speed for approximately 3 seconds to clean windshield. This feature is controlled by the wiper amplifier in the same manner as the intermittent operation.

Wiring Diagram — WIPER —/Hatchback

NJEL0457

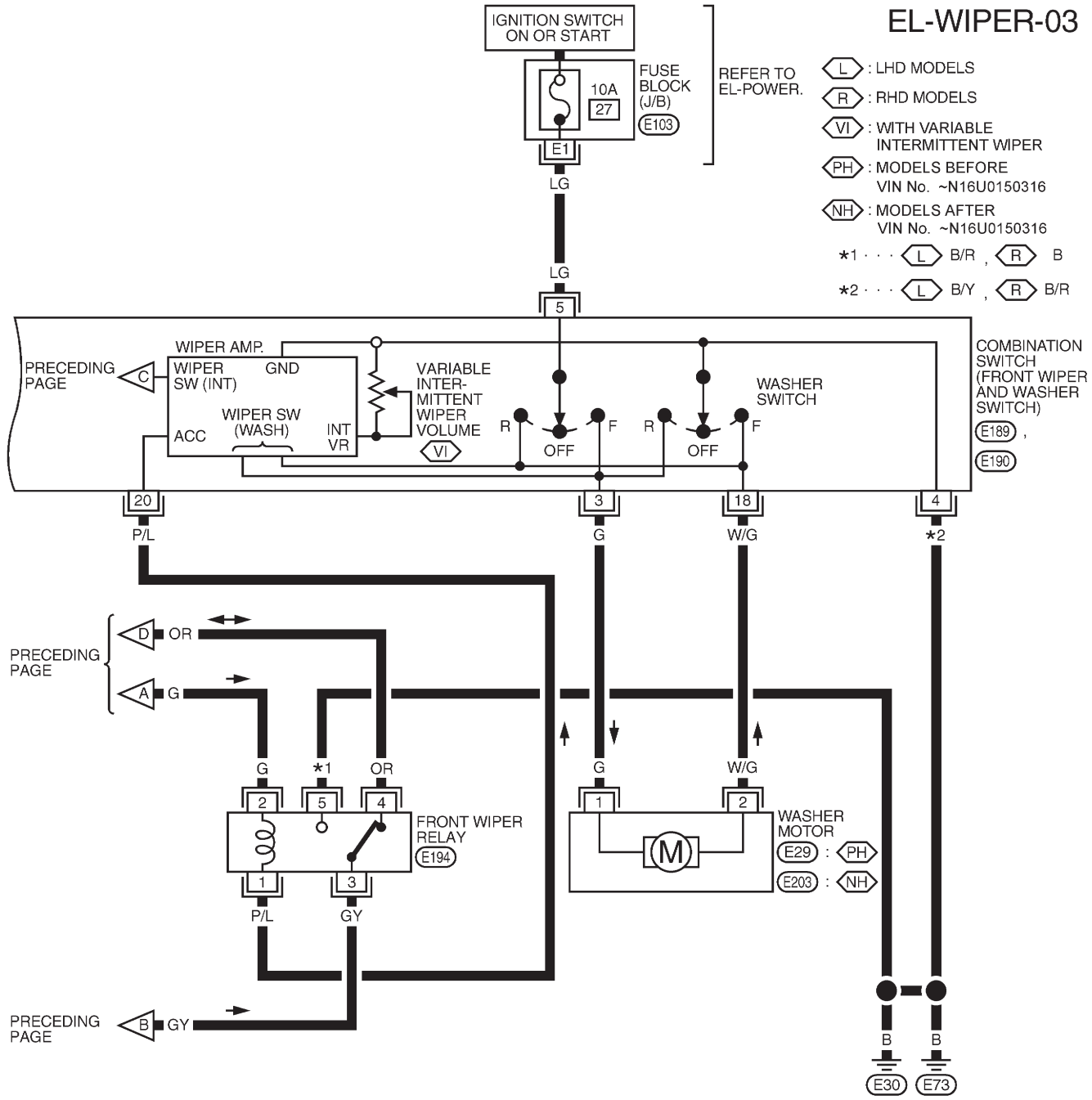


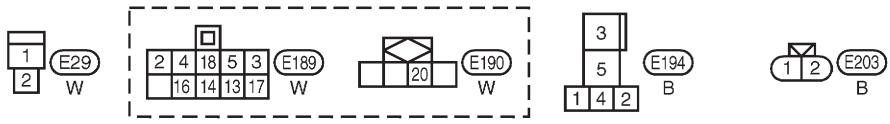




REFER TO THE FOLLOWING.
E103 -FUSE BLOCK-JUNCTION BOX (J/B)

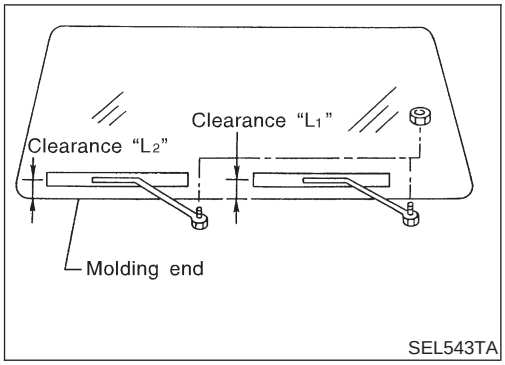
MEL884L





REFER TO THE FOLLOWING.
E103 -FUSE BLOCK-JUNCTION BOX (J/B)

YEL383C



Removal and Installation

NJEL0060

WIPER ARMS

NJEL0060S01

1. Prior to wiper arm installation, turn on wiper switch to operate wiper motor and then turn it "OFF" (Auto Stop).
2. Lift the blade up and then set it down onto glass surface to set the blade center to clearance "L_1" & "L_2" immediately before tightening nut.
3. Eject washer fluid. Turn on wiper switch to operate wiper motor and then turn it "OFF".
4. Ensure that wiper blades stop within clearance "L_1" & "L_2".

Sedan

Clearance "L_1": 27.5 - 42.5 mm (1.083 - 1.673 in)

Clearance "L_2": 34.5 - 49.5 mm (1.358 - 1.949 in)

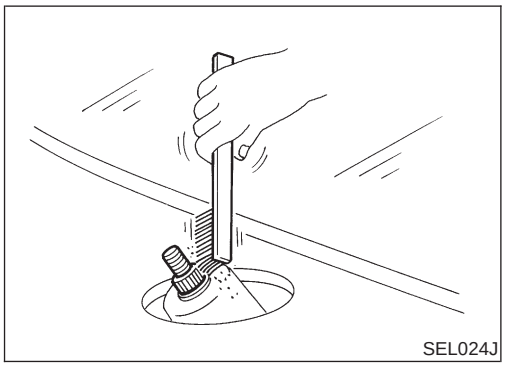
Hatchback

Clearance "L_1": 23 - 37 mm (0.91 - 1.46 in)

Clearance "L_2": 24 - 38 mm (0.94 - 1.50 in)

- Tighten wiper arm nuts to specified torque.

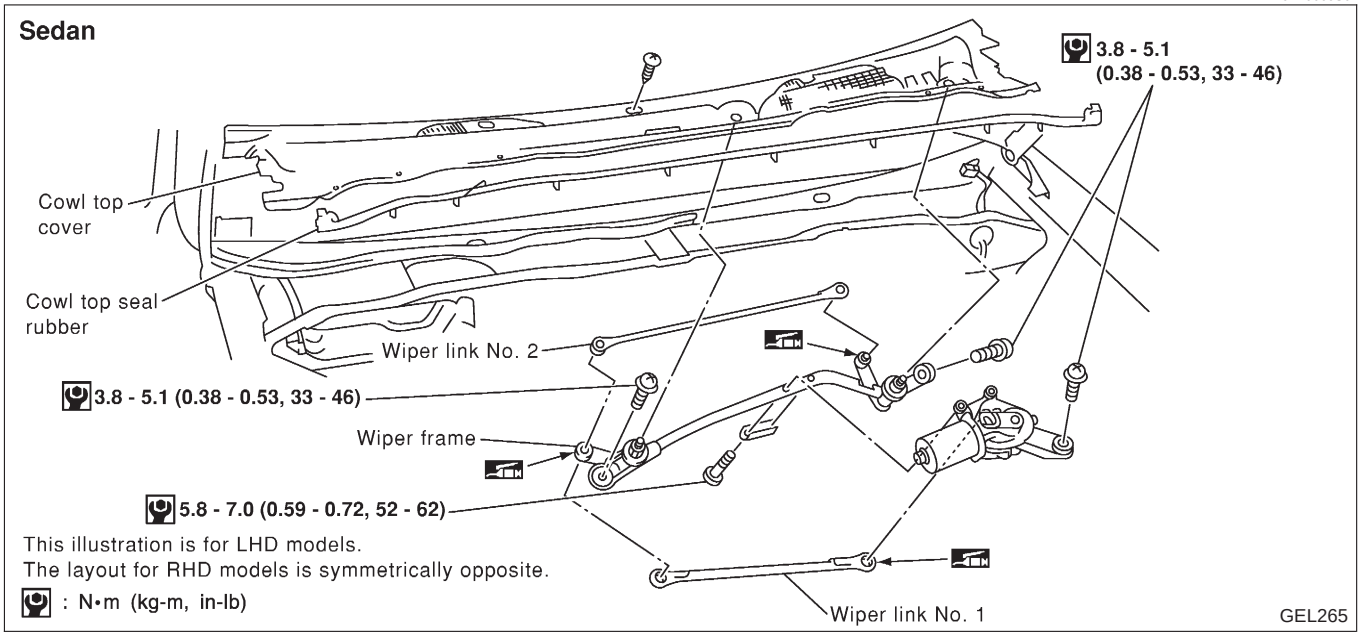
Front wiper: 21 - 26 N·m (2.1 - 2.7 kg-m, 16 - 19 ft-lb)



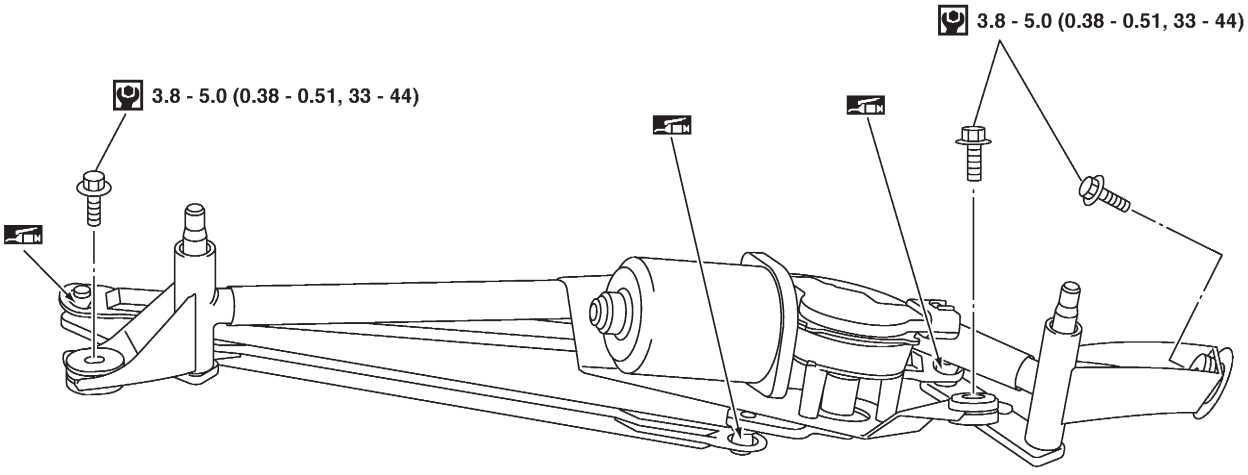
- **Before reinstalling wiper arm, clean up the pivot area as illustrated. This will reduce possibility of wiper arm looseness.**

WIPER LINKAGE

NJEL0060S02



Hacthback



Removal

NJEL0060S0201

1. Remove cowl top seal rubber and cowl top cover.
2. Remove wiper motor connector.
3. Remove 3 screws that secure wiper motor and wiper frame.
4. Detach wiper motor from wiper linkage at ball joint.
5. Remove wiper linkage.

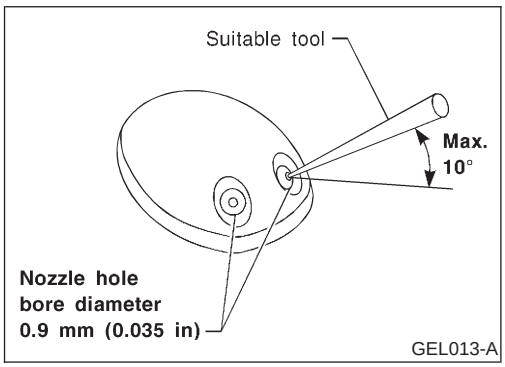
Be careful not to break ball joint rubber boot.

Installation

NJEL0060S0202

- Grease ball joint portion before installation.

1. Installation is the reverse order of removal.



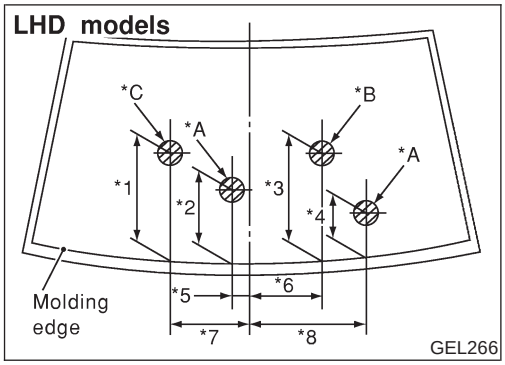
Washer Nozzle Adjustment

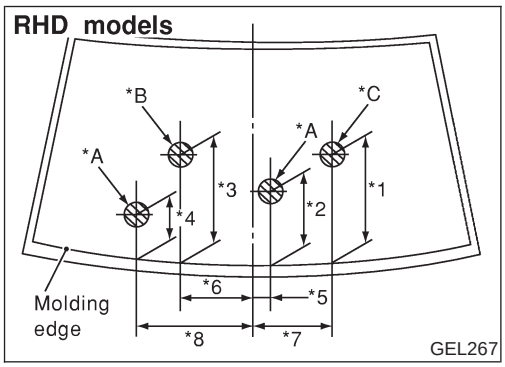
NJEL0061

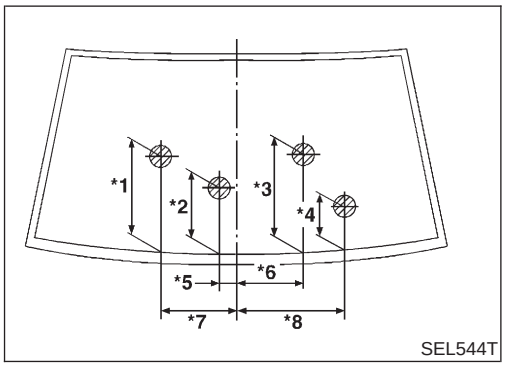
- Adjust washer nozzle with suitable tool as shown in the figure at left.

Adjustable range: ±10° (In any direction)

Washer Nozzle Adjustment (Cont'd)







Sedan

Unit: mm (in)

*1	400 (15.75)	*5	151 (5.94)
*2	325 (12.80)	*6	155 (6.10)
*3	425 (16.73)	*7	250 (9.84)
*4	226 (8.90)	*8	380 (14.96)

*A: The diameters of these circles are less than 80 mm (3.15 in).
*B: The diameter of this circle is less than 150 mm (5.91 in).
*C: The diameter of this circle is less than 130 mm (5.12 in).

HATCHBACK

Unit: mm (in)

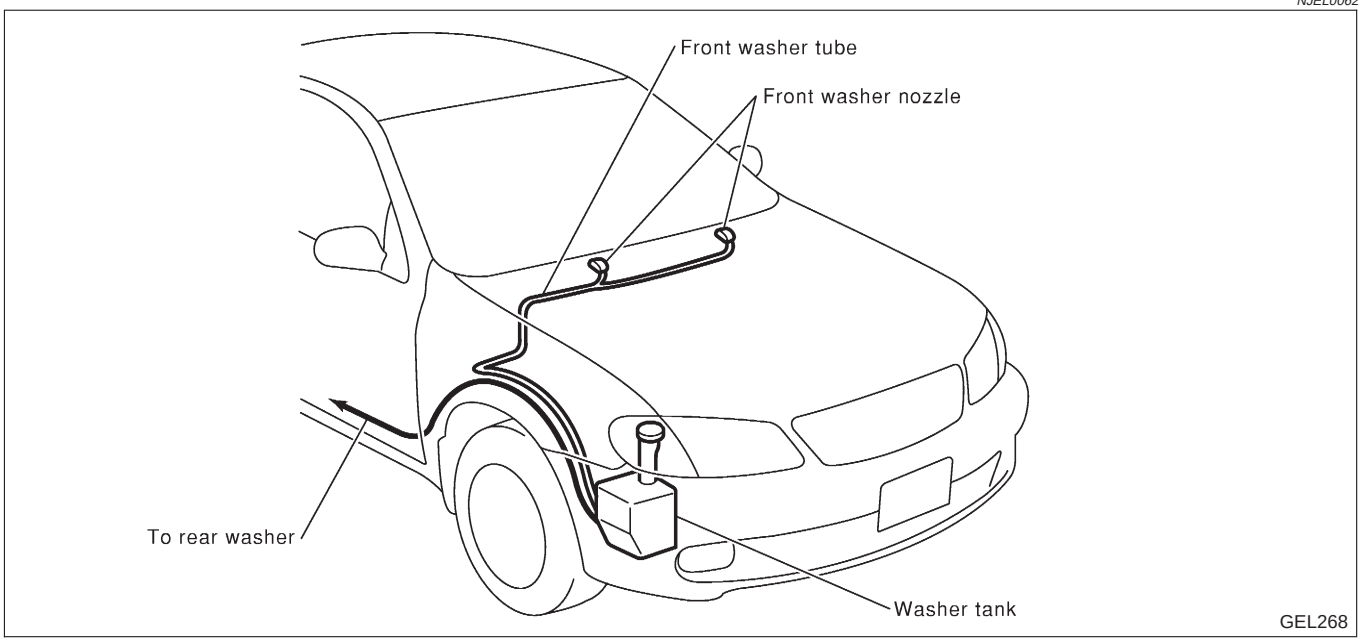
*1	450 (17.72)	*5	150 (5.91)
*2	225 (8.86)	*6	155 (6.10)
*3	380 (14.96)	*7	250 (9.84)
*4	165 (6.50)	*8	320 (12.60)

*: The diameters of these circles are less than 80 mm (3.15 in).

The figure shown is for LHD models.
The layout for RHD models is symmetrically opposite.

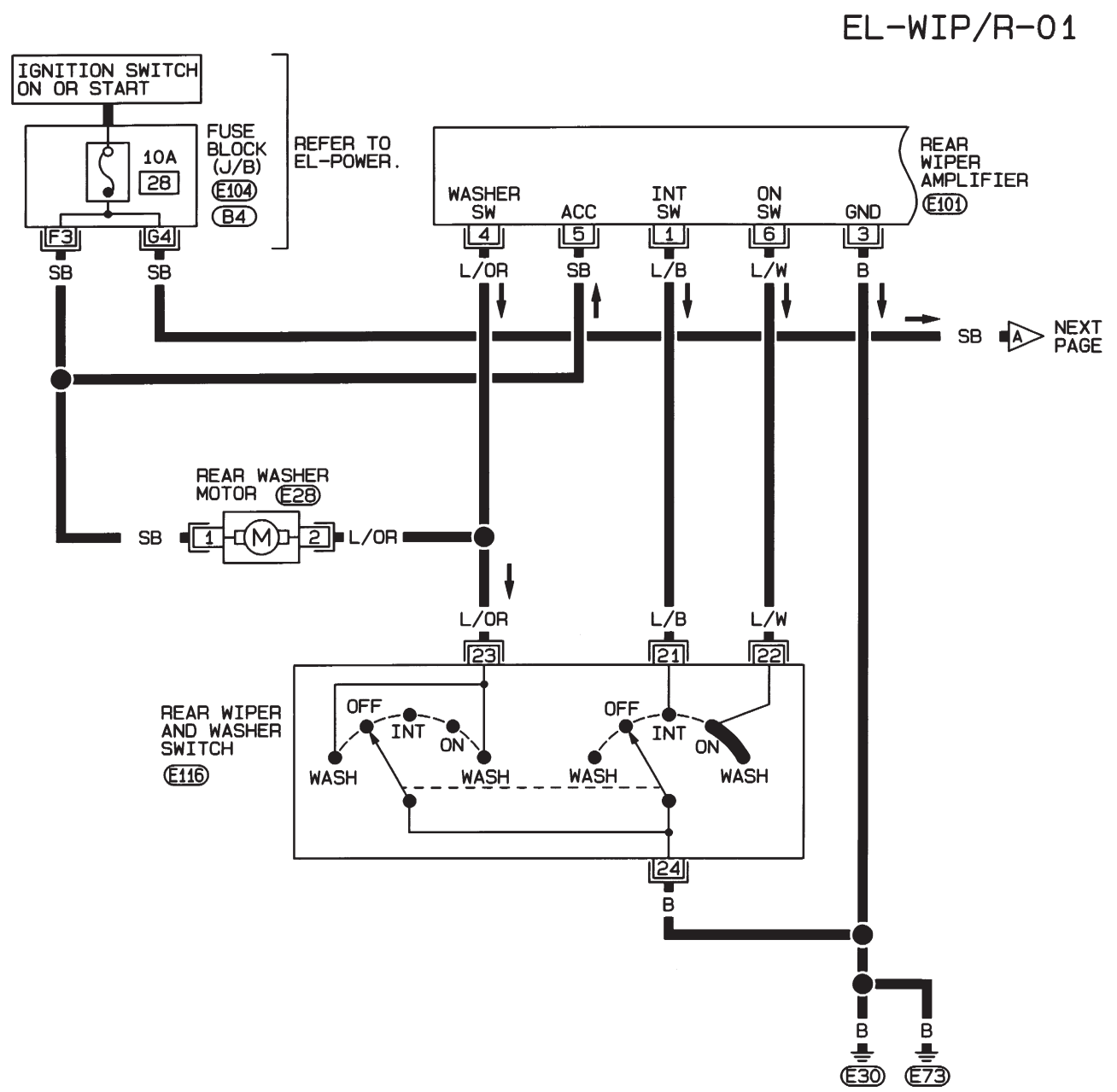
Washer Tube Layout

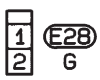
NJEL0062

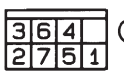


Wiring Diagram — WIP/R —/Sedan

NJEL0300





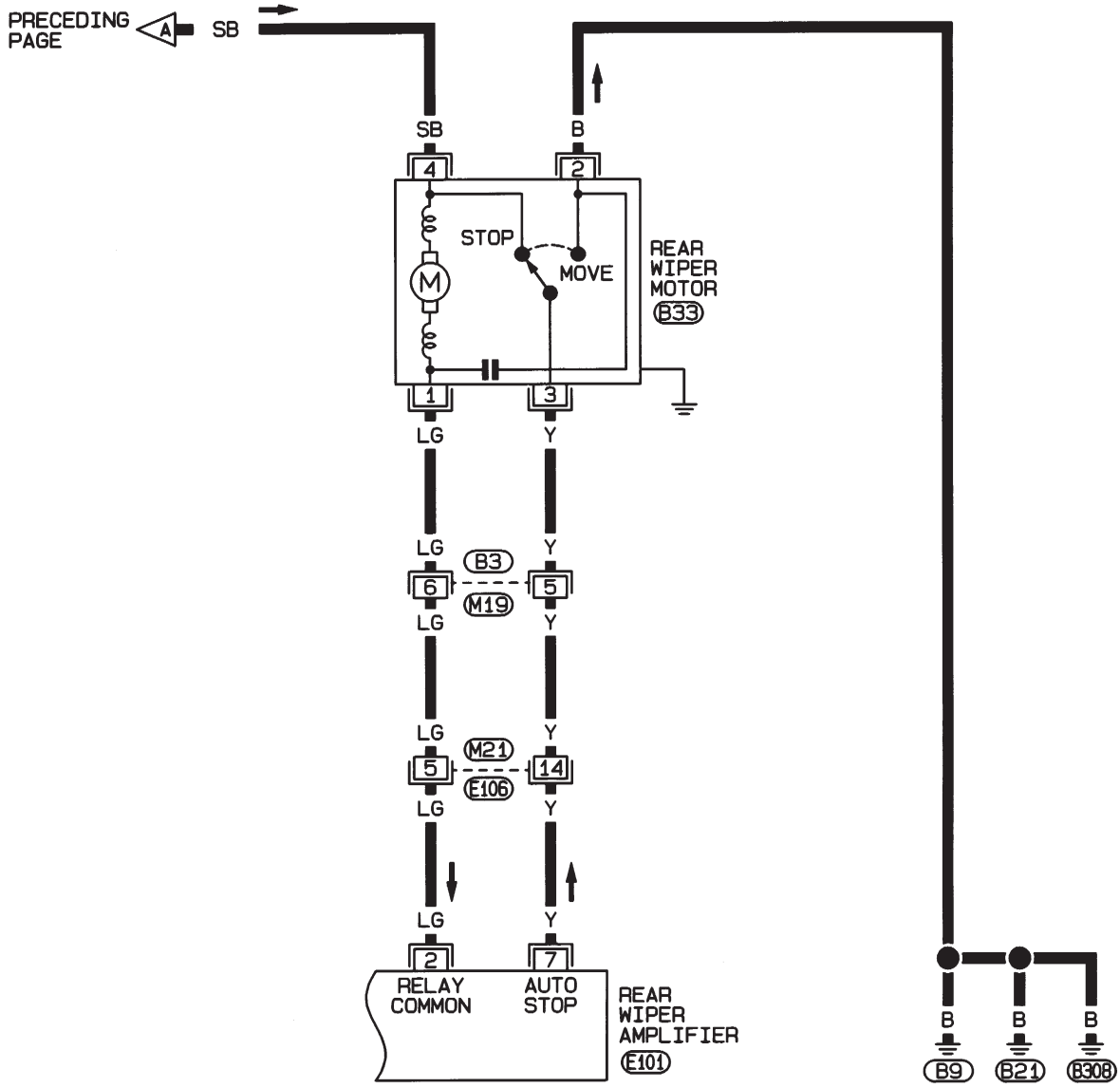


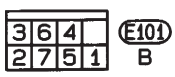


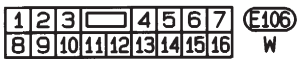
REFER TO THE FOLLOWING.
E104, B4 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL897A

EL-WIP/R-02







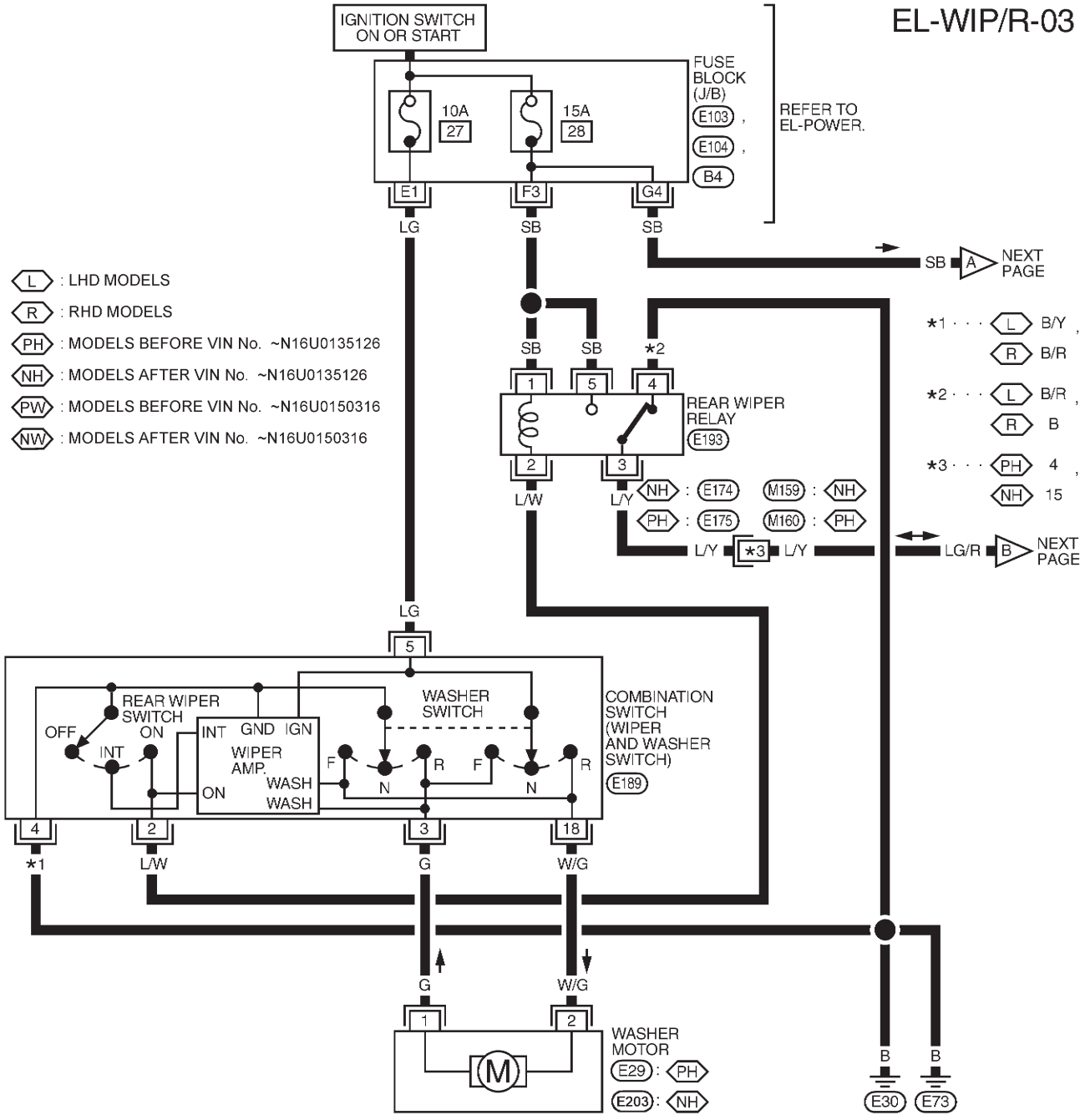


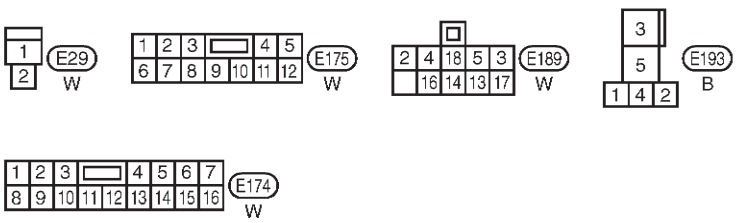


HEL898A

Wiring Diagram — WIP/R —/Hatchback

NJEL0458

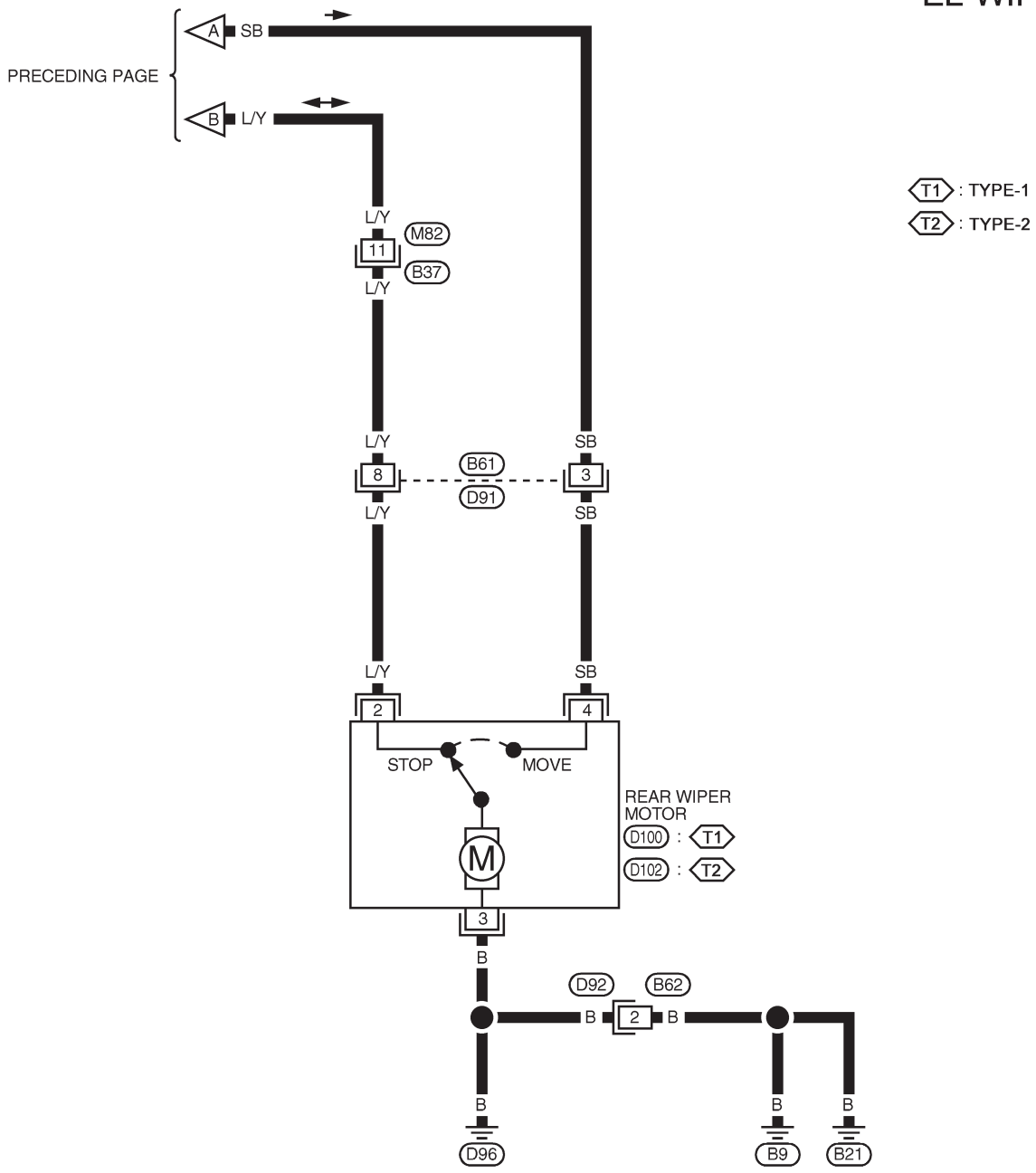




REFER TO THE FOLLOWING.
E103 , E104 , B4
-FUSE BLOCK-
JUNCTION BOX (J/B)

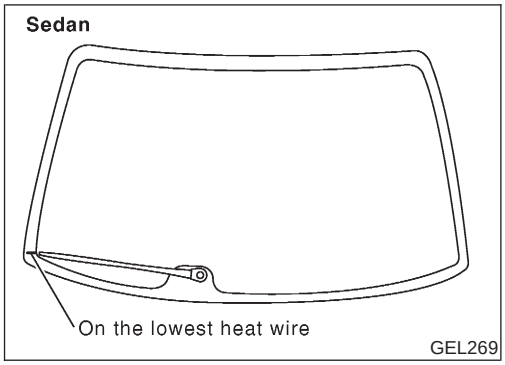
YEL362C

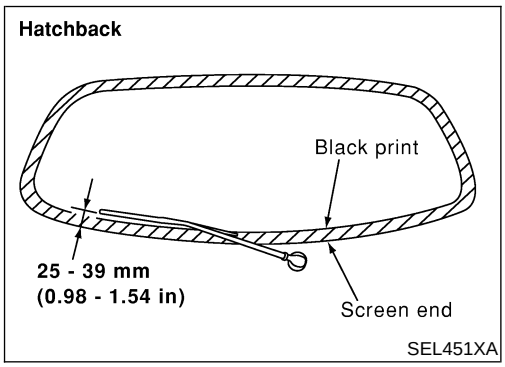
EL-WIP/R-04

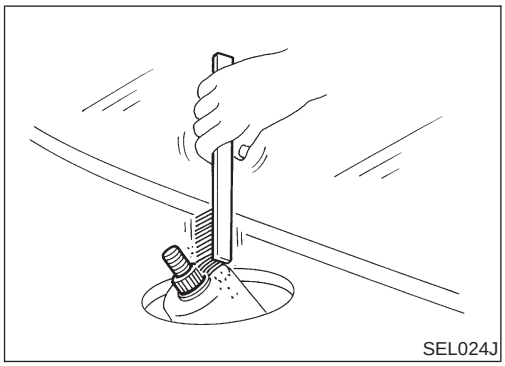


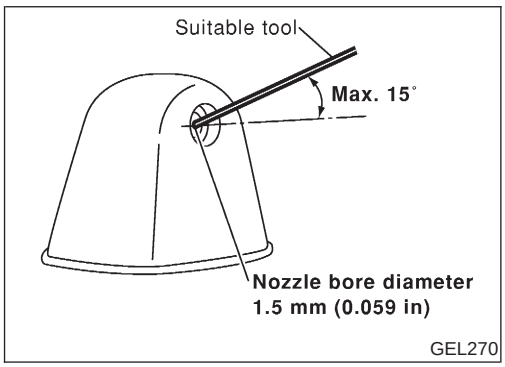


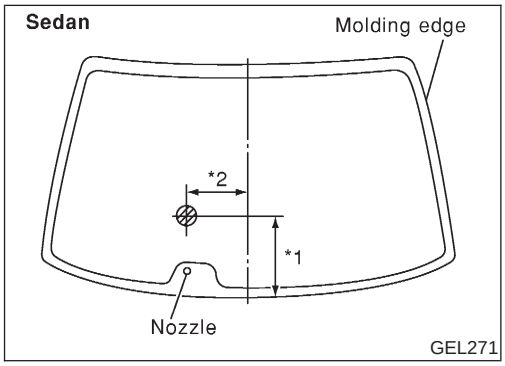
YEL363C











Removal and Installation

NJEL0301

WIPER ARMS

NJEL0301S01

1. Prior to wiper arm installation, turn on wiper switch to operate wiper motor and then turn it “OFF” (Auto Stop).
2. Lift the blade up and then set it down onto glass surface. Set the black center to clearance “E” immediately before tightening the nut.
3. Eject washer fluid. Turn on wiper switch to operate wiper motor and then turn it “OFF”.
4. Ensure that wiper blades stop on the lowest heat wire.

- **Tighten windshield wiper arm nuts to specified torque.**
  : 12.7 - 17.6 N·m (1.3 - 1.8 kg-m, 10 - 13 ft-lb)

- **Before reinstalling wiper arm, clean up the pivot area as illustrated. This will reduce possibility of wiper arm looseness.**

Washer Nozzle Adjustment

NJEL0302

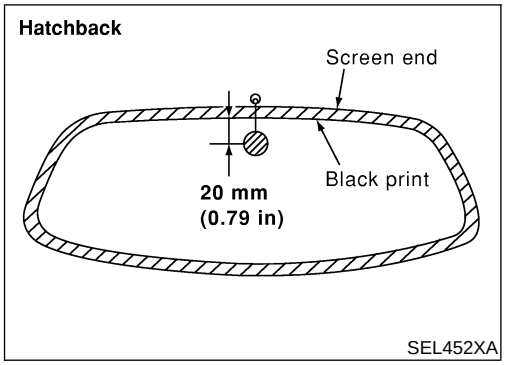
- Adjust washer nozzle with suitable tool as shown in the figure at left.
  Adjustable range: ±15° (In any direction)

Unit: mm (in)

*1	235 (9.25)
*2	190 (7.48)

*: The diameter of this circle is less than 60 mm (2.36 in).

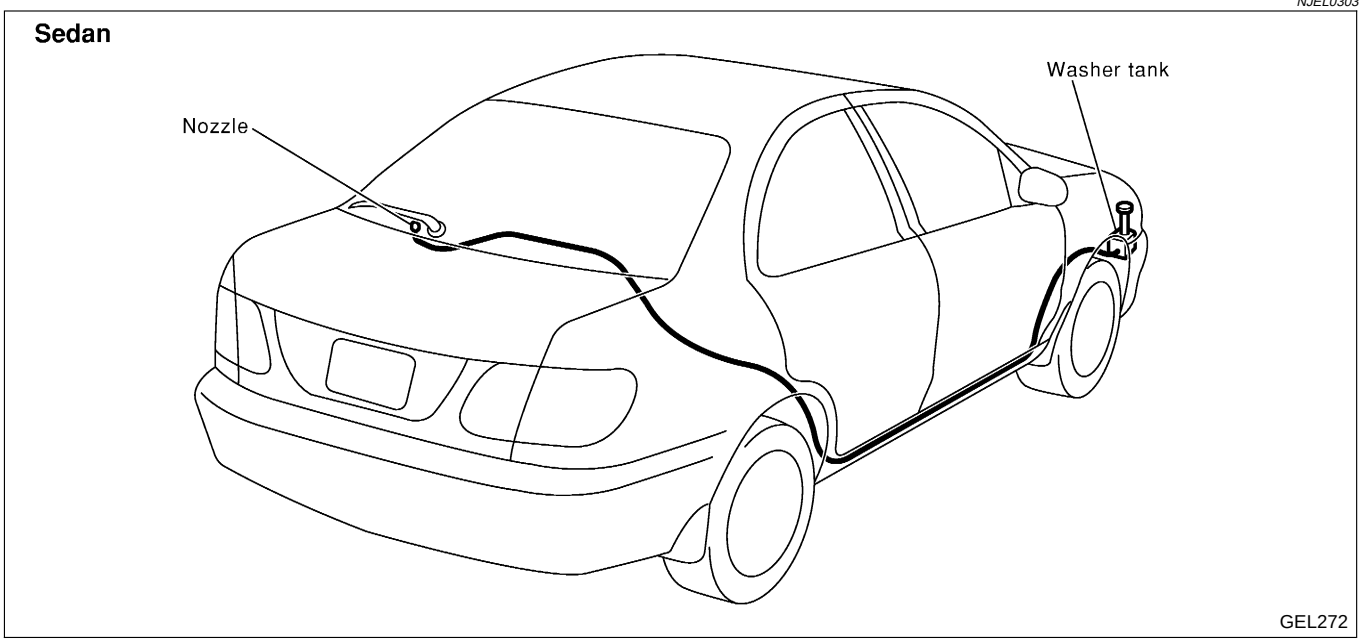
Washer Nozzle Adjustment (Cont'd)

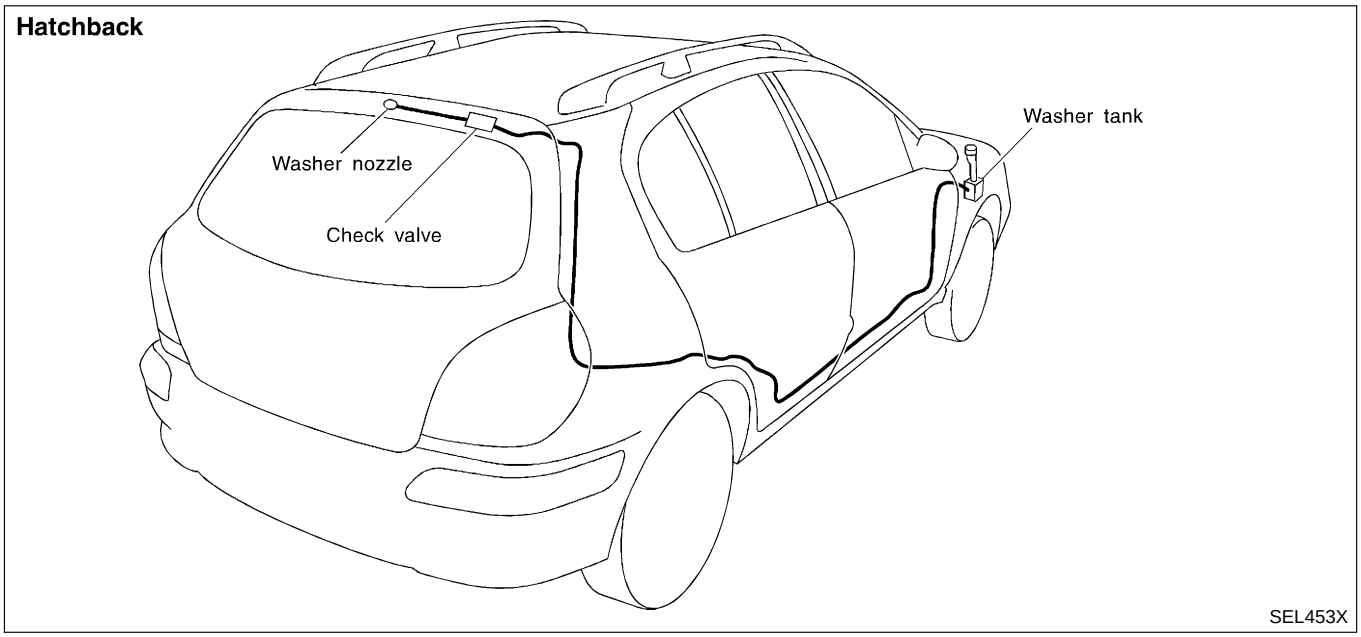


The diameter of the washer spit circle is less than 30 mm (1.18 in).

Washer Tube Layout

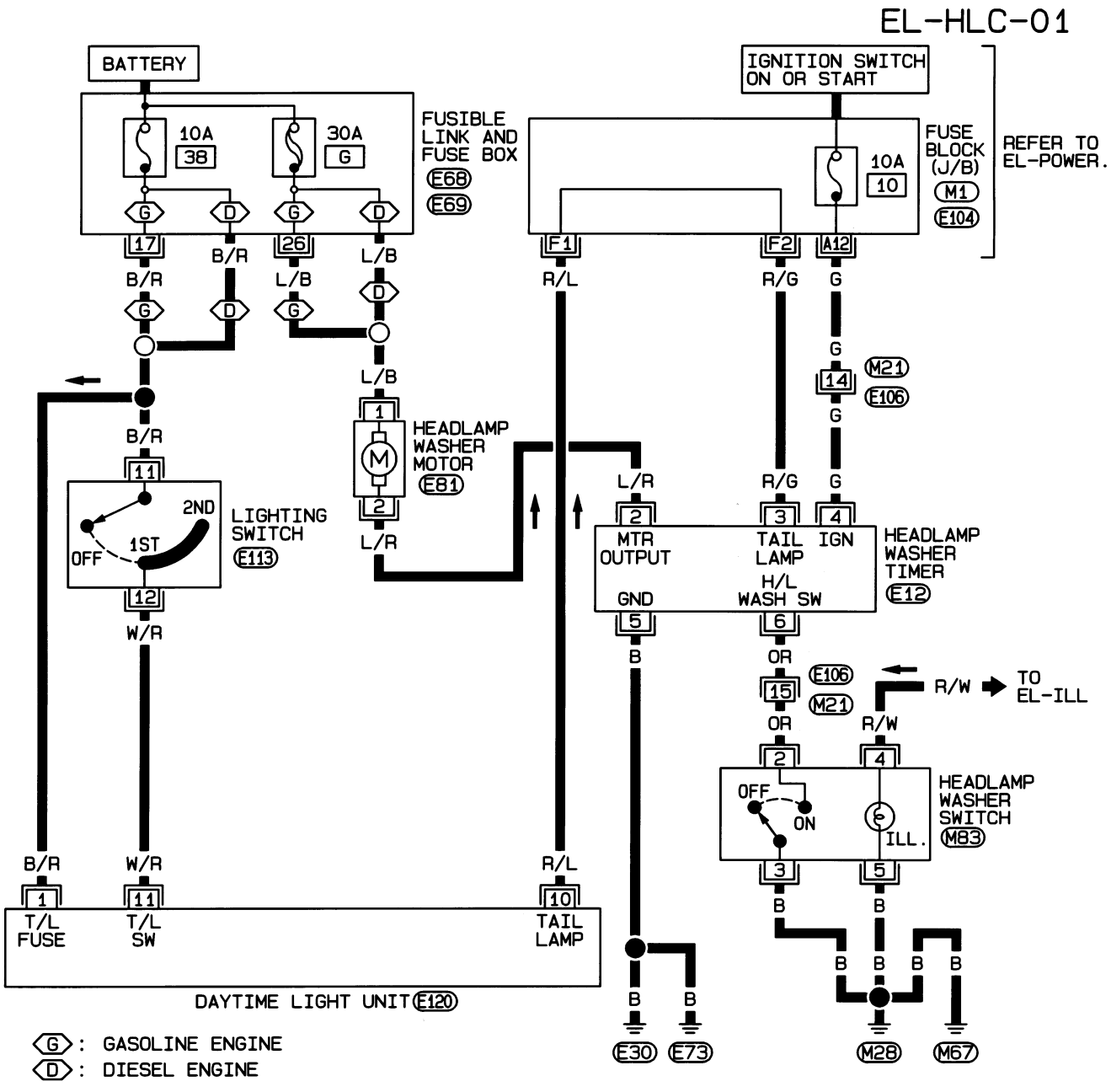
NJEL0303

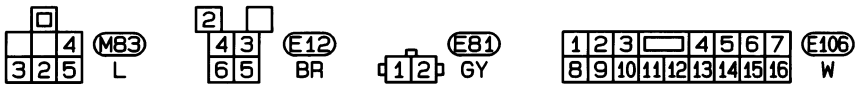


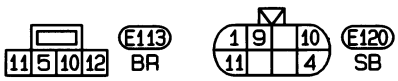


Wiring Diagram — HLC —/Sedan

NJEL0375







REFER TO THE FOLLOWING.

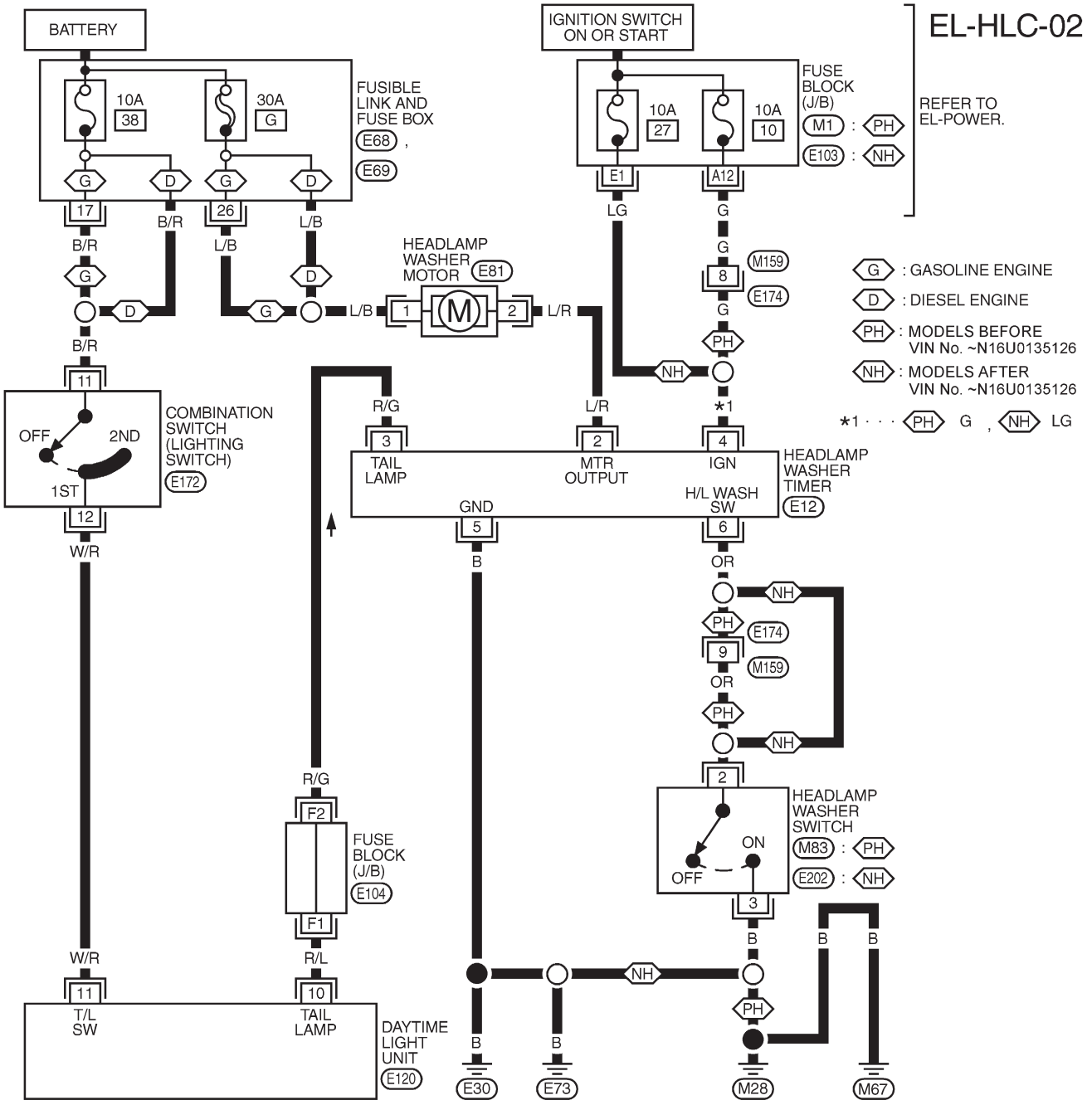
M1, E104 -FUSE BLOCK-JUNCTION BOX (J/B)

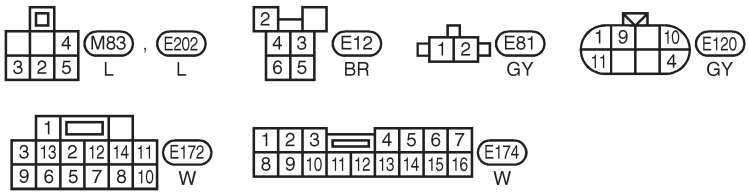
E68, E69 -FUSE AND FUSIBLE LINK BOX

HEL391B

Wiring Diagram — HLC —/Hatchback

NJEL0459



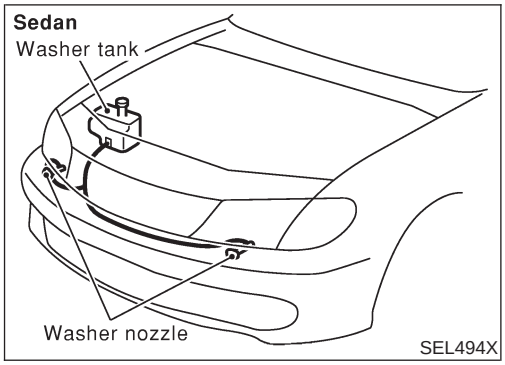


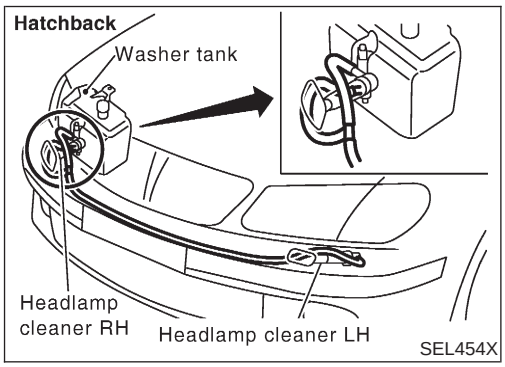
REFER TO THE FOLLOWING.
M1 , E103 , E104
-FUSE BLOCK-
JUNCTION BOX (J/B)
E68 , E69 -FUSE AND FUSIBLE LINK BOX

YEL364C

Washer Tube Layout

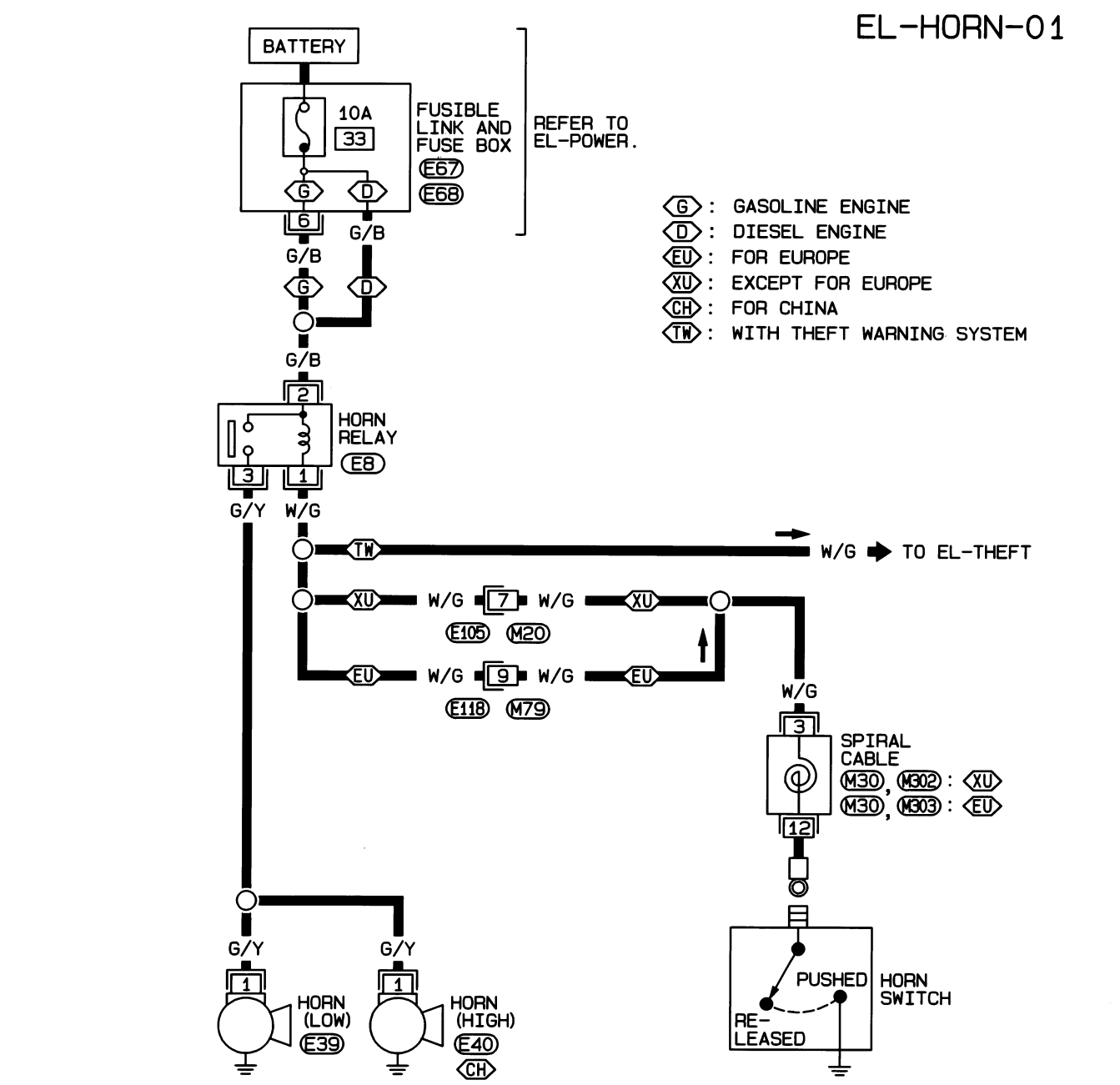
NJEL0376

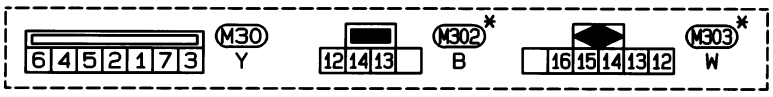


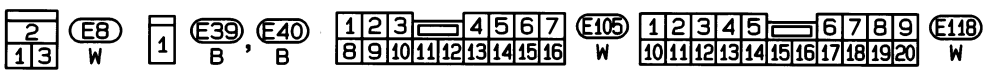


Wiring Diagram — HORN —/Sedan

NJEL0071







* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT".

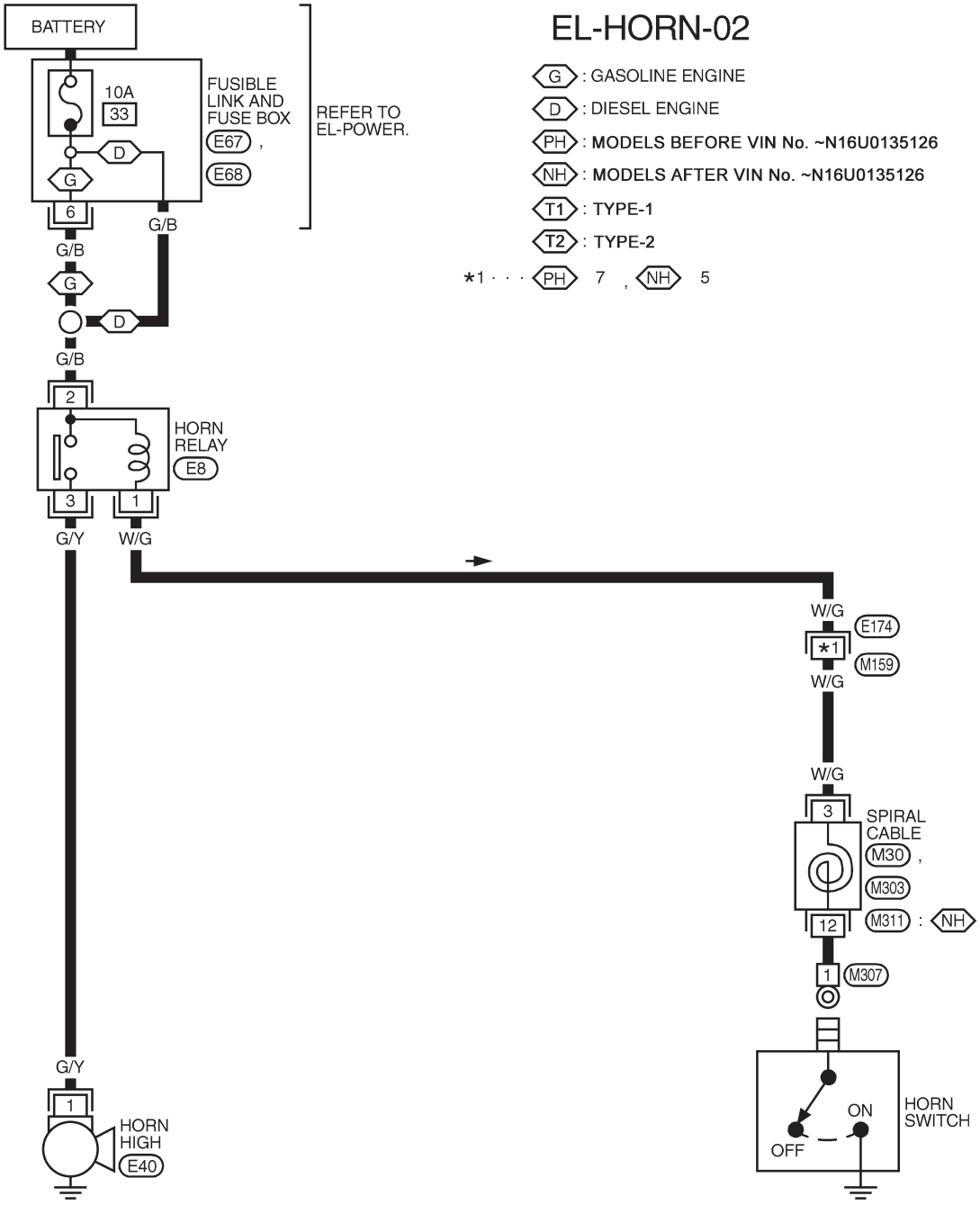
REFER TO THE FOLLOWING.

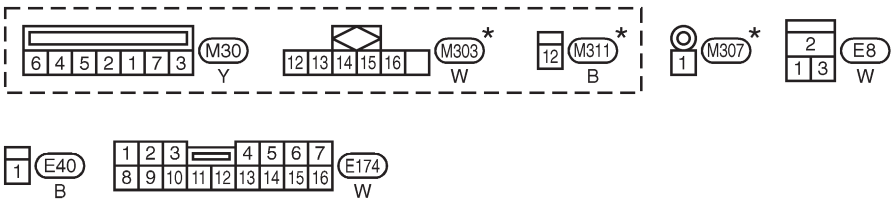
E67, E68 -FUSE AND FUSIBLE LINK BOX

HEL392B

Wiring Diagram — HORN —/Hatchback

NJEL0460





* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" , EL SECTION.

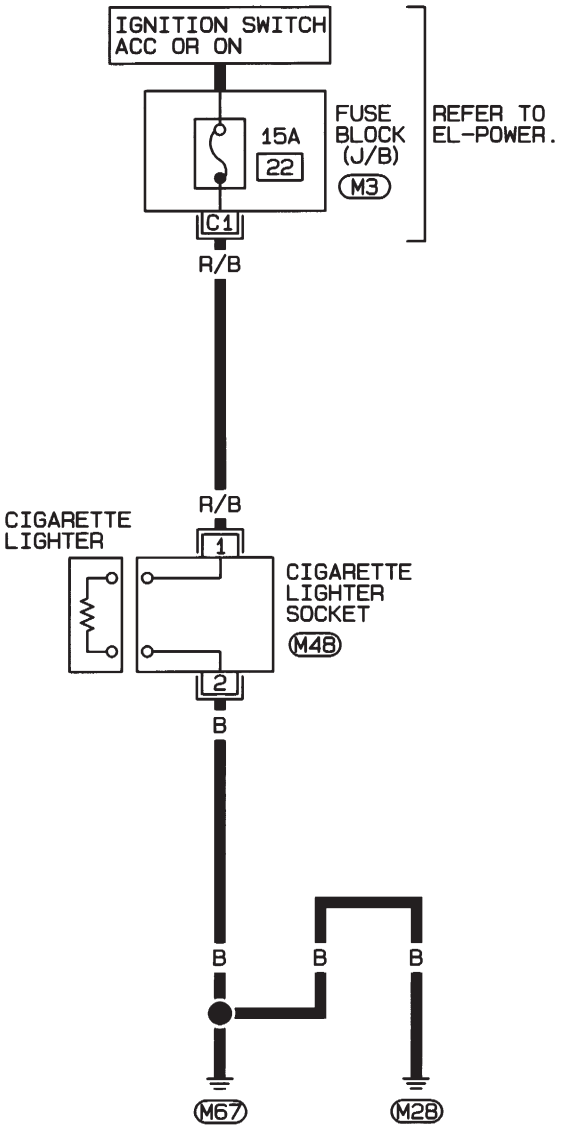
REFER TO THE FOLLOWING.
E67 , E68 -FUSE AND FUSIBLE LINK BOX

YEL365C

Wiring Diagram — CIGAR —/Sedan

NJEL0156

EL-CIGAR-01



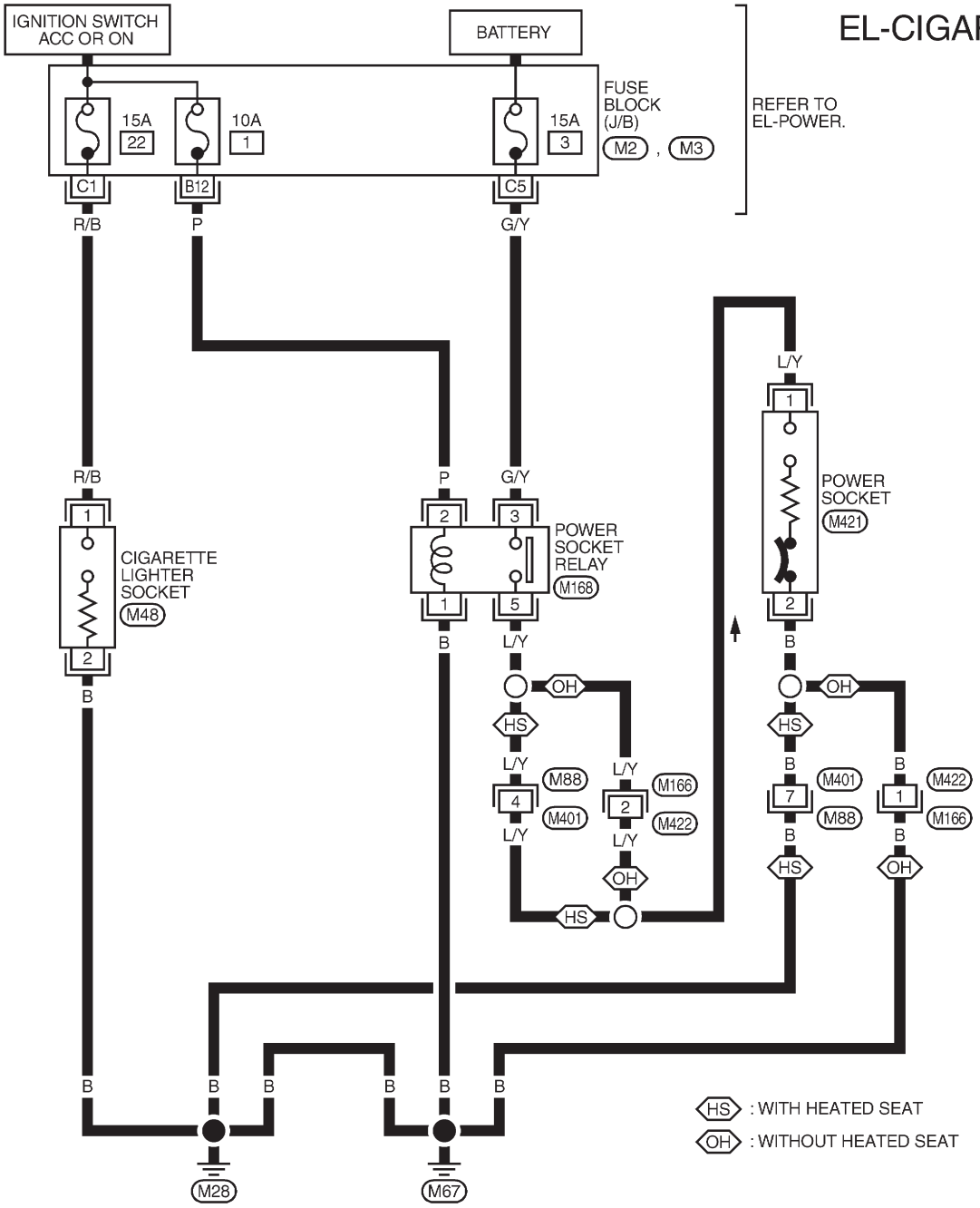
1 2 M48
B

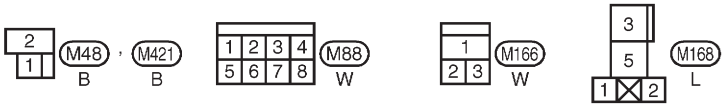
REFER TO THE FOLLOWING.
M3 -FUSE BLOCK-
JUNCTION BOX (J/B)

HEL900A

Wiring Diagram — CIGAR —/Hatchback

NJEL0461



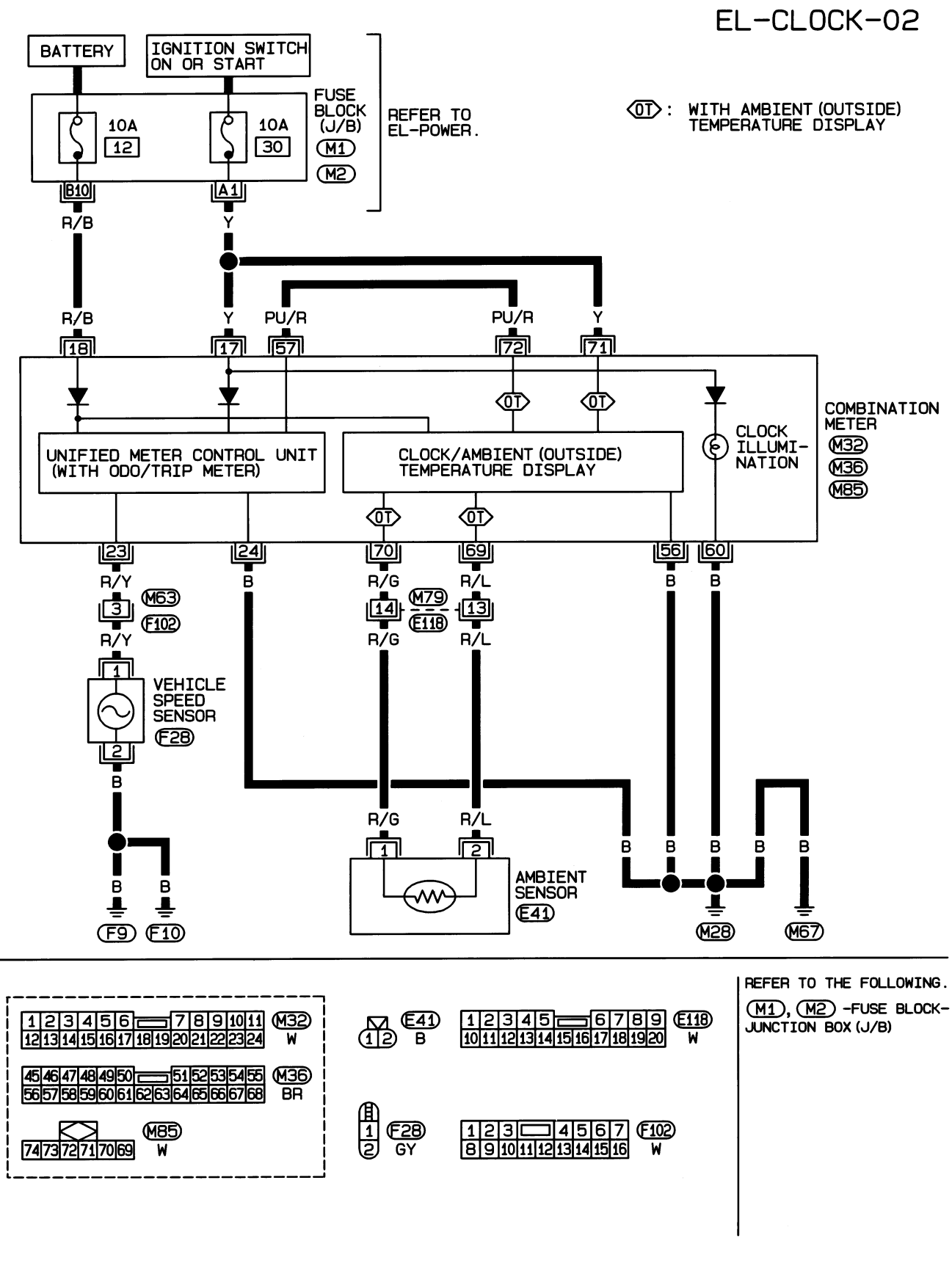


REFER TO THE FOLLOWING.
M2 , M3
-FUSE BLOCK-
JUNCTION BOX (J/B)

MEL188M

Wiring Diagram — CLOCK —/Sedan

NJEL0377



REFER TO THE FOLLOWING.

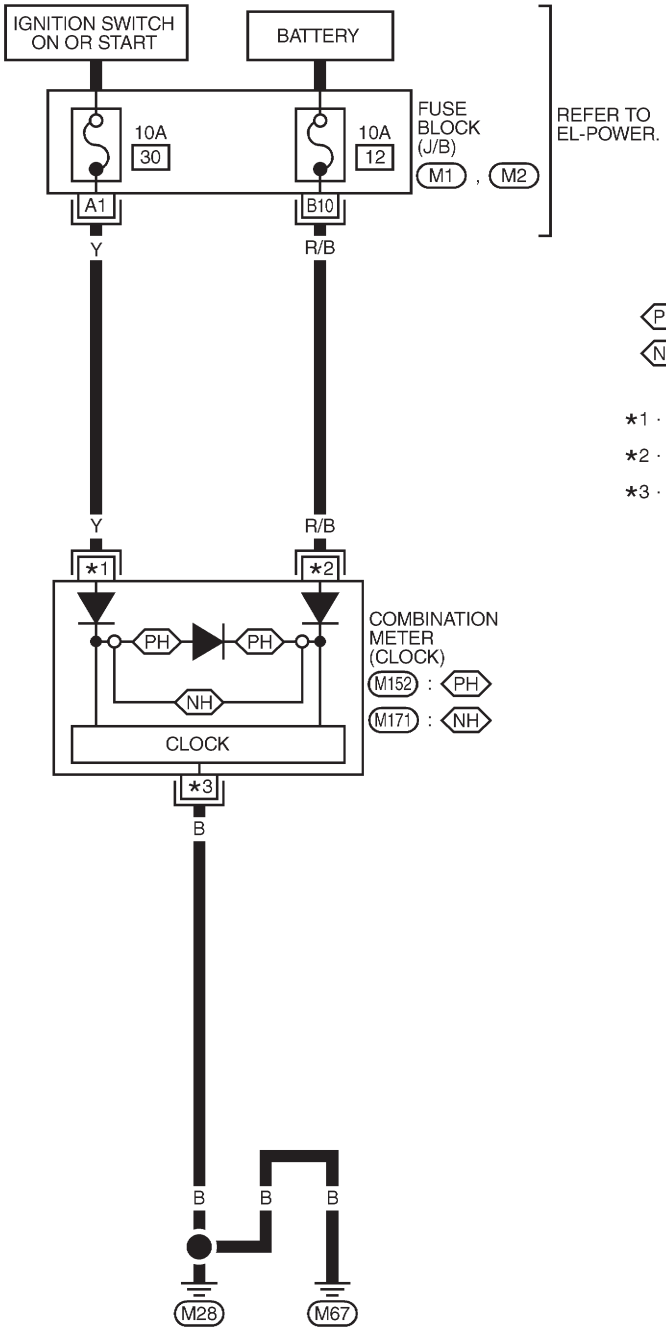
M1, M2 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL394B

Wiring Diagram — CLOCK —/Hatchback

NJEL0462

EL-CLOCK-03



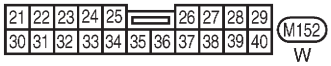
PH : MODELS BEFORE VIN No. ~N16U0135126

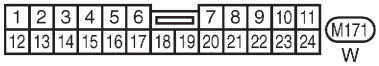
NH : MODELS AFTER VIN No. ~N16U0135126

*1 · · · PH 40 , NH 1

*2 · · · PH 28 , NH 23

*3 · · · PH 27 , NH 10





REFER TO THE FOLLOWING.

M1 , M2

-FUSE BLOCK-
JUNCTION BOX (J/B)

YEL366C

System Description/Sedan

=NJEL0378

LHD MODELS

NJEL0378S01

The rear window defogger system is controlled by the time control unit. The rear window defogger operates only for approximately 15 minutes.
Power is supplied at all times

- through 20A fuse [No. 7, located in the fuse block (J/B)]
- to rear window defogger relay terminal 3
- through 10A fuse [No. 13, located in the fuse block (J/B)]
- to rear window defogger relay terminal 6
- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to time control unit terminal 1.

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

- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to the rear window defogger relay terminal 1 and
- to time control unit terminal 17.

Ground is supplied

- through body grounds M28 and M67
- to terminal 5 of the rear window defogger switch.

When the rear defogger switch is turned ON, ground is supplied

- through terminal 3 of the rear defogger switch
- to time control unit terminal 35.

Terminal 27 of time control unit then supplies ground to the rear window defogger relay terminal 2.
With power and ground supplied, the rear window defogger relay is energized.
Power is supplied

- through terminals 5 and 7 of the rear window defogger relay and
- to the rear window defogger and door mirror defogger.

The rear window defogger has an independent ground.
With power and ground supplied, the rear window defogger filaments heat and defog the rear window.
When the system is activated, the rear window defogger indicator illuminates in the rear window defogger switch.

RHD MODELS

NJEL0378S02

The rear window defogger system is controlled by the time control unit. The rear window defogger operates only for approximately 15 minutes.
Power is supplied at all times

- through 20A fuse [No. 7, located in the fuse block (J/B)]
- to rear window defogger relay terminal 5
- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to time control unit terminal 1.

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

- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to the rear window defogger relay terminal 1 and
- to time control unit terminal 17.

Ground is supplied

- through body grounds M28 and M67
- to terminal 5 of the rear window defogger switch.

When the rear defogger switch is turned ON, ground is supplied

- through terminal 3 of the rear defogger switch
- to time control unit terminal 35.

Terminal 27 of time control unit then supplies ground to the rear window defogger relay terminal 2.
With power and ground supplied, the rear window defogger relay is energized.
Power is supplied

- through terminal 3 of the rear window defogger relay and

- to the rear window defogger.

The rear window defogger has an independent ground.
With power and ground supplied, the rear window defogger filaments heat and defog the rear window.
When the system is activated, the rear window defogger indicator illuminates in the rear window defogger switch.

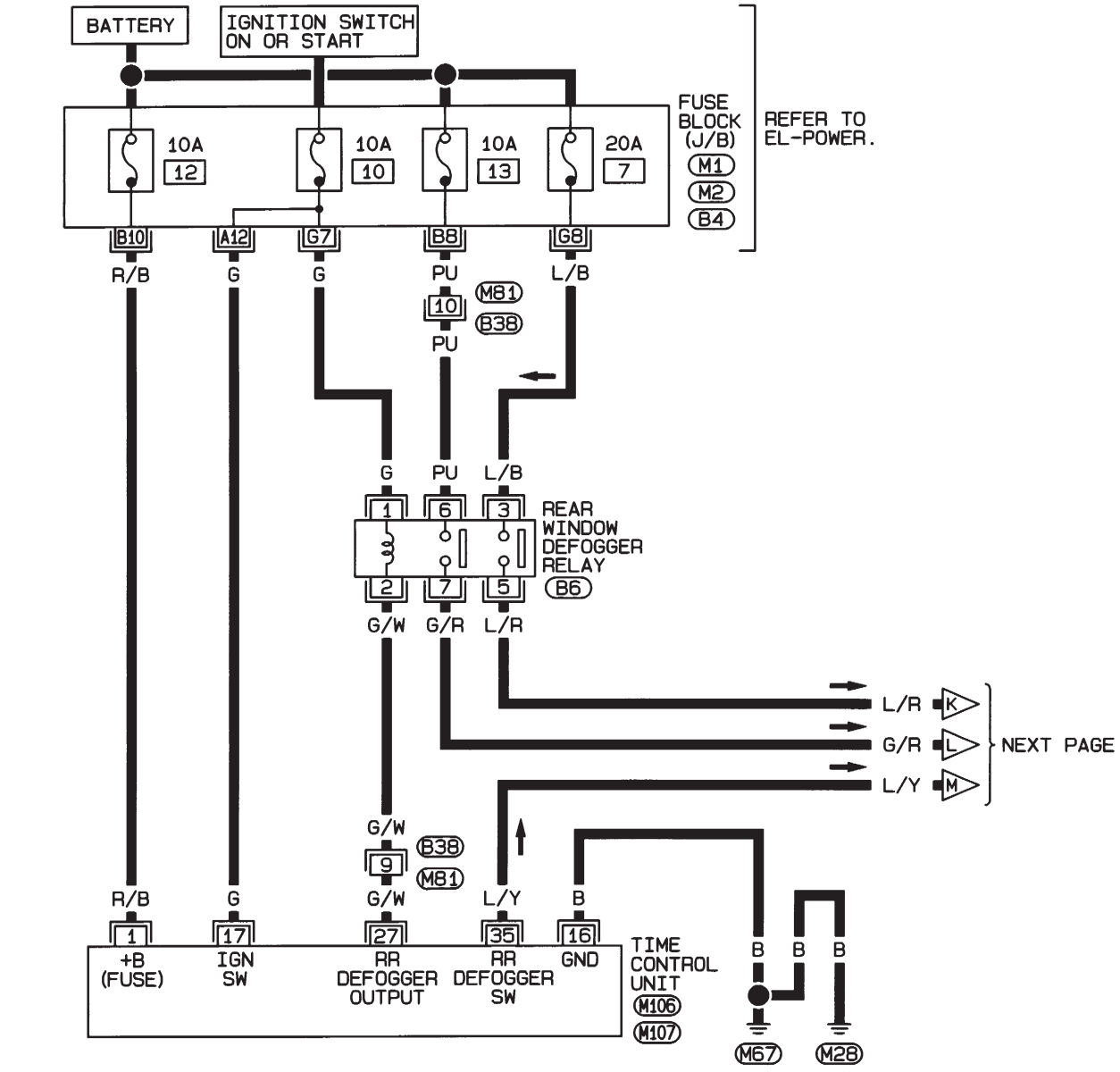
Wiring Diagram — DEF —/Sedan

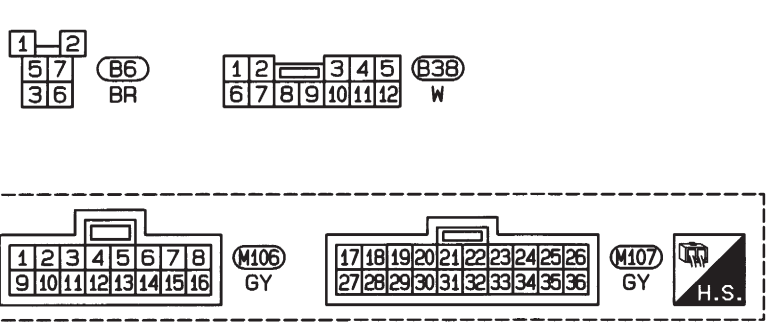
=NJEL0379

NJEL0379S01

LHD MODELS

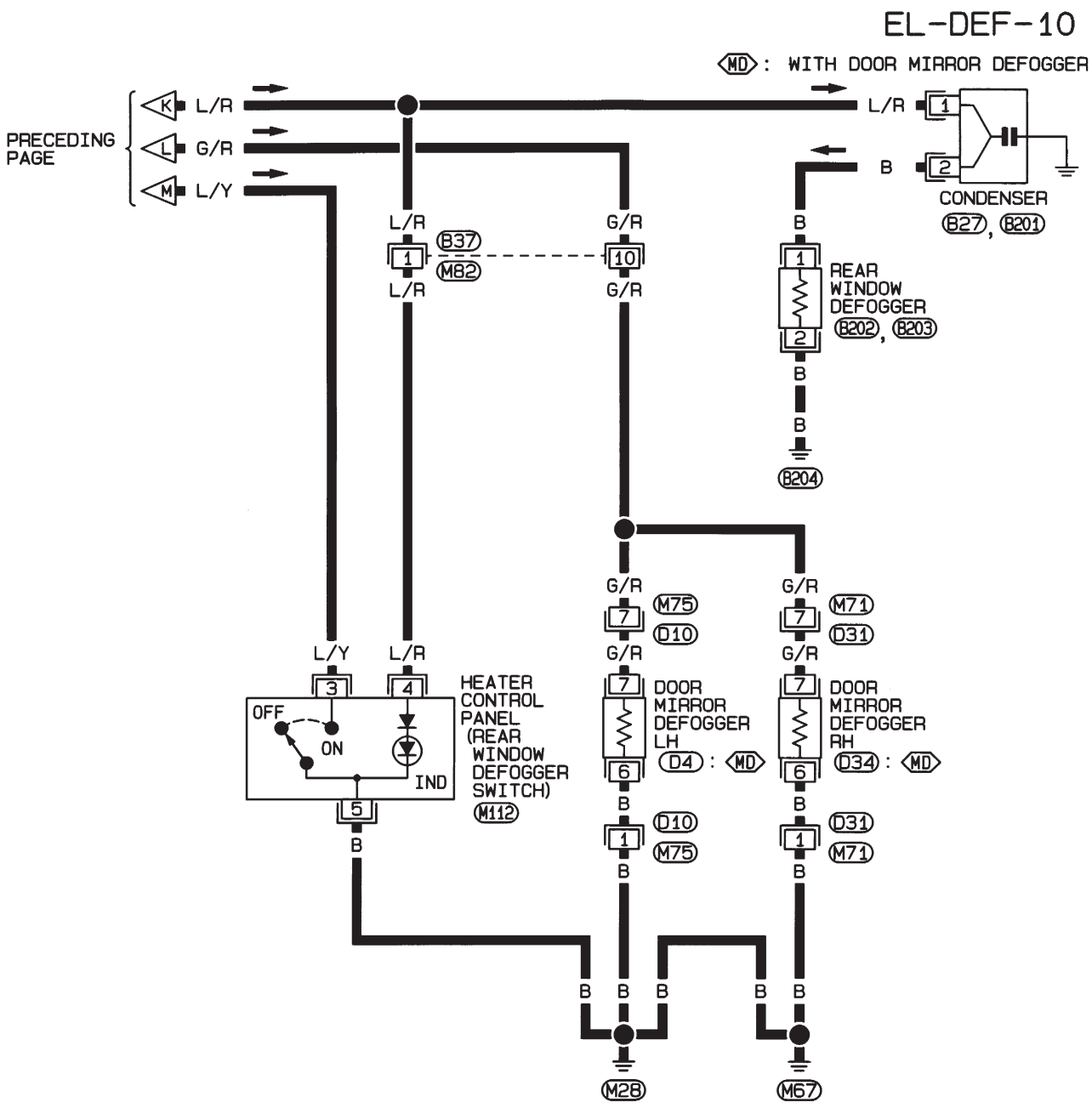
EL-DEF-09

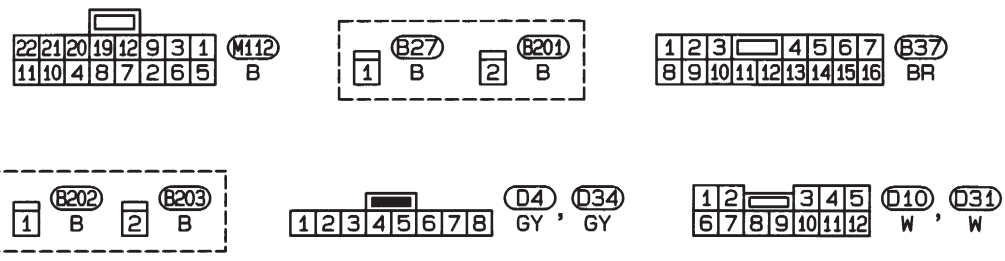




REFER TO THE FOLLOWING.
M1, M2, B4 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL052B


EL-DEF-10
MD : WITH DOOR MIRROR DEFOGGER
PRECEDING PAGE
K L/R
L G/R
M L/Y
L/R
G/R
L/Y
L/R
B37
1
M82
L/R
G/R
10
G/R
L/R
1
2
CONDENSER
B27, B201
B
1
REAR WINDOW DEFOGGER
2
B202, B203
B
B
B204
G/R
7
M75
D10
G/R
7
M71
D31
L/Y
3
L/R
4
OFF
ON
IND
5
HEATER CONTROL PANEL (REAR WINDOW DEFOGGER SWITCH)
M112
B
G/R
7
6
DOOR MIRROR DEFOGGER LH
D4 : MD
G/R
7
6
DOOR MIRROR DEFOGGER RH
D34 : MD
B
D10
1
M75
B
B
D31
1
M71
B
B B B B B B
M28
M67

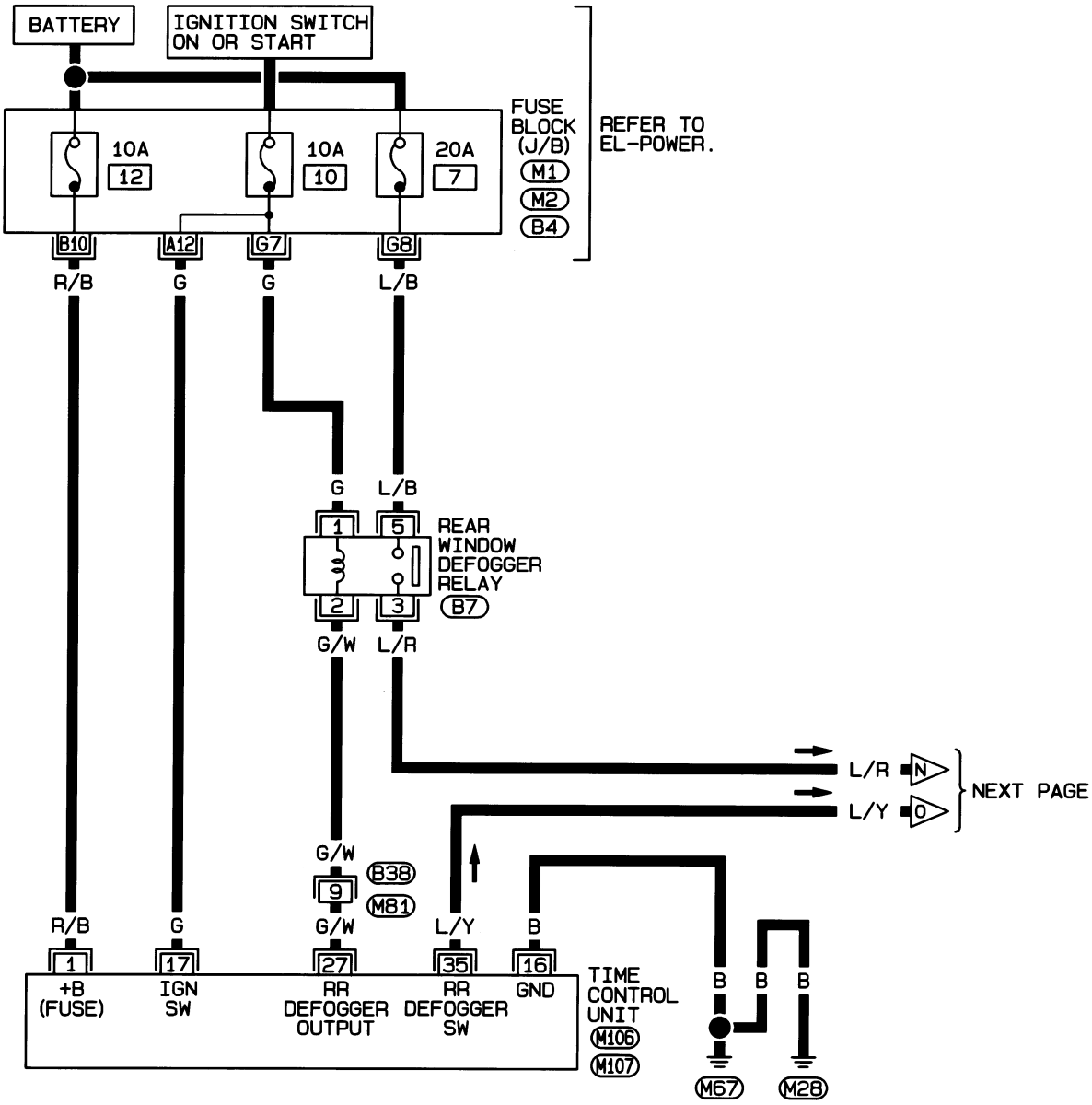

22 21 20 19 12 9 3 1
11 10 4 8 7 2 6 5
M112
B
B27
1
B
2
B201
B
1 2 3 4 5 6 7
8 9 10 11 12 13 14 15 16
B37
BR
B202
1
B
2
B203
B
1 2 3 4 5 6 7 8
D4, D34
GY, GY
1 2 3 4 5
6 7 8 9 10 11 12
D10, D31
W, W

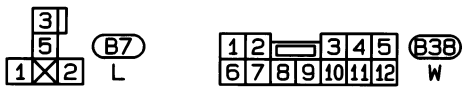
HEL053B

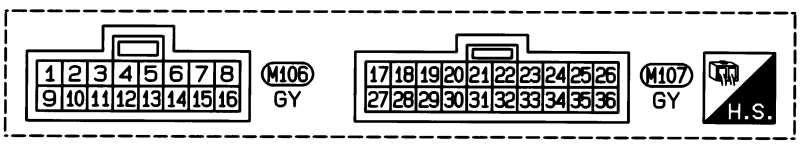
RHD MODELS

NJEL0379S02

EL-DEF-11



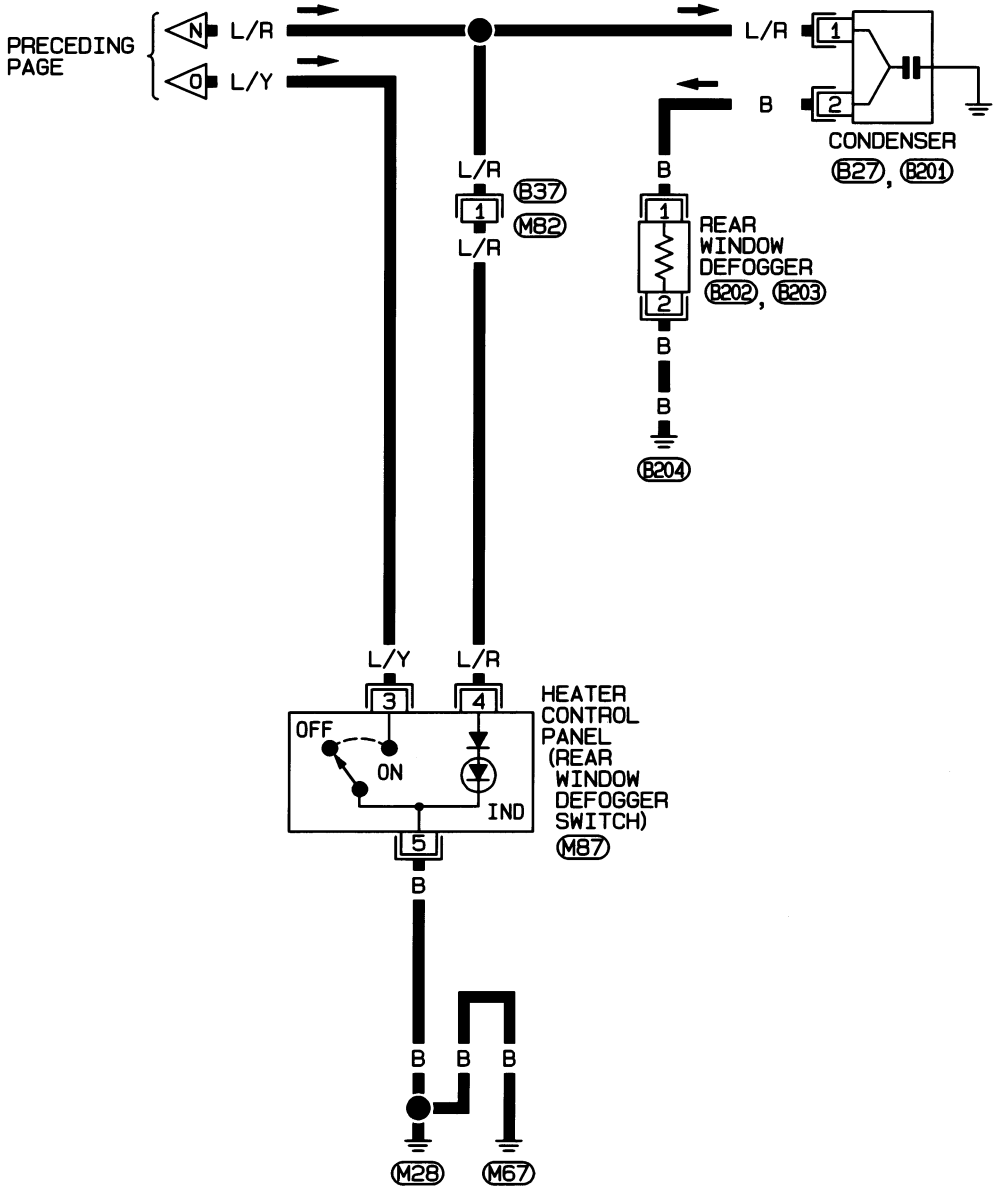


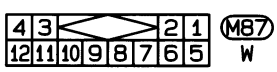


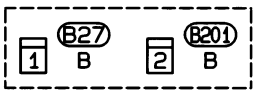
REFER TO THE FOLLOWING.
M1, M2, B4 -FUSE BLOCK-JUNCTION BOX (J/B)

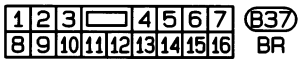
HEL395B

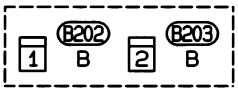
EL-DEF-12











HEL396B

Trouble Diagnoses/Sedan

NJEL0380

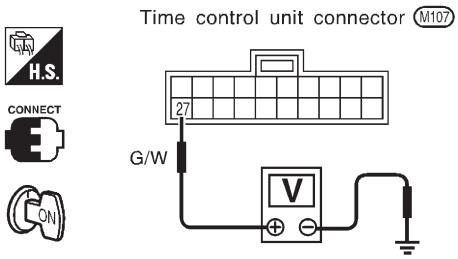
DIAGNOSTIC PROCEDURE

NJEL0380S01

SYMPTOM: Rear window defogger does not activate, or does not go off after activating.

1	CHECK REAR WINDOW DEFOGGER OUTPUT SIGNAL

1. Turn ignition switch to ON position.
2. Check voltage between time control unit harness terminal 27 and ground.



Voltage [V]:
Rear window defogger switch is "OFF".
Approx. 12
Rear window defogger switch is "ON".
0

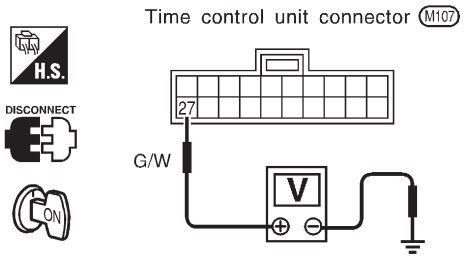
SEL994W

OK or NG

OK	▶	**Check the following.** ● Rear window defogger relay (Refer to EL-255.) ● Rear window defogger circuit ● Rear window defogger filament (Refer to EL-256.)
NG	▶	GO TO 2.

2	CHECK DEFOGGER RELAY COIL SIDE CIRCUIT

1. Disconnect control unit connector.
2. Turn ignition switch to ON position.
3. Check voltage between time control unit terminal 27 and ground.



Battery voltage should exist.

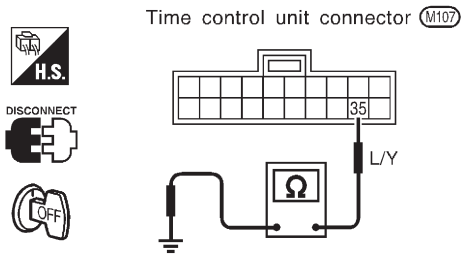
SEL995W

OK or NG

OK	▶	GO TO 3.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in the fuse block (J/B)] ● Rear window defogger relay ● Harness for open or short between 10A fuse [No. 10, located in the fuse block (J/B)] and rear window defogger relay ● Harness for open or short between rear window defogger relay and time control unit

3	CHECK REAR WINDOW DEFOGGER SWITCH INPUT SIGNAL

Check continuity between time control unit terminal 35 and ground.



Continuity:
Rear window defogger switch is pushed.
Continuity should exist.
Rear window defogger switch is released.
Continuity should not exist.

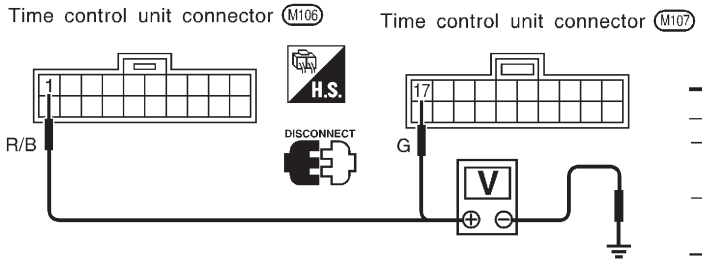
SEL996W

OK or NG

OK	▶	GO TO 4.
NG	▶	**Check the following.** ● Rear window defogger switch (Refer to EL-255.) ● Harness for open or short between time control unit and rear window defogger switch ● Rear window defogger switch ground circuit

4	CHECK POWER SUPPLY AND IGNITION INPUT SIGNAL

Check voltage between time control unit terminals 1 and 17 and ground.



Terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
1	Ground	Battery voltage	Battery voltage	Battery voltage
17	Ground	0V	0V	Battery voltage

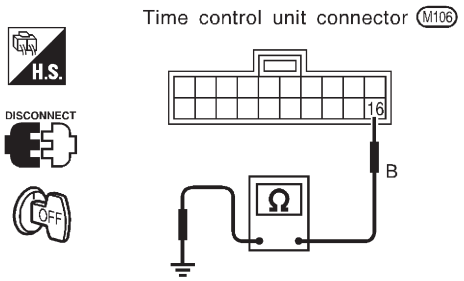
SEL997W

OK or NG

OK	▶	GO TO 5.
NG	▶	**Check the following.** ● 10A fuse [No. 10 or No. 12, located in the fuse block (J/B)] ● Harness for open or short between time control unit and fuse

5	CHECK CONTROL UNIT GROUND CIRCUIT

Check continuity between time control unit terminal 16 and ground.



Continuity should exist.

SEL992W

Yes	▶	Replace time control unit.
No	▶	Repair harness or connectors.

System Description/Hatchback

=NJEL0463

The rear window defogger system is controlled by the time control unit. The rear window defogger operates only for approximately 15 minutes.
Power is supplied at all times

- through 20A fuse [No. 7, located in the fuse block (J/B)]
- to rear window defogger relay terminal 5 (B7 relay models) or 3 (B6 relay models)
- through 10A fuse [No. 13, located in the fuse block (J/B)]
- to rear window defogger relay terminal 6 (B6 relay models).
- through 15A fuse [No. 5, located in the fuse block (J/B)]
- to time control unit terminal 9.

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

- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to the rear window defogger relay terminal 1 and
- to time control unit terminal 1.

Ground is supplied to terminal 5 of the rear window defogger switch through body grounds M28 and M67.
When the rear defogger switch is turned ON, ground is supplied

- through terminal 3 of the rear defogger switch
- to time control unit terminal 3.

Terminal 13 of time control unit then supplies ground to the rear window defogger relay terminal 2.
With power and ground supplied, the rear window defogger relay is energized.
Power is supplied

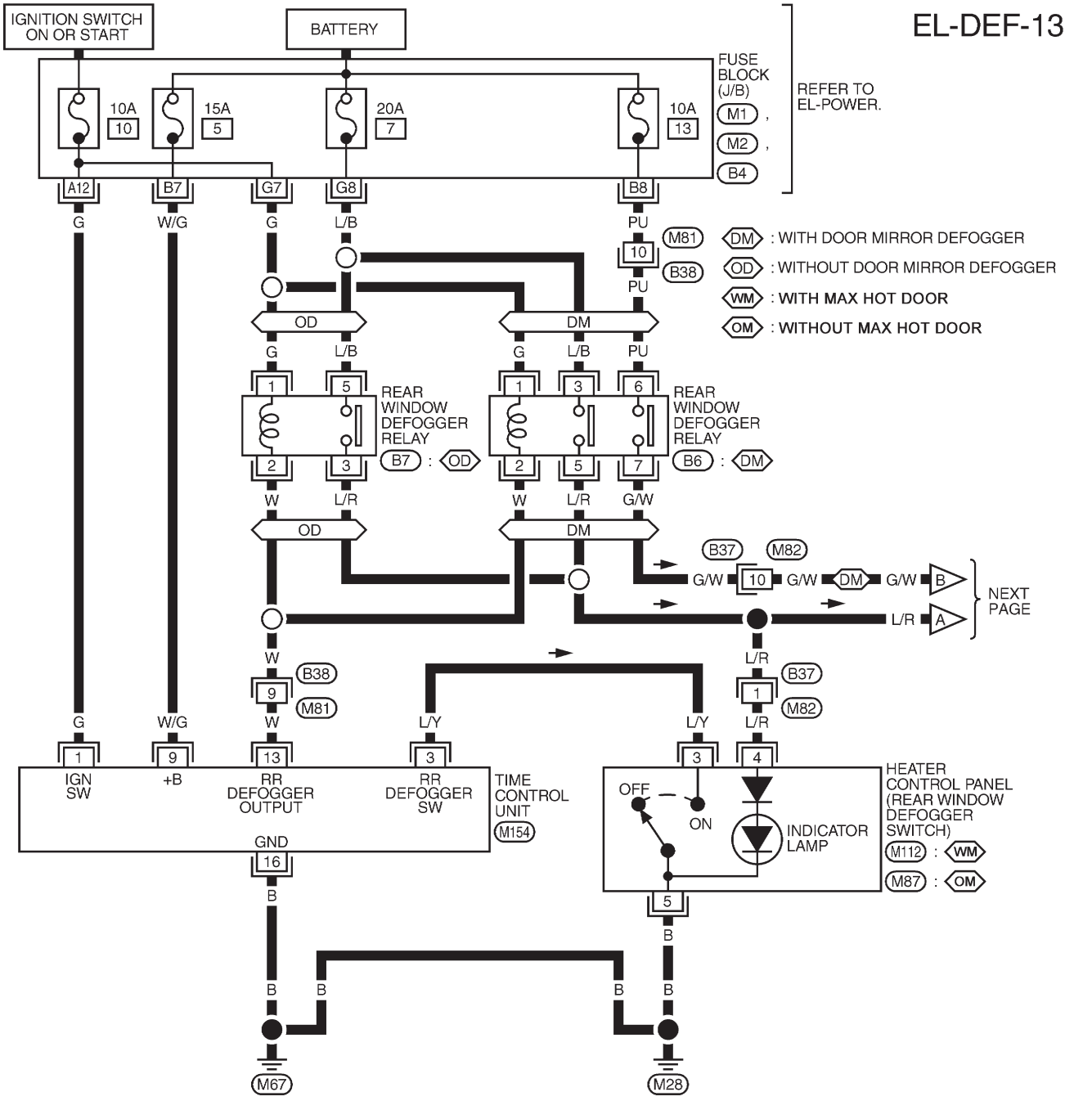
- through terminals 5 and 7 of the rear window defogger relay (B6 relay models) or
- through terminal 3 of the rear window defogger relay (B7 relay models)
- to the rear window defogger and door mirror defogger.

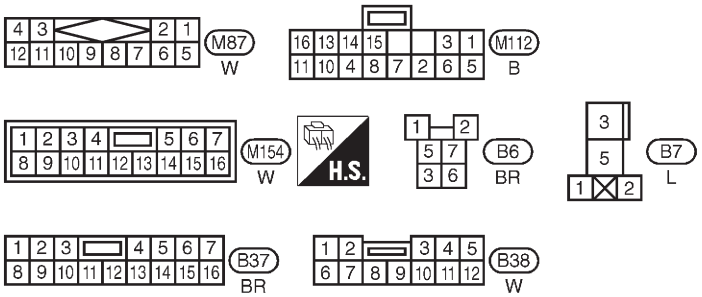
The rear window defogger has an independent ground.
With power and ground supplied, the rear window defogger filaments heat and defog the rear window.
When the system is activated, the rear window defogger indicator illuminates in the rear window defogger switch.

Wiring Diagram — DEF —/Hatchback

=NJEL0464

EL-DEF-13

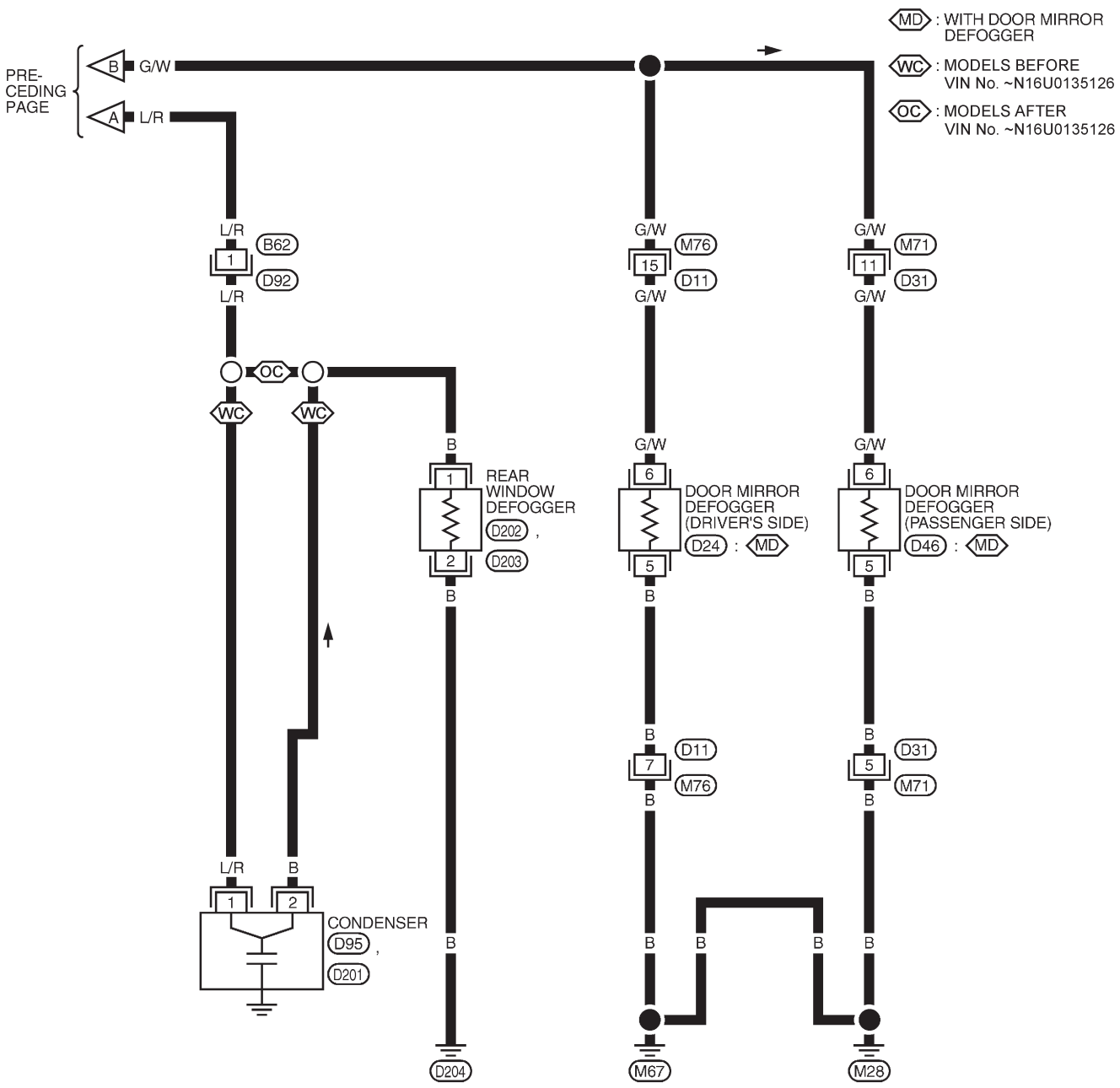


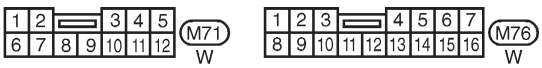


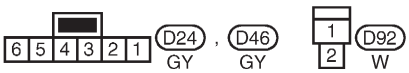
REFER TO THE FOLLOWING.
M1 , M2 , B4
-FUSE BLOCK-
JUNCTION BOX (J/B)

YEL367C

EL-DEF-14









YEL368C

Trouble Diagnoses/Hatchback

NJEL0465

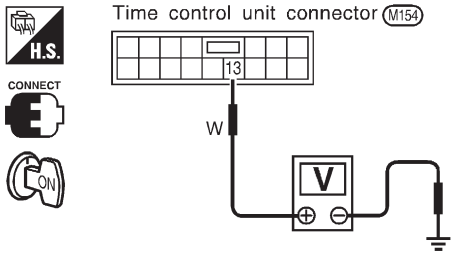
DIAGNOSTIC PROCEDURE

NJEL0465S01

SYMPTOM: Rear window defogger does not activate, or does not go off after activating.

1	CHECK REAR WINDOW DEFOGGER OUTPUT SIGNAL

1. Turn ignition switch to ON position.
2. Check voltage between time control unit harness terminal 13 and ground.



Voltage [V]:
Rear window defogger switch is "OFF".
Approx. 12
Rear window defogger switch is "ON".
0

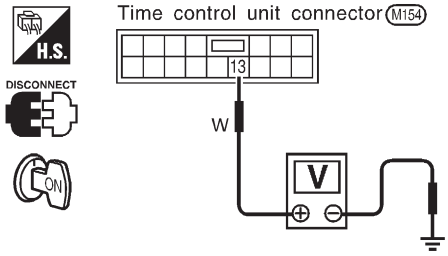
SEL455X

OK or NG

OK	▶	**Check the following.** ● Rear window defogger relay (Refer to EL-255.) ● Rear window defogger circuit ● Rear window defogger filament (Refer to EL-256.)
NG	▶	GO TO 2.

2	CHECK DEFOGGER RELAY COIL SIDE CIRCUIT

1. Disconnect control unit connector.
2. Turn ignition switch to ON position.
3. Check voltage between time control unit terminal 13 and ground.



Battery voltage should exist.

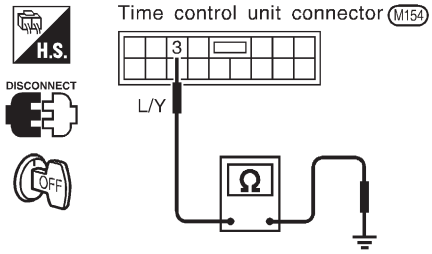
SEL456X

OK or NG

OK	▶	GO TO 3.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in the fuse block (J/B)] ● Rear window defogger relay ● Harness for open or short between 10A fuse [No. 10, located in the fuse block (J/B)] and rear window defogger relay ● Harness for open or short between rear window defogger relay and time control unit

3	CHECK REAR WINDOW DEFOGGER SWITCH INPUT SIGNAL

Check continuity between time control unit terminal 3 and ground.



Continuity:
Rear window defogger switch is pushed.
Continuity should exist.
Rear window defogger switch is released.
Continuity should not exist.

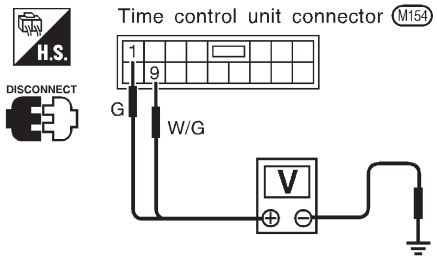
SEL457X

OK or NG

OK	▶	GO TO 4.
NG	▶	**Check the following.** ● Rear window defogger switch (Refer to EL-255.) ● Harness for open or short between time control unit and rear window defogger switch ● Rear window defogger switch ground circuit

4	CHECK POWER SUPPLY AND IGNITION INPUT SIGNAL

Check voltage between time control unit terminals 1 or 9 and ground.

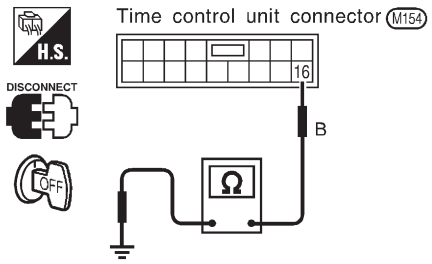


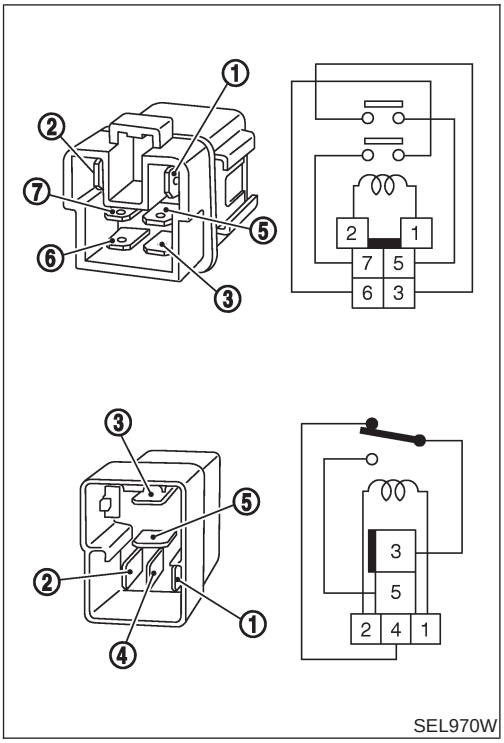
Terminals		Ignition switch position		
(+)	(–)	OFF	ACC	ON
9	Ground	Battery voltage	Battery voltage	Battery voltage
1	Ground	0V	0V	Battery voltage

SEL447X

OK or NG

OK	▶	GO TO 5.
NG	▶	**Check the following.** ● 10A fuse or 15A fuse [No. 10 or No. 5, located in the fuse block (J/B)] ● Harness for open or short between time control unit and fuse

5	CHECK CONTROL UNIT GROUND CIRCUIT	
Check continuity between time control unit terminal 16 and ground.  **Continuity should exist.** SEL448X		
Yes	▶	Replace time control unit.
No	▶	Repair harness or connectors.



SEL970W

Electrical Components Inspection

=NJEL0076

REAR WINDOW DEFOGGER RELAY

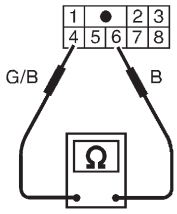
NJEL0076S01

Check continuity between terminals 3 and 5, 6 and 7.

Condition	Continuity
12V direct current supply between terminals 1 and 2	Yes
No current supply	No

Except for Europe

Heater control panel (rear window defogger switch) connector M47



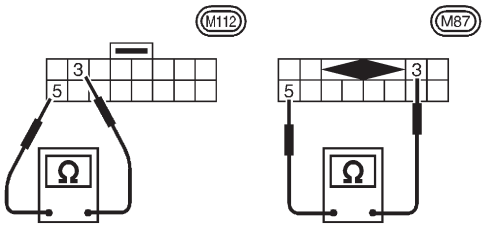
SEL969WA

REAR WINDOW DEFOGGER SWITCH

NJEL0076S02

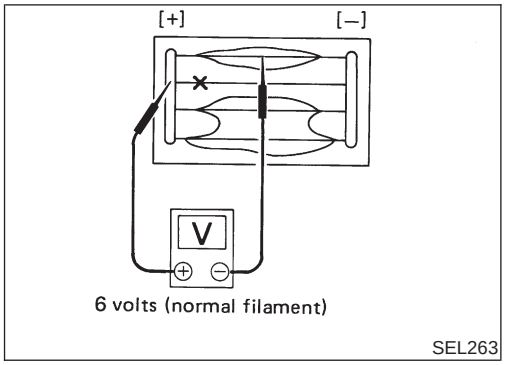
Check continuity between terminals when rear window defogger switch is pushed and released.

Heater control panel (rear window defogger switch)



NEL797

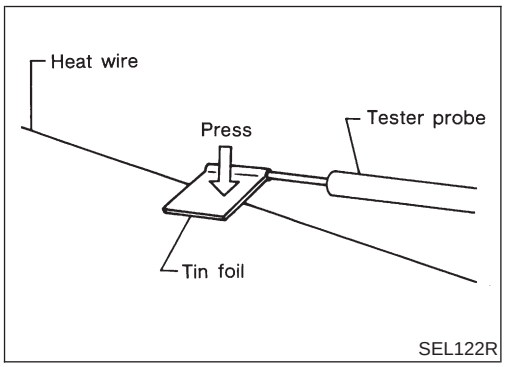
Terminals	Condition	Continuity
3 - 5	Rear window defogger switch is pushed.	Yes
	Rear window defogger switch is released.	No



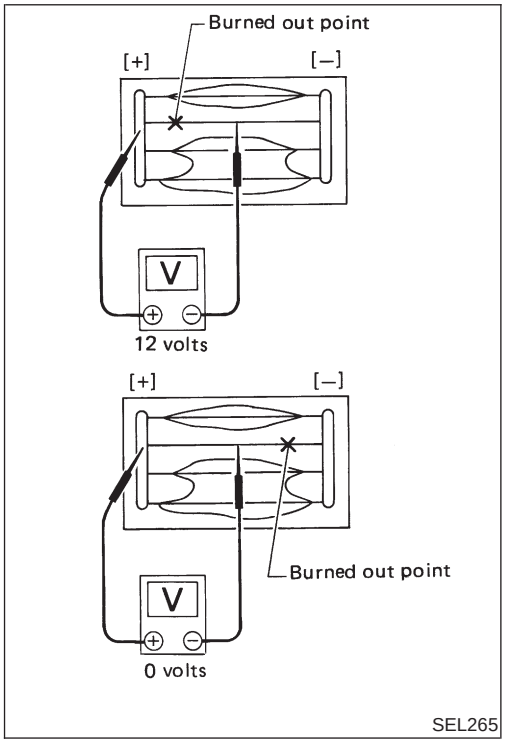
Filament Check

=NJEL0077

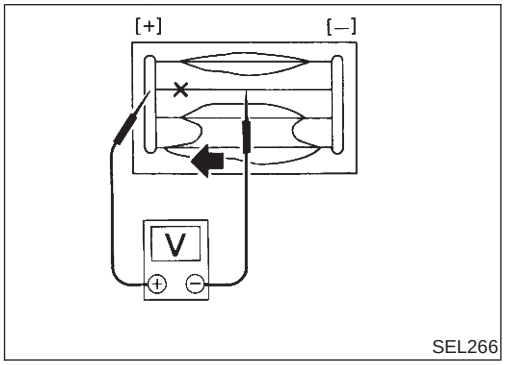
1. Attach probe circuit tester (in volt range) to middle portion of each filament.



- **When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.**



2. If a filament is burned out, circuit tester registers 0 or 12 volts.



3. To locate burned out point, move probe to left and right along filament. Test needle will swing abruptly when probe passes the point.

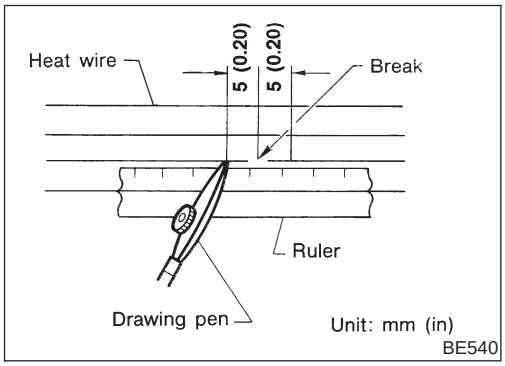
Filament Repair

NJEL0078

REPAIR EQUIPMENT

NJEL0078S01

1) Conductive silver composition (Dupont No. 4817 or equivalent)
2) Ruler 30 cm (11.8 in) long
3) Drawing pen
4) Heat gun
5) Alcohol
6) Cloth



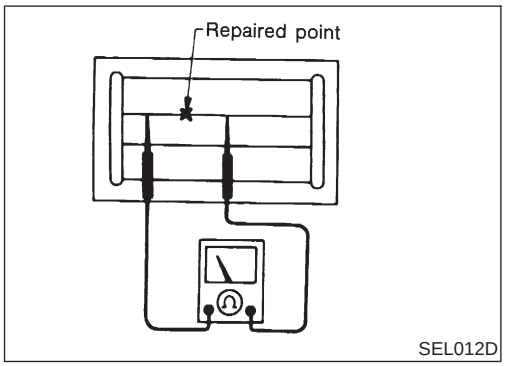
REPAIRING PROCEDURE

NJEL0078S02

1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.

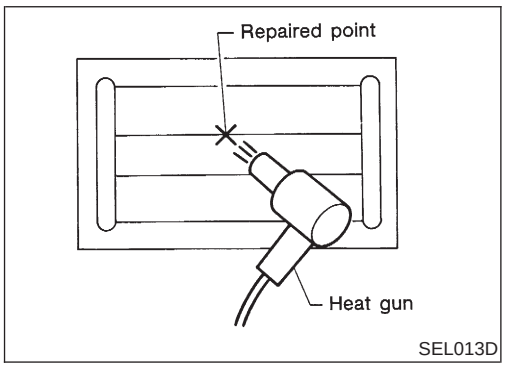
Shake silver composition container before use.

3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.



4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited.

Do not touch repaired area while test is being conducted.



5. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.

System Description/Sedan

=NJEL0381

Refer to Owner's Manual for audio system operating instructions.
Power is supplied at all times

- through 15A fuse (No. 32, located in the fusible link and fuse block)
- to audio unit terminal 9
- to CD auto changer terminal 32.

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

- through 10A fuse [No. 1, located in the fuse block (J/B)]
- to audio unit terminal 3,
- to CD auto changer terminal 36

Ground is supplied through the case of the audio unit.
Audio signals are supplied

- through audio unit terminals 7, 10, 11, 12, 13, 14, 15, 16
- to terminals 1 and 2 of front door speaker LH and RH,
- to terminals 1 and 2 of rear door speaker LH and RH and
- to terminals 1 and 2 of pillar tweeter LH and RH (with 6 speakers)

When the navigation system is triggered,
power is supplied

- through navi control unit terminal 46
- to speaker relay terminal 2

Ground is supplied

- through navi control unit terminal 44
- to speaker relay terminal 1

With power and ground supplied, the relay is energized, and then audio signal is interrupted to front door speaker RH (LHD models) or LH (RHD models), and pillar tweeter RH (LHD models) or LH (RHD models)
For detailed, refer to "NAVIGATION SYSTEM".

NATS AUDIO LINK

NJEL0381S04

Description

NJEL0381S0401

The link with the NATS IMMU implies that the audio unit can basically only be operated if connected to the matching NATS IMMU to which the audio unit was initially fitted on the production line.
Since radio operation is impossible after the link with the NATS is disrupted theft of the audio unit is basically useless since special equipment is required to reset the audio unit.

Initialization process for audio units that are linked to the NATS IMMU

New audio units will be delivered to the factories in the "NEW" state, i.e. ready to be linked with the vehicle's NATS. When the audio unit in "NEW" state is first switched on at the factory, it will start up communication with the vehicle's immobiliser control unit (IMMU) and send a code (the "audio unit Code") to the IMMU. The IMMU will then store this code, which is unique to each audio unit, in its (permanent) memory.
Upon receipt of the code by the IMMU, the NATS will confirm correct receipt of the audio unit code to the audio unit. Hereafter, the audio unit will operate as normal.
During the initialisation process, "NEW" is displayed on the audio unit display. Normally though, communication between audio unit and IMMU takes such a short time (300 ms) that the audio unit seems to switch on directly without showing "NEW" on its display.

Normal operation

Each time the audio unit is switched on afterwards, the audio unit code will be verified between the audio unit and the NATS before the audio unit becomes operational. During the code verification process, "WAIT" is shown on the audio unit display. Again, the communication takes such a short time (300 ms) that the audio unit seems to switch on directly without showing "WAIT" on its display.

When the radio is locked

In case of a audio unit being linked with the vehicle's NATS (immobilizer system), disconnection of the link between the audio unit and the IMMU will cause the audio unit to switch into the lock ("SECURE") mode in which the audio unit is fully inoperative. Hence, repair of the audio unit is basically impossible, unless the audio unit is reset to the "NEW" state for which special decoding equipment is required.
Clarion has provided their authorized service representatives with so called "decoder boxes" which can bring the audio unit back to the "NEW" state, enabling the audio unit to be switched on after which repair can be

carried out. Subsequently, when the repaired audio unit is delivered to the final user again, it will be in the "NEW" state as to enable re-linking the audio unit to the vehicle's immobiliser system. As a result of the above, repair of the audio unit can only be done by an authorized Clarion representative.

SPEED DEPENDENT VOLUME CONTROL

NJEL0381S06

Description

NJEL0381S0601

If activated, the radio output volume will be automatically adjusted to compensate for increasing driving noises at higher driving speeds.
The radio receives a speed signal from the vehicle speed sensor (VSS) and selects the output volume.

PERSONAL AUDIO SETTINGS

NJEL0381S07

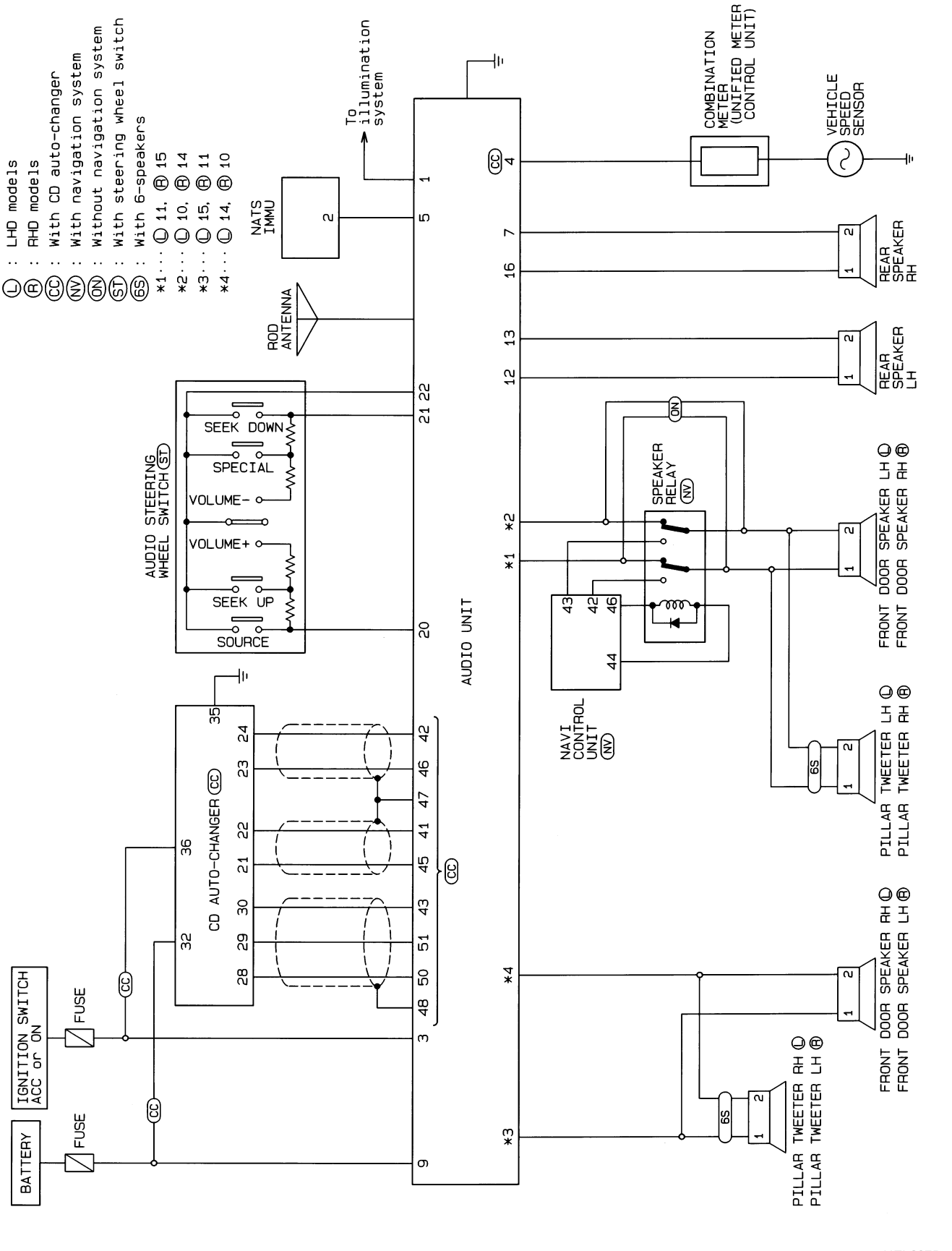
Description

NJEL0381S0701

The radio is designed to store several settings (volume, bass, treble, preset stations and level of speed dependent volume control) with every NATS ignition key used. Up to a maximum of 4 NATS keys can be registered. During the communication as mentioned under "Anti-Theft System", the radio will recognize the used ignition key and select the accompanying settings.

Schematic/Sedan

NJEL0382



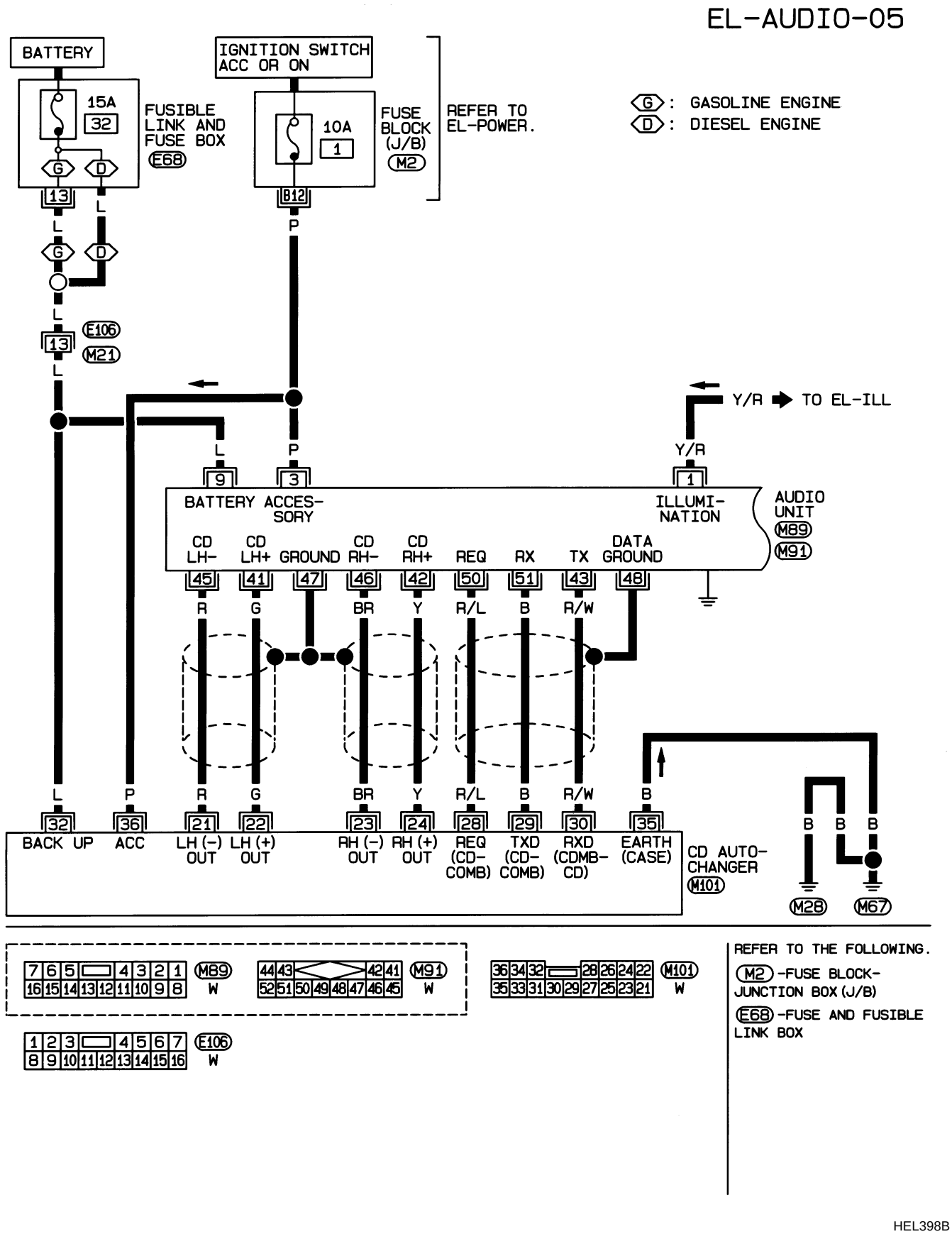
HEL397B

Wiring Diagram — AUDIO —/Sedan

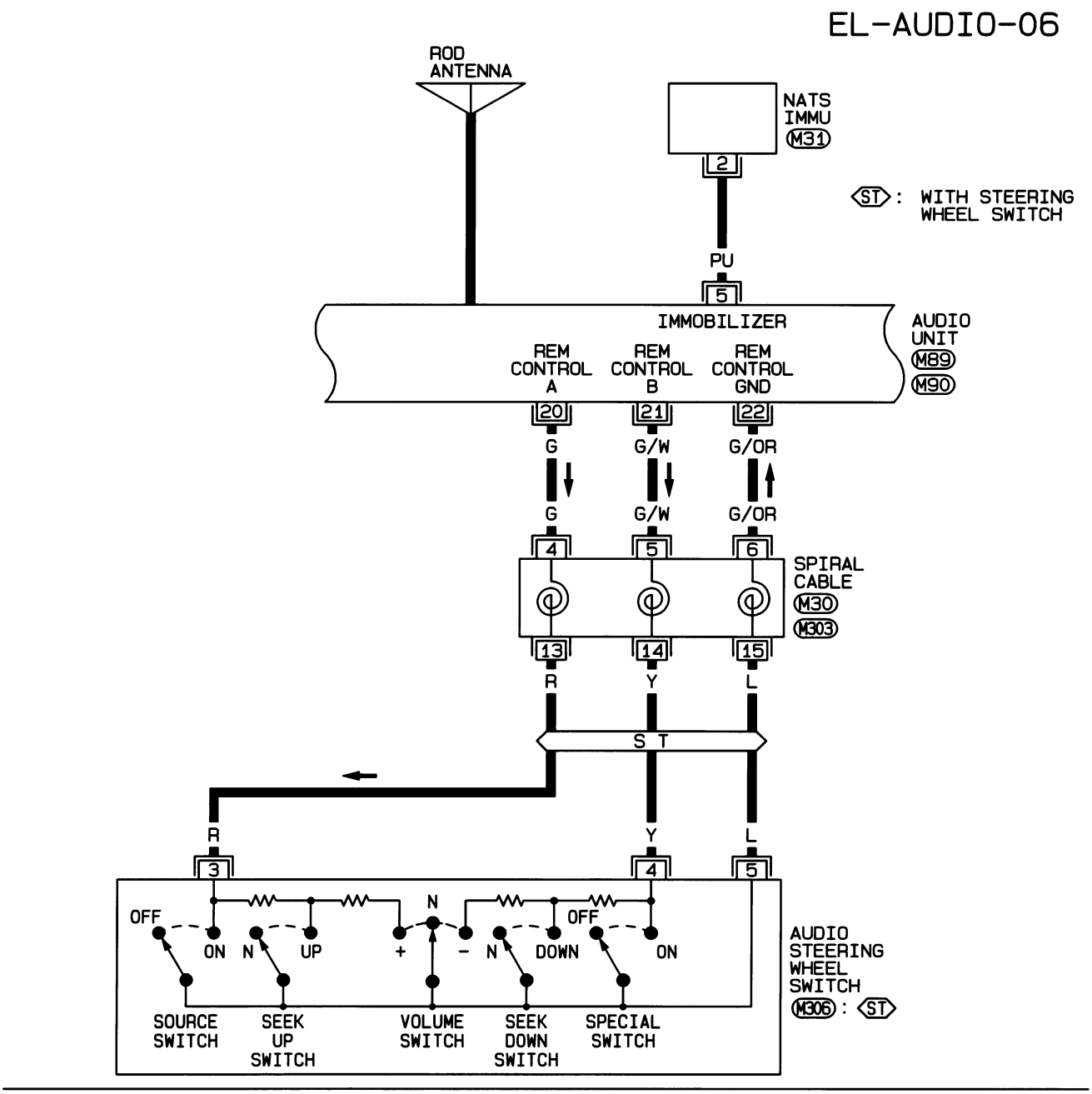
NJEL0383

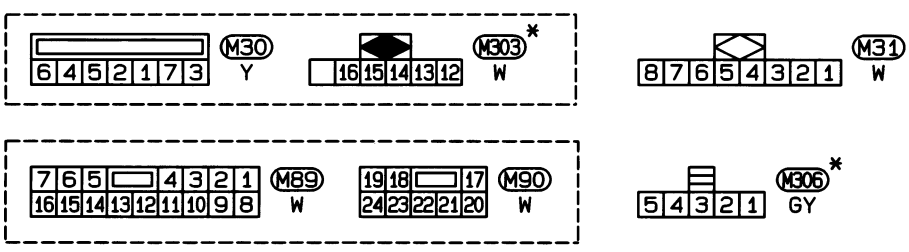
LHD MODELS

NJEL0383S01



HEL398B



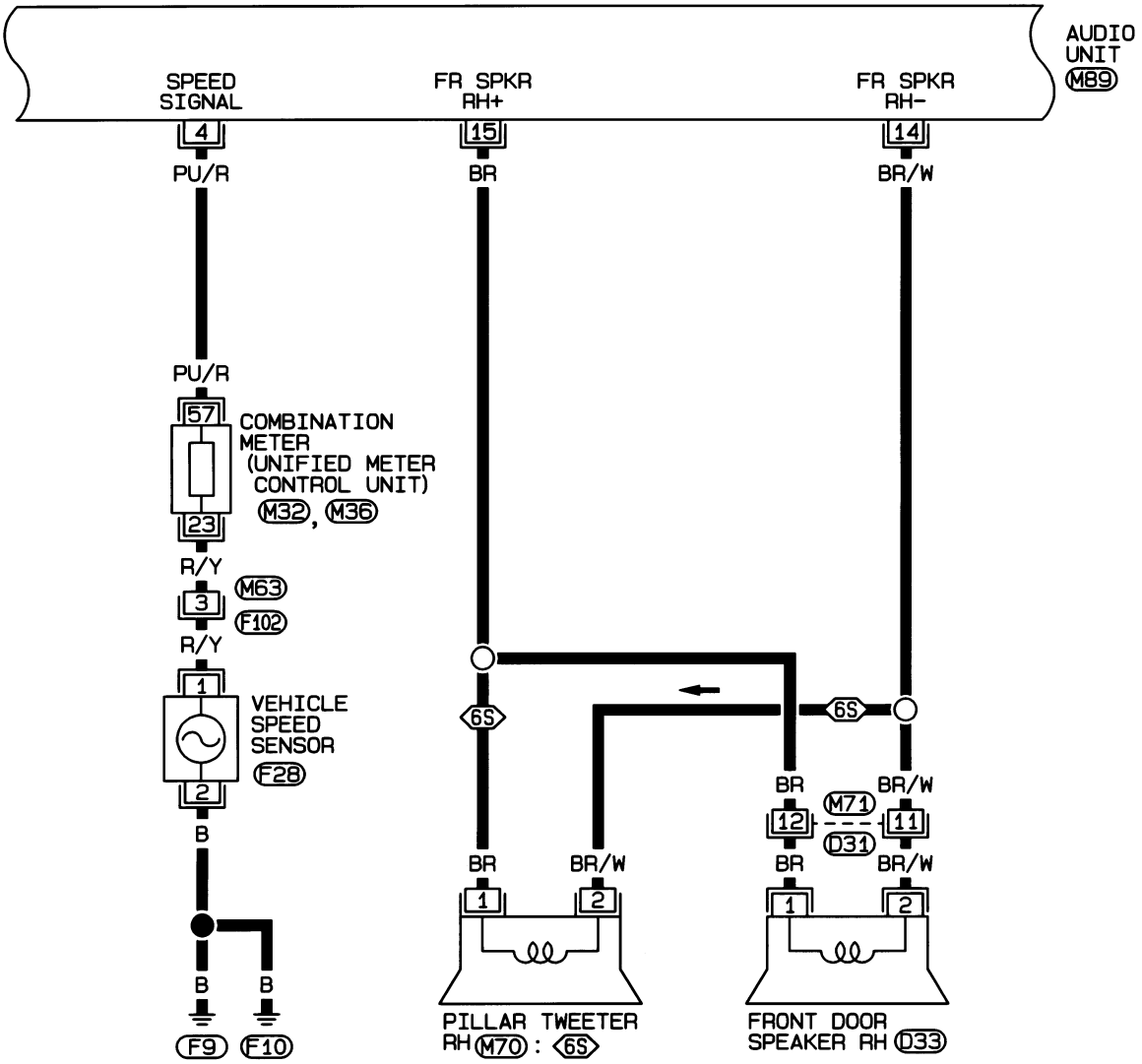


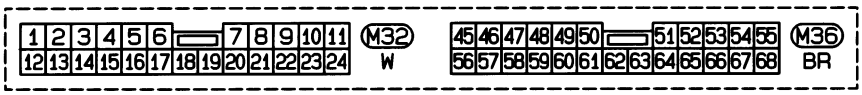
* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT".

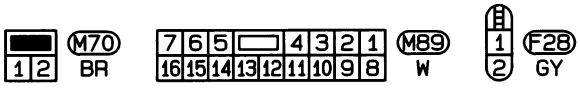
HEL399B

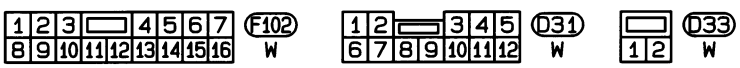
EL-AUDIO-07

6S : WITH 6-SPEAKERS

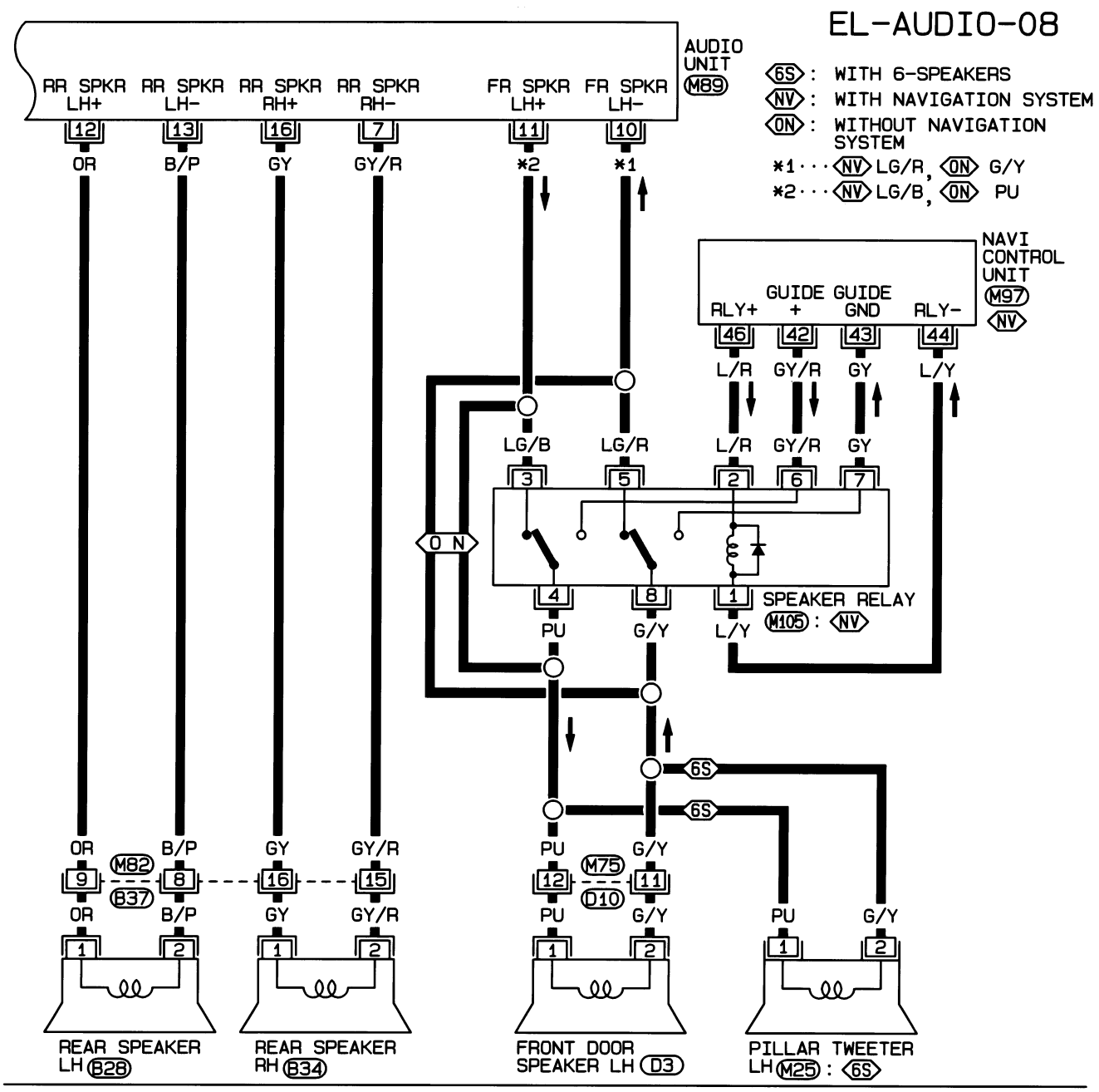


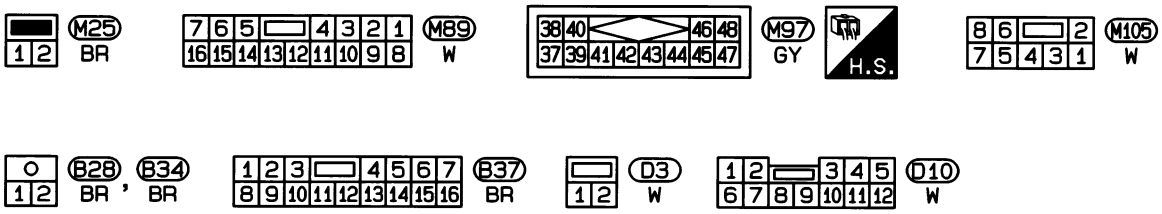






HEL400B

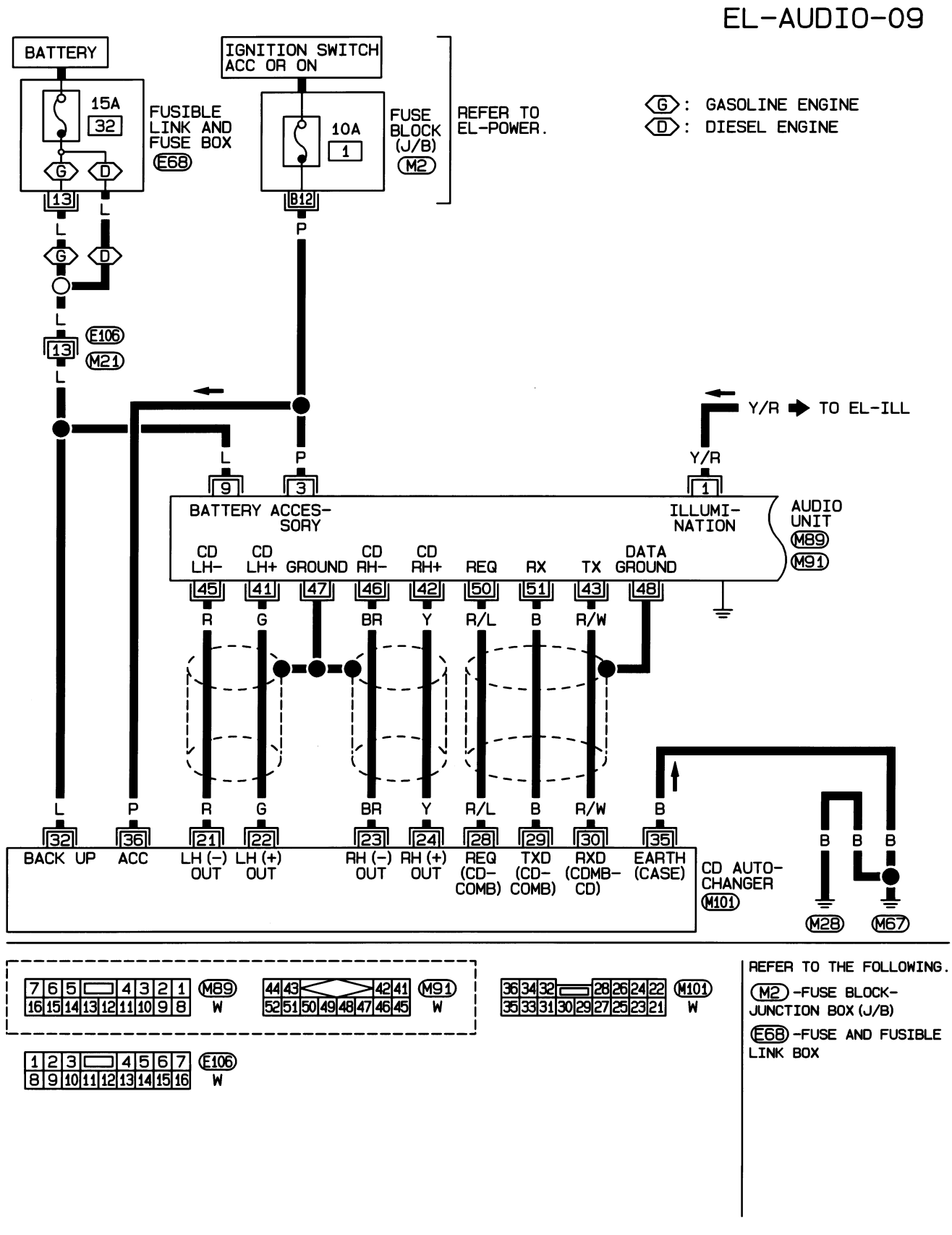

EL-AUDIO-08
AUDIO UNIT M89
RR SPKR LH+
RR SPKR LH−
RR SPKR RH+
RR SPKR RH−
FR SPKR LH+
FR SPKR LH−
12
13
16
7
11
10
OR
B/P
GY
GY/R
*2
*1
6S : WITH 6-SPEAKERS
NV : WITH NAVIGATION SYSTEM
ON : WITHOUT NAVIGATION SYSTEM
*1 ··· NV LG/R, ON G/Y
*2 ··· NV LG/B, ON PU
NAVI CONTROL UNIT M97 NV
GUIDE RLY+
GUIDE +
GUIDE GND
GUIDE RLY−
46
42
43
44
L/R
GY/R
GY
L/Y
LG/B
LG/R
3
5
2
6
7
ON
4
8
1
SPEAKER RELAY M105 : NV
PU
G/Y
L/Y
6S
OR
B/P
GY
GY/R
M82
B37
9
8
16
15
M75
D10
12
11
REAR SPEAKER LH B28
REAR SPEAKER RH B34
FRONT DOOR SPEAKER LH D3
PILLAR TWEETER LH M25 : 6S


M25
BR
M89
W
M97
GY
H.S.
M105
W
B28
BR
B34
BR
B37
BR
D3
W
D10
W

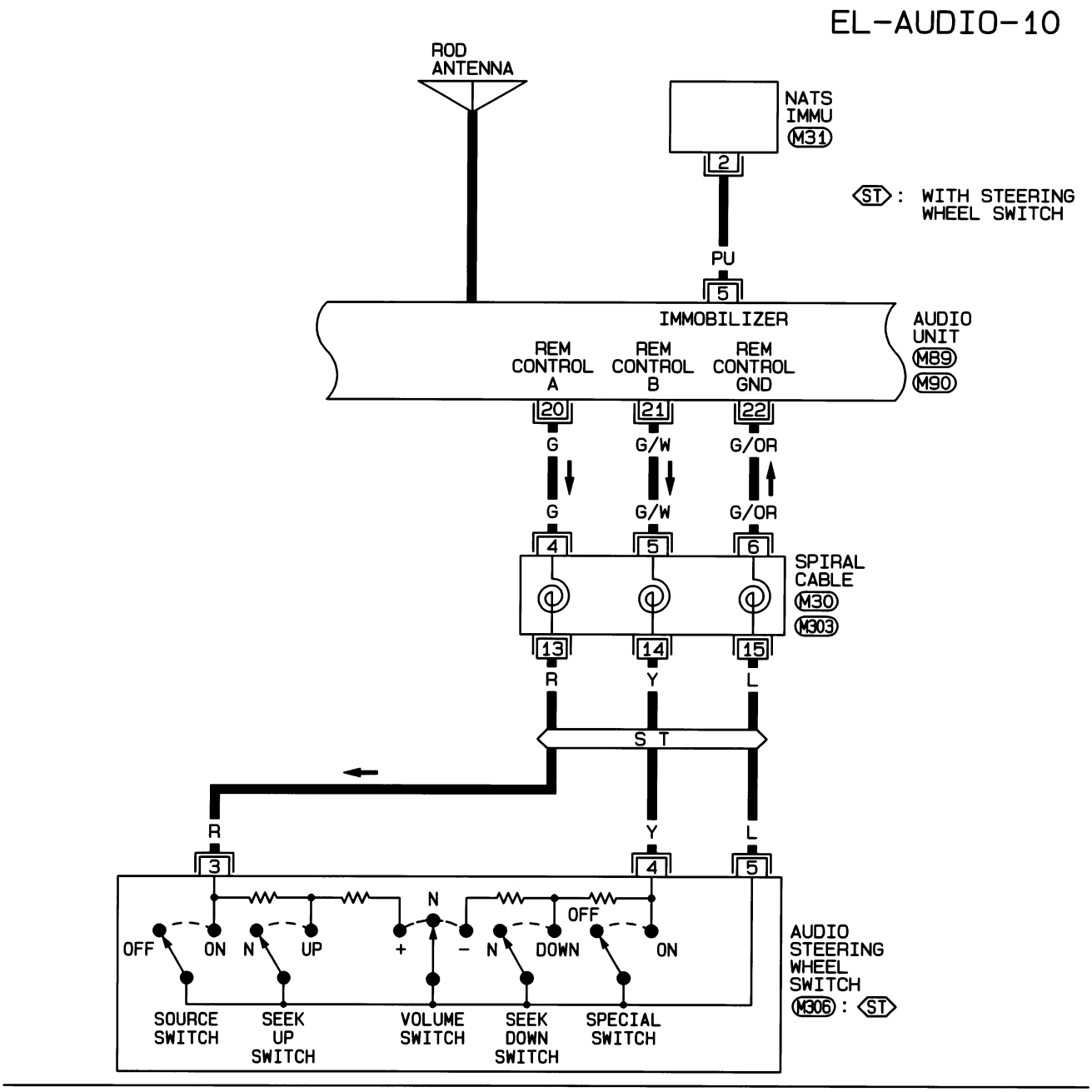
HEL401B

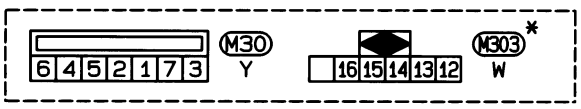
RHD MODELS

NJEL0383S02

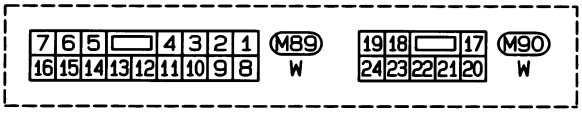


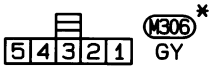
HEL402B







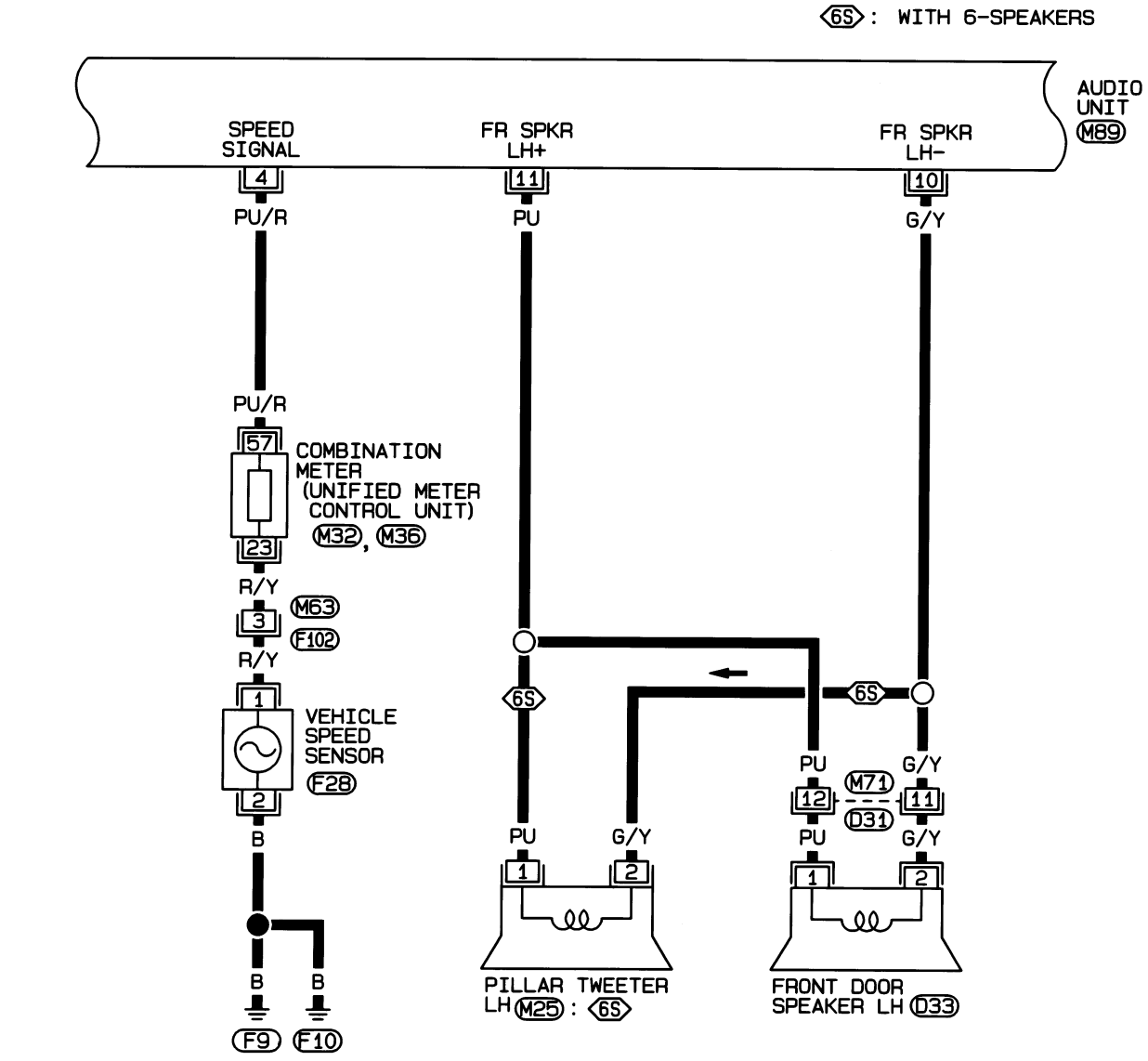


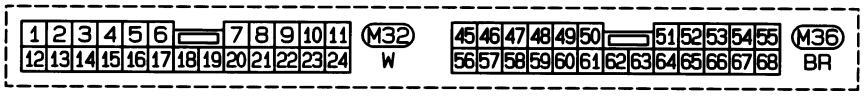


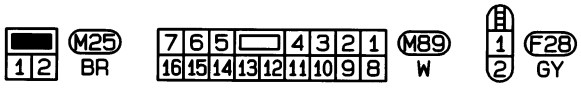
* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT".

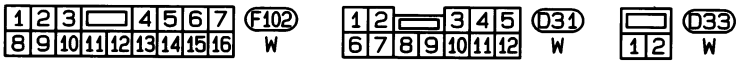
HEL403B

EL-AUDIO-11

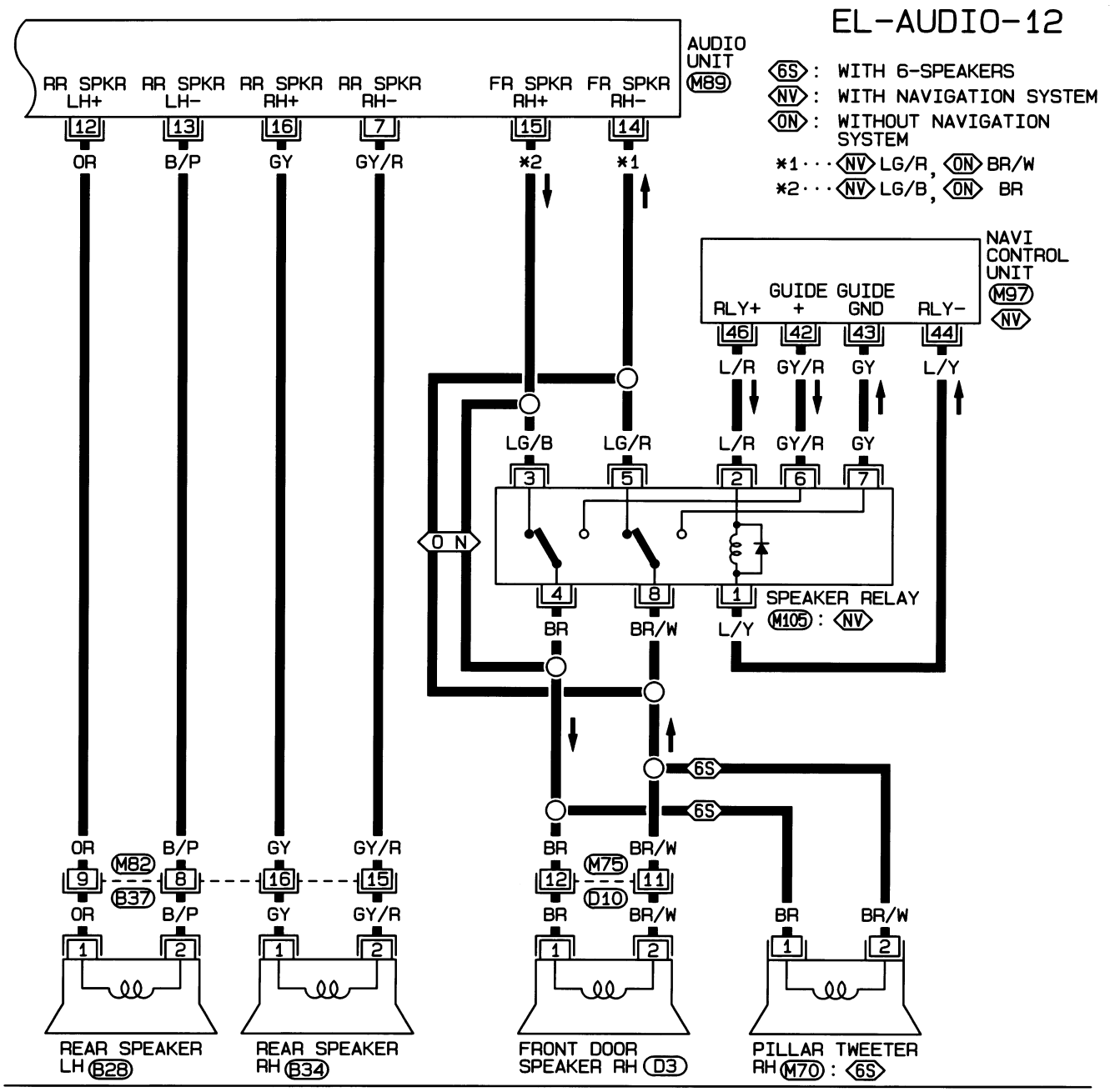








HEL404B


EL-AUDIO-12
AUDIO UNIT M89
RR SPKR LH+
RR SPKR LH−
RR SPKR RH+
RR SPKR RH−
FR SPKR RH+
FR SPKR RH−
12
13
16
7
15
14
OR
B/P
GY
GY/R
*2
*1
6S : WITH 6-SPEAKERS
NV : WITH NAVIGATION SYSTEM
ON : WITHOUT NAVIGATION SYSTEM
*1 ··· NV LG/R, ON BR/W
*2 ··· NV LG/B, ON BR
NAVI CONTROL UNIT M97 NV
GUIDE RLY+
GUIDE +
GUIDE GND
GUIDE RLY−
46
42
43
44
L/R
GY/R
GY
L/Y
LG/B
LG/R
3
5
2
6
7
ON
4
8
1
SPEAKER RELAY M105 : NV
BR
BR/W
L/Y
6S
6S
OR
B/P
GY
GY/R
M82
B37
9
8
16
15
M75
D10
12
11
REAR SPEAKER LH B28
REAR SPEAKER RH B34
FRONT DOOR SPEAKER RH D3
PILLAR TWEETER RH M70 : 6S
M70 BR
M89 W
M97 GY
H.S.
M105 W
B28 BR , B34 BR
B37 BR
D3 W
D10 W

HEL405B

System Description/Hatchback

=NJEL0497

Refer to Owner's Manual for audio system operating instructions.
Power is supplied at all times

- through 15A fuse (No. 32, located in the fusible link and fuse block)
- to audio unit terminal 9
- to CD auto changer terminal 32.

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

- through 10A fuse [No. 1, located in the fuse block (J/B)]
- to audio unit terminal 3,
- to CD auto changer terminal 36 and

Ground is supplied through the case of the audio unit.
Audio signals are supplied

- through audio unit terminals 7, 10, 11, 12, 13, 14, 15, 16
- to terminals 1 and 2 of front door speaker LH and RH,
- to terminals 1 and 2 of rear door speaker LH and RH and
- to terminals 1 and 2 of pillar tweeter LH and RH (with 6 speakers)

When the navigation system is triggered,
power is supplied

- through navi control unit terminal 46
- to speaker relay terminal 2

Ground is supplied

- through navi control unit terminal 44
- to speaker relay terminal 1

With power and ground supplied, the relay is energized, and then audio signal is interrupted to front door speaker RH (LHD models) or LH (RHD models), and pillar tweeter RH (LHD models) or LH (RHD models)
For detailed, refer to "NAVIGATION SYSTEM".

NATS AUDIO LINK

NJEL0497S01

Description

NJEL0497S0101

The link with the NATS IMMU implies that the audio unit can basically only be operated if connected to the matching NATS IMMU to which the audio unit was initially fitted on the production line.
Since radio operation is impossible after the link with the NATS is disrupted theft of the audio unit is basically useless since special equipment is required to reset the audio unit.

Initialization process for audio units that are linked to the NATS IMMU

New audio units will be delivered to the factories in the "NEW" state, i.e. ready to be linked with the vehicle's NATS. When the audio unit in "NEW" state is first switched on at the factory, it will start up communication with the vehicle's immobiliser control unit (IMMU) and send a code (the "audio unit Code") to the IMMU. The IMMU will then store this code, which is unique to each audio unit, in its (permanent) memory.
Upon receipt of the code by the IMMU, the NATS will confirm correct receipt of the audio unit code to the audio unit. Hereafter, the audio unit will operate as normal.
During the initialisation process, "NEW" is displayed on the audio unit display. Normally though, communication between audio unit and IMMU takes such a short time (300 ms) that the audio unit seems to switch on directly without showing "NEW" on its display.

Normal operation

Each time the audio unit is switched on afterwards, the audio unit code will be verified between the audio unit and the NATS before the audio unit becomes operational. During the code verification process, "WAIT" is shown on the audio unit display. Again, the communication takes such a short time (300 ms) that the audio unit seems to switch on directly without showing "WAIT" on its display.

When the radio is locked

In case of a audio unit being linked with the vehicle's NATS (immobilizer system), disconnection of the link between the audio unit and the IMMU will cause the audio unit to switch into the lock ("SECURE") mode in which the audio unit is fully inoperative. Hence, repair of the audio unit is basically impossible, unless the audio unit is reset to the "NEW" state for which special decoding equipment is required.
Clarion has provided their authorized service representatives with so called "decoder boxes" which can bring the audio unit back to the "NEW" state, enabling the audio unit to be switched on after which repair can be

carried out. Subsequently, when the repaired audio unit is delivered to the final user again, it will be in the "NEW" state as to enable re-linking the audio unit to the vehicle's immobiliser system. As a result of the above, repair of the audio unit can only be done by an authorized Clarion representative.

SPEED DEPENDENT VOLUME CONTROL

NJEL0497S02

Description

NJEL0497S0201

If activated, the radio output volume will be automatically adjusted to compensate for increasing driving noises at higher driving speeds.
The radio receives a speed signal from the vehicle speed sensor (VSS) and selects the output volume.

PERSONAL AUDIO SETTINGS

NJEL0497S03

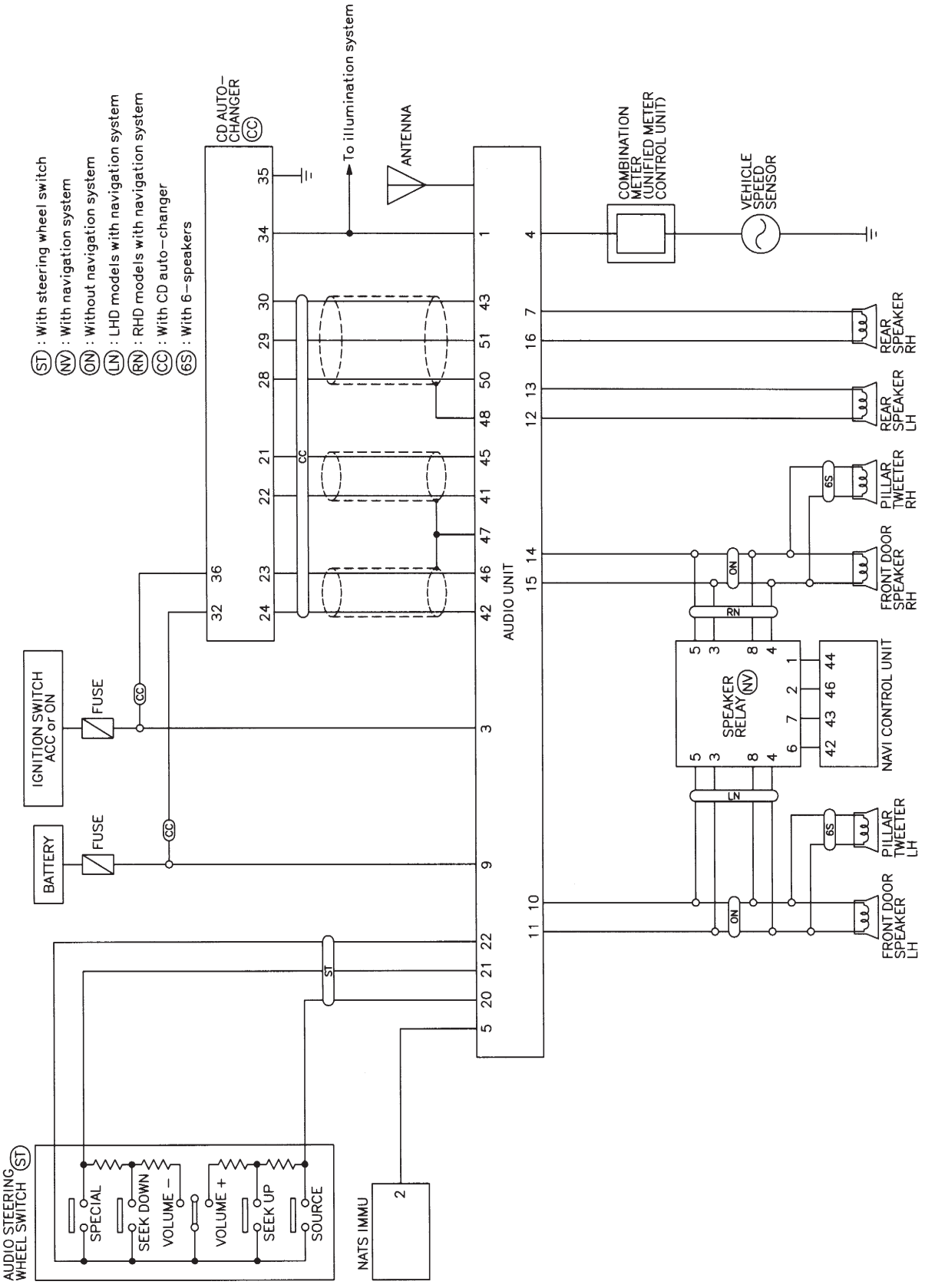
Description

NJEL0497S0301

The radio is designed to store several settings (volume, bass, treble, preset stations and level of speed dependent volume control) with every NATS ignition key used. Up to a maximum of 4 NATS keys can be registered. During the communication as mentioned under "NATS audio link", the radio will recognize the used ignition key and select the accompanying settings.

Schematic/Hatchback

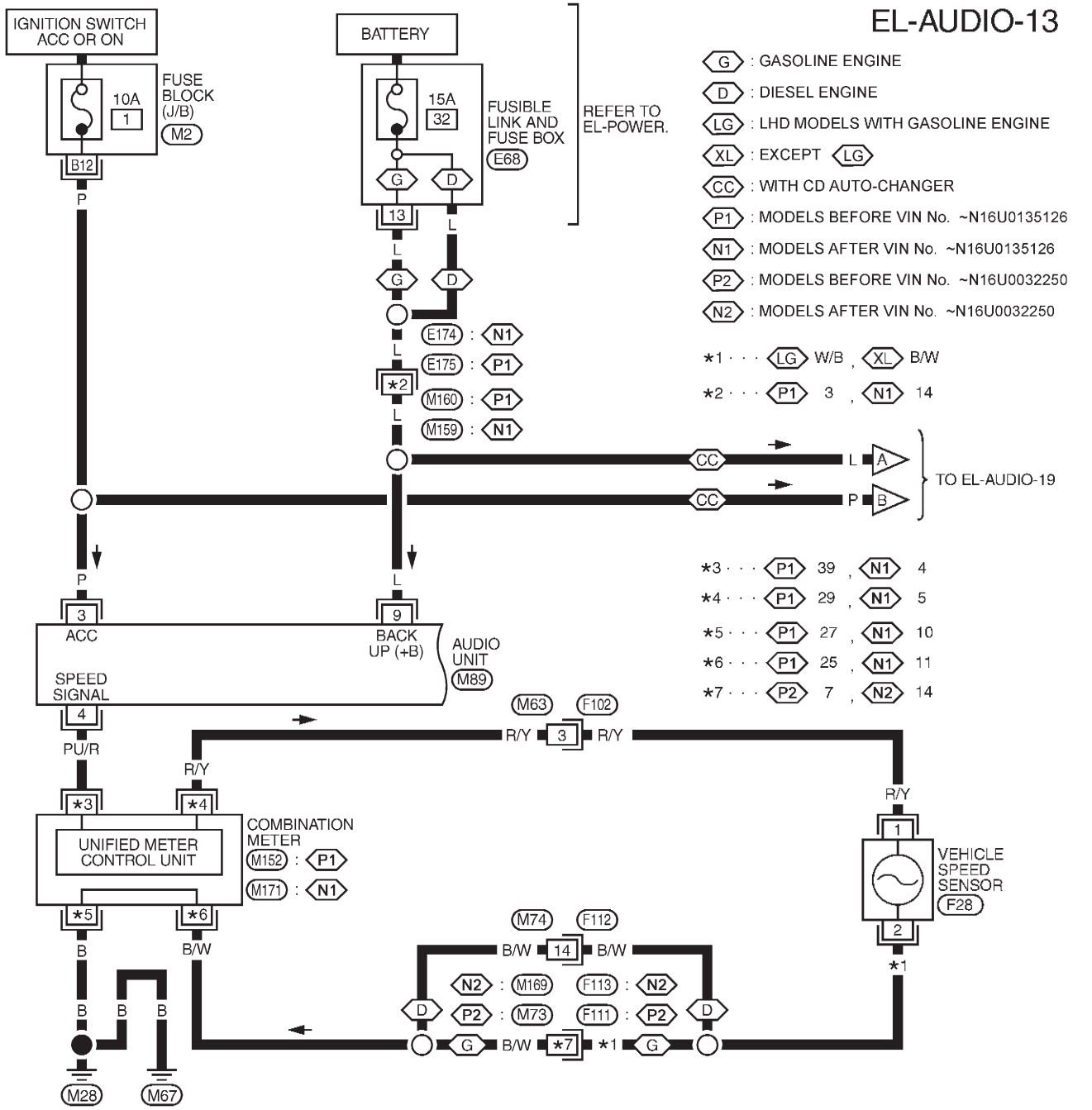
NJEL0466

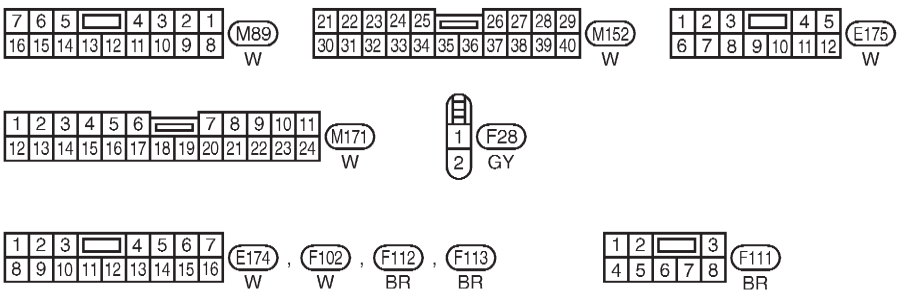


MEL893L

Wiring Diagram — AUDIO —/Hatchback

NJEL0467



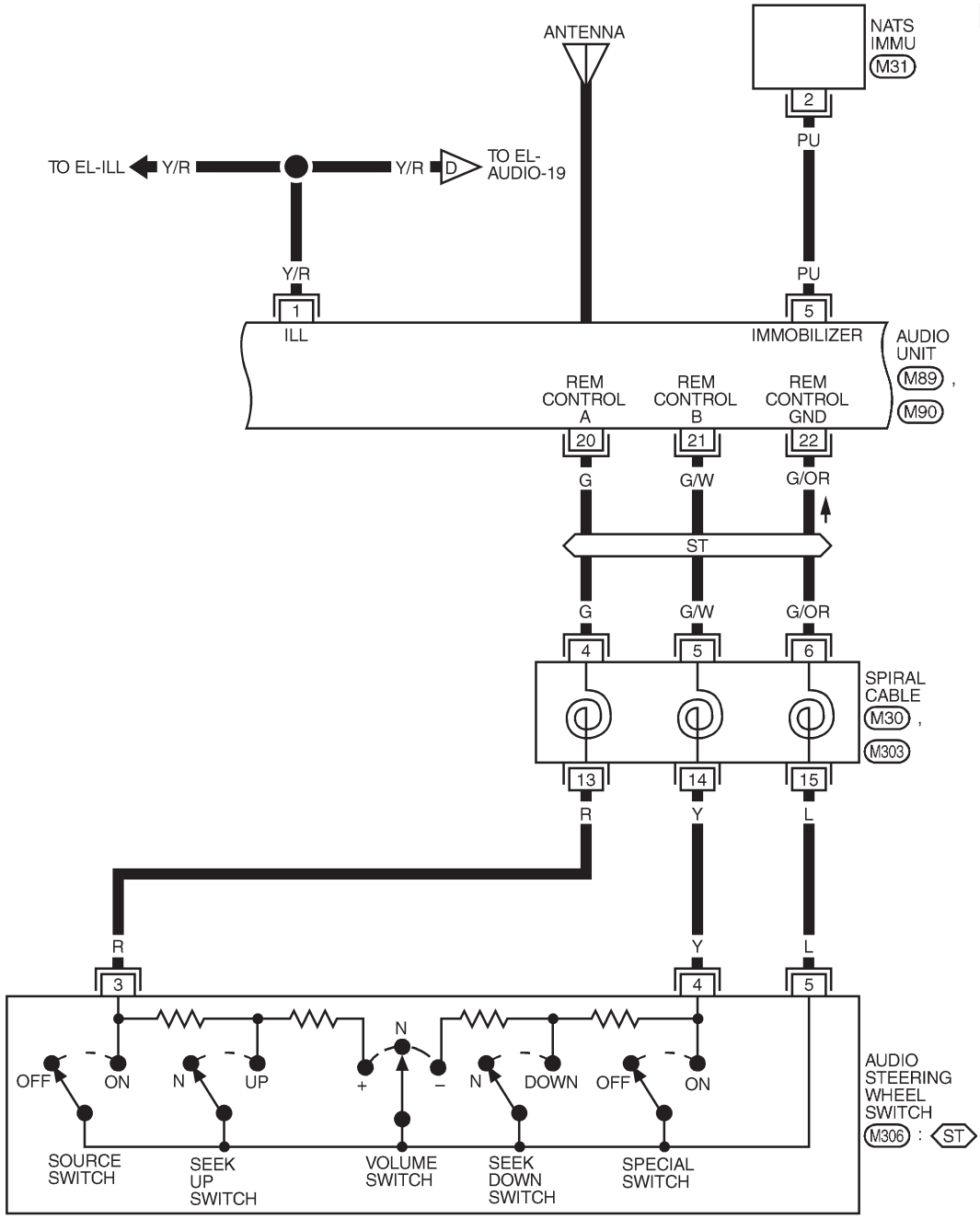


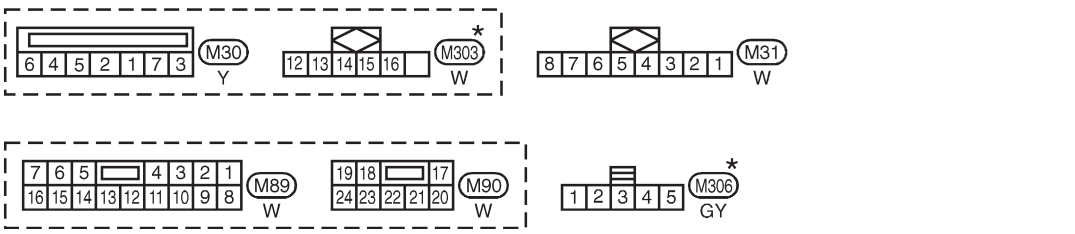
REFER TO THE FOLLOWING.
M2 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 -FUSE AND FUSIBLE LINK BOX

YEL369C

EL-AUDIO-14

ST : WITH STEERING WHEEL SWITCH

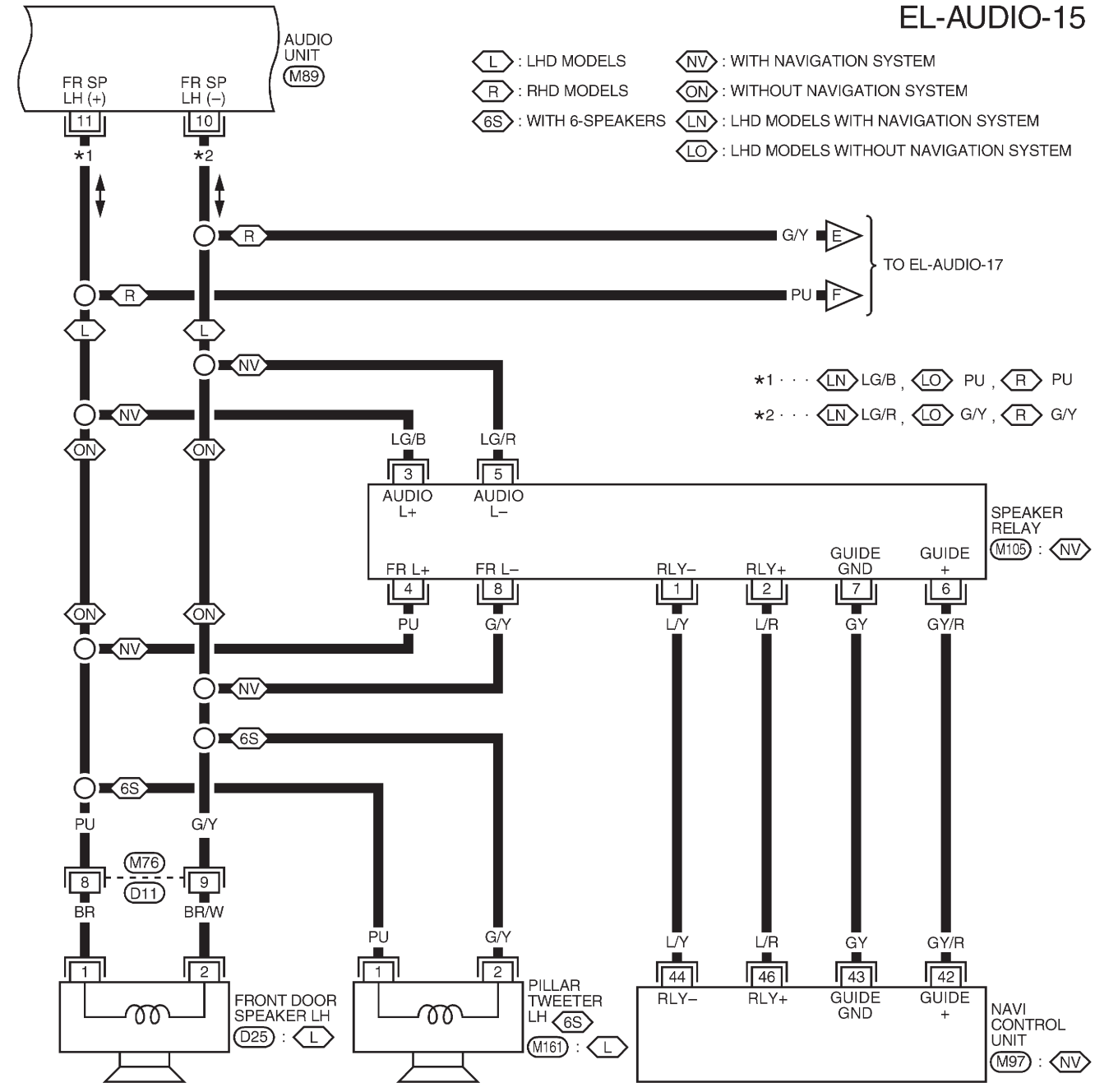


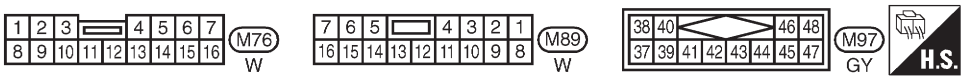


* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", EL SECTION.

MEL895L

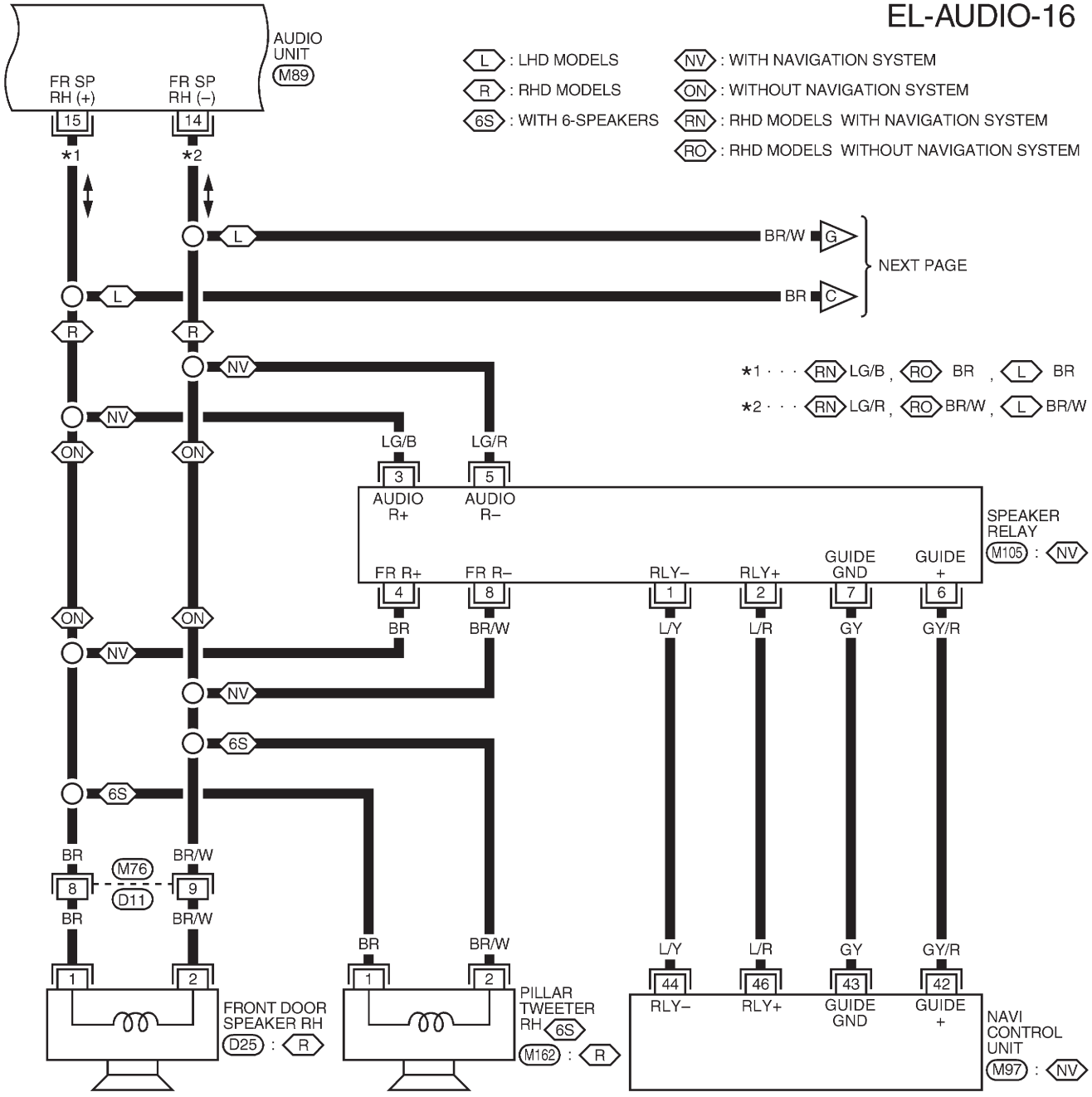
Wiring Diagram — AUDIO —/Hatchback (Cont'd)

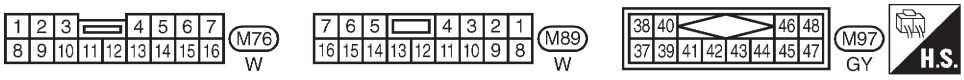


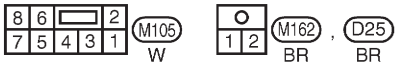


MEL896L

EL-AUDIO-16



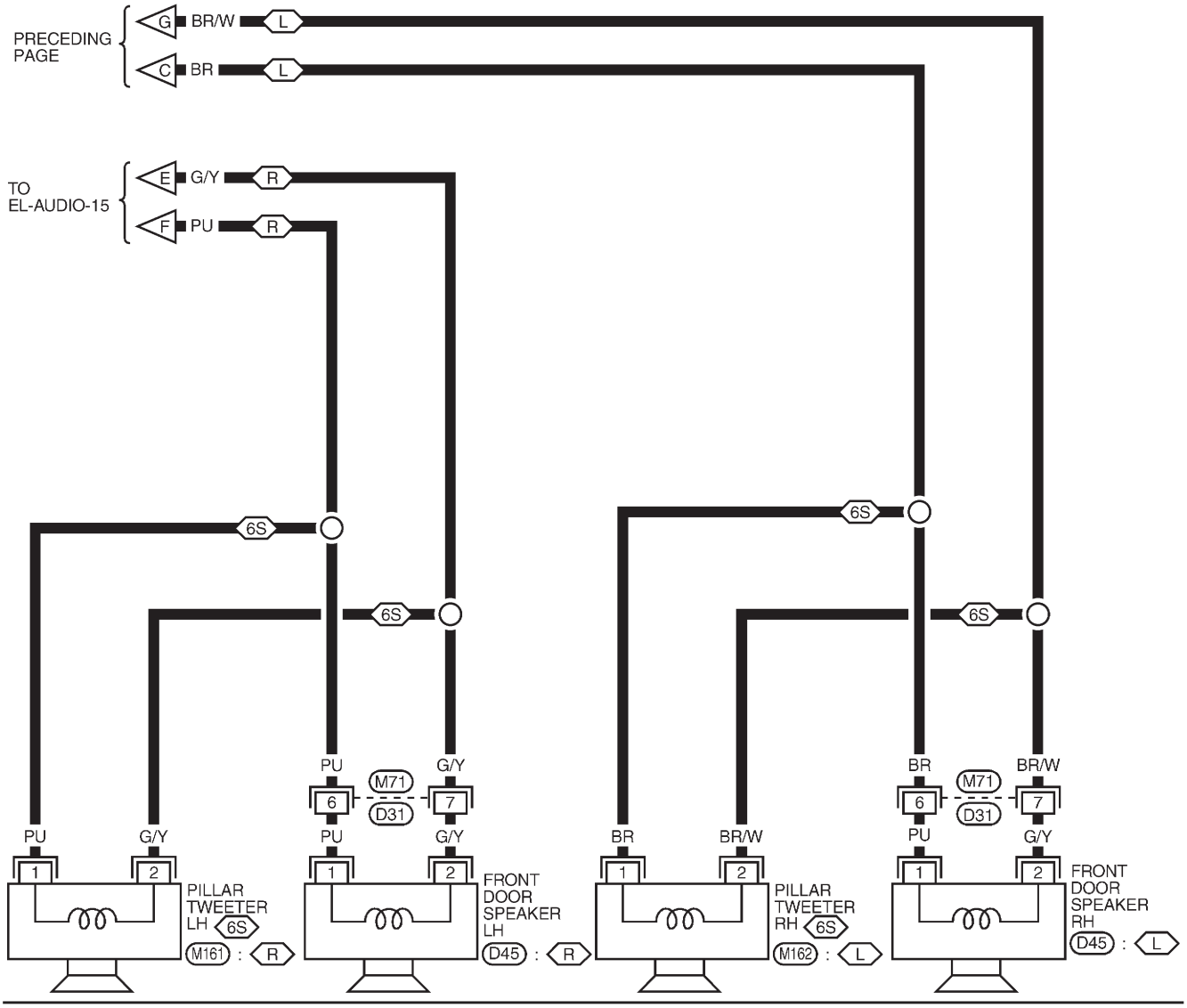




MEL897L

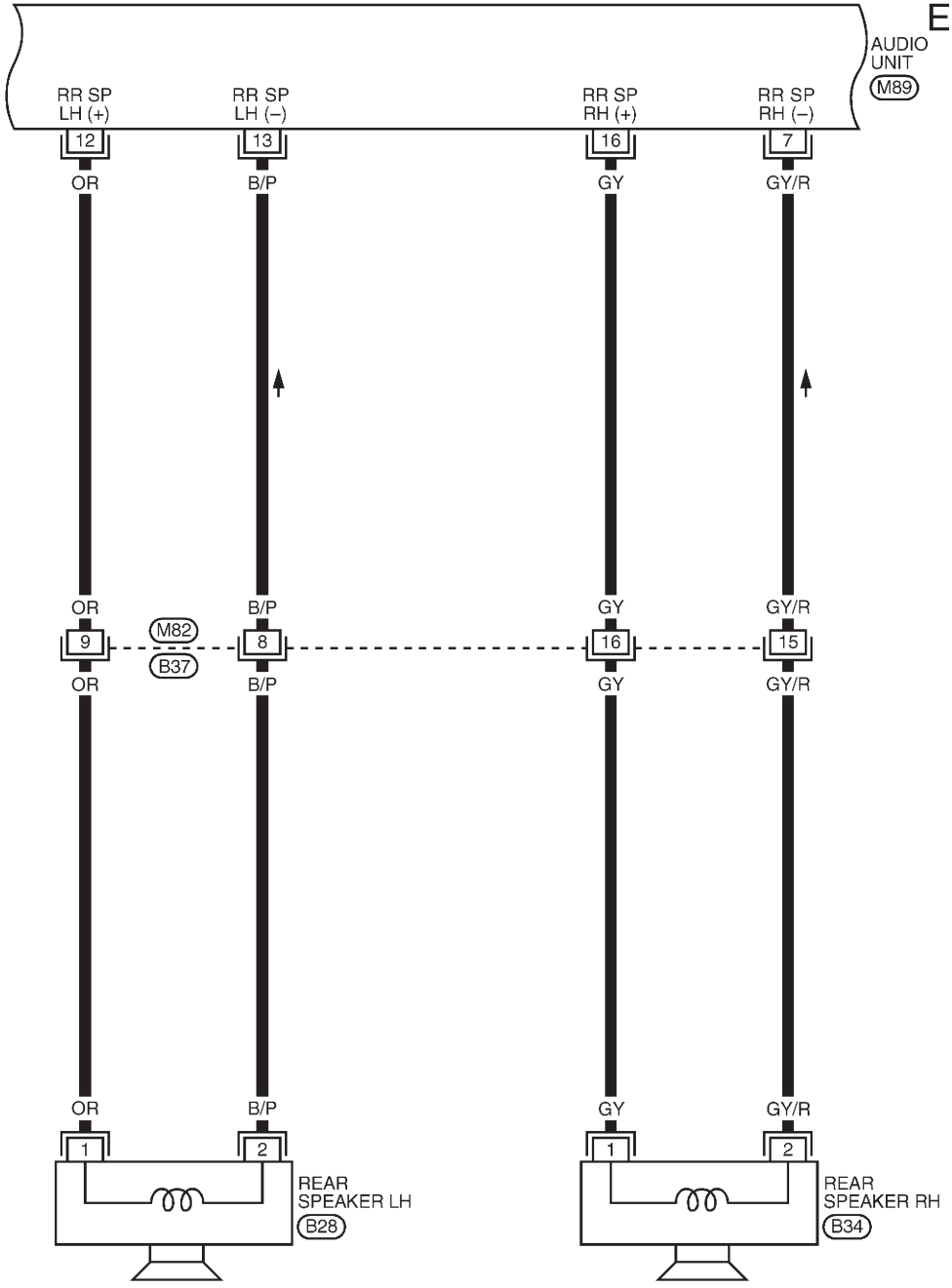
EL-AUDIO-17

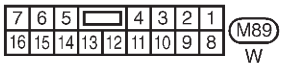
L : LHD MODELS
R : RHD MODELS
6S : WITH 6-SPEAKERS



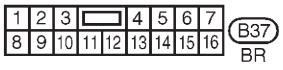
MEL898L

EL-AUDIO-18



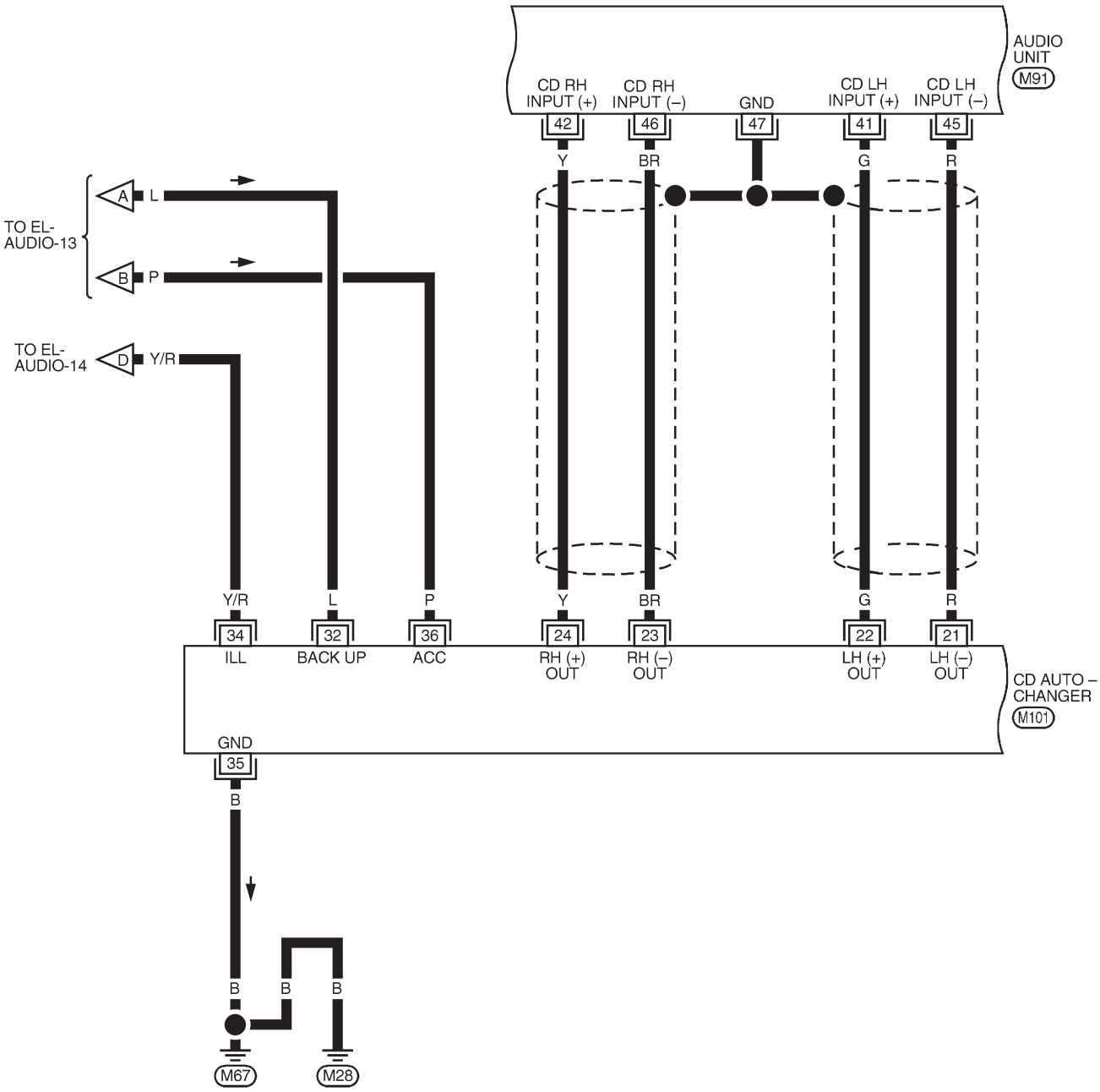


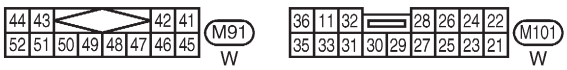




MEL899L

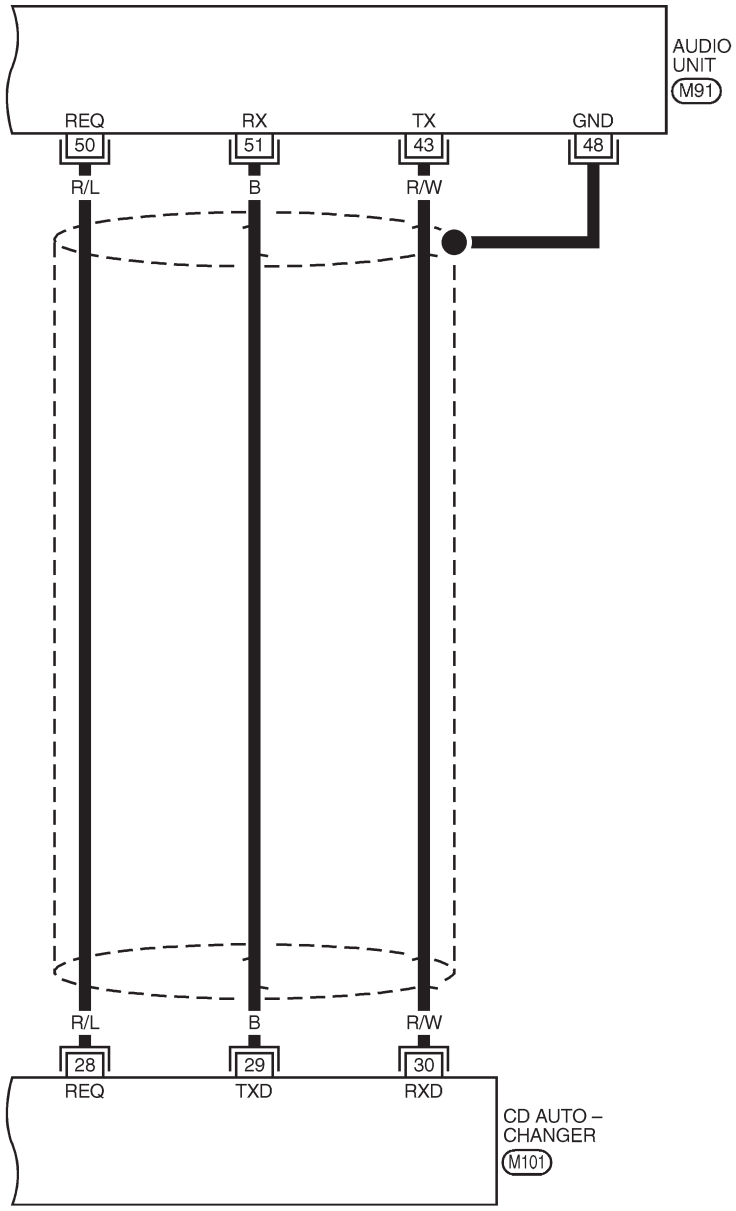
EL-AUDIO-19



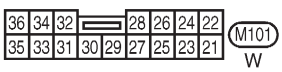


MEL900L

EL-AUDIO-20







MEL901L

Trouble Diagnoses

NJEL0385

AUDIO UNIT

NJEL0385S05

Symptom	Possible causes	Repair order
Audio unit inoperative (no digital display and no sound from speakers).	1. 10A fuse 2. Poor audio unit case ground 3. Audio unit	1. Check 10A fuse [No. 1, located in fuse block (J/B)]. Turn ignition switch ON and verify that battery positive voltage is present at terminal 3 of audio unit. 2. Check audio unit case ground. 3. Remove audio unit for repair.
Audio unit presets are lost when ignition switch is turned OFF.	1. 15A fuse 2. Audio unit	1. Check 15A fuse [No. 32, located in fuse block (J/B)] and verify that battery positive voltage is present at terminal 9 of audio unit. 2. Remove audio unit for repair.
Individual rear speaker is noisy or inoperative.	1. Each speaker 2. Output circuit to each speaker	1. Check speaker. 2. Check the output circuits to each speaker ● between audio unit and speaker amp. ● between speaker amp. and each speaker.
AM/FM stations are weak or noisy.	1. Roof antenna 2. Audio unit ground 3. Audio unit	1. Check roof antenna. 2. Check audio unit ground condition. 3. Remove audio unit for repair.
Audio unit generates noise in AM and FM modes with engine running.	1. Poor audio unit ground 2. Loose or missing ground bonding straps 3. Ignition condenser or rear window defogger noise suppressor condenser 4. Ignition coil or secondary wiring 5. Audio unit	1. Check audio unit ground. 2. Check ground bonding straps. 3. Replace ignition condenser or rear window defogger noise suppressor condenser. 4. Check ignition coil and secondary wiring. 5. Remove audio unit for repair.
Audio unit generates noise in AM and FM modes with accessories on (switch pops and motor noise).	1. Poor audio unit ground 2. Antenna 3. Accessory ground 4. Faulty accessory	1. Check audio unit ground. 2. Check antenna. 3. Check accessory ground. 4. Replace accessory.

CD AUTOCHANGER

NJEL0385S06

Testing Magazines and Discs

NJEL0385S0601

1. Confirm discs are installed correctly into the magazine (not upside down).
2. Visually inspect/compare the customer's discs with each other and other discs. Identify any of the following conditions:

- Discs with a large outside diameter. [Normal size is 120 mm (4.72 in).]
- Discs with rough or lipped edges.
- Discs with excessive thickness [Normal size is 1.2 mm (0.047 in).]
- Discs with scratches, abrasions, or pits on the surface.
- Discs with grease/oil, fingerprints, foreign material.
- Discs are warped due to excessive heat exposure.

3. Slide/place the discs in and out of the various magazine positions. Identify any discs and/or positions that require additional force for placement/ejection. If interference (sticking, excessive tensions) is found, replace the magazine or the discs.

NOTE:

- **Discs which are marginally out of specification (ex. dirty, scratched and so on) may play correctly on a home stereo.**
  However, when used in the automotive environment skipping may occur due to the added vehicle movement and/or vibration due to road conditions. Autochangers should not be replaced when discs are at fault.
- **Use a soft damp cloth to wipe the discs starting from the center outward in radial direction. Never use chemical cleaning solutions to clean the discs.**

Inspection

=NJEL0221

AUDIO UNIT

NJEL0221S01

All voltage inspections are made with:

- Ignition switch ON or ACC
- Audio unit ON
- Audio unit connected (If audio unit is removed for inspection, supply a ground to the case using a jumper wire.)

ANTENNA

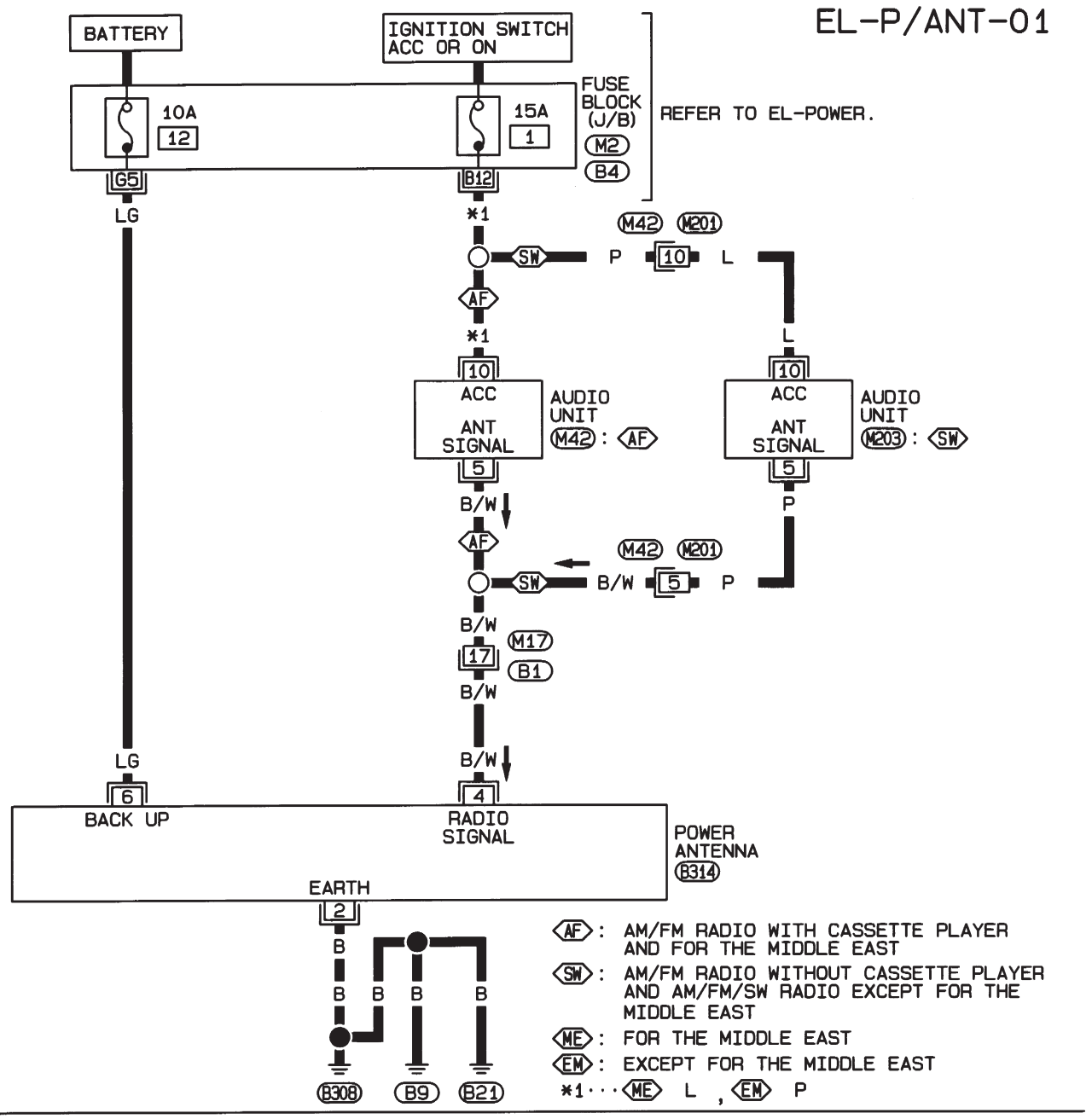
NJEL0221S02

Using a jumper wire, clip an auxiliary ground between antenna and body.

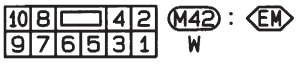
- If reception improves, check antenna ground (at body surface).
- If reception does not improve, check main feeder cable for short circuit or open circuit.

Wiring Diagram — P/ANT —

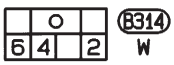
NJEL0085











REFER TO THE FOLLOWING.

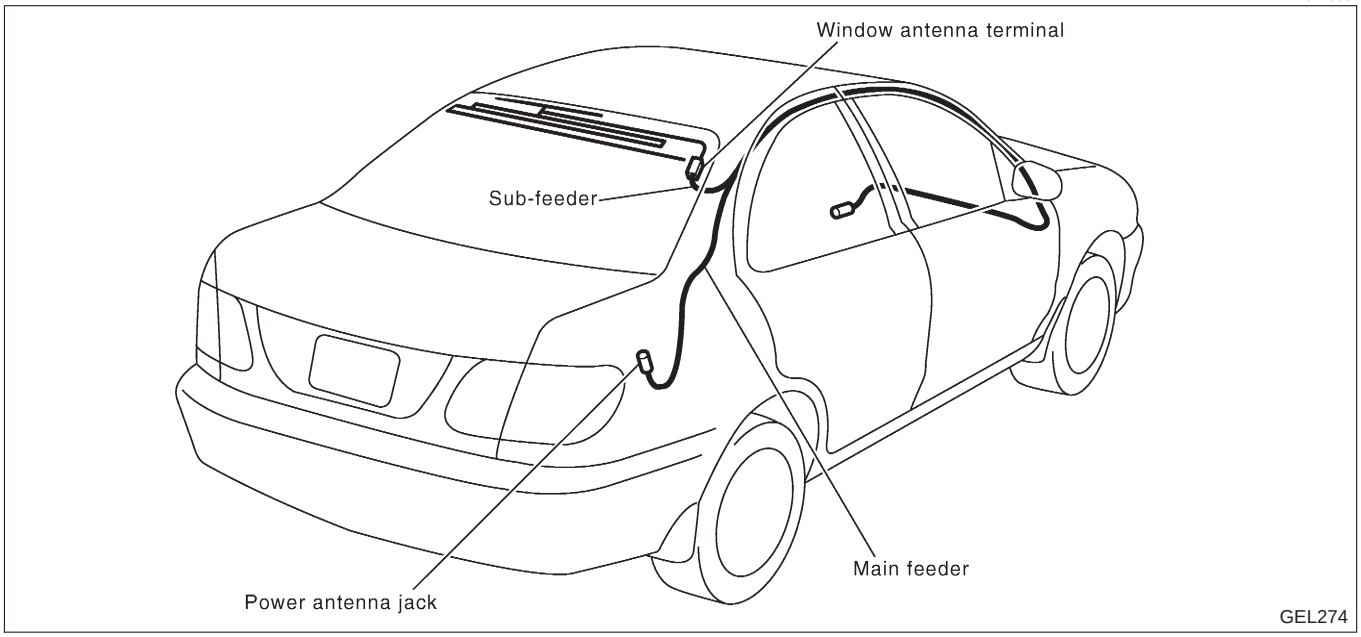
M2, B4 -FUSE BLOCK-JUNCTION BOX (J/B)

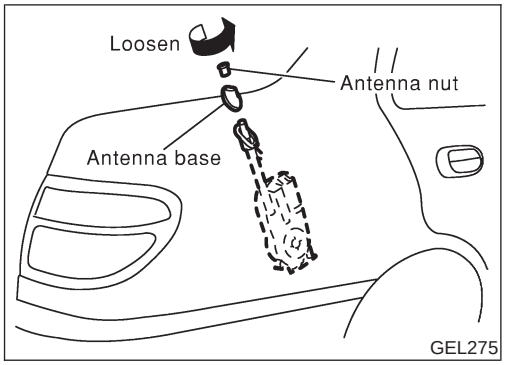
* : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT".

HEL914A

Location of Antenna/Power Antenna

NJEL0087





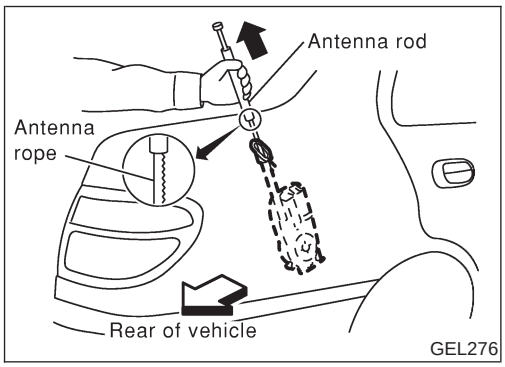
Antenna Rod Replacement/Power Antenna

=NJEL0307

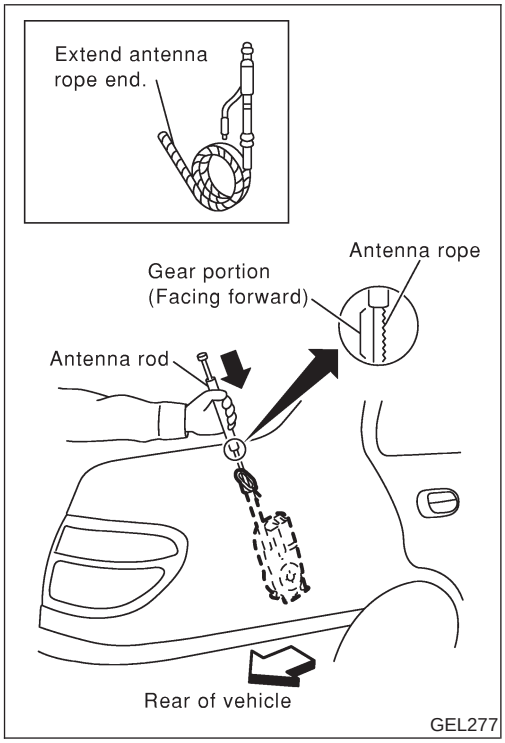
REMOVAL

NJEL0307S01

1. Remove antenna nut and antenna base.



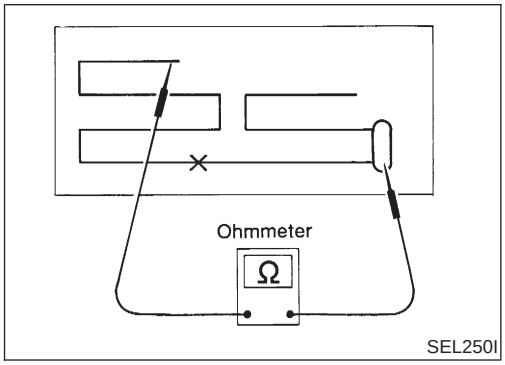
2. Withdraw antenna rod while raising it by operating antenna motor.



INSTALLATION

NJEL0307S02

1. Lower antenna rod by operating antenna motor.
2. Insert gear section of antenna rope into place with it facing toward antenna motor.
3. As soon as antenna rope is wound on antenna motor, stop antenna motor. Insert antenna rod lower end into antenna motor pipe.
4. Retract antenna rod completely by operating antenna motor.
5. Install antenna nut and base.



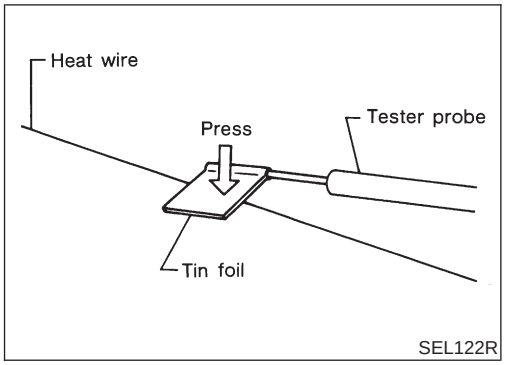
Window Antenna Repair

NJEL0250

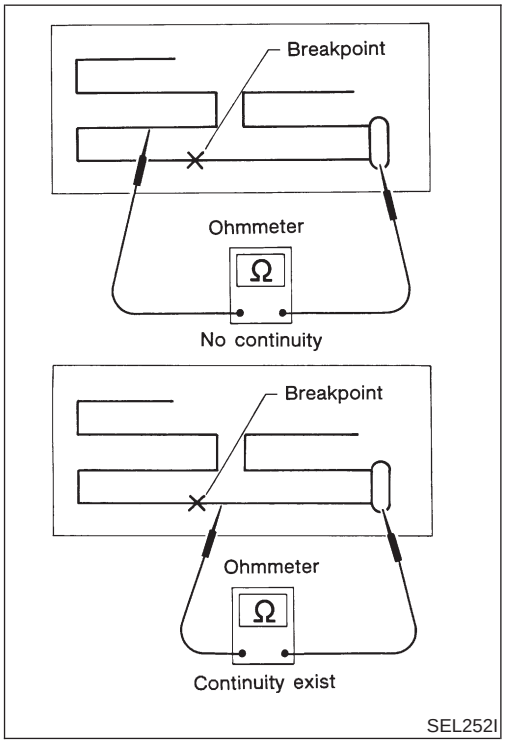
ELEMENT CHECK

NJEL0250S01

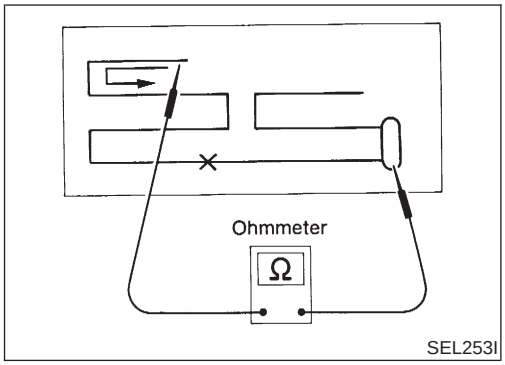
1. Attach probe circuit tester (in ohm range) to antenna terminal on each side.
   If an element is OK, continuity should exist.
   If an element is broken, no continuity should exist. Go to step 2.



- **When measuring continuity, wrap tin foil around the top of probe. Then press the foil against the wire with your finger.**



2. To locate broken point, move probe along element. Tester needle will swing abruptly when probe passes the point.



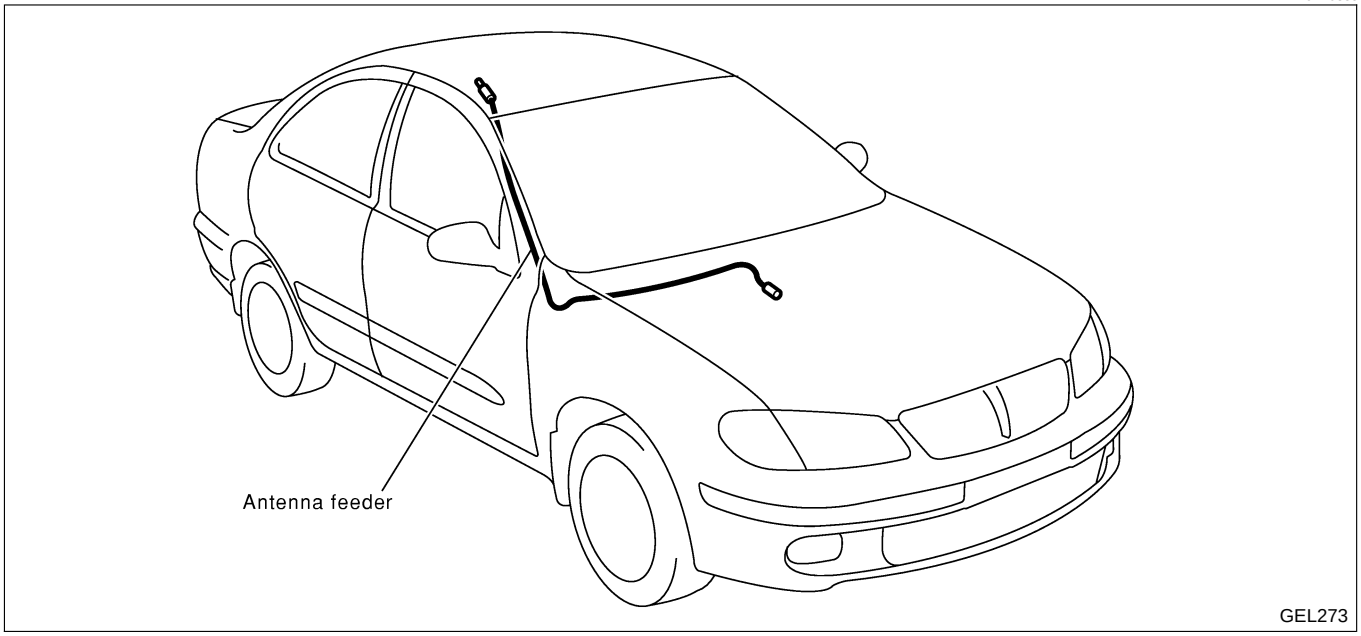
ELEMENT REPAIR

NJEL0250S02

Refer to "Filament Repair", "REAR WINDOW DEFOGGER" (EL-256).

Location of Antenna/Sedan With Manual Antenna

NJEL0335



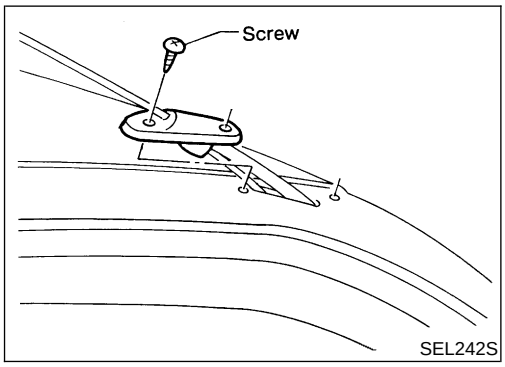
Antenna Rod Replacement/Sedan With Manual Antenna

NJEL0336

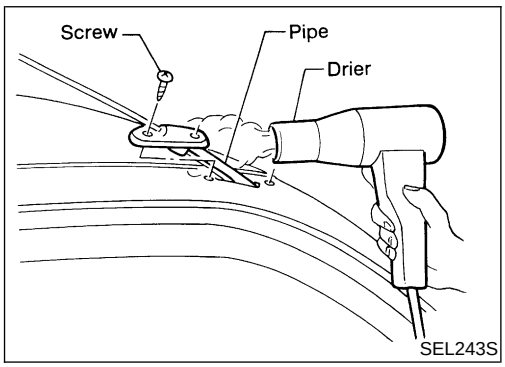
REMOVAL

NJEL0336S01

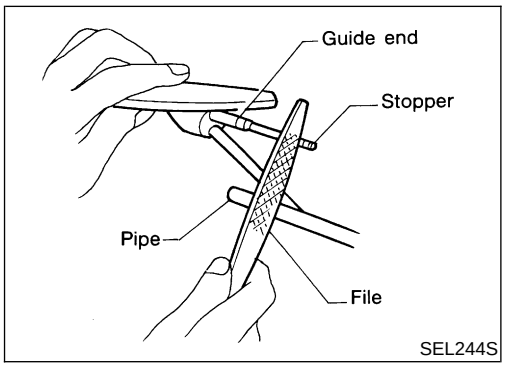
1. Loosen screws securing antenna base.

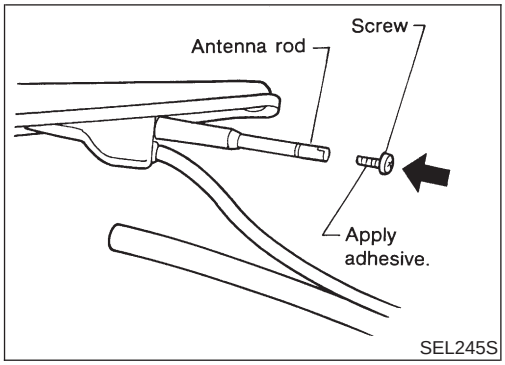


2. Pull out pipe with a drier makes it easier.

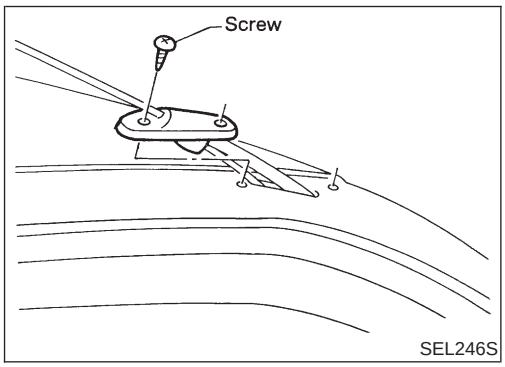


3. Cut off stopper at the end of the antenna rod using a file.
4. Pull out antenna rod from antenna base.





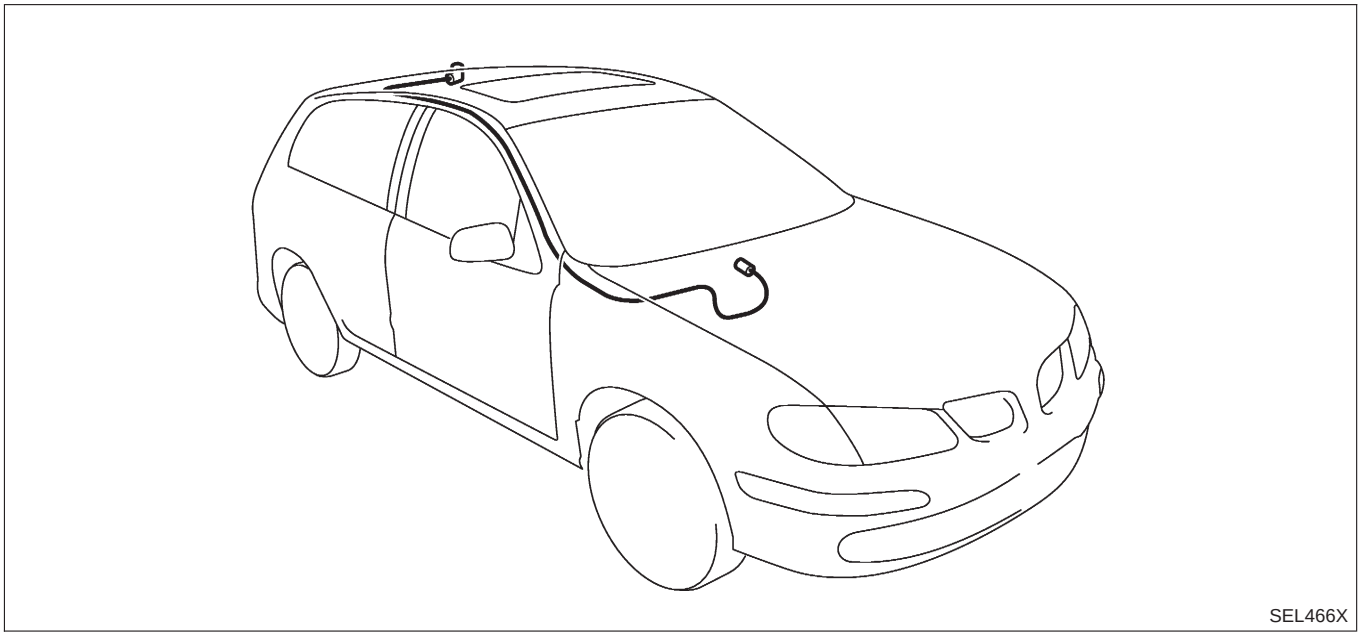
5. Insert new antenna rod into antenna base.
6. Apply adhesive to screw thread and tighten screw.

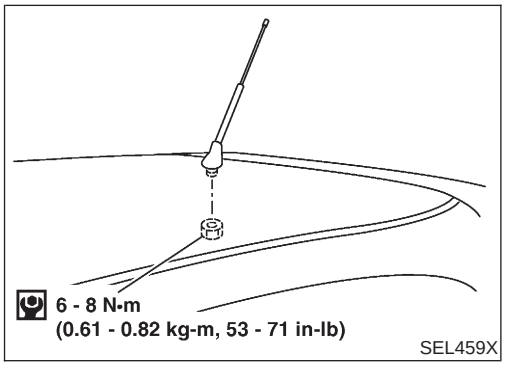


7. Tighten screws to secure antenna base.

Location of Antenna/Hatchback

NJEL0468





Antenna Rod Replacement/Hatchback

NJEL0469

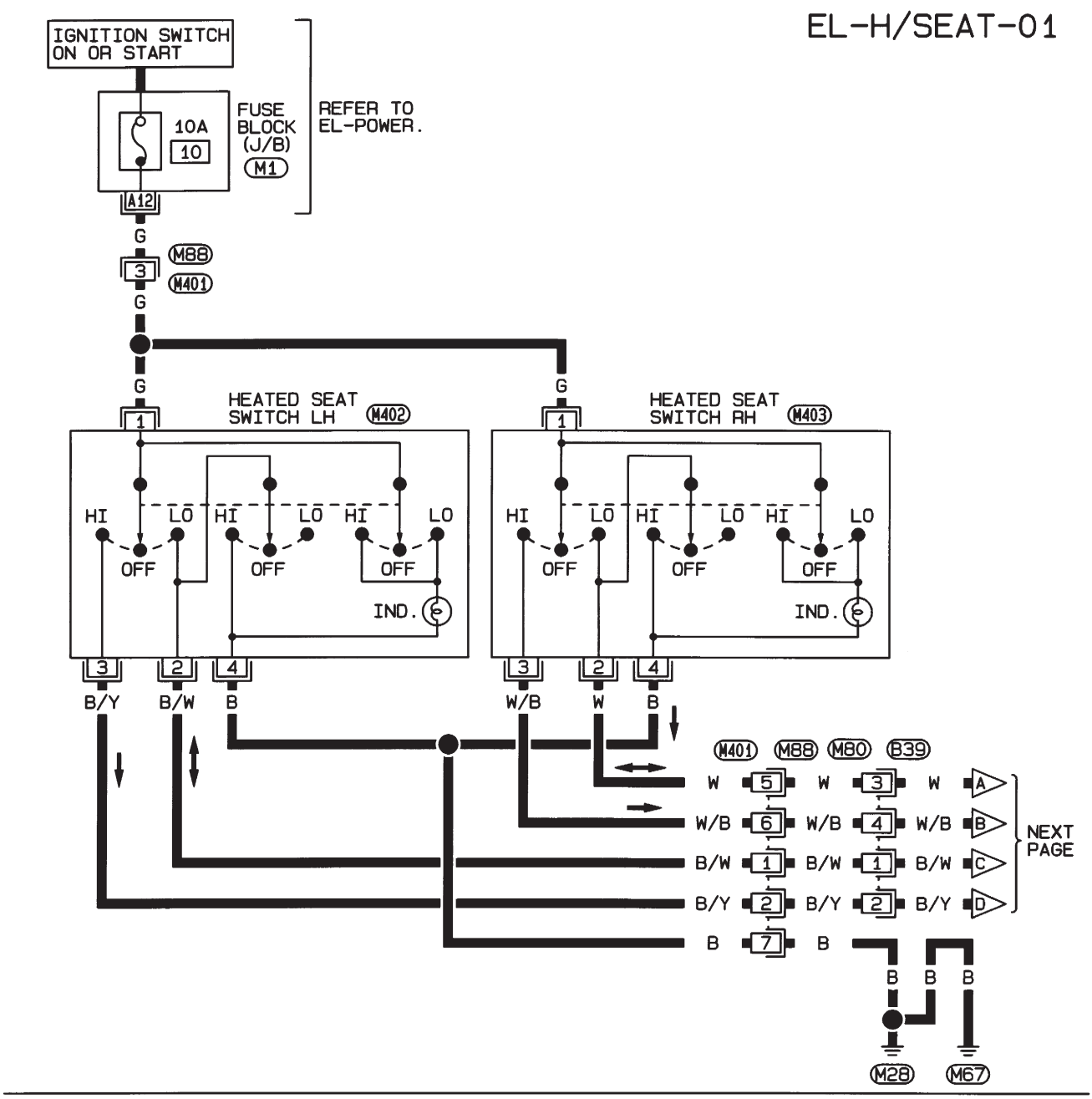
REMOVAL

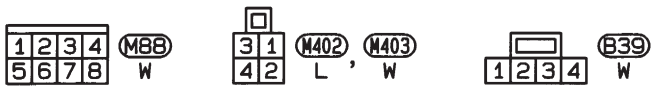
NJEL0469S01

1. Remove rear portion of head lining.
2. Remove antenna nut and antenna base.

Wiring Diagram — H/SEAT —/Sedan

NJEL0388



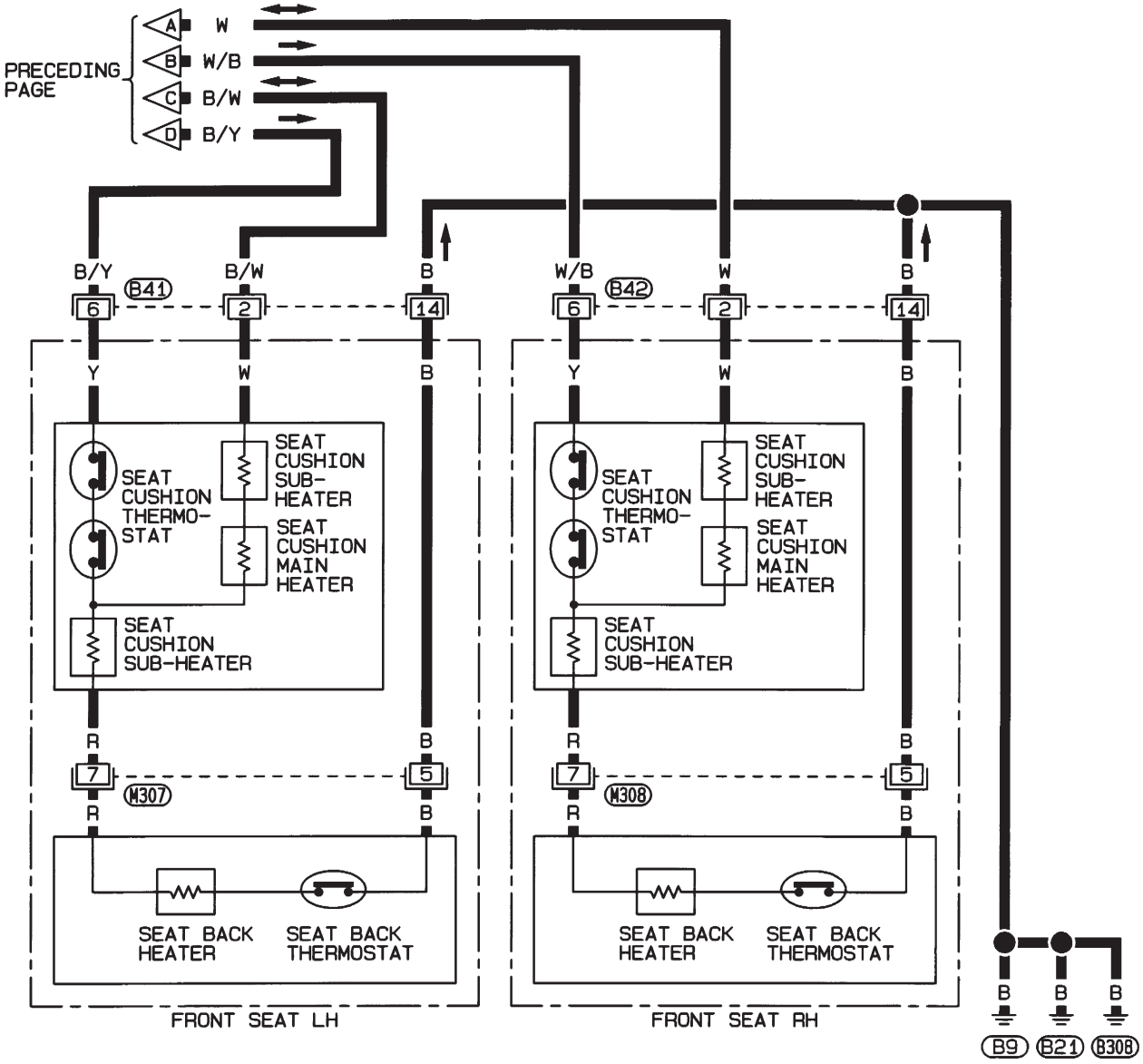


REFER TO THE FOLLOWING.

M1 -FUSE BLOCK- JUNCTION BOX (J/B)

HEL070B

EL-H/SEAT-02





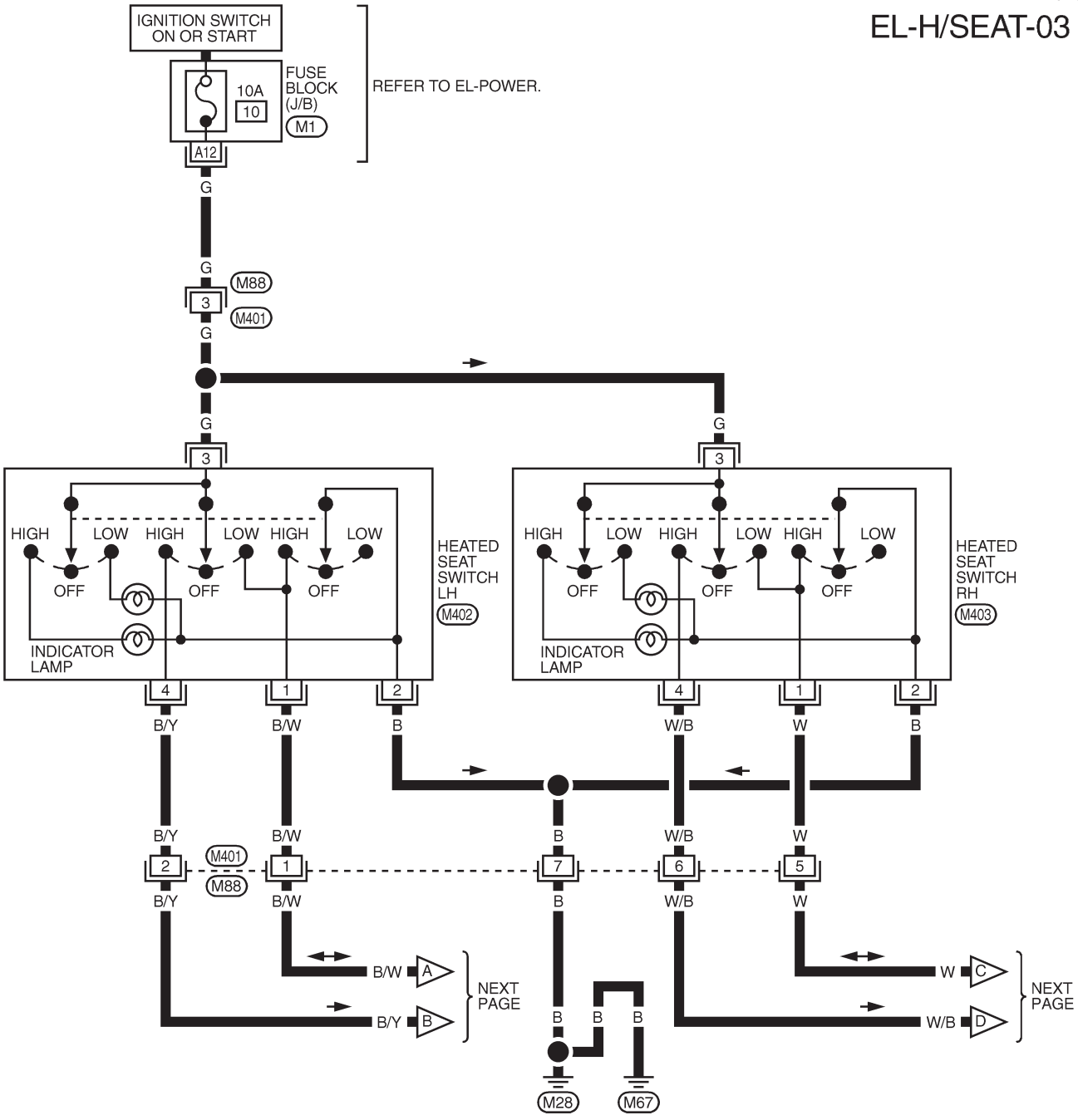
* : This connector is not shown in "HARNESS LAYOUT".

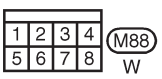
HEL071B

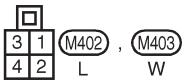
Wiring Diagram — H/SEAT —/Hatchback

NJEL0471

EL-H/SEAT-03



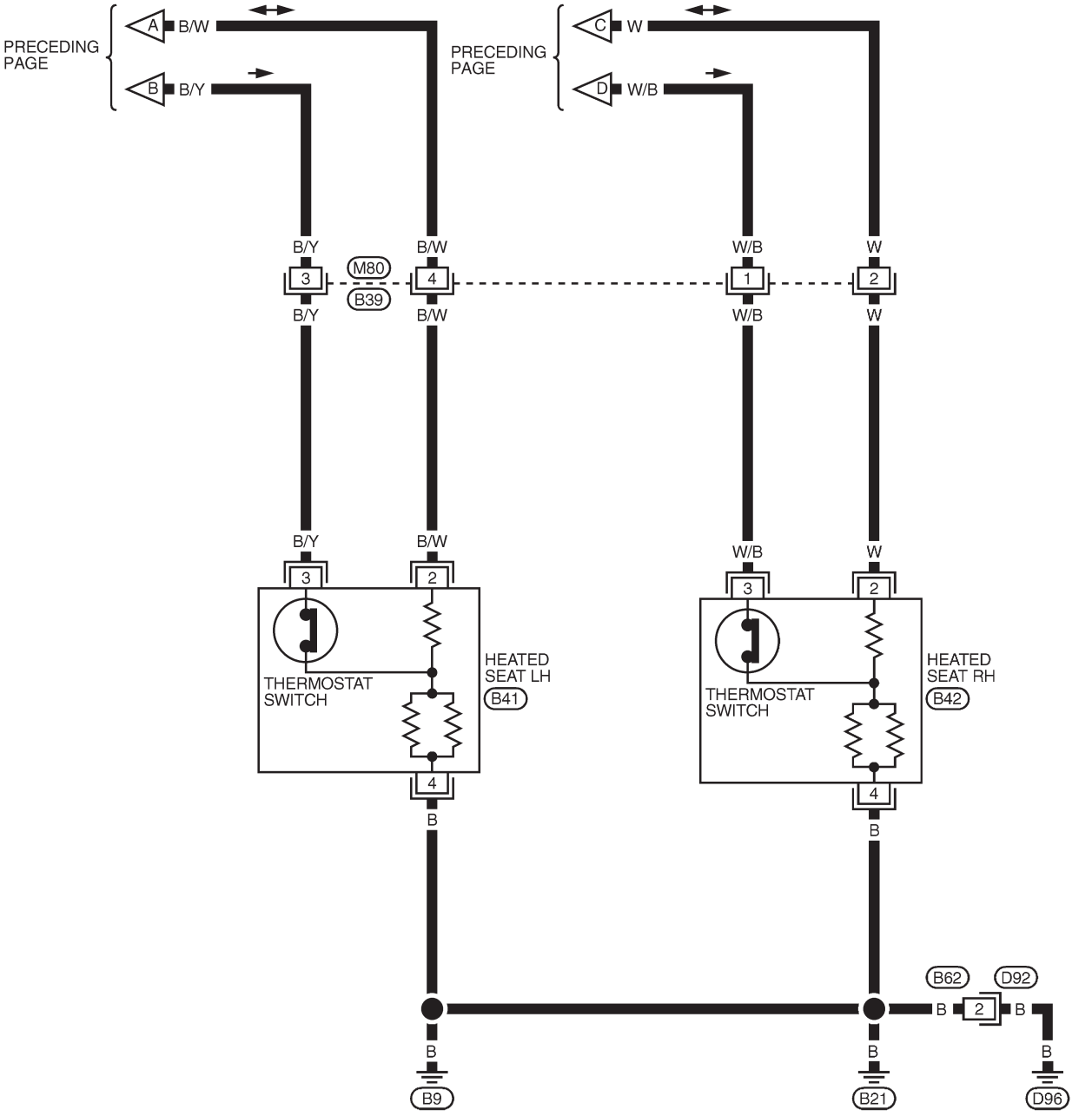


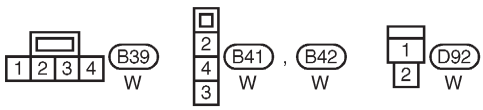


REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B)

MEL914L

EL-H/SEAT-04



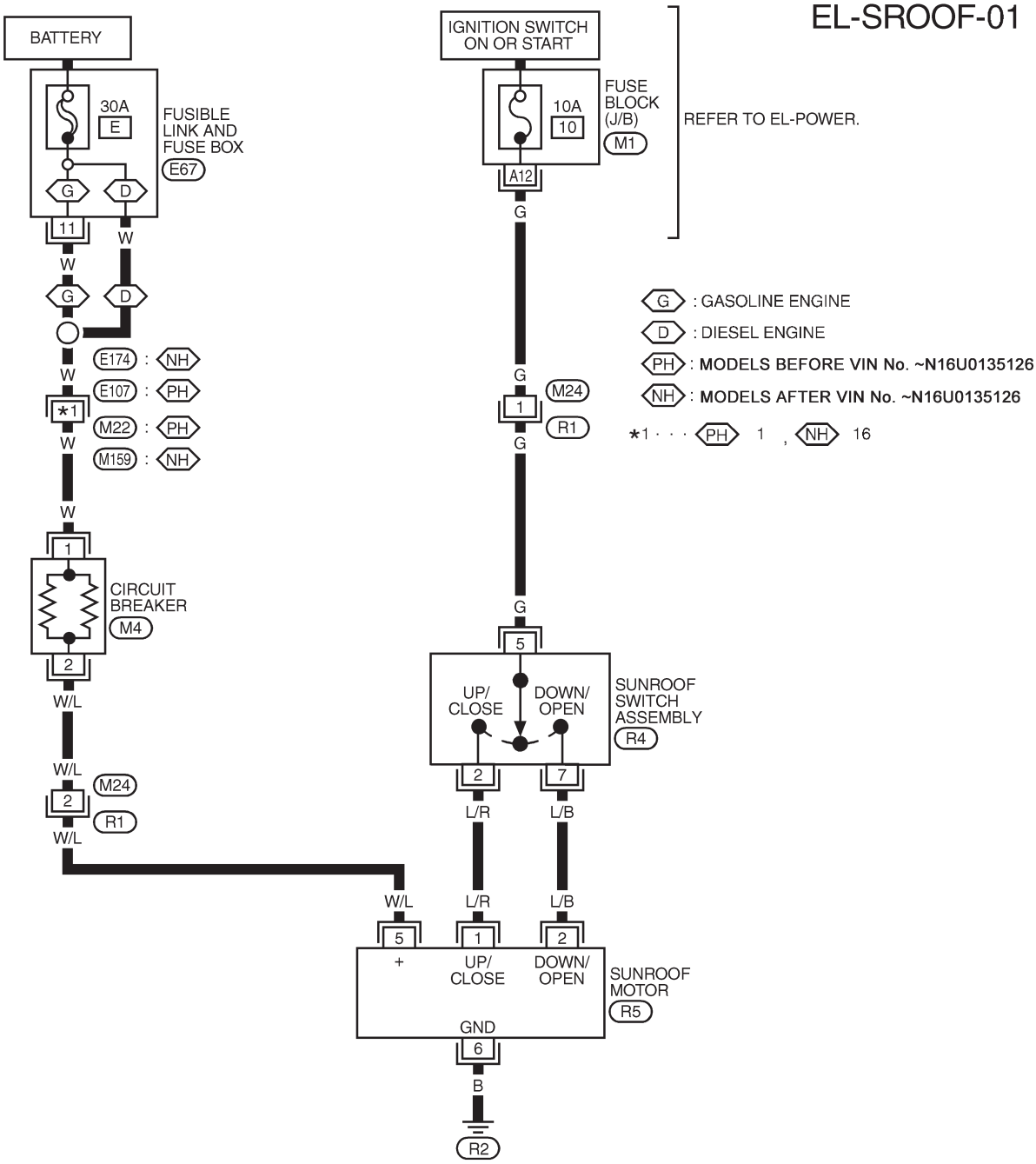


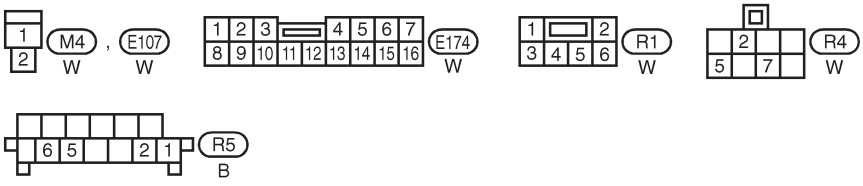
MEL915L

Wiring Diagram — SROOF —

NJEL0089

EL-SROOF-01





REFER TO THE FOLLOWING.

M1 -FUSE BLOCK-JUNCTION BOX (J/B)

E67 -FUSE AND FUSIBLE LINK BOX

YEL371C

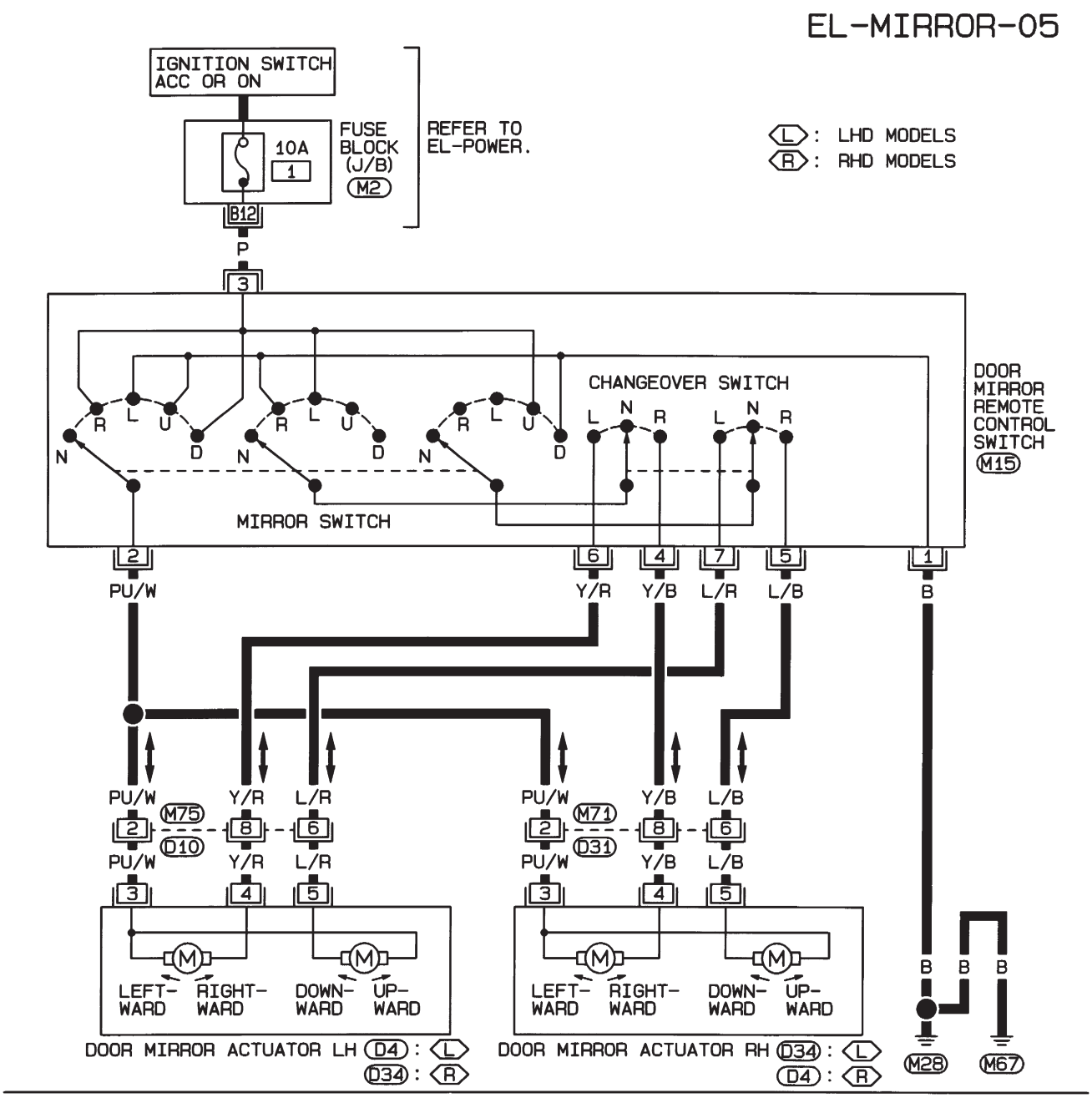
Trouble Diagnoses

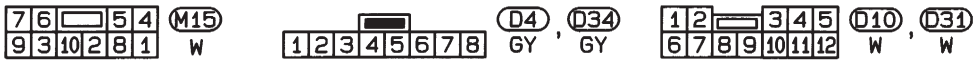
NJEL0225

Symptom	Possible cause	Repair order
Power sunroof cannot be operated using any switch.	1. 10A fuse, 30A fusible link and M4 circuit breaker 2. Sunroof motor ground circuit 3. Sunroof switch 4. Sunroof switch circuit 5. Sunroof motor	1. Check 10A fuse [No. 10, located in fuse block (J/B)], 30A fusible link (letter **E**, located in fuse and fusible link box) and M4 circuit breaker. Verify battery positive voltage is present at terminal 5 of sunroof motor. And then turn ignition switch “ON” and verify battery positive voltage is present at terminal 5 of sunroof switch. 2. Check sunroof motor ground circuit. 3. Check sunroof switch. 4. Check harness between sunroof switch and sunroof motor. 5. Check sunroof motor.
Power sunroof cannot be operated using one of the sunroof switches.	1. Sunroof switch 2. Sunroof switch circuit	1. Check sunroof switch. 2. Check the harness between sunroof motor and sunroof switch.

Wiring Diagram — MIRROR —/Sedan

NJEL0389





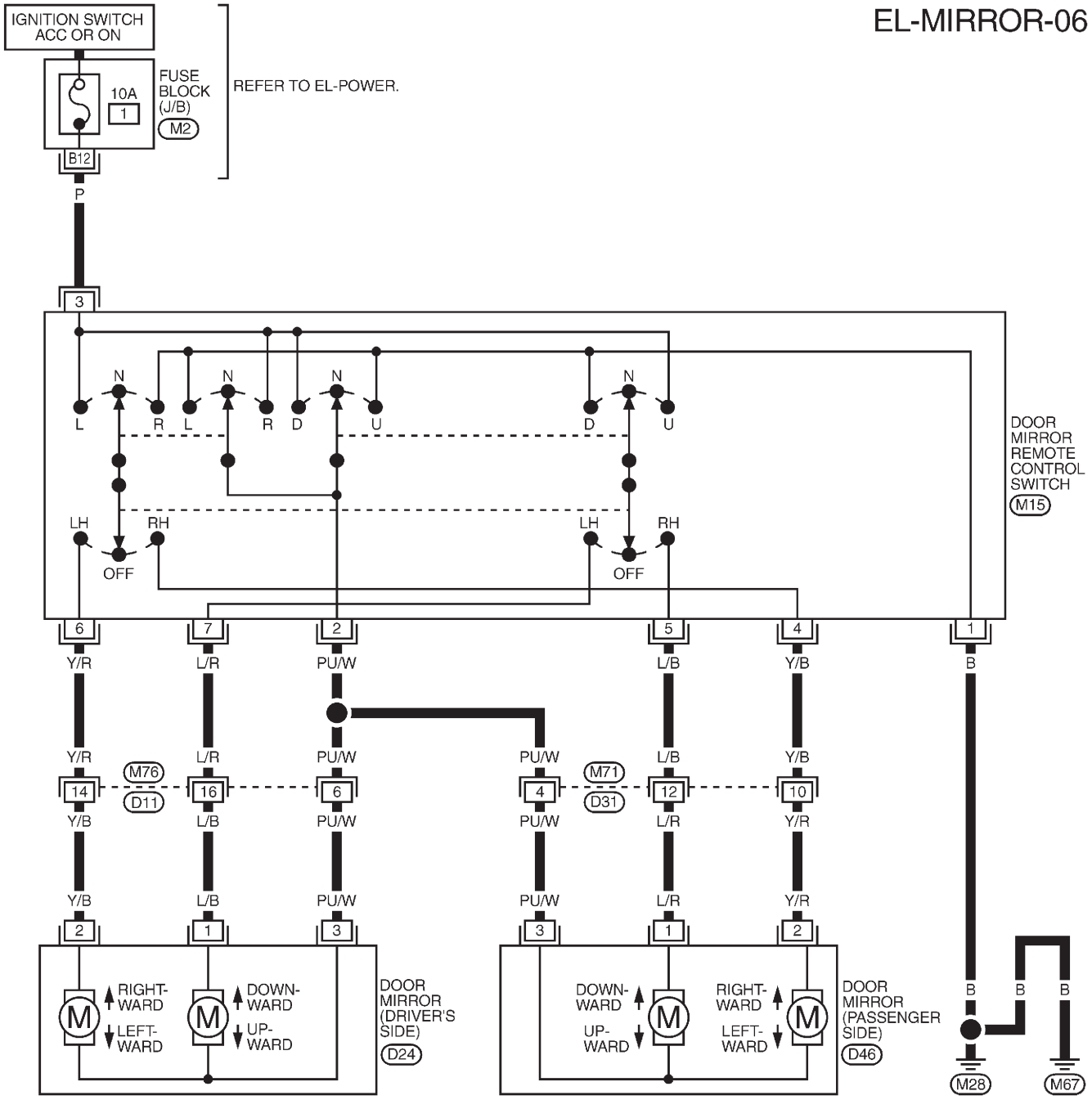
REFER TO THE FOLLOWING.
M2 -FUSE BLOCK-JUNCTION BOX (J/B)

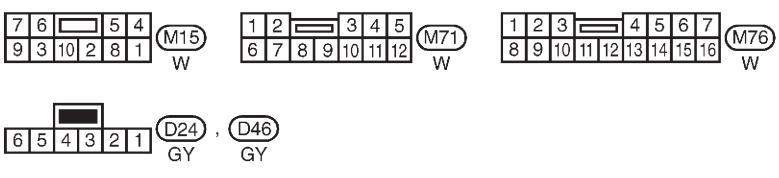
HEL068B

Wiring Diagram — MIRROR —/Hatchback

NJEL0472

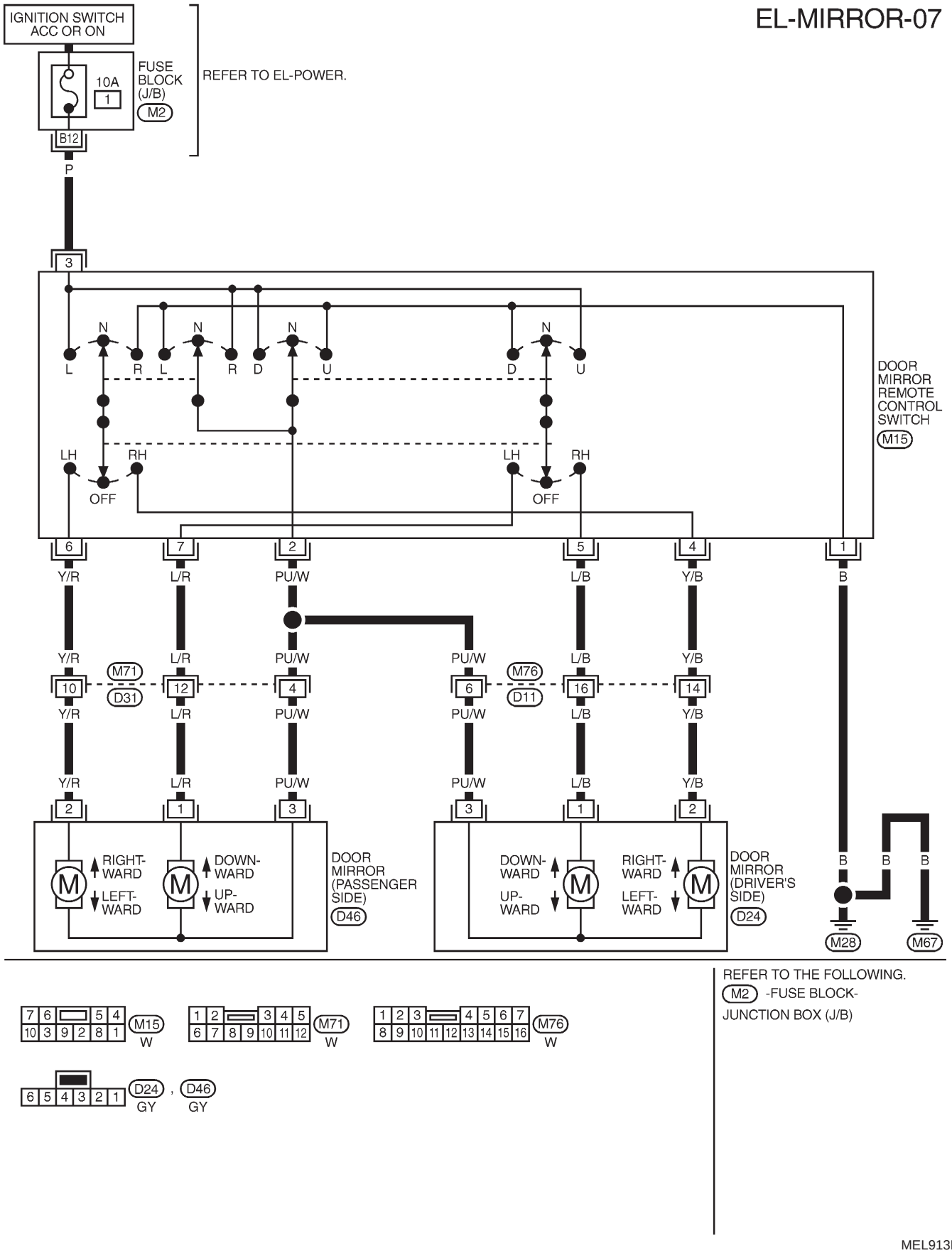
EL-MIRROR-06





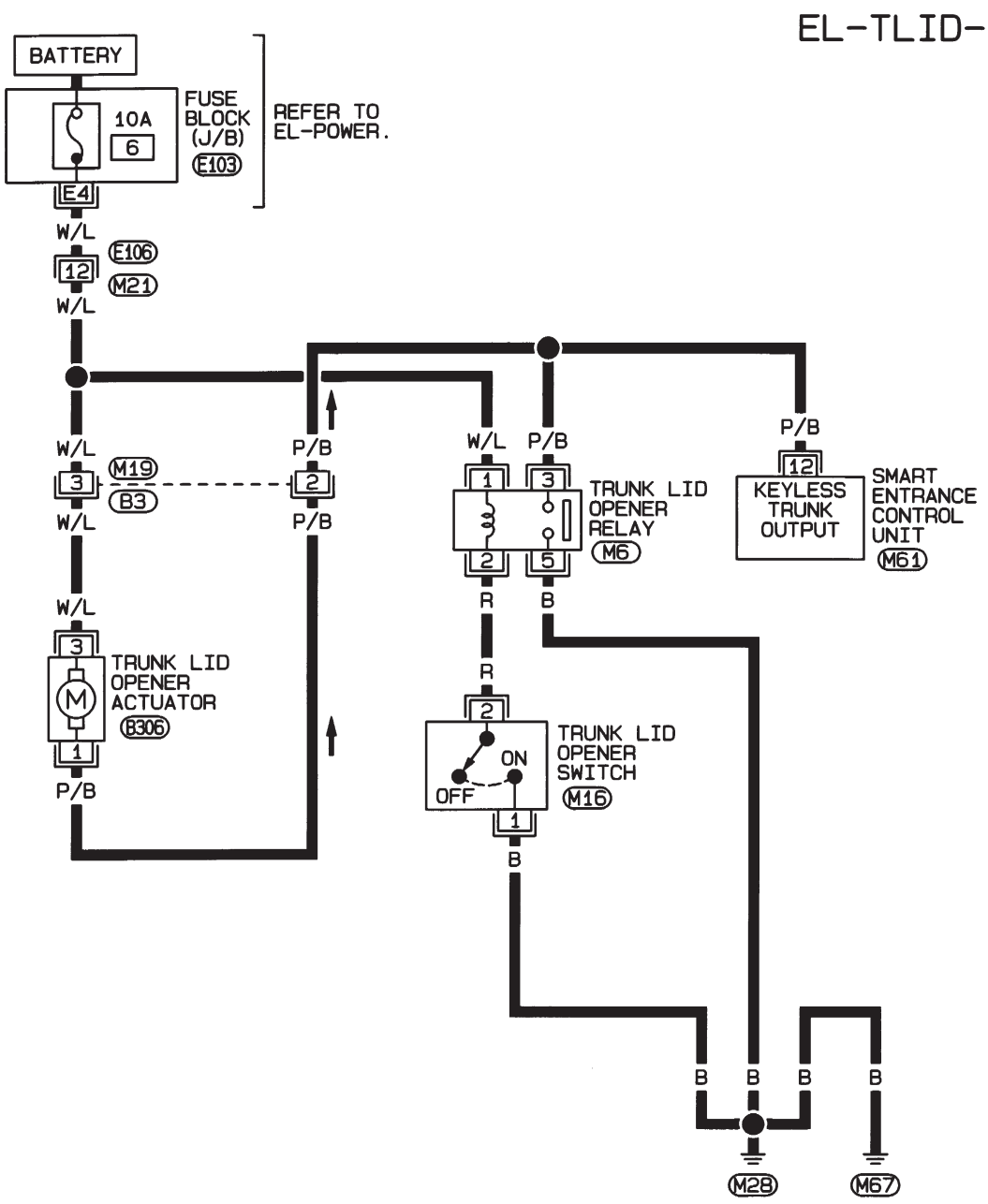
REFER TO THE FOLLOWING.
M2 -FUSE BLOCK-
JUNCTION BOX (J/B)

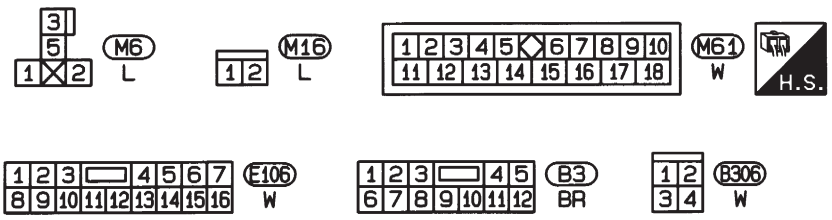
MEL912L


EL-MIRROR-07
IGNITION SWITCH ACC OR ON
FUSE BLOCK (J/B) M2
10A 1
B12
REFER TO EL-POWER.
P
3
N
L
R
L
N
R
D
N
U
D
N
U
LH
RH
OFF
LH
RH
OFF
DOOR MIRROR REMOTE CONTROL SWITCH M15
6 Y/R
7 L/R
2 PU/W
5 L/B
4 Y/B
1 B
M71
D31
M76
D11
10 12 4 6 16 14
2 1 3 3 1 2
RIGHT-WARD
LEFT-WARD
DOWN-WARD
UP-WARD
DOOR MIRROR (PASSENGER SIDE) D46
DOWN-WARD
UP-WARD
RIGHT-WARD
LEFT-WARD
DOOR MIRROR (DRIVER'S SIDE) D24
B B B
M28
M67
M15 W
M71 W
M76 W
D24 GY
D46 GY
REFER TO THE FOLLOWING.
M2 -FUSE BLOCK-JUNCTION BOX (J/B)
MEL913L

Wiring Diagram — TLID —

NJEL0312





REFER TO THE FOLLOWING.

E103 -FUSE BLOCK-JUNCTION BOX (J/B)

HEL916A

System Description/Sedan

=NJEL0391

Power is supplied at all times
- from 30A fusible link (letter **E**, located in the fuse and fusible link box)
- to circuit breaker terminal 1
- through circuit breaker terminal 2
- to power window relay terminal 5.

With ignition switch in ON or START position, power is supplied
- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to power window relay terminal 1.

Ground is supplied to power window relay terminal 2
- through body grounds M28 and M67.

The power window relay is energized and power is supplied
- through power window relay terminal 3
- to power window main switch terminal 1,
- to front power window sub-switch terminal 5,
- to rear power window sub-switch LH and RH terminals 5 (models with rear power window).

MANUAL OPERATION

NJEL0391S01

Front Door (Driver Side)

NJEL0391S0101

Ground is supplied
- to power window main switch terminal 3
- through body grounds M28 and M67.

WINDOW UP
When the driver's window switch in the power window main switch is pressed in the up position, power is supplied
- through power window main switch terminal 9
- to driver side power window regulator terminal 2.

Ground is supplied
- through power window main switch terminal 8
- to driver side power window regulator terminal 1.

Then, the motor raises the window until the switch is released.
WINDOW DOWN
When the driver's window switch in the power window main switch is pressed in the down position, power is supplied
- through power window main switch terminal 8
- to driver side power window regulator terminal 1.

Ground is supplied
- to driver side power window regulator terminal 2
- through power window main switch terminal 9.

Then, the motor lowers the window until the switch is released.

Front Door (Passenger Side)

NJEL0391S0102

Ground is supplied
- to power window main switch terminal 3
- through body grounds M28 and M67.

NOTE:
Numbers in parentheses are terminal numbers, when power window switch is pressed in the UP and DOWN positions respectively.

POWER WINDOW MAIN SWITCH OPERATION
Power is supplied
- through power window main switch (5, 6)
- to front power window sub-switch (3, 4).

The subsequent operation is the same as the front power window sub-switch operation.
FRONT POWER WINDOW SUB-SWITCH OPERATION
Power is supplied

- through front power window sub-switch (1, 2)
- to front passenger side power window regulator (1, 2).

Ground is supplied

- to front passenger side power window regulator (2, 1)
- through front power window sub-switch (2, 1)
- to front power window sub-switch (4, 3)
- through power window main switch (6, 5).

Then, the motor raises or lowers the window until the switch is released.

Rear Door

NJEL0391S0103

Rear door windows will raise and lower in the same manner as passenger's door window.

POWER WINDOW LOCK

NJEL0391S03

The power window lock is designed to lock operation of all windows except for driver's door window.
When the lock switch is pressed to lock position, ground of the sub-switches in the power window main switch is disconnected. This prevents the power window motors from operating.

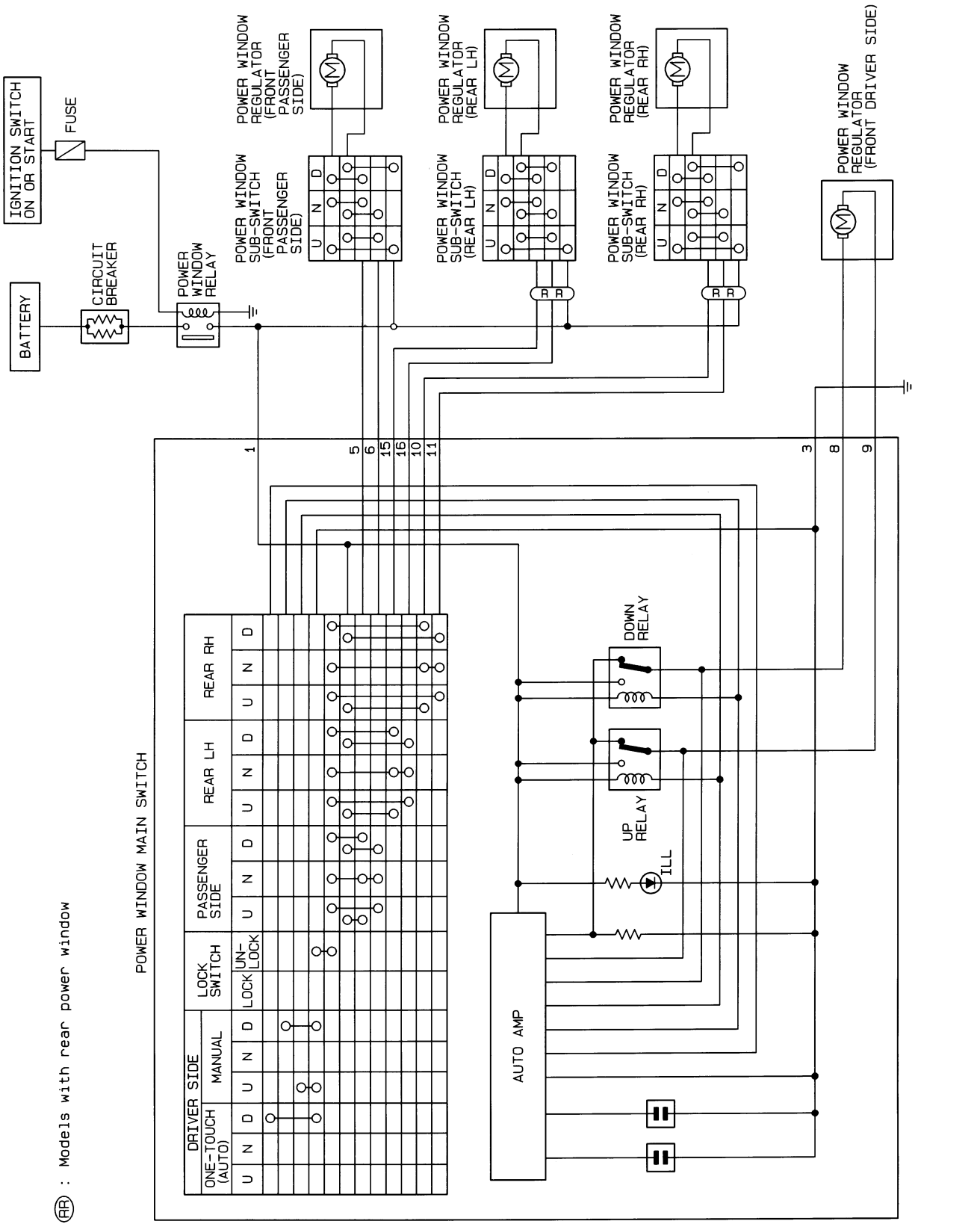
AUTO OPERATION

NJEL0391S02

The power window AUTO feature enables the driver to open or close the driver's window without holding the window switch in the down or up position.
The AUTO feature operates on the driver's window.

Schematic/Sedan

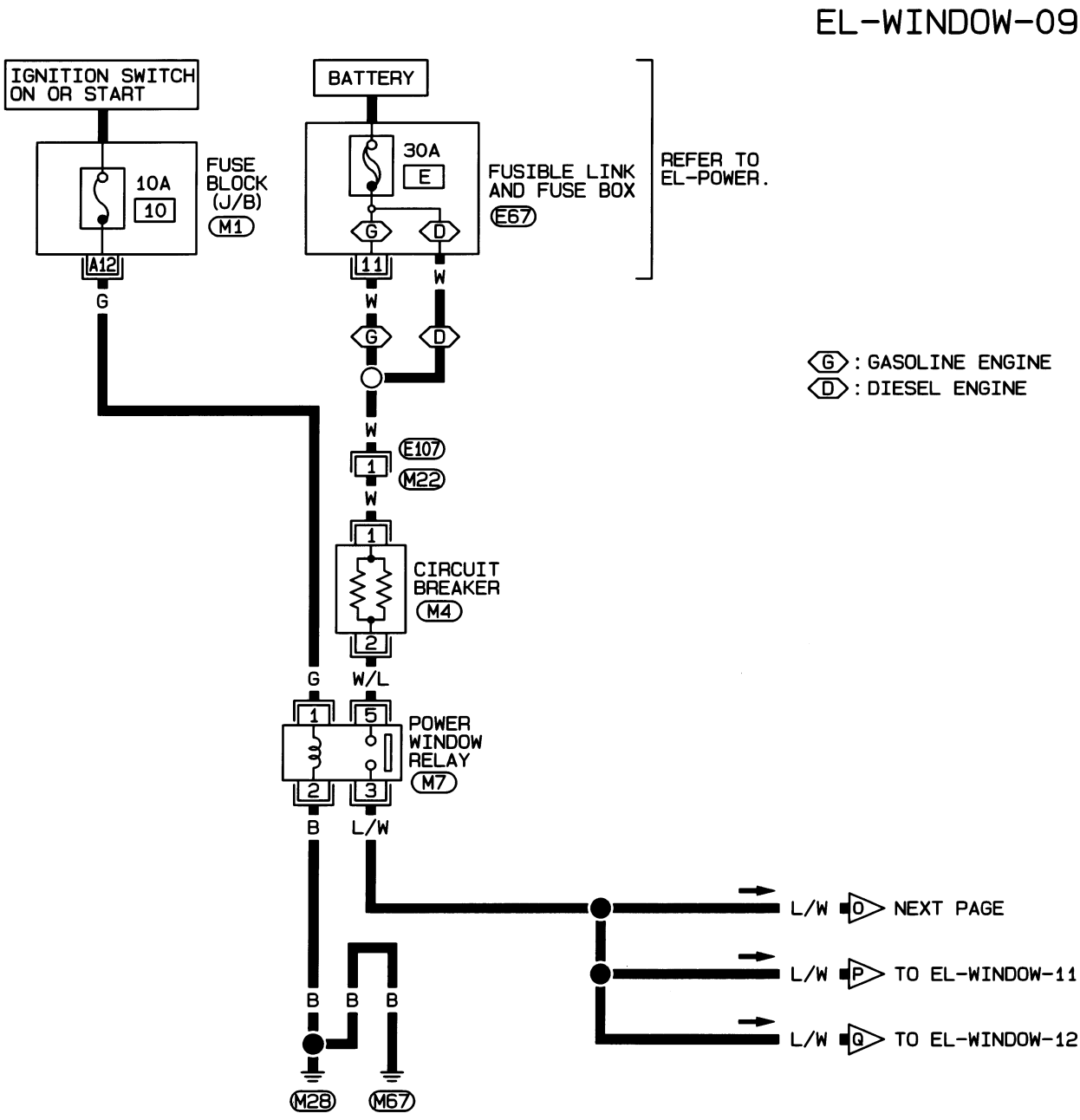
NJEL0392



HEL406B

Wiring Diagram — WINDOW —/Sedan

NJEL0393



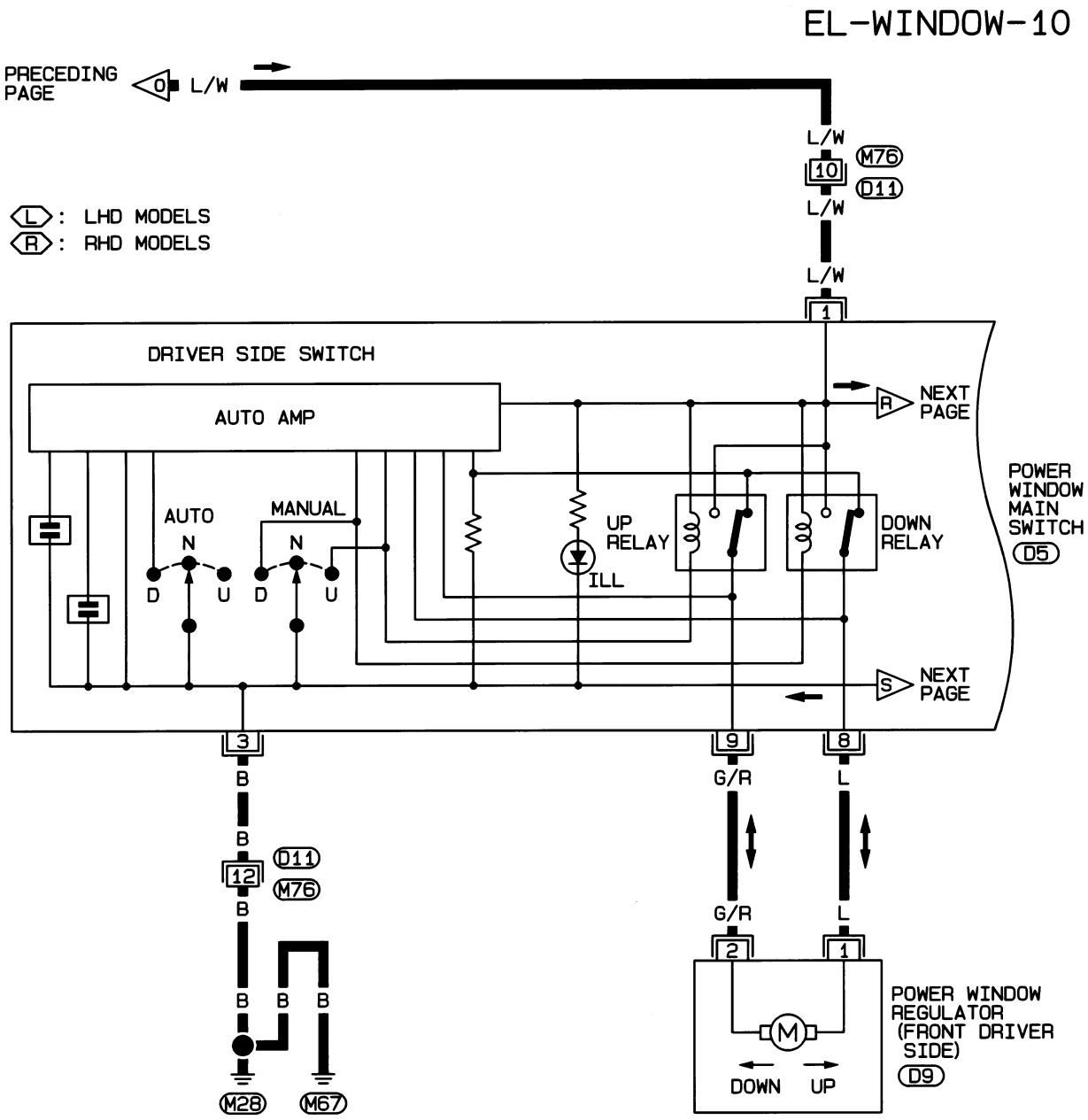


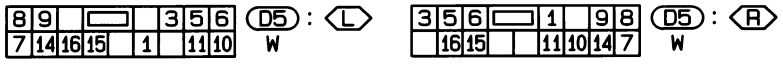
REFER TO THE FOLLOWING.

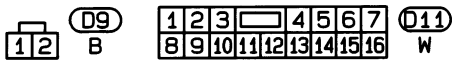
M1 -FUSE BLOCK-JUNCTION BOX (J/B)

E67 -FUSE AND FUSIBLE LINK BOX

HEL407B

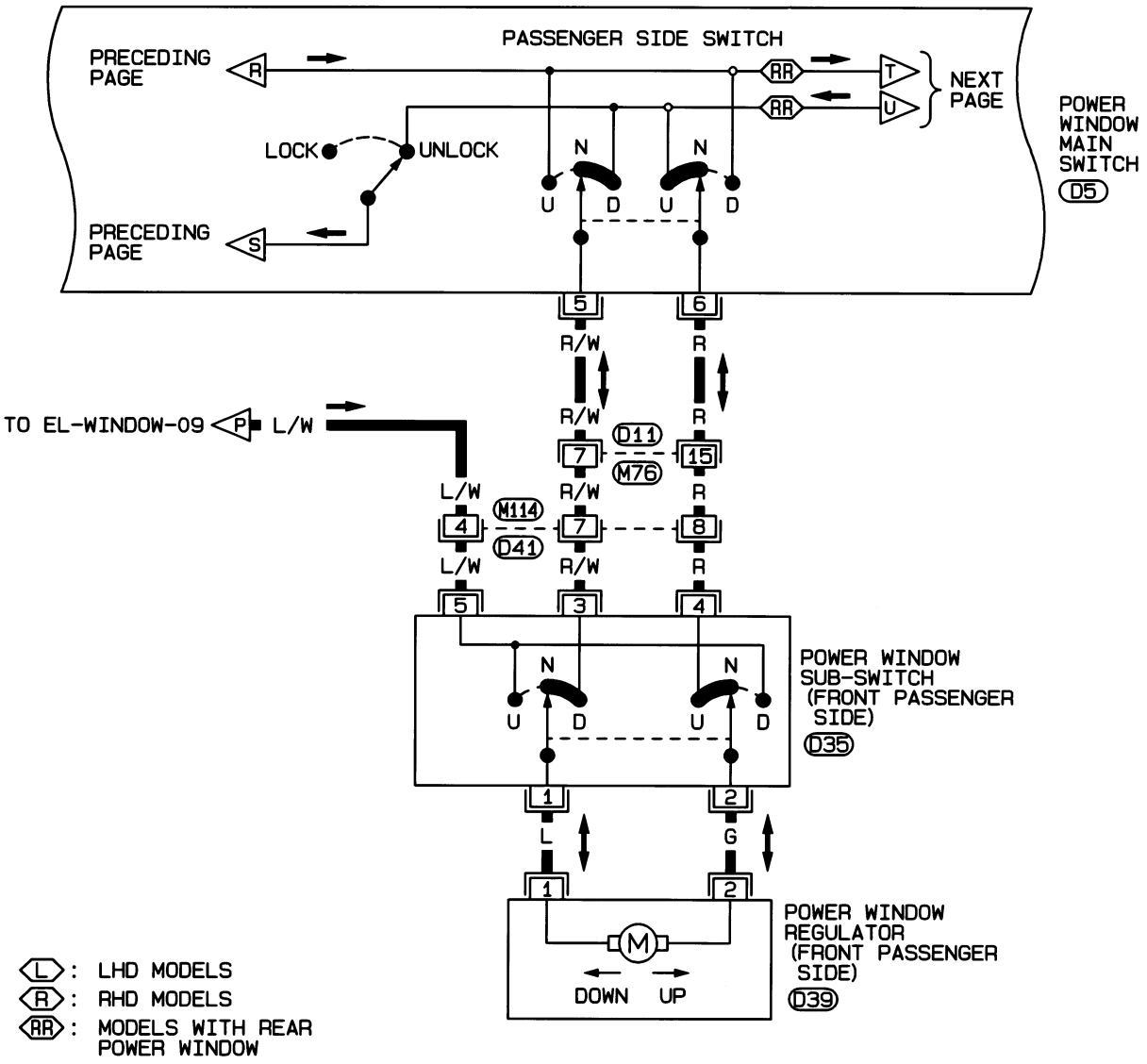

EL-WINDOW-10
PRECEDING PAGE
O
L/W
L/W
M76
10
D11
L/W
L/W
1
: LHD MODELS
: RHD MODELS
DRIVER SIDE SWITCH
AUTO AMP
R
NEXT PAGE
POWER WINDOW MAIN SWITCH
D5
AUTO
MANUAL
N
N
D
U
D
U
UP RELAY
ILL
DOWN RELAY
S
NEXT PAGE
3
9
8
B
G/R
L
B
D11
12
M76
B
G/R
L
2
1
B
B
B
M
POWER WINDOW REGULATOR (FRONT DRIVER SIDE)
D9
DOWN
UP
M28
M67

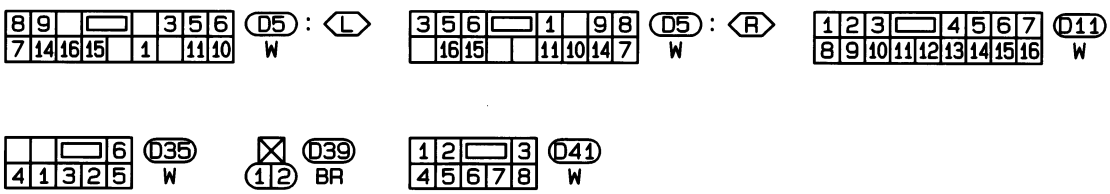

D5
W
D5
W


D9
B
D11
W

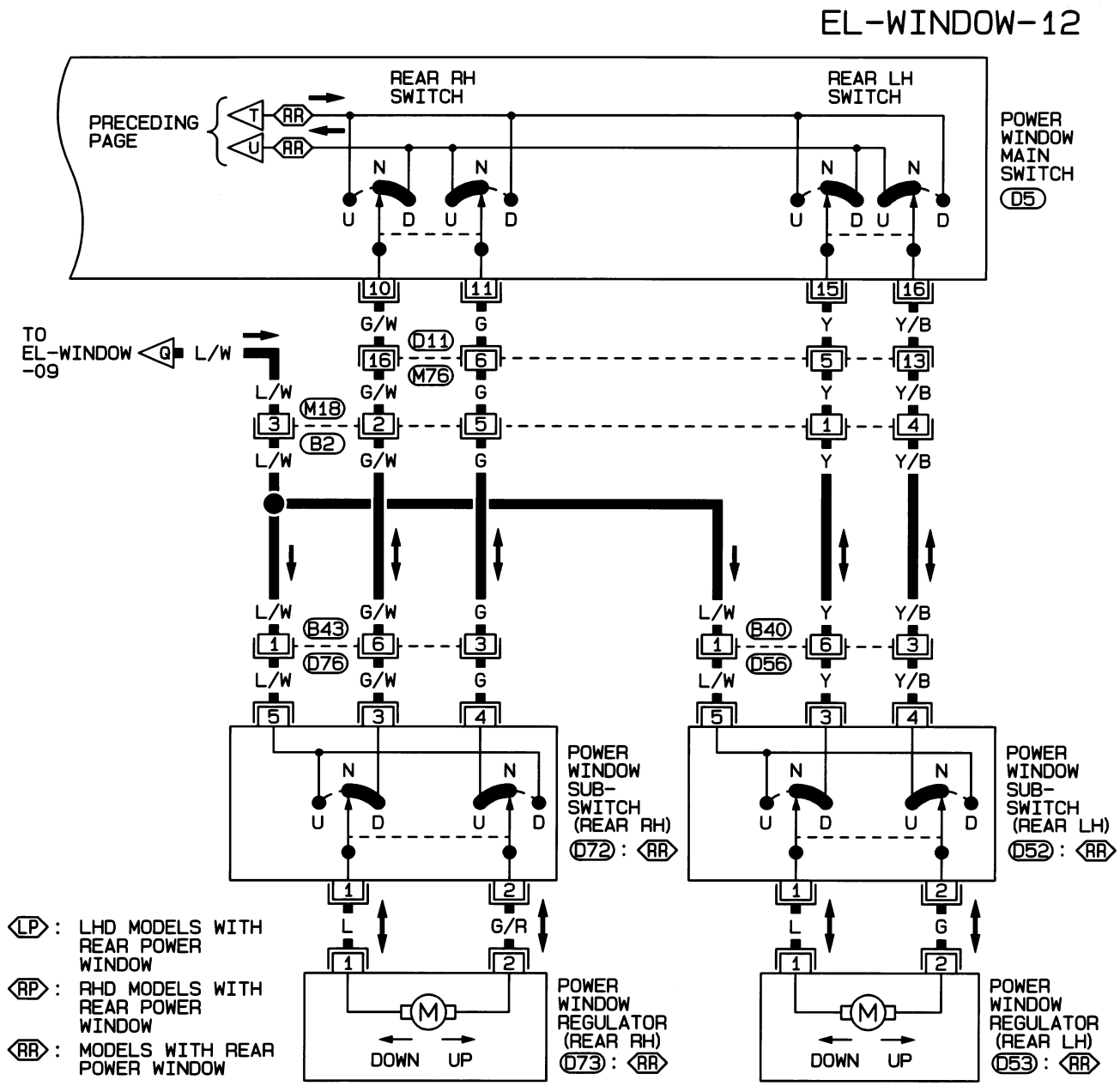
HEL408B

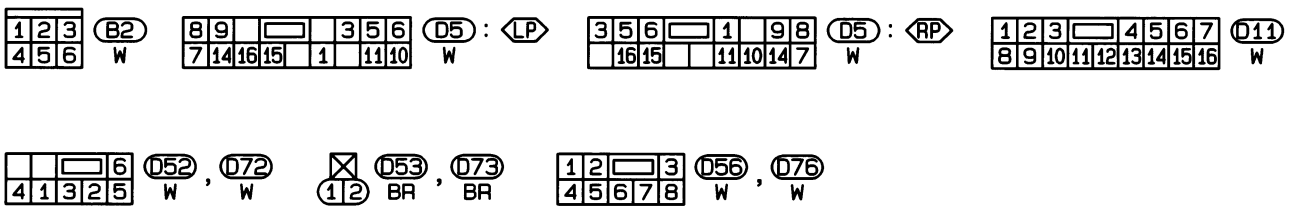
EL-WINDOW-11





HEL409B


EL-WINDOW-12
REAR RH SWITCH
REAR LH SWITCH
PRECEDING PAGE
T RR
U RR
POWER WINDOW MAIN SWITCH D5
N U D U D
N U D U D
10 11 15 16
G/W G Y Y/B
D11 M76
TO EL-WINDOW -09 Q L/W
M18 B2
B43 D76
B40 D56
POWER WINDOW SUB-SWITCH (REAR RH) D72 : RR
POWER WINDOW SUB-SWITCH (REAR LH) D52 : RR
L G/R
L G
POWER WINDOW REGULATOR (REAR RH) D73 : RR
POWER WINDOW REGULATOR (REAR LH) D53 : RR
M
DOWN UP
LP : LHD MODELS WITH REAR POWER WINDOW
RP : RHD MODELS WITH REAR POWER WINDOW
RR : MODELS WITH REAR POWER WINDOW


B2 W
D5 : LP W
D5 : RP W
D11 W
D52 , D72 W W
D53 , D73 BR BR
D56 , D76 W W

HEL410B

Trouble Diagnoses/Sedan

NJEL0394

Symptom	Possible cause	Repair order
None of the power windows can be operated using any switch.	1. 10A fuse 2. 30A fusible link, M4 circuit breaker 3. Power window relay 4. Ground circuit 5. Power window main switch	1. Check 10A fuse [No. 10, located in fuse block (J/B)] Turn ignition switch “ON” and verify positive battery voltage is present at terminal 1 of power window relay. 2. Check 30A fusible link (letter **E**, located in fuse and fusible link box) and M4 circuit breaker. Verify positive battery voltage is present at terminal 5 of power window relay. 3. Check power window relay. 4. Check the following: a. Check ground circuit of power window main switch. b. Check power window relay ground circuit. 5. Check power window main switch.
Driver side power window cannot be operated but other windows can be operated.	1. Driver side power window regulator circuit 2. Driver side power window regulator 3. Power window main switch	1. Check harness between power window main switch and driver side power window regulator for open or short circuit. 2. Check driver side power window regulator. 3. Check power window main switch.
One or more power windows except driver’s side window cannot be operated.	1. Power window sub-switches 2. Power window regulators 3. Power window main switch 4. Power window circuit	1. Check power window sub-switch. 2. Check power window regulator. 3. Check power window main switch. 4. Check the following. a. Check harness between the power window relay terminal 3 and power window sub-switch terminal 5. b. Check harnesses between power window main switch and power window sub-switch for open/short circuit. c. Check harnesses between power window sub-switch and power window regulator for open/short circuit.
Power windows except driver’s side window cannot be operated using power window main switch but can be operated by power window sub-switch.	1. Power window main switch	1. Check power window main switch.
Driver side power window automatic operation does not function properly.	1. Power window main switch	1. Check power window main switch.

System Description/Hatchback

=NJEL0498

Power is supplied at all times
- from 30A fusible link (letter **E**, located in the fuse and fusible link box)
- to circuit breaker terminal 1
- through circuit breaker terminal 2
- to power window relay terminal 5

With ignition switch in ON or START position, power is supplied
- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to power window relay terminal 1

Ground is supplied to power window relay terminal 2
- through body grounds M28 and M67.

The power window relay is energized and power is supplied
- through power window relay terminal 3
- to power window main switch terminal 1,
- to front power window sub-switch terminal 5,
- to rear power window sub-switch LH and RH terminals 5 (models with rear power window).

MANUAL OPERATION

NJEL0498S01

Front Door (Driver Side)

NJEL0498S0101

Ground is supplied
- to power window main switch terminal 3
- through body grounds M28 and M67.

WINDOW UP
When the driver's window switch in the power window main switch is pressed in the up position, power is supplied
- through power window main switch terminal 9
- to driver side power window regulator terminal 1.

Ground is supplied
- through power window main switch terminal 2
- to driver side power window regulator terminal 8.

Then, the motor raises the window until the switch is released.
WINDOW DOWN
When the driver's window switch in the power window main switch is pressed in the down position, power is supplied
- through power window main switch terminal 8
- to driver side power window regulator terminal 2.

Ground is supplied
- to driver side power window regulator terminal 1
- through power window main switch terminal 9.

Then, the motor lowers the window until the switch is released.

Front Door (Passenger Side)

NJEL0498S0102

Ground is supplied
- to power window main switch terminal 3
- through body grounds M28 and M67.

NOTE:
Numbers in parentheses are terminal numbers, when power window switch is pressed in the UP and DOWN positions respectively.

POWER WINDOW MAIN SWITCH OPERATION
Power is supplied
- through power window main switch (5, 6)
- to front power window sub-switch (3, 4).

The subsequent operation is the same as the front power window sub-switch operation.
FRONT POWER WINDOW SUB-SWITCH OPERATION
Power is supplied

- through front power window sub-switch (1, 2)
- to front passenger side power window regulator (1, 2).

Ground is supplied

- to front passenger side power window regulator (2, 1)
- through front power window sub-switch (2, 1)
- to front power window sub-switch (4, 3)
- through power window main switch (6, 5).

Then, the motor raises or lowers the window until the switch is released.

Rear Door

NJEL0498S0103

Rear door windows will raise and lower in the same manner as passenger's door window.

POWER WINDOW LOCK

NJEL0498S02

The power window lock is designed to lock operation of all windows except for driver's door window.
When the lock switch is pressed to lock position, ground of the sub-switches in the power window main switch is disconnected. This prevents the power window motors from operating.

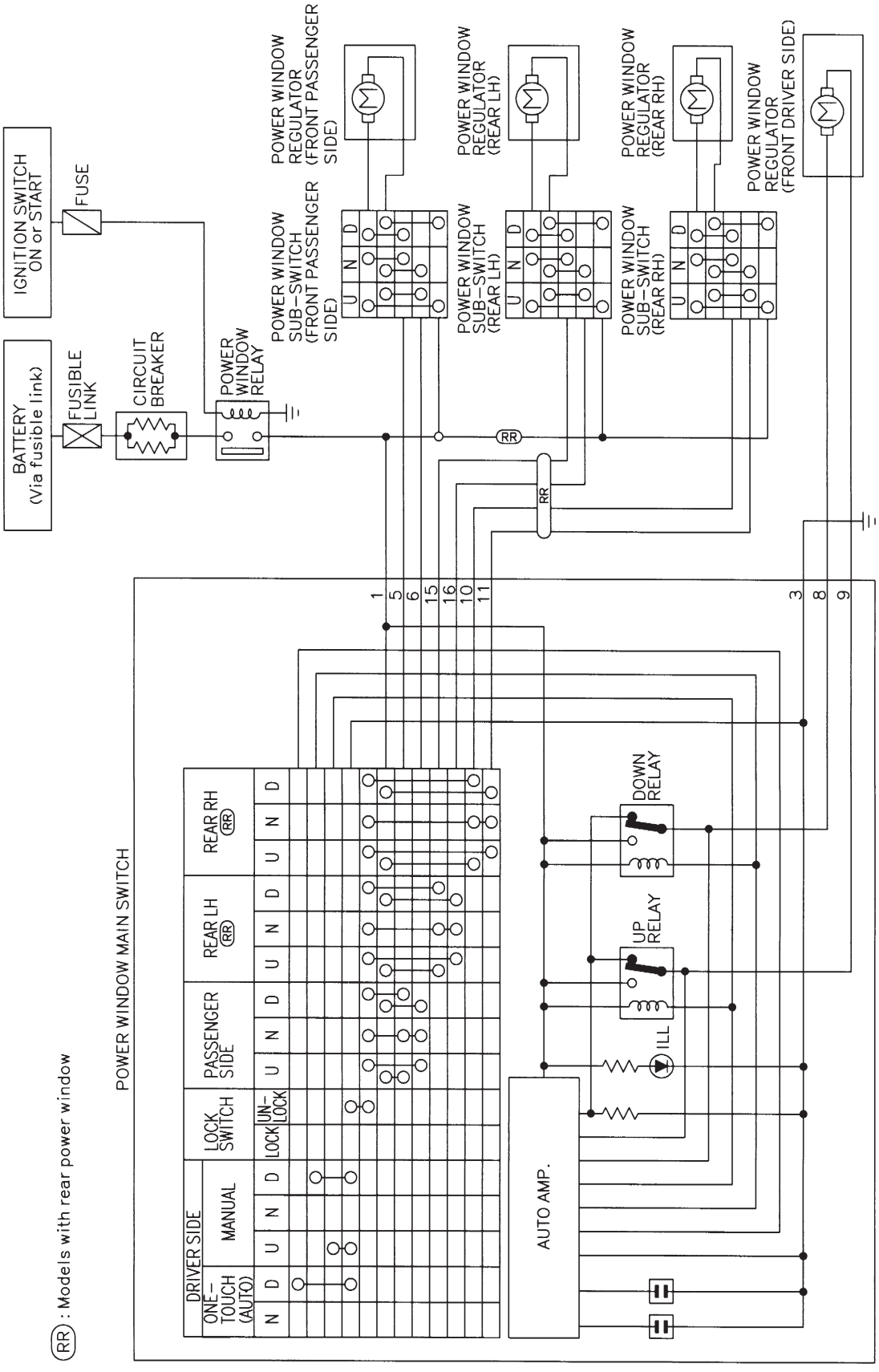
AUTO OPERATION

NJEL0498S03

The power window AUTO feature enables the driver to open the driver's window without holding the window switch in the down position.
The AUTO feature operates on the driver's window.

Schematic/Hatchback

NJEL0499

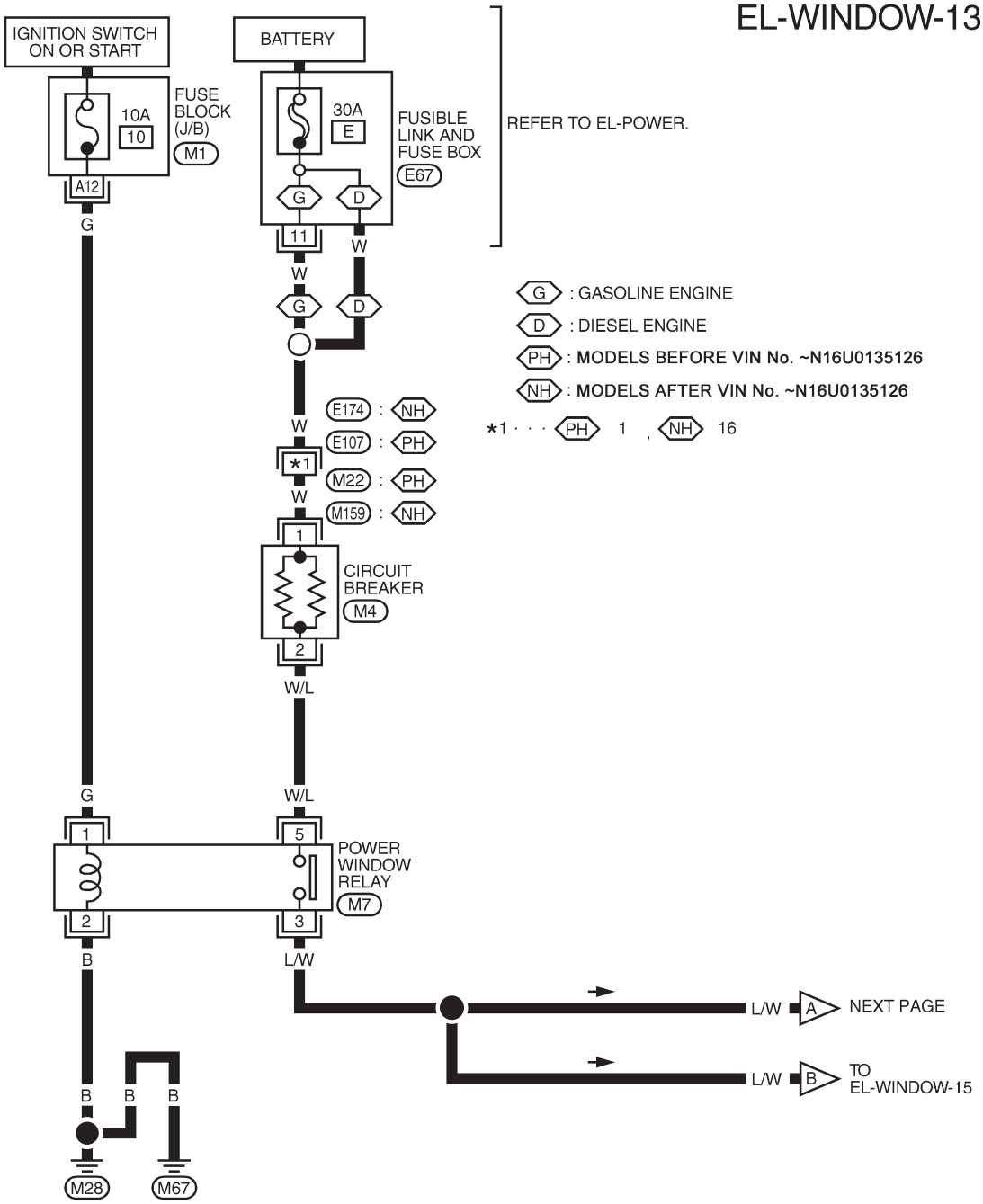


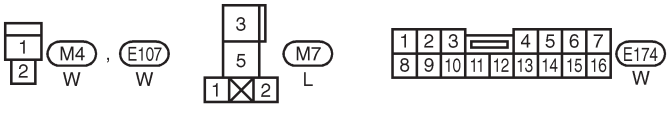
MEL916L

Wiring Diagram — WINDOW —/Hatchback

NJEL0500

EL-WINDOW-13

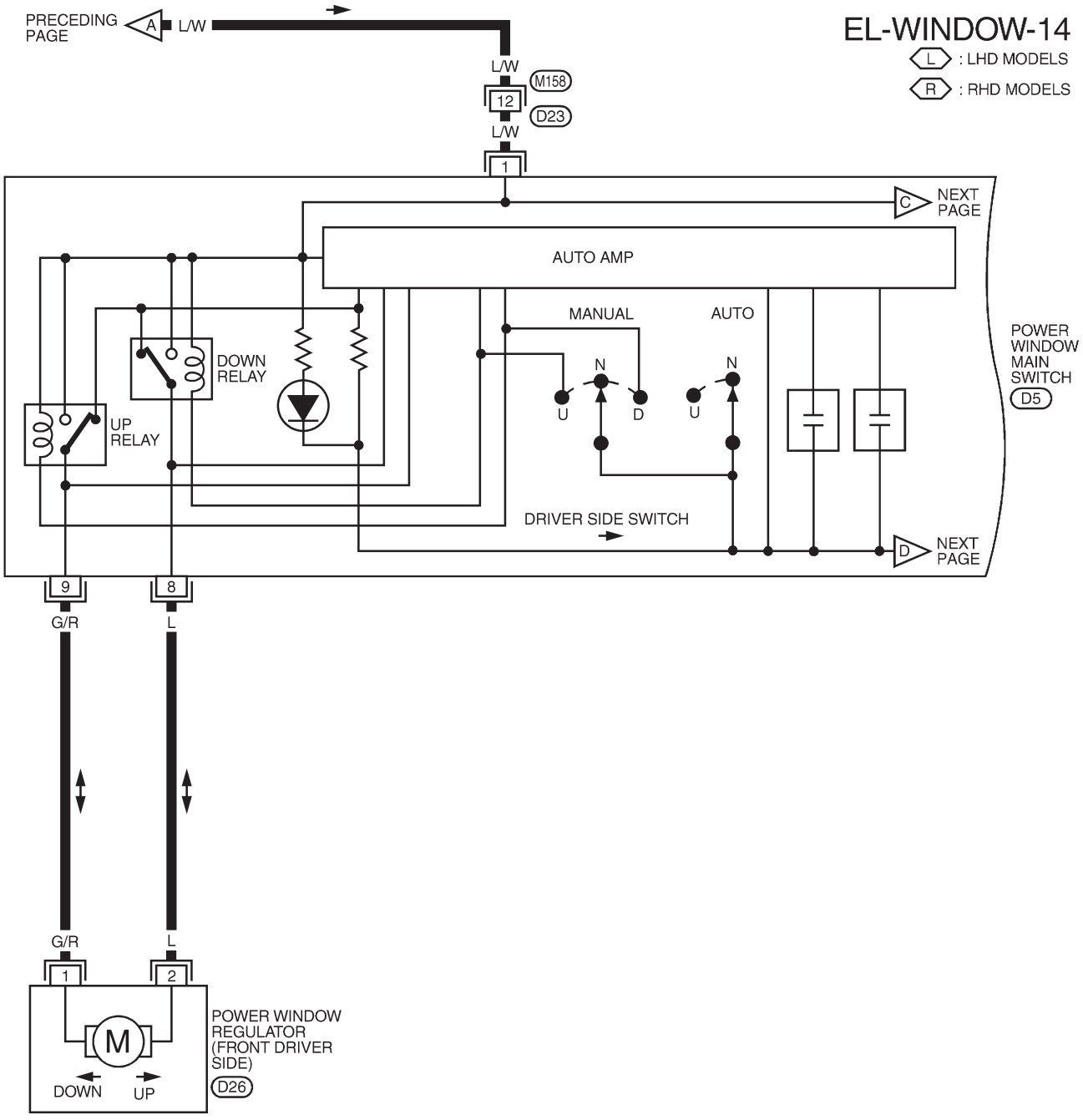


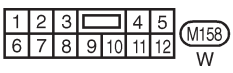


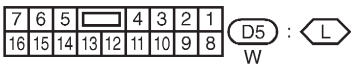
REFER TO THE FOLLOWING.
M1 -FUSE BLOCK-JUNCTION BOX (J/B)
E67 -FUSE AND FUSIBLE LINK BOX

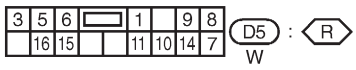
YEL372C

Wiring Diagram — WINDOW —/Hatchback (Cont'd)



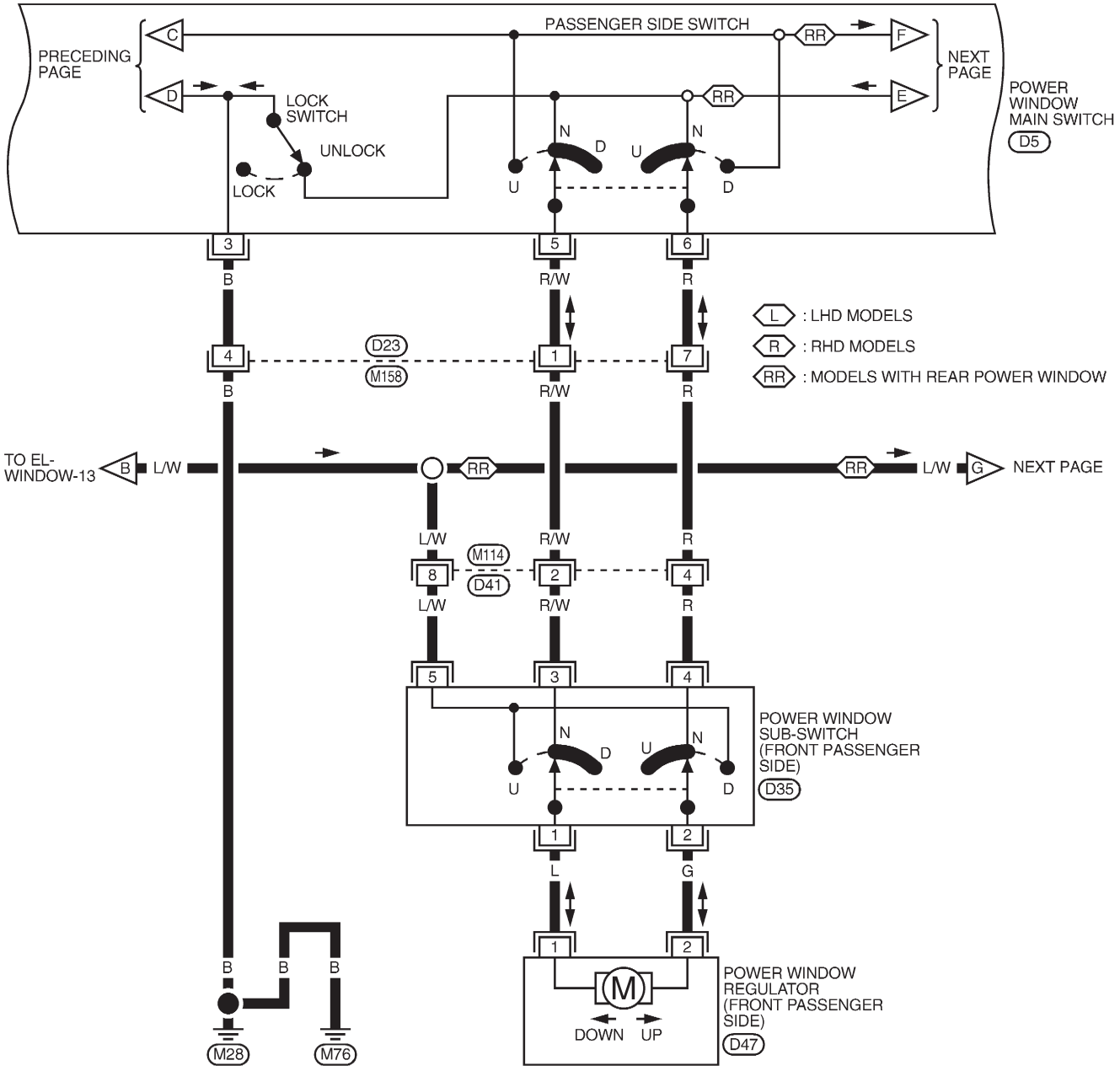


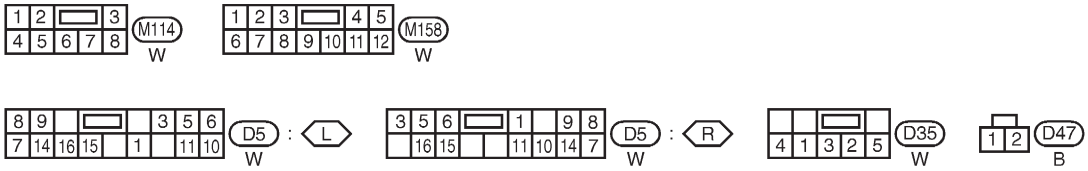




MEL918L

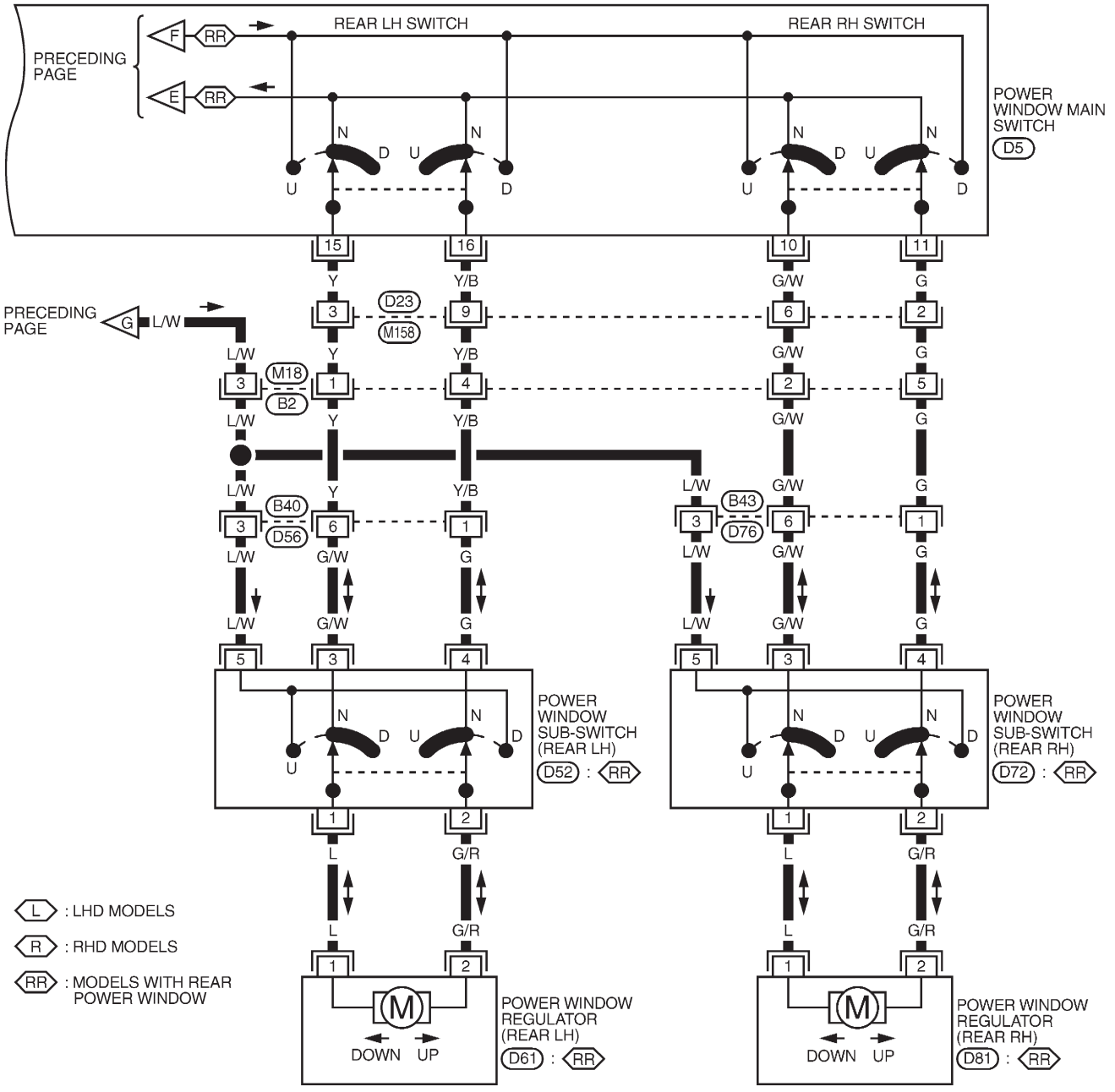
EL-WINDOW-15

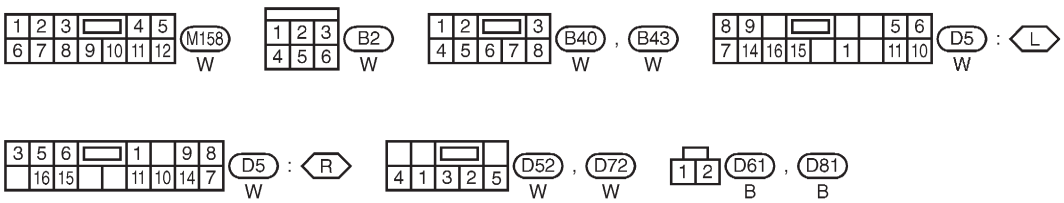




MEL919L

EL-WINDOW-16





MEL920L

Trouble Diagnoses/Hatchback

NJEL0501

Symptom	Possible cause	Repair order
None of the power windows can be operated using any switch.	1. 10A fuse 2. 30A fusible link, M4 circuit breaker 3. Power window relay 4. Ground circuit 5. Power window main switch	1. Check 10A fuse [No. 10, located in fuse block (J/B)] Turn ignition switch “ON” and verify positive battery voltage is present at terminal 1 of power window relay. 2. Check 30A fusible link (letter **E**, located in fuse and fusible link box) and M4 circuit breaker. Verify positive battery voltage is present at terminal 5 of power window relay. 3. Check power window relay. 4. Check the following: a. Check ground circuit of power window main switch. b. Check power window relay ground circuit. 5. Check power window main switch.
Driver side power window cannot be operated but other windows can be operated.	1. Driver side power window regulator circuit 2. Driver side power window regulator 3. Power window main switch	1. Check harness between power window main switch and driver side power window regulator for open or short circuit. 2. Check driver side power window regulator. 3. Check power window main switch.
One or more power windows except driver’s side window cannot be operated.	1. Power window sub-switches 2. Power window regulators 3. Power window main switch 4. Power window circuit	1. Check power window sub-switch. 2. Check power window regulator. 3. Check power window main switch. 4. Check the following. a. Check harness between the power window relay terminal 3 and power window sub-switch terminal 5. b. Check harnesses between power window main switch and power window sub-switch for open/short circuit. c. Check harnesses between power window sub-switch and power window regulator for open/short circuit.
Power windows except driver’s side window cannot be operated using power window main switch but can be operated by power window sub-switch.	1. Power window main switch	1. Check power window main switch.
Driver side power window automatic operation does not function properly.	1. Power window main switch	1. Check power window main switch.

System Description/Hatchback

=NJEL0502

OPERATION

NJEL0502S02

Power door lock/unlock operation by door key cylinder

- With the key inserted into front door key cylinder, turning it to LOCK will lock all doors.
- With the key inserted into front door key cylinder, turning it to UNLOCK will unlock all doors.

Power door lock/unlock operation by multi-remote controller (If equipped)

- Pressing multi-remote controller LOCK button will lock all doors.
- Pressing multi-remote controller UNLOCK button once will unlock driver door. Then, if an unlock signal is sent from the remote controller again within 5 seconds, all other doors will be unlocked.

Power door lock/unlock operation by lock/unlock switch

- With lock/unlock switch on driver door trim setting to LOCK will lock all doors.
- With lock/unlock switch on driver door trim setting to UNLOCK will unlock all doors.

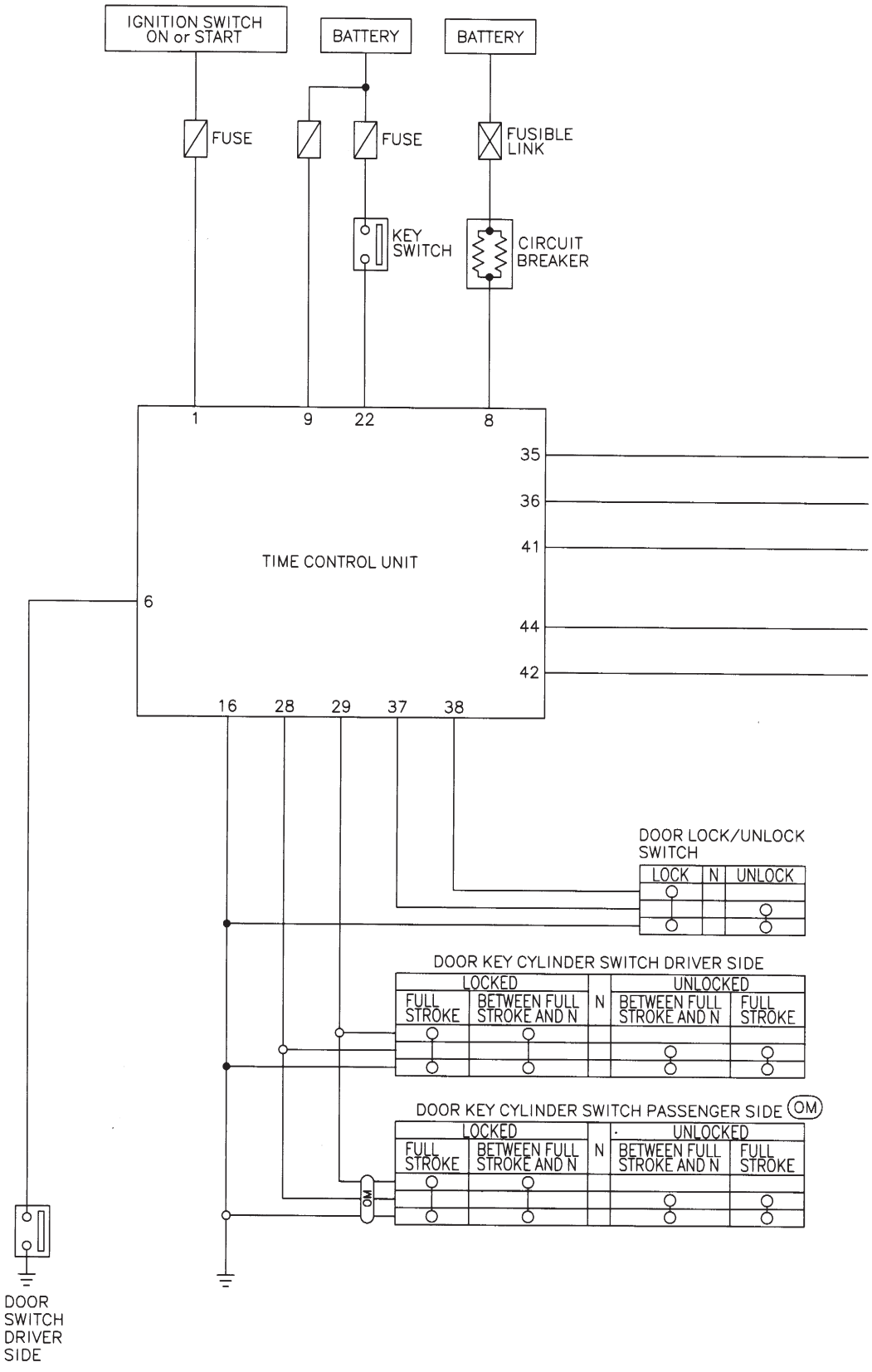
Key reminder system

- If the ignition key is in the ignition key cylinder and driver door is open, setting lock/unlock switch, lock knob, key or multi-remote controller to “LOCK” locks the door once but then immediately unlocks all doors. (signal from door unlock sensor driver side)

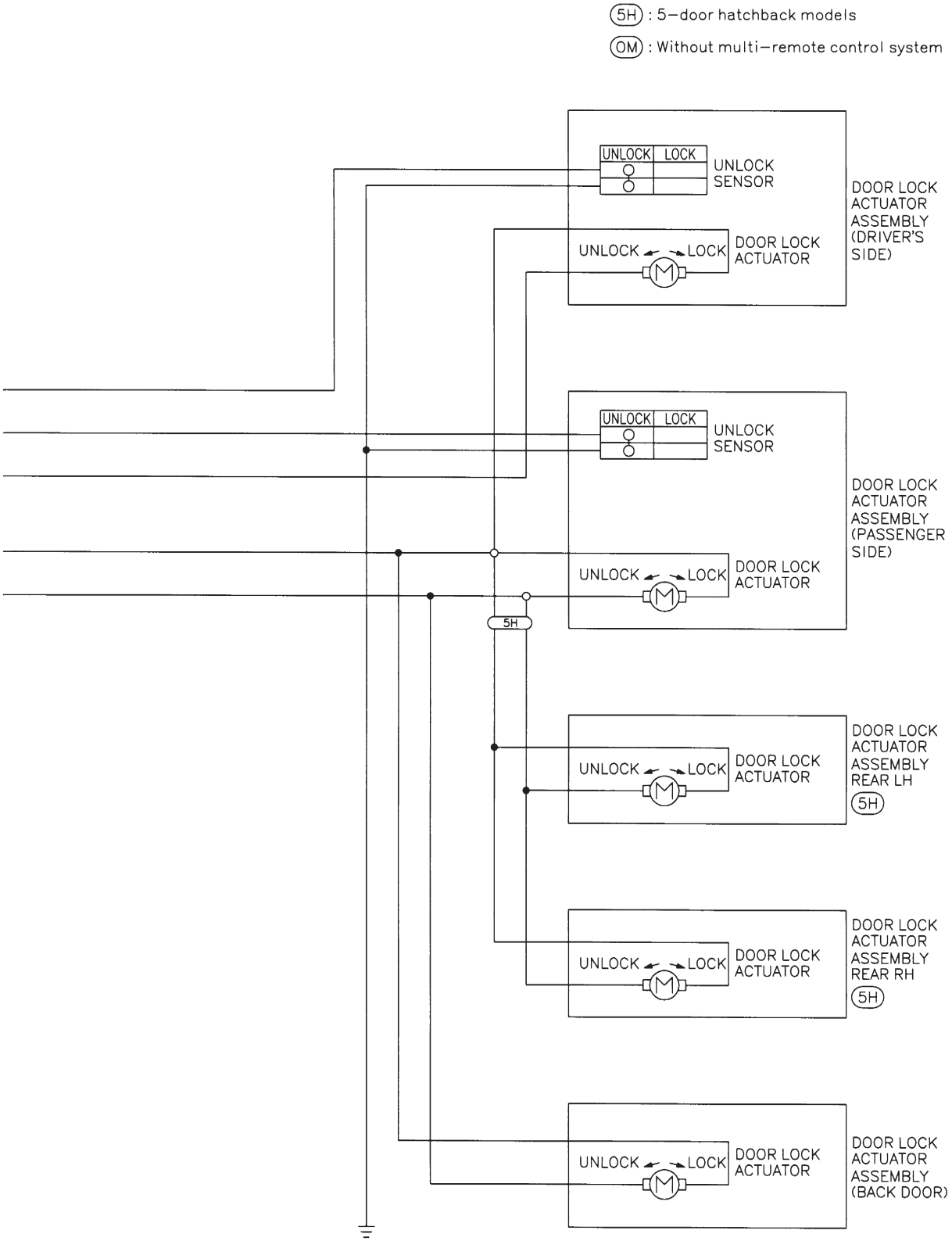
NOTE:

Schematic/Hatchback

NJEL0503



MEL221M


5H : 5—door hatchback models
OM : Without multi—remote control system
UNLOCK
LOCK
UNLOCK SENSOR
DOOR LOCK ACTUATOR ASSEMBLY (DRIVER'S SIDE)
DOOR LOCK ACTUATOR
DOOR LOCK ACTUATOR ASSEMBLY (PASSENGER SIDE)
5H
DOOR LOCK ACTUATOR ASSEMBLY REAR LH
DOOR LOCK ACTUATOR ASSEMBLY REAR RH
DOOR LOCK ACTUATOR ASSEMBLY (BACK DOOR)

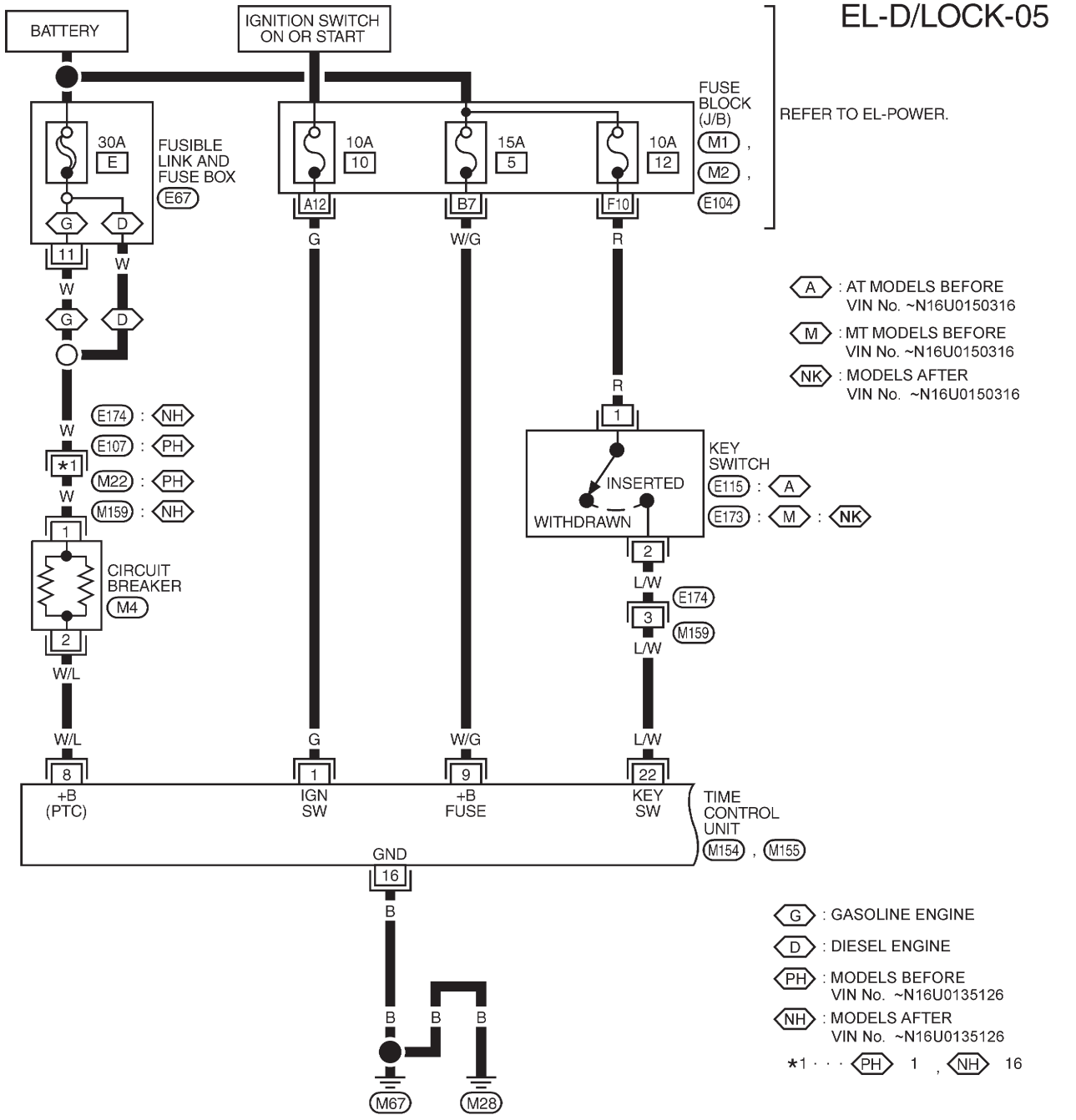
MEL222M

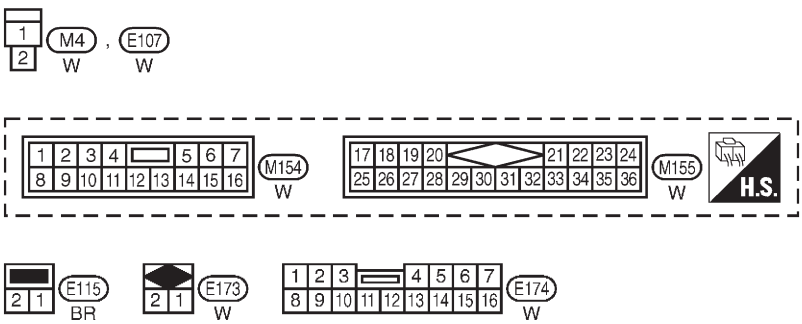
Wiring Diagram — D/LOCK —/Hatchback

NJEL0504

FIG. 1

NJEL0504S01





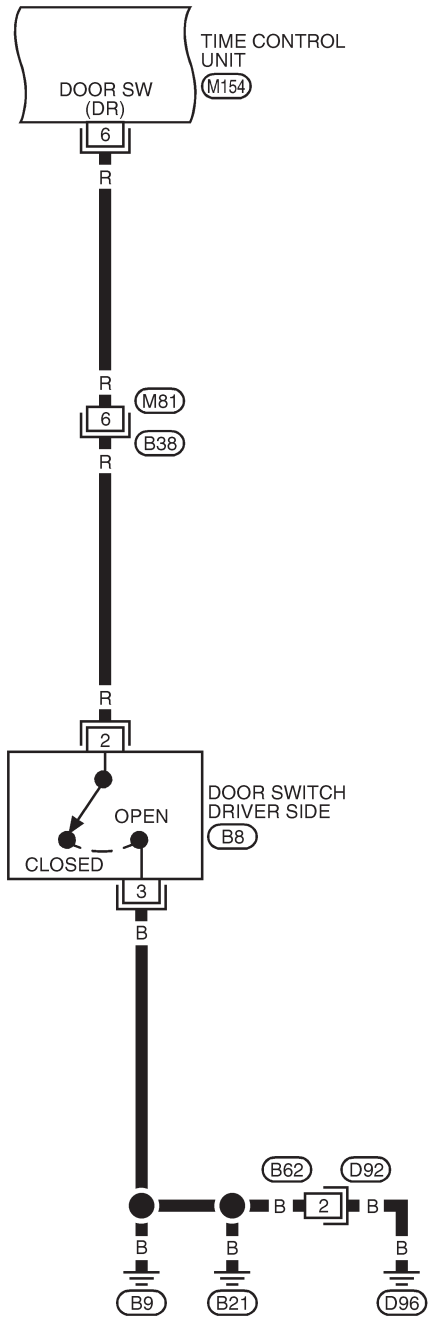
REFER TO THE FOLLOWING.
M1 , M2 , E104
-FUSE BLOCK-
JUNCTION BOX (J/B)
E67 -FUSE AND
FUSIBLE LINK BOX

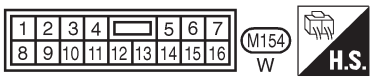
YEL373C

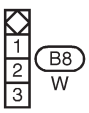
FIG. 2

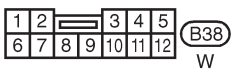
NJEL0504S02

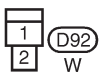
EL-D/LOCK-06







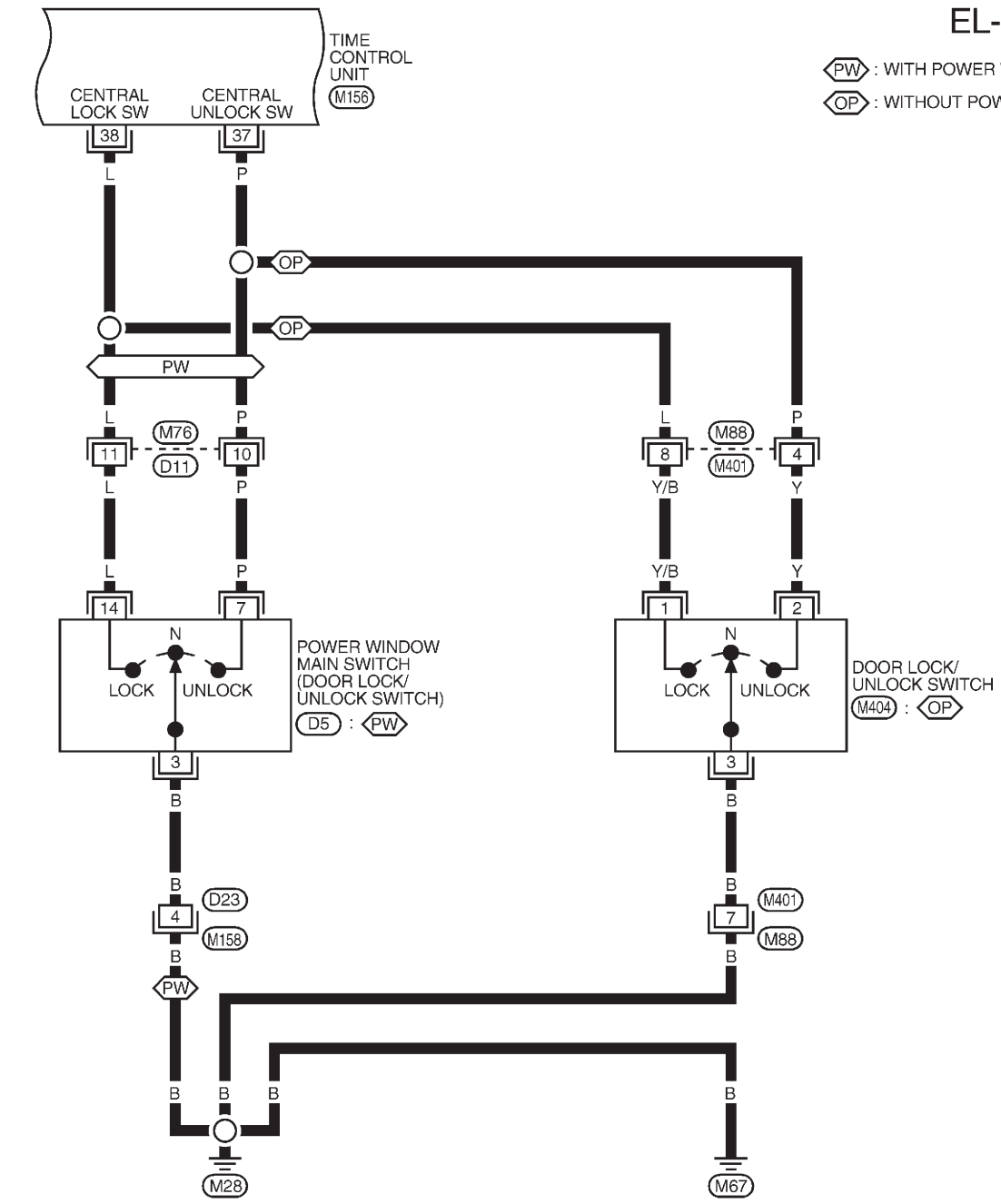


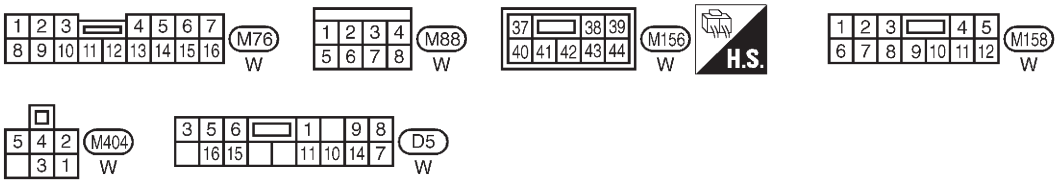


MEL224M

FIG. 3

NJEL0504S03

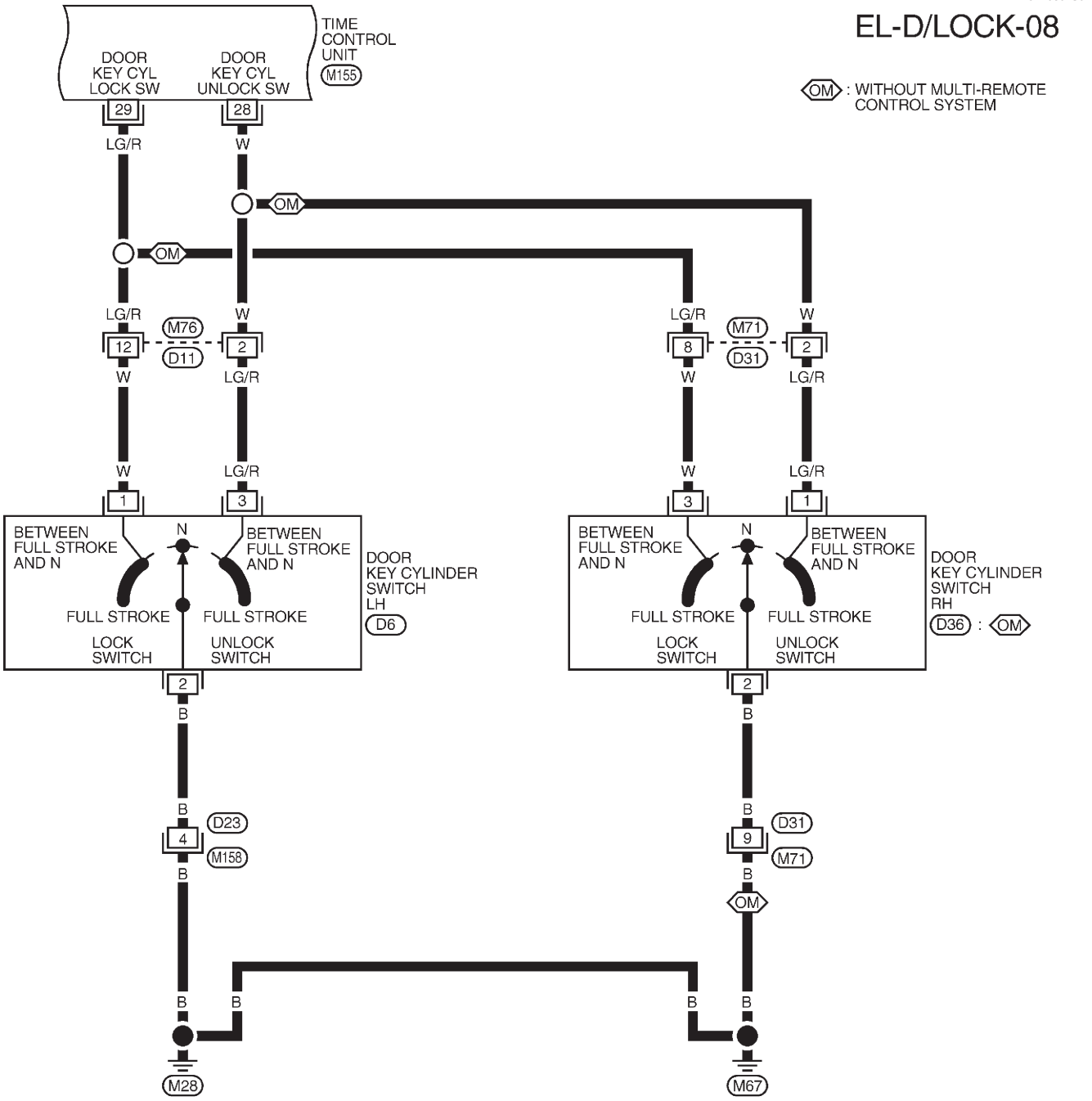


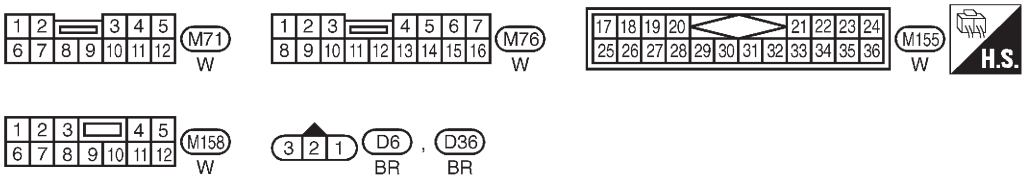


MEL226M

FIG. 4

NJEL0504S04



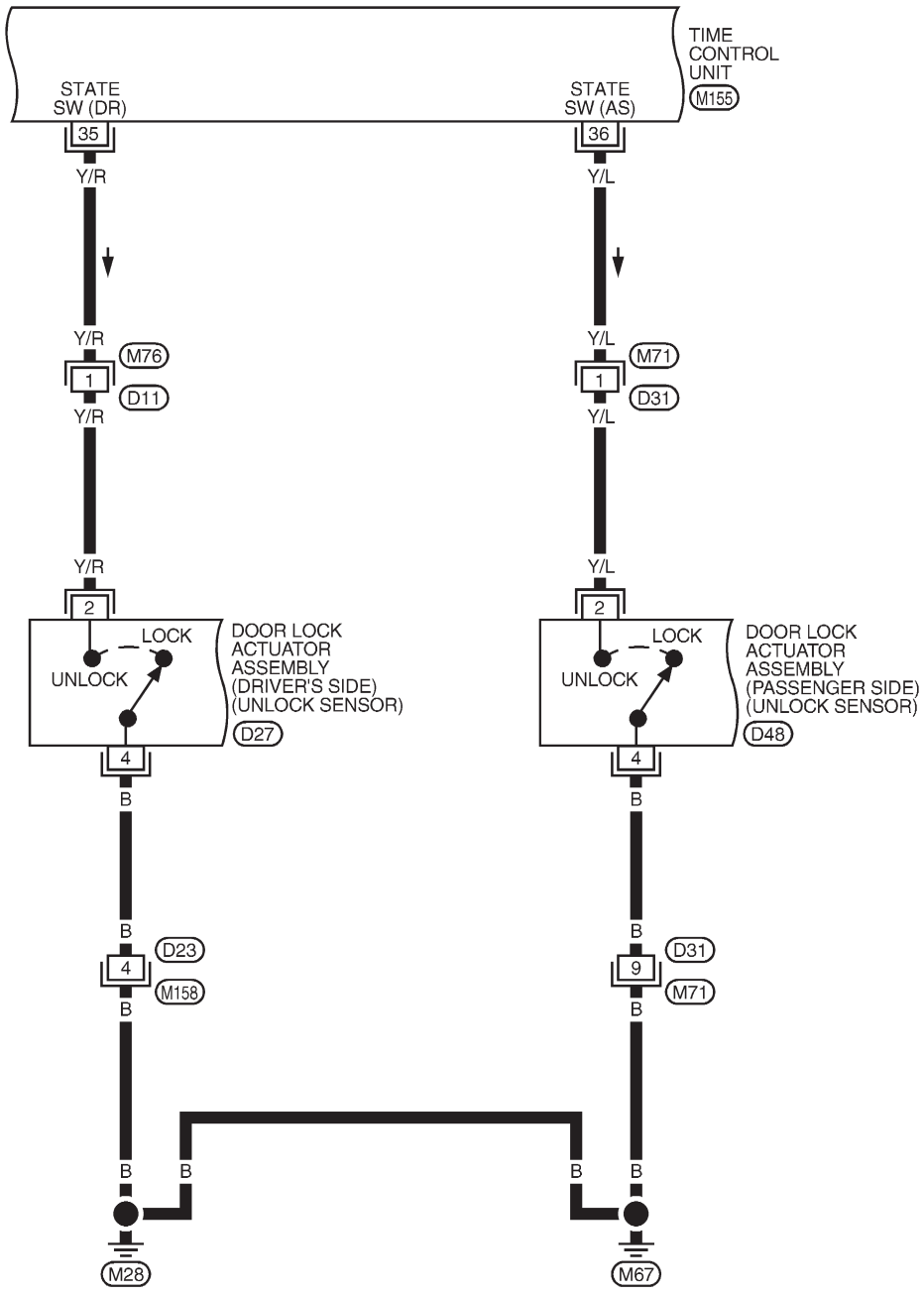


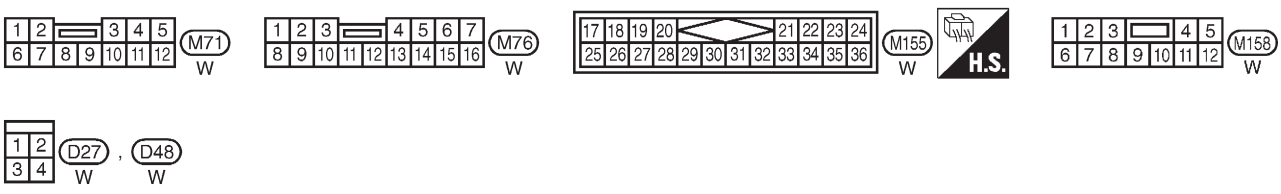
MEL225M

FIG. 5

NJEL0504S05

EL-D/LOCK-09



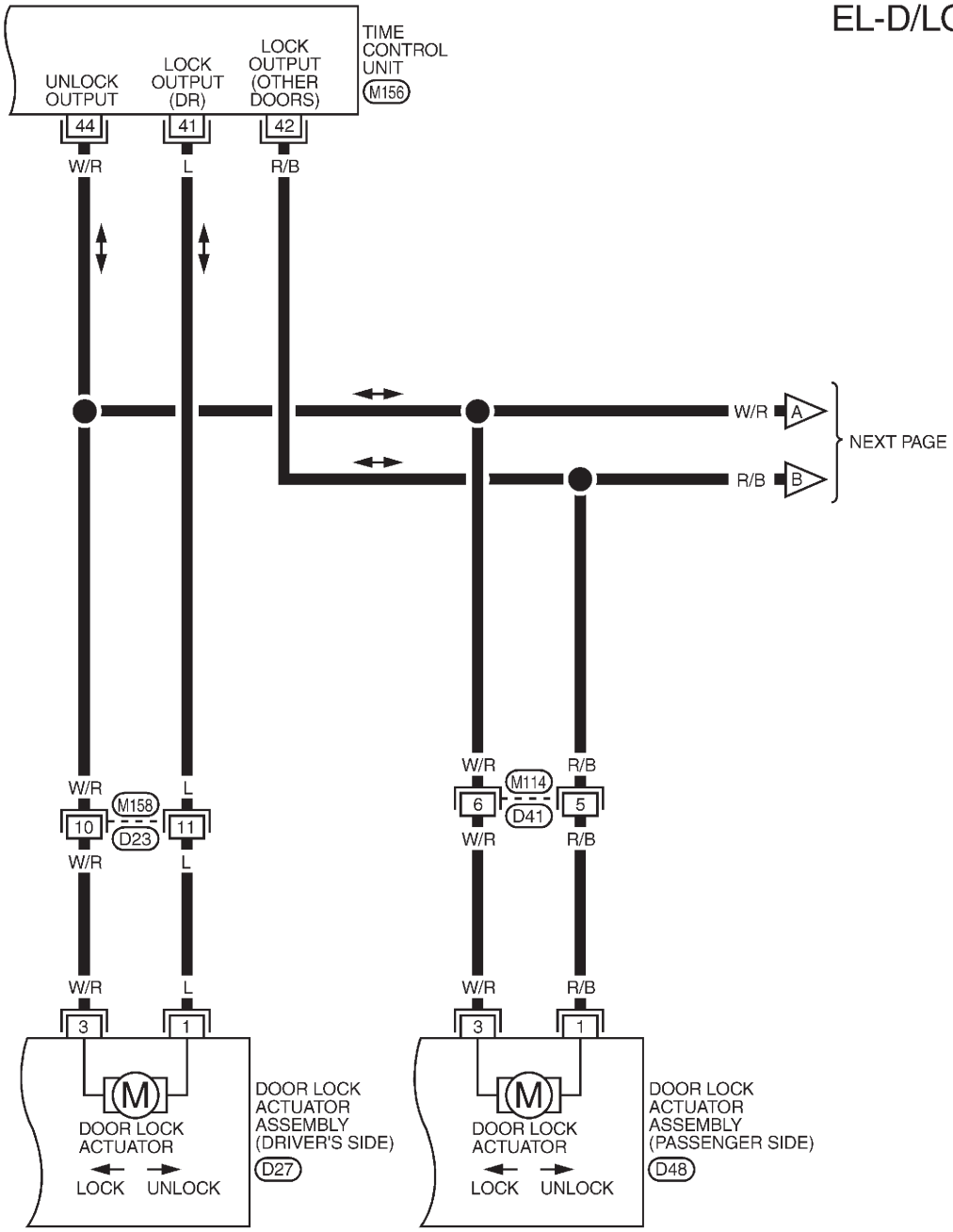


MEL227M

FIG. 6

NJEL0504S06

EL-D/LOCK-10





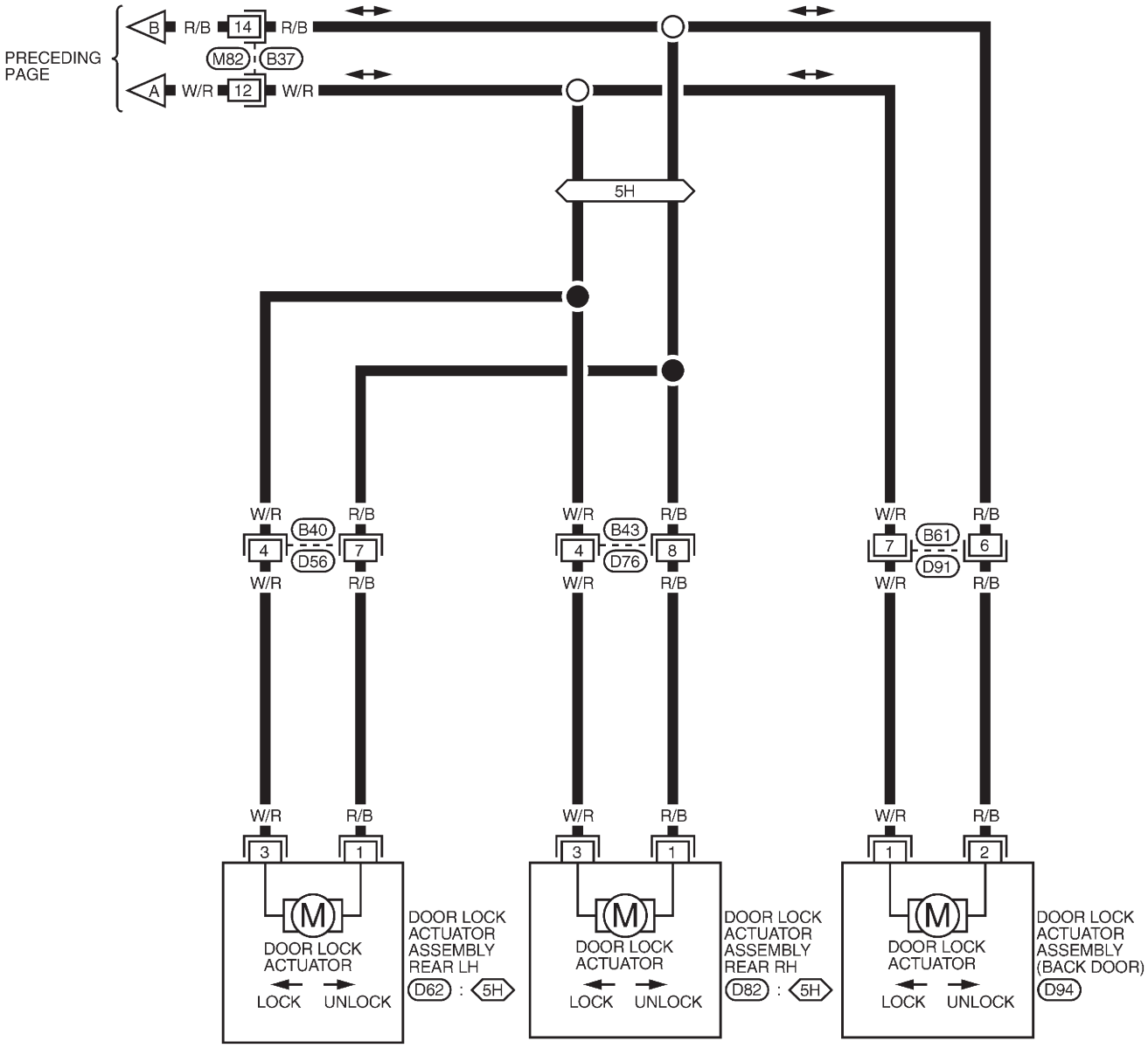
MEL228M

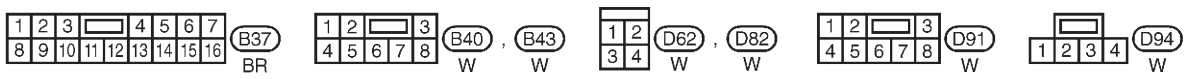
FIG. 7

NJEL0504S07

EL-D/LOCK-11

5H : 5-DOOR HATCHBACK MODELS





MEL229M

Trouble Diagnoses/Hatchback

NJEL0505

SYMPTOM CHART

NJEL0505S02

REFERENCE PAGE (EL-)		326	327	328	329	331	332	333
SYMPTOM		Main power supply and ground circuit check	Door lock/unlock switch check	Door key cylinder switch check	Door lock actuator check	Door switch check	Door unlock sensor check	Key switch check
1	Power door lock does not operate using any switch.	X			X			
2	Power door lock does not operate with lock/ unlock switch.		X					
3	Power door lock does not operate with door key cylinder switch.			X				
4	Specific door lock actuator does not operate.				X			
5	*Key reminder system does not operate.					X	X	X

X: Applicable

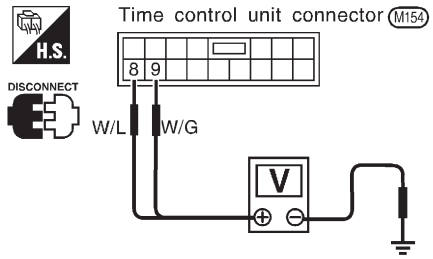
*: Make sure the power door lock system operates properly.

MAIN POWER SUPPLY AND GROUND CIRCUIT CHECK

=NJEL0505S03

Main Power Supply Circuit Check

NJEL0505S0301

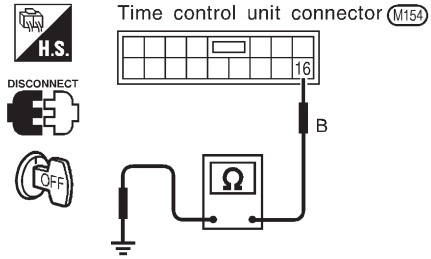


Terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
8	Ground	Battery voltage		
9				

SEL467X

Ground Circuit Check

NJEL0505S0302



Continuity should exist.

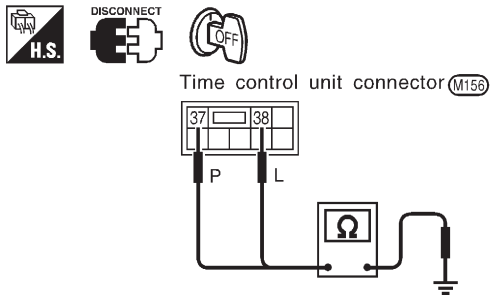
SEL448X

DOOR LOCK/UNLOCK SWITCH CHECK

=NJEL0505S04

1 CHECK DOOR LOCK/UNLOCK SWITCH INPUT SIGNAL

1. Disconnect time control unit harness connector.
2. Check continuity between time control unit harness connector terminal 37 or 38 and ground.



Terminals	Door lock/unlock switch condition	Continuity
38 – Ground	Lock	Yes
	N and Unlock	No
37 – Ground	Unlock	Yes
	N and Lock	No

SEL468X

Refer to wiring diagram in EL-320.

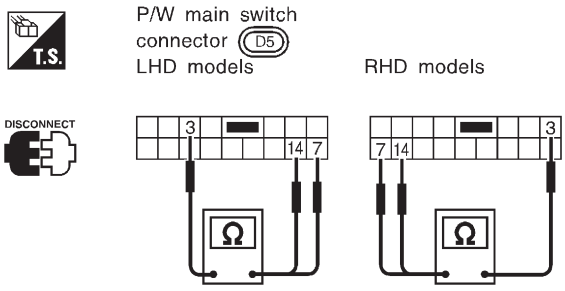
OK or NG

OK	▶	Door lock/unlock switch is OK.
NG	▶	GO TO 2.

2 CHECK DOOR LOCK/UNLOCK SWITCH

1. Disconnect door lock/unlock switch harness connector.
2. Check continuity between each door lock/unlock switch terminals.

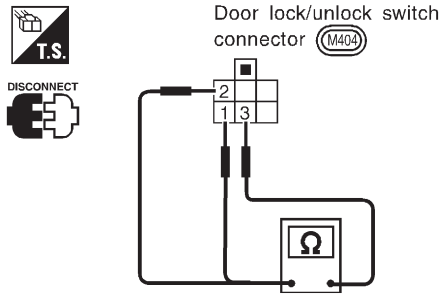
- Power window main switch (Door lock/unlock switch) (With power window)



Condition	Terminals		
	3	14	7
Lock	○	○	
N	No continuity		
Unlock	○		○

SEL019X

- Door lock/unlock switch (Without power window)



Condition	Terminals		
	3	2	1
Unlock	○	○	
N	No continuity		
Lock	○		○

SEL469X

OK or NG

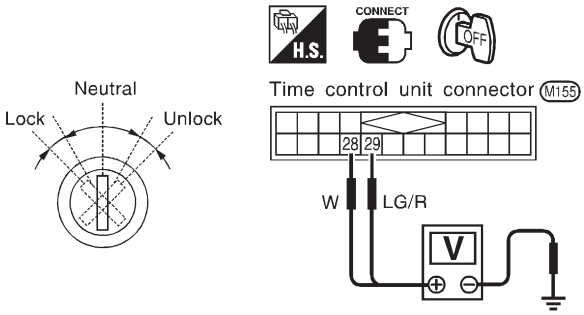
OK	▶	**Check the following.** ● Ground circuit for door lock/unlock switch ● Harness for open or short between door lock/unlock switch and time control unit connector
NG	▶	Replace door lock/unlock switch.

DOOR KEY CYLINDER SWITCH CHECK

NJEL0505S05

1 **CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL (LOCK/UNLOCK SIGNAL)**

Check voltage between time control unit harness connector terminals 28 or 29 and ground.



Terminals (+)	Terminals (−)	Key position	Voltage [V]
29	Ground	Neutral/Unlock	Approx. 5
		Lock	0
28	Ground	Neutral/Lock	Approx. 5
		Unlock	0

SEL470X

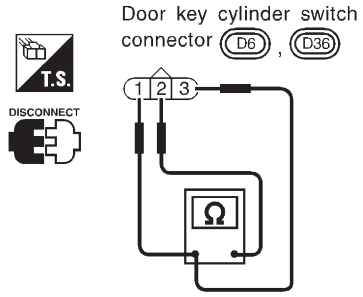
Refer to wiring diagram in EL-321.

OK or NG

OK	▶	Door key cylinder switch is OK.
NG	▶	GO TO 2.

2 **CHECK DOOR KEY CYLINDER SWITCH**

1. Disconnect door key cylinder switch harness connector.
2. Check continuity between door key cylinder switch terminals.



Terminals	Key position	Continuity
① - ② (LH side)	Neutral/Unlock	No
② - ③ (RH side)	Lock	Yes
① - ② (RH side)	Neutral/Lock	No
② - ③ (LH side)	Unlock	Yes

SEL471X

OK or NG

OK	▶	**Check the following.** ● Door key cylinder switch ground circuit ● Harness for open or short between time control unit and door key cylinder switch
NG	▶	Replace door key cylinder switch.

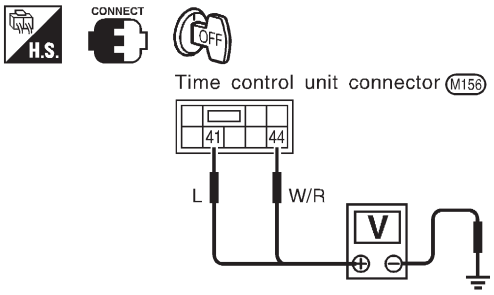
DOOR LOCK ACTUATOR CHECK

NJEL0505S06

1 **CHECK DOOR LOCK ACTUATOR OUTPUT SIGNAL**

Check voltage for door lock actuator.

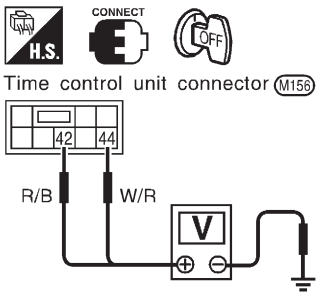
- Door lock actuator driver's side



Door lock/unlock switch condition	Terminals (+)	Terminals (–)	Voltage [V]
Lock	41	Ground	Approx. 12
Unlock	44	Ground	

SEL472X

- Door lock actuator passenger side and rear



Door lock/unlock switch condition	Terminals (+)	Terminals (–)	Voltage [V]
Lock	42	Ground	Approx. 12
Unlock	44	Ground	

SEL473X

Refer to wiring diagram in EL-323.

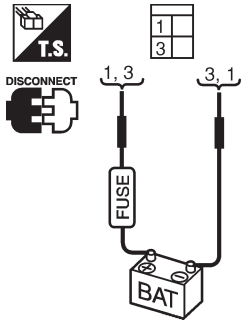
OK or NG

OK	▶	GO TO 2.
NG	▶	Replace time control unit. (Before replacing the control unit, perform "DOOR LOCK/ UNLOCK SWITCH CHECK".)

2	CHECK DOOR LOCK ACTUATOR

1. Disconnect door lock actuator harness connector.
2. Apply 12V direct current to door lock actuator and check operation.

- Front and rear door

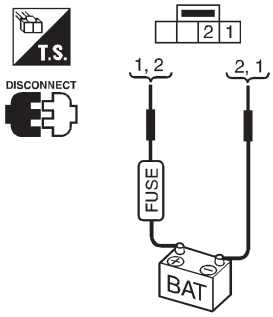


Door lock actuator connector
Driver side: D27
Passenger side: D48
Rear LH: D62
Rear RH: D82

Door lock actuator operation:
Terminals 1 (+) and 3 (–)
Unlocked → Locked
Terminals 3 (+) and 1 (–)
Locked → Unlocked

YEL784C

- Back door



Door lock actuator connector D94

Door lock actuator operation:
Terminals 2 (+) and 1 (–)
Unlocked → Locked
Terminals 1 (+) and 2 (–)
Locked → Unlocked

SEL491X

OK or NG

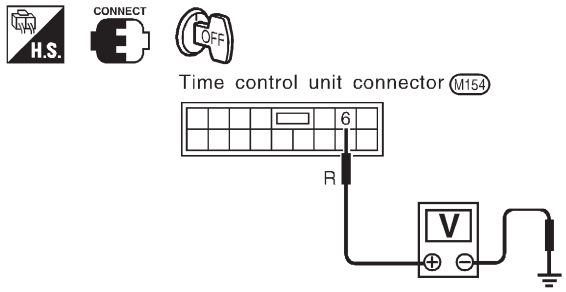
OK	▶	Check harness for open or short between time control unit connector and door lock actuator.
NG	▶	Replace door lock actuator.

DOOR SWITCH CHECK

=NJEL0505S08

1	CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector terminals 6 or 7 and ground.



	Terminals		Condition	Voltage [V]
	(+)	(−)		
Driver's door switch	6	Ground	Open	0
			Closed	Approx. 5

SEL475X

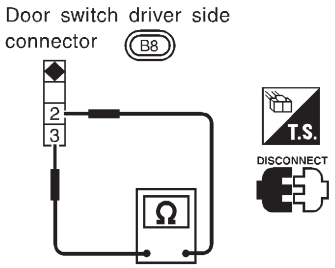
Refer to wiring diagram in EL-319.

OK or NG

OK	▶	Door switch is OK.
NG	▶	GO TO 2.

2	CHECK DOOR SWITCH

1. Disconnect door switch harness connector.
2. Check continuity between door switch terminals.



Continuity:
Door switch is pushed.
No
Door switch is released.
Yes

SEL325WA

OK or NG

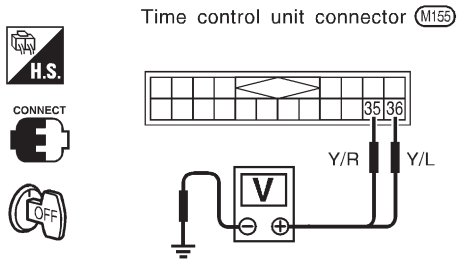
OK	▶	**Check the following.** ● Door switch ground circuit or door switch ground condition ● Harness for open or short between smart entrance control unit and door switch
NG	▶	Replace door switch.

DOOR UNLOCK SENSOR CHECK

=NJEL0505S09

1	CHECK DOOR UNLOCK SENSOR INPUT SIGNAL

Check voltage between time control unit terminal 35 or 36 and ground.



Terminals (+)	Terminals (–)	Condition (Driver's or passenger door)	Voltage [V]
35	Ground	Locked	Approx. 5
		Unlocked	0
36	Ground	Locked	Approx. 5
		Unlocked	0

SEL476X

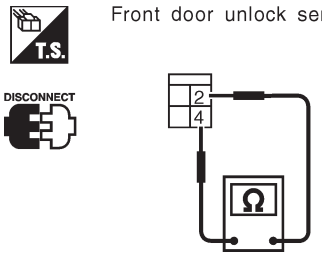
Refer to wiring diagram in EL-322.

OK or NG

OK	▶	Door unlock sensor is OK.
NG	▶	GO TO 2.

2	CHECK DOOR UNLOCK SENSOR

1. Disconnect door unlock sensor connector.
2. Check continuity between door unlock sensor terminals 2 and 4.



Continuity:
Condition: Locked
No
Condition: Unlocked
Yes

YEL785C

OK or NG

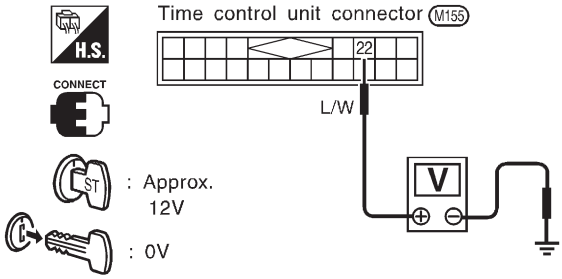
OK	▶	**Check the following.** ● Door unlock sensor ground circuit ● Harness for open or short between time control unit and door unlock sensor
NG	▶	Replace door unlock sensor.

KEY SWITCH (INSERT) CHECK

=NJEL0505S11

1	CHECK KEY SWITCH INPUT SIGNAL

Check voltage between time control unit terminal 22 and ground.



Voltage [V]:
Condition of switch: Key is inserted.
Approx. 12
Condition of switch: Key is removed.
0

SEL433X

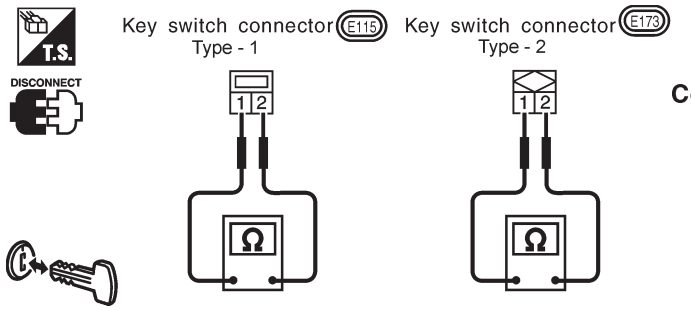
Refer to wiring diagram in EL-372.

OK or NG

OK	▶	Key switch is OK.
NG	▶	GO TO 2.

2	CHECK KEY SWITCH (INSERT)

Check continuity between key switch terminals 1 and 2.



Continuity:
Condition of key switch: Key is inserted.
Yes
Condition of key switch: Key is removed.
No

YEL786C

OK or NG

OK	▶	**Check the following.** ● 10A fuse [No. 12, located in fuse block (J/B)] ● Harness for open or short between key switch and fuse ● Harness for open or short between time control unit and key switch
NG	▶	Replace key switch.

System Description/Sedan

NJEL0509

OPERATION

NJEL0509S01

Power door lock/unlock operation by door key cylinder

- With the key inserted into front door key cylinder, turning it to LOCK will lock all doors.
- With the key inserted into front door key cylinder, turning it to UNLOCK will unlock all doors.

Power door lock/unlock operation by lock/unlock switch

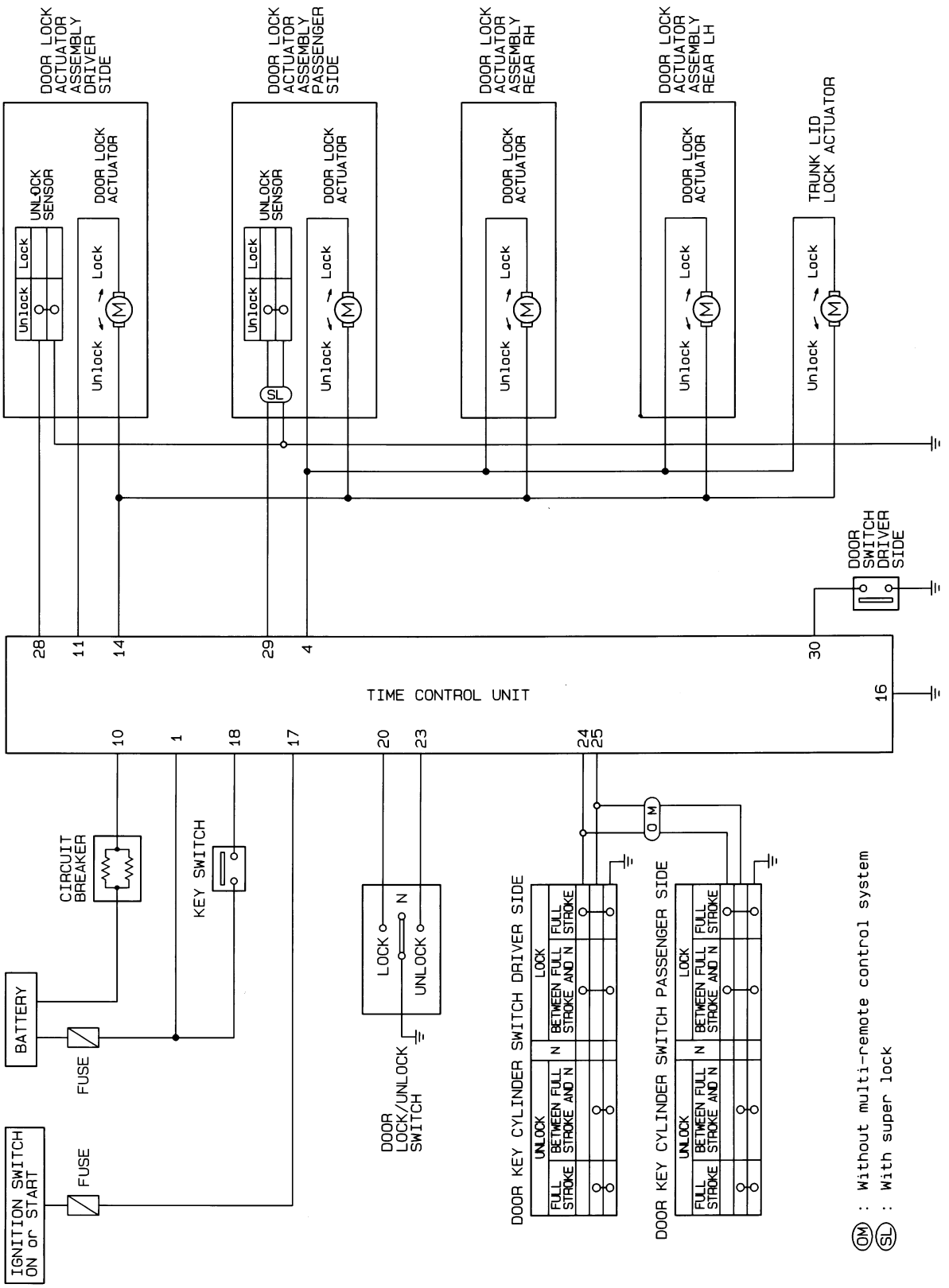
- With lock/unlock switch setting to LOCK will lock all doors.
- With lock/unlock switch setting to UNLOCK will unlock all doors.

Key reminder system

- If the ignition key is in the ignition key cylinder and driver door is open, setting lock/unlock switch, lock knob, key or multi-remote controller to "LOCK" locks the door once but then immediately unlocks all doors. (signal from door unlock sensor driver side)

Schematic/Sedan

NJEL0510



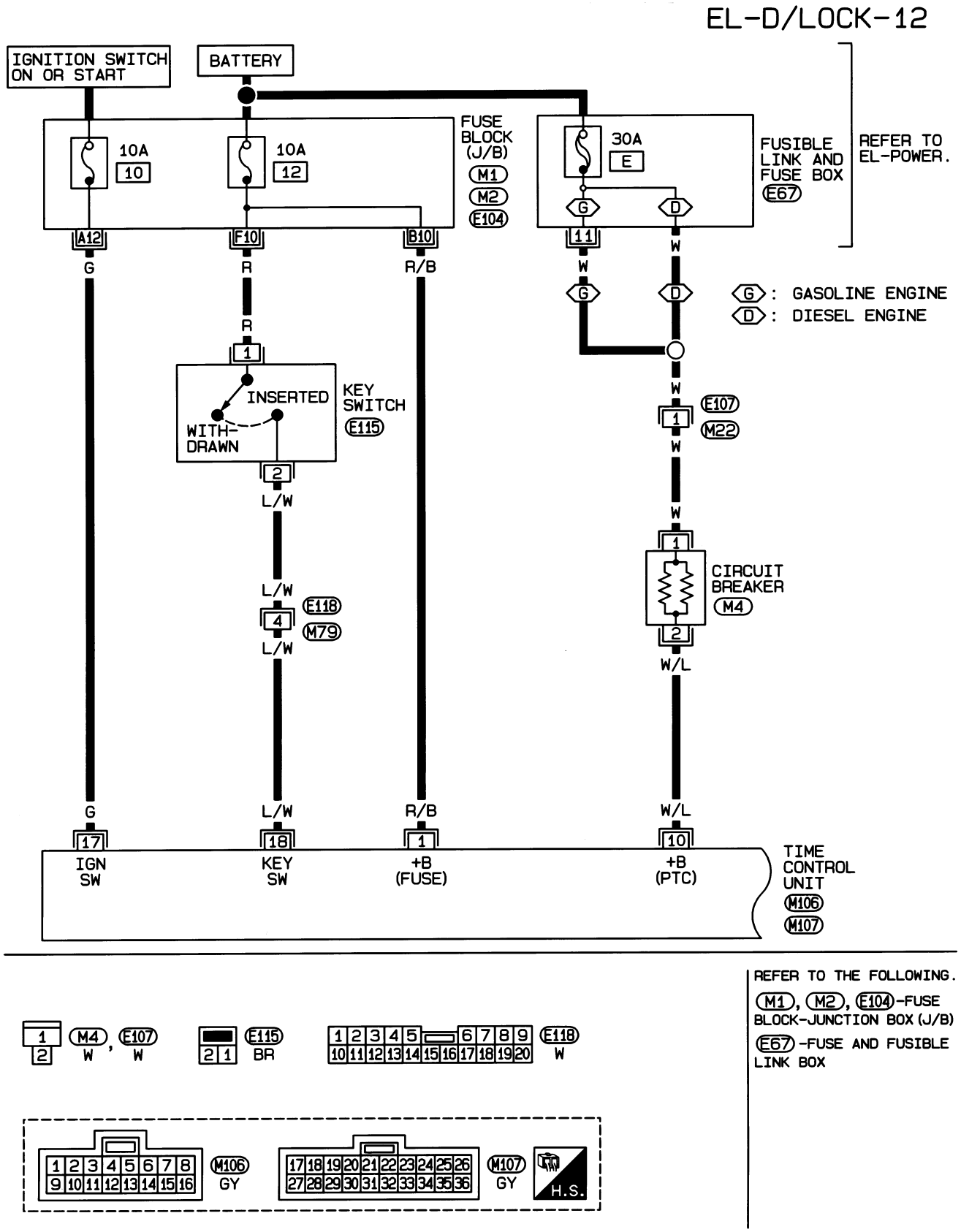
HEL411B

Wiring Diagram — D/LOCK —/Sedan

NJEL0511

FIG. 1

NJEL0511S01

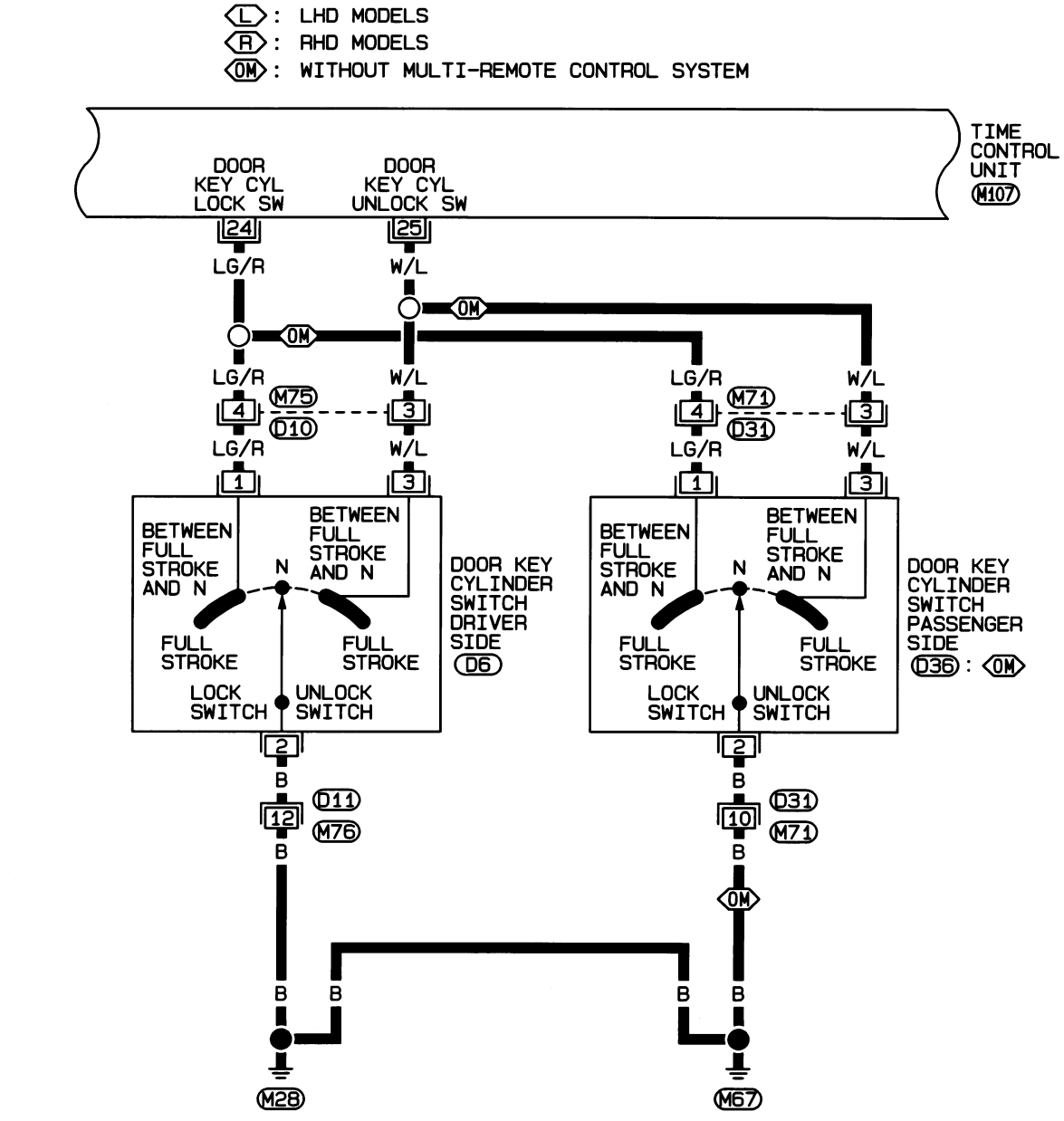


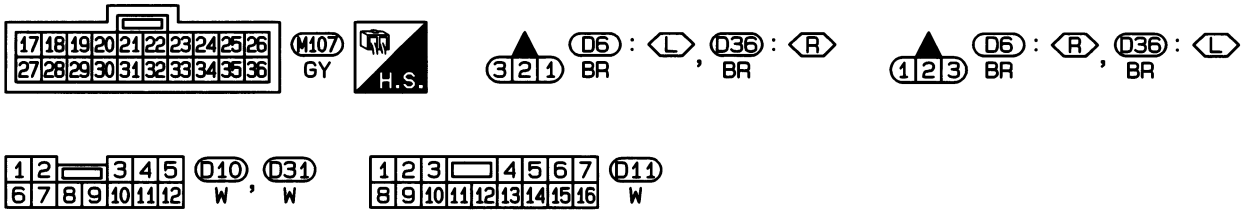
HEL412B

FIG. 2

NJEL0511S02

EL-D/LOCK-13

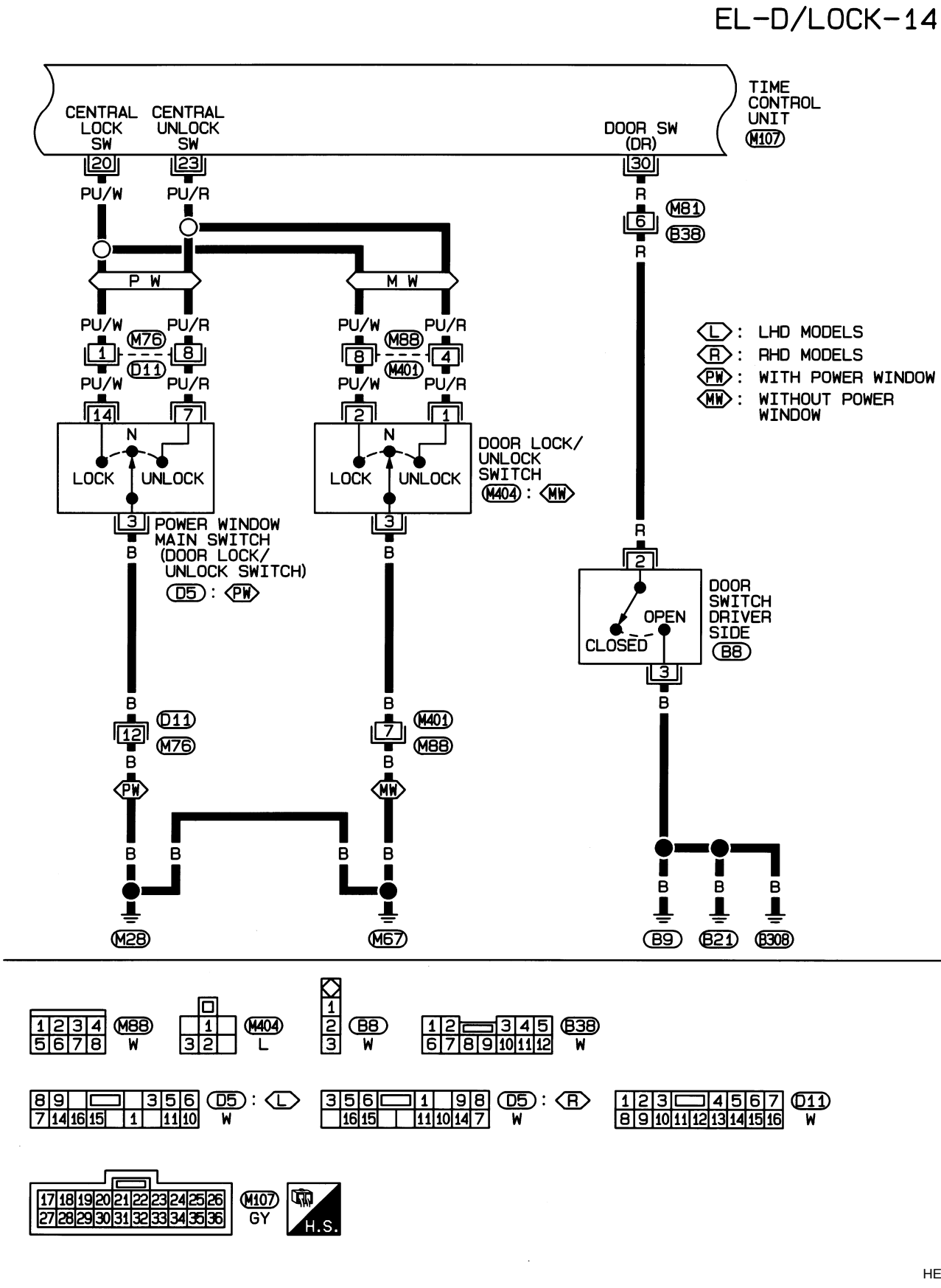




HEL413B

FIG. 3

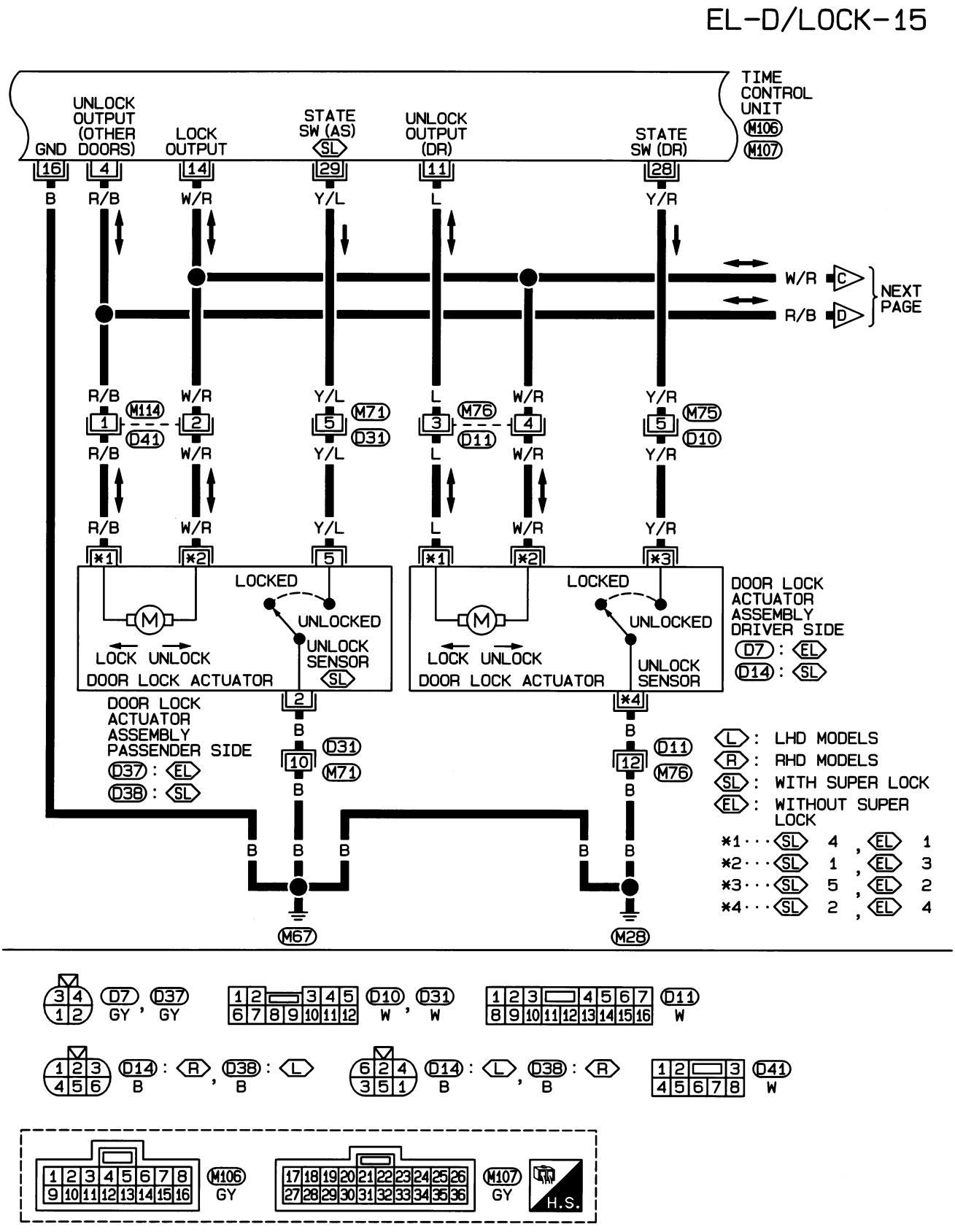
NJEL0511S03



HEL414B

FIG. 4

NJEL0511S04

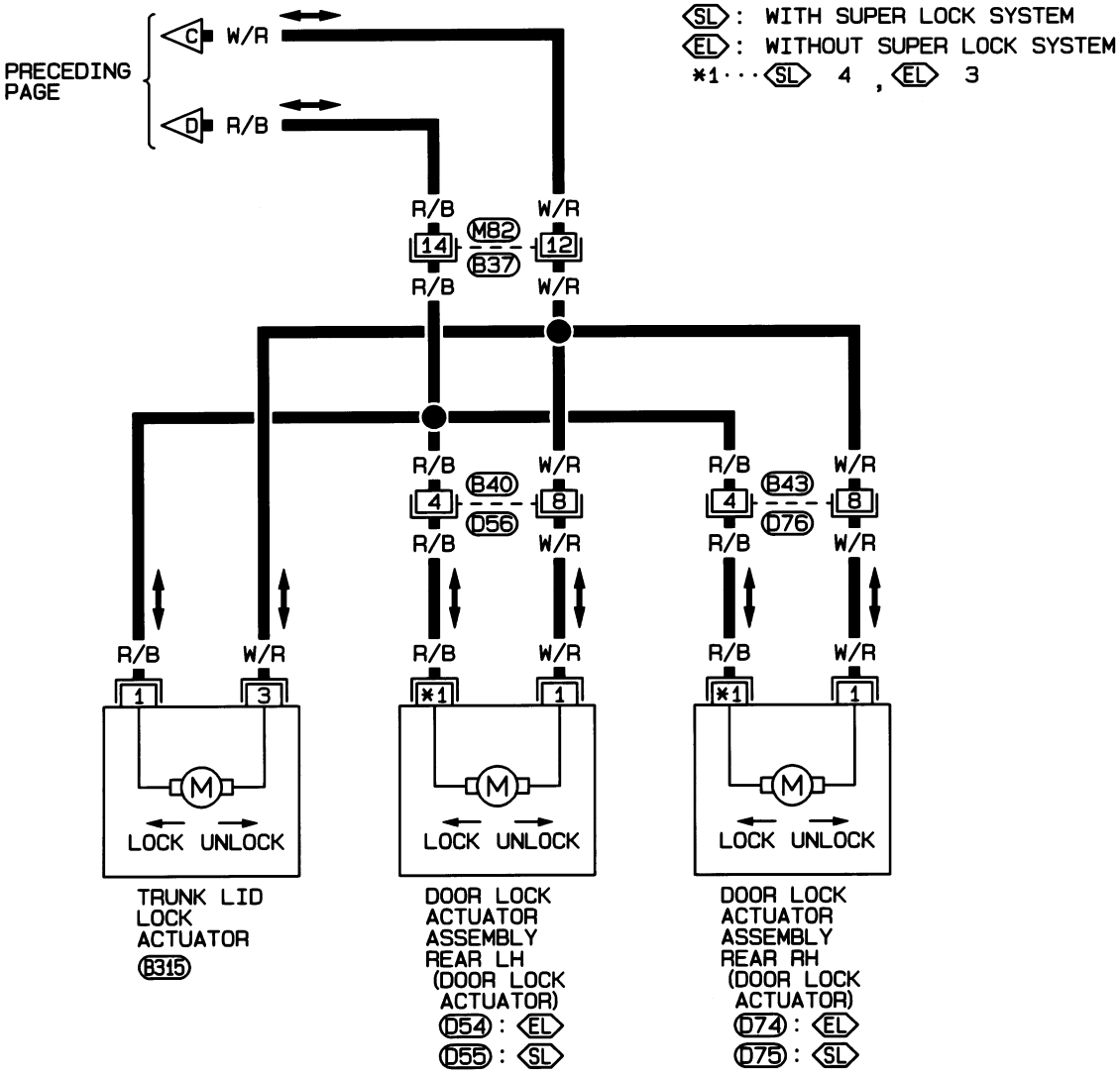


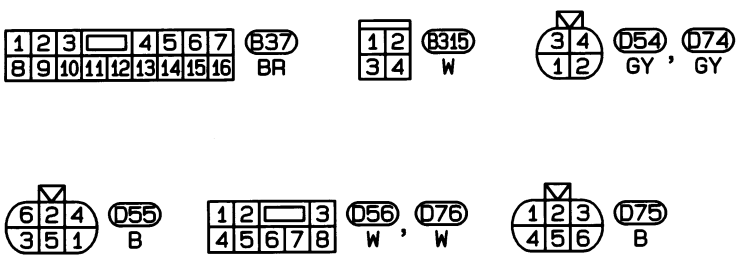
HEL415B

FIG. 5

NJEL0511S05

EL-D/LOCK-16





HEL455B

Trouble Diagnoses/Sedan

NJEL0512

SYMPTOM CHART

NJEL0512S02

REFERENCE PAGE (EL-)		341	342	343	344	346	347	348
SYMPTOM		Main power supply and ground circuit check	Door lock/unlock switch check	Door key cylinder switch check	Door lock actuator check	Door switch check	Door unlock sensor check	Key switch check
1	Power door lock does not operate using any switch.	X			X			
2	Power door lock does not operate with lock/ unlock switch.		X					
3	Power door lock does not operate with door key cylinder switch.			X				
4	Specific door lock actuator does not operate.				X			
5	*Key reminder system does not operate.					X	X	X

X: Applicable

*: Make sure the power door lock system operates properly.

MAIN POWER SUPPLY AND GROUND CIRCUIT CHECK

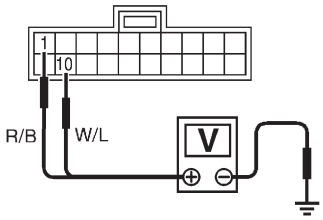
=NJEL0512S03

Main Power Supply Circuit Check

NJEL0512S0301



Time control unit connector M106



Terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
1	Ground	Battery voltage		
10				

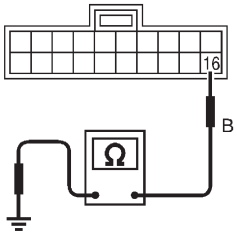
SEL006X

Ground Circuit Check

NJEL0512S0302



Time control unit connector M106



Continuity should exist.

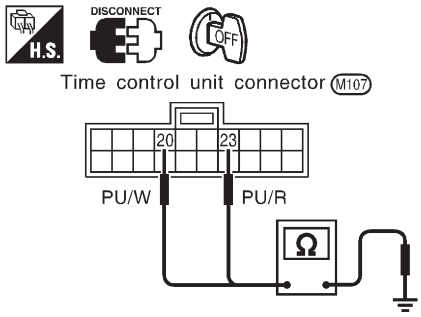
SEL992W

DOOR LOCK/UNLOCK SWITCH CHECK

=NJEL0512S04

1 CHECK DOOR LOCK/UNLOCK SWITCH INPUT SIGNAL

1. Disconnect time control unit harness connector.
2. Check continuity between time control unit harness connector terminal 20 or 23 and ground.



Terminals	Door lock/unlock switch condition	Continuity
20 – Ground	Lock	Yes
	N and Unlock	No
23 – Ground	Unlock	Yes
	N and Lock	No

SEL022X

Refer to wiring diagram in EL-337.

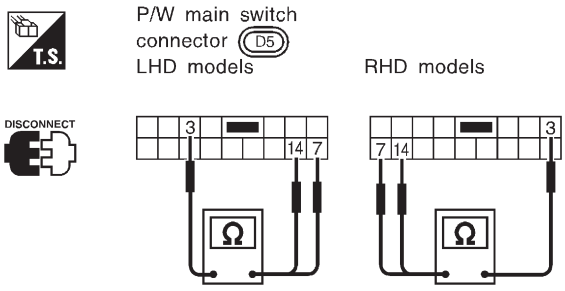
OK or NG

OK	▶	Door lock/unlock switch is OK.
NG	▶	GO TO 2.

2 CHECK DOOR LOCK/UNLOCK SWITCH

1. Disconnect door lock/unlock switch harness connector.
2. Check continuity between each door lock/unlock switch terminals.

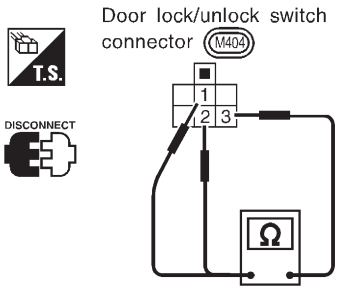
- Power window main switch (Door lock/unlock switch) (With power window)



Condition	Terminals		
	3	14	7
Lock	○	○	
N	No continuity		
Unlock	○		○

SEL019X

- (Without power window)



Condition	Terminals		
	3	2	1
Lock	○	○	
N	No continuity		
Unlock	○		○

SEL020X

OK or NG

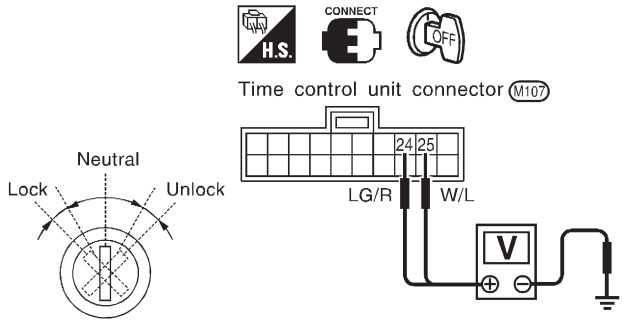
OK	▶	**Check the following.** ● Ground circuit for door lock/unlock switch ● Harness for open or short between door lock/unlock switch and time control unit connector
NG	▶	Replace door lock/unlock switch.

DOOR KEY CYLINDER SWITCH CHECK

=NJEL0512S05

1 **CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL (LOCK SIGNAL)**

Check voltage between time control unit harness connector terminals 24 or 25 and ground.



Terminals (+)	Terminals (−)	Key position	Voltage [V]
24	Ground	Neutral/Unlock	Approx. 5
		Lock	0
25	Ground	Neutral/Lock	Approx. 5
		Unlock	0

SEL008X

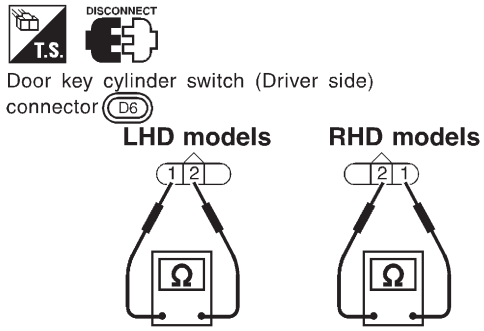
Refer to wiring diagram in EL-336.

OK or NG

OK	▶	Door key cylinder switch is OK.
NG	▶	GO TO 2.

2 **CHECK DOOR KEY CYLINDER SWITCH**

1. Disconnect door key cylinder switch harness connector.
2. Check continuity between door key cylinder switch terminals 1 and 2.



Terminals	Key position	Continuity
① - ②	Neutral	No
	Lock	Yes

SEL979W

OK or NG

OK	▶	**Check the following.** ● Door key cylinder switch ground circuit ● Harness for open or short between smart entrance control unit and door key cylinder switch
NG	▶	Replace door key cylinder switch.

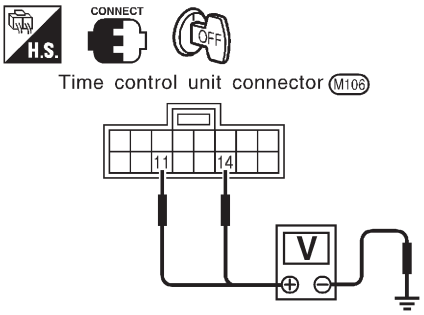
DOOR LOCK ACTUATOR CHECK

=NJEL0512S06

1 **CHECK DOOR LOCK ACTUATOR CIRCUIT**

Check voltage for door lock actuator.

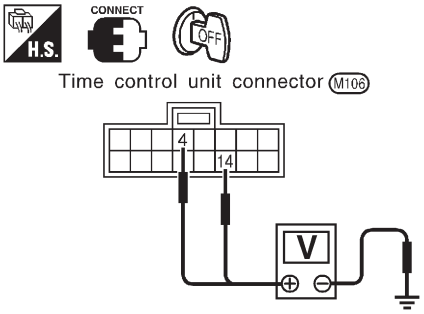
- Door lock actuator driver's side



Door lock/unlock switch condition	Terminals (+)	Terminals (–)	Voltage [V]
Lock	14	Ground	Approx. 12
Unlock	11	Ground	

SEL009X

- Door lock actuator passenger side and rear



Door lock/unlock switch condition	Terminals (+)	Terminals (–)	Voltage [V]
Lock	14	Ground	Approx. 12
Unlock	4	Ground	

SEL010X

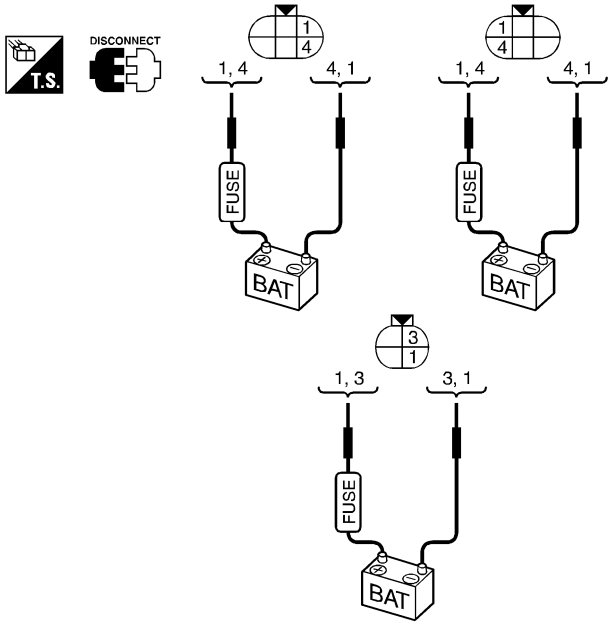
Refer to wiring diagram in EL-338.

OK or NG

OK	▶	GO TO 2.
NG	▶	Replace time control unit. (Before replacing the control unit, perform "DOOR LOCK/ UNLOCK SWITCH CHECK".)

2	CHECK DOOR LOCK ACTUATOR

1. Disconnect door lock actuator harness connector.
2. Apply 12V direct current to door lock actuator and check operation.



Door lock actuator connector
(With super lock)

Driver side : D14
Passenger side: D38
Rear LH : D55
Rear RH : D75

Door lock actuator operation
Terminals between 1(+) and 4(–)
Unlocked → Locked
Terminals between 4(+) and 1(–)
Locked → Unlocked

Door lock actuator connector
(Without super lock)

Driver side : D7
Passenger side: D37
Rear LH : D54
Rear RH : D74

Door lock actuator operation
Terminals between 1(+) and 3(–)
Unlocked → Locked
Terminals between 3(+) and 1(–)
Locked → Unlocked

SEL662X

OK or NG

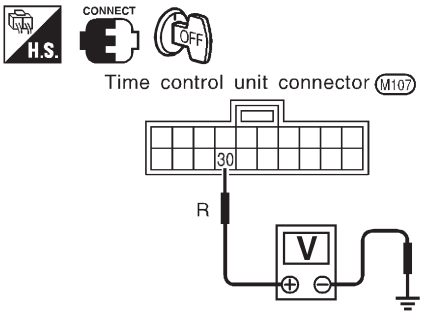
OK	▶	Check harness for open or short between time control unit connector and door lock actuator.
NG	▶	Replace door lock actuator.

DOOR SWITCH CHECK

=NJEL0512S08

1	CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector terminals 30 and ground.



Voltage [V]:
Condition of driver's door: CLOSED
Approx. 5
Condition of driver's door: OPEN
0

SEL986W

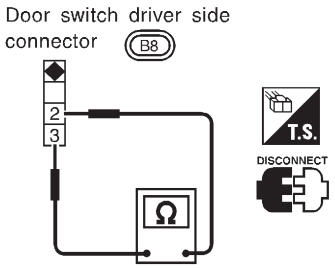
Refer to wiring diagram in EL-341.

OK or NG

OK	▶	Door switch is OK.
NG	▶	GO TO 2.

2	CHECK DOOR SWITCH

1. Disconnect door switch harness connector.
2. Check continuity between door switch terminals.



Continuity:
Door switch is pushed.
No
Door switch is released.
Yes

SEL325WA

OK or NG

OK	▶	**Check the following.** ● Door switch ground circuit or door switch ground condition ● Harness for open or short between smart entrance control unit and door switch
NG	▶	Replace door switch.

DOOR UNLOCK SENSOR CHECK

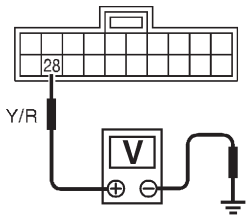
=NJEL0512S09

1	CHECK FRONT DOOR UNLOCK SENSOR INPUT SIGNAL

Check voltage between time control unit harness connector terminal 28 and ground.



Time control unit connector M107



Terminals (+)	Terminals (–)	Condition (Driver's door)	Voltage [V]
28	Ground	Locked	Approx. 5
		Unlocked	0

SEL987W

OK or NG

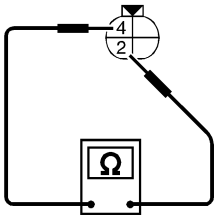
OK	▶	Door unlock sensor is OK.
NG	▶	GO TO 2.

2	CHECK FRONT DOOR UNLOCK SENSOR

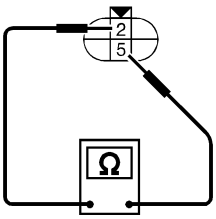
1. Disconnect front door unlock sensor harness connector.
2. Check continuity between door unlock sensor terminals.



Front door unlock sensor connector (Without super lock) D7



Front door unlock sensor connector (With super lock) D14



Continuity:
Condition: Locked
No
Condition: Unlocked
Yes

SEL661X

OK or NG

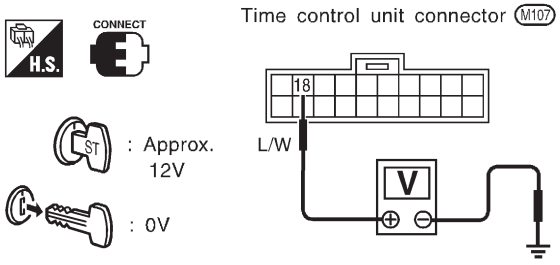
OK	▶	**Check the following.** ● Door unlock sensor ground circuit ● Harness for open or short between time control unit and door unlock sensor
NG	▶	Replace door unlock sensor.

KEY SWITCH (INSERT) CHECK

=NJEL0512S11

1	CHECK KEY SWITCH INPUT SIGNAL

Check voltage between time control unit terminal 18 and ground.



Voltage [V]:
Condition of switch: Key is inserted.
Approx. 12
Condition of switch: Key is removed.
0

SEL990W

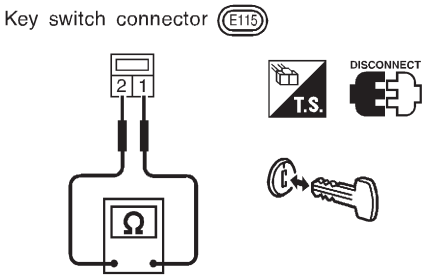
Refer to wiring diagram in EL-335.

OK or NG

OK	▶	Key switch is OK.
NG	▶	GO TO 2.

2	CHECK KEY SWITCH (INSERT)

Check continuity between key switch terminals 1 and 2.



Continuity:
Condition of key switch: Key is inserted.
Yes
Condition of key switch: Key is removed.
No

SEL194WA

OK or NG

OK	▶	**Check the following.** ● 10A fuse [No. 12, located in fuse block (J/B)] ● Harness for open or short between key switch and fuse ● Harness for open or short between time control unit and key switch
NG	▶	Replace key switch.

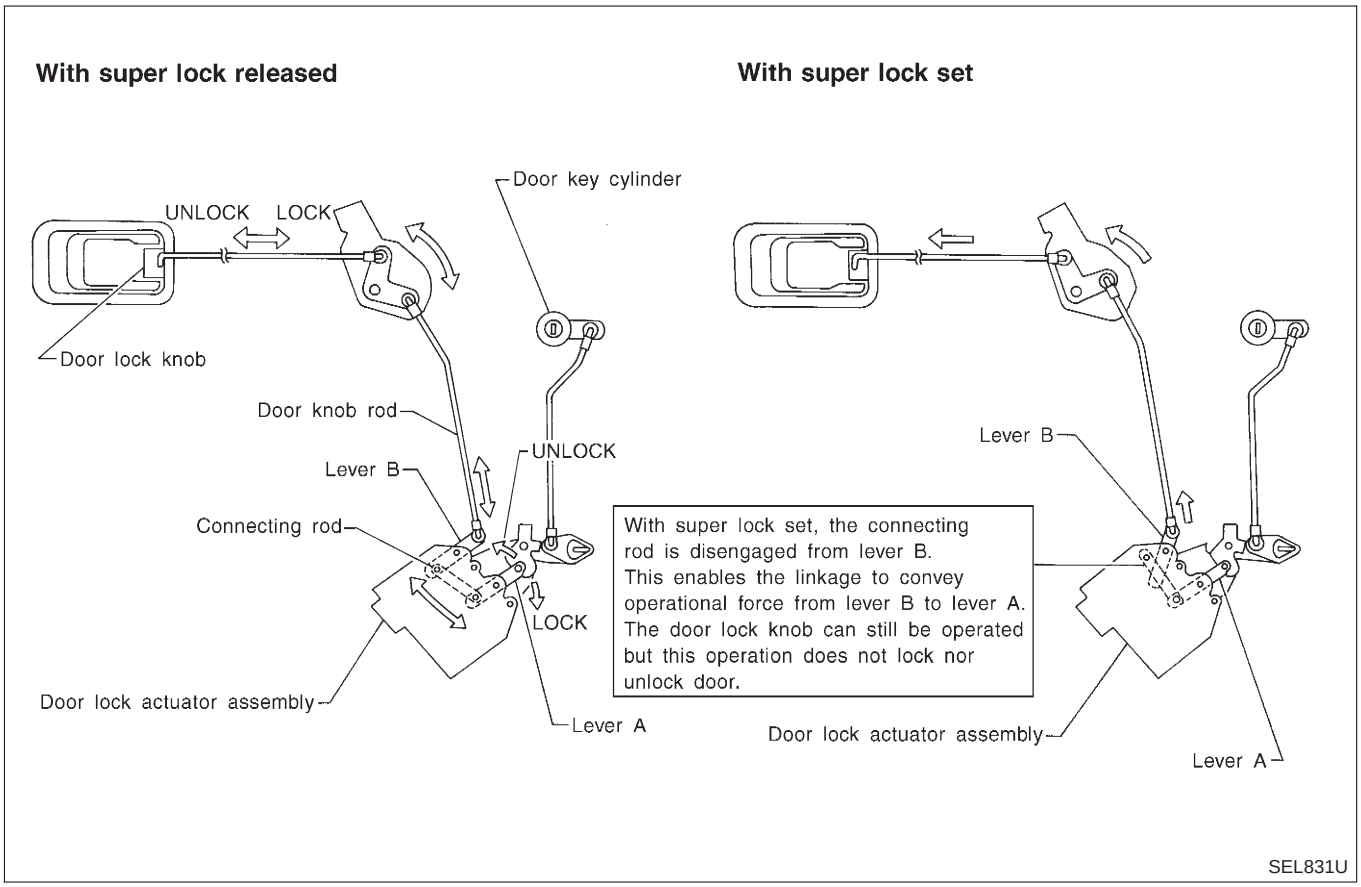
System Description

NJEL0395

OUTLINE

NJEL0395S01

Power door lock system with super lock and key reminder is controlled by time control unit. Super lock has a higher anti-theft performance than conventional power door lock systems.
When super lock is in released condition, lock knob operation locks or unlocks door.
When super lock is in set condition, lock knob operation cannot lock nor unlock door.



OPERATION

NJEL0395S02

Power door lock/unlock and super lock set/release operation by door key cylinder

- With the key inserted into front door key cylinder, turning it to LOCK will lock all doors and set super lock. (Super lock will not be set while key is inserted in the ignition key cylinder.)
- With the key inserted into front door key cylinder, turning it to UNLOCK will unlock all doors and release super lock.

Power door lock/unlock and super lock set/release operation by multi-remote controller (If equipped)

- Pressing multi-remote controller LOCK button will lock all doors and set super lock. (Super lock will not be set while key is inserted in the ignition key cylinder.)
- Pressing multi-remote controller UNLOCK button once will unlock driver door and release super lock. Then, if an unlock signal is sent from the remote controller again within 5 seconds, all other doors will be unlocked.

Power door lock and super lock release operation (by NATS IMMU signal)

- When the super lock is set, turning the ignition key switch to ON will release the super lock. All doors will unlock once, but then immediately lock again.

Power door lock/unlock operation by lock/unlock switch

- With lock/unlock switch on driver door trim setting to LOCK will lock all doors.
- With lock/unlock switch on driver door trim setting to UNLOCK will unlock all doors.

Lock/unlock switch operation cannot control super lock.
Key reminder system

- If the ignition key is in the ignition key cylinder and driver door is open, setting lock/unlock switch, lock

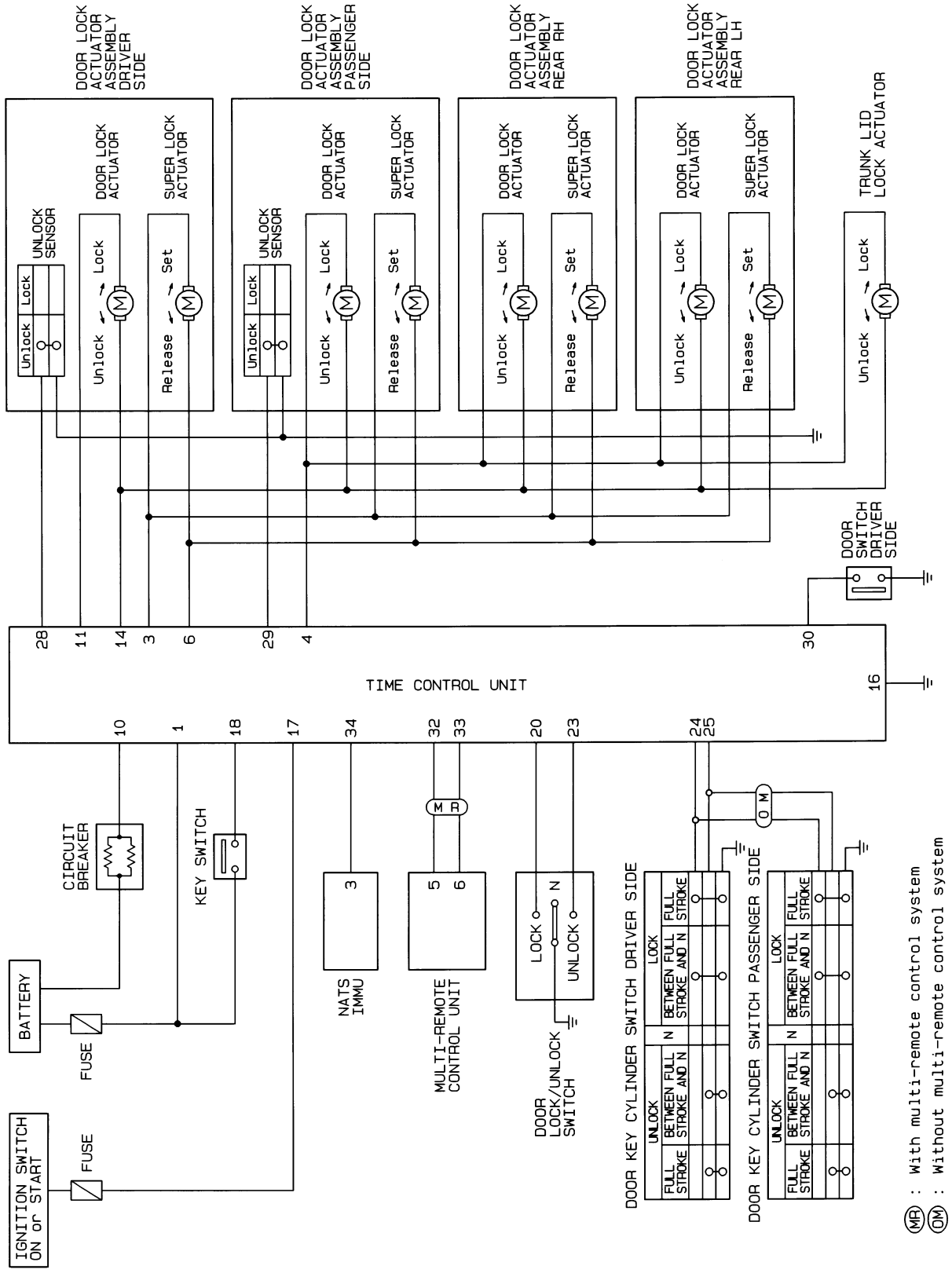
knob, key or multi-remote controller to "LOCK" locks the door once but then immediately unlocks all doors. (signal from door unlock sensor driver side)

System initialization

- System initialization is required when battery cables are reconnected. Conduct the following to release super lock once;
  — insert the key into the ignition key cylinder and turn it to ON.
  — LOCK/UNLOCK operation using door key cylinder or multi-remote controller.

Schematic/Sedan

NJEL0396



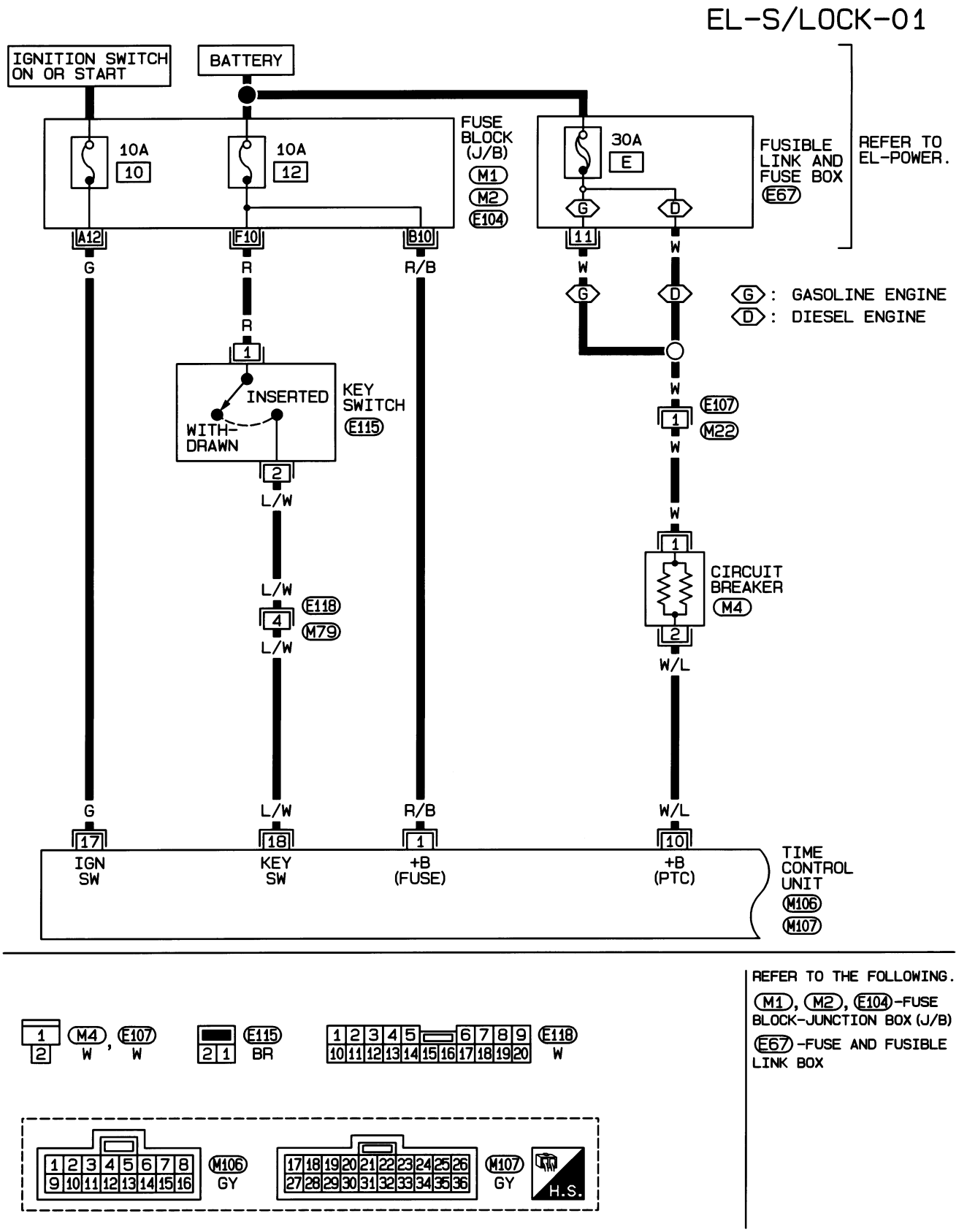
HEL416B

Wiring Diagram — S/LOCK —/Sedan

NJEL0397

FIG. 1

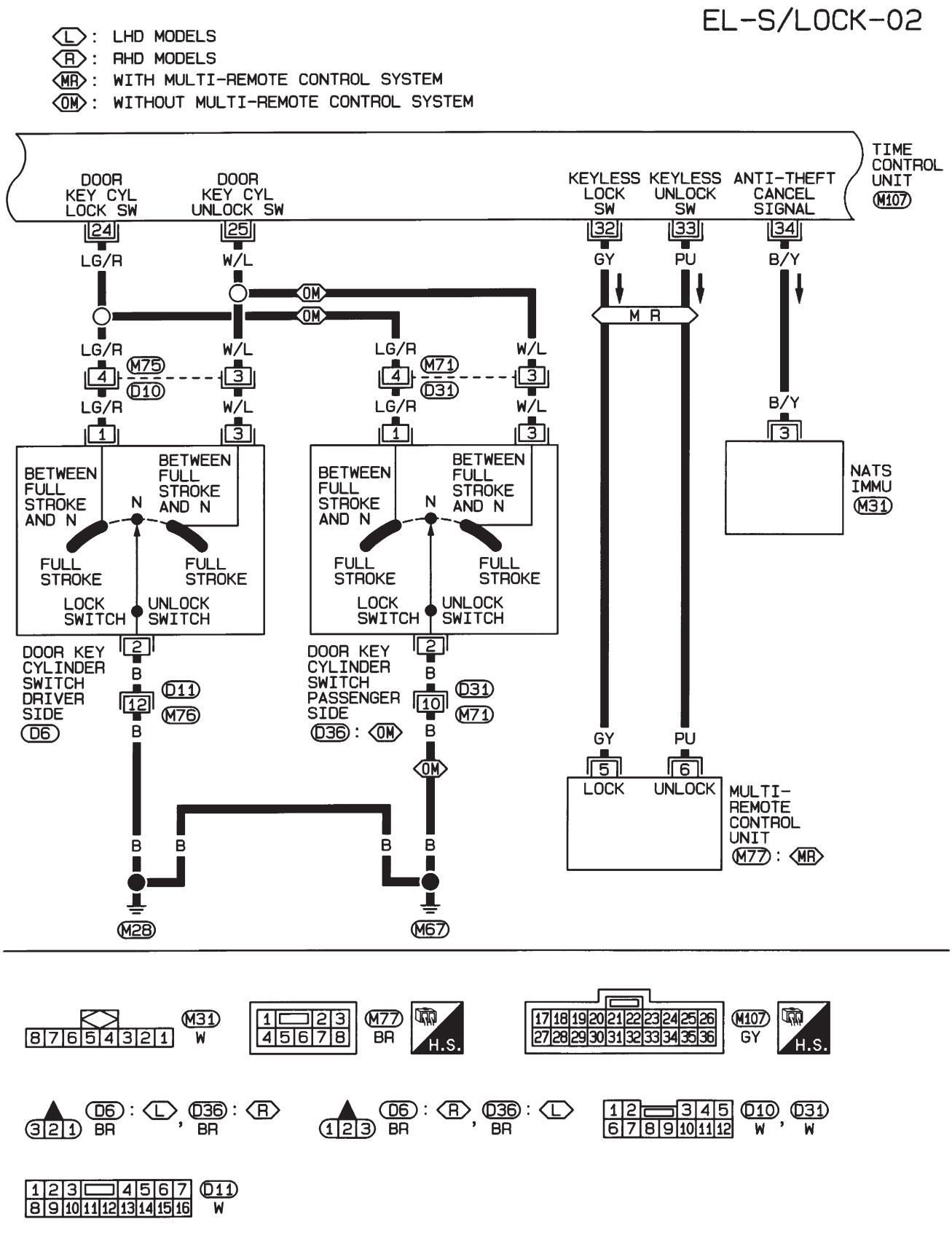
NJEL0397S01



HEL417B

FIG. 2

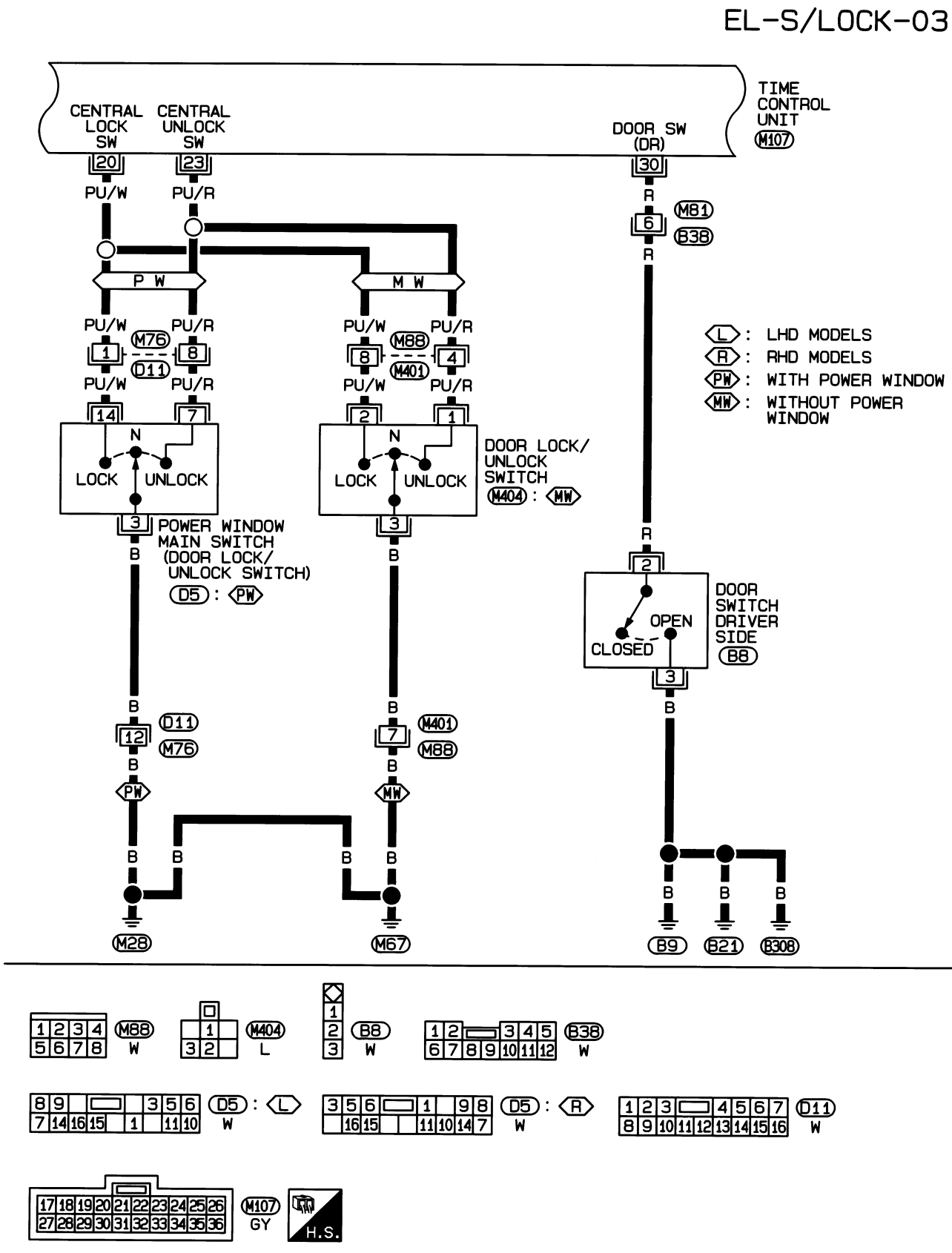
NJEL0397S02



HEL084B

FIG. 3

NJEL0397S03

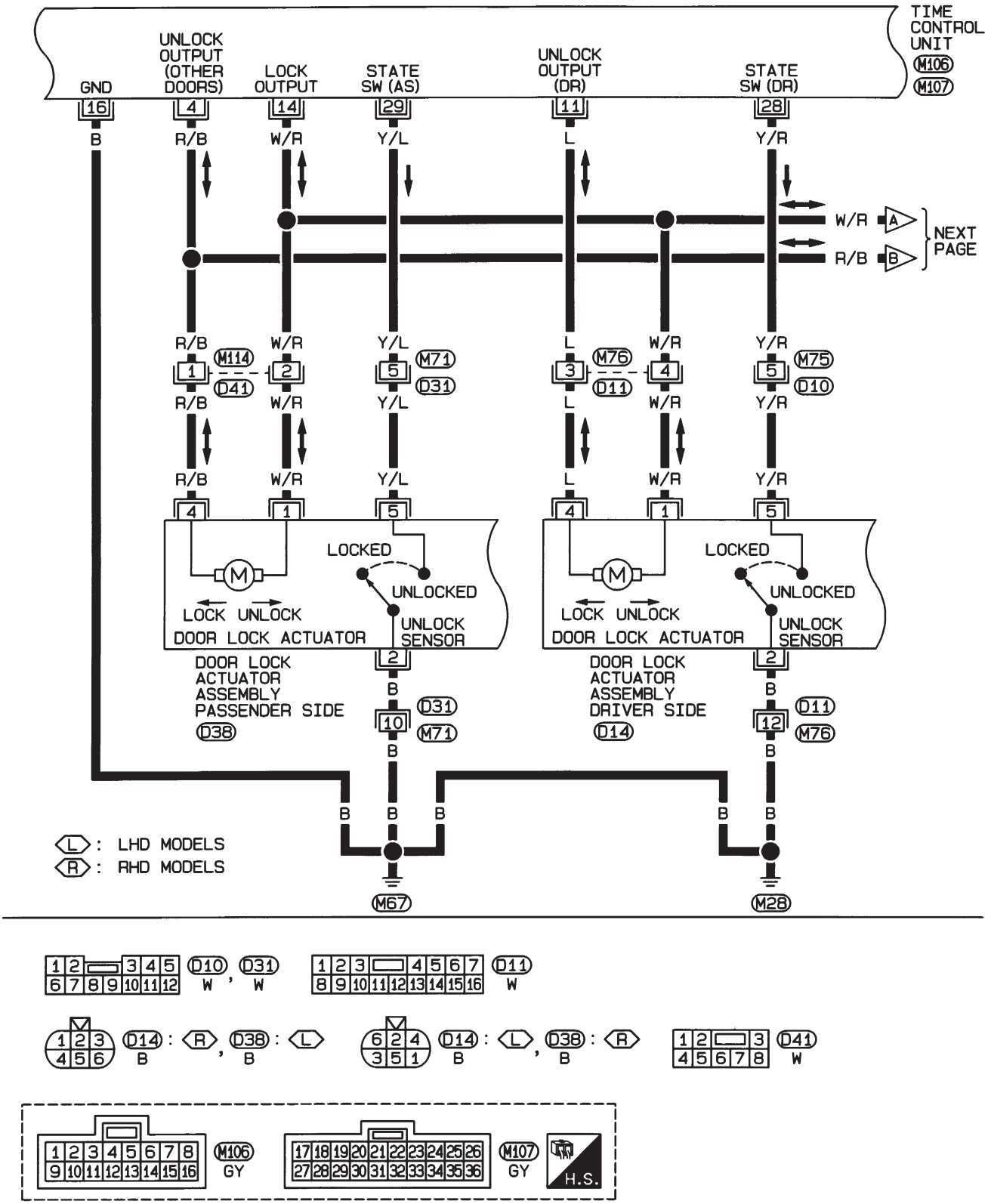


HEL418B

FIG. 4

NJEL0397S04

EL-S/LOCK-04

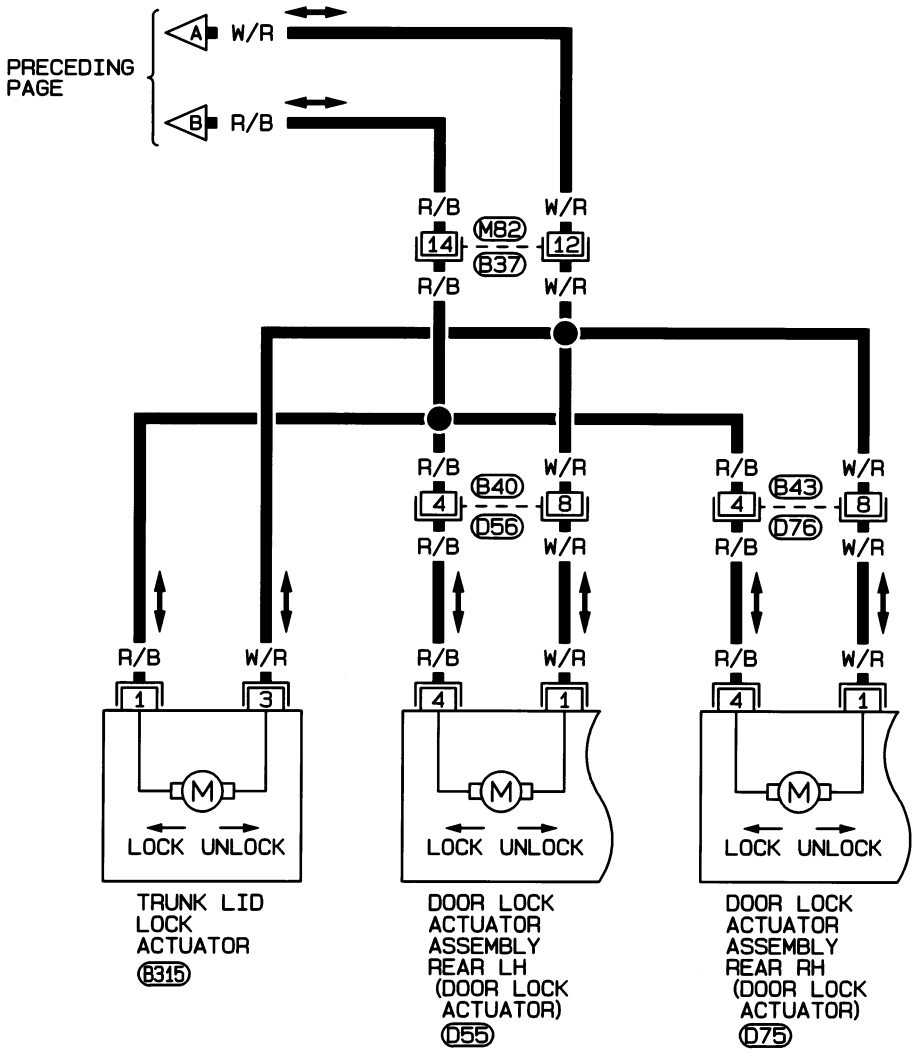


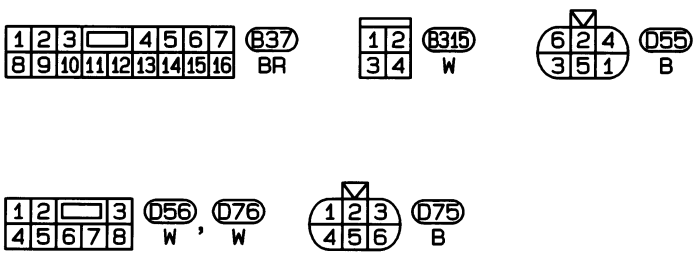
HEL086B

FIG. 5

NJEL0397S05

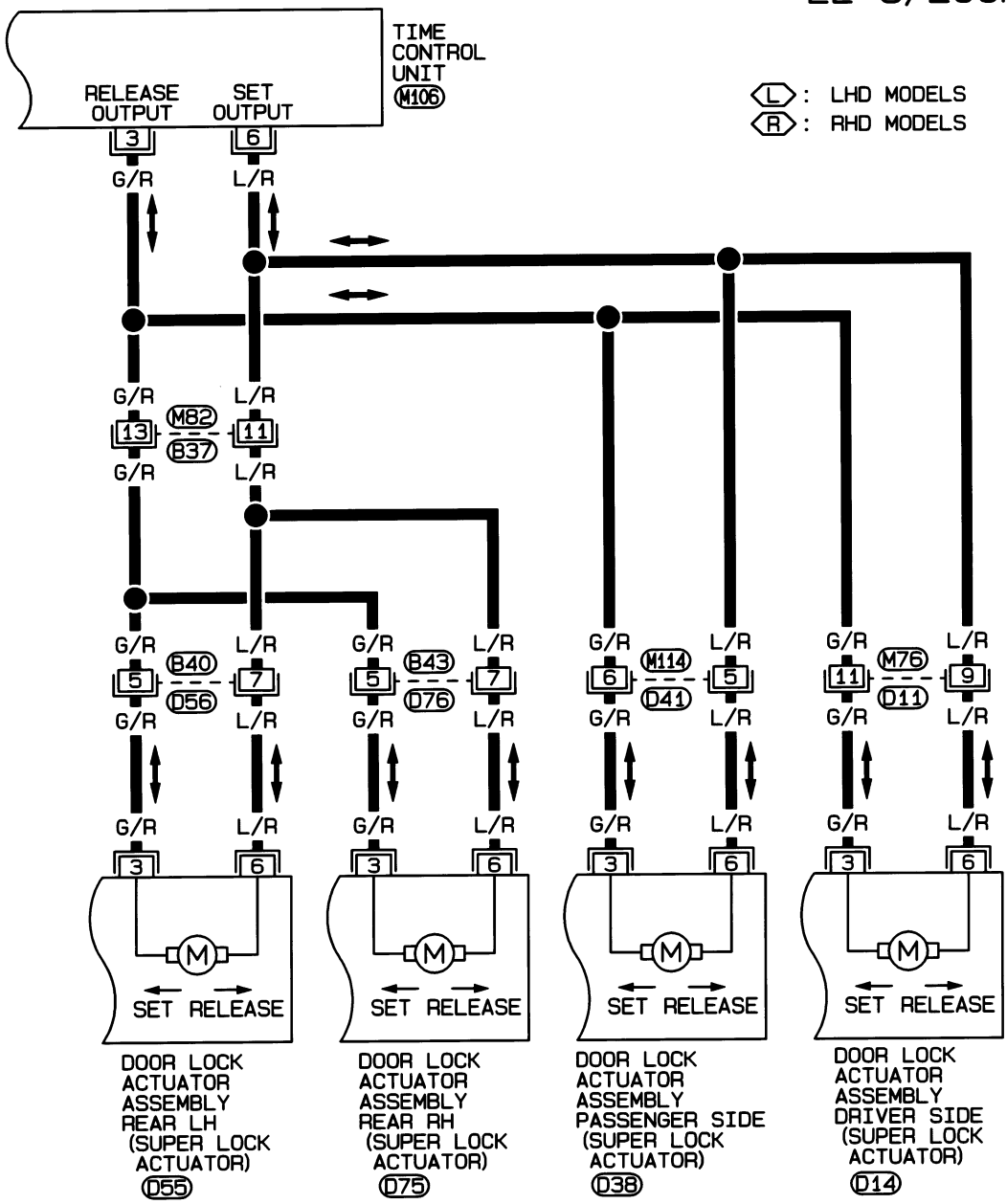
EL-S/LOCK-05



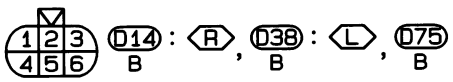


HEL456B

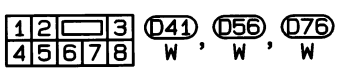
EL-S/LOCK-06

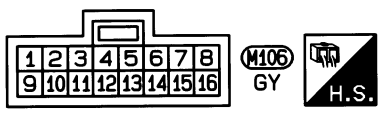












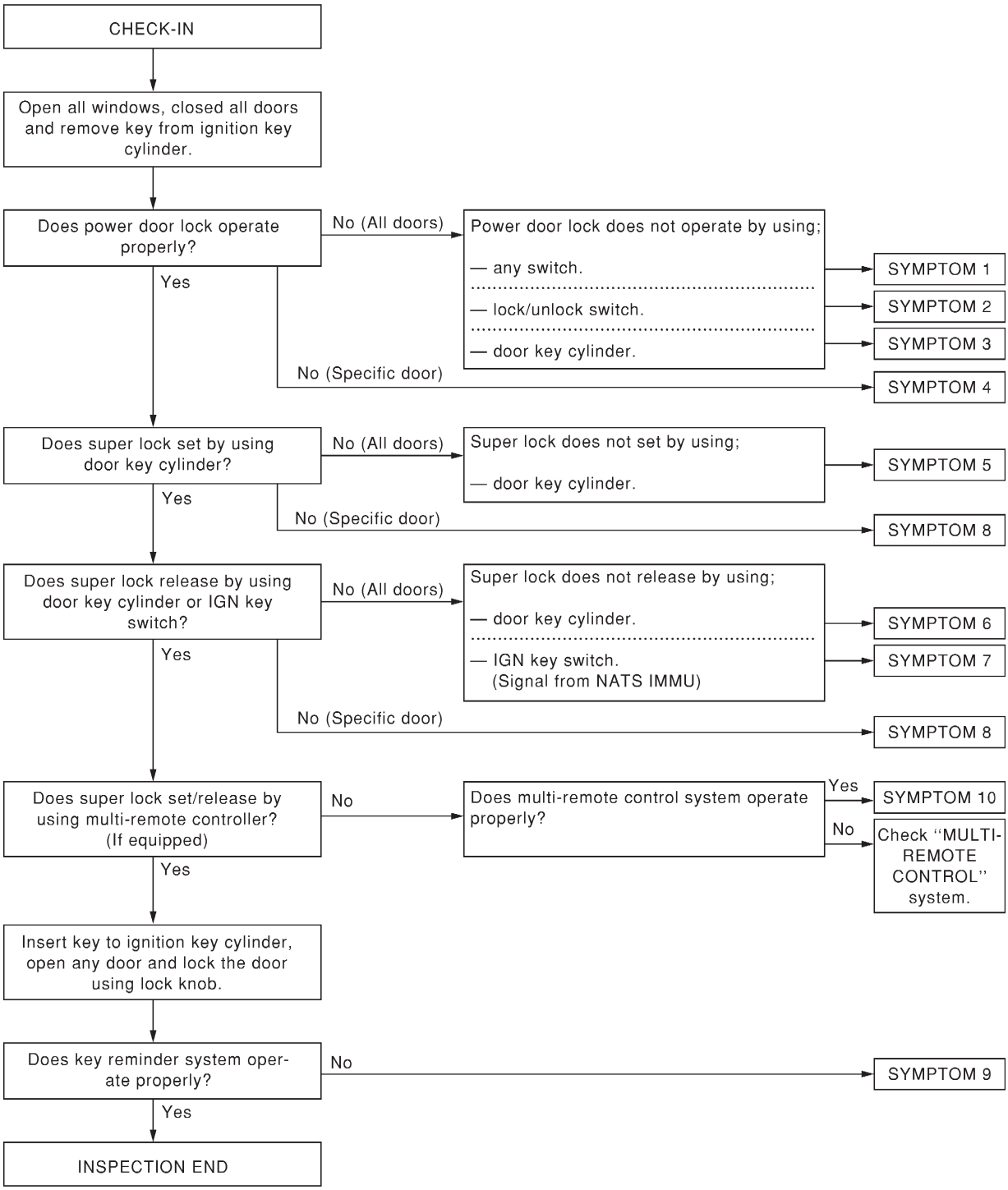
HEL457B

Trouble Diagnoses/Sedan

NJEL0398

PRELIMINARY CHECK

NJEL0398S01



SEL062X

After performing preliminary check, go to SYMPTOM CHART.
Before starting trouble diagnoses below, perform preliminary check, EL-358.
Symptom numbers in the symptom chart correspond with those of Preliminary check.

SYMPTOM CHART

NJEL0398S02

REFERENCE PAGE (EL-)		360	361	362	363	364	365	366	367	368	369	369
SYMPTOM		Main power supply and ground circuit check	Door lock/unlock switch check	Door key cylinder switch check	Door lock actuator check	Super lock actuator check	Door switch check	Door unlock sensor check	NATS release signal check	Key switch check	Ignition switch "ON" circuit check	Remote controller signal check
1	Power door lock does not operate using any switch.	X			X							
2	Power door lock does not operate with lock/unlock switch.		X									
3	Power door lock does not operate with door key cylinder switch.			X								
4	Specific door lock actuator does not operate.				X							
5	Super lock cannot be set by door key cylinder.			X		X				X	X	
6	*Super lock cannot be released by door key cylinder.			X		X						
7	*Super lock cannot be released by ignition key switch. (Signal from NATS IMMU)					X			X		X	
8	Specific super lock actuator does not operate.					X						
9	*Key reminder system does not operate.						X	X		X		
10	Super lock cannot be set/released by using multi-remote controller.											X

X: Applicable

*: Make sure the power door lock system operates properly.

MAIN POWER SUPPLY AND GROUND CIRCUIT CHECK

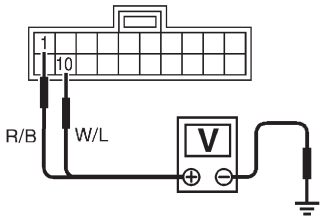
NJEL0398S03

Main Power Supply Circuit Check

NJEL0398S0301



Time control unit connector M106



Terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
1	Ground	Battery voltage		
10				

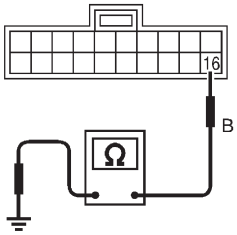
SEL006X

Ground Circuit Check

NJEL0398S0302



Time control unit connector M106



Continuity should exist.

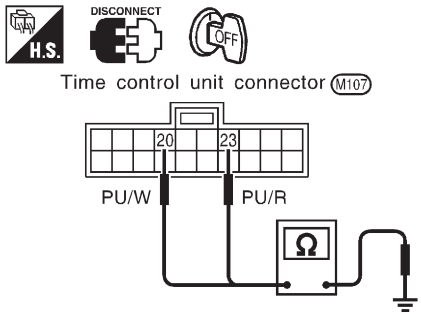
SEL992W

DOOR LOCK/UNLOCK SWITCH CHECK

=NJEL0398S04

1 **CHECK DOOR LOCK/UNLOCK SWITCH INPUT SIGNAL**

1. Disconnect time control unit harness connector.
2. Check continuity between time control unit harness connector terminal 20 or 23 and ground.



Terminals	Door lock/unlock switch condition	Continuity
20 – Ground	Lock	Yes
	N and Unlock	No
23 – Ground	Unlock	Yes
	N and Lock	No

SEL022X

Refer to wiring diagram in EL-354.

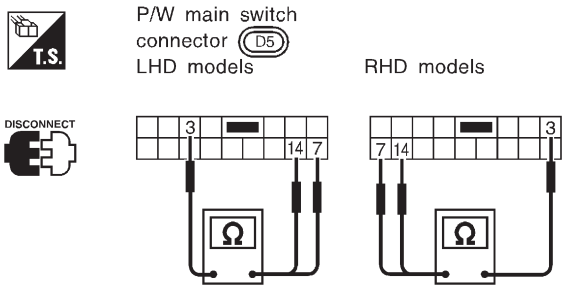
OK or NG

OK	▶	Door lock/unlock switch is OK.
NG	▶	GO TO 2.

2 **CHECK DOOR LOCK/UNLOCK SWITCH**

1. Disconnect door lock/unlock switch harness connector.
2. Check continuity between each door lock/unlock switch terminals.

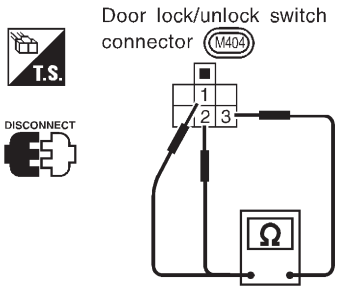
- Power window main switch (Door lock/unlock switch) (With power window)



Condition	Terminals		
	3	14	7
Lock	○	○	
N	No continuity		
Unlock	○		○

SEL019X

- (Without power window)



Condition	Terminals		
	3	2	1
Lock	○	○	
N	No continuity		
Unlock	○		○

SEL020X

OK or NG

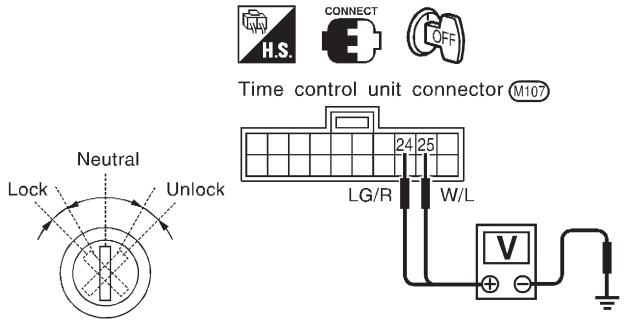
OK	▶	**Check the following.** ● Ground circuit for door lock/unlock switch ● Harness for open or short between door lock/unlock switch and time control unit connector
NG	▶	Replace door lock/unlock switch.

DOOR KEY CYLINDER SWITCH CHECK

=NJEL0398S05

1	CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL (LOCK SIGNAL)

Check voltage between time control unit harness connector terminals 24 or 25 and ground.



Terminals (+)	Terminals (−)	Key position	Voltage [V]
24	Ground	Neutral/Unlock	Approx. 5
		Lock	0
25	Ground	Neutral/Lock	Approx. 5
		Unlock	0

SEL008X

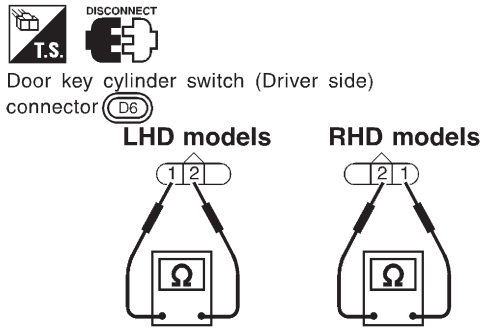
Refer to wiring diagram in EL-353.

OK or NG

OK	▶	Door key cylinder switch is OK.
NG	▶	GO TO 2.

2	CHECK DOOR KEY CYLINDER SWITCH

1. Disconnect door key cylinder switch harness connector.
2. Check continuity between door key cylinder switch terminals 1 and 2.



Terminals	Key position	Continuity
① - ②	Neutral	No
	Lock	Yes

SEL979W

OK or NG

OK	▶	**Check the following.** ● Door key cylinder switch ground circuit ● Harness for open or short between smart entrance control unit and door key cylinder switch
NG	▶	Replace door key cylinder switch.

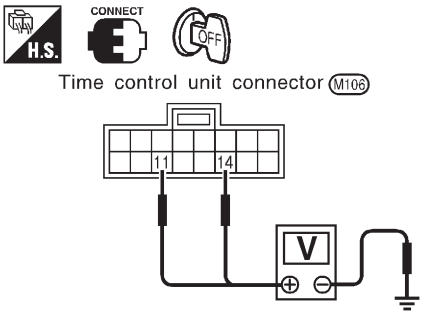
DOOR LOCK ACTUATOR CHECK

=NJEL0398S06

1 CHECK DOOR LOCK ACTUATOR CIRCUIT

Check voltage for door lock actuator.

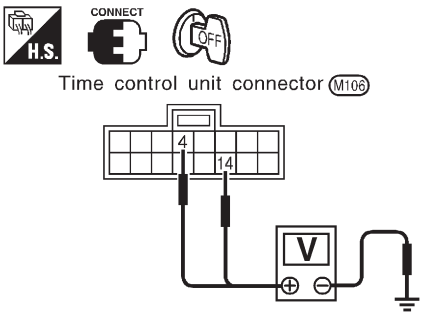
- Door lock actuator driver's side



Door lock/unlock switch condition	Terminals (+)	Terminals (–)	Voltage [V]
Lock	14	Ground	Approx. 12
Unlock	11	Ground	

SEL009X

- Door lock actuator passenger side and rear



Door lock/unlock switch condition	Terminals (+)	Terminals (–)	Voltage [V]
Lock	14	Ground	Approx. 12
Unlock	4	Ground	

SEL010X

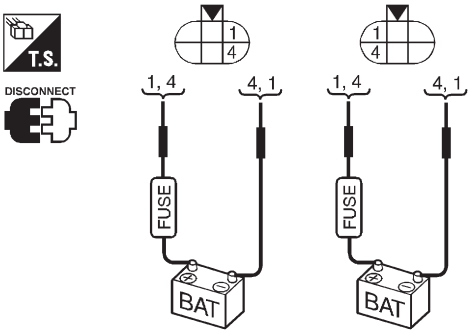
Refer to wiring diagram in EL-355.

OK or NG

OK	▶	GO TO 2.
NG	▶	Replace time control unit. (Before replacing the control unit, perform "DOOR LOCK/ UNLOCK SWITCH CHECK".)

2 CHECK DOOR LOCK ACTUATOR

1. Disconnect door lock actuator harness connector.
2. Apply 12V direct current to door lock actuator and check operation.



Door lock actuator connector

Driver side: D14
Passenger side: D38
Rear LH: D55
Rear RH: D75

Door lock actuator operation:
Terminals between 1 (+) and 4 (–)
Unlocked → Locked
Terminals between 4 (+) and 1 (–)
Locked → Unlocked

SEL012X

OK or NG

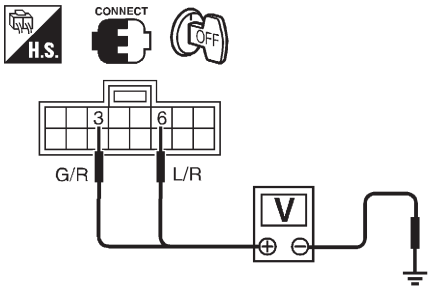
OK	▶	Check harness for open or short between time control unit connector and door lock actuator.
NG	▶	Replace door lock actuator.

SUPER LOCK ACTUATOR CHECK

=NJEL0398S07

1 CHECK OUTPUT SIGNAL FOR SUPER LOCK ACTUATOR

Check voltage for super lock actuator.



Door key cylinder switch condition	Terminals (+)	Terminals (–)	voltage [V]
Lock (Set)	6	Ground	Approx. 12
Unlock (Released)	3	Ground	

SEL013X

Refer to wiring diagram in EL-356.

OK or NG

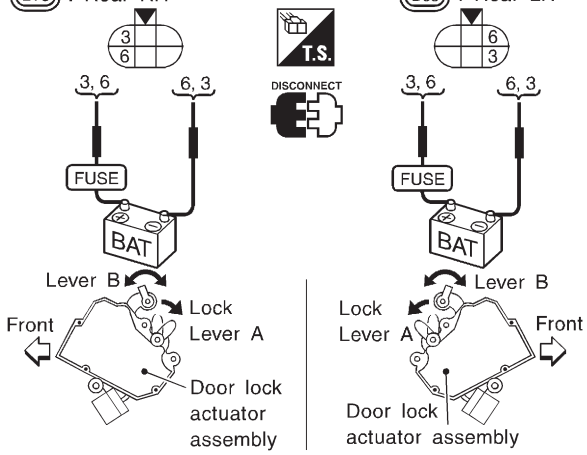
OK	▶	GO TO 2.
NG	▶	Super lock actuator is OK.

2 CHECK SUPER LOCK ACTUATOR

1. Disconnect door lock actuator assembly connector.
2. Set lever A in lock position.
3. Apply 12V direct current to door lock actuator assembly and check operation.

Super lock actuator connector
(D14) : Driver side (RHD models)
(D38) : Passenger side (LHD models)
(D75) : Rear RH

Super lock actuator connector
(D14) : Driver side (LHD models)
(D38) : Passenger side (RHD models)
(D55) : Rear LH



Super lock actuator operation	Terminals (+)	Terminals (–)	Connection from lever B to lever A
Released → Set	6	3	Disconnect
Set → Release	3	6	Connect

SEL014X

OK or NG

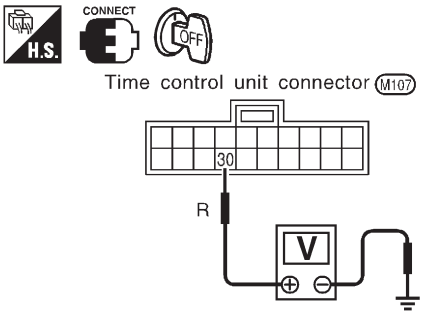
OK	▶	Check harness between time control unit and super lock actuator.
NG	▶	Replace super lock actuator.

DOOR SWITCH CHECK

=NJEL0398S08

1	CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector terminals 30 and ground.



Voltage [V]:
Condition of driver's door: CLOSED
Approx. 5
Condition of driver's door: OPEN
0

SEL986W

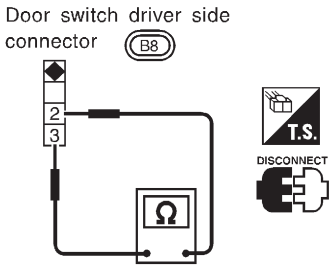
Refer to wiring diagram in EL-354.

OK or NG

OK	▶	Door switch is OK.
NG	▶	GO TO 2.

2	CHECK DOOR SWITCH

1. Disconnect door switch harness connector.
2. Check continuity between door switch terminals.



Continuity:
Door switch is pushed.
No
Door switch is released.
Yes

SEL325WA

OK or NG

OK	▶	**Check the following.** ● Door switch ground circuit or door switch ground condition ● Harness for open or short between smart entrance control unit and door switch
NG	▶	Replace door switch.

DOOR UNLOCK SENSOR CHECK

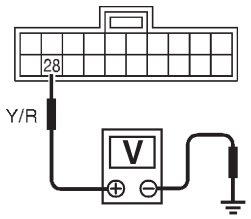
=NJEL0398S13

1	CHECK FRONT DOOR UNLOCK SENSOR INPUT SIGNAL

Check voltage between time control unit harness connector terminal 28 and ground.



Time control unit connector M107



Terminals (+)	Terminals (–)	Condition (Driver's door)	Voltage [V]
28	Ground	Locked	Approx. 5
		Unlocked	0

SEL987W

OK or NG

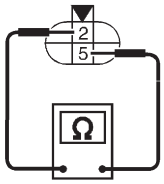
OK	▶	Door unlock sensor is OK.
NG	▶	GO TO 2.

2	CHECK FRONT DOOR UNLOCK SENSOR

1. Disconnect front door unlock sensor harness connector.
2. Check continuity between door unlock sensor terminals.



Front door unlock sensor connector D14



Continuity:
Condition: Locked
No
Condition: Unlocked
Yes

SEL988W

OK or NG

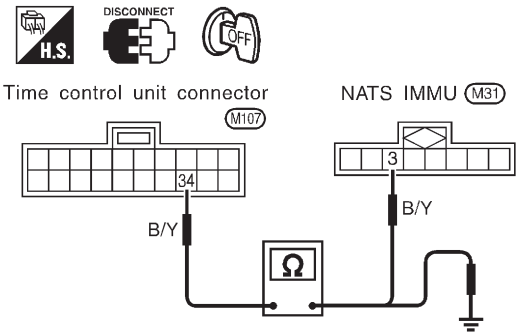
OK	▶	**Check the following.** ● Door unlock sensor ground circuit ● Harness for open or short between time control unit and door unlock sensor
NG	▶	Replace door unlock sensor.

NATS RELEASE SIGNAL CHECK

=NJEL0398S09

1	CHECK NATS SIGNAL CIRCUIT

Disconnect control unit connector and NATS IMMU connector.



Check continuity between time control unit terminal 34 and NATS IMMU terminal 3.

Continuity should exist.

Check continuity between time control unit terminal 34 and ground.

Continuity should not exist.

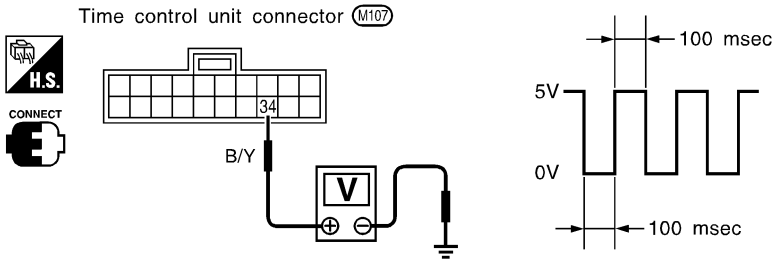
SEL015X

OK or NG

OK	▶	GO TO 2.
NG	▶	Repair harness.

2	CHECK NATS RELEASE SIGNAL

1. Connect time control unit connector and NATS IMMU connector.
2. Check voltage between time control unit terminal 34 and ground.



Ignition switch condition	Voltage [V]
OFF More than 17 seconds after ignition switch is turned to ON	5
For 17 seconds after ignition switch is turned to ON	pulse

SEL016XA

OK or NG

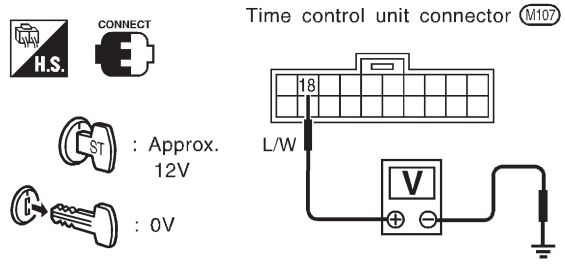
OK	▶	Replace super lock control unit.
NG	▶	Check NATS system.

KEY SWITCH (INSERT) CHECK

=NJEL0398S10

1	CHECK KEY SWITCH INPUT SIGNAL

Check voltage between time control unit terminal 18 and ground.



Voltage [V]:
Condition of switch: Key is inserted.
Approx. 12
Condition of switch: Key is removed.
0

SEL990W

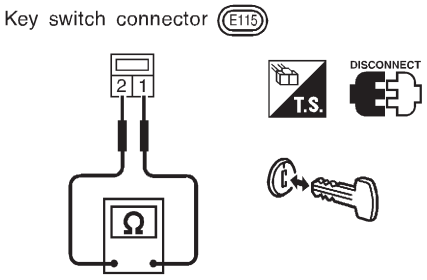
Refer to wiring diagram in EL-352.

OK or NG

OK	▶	Key switch is OK.
NG	▶	GO TO 2.

2	CHECK KEY SWITCH (INSERT)

Check continuity between key switch terminals 1 and 2.



Continuity:
Condition of key switch: Key is inserted.
Yes
Condition of key switch: Key is removed.
No

SEL194WA

OK or NG

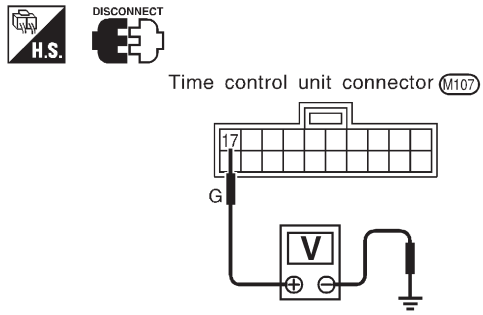
OK	▶	**Check the following.** ● 10A fuse [No. 12, located in fuse block (J/B)] ● Harness for open or short between key switch and fuse ● Harness for open or short between time control unit and key switch
NG	▶	Replace key switch.

IGNITION SWITCH "ON" CIRCUIT CHECK

=NJEL0398S11

1 CHECK IGNITION ON SIGNAL

Check voltage between time control unit terminal 18 and ground.



Terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
17	Ground	0V	0V	Battery voltage

SEL985W

OK or NG

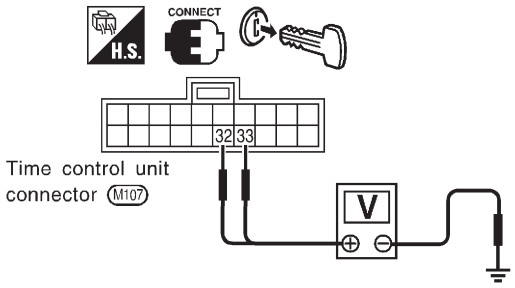
OK	▶	Ignition ON signal is OK.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in fuse block (J/B)] ● Harness for open or short between time control unit and fuse

REMOTE CONTROLLER SIGNAL CHECK

NJEL0398S12

1 CHECK REMOTE CONTROLLER INPUT SIGNAL

1. Withdraw key from ignition key cylinder.
2. Check voltage between time control unit terminal 32 or 33 and ground.



Terminals		Condition of remote controller button	voltage [V]
(+)	(−)		
32	Ground	Lock button is pressed.	0 (Approx. 0.5 seconds)
		Lock button is released.	5
33	Ground	Unlock button is pressed.	0 (Approx. 0.5 seconds)
		Unlock button is released.	5

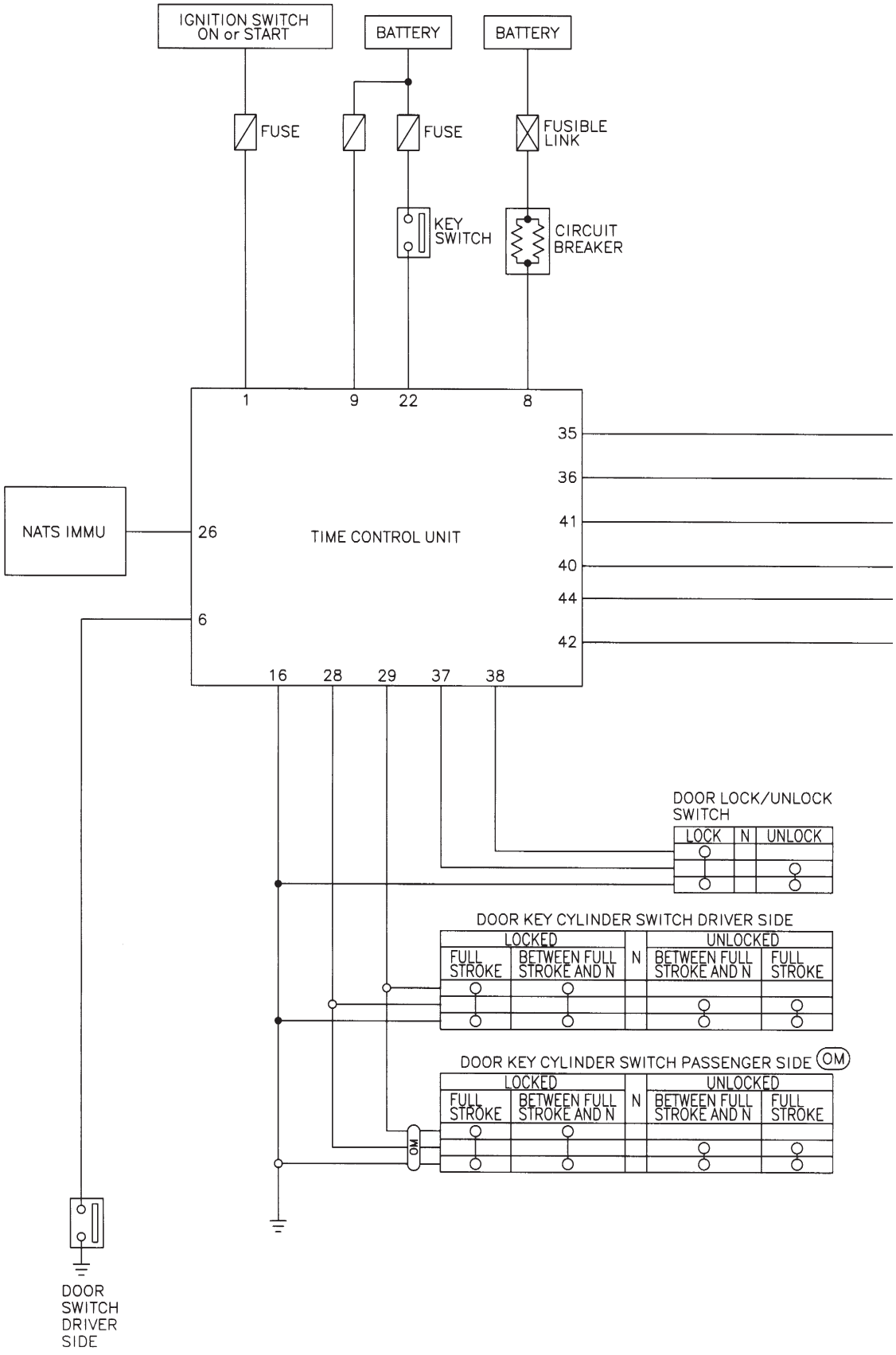
SEL017X

OK or NG

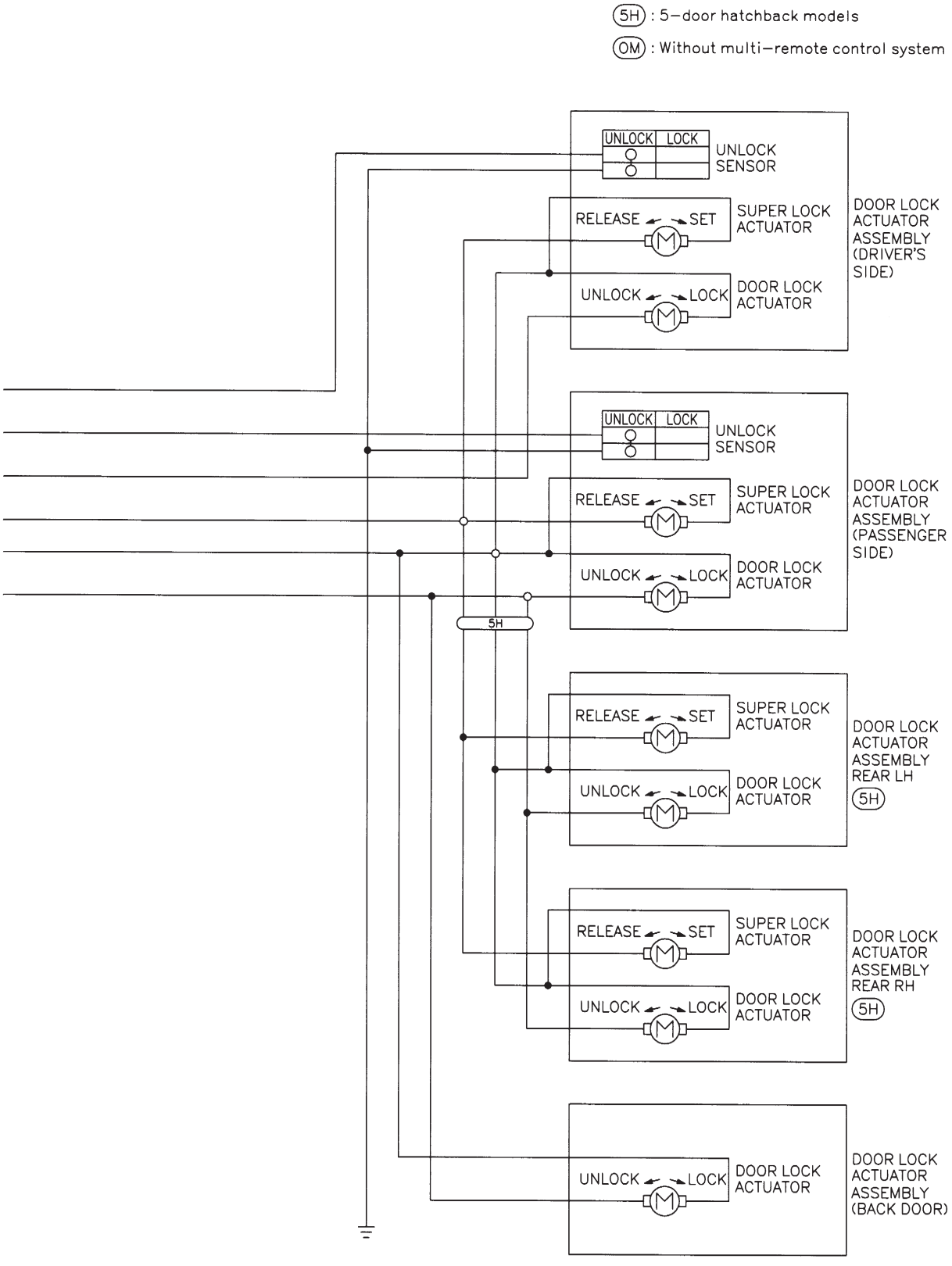
OK	▶	Replace time control unit.
NG	▶	Check harness for open or short between time control unit and multi-remote control unit.

Schematic/Hatchback

NJEL0475



MEL921L


5H : 5—door hatchback models
OM : Without multi—remote control system
UNLOCK
LOCK
UNLOCK SENSOR
RELEASE
SET
SUPER LOCK ACTUATOR
DOOR LOCK ACTUATOR
DOOR LOCK ACTUATOR ASSEMBLY (DRIVER'S SIDE)
DOOR LOCK ACTUATOR ASSEMBLY (PASSENGER SIDE)
DOOR LOCK ACTUATOR ASSEMBLY REAR LH
DOOR LOCK ACTUATOR ASSEMBLY REAR RH
DOOR LOCK ACTUATOR ASSEMBLY (BACK DOOR)
5H

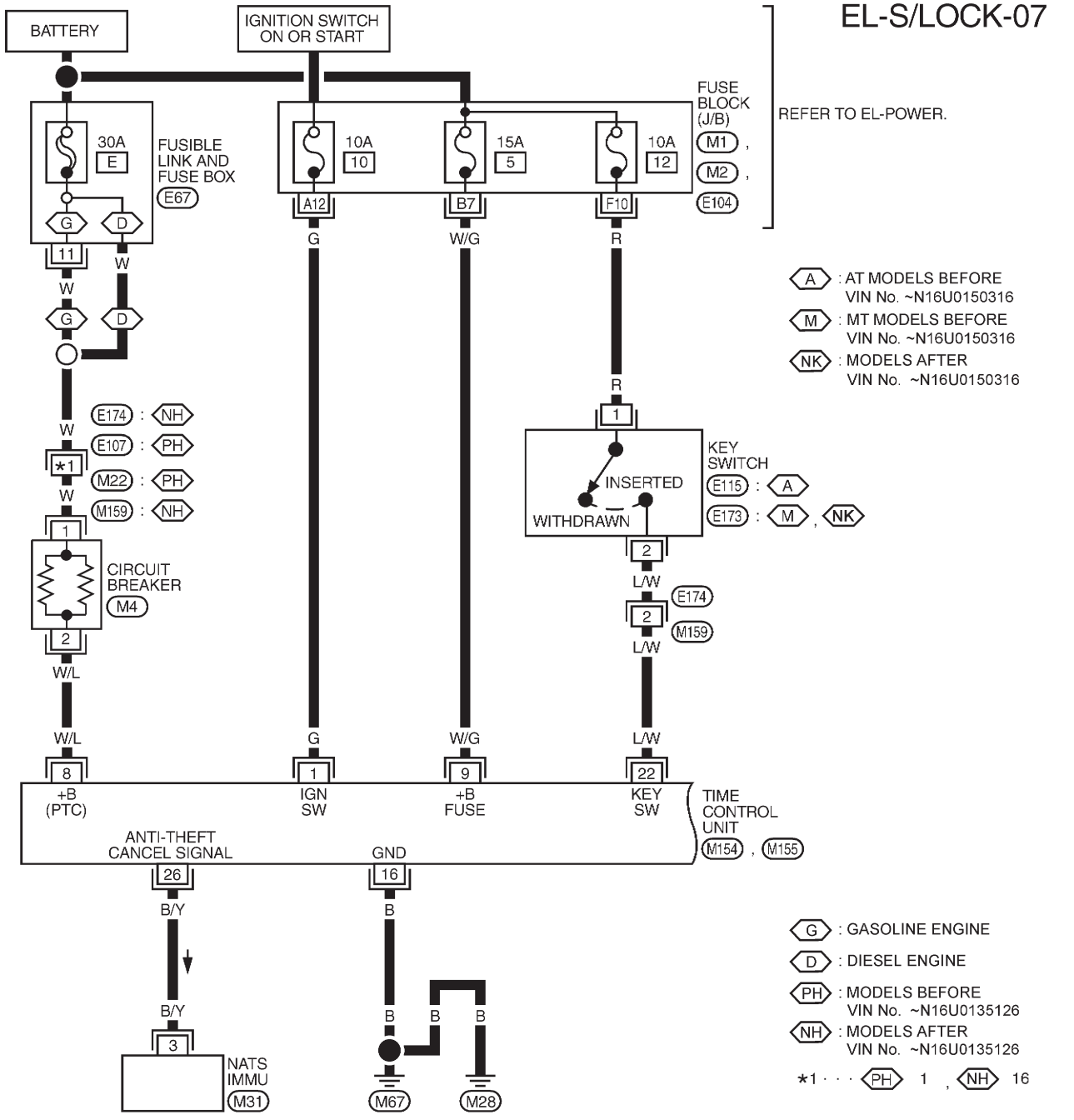
MEL922L

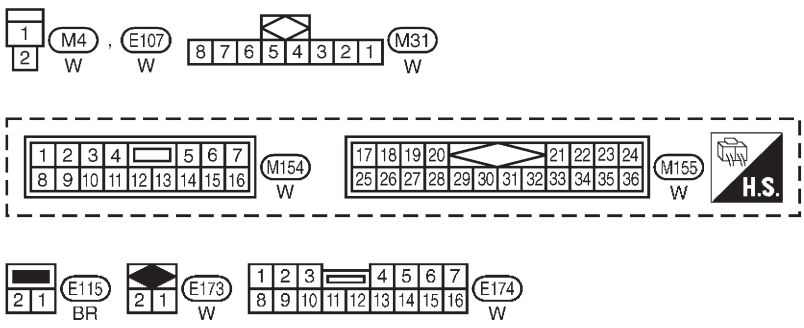
Wiring Diagram — S/LOCK —/Hatchback

NJEL0476

FIG. 1

NJEL0476S01



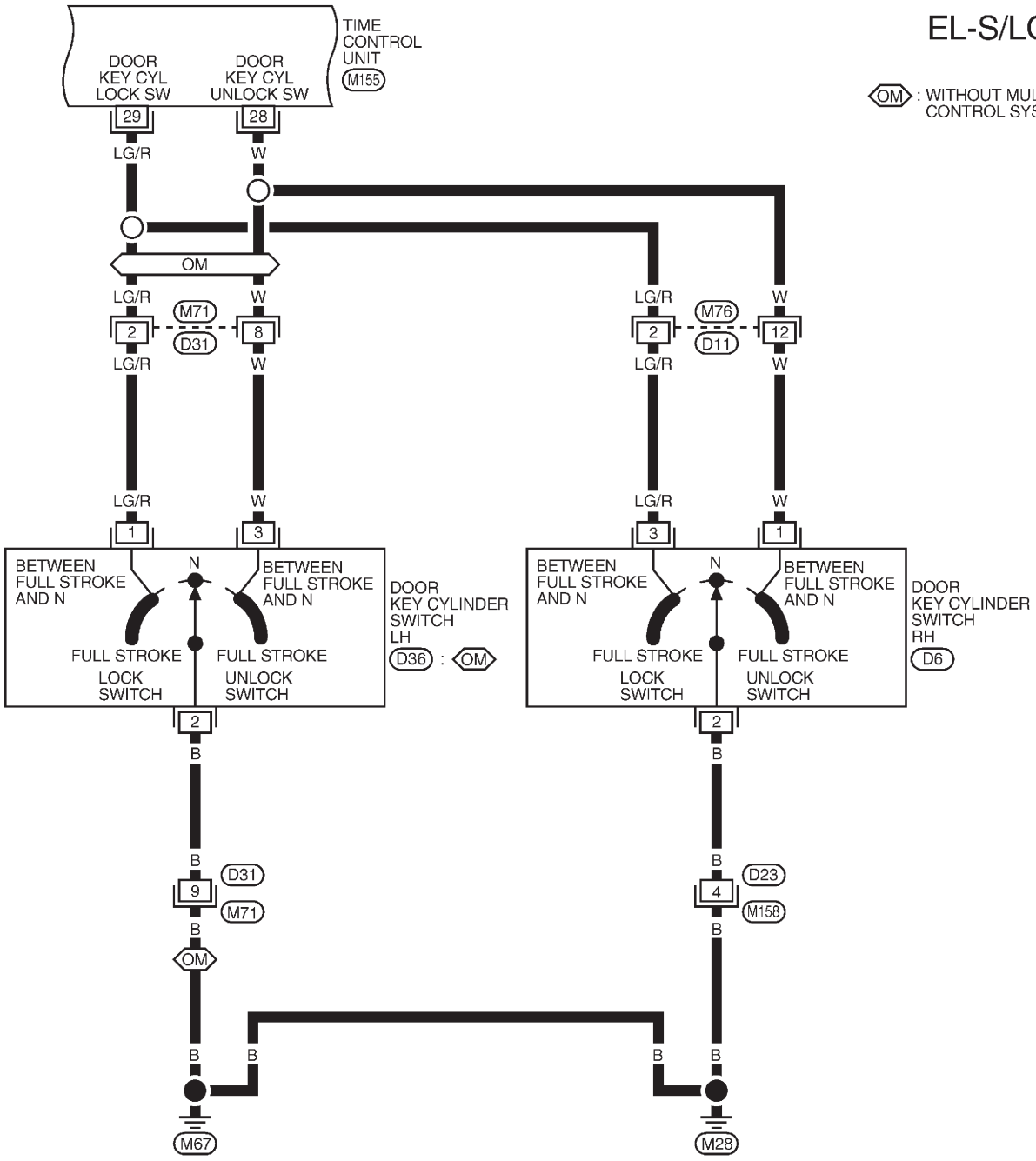


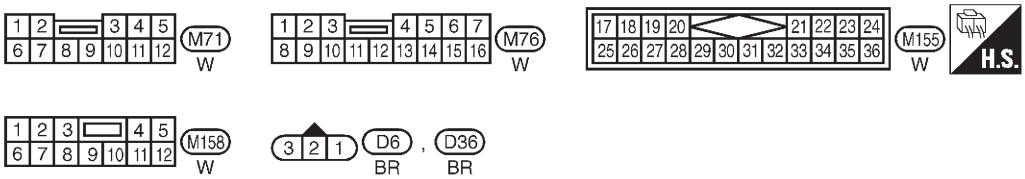
REFER TO THE FOLLOWING.
M1 , M2 , E104
-FUSE BLOCK-
JUNCTION BOX (J/B)
E67 -FUSE AND
FUSIBLE LINK BOX

YEL374C

FIG. 3

NJEL0476S03



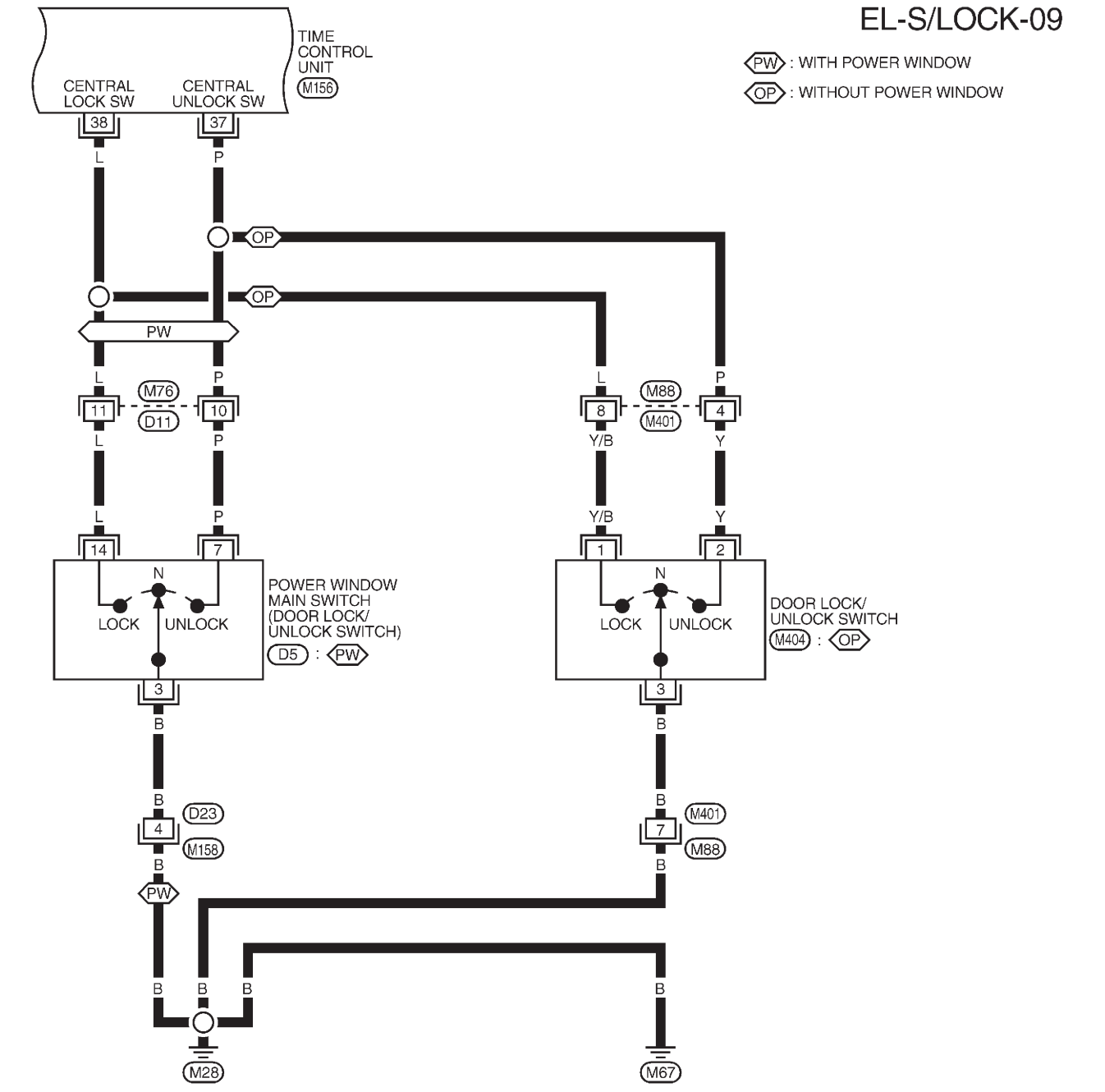


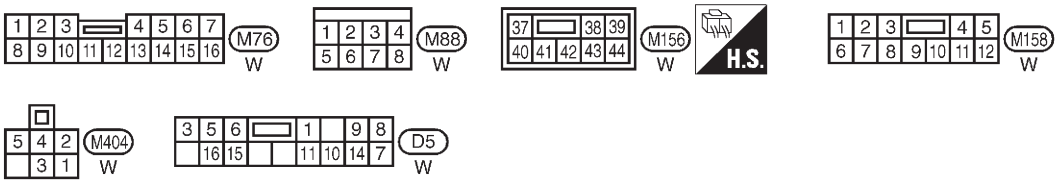
MEL926L

Wiring Diagram — S/LOCK —/Hatchback (Cont'd)

FIG. 4

NJEL0476S04

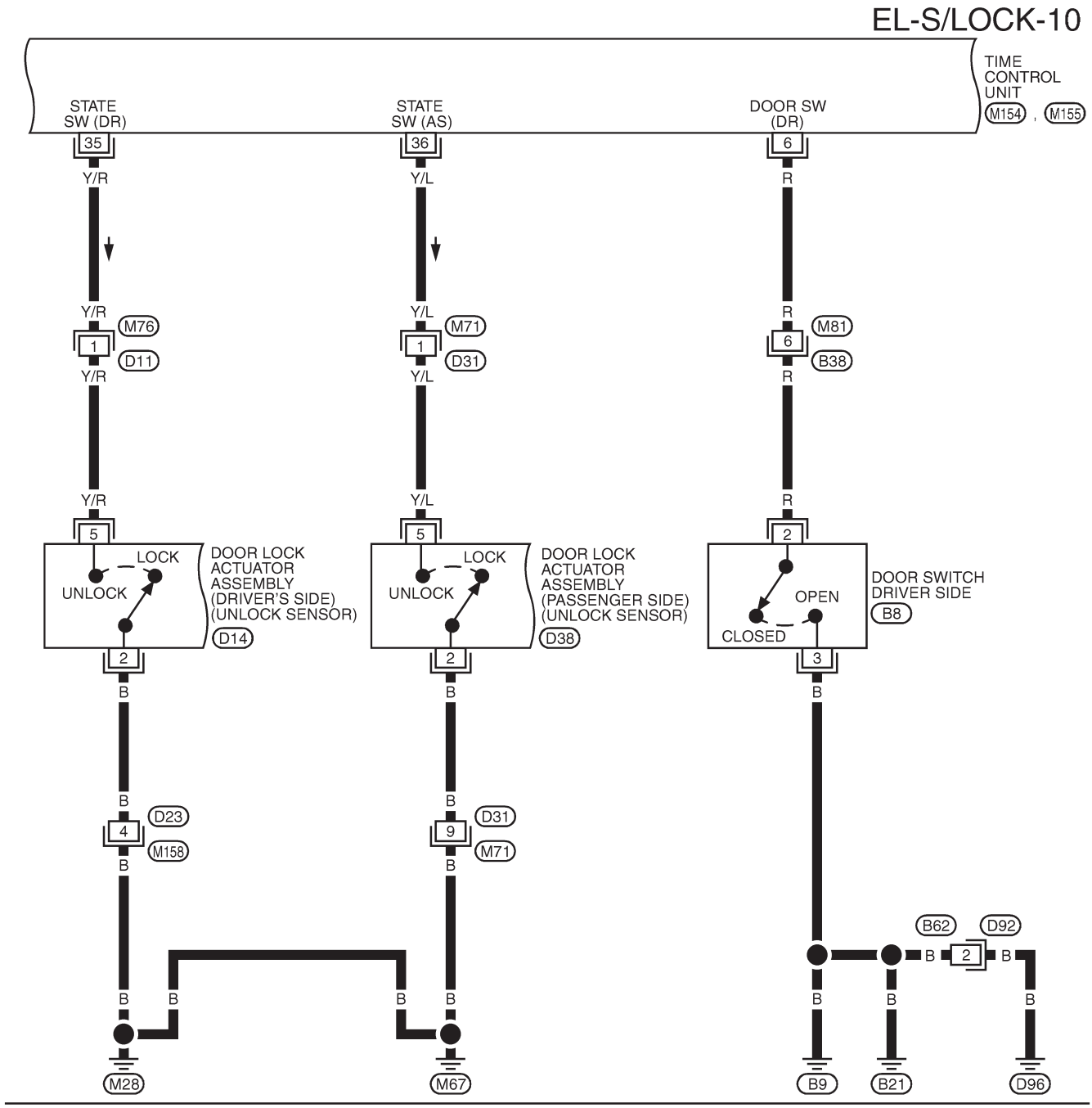


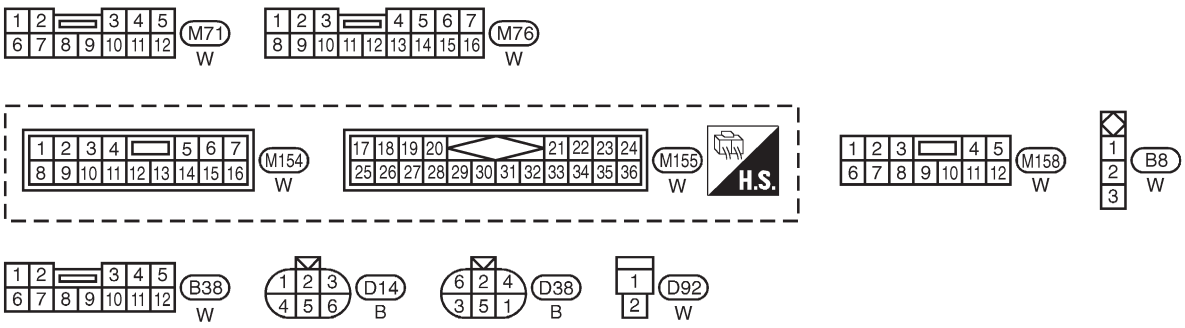


MEL925L

FIG. 5

NJEL0476S05



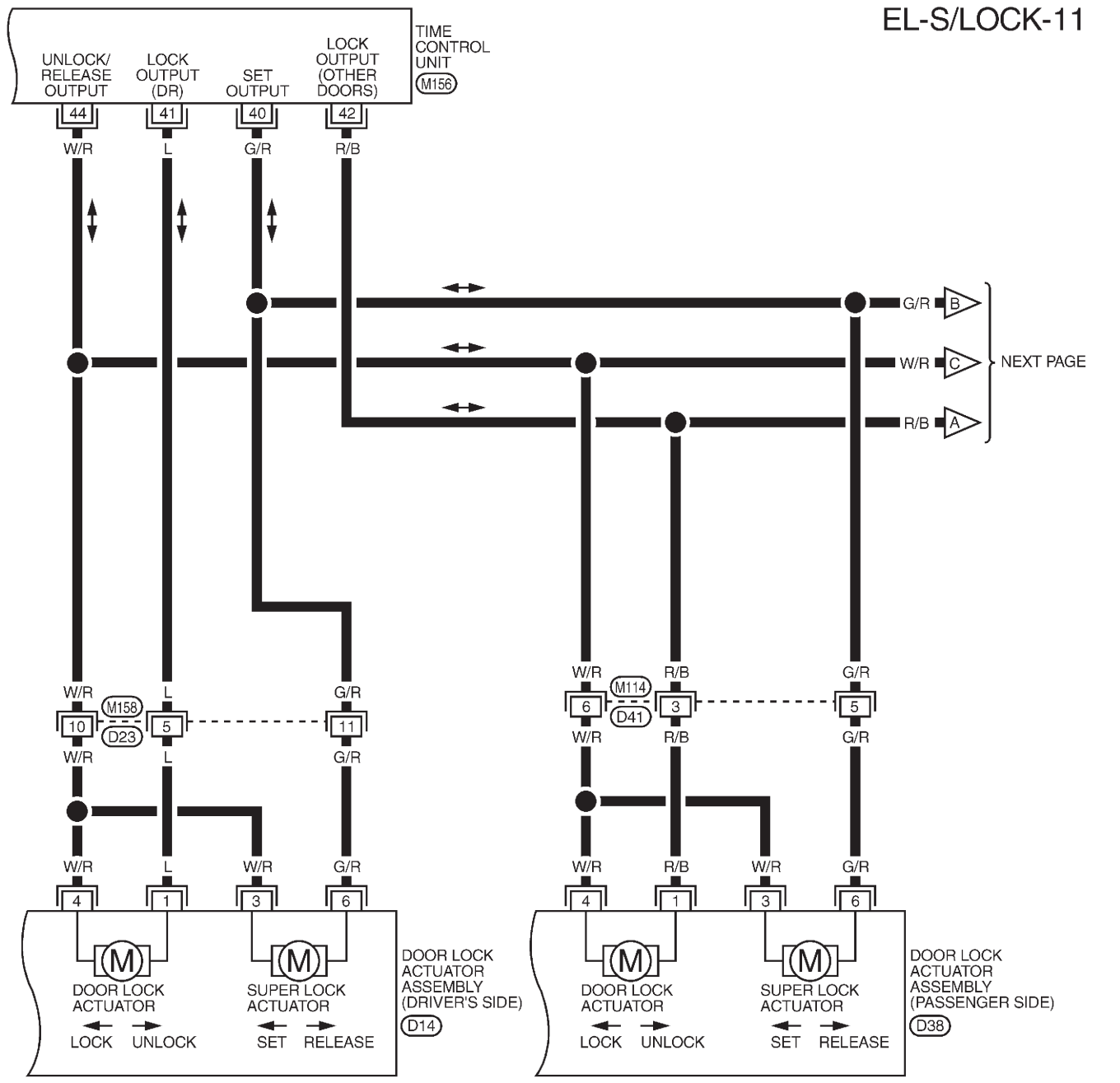


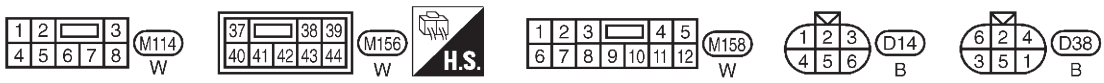
MEL927L

Wiring Diagram — S/LOCK —/Hatchback (Cont'd)

FIG. 6

NJEL0476S06



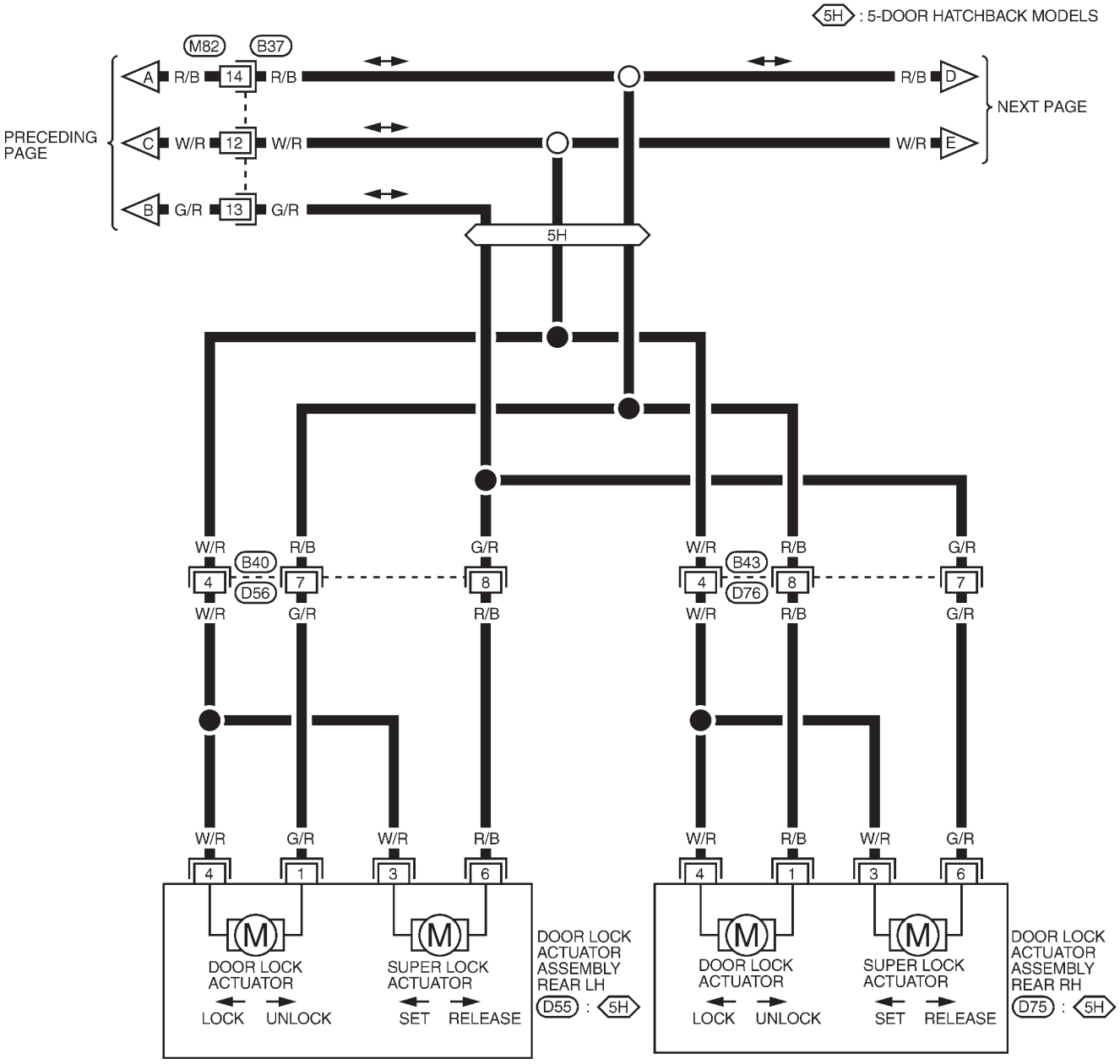


MEL928L

FIG. 7

NJEL0476S07

EL-S/LOCK-12



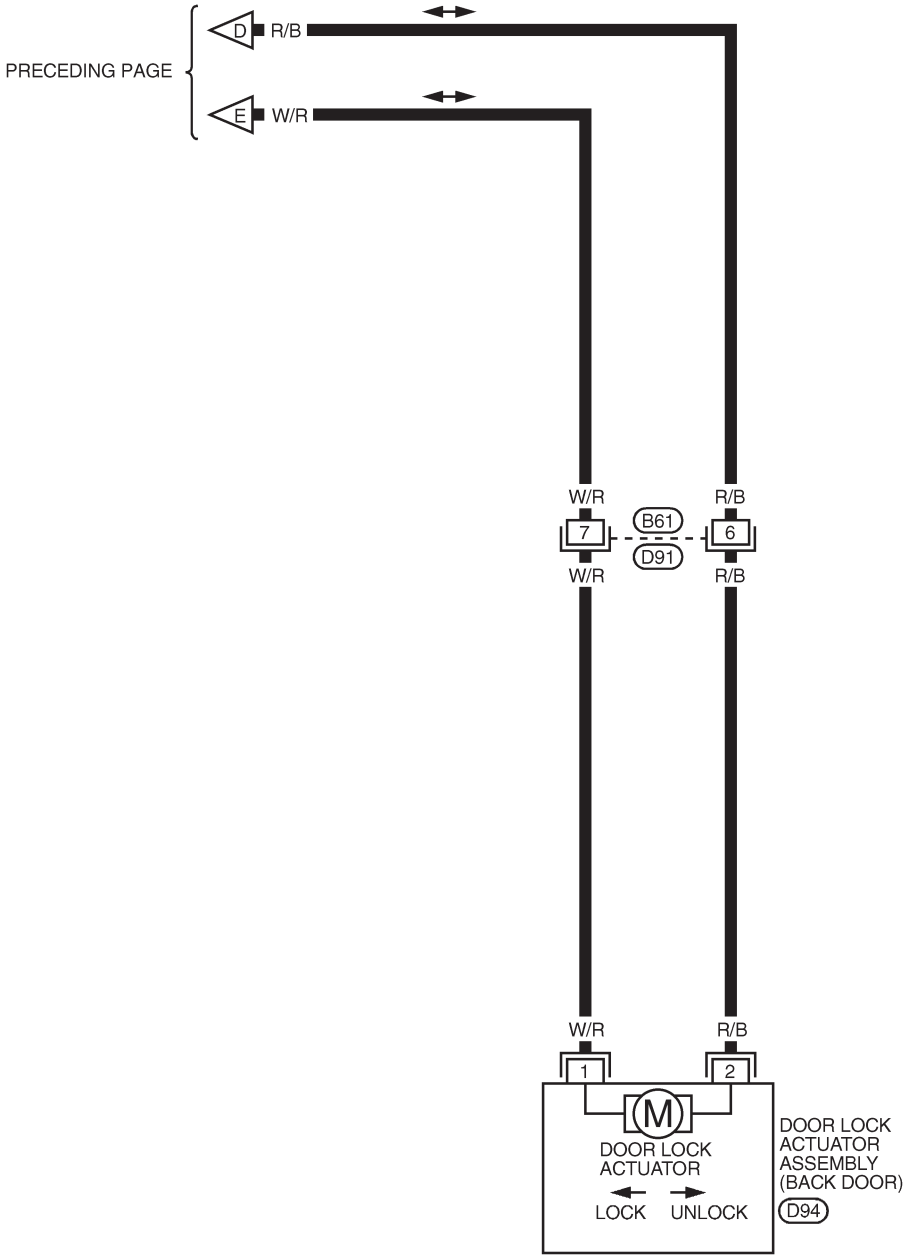


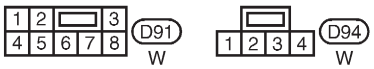
MEL930L

FIG. 8

NJEL0476S08

EL-S/LOCK-13





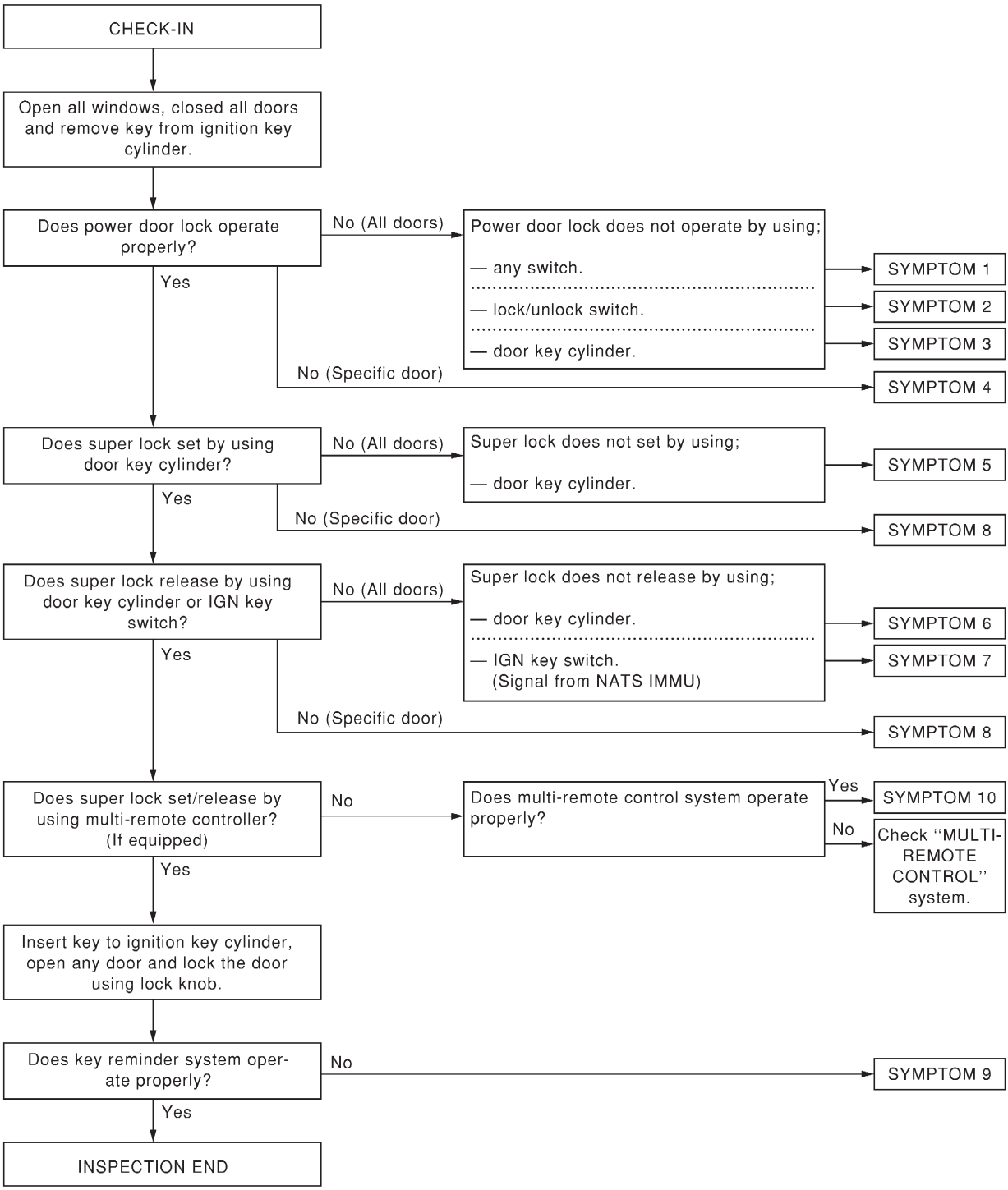
MEL931L

Trouble Diagnoses/Hatchback

NJEL0477

PRELIMINARY CHECK

NJEL0477S01



SEL062X

After performing preliminary check, go to SYMPTOM CHART.
Before starting trouble diagnoses below, perform preliminary check, EL-379.
Symptom numbers in the symptom chart correspond with those of Preliminary check.

SYMPTOM CHART

NJEL0477S02

REFERENCE PAGE (EL-)		381	382	383	384	386	387	388	389	390	391	391
SYMPTOM		Main power supply and ground circuit check	Door lock/unlock switch check	Door key cylinder switch check	Door lock actuator check	Super lock actuator check	Door switch check	Door unlock sensor check	NATS release signal check	Key switch check	Ignition switch "ON" circuit check	Remote controller signal check
1	Power door lock does not operate using any switch.	X			X							
2	Power door lock does not operate with lock/unlock switch.		X									
3	Power door lock does not operate with door key cylinder switch.			X								
4	Specific door lock actuator does not operate.				X							
5	Super lock cannot be set by door key cylinder.			X		X				X	X	
6	*Super lock cannot be released by door key cylinder.			X		X						
7	*Super lock cannot be released by ignition key switch. (Signal from NATS IMMU)					X			X		X	
8	Specific super lock actuator does not operate.					X						
9	*Key reminder system does not operate.						X	X		X		
10	Super lock cannot be set/released by using multi-remote controller.											X

X: Applicable

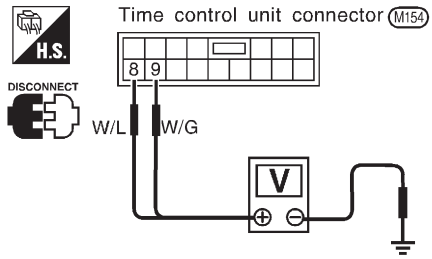
*: Make sure the power door lock system operates properly.

MAIN POWER SUPPLY AND GROUND CIRCUIT CHECK

NJEL0477S03

Main Power Supply Circuit Check

NJEL0477S0301

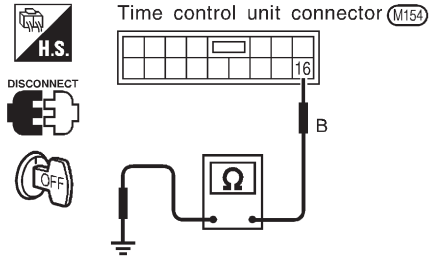


Terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
8	Ground	Battery voltage		
9				

SEL467X

Ground Circuit Check

NJEL0477S0302



Continuity should exist.

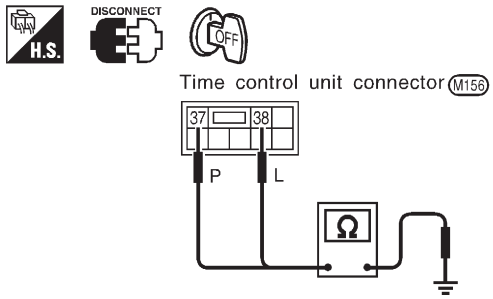
SEL448X

DOOR LOCK/UNLOCK SWITCH CHECK

=NJEL0477S04

1 CHECK DOOR LOCK/UNLOCK SWITCH INPUT SIGNAL

1. Disconnect time control unit harness connector.
2. Check continuity between time control unit harness connector terminal 37 or 38 and ground.



Terminals	Door lock/unlock switch condition	Continuity
38 – Ground	Lock	Yes
	N and Unlock	No
37 – Ground	Unlock	Yes
	N and Lock	No

SEL468X

Refer to wiring diagram in EL-374.

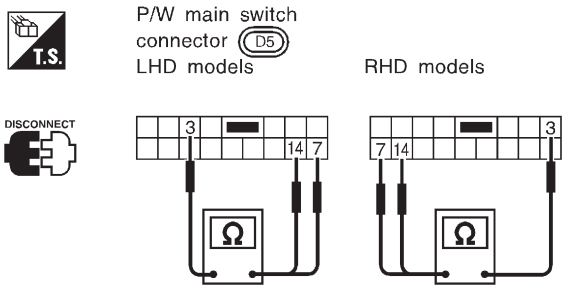
OK or NG

OK	▶	Door lock/unlock switch is OK.
NG	▶	GO TO 2.

2 CHECK DOOR LOCK/UNLOCK SWITCH

1. Disconnect door lock/unlock switch harness connector.
2. Check continuity between each door lock/unlock switch terminals.

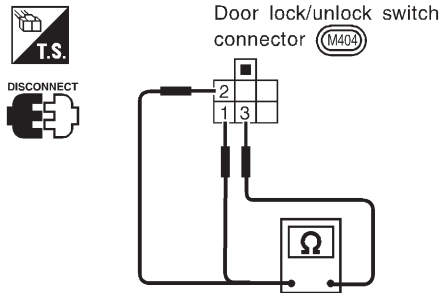
● Power window main switch (Door lock/unlock switch) (With power window)



Condition	Terminals		
	3	14	7
Lock	○	○	
N	No continuity		
Unlock	○		○

SEL019X

● Door lock/unlock switch (Without power window)



Condition	Terminals		
	3	2	1
Unlock	○	○	
N	No continuity		
Lock	○		○

SEL469X

OK or NG

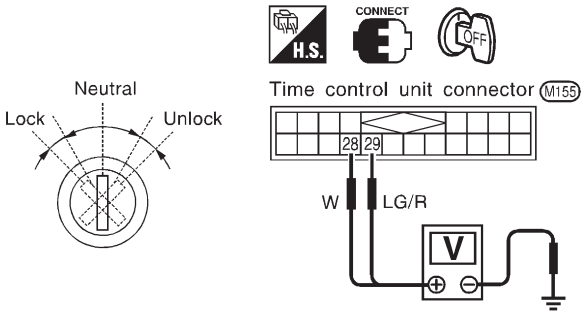
OK	▶	**Check the following.** ● Ground circuit for door lock/unlock switch ● Harness for open or short between door lock/unlock switch and time control unit connector
NG	▶	Replace door lock/unlock switch.

DOOR KEY CYLINDER SWITCH CHECK

NJEL0477S05

1 **CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL (LOCK/UNLOCK SIGNAL)**

Check voltage between time control unit harness connector terminals 28 or 29 and ground.



Terminals (+)	Terminals (−)	Key position	Voltage [V]
29	Ground	Neutral/Unlock	Approx. 5
		Lock	0
28	Ground	Neutral/Lock	Approx. 5
		Unlock	0

SEL470X

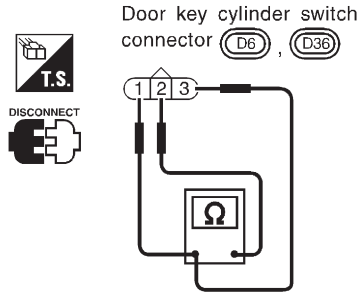
Refer to wiring diagram in EL-373.

OK or NG

OK	▶	Door key cylinder switch is OK.
NG	▶	GO TO 2.

2 **CHECK DOOR KEY CYLINDER SWITCH**

1. Disconnect door key cylinder switch harness connector.
2. Check continuity between door key cylinder switch terminals.



Terminals	Key position	Continuity
① - ② (LH side)	Neutral/Unlock	No
② - ③ (RH side)	Lock	Yes
① - ② (RH side)	Neutral/Lock	No
② - ③ (LH side)	Unlock	Yes

SEL471X

OK or NG

OK	▶	**Check the following.** ● Door key cylinder switch ground circuit ● Harness for open or short between time control unit and door key cylinder switch
NG	▶	Replace door key cylinder switch.

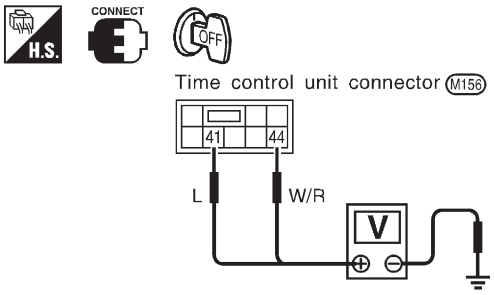
DOOR LOCK ACTUATOR CHECK

NJEL0477S06

1 **CHECK DOOR LOCK ACTUATOR OUTPUT SIGNAL**

Check voltage for door lock actuator.

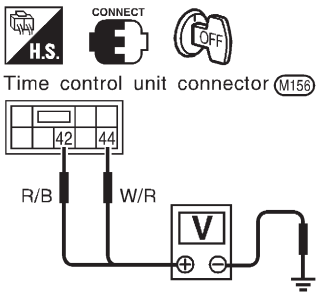
- Door lock actuator driver's side



Door lock/unlock switch condition	Terminals (+)	Terminals (–)	Voltage [V]
Lock	41	Ground	Approx. 12
Unlock	44	Ground	

SEL472X

- Door lock actuator passenger side and rear



Door lock/unlock switch condition	Terminals (+)	Terminals (–)	Voltage [V]
Lock	42	Ground	Approx. 12
Unlock	44	Ground	

SEL473X

Refer to wiring diagram in EL-376.

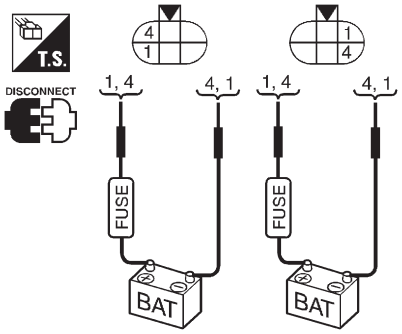
OK or NG

OK	▶	GO TO 2.
NG	▶	Replace time control unit. (Before replacing the control unit, perform "DOOR LOCK/ UNLOCK SWITCH CHECK".)

2	CHECK DOOR LOCK ACTUATOR

1. Disconnect door lock actuator harness connector.
2. Apply 12V direct current to door lock actuator and check operation.

- Front and rear door



Door lock actuator connector

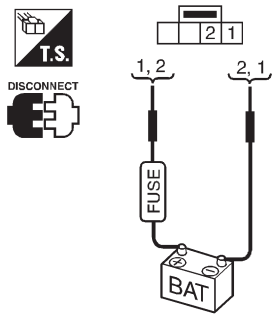
Driver side: D14 (LHD)
Passenger side: D38 (RHD)
Rear LH: D55

Driver side: D14 (RHD)
Passenger side: D38 (LHD)
Rear RH: D75

Door lock actuator operation:
Terminals 1 (+) and 4 (–)
Unlocked ⟶ Locked
Terminals 4 (+) and 1 (–)
Locked ⟶ Unlocked

SEL490X

- Back door



Door lock actuator connector D94

Door lock actuator operation:
Terminals 2 (+) and 1 (–)
Unlocked ⟶ Locked
Terminals 1 (+) and 2 (–)
Locked ⟶ Unlocked

SEL491X

OK or NG

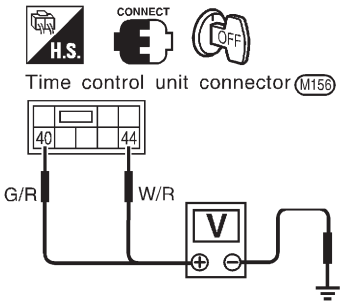
OK	▶	Check harness for open or short between time control unit connector and door lock actuator.
NG	▶	Replace door lock actuator.

SUPER LOCK ACTUATOR CHECK

=NJEL0477S07

1 CHECK OUTPUT SIGNAL FOR SUPER LOCK ACTUATOR

Check voltage for super lock actuator.



Door key cylinder switch condition	Terminals (+)	Terminals (−)	Voltage [V]
Lock (Set)	40	Ground	Approx. 12
Unlock (Released)	44	Ground	

SEL474X

Refer to wiring diagram in EL-376.

OK or NG

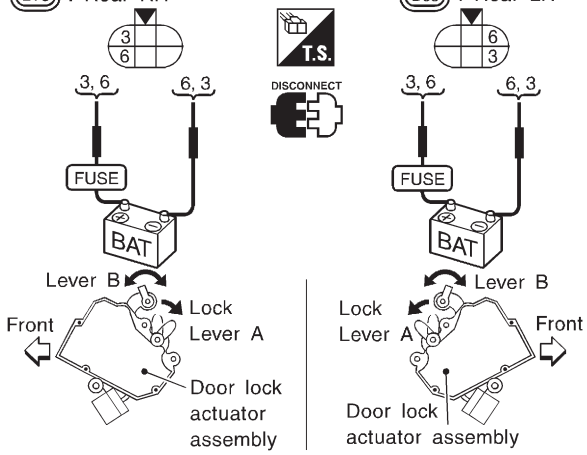
OK	▶	GO TO 2.
NG	▶	Replace time control unit. (Before replacing the unit, perform "DOOR KEY CYLINDER SWITCH CHECK".)

2 CHECK SUPER LOCK ACTUATOR

1. Disconnect door lock actuator assembly connector.
2. Set lever A in lock position.
3. Apply 12V direct current to door lock actuator assembly and check operation.

Super lock actuator connector
D14 : Driver side (RHD models)
D38 : Passenger side (LHD models)
D75 : Rear RH

Super lock actuator connector
D14 : Driver side (LHD models)
D38 : Passenger side (RHD models)
D55 : Rear LH



Super lock actuator operation	Terminals (+)	Terminals (−)	Connection from lever B to lever A
Released → Set	6	3	Disconnect
Set → Release	3	6	Connect

SEL014X

OK or NG

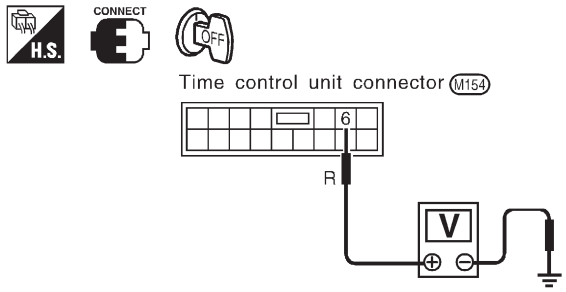
OK	▶	Check harness for open or short between time control unit and super lock actuator.
NG	▶	Replace super lock actuator.

DOOR SWITCH CHECK

=NJEL0477S08

1	CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector terminals 6 or 7 and ground.



	Terminals (+)	Terminals (−)	Condition	Voltage [V]
Driver's door switch	6	Ground	Open	0
			Closed	Approx. 5

SEL475X

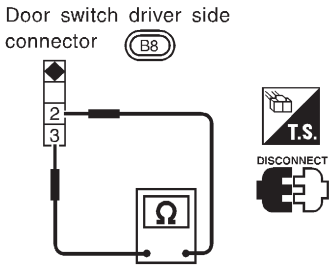
Refer to wiring diagram in EL-375.

OK or NG

OK	▶	Door switch is OK.
NG	▶	GO TO 2.

2	CHECK DOOR SWITCH

1. Disconnect door switch harness connector.
2. Check continuity between door switch terminals.



Continuity:
Door switch is pushed.
No
Door switch is released.
Yes

SEL325WA

OK or NG

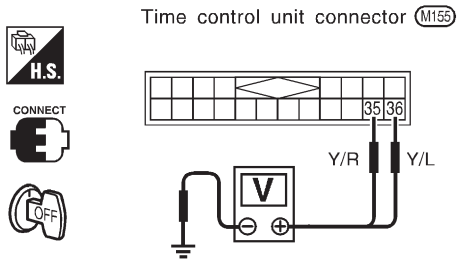
OK	▶	**Check the following.** ● Door switch ground circuit or door switch ground condition ● Harness for open or short between smart entrance control unit and door switch
NG	▶	Replace door switch.

DOOR UNLOCK SENSOR CHECK

=NJEL0477S13

1	CHECK DOOR UNLOCK SENSOR INPUT SIGNAL

Check voltage between time control unit terminal 35 or 36 and ground.



Terminals (+)	Terminals (–)	Condition (Driver's or passenger door)	Voltage [V]
35	Ground	Locked	Approx. 5
		Unlocked	0
36	Ground	Locked	Approx. 5
		Unlocked	0

SEL476X

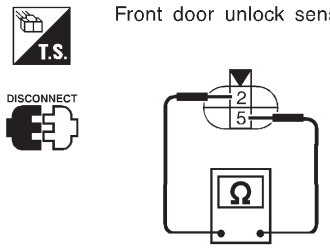
Refer to wiring diagram in EL-375.

OK or NG

OK	▶	Door unlock sensor is OK.
NG	▶	GO TO 2.

2	CHECK DOOR UNLOCK SENSOR

1. Disconnect door unlock sensor connector.
2. Check continuity between door unlock sensor terminals 2 and 5.



Continuity:
Condition: Locked
No
Condition: Unlocked
Yes

SEL477X

OK or NG

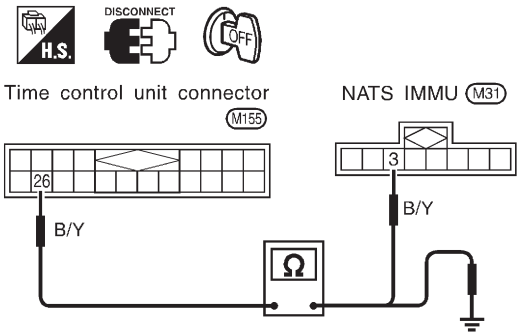
OK	▶	**Check the following.** ● Door unlock sensor ground circuit ● Harness for open or short between time control unit and door unlock sensor
NG	▶	Replace door unlock sensor.

NATS RELEASE SIGNAL CHECK

=NJEL0477S09

1 **CHECK NATS SIGNAL CIRCUIT**

1. Disconnect battery cable (−) terminal.
2. Disconnect time control unit connector and NATS IMMU connector.



Check continuity between time control unit terminal 26 and NATS IMMU terminal 3.

Continuity should exist.

Check continuity between time control unit terminal 26 and ground.

Continuity should not exist.

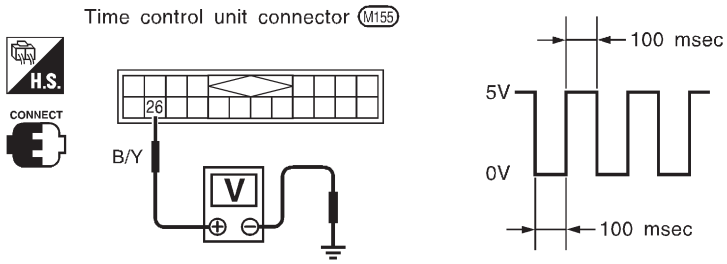
SEL478X

OK or NG

OK	▶	GO TO 2.
NG	▶	Repair harness.

2 **CHECK NATS RELEASE SIGNAL**

1. Connect time control unit connector and NATS IMMU connector.
2. Connect battery cable (−) terminal.
3. Check voltage between time control unit terminal 26 and ground.



Ignition switch condition	Voltage [V]
OFF	5
More than 17 seconds after ignition switch is turned to ON	
For 17 seconds after ignition switch is turned to ON	pulse

SEL479X

OK or NG

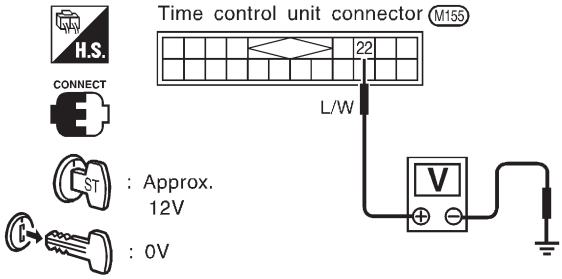
OK	▶	Replace super lock control unit.
NG	▶	Check NATS system.

KEY SWITCH (INSERT) CHECK

=NJEL0477S10

1	CHECK KEY SWITCH INPUT SIGNAL

Check voltage between time control unit terminal 22 and ground.



Voltage [V]:
Condition of switch: Key is inserted.
Approx. 12
Condition of switch: Key is removed.
0

SEL433X

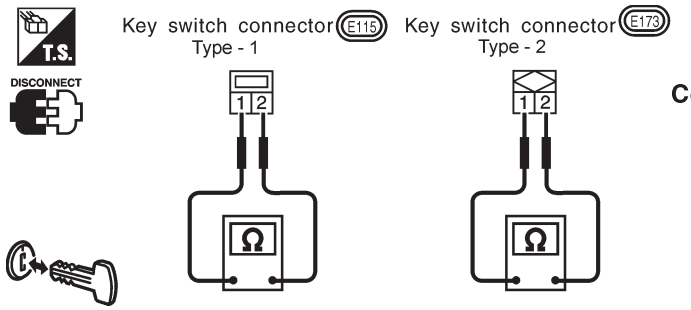
Refer to wiring diagram in EL-372.

OK or NG

OK	▶	Key switch is OK.
NG	▶	GO TO 2.

2	CHECK KEY SWITCH (INSERT)

Check continuity between key switch terminals 1 and 2.



Continuity:
Condition of key switch: Key is inserted.
Yes
Condition of key switch: Key is removed.
No

YEL786C

OK or NG

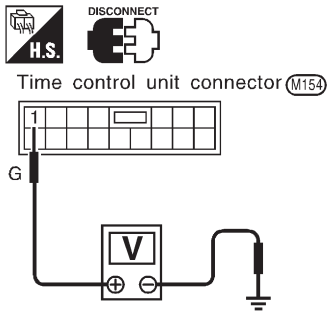
OK	▶	**Check the following.** ● 10A fuse [No. 12, located in fuse block (J/B)] ● Harness for open or short between key switch and fuse ● Harness for open or short between time control unit and key switch
NG	▶	Replace key switch.

IGNITION SWITCH "ON" CIRCUIT CHECK

=NJEL0477S11

1	CHECK IGNITION ON SIGNAL

Check voltage between time control unit terminal 1 and ground.



Terminals		Ignition switch position		
(+)	(–)	OFF	ACC	ON
1	Ground	0V	0V	Battery voltage

SEL429X

OK or NG

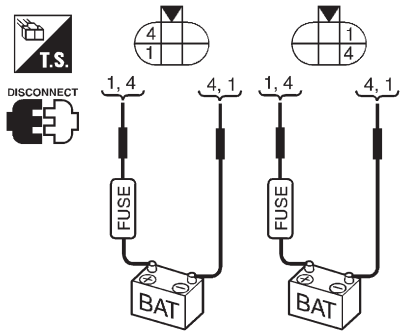
OK	▶	Ignition switch "ON" circuit is OK.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in fuse block (J/B)] ● Harness for open or short between time control unit and fuse

REMOTE CONTROLLER SIGNAL CHECK

NJEL0477S12

1	CHECK OUTPUT SIGNAL FOR SUPER LOCK ACTUATOR BY MULTI-REMOTE CONTROLLER

1. Withdraw key from ignition key cylinder.
2. Check voltage between time control unit terminal 40 or 44 and ground.



Door lock actuator connector

Driver side: D14 (LHD)
Passenger side: D38 (RHD)
Rear LH: D55

Driver side: D14 (RHD)
Passenger side: D38 (LHD)
Rear RH: D75

Door lock actuator operation:
Terminals 1 (+) and 4 (–)
Unlocked ⟶ Locked
Terminals 4 (+) and 1 (–)
Locked ⟶ Unlocked

SEL490X

OK or NG

OK	▶	System is OK.
NG	▶	Replace time control unit. (Before replacing the unit, make sure the remote controller ID registration for time control unit and the remote controller battery once again.)

System Description/Sedan

=NJEL0399

FUNCTION

NJEL0399S01

Multi-remote control system has the following function.

- Door lock (and set super lock)
- Door unlock (and release super lock)
- Hazard reminder

LOCK OPERATION

NJEL0399S02

To lock door by multi-remote controller, the ignition switch must be at OFF.
When the LOCK signal is input to multi-remote control unit (the antenna of the system is combined with multi-remote control unit), ground is supplied

- through multi-remote control unit terminal 5
- to time control unit terminal 32.

Then time control unit operates to lock doors and set super lock (models with super lock).

UNLOCK OPERATION

NJEL0399S03

When the UNLOCK signal is input to multi-remote control unit (the antenna of the system is combined with multi-remote control unit), ground is supplied

- through multi-remote control unit terminal 6
- to time control unit terminal 33.

Time control unit operates to unlock driver's door and release super lock (models with super lock).
Then, if an unlock signal is sent from the remote controller again within 5 seconds, all other doors will be unlocked.

HAZARD REMINDER

NJEL0399S04

When the doors are locked or unlocked by multi-remote controller (signal from driver side unlock sensor), supply power to hazard warning lamp flashes as follows

- Lock operation: Flash once
- Unlock operation: Flash twice

MULTI-REMOTE CONTROLLER ID CODE ENTRY

NJEL0399S05

A maximum of four remote controllers can be entered.
To enter ID code entry, the following signals must be input to the multi-remote control unit.

- Ignition switch (ON)
- Signal from remote controller

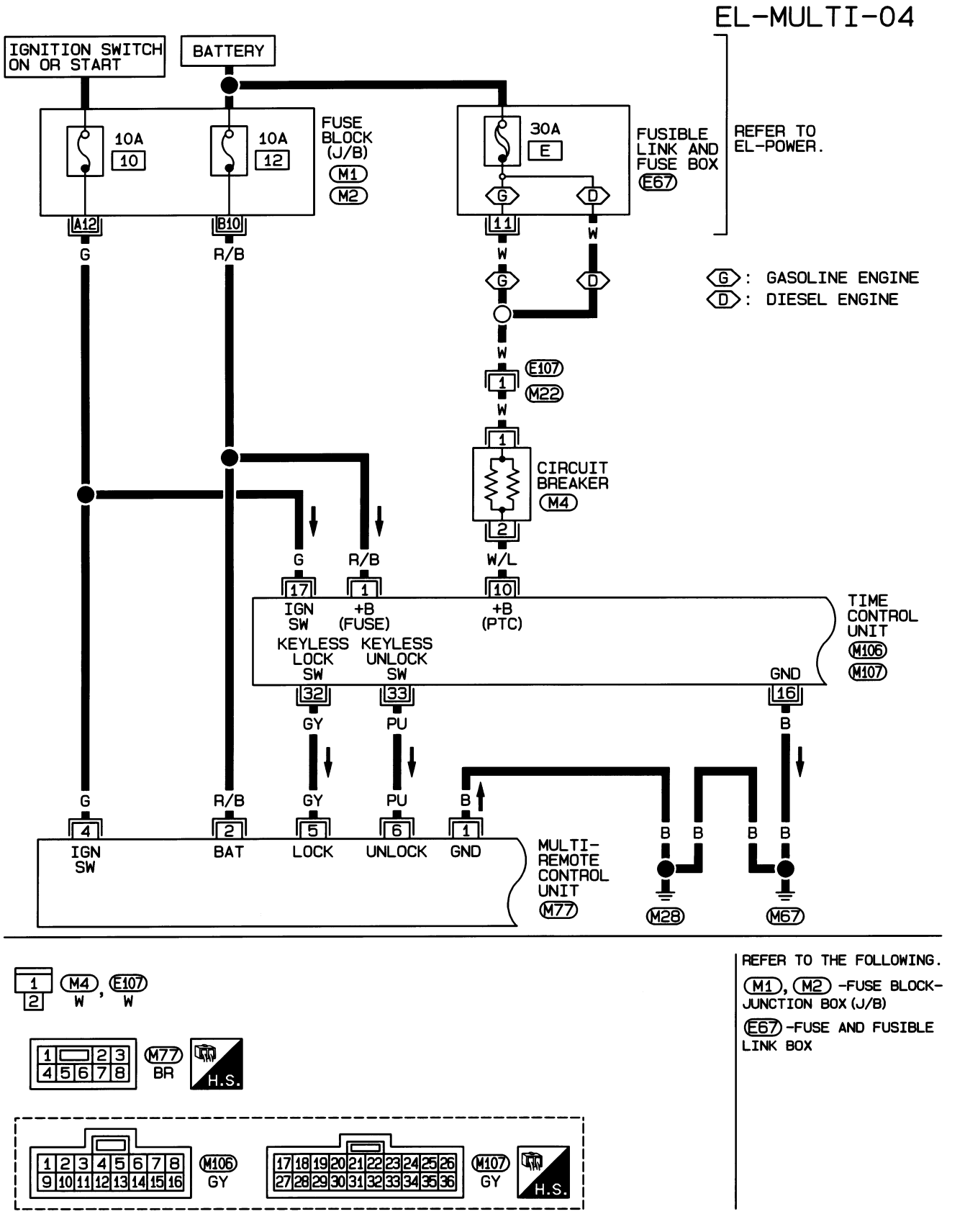
For detailed procedure, refer to "ID Code Entry Procedure" in EL-402.

Wiring Diagram — MULTI —/Sedan

NJEL0400

FIG. 1

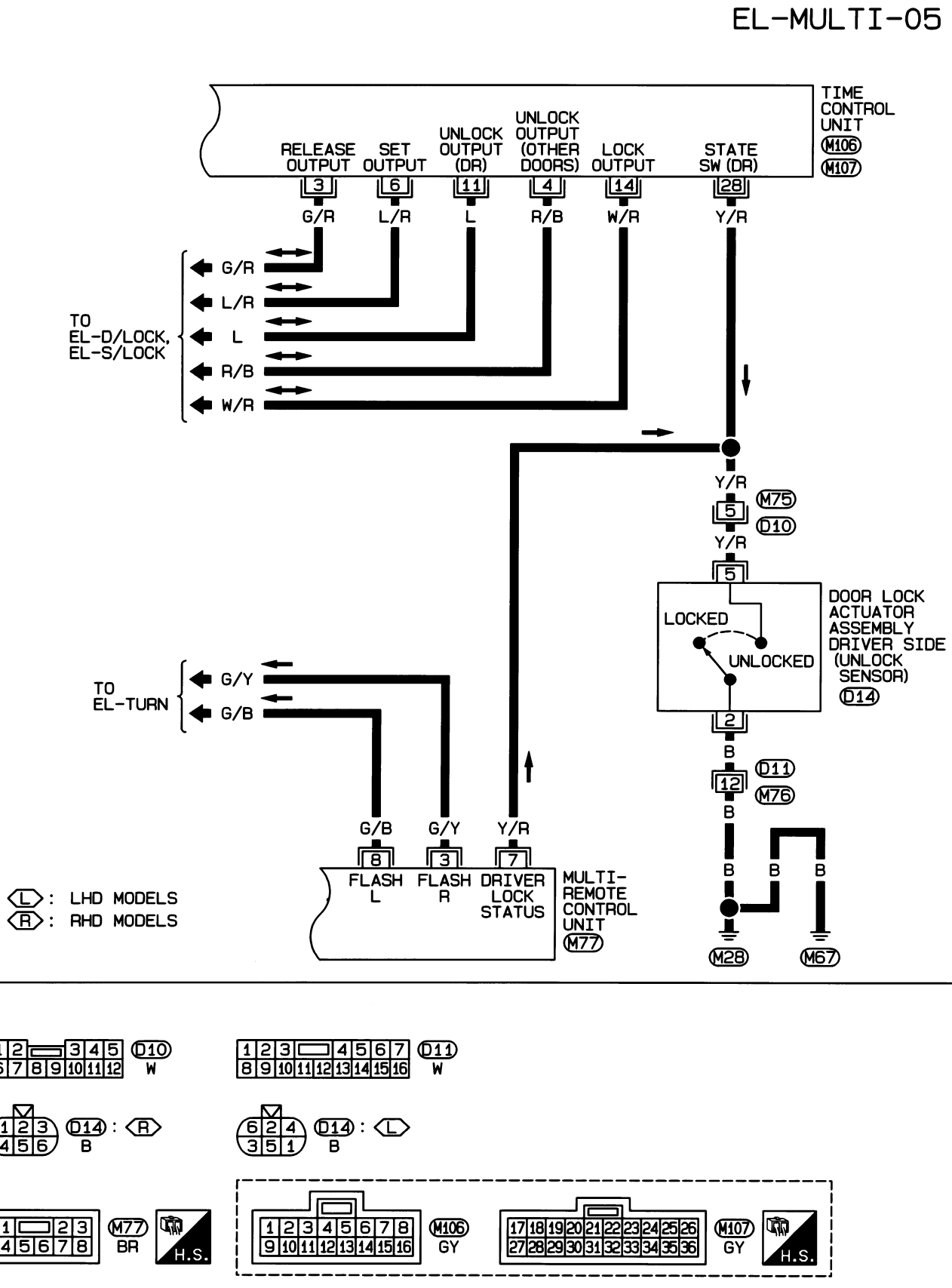
NJEL0400S01



HEL419B

FIG. 2

NJEL0400S02



HEL420B

Trouble Diagnoses/Sedan

NJEL0478

SYMPTOM CHART

NJEL0478S01

NOTE:

Always check remote controller battery before replacing remote controller.

Symptom	Diagnoses/service procedure	Reference page (EL-)
All function of multi-remote control system do not operate.	1. Remote controller battery check	396
	2. Power supply and ground circuit for control unit check	397
	3. Replace remote controller. Refer to ID Code Entry Procedure.	402
The new ID of remote controller cannot be entered.	1. Remote controller battery check	396
	2. Power supply and ground circuit for control unit check	397
	3. Replace remote controller. Refer to ID Code Entry Procedure.	402
Door lock or unlock does not function. (If the power door lock system does not operate manually, check power door lock system.)	1. Remote controller battery and function check	396
	2. Replace remote controller. Refer to ID Code Entry Procedure.	402
Hazard reminder does not activate properly when pressing lock or unlock button of remote controller.	1. Remote controller battery and function check	396
	2. Hazard reminder check	400
	3. Replace remote controller. Refer to ID Code Entry Procedure.	402

REMOTE CONTROLLER BATTERY CHECK

=NJEL0478S02

1	CHECK REMOTE CONTROLLER BATTERY

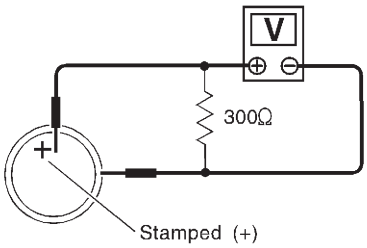
Remove battery and measure voltage across battery positive and negative terminals, (+) and (−).

Voltage [V]:

2.5 - 3.0

NOTE:

Remote controller does not function if battery is not set correctly.



SEL237W

OK or NG

OK	▶	Check remote controller battery terminals for corrosion or damage.
NG	▶	Replace battery.

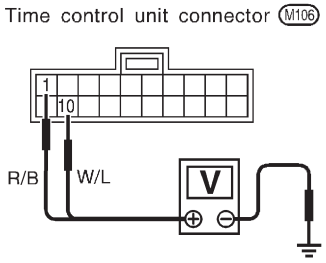
POWER SUPPLY AND GROUND CIRCUIT CHECK

=NJEL0478S03

1 CHECK POWER SUPPLY CIRCUIT FOR TIME CONTROL UNIT

1. Disconnect time control unit harness connector.
2. Check voltage between time control unit harness connector terminal 1 or 10 and ground.





Terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
1	Ground	Battery voltage		
10				

SEL006X

Refer to wiring diagram in EL-393.

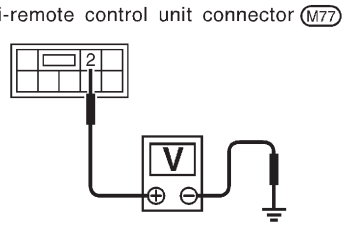
OK or NG

OK	▶	GO TO 2.
NG	▶	**Check the following.** ● 30A fusible link (letter **E**, located in fuse and fusible link box) ● 10A fuse [No. 12, located in fuse block (J/B)] ● M4 circuit breaker ● Harness for open or short between time control unit and fuse

2 CHECK POWER SUPPLY CIRCUIT FOR MULTI-REMOTE CONTROL UNIT

1. Disconnect multi-remote control unit harness connector.
2. Check voltage between multi-remote control unit harness connector terminal 2 and ground.





Battery voltage should exist.

SEL482X

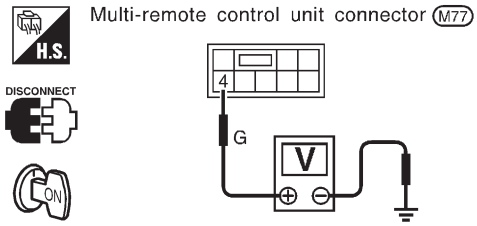
Refer to wiring diagram in EL-393.

OK or NG

OK	▶	GO TO 3.
NG	▶	**Check the following.** ● 10A fuse [No. 12, located in fuse block (J/B)] ● Harness for open or short between multi-remote control unit and fuse

3	CHECK IGNITION SWITCH "ON" CIRCUIT

1. Disconnect multi-remote control unit harness connector.
2. Check voltage between multi-remote control unit terminal 4 and ground while ignition switch is "ON".



Battery voltage should exist.

SEL483X

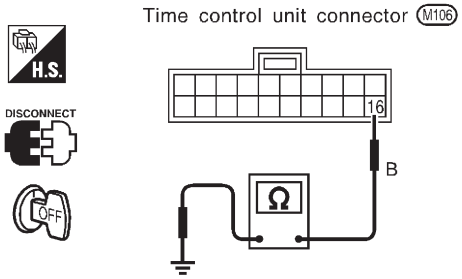
Refer to wiring diagram in EL-393.

OK or NG

OK	▶	GO TO 4.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in fuse block (J/B)] ● Harness for open or short between multi-remote control unit and fuse.

4	CHECK GROUND CIRCUIT FOR TIME CONTROL UNIT

Check continuity between time control unit harness connector terminal 16 and ground.



Continuity should exist.

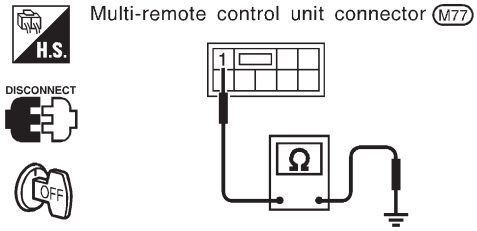
SEL992W

OK or NG

OK	▶	GO TO 5.
NG	▶	Check ground harness.

5	CHECK GROUND CIRCUIT FOR MULTI-REMOTE CONTROL UNIT

Check continuity between multi-remote control unit terminal 1 and ground.



Continuity should exist.

SEL484X

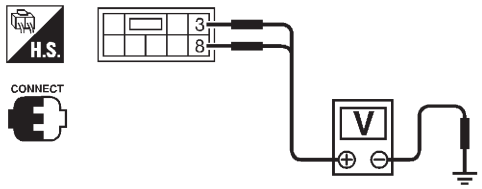
OK or NG

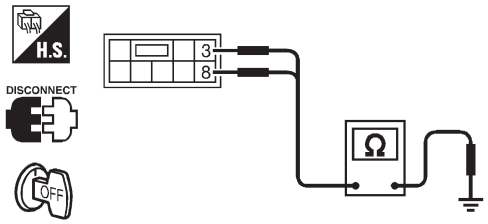
OK	▶	Power supply and ground circuits are OK.
NG	▶	Check ground harness.

HAZARD REMINDER CHECK

=NJEL0478S04

1	CHECK HAZARD WARNING LAMP	
Check if hazard warning lamp flashes with hazard switch. **Does hazard warning lamp operate?**		
Yes	▶	GO TO 2.
No	▶	Check hazard warning lamp circuit.

2	CHECK HAZARD REMINDER OPERATION	
Check the following at when push the multi-remote control switch. Check voltage between terminal 3 and ground. Check voltage between terminal 8 and ground.  **Battery voltage should exist.** SEL502X **OK or NG**		
OK	▶	GO TO 3.
NG	▶	Replace multi-remote control unit.

3	CHECK HAZARD REMINDER CIRCUIT	
1. Disconnect multi-remote control unit harness connector. 2. Check continuity between multi-remote control unit and hazard switch.  **Continuity should exist.** SEL503X **OK or NG**		
OK	▶	System is OK.
NG	▶	Repair harness.

ID Code Entry Procedure/Sedan

=NJEL0402

Activation of the registration mode:

The vehicle must have been unlocked by either the multi-remote controller or a transponder OK signal (TPOK) from the vehicle's immobilizer.
Preparation:
- Make sure all doors unlock.
- Make sure all multi-remote controllers to be registered are available.
- Make sure the batteries of all multi-remote controllers are in a good condition.
- Make sure all transmitting sources are out of the neighbourhood of the vehicle.
- Make sure the battery of the vehicle is in a good condition.

↓

Switch ignition-switch exactly six times from the "LOCK" to the "ON" position within 10 seconds and return the ignition switch to the "LOCK" position (leaving the key in the ignition switch).

↓

After 2 seconds the registration mode is activated. The turn signal lamps will flash twice. — NG → Switch ignition-switch exactly six times from the "LOCK" to the "ON" position within 10 seconds and return the ignition switch to the "LOCK" position (leaving the key in the ignition switch).

↓ OK

Proceed with the registration mode.

NOTE
The registration mode is exited when:
- The ignition-switch is turned to the "ON" position.
- A multi-remote controller ID code is registered after 4 ID codes have been registered (then, all of the registered ID codes are erased).
- No multi-remote controller or ignition switch input is received within 120 seconds.

↓

Registration mode

Press and hold the "UNLOCK" button of the multi-remote controller.

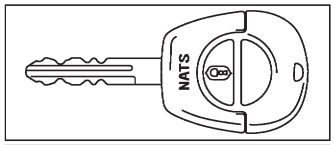
↓

Press the "LOCK" button 3 times.

↓

Release the "UNLOCK" button.
(At this time, the original (previous) ID code(s) are erased.)

→ If the multi-remote controller code is registered correctly, the turn signal lamp will flash once.
(If 4 ID codes have been registered, the turn signal lamp will flash 3 times.)



NG → Press and hold the "UNLOCK" button of the multi-remote controller.

Do you want to register another multi-remote controller? (max. 4)
(If 4 controllers have been registered, you should turn the ignition switch to the ON position.)

OK ←

No ↓

Yes → Press and hold the "UNLOCK" button of the multi-remote controller.

Turn the ignition switch to the ON position.

→ If the multi-remote controller registration is performed correctly, the turn signal lamp will flash twice.
(If 4 ID codes have been registered, the turn signal lamp will not flash.)

OK ↓

NG → Press and hold the "UNLOCK" button of the multi-remote controller.

Take the ignition key out of the ignition switch and confirm the functioning of all multi-remote controllers by locking and unlocking the vehicle with each of the multi-remote controllers.

↓

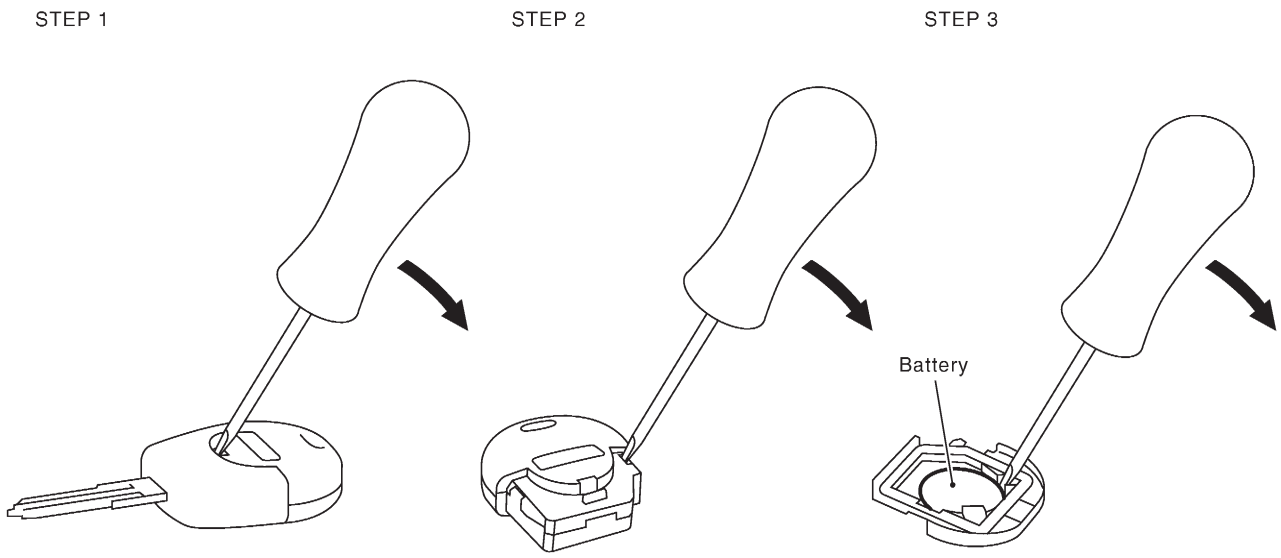
End

SEL497X

Remote Controller Battery Replacement/Sedan

NJEL0479

NOTE:
• Be careful not to touch the circuit board or battery terminal.
• The remote controller is water-resistant. However, if it does get wet, immediately wipe it dry.
• Push the remote controller button two or three times to check its operation after replacing battery.



SEL241X

System Description/Hatchback

NJEL0480

FUNCTION

NJEL0480S01

Multi-remote control system has the following function.

- Door lock (and set super lock)
- Door unlock (and release super lock)
- Hazard reminder

LOCK OPERATION

NJEL0480S02

To lock door by multi-remote controller, the key switch must be at OFF.
When the LOCK signal is input to time control unit (the antenna of the system is combined with time control unit)
Then time control unit controls to lock doors and set super lock (models with super lock).

UNLOCK OPERATION

NJEL0480S03

When the UNLOCK signal is input to time control unit (the antenna of the system is combined with time control unit)
Time control unit controls to unlock driver's door and release super lock (models with super lock).
Then, if an unlock signal is sent from the remote controller again within 5 seconds, all other doors will be unlocked.

HAZARD REMINDER

NJEL0480S04

When the doors are locked or unlocked by multi-remote controller, supply power to turn lamps hazard reminder flashes as follows

- Lock operation: Flash once

- Unlock operation: Flash twice

MULTI-REMOTE CONTROLLER ID CODE ENTRY

NJEL0480S05

A maximum of four remote controllers can be entered.
To enter ID code entry, the following signals must be input to the time control unit.

- Ignition switch (ON)
- Signal from remote controller

For detailed procedure, refer to "ID Code Entry Procedure" in EL-412.

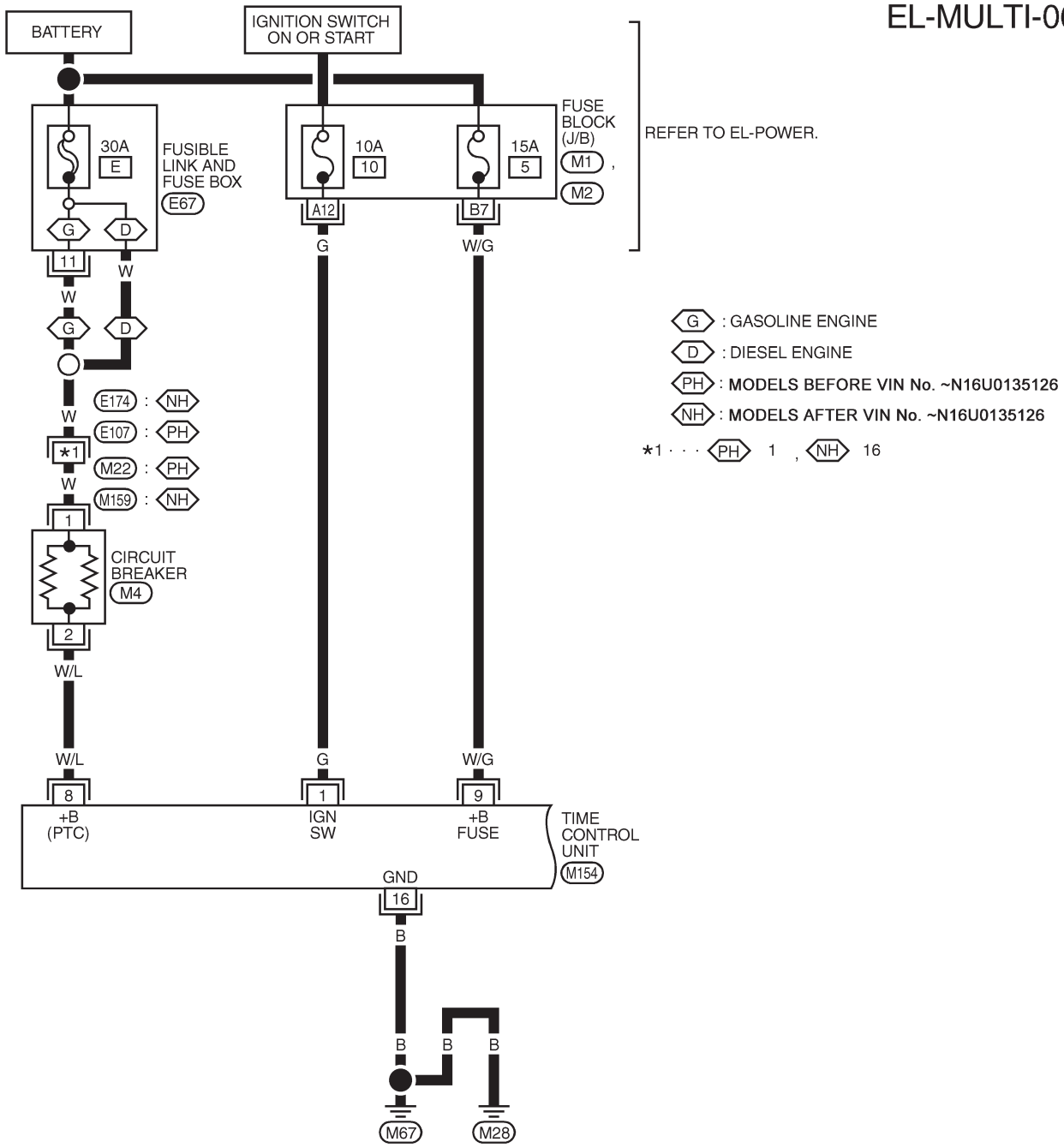
Wiring Diagram — MULTI —/Hatchback

NJEL0481

FIG. 1

NJEL0481S01

EL-MULTI-06



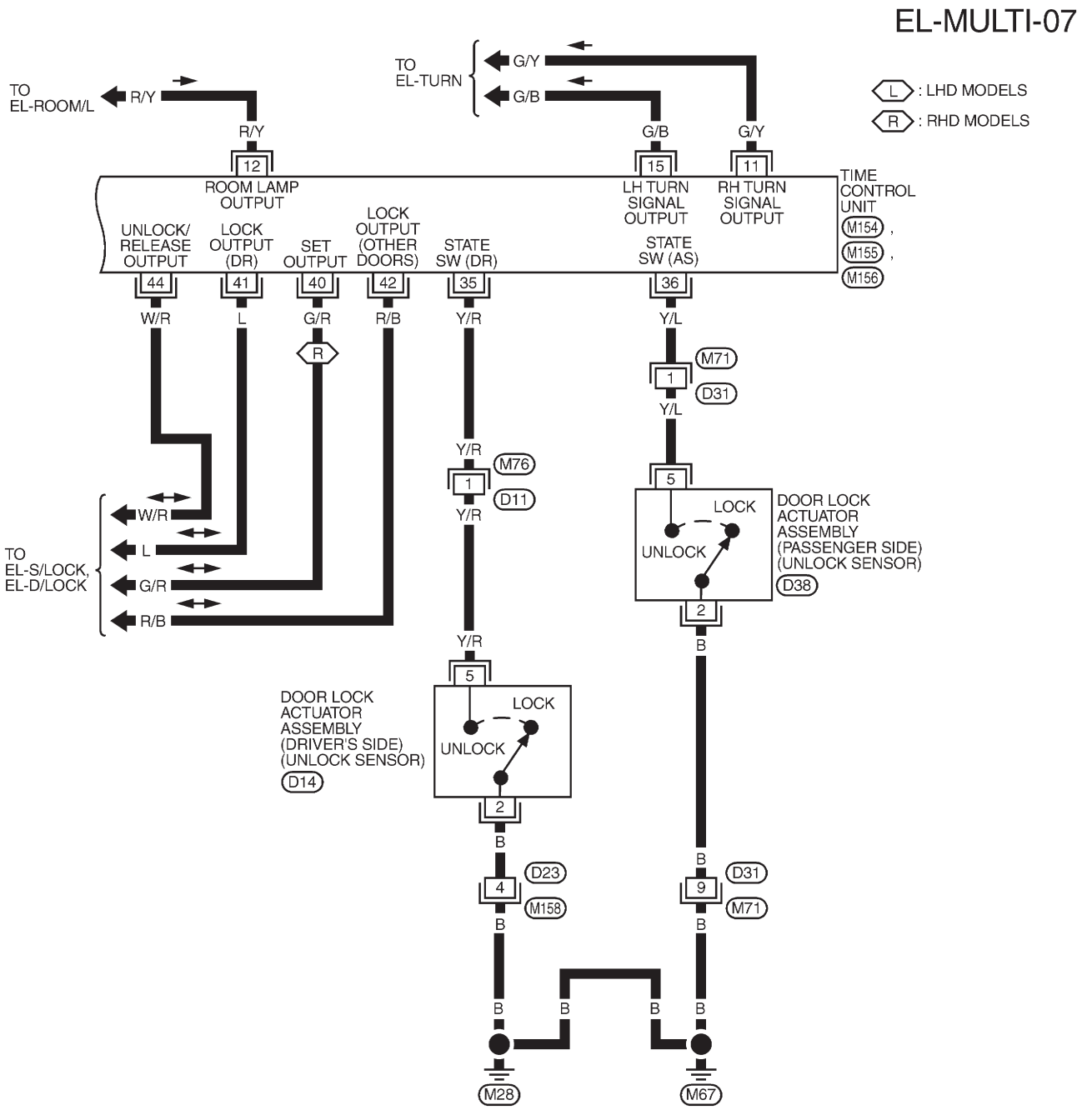


REFER TO THE FOLLOWING.
M1 , M2
-FUSE BLOCK-
JUNCTION BOX (J/B)
E67 -FUSE AND
FUSIBLE LINK BOX

YEL375C

FIG. 2

NJEL0481S02



MEL129M

Trouble Diagnoses/Hatchback

NJEL0482

SYMPTOM CHART

NJEL0482S01

NOTE:

Always check remote controller battery before replacing remote controller.

Symptom	Diagnoses/service procedure	Reference page (EL-)
No doors can be locked or unlocked by remote control operation. (Make sure that power door lock operates properly. If NG, check power door lock.)	1. Remote controller battery check	408
	2. Power supply and ground circuit for time control unit check	409
	3. Replace remote controller. Refer to ID Code Entry Procedure.	412
The new ID of remote controller cannot be entered.	1. Remote controller battery check	408
	2. Power supply and ground circuit for time control unit check	409
	3. Ignition “ON” power supply circuit for time control unit	410
	4. Replace remote controller. Refer to ID Code Entry Procedure.	412
Hazard reminder does not activate properly when pressing lock or unlock button of remote controller.	1. Remote controller battery	408
	2. Hazard reminder check	410
	3. Replace remote controller. Refer to ID Code Entry Procedure.	412

REMOTE CONTROLLER BATTERY AND FUNCTION CHECK

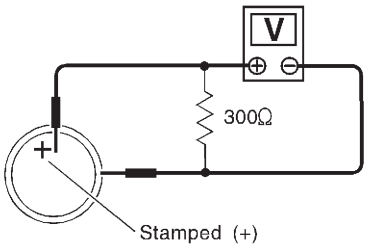
=NJEL0482S02

1	CHECK REMOTE CONTROLLER BATTERY

Remove battery (refer to EL-403) and measure voltage across battery positive and negative terminals, (+) and (−).

Voltage [V]:
2.5 - 3.0

NOTE:
Remote controller does not function if battery is not set correctly.



SEL237W

OK or NG

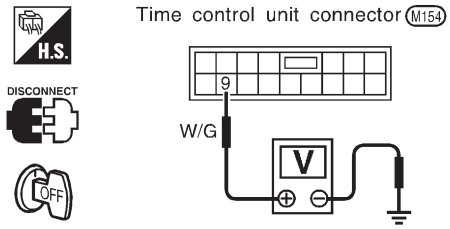
OK	▶	Check remote controller battery terminals for corrosion or damage.
NG	▶	Replace battery.

POWER SUPPLY AND GROUND CIRCUIT CHECK

=NJEL0482S03

1	CHECK MAIN POWER SUPPLY CIRCUIT FOR TIME CONTROL UNIT

1. Disconnect time control unit harness connector.
2. Check voltage between time control unit harness connector terminal 9 and ground.



Continuity should exist.

SEL487X

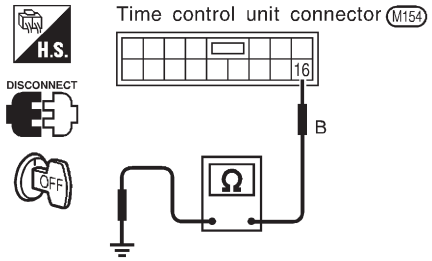
Refer to wiring diagram in EL-405.

OK or NG

OK	▶	GO TO 2.
NG	▶	**Check the following.** ● 15A fuse [No. 5, located in fuse block (J/B)] ● Harness for open or short between time control unit and fuse

2	CHECK GROUND CIRCUIT FOR TIME CONTROL UNIT

Check continuity between time control unit harness connector terminal 16 and ground.



Continuity should exist.

SEL448X

Refer to wiring diagram in EL-405.

OK or NG

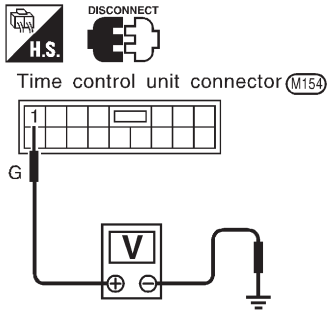
OK	▶	Power supply and ground circuits are OK.
NG	▶	Check ground harness.

IGNITION "ON" POWER SUPPLY CIRCUIT FOR TIME CONTROL UNIT

=NJEL0482S17

1	CHECK IGNITION "ON" POWER SUPPLY CIRCUIT FOR TIME CONTROL UNIT

1. Disconnected time control unit harness connector.
2. Check voltage between time control unit terminal 1 and ground.



Terminals		Ignition switch position		
(+)	(–)	OFF	ACC	ON
1	Ground	0V	0V	Battery voltage

SEL429X

OK or NG

OK	▶	Ignition "ON" power supply circuit is OK.
NG	▶	**Check the following.** ● 10A fuse [No. 10, located in fuse block (J/B)] ● Harness for open or short between time control unit and fuse.

HAZARD REMINDER CHECK

NJEL0482S18

1	CHECK HAZARD WARNING LAMP

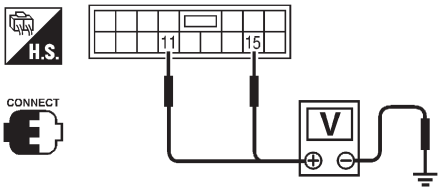
Check if hazard warning lamp flashes with hazard switch.

Does hazard warning lamp operate?

Yes	▶	GO TO 2.
No	▶	Check hazard warning lamp circuit.

2	CHECK HAZARD REMINDER OPERATION

Check the following at when push the multi-remote control switch.
Check voltage between terminal 11 and ground.
Check voltage between terminal 15 and ground.



Battery voltage should exist.

SEL499X

OK or NG

OK	▶	System is OK.
NG	▶	Replace time control unit. (Before replacing the unit, make sure the remote controller ID registration for time control unit and the remote controller battery once again.)

ID Code Entry Procedure/Hatchback

=NJEL0483

Activation of the registration mode:

The vehicle must have been unlocked by either the multi-remote controller or a transponder OK signal (TPOK) from the vehicle's immobilizer.
Preparation:
- Make sure all doors unlock.
- Make sure all multi-remote controllers to be registered are available.
- Make sure the batteries of all multi-remote controllers are in a good condition.
- Make sure all transmitting sources are out of the neighbourhood of the vehicle.
- Make sure the battery of the vehicle is in a good condition.

↓

Switch ignition-switch exactly six times from the "LOCK" to the "ON" position within 10 seconds and return the ignition switch to the "LOCK" position (leaving the key in the ignition switch).

↓

After 2 seconds the registration mode is activated. The turn signal lamps will flash twice.

NG → Switch ignition-switch exactly six times from the "LOCK" to the "ON" position within 10 seconds and return the ignition switch to the "LOCK" position (leaving the key in the ignition switch).

↓ OK

Proceed with the registration mode.

NOTE
The registration mode is exited when:
- The ignition-switch is turned to the "ON" position.
- A multi-remote controller ID code is registered after 4 ID codes have been registered (then, all of the registered ID codes are erased).
- No multi-remote controller or ignition switch input is received within 120 seconds.

↓

Registration mode

Press and hold the "UNLOCK" button of the multi-remote controller.

↓

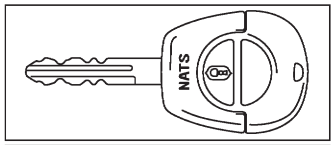
Press the "LOCK" button 3 times.

↓

Release the "UNLOCK" button.
(At this time, the original (previous) ID code(s) are erased.)

→ If the multi-remote controller code is registered correctly, the turn signal lamp will flash once.
(If 4 ID codes have been registered, the turn signal lamp will flash 3 times.)

NG → Press and hold the "UNLOCK" button of the multi-remote controller.



Do you want to register another multi-remote controller? (max. 4)
(If 4 controllers have been registered, you should turn the ignition switch to the ON position.)

OK ← If the multi-remote controller code is registered correctly, the turn signal lamp will flash once.
(If 4 ID codes have been registered, the turn signal lamp will flash 3 times.)

No ↓

Yes → Press and hold the "UNLOCK" button of the multi-remote controller.

Turn the ignition switch to the ON position.

→ If the multi-remote controller registration is performed correctly, the turn signal lamp will flash twice.
(If 4 ID codes have been registered, the turn signal lamp will not flash.)

OK ← If the multi-remote controller registration is performed correctly, the turn signal lamp will flash twice.
(If 4 ID codes have been registered, the turn signal lamp will not flash.)

NG → Press and hold the "UNLOCK" button of the multi-remote controller.

Take the ignition key out of the ignition switch and confirm the functioning of all multi-remote controllers by locking and unlocking the vehicle with each of the multi-remote controllers.

↓

End

SEL497X

Remote Controller Battery Replacement/Hatchback

NJEL0484

Refer to “Remote Controller Battery Replacement/Sedan”, EL-403.

Description/Sedan

=NJEL0403

OUTLINE

NJEL0403S01

The time control unit totally controls the following body electrical system operations.

- Warning chime
- Rear defogger
- Power door lock
- Interior lamp

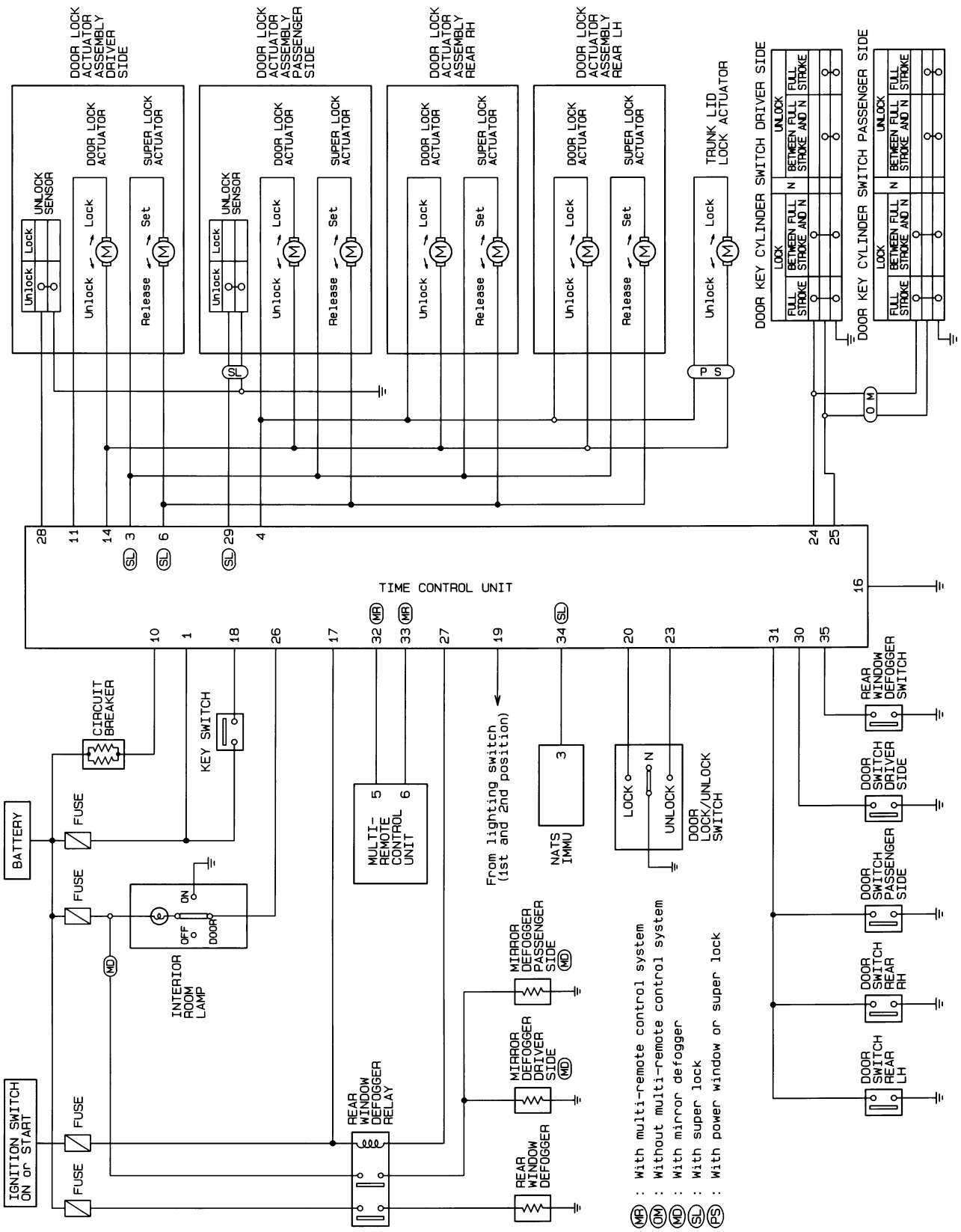
INPUT/OUTPUT

NJEL0403S02

System	Input	Output
Power door lock	Door lock and unlock switch Door switches Door unlock sensor Door key cylinder switches	Door lock actuator
Warning chime	Key switch (Insert) Ignition switch (ON) Lighting switch (1st) Door switch driver side Door unlock sensor	Warning chime (located in time control unit)
Rear window defogger	Ignition switch (ON) Rear window defogger switch	Rear window defogger relay
Interior lamp	Door switches Front door unlock sensor Ignition switch (ON) Key switch (Insert)	Interior lamp

Schematic/Sedan

NJEL0404



HEL421B

Time Control Unit Inspection Table/Sedan

NJEL0405

Terminal No.	Wire color	Connections	Operation condition		Voltage (Approximate values)
1	R/B	Power source (Fuse)	—		12V
3	G/R	Super lock actuator	Door key cylinder switch	Free	0V
				Unlocked	12V
4	R/B	Passenger and rear doors lock actuator	Door lock/unlock switch	Free	0V
				Unlocked	12V
6	L/R	Super lock actuator	Door key cylinder switch	Free	0V
				Locked	12V
10	W/L	Power source (C/B)	—		12V
11	L	Driver's door lock actuator	Door lock/unlock switch	Free	0V
				Unlocked	12V
14	W/R	Door lock actuator	Door lock/unlock switch	Free	0V
				Locked	12V
16	B	Ground	—		0V
18	L/W	Ignition key switch (Insert)	Key inserted → key removed from IGN key cylinder		12V → 0V
19	R/G	Lighting switch	1ST, 2ND position: ON → OFF		12V → 0V
20	PU/W	Door lock/Unlock switch	Neutral → Locks		5V → 0V
23	PU/R	Door lock/Unlock switch	Neutral → Unlocks		5V → 0V
24	LG/R	Door key cylinder switch	OFF (Neutral) → ON (Locked)		5V → 0V
25	W/L	Door key cylinder switch	OFF (Neutral) → ON (Unlocked)		5V → 0V
26	R/Y	Interior room lamp	When interior room lamp is operated using remote controller (Lamp switch is "DOOR" position)		12V → 0V
27	G/W	Rear window defogger relay	OFF → ON (Ignition key is in "ON" position)		12V → 0V
28	Y/R	Driver door unlock sensor	Driver door: Locked → Unlocked		5V → 0V
29	Y/L	Passenger door unlock sensor	Passenger door: Locked → Unlocked		5V → 0V
30	R	Door switch driver side	OFF (closed) → ON (open)		5V → 0V
31	R/W	Passenger and rear doors switch	OFF (closed) → ON (open)		5V → 0V
32	GY	Multi-remote control unit	Remote controller lock button is pushed. (Ignition switch is not at "ON" position)		0V → 5V
33	PU	Multi-remote control unit	Remote controller unlock button is pushed. (Ignition switch is not at "ON" position)		0V → 5V
35	L/Y	Rear window defogger switch	OFF → ON		5V → 0V

Description/Hatchback

=NJEL0485

The TCU has the following functions.

INTERIOR LAMP TIMER

NJEL0485S01

The interior lamp timer is controlled by the TCU.
For further information, refer to “INTERIOR ROOM LAMP” (EL-127).

IGNITION KEY WARNING CHIME AND LIGHT WARNING CHIME

NJEL0485S02

The ignition key and light warning chime are controlled by the TCU.
For further information, refer to “WARNING CHIME” (EL-205).

REAR WINDOW DEFOGGER TIMER

NJEL0485S03

The rear window defogger and door mirror defogger system are controlled by the TCU.
For further information, refer to “REAR WINDOW DEFOGGER” (EL-249).

POWER DOOR LOCK (SUPER LOCK)

NJEL0485S04

The power door lock (super lock) is controlled by the TCU.
For further information, refer to “POWER DOOR LOCK — Super Lock —” (EL-349).

MULTI-REMOTE CONTROL SYSTEM

NJEL0485S05

The multi-remote control system is controlled by the TCU.
For further information, refer to “MULTI-REMOTE CONTROL SYSTEM” (EL-403).

FUNCTION

NJEL0485S06

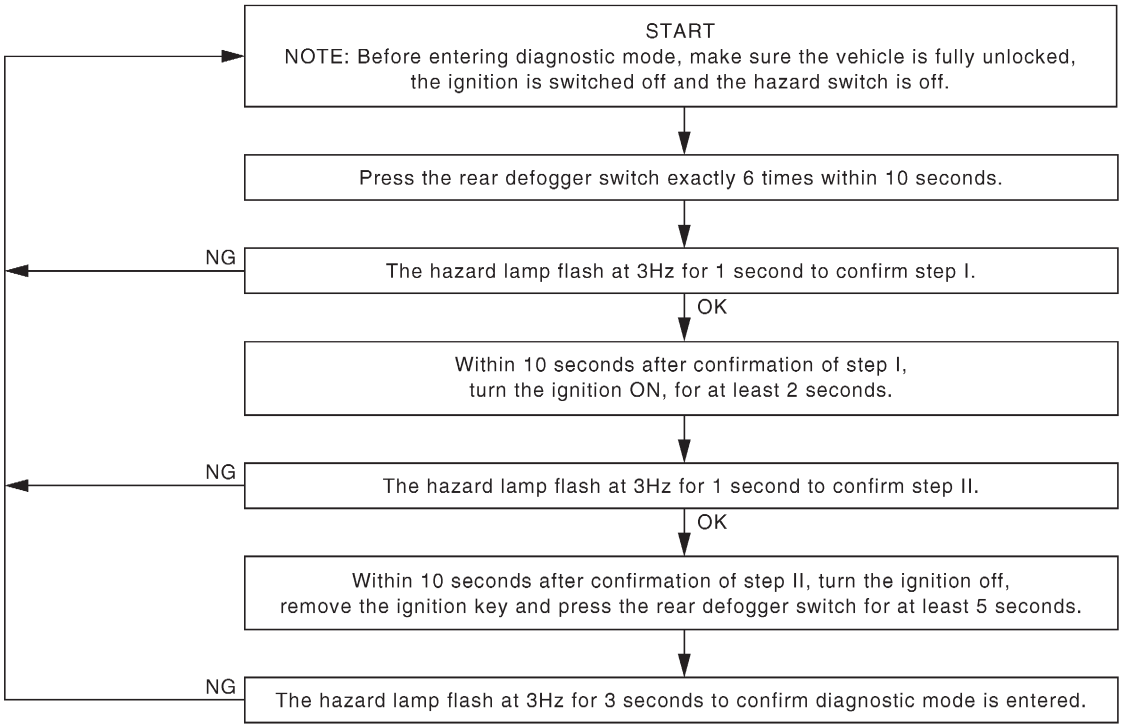
- The TCU has the following control function.

Item	Details of control
Direction indicators	Switches the director indicators (Left, Right or All) when the combination switch or hazard switch is operated.
Light warning chime	Sounds warning chime when driver’s door is opened with light switch in the 1st or 2nd position and ignition switch “OFF”.
Ignition key warning chine	Sounds warning chime when driver’s door is opened with key in ignition and the driver door lock knob (unlock sensor) is moved from the “unlock” position to the “lock” position.
Rear window defogger timer	Turn off rear window defogger and door mirror heater, if equipped, about 15 minutes after the rear window defogger switch is turned “ON”.
Battery saver	Shuts off interior lamp in 30 minutes if any door is left open when ignition switch is “OFF”. The battery saver will reset if ignition switch is cycled or any door is opened or closed.
Interior lamp timer	Keep interior lamp illuminated for about 30 seconds when: ● driver’s door is unlocked, ● the ignition is switched off, ● driver’s door is opened and then closed. The timer is cancelled, and interior lamp turns off when: ● driver’s door is locked, or ● ignition switch is turned “ON”.
Power door lock	Centrally locks and unlocks the vehicle
Super lock	Activates and de-activates the super lock system.

Trouble Diagnoses/Hatchback

=NJEL0486

The Timer Control Unit includes software to help during development testing, manufacturing and service. It allows the technician to put it into Diagnostic Mode. In this mode, all switch inputs can be tested for continuity.
When the timer control unit is in Diagnostic Mode, the control unit tests the component and indicate the result by the hazard lamp flashing.



SEL496X

Checks

Once in Diagnostic Mode, the following inputs can be tested.

USER ACTION	TCU Reaction	COMPONENT TESTED
Driver's door opened from closed (all other doors closed)	Hazards flash once	Driver's door open signal
Passenger or rear door opened from closed (all other doors closed)	Hazard flash once	Door open signal for opened door
Driver's door locked from unlocked	Hazard flash once	Driver's door unlock sensor signal
Passenger door locked from unlocked	Hazard flash once	Assist door unlock sensor signal
Hazard switch is pressed from off	Hazard flash once	Hazard switch signal
Turn signal switch is moved to left from off	Hazard flash once	Left turn signal
Turn signal switch is moved to right from off	Hazards flash once	Right turn signal
Key turned to lock position is door	Hazard flash once*	Key cylinder lock switch signal

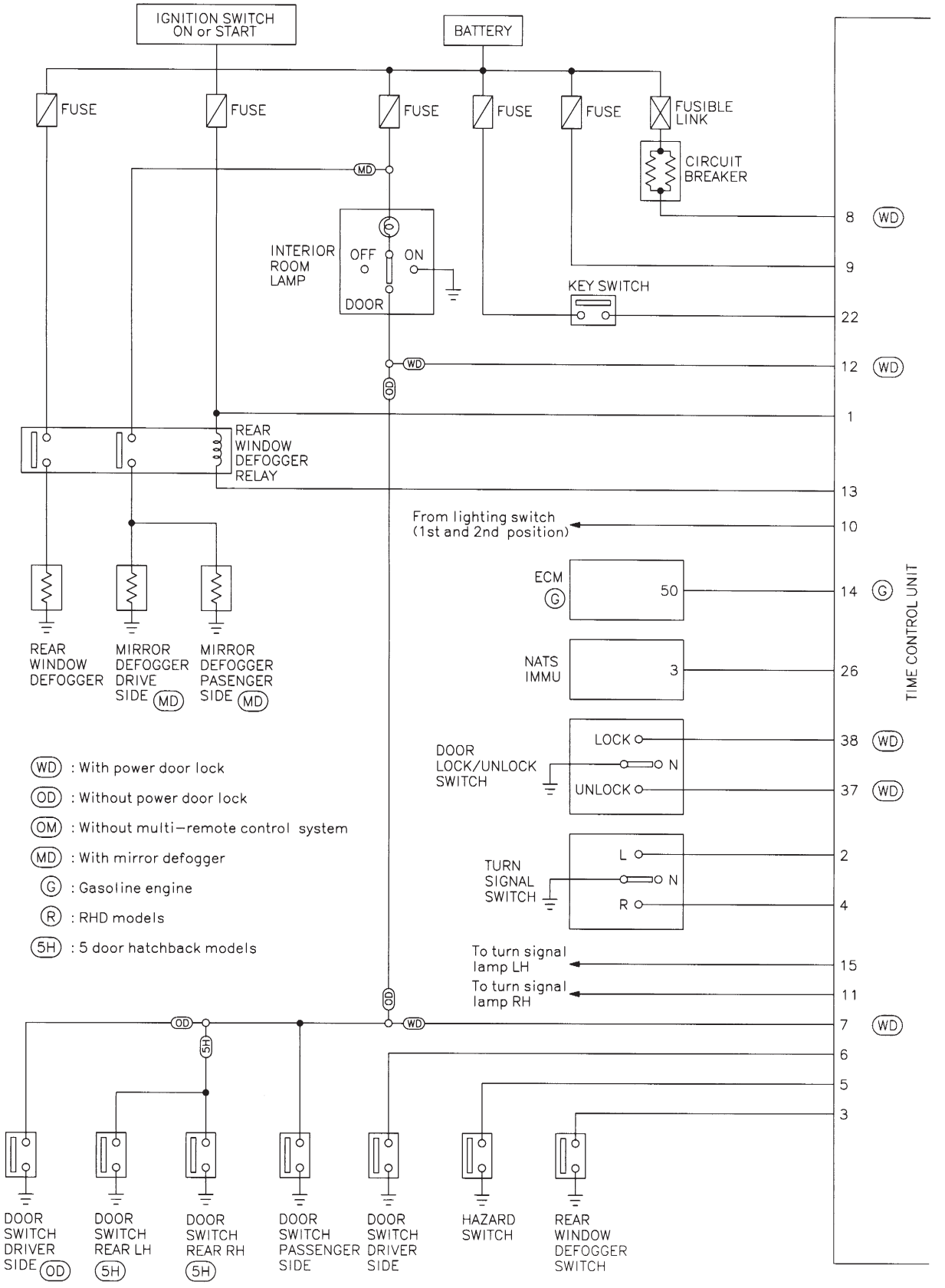
USER ACTION	TCU Reaction	COMPONENT TESTED
Lighting switch turned 1st position or 2nd position from off	Hazard flash once	Tail lamp signal
Key put in ignition from out	Hazard flash once	Key in detect signal
Door lock/unlock switch is pressed	Hazard flash once	Central door lock/unlock signal

*) Hazard may flash a second time because of Driver's door status signal change. The min. delay time between flash actions is 100 ms.

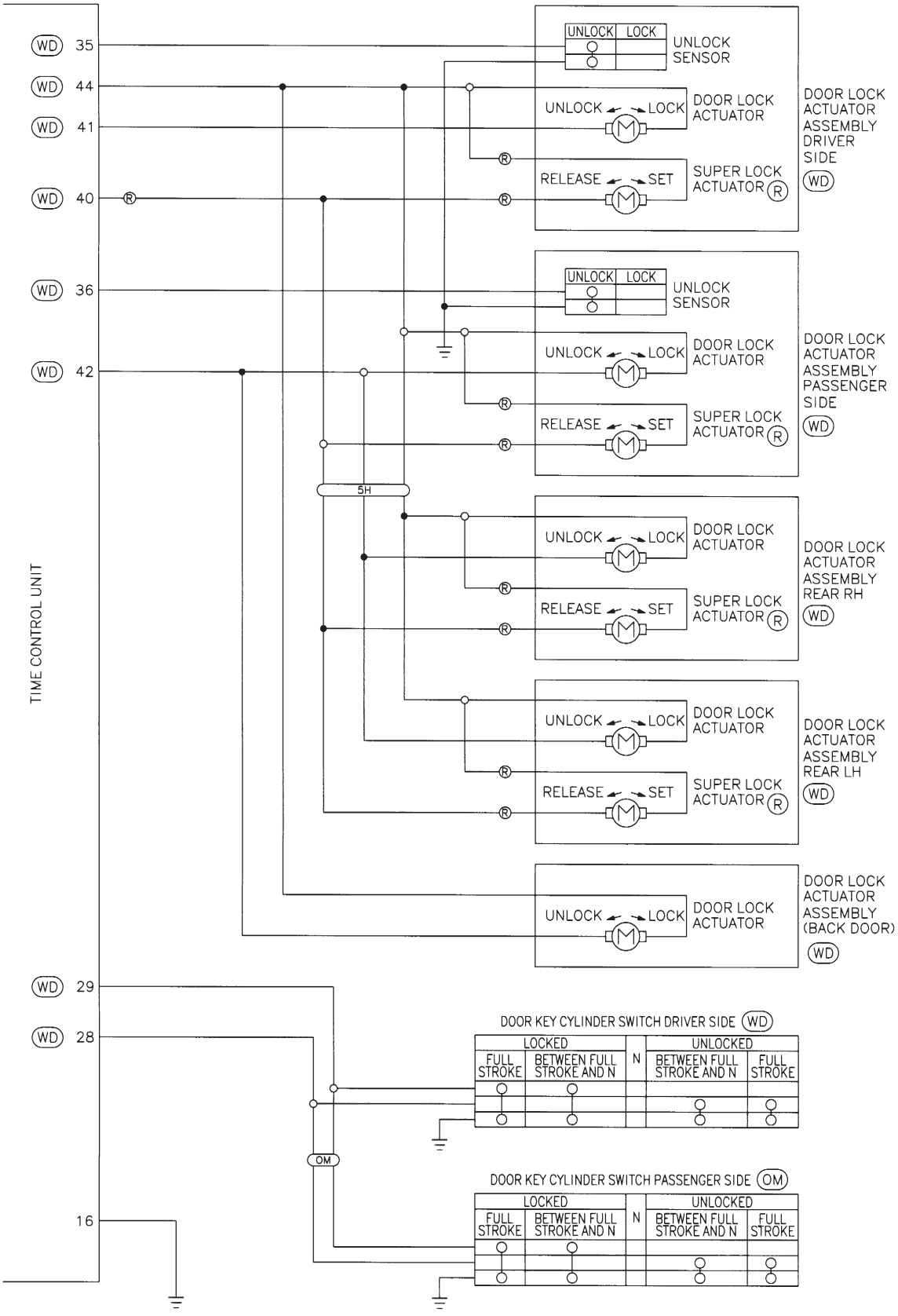
In case the system does not operate as described above, check the concerned circuit for open or short. After completion, the Diagnostic Mode can be switched off by pressing the rear defogger switch or by turning the ignition to "ON". The hazard lamp will flash at 3 Hz for 3 seconds to confirm that Diagnostic Mode has been switched off.

Schematic/Hatchback

NJEL0506



MEL230M


TIME CONTROL UNIT
WD 35
WD 44
WD 41
WD 40
WD 36
WD 42
WD 29
WD 28
16
UNLOCK
LOCK
UNLOCK SENSOR
DOOR LOCK ACTUATOR
SUPER LOCK ACTUATOR
DOOR LOCK ACTUATOR ASSEMBLY DRIVER SIDE
DOOR LOCK ACTUATOR ASSEMBLY PASSENGER SIDE
DOOR LOCK ACTUATOR ASSEMBLY REAR RH
DOOR LOCK ACTUATOR ASSEMBLY REAR LH
DOOR LOCK ACTUATOR ASSEMBLY (BACK DOOR)
5H
OM
DOOR KEY CYLINDER SWITCH DRIVER SIDE
DOOR KEY CYLINDER SWITCH PASSENGER SIDE
LOCKED
UNLOCKED
FULL STROKE
BETWEEN FULL STROKE AND N
N

MEL231M

Component Parts and Harness Connetor Location

NJEL0406

For details, refer to “ELECTRICAL UNIT LOCATION” (EL-517) and “HARNESS LAYOUT” (EL-522).

System Description

=NJEL0407

NATS (Nissan Anti-Theft System) has the following immobilizer functions:

- Since only NATS ignition keys, whose ID nos. have been registered into the ECM and IMMU of NATS, allow the engine to run, operation of a stolen vehicle without a NATS registered key is prevented by NATS. That is to say, NATS will immobilize the engine if someone tries to start it without the registered key of NATS.
- This version of NATS has dongle unit to improve its anti-theft performance (RHD models for Europe). Dongle unit has its own ID which is registered into NATS IMMU. So if dongle unit is replaced, initialization must be carried out.
- When malfunction of dongle unit is detected:
  The security indicator lamp illuminates for about 15 minutes after ignition switch is turned to ON.

– When dongle unit has a malfunction and the indicator lamp is illuminated, engine can not be started. However engine can be started only one time when security indicator lamp turns off in about 15 minutes after ignition switch is turned to ON.

- All of the originally supplied ignition key IDs have been NATS registered.
  If requested by the vehicle owner, a maximum of five key IDs can be registered into the NATS components.
- The security indicator blinks when the ignition switch is in “OFF” or “ACC” position. Therefore, NATS warns outsiders that the vehicle is equipped with the anti-theft system.
- When NATS detects trouble, the security indicator lamp lights up as follows.

Condition IGN ON and	With dongle		Without dongle	
	MIL	Security indicator	MIL	Security indicator
NATS malfunction (except dongle unit) is detected	—	1. 6 times blinking 2. Staying ON after ignition switch is turned ON	—	Staying ON
Only malfunction of dongle unit is detected.	—	Staying ON for about 15 minutes after ignition switch is turned ON	—	—
Malfunction of NATS and engine related parts are detected.	Staying ON	1. 6 times blinking 2. Staying ON after ignition switch is turned ON	Staying ON	Staying ON
Only engine related part malfunction is detected.	Staying ON	—	Staying ON	—
Just after initialization of NATS	—	6 times blinking	—	—

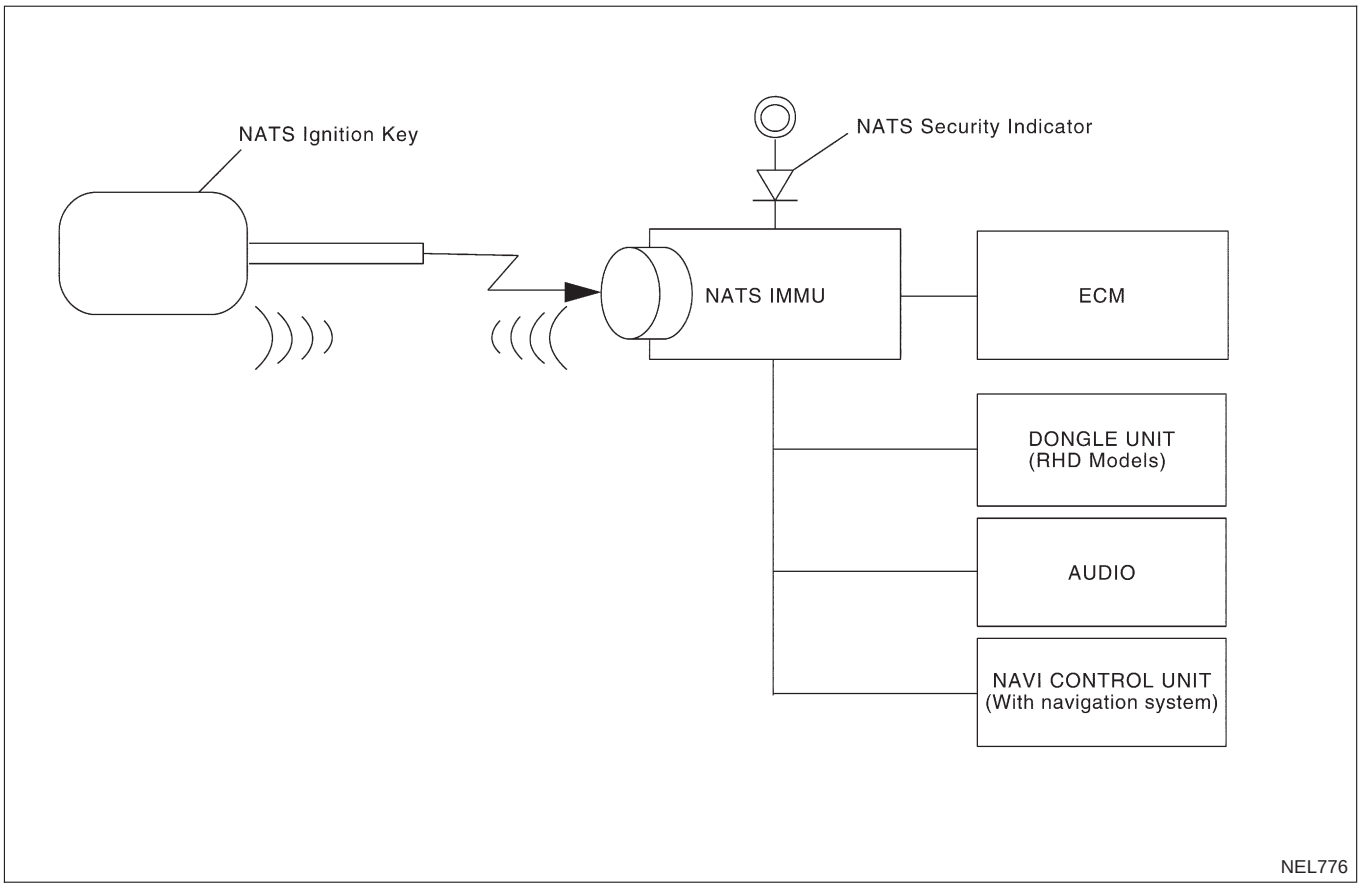
- NATS trouble diagnoses, system initialization and additional registration of other NATS ignition key IDs must be carried out using CONSULT-II hardware and CONSULT-II NATS software.
  Regarding the procedures of NATS initialization and NATS ignition key ID registration, refer to CONSULT-II operation manual, NATS.
- **When servicing a malfunction of the NATS (indicated by lighting up of Security Indicator Lamp) or registering another NATS ignition key ID no., it may be necessary to re-register original key identification. Therefore, be sure to receive ALL KEYS from vehicle owner.**

System Composition

=NJEL0408

The immobilizer function of the NATS consists of the following:

- NATS ignition key
- NATS immobilizer control unit (IMMU) located in the ignition key cylinder
- Engine control module (ECM)
- Dongle unit (RHD models)
- Security indicator
- Navigation control unit (Models with Navigation system)

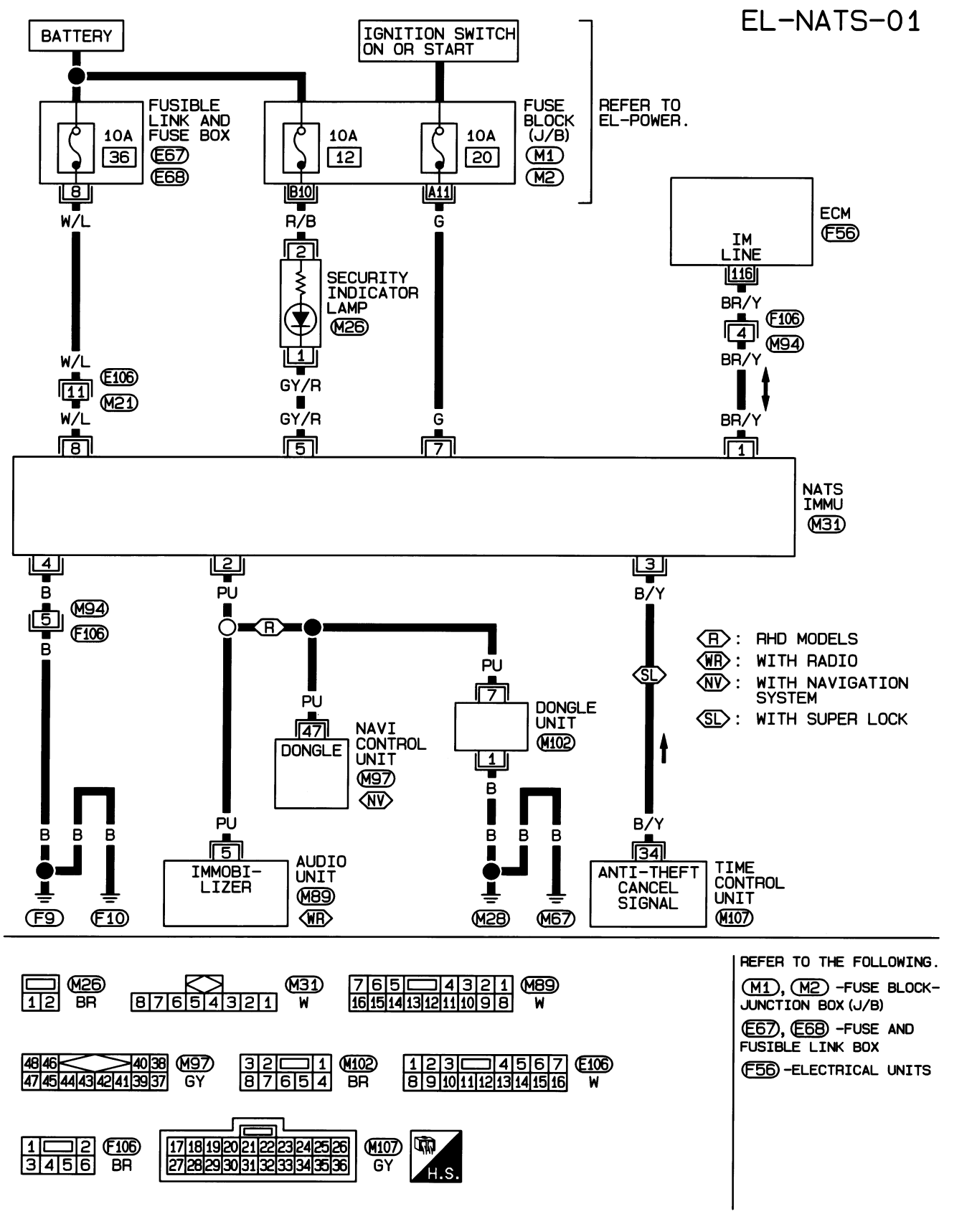


Wiring Diagram — NATS —/Sedan

NJEL0409

GASOLINE ENGINE MODELS

NJEL0409S01



REFER TO THE FOLLOWING.

M1, M2 -FUSE BLOCK-JUNCTION BOX (J/B)

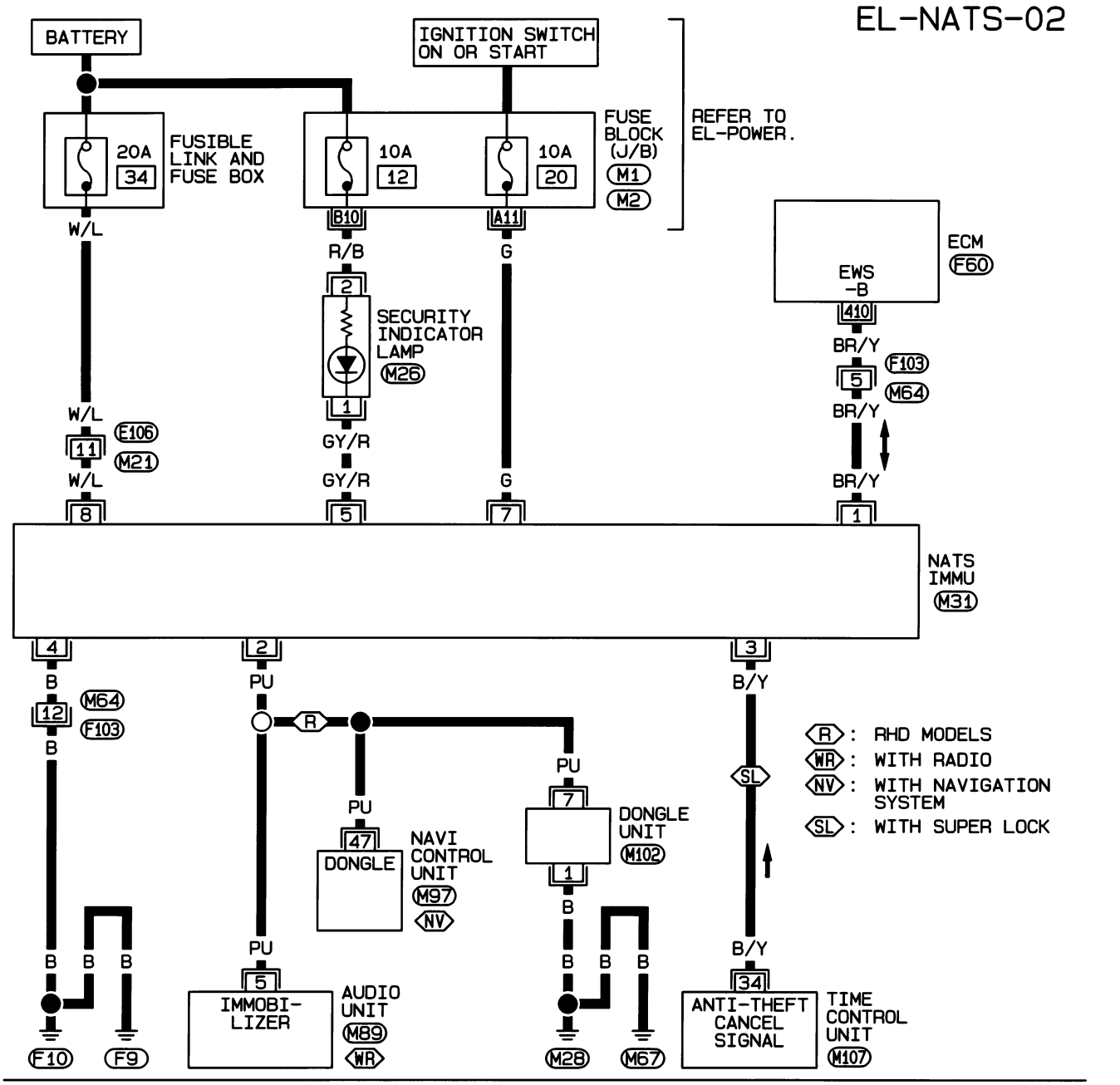
E67, E68 -FUSE AND FUSIBLE LINK BOX

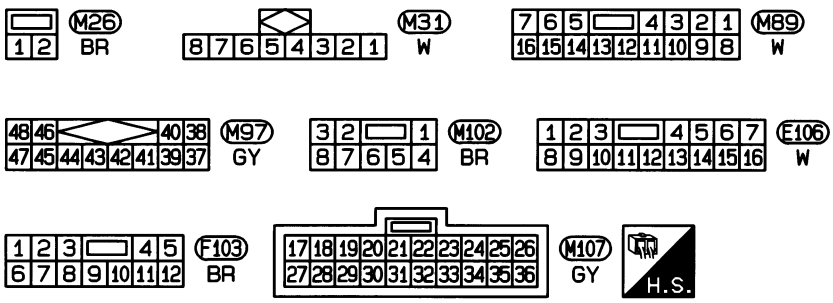
F56 -ELECTRICAL UNITS

HEL422B

DIESEL ENGINE MODELS

NJEL0409S02





REFER TO THE FOLLOWING.

M1, M2 -FUSE BLOCK-JUNCTION BOX (J/B)

F60 -ELECTRICAL UNITS

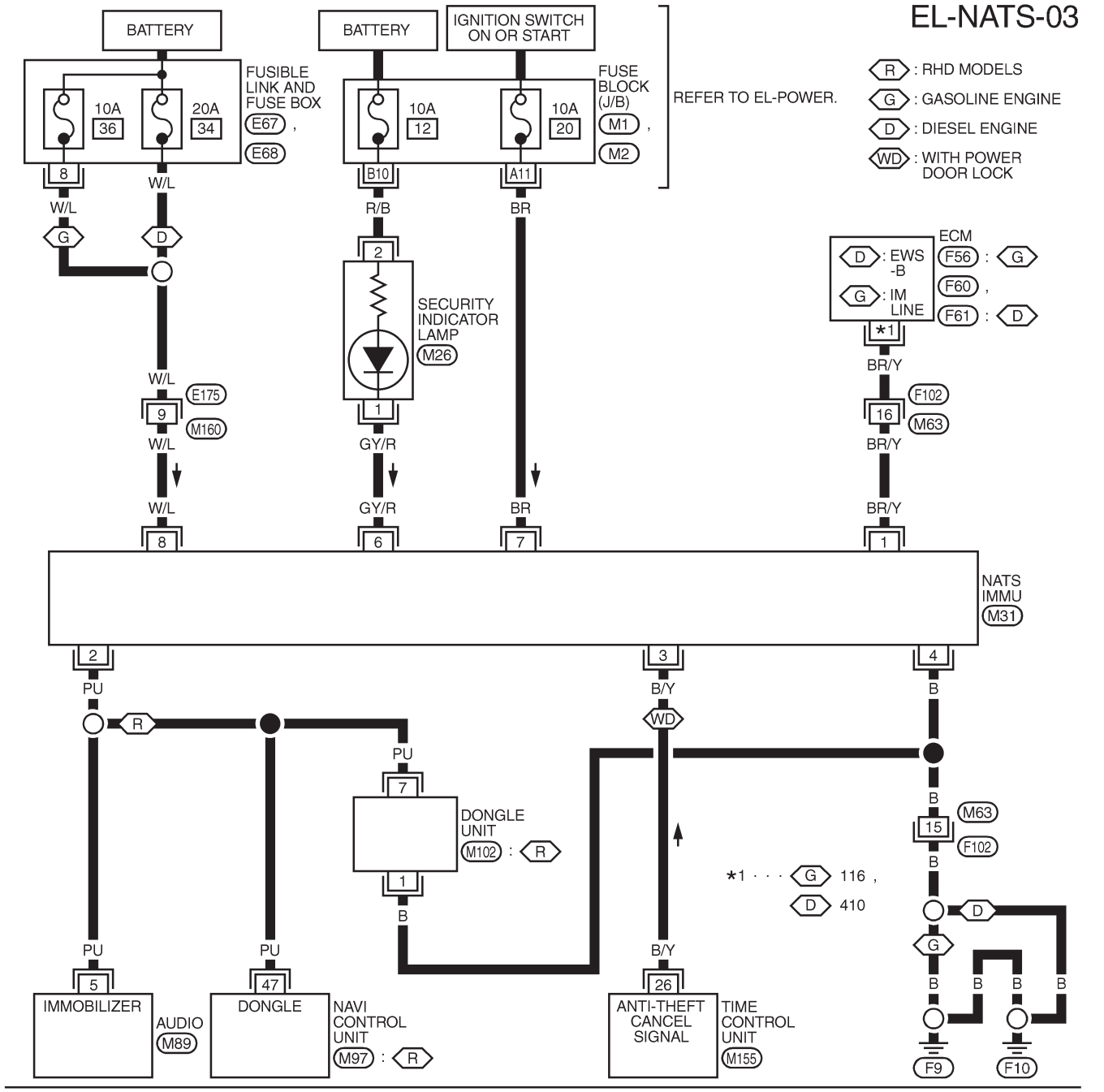
HEL423B

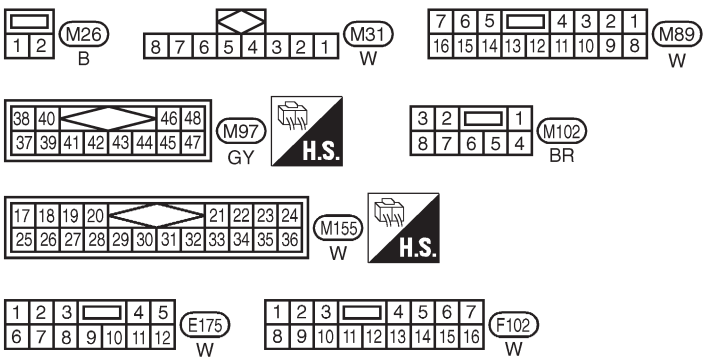
Wiring Diagram — NATS —/Hatchback

NJEL0487

MODELS BEFORE VIN NO. — N16U0135126

NJEL0487S04





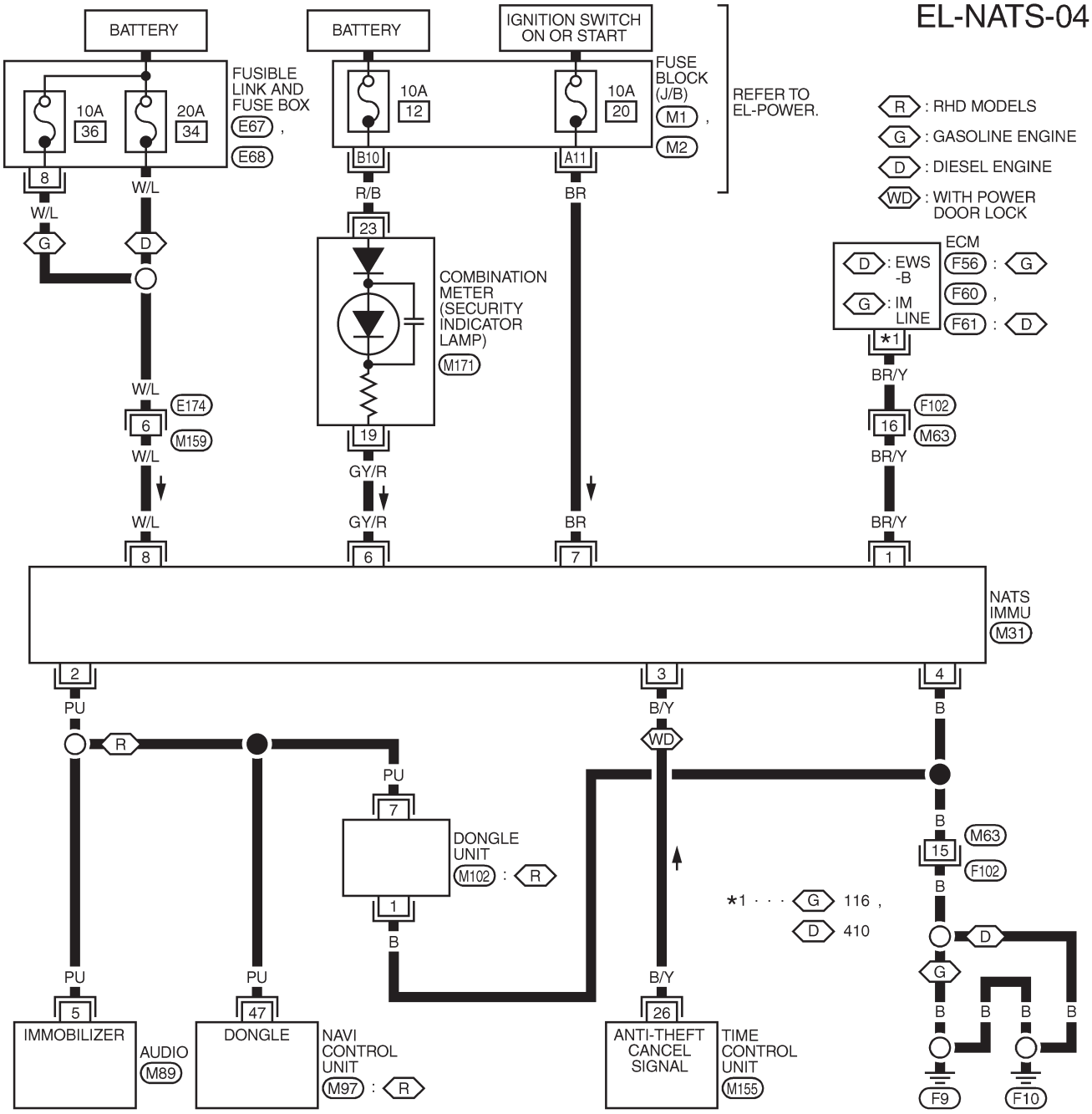
REFER TO THE FOLLOWING.
M1 , M2 -FUSE BLOCK-JUNCTION BOX (J/B)
E67 , E68 -FUSE AND FUSIBLE LINK BOX
F56 , F60 , F61 -ELECTRICAL UNITS

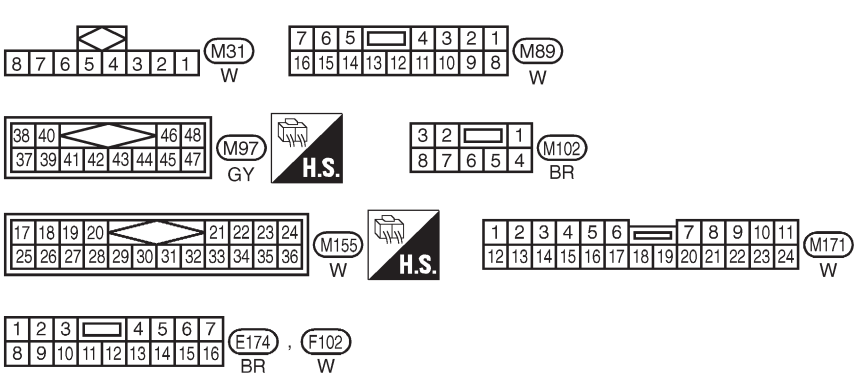
MEL932L

MODELS AFTER VIN NO. — N16U0135126

NJEL0487S05

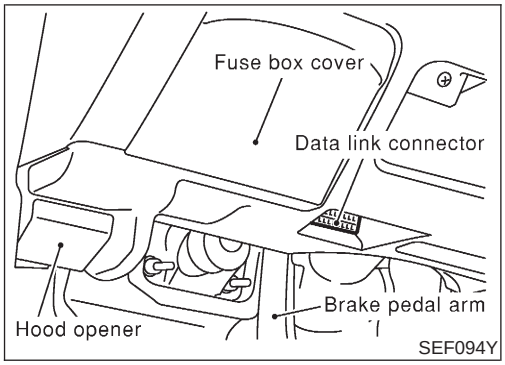
EL-NATS-04





REFER TO THE FOLLOWING.
M1 , M2 -FUSE BLOCK-JUNCTION BOX (J/B)
E67 , E68 -FUSE AND FUSIBLE LINK BOX
F56 , F60 , F61 -ELECTRICAL UNITS

YEL376C



SEF094Y

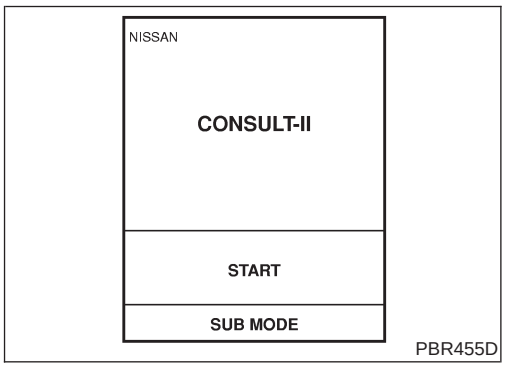
CONSULT-II

NJEL0410

CONSULT-II INSPECTION PROCEDURE

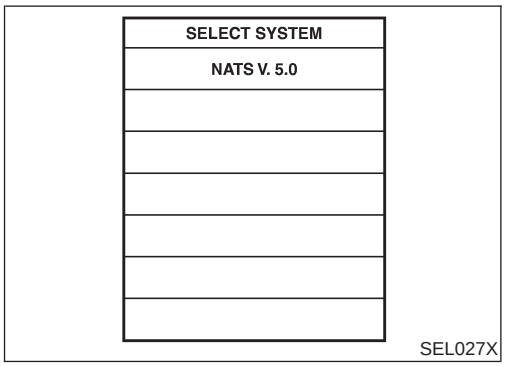
NJEL0410S01

1. Turn ignition switch OFF.



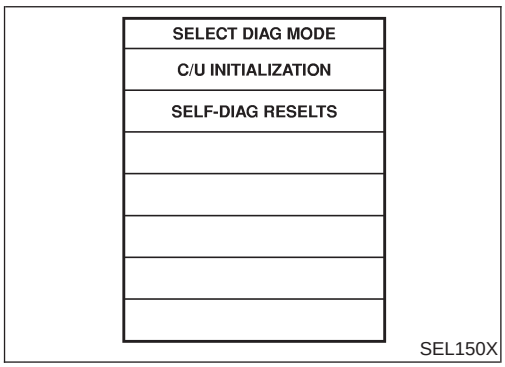
PBR455D

2. Insert NATS program card into CONSULT-II.
   ⬅ : Program card
   NATS-AEN00B
3. Connect CONSULT-II to data link connector.
4. Turn ignition switch ON.
5. Touch “START”.



SEL027X

6. Select “NATS V.5.0”.



SEL150X

7. Perform each diagnostic test mode according to each service procedure.

For further information, see the CONSULT-II Operation Manual, NATS.

CONSULT-II DIAGNOSTIC TEST MODE FUNCTION

=NJEL0410S02

CONSULT-II DIAGNOSTIC TEST MODE	Description
C/U INITIALIZATION	When replacing any of the following components, C/U initialization and re-registration of all NATS ignition keys are necessary. [NATS ignition key/IMMU/ECM/Dongle unit]
SELF-DIAG RESULTS	Detected items (screen terms) are as shown in the chart EL-430.

NOTE:

- **When any initialization is performed, all ID previously registered will be erased and all NATS ignition keys must be registered again.**
- The engine cannot be started with an unregistered key. In this case, the system may show "DIFFERENCE OF KEY" or "LOCK MODE" as a self-diagnostic result on the CONSULT-II screen.
- When initialization is performed for RHD models for Europe, security indicator will flash six times to demonstrate recognition of the dongle unit ID.
- In rare case, "CHAIN OF ECM-IMMU" might be stored as a self-diagnostic result during key registration procedure, even if the system is not malfunctioning.

HOW TO READ SELF-DIAGNOSTIC RESULTS

NJEL0410S03

Result display screen (When no malfunction is detected)

SELF-DIAG RESULTS	
DTC RESULTS	TIME
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.	
PRINT	

Result display screen (When malfunction is detected)

SELF-DIAG RESULTS	
DTC RESULTS	TIME
CHAIN OF ECM-IMMU	0
DIFFERENCE OF KEY	1
Scroll down	
ERASE	PRINT

Detected items

If "Scroll Down" is indicated, there are four or more defected items.

When touched, the results stored in the engine control module (ECM) are erased.

Time data
This indicates how many times the vehicle was driven after the last detection of a malfunction.
If the malfunction is detected currently, the time data will be "0".

When touched, the results are printed out.

SEL151X

CONSULT-II (Cont'd)

NATS SELF-DIAGNOSTIC RESULTS ITEM CHART

=NJEL0410S04

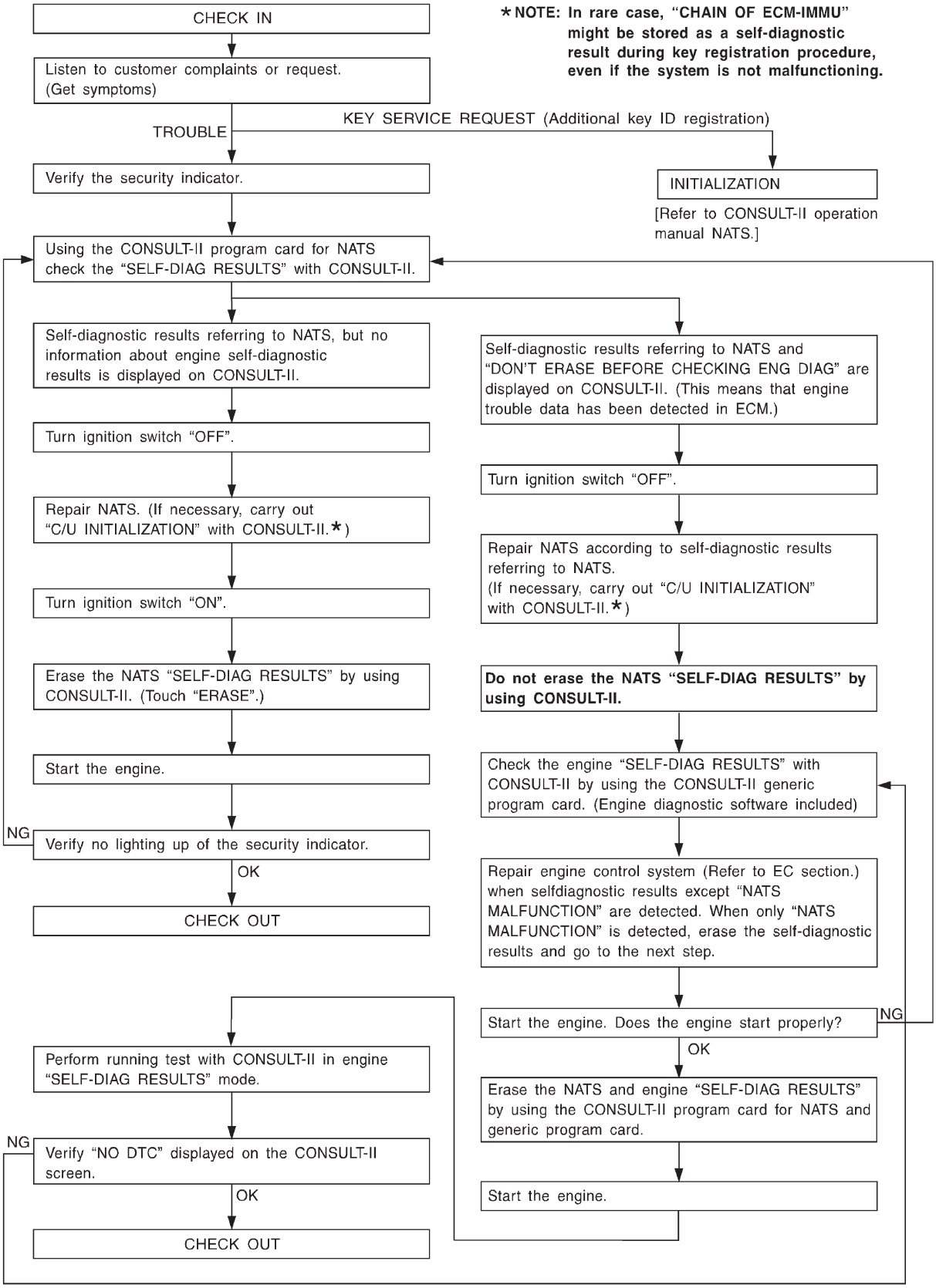
Detected items (NATS program card screen terms)	P No. Code (Self-diagnostic result of "ENGINE"	Malfunction is detected when	Reference page
ECM INT CIRC-IMMU	NATS MALFUNCTION P1613	The malfunction of ECM internal circuit of IMMU communication line is detected.	EL-435
CHAIN OF ECM-IMMU	NATS MALFUNCTION P1612	Communication impossible between ECM and IMMU (In rare case, "CHAIN OF ECM-IMMU" might be stored during key registration procedure, even if the system is not malfunctioning.)	EL-436
DIFFERENCE OF KEY	NATS MALFUNCTION P1615	IMMU can receive the key ID signal but the result of ID verification between key ID and IMMU is NG.	EL-440
CHAIN OF IMMU-KEY	NATS MALFUNCTION P1614	IMMU cannot receive the key ID signal.	EL-441
ID DISCORD, IMM-ECM	NATS MALFUNCTION P1611	The result of ID verification between IMMU and ECM is NG. System initialization is required.	EL-443
LOCK MODE	NATS MALFUNCTION P1610	When the starting operation is carried out five or more times consecutively under the following conditions, NATS will shift the mode to one which prevents the engine from being started. ● Unregistered ignition key is used. ● IMMU or ECM's malfunctioning.	EL-446
DON'T ERASE BEFORE CHECKING ENG DIAG	—	All engine trouble codes except NATS trouble code has been detected in ECM.	EL-432

Trouble Diagnoses

NJEL0411

WORK FLOW

NJEL0411S01



*NOTE: **In rare case, "CHAIN OF ECM-IMMU" might be stored as a self-diagnostic result during key registration procedure, even if the system is not malfunctioning.**

SEL729WE

SYMPTOM MATRIX CHART 1
(Self-diagnosis related item)

NJEL0411S02

SYMPTOM	Displayed "SELF-DIAG RESULTS" on CONSULT-II screen.	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON SYSTEM DIAGRAM
● Security indicator lighting up* ● Engine cannot be started	ECM INT CIRC-IMMU	PROCEDURE 1 (EL-435)	ECM	B
	CHAIN OF ECM-IMMU	PROCEDURE 2 (EL-436)	In rare case, "CHAIN OF ECM-IMMU" might be stored during key registration procedure, even if the system is not malfunctioning.	—
			Open circuit in battery voltage line of IMMU circuit	C1
			Open circuit in ignition line of IMMU circuit	C2
			Open circuit in ground line of IMMU circuit	C3
			Open circuit in communication line between IMMU and ECM	C4
			Short circuit between IMMU and ECM communication line and battery voltage line	C4
			Short circuit between IMMU and ECM communication line and ground line	C4
			ECM	B
			IMMU	A
	DIFFERENCE OF KEY	PROCEDURE 3 (EL-440)	Unregistered key	D
			IMMU	A
	CHAIN OF IMMU-KEY	PROCEDURE 4 (EL-441)	Malfunction of key ID chip	E
			IMMU	A
			Open circuit in ground line of dongle unit circuit	C6
			Open or short circuit in line between IMMU and dongle unit	C5
			Dongle unit	G
	ID DISCORD, IMM-ECM	PROCEDURE 5 (EL-443)	System initialization has not yet been completed.	F
			ECM	B
	LOCK MODE	PROCEDURE 7 (EL-446)	LOCK MODE	D

SYMPTOM	Displayed "SELF-DIAG RESULTS" on CONSULT-II screen.	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON SYSTEM DIAGRAM
● MIL staying ON ● Security indicator lighting up*	DON'T ERASE BEFORE CHECKING ENG DIAG	WORK FLOW (EL-432)	Engine trouble data and NATS trouble data have been detected in ECM	—

*: When NATS detects trouble, the security indicator lights up while ignition key is in the "ON" position.

*: When the vehicle is equipped with a dongle unit (RHD models for Europe), the security indicator blinks 6 times just after the ignition switch is turned to ON. Then the security indicator lights up while the ignition key is in the "ON" position.

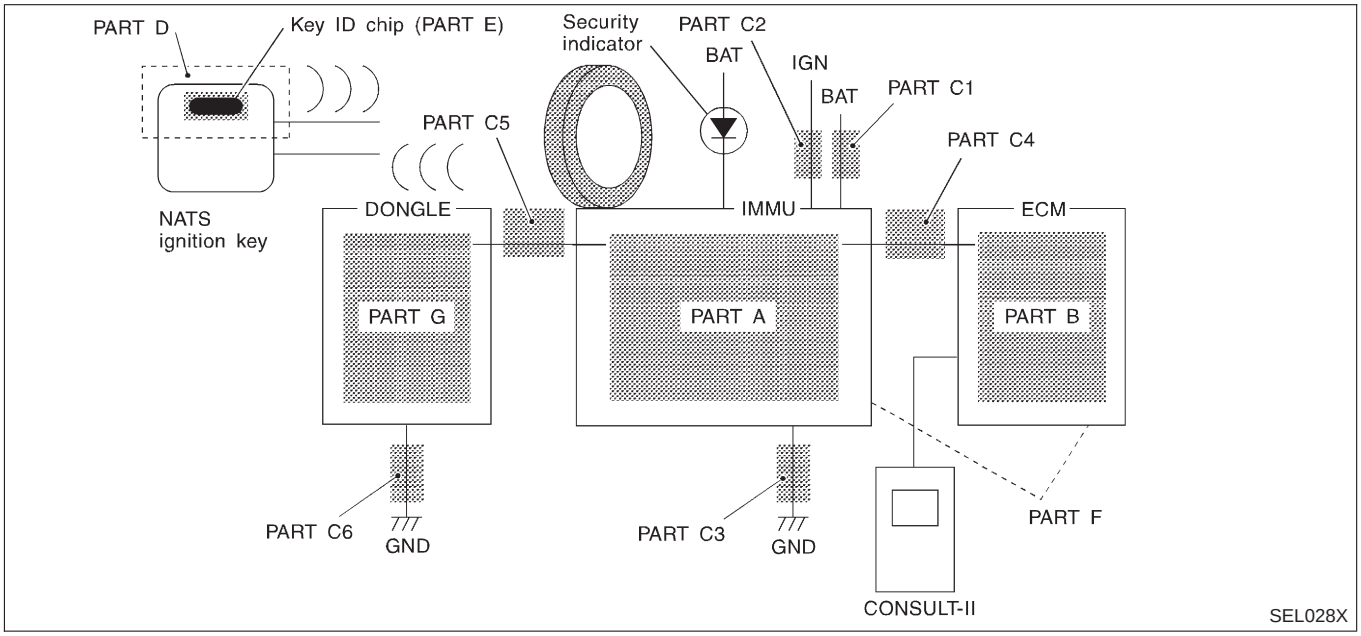
SYMPTOM MATRIX CHART 2
(Non self-diagnosis related item)

NJEL0411S03

SYMPTOM	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON SYSTEM DIAGRAM
Security ind. does not light up.	PROCEDURE 6 (EL-444)	Security ind.	—
		Open circuit between Fuse and IMMU	—
		Continuation of initialization mode	—
		IMMU	A
Security ind. does not blink just after initialization even if the vehicle is equipped with dongle unit.	PROCEDURE 8 (EL-448)	NATS might be initialized without connecting dongle unit properly.	—
		Open circuit in ground line of dongle unit circuit	C6
Security ind. does not blink just after ignition switch is turned to ON when some malfunction related to NATS is detected even if the vehicle is equipped with dongle unit.		Open or short circuit in communication line between IMMU and dongle unit	C5
		Dongle unit	G

DIAGNOSTIC SYSTEM DIAGRAM

NJEL0411S04



SELF-DIAG RESULTS	
DTC RESULTS	TIME
ECM INT CIRC-IMMU	0

SEL152X

DIAGNOSTIC PROCEDURE 1

NJEL0411S05

Self-diagnostic results:
"ECM INT CIRC-IMMU" displayed on CONSULT-II screen

1. Confirm SELF-DIAGNOSTIC RESULTS "ECM INT CIRC-IMMU" displayed on CONSULT-II screen. Ref. part No. B.
2. Replace ECM.
3. Perform initialization with CONSULT-II.
   For initialization, refer to "CONSULT-II operation manual NATS".

DIAGNOSTIC PROCEDURE 2

=NJEL0411S06

Self-diagnostic results:
"CHAIN OF ECM-IMMU" displayed on CONSULT-II screen

1	CONFIRM SELF-DIAGNOSTIC RESULTS

Confirm SELF-DIAGNOSTIC RESULTS "CHAIN OF ECM-IMMU" displayed on CONSULT-II screen.

NOTE:
In rare case, "CHAIN OF ECM-IMMU" might be stored during key registration procedure, even if the system is not malfunctioning.

SELF DIAG RESULTS	
DTC RESULTS	TIME
CHAIN OF ECM-IMMU	0

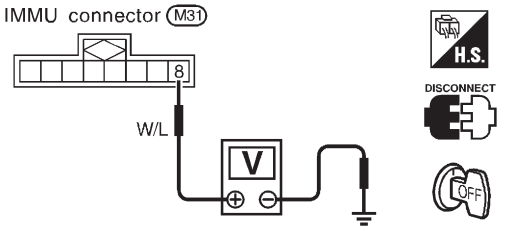
SEL366X

Is CONSULT-II screen displayed as above?

Yes	▶	GO TO 2.
No	▶	GO TO SYMPTOM MATRIX CHART 1.

2	CHECK POWER SUPPLY CIRCUIT FOR IMMU

1. Disconnect IMMU connector.
2. Check voltage between terminal 8 of IMMU and ground with CONSULT-II or tester.



Battery voltage should exist.

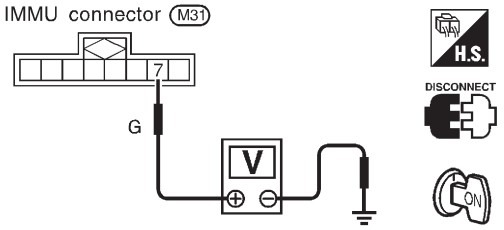
SEL302WB

OK or NG

OK	▶	GO TO 3.
NG	▶	**Check the following** ● 10A fuse (No. 36, located in the fusible link and fuse box) — (Gasoline engine) ● 20A fuse (No. 34, located in the fusible link and fuse box) — (Diesel engine) ● Harness for open or short between fuse and IMMU connector **Ref. Part No. C1**

3	CHECK IGN SW. ON SIGNAL

1. Turn ignition switch ON.
2. Check voltage between terminal 7 of IMMU and ground with CONSULT-II or tester.



Battery voltage should exist.

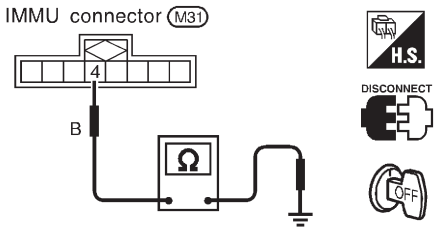
SEL303WC

OK or NG

OK	▶	GO TO 4.
NG	▶	**Check the following** ● 10A fuse [No. 10, located in the fuse block (J/B)] (Hatchback) ● 10A fuse [No. 20, located in the fuse block (J/B)] (Sedan) ● Harness for open or short between fuse and IMMU connector **Ref. part No. C2**

4	CHECK GROUND CIRCUIT FOR IMMU

1. Turn ignition OFF.
2. Check harness continuity between IMMU terminal 4 and ground.



Continuity should exist.

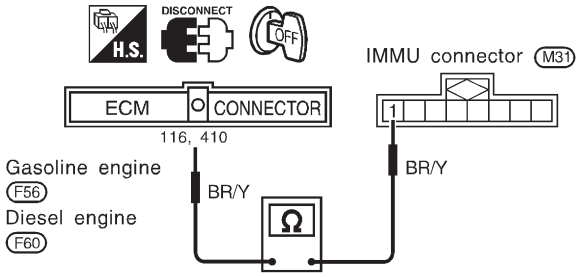
SEL304WB

OK or NG

OK	▶	GO TO 5.
NG	▶	Repair harness. **Ref. part No. C3**

5	CHECK COMMUNICATION LINE OPEN CIRCUIT

1. Disconnect ECM connector.
2. Check harness continuity between ECM terminal 116 (Gasoline engine) or 410 (Diesel engine) and IMMU terminal 1.



Continuity should exist.

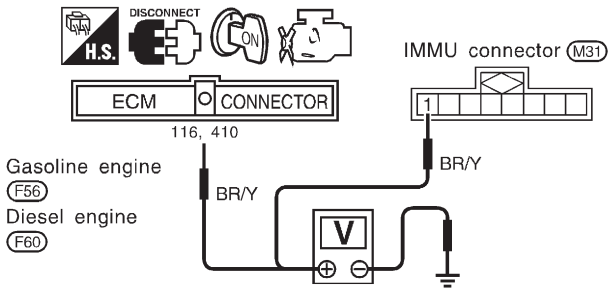
SEL305WB

OK or NG

OK	▶	GO TO 6.
NG	▶	Repair harness or connector. **Ref. part No. C4**

6	CHECK COMMUNICATION LINE BATTERY SHORT CIRCUIT

1. Turn ignition ON.
2. Check voltage between ECM terminal 116 (Gasoline engine) or 410 (Diesel engine) or IMMU terminal 1 and ground.



Voltage: 0V

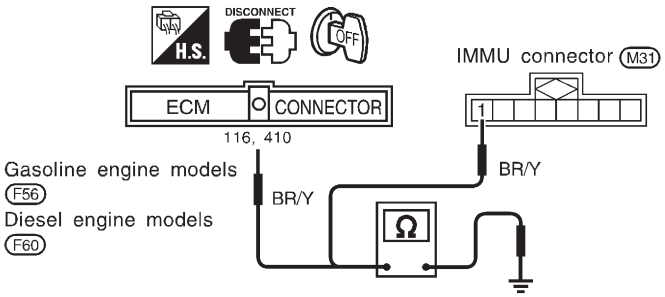
SEL306WB

OK or NG

OK	▶	GO TO 7.
NG	▶	Communication line is short-circuited with battery voltage line or ignition switch ON line. Repair harness or connectors. **Ref. part No. C4**

7	CHECK COMMUNICATION LINE GROUND SHORT CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between ECM terminal 116 (Gasoline engine) or 410 (Diesel engine) or IMMU terminal 1 and ground.



Continuity should not exist.

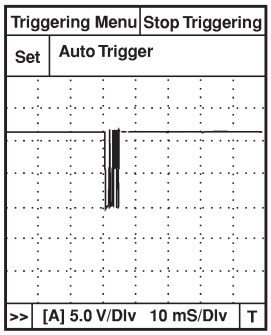
SEL307WB

OK or NG

OK	▶	GO TO 8.
NG	▶	Communication line is short-circuited with ground line. Repair harness or connectors. **Ref. part No. C4**

8	SIGNAL FROM ECM TO IMMU CHECK

1. Check the signal between ECM terminal 116 (Gasoline engine) or 410 (Diesel engine) and ground with CONSULT-II or oscilloscope when ignition switch is turned "ON".
2. Make sure signals which are shown in the figure below can be detected during 750 msec. just after ignition switch is turned "ON".



SEL730W

OK or NG

OK	▶	IMMU is malfunctioning. Replace IMMU. **Ref. part No. A** Perform initialization with CONSULT-II. For the operation of initialization, refer to "CONSULT-II Operation Manual NATS".
NG	▶	ECM is malfunctioning. Replace ECM. **Ref. part No. B** Perform initialization with CONSULT-II. For the operation of initialization, refer to "CONSULT-II Operation Manual NATS".

DIAGNOSTIC PROCEDURE 3

=NJEL0411S07

Self-diagnostic results:
"DIFFERENCE OF KEY" displayed on CONSULT-II screen

1	CONFIRM SELF-DIAGNOSTIC RESULTS

Confirm SELF-DIAGNOSTIC RESULTS "DIFFERENCE OF KEY" displayed on CONSULT-II screen.

SELF DIAG RESULTS	
DTC RESULTS	TIME
DIFFERENCE OF KEY	0

SEL367X

Is CONSULT-II screen displayed as above?

Yes	▶	GO TO 2.
No	▶	GO TO SYMPTOM MATRIX CHART 1.

2	PERFORM INITIALIZATION WITH CONSULT-II

Perform initialization with CONSULT-II. Re-register all NATS ignition key IDs.
For initialization and registration of NATS ignition key IDs, refer to "CONSULT-II operation manual NATS".

IMMU INITIALIZATION
INITIALIZATION FAIL
THEN IGN KEY SW 'OFF' AND 'ON', AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.

SEL297W

NOTE:
If the initialization is not completed or fails, CONSULT-II shows above message on the screen.

Can the system be initialized and can the engine be started with re-registered NATS ignition key?

Yes	▶	Ignition key ID was unregistered. **Ref. part No. D**
No	▶	IMMU is malfunctioning. Replace IMMU. **Ref. part No. A** Perform initialization with CONSULT-II. For initialization, refer to "CONSULT-II operation manual NATS".

DIAGNOSTIC PROCEDURE 4

=NJEL0411S08

Self-diagnostic results:
"CHAIN OF IMMU-KEY" displayed on CONSULT-II screen

1	CONFIRM SELF-DIAGNOSTIC RESULTS

Confirm SELF-DIAGNOSTIC RESULTS "CHAIN OF IMMU-KEY" displayed on CONSULT-II screen.

SELF DIAG RESULTS	
DTC RESULTS	TIME
CHAIN OF IMMU-KEY	0

SEL368X

Is CONSULT-II screen displayed as above?

Yes	▶	GO TO 2.
No	▶	GO TO SYMPTOM MATRIX CHART 1.

2	CHECK NATS IGNITION KEY ID CHIP

Start engine with another registered NATS ignition key.

Does the engine start?

Yes	▶	Ignition key ID chip is malfunctioning. Replace the ignition key. **Ref. part No. E** Perform initialization with CONSULT-II. For initialization, refer to "CONSULT-II Operation Manual NATS".
No	▶	**Models without dongle unit** IMMU is malfunctioning. Replace IMMU. **Ref. part No. A** Perform initialization with CONSULT-II. For initialization, refer to "CONSULT-II Operation Manual NATS". **Models with dongle unit** GO TO 3.

3	CHECK HARNESS CONNECTOR CONNECTION

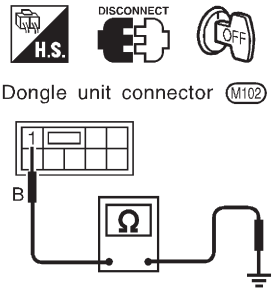
Check harness connector connection between M31 and M102.

Does the engine start?

Yes	▶	System is OK. (The malfunction is caused by improper connector connection.)
No	▶	GO TO 4.

4	CHECK GROUND CIRCUIT FOR DONGLE UNIT

Check continuity between dongle unit terminal 1 and ground.



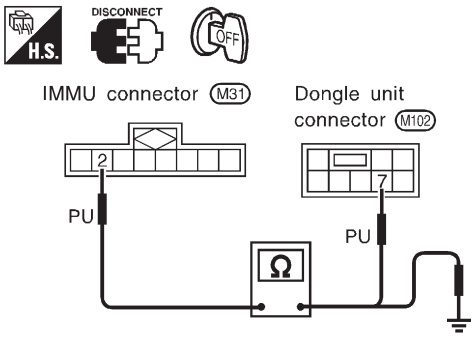
Continuity should exist.

SEL029X

Yes or No

Yes	▶	GO TO 5.
No	▶	Repair harness.

5	CHECK INTERFACE CIRCUIT



Check continuity between IMMU terminal 2 and dongle unit terminal 7 (Open circuit check).

Continuity should exist.

Check continuity between IMMU terminal 2 and ground (Short circuit check).

Continuity should not exist.

SEL030X

Yes or No

Yes	▶	**Dongle unit is malfunctioning.** 1. Replace dongle unit. 2. Perform initialization with CONSULT-II. For the initialization procedure, refer to "CONSULT-II operation manual NATS.
No	▶	Repair harness.

DIAGNOSTIC PROCEDURE 5

=NJEL0411S09

Self-diagnostic results:
"ID DISCORD, IMM-ECM" displayed on CONSULT-II screen

1	CONFIRM SELF-DIAGNOSTIC RESULTS

Confirm SELF-DIAGNOSTIC RESULTS "ID DISCORD, IMM-ECM" displayed on CONSULT-II screen.

SELF DIAG RESULTS	
DTC RESULTS	TIME
ID DISCORD, IMM-ECM	0

SEL369X

NOTE:
"ID DISCORD IMMU-ECM":
Registered ID of IMMU is in discord with that of ECM.

Is CONSULT-II screen displayed as above?

Yes	▶	GO TO 2.
No	▶	GO TO SYMPTOM MATRIX CHART 1.

2	PERFORM INITIALIZATION WITH CONSULT-II

Perform initialization with CONSULT-II. Re-register all NATS ignition key IDs.
For initialization, refer to "CONSULT-II operation manual NATS".

IMMU INITIALIZATION
INITIALIZATION FAIL
THEN IGN KEY SW 'OFF' AND 'ON', AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.

SEL297W

NOTE:
If the initialization is not completed or fails, CONSULT-II shows above message on the screen.

Can the system be initialized?

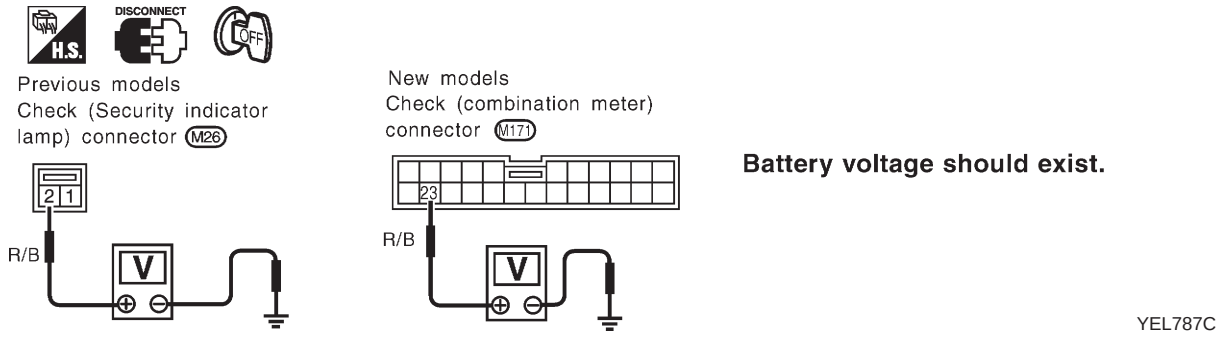
Yes	▶	Start engine. (END) (System initialization had not been completed. **Ref. part No. B**)
No	▶	ECM is malfunctioning. Replace ECM. **Ref. part No. B** Perform initialization with CONSULT-II. For initialization, refer to "CONSULT-II operation manual NATS".

DIAGNOSTIC PROCEDURE 6
"SECURITY INDICATOR LAMP DOES NOT LIGHT UP"

=NJEL0411S10

1	CHECK FUSE
Check 10A fuse [No. 12, located in the fuse block (J/B)]. **Is 10A fuse OK?**	
Yes ▶	GO TO 2.
No ▶	Replace fuse.

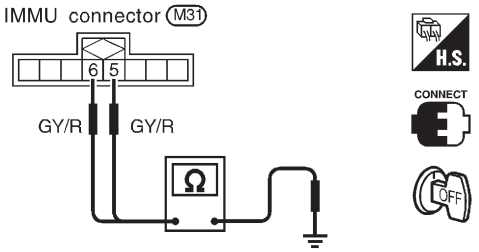
2	CHECK SECURITY INDICATOR LAMP
1. Install 10A fuse. 2. Perform initialization with CONSULT-II. For initialization, refer to "CONSULT-II Operation Manual NATS". 3. Turn ignition switch OFF. 4. Start engine and turn ignition switch OFF. 5. Check the security indicator lamp lighting. **Security indicator lamp should be light up.** **OK or NG**	
OK ▶	INSPECTION END
NG ▶	GO TO 3.

3	CHECK SECURITY INDICATOR LAMP POWER SUPPLY CIRCUIT
1. Disconnect security indicator lamp connector (models before VIN No. — N16U0135126) or Combination meter connector (models after VIN No. — N16U0135126). 2. Check voltage between security indicator lamp connector terminal 2 and ground (models before VIN No. — N16U0135126), or Check voltage between combination meter (security indicator lamp) connector terminal 23 and ground (models after VIN No. — N16U0135126).  **Battery voltage should exist.** YEL787C **OK or NG**	
OK ▶	GO TO 4.
NG ▶	Check harness for open or short between fuse and security indicator lamp (models before VIN No. — N16U0135126) or Combination meter (models after VIN No. — N16U0135126).

4	CHECK SECURITY INDICATOR LAMP
Check security Indicator Lamp. **Is security indicator lamp OK?**	
Yes ▶	GO TO 5.
No ▶	Repair or replace combination meter or security indicator lamp.

5	CHECK IMMU FUNCTION

1. Connect IMMU connector.
2. Disconnect security indicator lamp connector (Sedan models and hatchback models before VIN No. — N16U0135126) or combination meter connector (Hatchback models after VIN No. — N16U0135126).
3. Check continuity between IMMU terminal 5 (Sedan) or 6 (Hatchback) and ground.



Continuity should exist intermittently.

SEL485X

OK or NG

OK	▶	Check harness for open or short between security indicator lamp and IMMU.
NG	▶	IMMU is malfunctioning. Replace IMMU. **Ref. part No. A** Perform initialization with CONSULT-II. For initialization, refer to "CONSULT-II operation manual NATS".

DIAGNOSTIC PROCEDURE 7

=NJEL0411S11

Self-diagnostic results:
"LOCK MODE" displayed on CONSULT-II screen

1	CONFIRM SELF-DIAGNOSTIC RESULTS

Confirm SELF-DIAGNOSTIC RESULTS "LOCK MODE" is displayed on CONSULT-II screen.

SELF DIAG RESULTS	
DTC RESULTS	TIME
LOCK MODE	0

SEL371X

Is CONSULT-II screen displayed as above?

Yes	▶	GO TO 2.
No	▶	GO TO SYMPTOM MATRIX CHART 1.

2	ESCAPE FROM LOCK MODE

1. Turn ignition switch OFF.
2. Turn ignition switch ON with registered key. (Do not start engine.) Wait 5 seconds.
3. Return the key to OFF position.
4. Repeat steps 2 and 3 twice (total of three cycles).
5. Start the engine.

Does engine start?

Yes	▶	System is OK. (Now system is escaped from "LOCK MODE".)
No	▶	GO TO 3.

3	CHECK IMMU ILLUSTRATION

Check IMMU installation. Refer to "How to Replace IMMU" in EL-449.

OK or NG

OK	▶	GO TO 4.
NG	▶	Reinstall IMMU correctly.

4	PERFORM INITIALIZATION WITH CONSULT-II

Perform initialization with CONSULT-II.
For initialization, refer to "CONSULT-II operation manual NATS".

IMMU INITIALIZATION
INITIALIZATION FAIL
THEN IGN KEY SW 'OFF' AND 'ON', AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.

SEL297W

NOTE:
If the initialization is not completed or fails, CONSULT-II shows the above message on the screen.

Can the system be initialized?

Yes	▶	System is OK.
No	▶	GO TO 5.

5	PERFORM INITIALIZATION WITH CONSULT-II AGAIN

1. Replace IMMU.
2. Perform initialization with CONSULT-II.
   For initialization, refer to "CONSULT-II operation manual NATS".

IMMU INITIALIZATION
INITIALIZATION FAIL
THEN IGN KEY SW 'OFF' AND 'ON', AFTER CONFIRMING SELF-DIAG AND PASSWORD, PERFORM C/U INITIALIZATION AGAIN.

SEL297W

NOTE:
If the initialization is not completed or fails, CONSULT-II shows the above message on the screen.

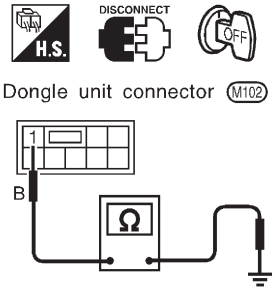
Can the system be initialized?

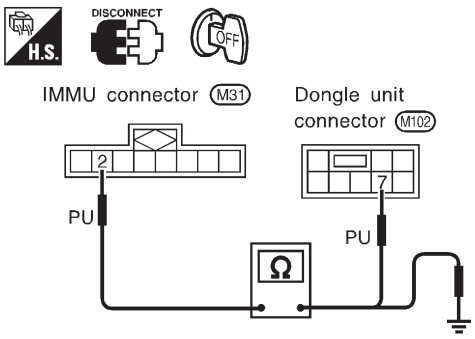
Yes	▶	System is OK. (IMMU is malfunctioning. **Ref. part No. A**)
No	▶	ECM is malfunctioning. Replace ECM. **Ref. part No. B** Perform initialization with CONSULT-II. For initialization, refer to "CONSULT-II operation manual NATS".

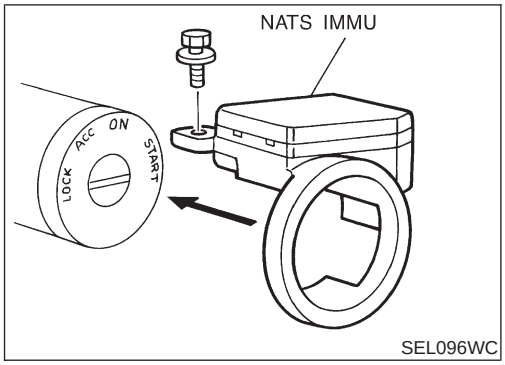
DIAGNOSTIC PROCEDURE 8

=NJEL0411S14

1	CHECK HARNESS CONNECTOR CONNECTION	
Perform initialization with CONSULT-II. Check harness connector connection between M31 and M102. Then initialize NATS. For the initialization operation, refer to "CONSULT-II operation NATS". **Does the security indicator blink just after initialization?**		
Yes	▶	System is OK. (The malfunction is caused by improper connector connection.)
No	▶	GO TO 2.

2	CHECK GROUND CIRCUIT FOR DONGLE UNIT	
Check continuity between dongle unit terminal 1 and ground.  **Continuity should exist.** SEL029X **Yes or No**		
Yes	▶	GO TO 3.
No	▶	Repair harness.

3	CHECK INTERFACE CIRCUIT	
 Check continuity between IMMU terminal 2 and dongle unit terminal 7 (Open circuit check). **Continuity should exist.** Check continuity between IMMU terminal 2 and ground (Short circuit check). **Continuity should not exist.** SEL030X **Yes or No**		
Yes	▶	**Dongle unit is malfunctioning.** 1. Replace dongle unit. 2. Perform initialization with CONSULT-II. For the initialization procedure, refer to "CONSULT-II Operation Manual NATS".
No	▶	Repair harness.



How to Replace NATS IMMU

NJEL0412

NOTE:

- **If NATS IMMU is not installed correctly, NATS system will not operate properly and SELF-DIAG RESULTS on CONSULT-II screen will show “LOCK MODE”.**

Precautions

NJEL0514

WARNING:

Do not attempt to disassemble the monitor. Parts of the monitor have high voltages that can result in severe and dangerous electric shock.

CAUTION:

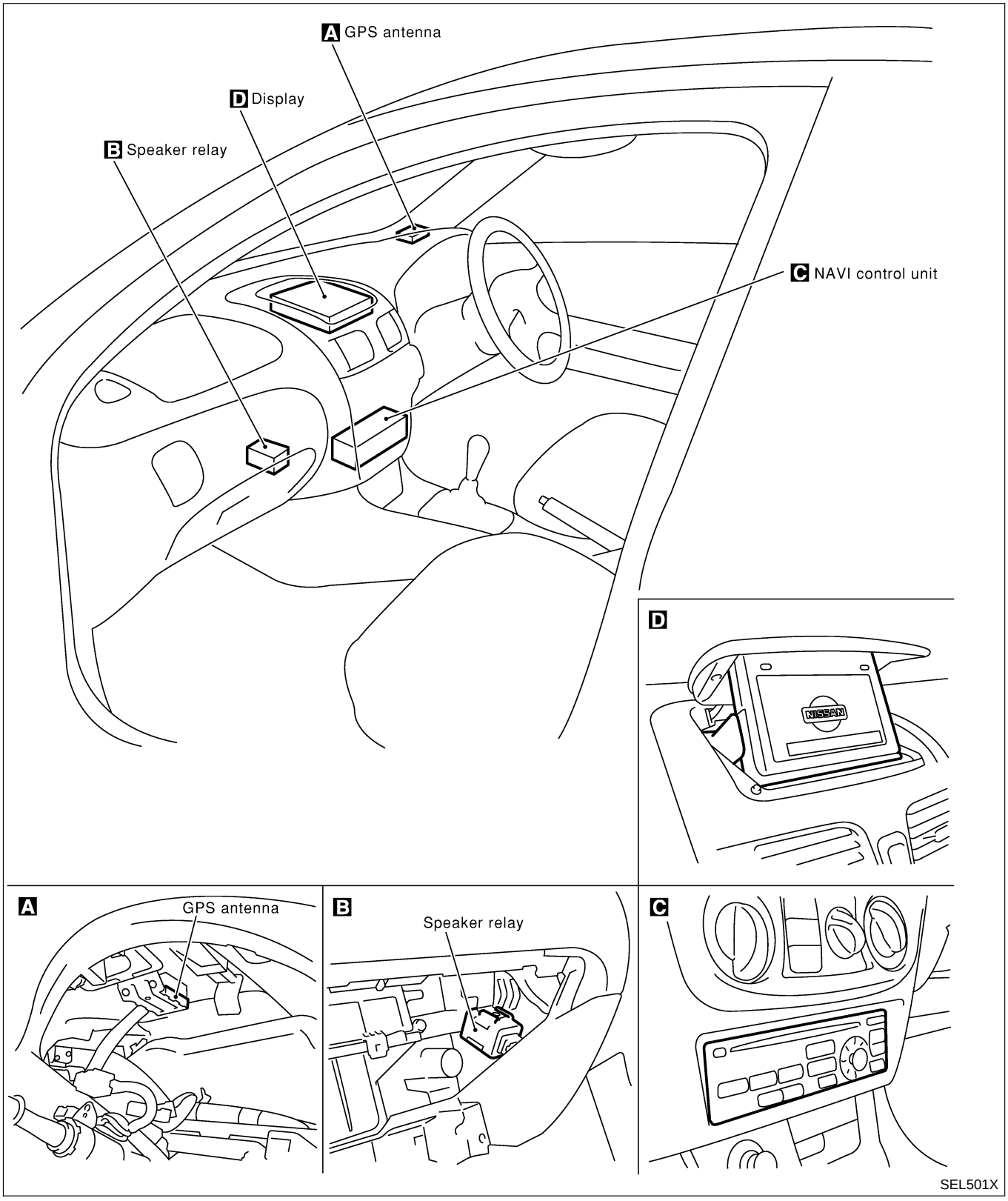
- **Do not reverse battery connections.**
- **Do not attach unauthorized parts.**
- **Protect the unit from severe impact.**

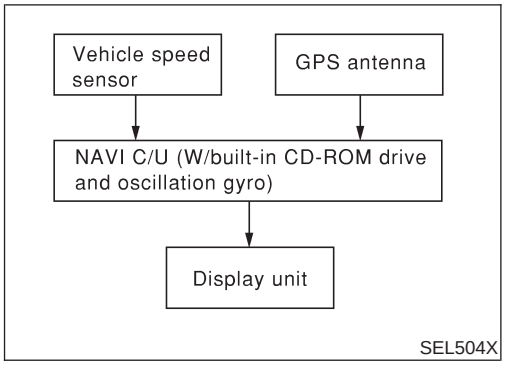
NOTE:

Before beginning repair, determine whether or not the unit is defective. Refer to “This Condition Is Not Abnormal” (EL-507).

Component Parts Location

NJEL0515





System Description

NJEL0516

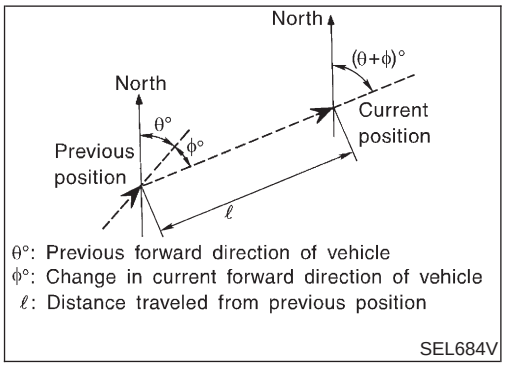
OUTLINE

NJEL0516S01

The Navigation System (Multi-AV System) relies upon three sensing devices in order to determine vehicle location at regular time intervals.

1. Vehicle speed sensor: Determines the distance the vehicle has traveled.
2. Gyro (Angular velocity sensor): Determines vehicle steering angle and directional change.
3. GPS antenna (GPS data): Determines vehicle forward movement and direction.

The data provided by the three sensing functions together with a comparison of the mapping information read from the CD-ROM drive permit accurate determination of the vehicle's current location and subsequent course (map matching). The information appears on a liquid crystal display.
This comparison of GPS data (vehicle position sensing) and map matching permits precise determination of vehicle location.



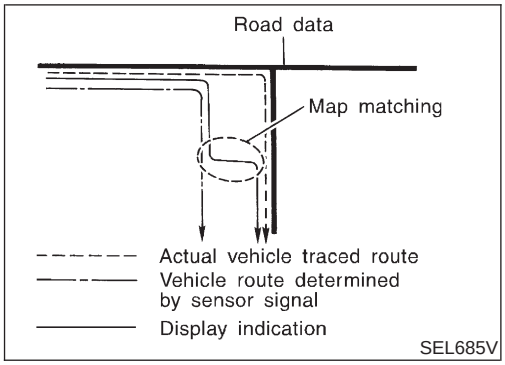
Position Sensor Operating Principles

NJEL0516S0101

The sensor determines current vehicle location by calculating the previously sensed position, the distance traveled from this position, and the directional changes occurring during this travel.

1. Distance traveled
   The distance traveled is calculated using signals received from the vehicle speed sensor. The sensor automatically compensates for the slightly reduced wheel and tire diameter resulting from tire wear.
2. Forward movement (Direction)
   Changes in the direction of forward movement are calculated by the gyro (angular velocity sensor) and the GPS antenna (GPS data). Each of these functions has its advantage and disadvantages. Depending upon conditions, one function takes precedence over the other to accurately determine the direction of forward movement.

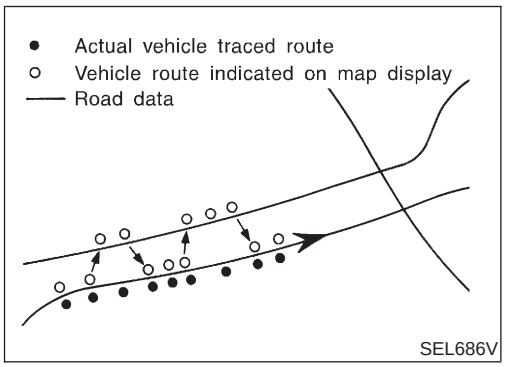
Function type	Advantage	Disadvantage
Gyro (Angular velocity sensor)	● Able to accurately detect minute changes in steering angle and direction.	● Calculation errors may accumulate over a long period of continuous vehicle travel.
GPS antenna (GPS data)	● Able to sense vehicle travel in four general directions (North, South, East, and West)	● Unable to detect direction of vehicle travel at low vehicle speeds.



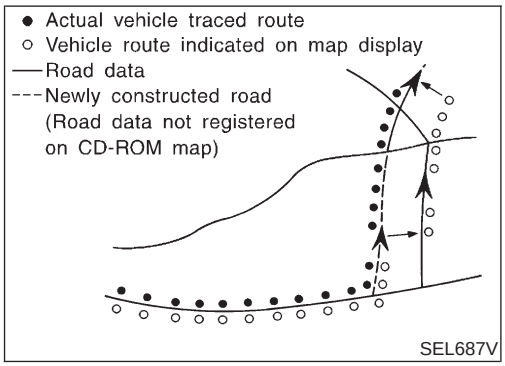
Map Matching

NJEL0516S0102

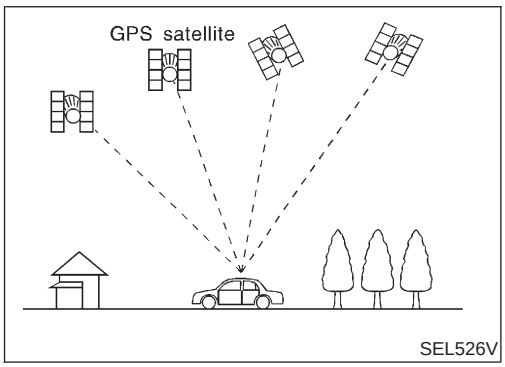
Map matching allows the driver to compare the sensed vehicle location data with the road map contained in the CD-ROM drive. Vehicle position is marked on the CD-ROM map. This permits the driver to accurately determine his/her present position on the highway and to make appropriate course decisions.
When GPS data reception is poor during travel, the vehicle position is not amended. At this time, manual manipulation of the CD-ROM map position marker is required.



Map matching permits the driver to make priority judgments about possible appropriate roads other than the one currently being traveled.
If there is an error in the distance or direction of travel, there will also be an error in the relative position of other routes. When two routes are closely parallel to one another, the indicated position for both routes will be nearly the same priority. This is so that, slight changes in the steering direction may cause the marker to indicate both routes alternately.



Newly constructed roads may not appear on the CD-ROM map. In this case, map matching is not possible. Changes in the course of a road will also prevent accurate map matching.
When driving on a road not shown on the CD-ROM map, the position marker used for map matching may indicate a different route. Even after returning to a route shown on the map, the position marker may jump to the position currently detected.



GPS (Global Positioning System)

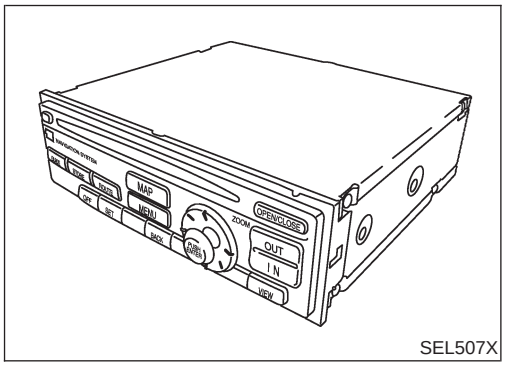
NJEL0516S0103

GPS is the global positioning system developed and operated by the US Department of Defense. GPS satellites (NAVSTAR) transmit radio waves and orbit around the earth at an altitude of approximately 21,000 km (13,000 miles).
GPS receiver calculates the three-dimensional position of the vehicle (latitude, longitude, and altitude from the sea level) by the time difference of the radio wave arriving from more than four GPS satellites (three-dimensional positioning).
When the radio wave is received from only three GPS satellites, the two-dimensional position (latitude and longitude) is calculated, using the altitude from the sea level data calculated by using four GPS satellites (two-dimensional positioning).

Positioning capability is degraded in the following cases.

- In two-dimensional positioning, when the vehicle's altitude from the sea level changes, the precision becomes lower.
- The location detection performance can have an error of about 100 m (300 ft) even in three-dimensional positioning with high precision. Because the precision is influenced by the location of GPS satellites used for positioning, the location detection performance may drop depending on the location of GPS satellites.
- When the radio wave from GPS satellites cannot be received,

for example, when the vehicle is in a tunnel, in a parking lot inside building, under an elevated superhighway or near strong power lines, the location may not be detected. Turbulent/ electric weather conditions may also affect positioning performance. If something is placed on the antenna, the radio wave from GPS satellites may not be received.



SEL507X

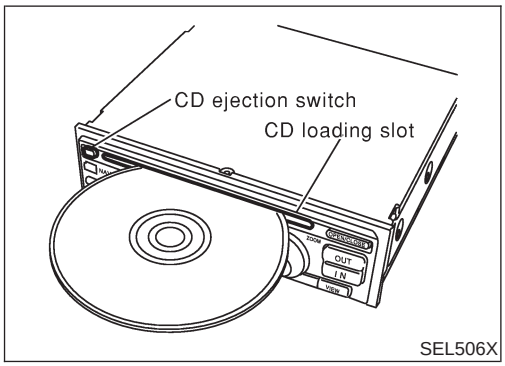
COMPONENT DESCRIPTION

NJEL0516S02

NAVI Control Unit

NJEL0516S0201

- The gyro (angular speed sensor) and the CD-ROM drive are built-in units that control the navigation functions.
- Signals are received from the gyro, the vehicle speed sensor, and the GPS antenna. Vehicle location is determined by combining this data with the data contained in the CD-ROM map. Locational information is shown on liquid crystal display panel.



SEL506X

CD-ROM Driver

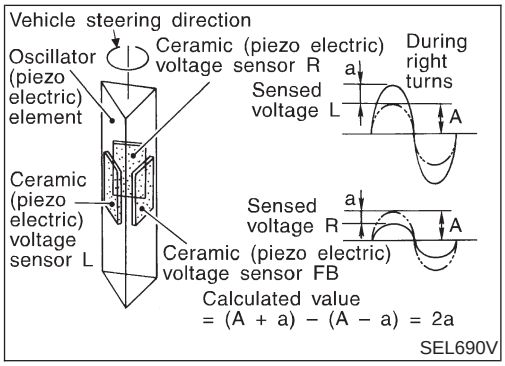
NJEL0516S0202

Maps, traffic control regulations, and other pertinent information can be easily red from the CD-ROM disc.

Map CD-ROM

NJEL0516S0203

- The map CD-ROM has maps, traffic control regulations, and other pertinent information.
- To improve CD-ROM map matching and route determination functions, the CD-ROM uses an exclusive Nissan format. Therefore, the use of a CD-ROM provided by other manufacturers cannot be used.

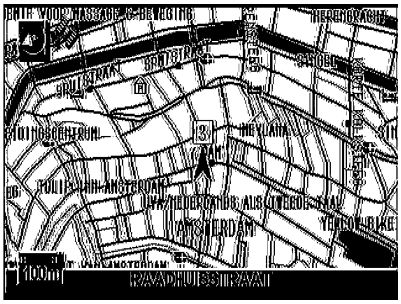


SEL690V

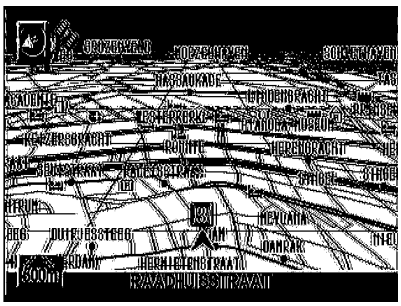
Gyro (Angular Speed Sensor)

NJEL0516S0204

- The oscillator gyro sensor is used to detect changes in vehicle steering angle.
- The oscillator gyro periodically senses oscillatory variation at the oscillation terminals. This variation is caused by changes in the vehicle angular velocity. Voltage variations are sensed by ceramic voltage sensors at the left and right sides of the terminals. Vehicle angular velocity corresponds directly with these changes in voltage.
- The gyro is built into the navigation (NAVI) control unit.



MAP DISPLAY



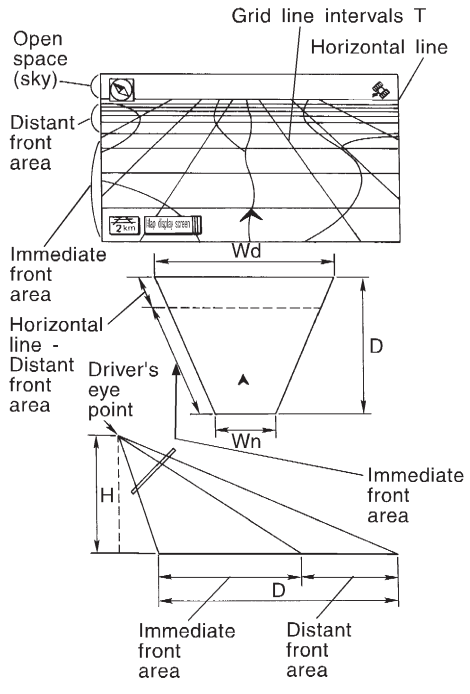
BIRDVIEW®

SEL524X

BIRDVIEW®

NJEL0516S0205

The BIRDVIEW® provides a detailed and easily seen display of road conditions covering the vehicle's immediate to distant area.



SEL691V

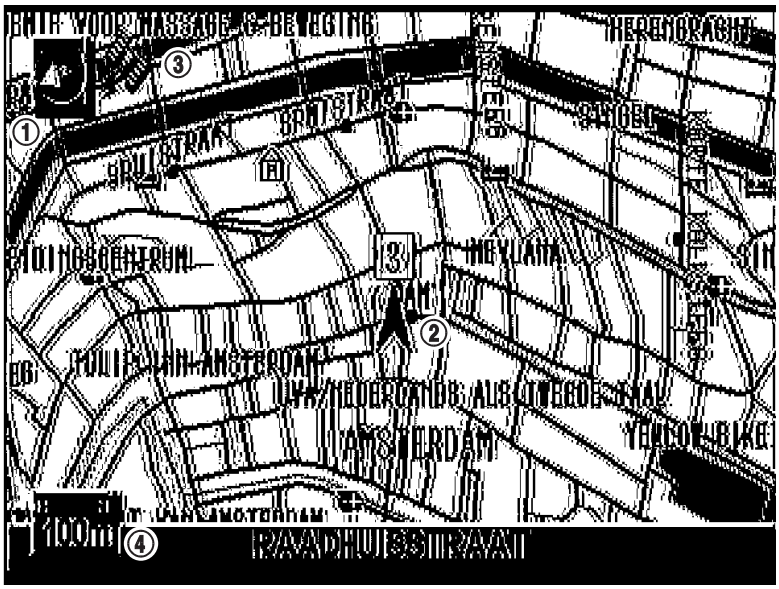
Description

NJEL0516S0206

- Display area: Trapezoidal representation showing approximate distances (Wn, D, and Wd).
- Ten horizontal grid lines indicate display width while six vertical grid lines indicate display depth and direction.
- Drawing line area shows open space, depth, and immediate front area. Each area is to a scale of approximately 5:6:25.
- Pushing the "ZOOM IN" button during operation displays the scale change and the view point height on the left side of the screen.
  The height of the view point increases or decreases when "ZOOM" or "WIDE" is selected with the joystick.

MAP DISPLAY

=NJEL0516S03



SEL525X

Function of each icon is as follows:

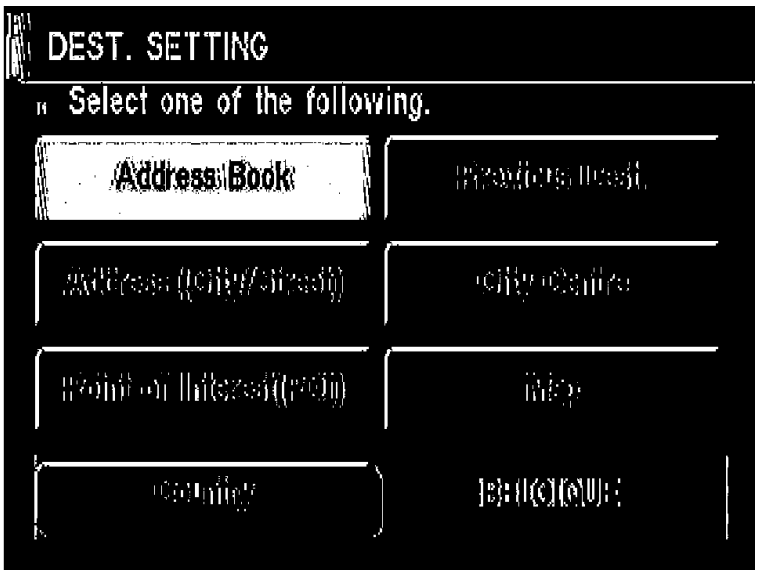
1) Azimuth indication
2) Position marker
   The tip of the arrow shows the current position. The shaft of the arrow indicates the direction in which the vehicle is traveling.
3) GPS reception signal (indicates current reception conditions)
4) Distance display (shows the distance in a reduced scale)

FUNCTION OF PANEL SWITCH

=NJEL0516S04

Display with Pushed "DEST" Switch

NJEL0516S0401



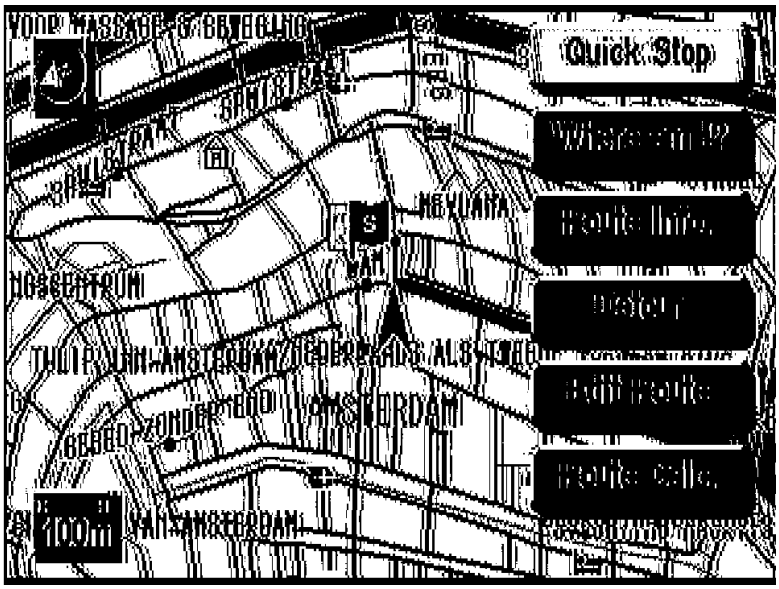
SEL615X

The function of each icon is as follows:

Icon	Description
Address Book	Favorite areas can be saved to memory.
Address (City/Street)	The information can be searched from the address.
Point of Interest (POI)	The information of favorite areas can be searched.
Previous Dest.	The previous ten destinations stored in memory are displayed.
City Centre	The information can be searched from city name.
Map	The information can be searched from the map.
Country	When two or more countries are included in a map CD-ROM, the destination can be searched for under the country name.

Display with Pushed "ROUTE" Switch

=NJEL0516S0402



SEL526X

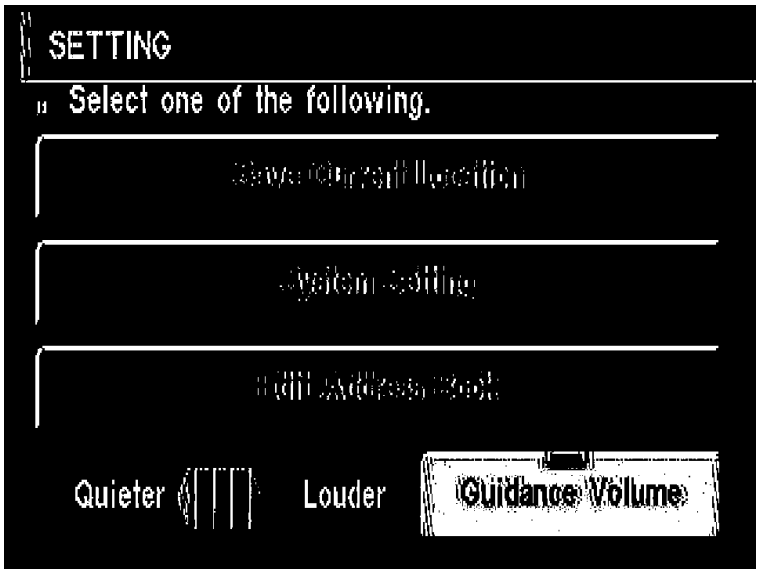
The function of each icon is as follows:

Icon	Description
Quick Stop	Select facility is set as destination or waypoint. (Route guidance has been turned OFF or the destination has been reached.)
Where am I?	Next current and previous street names can be displayed.
Route Info.*	The following items can be set. ● Complete Route ● Turn List ● Route Simulation (Displayed only when the destination area has been set.)
Detour*	Based on the selected distance, an alternative route is searched. [Displayed only when the recommended route (not its reverse) is followed.]
Edit Route*	Change the destination or add the transit points of the route set in the route guide. (Displayed only when the automatic reroute function has been turned OFF and the recommended route is not followed.)
Route Calc.	Search for a recommended route between the vehicle's current location and the destination area. (Displayed only when the destination area has been set.)

*: When destinations have been entered, route guidance OFF or destination have been reached, "Route Info.", "Detour", "Edit Route" and "Route Clac." are not displayed.

Display with Pushed "SETTING" Switch

=NJEL0516S0403



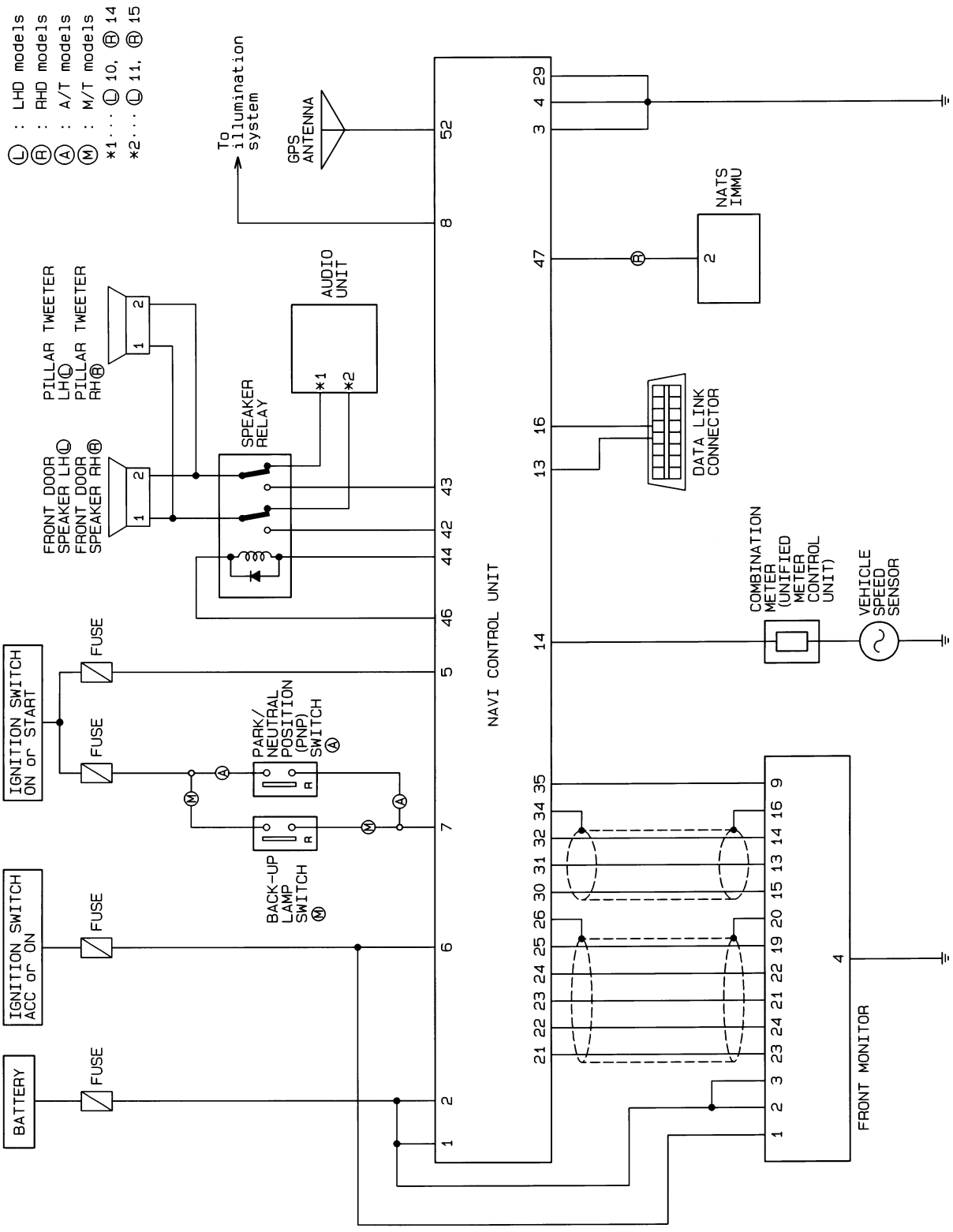
SEL614X

The function of each icon is as follows:

Icon	Description
Save Current Location	The current location can be stored in the Address Book.
System Setting	Many adjustments and settings can be made for maximum driving pleasure and convenience.
Edit Address Book	The Address Book data can be edited.
Guidance Volume	The volume and/or on/off of voice prompt can be controlled by the joystick.

Schematic/Sedan

NJEL0517



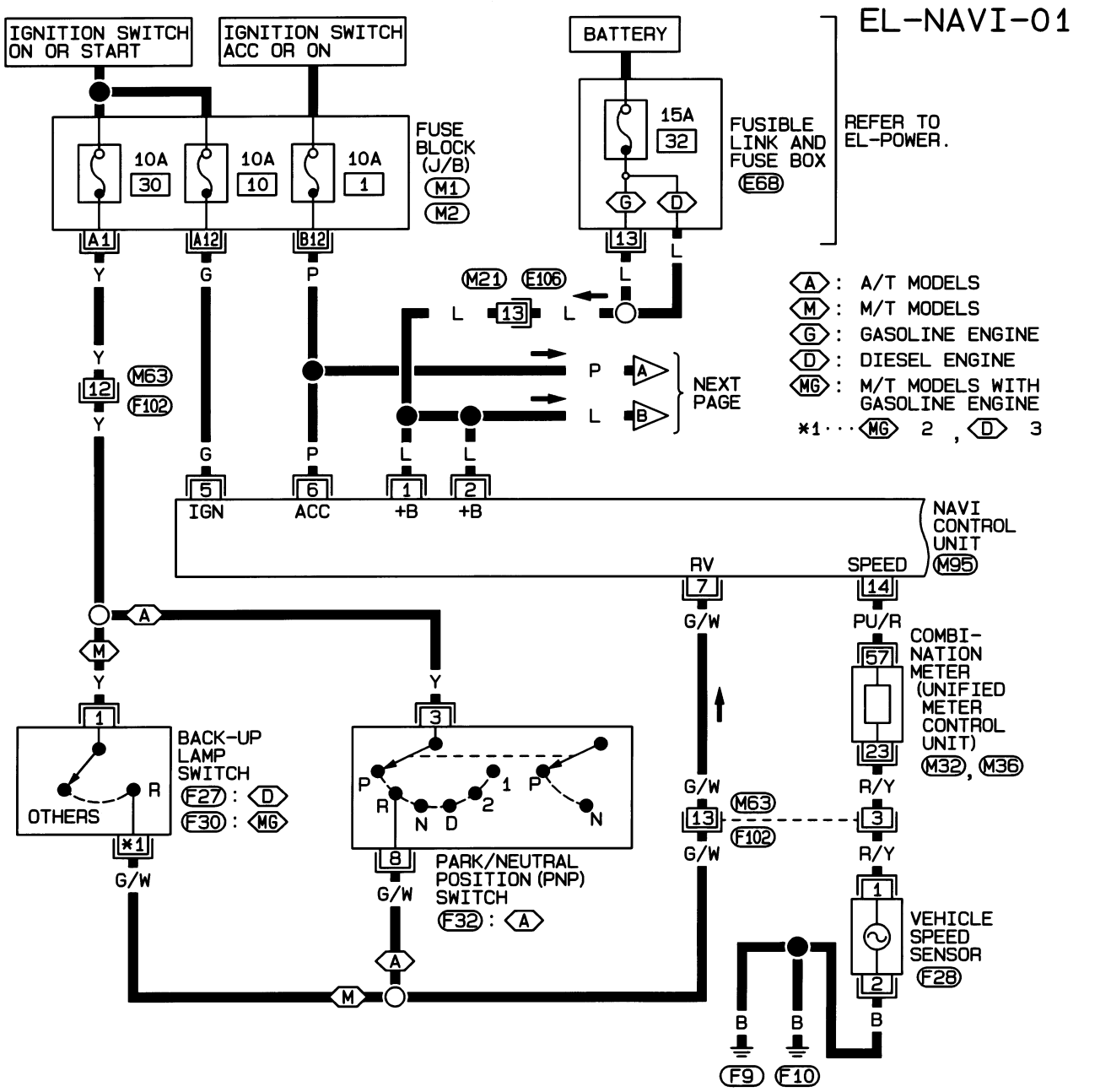
HEL424B

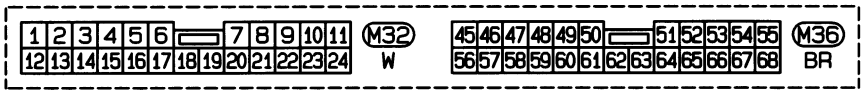
Wiring Diagram — NAVI —/Sedan

NJEL0518

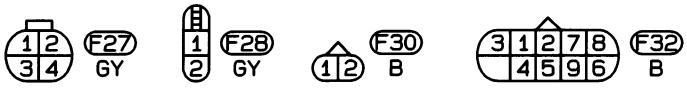
NJEL0518S01

LHD MODELS









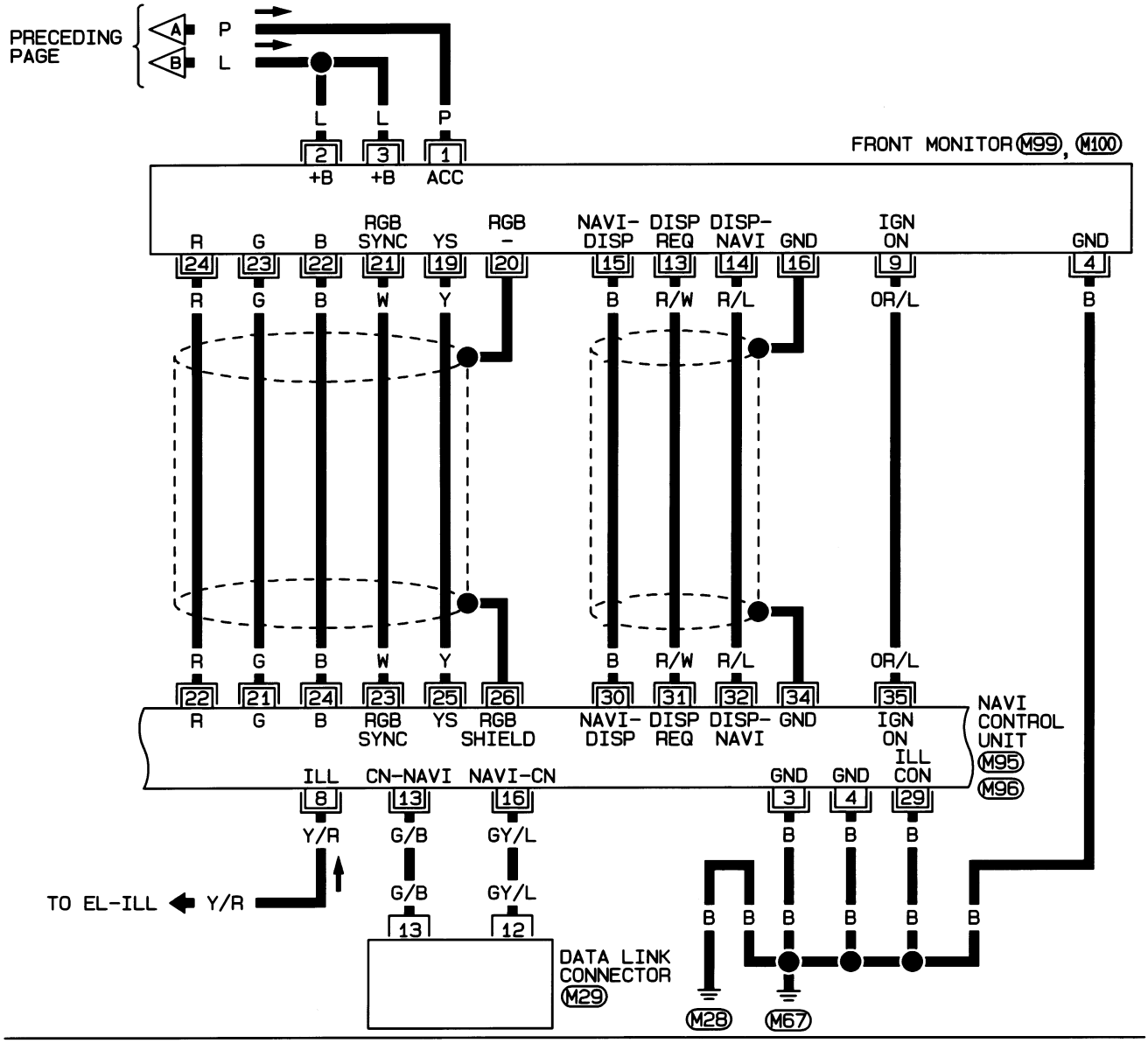
REFER TO THE FOLLOWING.

M1, M2 -FUSE BLOCK-JUNCTION BOX (J/B)

E68 -FUSE AND FUSIBLE LINK BOX

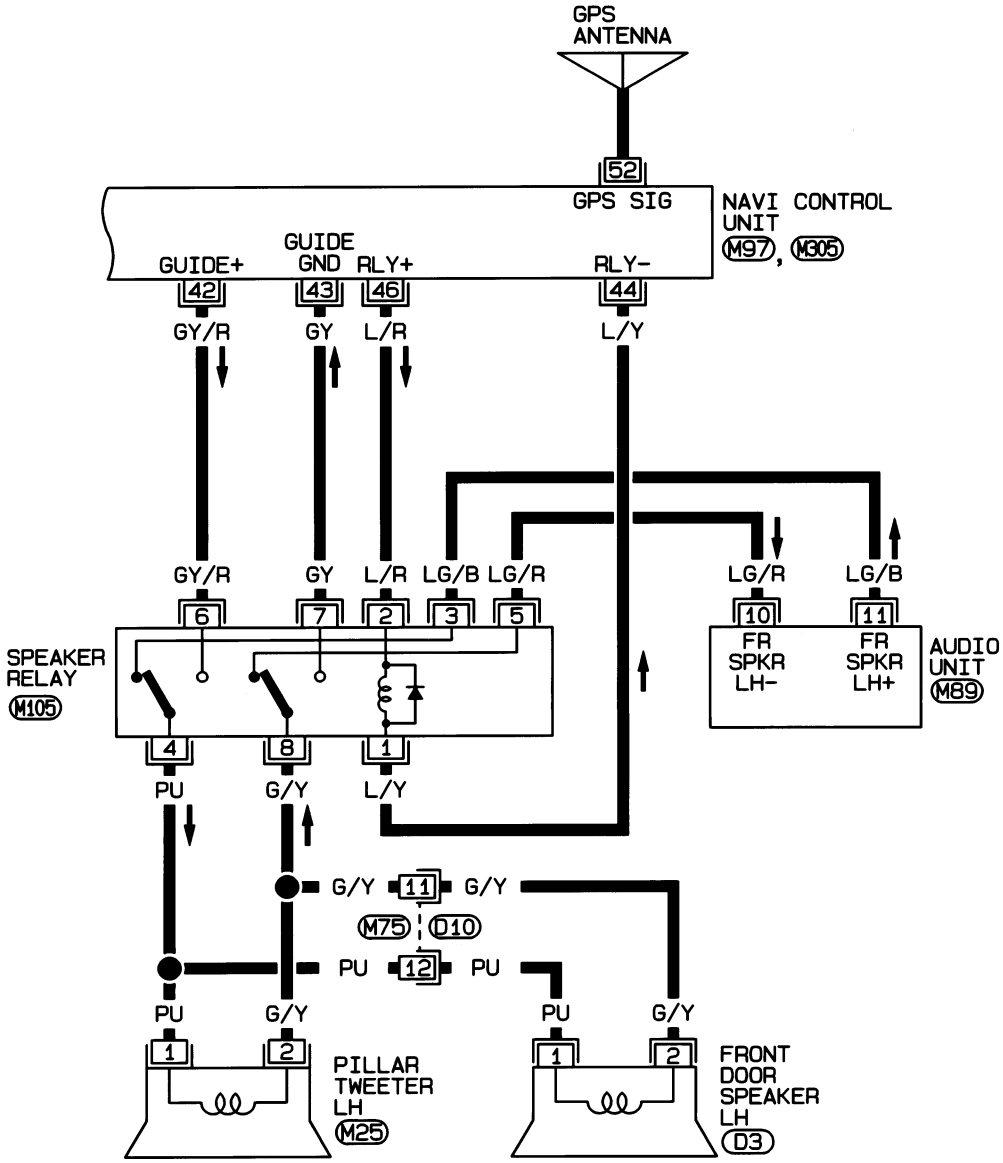
HEL425B

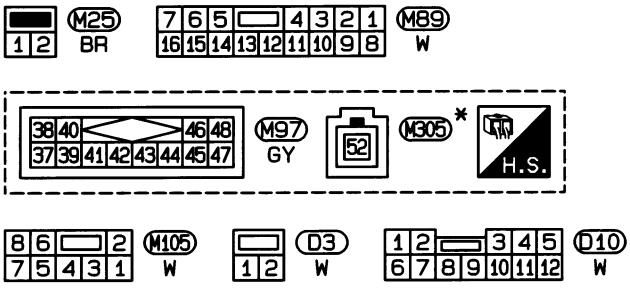
EL-NAVI-02



HEL426B

EL-NAVI-03



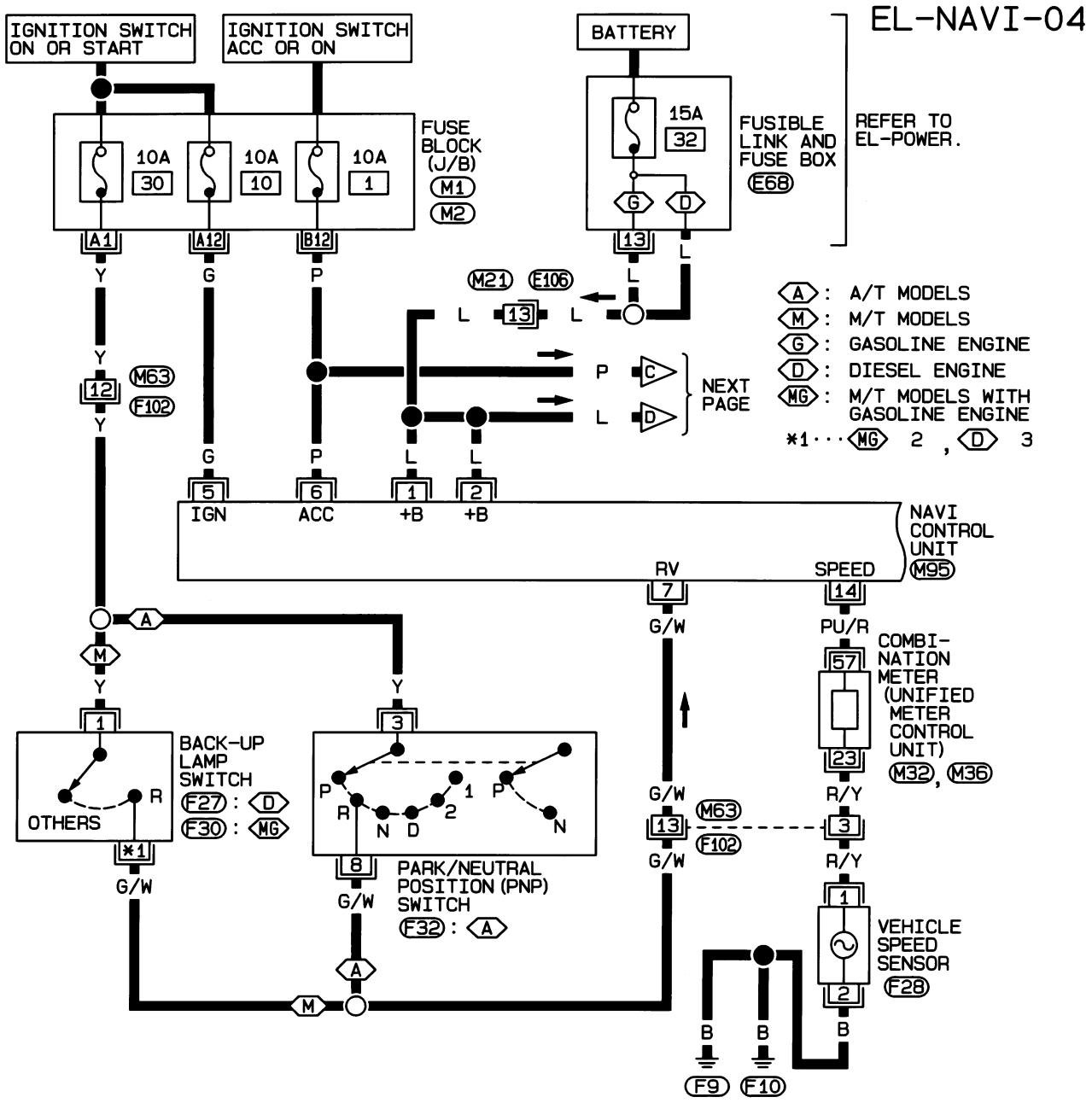


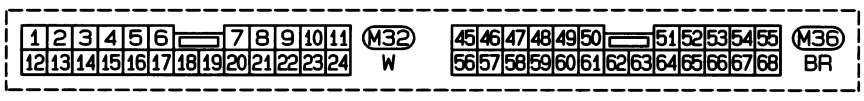
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT".

HEL427B

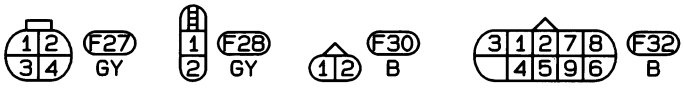
RHD MODELS

NJEL0518S02







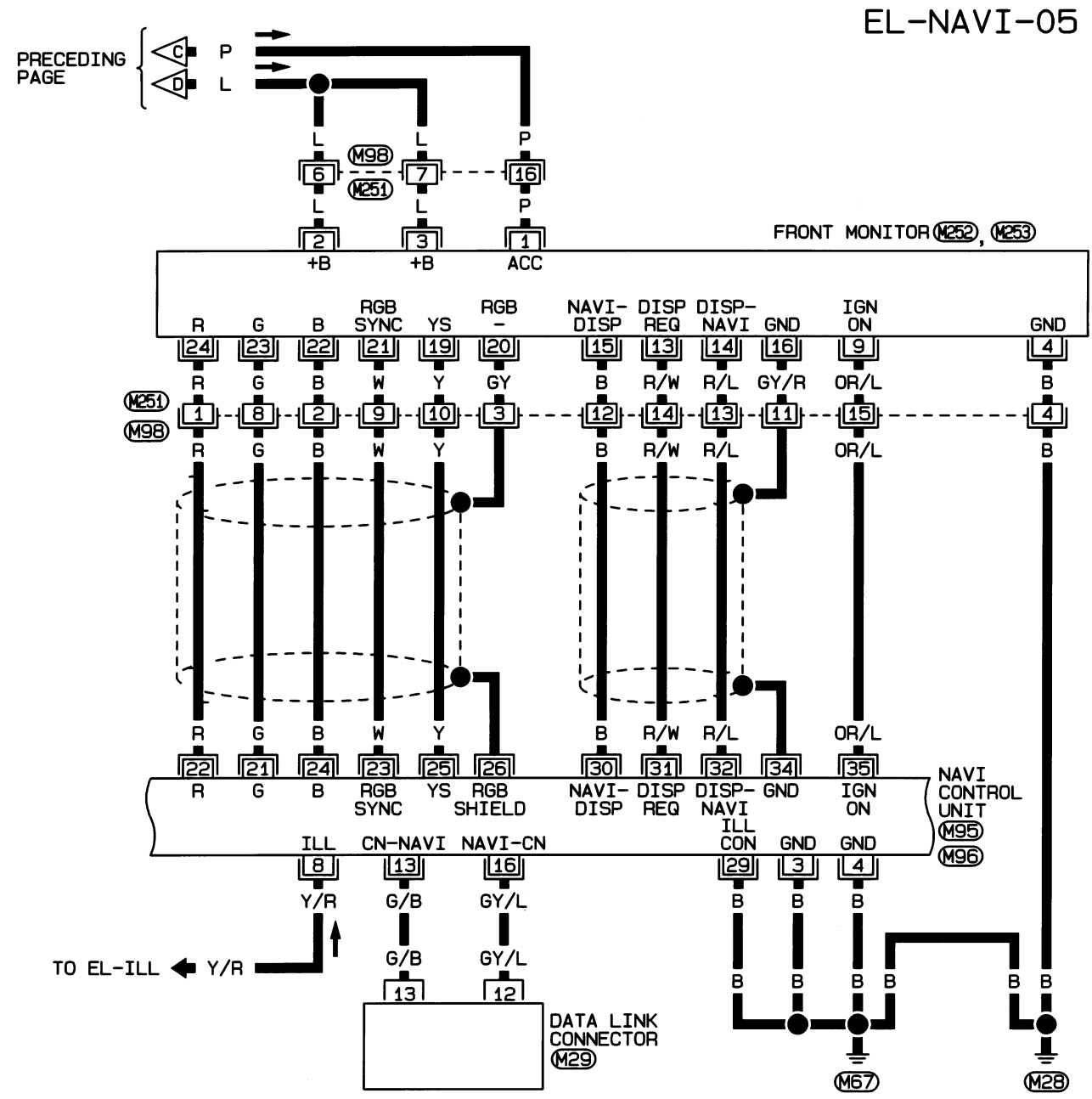


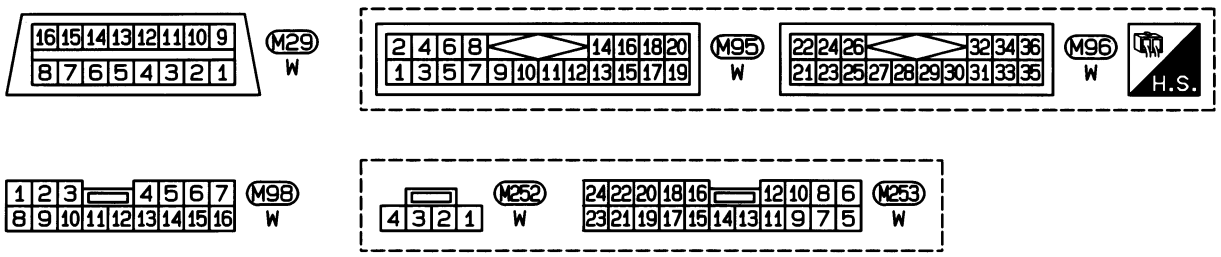
REFER TO THE FOLLOWING.

M1, M2 -FUSE BLOCK-JUNCTION BOX (J/B)

E68 -FUSE AND FUSIBLE LINK BOX

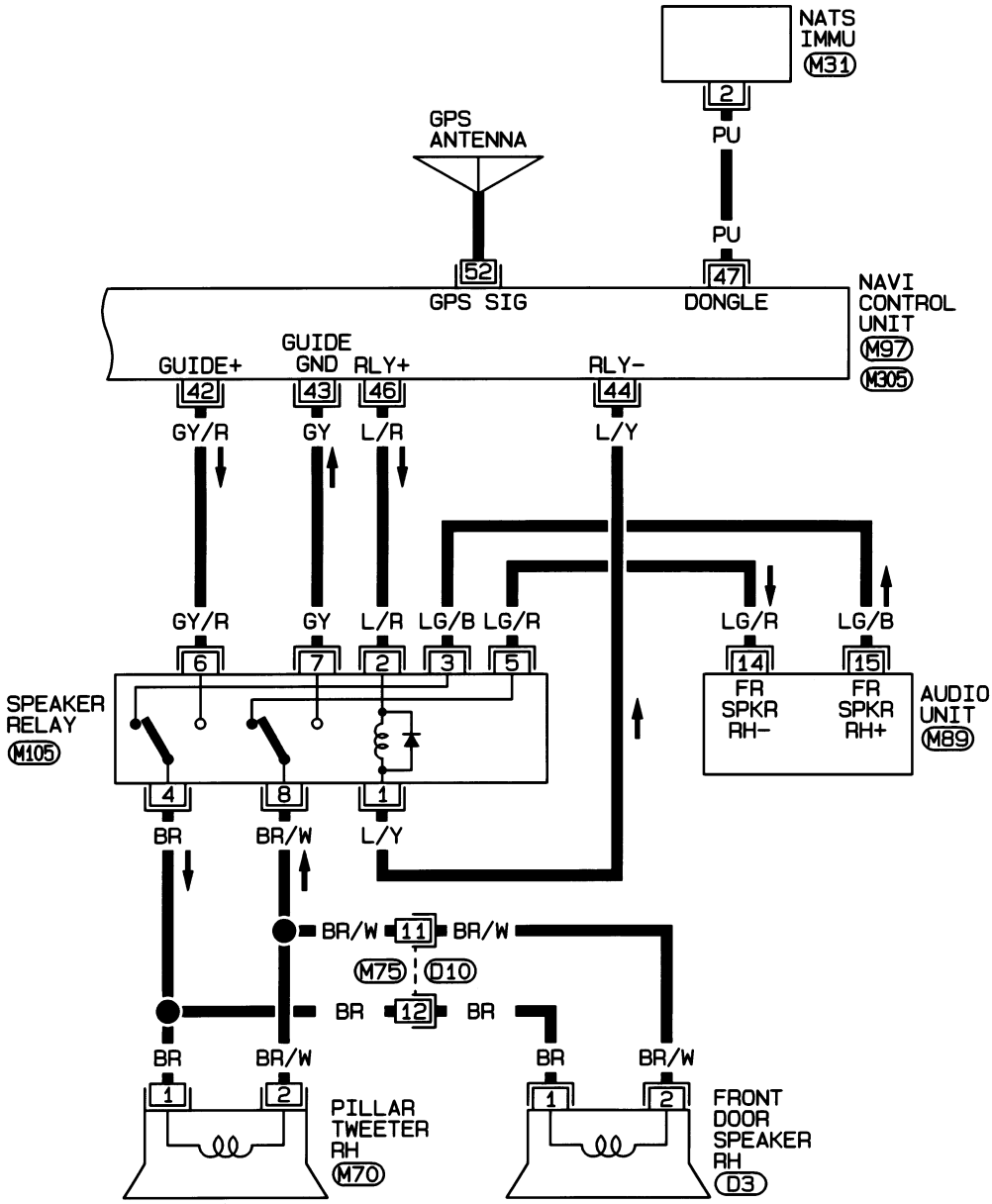
HEL428B

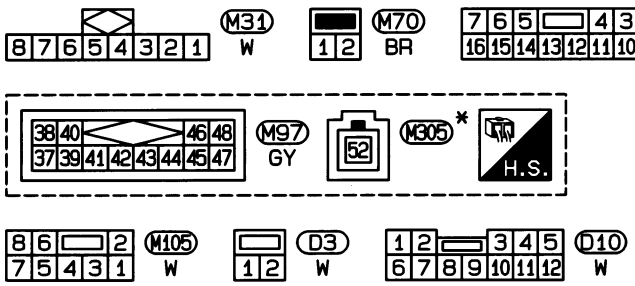

EL-NAVI-05
PRECEDING PAGE
C
D
P
L
M98
M251
+B
+B
ACC
FRONT MONITOR M252, M253
R G B RGB SYNC YS RGB - NAVI- DISP DISP REQ DISP- NAVI GND IGN ON GND
NAVI CONTROL UNIT M95 M96
ILL CN-NAVI NAVI-CN
TO EL-ILL
Y/R
DATA LINK CONNECTOR M29
M67
M28


M29 W
M95 W
M96 W
H.S.
M98 W
M252 W
M253 W

HEL429B

EL-NAVI-06



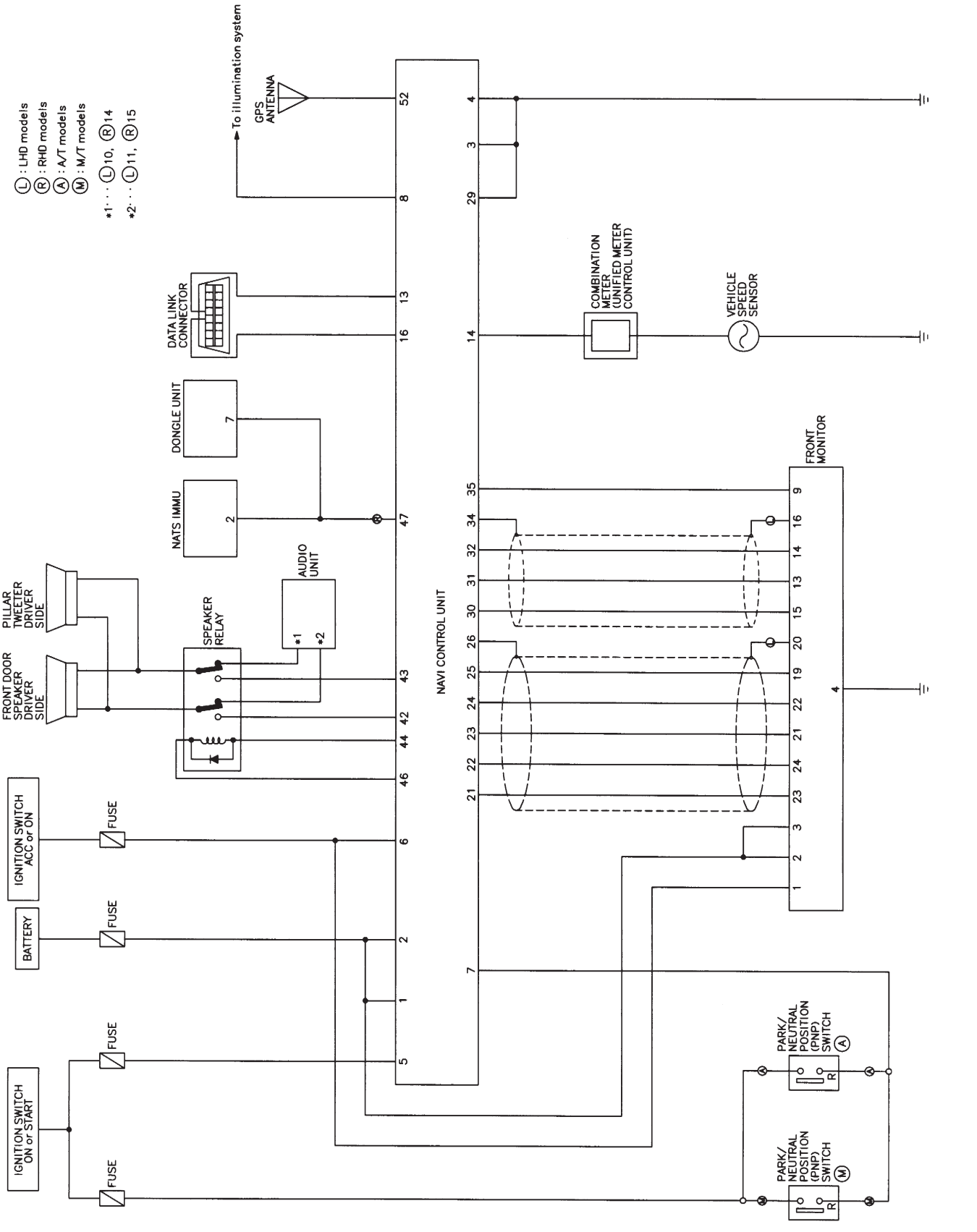


*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT".

HEL430B

Schematic/Hatchback

NJEL0530

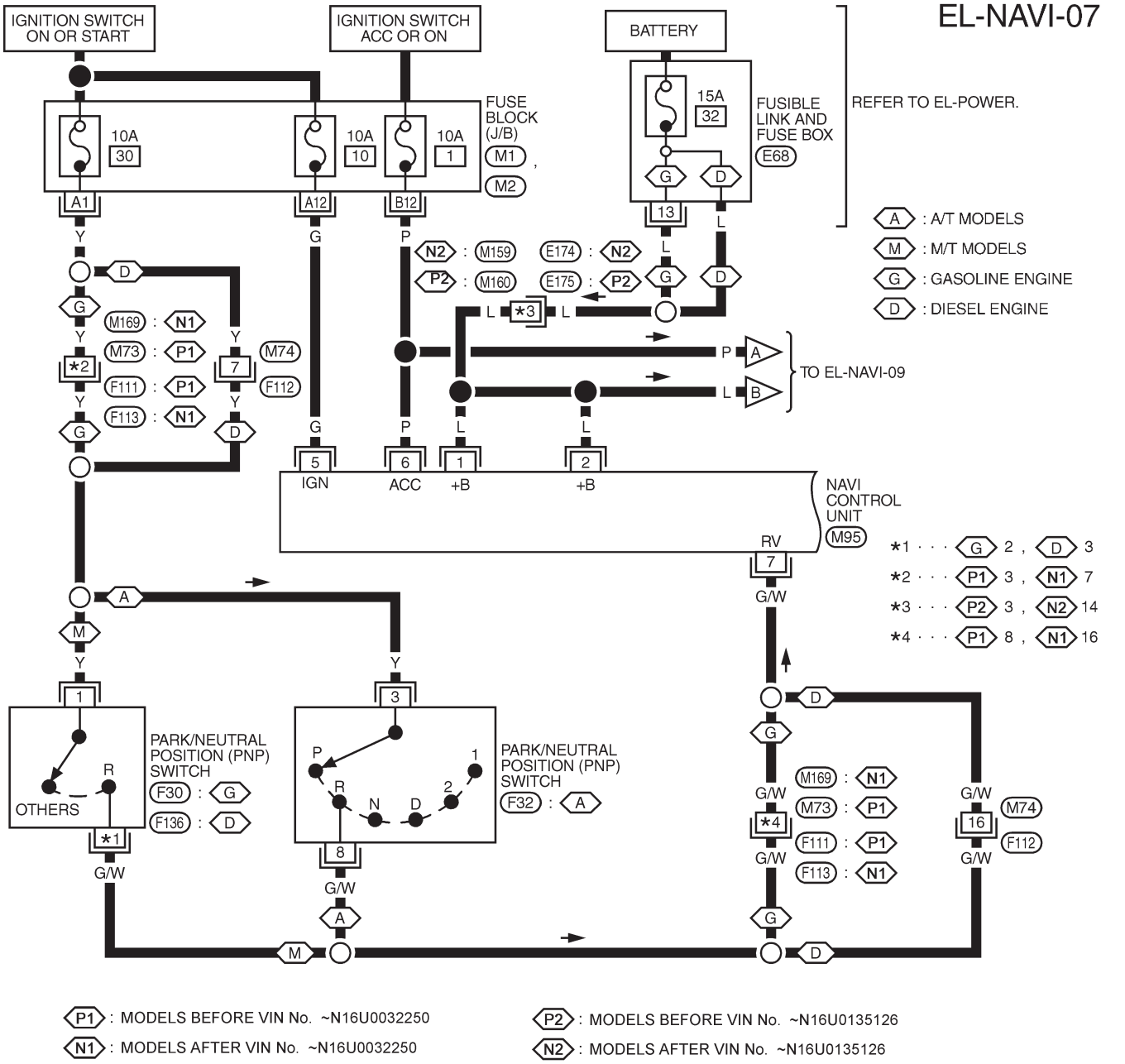


Wiring Diagram — NAVI —/Hatchback

NJEL0531

LHD MODELS

NJEL0531S01

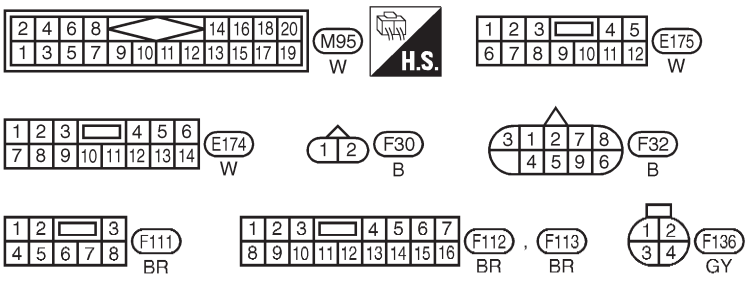


P1 : MODELS BEFORE VIN No. ~N16U0032250

N1 : MODELS AFTER VIN No. ~N16U0032250

P2 : MODELS BEFORE VIN No. ~N16U0135126

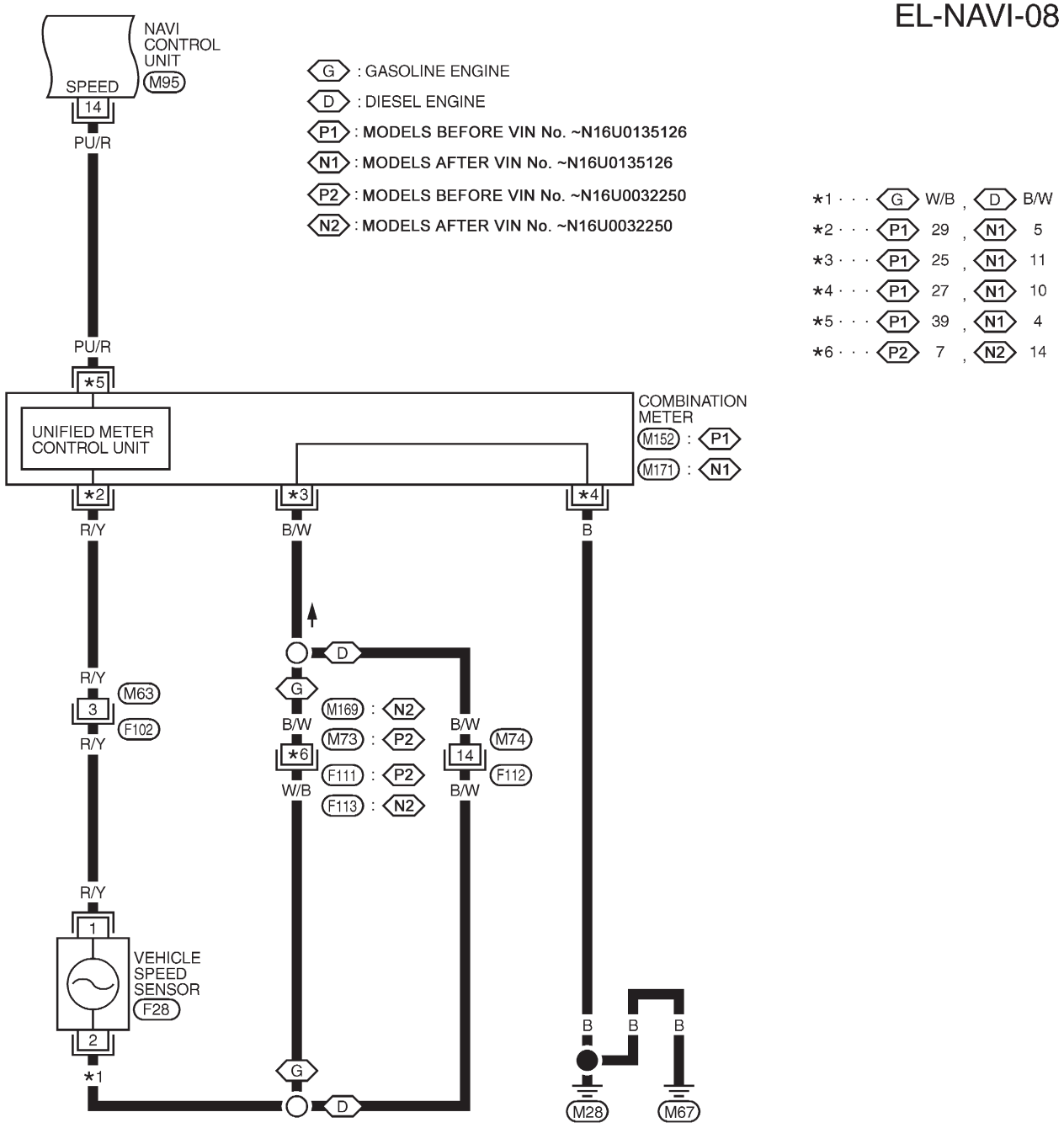
N2 : MODELS AFTER VIN No. ~N16U0135126

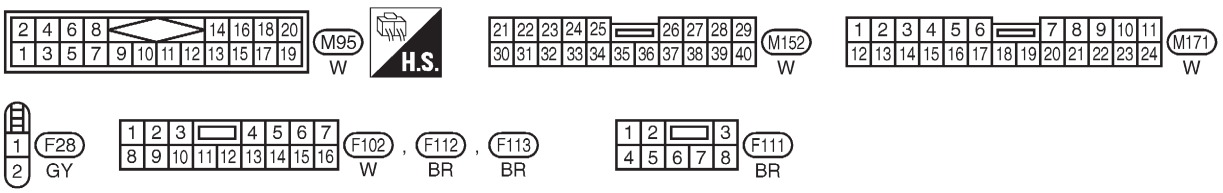


REFER TO THE FOLLOWING.
M1 , M2 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 -FUSE AND FUSIBLE LINK BOX

YEL377C

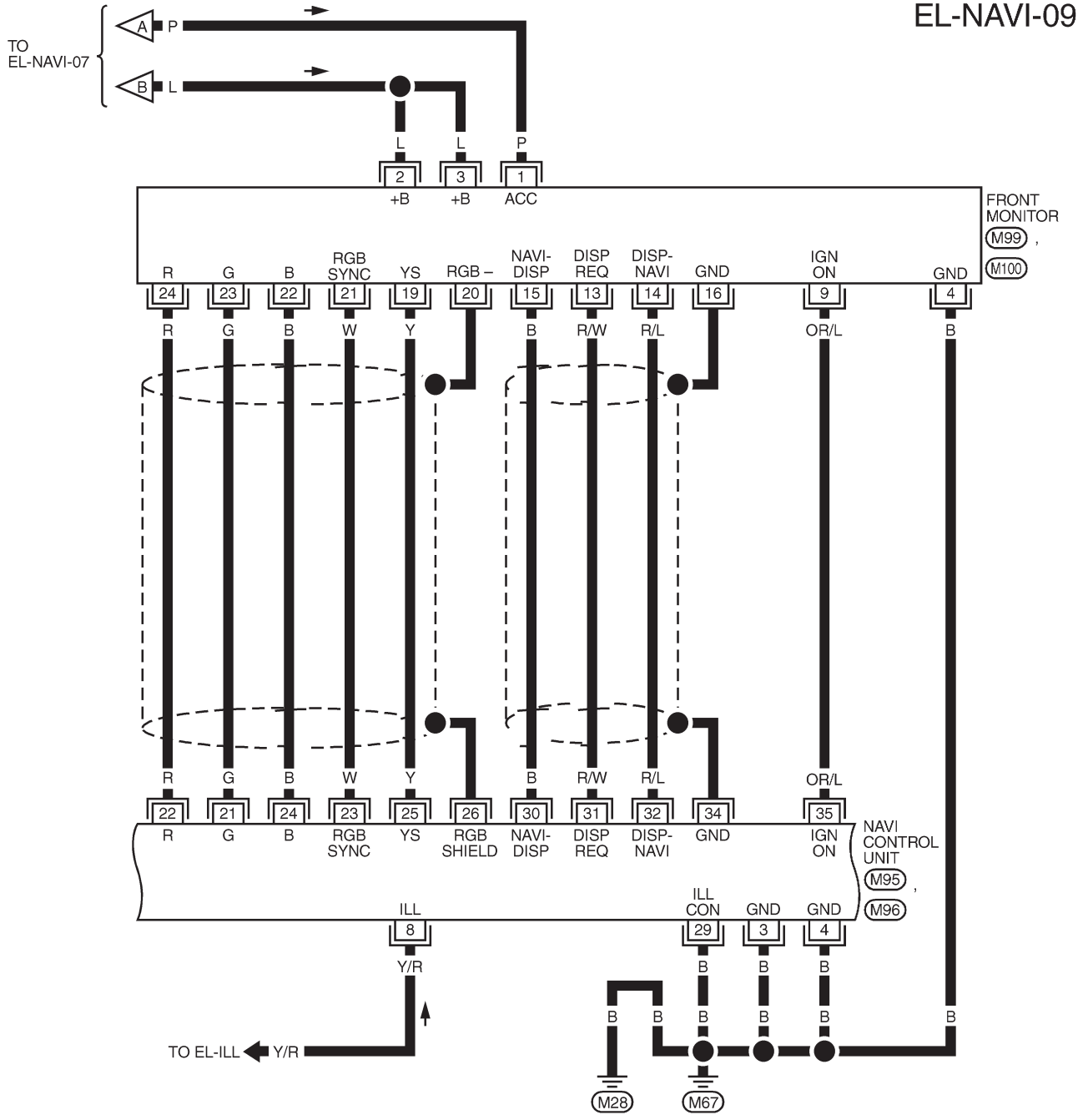
EL-NAVI-08

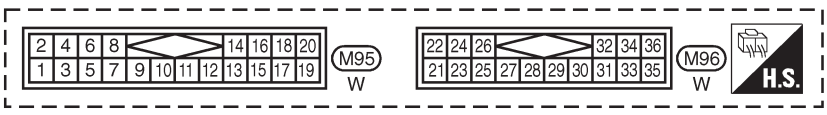


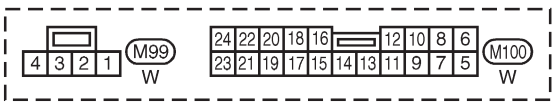


YEL378C

EL-NAVI-09

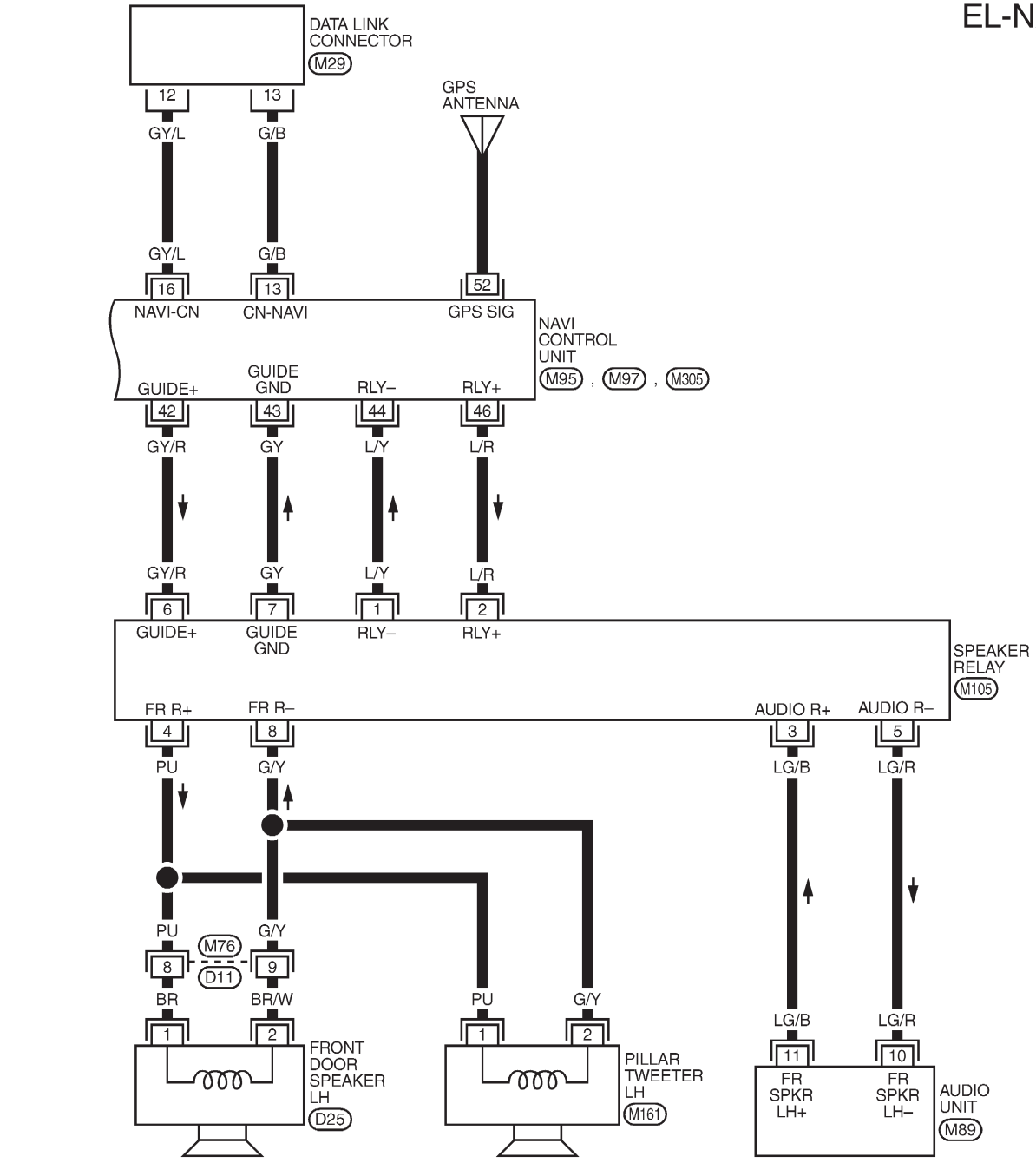


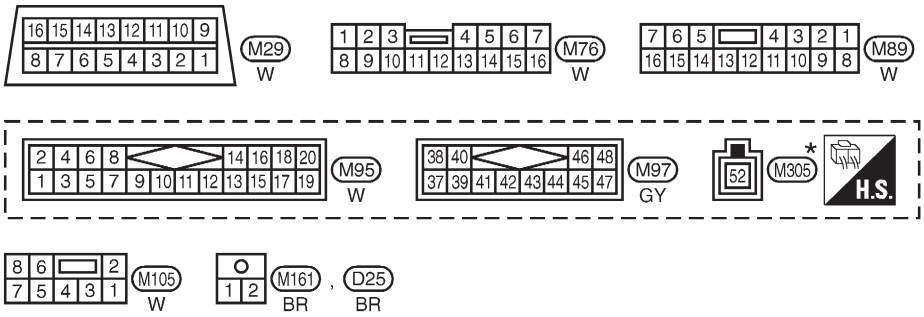




YEL384C

EL-NAVI-10





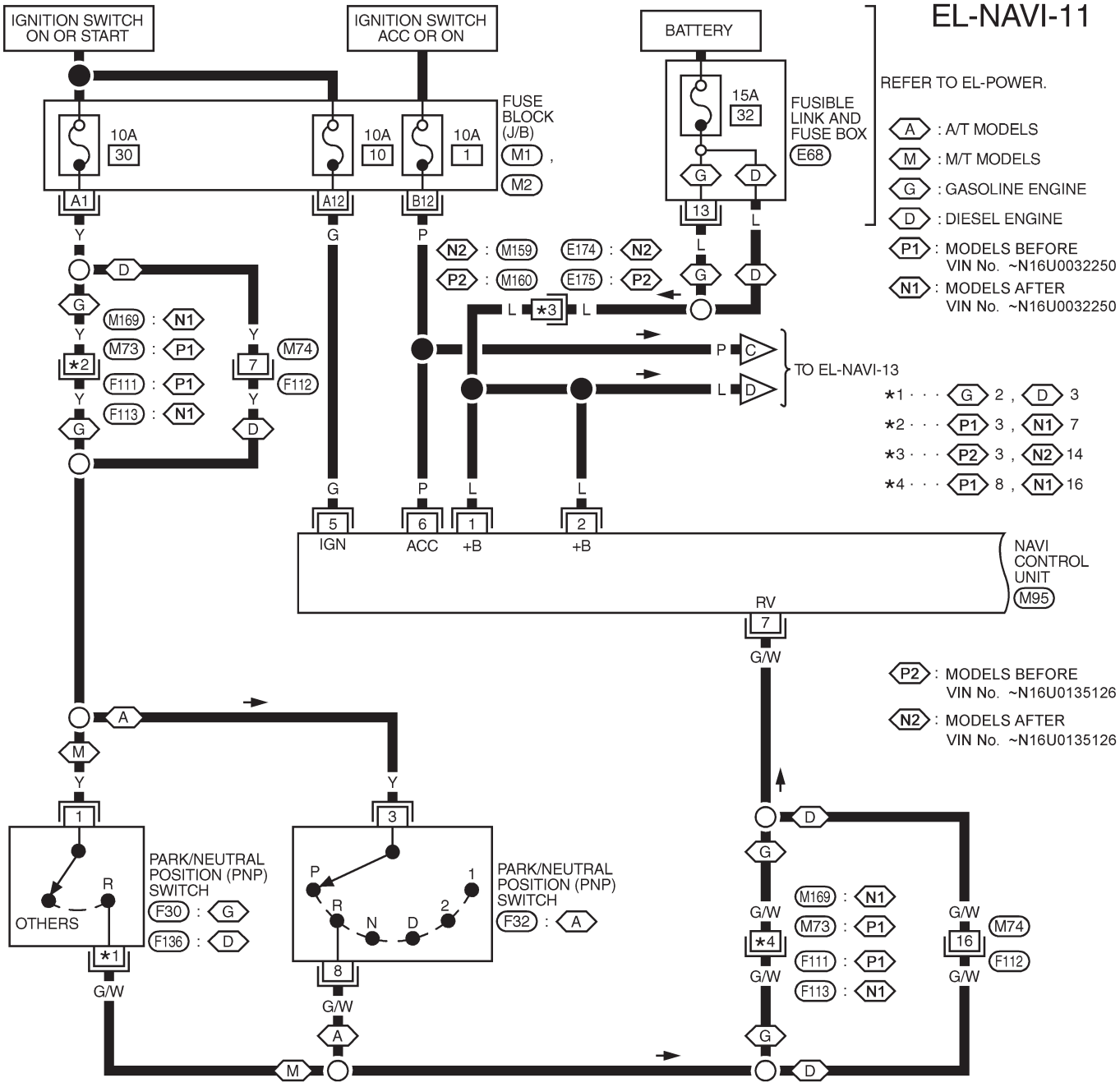
★ : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", EL SECTION.

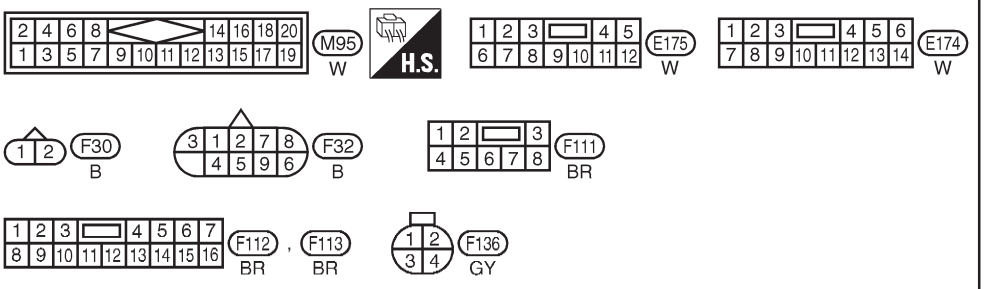
YEL385C

Wiring Diagram — NAVI —/Hatchback (Cont'd)

RHD MODELS

NJEL0531S02

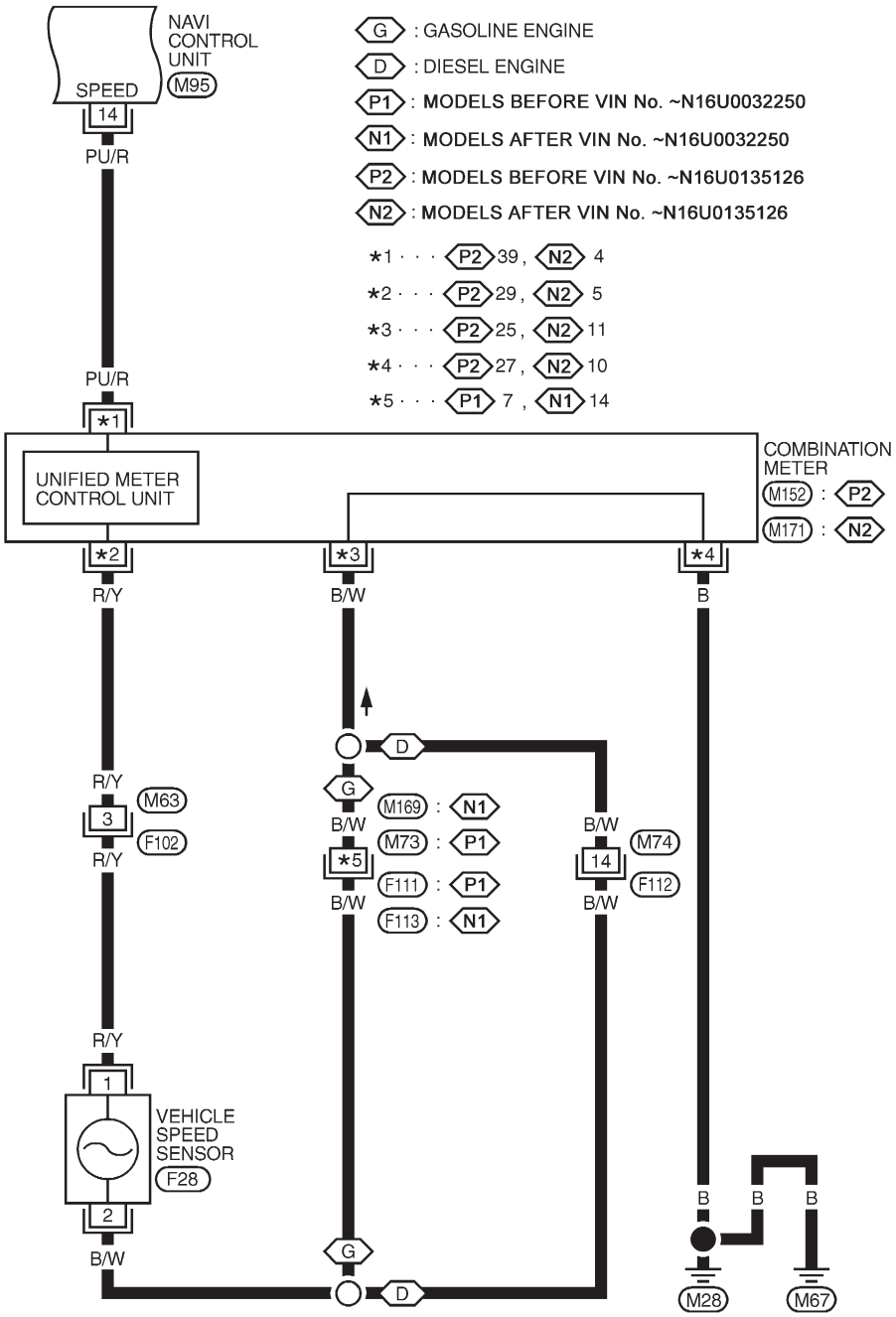


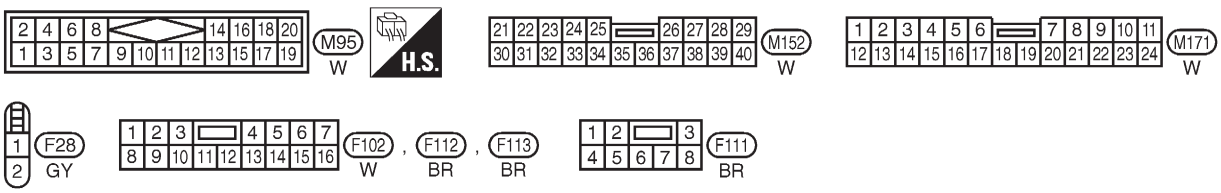


REFER TO THE FOLLOWING.
M1 , M2 -FUSE BLOCK-JUNCTION BOX (J/B)
E68 -FUSE AND FUSIBLE LINK BOX

YEL379C

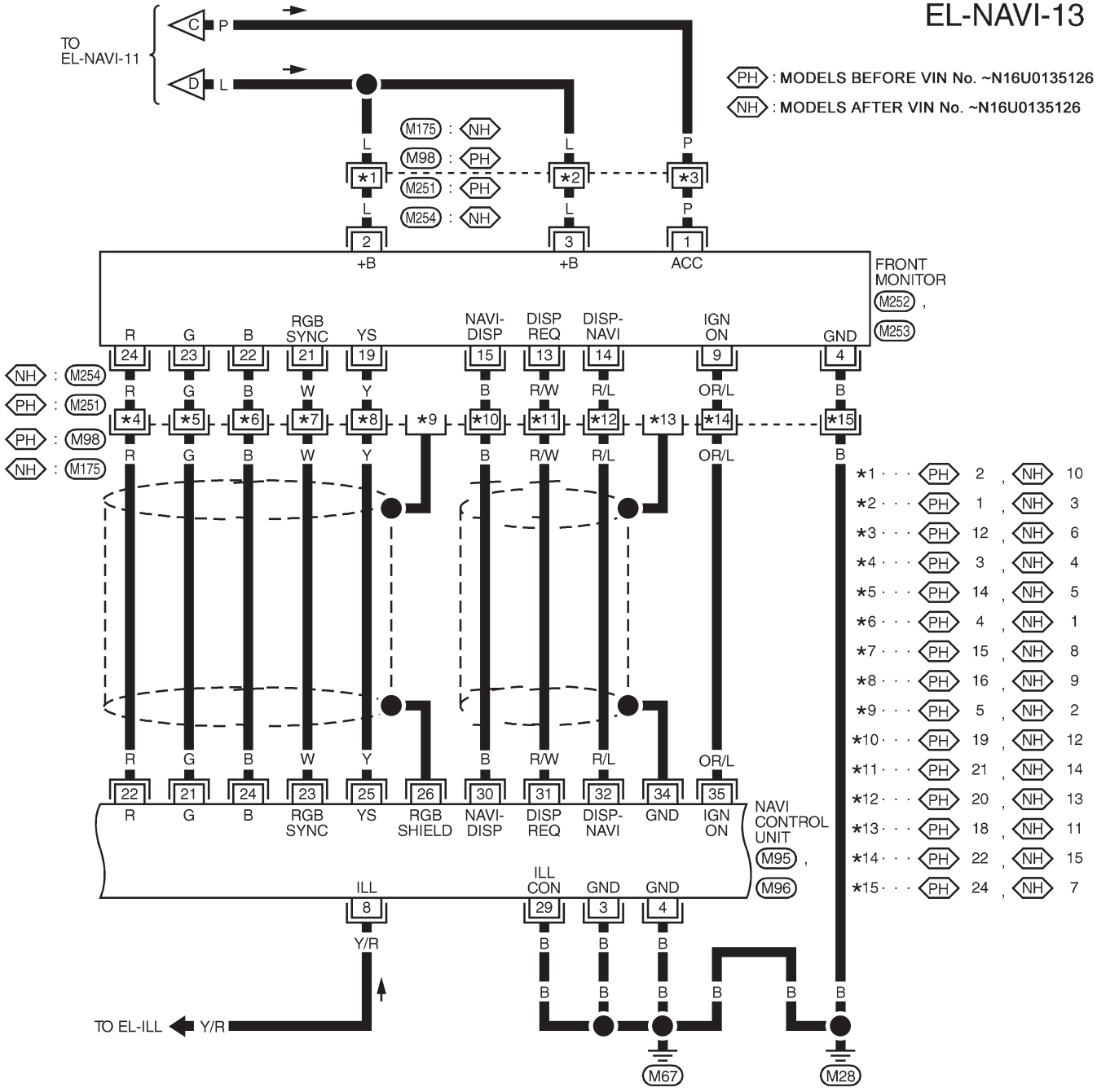
EL-NAVI-12

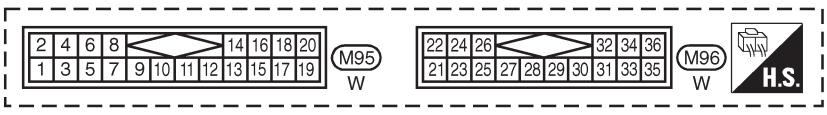




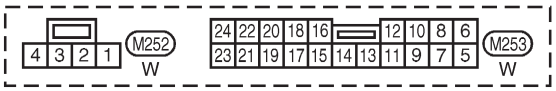
YEL380C

Wiring Diagram — NAVI —/Hatchback (Cont'd)



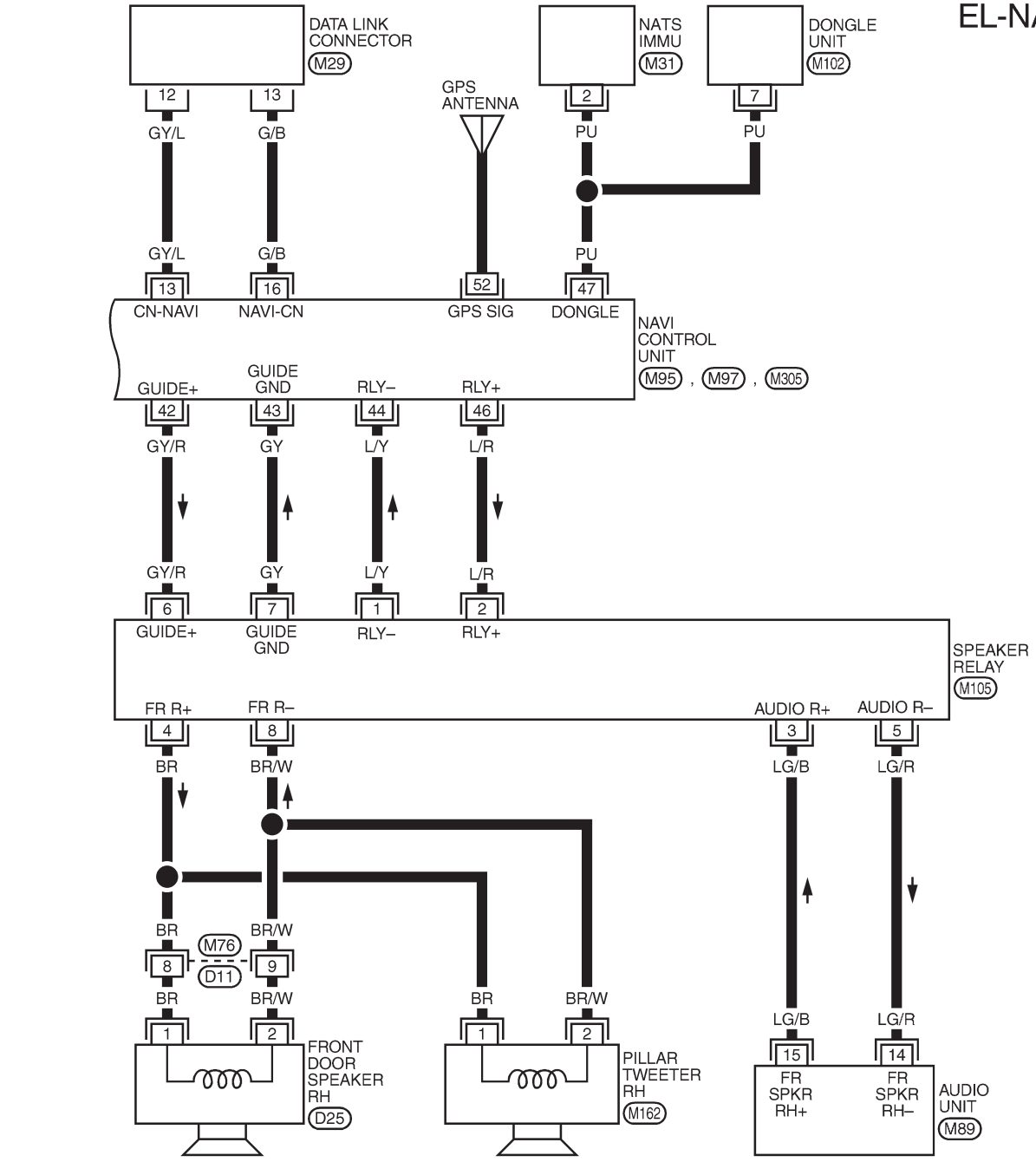


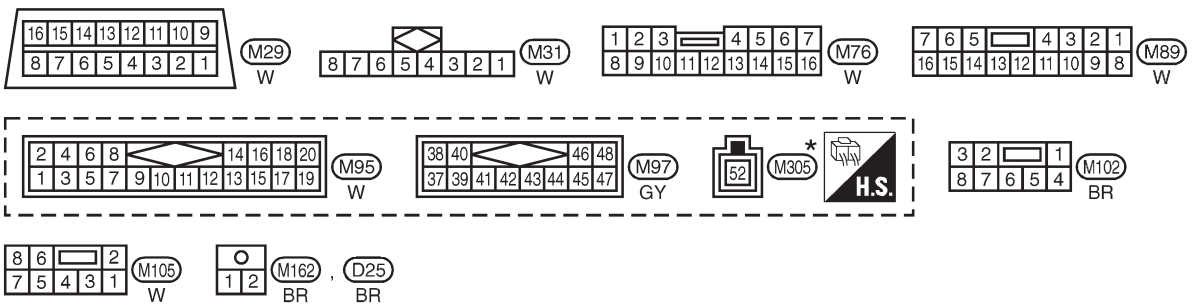




YEL381C

EL-NAVI-14





★ : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", EL SECTION.

YEL386C

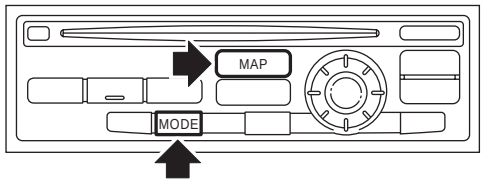
Self-diagnosis Mode

NJEL0519

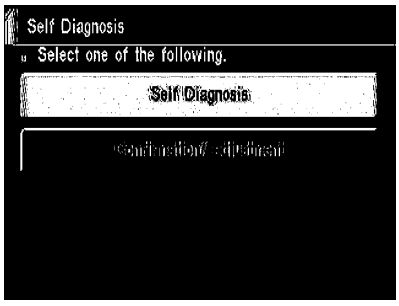
APPLICATION ITEMS

NJEL0519S01

Mode			Description	Reference page
Self Diagnosis			Self-diagnosis for Navigation, Display and GPS Antenna connection.	EL-477
Confirmation/ adjustment	Diagnose the Display		Color and gray gradation of display can be checked in this mode.	EL-485
	Diagnosis for Signals from the Car		Several input signals to NAVI control unit, can be monitored in this mode.	EL-483
	Navigation	Check the map CD-ROM version	The version (parts number) of inserted CD-ROM can be checked in this model.	EL-484
		Error history	Diagnosis results previously stored in the memory (before turning ignition switch ON) are displayed in this mode. Time and location when/where the errors occurred are also displayed.	EL-479
		Longitude & Latitude	Display the map. Use the joystick to adjust position. Longitude and latitude will be displayed.	EL-486
		Adjust the Angle	Turning angle of the vehicle on the display can be adjusted in this mode.	EL-487
		Speed Calibration	Under ordinary conditions, the navigation system distance measuring function will automatically compensate for minute decreases in wheel and tire diameter caused by tire wear or low pressure. Speed calibration immediately restores system accuracy in cases such as when distance calibration is needed because of the use of tire chains in inclement weather.	EL-488
	Initialize Location		This mode is for initializing the current location. Use when the vehicle is transported a long distance by a trailer, etc.	EL-489



SEL617X



SEL527X

HOW TO PERFORM SELF-DIAGNOSIS MODE

NJEL0519S02

1. Start the engine.
2. Push “OPEN/CLOSE” switch and then open the display.
3. Push both of “MAP” and “MODE” switches at the same time for more than five seconds.

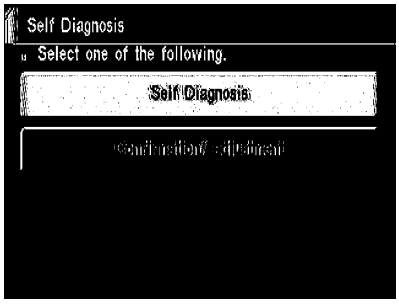
4. Select “Self Diagnosis” or “Confirmation/ adjustment”.

- For further procedure, refer to the following pages which describe each application item of the self-diagnosis mode.

"Self Diagnosis"

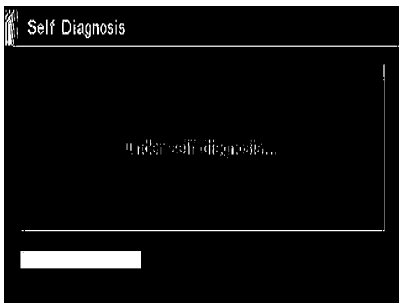
NJEL0519S0201

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push both "MAP" and "MODE" switches at the same time for more than 5 seconds.
4. Select "Self Diagnosis".



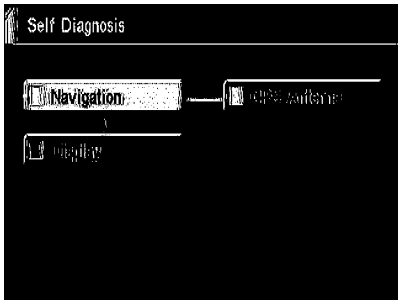
SEL527X

5. Self-diagnosis will be performed.



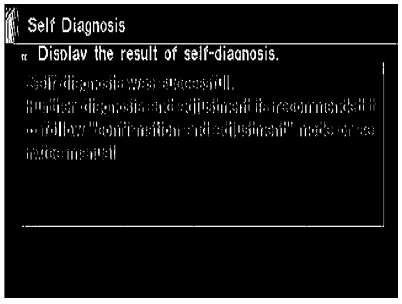
SEL528X

6. Diagnosis results will be displayed. Diagnosis results are indicated by display color. For details refer to EL-478, "SELF-DIAGNOSIS RESULTS".



SEL529X

To obtain detailed diagnosis results on the screen, touch "Navigation" or "Display" or "GPS Antenna".



SEL530X

Self-diagnosis Mode (Cont'd)

SELF-DIAGNOSIS RESULTS

=NJEL0519S03

Diagnosed item	Displayed color	Detailed result	Description	Diagnoses/service procedure **Recheck system at each check or replacement (When malfunction is eliminated, further repair work is not required.)**
"GPS Antenna" (GPS antenna connection)	Green	—	GPS antenna is connected to NAVI control unit correctly.	—
	Yellow	Connection to the following unit is abnormal. See the Service Manual for further diagnosis.	GPS antenna connection error is detected.	1. Check GPS antenna feeder cable connection at NAVI control unit. 2. Visually check GPS antenna feeder cable. If NG, replace GPS antenna assembly. 3. Replace GPS antenna.
"Navigation"	Green	—	No failure is detected.	—
	Red	[*** is abnormal.]	NAVI control unit is malfunctioning.	Replace NAVI control unit.
	Gray	Self-diagnosis for CD-ROM DRIVER of NAVI was not conducted due to no insertion of CD-ROM.	Any CD-ROM is not inserted or NAVI control unit is malfunctioning.	1. Confirm that map CD-ROM is not inserted into NAVI control unit. 2. Replace NAVI control unit.
	Yellow	CD-ROM or CD-ROM DRIVER of NAVI is abnormal. See the Service Manual for further diagnosis.	NAVI control unit judges that inserted CD-ROM is malfunctioning. Map CD-ROM or CD-ROM driver of the unit is malfunctioning.	1. Confirm the disc is installed correctly (not up side down.) 2. Perform "Check the Map CD-ROM version MODE" in EL-484 to confirm whether correct CD-ROM is inserted or not. 3. Check the disc surface. Are there any scratches, abrasions or pits on the surface? 4. Replace the CD-ROM. 5. Replace NAVI control unit.
		CD-ROM is abnormal. Please check the disc.	Inserted map CD-ROM can not be read. Map CD-ROM or CD-ROM driver of the unit is malfunctioning.	
		Connection to the following unit is abnormal. See the Service Manual for further diagnosis.	GPS antenna connection error is detected.	1. Check GPS antenna feeder cable connection at NAVI control unit. 2. Visually check GPS antenna feeder cable. If NG, replace GPS antenna assembly. 3. Replace GPS antenna.

NOTE:
Connection between NAVI control unit and display unit should be normal. Therefore, "Display connection error" will not occur when the display can be opened or closed properly.

Confirmation/Adjustment Mode

=NJEL0520

"ERROR HISTORY" MODE

NJEL0520S01

Description

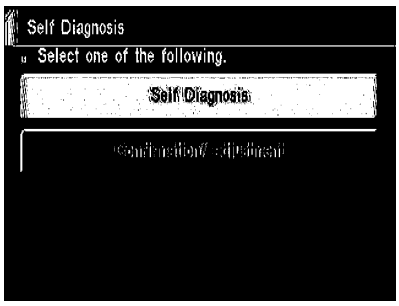
NJEL0520S0101

In this mode, historical errors of the system are displayed with the following data.

- How many times the error was detected
- The last time data when the error was detected
- The last place where the error was detected

NOTE:

- **The number of errors can be counted up to 50 times. More than 51 times will be indicated as 50 times.**
- **Malfunction of the GPS board (inside the NAVI control unit) will result in the display of incorrect time data.**
- **When an error occurs, an incorrect position marker appears on the display. The accuracy of the display data (position marker) will be affected.**

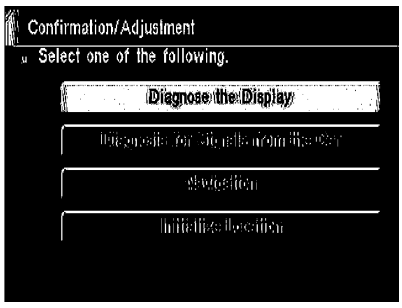


SEL527X

How to Perform

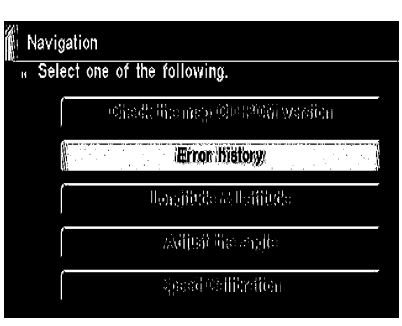
NJEL0520S0102

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push both "MAP" and "MODE" switch at the same time for more than 5 seconds.
4. Select "Confirmation/ adjustment".



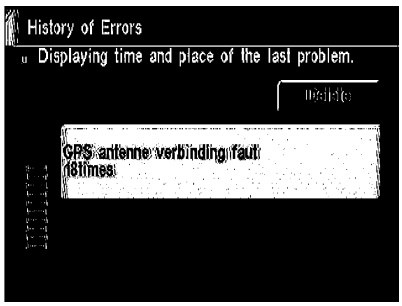
SEL531X

5. Select "Navigation".



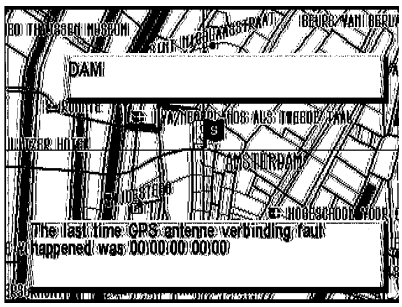
SEL532X

6. Select "Error history".



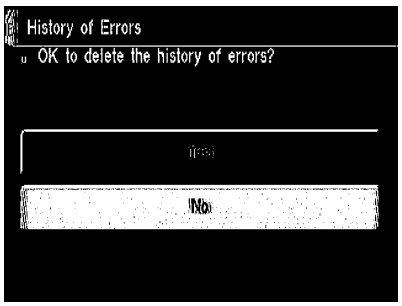
SEL533X

7. If trouble items are displayed with time count, repair/replace the system according to "Error history" TABLE, EL-481.



SEL534X

8. If necessary, touch error item to display the time when the error was detected and the place where the error was detected.



SEL535X

9. After repairing the system, erase the diagnosis memory.

NOTE:
When the NAVI control unit must be replaced, do not erase the diagnosis memory for further inspection of malfunctions.

1) Start the engine.
2) Push both "Map" and "MODE" switches at the same time for more than 5 seconds.
3) Select "Confirmation/ adjustment".
4) Select "Navigation".
5) Select "Error history".
6) Select "Delete".
7) Select "Yes".

"HISTORY OF ERRORS" TABLE

=NJEL0520S02

Detected items	Description	Diagnosis/service procedure	Reference page
Gyro sensor disconnected	Communications malfunction between NAVI control unit and internal gyro	Perform self-diagnosis to confirm whether the NAVI control unit is malfunctioning or not. If no failure is detected, a momentary and/or temporary malfunction may have been caused by strong electromagnetic wave interference.	EL-476
Connection problem of speed sensor	Input malfunction of NAVI control unit and speed sensor	Check vehicle speed sensor signal in "Diagnosis for signals from the car" mode. If the input signal is not detected correctly, check harness for open or short between combination meter and NAVI control unit.	EL-483
GPS disconnected	Communications malfunction between NAVI control unit and GPS board	Perform self-diagnosis to confirm whether the NAVI control unit is malfunctioning or not. If no failure is detected, a momentary and/or temporary malfunction may have been caused by strong electromagnetic wave interference.	EL-476
GPS transmission cable malfunction			
GPS input line connection error			
GPS TCXO over	The transmission circuit of the GPS board frequency synchronization oscillator (inside the NAVI control unit) is sending an oscillation frequency that is greater or less than the set value.	A location error occurs. Strong electromagnetic wave interference may have occurred. The GPS antenna may be in a very hot or very cold environment. This is usually a temporary malfunction.	—
GPS TCXO under			
GPS ROM malfunction	Internal malfunction of GPS board RAM or ROM inside the NAVI control unit.	Perform self-diagnosis to confirm whether the NAVI control unit is malfunctioning or not. If no failure is detected, a momentary and/or temporary malfunction may have been caused by strong electromagnetic wave interference.	EL-476
GPS RAM malfunction			
GPS RTC malfunction	Malfunction of GPS board clock IC inside the NAVI control unit.		
GPS antenna disconnected	—	Perform self-diagnosis to confirm GPS antenna connection. If no failure is detected, a momentary and/or temporary malfunction may have been caused by a strong impact.	EL-476
Low voltage of GPS	Power supply voltage for GPS board inside the NAVI control unit is low.	1. Check power supply circuits for NAVI control unit.	EL-504
		2. Perform self-diagnosis to confirm GPS antenna connection.	EL-476
		3. If above diagnosis results are OK, a momentary and/or temporary malfunction may have been caused by a strong impact.	—
CD-ROM communication error	CD-ROM driver malfunction (inside the NAVI control unit)	Perform self-diagnosis to confirm whether the NAVI control unit is malfunctioning or not. If no failure is detected, a momentary and/or temporary malfunction may have been caused by strong electromagnetic wave interference.	EL-476

Confirmation/Adjustment Mode (Cont'd)

Detected items	Description	Diagnosis/service procedure	Reference page
Loading mechanism malfunction	—	Check that whether the disc can be inserted and ejected correctly. If the loading function does not operate correctly, replace NAVI control unit.	—
CD-ROM reading error	It is confirmed that the appropriate CD-ROM disc is positioned in the CD-ROM loader. However, no data can be read.	Perform self-diagnosis to confirm whether the inserted disc is malfunctioning or not.	EL-476
Malfunctioning of error correction for CD-ROM	Erroneous data is read from the CD-ROM. The errors cannot be corrected.		
CD-ROM focus error	CD-ROM data reading beam is out of focus.	Rough road driving might create CD skipping like music CD audio unit.	—
CD-ROM malfunction	—	Perform self-diagnosis to confirm whether the inserted disc is malfunctioning or not.	EL-476

"DIAGNOSIS FOR SIGNALS FROM THE CAR" MODE

=NJEL0520S03

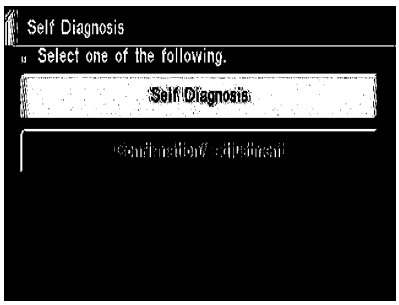
Description

NJEL0520S0301

In "Diagnosis for Signals from the Car" mode, following input signals to the NAVI control unit can be checked on the display.

Item	Indication	Vehicle condition
Vehicle Speed*	ON	Vehicle speed is greater than 0 km/h (0 MPH).
	OFF	Vehicle speed is 0 km/h (0 MPH).
Light	ON	Lighting switch is in 1st or 2nd position.
	OFF	Lighting switch is in "OFF" position.
IGN	ON	Ignition switch is in "ON" position.
	OFF	Ignition switch is in "ACC" position.
Reverse*	ON	Selector/shift lever is in "Reverse" position.
	OFF	Selector/shift lever is in other than "Reverse" position.

*: When ignition switch is in "ACC" position, indication will be changed to "-".

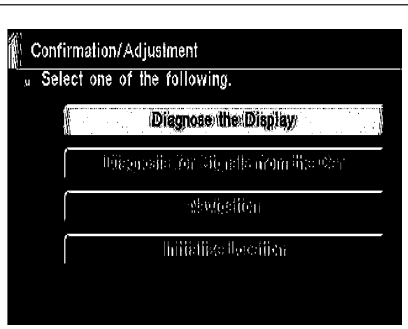


SEL527X

How to Perform

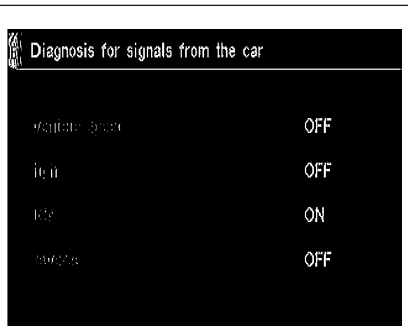
NJEL0520S0302

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push both "MAP" and "MODE" switches at the same time for more than 5 seconds.
4. Select "Confirmation/ adjustment".



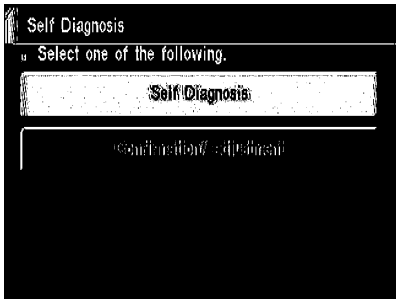
SEL531X

5. Select "Diagnosis for Signals from the Car".



SEL542X

6. Then "Diagnosis for Signals from the Car" mode is performed.



SEL527X

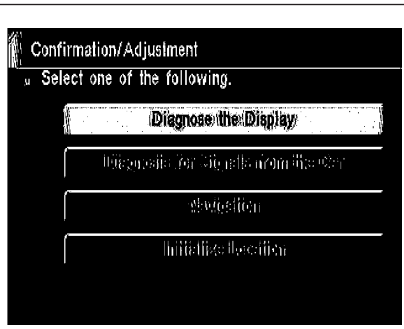
"CHECK THE MAP CD-ROM VERSION" MODE

=NJEL0520S04

How to Perform

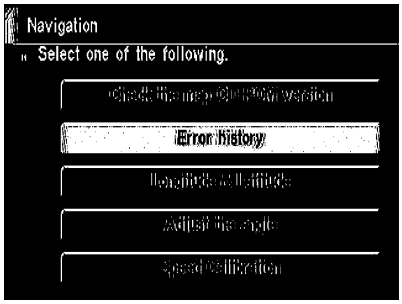
NJEL0520S0401

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push both "MAP" and "MODE" switches at the same time for more than 5 seconds.
4. Select "Confirmation/ adjustment".



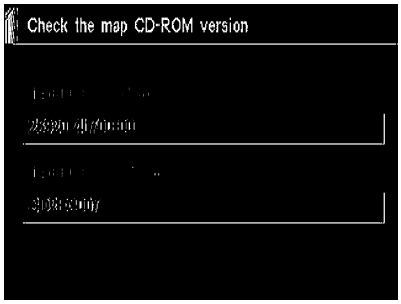
SEL531X

5. Select "Navigation".



SEL532X

6. Select "Check the map CD-ROM version".



SEL536X

7. The version (parts number) of CD-ROM loaded to the NAVI control unit will be displayed.

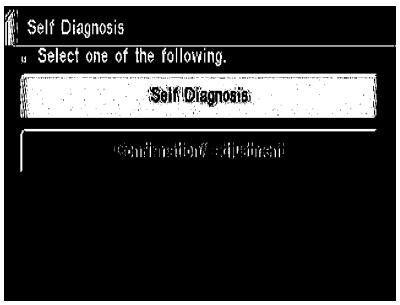
"DIAGNOSE THE DISPLAY" MODE

=NJEL0520S05

Description

NJEL0520S0501

Use the "Diagnose the Display" mode to check the display color brightness and shading. The NAVI control unit must be replaced if the color brightness and shading are abnormal.

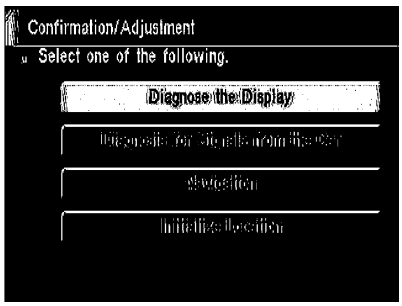


SEL527X

How to Perform

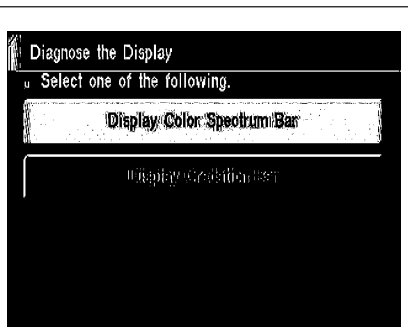
NJEL0520S0502

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push both "MAP" and "MODE" switches at the same time for more than 5 seconds.
4. Select "Confirmation/ adjustment".



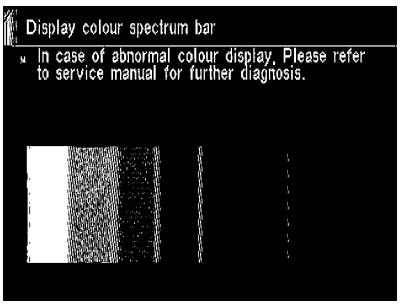
SEL531X

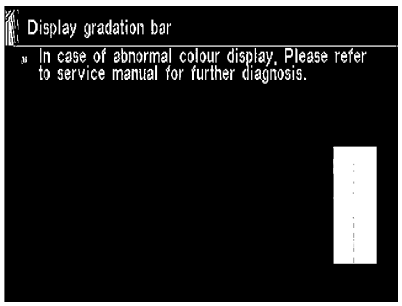
5. Select "Diagnose the Display".



SEL540X

6. Select "Display color spectrum bar" or "Display gradation bar".
7. Then color bar/gray scale will be displayed.





SEL541X

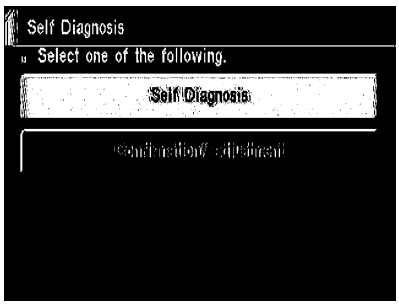
"LONGITUDE & LATITUDE" MODE

NJEL0520S06

Description

NJEL0520S0601

The "Longitude & Latitude" is used to confirm the longitude and latitude of some optional area point.

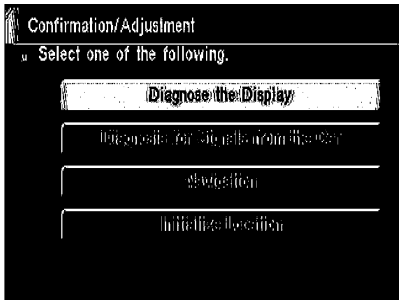


SEL527X

How to Perform

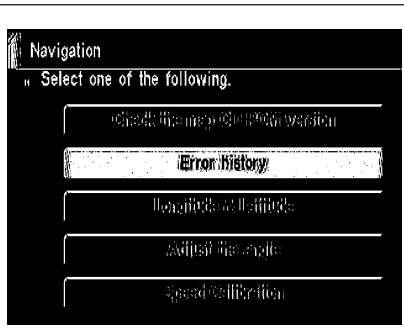
NJEL0520S0602

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push both "MAP" and "MODE" switches at the same time for more than 5 seconds.
4. Select "Confirmation/ adjustment".



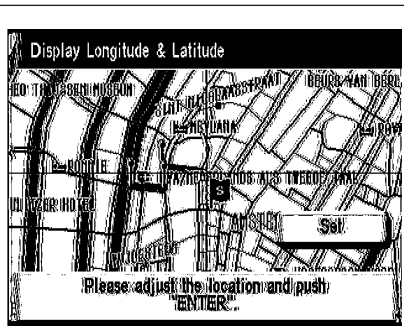
SEL531X

5. Select "Navigation".



SEL532X

6. Select "Longitude & Latitude".



SEL537X

7. Adjust the pointer with using the joystick and touch "Set".
8. The longitude and latitude are displayed.

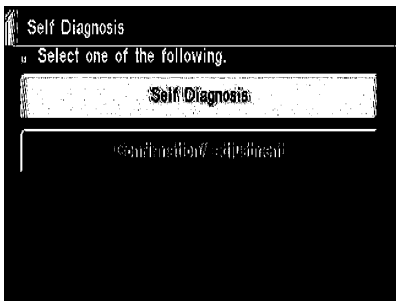
"ADJUST THE ANGLE" MODE

NJEL0520S07

Description

NJEL0520S0701

If the display indicates a larger or smaller turning angle than the actual turning angle, the gyro (angular speed sensor) sensing values must be checked.
In case that the vehicle on the display makes larger angle turn than reality, touch "–". In case that the vehicle on the display makes smaller angle turn than reality, touch "+".

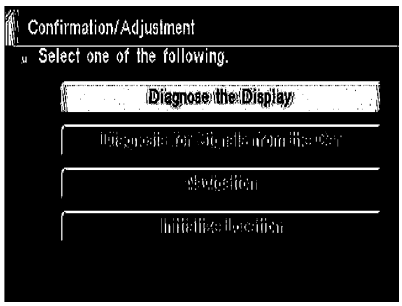


SEL527X

How to Perform

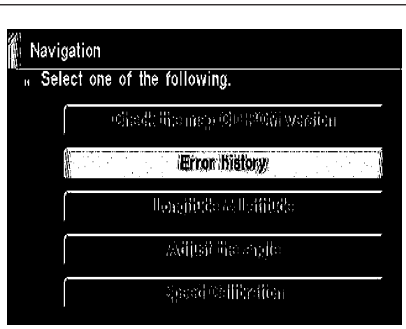
NJEL0520S0702

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push both "MAP" and "MODE" switches at the same time for more than 5 seconds.
4. Select "Confirmation/ adjustment".



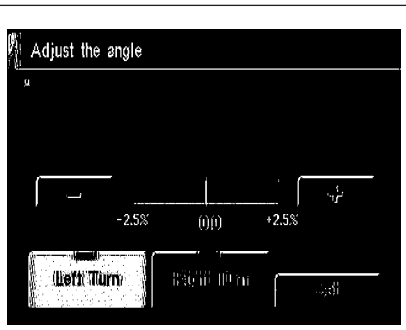
SEL531X

5. Select "Navigation".



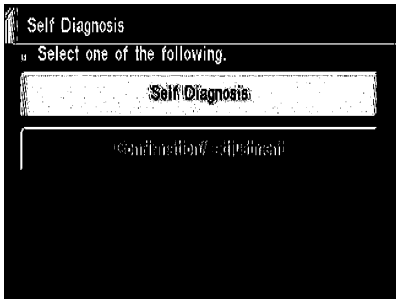
SEL532X

6. Select "Adjust the angle".



SEL538X

7. Select "Left Turn" to adjust the angle to the left. Touch "Right Turn" to adjust the angle to the right.
8. Select "+" to increase the angle change coefficient or "–" to reduce the angle change coefficient.
9. Select "Set" to save the changed values in memory.
10. Then the vehicle turning angle on the display has adjusted.



SEL527X

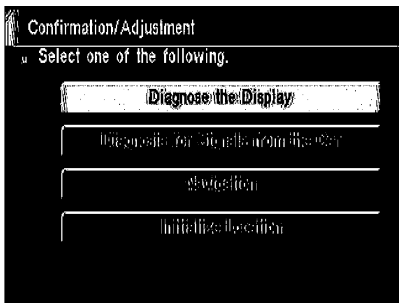
"SPEED CALIBRATION" MODE

NJEL0520S08

How to Perform

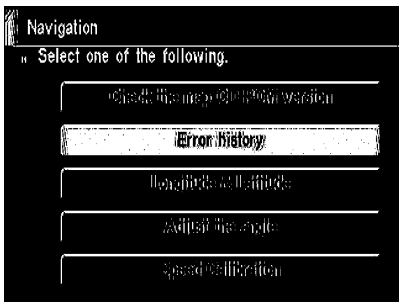
NJEL0520S0801

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push both "MAP" and "MODE" switches at the same time for more than 5 seconds.
4. Select "Confirmation/ adjustment".



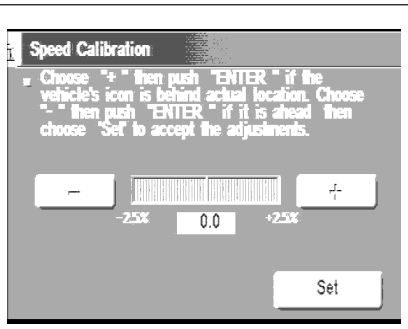
SEL531X

5. Select "Navigation".



SEL532X

6. Touch "Speed Calibration".



SEL539X

7. Touch "+" or "–" to adjust the distance change coefficient.
- To make the distance change coefficient smaller, touch "–".
- To make the distance change coefficient larger, touch "+".

8. Select "Set".

"INITIALIZE LOCATION" MODE

=NJEL0520S09

This procedure is for initializing the current location. Perform "Initialize Location" when the vehicle has been transported a long distance by trailer, etc.
Map with grey background appears and the vehicle location cannot be adjusted by scrolling the display when the vehicle location in the memory is out of the area of the inserted map data.
Perform "Initialize Location" when this occurs.

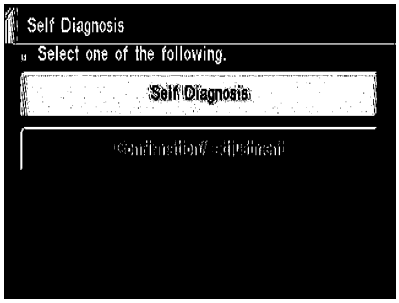
NOTE:

- **Only initialize the system when the NAVI control unit is replaced. If the system is initialized in other cases, it may cause inaccurate positioning of the position marker for a while.**
- **Initialize the system outside for receiving the radio wave from the GPS satellite.**

How to Perform

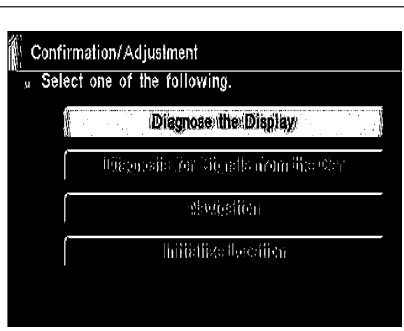
NJEL0520S0901

1. Switch the navigation system mode to self-diagnosis by pushing both "MAP" and "MODE" switches at the same time for more than 5 seconds.



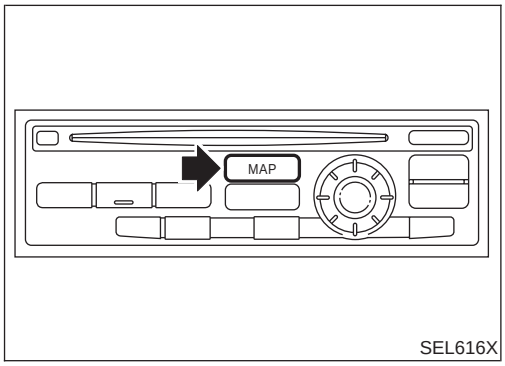
SEL527X

2. Select "Confirmation/ adjustment".



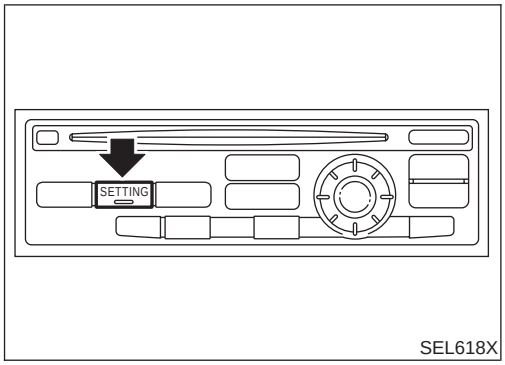
SEL531X

3. Select "Initialize Location". Then the previous screen is displayed.



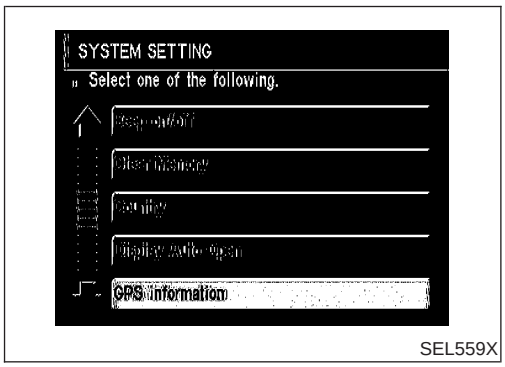
SEL616X

4. Push "MAP" switch.



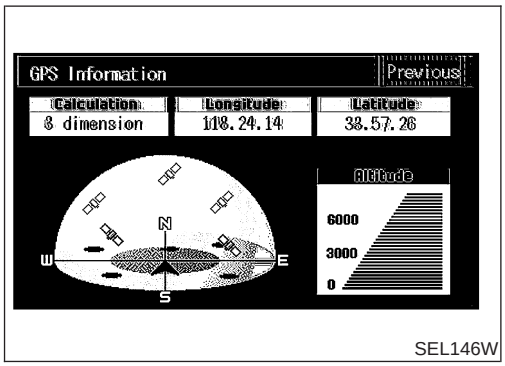
SEL618X

5. Push "SETTING" switch.
6. Select "System Setting".



SEL559X

7. Select "GPS Information".



SEL146W

8. More than one GPS satellite icon turns green. (It may take 1 to 15 minutes.)

NOTE:
Drive the vehicle for a while* in order to change the receiving condition of the radio wave from the GPS satellite if the GPS icon does not turn green.
*** The driving distance which is necessary depends on the receiving condition of the radio wave from the GPS satellite.**

9. Push "MAP" switch and check the following.
- Confirm that the GPS icon on the map turns green.
- Then the position marker should show the current location.
- Position marker rotates corresponding to the movement of the vehicle.

10. Initialization is completed.

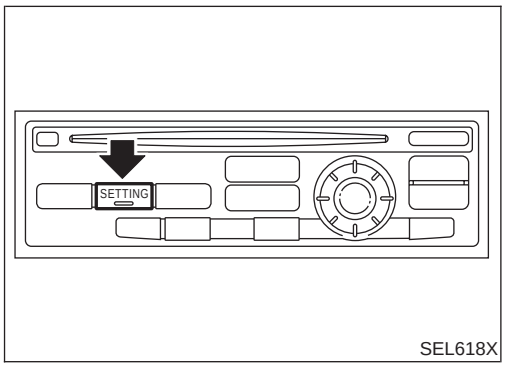
Control Panel Mode

=NJEL0521

APPLICATION ITEMS

NJEL0521S01

Mode	Description	Reference page
Display Auto Open	Display can be set to open by either of the following controls. ● Display will be opened when OPEN/CLOSE SW is selected with Key SW positioned ACC. ● Display will be automatically opened when Key SW is turned from OFF to ACC.	EL-492
GPS Information	The GPS data includes longitude, latitude and altitude (distance above sea level) of the present vehicle position, and current date and time for the area in which the vehicle is being driven. Also indicated are the GPS reception conditions and the GPS satellite position.	EL-492
Language	Language can be selected for the display and voice guidance. Use the program CD-ROM disk to change the language.	EL-493
Quick Stop Customer Setting	One facility of your selection can be added to your Quick Stop.	EL-493
Route Priorities	Priorities of search request and automatic re-searching can be set for route search.	EL-493
Tracking	Tracking to the present vehicle position can be displayed.	EL-494
Display Setting	The following display settings can be customized. ● Display color (Day mode or Night mode) ● Brightness of display	EL-494
Heading	Heading of the map display can be customized for either north heading or the actual driving direction of the vehicle.	EL-495
Nearby Display Icons	Icons of facilities can be displayed. Facilities to be displayed can be selected from the variety selections.	EL-495
Adjust Current Location	Current location of position marker can be adjusted. Direction of position marker also can be calibrated when heading direction of the vehicle on the display is not matched with the actual direction.	EL-496
Avoid Area Setting	A particular area can be avoided when routing.	—
Beep On/Off	Beep sounds which corresponds to the system operation can be activated/deactivated.	EL-496
Clear Memory	Address book, Previous destination or Avoid area can be deleted.	EL-497
Country	When two or more countries are included in one CD-ROM disk, the destination can be selected from the country name.	EL-497



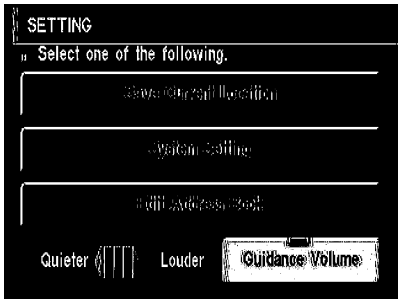
SEL618X

HOW TO PERFORM CONTROL PANEL MODE

NJEL0521S02

1. Start the engine.
2. Push “OPEN/CLOSE” switch and then open the display.
3. Push “SETTING” switch.

● For further procedures, refer to the following pages which describe each application item of the control panel mode.

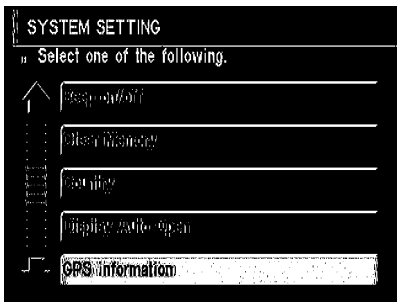


SEL619X

"DISPLAY AUTO OPEN" MODE

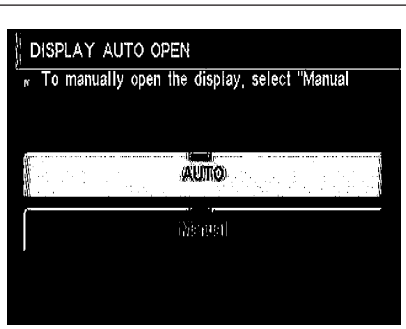
NJEL0521S03

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".



SEL620X

5. Select "Display Auto Open".



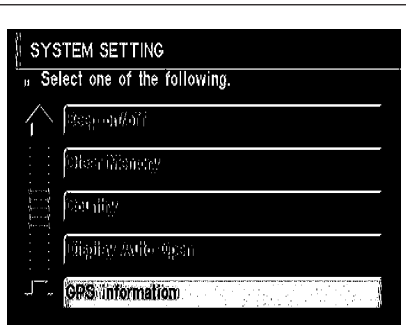
SEL621X

6. Select "Auto" or "Manual" icon.
   - To manually open the display, select "Manual".
   - To automatically open the display, select "Auto".
7. Push "MAP" switch, then the display will go back to the current location map.

"GPS INFORMATION" MODE

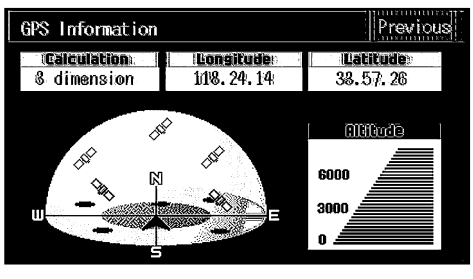
NJEL0521S04

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "GPS information".

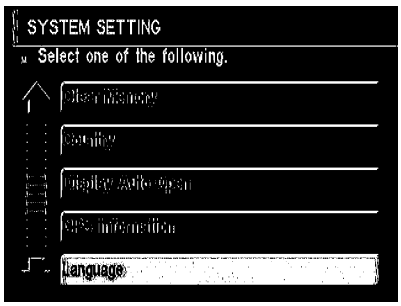


SEL559X

6. Then GPS information will be displayed.



SEL146W

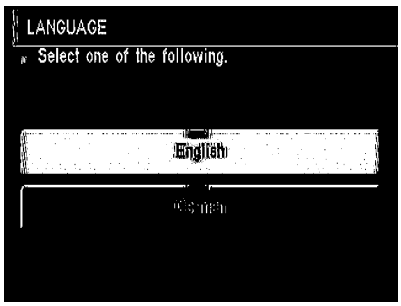


SEL565X

"LANGUAGE" MODE

=NJEL0521S05

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Language".

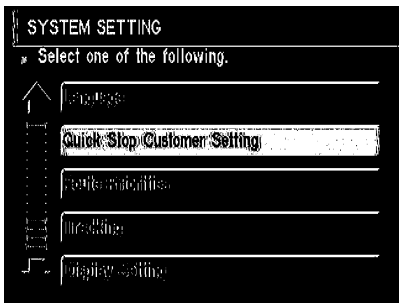


SEL566X

6. Select "English" or "German" icon.
- When display indicates English, select "English".
- When display indicates German, select "German".

7. Push "MAP" switch, then the display will go back to the current location map.

NOTE:
Use the program CD-ROM disk to change the language.

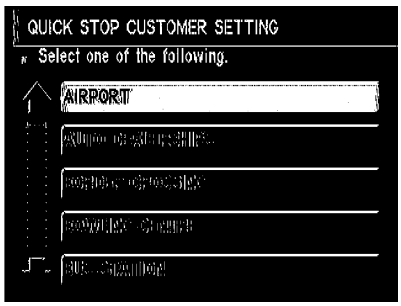


SEL543X

"QUICK STOP CUSTOMER SETTING" MODE

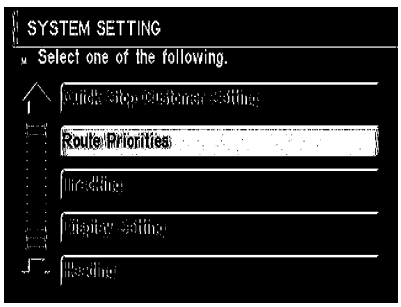
NJEL0521S06

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Quick Stop Customer Setting".



SEL544X

6. Select an item from the list.

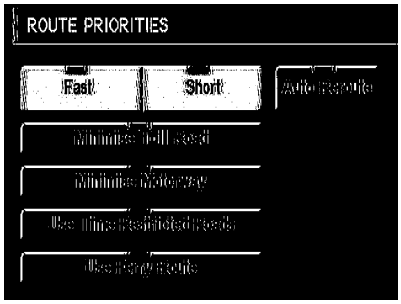


SEL545X

"ROUTE PRIORITIES" MODE

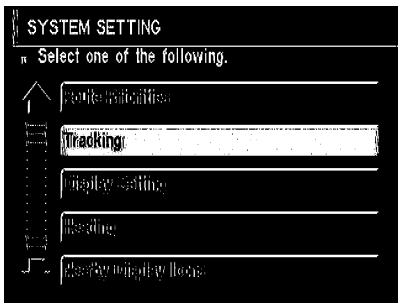
NJEL0521S07

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Route Priorities".



SEL546X

6. Select an item from the list.

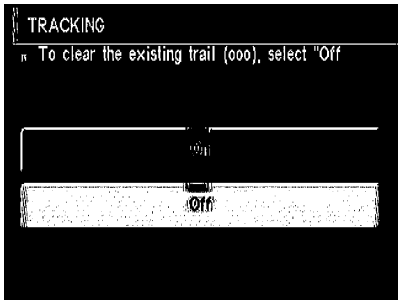


SEL547X

"TRACKING" MODE

NJEL0521S08

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Tracking".

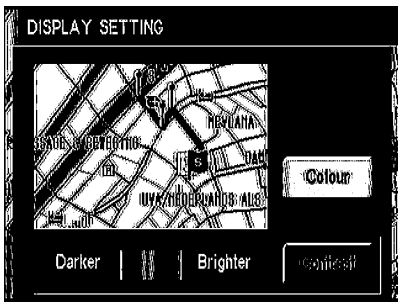


SEL548X

6. Select "On" or "Off" icon.
- To leave no trail on the map, select "Off".
- To leave a trail in the map, select "On".

7. Push "MAP" switch, then the display will go back to the current location map.

NOTE:
When a trail display is turned OFF, trail data is erased from the memory.



SEL560X

"DISPLAY SETTING" MODE

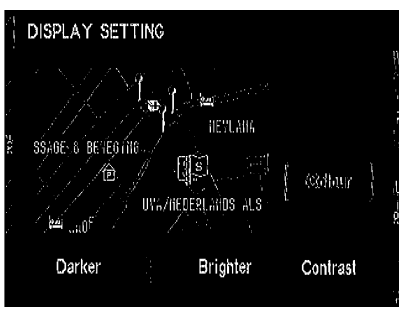
NJEL0521S09

Display Color Setting

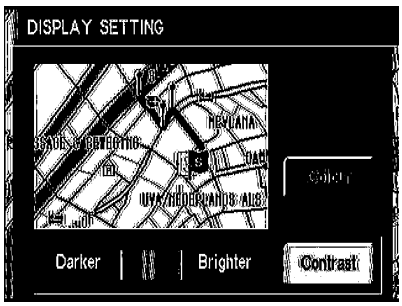
NJEL0521S0901

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Color". Display color will change to Day mode/Night mode.
6. Select "MAP" switch, then the display will go back to the current location map.

NOTE:
- **Display color can be changed independently when lighting switch is turned on and off.**
- **Initial setting of the color is as follows:**
  When lighting switch is turned off: Day mode
  When lighting switch is turned on: Night mode
  Day mode: White background
  Night mode: Black background



SEL561X



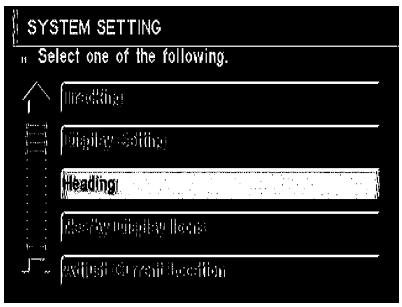
SEL562X

Brightness Setting

NJEL0521S0902

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Bright" or "Dark" to adjust the brightness of display.
6. Select "MAP" switch, then the display will go back to the current location map.

NOTE:
Display brightness can be adjusted independently when lighting switch is turned on and off.

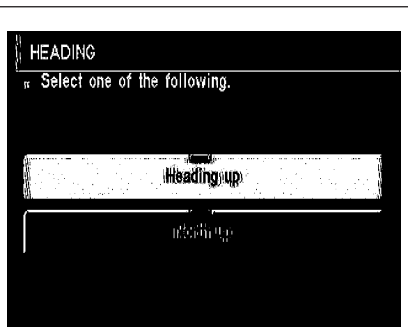


SEL549X

"HEADING" MODE

NJEL0521S10

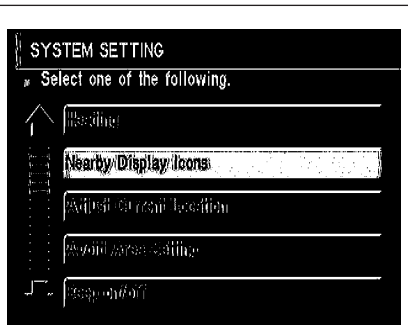
1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Heading".



SEL550X

6. Select "Heading up" or "North up" icon.
- To display North up, select "North up".
- To display the car heading up, select "Heading up".

7. Push "MAP" switch, then the display will go back to the current location map.

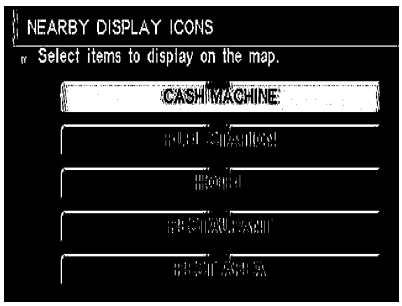


SEL551X

"NEARBY DISPLAY ICONS" MODE

NJEL0521S11

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Nearby Display Icons".

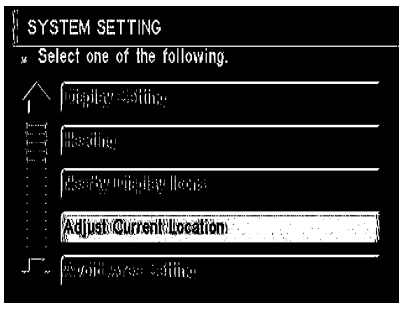


SEL552X

6. Select and touch an item on the list.
7. Push "MAP" switch, then the display will go back to the current location map.

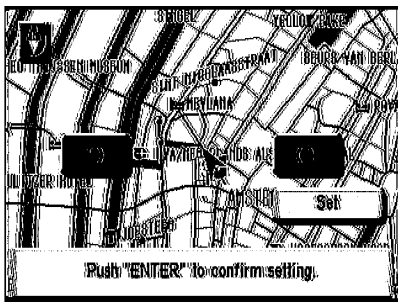
"ADJUST CURRENT LOCATION" MODE

NJEL0521S12



SEL553X

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Adjust Current Location".

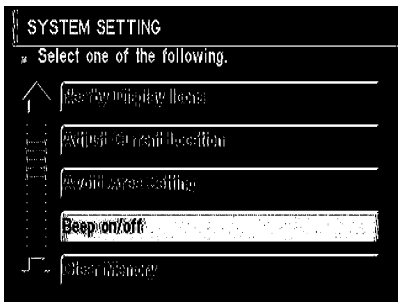


SEL554X

6. Select "↶" or "↷" to calibrate the heading direction. (Arrow marks will rotate corresponding to the calibration key.)
7. Select "Set". Then the vehicle mark will be matched to the arrow mark.
8. Display will show "Heading direction has been calibrated" and then go back to the current location map.

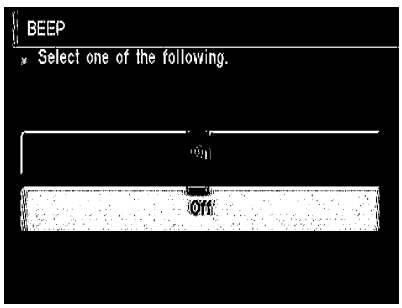
"BEEP ON/OFF" MODE

NJEL0521S13



SEL555X

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Touch "Beep On/Off".

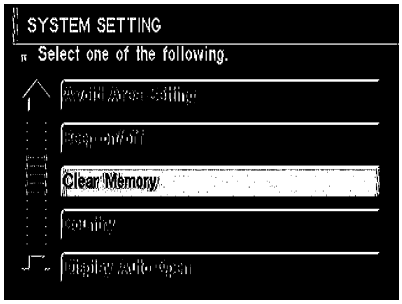


SEL556X

6. Select "On" or "Off" icon.

- If you want the beep sound, select "On".
- If you do not want the beep sound, select "Off".

7. Push "PREVIOUS" switch, then the display will go back to the current location map.

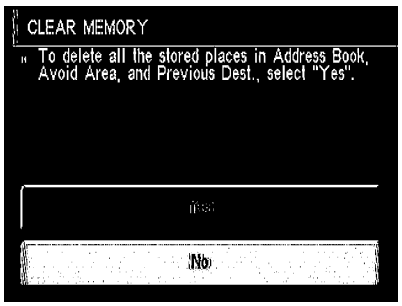


SEL557X

"CLEAR MEMORY" MODE

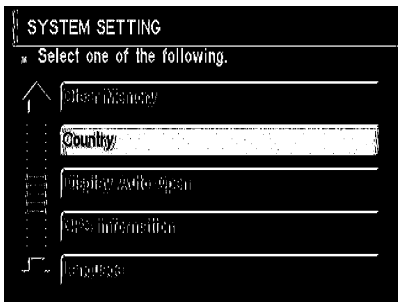
=NJEL0521S14

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Clear Memory".



SEL558X

6. To delete all the stored places in "Address Book", "Avoid Area" and "Previous Dest", select "Yes".



SEL567X

"COUNTRY" MODE

NJEL0521S15

1. Start the engine.
2. Push "OPEN/CLOSE" switch and then open the display.
3. Push "SETTING" switch.
4. Select "System Setting".
5. Select "Country".



SEL653X

6. Select and touch an item on the list.

Guide Volume Setting

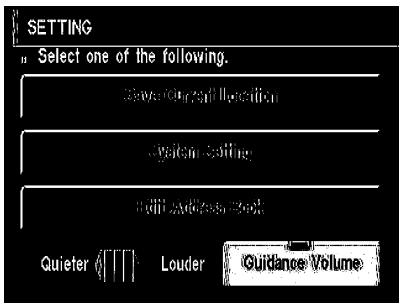
=NJEL0522

DESCRIPTION

NJEL0522S01

Following voice guidance setting can be changed.

- Voice guidance activation/deactivation
- Voice volume of the guidance

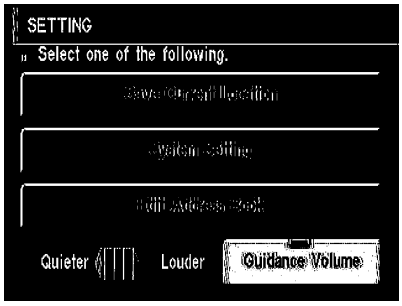


SEL563X

ACTIVATION/DEACTIVATION SETTING

NJEL0522S02

1. Start the engine.
2. Push “OPEN/CLOSE” switch and then open the display.
3. Push “SETTING” switch.
4. The voice prompt can be turned on/off by pressing the “Guidance Volume” button.



SEL563X

VOICE VOLUME SETTING

NJEL0522S03

1. Start the engine.
2. Push “OPEN/CLOSE” switch and then open the display.
3. Push “SETTING” switch.
4. Volume of the voice can be controlled by bending the joystick to left/right.

Anti-theft System

=NJEL0523

DESCRIPTION

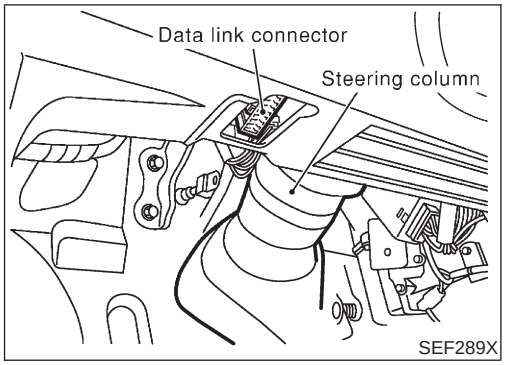
NJEL0523S03

The 4-digit PIN must be entered when the display shows “enter your PIN” at the time the vehicle is purchased.

RHD Models

NJEL0523S0301

By integrating the Navigation System in the vehicle’s interior and linking it to the vehicle’s immobilizer system, the possibility of the Navigation unit being stolen is effectively reduced. Each time the Navigation System is switched on, the Navigation System will start up communication with the vehicle’s immobilizer control unit (IMMU) and verify an identification code. If communication cannot be established, or the verified code is incorrect, the Navigation System will lock up showing “ANTI-THEFT FUNCTION” on the Navigation display.



SEF289X

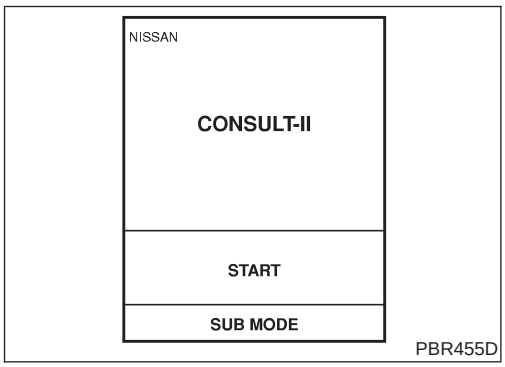
CONSULT-II

=NJEL0524

CONSULT-II INSPECTION PROCEDURE

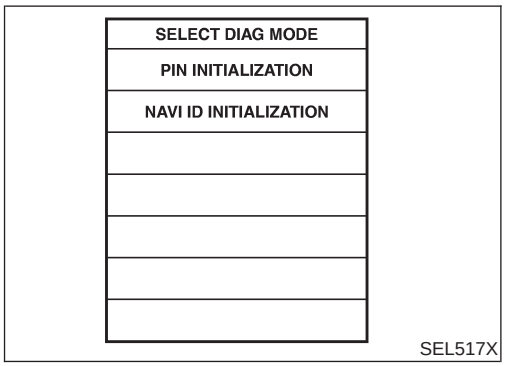
NJEL0524S01

1. Turn ignition switch OFF.
2. Connect CONSULT-II to data link connector.



PBR455D

3. Insert NATS program card into CONSULT-II.
   ⬅ : Program card
   NATS-AEN00A
4. Turn ignition switch ON.
5. Touch “START”.



SEL517X

6. Perform each diagnostic test mode according to each service procedure.

For further information, see the CONSULT-II Operation Manual, NATS.

CONSULT-II DIAGNOSTIC TEST MODE FUNCTION

NJEL0524S02

CONSULT-II DIAGNOSTIC TEST MODE	Description
PIN INITIALIZATION	Navigation system will be locked when the vehicle’s owner enters the wrong PIN five consecutive times. To release the lock, use “PIN INITIALIZATION”.
NAVI ID INITIALIZATION	In normal times regulation codes are being communicated between Navigation Control Unit and Dongle Control Unit. Use “NAVI ID INITIALIZATION” to match the codes when either one has been replaced due to breakdown or etc.

NOTE:
When any initialization is performed, all NAVI ID and PIN previously registered will be erased and then must be registered again.

Trouble Diagnoses

SYMPTOM CHART

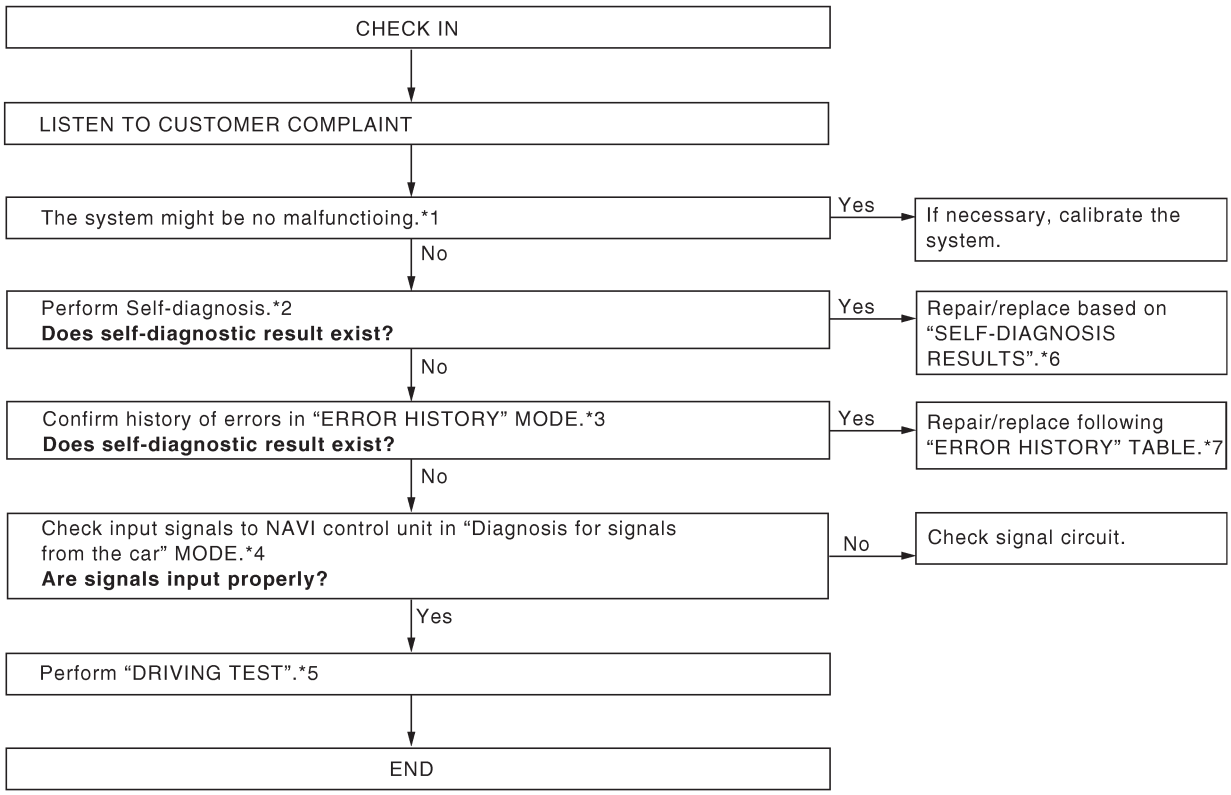
=NJEL0525

NJEL0525S01

Symptom	Diagnoses/service procedure	Reference page
Any function of the system does not operate.	Check power supply and ground circuit for NAVI control unit.	EL-504
Strange screen color or unusual screen brightness.	1. Check “Display Setting” MODE.	EL-494
	2. Check display in “Diagnose the Display” MODE.	EL-485
The display is not dimmed when turning lighting switch to ON.	1. Check “Display Setting” MODE.	EL-494
	2. Check lighting switch signal input to NAVI control unit correctly in “Diagnosis for the signals from the car” MODE.	EL-483
No navigation guide voice are heard from front driver side speaker.	1. Check “Guide Volume Setting”.	EL-498
	2. Check speaker relay.	EL-505
Beep does not sound when the system guides route.	Check “Beep On/Off” MODE.	EL-496
Position marker does not trace along the route being traveled.	Go to “WORK FLOW FOR NAVIGATION INSPECTION”.	EL-502
Position marker does not indicate forward or backward movement.	Check reverse signal input to NAVI control unit correctly by “Diagnosis for the signals from the car” MODE.	EL-483
Radio wave of GPS cannot be received. (GPS marker on the display does not become green color.)	1. Is there anything obstructing the GPS antenna on the rear parcel finisher? (GPS antenna located under the rear parcel finisher.)	—
	2. Check GPS radio wave receive condition in “GPS Information MODE”.	EL-492
	3. Check GPS antenna in “Self Diagnosis” MODE.	EL-477
Heading direction of position marker does not match vehicle direction.	1. Perform “Adjust Current Location” MODE.	EL-496
	2. Go to “WORK FLOW FOR NAVIGATION INSPECTION”.	EL-502
Stored location in the address book and other memory functions are lost when battery is disconnected or becomes discharged.	Stored location in the address book and other memory functions may be lost if the battery is disconnected or becomes discharged. If this should occur, charge or replace the battery as necessary and re-enter the information.	—
Map appears grey and cannot be scrolled.	The current location in the memory is out of the map data area. Perform “Initialize Location”.	EL-489

WORK FLOW FOR NAVIGATION INSPECTION

=NJEL0525S02



SEL519X

*1: EL-507
*2: EL-476
*3: EL-479
*4: EL-483
*5: EL-503
*6: EL-478
*7: EL-481

DRIVING TEST

=NJEL0525S03

During the driving test, diagnose the system by checking the difference of symptoms with each sensor ON or OFF.

Test Pattern 1

NJEL0525S0301

Test method in which current position adjustment is not made according to GPS data.

- Remove the GPS antenna connector from the NAVI control unit. Drive the vehicle.
  Before driving the vehicle, perform "Adjust Current Location" MODE (EL-496).

Test Pattern 2

NJEL0525S0302

Test procedure in which map matching is not used.

- Before driving the vehicle, perform "Adjust Current Location" MODE (EL-496). With the ignition switch OFF and the map CD-ROM removed from the NAVI control unit, drive the vehicle. After driving the vehicle, reinstall the map CD-ROM. Compare the saved driving tracks for the vehicle's current location with roads on the map.

Example

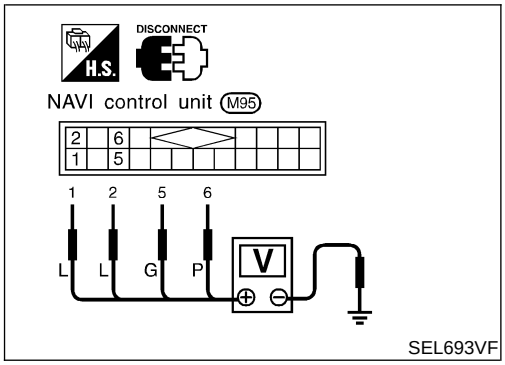
NJEL0525S0303

<The position marker consistently indicates the wrong position when driving in the same area. Determine if this is the result of the map matching function or the GPS function.>
→ Perform test pattern 1.
<To verify the accuracy of the road configuration shown on the display>
→ Perform test patterns 1 and 2.

- Compare the map and the saved driving tracks. The precision of the saved driving tracks is within several hundred meters.

<To make distance calibration and adjustments>
→ Perform test patterns 1 and 2.

- Make adjustments by driving the vehicle over a known course (highway or other road where distances are clearly marked). Calibrate the distance against the known distance. Use the formula below.
  Calibration value = Screen display distance/Actual distance



POWER SUPPLY AND GROUND CIRCUIT CHECK FOR NAVI CONTROL UNIT

=NJEL0525S04

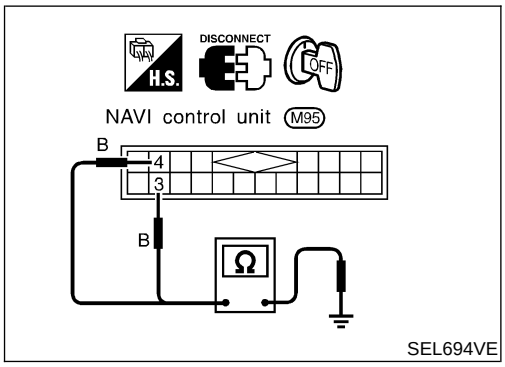
Power Supply Circuit Check

NJEL0525S0401

Terminal		Ignition switch		
(+)	(−)	OFF	ACC	ON
1	Ground	Battery voltage	Battery voltage	Battery voltage
2	Ground	Battery voltage	Battery voltage	Battery voltage
5	Ground	0V	0V	Battery voltage
6	Ground	0V	Battery voltage	Battery voltage

If NG, check the following.

- 10A fuse [No. 1, located in the fuse block (J/B)]
- 10A fuse [No. 10, located in the fuse block (J/B)]
- 15A fuse [No. 32, located in the fuse block (J/B)]
- Harness for open or short between fuse and NAVI control unit



Ground Circuit Check

NJEL0525S0402

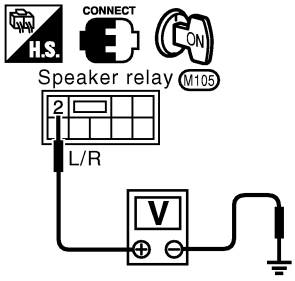
Terminals	Continuity
3 - Ground	Yes
4 - Ground	Yes

SPEAKER RELAY CHECK

=NJEL0525S05

1	CHECK RELAY ON SIGNAL

1. Push "VOICE" button.
2. Check voltage between speaker relay terminal 2 and ground.



Condition	Voltage (V)
When volume adjustment icon is touched.	Approx. 5 (for 3 sec.)
Other than above.	0

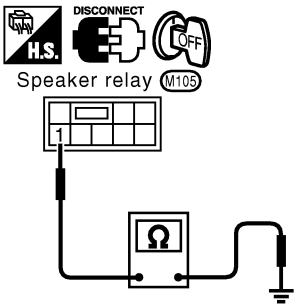
SEL622XA

OK or NG

OK	▶	GO TO 2.
NG	▶	Check harness for open or short between NAVI control unit terminal 46 and speaker relay terminal 2.

2	CHECK GROUND CIRCUIT FOR SPEAKER RELAY

1. Disconnect speaker relay.
2. Check continuity between speaker relay terminal 1 and ground.



Does continuity exist?

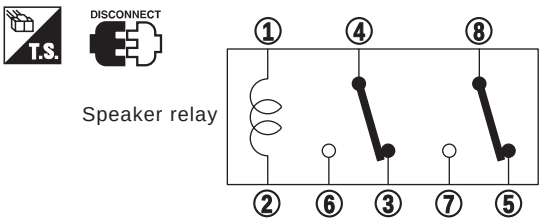
SEL623XA

OK or NG

OK	▶	GO TO 3.
NG	▶	Repair harness.

3	CHECK SPEAKER RELAY

Check continuity speaker relay terminals in the condition below.



Condition	Terminal ③	④	⑤	⑥	⑦	⑧
5V direct current applied between terminal ① and ②					○	○
		○		○		
Other than above			○			○
	○	○				

SEL624X

OK or NG

OK	▶	GO TO 4.
NG	▶	Replace speaker relay.

4	CHECK SPEAKER OPERATION

Does front LH speaker sound when audio operates?

Yes or No

Yes	▶	Check harness for open or short between speaker relay terminals 6, 7 and also between NAVI control unit terminals 42 and 43.
No	▶	Check the following. ● Speaker ● Harness for open or short between audio and speaker relay

This Condition Is Not Abnormal

=NJEL0526

EXAMPLE OF BASIC OPERATIONAL ERRORS

NJEL0526S01

Symptom	Possible cause	Repair order
No image is displayed.	Monitor brightness control is set to full dark.	Readjust monitor brightness.
Map does not appear on display.	Map CD is not inserted or inserted upside down.	Insert the map CD with the label facing up.
	Map mode is turned OFF.	Press the “MAP” button.
No guide tone is heard.	Voice guide adjustment OFF/Volume is set to the lowest or highest level.	Adjust the voice guide level.
Voice guide volume is too high or too low.		
Dark display/Slow image movement	Low vehicle interior temperature	Wait until vehicle interior temperature rises to appropriate level.
Small black or white dots appear on the screen.	Unique liquid crystal display phenomena	No problem
“Unable to read CD” message appears only during specified operation.	Map CD surface is tainted/CD surface is partially scratched.	Check map CD surface. If dirty, wipe clean with a soft cloth.
		If map CD surface is damaged, replace the CD.

Area place names are not displayed.

If area place names do not appear on the map display, these names may not be available. Use the BIRDVIEW® flat surface map display function. Display output may differ. Note the items related to BIRDVIEW® below.

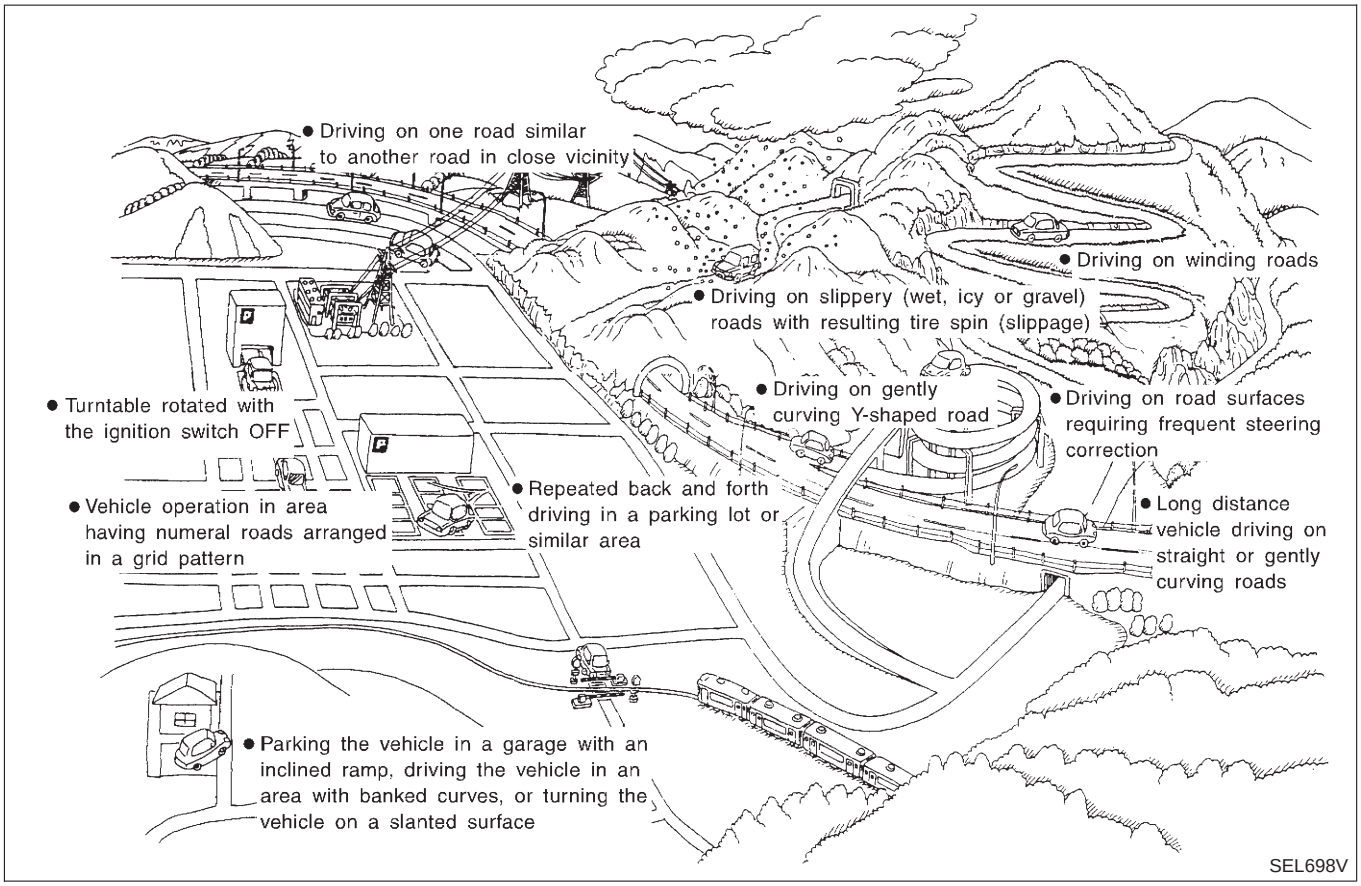
- Priority is given to the display of place names in the direction of vehicle travel.
- Extended display of vehicle travel distance for both surfaces and steering angle (flat directional changes). This phenomenon disappears after the display image has been replaced by another one.
- The names of route and area might vary between the immediate front area and distance front area.
- Alphanumeric display characters are limited to maintain display simplicity and clarity. Display details may differ with time and place.
- Identical place and road names may appear on the display at more than one location.

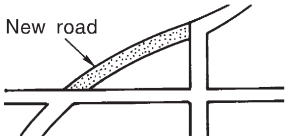
This Condition Is Not Abnormal (Cont'd)

EXAMPLE OF CURRENT VEHICLE POSITION MARKER ERROR

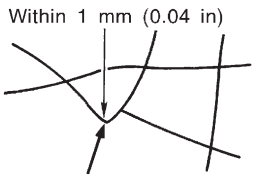
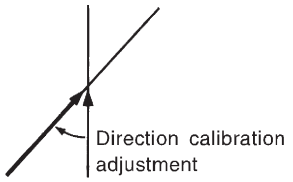
=NJEL0526S02

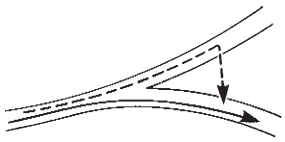
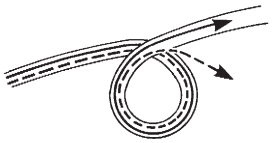
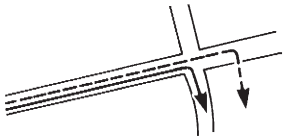
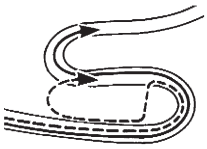
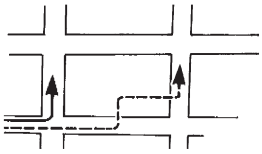
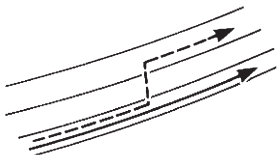
The navigation system reads the vehicle distance and steering angle data. Because the vehicle is moving, there will be an error in the current position indication. After the error appears, drive the vehicle for a short distance. Stop the vehicle. If the position marker does not return to its original position, perform "Adjust Current Location" MODE (EL-496).



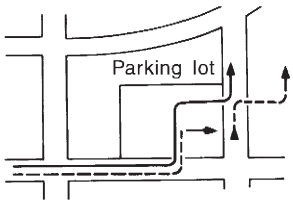
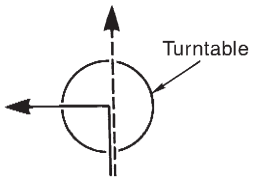
Possible cause		Drive condition	Service procedure
Area	Slippery road surface	On wet, icy, or gravel road where frequent wheel slippage occurs, distance calculations may be erroneous. The position marker may show the vehicle to be in inaccurate position.	If the position marker does not move to the correct position even after the vehicle has been driven approximately 10 km (6 miles), perform "Adjust Current Location" MODE (EL-496). If necessary, perform "Speed Calibration" (EL-488).
	Slanted area	Hilly areas where the road has banked curves. When the vehicle enters these banked curves, there may be an error in steering angle measurement. The position marker may show the vehicle to be in inaccurate position.	
Map data	Map display for a given road does not appear.  SEL699V	When the vehicle is driven on a newly constructed road that does not appear on the existing map. Map marking and calibration are not possible. The position marker may indicate inaccurate position in close proximity to the actual position. Subsequently, when the vehicle is driven on a road which is available as map data, the position marker may still indicate an inaccurate position.	
	The vehicle is driven on a road whose course has been altered (usually to improve the road or to eliminate some hazard).  SEL700V	When the map data shown on the display and the actual conditions are different. Map matching will not be possible. The position marker may indicate inaccurate position in close proximity to the actual position. If the vehicle is driven on the indicated road, further errors may occur.	
Vehicle	Use of tire chains (Stormy weather)	Tire chains will affect distance sensing. The position marker may indicate inaccurate position.	If the position marker does not move to the correct position even after the vehicle has been driven approximately 10 km (6 miles), perform "Speed Calibration" (EL-488). After removing the tire chains, sensing accuracy may recover by itself.

This Condition Is Not Abnormal (Cont'd)

Possible cause		Drive condition	Service procedure
Operation	Driving immediately after starting engine.	The gyro (angular velocity sensor) needs about 15 seconds after the engine is started to precisely sense the angular velocity. Directional sensing errors will occur if the vehicle is moved immediately after starting the engine. The position marker may indicate inaccurate position.	Wait a few moments between starting the engine and actually driving the vehicle.
	Continuous driving for long distances (non-stop)	When the vehicle is driven continuously without stopping over a long distance, errors in directional sensing may occur. The position marker may indicate inaccurate position.	Stop the vehicle. Perform "Speed Calibration" (EL-488).
	Rough or violent driving	Wheel spinning (peeling out) or similar rough driving techniques can adversely affect sensing accuracy. The position marker may indicate inaccurate position.	If the position marker does not move to the correct position even after the vehicle has been driven approximately 10 km (6 miles), perform "Adjust Current Location" MODE (EL-496).
Positional calibration procedures	Positional calibration precision  SEL701V	If current vehicle location is roughly set, the system may be unable to locate the road that the vehicle is traveling on. (This is especially true in an area where there are many roads.)	Perform "Adjust Current Location" MODE (EL-496) within a precision standard of 1 mm (0.04 in) on the display. **NOTE:** During calibration, use the most detailed map possible.
	Position calibration direction  SEL702V	When calibrating the position, check the vehicle direction. If the vehicle direction is not correct, subsequent precision of current location will be affected.	Perform "Adjust Current Location" MODE, refer to EL-496.

Possible cause: —: Vehicle running ---: Indication		Drive condition	Service procedure
Road shapes	Y-intersection  SEL703V	In Y-intersections with a very gradual change in course, a directional sensing may be inaccurate. This may result in the position marker giving the wrong road indication.	If the position marker does not move to the correct position even after the vehicle has been driven approximately 10 km (6 miles), perform "Store place". If required, also perform "Adjust Current Location" MODE (EL-496).
	Spiral road  SEL704V	On loop bridges and similar structures which result in a large and continuous turn, turning angle may be sensed inaccurately. As a result, the position marker may separate from the route on the map.	
	Straight road  SEL705V	In long distance driving on a straight road or road with very gradual curves, map marking inaccuracies may occur. In such cases, the position marker may stray from the route being traveled during subsequent turns due to inaccurate distance calculation.	
	Winding road  SEL706V	Directional sensing precision errors may occur when traveling on winding roads. During map matching, the position marker may stray to an adjacent road having a similar shape. Subsequent position marker error may occur.	
	Grid-like road shape  SEL707V	Directional sensing and distance sensing, precision errors may occur because of many roads having a similar shape in the immediate area. During map matching, the position marker may stray to an adjacent road having a similar shape. Subsequent position marker error may occur.	
	Parallel roads  SEL708V	When driving on a parallel road, map matching errors may occur. Subsequent position marker error may also occur.	

This Condition Is Not Abnormal (Cont'd)

	Possible cause: —: Vehicle running ---: Indication	Drive condition	Service procedure
Location	Parking lot or similar area  SEL709V	When the vehicle is driven in a parking lot or similar area, such as in an area not normally marked as a road on map, during map matching, the system may select nearby roads. This error may continue after the vehicle exits the parking area and begins to run on ordinary roads. Vehicle operation in a parking area may involve frequent turns and up and/or down operation. Directional sensing errors may occur leading to subsequent route and position mistakes.	If the position marker does not move to the correct position even after the vehicle has been driven approximately 10 km (6 miles), perform "Store place". If required, also perform "Adjust Current Location" MODE (EL-496).
	Turntable  SEL710V	When the ignition switch is OFF (the usual situation when the vehicle is on a turntable), the navigation system receives no data from the gyro (angular velocity sensor). When the turntable rotates, no directional change is sensed. During subsequent vehicle operation, directional and route errors may occur.	

Position marker displays a completely different location

In circumstances such as those described below, GPS signal reception conditions may result in an erroneous position of the position marker. Perform "Adjust Current Location" MODE (EL-496).

NOTE:

- When GPS satellite signal reception conditions are poor, the position of position marker may be erroneous. If correction is not made immediately, the position marker error will be compounded and a completely different location will be indicated. In an area where GPS satellite signal reception conditions are good, the system can be returned to normal operation.
- The vehicle is driven aboard a car ferry or is towed for some distance with the ignition switch OFF. Vehicle movement is not sensed. Current location calculations do not occur and current location data does not appear on the display screen. Use GPS to accurately determine actual vehicle position. The system can be returned to normal operation when the GPS satellite signal reception conditions are good.

Position marker jumps

In circumstances such as those described below, the position marker may jump as a result of automatic current location corrections made by the system.

During map matching

- During map matching, the position marker may jump from one spot to another. In this case, it may be corrected to a wrong road or to an area where no road exist.

GPS location correcting

- Vehicle current location is sensed using the GPS data. Positional calibration is performed. The position marker continues to be in the wrong position. It may jump about from one area of the screen to another. In this case, it may be corrected to a wrong road or to an area where no road exist.

Position marker indicates that the vehicle is in the middle of an ocean or large river

The navigation system does not distinguish between land and water surfaces. In some cases, a position marker error may cause the display to show the vehicle above a water surface.

Position of position marker varies when the vehicle is repeatedly operated on the same road

Driving lane and steering wheel movement results in a variety of different positions of the position mark when traveling on the same road based on sensing results by the GPS antenna and gyro (angular velocity sensor).

Slow locational correction using map matching

- The map matching function requires verification of local data. To make the map matching function, some distance needs to be driven.
- The map matching function may not provide accurate performance in an area where there are numerous parallel roads. Until the system judges the road characteristics, an incorrect position may be shown.

GPS signal reception conditions are good. However, the position mark does not return to its proper position.

- The system senses the vehicle location with an error of approximately 100 m (328 ft). Due to the limitation of precision, the position marker may be inaccurate even if the GPS signal reception condition is good.
- The navigation system uses GPS data to determine vehicle location. GPS data is compared with other locational sensing data during the map matching process. The system decides which data is more precise and uses that data.
- When the vehicle is stationary, GPS data cannot be used to make system corrections.

Area designations on the map display and the BIRDVIEW® display differ.
To prevent the display from becoming congested, alphanumeric information is abridged.
[No problem]
Correct position of your vehicle is not displayed.
Vehicle position changed after ignition key was turned to the OFF position (Vehicle is transported on car ferry, car train, or by some other means).
[Operate vehicle for short time under GPS receiving conditions.]
The display does not change to night-time mode even though the light switch has been turned ON.
Lights have been turned on. In "DISPLAY CHANGE" mode, night-time mode on display has been switched to day-time mode and still is.
[Turn lights on again. Set the display to night-time mode. Refer to EL-494.]
Map does not scroll even though the position of your vehicle is changed.
Present area does not appear on the display.
[Press the "MAP" switch.]
Vehicle position marker does not appear.
Present area does not appear on the display.
[Press the "MAP" switch.]
The map surface precision display (GPS satellite marker) still remains gray.
Vehicle is parked inside a building or in the shadow of a large building. This intercepts the GPS signal.
[Move the vehicle to a more open position.]
GPS signal is not received because objects are placed on the rear parcel shelf.
[Remove objects from the rear parcel shelf.]
GPS satellite position is bad.
[Wait until GPS satellite position improves.]
Vehicle position precision is bad.
The map surface precision display (GPS satellite marker) still remains gray.
[Refer to "The map surface precision display (GPS satellite marker) still remains gray" item (Symptoms)]
Vehicle speed and elapsed distance is calculated from the vehicle speed pulse. This pulse is dependent upon tire size. If tire chains are used on the vehicle, accuracy will be affected (pulse rate will be too fast or too slow). The same is true if the system installed to your vehicle is removed and installed on another vehicle.
[Drive the vehicle at a speed higher than 30 km/h (19 MPH) for approximately 30 minutes. Automatic readjustment should occur. If it does not (remains too fast or too slow), distance calibration is required. Or, drive the vehicle for a short distance. Perform "SPEED CALIBRATION" (EL-488). After removing the tire chains, sensing accuracy may recover by itself.]
Bad map data or system defect (same error consistently occurs in the same area)

ROUTE SEARCH/ROUTE GUIDE

NJEL0526S03

- If the present location or the destination location is displayed in the avoid area, it is not possible to search routes.
- If the avoid area is set to wide range area, it may not be possible to find appropriate routes or search for alternate routes.
- The automatic re-route calculates a return to the original route. Because of this, it may not be possible to search appropriate new routes. If you deviate from the original route and wish to select an appropriate new route, touch "Route Calculation".
- The automatic re-route function may sometimes require considerable time.
- Displayed route number and directional information at a highway junction may differ from the information posted on the actual road signs.
- Displayed street name information at a highway exit may differ from the information posted on the actual road signs.
- Street name information displayed on the enlarged intersection map may differ from the information posted on the actual road signs.

This Condition Is Not Abnormal (Cont'd)

- The enlarged intersection map may display an "Unknown street" message at some street intersections.
- Because of road configuration, etc. the guide may finish early. If this occurs, follow the marker to reach your destination.
- Destination area side information (left side and right side) may differ from actual conditions because of data error.

Unable to Set Destination, Way Point, and/or menu items

NJEL0526S0301

Symptom	Possible cause	Repair order
Unable to search way points in re-search mode	A way point already crossed or determined to have been crossed.	If you desire to pass through a way point for a second time, reperform route edit.
Turn list is not displayed.	Route search does not occur.	Set designation areas and perform route search.
	Car marker does not appear on recommended route.	Drive on the recommended route.
	Route guide is canceled.	Turn the route guide ON. (Push "VOICE" switch)
Automatic search does not function.	Vehicle is not running on search object route (road indicated by orange, brown or red line).	Drive the vehicle on the search object route or perform a manual route search. Note that all routes will be re-searched at this time.
Unable to select detour route.	Vehicle is not running on recommended route.	Use the "RE-ROUTE" mode to search again or return to the recommended route.
Detour route search results are identical to previous search.	All possible conditions were considered, but results are the same.	This is not abnormal.
Unable to set a way point.	More than five way points have been previously set (and not cleared).	More than five way points cannot be specified at the same time. Break down into smaller segments and perform search.
Unable to select starting point during route edit.	Starting point will normally be your present location during route edit.	This is not abnormal.
Cannot select certain menu items.	While vehicle is running.	Park the vehicle in a safe area and perform operation.

Voice Guide Information

NJEL0526S0302

Symptom	Possible cause	Repair order
Voice guide does not function.	Voice guide is only available at certain intersections (marked with ⚲). In some cases, the guide is not available even when the vehicle makes a turn.	This is not abnormal.
	Vehicle is not running on recommended route.	Return to recommended route or reperform route search.
	Voice guide is OFF.	Set voice guide to the ON position.
	Route guide is canceled.	Turn the route guide ON.
The guide content does not correspond to actual conditions.	The content of the voice guide may vary depending on the type of junction.	Operate vehicle following the traffic rules and regulation.

Route Search Information

NJEL0526S0303

Symptom	Possible cause	Repair order
Proceeding in desired direction. However, route search in desired direction does not function.	Unable to find appropriate route in the desired direction.	This is not abnormal.

This Condition Is Not Abnormal (Cont'd)

Symptom	Possible cause	Repair order
No route is displayed.	No object route is searched near destination area.	Adjust position to wide road (brown) near destination area. In an area where traffic direction is displayed separately, pay close attention to the direction of travel. Set the destination area and the way point over the road.
	Starting point and destination areas are very near.	Move destination areas away from starting point on the screen.
Recommended route which has been passed disappears from the display.	The recommended route is divided into individual control segments. When way point 1 is passed, the data from the starting point to the way point 1 is erased.	This is not abnormal.
Search recommends roundabout route.	There may be special conditions for roads near the starting point and destination area (one-way traffic, etc.). A roundabout route may be displayed.	Slightly change starting point and destination area settings.
Landmark display does not show actual conditions.	Mistaken or missing map data may result in erroneous display.	Change map CD.
Recommended route drawn slightly away from starting point, way points, and destination area.	Course search data may not exist for closely positioned starting point, way points, and destination area shown on the map. Route guide starting point, way point, and destination point may be separated.	Set the destination area to the general route (indicated by a thick brown line). However, even if the selected route is a major one, appropriate route search data may not be available.

LOCATION OF CAR MARKER

NJEL0526S04

- If the vehicle has been parked in a multi-level parking facility or underground parking facility, the car marker position may be inaccurate immediately after exiting the parking facility.
- The GPS accuracy is within ±100 m (300 ft). Even when receiving conditions are excellent, further positional correction may not occur.

STREET INDICATION

NJEL0526S05

- Street names displayed on the map may differ from the actual street names.
- An "Unknown street" message may appear on the map in place of street name information.

RESEARCH

NJEL0526S06

- Position may be searched by house number. However, the displayed position and street may differ from the actual position and street.
- When position is searched using POI, the displayed position may differ from the actual position.
- Some data may not be available for new buildings and other structures in a map.

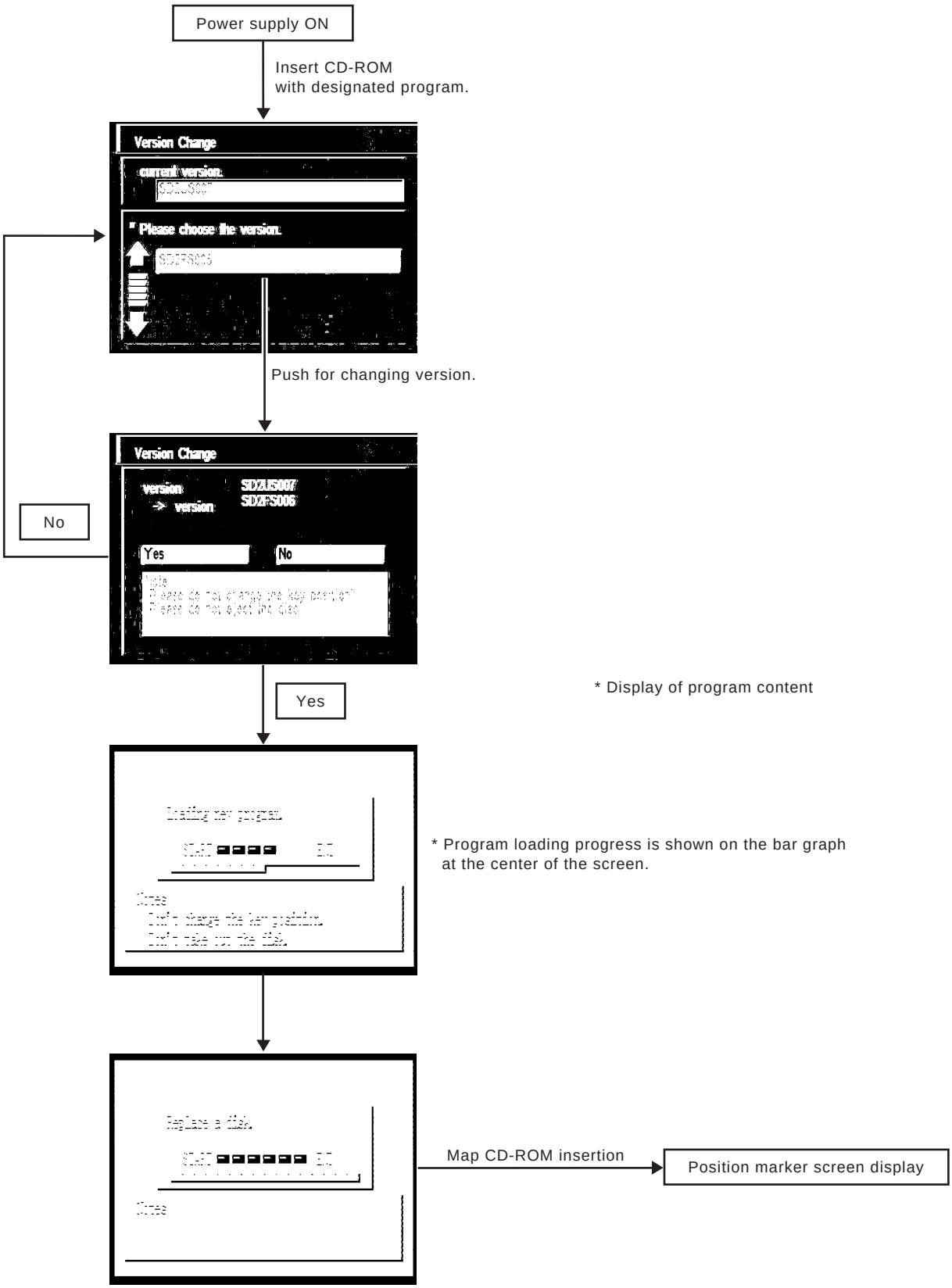
GPS ANTENNA

NJEL0526S07

- Do not place metal objects above the GPS antenna mounted on the rear parcel shelf. This will cause interference with signal reception.
- Do not place mobile telephones or vehicle radio transceivers in close proximity to the GPS antenna mounted on the rear parcel shelf. This may cause interference with signal reception.

Program Loading

NJEL0527

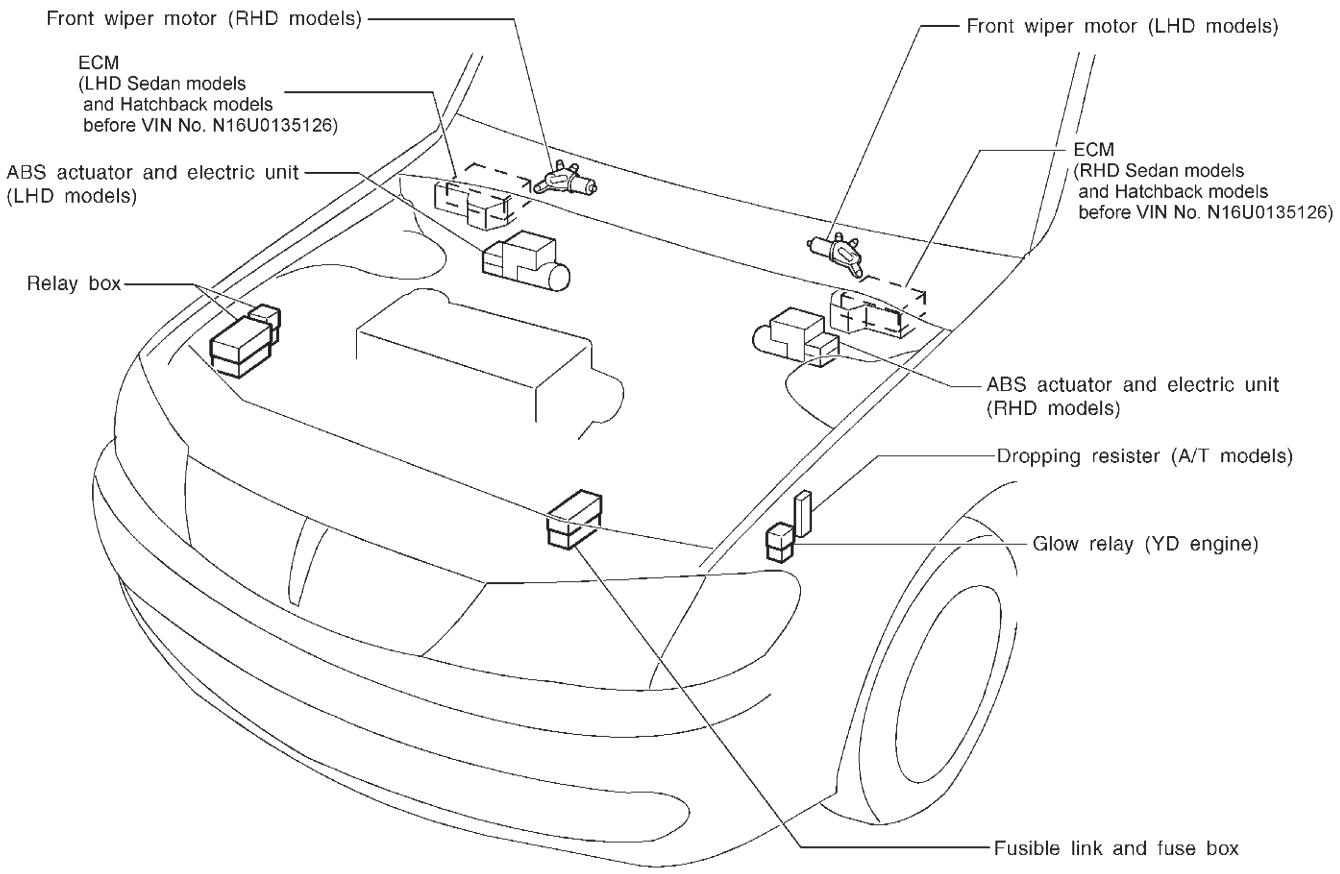


Note: Load the program only after the engine has been started.

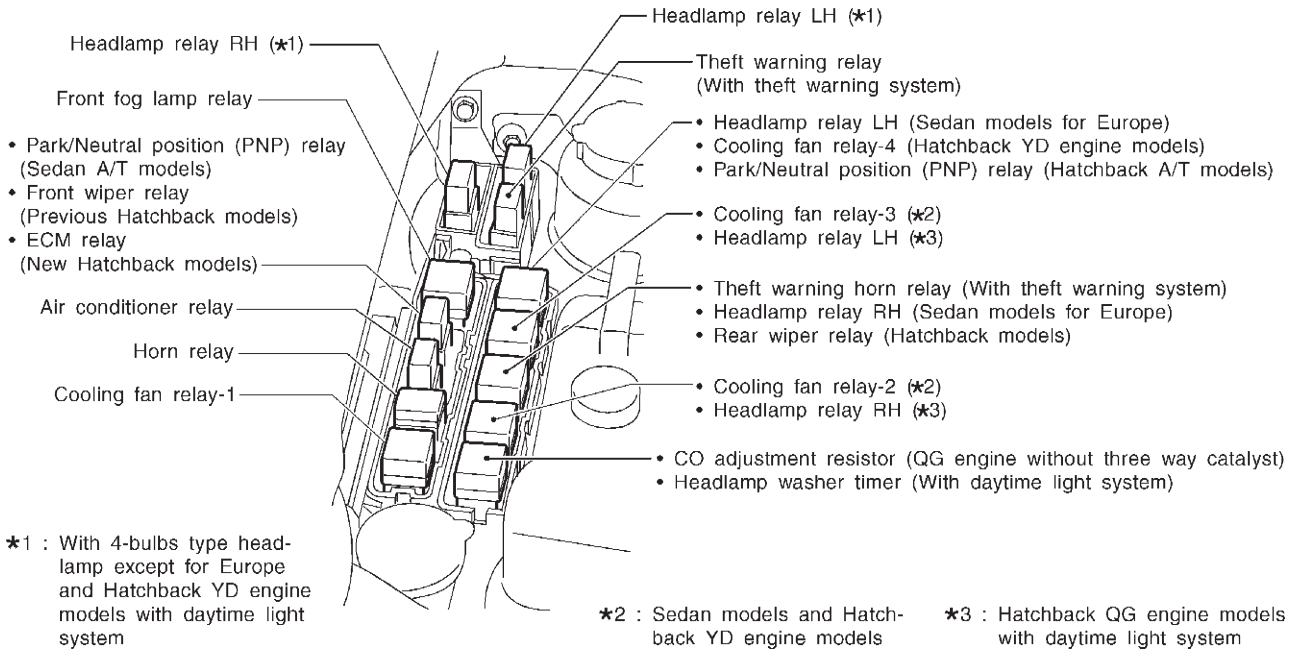
SEL564X

Engine Compartment

NJEL0129



RELAY BOX



*1 : With 4-bulbs type headlamp except for Europe and Hatchback YD engine models with daytime light system

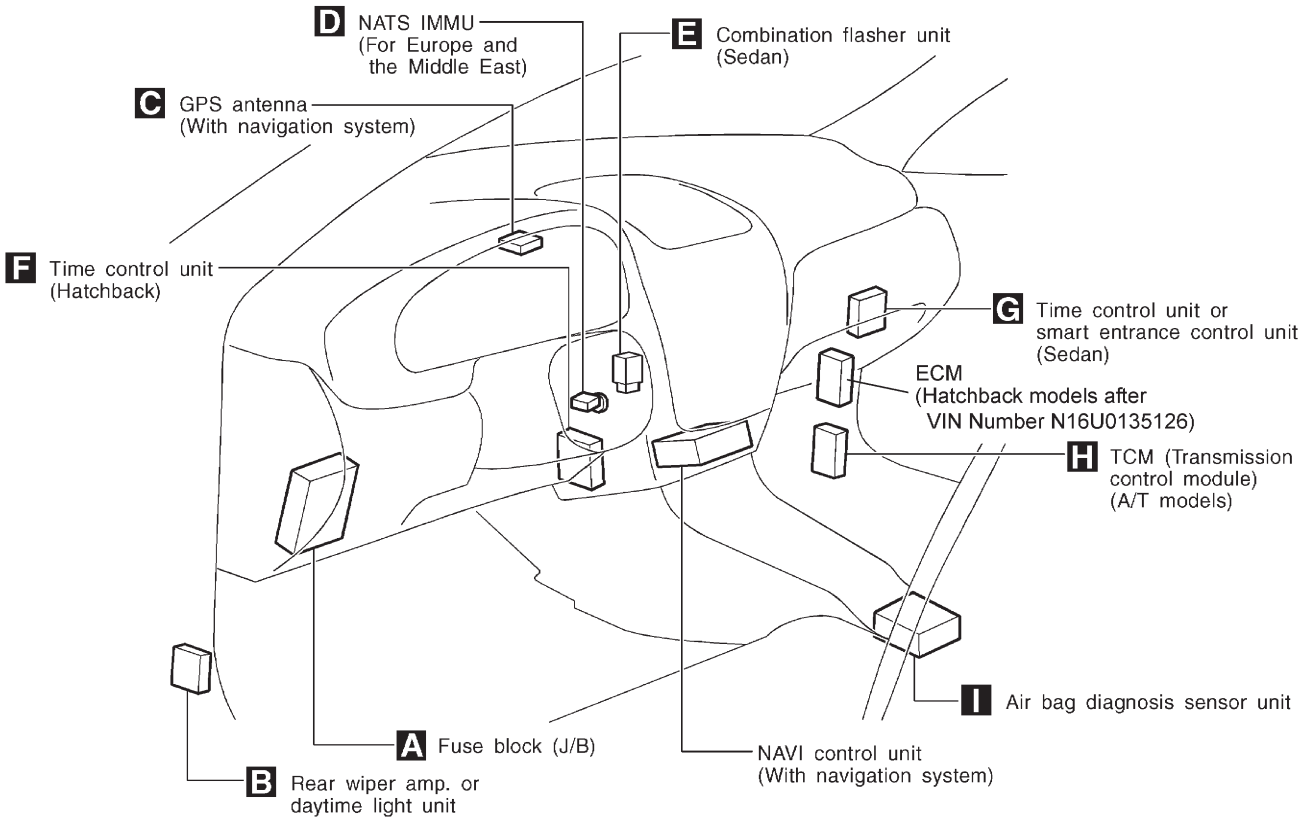
*2 : Sedan models and Hatchback YD engine models

*3 : Hatchback QG engine models with daytime light system

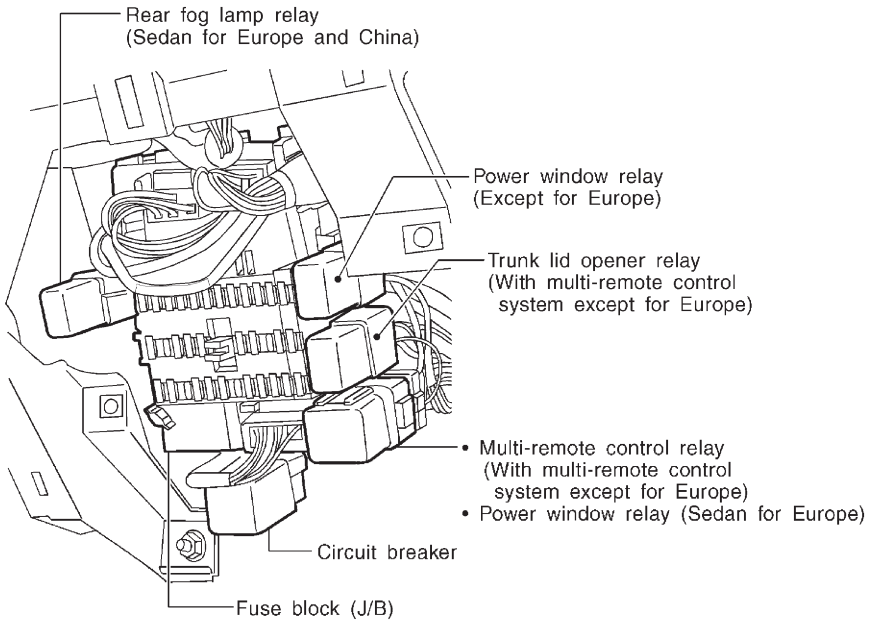
NEL828

Passenger Compartment/LHD Models

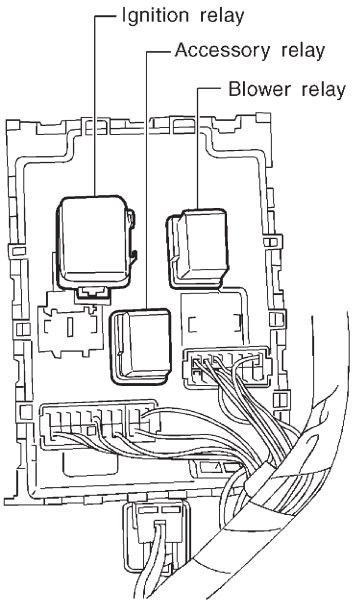
NJEL0130



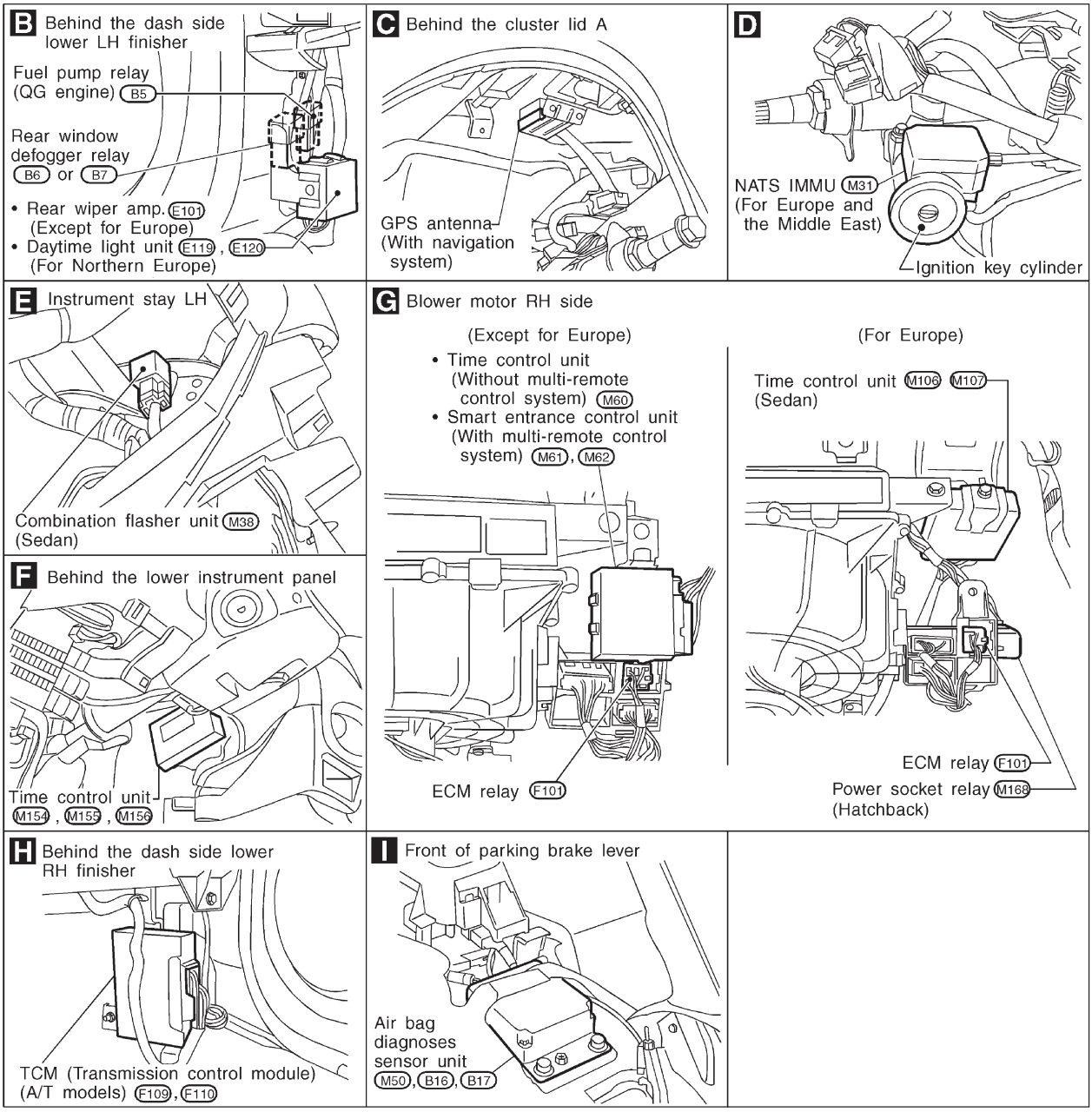
A Instrument panel LH side



The back of the fuse block (J/B)



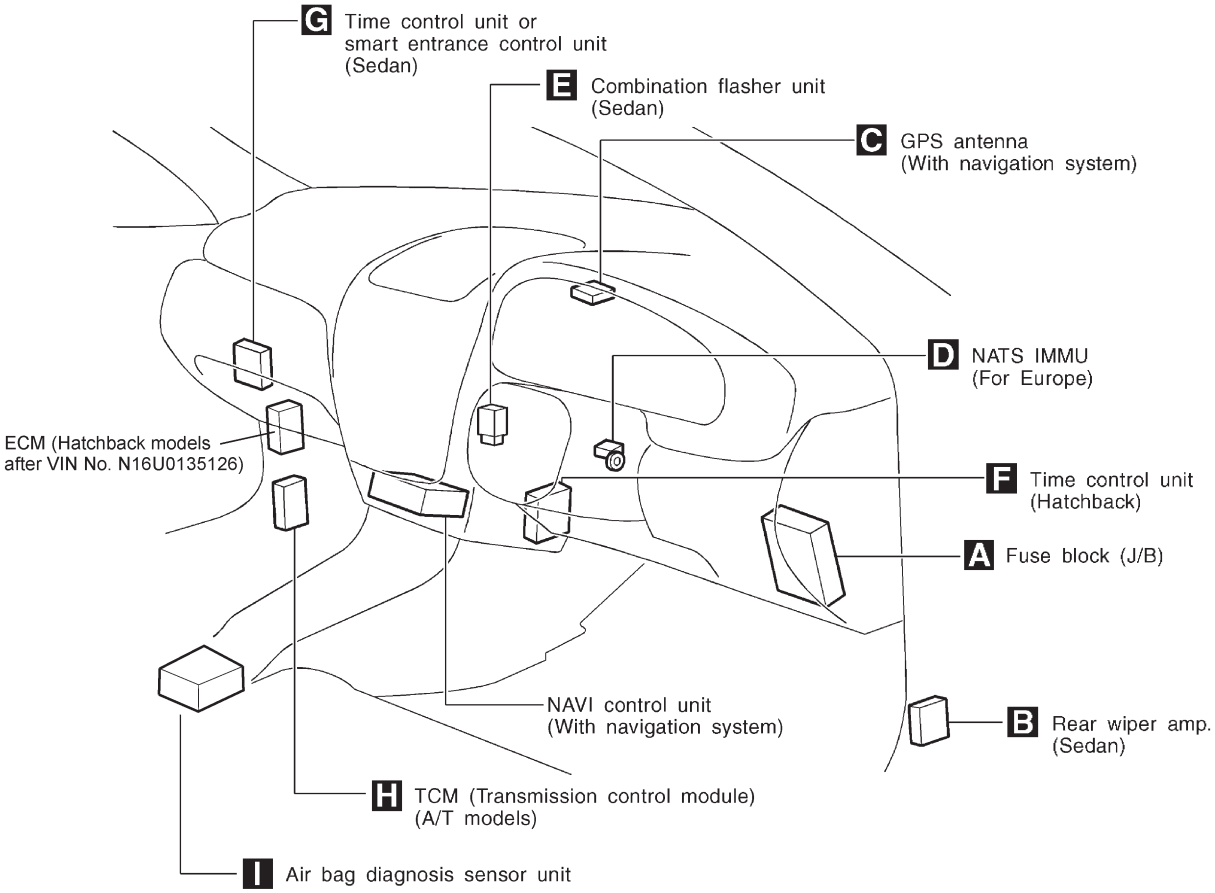
NEL803


B Behind the dash side lower LH finisher
Fuel pump relay (QG engine) B5
Rear window defogger relay B6 or B7
• Rear wiper amp. E101 (Except for Europe)
• Daytime light unit E119, E120 (For Northern Europe)
C Behind the cluster lid A
GPS antenna (With navigation system)
D
NATS IMMU M31 (For Europe and the Middle East)
Ignition key cylinder
E Instrument stay LH
Combination flasher unit M38 (Sedan)
F Behind the lower instrument panel
Time control unit M154, M155, M156
G Blower motor RH side
(Except for Europe)
• Time control unit (Without multi-remote control system) M60
• Smart entrance control unit (With multi-remote control system) M61, M62
ECM relay F101
(For Europe)
Time control unit M106 M107 (Sedan)
ECM relay F101
Power socket relay M168 (Hatchback)
H Behind the dash side lower RH finisher
TCM (Transmission control module) (A/T models) F109, F110
I Front of parking brake lever
Air bag diagnoses sensor unit M50, B16, B17

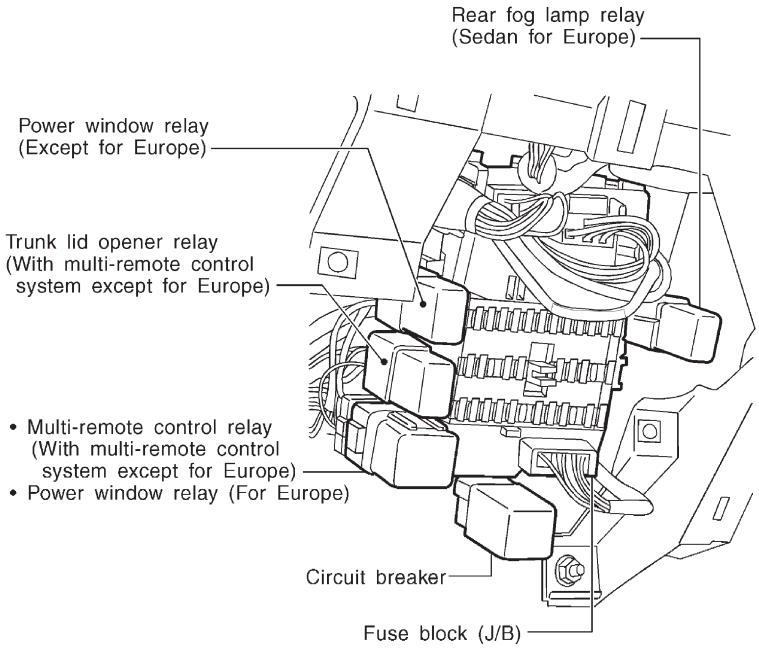
HEL118B

Passenger Compartment/RHD Models

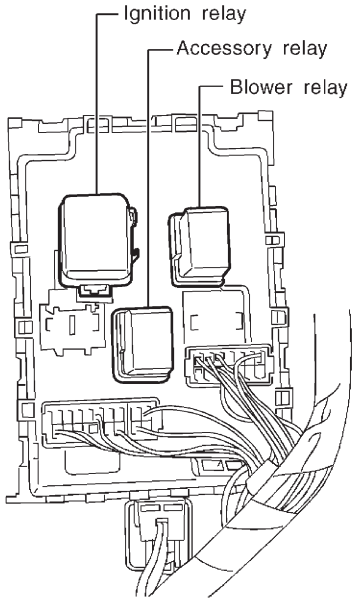
NJEL0345



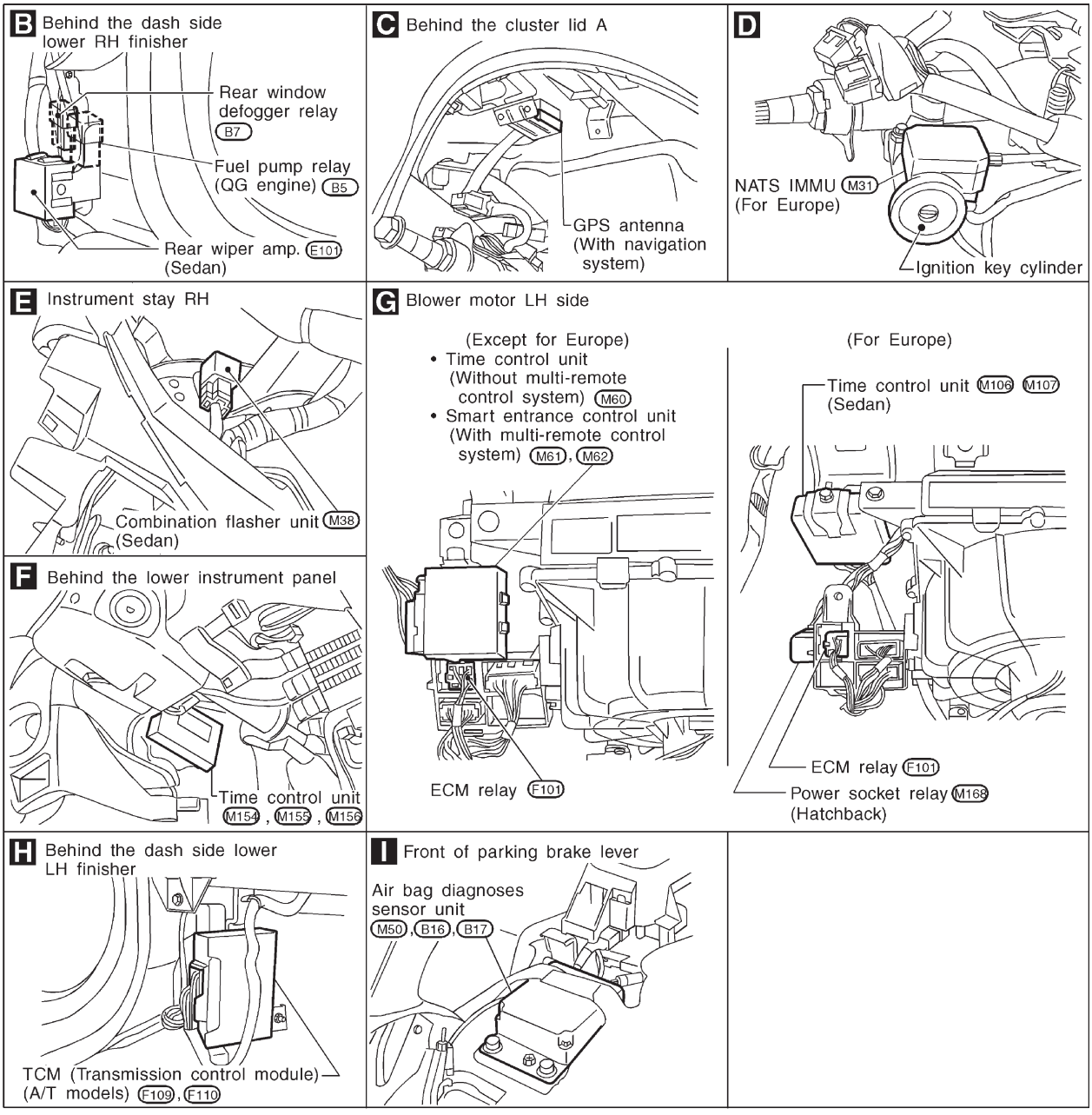
A Instrument panel RH side



The back of the fuse block (J/B)



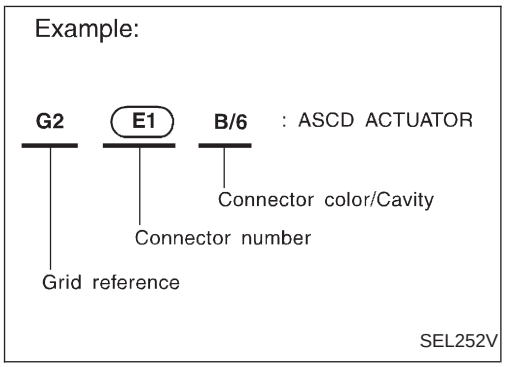
NEL804


B Behind the dash side lower RH finisher
Rear window defogger relay B7
Fuel pump relay (QG engine) B5
Rear wiper amp. E101 (Sedan)
C Behind the cluster lid A
GPS antenna (With navigation system)
D
NATS IMMU M31 (For Europe)
Ignition key cylinder
E Instrument stay RH
Combination flasher unit M38 (Sedan)
F Behind the lower instrument panel
Time control unit M154, M155, M156
G Blower motor LH side
(Except for Europe)
• Time control unit (Without multi-remote control system) M60
• Smart entrance control unit (With multi-remote control system) M61, M62
ECM relay F101
(For Europe)
Time control unit M106 M107 (Sedan)
ECM relay F101
Power socket relay M168 (Hatchback)
H Behind the dash side lower LH finisher
TCM (Transmission control module) (A/T models) F109, F110
I Front of parking brake lever
Air bag diagnoses sensor unit M50, B16, B17

HEL120B

How to Read Harness Layout

NJEL0131



The following Harness Layouts use a map style grid to help locate connectors on the drawings:

- Main Harness
- Engine Room Harness (Engine Compartment)
- Engine Control Harness
- Body Harness

TO USE THE GRID REFERENCE

NJEL0131S01

1. Find the desired connector number on the connector list.
2. Find the grid reference.
3. On the drawing, find the crossing of the grid reference letter column and number row.
4. Find the connector number in the crossing zone.
5. Follow the line (if used) to the connector.

CONNECTOR SYMBOL

NJEL0131S02

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

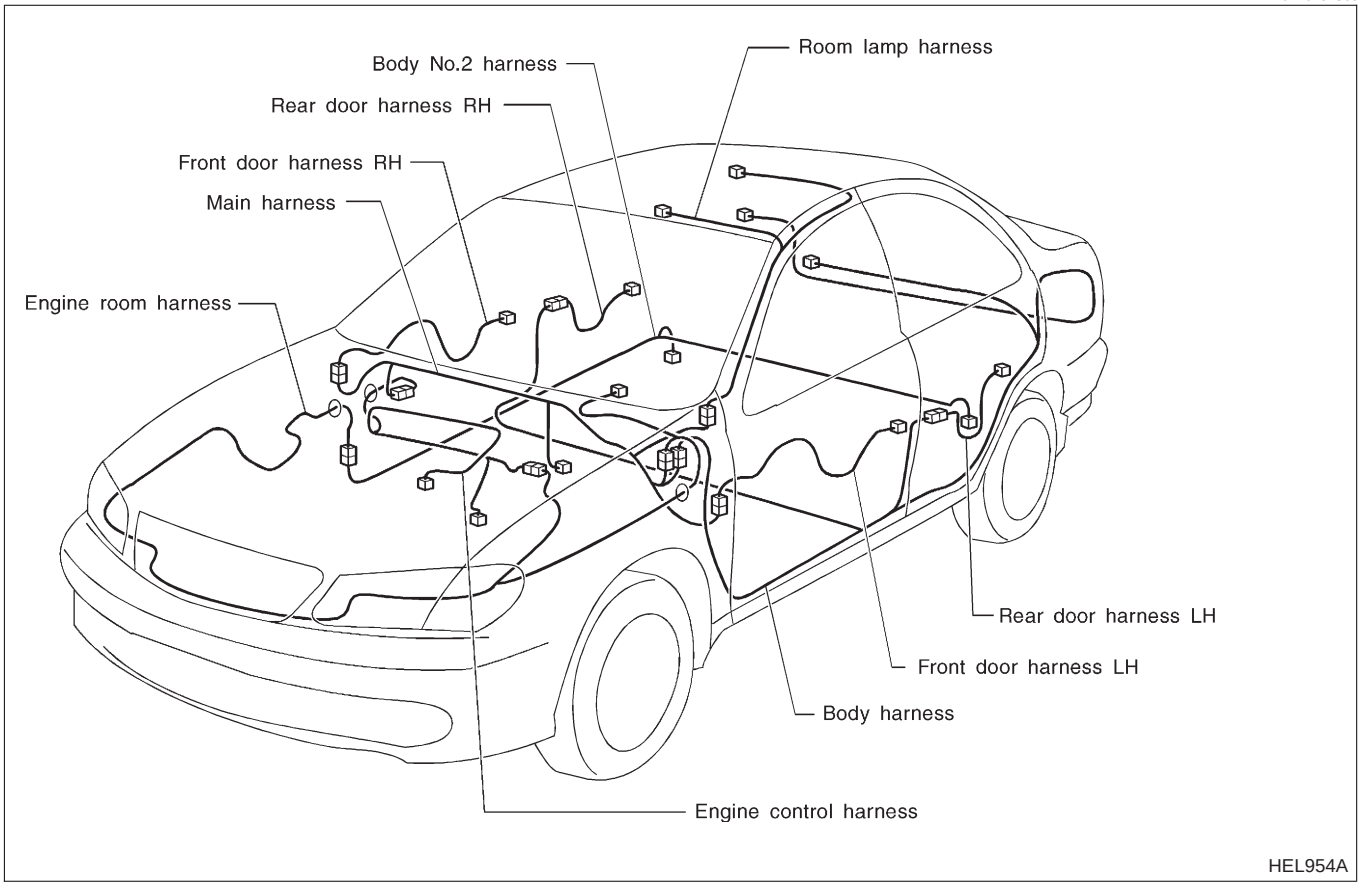
Connector type	Water proof type		Standard type	
	Male	Female	Male	Female
• Cavity: Less than 4 • Relay connector				
• Cavity: From 5 to 8				
• Cavity: More than 9				
• Ground terminal etc.	—			

Outline/Sedan

NJEL0132

LHD MODELS

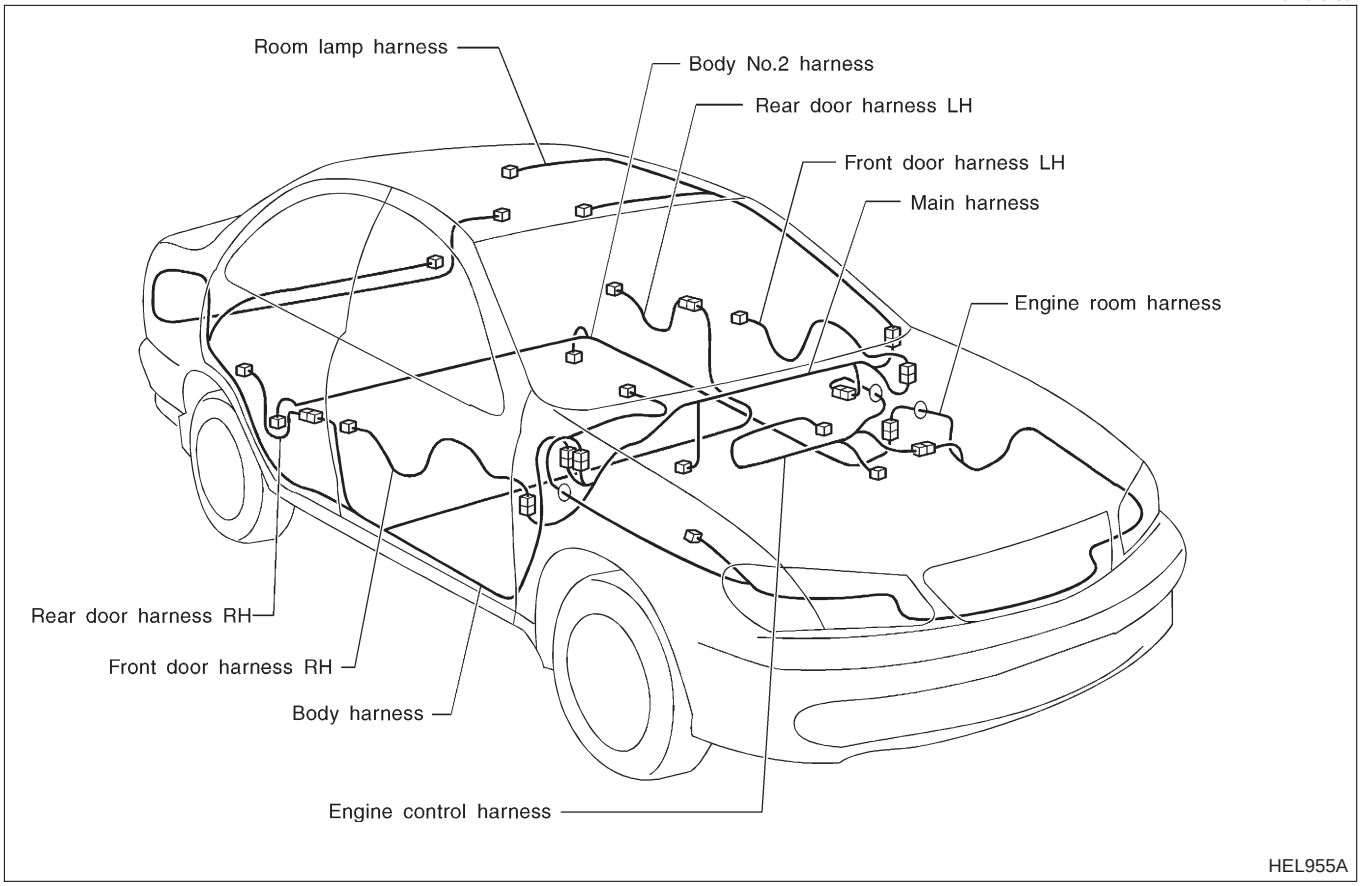
NJEL0132S03



NOTE:
For detailed ground distribution information, refer to “Ground Distribution”, “GROUND”, EL-39.

RHD MODELS

NJEL0132S04



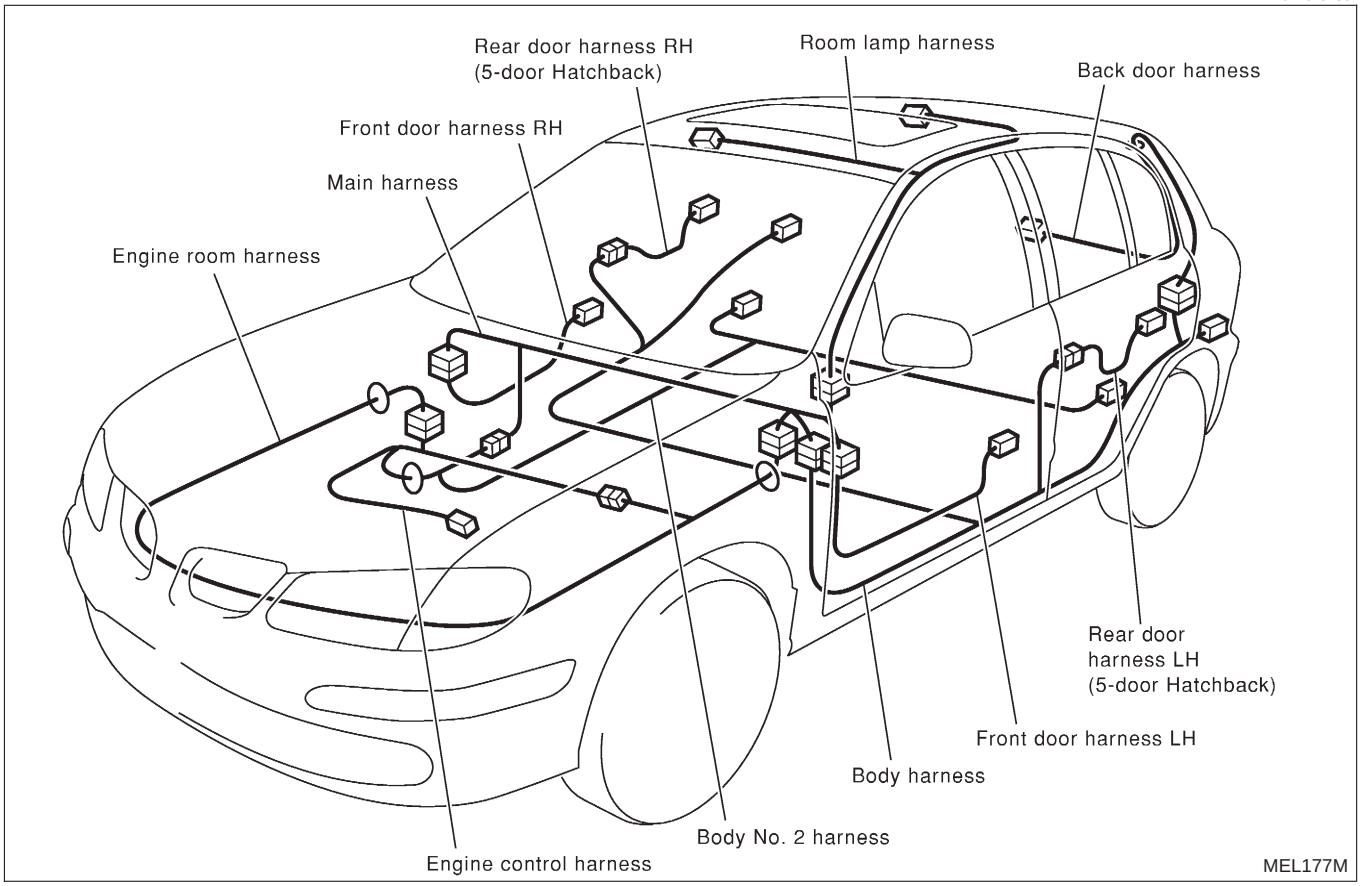
NOTE:
For detailed ground distribution information, refer to "Ground Distribution", "GROUND", EL-39.

Outline/Hatchback

NJEL0491

LHD MODELS

NJEL0491S01

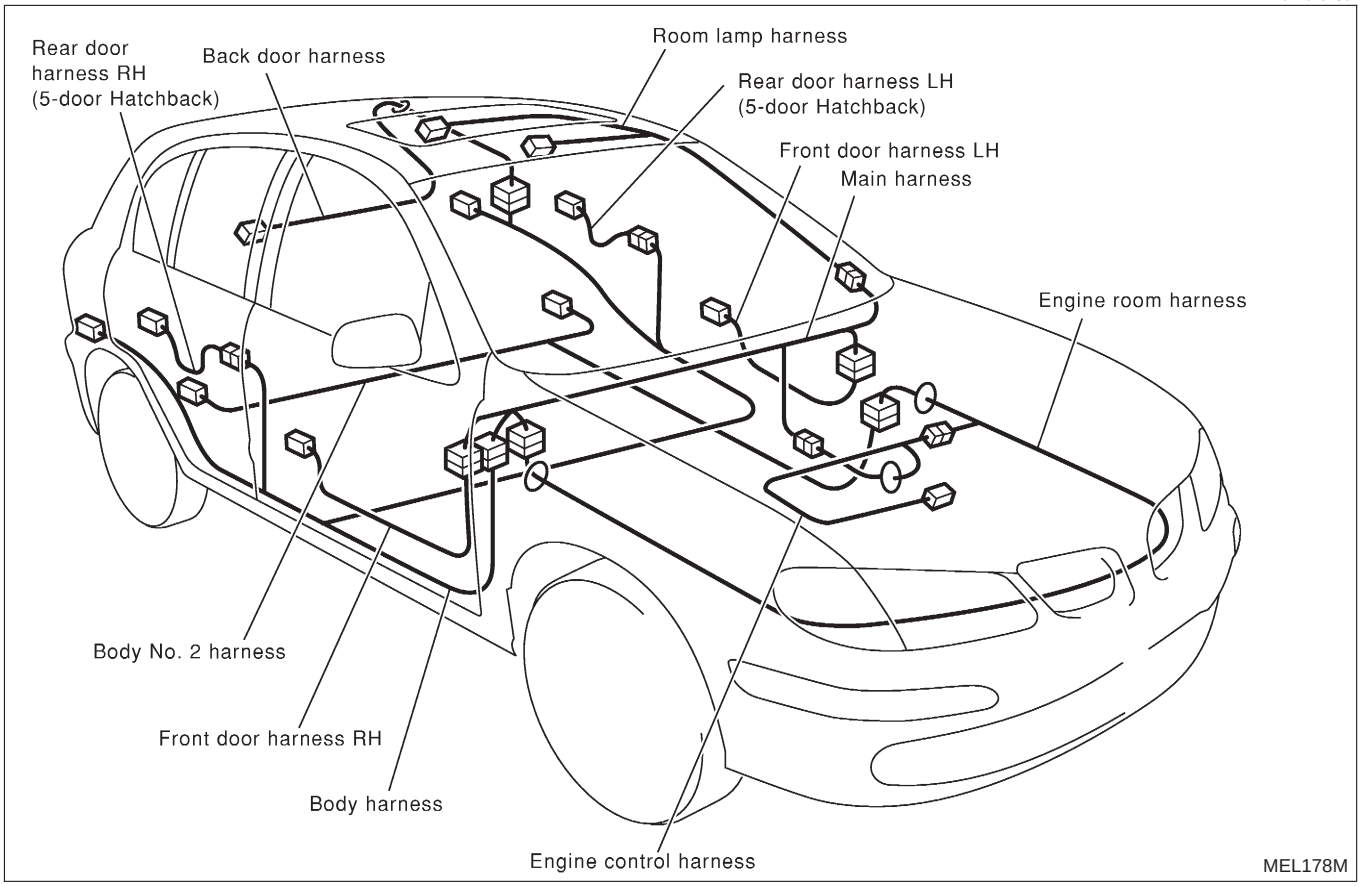


NOTE:
For detailed ground distribution information, refer to “Ground Distribution”, “GROUND”, EL-39.

Outline/Hatchback (Cont'd)

RHD MODELS

NJEL0491S02



NOTE:
For detailed ground distribution information, refer to "Ground Distribution", "GROUND", EL-39.

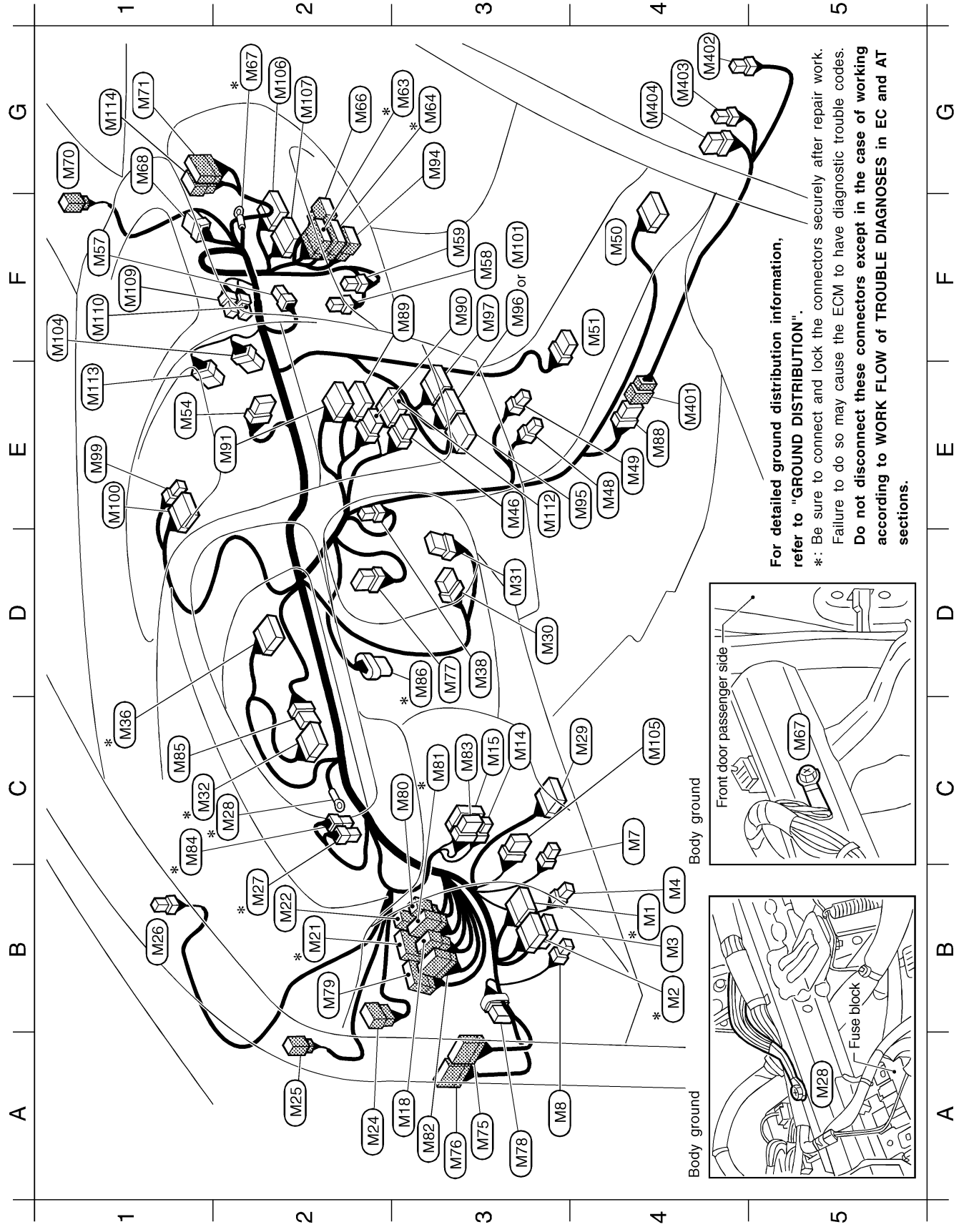
NOTE:

Main Harness/Sedan

NJEL0507

LHD MODELS

NJEL0507S01



HEL322B

B4 *M1 W/16 : Fuse block (J/B)
B4 *M2 W/12 : Fuse block (J/B)
B4 M3 W/6 : Fuse block (J/B)
B4 M4 W/2 : Circuit breaker
C4 M7 L/4 : Power window relay (With power window)
A3 M8 L/4 : Rear fog lamp relay
C3 M14 W/4 : Headlamp aiming switch
C3 M15 W/10 : Door mirror remote control switch
A3 M18 W/6 : To B2 (With power window)
B2 *M21 W/16 : To E106
B2 M22 W/2 : To E107
A2 M24 W/6 : To R1
A2 M25 BR/2 : Pillar tweeter LH
B1 M26 BR/2 : Security indicator lamp
B2 *M27 B/2 : Stop lamp switch
C2 *M28 — : Body ground
C4 M29 W/16 : Data link connector
D3 M30 Y/7 : Spiral cable
D3 M31 W/8 : NATS IMMU
C1 *M32 W/24 : Combination meter
C1 *M36 BR/24 : Combination meter
D3 M38 B/3 : Combination flasher unit
E3 M46 W/6 : Heater control panel (Fan switch)
E4 M48 B/2 : Cigarette lighter
E4 M49 W/2 : Not used
F4 M50 Y/20 : Air bag diagnosis sensor unit
F4 M51 W/8 : A/T device (A/T models)
E1 M54 W/8 : Hazard switch
F1 M57 Y/2 : Front passenger air bag module
F3 M58 BR/4 : Fan resistor
F3 M59 W/2 : Blower motor
G3 *M63 W/16 : To F102
G3 *M64 BR/12 : To F103 (YD enigine)
G2 M66 W/8 : To F105 (A/T models)
G2 *M67 — : Body ground
G1 M68 –/3 : Diode (QG engine)
G1 M70 BR/2 : Pillar tweeter RH
G1 M71 W/12 : To D31

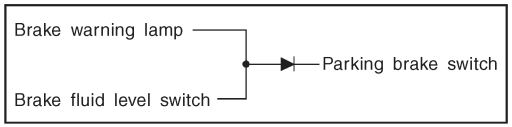
A3 M75 W/12 : To D10
A3 M76 W/16 : To D11
D3 M77 BR/8 : Multi-remote control unit
A3 M78 W/6 : Option connector for theft warning system
B2 M79 W/20 : To E118
C3 M80 W/4 : To B39 (With heated seat)
C3 *M81 W/12 : To B38
A3 M82 BR/16 : To B37
C3 M83 L/6 : Headlamp washer switch
C1 *M84 BR/2 : Brake pedal position switch (YD engine)
C1 M85 W/6 : Combination meter
D3 *M86 B/5 : Accelerator work unit (YD engine)
E4 M88 W/8 : To M401 (With heated seat or without power window)
F3 M89 W/16 : Audio unit
F3 M90 W/8 : Audio unit
E2 M91 W/12 : Audio unit (With CD auto-changer)
G3 M94 BR/6 : To F106 (QG engine)
E4 M95 W/20 : NAVI control unit (With navigation system)
F3 M96 W/16 : NAVI control unit (With navigation system)
F3 M97 GY/12 : NAVI control unit (With navigation system)
E1 M99 W/4 : Front monitor (With navigation system)
E1 M100 W/20 : Front monitor (With navigation system)
F3 M101 W/16 : CD auto-changer
F1 M104 B/6 : Intake door motor
C4 M105 W/8 : Speaker relay (With navigation system)

G2 M106 GY/16 : Time control unit
G2 M107 GY/20 : Time control unit
F1 M109 –/2 : Diode
F1 M110 –/2 : Diode (QG engine)
E3 M112 B/16 : Heater control panel (A/C switch • DEF switch)
E1 M113 W/8 : Max hot door motor
G1 M114 W/8 : To D41

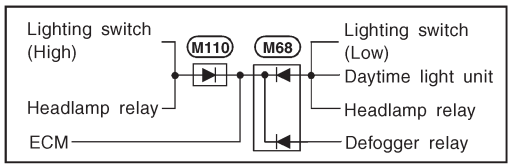
Console harness

E4 M401 W/8 : To M88
G4 M402 L/4 : Heated seat switch LH (With heated seat)
G4 M403 W/4 : Heated seat switch RH (With heated seat)
G4 M404 L/6 : Door lock/unlock switch (Without power window)

Diode M109



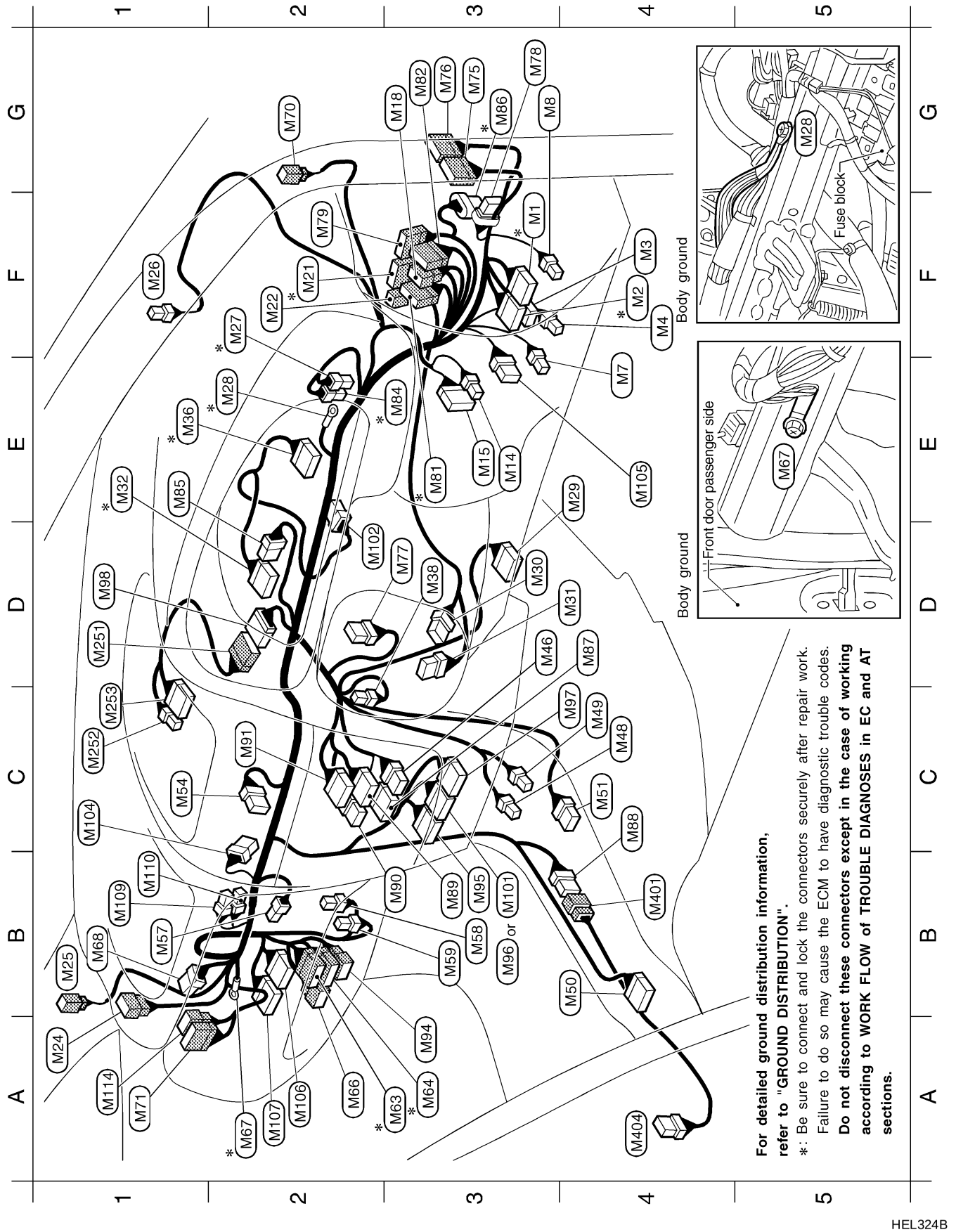
Diode M68, M110



*: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

RHD MODELS

NJEL0507S02



HEL324B

F3*M1 W/16 : Fuse block (J/B)
F4*M2 W/12 : Fuse block (J/B)
F4 M3 W/6 : Fuse block (J/B)
F4 M4 W/2 : Circuit breaker
E4 M7 L/4 : Power window relay (With power window)
G3 M8 L/4 : Rear fog lamp relay
E3 M14 W/4 : Headlamp aiming switch
E3 M15 W/10 : Door mirror remote control switch
G3 M18 W/6 : To B2 (With power window)
F2*M21 W/16 : To E106
F2 M22 W/2 : To E107
A1 M24 W/6 : To R1
B1 M25 BR/2 : Pillar tweeter LH
F1 M26 BR/2 : Security indicator lamp
F2*M27 B/2 : Stop lamp switch
E2*M28 — : Body ground
E4 M29 W/16 : Data link connector
D3 M30 Y/7 : Spiral cable
D4 M31 W/8 : NATS IMMU
E1*M32 W/24 : Combination meter
E1*M36 BR/24 : Combination meter
D3 M38 B/3 : Combination flasher unit
D3 M46 W/6 : Heater control panel (Fan switch)
C4 M48 B/2 : Cigarette lighter
C4 M49 W/2 : Not used
B4 M50 Y/20 : Air bag diagnosis sensor unit
C4 M51 W/8 : A/T device (A/T models)
C1 M54 W/8 : Hazard switch
B1 M57 Y/2 : Front passenger air bag module
B3 M58 BR/4 : Fan resistor
B3 M59 W/2 : Blower motor
A3*M63 W/16 : To F102
A3*M64 BR/12 : To F103 (YD engine)
A2 M66 W/8 : To F105 (A/T models)
A2*M67 — : Body ground
B1 M68 –/3 : Diode (QG engine)
G2 M70 BR/2 : Pillar tweeter RH
A1 M71 W/12 : To D31
G3 M75 W/12 : To D10
G3 M76 W/16 : To D11
D3 M77 BR/8 : Multi-remote control unit
G3 M78 W/6 : Option connector for theft warning system
F2 M79 W/20 : To E118
E3*M81 W/12 : To B38
G3 M82 BR/16 : To B37
E3*M84 BR/2 : Brake pedal position switch (YD engine)
E1 M85 W/6 : Combination meter
G3*M86 B/5 : Accelerator work unit (YD engine)
D4 M87 W/12 : Heater control panel (A/C switch • DEF switch)
C4 M88 W/8 : To M401 (Without power window)
B3 M89 W/16 : Audio unit
B3 M90 W/8 : Audio unit
C2 M91 W/12 : Audio unit (With CD auto-changer)
A3 M94 BR/6 : To F106 (QG engine)
B3 M95 W/20 : NAVI control unit (With navigation system)
B3 M96 W/16 : NAVI control unit (With navigation system)
C4 M97 GY/12 : NAVI control unit (With navigation system)
D1 M98 W/16 : To M251 (With navigation system)
B3 M101 W/16 : CD auto-changer
D2 M102 BR/8 : Dongle unit
C1 M104 B/6 : Intake door motor
E4 M105 W/8 : Speaker relay (With navigation system)
A2 M106 GY/16 : Time control unit
A2 M107 GY/20 : Time control unit
B1 M109 –/2 : Diode
B1 M110 –/2 : Diode (QG engine)
A1 M114 W/8 : To D41

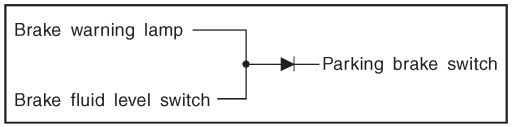
Sub-harness (With navigation system)

D1 M251 W/16 : To M98
C1 M252 W/4 : Front monitor
C1 M253 W/20 : Front monitor

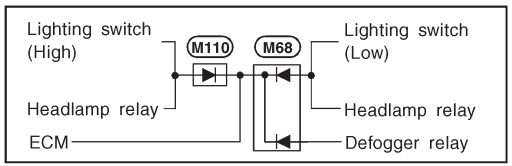
Console harness (Without power window)

B4 M401 W/8 : To M88
A4 M404 L/6 : Door lock/unlock switch

Diode M109



Diode M68, M110



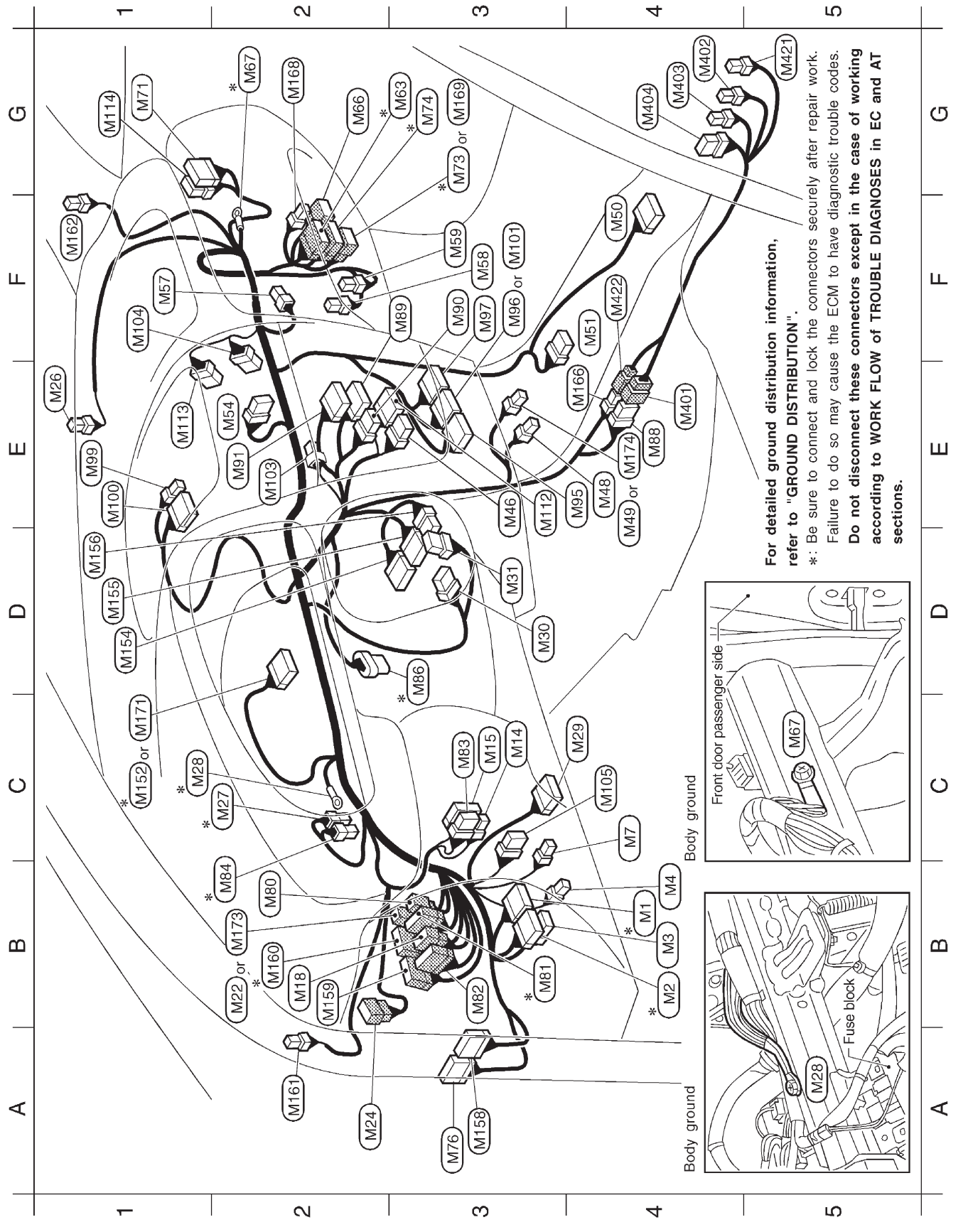
*: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

Main Harness/Hatchback

NJEL0347

NJEL0347S01

LHD MODELS



HEL682B

B4 *M1 W/16 : Fuse block (J/B)
B4 *M2 W/12 : Fuse block (J/B)
B4 M3 W/6 : Fuse block (J/B)
B4 M4 W/2 : Circuit breaker
C4 M7 L/4 : Power window relay (With power window)
C3 M14 W/4 : Headlamp aiming switch (Models before VIN. No. N16U0135126)
C3 M15 W/10 : Door mirror remote control switch
B2 M18 W/6 : To B2 (With power window)
B2 M22 W/2 : To E107
A2 M24 W/6 : To R1
E1 M26 B/2 : Security indicator lamp (Models before VIN. No. N16U0135126)
C2 *M27 B/2 : Stop lamp switch
C1 *M28 — : Body ground
C4 M29 W/16 : Data link connector
D3 M30 Y/7 : Spiral cable
D3 M31 W/8 : NATS IMMU
E3 M46 W/6 : Heater control panel (Fan switch)
E4 M48 B/2 : Cigarette lighter
E4 M49 W/2 : Ashtray illumination
F4 M50 Y/20 : Air bag diagnosis sensor unit
F4 M51 W/8 : A/T device (A/T models)
E2 M54 W/8 : Hazard switch
F1 M57 Y/2 : Front passenger air bag module
F3 M58 BR/4 : Fan resistor
F3 M59 W/2 : Blower motor
G3 *M63 W/16 : To F102
G2 *M66 W/8 : To F105 (A/T models)
G2 *M67 — : Body ground
G1 M71 W/12 : To D31
G3 *M73 BR/8 : To F111 (QG engine)
G3 *M74 BR/16 : To F112 (YD engine)
A3 M76 W/16 : To D11 (With power door lock)
B2 M80 W/4 : To B39 (With heated seat)
B3 *M81 W/12 : To B38
B3 M82 BR/16 : To B37
C3 M83 L/6 : Headlamp washer switch
B2 *M84 BR/2 : Brake pedal position switch (YD engine)
D3 *M86 B/5 : Accelerator work unit (YD engine)
E4 M88 W/8 : To M401 (With heated seat or with power door lock without power window)
F3 M89 W/16 : Audio unit
F3 M90 W/8 : Audio unit
E2 M91 W/12 : Audio unit (With CD auto-changer)
E4 M95 W/20 : NAVI control unit (With navigation system)
F3 M96 W/16 : NAVI control unit (With navigation system)
F3 M97 GY/12 : NAVI control unit (With navigation system)
E1 M99 W/4 : Front monitor (With navigation system)
E1 M100 W/20 : Front monitor (With navigation system)
F3 M101 W/16 : CD auto-changer
E2 M103 W/1 : Option connector for navigation system (Without navigation system) (*1)
F1 M104 B/6 : Intake door motor
C4 M105 W/8 : Speaker relay (With navigation system)
E3 M112 B/16 : Heater control panel (A/C switch • DEF switch)
E1 M113 W/8 : Max hot door motor
G1 M114 W/8 : To D41 (With power door lock)
C1 *M152 W/20 : Combination meter (Models before VIN. No. N16U0135126)
D1 M154 W/16 : Time control unit
D1 M155 W/20 : Time control unit
D1 M156 W/8 : Time control unit
A3 M158 W/12 : To D23
B2 M159 W/16 : To E174
B2 *M160 W/12 : To E175
A2 M161 BR/2 : Pillar tweeter LH
F1 M162 BR/2 : Pillar tweeter RH
E4 M166 W/3 : To M422 (Without heated seat and with power window)
G2 M168 L/4 : Power socket relay
G3 M169 BR/16 : To F113
C1 M171 W/24 : Combination meter (Models after VIN No. N16U0135126)
B2 M173 W/4 : To E200
E4 M174 W/2 : Ashtray illumination

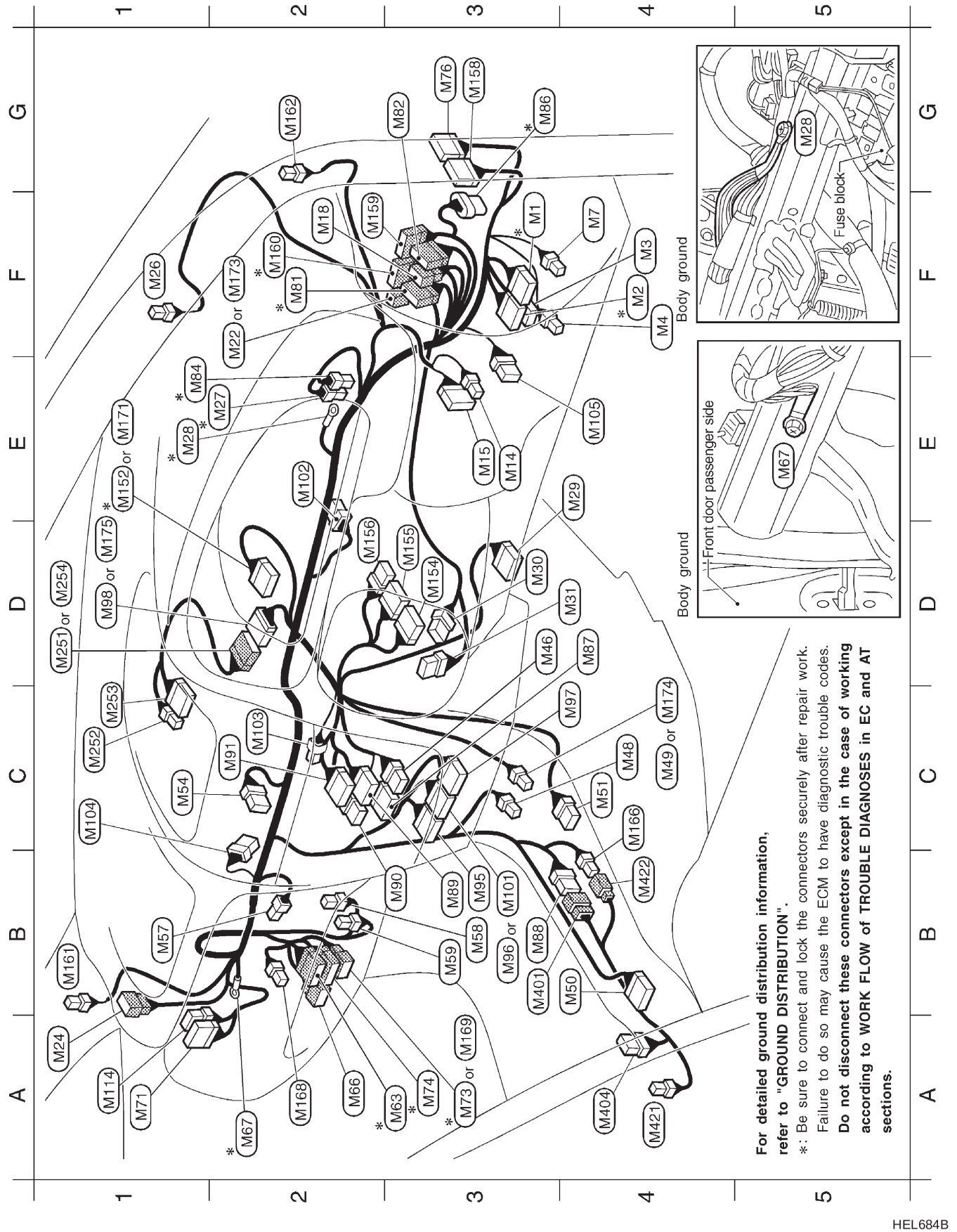
Console harness

E4 M401 W/8 : To M88
G4 M402 L/4 : Heated seat switch LH (With heated seat)
G4 M403 W/4 : Heated seat switch RH (With heated seat)
G4 M404 W/6 : Door lock/unlock switch (With power door lock without power window)
G5 M421 B/2 : Power socket
F4 M422 W/3 : To M166

*1 : If so equipped
*: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

RHD MODELS

NJEL0347S02



HEL684B

F3* M1 W/16 : Fuse block (J/B)
F4* M2 W/12 : Fuse block (J/B)
F4 M3 W/6 : Fuse block (J/B)
F4 M4 W/2 : Circuit breaker
F4 M7 L/4 : Power window relay (With power window)
E3 M14 W/4 : Headlamp aiming switch (Models before VIN No. N16U0135126)
E3 M15 W/10 : Door mirror remote control switch
F2 M18 W/6 : To B2 (With power window)
F2 M22 W/2 : To E107
A1 M24 W/6 : To R1
F1 M26 B/2 : Security indicator lamp (Models before VIN No. N16U0135126)
E2* M27 B/2 : Stop lamp switch
E1* M28 — : Body ground
E4 M29 W/16 : Data link connector
D3 M30 Y/7 : Spiral cable
D4 M31 W/8 : NATS IMMU
D3 M46 W/6 : Heater control panel (Fan switch)
C4 M48 B/2 : Cigarette lighter
C4 M49 W/2 : Ashtray illumination
B4 M50 Y/20 : Air bag diagnosis sensor unit
C4 M51 W/8 : A/T device (A/T models)
C1 M54 W/8 : Hazard switch
B1 M57 Y/2 : Front passenger air bag module
B3 M58 BR/4 : Fan resistor
B3 M59 W/2 : Blower motor
A3* M63 W/16 : To F102
A2 M66 W/8 : To F105 (A/T models)
A2* M67 — : Body ground
A1 M71 W/12 : To D31
A3* M73 BR/8 : To F111 (QG engine)
A3* M74 BR/16 : To F112 (YD engine)
G3 M76 W/16 : To D11 (With power door lock)
F2* M81 W/12 : To B38
G3 M82 BR/16 : To B37
E1* M84 BR/2 : Brake pedal position switch (YD engine)
G3* M86 B/5 : Accelerator work unit (YD engine)
D4 M87 W/12 : Heater control panel (A/C switch • DEF switch)
B3 M88 W/8 : To M401 (With power door lock without power window)
B3 M89 W/16 : Audio unit
B3 M90 W/8 : Audio unit
C2 M91 W/12 : Audio unit (With CD auto-changer)
B3 M95 W/20 : NAVI control unit (With navigation system)
B3 M96 W/16 : NAVI control unit (With navigation system)
C4 M97 GY/12 : NAVI control unit (With navigation system)
D1 M98 BR/24 : To M251 (With navigation system)
B3 M101 W/16 : CD auto-changer
E2 M102 BR/8 : Dongle unit
C2 M103 W/1 : Option connector for navigation system (Without navigation system) (*1)
C1 M104 B/6 : Intake door motor
E4 M105 W/8 : Speaker relay (With navigation system)
A1 M114 W/8 : To D41 (With power door lock)
E1* M152 W/20 : Combination meter (Models before VIN No. N16U0135126)
D3 M154 W/16 : Time control unit
D3 M155 W/20 : Time control unit
D2 M156 W/8 : Time control unit
G3 M158 W/12 : To D23
F2 M159 W/16 : To E174
F2* M160 W/12 : To E175
B1 M161 BR/2 : Pillar tweeter LH
G2 M162 BR/2 : Pillar tweeter RH
C4 M166 W/3 : To M422 (With power socket)
A2 M168 L/4 : Power socket relay
A3 M169 BR/16 : To F113
E1 M171 W/24 : Combination meter (Models after VIN No. N16U0135126)
F2 M173 W/4 : To E200
C4 M174 W/2 : Ashtray illumination
D1 M175 W/16 : To M254

Sub-harness (With navigation system)

D1 M251 BR/24 : To M98
C1 M252 W/4 : Front monitor
C1 M253 W/20 : Front monitor
D1 M254 W/16 : To M175

Console harness

B3 M401 W/8 : To M88
A4 M404 W/6 : Door lock/unlock switch (With power door lock without power window)
A4 M421 B/2 : Power socket
B4 M422 W/3 : To M166

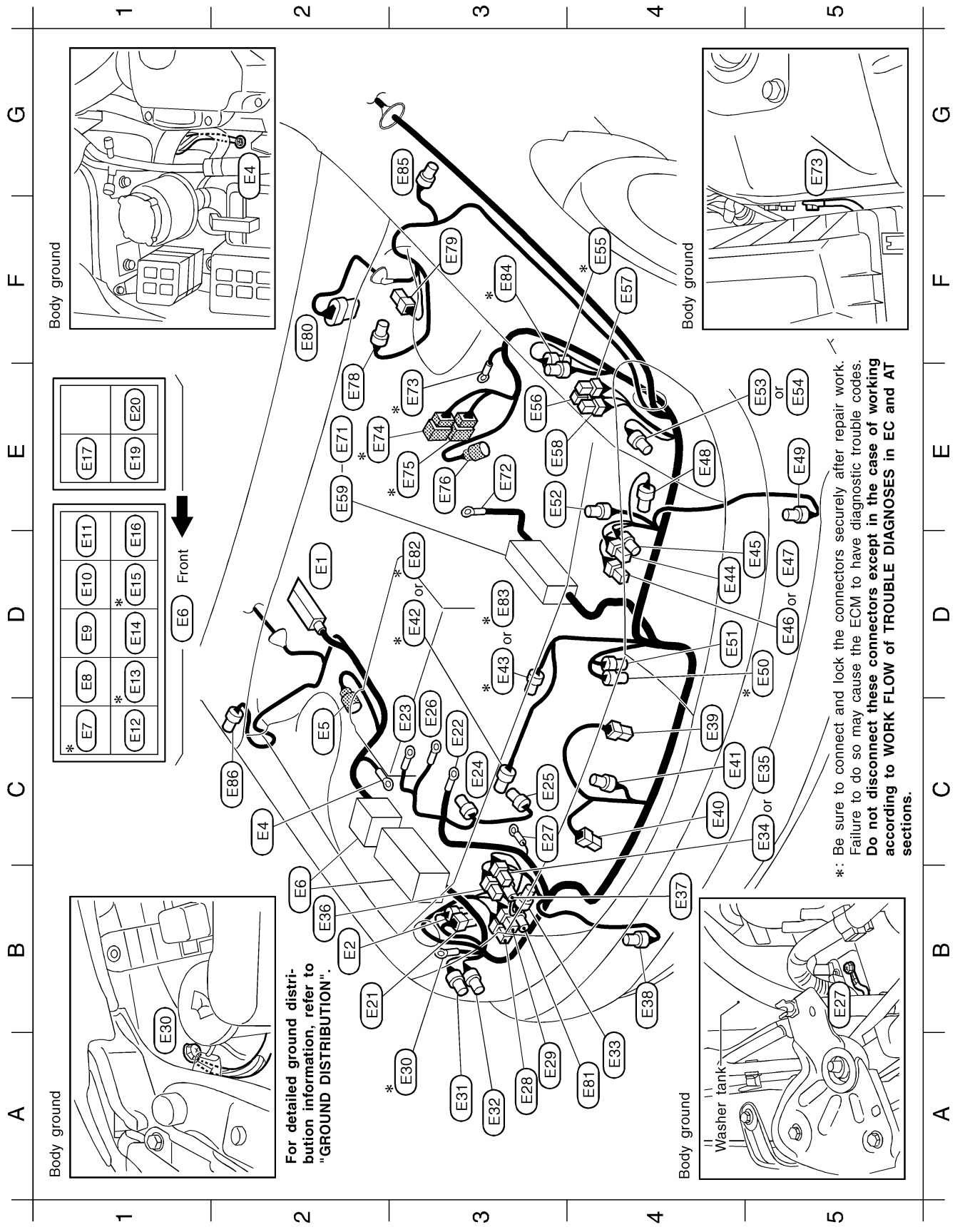
*1 : If so equipped
*: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

Engine Room Harness/Sedan

NJEL0134

ENGINE COMPARTMENT — LHD MODELS

NJEL0134S01



HEL326B

D2 E1 B/31 : ABS actuator and electric unit (For ABS)
B2 E2 B/1 : Option connector for A/C (M/T models with QG engine for Europe without A/C)
C2 E4 — : Body ground (For ABS)
C2 E5 GY/2 : Front wheel sensor RH (For ABS)
B2 E6 — : Relay box
C1* E7 BR/6 : Cooling fan relay-1
D1 E8 W/3 : Horn relay
D1 E9 L/4 : Air conditioner relay
D1 E10 L/4 : Park/neutral position (PNP) relay (A/T models)
D1 E11 BR/6 : Front fog lamp relay (QG16 DE•18DE engines except for Europe and China)
L/4 : Front fog lamp relay (For Europe and China)
C1 E12 B/3 : CO adjustment resistor (Except for Europe)
BR/6 : Headlamp washer timer (With daytime light system)
D1* E13 BR/6 : Cooling fan relay-2 (Except ∗4)
D1 E14 BR/6 : Theft warning horn relay (With theft warning system)
D1* E15 BR/6 : Cooling fan relay-3 (Except ∗4)
D1 E16 BR/6 : Headlamp relay (For Europe)
E1 E17 L/4 : Headlamp relay RH (With 4-bulbs type headlamp except for Europe)
E1 E19 B/5 : Theft warning relay (With theft warning system)
E1 E20 L/4 : Headlamp relay LH (With 4-bulbs type headlamp except for Europe)
B2 E21 B/1 : Theft warning horn (With theft warning system)
C3 E22 — : Alternator (B)
C3 E23 — : Alternator (E)
C3 E24 GY/2 : Alternator (S,L)
C3 E25 B/1 : Compressor
C3 E26 — : Glow plug (YD engine)
C3 E27 — : Body ground
A3 E28 G/2 : Rear washer motor (Except for Europe)
A3 E29 W/2 : Front washer motor
A3* E30 — : Body ground
A3 E31 GY/2 : Front turn signal lamp RH (With 2-bulbs type headlamp)
A3 E32 GY/2 : Front turn signal lamp RH (With 4-bulbs type headlamp)
A4 E33 B/3 : Headlamp aiming motor RH (With 4-bulbs type headlamp for Europe and China)
C5 E34 B/2 : Parking lamp RH (With 2-bulbs type headlamp)
C5 E35 B/2 : Parking lamp RH (With 4-bulbs type headlamp)
B2 E36 B/3 : Headlamp RH (With 2-bulbs type headlamp)
B4 E37 GY/3 : Headlamp RH (With 4-bulbs type headlamp)
B4 E38 L/2 : Front fog lamp RH (Except QG13DE engine)
C4 E39 B/1 : Horn low
C4 E40 B/1 : Horn high (Except for Europe)
C4 E41 B/2 : Ambient sensor (Except QG13DE engine)
D3* E42 GY/4 : Cooling fan motor-2 (Except ∗4)
D3* E43 GY/4 : Cooling fan motor-1 (Except ∗4)
D4 E44 B/3 : Headlamp LH (With 2-bulbs type headlamp)
D5 E45 GY/3 : Headlamp LH (With 4-bulbs type headlamp)
D5 E46 B/2 : Parking lamp LH (With 2-bulbs type headlamp)
D5 E47 B/2 : Parking lamp LH (With 4-bulbs type headlamp)
E4 E48 B/3 : Headlamp aiming motor LH (With 4-bulbs type headlamp for Europe and China)
E5 E49 L/2 : Front fog lamp LH (Except QG13DE engine)
D5* E50 B/3 : Refrigerant pressure sensor (QG engine)
D4 E51 B/2 : Dual-pressure switch (YD engine)
E3 E52 GY/2 : Hood switch (With theft warning system and for Europe)
E5 E53 GY/2 : Front turn signal lamp LH (With 2-bulbs type headlamp)
E5 E54 GY/2 : Front turn signal lamp LH (With 4-bulbs type headlamp)
F4* E55 GY/2 : Dropping resistor (A/T models)
E3 E56 W/1 : Glow relay (YD engine)
F4 E57 W/1 : Glow relay (YD engine)
E3 E58 G/2 : Glow relay (YD engine)
E2 E59 — : Fusible link and fuse box
E2 E60 B/2 : Fusible link and fuse box (∗1)
E2 E61 W/1 : Fusible link and fuse box (∗2)
E2 E62 B/1 : Fusible link and fuse box (∗3)
E2 E63 B/1 : Fusible link and fuse box (∗1)
E2 E64 — : Fusible link and fuse box (YD engine and ∗2)
E2 E65 — : Fusible link and fuse box (YD engine and ∗2)
E2 E66 B/1 : Fusible link and fuse box (∗1)
E2* E67 B/6 : Fusible link and fuse box (∗3)
E2* E68 W/6 : Fusible link and fuse box (∗3)
E2* E69 W/4 : Fusible link and fuse box (∗3)
E2 E70 W/3 : Fusible link and fuse box (∗2)
E2 E71 G/2 : Fusible link and fuse box (∗1)
E3 E72 — : Battery
E3* E73 — : Body ground
E2* E74 GY/8 : To F35
E3* E75 B/8 : To F36
E3 E76 BR/2 : Front wheel sensor LH (For ABS)
E2 E78 GY/2 : Brake fluid level switch
F3 E79 GY/1 : Vacuum warning switch (YD engine) (∗5)
F2 E80 SB/6 : Front wiper motor
A4 E81 GY/2 : Headlamp washer motor (With daytime light system)
D3* E82 GY/2 : Cooling fan motor-2 (∗4)
D3* E83 GY/2 : Cooling fan motor-1 (∗4)
F3* E84 GY/2 : Intake air temperature sensor (∗4) (∗5)
G3 E85 GY/2 : Side turn signal lamp LH
C2 E86 GY/2 : Side turn signal lamp RH

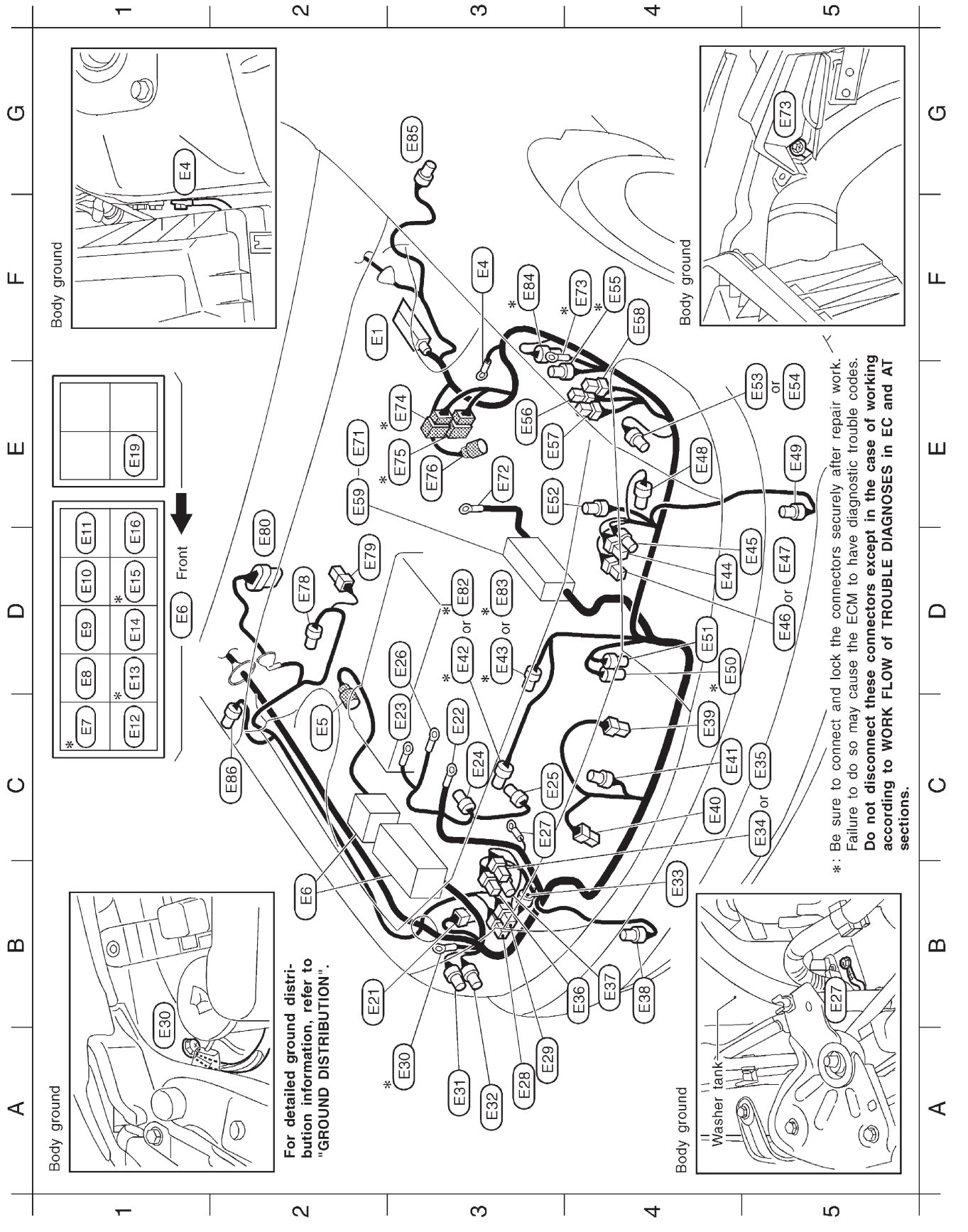
∗1 : • Except for Europe...A/T models with QG13DE and M/T models with QG engine
• For Europe...QG engine without daytime light system
∗2 : • Except for Europe...A/T models except QG13DE
• For Europe...QG engine with daytime light system
∗3 : QG engine
∗4 : QG engine for Europe
∗5 : If so equipped

∗: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

Engine Room Harness/Sedan (Cont'd)

ENGINE COMPARTMENT — RHD MODELS

NJEL0134S03



HEL513B

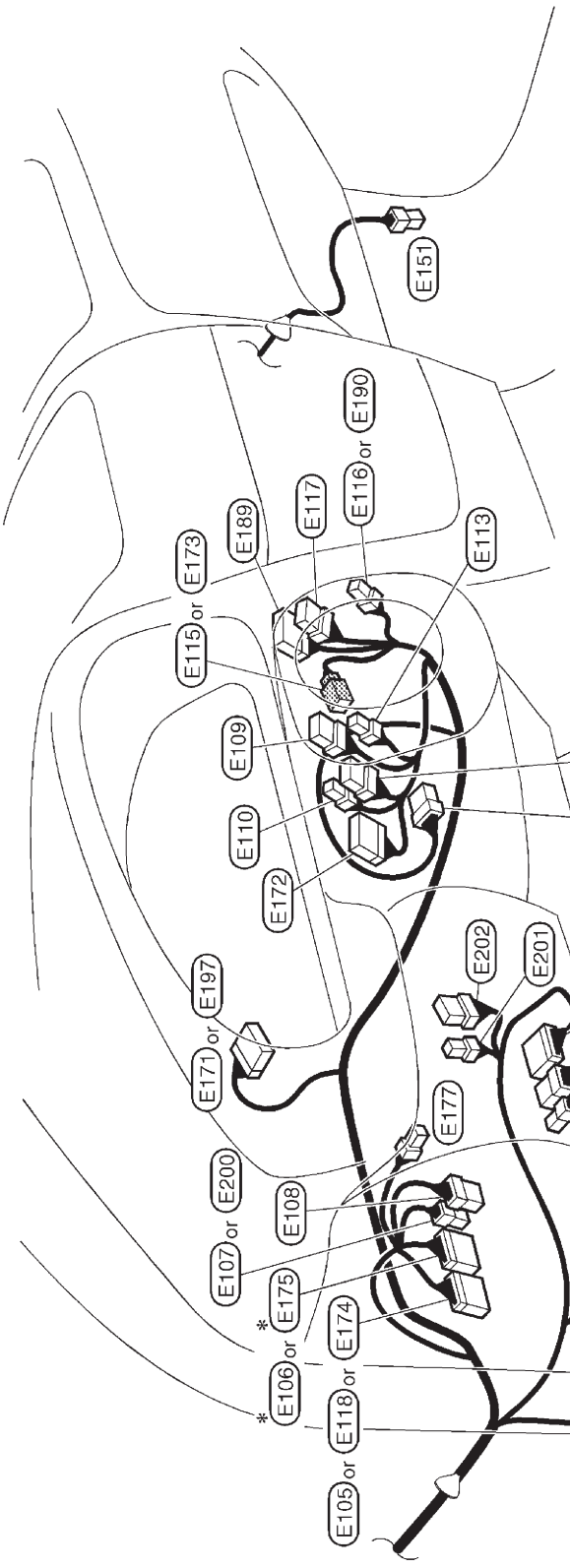
F2 (E1) B/31 : ABS actuator and electric unit (For ABS)
F3 (E4) — : Body ground (For ABS)
C2 (E5) GY/2 : Front wheel sensor RH (For ABS)
B2 (E6) — : Relay box
C1* (E7) BR/6 : Cooling fan relay-1
D1 (E8) W/3 : Horn relay
D1 (E9) L/4 : Air conditioner relay
D1 (E10) L/4 : Park/neutral position (PNP) relay (A/T models)
D1 (E11) BR/6 : Front fog lamp relay (QG15DE•16DE•18DE engines except for Europe)
L/4 : Front fog lamp relay (For Europe)
C1 (E12) B/3 : CO adjustment resistor (QG engine except for Europe and Australia)
BR/6 : Headlamp relay (With 4-bulbs type headlamp for Australia)
D1* (E13) BR/6 : Cooling fan relay-2 (Except ∗4)
D1 (E14) BR/6 : Theft warning horn relay (With theft warning system)
D1* (E15) BR/6 : Cooling fan relay-3 (Except ∗4)
D1 (E16) BR/6 : Headlamp relay (For Europe)
E1 (E19) B/5 : Theft warning relay (With theft warning system except for Australia)
B2 (E21) B/1 : Theft warning horn (With theft warning system)
C3 (E22) — : Alternator (B)
C3 (E23) — : Alternator (E)
C3 (E24) GY/2 : Alternator (S,L)
C3 (E25) B/1 : Compressor
D3 (E26) — : Glow plug (YD engine)
C3 (E27) — : Body ground
A3 (E28) G/2 : Rear washer motor (Except for Europe)
A3 (E29) W/2 : Front washer motor
A3* (E30) — : Body ground
A3 (E31) GY/2 : Front turn signal lamp RH (With 2-bulbs type headlamp)
A3 (E32) GY/2 : Front turn signal lamp RH (With 4-bulbs type headlamp)
B4 (E33) B/3 : Headlamp aiming motor RH (For Europe)
C5 (E34) B/2 : Parking lamp RH (With 2-bulbs type headlamp)
C5 (E35) B/2 : Parking lamp RH (With 4-bulbs type headlamp)
B4 (E36) B/3 : Headlamp RH (With 2-bulbs type headlamp)
B4 (E37) GY/3 : Headlamp RH (With 4-bulbs type headlamp)
B4 (E38) L/2 : Front fog lamp RH (QG15DE•16DE•18DE engines and YD22DDT engine)
C4 (E39) B/1 : Horn low
C4 (E40) B/1 : Horn high (QG15DE•16DE•18DE engines except for Europe)
C4 (E41) B/2 : Ambient sensor (For Europe, QG18DE engine for Australia and QG15DE•16DE engines except for Europe and Australia)
D3* (E42) GY/4 : Cooling fan motor-2 (Except ∗4)
D3* (E43) GY/4 : Cooling fan motor-1 (Except ∗4)
D4 (E44) B/3 : Headlamp LH (With 2-bulbs type headlamp)
D5 (E45) GY/3 : Headlamp LH (With 4-bulbs type headlamp)
D5 (E46) B/2 : Parking lamp LH (With 2-bulbs type headlamp)
D5 (E47) B/2 : Parking lamp LH (With 4-bulbs type headlamp)
E4 (E48) B/3 : Headlamp aiming motor LH (For Europe)
E5 (E49) L/2 : Front fog lamp LH (QG15DE•16DE•18DE engines and YD22DDT engine)
D4* (E50) B/3 : Refrigerant pressure sensor (QG engine)
D4 (E51) B/2 : Dual-pressure switch (YD engine)
E3 (E52) GY/2 : Hood switch (With theft warning system and for Europe)
E5 (E53) GY/2 : Front turn signal lamp LH (With 2-bulbs type headlamp)
E5 (E54) GY/2 : Front turn signal lamp LH (With 4-bulbs type headlamp)
F4* (E55) GY/2 : Dropping resistor (A/T models)
E3 (E56) W/1 : Glow relay (YD engine)
E3 (E57) W/1 : Glow relay (YD engine)
F4 (E58) G/2 : Glow relay (YD engine)
E2 (E59) — : Fusible link and fuse box
E2 (E60) B/2 : Fusible link and fuse box (∗1)
E2 (E61) W/1 : Fusible link and fuse box (∗2)
E2 (E62) B/1 : Fusible link and fuse box (∗3)
E2 (E63) B/1 : Fusible link and fuse box (∗1)
E2 (E64) — : Fusible link and fuse box (YD engine and ∗2)
E2 (E65) — : Fusible link and fuse box (YD engine and ∗2)
E2 (E66) B/1 : Fusible link and fuse box (∗1)
E2* (E67) B/6 : Fusible link and fuse box (∗3)
E2* (E68) W/6 : Fusible link and fuse box (∗3)
E2* (E69) W/4 : Fusible link and fuse box (∗3)
E2 (E70) W/3 : Fusible link and fuse box (∗2)
E2 (E71) G/2 : Fusible link and fuse box (∗1)
E3 (E72) — : Battery
F4* (E73) — : Body ground
E3* (E74) GY/8 : To (F35)
E3* (E75) B/8 : To (F36)
E3 (E76) BR/2 : Front wheel sensor LH (For ABS)
D2 (E78) GY/2 : Brake fluid level switch
D2 (E79) GY/1 : Vacuum warning switch (YD engine) (∗5)
D2 (E80) SB/6 : Front wiper motor
D3* (E82) GY/2 : Cooling fan motor-2 (∗4)
D3* (E83) GY/2 : Cooling fan motor-1 (∗4)
F3* (E84) GY/2 : Intake air temperature sensor (∗4) (∗5)
G3 (E85) GY/2 : Side turn signal lamp LH
C2 (E86) GY/2 : Side turn signal lamp RH

∗1 : • Except for Europe...A/T models with QG13DE and M/T models with QG engine
• For Europe...All models
• For Australia...QG16DE engine
∗2 : • Except for Europe...A/T models except QG13DE engine
• For Australia...QG18DE engine
∗3 : QG engine
∗4 : QG engine for Europe
∗5 : If so equipped

∗: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

PASSENGER COMPARTMENT — LHD MODELS

NJEL0134S02



∗1 : Sedan...SB, Hatchback...GY

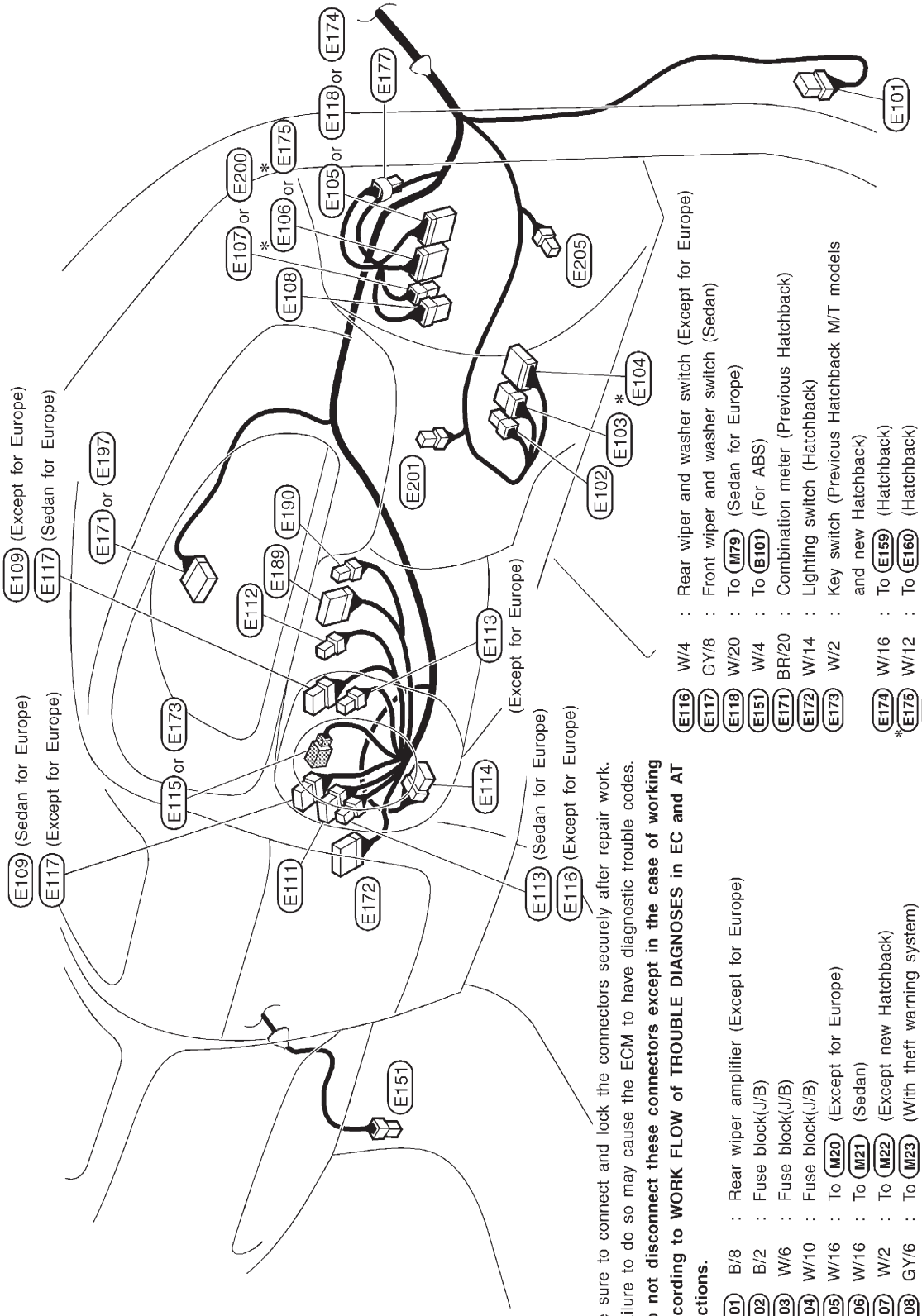
∗: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

E101	B/8	:	Rear wiper amplifier (Except for Europe)
E102	B/2	:	Fuse block(J/B)
E103	W/6	:	Fuse block(J/B)
∗E104	W/10	:	Fuse block(J/B)
E105	W/16	:	To M20 (Except for Europe)
∗E106	W/16	:	To M21 (Sedan)
E107	W/2	:	To M22 (Except new Hatchback)
E108	GY/6	:	To M23 (With theft warning system)
E109	BR/8	:	Lighting switch • Turn signal lamp switch (Sedan)
E110	W/3	:	Front fog lamp switch (QG16DE•18DE engines except for Europe and China)
E111	W/6	:	Front and rear fog lamp switch (Sedan for Europe and China)
E113	BR/4	:	Lighting switch (Sedan)
E114	W/6	:	Ignition switch
E115	BR/2	:	Key switch (Except Hatchback M/T models)
E116	W/4	:	Rear wiper and washer switch (Except for Europe)
E117	GY/8	:	Front wiper and washer switch (Sedan)
E118	W/20	:	To M79 (Sedan for Europe)
E119	∗1/6	:	Daytime light unit (For Northern Europe)
E120	∗1/8	:	Daytime light unit (For Northern Europe)
E151	W/4	:	To B101 (For ABS)
E171	BR/20	:	Combination meter (Previous Hatchback)
E172	W/14	:	Lighting switch (Hatchback)
E173	W/2	:	Key switch (Previous Hatchback M/T models and new Hatchback)
E174	W/16	:	To E159 (Hatchback)
∗E175	W/12	:	To E160 (Hatchback)
E177	–/2	:	Diode (Hatchback with QG engine)
E189	W/10	:	Wiper and washer switch (Hatchback)
E190	W/4	:	Wiper and washer switch (Hatchback)
E197	BR/24	:	Combination meter (New Hatchback)
E200	W/4	:	To M173 (Hatchback)
E201	W/4	:	Headlamp aiming switch (New Hatchback)
E202	L/6	:	Headlamp washer switch (New Hatchback)
E205	L/4	:	Front fog lamp relay (New Hatchback)

HEL686B

PASSENGER COMPARTMENT — RHD MODELS

NJEL0134S04



∗: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

- E101 B/8 : Rear wiper amplifier (Except for Europe)
- E102 B/2 : Fuse block(J/B)
- E103 W/6 : Fuse block(J/B)
- ∗E104 W/10 : Fuse block(J/B)
- E105 W/16 : To M20 (Except for Europe)
- ∗E106 W/16 : To M21 (Sedan)
- E107 W/2 : To M22 (Except new Hatchback)
- E108 GY/6 : To M23 (With theft warning system)
- E109 BR/8 : Lighting switch • Turn signal lamp switch (Sedan)
- E111 W/6 : Front and rear fog lamp switch (Sedan for Europe)
- E112 W/4 : Front fog lamp switch (QG15DE•16DE engines except for Europe)
- E113 BR/4 : Lighting switch (Sedan)
- E114 W/6 : Ignition switch
- E115 BR/2 : Key switch (Except Hatchback M/T models)
- E116 W/4 : Rear wiper and washer switch (Except for Europe)
- E117 GY/8 : Front wiper and washer switch (Sedan)
- E118 W/20 : To M79 (Sedan for Europe)
- E151 W/4 : To B101 (For ABS)
- E171 BR/20 : Combination meter (Previous Hatchback)
- E172 W/14 : Lighting switch (Hatchback)
- E173 W/2 : Key switch (Previous Hatchback M/T models and new Hatchback)
- E174 W/16 : To E159 (Hatchback)
- ∗E175 W/12 : To E160 (Hatchback)
- E177 –/2 : Diode (Hatchback with QG engine)
- E189 W/10 : Wiper and washer switch (Hatchback)
- E190 W/4 : Wiper and washer switch (Hatchback)
- E197 BR/24 : Combination meter (New Hatchback)
- E200 W/4 : To M173 (Hatchback)
- E201 W/4 : Headlamp aiming switch (New Hatchback)
- E205 L/4 : Front fog lamp relay (New Hatchback)

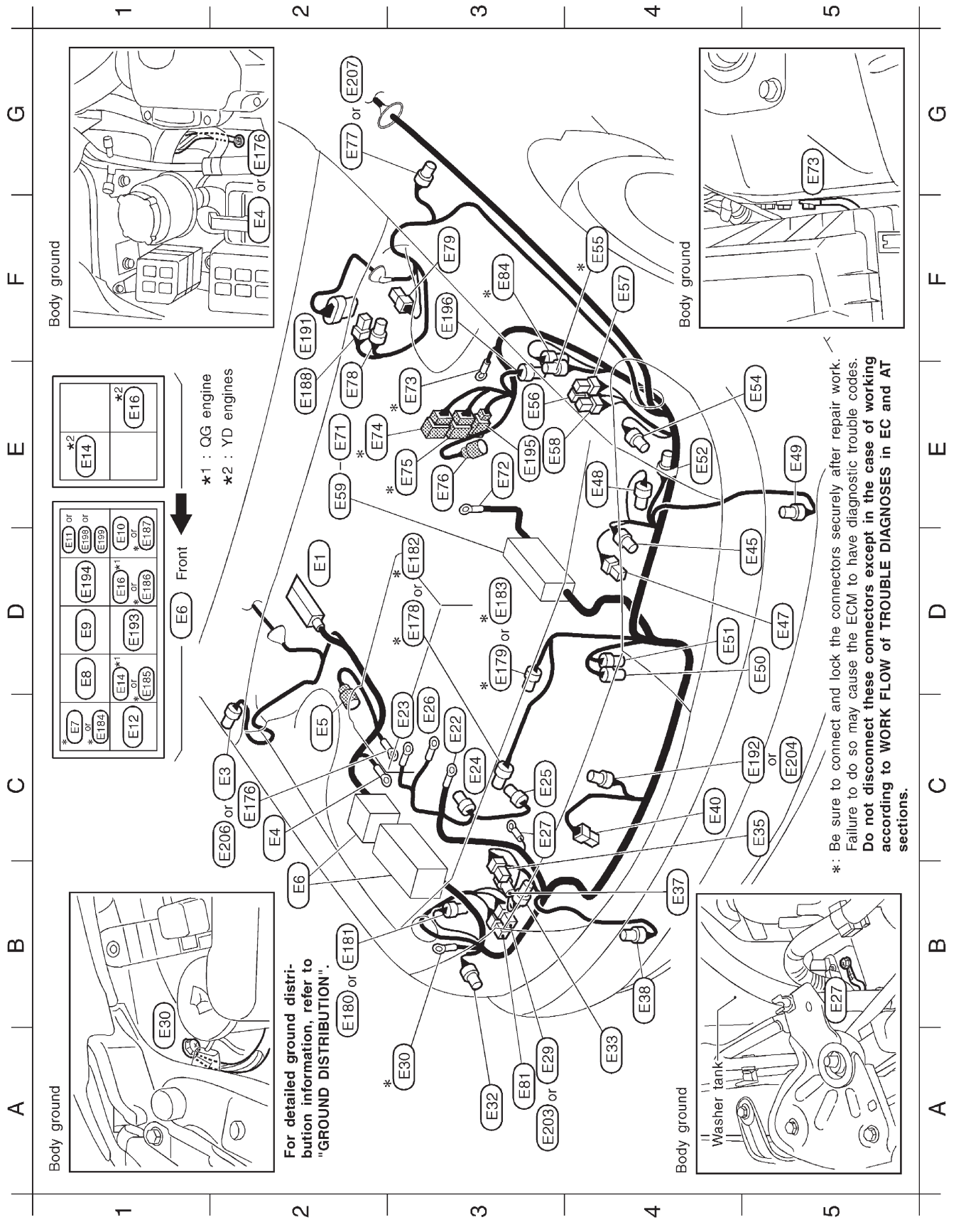
HEL687B

Engine Room Harness/Hatchback

NJEL0342

ENGINE COMPARTMENT — LHD MODEL

NJEL0342S01



HEL688B

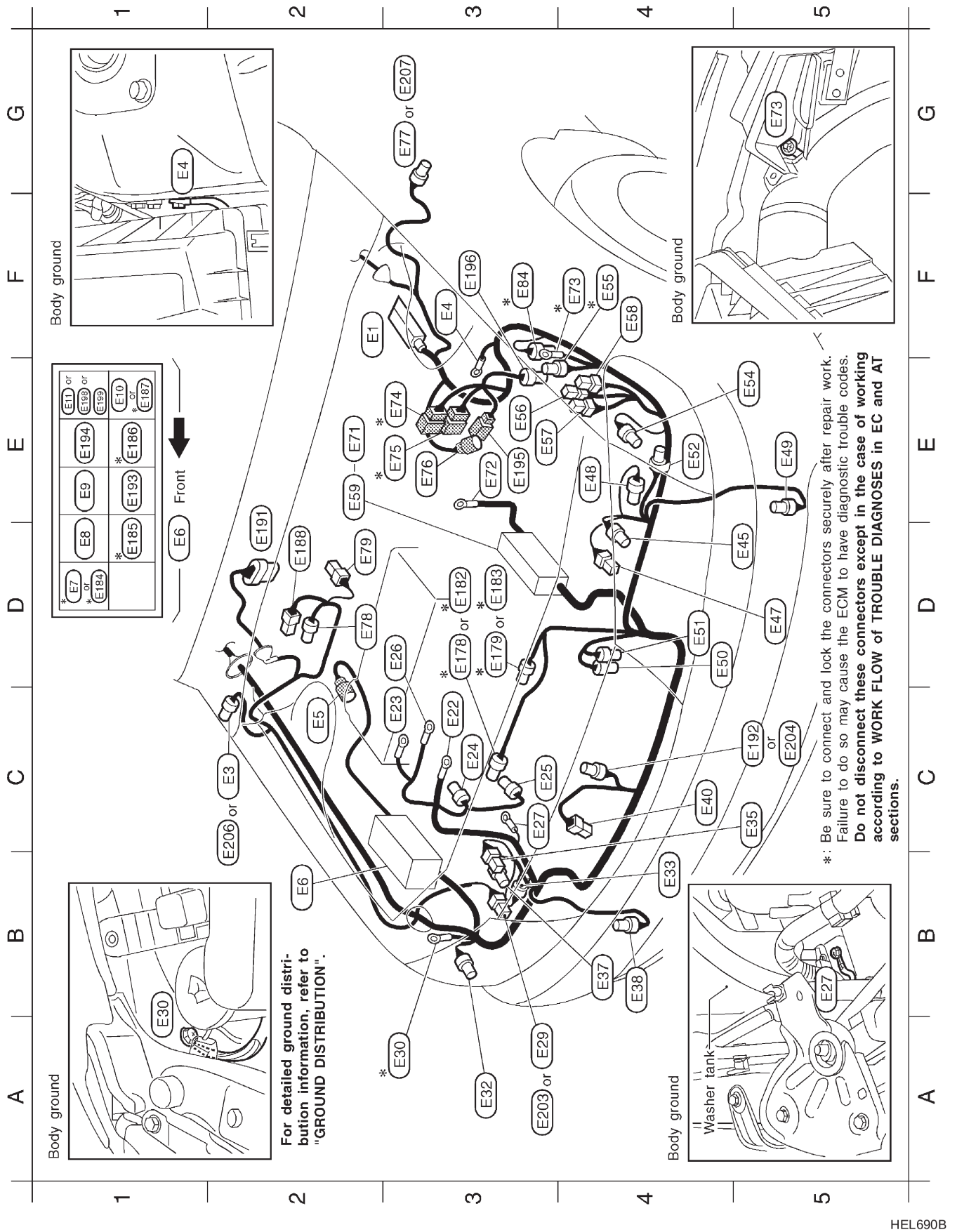
D2 (E1) B/31 : ABS actuator and electric unit (For ABS)
C2 (E3) BR/2 : Side turn signal lamp RH (Except ∗3)
C2 (E4) — : Body ground (For ABS with YD engine)
C2 (E5) GY/2 : Front wheel sensor RH (For ABS)
B2 (E6) — : Relay box
C1 *(E7) BR/6 : Cooling fan relay-1 (QG engine)
D1 (E8) W/3 : Horn relay
D1 (E9) L/4 : Air conditioner relay
D1 (E10) L/4 : Park/neutral position (PNP) relay (A/T models)
D1 (E11) L/4 : Front fog lamp relay (Except ∗3)
C1 (E12) BR/6 : Headlamp washer timer (∗4)
D1•E1 (E14) L/4 : Headlamp relay RH (∗4)
D1•E1 (E16) L/4 : Headlamp relay LH (∗4)
C3 (E22) — : Alternator (B)
C3 (E23) — : Alternator (E)
C3 (E24) GY/2 : Alternator (S,L)
C3 (E25) B/1 : Compressor
C3 (E26) — : Glow plug (YD engine)
C3 (E27) — : Body ground
A3 (E29) W/2 : Washer motor (Except ∗3)
A3 *(E30) — : Body ground
A3 (E32) GY/2 : Front turn signal lamp RH
A4 (E33) B/3 : Headlamp aiming motor RH
C5 (E35) B/2 : Parking lamp RH
B4 (E37) GY/3 : Headlamp RH
B4 (E38) L/2 : Front fog lamp RH (Except ∗3)
C4 (E40) B/1 : Horn high
D5 (E45) GY/3 : Headlamp LH
D5 (E47) B/2 : Parking lamp LH
E4 (E48) B/3 : Headlamp aiming motor LH
E5 (E49) L/2 : Front fog lamp LH
D5 (E50) B/3 : Refrigerant pressure sensor (QG engine)
D4 (E51) B/2 : Dual-pressure switch (YD engine)
E4 (E52) GY/2 : Not used
E5 (E54) GY/2 : Front turn signal lamp LH
F4 *(E55) GY/2 : Dropping resistor (A/T models)
E3 (E56) W/1 : Glow relay (YD engine)
F4 (E57) W/1 : Glow relay (YD engine)
E3 (E58) G/2 : Glow relay (YD engine)
E2 (E59) — : Fusible link and fuse box
E2 (E60) B/2 : Fusible link and fuse box (∗1)
E2 (E61) W/1 : Fusible link and fuse box (∗2)
E2 (E62) B/1 : Fusible link and fuse box (QG engine)
E2 (E63) B/1 : Fusible link and fuse box (∗1)
E2 (E64) — : Fusible link and fuse box (YD engine and ∗2)
E2 (E65) — : Fusible link and fuse box (YD engine and ∗2)
E2 (E66) B/1 : Fusible link and fuse box (∗1)
E2 *(E67) B/6 : Fusible link and fuse box (QG engine)
E2 *(E68) W/6 : Fusible link and fuse box (QG engine)
E2 *(E69) W/4 : Fusible link and fuse box (QG engine)
E2 (E70) W/3 : Fusible link and fuse box (∗2)
E2 (E71) G/2 : Fusible link and fuse box (∗1)
E3 (E72) — : Battery
E3 *(E73) — : Body ground
E2 *(E74) GY/8 : To (F35) (Except ∗3)
E3 *(E75) B/8 : To (F36)
E3 (E76) BR/2 : Front wheel sensor LH (For ABS)
G2 (E77) BR/2 : Side turn signal lamp LH (Except ∗3)
E2 (E78) GY/2 : Brake fluid level switch (Without ABS)
F3 (E79) GY/1 : Vacuum warning switch (YD engine)
A3 (E81) GY/2 : Headlamp washer motor (∗4)
F3 *(E84) GY/2 : Intake air temperature sensor (QG engine)
C2 (E176) — : Body ground (For ABS with QG engine)
D3 *(E178) B/2 : Cooling fan motor-1 (QG engine)
D3 *(E179) B/2 : Cooling fan motor-2 (QG engine)
B2 (E180) B/1 : Option connector for A/C (M/T models with QG engine without A/C)
B2 (E181) B/2 : Option connector for A/C (M/T models with YD engine without A/C)
D3 *(E182) B/2 : Cooling fan motor-1 (YD engine)
D3 *(E183) B/2 : Cooling fan motor-2 (YD engine)
C1 *(E184) B/4 : Cooling fan relay-1 (YD engine)
D1 *(E185) B/5 : Cooling fan relay-2 (YD engine)
D1 *(E186) B/4 : Cooling fan relay-3 (YD engine)
D1 *(E187) B/5 : Cooling fan relay-4 (YD engine)
E2 (E188) GY/2 : Brake fluid level switch (With ABS)
F2 (E191) GY/5 : Wiper motor
C5 (E192) GY/2 : Outside air temperature sensor (Except ∗3)
D1 (E193) B/5 : Rear wiper relay
D1 (E194) B/5 : Front wiper relay (Except ∗3)
E3 (E195) W/4 : To (F115)
F3 (E196) BR/2 : Fuel filter switch
D1 (E198) BR/6 : ECM relay (∗3 with QG engine)
D1 (E199) BR/6 : ECM relay (∗3 with YD engine)
A3 (E203) B/2 : Washer motor (∗3)
C5 (E204) –/2 : Outside air temperature sensor (∗3)
C2 (E206) — : Side turn signal lamp RH (∗3)
G2 (E207) — : Side turn signal lamp LH (∗3)

∗1 : QG engine without daytime light system
∗2 : QG engine with daytime light system
∗3 : MOdels after VIN No. N16U0135126
∗4 : With daytime light system
∗: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

NEL807

ENGINE COMPARTMENT — RHD MODEL

NJEL0342S03



HEL690B

F2 E1 B/31 : ABS actuator and electric unit (For ABS)
C2 E3 BR/2 : Side turn signal lamp RH (*1)
F3 E4 — : Body ground (For ABS)
C2 E5 GY/2 : Front wheel sensor RH (For ABS)
B2 E6 — : Relay box
D1* E7 BR/6 : Cooling fan relay-1 (QG engine)
D1 E8 W/3 : Horn relay
E1 E9 L/4 : Air conditioner relay
E1 E10 L/4 : Park/neutral position (PNP) relay (A/T models)
E1 E11 L/4 : Front fog lamp relay (*1)
C3 E22 — : Alternator (B)
C3 E23 — : Alternator (E)
C3 E24 GY/2 : Alternator (S,L)
C3 E25 B/1 : Compressor
D3 E26 — : Glow plug (YD engine)
C3 E27 — : Body ground
A3 E29 W/2 : Washer motor (*1)
A3* E30 — : Body ground
A3 E32 GY/2 : Front turn signal lamp RH
B4 E33 B/3 : Headlamp aiming motor RH
C5 E35 B/2 : Parking lamp RH
B4 E37 GY/3 : Headlamp RH
B4 E38 L/2 : Front fog lamp RH

C4 E40 B/1 : Horn high
D5 E45 GY/3 : Headlamp LH
D5 E47 B/2 : Parking lamp LH
E4 E48 B/3 : Headlamp aiming motor LH
E5 E49 L/2 : Front fog lamp LH
D4 E50 B/3 : Refrigerant pressure sensor (QG engine)
D4 E51 B/2 : Dual-pressure switch (YD engine)
E4 E52 GY/2 : Not used
E5 E54 GY/2 : Front turn signal lamp LH
F4* E55 GY/2 : Dropping resistor (A/T models)
E3 E56 W/1 : Glow relay (YD engine)
E3 E57 W/1 : Glow relay (YD engine)

F4 E58 G/2 : Glow relay (YD engine)
E2 E59 — : Fusible link and fuse box
E2 E60 B/2 : Fusible link and fuse box (QG engine)
E2 E62 B/1 : Fusible link and fuse box (QG engine)
E2 E63 B/1 : Fusible link and fuse box (QG engine)
E2 E64 — : Fusible link and fuse box (YD engine)
E2 E65 — : Fusible link and fuse box (YD engine)
E2 E66 B/1 : Fusible link and fuse box (QG engine)
E2* E67 B/6 : Fusible link and fuse box (QG engine)
E2* E68 W/6 : Fusible link and fuse box (QG engine)
E2* E69 W/4 : Fusible link and fuse box (QG engine)
E2 E71 G/2 : Fusible link and fuse box (M/T models with QG engine)
E3 E72 — : Battery
F4* E73 — : Body ground
E3* E74 GY/8 : To F35
E3* E75 B/8 : To F36
E3 E76 BR/2 : Front wheel sensor LH (For ABS)
G3 E77 BR/2 : Side turn signal lamp LH (*1)
D2 E78 GY/2 : Brake fluid level switch (Without ABS)
D2 E79 GY/1 : Vacuum warning switch (YD engine)
F3* E84 GY/2 : Intake air temperature sensor (QG engine)
D3* E178 B/2 : Cooling fan motor-1 (QG engine)
D3* E179 B/2 : Cooling fan motor-2 (QG engine)
D3* E182 B/2 : Cooling fan motor-1 (YD engine)

D3* E183 B/2 : Cooling fan motor-2 (YD engine)
D1* E184 B/4 : Cooling fan relay-1 (YD engine)
D1* E185 B/5 : Cooling fan relay-2 (YD engine)
E1* E186 B/4 : Cooling fan relay-3 (YD engine)
E1* E187 B/5 : Cooling fan relay-4 (YD engine)
D2 E188 GY/2 : Brake fluid level switch (With ABS)
D2 E191 GY/5 : Wiper motor
C5 E192 GY/2 : Outside air temperature sensor (*1)
E1 E193 B/5 : Rear wiper relay
E1 E194 B/5 : Front wiper relay (*1)
E3 E195 W/4 : To F115
F3 E196 BR/2 : Fuel filter switch
E1 E198 BR/6 : ECM relay (*2 with QG engine)
E1 E199 BR/6 : ECM relay (*2 with YD engine)
A3 E203 B/2 : Washer motor (*2)
C5 E204 –/2 : Outside air temperature sensor (*2)
C2 E206 — : Side turn signal lamp RH (*2)
G3 E207 — : Side turn signal lamp LH (*2)

*1: Models before VIN No. N16U0135126

*2: Models after VIN No. N16U0135126

*: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

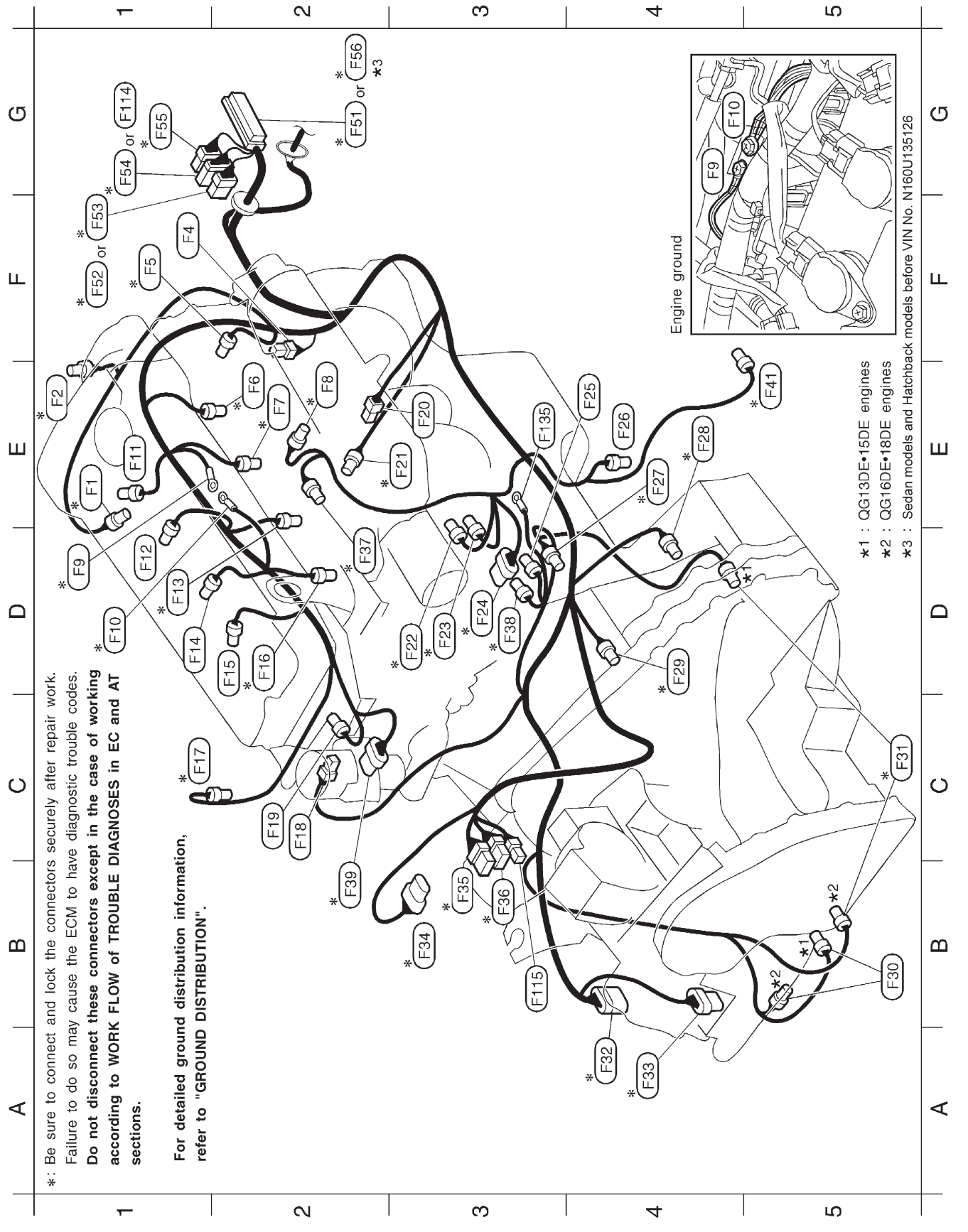
NEL808

Engine Control Harness/QG Engine Models

NJEL0135

LHD MODELS

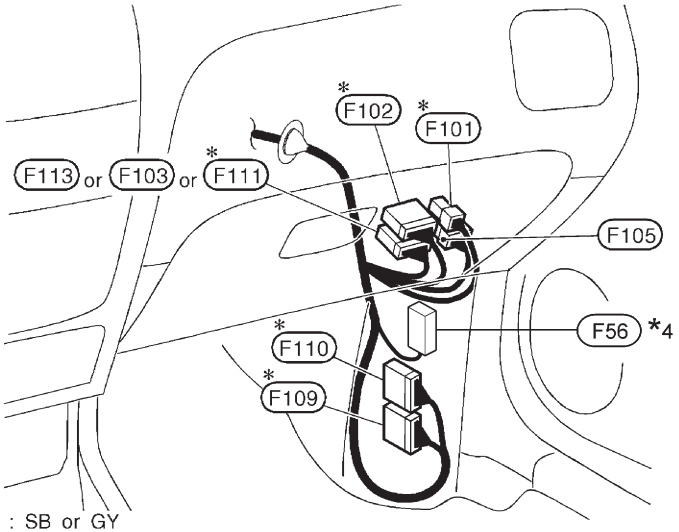
NJEL0135S01



NEL809

E1 *F1 GY/2 : Engine coolant temperature sensor
E1 *F2 B/3 : Camshaft position sensor (PHASE)
F1 F4 GY/2 : Condenser
F1 *F5 G/2 : Intake valve timing control solenoid valve (QG16DE•18DE engines with three way catalyst)
E2 *F6 GY/2 : Injector No.1
E2 *F7 GY/2 : Injector No.2
E2 *F8 L/2 : EVAP canister purge volume control solenoid valve
D1 *F9 — : Engine ground
D1 *F10 — : Engine ground
E1 F11 GY/3 : Ignition coil No.1 (With power transistor)
D1 F12 GY/3 : Ignition coil No.2 (With power transistor)
D1 *F13 GY/2 : Injector No.3
D1 F14 GY/3 : Ignition coil No.3 (With power transistor)
D2 F15 GY/3 : Ignition coil No.4 (With power transistor)
D2 *F16 GY/2 : Injector No.4
C1 *F17 ⋆1/3 : Heated oxygen sensor 1 (Front) (With three way catalyst)
C2 F18 B/1 : Thermal transmitter
C2 F19 G/2 : EGRC-solenoid valve (QG16DE•18DE engines except for Europe)
E3 F20 B/1 : Oil pressure switch
E3 *F21 GY/2 : Knock sensor
D3 *F22 BR/3 : Throttle position sensor
D3 *F23 GY/3 : Throttle position switch
D3 *F24 GY/6 : IACV-AAC valve
E4 F25 GY/1 : Starter motor (Except Hatchback M/T models without daytime light system for Europe)
E4 F26 GY/2 : Power steering oil pressure switch
E4 *F27 B/3 : Crankshaft position sensor (POS)
E4 *F28 GY/2 : Vehicle speed sensor
D4 *F29 BR/3 : Revolution sensor (A/T models)
B5 F30 B/2 : Back-up lamp switch (M/T models)
C5 *F31 B/2 : Park/neutral position (PNP) switch (M/T models)
A4 *F32 B/10 : Park/neutral position (PNP) switch (A/T models)
A4 *F33 B/8 : A/T solenoid valves (A/T models)
B3 *F34 GY/5 : Mass air flow sensor
B3 *F35 GY/8 : To E74
B3 *F36 B/8 : To E75
D2 *F37 GY/2 : EGR temperature sensor (For Europe)
D3 *F38 G/2 : SWIRL control valve control solenoid valve (For Europe) (⋆3)
B2 *F39 GY/6 : EGR volume control valve (For Europe)
E5 *F41 ⋆2/4 : Heated oxygen sensor 2 (Rear) (For Europe)
G2 *F51 GY/81 : ECM (Except for Europe)
F1 *F52 W/6 : Joint connector-1 (Except for Europe)
F1 *F53 GY/6 : Joint connector-3 (For Europe)
G1 *F54 L/12 : Joint connector-4 (For Europe)
G1 *F55 W/6 : Joint connector-5 (For Europe)
G2 *F56 GY/111 : ECM (For Europe)
G1 F114 –/20 : Joint connector-6 (Hatchback)
B3 F115 W/4 : To E195 (Hatchback)
E3 F135 — : Starter motor (Hatchback M/T models without daytime light system for Europe)

PASSENGER COMPARTMENT

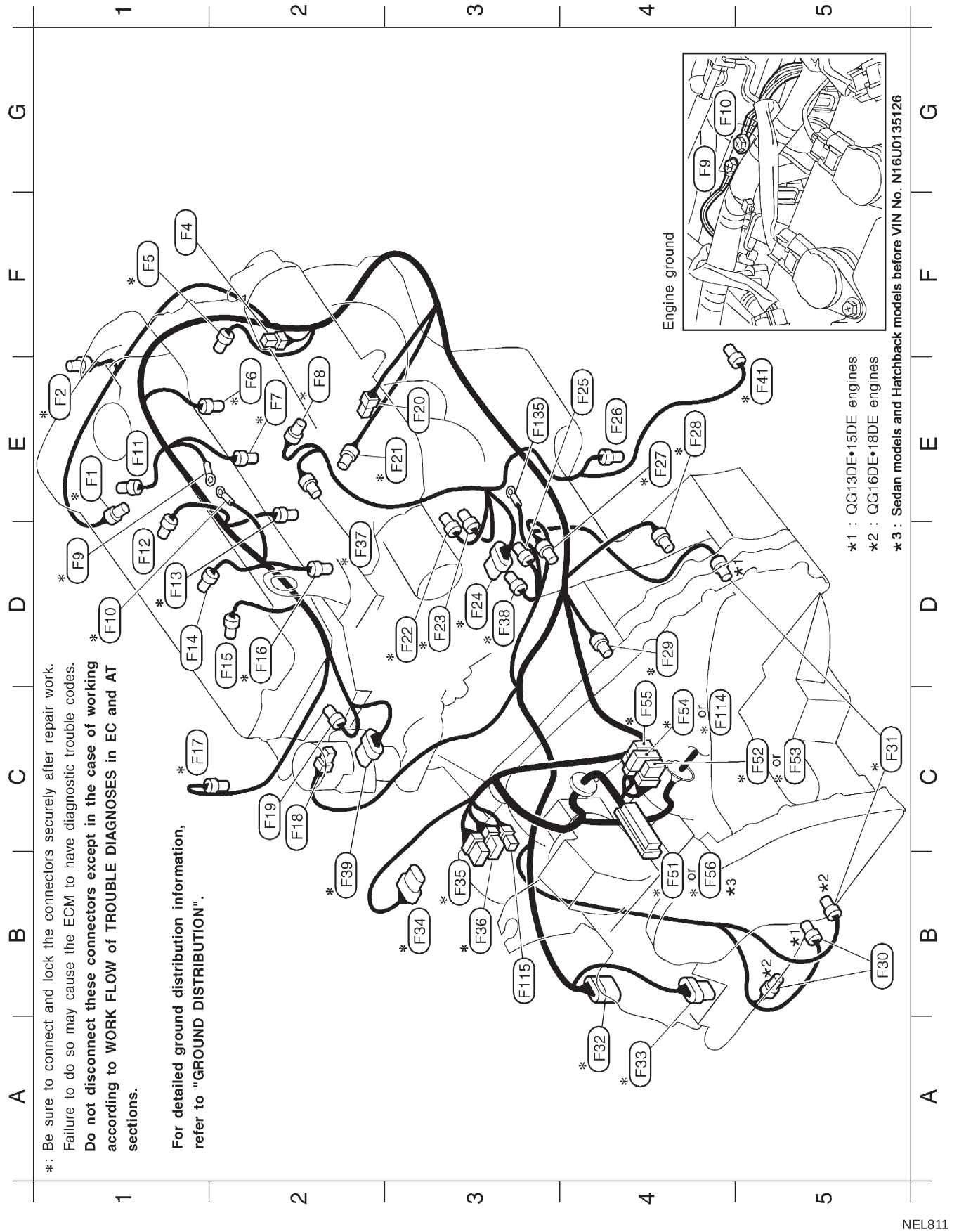


⋆1 : SB or GY
⋆2 : G or GY
⋆3 : If so equipped
⋆4 : Hatchback models after VIN No. N160U135126
⋆: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

*F101 BR/6 : ECM relay (Except *4)
*F102 W/16 : To M63
F103 BR/12 : To M64 (A/T models except for Europe)
F105 W/8 : To M66 (Except for Europe and A/T models for Europe)
*F109 W/24 : TCM (Transmission control module) (A/T models)
*F110 GY/24 : TCM (Transmission control module) (A/T models)
*F111 BR/8 : To M73 (For Europe)
F113 BR/16 : To M169 (Hatchback)

RHD MODELS

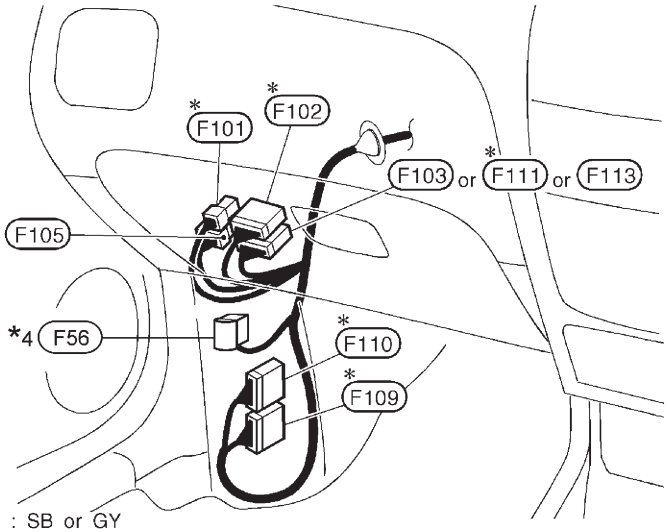
NJEL0135S02



NEL811

E1 *F1 GY/2 : Engine coolant temperature sensor
E1 *F2 B/3 : Camshaft position sensor (PHASE)
F1 F4 GY/2 : Condenser
F1 *F5 G/2 : Intake valve timing control solenoid valve (QG16DE•18DE engines with three way catalyst)
E2 *F6 GY/2 : Injector No.1
E2 *F7 GY/2 : Injector No.2
E2 *F8 L/2 : EVAP canister purge volume control solenoid valve
D1 *F9 — : Engine ground
D1 *F10 — : Engine ground
E1 F11 GY/3 : Ignition coil No.1 (With power transistor)
D1 F12 GY/3 : Ignition coil No.2 (With power transistor)
D1 *F13 GY/2 : Injector No.3
D1 F14 GY/3 : Ignition coil No.3 (With power transistor)
D2 F15 GY/3 : Ignition coil No.4 (With power transistor)
D2 *F16 GY/2 : Injector No.4
C1 *F17 ∗1/3 : Heated oxygen sensor 1 (Front) (With three way catalyst)
C2 F18 B/1 : Thermal transmitter
C2 F19 G/2 : EGRC-solenoid valve (QG15DE•16DE engines except for Europe)
E3 F20 B/1 : Oil pressure switch
E3 *F21 GY/2 : Knock sensor
D3 *F22 BR/3 : Throttle position sensor
D3 *F23 GY/3 : Throttle position switch
D3 *F24 GY/6 : IACV-AAC valve
E4 F25 GY/1 : Starter motor (Except Hatchback M/T models for Europe)
E4 F26 GY/2 : Power steering oil pressure switch
E4 *F27 B/3 : Crankshaft position sensor (POS)
E4 *F28 GY/2 : Vehicle speed sensor
D4 *F29 BR/3 : Revolution sensor (A/T models)
B5 F30 B/2 : Back-up lamp switch (M/T models)
C5 *F31 B/2 : Park/neutral position (PNP) switch (M/T models)
A4 *F32 B/10 : Park/neutral position (PNP) switch (A/T models)
A4 *F33 B/8 : A/T solenoid valves (A/T models)
B3 *F34 GY/5 : Mass air flow sensor
B3 *F35 GY/8 : To E74
B3 *F36 B/8 : To E75
D2 *F37 GY/2 : EGR temperature sensor (For Europe)
D3 *F38 G/2 : SWIRL control valve control solenoid valve (For Europe) (∗3)
B2 *F39 GY/6 : EGR volume control valve (For Europe)
E5 *F41 ∗2/4 : Heated oxygen sensor 2 (Rear) (For Europe)
B4 *F51 GY/81 : ECM (Except for Europe)
C5 *F52 W/6 : Joint connector-1 (Except for Europe)
C5 *F53 GY/6 : Joint connector-3 (For Europe)
C4 *F54 L/12 : Joint connector-4 (For Europe)
C4 *F55 W/6 : Joint connector-5 (For Europe)
B4 *F56 GY/111 : ECM (For Europe)
C4 F114 –/20 : Joint connector-6 (Hatchback)
B3 F115 W/4 : To E195 (Hatchback)
E3 F135 — : Starter motor (Hatchback M/T models for Europe)

PASSENGER COMPARTMENT



∗1 : SB or GY
∗2 : G or GY
∗3 : If so equipped
∗4 : Hatchback models after VIN No. N160U135126
∗: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

*F101 BR/6 : ECM relay (Except *4)
*F102 W/16 : To M63
F103 BR/12 : To M64 (A/T models except for Europe)
F105 W/8 : To M66 (Except for Europe and A/T models for Europe)
*F109 W/24 : TCM (Transmission control module) (A/T models)
*F110 GY/24 : TCM (Transmission control module) (A/T models)
*F111 BR/8 : To M73 (For Europe)
F113 BR/16 : To M169 (Hatchback)

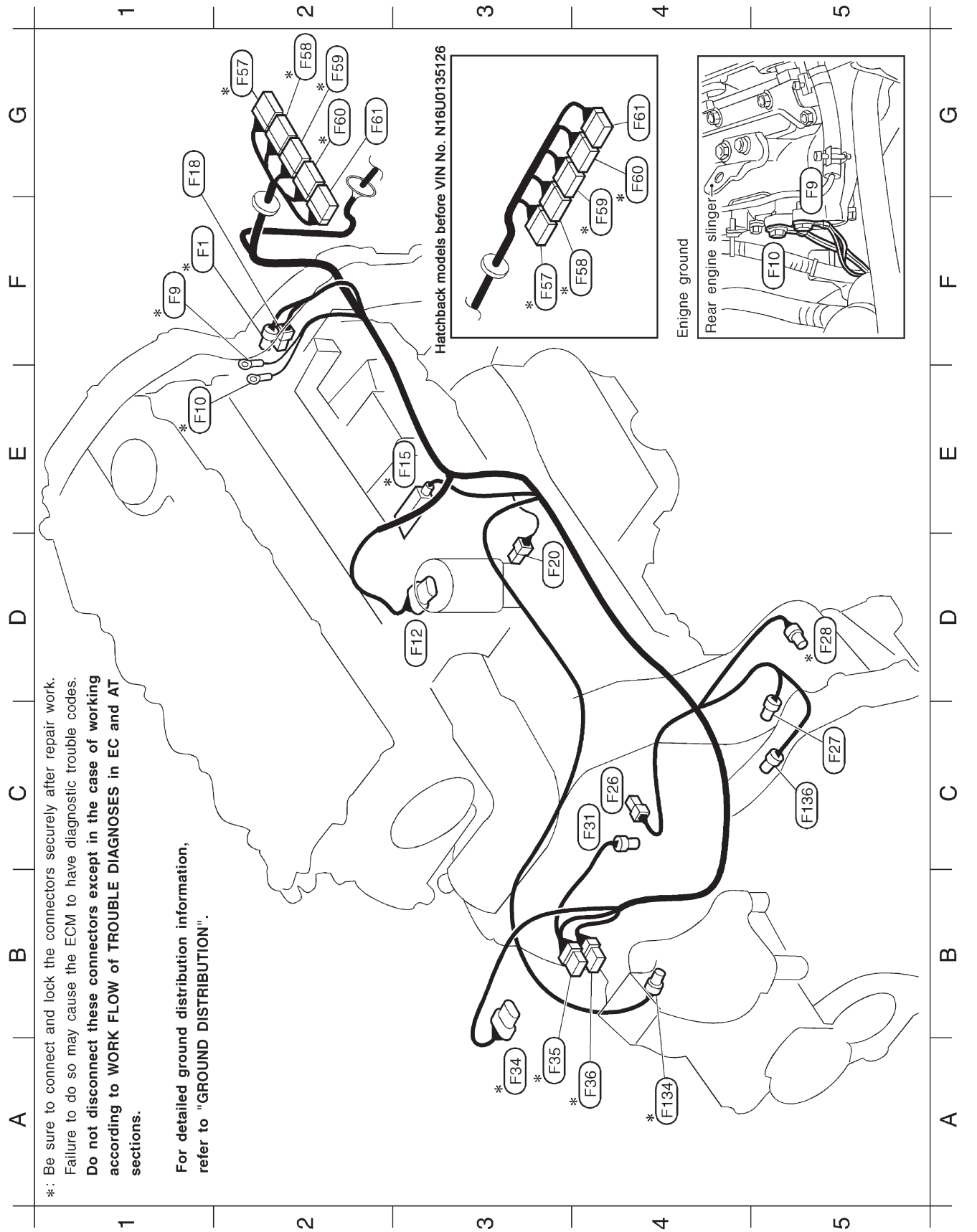
NEL812

Engine Control Harness/YD Engine Models

NJEL0343

LHD MODELS

NJEL0343S01



*: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

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

NEL813

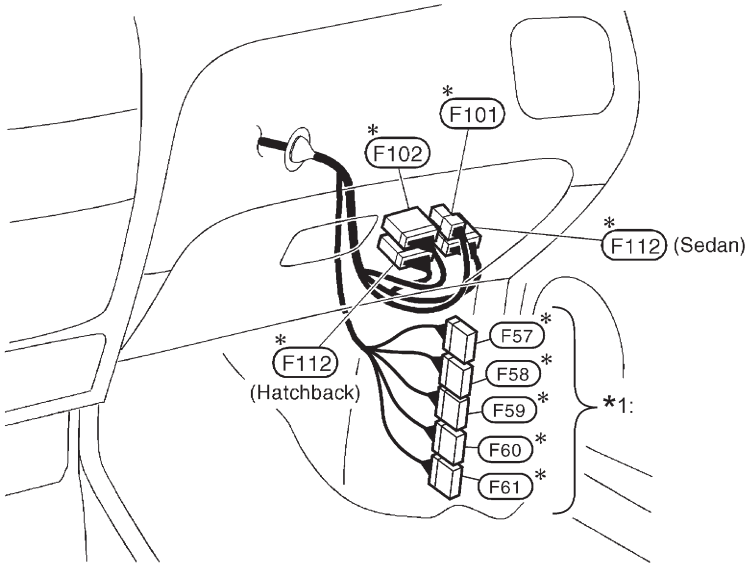
F1 *F1 GY/2 : Engine coolant temperature sensor
F1 *F9 — : Engine ground
E1 *F10 — : Engine ground
D3 F12 GY/6 : EGR volume control valve
E3 *F15 B/8 : Electronic control fuel injection pump
G1 F18 B/1 : Thermal transmitter
D3 F20 B/1 : Oil pressure switch
D3 *F22 B/4 : To F201 (Sedan)
C4 F26 B/1 : Starter motor
D5 *F28 GY/2 : Vehicle speed sensor
C5 F30 GY/8 : Park/neutral position (PNP) and back-up lamp switch (Sedan)
C4 F31 BR/2 : Fuel filter switch (If so equipped)
A3 *F34 GY/5 : Mass air flow sensor
A3 *F35 GY/8 : To E74 (If so equipped)
A4 *F36 B/8 : To E75
G2 *F57 –/9 : ECM
G2 *F58 –/24 : ECM
G2 *F59 –/52 : ECM
G2 *F60 –/40 : ECM
G2 F61 –/9 : ECM
A4 *F134 GY/2 : Crankshaft position sensor (TDC) (Hatchback)
C5 *F136 GY/4 : Park/neutral position (PNP) and back-up lamp switch (Hatchback)

Sub-harness (Sedan)

D3 *F201 B/4 : To F22
B4 *F202 GY/2 : Crankshaft position sensor (TDC)

PASSENGER COMPARTMENT

*1: Hatchback models after VIN No. N16U0135126

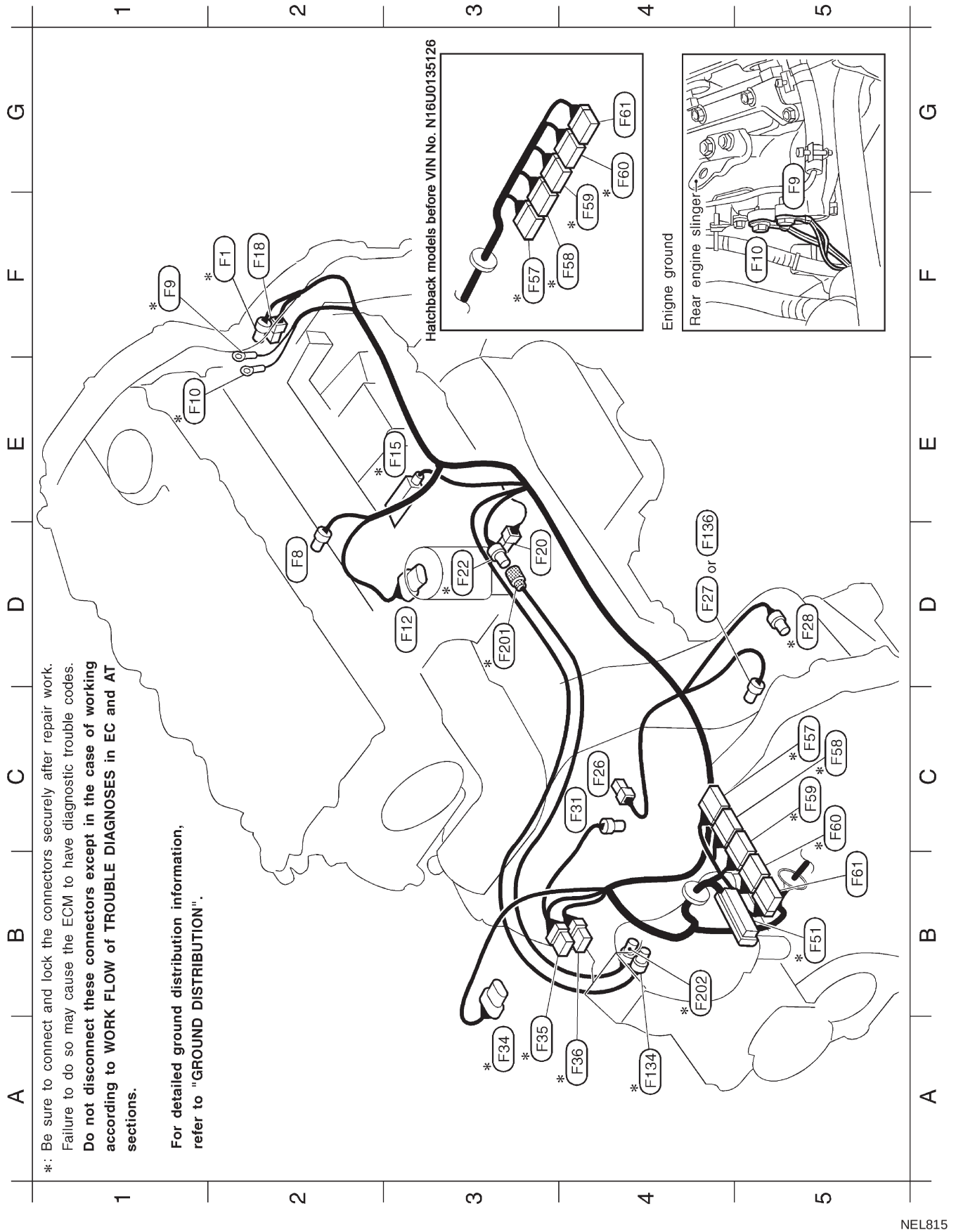


*: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

*F101 BR/6 : ECM relay (Except *1)
*F102 W/16 : To M63
*F112 BR/16 : To M74

RHD MODELS

NJEL0343S02



∗: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.

Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

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

NEL815

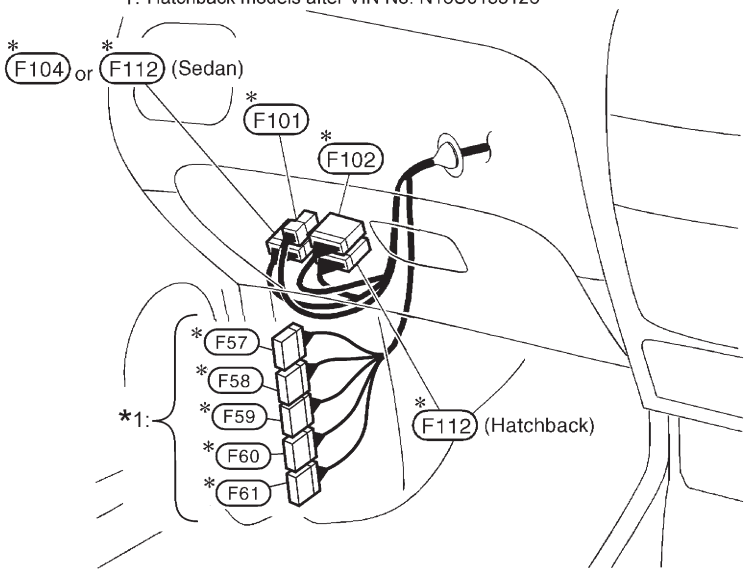
F2 *F1 GY/2 : Engine coolant temperature sensor
D2 F8 B/2 : Throttle control solenoid valve (Except for Europe)
F1 *F9 — : Engine ground
E1 *F10 — : Engine ground
D3 F12 GY/6 : EGR volume control valve
E3 *F15 B/8 : Electronic control fuel injection pump
F2 F18 B/1 : Thermal transmitter
D3 F20 B/1 : Oil pressure switch
D3 *F22 B/4 : To F201 (Sedan)
C4 F26 B/1 : Starter motor
D4 F27 GY/4 : Park/neutral position (PNP) and back-up lamp switch (Except for Europe)
D5 *F28 GY/2 : Vehicle speed sensor
C5 F30 GY/8 : Park/neutral position (PNP) and back-up lamp switch (Sedan for Europe)
C4 F31 BR/2 : Fuel filter switch (If so equipped)
A3 *F34 GY/5 : Mass air flow sensor
A3 *F35 GY/8 : To E74 (If so equipped)
A4 *F36 B/8 : To E75
B5 *F51 W/88 : ECM (Except for Europe)
C5 *F57 –/9 : ECM (For Europe)
C5 *F58 –/24 : ECM (For Europe)
C5 *F59 –/52 : ECM (For Europe)
C5 *F60 –/40 : ECM (For Europe)
B5 F61 –/9 : ECM (For Europe)
A4 *F134 GY/2 : Crankshaft position sensor (TDC) (Hatchback)
D4 *F136 GY/4 : Park/neutral position (PNP) and back-up lamp switch (Hatchback for Europe)

Sub-harness (Sedan)

D3 *F201 B/4 : To F22
B4 *F202 GY/2 : Crankshaft position sensor (TDC)

PASSENGER COMPARTMENT

*1: Hatchback models after VIN No. N16U0135126



*: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

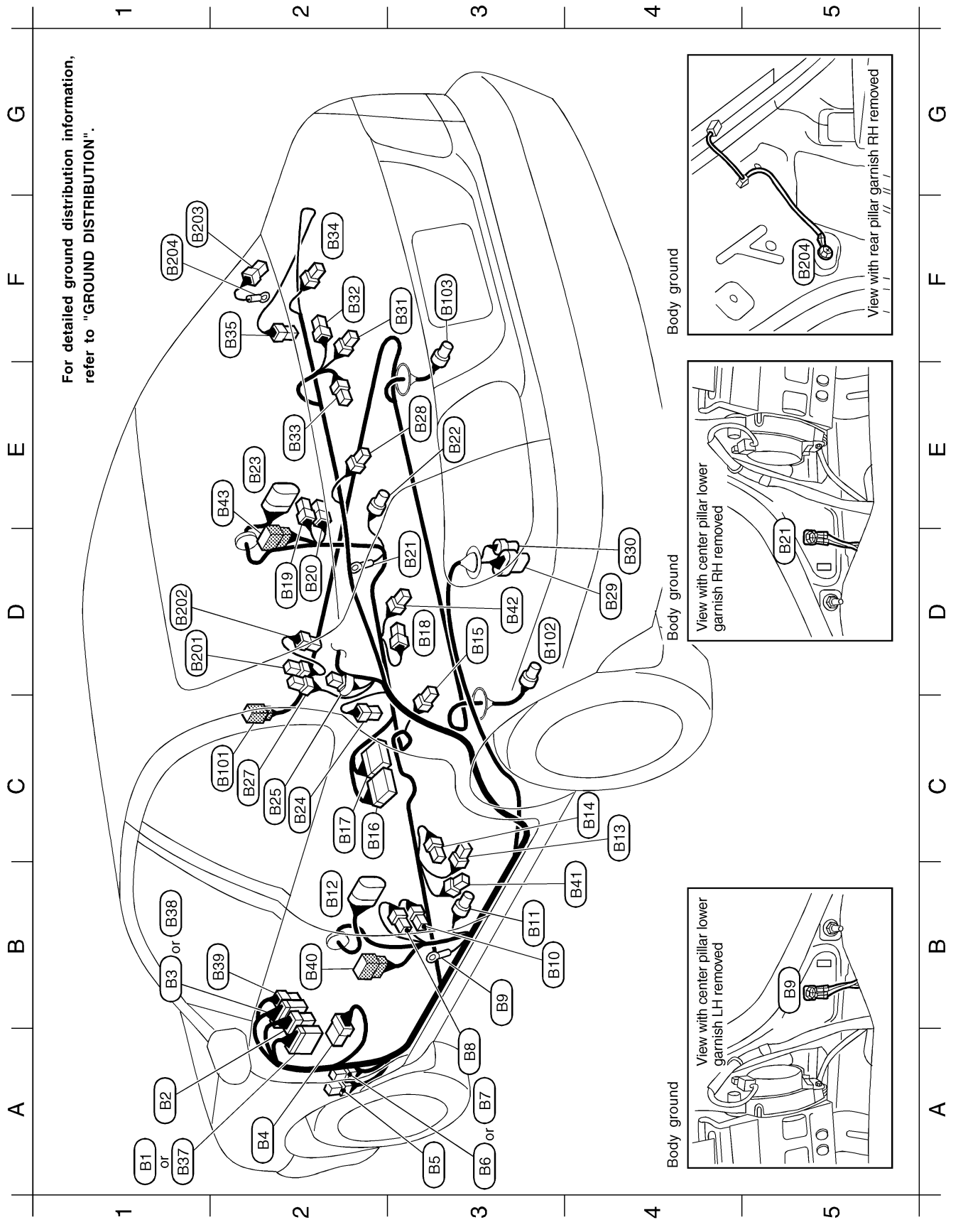
*F101 BR/6 : ECM relay (Except *1)
*F102 W/16 : To M63
*F104 W/12 : To M65 (Except for Europe)
*F112 BR/16 : To M74 (For Europe)

Body Harness/Sedan

NJEL0136

INTERIOR ROOM SIDE — LHD MODELS

NJEL0136S01



HEL958B

A1 (B1) W/20 : To (M17) (Except for Europe)
A1 (B2) W/6 : To (M18) (With power window)
B1 (B3) BR/12 : To (M19) (Except for Europe)
A2 (B4) W/8 : Fuse block (J/B)
A3 (B5) L/4 : Fuel pump relay (QG engine)
A3 (B6) BR/6 : Rear window defogger relay
(For rear window defogger and mirror defogger)
A3 (B7) L/4 : Rear window defogger relay
(For rear window defogger only)
A3 (B8) W/3 : Door switch driver side
B3 (B9) — : Body ground
B3 (B10) W/4 : Front LH seat belt pre-tensioner
B3 (B11) Y/2 : LH side air bag (satellite) sensor (With side air bag)
B2 (B12) B/10 : To (D51) (With power window except for Europe)
C4 (B13) W/3 : Seat belt switch (Except for Europe)
C4 (B14) Y/2 : To front LH side air bag module sub-harness (With side air bag)
D3 (B15) B/1 : Parking brake switch
C2 (B16) Y/12 : Air bag diagnosis sensor unit
C2 (B17) Y/12 : Air bag diagnosis sensor unit
D3 (B18) Y/2 : To front RH side air bag module sub-harness (With side air bag)
D2 (B19) W/3 : Door switch passenger side
D2 (B20) W/4 : Front RH seat belt pre-tensioner
D3 (B21) — : Body ground
E3 (B22) Y/2 : RH side air bag (satellite) sensor (With side air bag)
E2 (B23) B/10 : To (D71) (With power window except for Europe)
C2 (B24) W/1 : Rear door switch LH
C2 (B25) -/2 : Diode (For Europe and with theft warning system except for Europe)
C2 (B27) B/1 : Condenser or rear window defogger
E3 (B28) BR/2 : Rear speaker LH
D4 (B29) GY/5 : Fuel level sensor unit and fuel pump (QG engine)
D4 (B30) GY/3 : Fuel level sensor unit (YD engine)
F3 (B31) W/2 : Trunk room lamp
F2 (B32) W/2 : High-mounted stop lamp
E2 (B33) W/4 : Rear wiper motor
F2 (B34) BR/2 : Rear speaker RH
F2 (B35) W/1 : Rear door switch RH
A1 (B37) BR/16 : To (M82) (For Europe)
B1 (B38) W/12 : To (M81) (For Europe)
B2 (B39) W/4 : To (M80) (For heated seat)
B2 (B40) W/8 : To (D56) (For Europe)
B4 (B41) W/3 : Heated seat LH (For cold areas for Europe)
D3 (B42) W/3 : Heated seat RH (For cold areas for Europe)
E2 (B43) W/8 : To (D76) (For Europe)

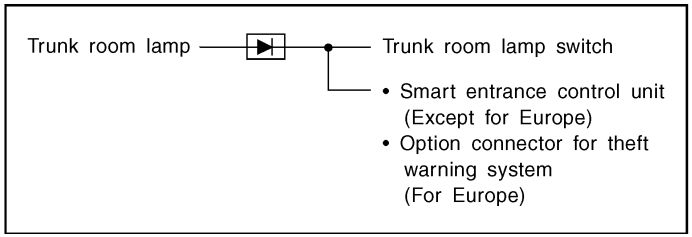
Body No.2 harness (For ABS)

C2 (B101) W/4 : To (E151)
D3 (B102) BR/2 : Rear wheel sensor LH
F3 (B103) GY/2 : Rear wheel sensor RH

Sub-harness

D1 (B201) B/1 : Condenser (With radio)
D1 (B202) B/1 : Rear window defogger (+) (With radio)
F1 (B203) B/1 : Rear window defogger (–)
F1 (B204) — : Body ground

Diode (B25)

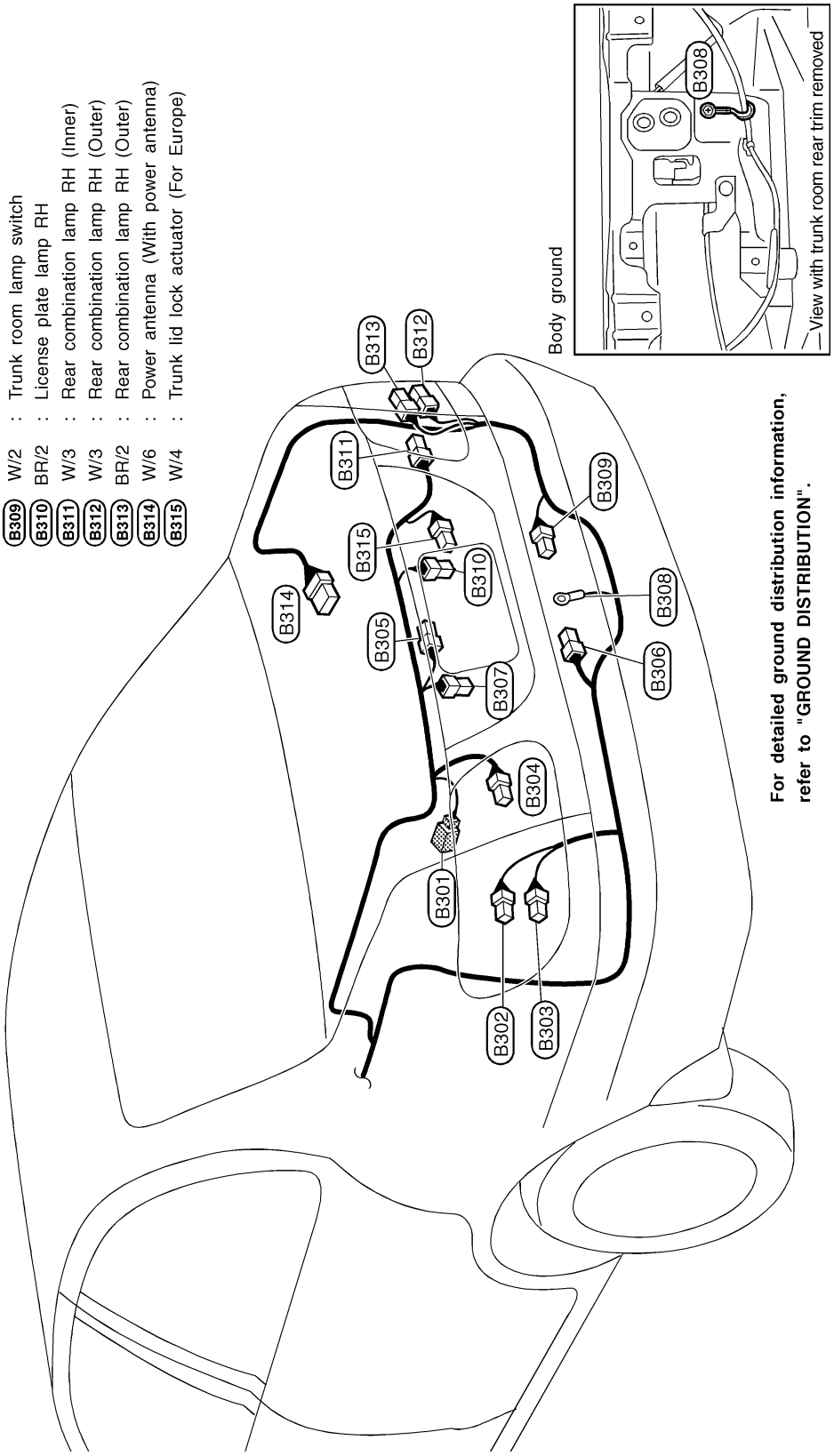


HEL337B

TRUNK ROOM SIDE — LHD MODELS

NJEL0136S03

B301	BR/2	High-mounted stop lamp
B302	BR/2	Rear combination lamp LH (Outer)
B303	W/3	Rear combination lamp LH (Outer)
B304	W/3	Rear combination lamp LH (Inner)
B305	W/2	Trunk key cylinder switch (With theft warning system)
B306	W/4	Trunk lid opener actuator (With multi-remote control system except for Europe)
B307	BR/2	License plate lamp LH
B308	—	Body ground
B309	W/2	Trunk room lamp switch
B310	BR/2	License plate lamp RH
B311	W/3	Rear combination lamp RH (Inner)
B312	W/3	Rear combination lamp RH (Outer)
B313	BR/2	Rear combination lamp RH (Outer)
B314	W/6	Power antenna (With power antenna)
B315	W/4	Trunk lid lock actuator (For Europe)

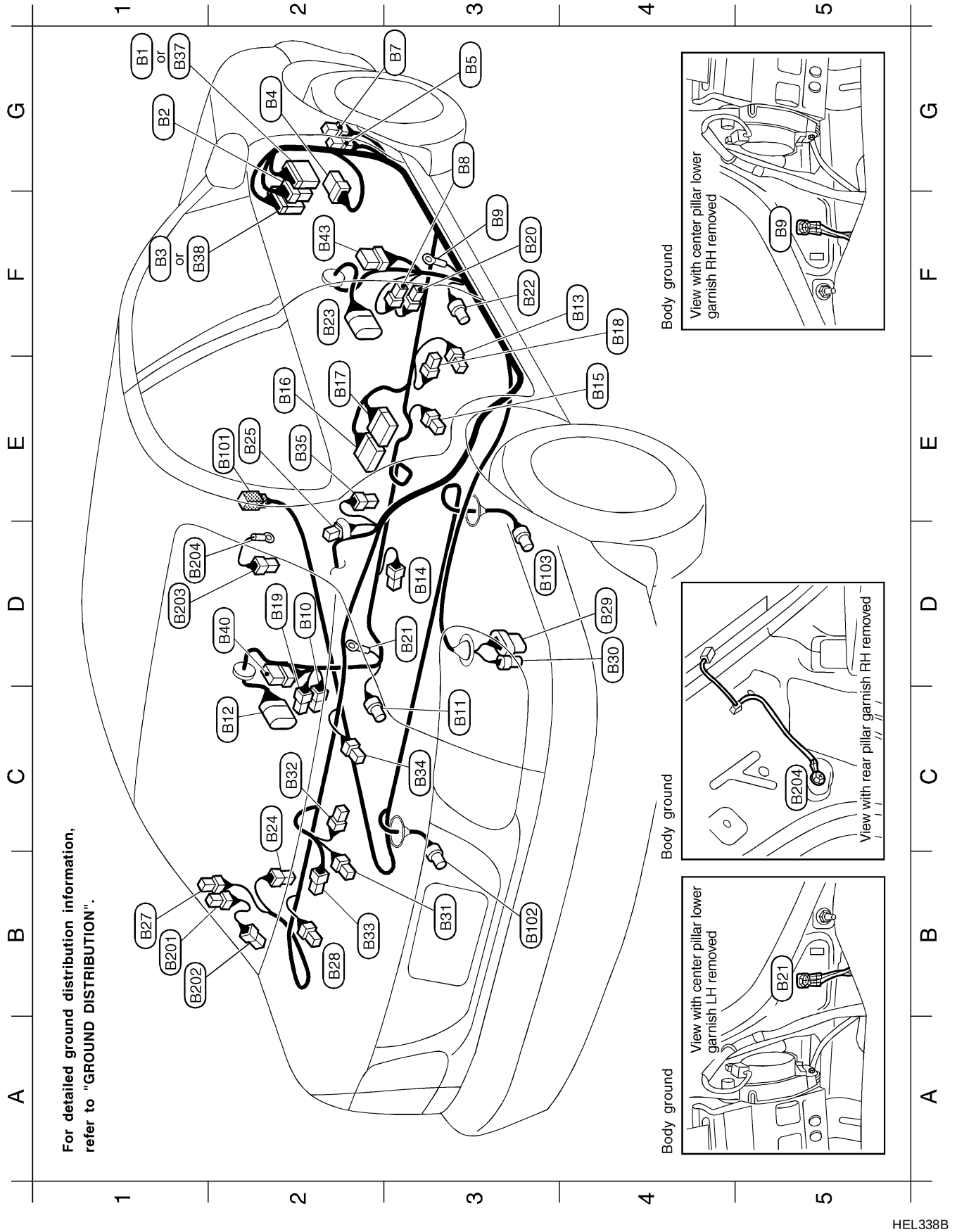


HEL340B

NOTE:

INTERIOR ROOM SIDE — RHD MODELS

NJEL0136S04



HEL338B

G1 (B1) W/20 : To (M17) (Except for Europe)
G1 (B2) W/6 : To (M18) (With power window)
F1 (B3) BR/12 : To (M19) (Except for Europe)
G2 (B4) W/8 : Fuse block (J/B)
G3 (B5) L/4 : Fuel pump relay (QG engine)
G3 (B7) L/4 : Rear window defogger relay
G3 (B8) W/3 : Door switch driver side
F3 (B9) — : Body ground
D2 (B10) W/4 : Front LH seat belt pre-tensioner
C3 (B11) Y/2 : LH side air bag (satellite) sensor (With side air bag)
C2 (B12) B/10 : To (D51) (With power window except for Europe)
F4 (B13) W/3 : Seat belt switch (Except for Europe)
D3 (B14) Y/2 : To front LH side air bag module sub-harness (With side air bag)
E4 (B15) B/1 : Parking brake switch
E2 (B16) Y/12 : Air bag diagnosis sensor unit
E2 (B17) Y/12 : Air bag diagnosis sensor unit
F4 (B18) Y/2 : To front RH side air bag module sub-harness (With side air bag)
D2 (B19) W/3 : Door switch passenger side
F3 (B20) W/4 : Front RH seat belt pre-tensioner
D3 (B21) — : Body ground
F3 (B22) Y/2 : RH side air bag (satellite) sensor (With side air bag)
F2 (B23) B/10 : To (D71) (With power window except for Europe)
C2 (B24) W/1 : Rear door switch LH
E2 (B25) -/2 : Diode (For Europe and with theft warning system except for Europe)
B1 (B27) B/1 : Condenser or rear window defogger
B2 (B28) BR/2 : Rear speaker LH
D4 (B29) GY/5 : Fuel level sensor unit and fuel pump (QG engine)
D4 (B30) GY/3 : Fuel level sensor unit (YD engine)
B3 (B31) W/2 : Trunk room lamp
C2 (B32) W/2 : High-mounted stop lamp
B2 (B33) W/4 : Rear wiper motor (With power door lock except for Europe)
C3 (B34) BR/2 : Rear speaker RH
E2 (B35) W/1 : Rear door switch RH
G1 (B37) BR/16 : To (M82) (For Europe)
F1 (B38) W/12 : To (M81) (For Europe)
D2 (B40) W/8 : To (D56) (For Europe)
F2 (B43) W/8 : To (D76) (For Europe)

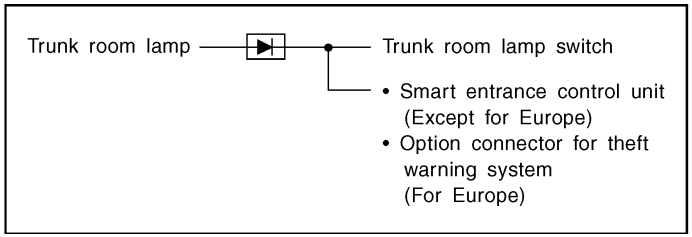
Body No.2 harness (For ABS)

E2 (B101) W/4 : To (E151)
B3 (B102) BR/2 : Rear wheel sensor LH
D3 (B103) GY/2 : Rear wheel sensor RH

Sub-harness

B1 (B201) B/1 : Condenser (With radio)
B1 (B202) B/1 : Rear window defogger (+) (With radio)
D1 (B203) B/1 : Rear window defogger (–)
D1 (B204) — : Body ground

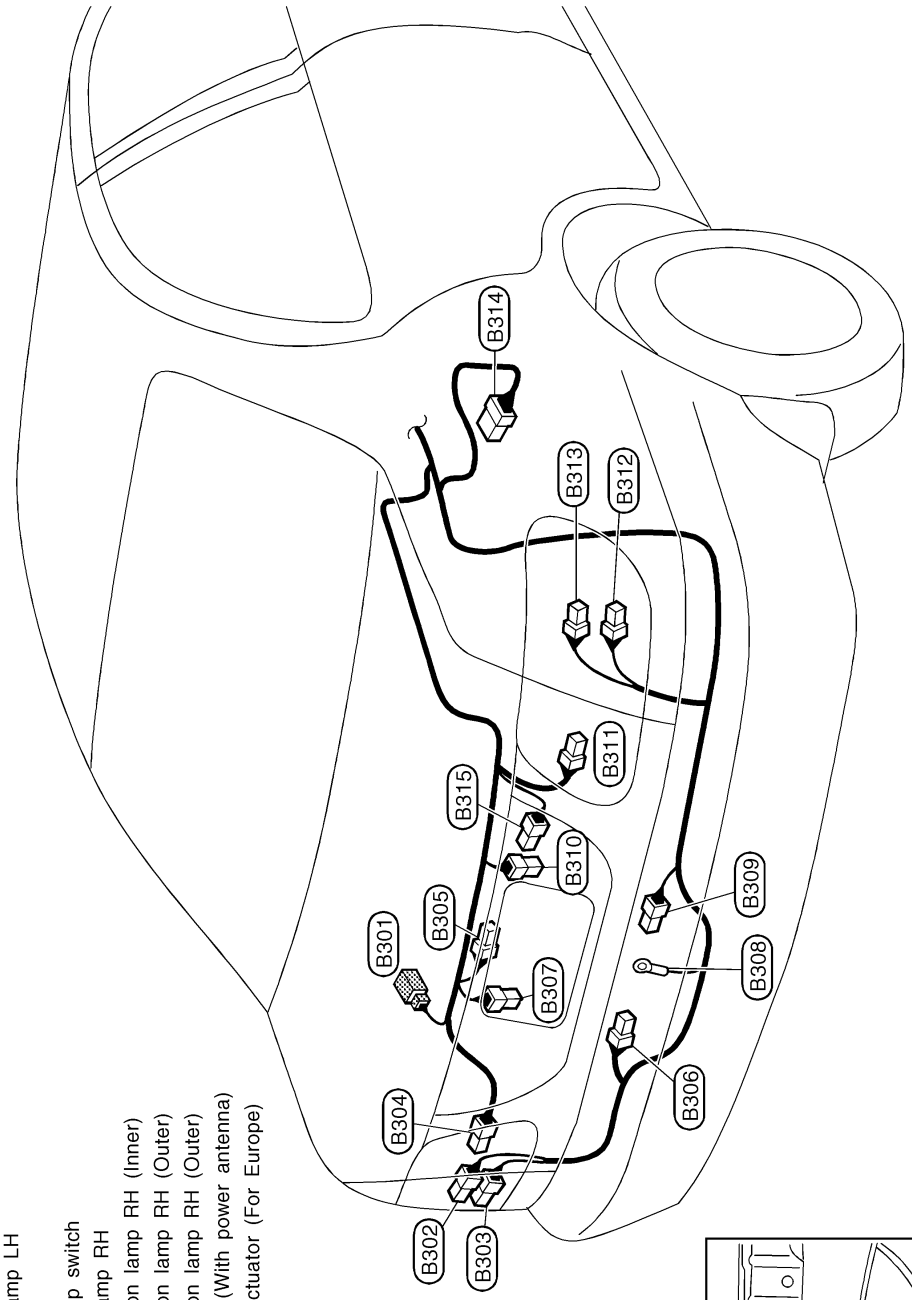
Diode (B25)



HEL339B

TRUNK ROOM SIDE — RHD MODELS

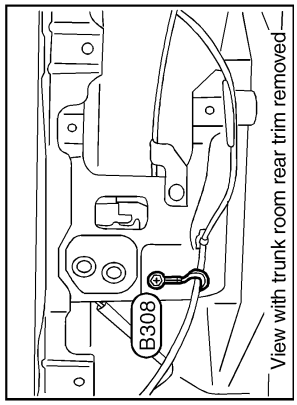
NJEL0136S06



B301	BR/2	:	High-mounted stop lamp (QG engine with power door lock and for Europe)
B302	BR/2	:	Rear combination lamp LH (Outer)
B303	W/3	:	Rear combination lamp LH (Outer)
B304	W/3	:	Rear combination lamp LH (Inner)
B305	W/2	:	Trunk key cylinder switch (With theft warning system)
B306	W/4	:	Trunk lid opener actuator (With multi-remote control system except for Europe)
B307	BR/2	:	License plate lamp LH
B308	—	:	Body ground
B309	W/2	:	Trunk room lamp switch
B310	BR/2	:	License plate lamp RH
B311	W/3	:	Rear combination lamp RH (Inner)
B312	W/3	:	Rear combination lamp RH (Outer)
B313	BR/2	:	Rear combination lamp RH (Outer)
B314	W/6	:	Power antenna (With power antenna)
B315	W/4	:	Trunk lid lock actuator (For Europe)

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

Body ground



HEL341B

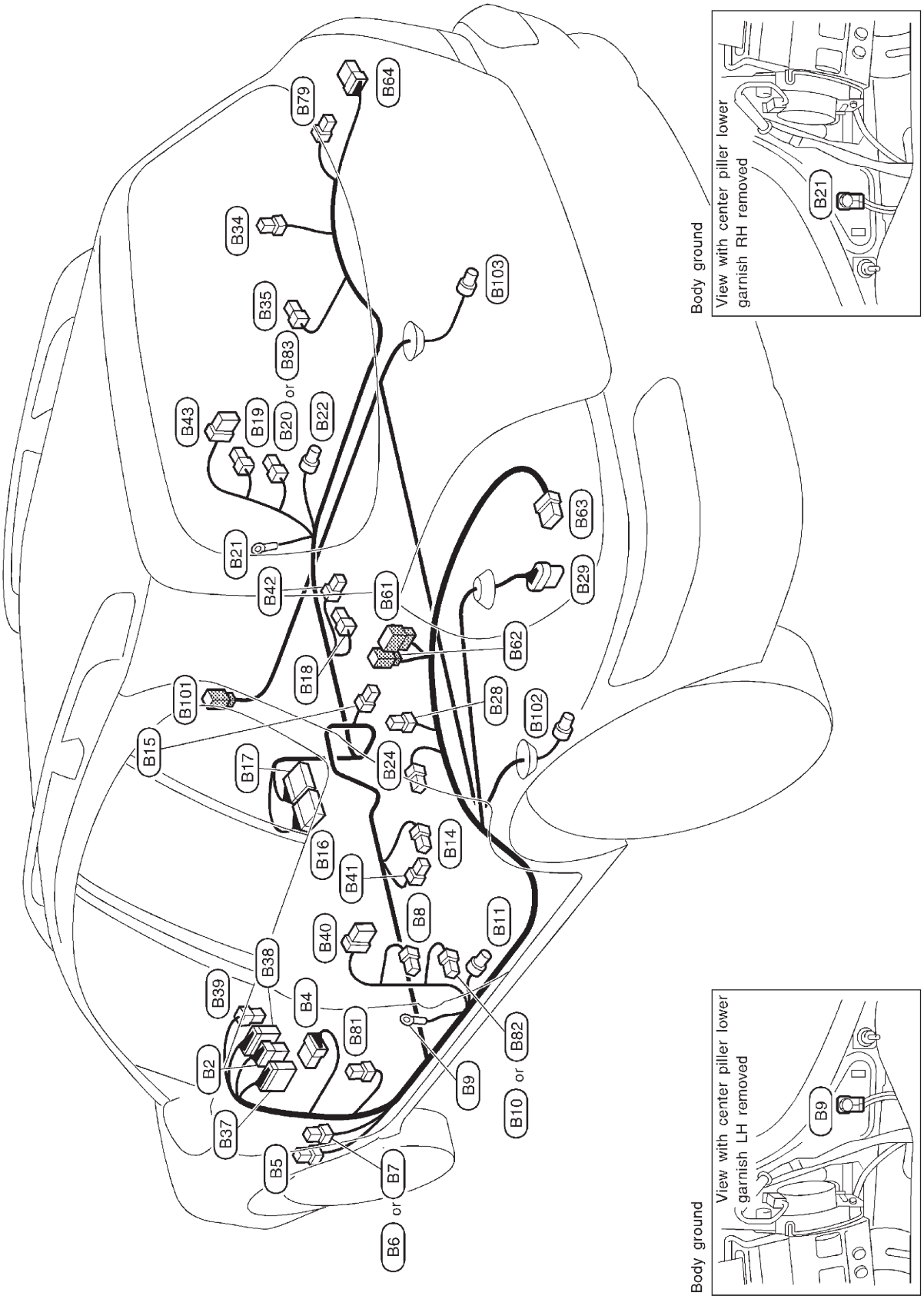
NOTE:

Body Harness/Hatchback

NJEL0348

LHD MODELS

NJEL0348S01



YEL324C

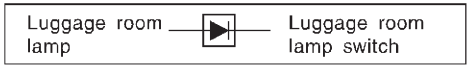
B2	W/6	:	To M18 (With power window)
B4	W/8	:	Fuse block (J/B)
B5	L/4	:	Fuel pump relay (QG engine)
B6	BR/6	:	Rear window defogger relay (For rear window defogger and mirror defogger)
B7	L/4	:	Rear window defogger relay (For rear window defogger only)
B8	W/3	:	Door switch driver side
★ B9	–	:	Body ground
B10	W/4	:	Front LH seat belt pre-tensioner (TYPE-1)
B11	Y/2	:	LH side air bag (satellite) sensor (With side air bag)
B14	Y/2	:	To front LH side air bag module sub-harness (With side air bag)
B15	B/1	:	Parking brake switch
B16	Y/12	:	Air bag diagnosis sensor unit
B17	Y/12	:	Air bag diagnosis sensor unit
B18	Y/2	:	To front RH side air bag module sub-harness (With side air bag)
B19	W/3	:	Door switch passenger side
B20	W/4	:	Front RH seat belt pre-tensioner (TYPE-1)
★ B21	–	:	Body ground
B22	Y/2	:	RH side air bag (satellite) sensor (With side air bag)
B24	W/1	:	Door switch rear LH (5-door Hatchback)
B28	BR/2	:	Rear speaker LH
★ B29	GY/5	:	Fuel level sensor unit and fuel pump
B34	BR/2	:	Rear speaker RH
B35	W/1	:	Door switch rear RH (5-door Hatchback)
B37	BR/16	:	To M82
★ B38	W/12	:	To M81
B39	W/4	:	To M80 (For heated seat)
B40	W/8	:	To D56 (5-door Hatchback)
B41	W/3	:	Heated seat LH (For cold areas)
B42	W/3	:	Heated seat RH (For cold areas)
B43	W/8	:	To D76 (5-door Hatchback)
B61	W/8	:	To D91
B62	W/2	:	To D92
B63	W/8	:	Rear combination lamp LH
B64	W/8	:	Rear combination lamp RH
B79	W/2	:	Luggage room lamp
B81	-/2	:	Diode
B82	Y/2	:	Front LH seat belt pre-tensioner (TYPE-2)
B83	Y/2	:	Front RH seat belt pre-tensioner (TYPE-2)

Body No. 2 harness (For ABS)

B101	W/4	:	To E151
B102	BR/2	:	Rear wheel sensor LH
B103	GY/2	:	Rear wheel sensor RH

★: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

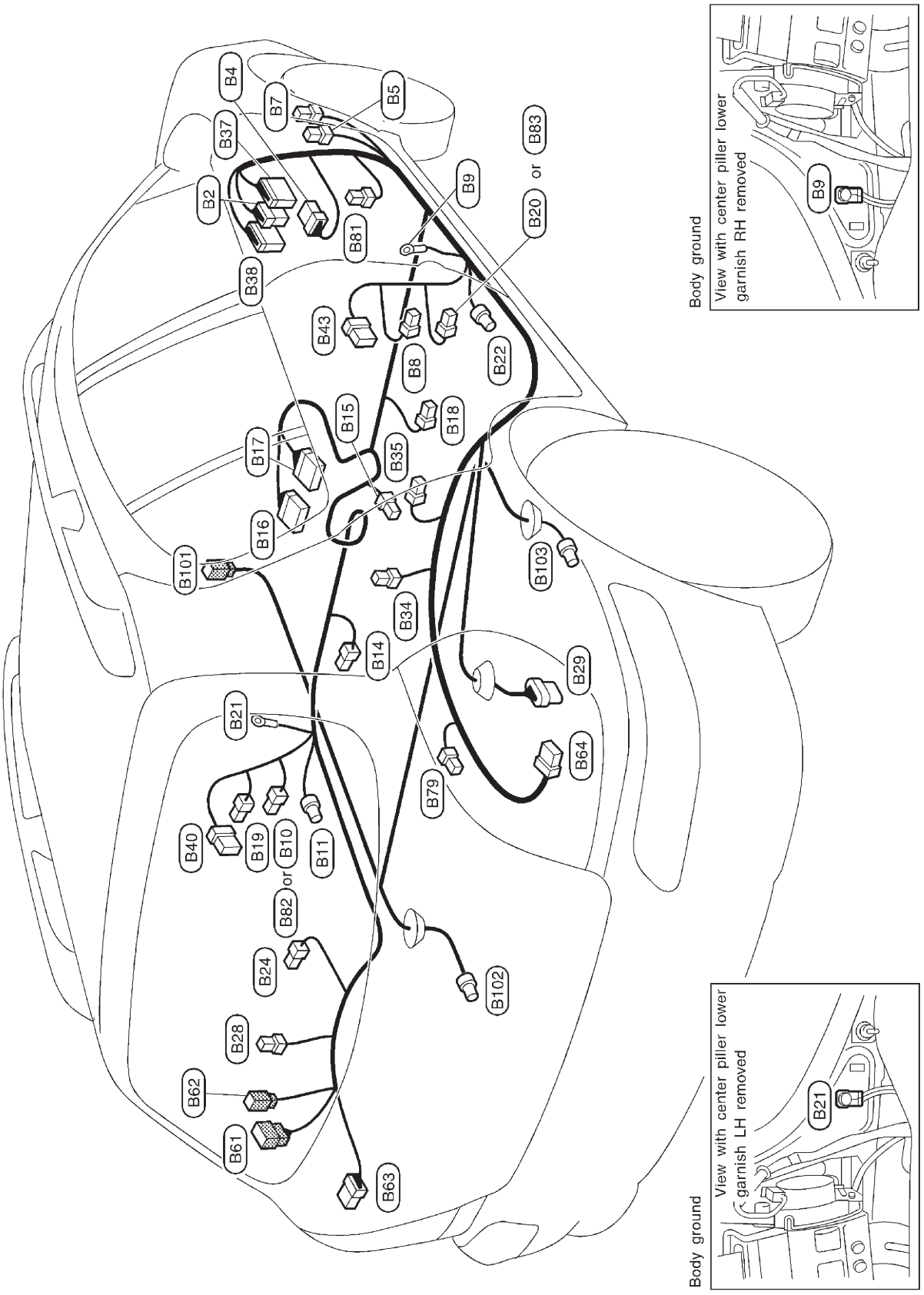
Diode B81



YEL325C

RHD MODELS

NJEL0348S02



YEL326C

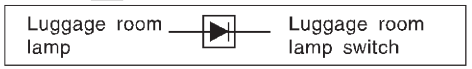
B2	W/6	:	To M18 (With power window)
B4	W/8	:	Fuse block (J/B)
B5	L/4	:	Fuel pump relay (QG engine)
B7	L/4	:	Rear window defogger relay
B8	W/3	:	Door switch driver side
★ B9	–	:	Body ground
B10	W/4	:	Front LH seat belt pre-tensioner (TYPE-1)
B11	Y/2	:	LH side air bag (satellite) sensor (With side air bag)
B14	Y/2	:	To front LH side air bag module sub-harness (With side air bag)
B15	B/1	:	Parking brake switch
B16	Y/12	:	Air bag diagnosis sensor unit
B17	Y/12	:	Air bag diagnosis sensor unit
B18	Y/2	:	To front RH side air bag module sub-harness (With side air bag)
B19	W/3	:	Door switch passenger side
B20	W/4	:	Front RH seat belt pre-tensioner (TYPE-1)
★ B21	–	:	Body ground
B22	Y/2	:	RH side air bag (satellite) sensor (With side air bag)
B24	W/1	:	Door switch rear LH (5-door Hatchback)
B28	BR/2	:	Rear speaker LH
★ B29	GY/5	:	Fuel level sensor unit and fuel pump
B34	BR/2	:	Rear speaker RH
B35	W/1	:	Door switch rear RH (5-door Hatchback)
B37	BR/16	:	To M82
★ B38	W/12	:	To M81
B40	W/8	:	To D56 (5-door Hatchback)
B43	W/8	:	To D76 (5-door Hatchback)
B61	W/8	:	To D91
B62	W/2	:	To D92
B63	W/8	:	Rear combination lamp LH
B64	W/8	:	Rear combination lamp RH
B79	W/2	:	Luggage room lamp
B81	-/2	:	Diode
B82	Y/2	:	Front LH seat belt pre-tensioner (TYPE-2)
B83	Y/2	:	Front RH seat belt pre-tensioner (TYPE-2)

Body No. 2 harness (For ABS)

B101	W/4	:	To E151
B102	BR/2	:	Rear wheel sensor LH
B103	GY/2	:	Rear wheel sensor RH

★ : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.**

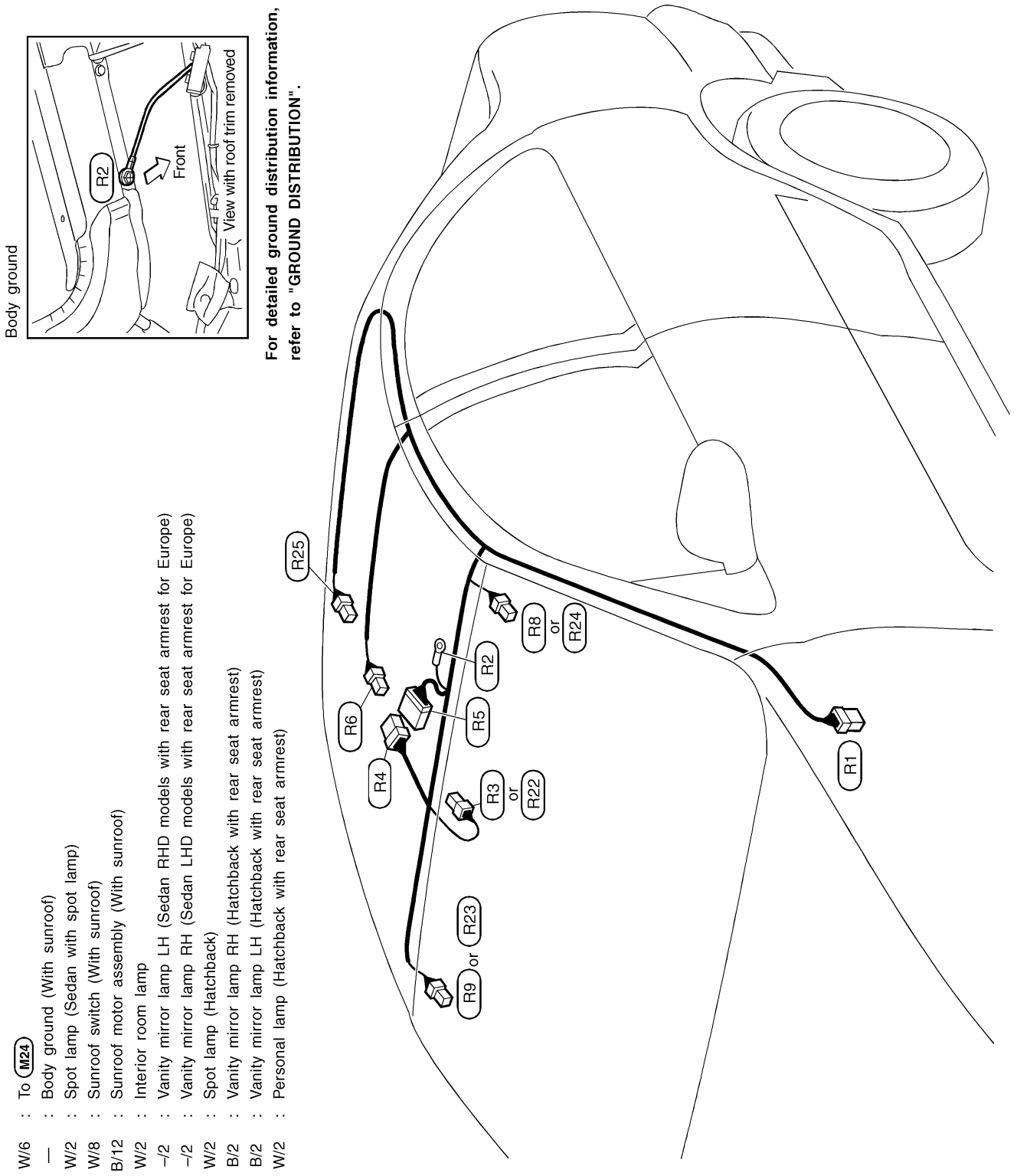
Diode B81



YEL327C

Room Lamp Harness

NJEL0140



HEL342B

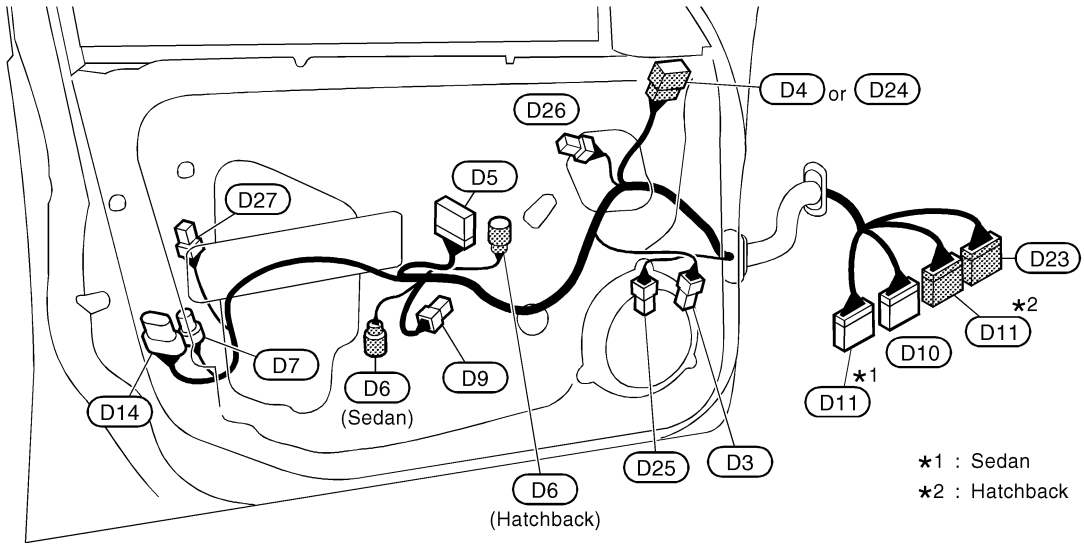
Front Door Harness/LHD Models

NJEL0142

LH SIDE

NJEL0142S07

D3 W/2 : Front door speaker (Sedan)
D4 GY/8 : Door mirror actuator and defogger (Sedan)
D5 W/16 : Power window main switch (With power window)
D6 BR/3 : Door key cylinder switch (With power door lock)
D7 GY/4 : Door lock actuator (Sedan without super lock)
D9 B/2 : Power window regulator (Sedan with power window)
D10 W/12 : To M75 (Sedan)
D11 W/16 : To M76 (With power door lock)
D14 B/6 : Door lock actuator assembly (Sedan with super lock)
D23 W/12 : To M158 (Hatchback)
D24 GY/6 : Door mirror actuator and defogger (Hatchback)
D25 BR/2 : Front door speaker (Hatchback)
D26 B/2 : Power window regulator (Hatchback with power window)
D27 W/4 : Door lock actuator assembly (Hatchback)

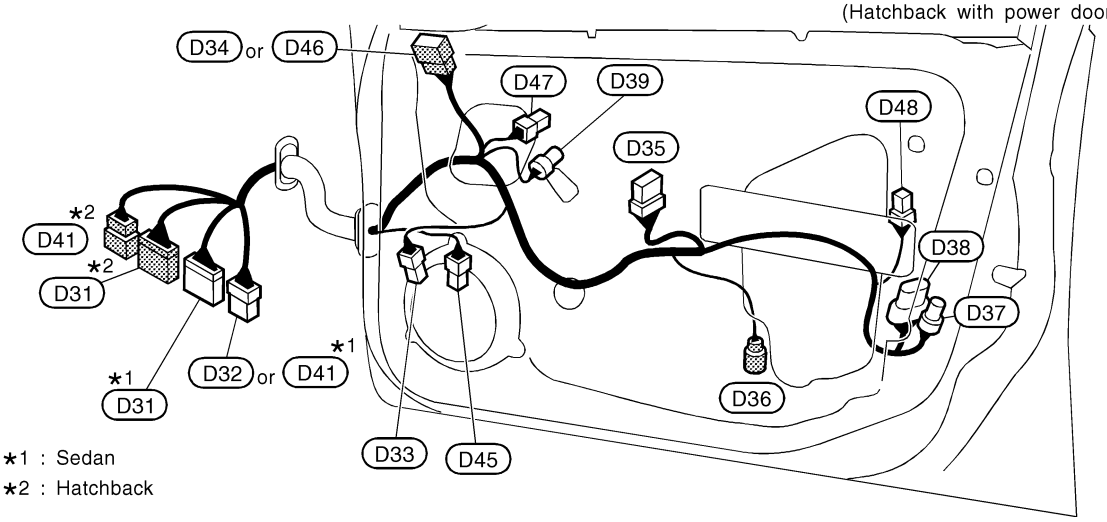


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RH SIDE

NJEL0142S06

- D31 W/12 : To M71
- D32 W/6 : To M72 (With power door lock except for Europe)
- D33 W/2 : Front door speaker (Sedan)
- D34 GY/8 : Door mirror actuator and defogger (Sedan)
- D35 W/8 : Power window sub-switch (With power window)
- D36 BR/3 : Door key cylinder switch (With power door lock)
- D37 GY/4 : Door lock actuator (Sedan with power door lock without super lock)
- D38 B/6 : Door lock actuator assembly (Sedan with super lock)
- D39 BR/2 : Power window regulator (Sedan with power window)
- D41 W/8 : To M114 (With power door lock for Europe)
- D45 BR/2 : Front door speaker (Hatchback)
- D46 GY/6 : Door mirror actuator and defogger (Hatchback)
- D47 B/2 : Power window regulator (Hatchback with power window)
- D48 W/4 : Door lock actuator assembly (Hatchback with power door lock)



*1 : Sedan
*2 : Hatchback

HEL345B

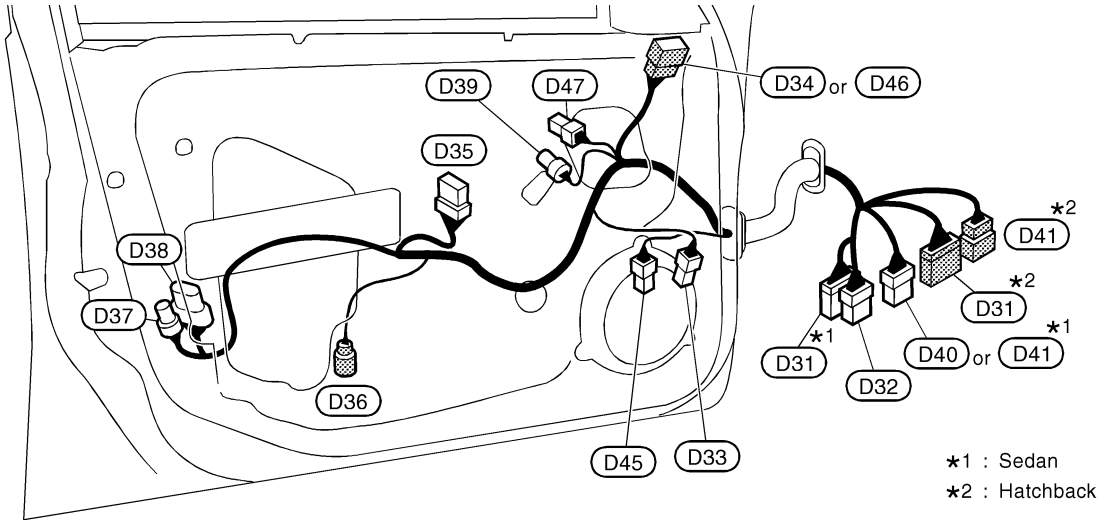
Front Door Harness/RHD Models

NJEL0349

LH SIDE

NJEL0349S01

D31	W/12	:	To M71 (For Europe)
D32	W/6	:	To M72 (With power door lock except for Europe)
D33	W/2	:	Front door speaker (Sedan)
D34	GY/8	:	Door mirror actuator and defogger (Sedan)
D35	W/8	:	Power window sub-switch (With power window)
D36	BR/3	:	Door key cylinder switch (With power door lock)
D37	GY/4	:	Door lock actuator (Sedan with power door lock without super lock)
D38	B/6	:	Door lock actuator assembly (Sedan with super lock and Hatchback with power door lock)
D39	BR/2	:	Power window regulator (Sedan with power window)
D40	W/8	:	To M111 (Except for Europe)
D41	W/8	:	To M114 (With power door lock for Europe)
D45	BR/2	:	Front door speaker (Hatchback)
D46	GY/6	:	Door mirror actuator (Hatchback)
D47	B/2	:	Power window regulator (Hatchback with power window)

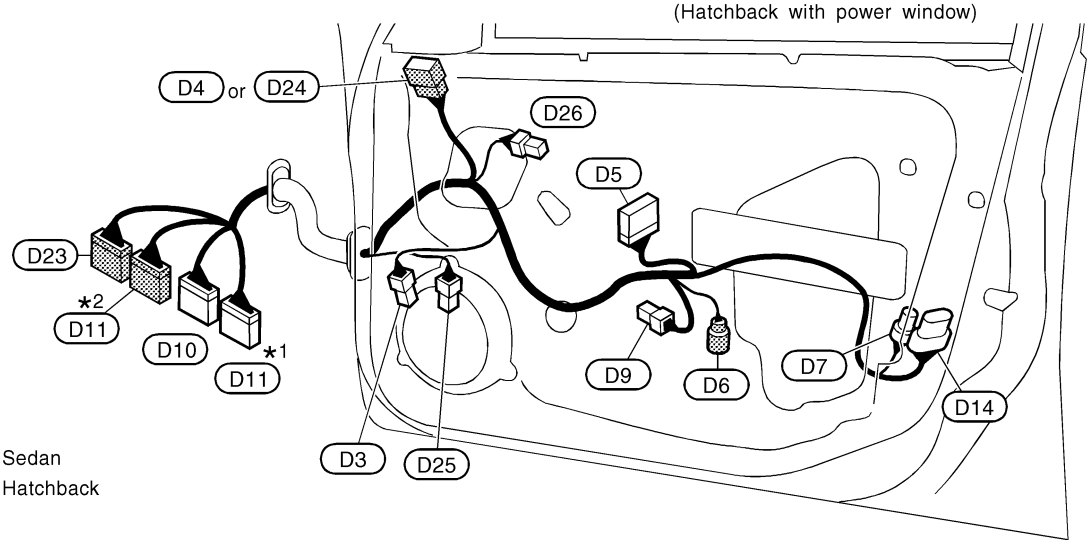


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RH SIDE

NJEL0349S03

(D3) W/2 : Front door speaker (Sedan)
(D4) GY/8 : Door mirror actuator and defogger (Sedan)
(D5) W/16 : Power window main switch (With power window)
(D6) BR/3 : Door key cylinder switch (With power door lock)
(D7) GY/4 : Door lock actuator (Sedan without super lock)
(D9) B/2 : Power window regulator (Sedan with power window)
(D10) W/12 : To (M75) (Sedan)
(D11) W/16 : To (M76) (With power door lock)
(D14) B/6 : Door lock actuator assembly (With super lock)
(D23) W/12 : To (M158) (Hatchback)
(D24) GY/6 : Door mirror actuator (Hatchback)
(D25) BR/2 : Front door speaker (Hatchback)
(D26) B/2 : Power window regulator (Hatchback with power window)



*1 : Sedan
*2 : Hatchback

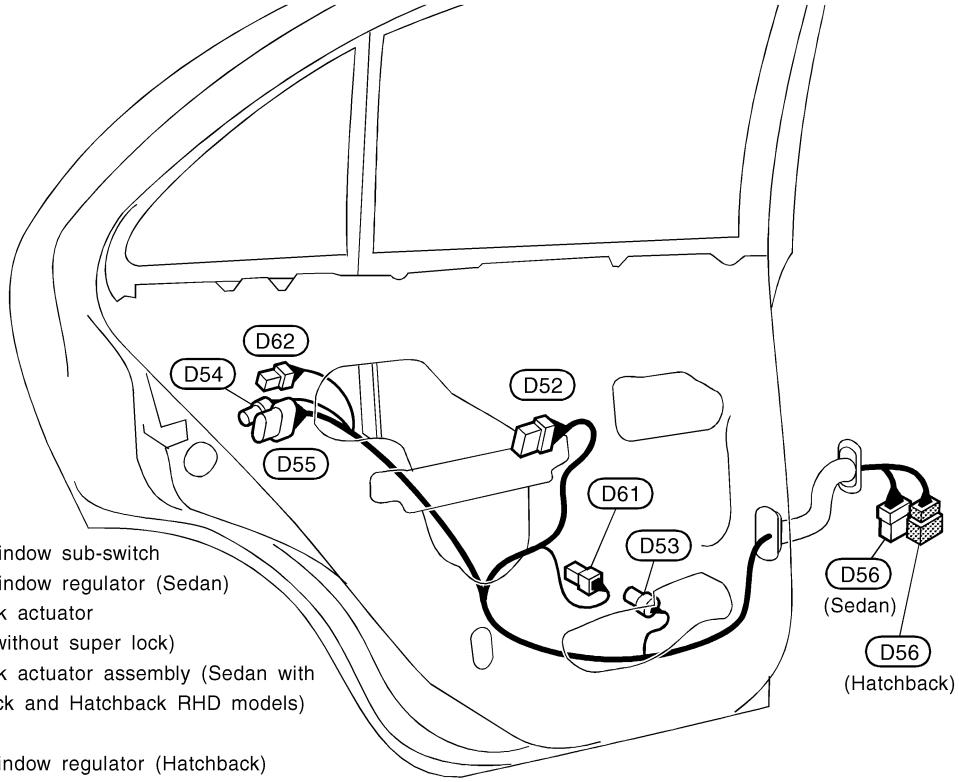
HEL346B

Rear Door Harness

NJEL0416

LH SIDE

NJEL0416S01



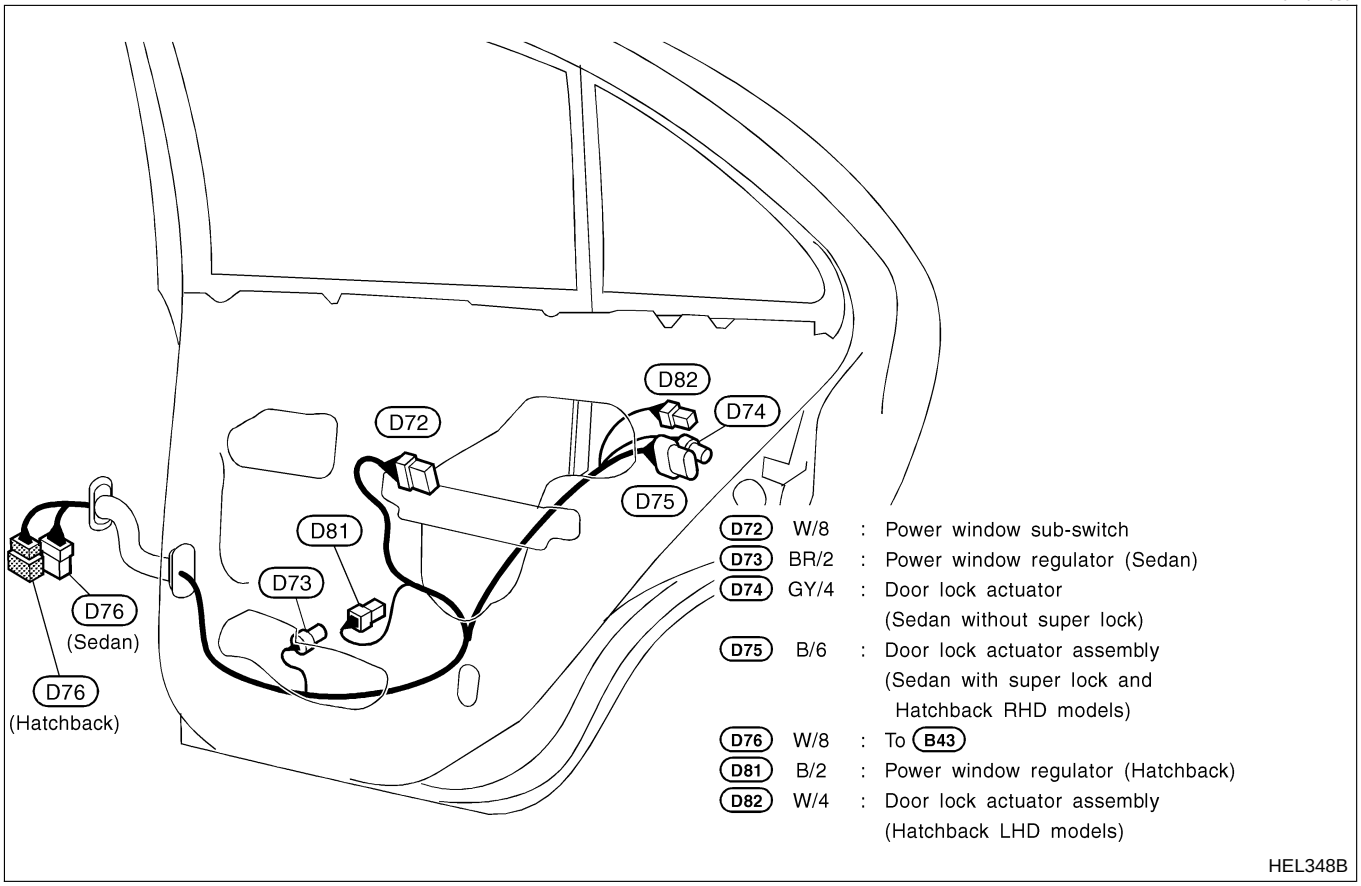
D52	W/8	:	Power window sub-switch
D53	BR/2	:	Power window regulator (Sedan)
D54	GY/4	:	Door lock actuator (Sedan without super lock)
D55	B/6	:	Door lock actuator assembly (Sedan with super lock and Hatchback RHD models)
D56	W/8	:	To B40
D61	B/2	:	Power window regulator (Hatchback)
D62	W/4	:	Door lock actuator assembly (Hatchback LHD models)

HEL347B

Rear Door Harness (Cont'd)

RH SIDE

NJEL0416S02



Back Door Harness

NJEL0492

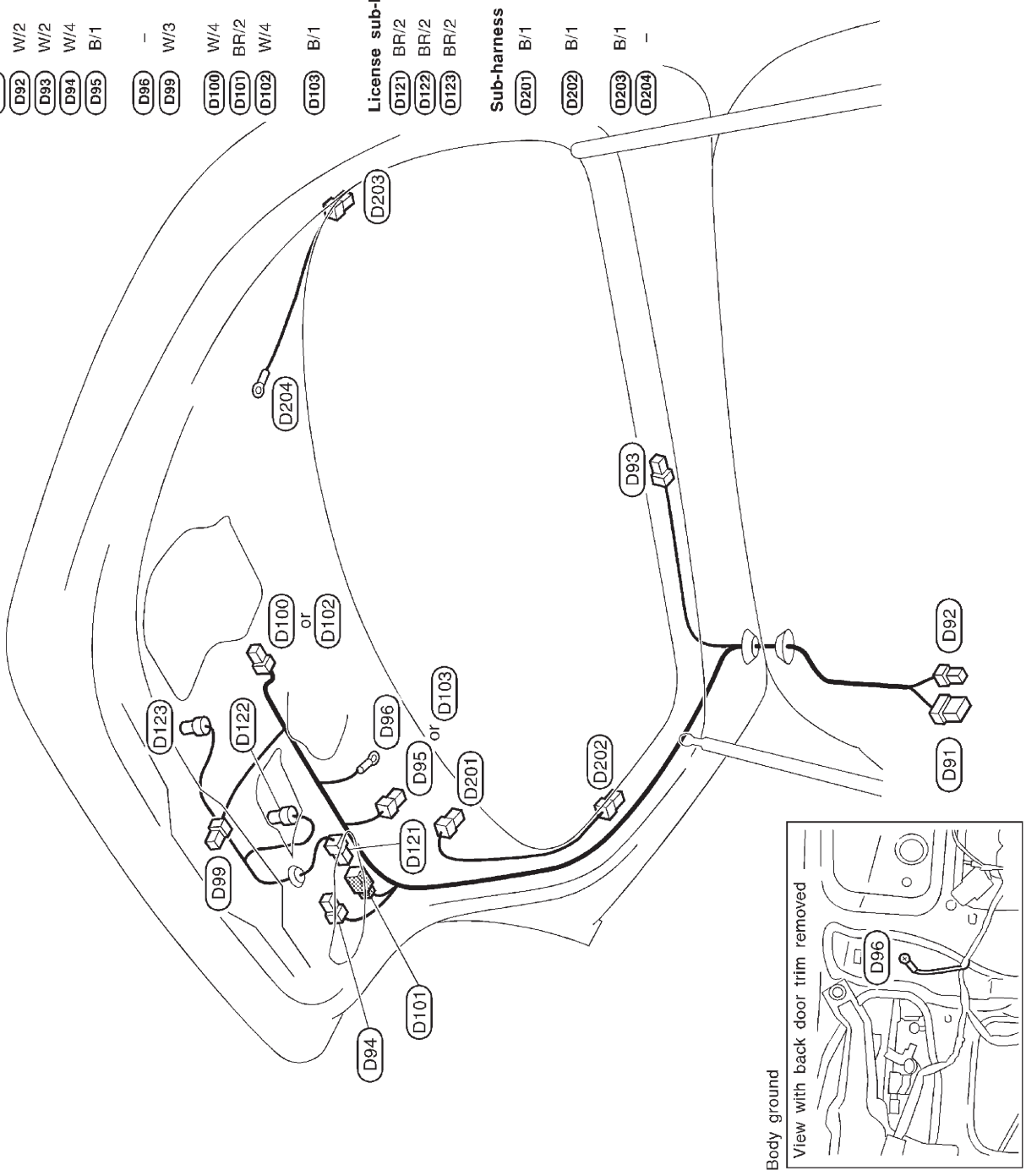
D91	W/8	: To B61	
D92	W/2	: To B62	
D93	W/2	: High-mounted stop lamp	
D94	W/4	: Back door lock actuator	
D95	B/1	: Condenser (where fitted)	
D96	–	: Body ground	
D99	W/3	: Luggage room lamp switch	
D100	W/4	: Rear wiper motor	
D101	BR/2	: To D121	
D102	W/4	: Rear wiper motor	
D103	B/1	: Rear window defogger (+) (Models without condensor)	

License sub-harness

D121	BR/2	: To D101
D122	BR/2	: License plate lamp LH
D123	BR/2	: License plate lamp RH

Sub-harness

D201	B/1	: Condenser (where fitted)
D202	B/1	: Rear window defogger (+) (Models with condensor)
D203	B/1	: Rear window defogger (–)
D204	–	: Body ground



YEL328C

BULB SPECIFICATIONS

Headlamp

Headlamp

NJEL0144S03

Item		Wattage (W)
High/Low (Semi-sealed beam)	2-bulbs type	60/55 (H4)
	4-bulbs type	55 (H1)/55 (*1)

*1 H1LL ... RHD models except for Europe, H7 ... RHD models for Europe and LHD models

Exterior Lamp

NJEL0144S01

Item		Wattage (W)
Front fog lamp		55 (H3)
Front turn signal lamp		21
Side turn signal lamp		5
Parking lamp		5
Front side marker lamp		3.8
Rear combination lamp	Turn signal	21
	Stop/Tail	21/5
	Back-up	18
	Rear fog lamp	21
Rear side marker lamp		3.8
License lamp		5
High-mounted stop lamp	On the rear parcel shelf	18
	In the air spoiler (LED)	3.2

Interior Lamp

NJEL0144S02

Item		Wattage (W)
Interior room lamp		10
Map lamp	With roof console	3
	Without roof console	8
Vanity mirror lamp		8
Personal lamp		5
Trunk room lamp		3.4

WIRING DIAGRAM CODES (CELL CODES)

Use the chart below to find out what each wiring diagram code stands for.
Refer to the wiring diagram code in the alphabetical index to find the location (page number) of each wiring diagram.

Code	Section	Wiring Diagram Name
ISTSIG	AT	A/T 1ST Signal
2NDSIG	AT	A/T 2ND Signal
3RDSIG	AT	A/T 3RD Signal
4THSIG	AT	A/T 4TH Signal
A/C, A	HA	Auto Air Conditioner
A/C, M	HA	Manual Air Conditioner
A/CCUT	EC	Air Conditioner Cut Control
AAC/V	EC	IACV-AAC Valve
ABS	BR	Anti-lock Brake System
ACC/SW	EC	Accelerator Switch (FC)
ACL/SW	EC	Accelerator Position Switch
APS	EC	Accelerator Position Sensor
AT/C	EC	A/T Control
AT/IND	EL	A/T Indicator Lamp
ATDIAG	EC	A/T Diagnosis Communication Line
AUDIO	EL	Audio
BA/FTS	AT	A/T Fluid Temperature Sensor and TCM Power Supply
BACK/L	EL	Back-up Lamp
BRK/SW	EC	Brake Pedal Position Switch
CHARGE	SC	Charging System
CHIME	EL	Warning Chime
CIGAR	EL	Cigarette Lighter
CKPS	EC	Crankshaft Position Sensor (TDC)
CLOCK	EL	Clock
CO/VOL	EC	CO Adjustment Resistor
COOL/F	EC	Cooling Fan Control
D/LOCK	EL	Power Door Lock
DEF	EL	Rear Window Defogger
DP/SEN	EC	Refrigerant Pressure Sensor
DTRL	EL	Headlamp — With Daytime Light System
ECMRLY	EC	ECM Relay
ECTS	EC	Engine Coolant Temperature Sensor
EGR/TS	EC	EGR Temperature Sensor
EGRC/V	EC	EGRC-solenoid Valve
EGRC1	EC	EGR Function
EGVC/V	EC	EGR Volume Control Valve
ENGSS	AT	Engine Speed Signal
F/FOG	EL	Front Fog Lamp
F/PUMP	EC	Fuel Pump
FRO2	EC	Front Heated Oxygen Sensor (Non E-OBD)
FRO2/H	EC	Front Heated Oxygen Sensor Heater (Non E-OBD)
FTS	AT	A/T Fluid Temperature Sensor
FTTS	EC	Fuel Tank Temperature Sensor
FUEL	EC	Fuel Injection System Function
GLOW	EC	Glow Control System
H/AIM	EL	Headlamp Aiming Control System
H/LAMP	EL	Headlamp
H/SEAT	EL	Heated Seat
HEATER	HA	Heater System
HLC	EL	Headlamp Washer
HORN	EL	Horn
IATS	EC	Intake Air Temperature Sensor
IGN/SG	EC	Ignition Signal
ILL	EL	Illumination
INJECT	EC	Injector
INJPMP	EC	Injection Pump
INT/L	EL	Spot, Vanity Mirror, Personal and Trunk Room Lamps
IVC	EC	Intake Valve Timing Control Solenoid Valve
KS	EC	Knock Sensor
LOAD	EC	Load Signal
LPSV	AT	Line Pressure Solenoid Valve
MAFS	EC	Mass Air Flow Sensor
MAIN	AT	Main Power Supply and Ground Circuit
MAIN	EC	Main Power Supply and Ground Circuit
METER	EL	Speedometer, Tachometer, Temp. and Fuel Gauges
MIL/DL	EC	MIL and Data Link Connectors
MIRROR	EL	Door Mirror

WIRING DIAGRAM CODES (CELL CODES)

Code	Section	Wiring Diagram Name
MULTI	EL	Multi-remote Control System
NATS	EL	Nissan Anti-Theft System
NAVI	EL	Navigation System
NONDTC	AT	Non-detectable Items
O2H1B1	EC	Front Heated Oxygen Sensor Heater (E-OBD)
O2H2B1	EC	Rear Heated Oxygen Sensor Heater (E-OBD)
O2S1B1	EC	Front Heated Oxygen Sensor (E-OBD)
O2S2B1	EC	Rear Heated Oxygen Sensor (E-OBD)
OVRCSV	AT	Overrun Clutch Solenoid Valve
P/ANT	EL	Power Antenna
PGC/V	EC	EVAP Canister Purge Volume Control Solenoid Valve
PHASE	EC	Camshaft Position Sensor (PHASE)
PNP/SW	EC	Park/Neutral Position Switch
PNP/SW	AT	Park/Neutral Position Switch
POS	EC	Crankshaft Position Sensor (POS)
POWER	EL	Power Supply Routing
PST/SW	EC	Power Steering Oil Pressure Switch
R/FOG	EL	Rear Fog Lamp
ROOM/L	EL	Interior Room Lamp
RRO2	EC	Rear Heated Oxygen Sensor (Non E-OBD)
RRO2/H	EC	Rear Heated Oxygen Sensor Heater (Non E-OBD)
S/SIG	EC	Start Signal
SHIFT	AT	A/T Shift Lock System
S/LOCK	EL	Power Door Lock — Super Lock —
SROOF	EL	Sunroof
SRS	RS	Supplemental Restraint System
SSV/A	AT	Shift Solenoid Valve A
SSV/B	AT	Shift Solenoid Valve B
START	SC	Starting System
STOP/L	EL	Stop Lamp
SWL/C	EC	Swirl Control Valve Control Solenoid Valve (Non E-OBD)
SWL/V	EC	Swirl Control Valve Control Solenoid Valve (E-OBD)
TAIL/L	EL	Parking, License and Tail Lamps

Code	Section	Wiring Diagram Name
TCV	AT	Torque Converter Clutch Solenoid Valve
THEFT	EL	Theft Warning System
TLID	EL	Trunk Lid Opener
TP/SW	EC	Throttle Position Switch
TPS	AT	Throttle Position Sensor
TPS	EC	Throttle Position Sensor
TURN	EL	Turn Signal and Hazard Warning Lamps
VSS	EC	Vehicle Speed Sensor
VSSA/T	AT	Vehicle Speed Sensor A/T (Revolution Sensor)
VSSMTR	AT	Vehicle Speed Sensor MTR
WARN	EL	Warning Lamps
WINDOW	EL	Power Window
WIP/R	EL	Rear Wiper and Washer
WIPER	EL	Front Wiper and Washer