

ELECTRICAL SYSTEM

SECTION **EL**

MODIFICATION NOTICE:

- Wiring diagrams and harness layout for CD engine and SR engine models have been added.
- Power door lock with super lock has been added.
- NATS has been added for CD engine models.

When you read wiring diagrams:

- Read GI section, "HOW TO READ WIRING DIAGRAMS".

When you perform trouble diagnoses, read GI section, "HOW TO FOLLOW FLOW CHART IN TROUBLE DIAGNOSES" and "HOW TO PERFORM EFFICIENT DIAGNOSIS FOR AN ELECTRICAL INCIDENT".

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WIRING DIAGRAM REFERENCE CHART

ECCS (Ignition system)	EC SECTION
ANTI-LOCK BRAKE SYSTEM	BR SECTION
SRS "AIR BAG"	RS SECTION
HEATER AND AIR CONDITIONER	HA SECTION

PRECAUTIONS

Supplemental Restraint System (SRS) “AIR BAG” (Dual Air Bag System)

The Supplemental Restraint System “Air Bag”, used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger in a frontal collision. The Supplemental Restraint System consists of air bag modules (located in the center of the steering wheel and on the instrument panel on the passenger side), a diagnosis sensor unit, warning lamp, wiring harness and spiral cable. 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 must 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.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses are covered with yellow insulation either just before the harness connectors or for the complete harness, for easy identification.

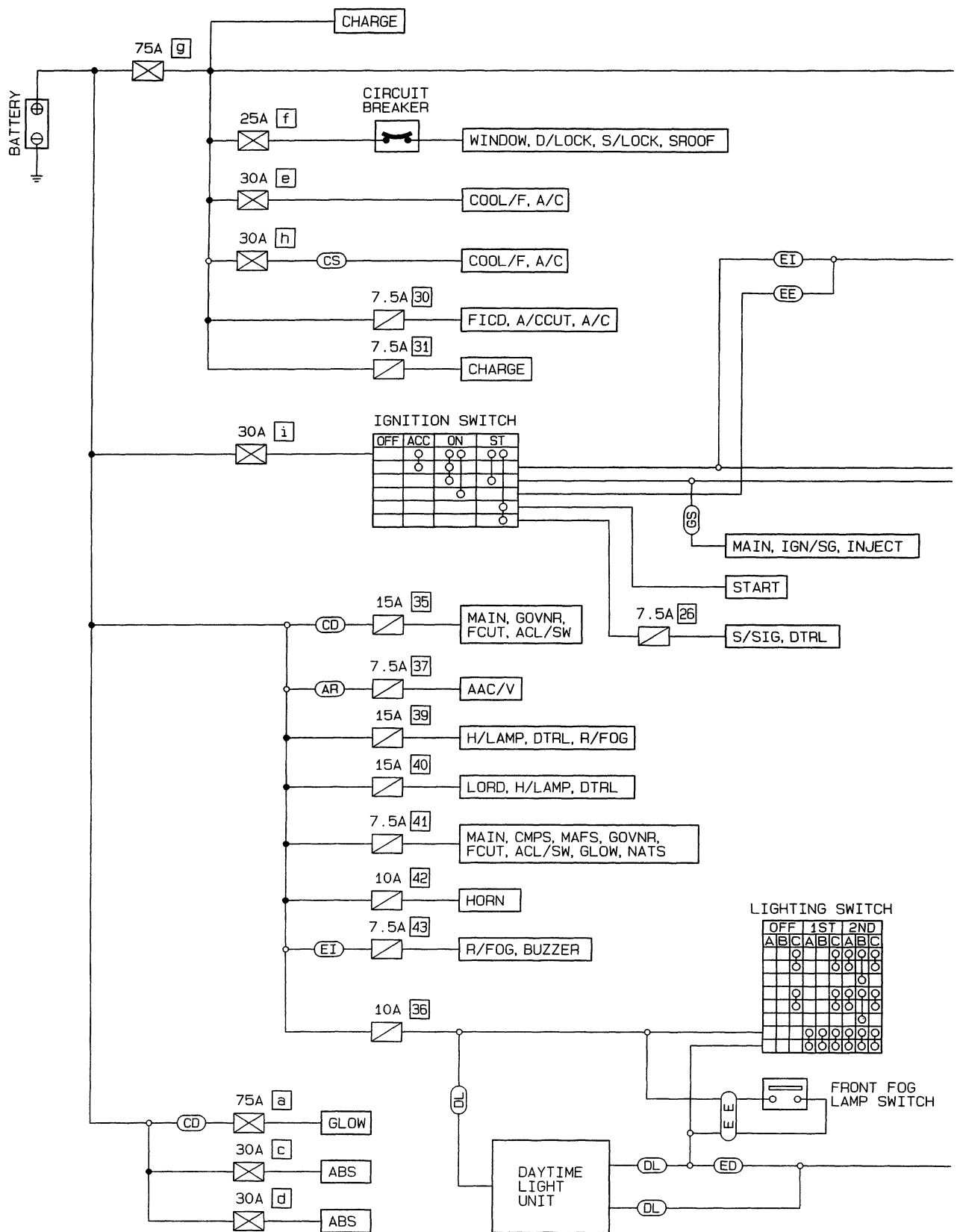
Supplemental Restraint System (SRS) “AIR BAG” (Single Air Bag System)

The Supplemental Restraint System “Air Bag”, used along with a seat belt, helps to reduce the risk or severity of injury to the driver in a frontal collision. The Supplemental Restraint System consists of an air bag module (located in the center of the steering wheel), a diagnosis sensor unit, warning lamp and spiral cable. Information necessary to service the system safely is included in the **RS section** of this Service Manual.

WARNING:

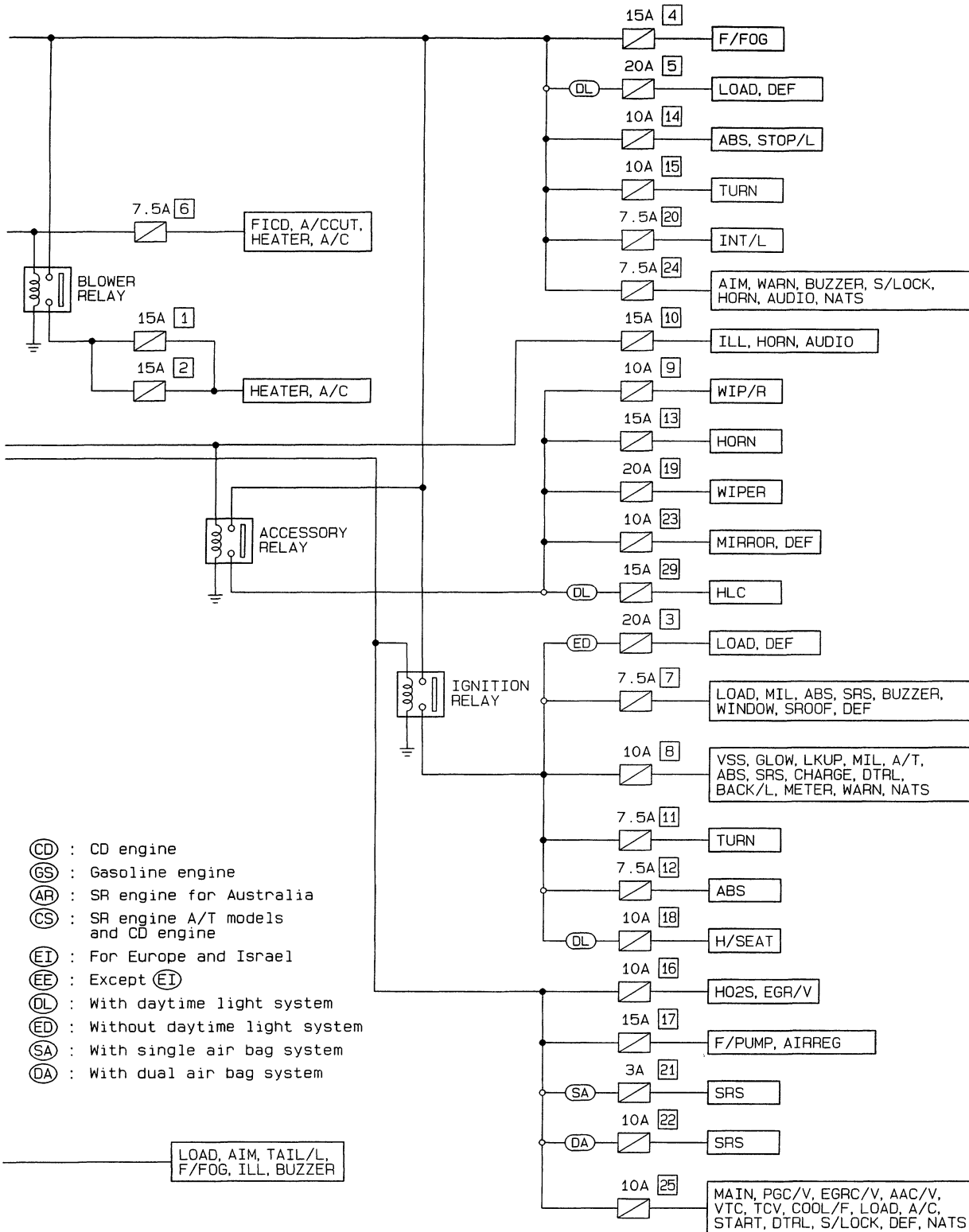
- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system.
- Do not use electrical test equipment on any circuit related to the SRS.

Schematic



POWER SUPPLY ROUTING

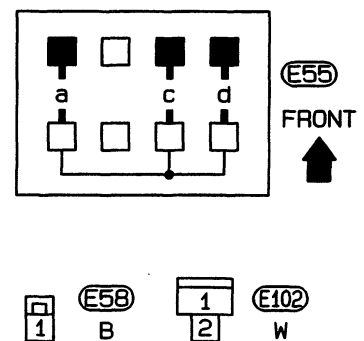
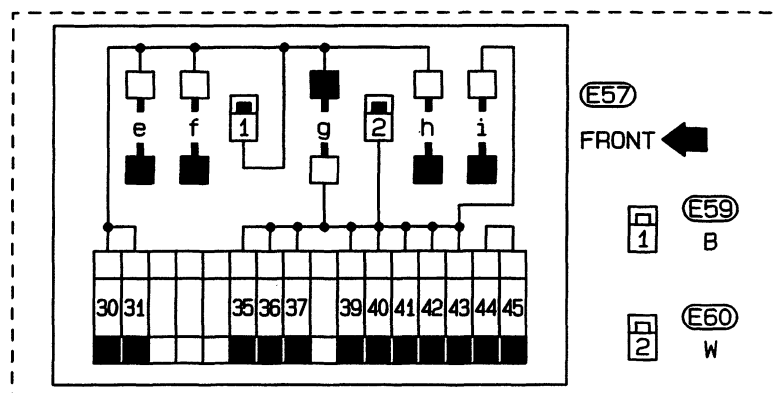
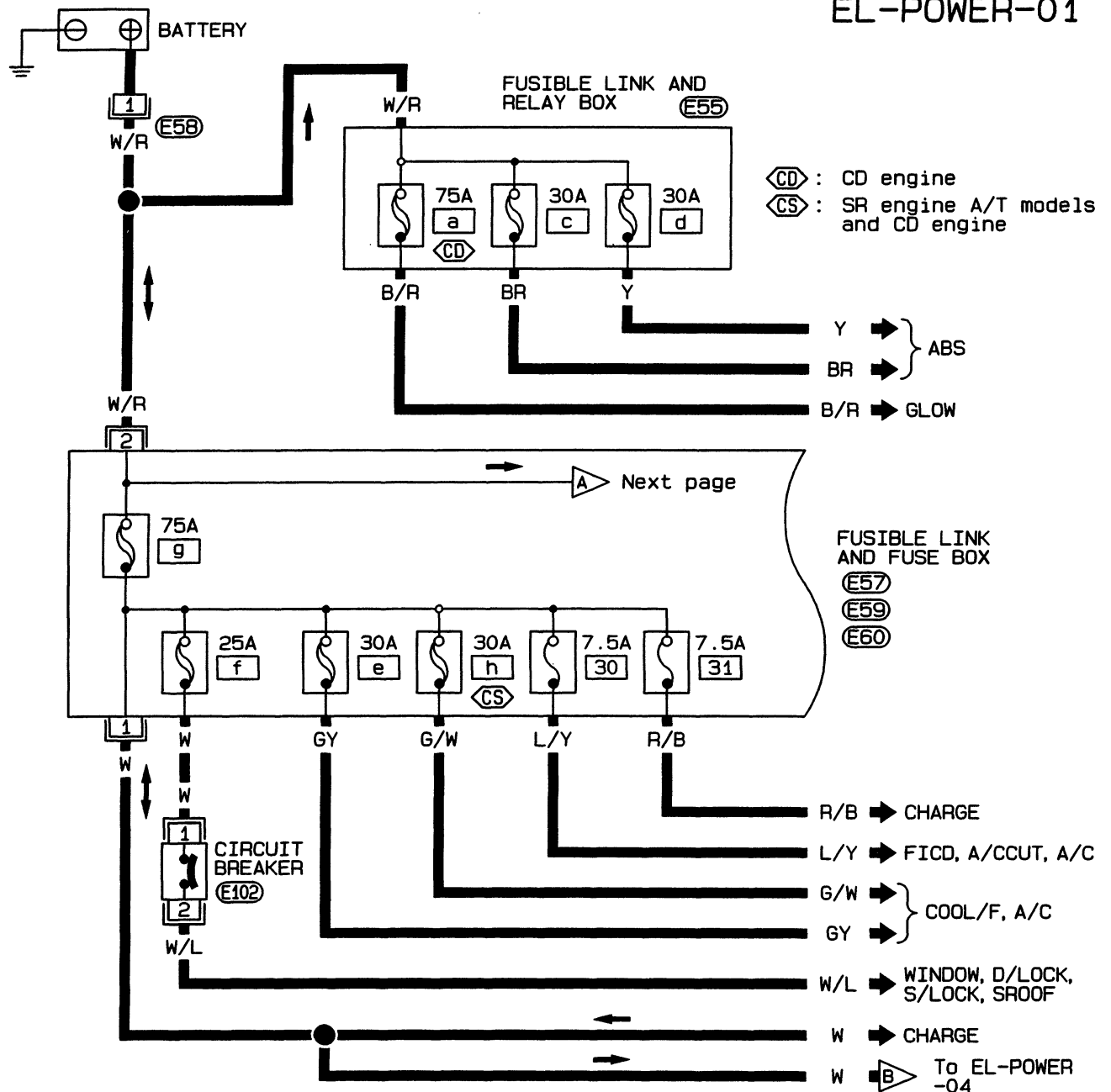
Schematic (Cont'd)



EL

Wiring Diagram — POWER —

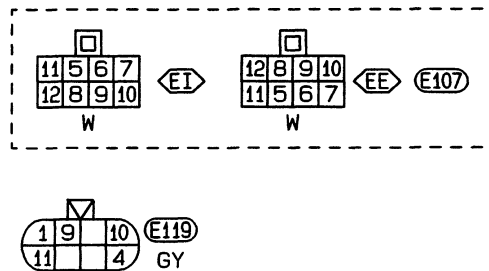
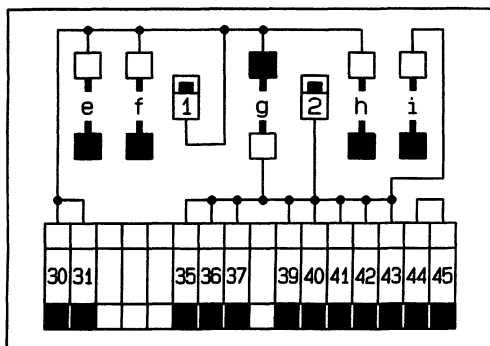
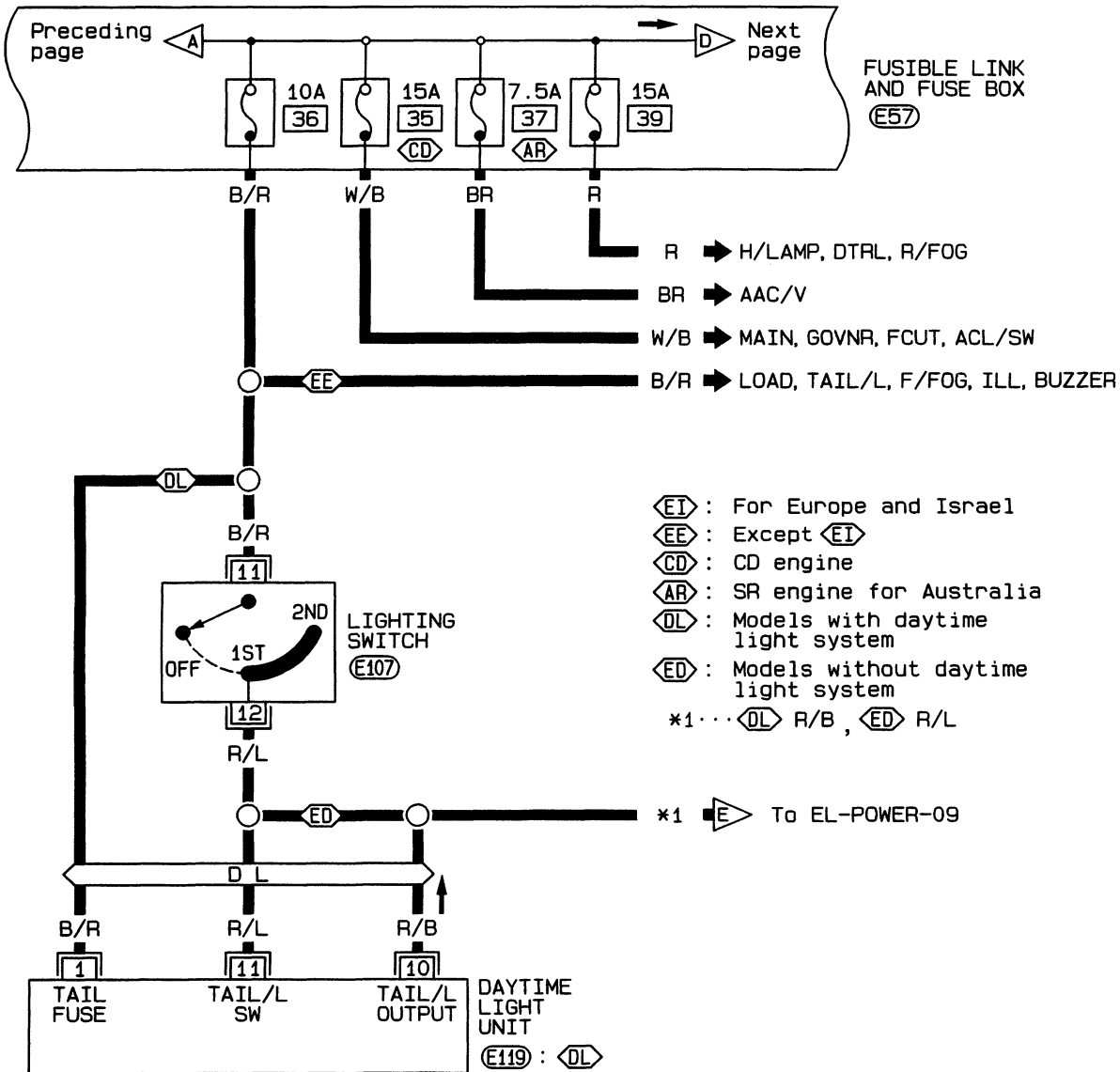
EL-POWER-01



POWER SUPPLY ROUTING

Wiring Diagram — POWER — (Cont'd)

EL-POWER-02

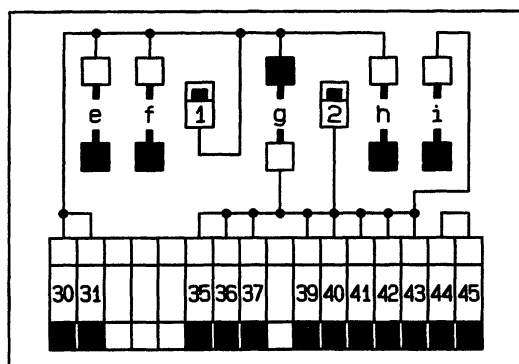
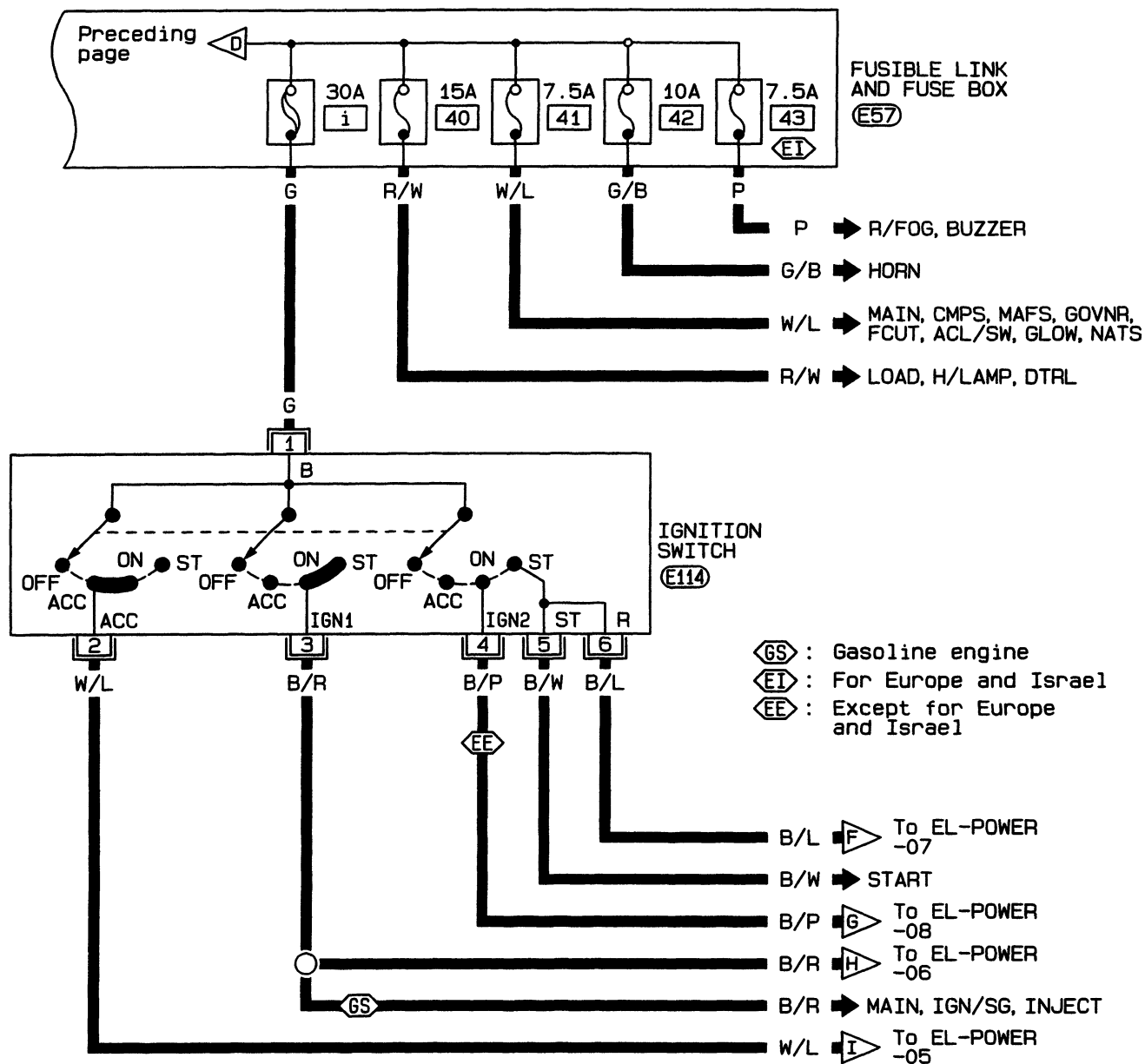


EL

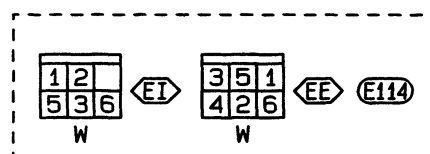
POWER SUPPLY ROUTING

Wiring Diagram — POWER — (Cont'd)

EL-POWER-03



(E57) FRONT



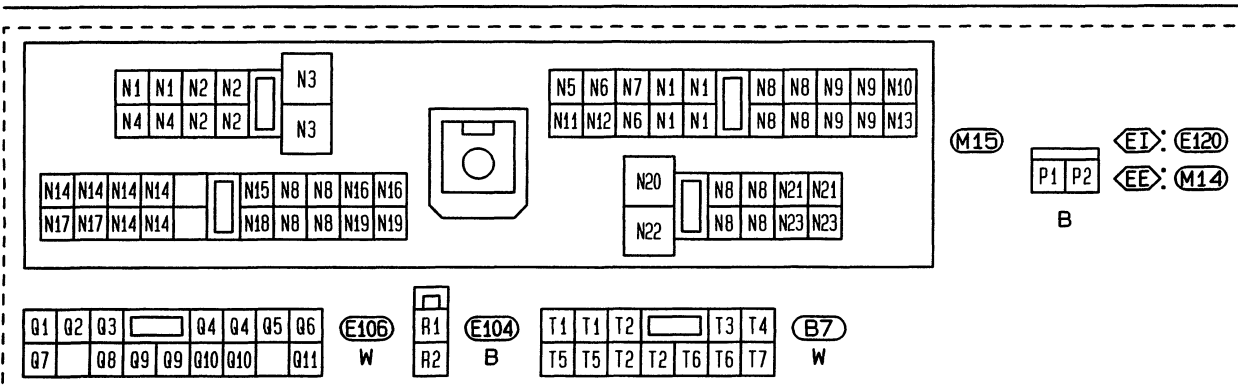
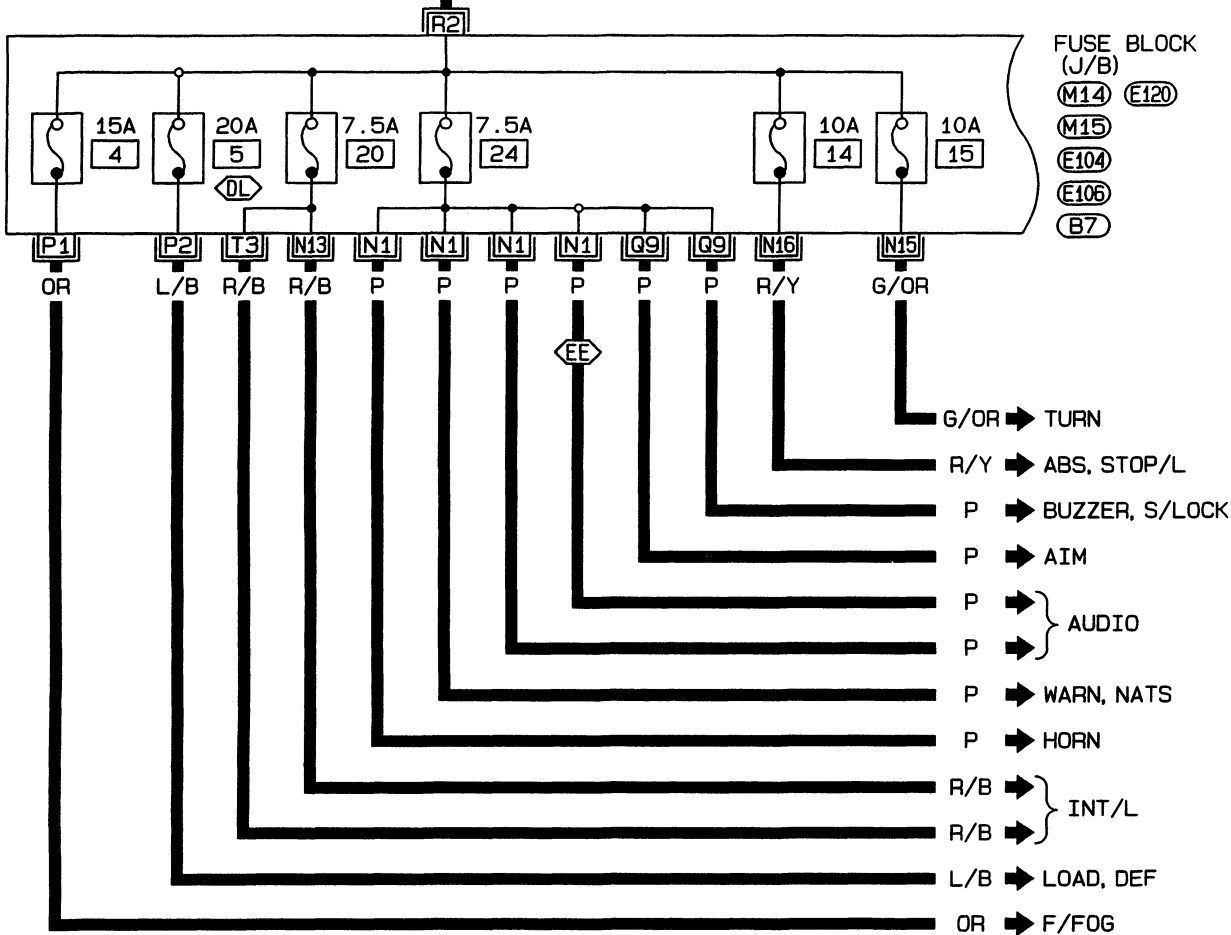
POWER SUPPLY ROUTING

Wiring Diagram — POWER — (Cont'd)

EL-POWER-04

To EL-POWER -01 W Next page

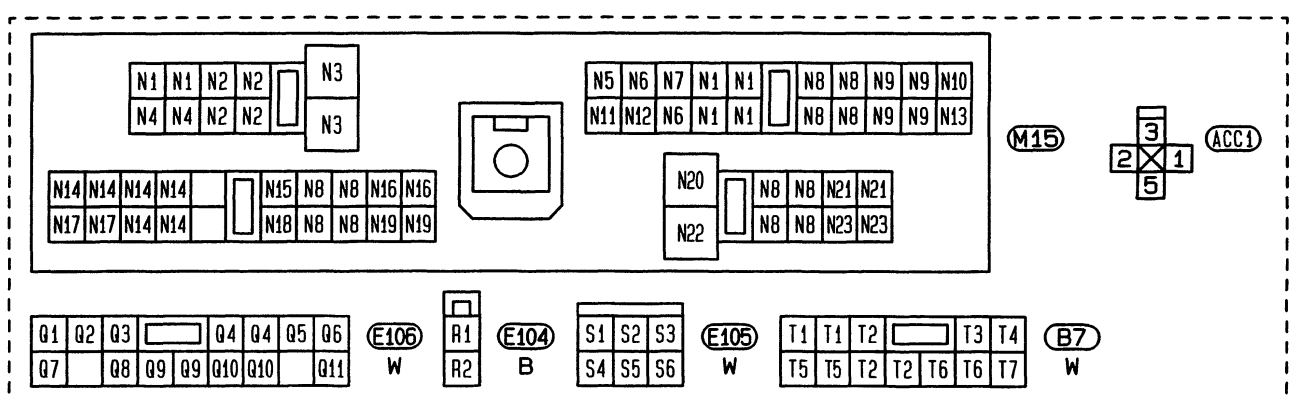
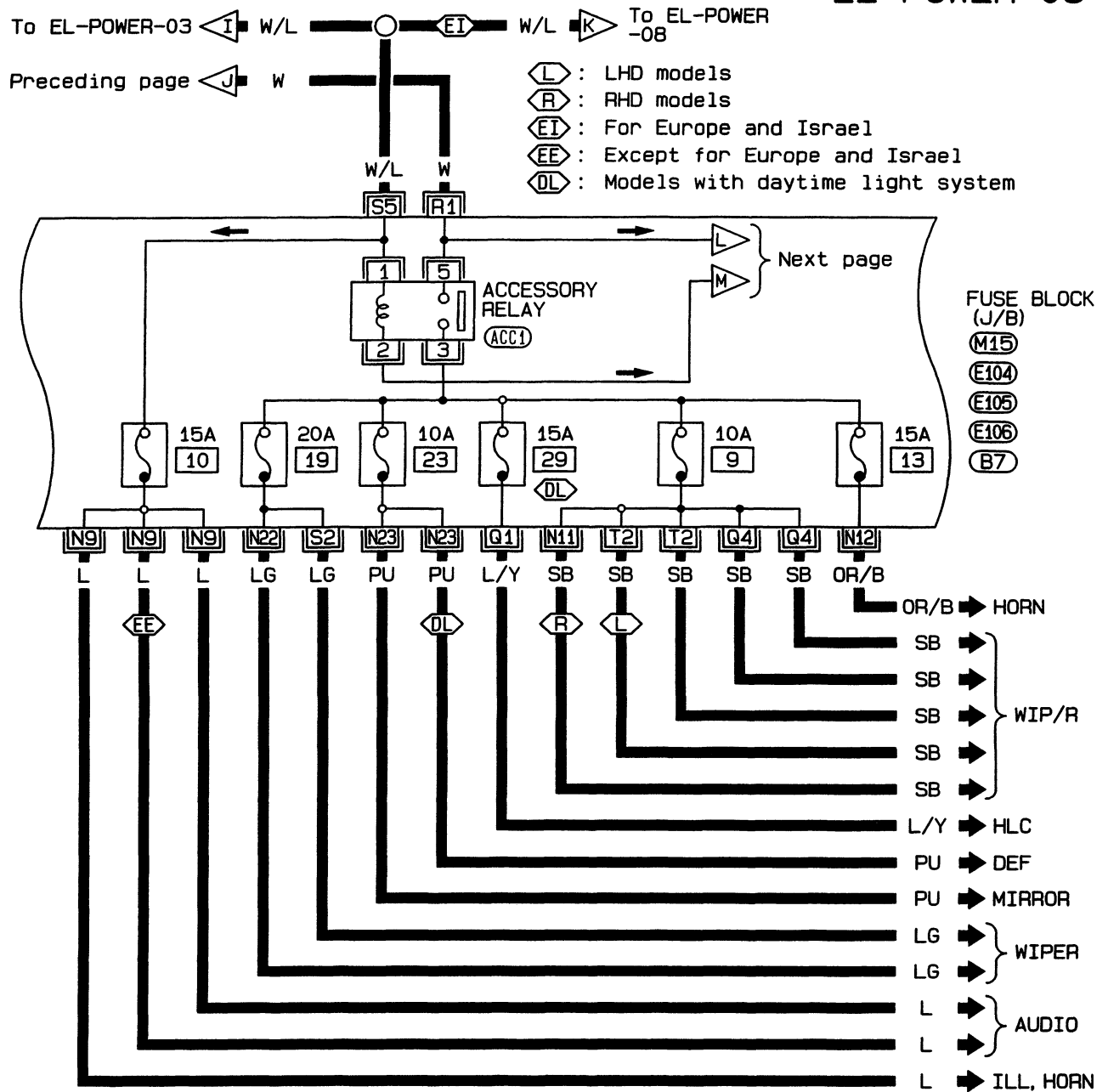
: Models with daytime light system
 : For Europe and Israel
 : Except



POWER SUPPLY ROUTING

Wiring Diagram — POWER — (Cont'd)

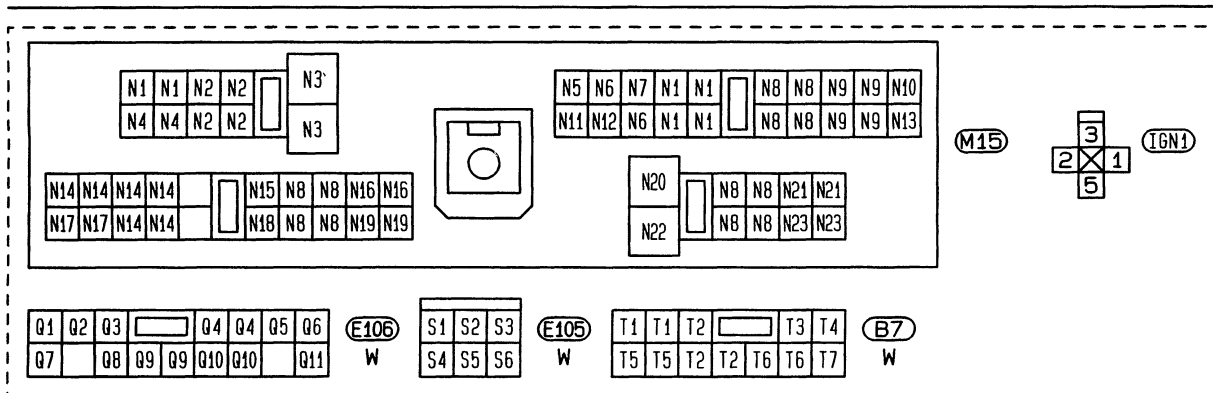
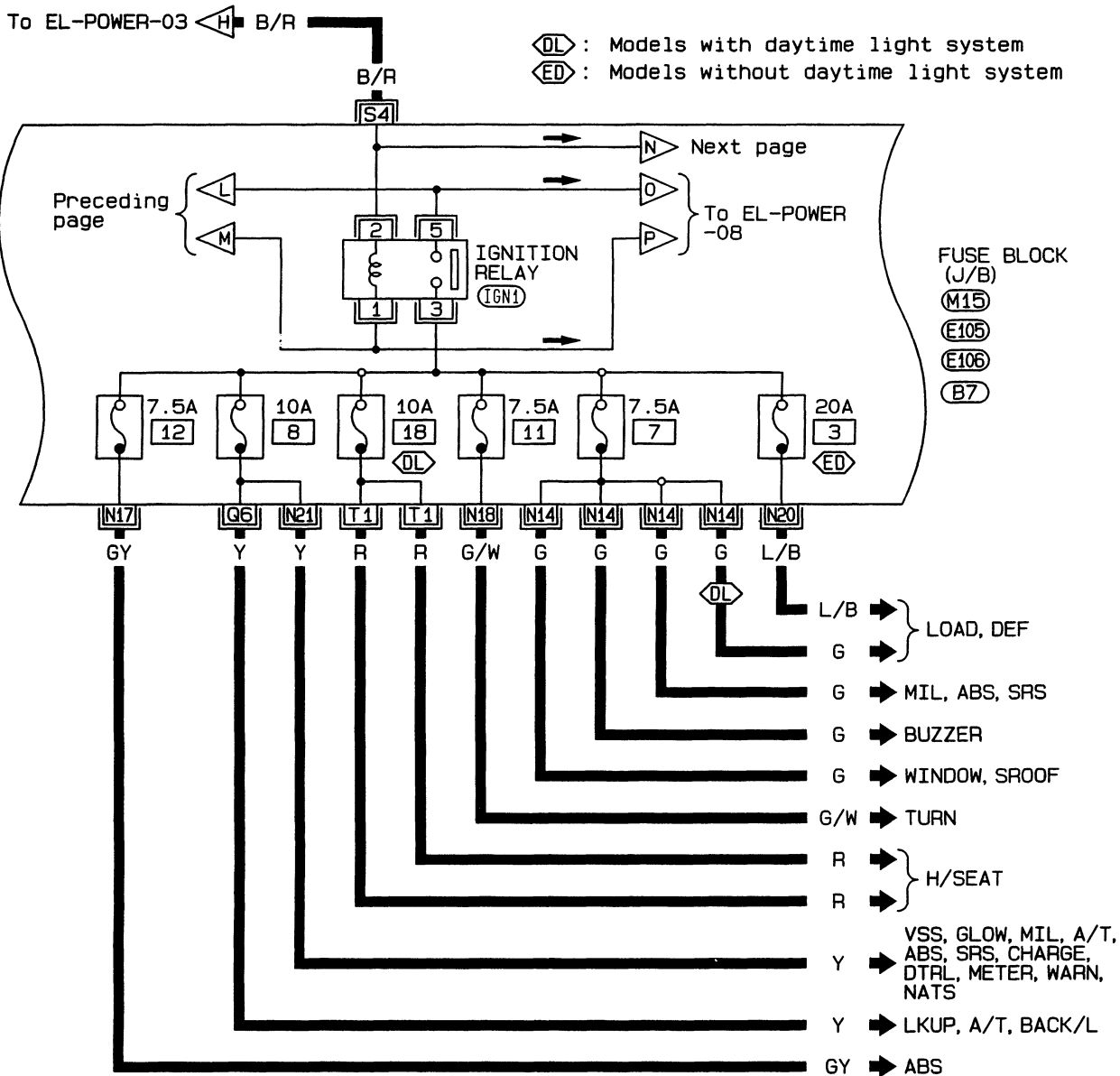
EL-POWER-05



POWER SUPPLY ROUTING

Wiring Diagram — POWER — (Cont'd)

EL-POWER-06



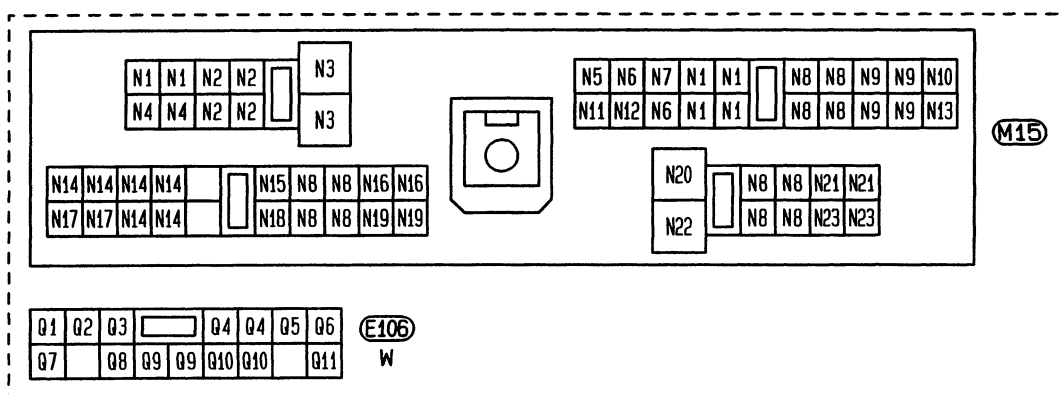
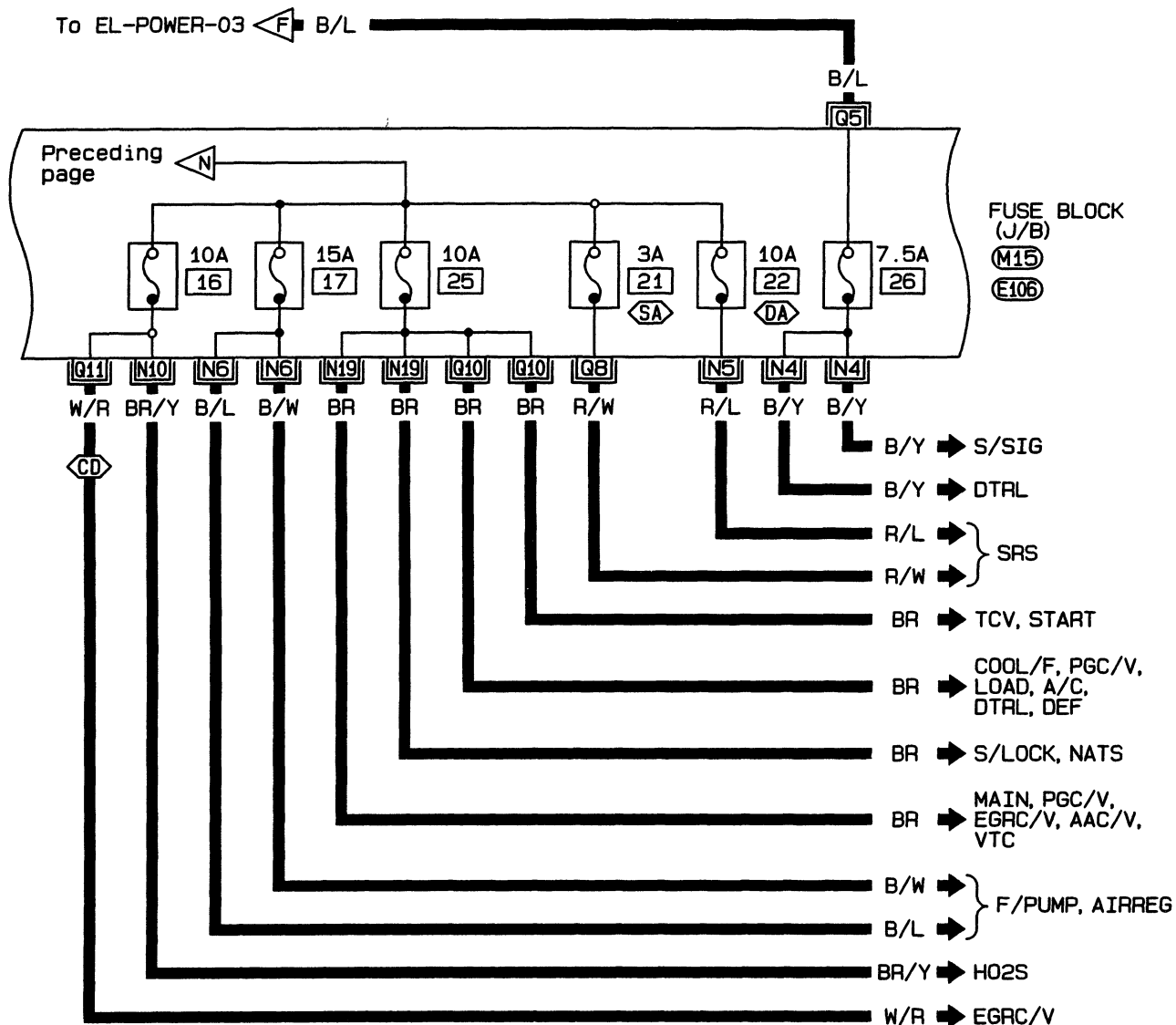
EL

POWER SUPPLY ROUTING

Wiring Diagram — POWER — (Cont'd)

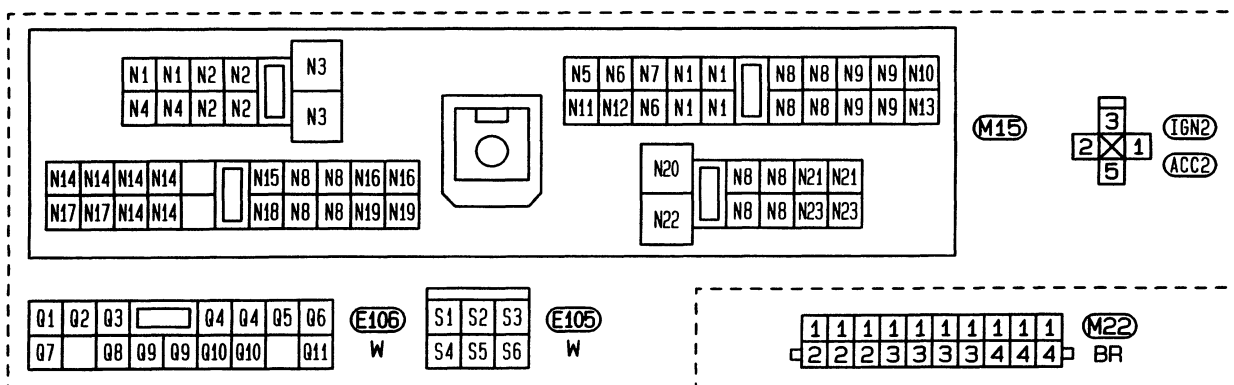
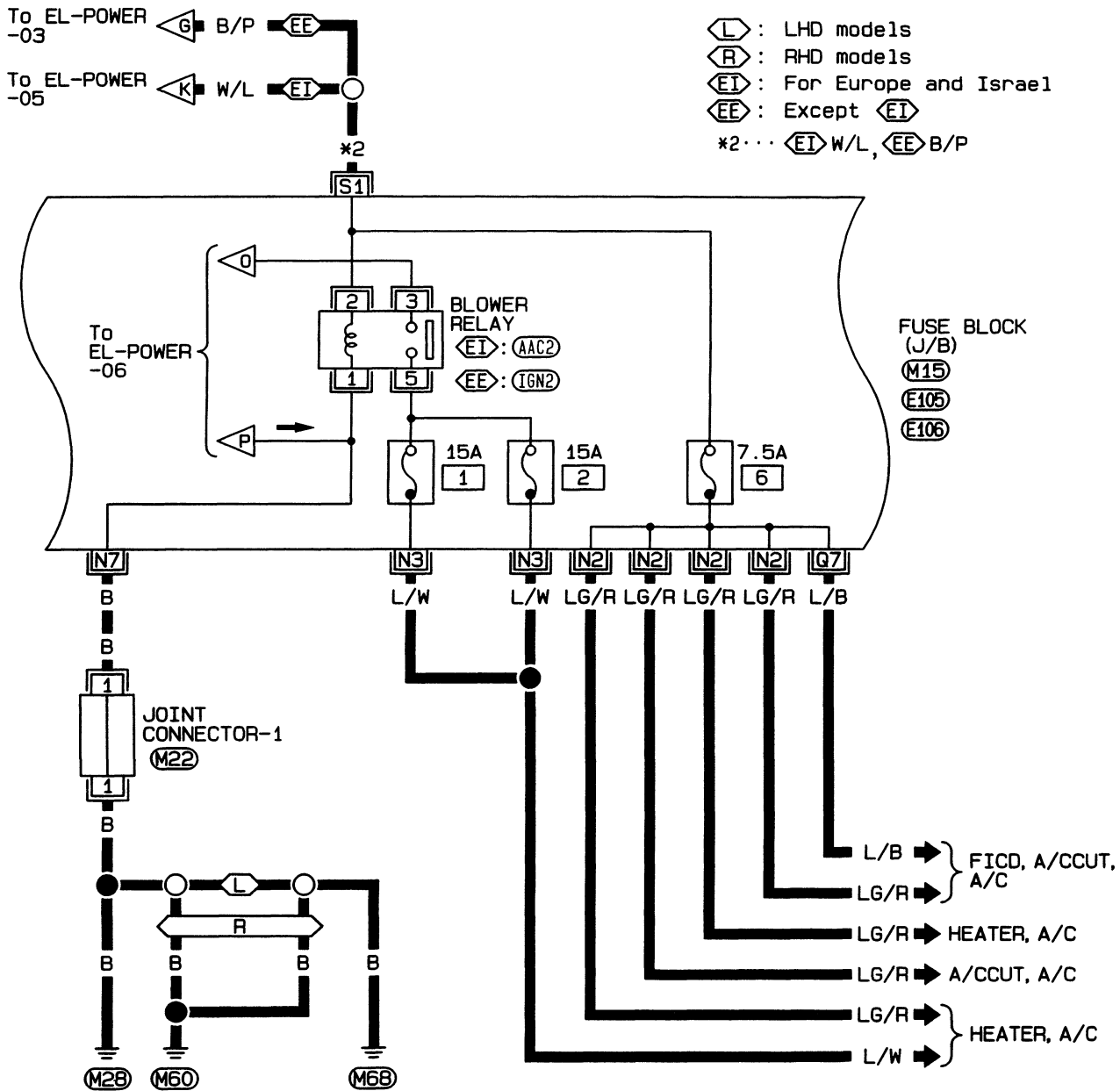
EL-POWER-07

- ⬡CD : CD engine
- ⬡SA : With single air bag system
- ⬡DA : With dual air bag system



Wiring Diagram — POWER — (Cont'd)

EL-POWER-08



EL

Wiring Diagram — POWER — (Cont'd)

To EL-POWER -02

*1

FUSE BLOCK (J/B)

(M15)
(E106)
(B7)

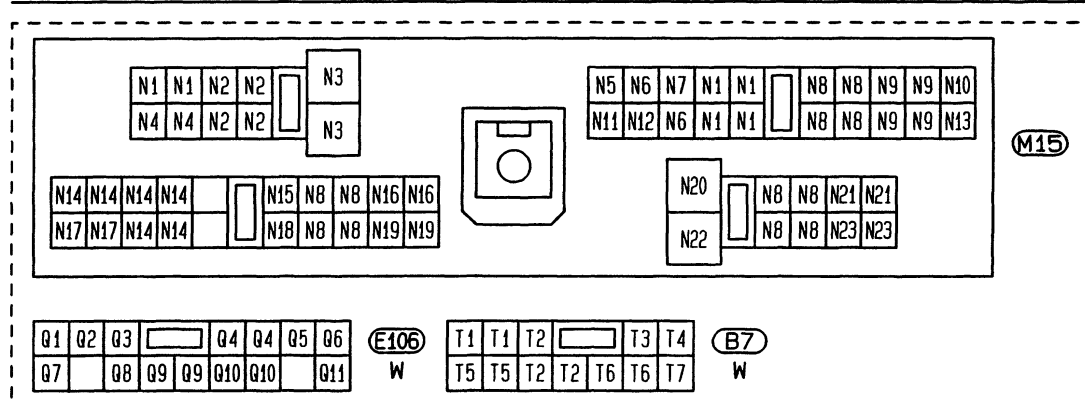
(N8) R/G
(N8) R/G
(N8) R/G
(N8) R/G
(N8) R/G
(N8) R/G
(N8) R/G
(N8) R/G
(N8) R/G
(N8) R/G
(N8) R/G
(N8) R/L
(T6) R/L
(Q2) R/L

*3 GA TM

R/L → TAIL/L, F/FOG
R/L → TAIL/L
R/G →
R/G →
R/G →
R/G →
R/G →
R/G →
R/G →
R/G → BUZZER
R/G → LOAD
R/G → AIM, ILL
*3 → F/FOG, ILL

EE L

LHD models
GA : GA engine
EE : Except for Europe and Israel
DL : Models with daytime light system
ED : Models without daytime light system
TM : Models with tachometer
*1... DL R/B, ED R/L
*3... L R/G, EE R/I



BATTERY

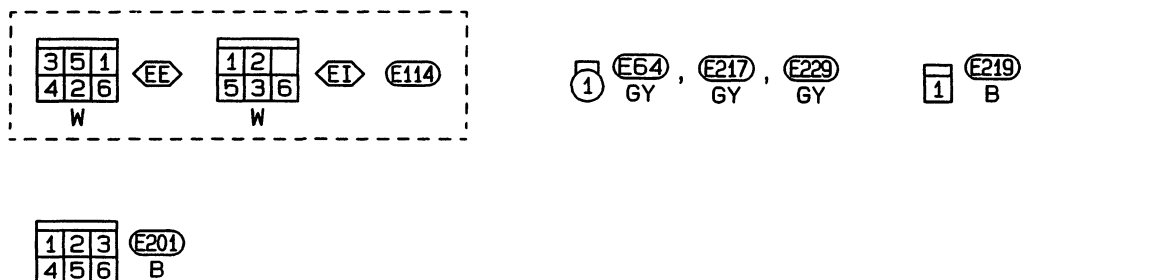
Service Data and Specifications (SDS)

Applied model	SR20DE and GA engines		CD20
	Standard	Optional for LHD model	
Type	55D23L	80D26L	95D31L
Capacity	V-AH 12-60	12-65	12-80

EL

W/T MODEL 2

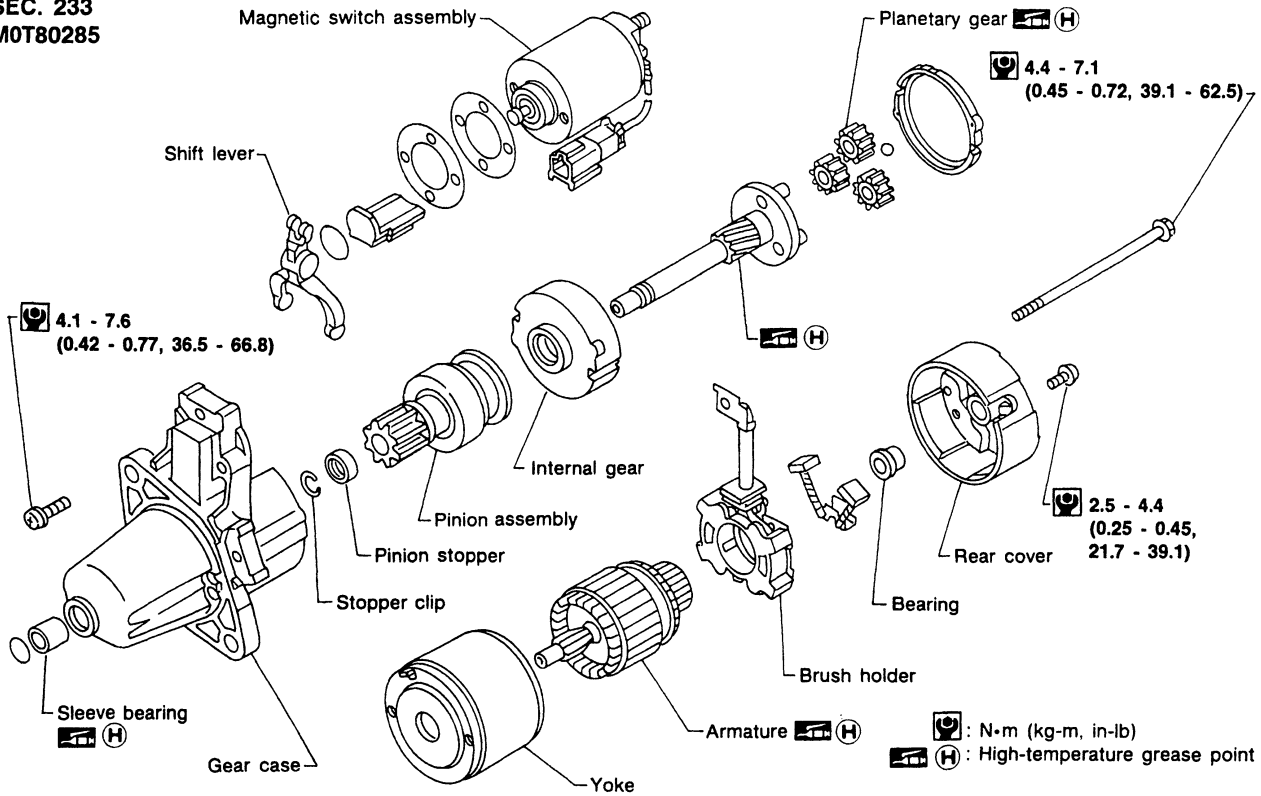
EL-START-01



STARTING SYSTEM

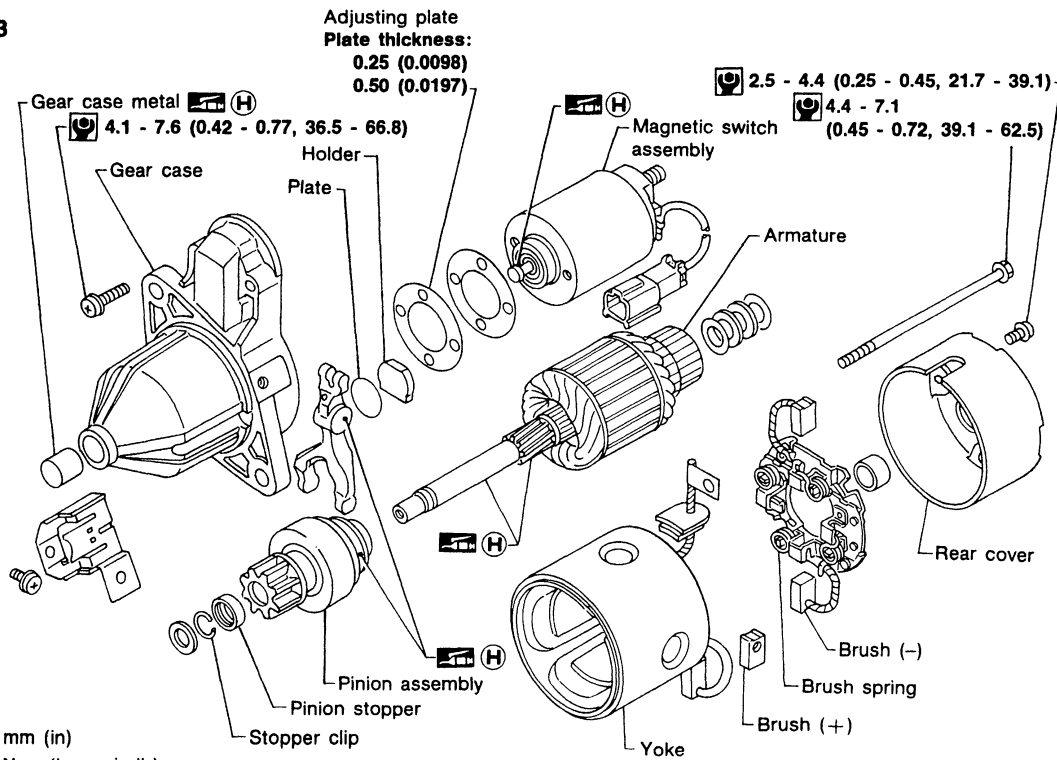
Construction

SEC. 233
M0T80285



SEL026UB

SEC. 233
M2T49283



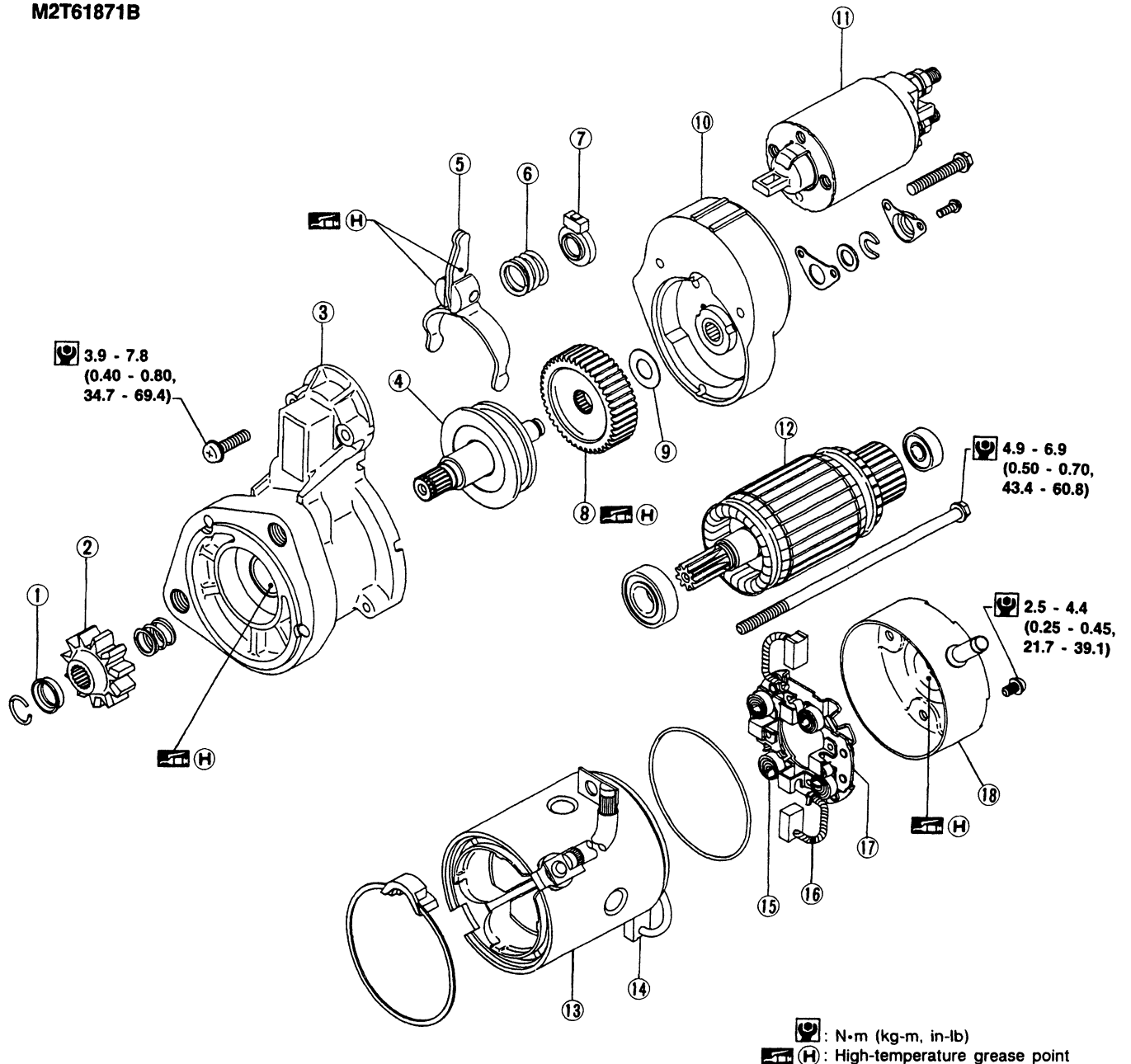
EL

SEL152SB

STARTING SYSTEM

Construction (Cont'd)

SEC. 233
M2T61871B



SEL554PB

- | | | |
|-------------------------|----------------------------|----------------|
| ① Pinion stopper | ⑦ Holder | ⑬ Yoke |
| ② Pinion assembly | ⑧ Reduction gear | ⑭ Brush (+) |
| ③ Gear case | ⑨ Washer | ⑮ Brush spring |
| ④ Pinion shaft assembly | ⑩ Center bracket | ⑯ Brush (-) |
| ⑤ Shift lever | ⑪ Magnetic switch assembly | ⑰ Brush holder |
| ⑥ Spring | ⑫ Armature | ⑱ Rear cover |

STARTING SYSTEM

Construction (Cont'd)

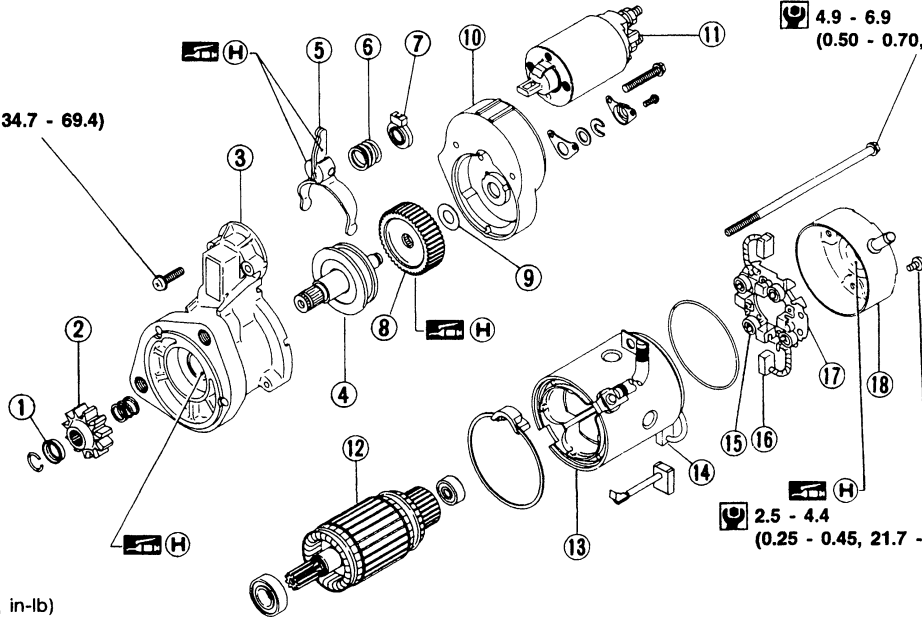
SEC. 233
M2M62071

 3.9 - 7.8
(0.40 - 0.80, 34.7 - 69.4)

 4.9 - 6.9
(0.50 - 0.70, 43.4 - 60.8)

 : N·m (kg-m, in-lb)

MEL780DA



- ① Pinion stopper
- ② Pinion assembly
- ③ Gear case
- ④ Pinion shaft assembly
- ⑤ Shift lever
- ⑥ Spring

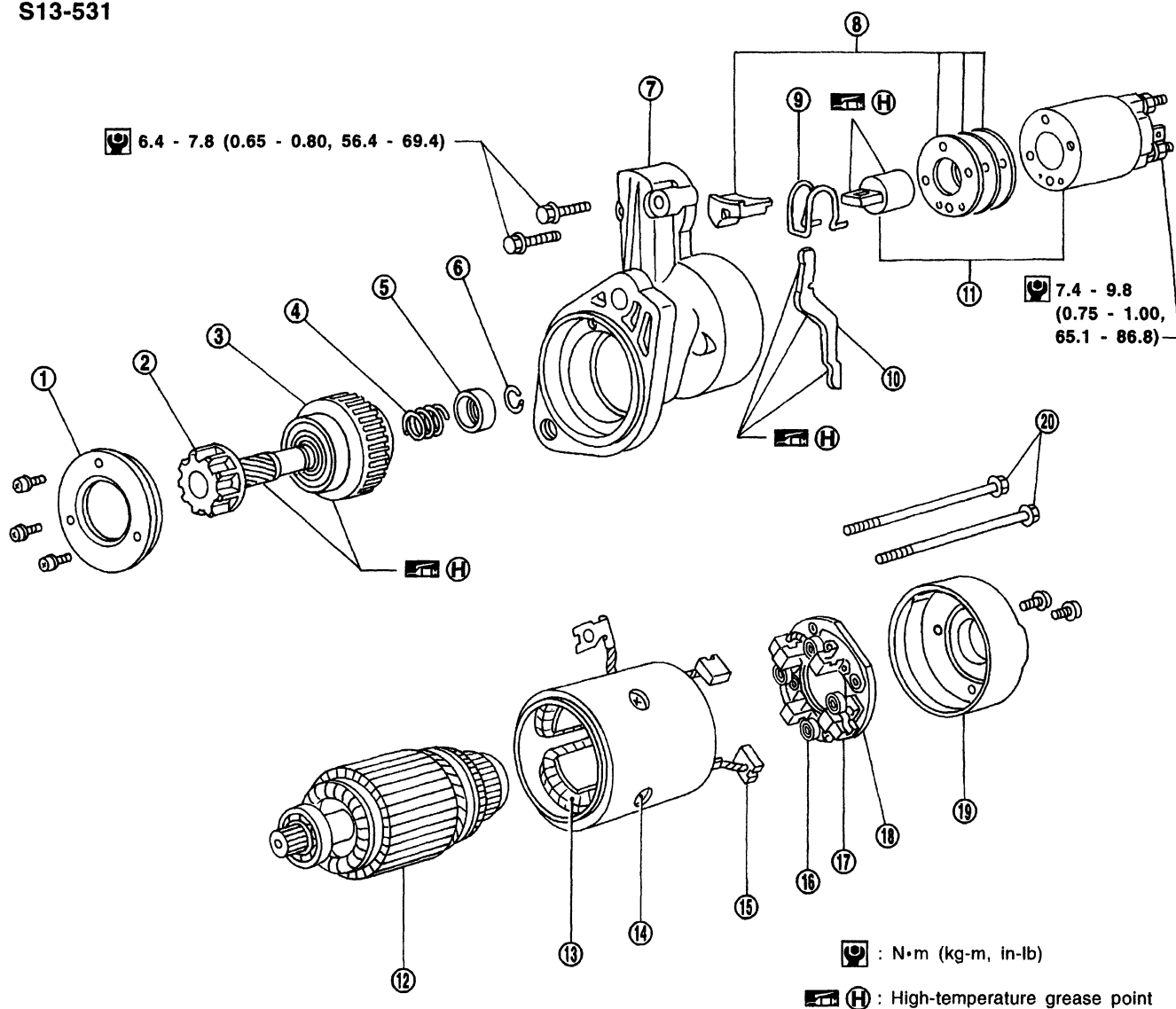
- ⑦ Holder
- ⑧ Reduction gear
- ⑨ Washer
- ⑩ Center bracket
- ⑪ Magnetic switch assembly
- ⑫ Armature

- ⑬ Yoke
- ⑭ Brush (+)
- ⑮ Brush spring
- ⑯ Brush (-)
- ⑰ Brush holder
- ⑱ Rear cover

STARTING SYSTEM

Construction (Cont'd)

SEC. 233
S13-531



MEL233FB

- ① Bearing retainer
- ② Pinion shaft
- ③ Clutch assembly
- ④ Return spring
- ⑤ Pinion stopper
- ⑥ Stopper clip
- ⑦ Gear case

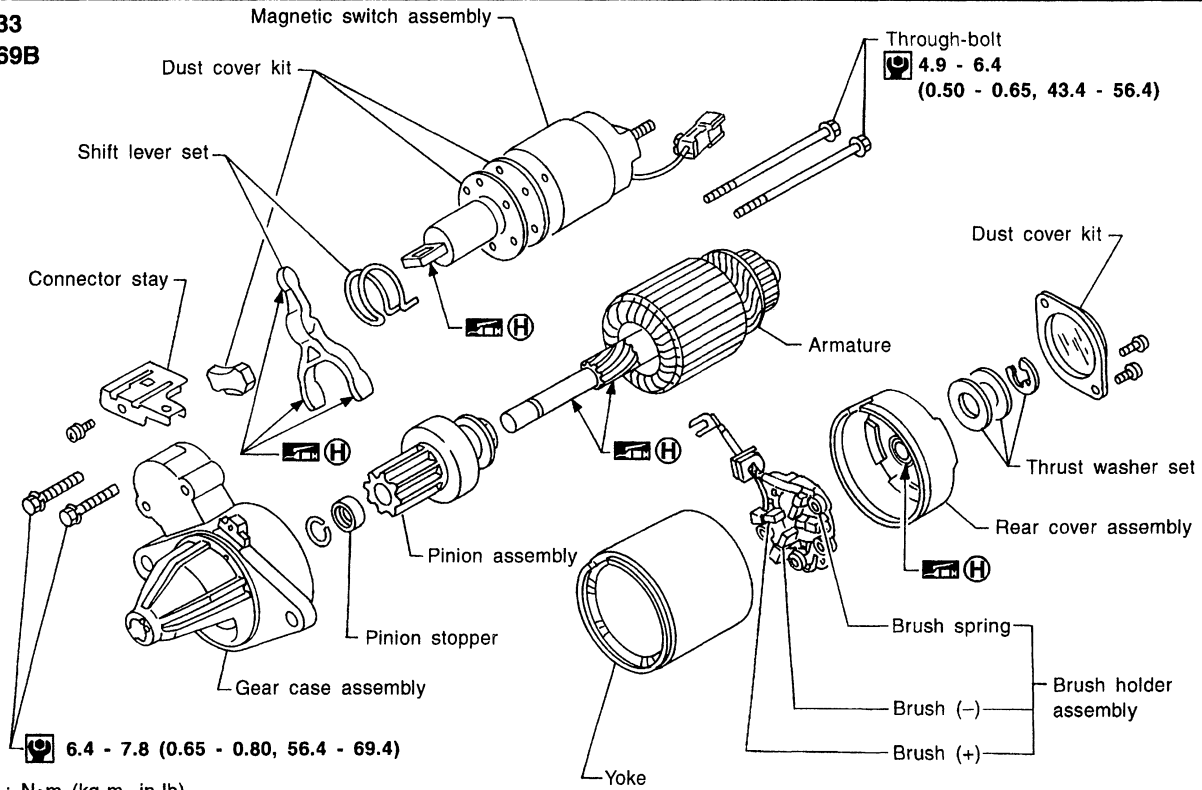
- ⑧ Dust cover
- ⑨ Torsion spring
- ⑩ Shift lever
- ⑪ Magnetic switch assembly
- ⑫ Armature assembly
- ⑬ Field coil
- ⑭ Yoke

- ⑮ Brush (+)
- ⑯ Brush spring
- ⑰ Brush (-)
- ⑱ Brush holder
- ⑲ Rear cover
- ⑳ Through-bolt

STARTING SYSTEM

Construction (Cont'd)

SEC. 233
S114-569B



: N·m (kg-m, in-lb)

: High-temperature grease point

MEL258G

EL

STARTING SYSTEM

Service Data and Specifications (SDS)

STARTER

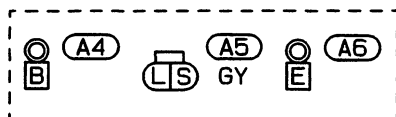
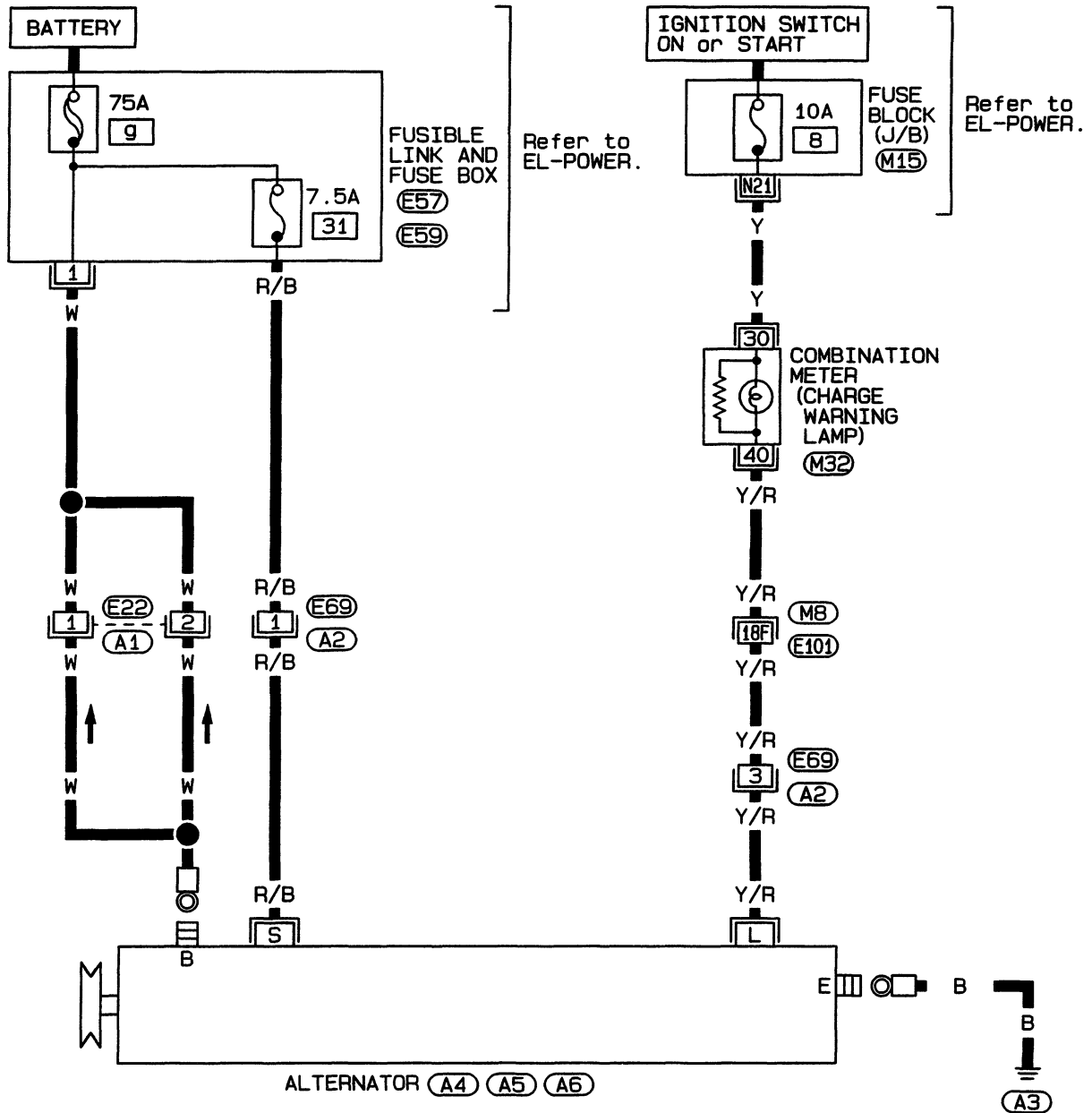
Type	S114-806	S114-800A	M0T80285		S114-569B	M2T49283	S13-305	M2M62071	S13-531	M2T61871B
	HITACHI		MITSUBISHI		HITACHI	MITSUB-ISHI	HITACHI	MITSUB-ISHI	HITACHI	MITSUB-ISHI
	Reduction		Non-reduction				Reduction			
Applied model	SR20DE	GA engines					CD20			
		A/T	LHD stan- dard	RHD option	RHD standard		Standard		Option	
System voltage V	12									
No-load										
Terminal voltage V	11.0				11.5		11.0			
Current A	Less than 90				Less than 60	Less than 53	Less than 140	Less than 105	Less than 125	Less than 105
Revolution rpm	More than 2,700	More than 2,750			More than 6,000		More than 3,900	More than 4,030	More than 4,000	More than 4,030
Minimum diame- ter of commutator mm (in)	28.0 (1.102)		28.8 (1.134)		28.0 (1.102)	31.4 (1.236)	35.5 (1.398)	31.4 (1.236)	35.5 (1.398)	31.4 (1.236)
Minimum length of brush mm (in)	10.5 (0.413)		7.0 (0.276)		9.0 (0.354)	11.5 (0.453)	11.0 (0.433)	11.5 (0.453)	11.0 (0.433)	10.8 (0.425)
Brush spring ten- sion N (kg, lb)	12.7 - 17.7 (1.3 - 1.8, 2.9 - 4.0)		11.8 - 23.5 (1.2 - 2.4, 2.6 - 5.3)		9.8 - 13.7 (1.0 - 1.4, 2.2 - 3.1)	13.7 - 25.5 (1.4 - 2.6, 3.1 - 5.7)	28.4 - 34.3 (2.9 - 3.5, 6.4 - 7.7)	13.7 - 25.5 (1.4 - 2.6, 3.1 - 5.7)	28.4 - 34.3 (2.9 - 3.5, 6.4 - 7.7)	19.6 - 27.5 (2.0 - 2.8, 4.4 - 6.2)
Clearance between bearing metal and armature shaft mm (in)	Less than 0.2 (0.008)						—			Less than 0.2 (0.008)
Clearance “ℓ” between pinion front edge and pinion stopper mm (in)	0.3 - 2.5 (0.012 - 0.098)		0.5 - 2.0 (0.020 - 0.079)		0.3 - 2.5 (0.012 - 0.098)	0.5 - 2.0 (0.020 - 0.079)	0.3 - 2.0 (0.012 - 0.079)	0.5 - 2.0 (0.020 - 0.079)	0.3 - 0.8 (0.012 - 0.031)	0.5 - 2.0 (0.020 - 0.079)
Movement “ℓ” in height of pinion assembly mm (in)	—									

CHARGING SYSTEM

Wiring Diagram — CHARGE — (Cont'd)

LHD MODELS WITH SR ENGINE

EL-CHARGE-02



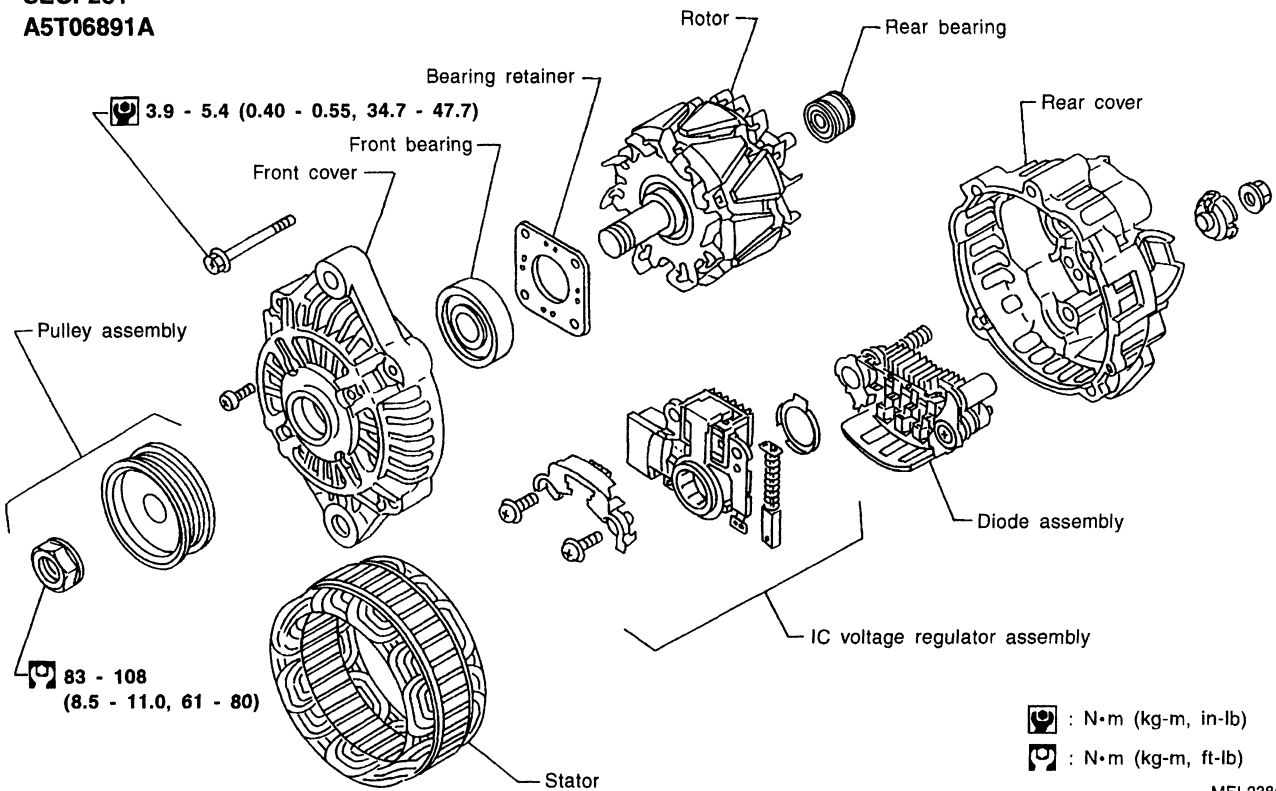
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M8, E101
M15
E57, E59

CHARGING SYSTEM

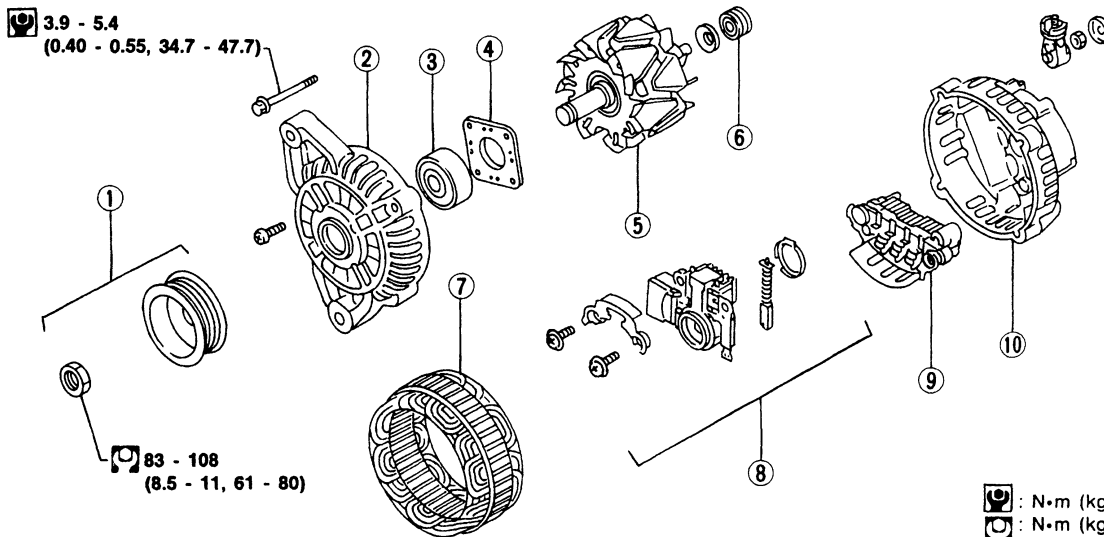
Construction

SEC. 231 A5T06891A



MEL238G

SEC. 231 A2T82491



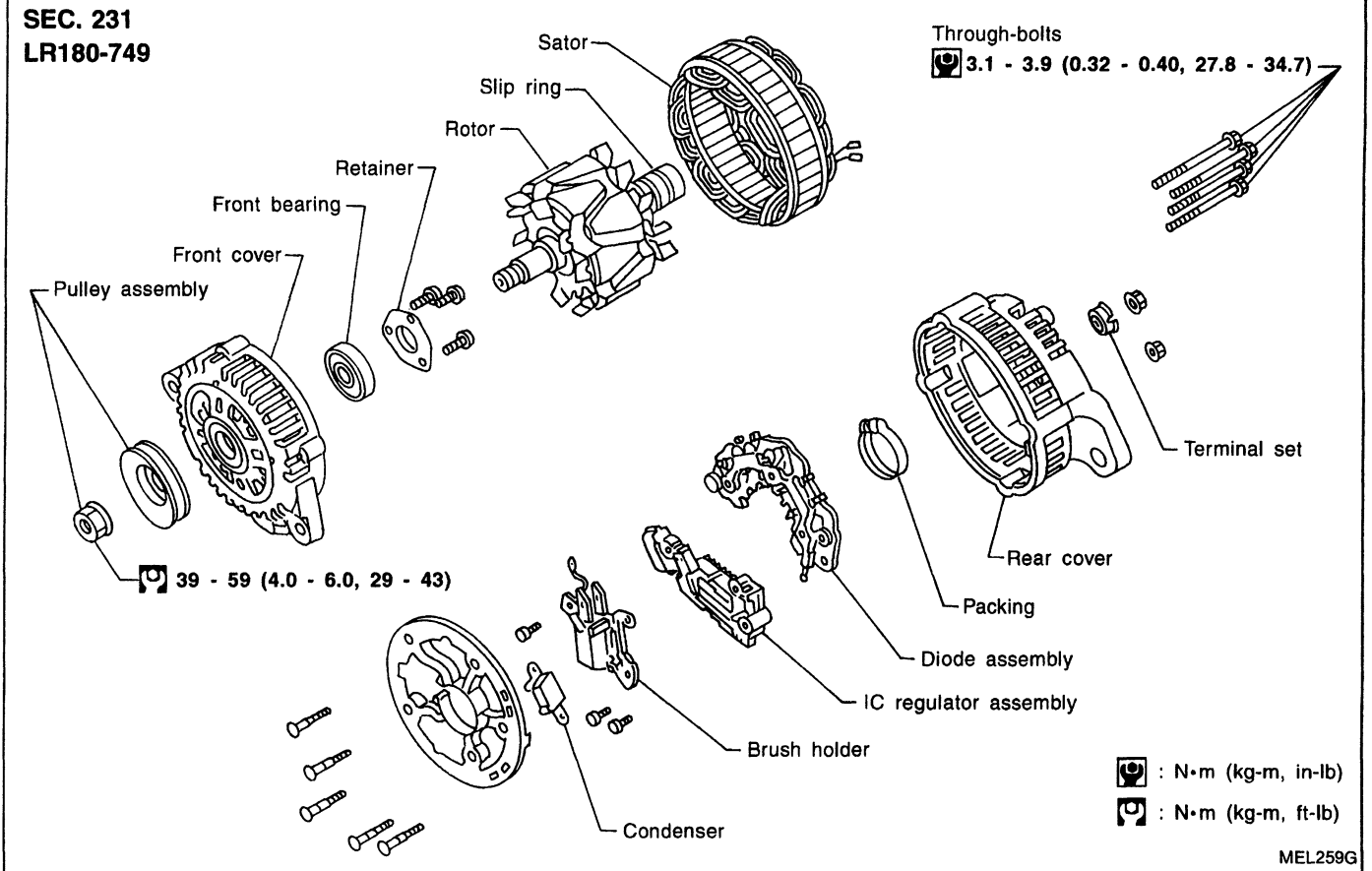
MEL782DC

- | | | |
|--------------------|----------------|---------------------------------|
| ① Pulley assembly | ⑤ Rotor | ⑧ IC voltage regulator assembly |
| ② Front cover | ⑥ Rear bearing | ⑨ Diode assembly |
| ③ Front bearing | ⑦ Stator | ⑩ Rear cover |
| ④ Bearing retainer | | |

EL

CHARGING SYSTEM

Construction (Cont'd)

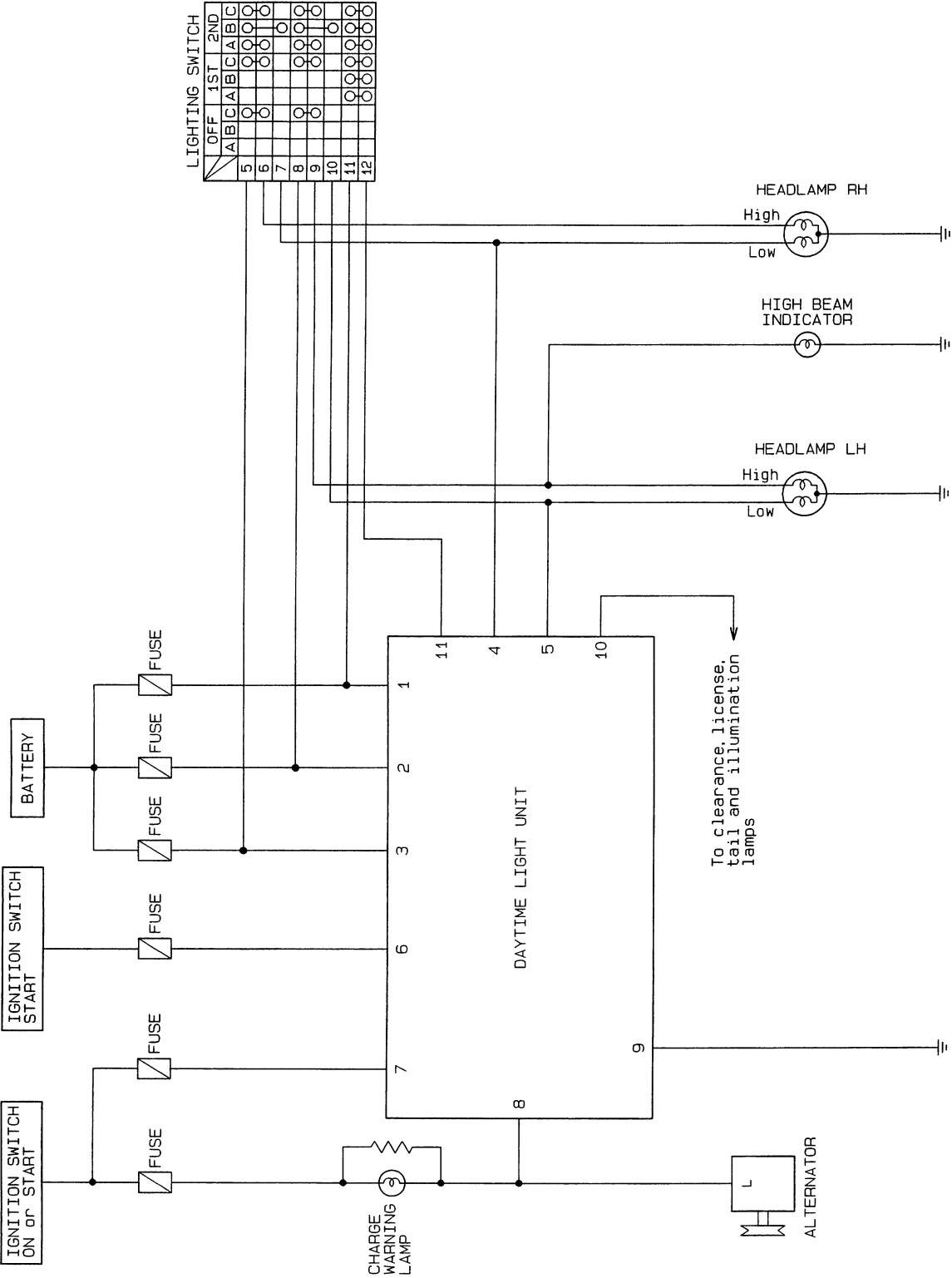


Service Data and Specifications (SDS)

ALTERNATOR

Type		A5T06891A	LR180-749	A2T82491
		MITSUBISHI	HITACHI	MITSUBISHI
Applied model		GA engines	CD20	SR20DE
Nominal rating	V-A	12-70	12-80	
Ground polarity		Negative		
Minimum revolutions under no-load (when 13.5V is applied) rpm		Less than 1,300	Less than 1,000	Less than 1,300
Hot output current (When 13.5V is applied) A/rpm		More than 13/1,300 More than 55/2,500	More than 31/1,300 More than 67/2,500 More than 76/5,000	More than 22/1,300 More than 65/2,500
Regulated output voltage	V	14.1 - 14.7		
Minimum length of brush mm (in)		5.0 (0.197)	6.0 (0.236)	5.0 (0.197)
Brush spring pressure N (g, oz)		4.609 - 5.786 (470 - 590, 16.58 - 20.81)	1.0 - 3.43 (102 - 350, 3.60 - 12.34)	4.609 - 5.786 (470 - 590, 16.58 - 20.81)
Slip ring minimum diameter mm (in)		22.1 (0.870)	26.0 (1.024)	22.1 (0.870)
Rotor coil resistance at 20°C (68°F) Ω		2.5 - 2.9	—	2.4 - 2.9

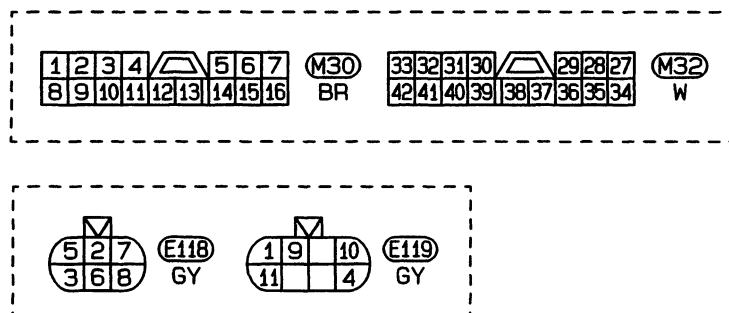
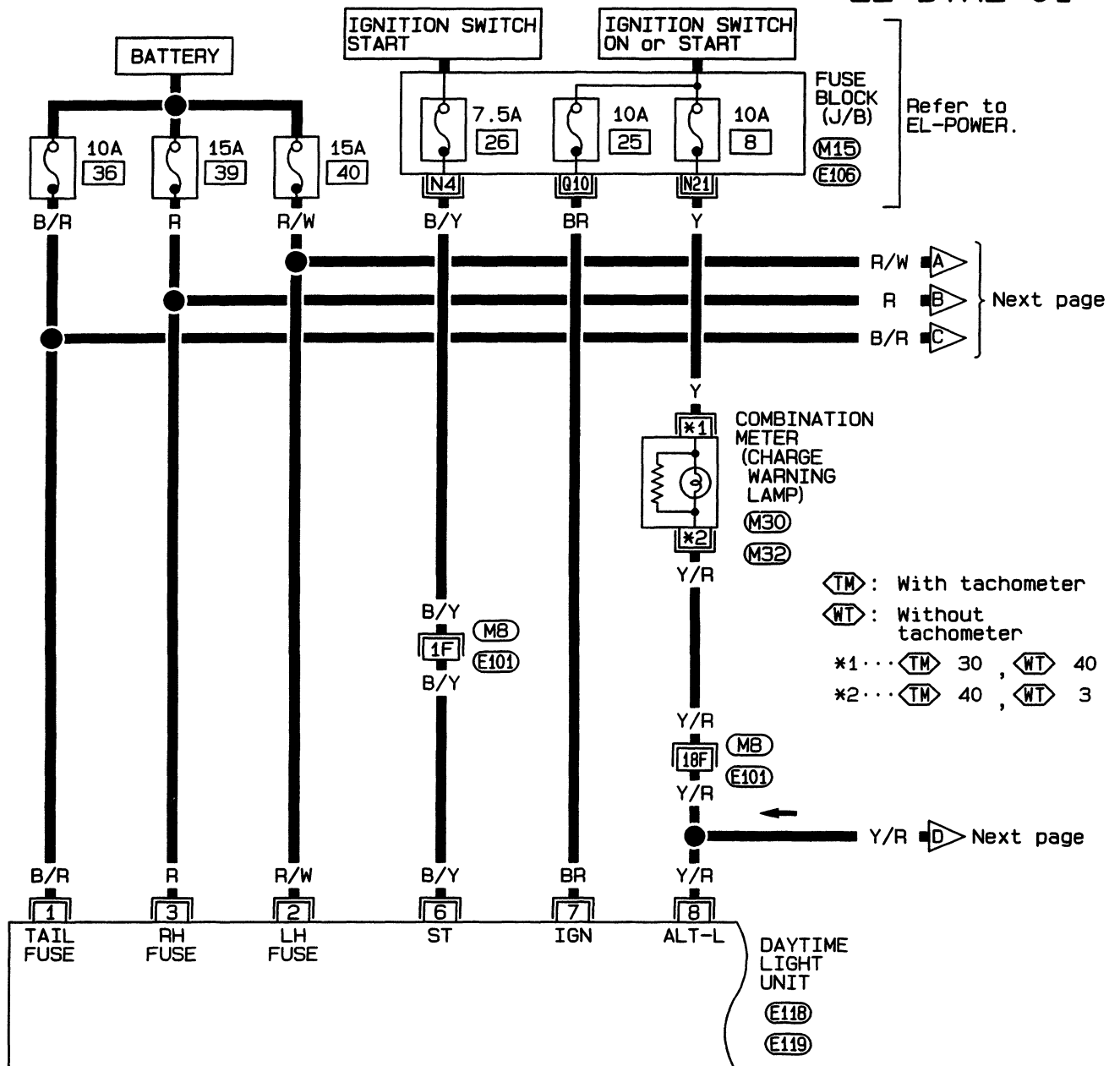
Schematic



EL

Wiring Diagram — DTRL —

EL-DTRL-01



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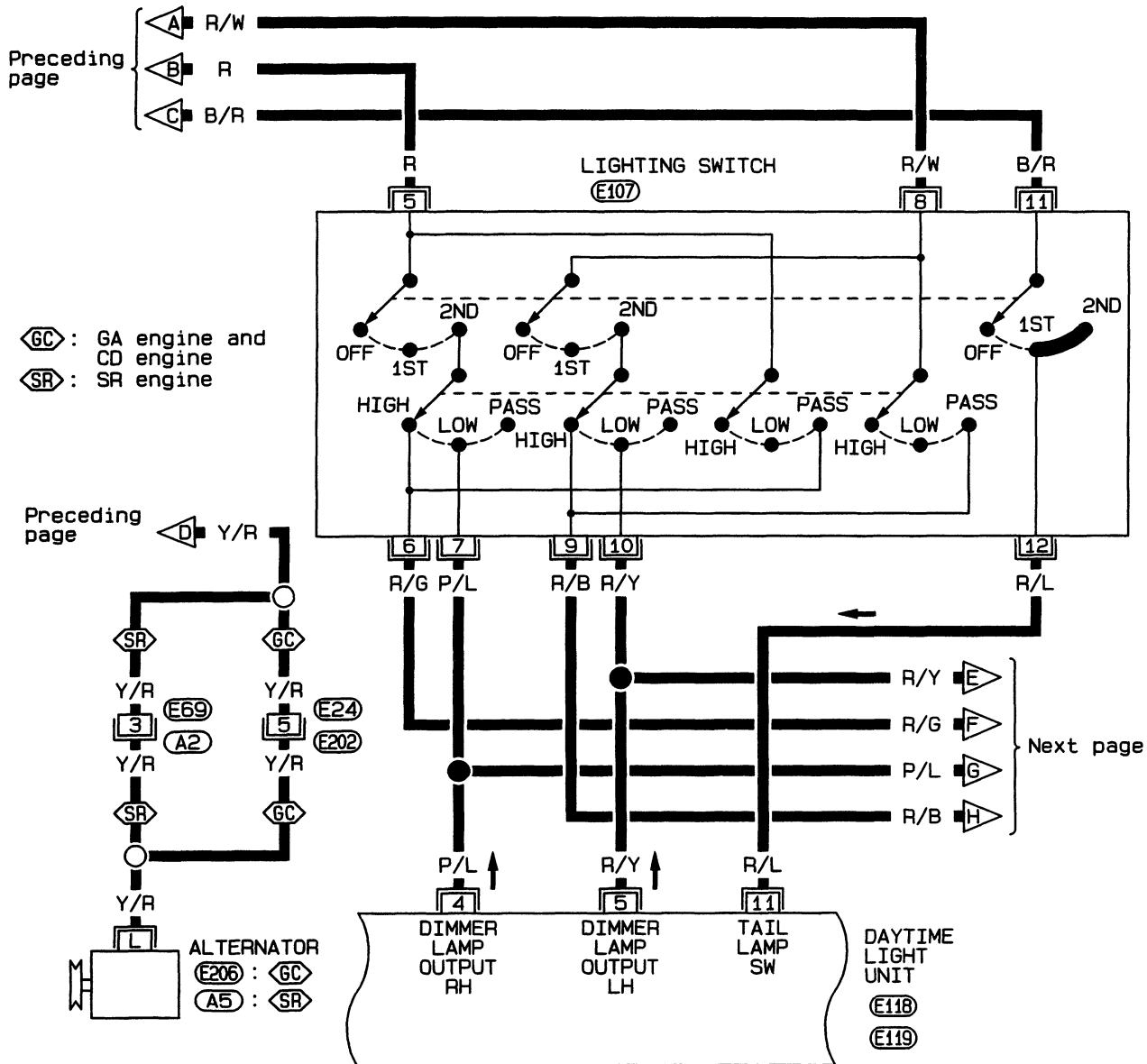
MB E101

(M15) (E106)

HEADLAMP — Daytime Light System —

Wiring Diagram — DTRL — (Cont'd)

EL-DTRL-02



11	5	6	7
12	8	9	10

(E107) W

1	2
3	4

(A2) GY

1	2	3	4
5	6	7	8

(E202) B

LS	(E206) GY	(A5) GY
----	-----------	---------

5	2	7
3	6	8

(E118) GY

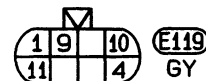
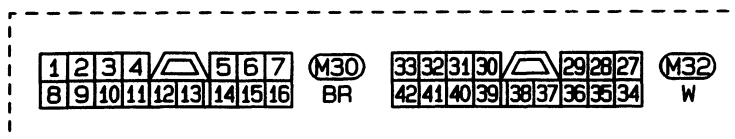
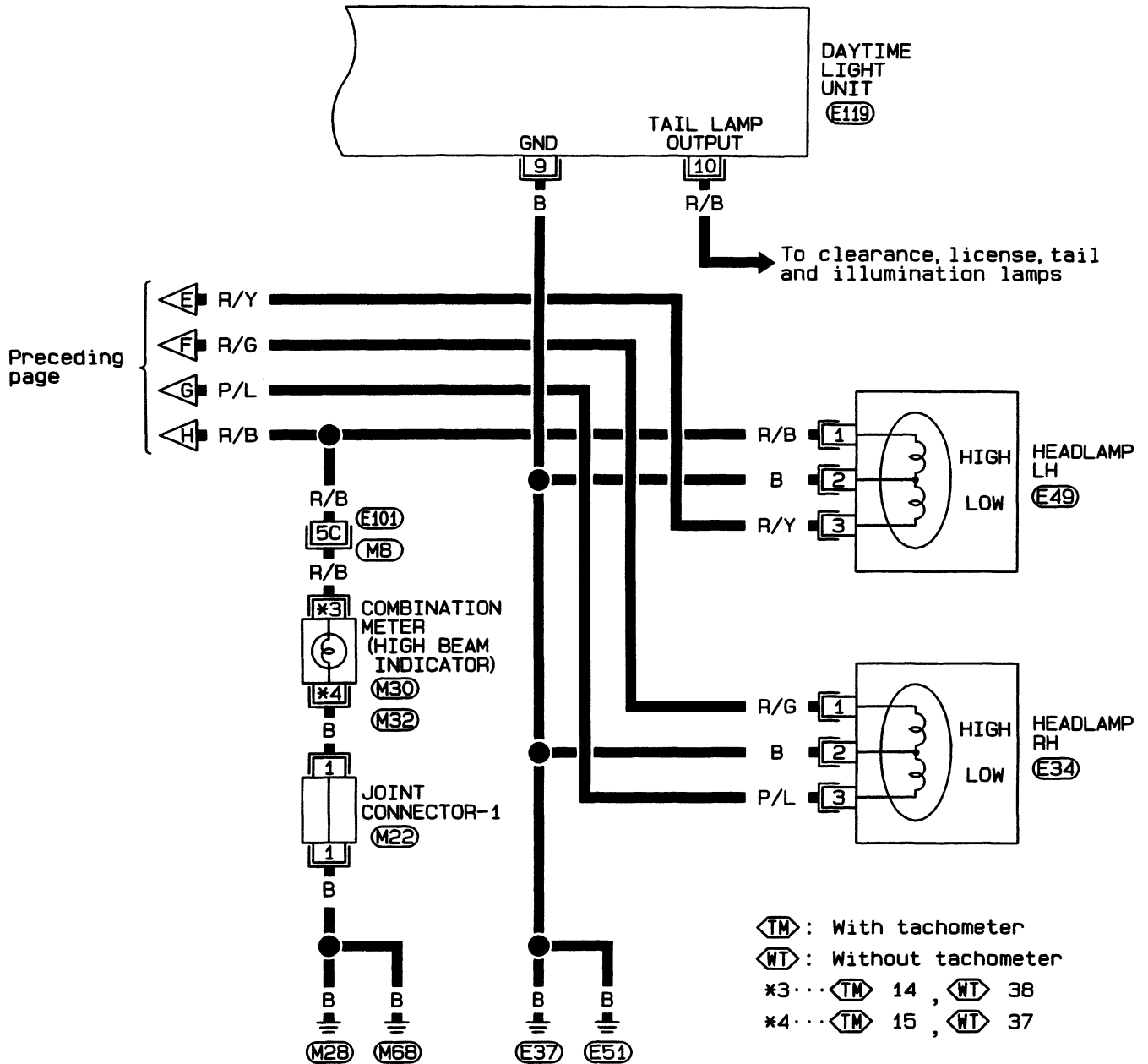
1	9	10
11		4

(E119) GY

EL

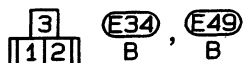
HEADLAMP — Daytime Light System — **Wiring Diagram — DTRL — (Cont'd)**

EL-DTRL-03



Refer to last page (Foldout page).

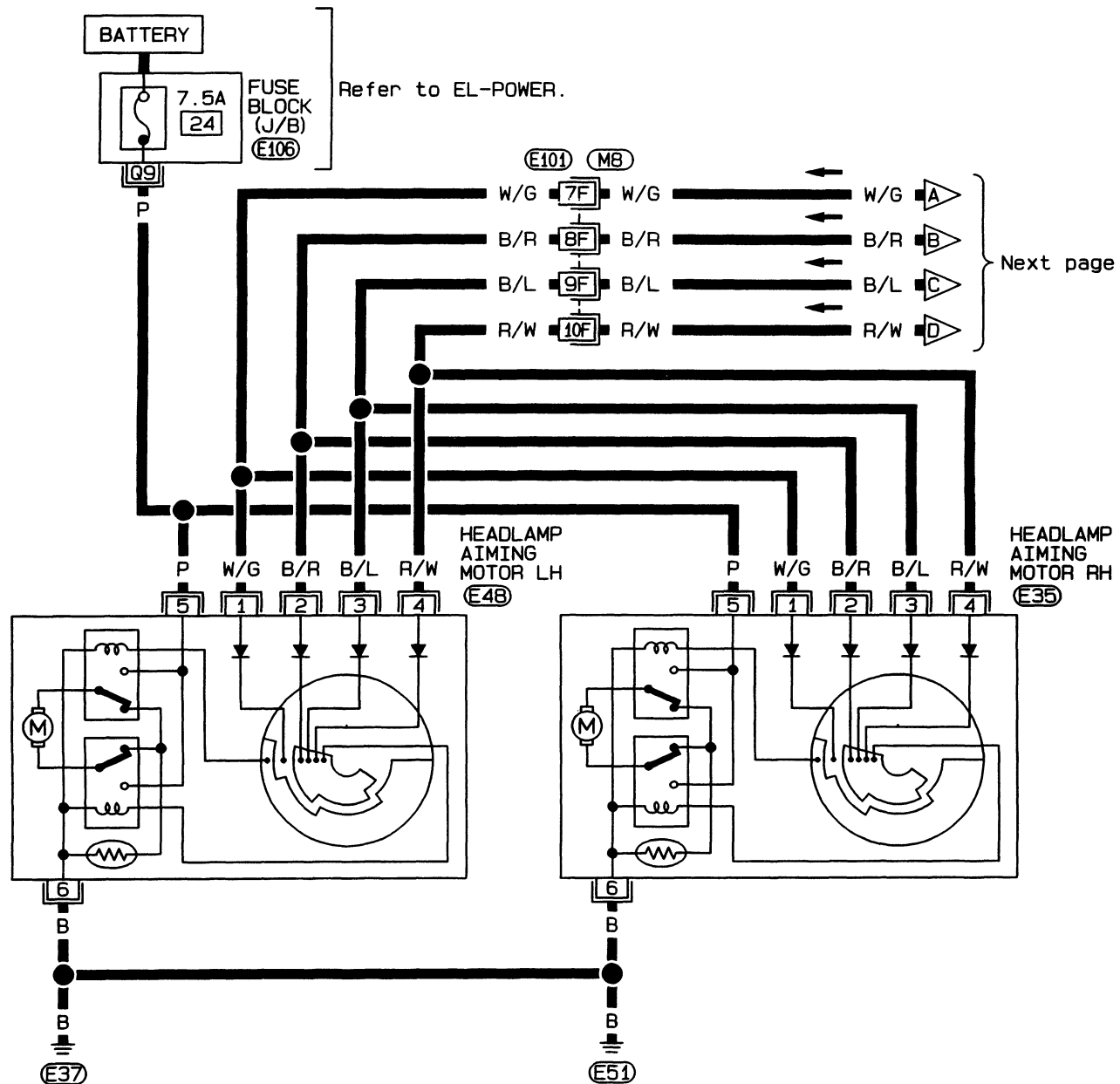
(M8), (E101)



HEADLAMP — Headlamp Aiming Control —

Wiring Diagram — AIM —

EL-AIM-01



1 2 3
4 5 6
E35 GY , E48 GY

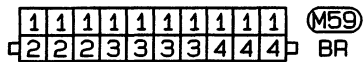
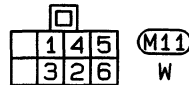
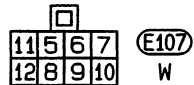
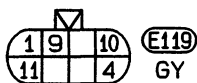
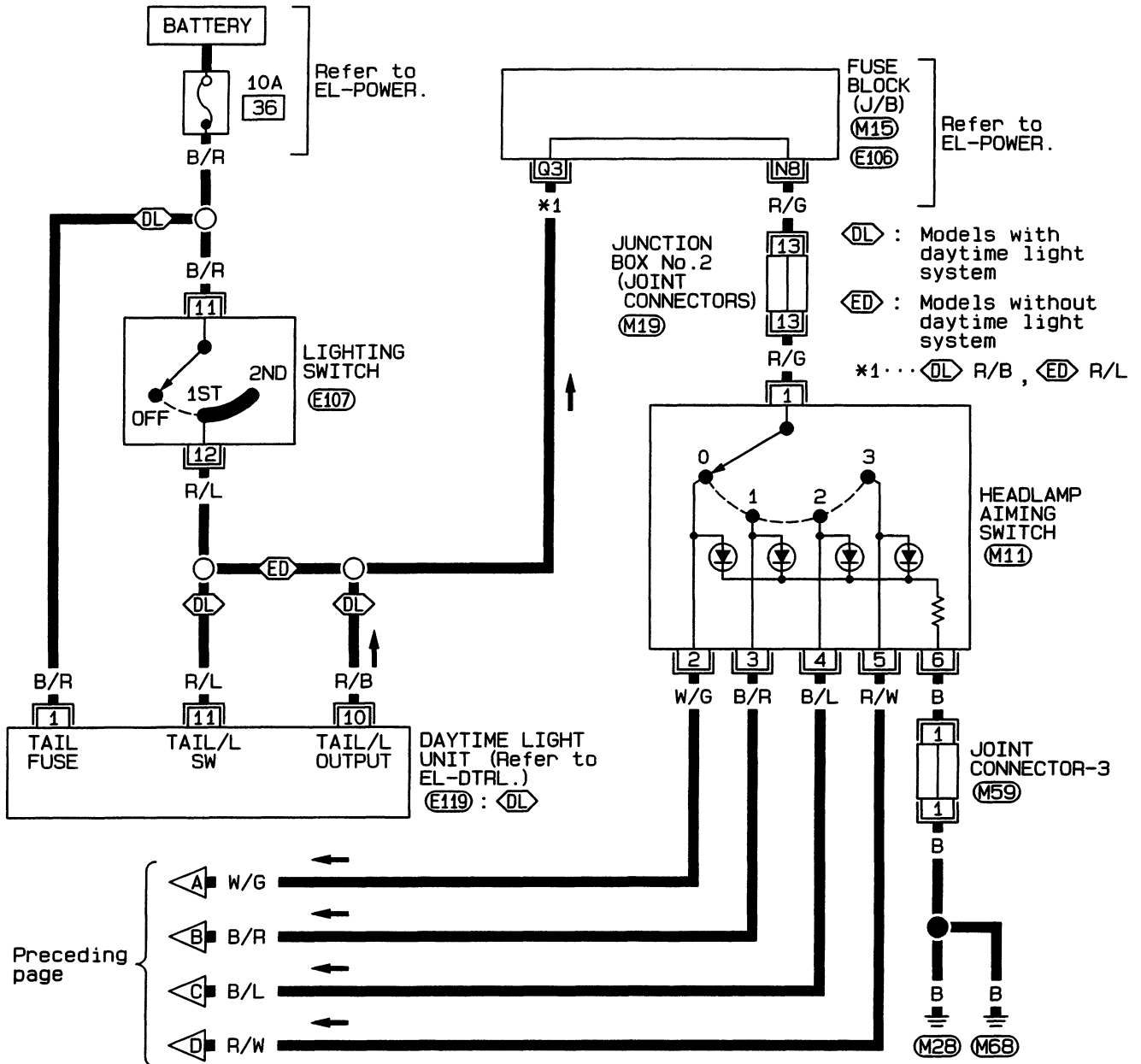
Refer to last page (Foldout page).

M8 , E101
E106

EL

HEADLAMP — Headlamp Aiming Control — Wiring Diagram — AIM — (Cont'd)

EL-AIM-02

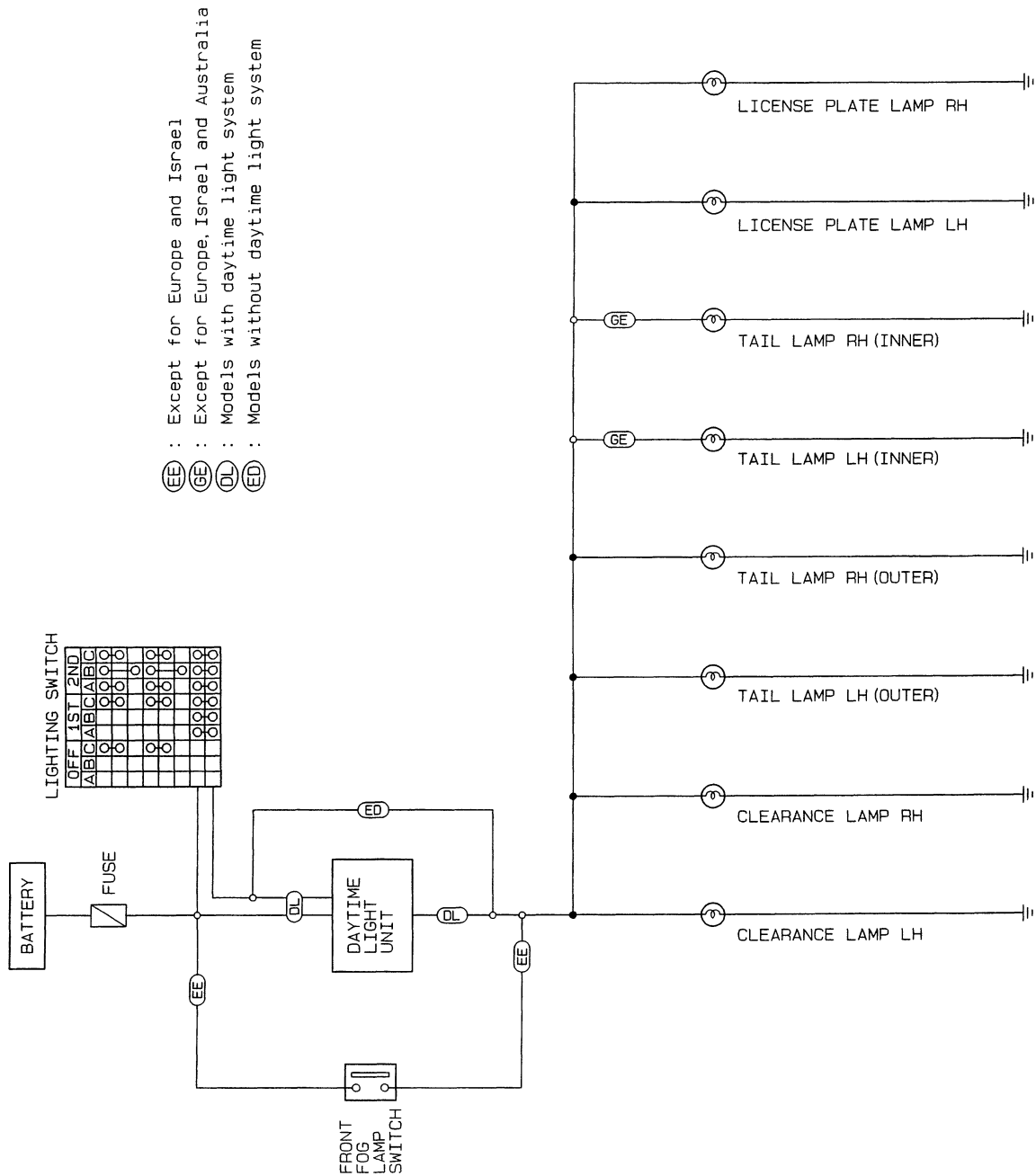


Refer to last page (Foldout page).

(M15) (E106)
(M19)

EXTERIOR LAMP

Clearance, License and Tail Lamps/Schematic

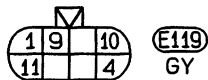
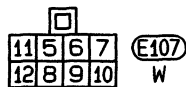
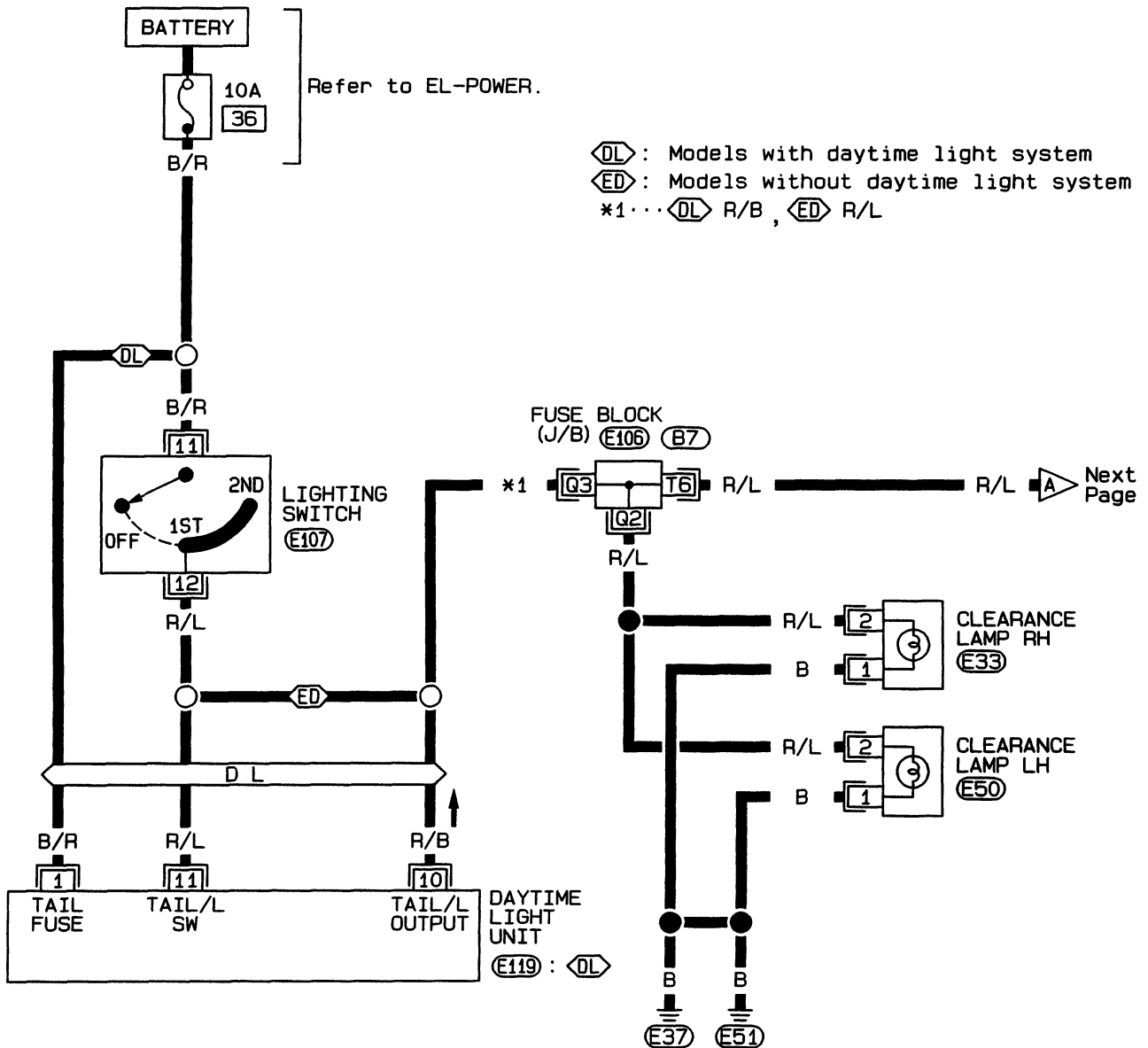


EL

EXTERIOR LAMP

Clearance, License and Tail Lamps/Wiring Diagram — TAIL/L —

EL-TAIL/L-01



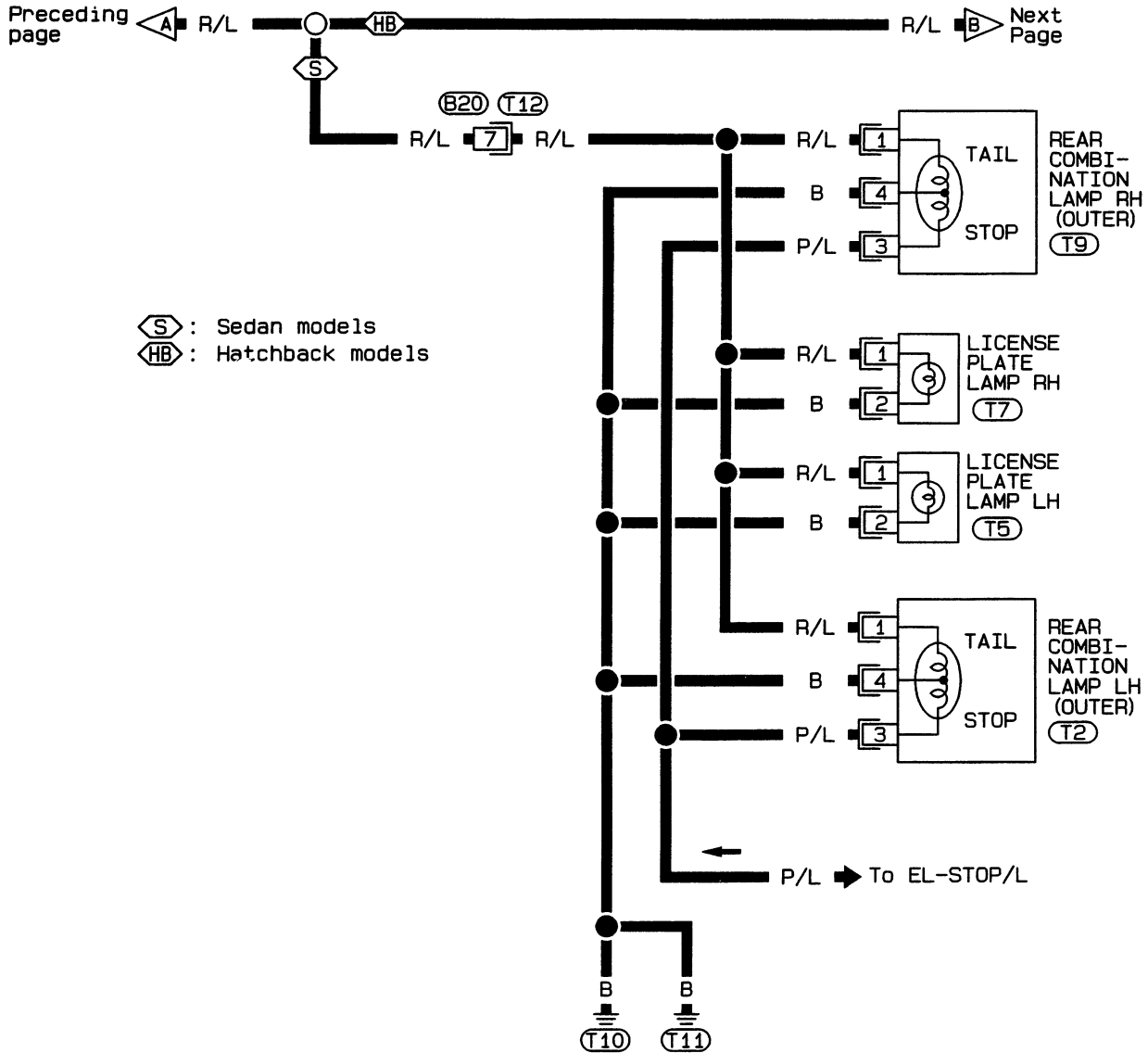
Refer to last page
(Foldout page).

(E106) (B7)

EXTERIOR LAMP

Clearance, License and Tail Lamps/Wiring Diagram — TAIL/L — (Cont'd)

EL-TAIL/L-02



1	2	0	3	(T12)
4	5	6	7	W

	0	(T2), (T9)		
1	2	3	4	W

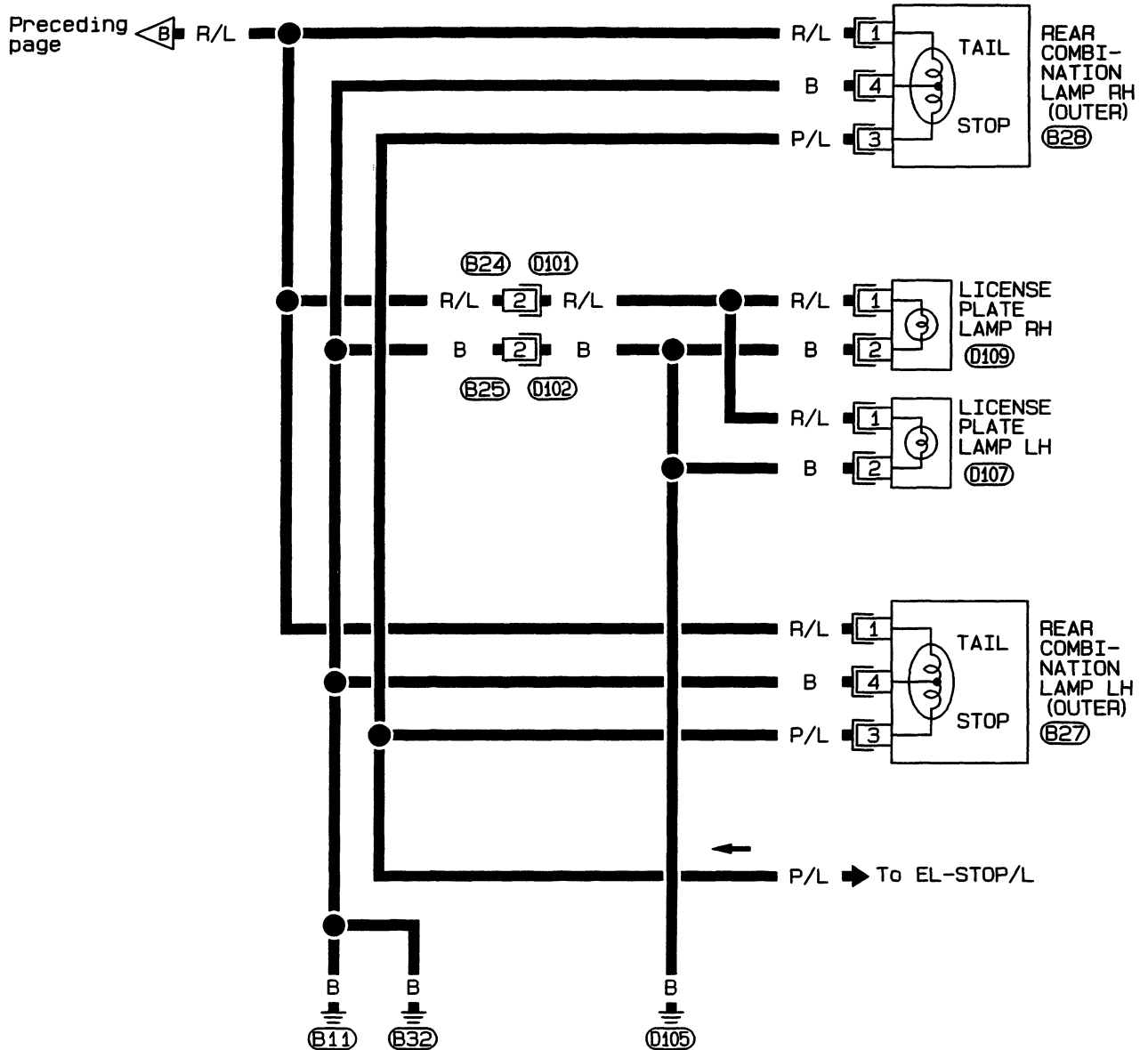
0	(T5), (T7)	
1	2	W

EL

EXTERIOR LAMP

Clearance, License and Tail Lamps/Wiring Diagram — TAIL/L — (Cont'd)

EL-TAIL/L-03



1	2	3	0101
4	5	6	W

1	0102
2	W

1	2	3	4	0	B27, B28
1	2	3	4	W	W

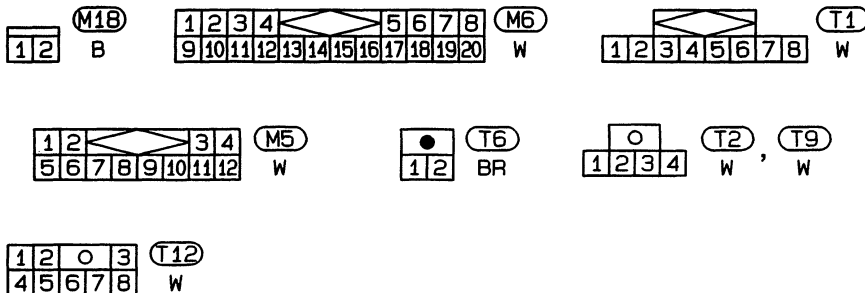
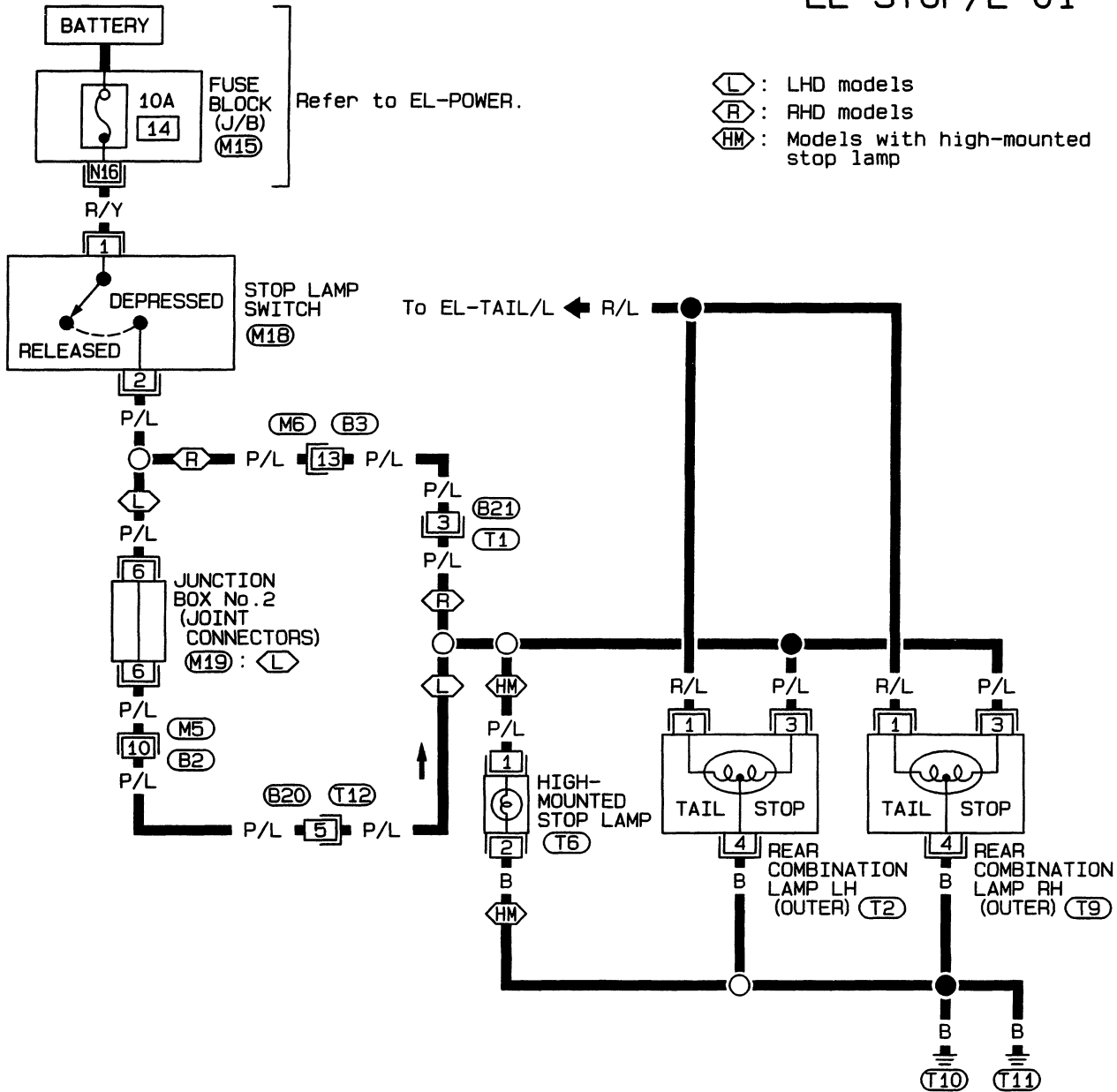
1	2	0	0107, 0109
1	2	W	W

EXTERIOR LAMP

Stop Lamp/Wiring Diagram — STOP/L —

SEDAN MODELS

EL-STOP/L-01



Refer to last page
(Foldout page).

(M15)
(M19)

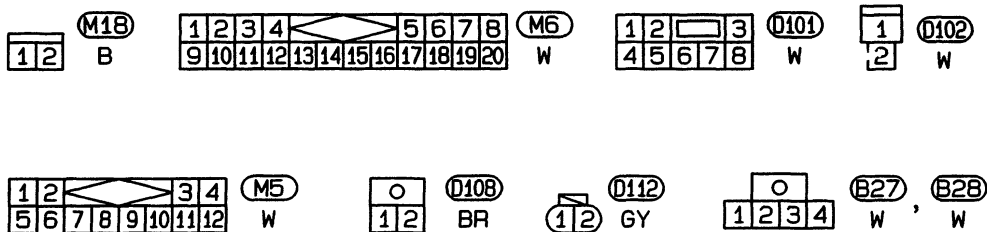
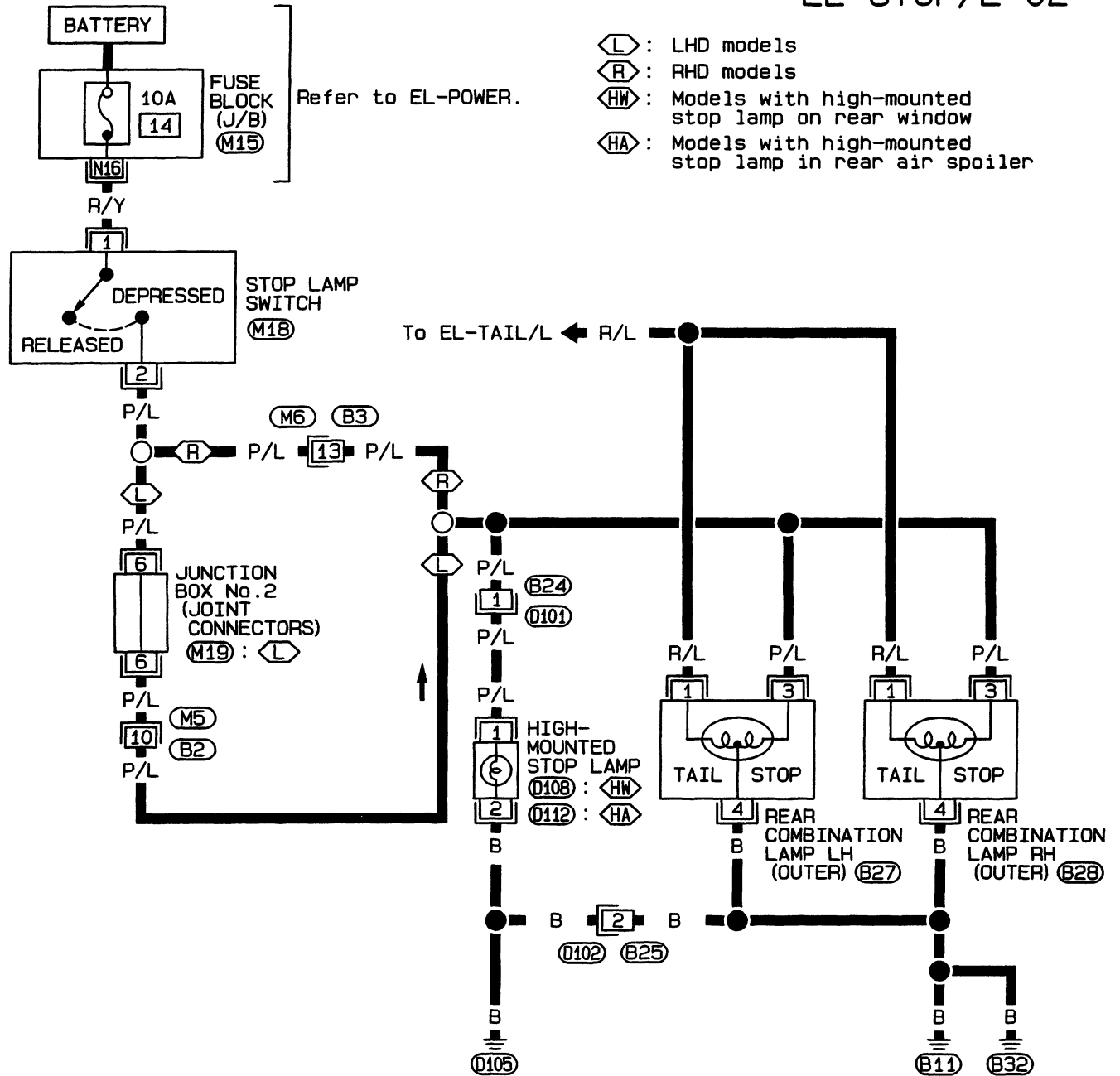
EL

EXTERIOR LAMP

Stop Lamp/Wiring Diagram — STOP/L — (Cont'd)

HATCHBACK MODELS

EL-STOP/L-02



Refer to last page
(Foldout page).

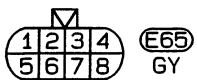
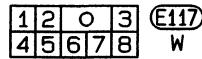
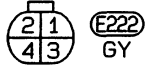
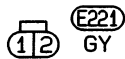
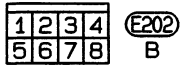
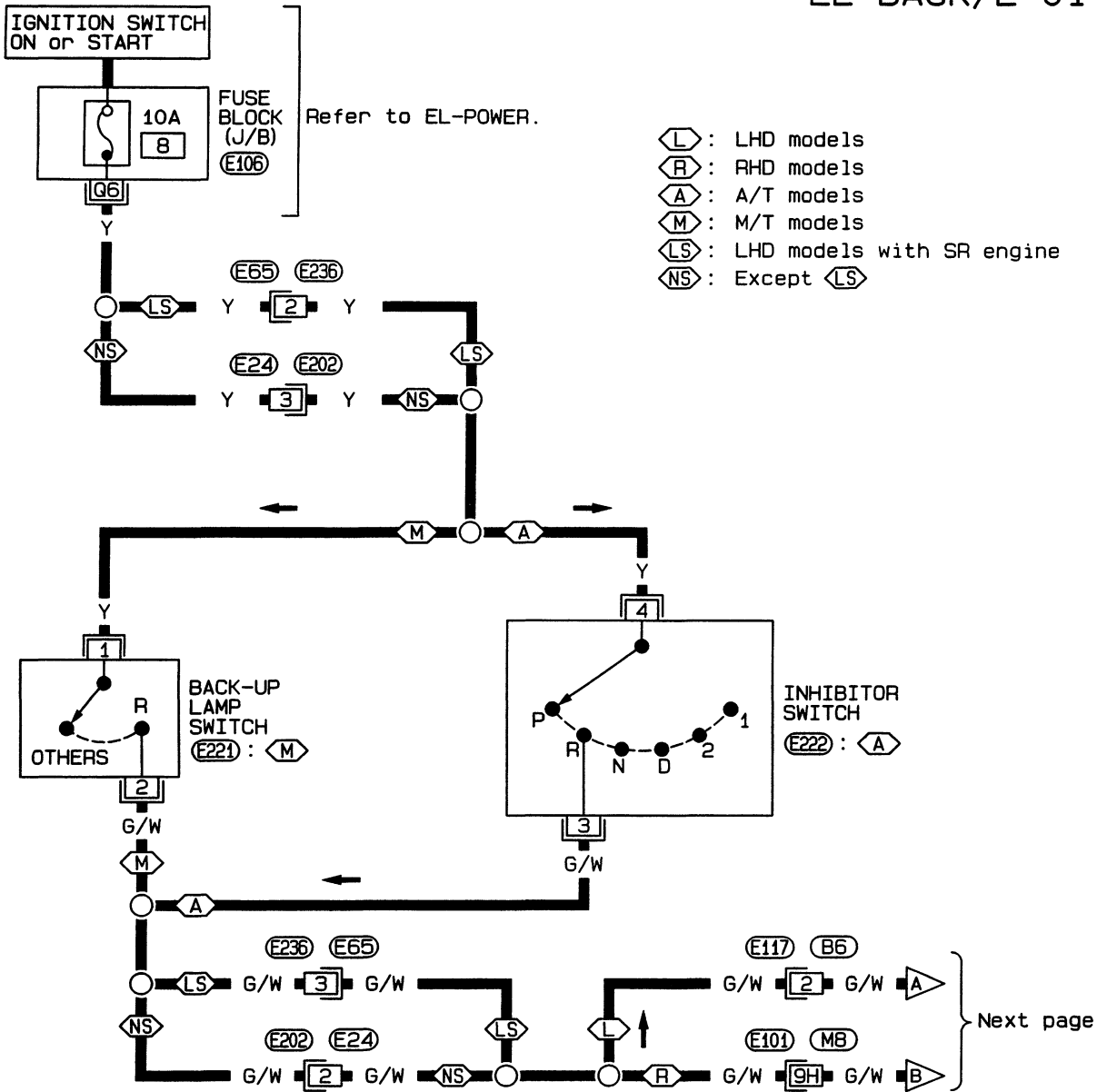
(M15)

(M19)

EXTERIOR LAMP

Back-up Lamp/Wiring Diagram — BACK/L —

EL-BACK/L-01



Refer to last page
(Foldout page).

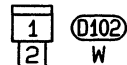
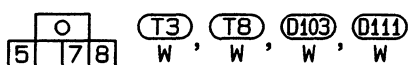
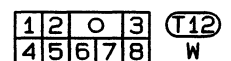
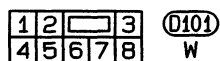
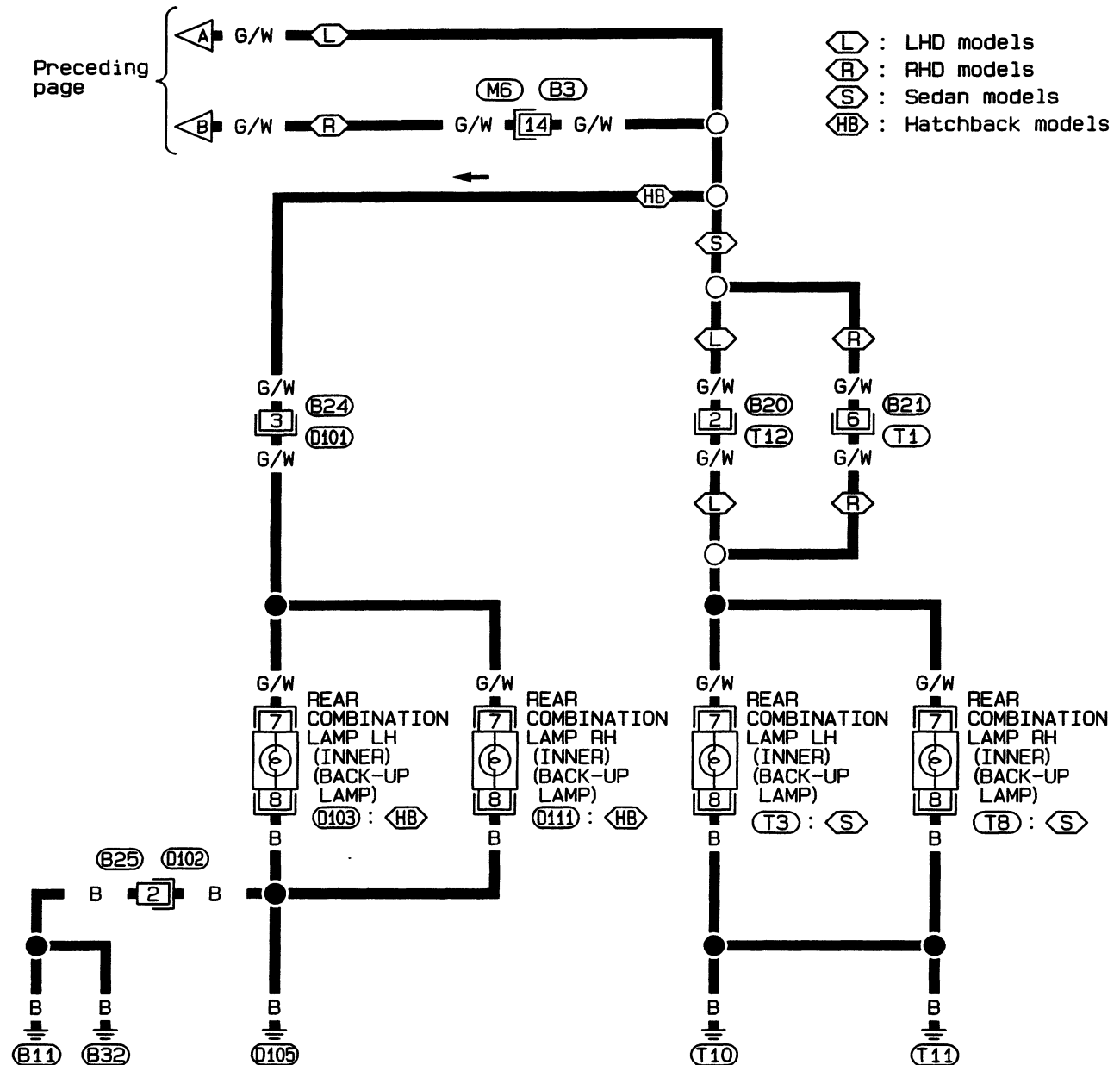
(MB), (E101)
(E106)

EL

EXTERIOR LAMP

Back-up Lamp/Wiring Diagram — BACK/L — (Cont'd)

EL-BACK/L-02

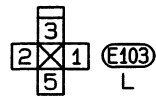
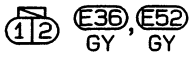
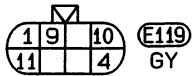
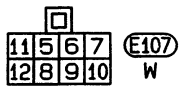
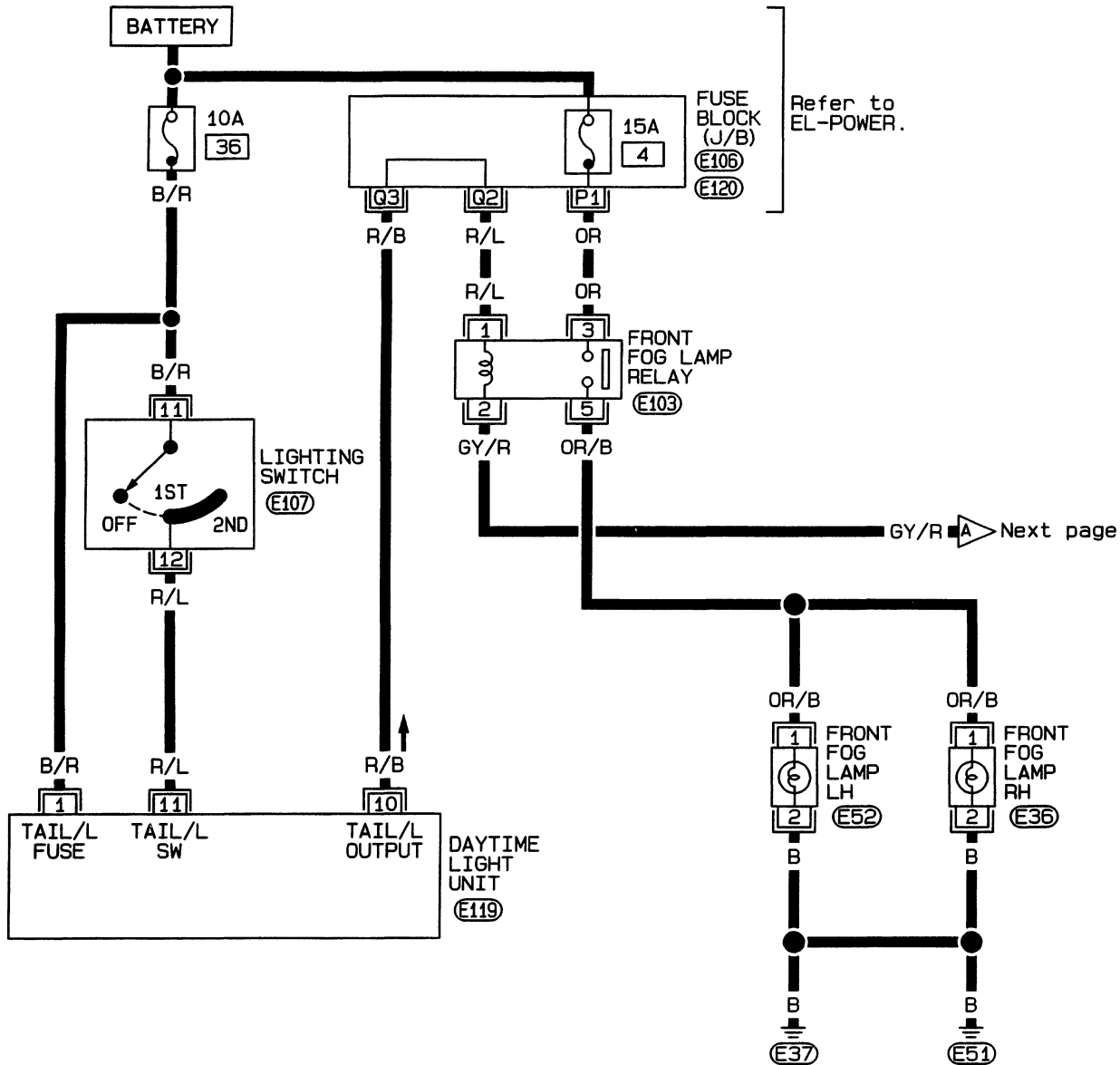


EXTERIOR LAMP

Front Fog Lamp/Wiring Diagram — F/FOG —

WITH DAYTIME LIGHT SYSTEM

EL-F/FOG-01

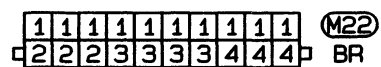
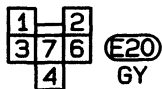


Refer to last page (Foldout page).

E106, E120

EL

Front Fog Lamp/Wiring Diagram — F/FOG — (Cont'd)

[illegible]

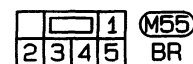
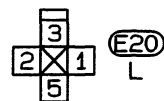
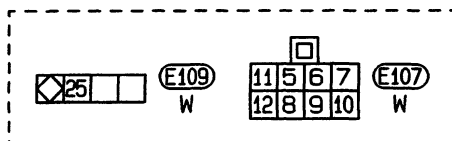
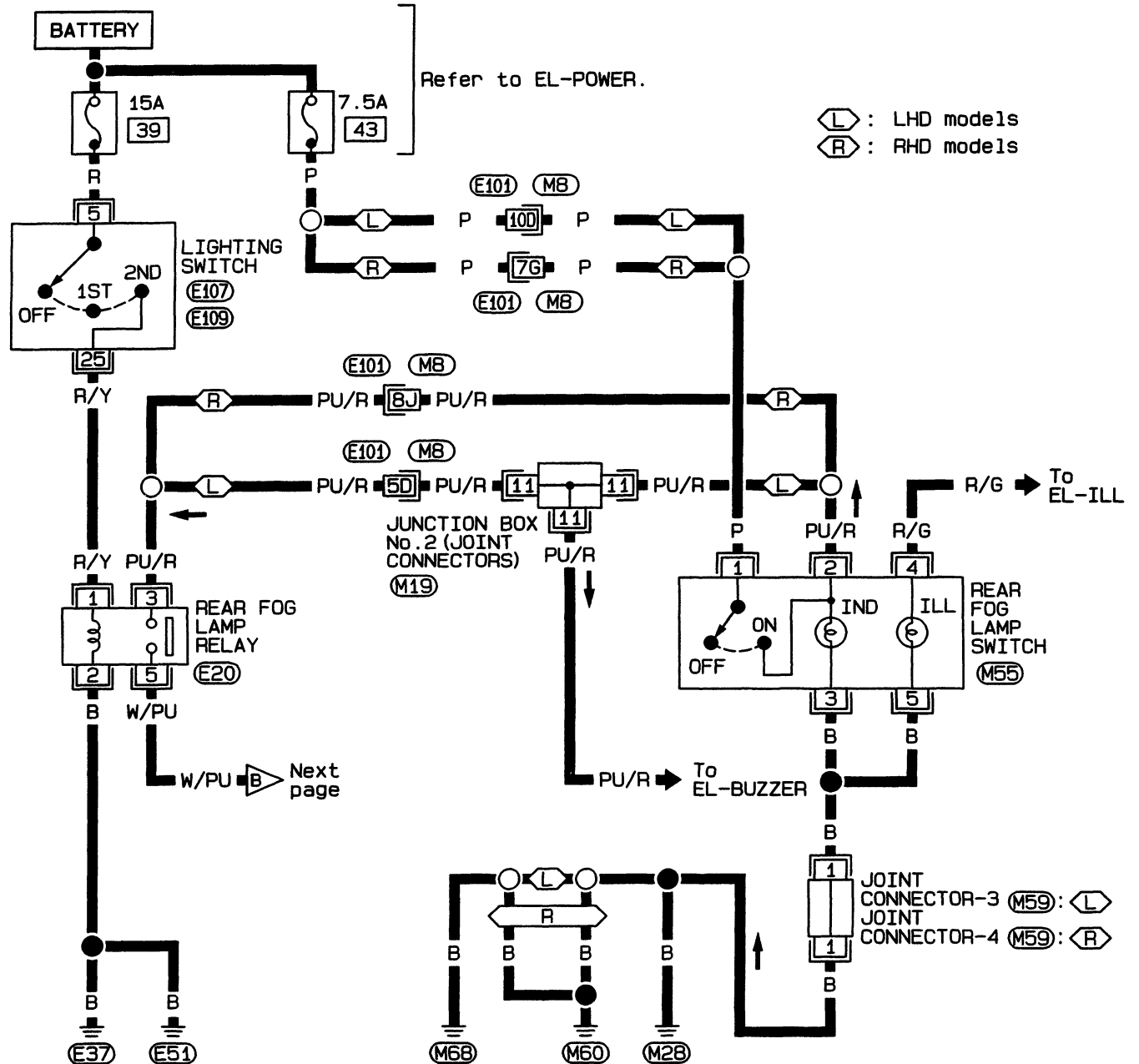
M8, E101

EXTERIOR LAMP

Rear Fog Lamp/Wiring Diagram — R/FOG —

WITHOUT DAYTIME LIGHT SYSTEM

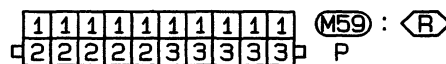
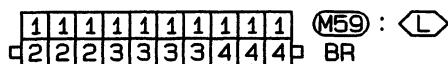
EL-R/FOG-03



Refer to last page (Foldout page).

(M8), (E101)

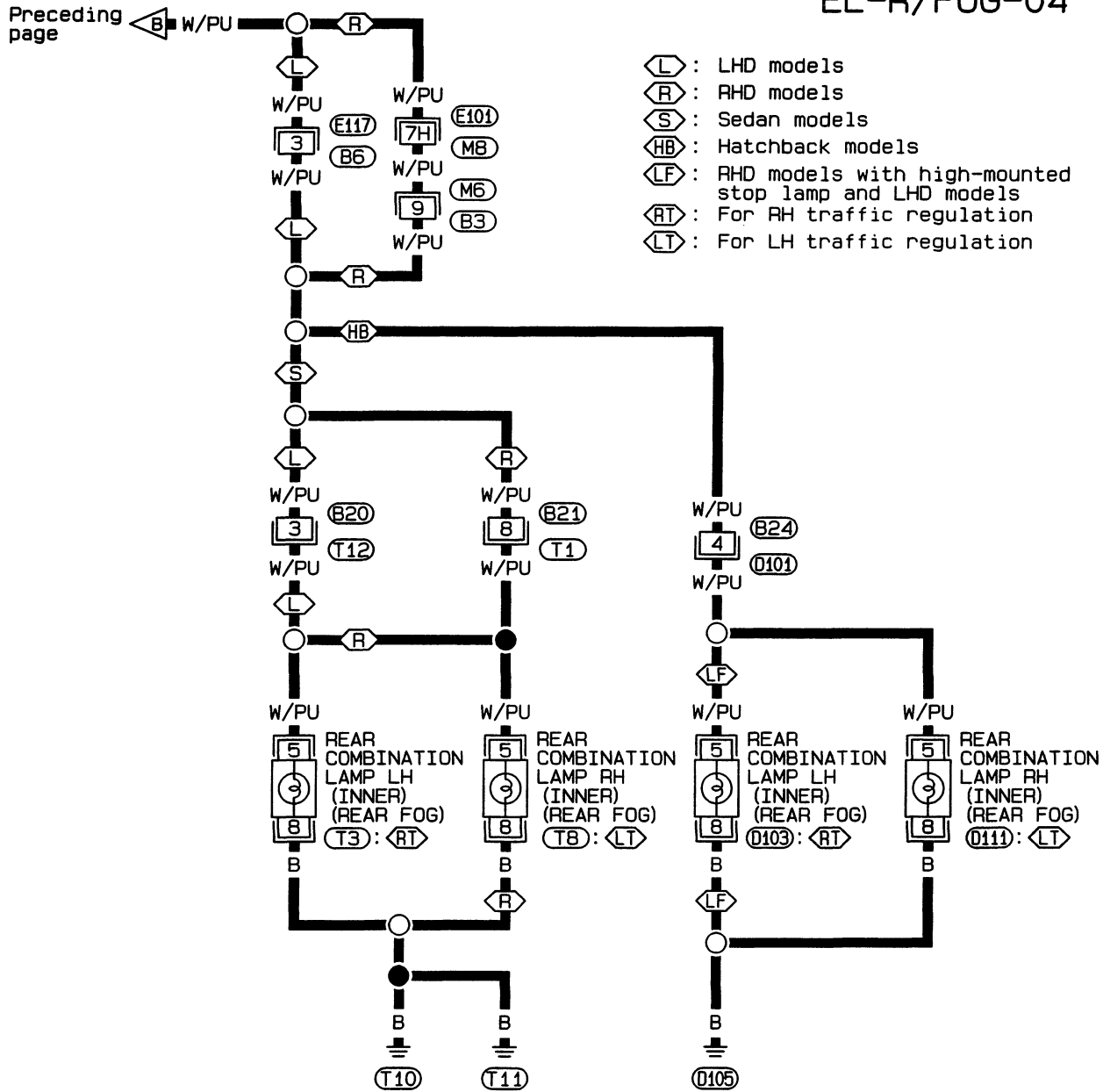
(M19)



EXTERIOR LAMP

Rear Fog Lamp/Wiring Diagram — R/FOG — (Cont'd)

EL-R/FOG-04



1 2 3 4 5 6 7 8 (E117), (T12)
W W

1 2 3 4 5 6 7 8 (M6)
9 10 11 12 13 14 15 16 17 18 19 20 W

1 2 3 4 5 6 7 8 (T1)
W

1 2 3 4 5 6 7 8 (0101)
W

5 7 8 (T3), (T8), (0103), (0111)
W W W W

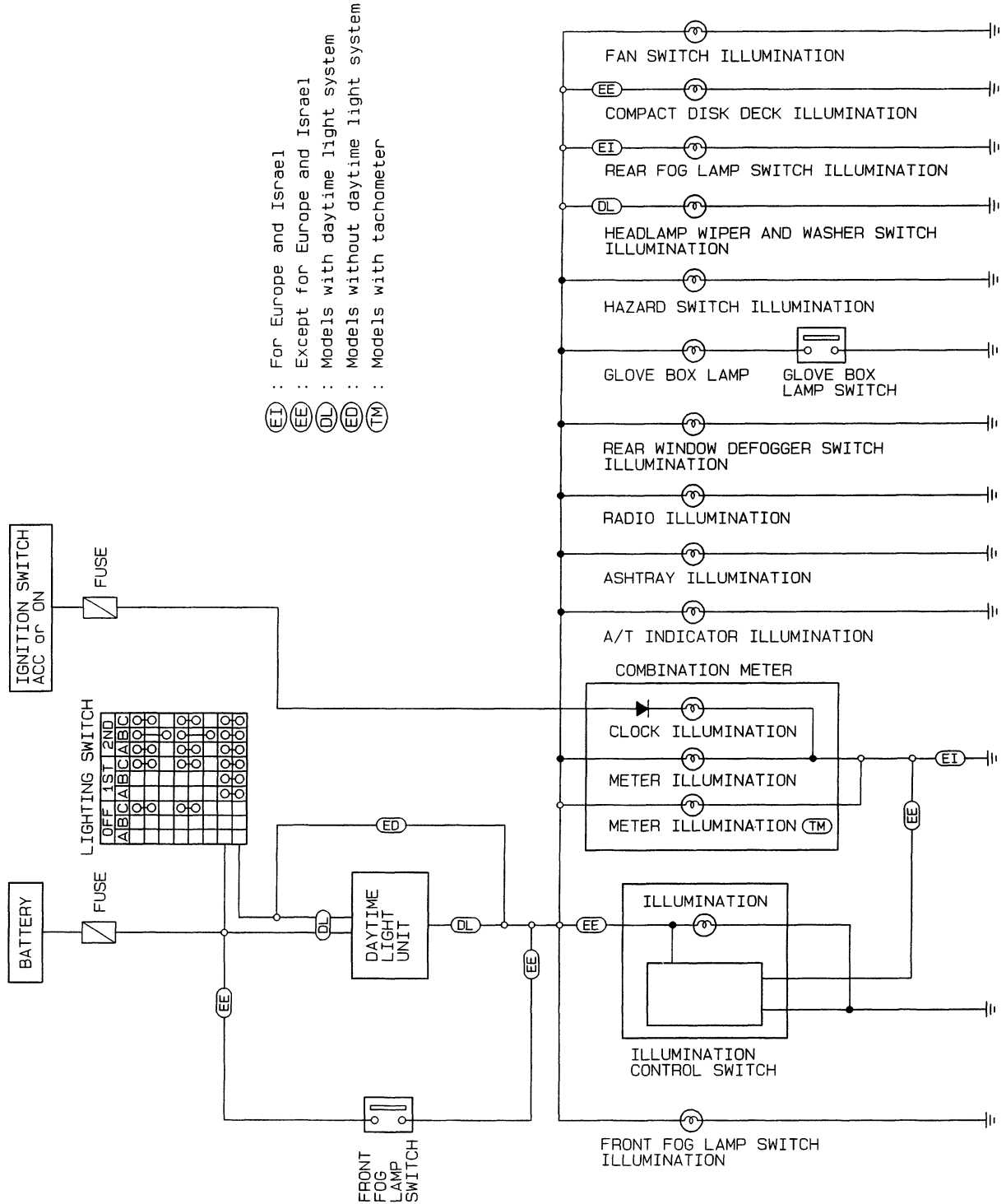
Refer to last page
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(M8), (E101)

EL

INTERIOR LAMP

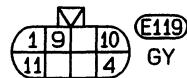
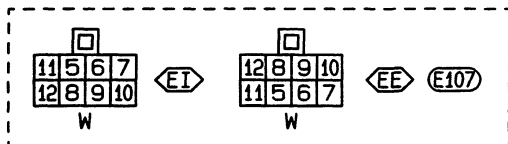
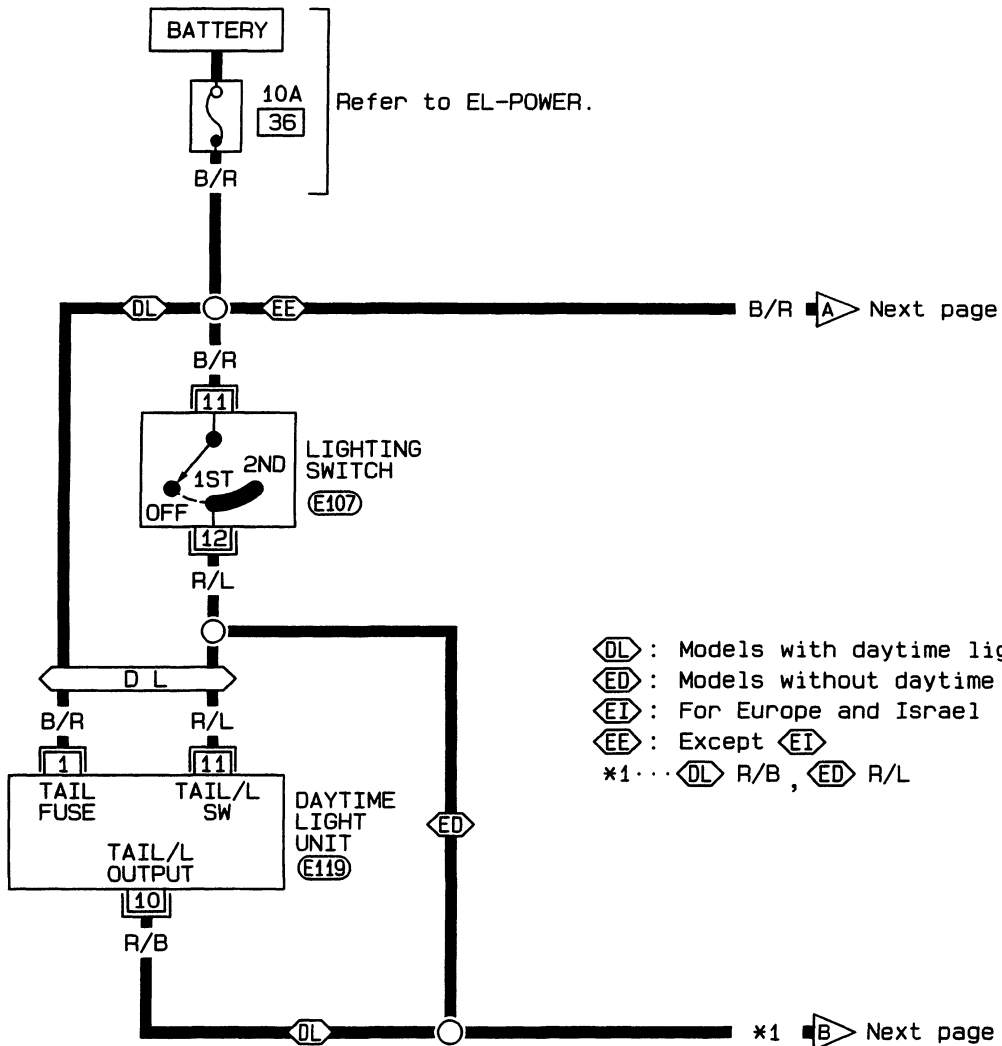
Illumination/Schematic



INTERIOR LAMP

Illumination/Wiring Diagram — ILL —

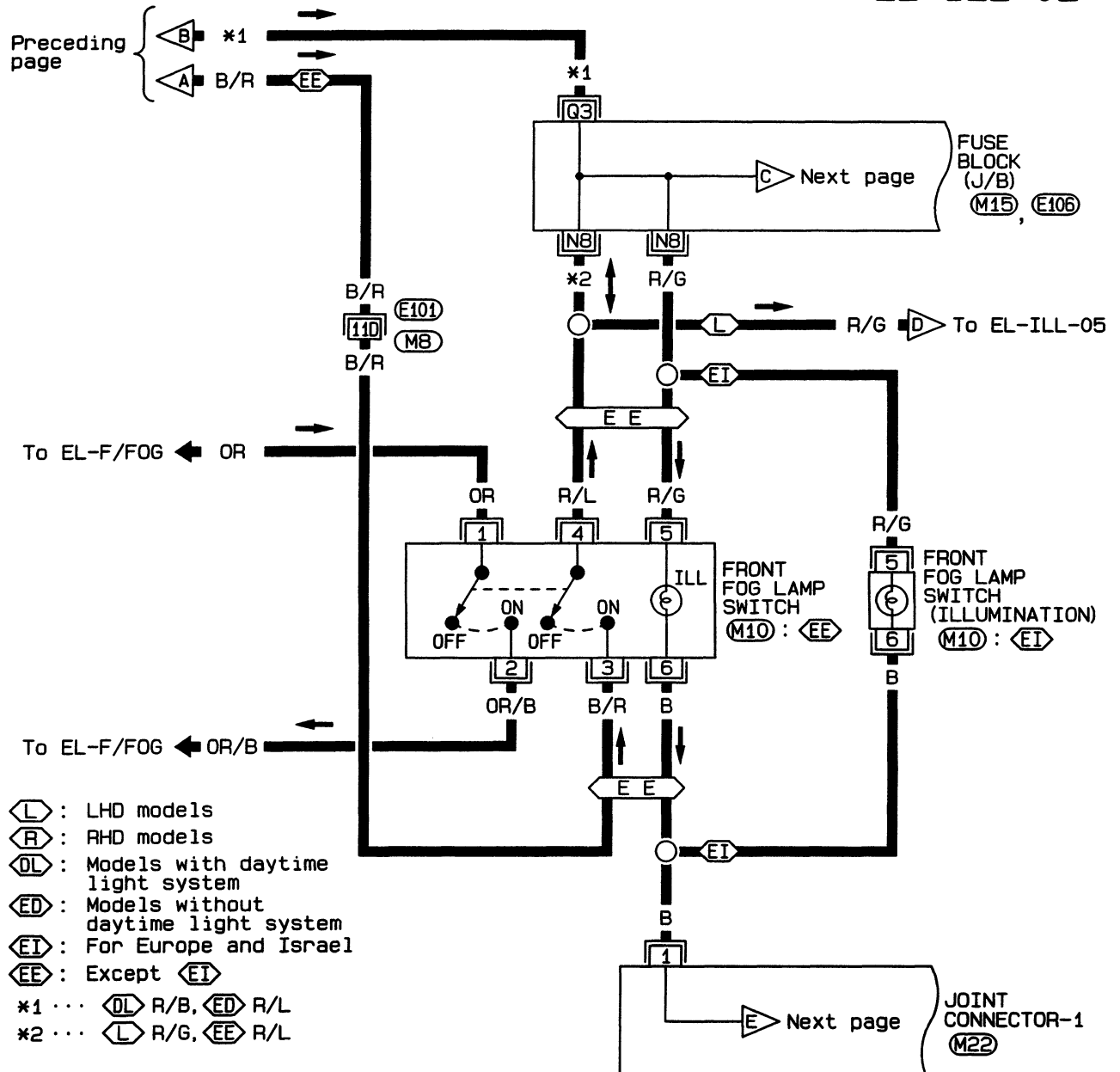
EL-ILL-01



EL

Illumination/Wiring Diagram — ILL — (Cont'd)

EL-ILL-02



2	1	4
6	5	3

(M10)
B

1	1	1	1	1	1	1	1	1
2	2	2	3	3	3	3	4	4

M22

BR

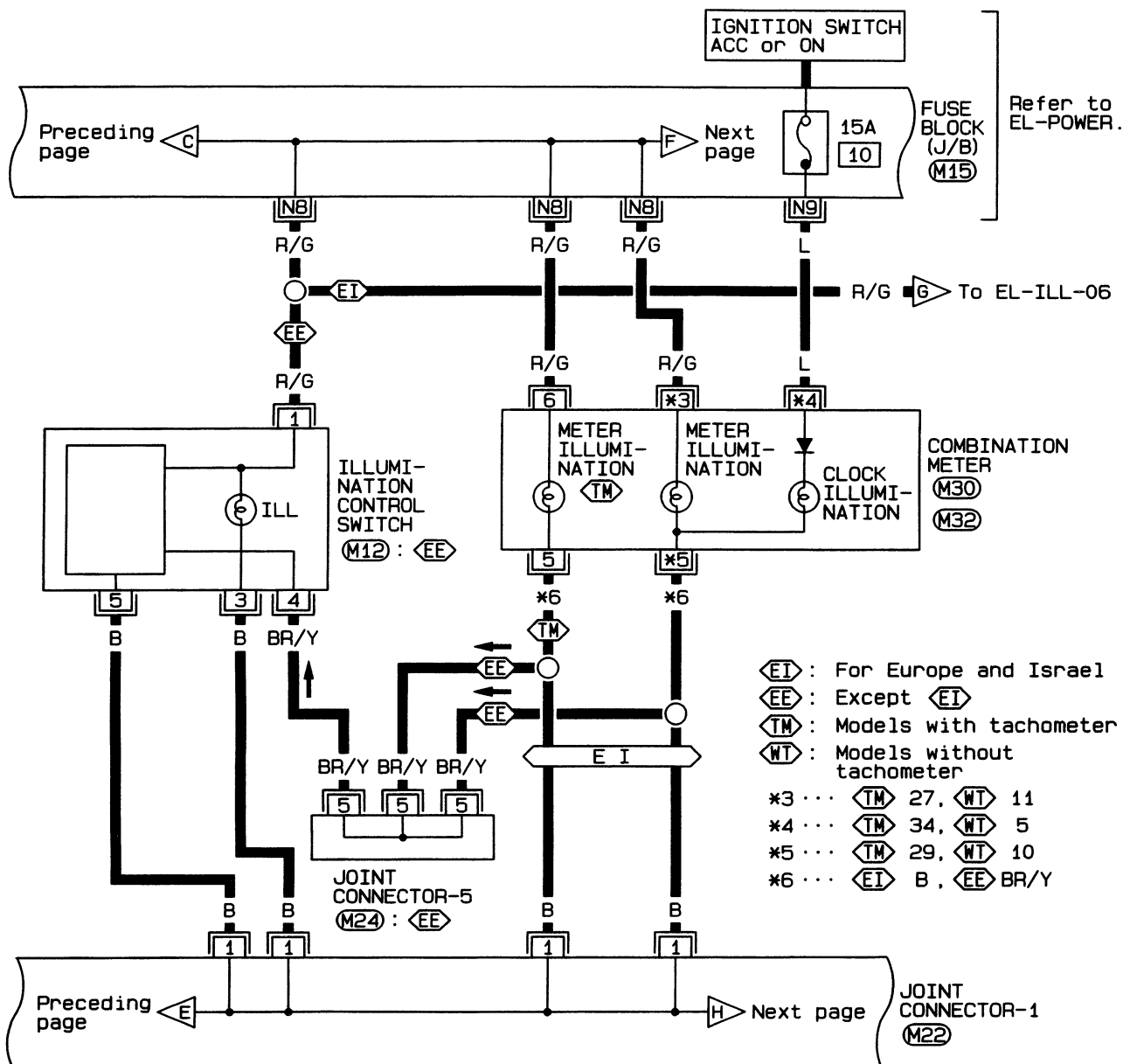
Refer to last page
(Foldout page) .

M8 , E101
M15 , E106

INTERIOR LAMP

Illumination/Wiring Diagram — ILL — (Cont'd)

EL-ILL-03



1	0	4	(M12)
3	1	5	W

1	2	3	4		5	6	7		33	32	31	30		29	28	27			
8	9	10	11	12	13	14	15	16	BR	42	41	40	39	38	37	36	35	34	W

33	32	31	30		29	28	27	(M32)	
42	41	40	39	38	37	36	35	34	W

1	1	1	2	2	2	3	3	3	(M24)
4	4	4	5	5	5	6	6	6	OR

1	1	1	1	1	1	1	1	1	(M22)
2	2	2	3	3	3	3	4	4	BR

Refer to last page (Foldout page).

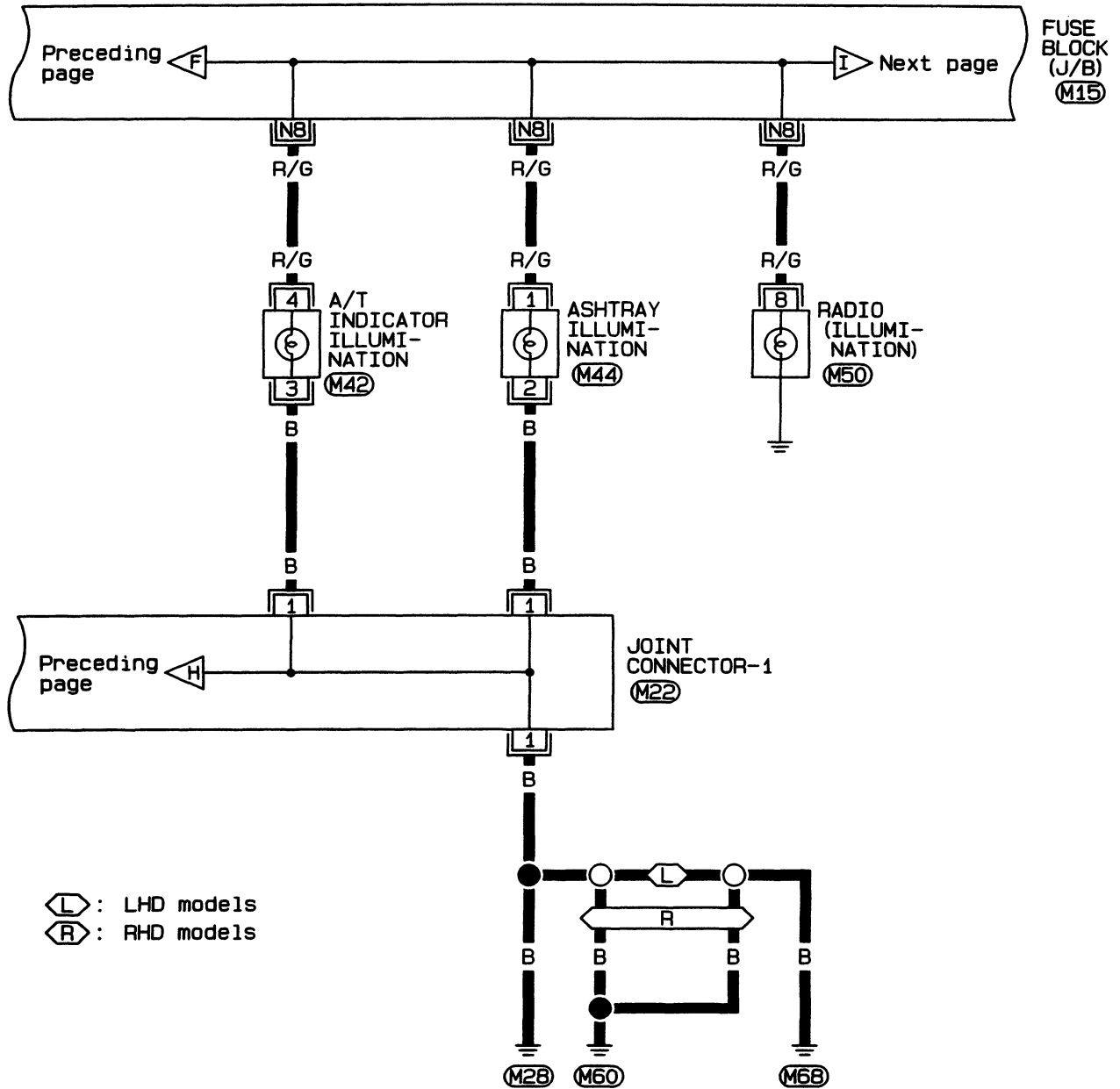
(M15)

EL

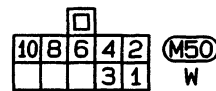
INTERIOR LAMP

Illumination/Wiring Diagram — ILL — (Cont'd)

EL-ILL-04

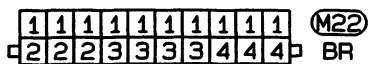


L : LHD models
R : RHD models



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(Foldout page).

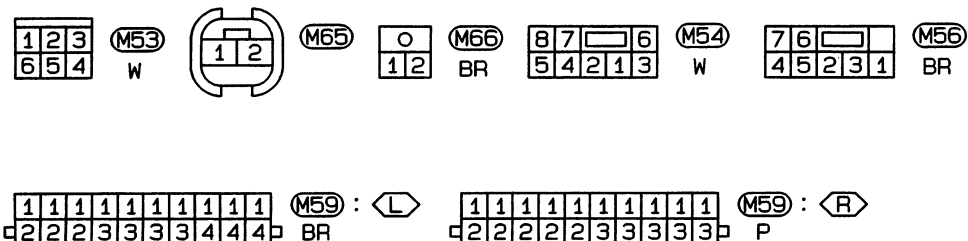
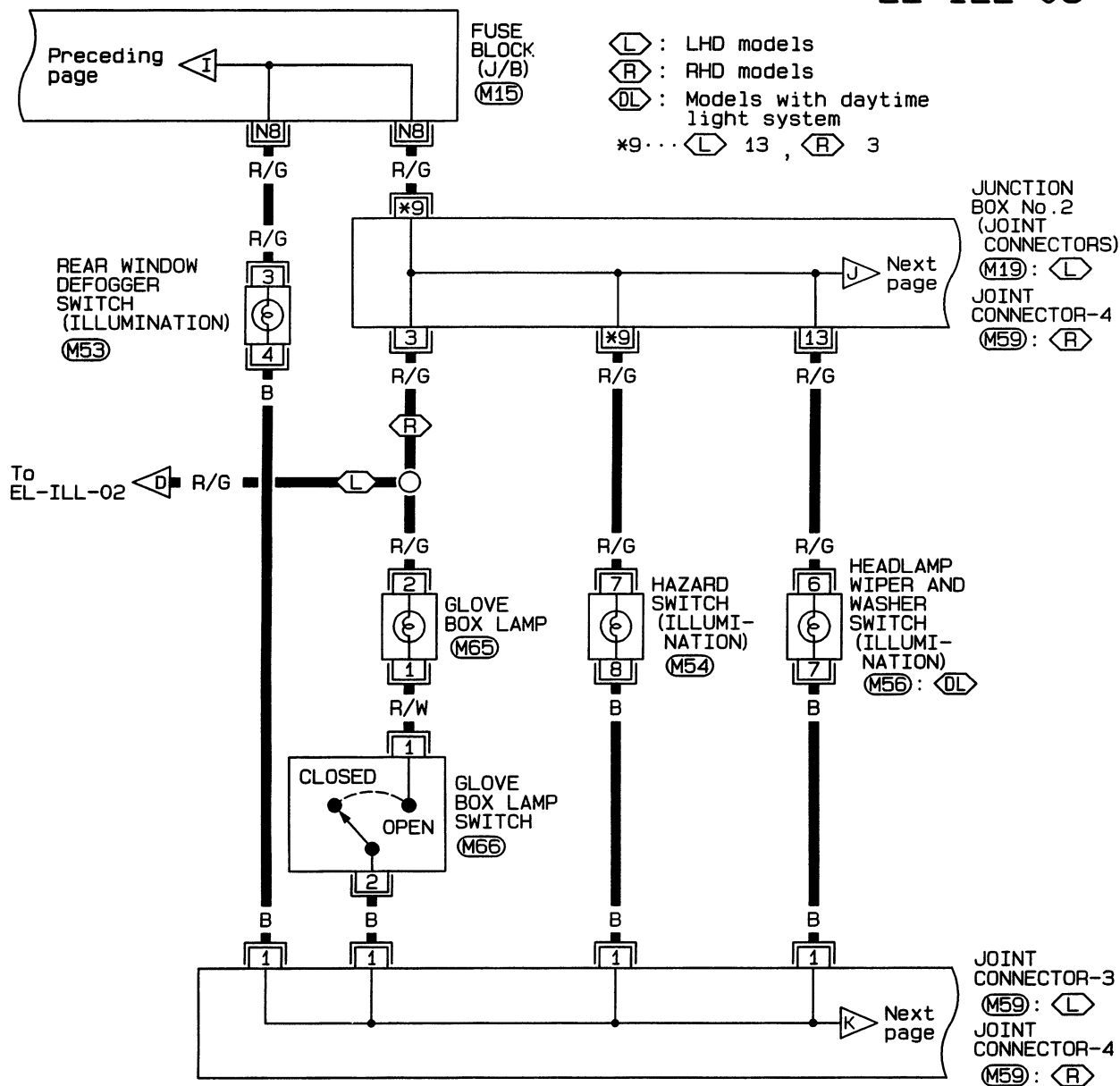
(M15)



INTERIOR LAMP

Illumination/Wiring Diagram — ILL — (Cont'd)

EL-ILL-05



Refer to last page (Foldout page).

(M15)

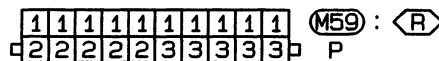
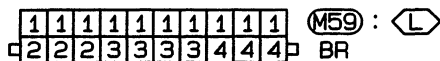
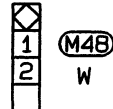
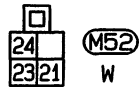
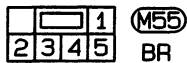
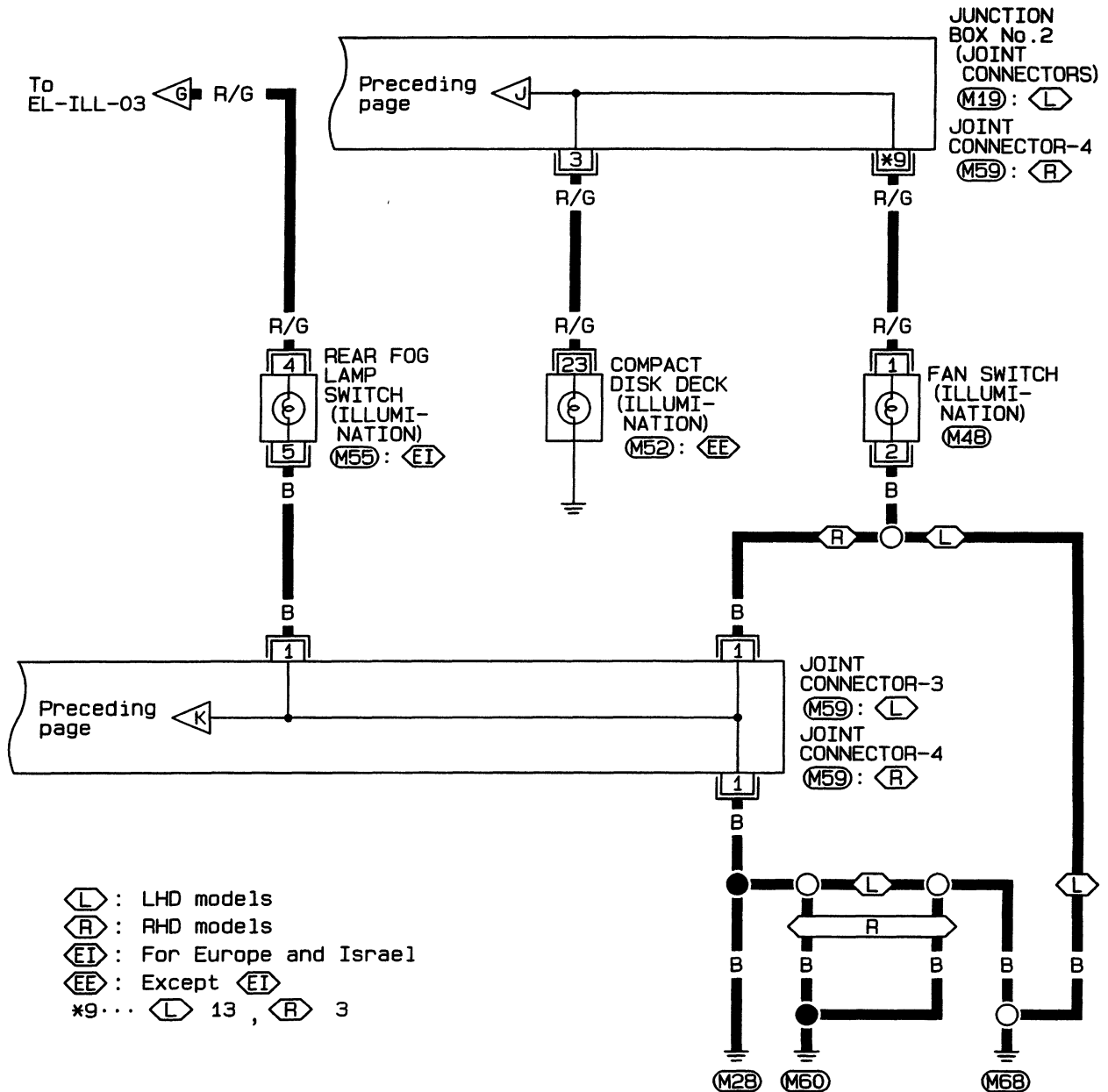
(M19)

EL

INTERIOR LAMP

Illumination/Wiring Diagram — ILL — (Cont'd)

EL-ILL-06



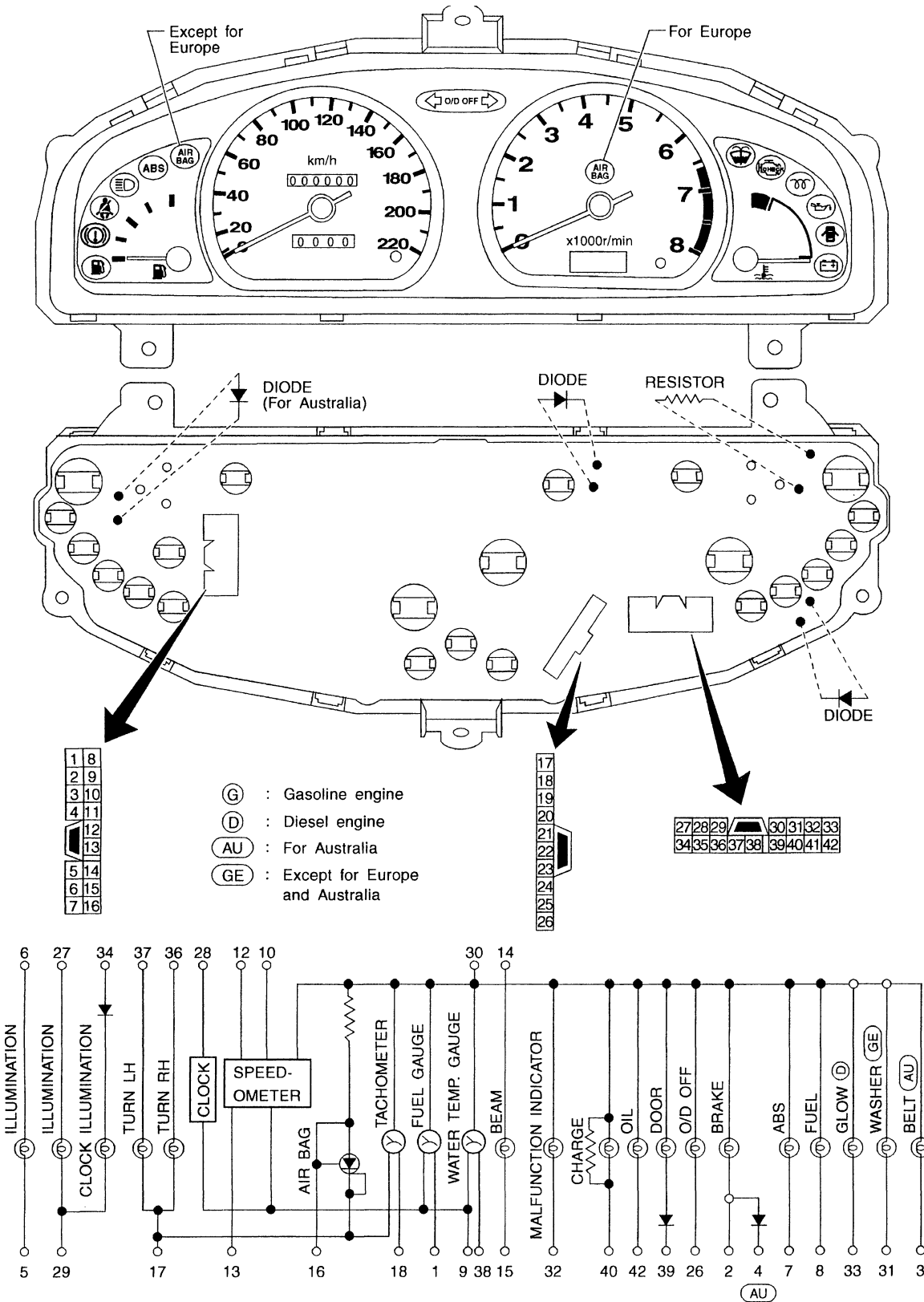
Refer to last page (Foldout page) .

(M19)

METER AND GAUGES

Combination Meter

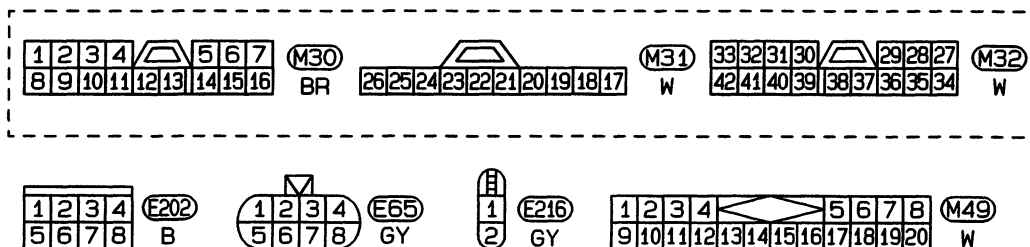
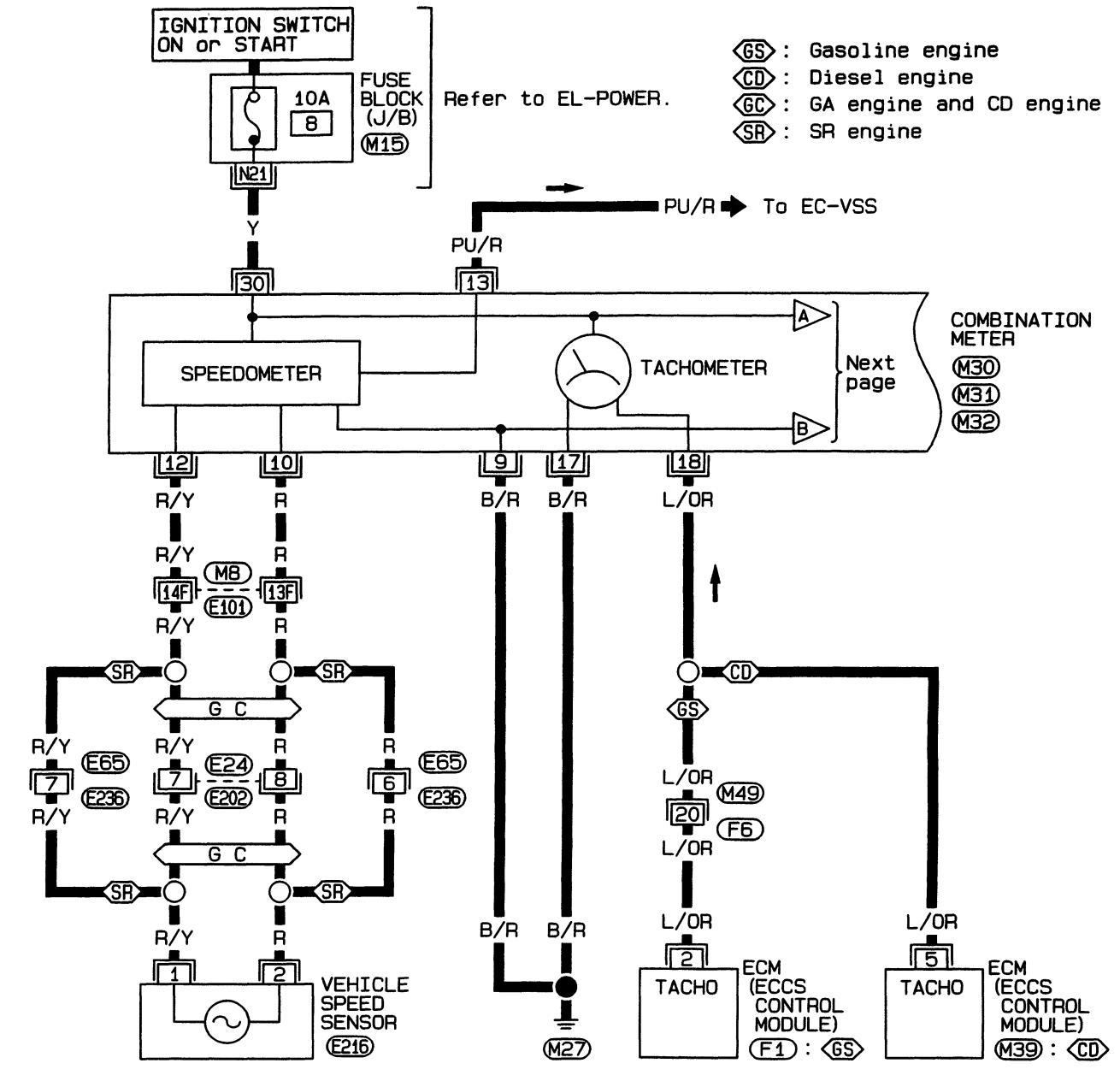
WITH TACHOMETER



Speedometer, Tachometer, Temp. and Fuel Gauges/Wiring Diagram — METER —

LHD MODELS WITH TACHOMETER

EL-METER-01



Refer to last page
(Foldout page) .

M8 E101

M15

F1

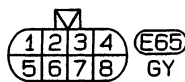
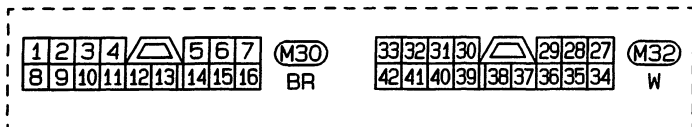
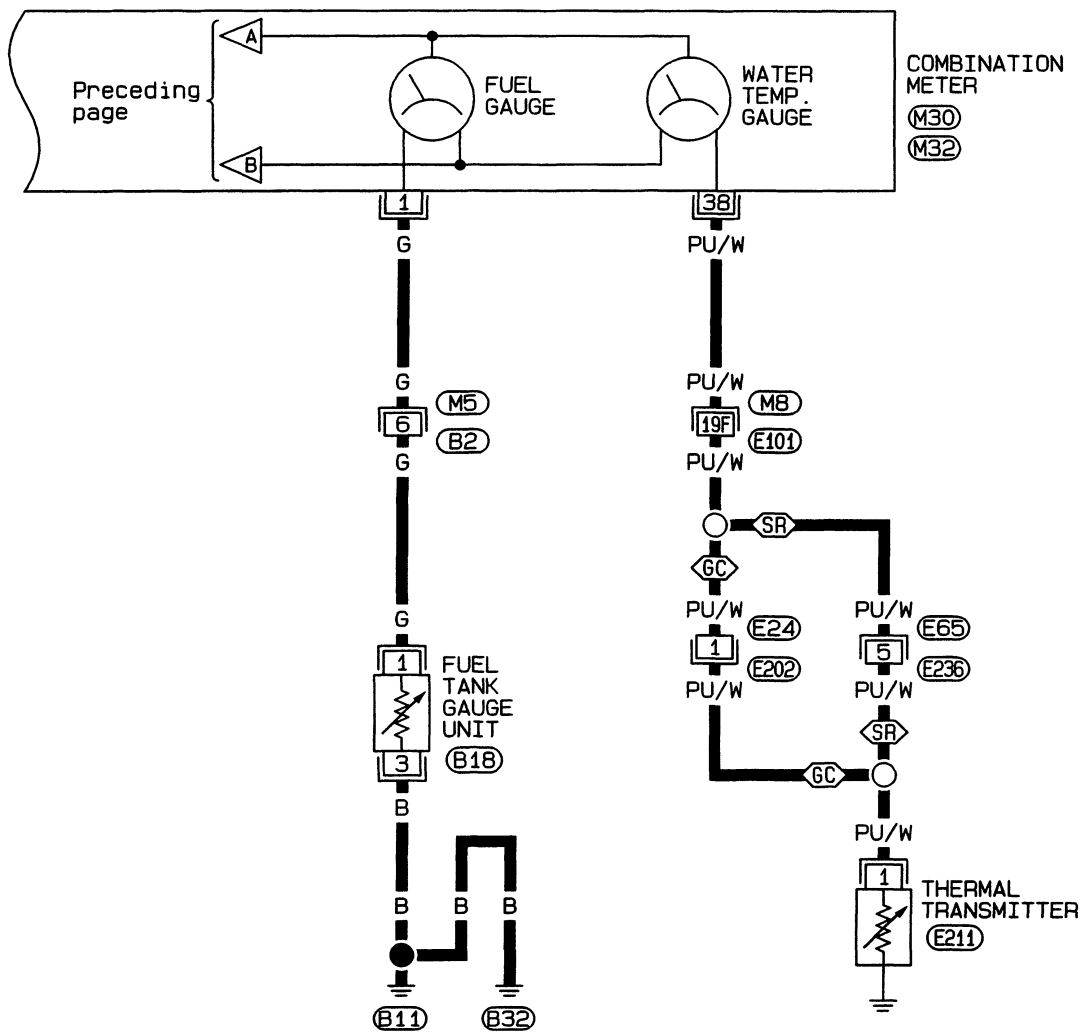
M39

METER AND GAUGES

Speedometer, Tachometer, Temp. and Fuel Gauges/Wiring Diagram — METER — (Cont'd)

EL-METER-02

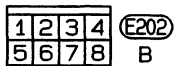
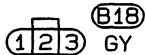
GC : GA engine and CD engine
SR : SR engine



Refer to last page (Foldout page).

(MB), (E101)

EL

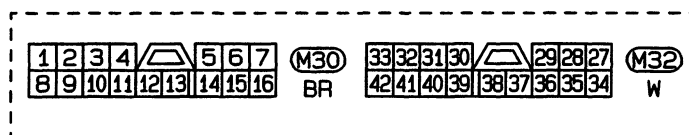
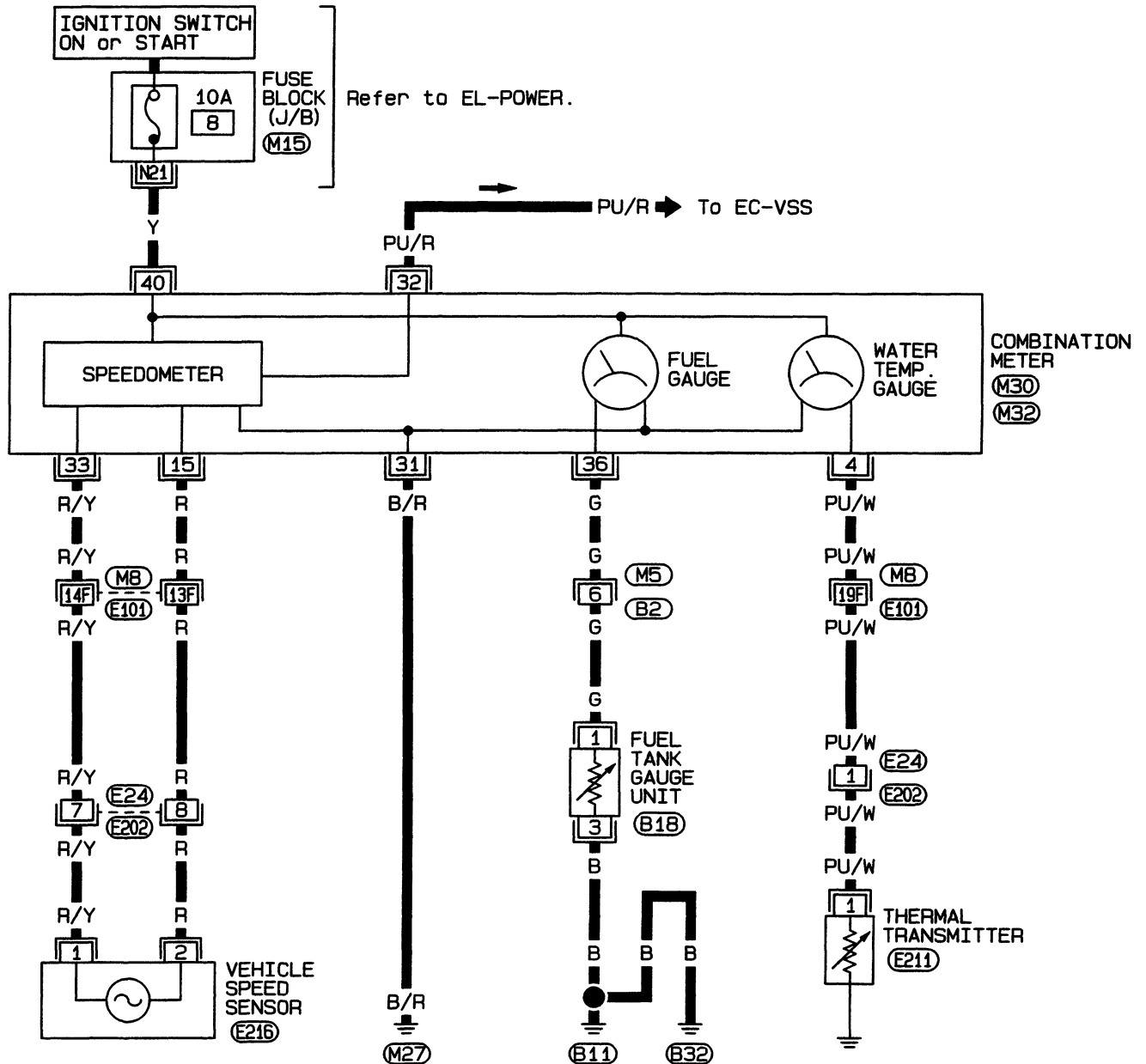


METER AND GAUGES

Speedometer, Tachometer, Temp. and Fuel Gauges/Wiring Diagram — METER — (Cont'd)

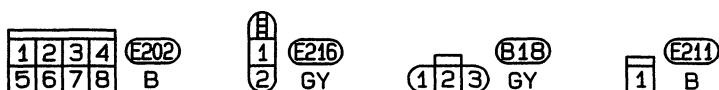
LHD MODELS WITHOUT TACHOMETER

EL-METER-03



Refer to last page
(Foldout page).

(MB), (E101)
(M15)

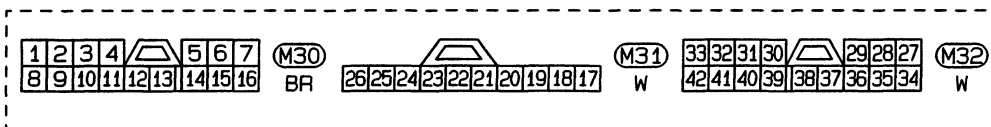
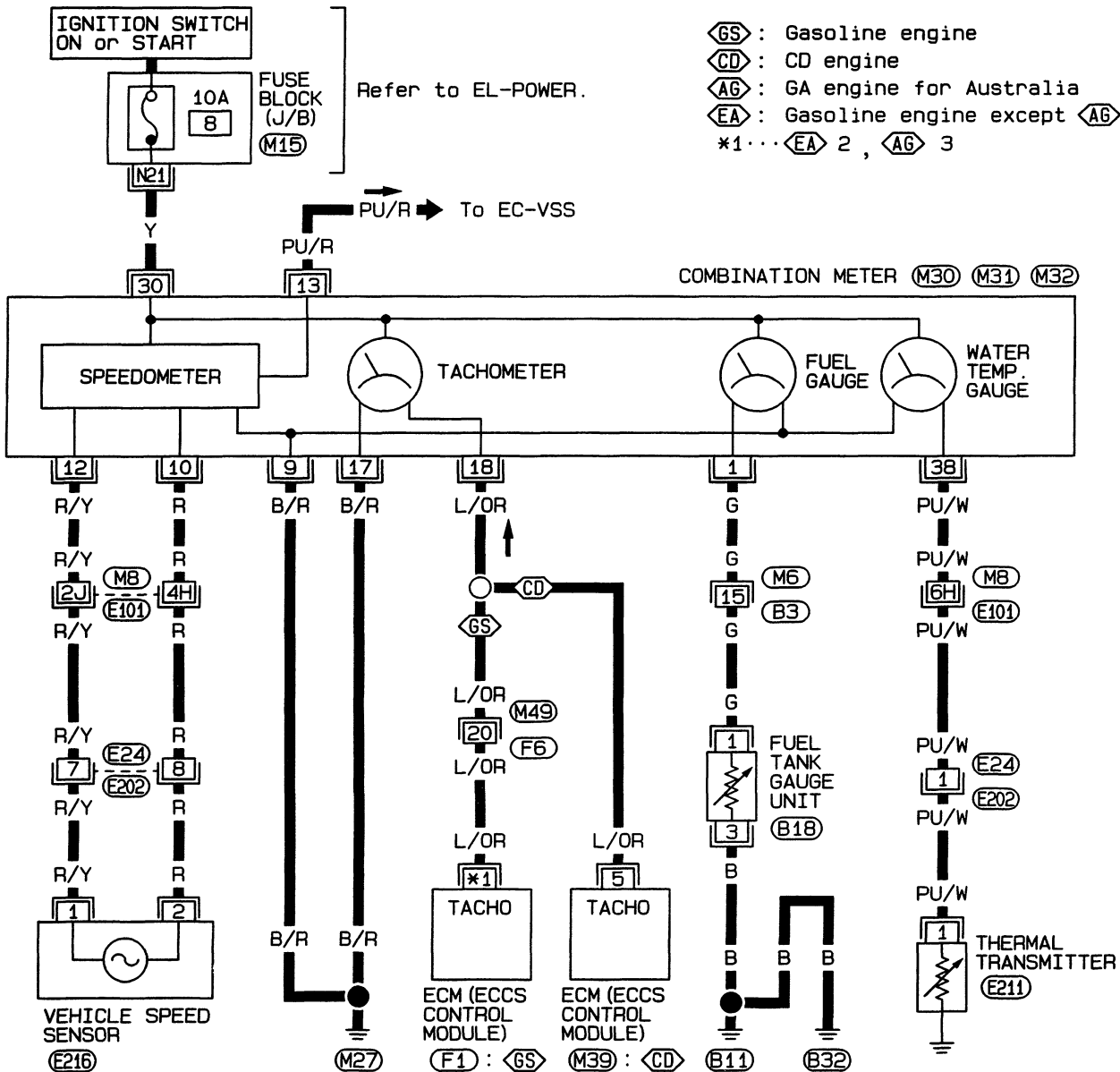


METER AND GAUGES

Speedometer, Tachometer, Temp. and Fuel Gauges/Wiring Diagram — METER — (Cont'd)

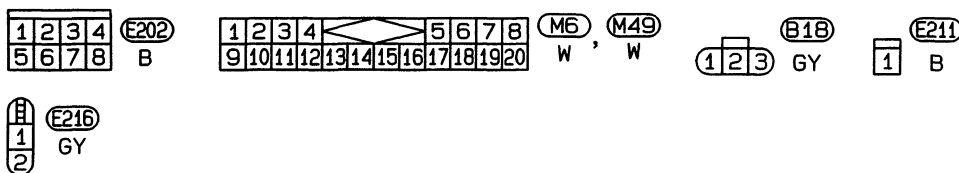
RHD MODELS WITH TACHOMETER

EL-METER-04



Refer to last page (Foldout page).

EL



(M6), (E101)

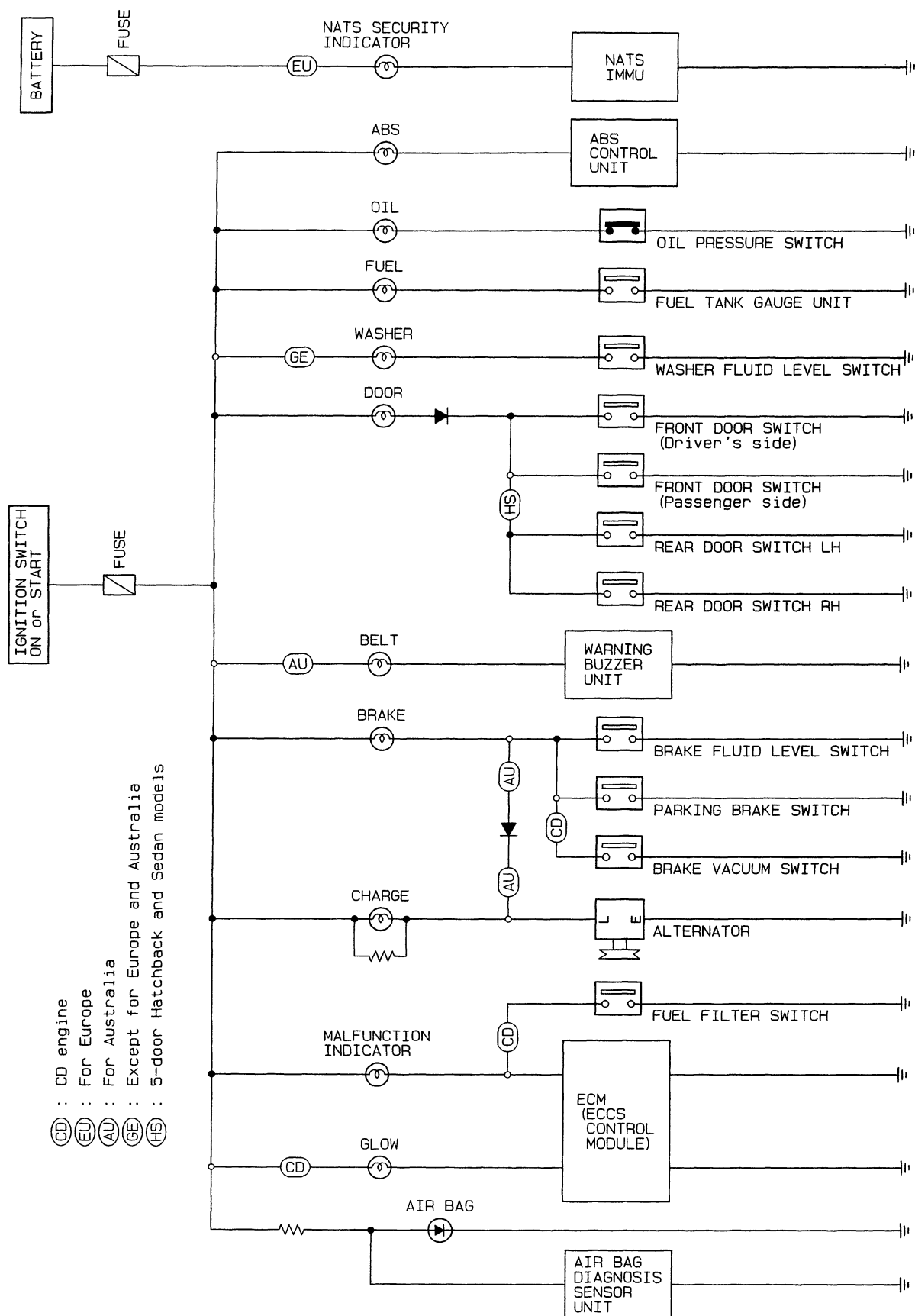
(M15)

(F1)

(M39)

WARNING LAMPS AND BUZZER

Warning Lamps/Schematic

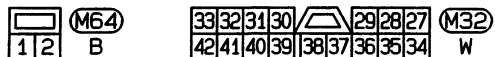
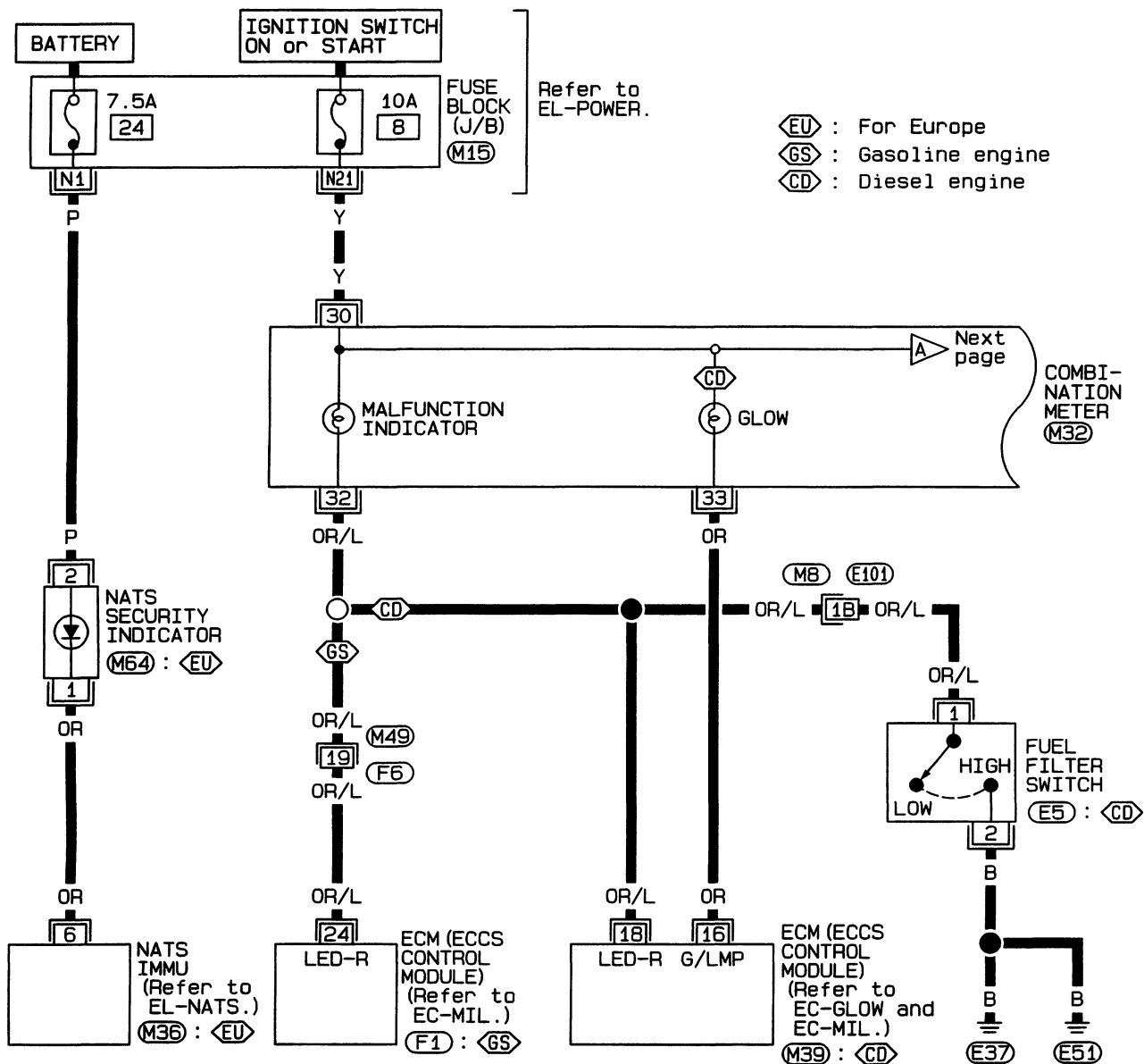


WARNING LAMPS AND BUZZER

Warning Lamps/Wiring Diagram — WARN —

LHD MODELS WITH TACHOMETER

EL-WARN-01



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(M8, E101)

(M15)

(F1)

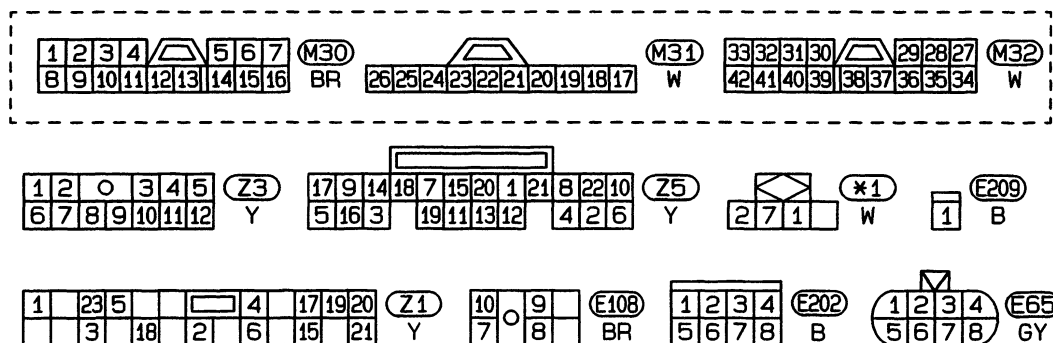
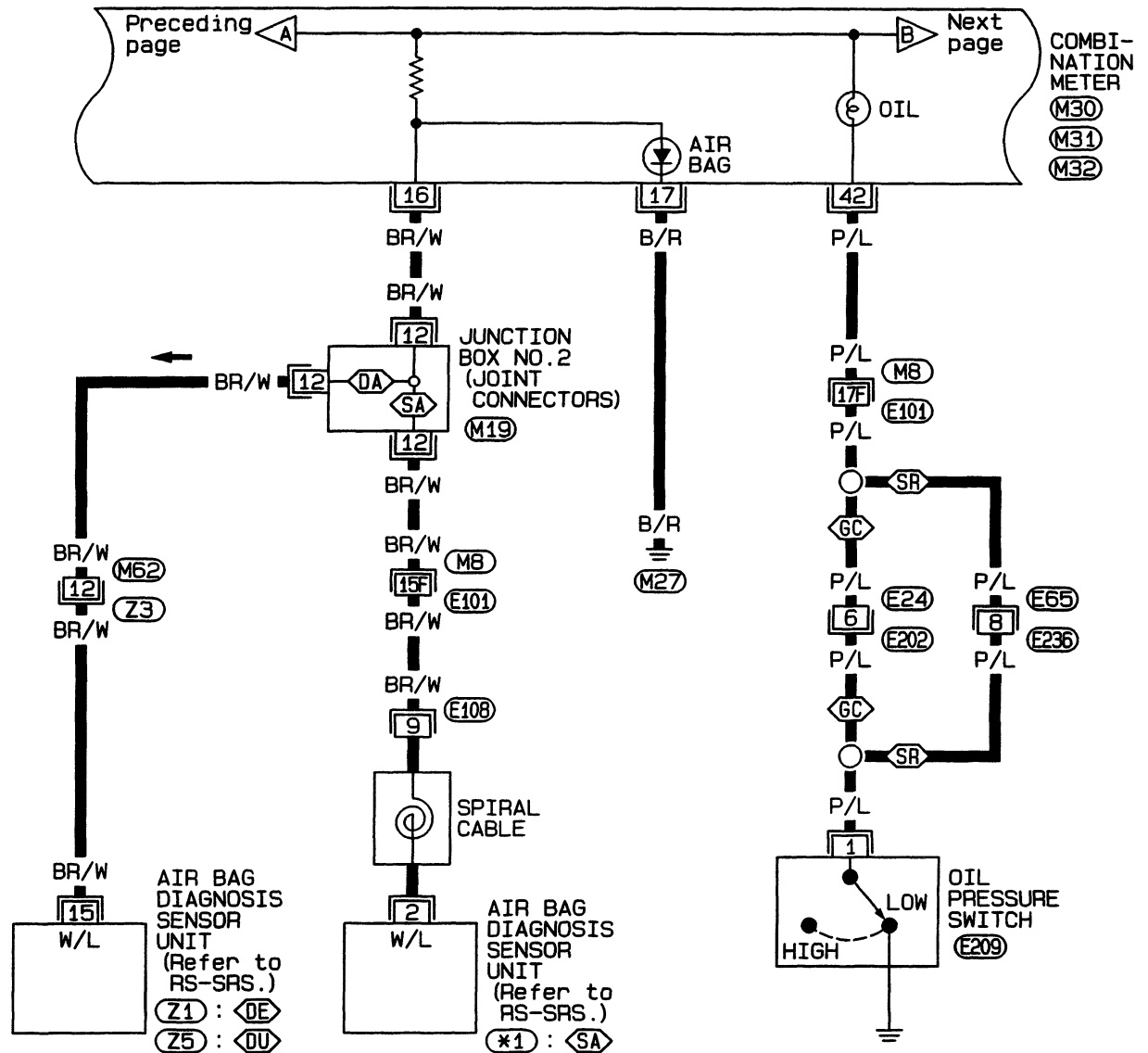
(M39)

EL

Warning Lamps/Wiring Diagram — WARN — (Cont'd)

EL-WARN-02

- | | | | |
|-----------|-------------------------------------|-----------|---|
| GC | : GA engine and CD engine | DU | : Models with dual air bag system for Europe |
| SR | : SR engine | DE | : Models with dual air bag system except for Europe |
| DA | : Models with dual air bag system | | |
| SA | : Models with single air bag system | | |



Refer to last page
(Foldout page) .

M8, E101
M19

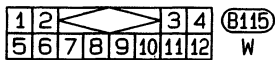
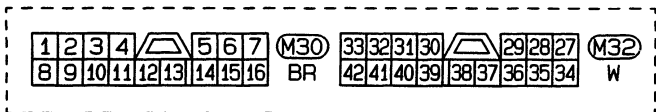
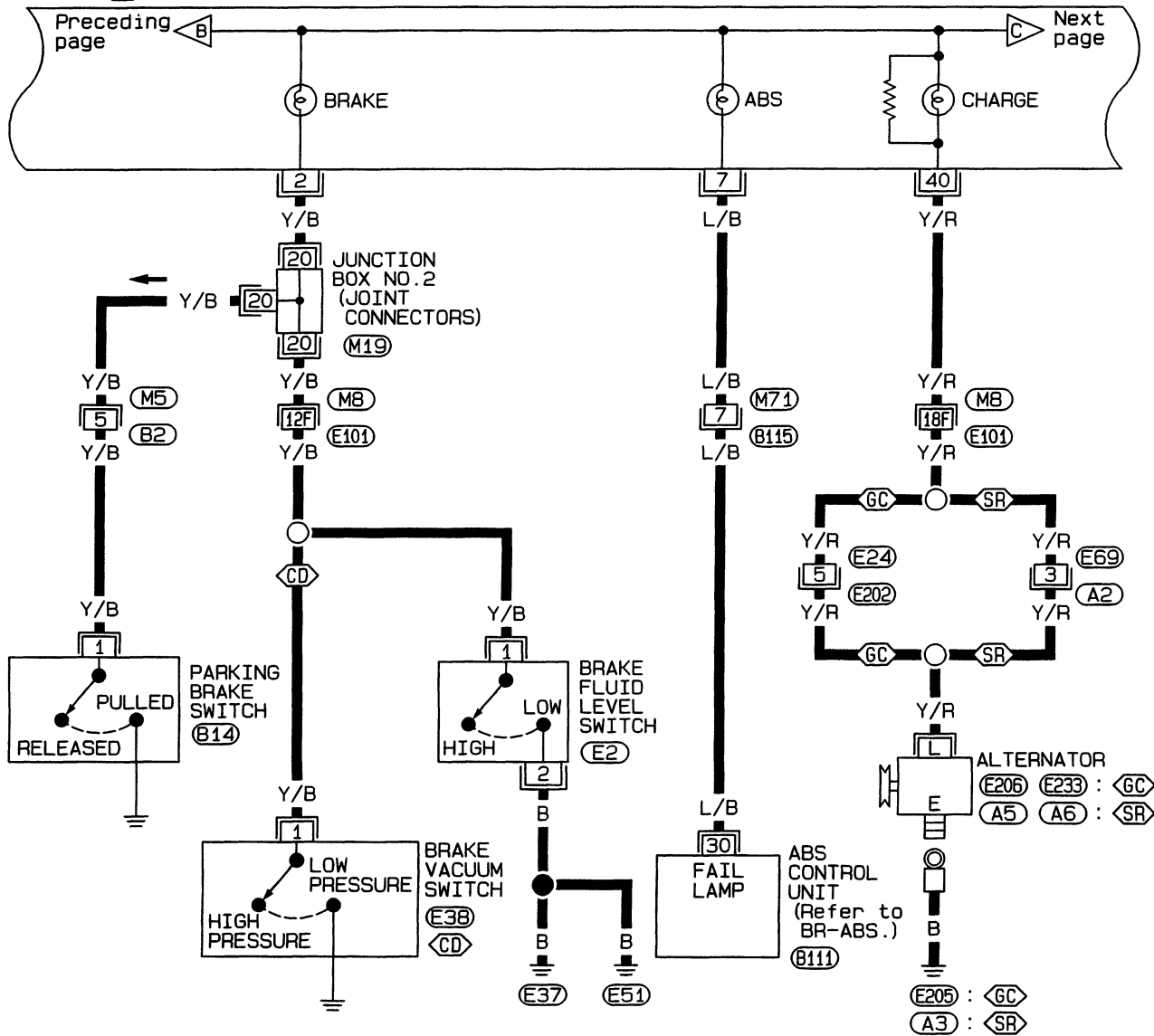
WARNING LAMPS AND BUZZER

Warning Lamps/Wiring Diagram — WARN — (Cont'd)

EL-WARN-03

GC : GA engine and CD engine
CD : Diesel engine
SR : SR engine

COMBINATION METER (M30) (M32)

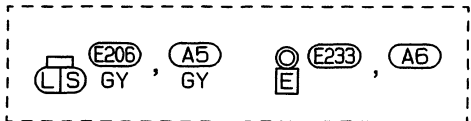
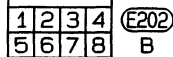
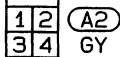
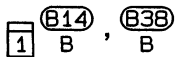


Refer to last page (Foldout page).

(M8), (E101)

(M19)

(B111)



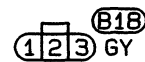
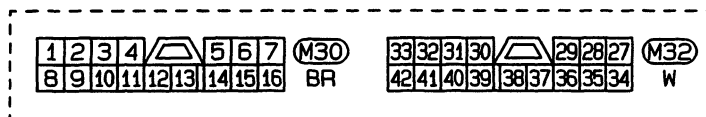
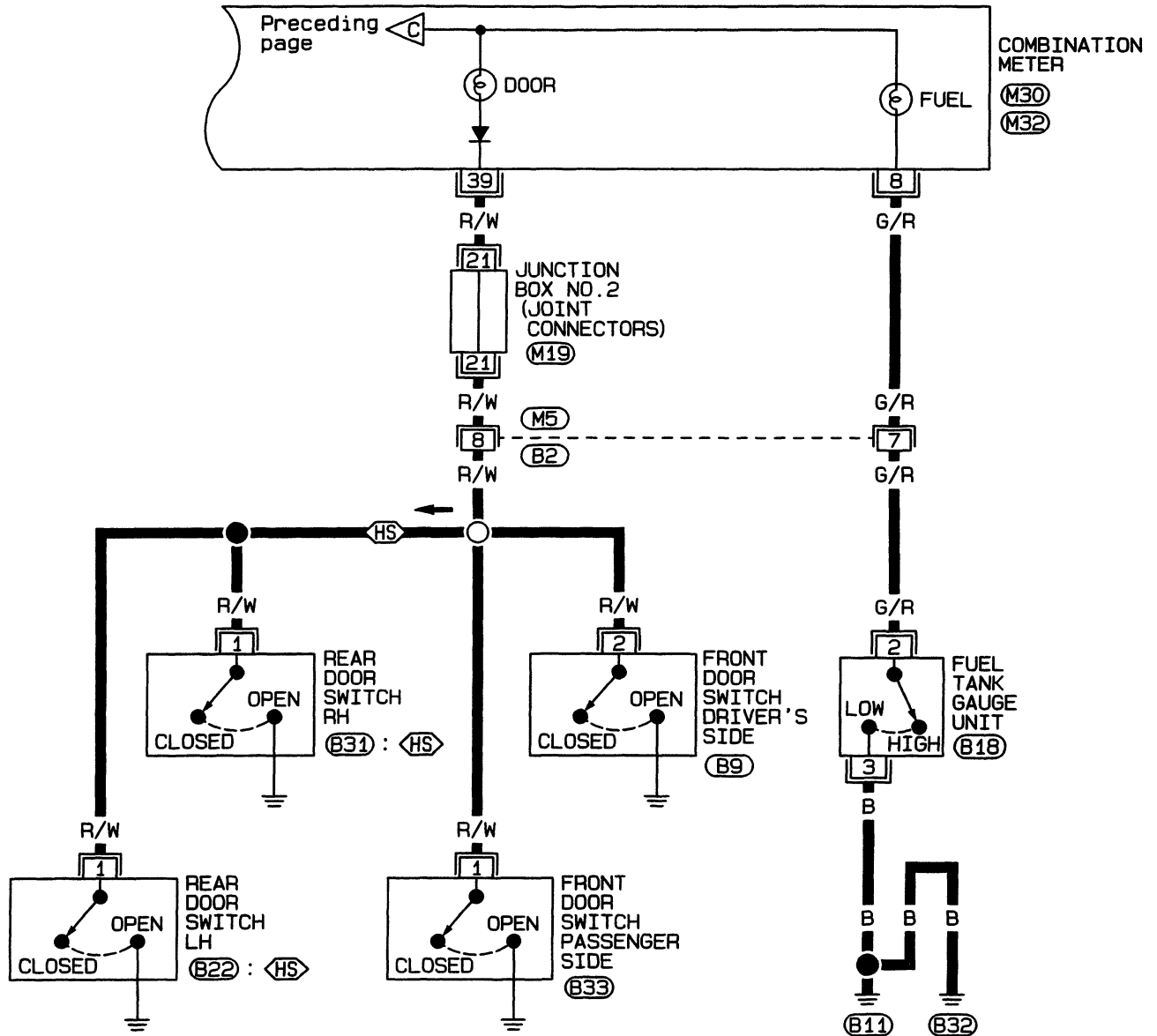
EL

WARNING LAMPS AND BUZZER

Warning Lamps/Wiring Diagram — WARN — (Cont'd)

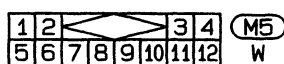
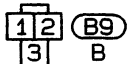
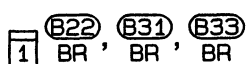
EL-WARN-04

⊠HS : 5-door Hatchback and Sedan models



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(M19)

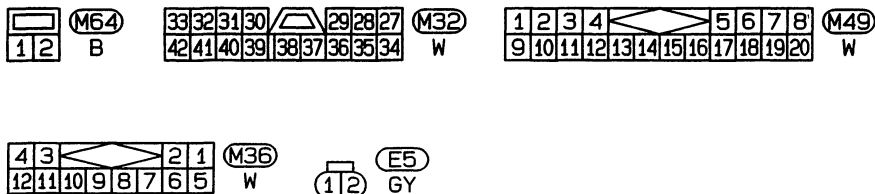
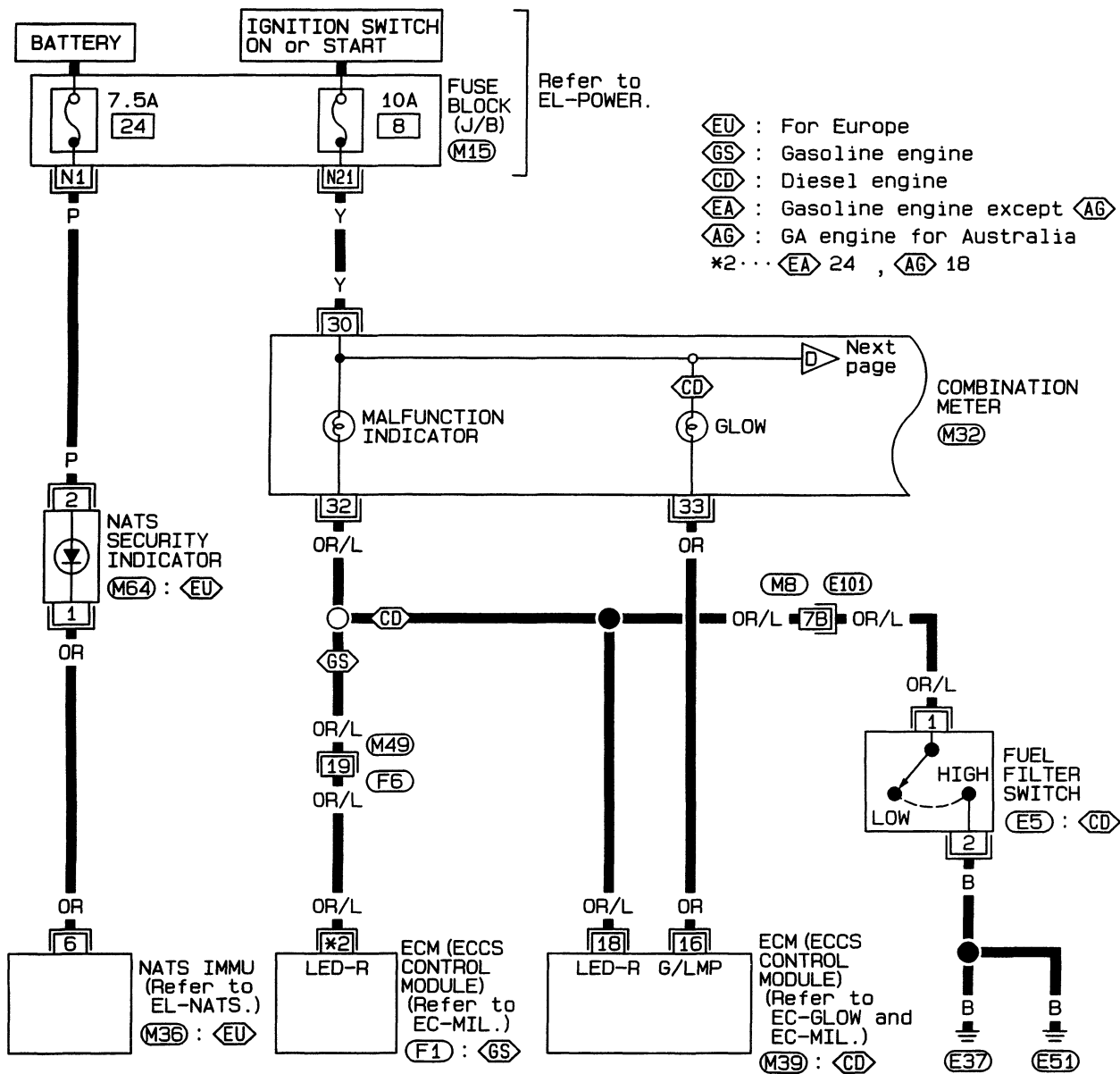


WARNING LAMPS AND BUZZER

Warning Lamps/Wiring Diagram — WARN — (Cont'd)

RHD MODELS WITH TACHOMETER

EL-WARN-05



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 ⒺⒺ
 ⒺⒺ

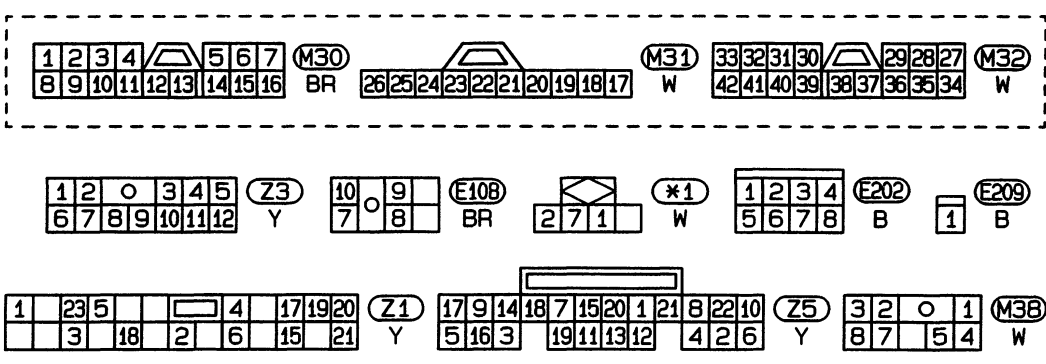
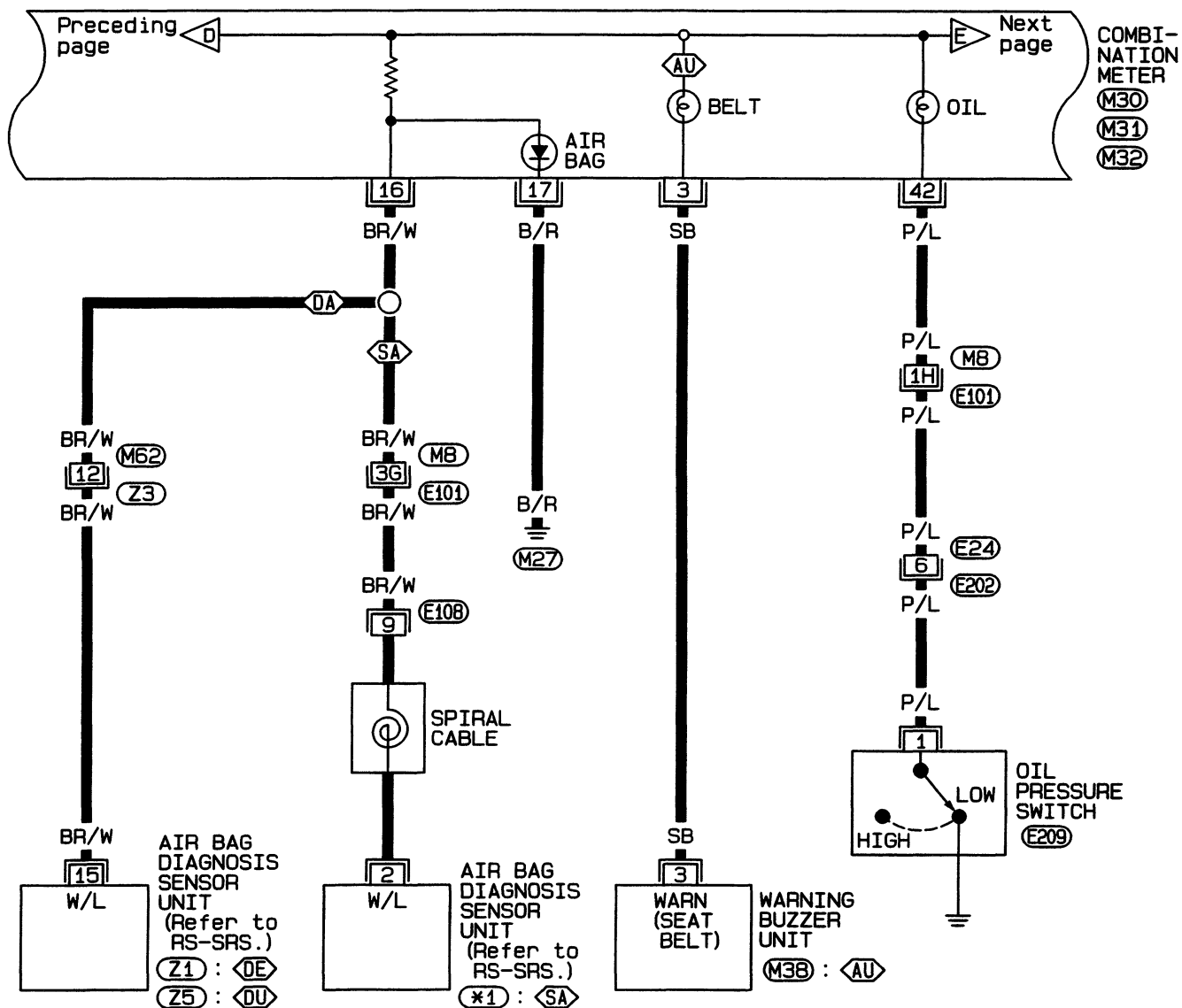
EL

WARNING LAMPS AND BUZZER

Warning Lamps/Wiring Diagram — WARN — (Cont'd)

EL-WARN-06

- Ⓐ : For Australia
- Ⓐ : Models with single air bag system
- Ⓐ : Models with dual air bag system
- Ⓐ : Models with dual air bag system for Europe
- Ⓐ : Models with dual air bag system except for Europe

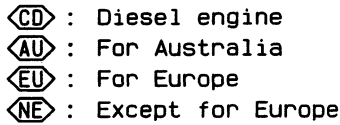


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(Foldout page).

(MB), (E101)

Warning Lamps/Wiring Diagram — WARN — (Cont'd)

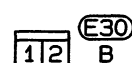
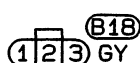
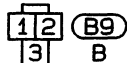
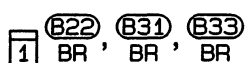
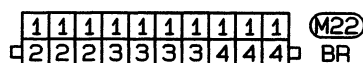
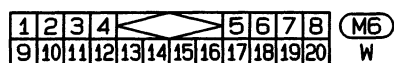
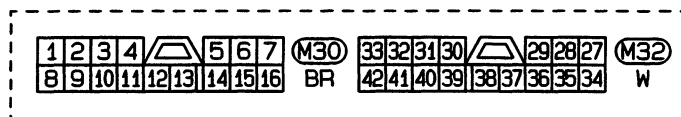
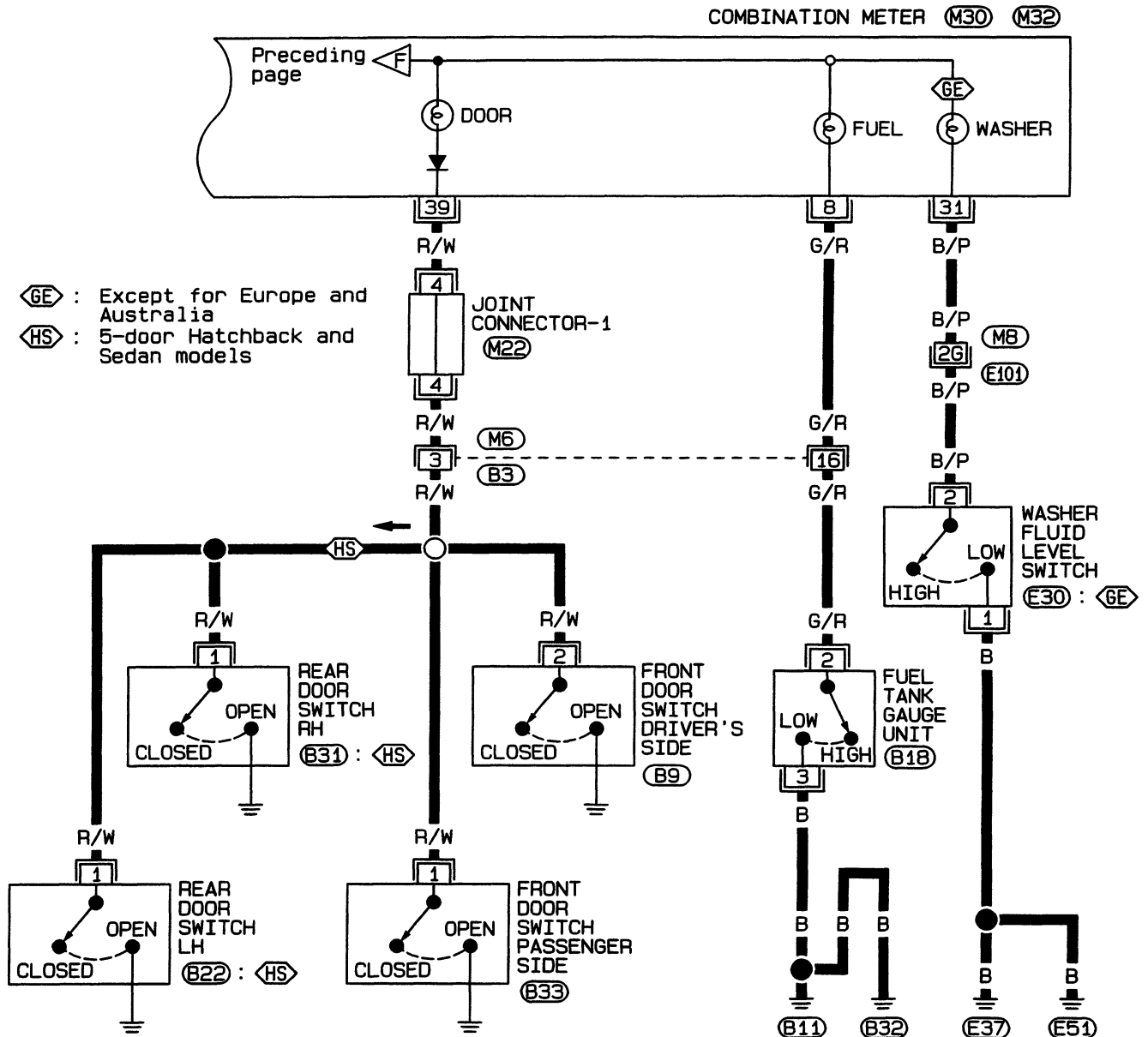
COMBINATION METER (M30) (M32)



WARNING LAMPS AND BUZZER

Warning Lamps/Wiring Diagram — WARN — (Cont'd)

EL-WARN-08



Refer to last page
(Foldout page).

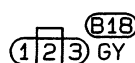
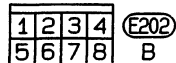
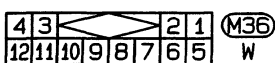
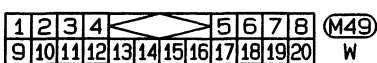
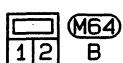
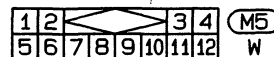
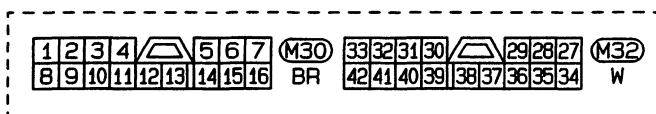
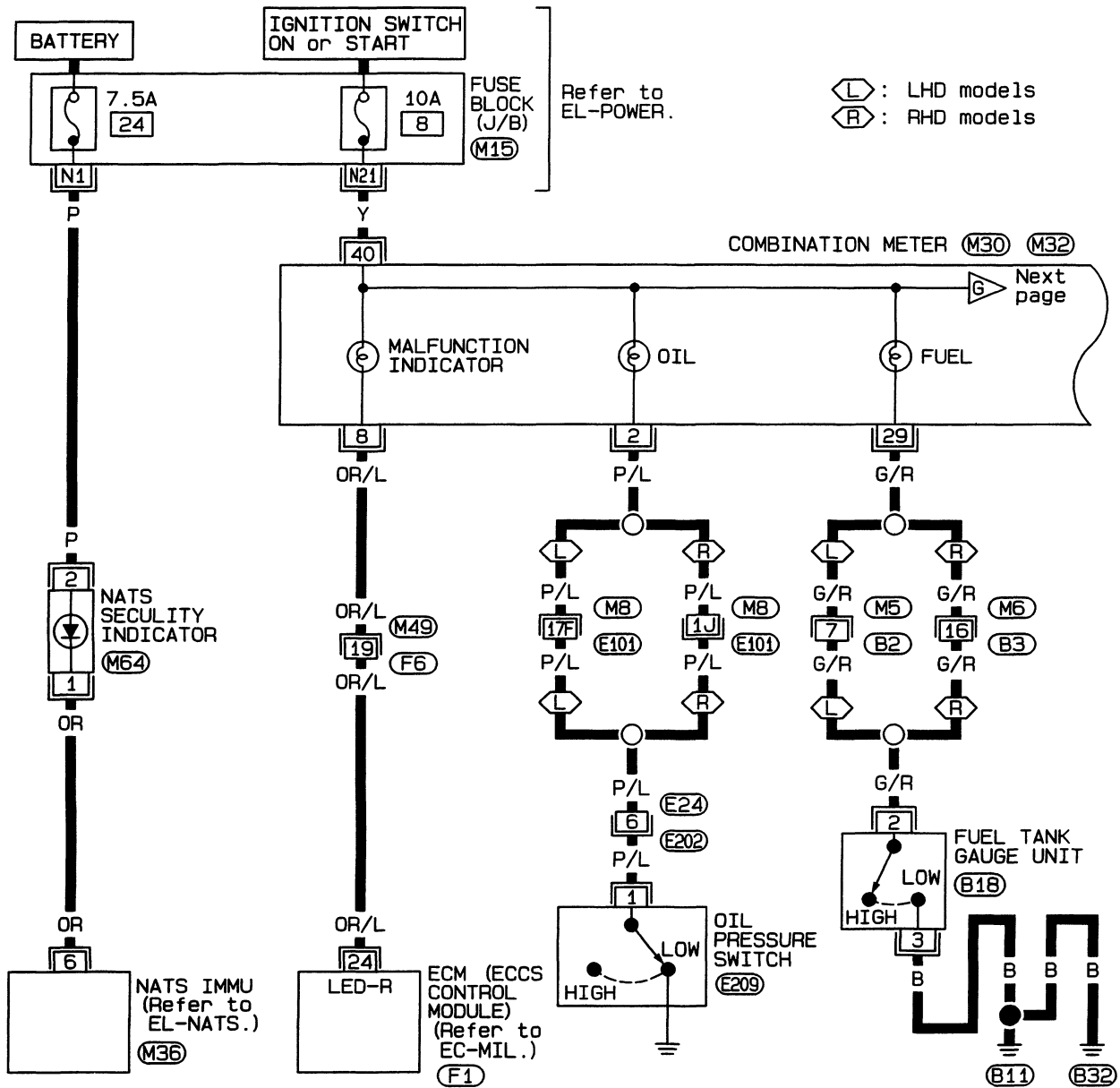
(M8) , (E101)

WARNING LAMPS AND BUZZER

Warning Lamps/Wiring Diagram — WARN — (Cont'd)

WITHOUT TACHOMETER

EL-WARN-09



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(Foldout page).

(M8), (E101)

(F1)

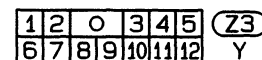
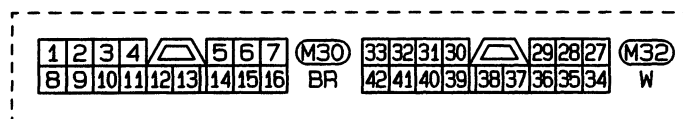
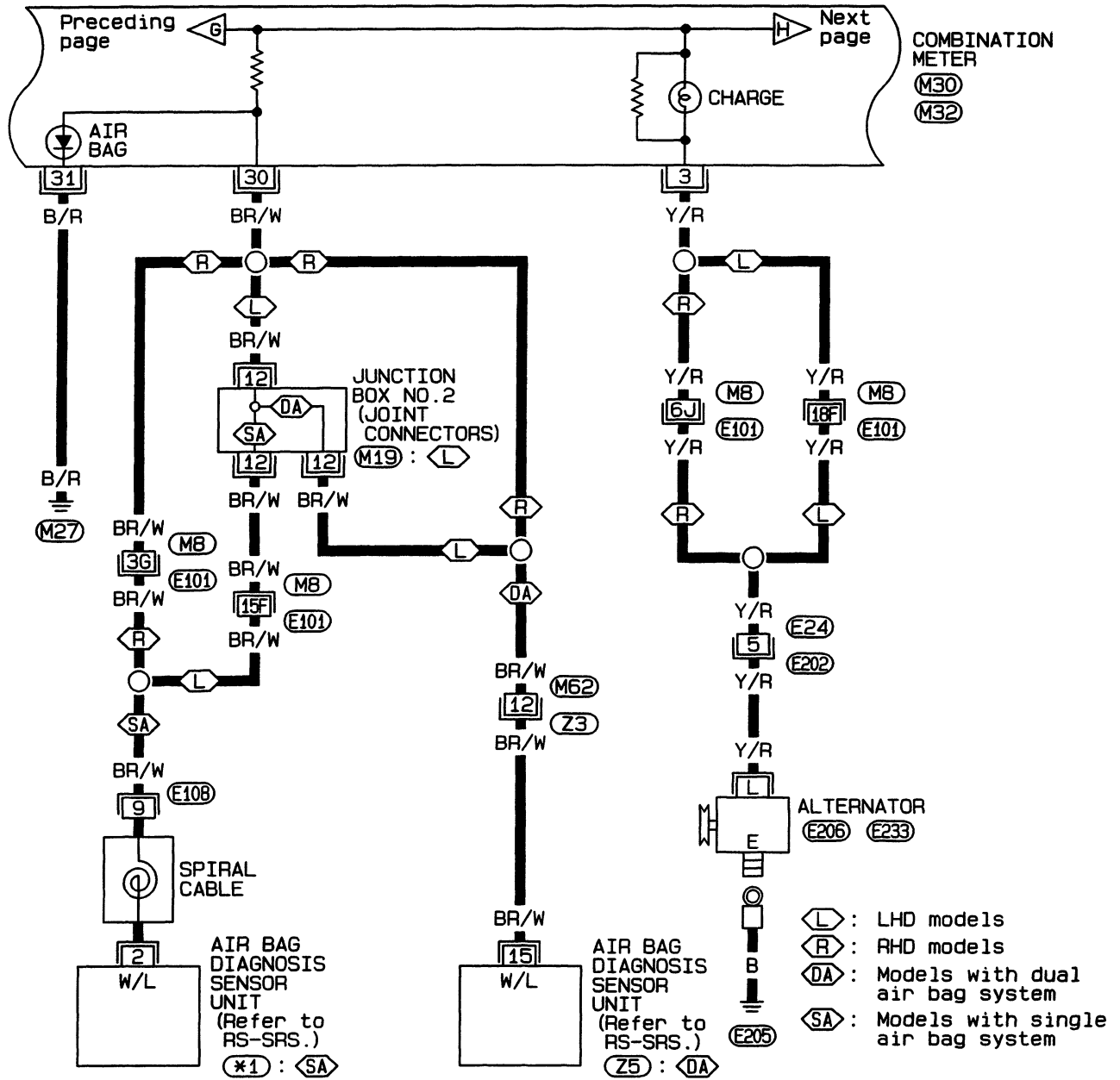
(M15)

EL

WARNING LAMPS AND BUZZER

Warning Lamps/Wiring Diagram — WARN — (Cont'd)

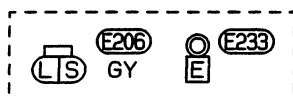
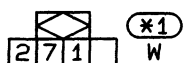
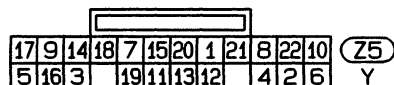
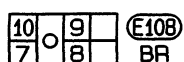
EL-WARN-10



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(MB), (E101)

(M19)



Warning Lamps/Wiring Diagram — WARN — (Cont'd)

[illegible]





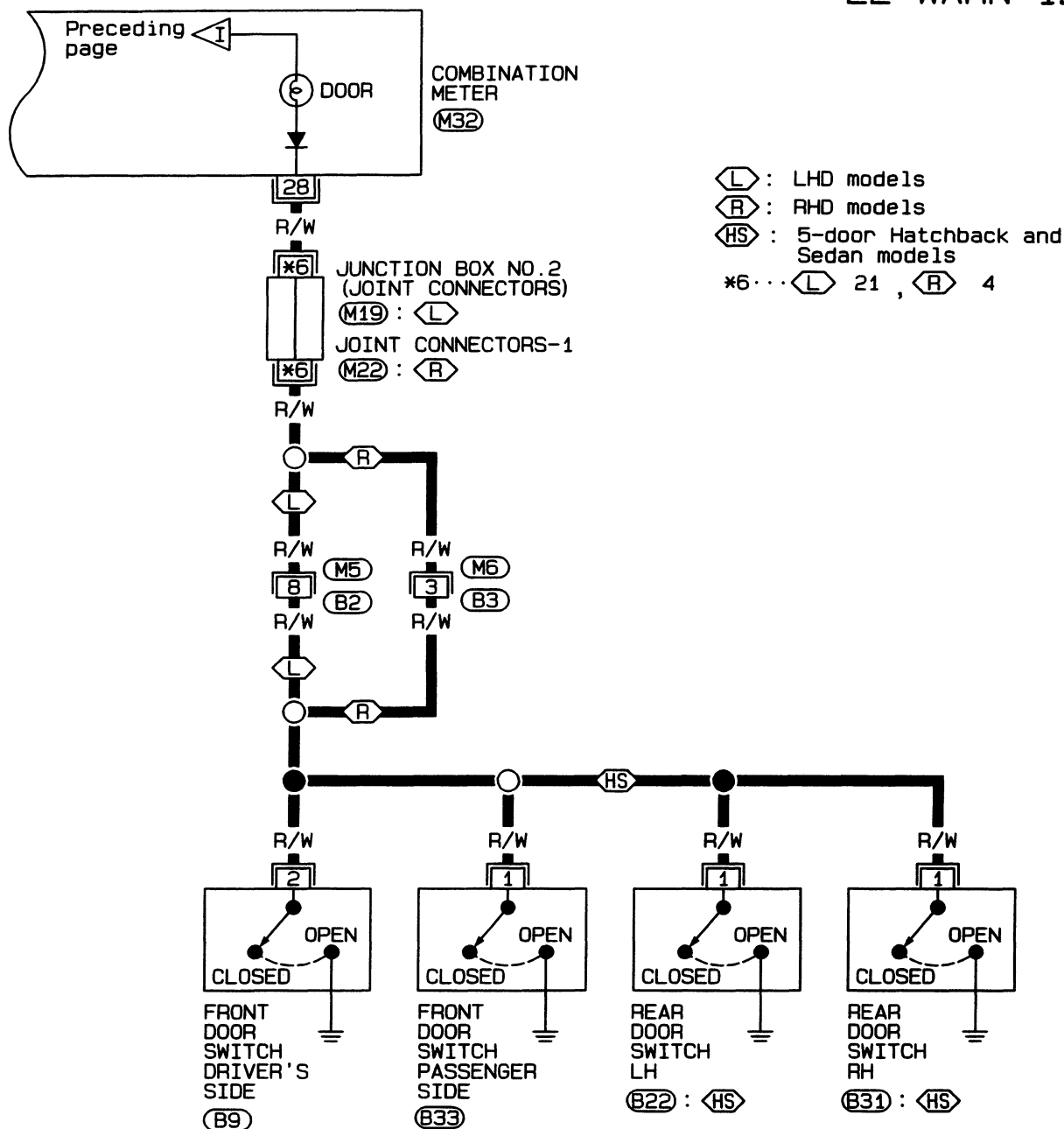


EL

WARNING LAMPS AND BUZZER

Warning Lamps/Wiring Diagram — WARN — (Cont'd)

EL-WARN-12



33	32	31	30	29	28	27	(M32)
42	41	40	39	38	37	36	W

1	1	1	1	1	1	1	1	1	(M22)
2	2	2	2	3	3	3	4	4	BR

1	2	3	4	(M5)
5	6	7	8	W

1	2	3	4	5	6	7	8	(M6)
9	10	11	12	13	14	15	16	W

1	2	(B9)
3		B

1	(B22)	(B31)	(B33)
	BR	BR	BR

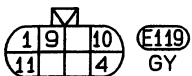
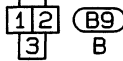
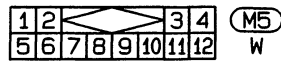
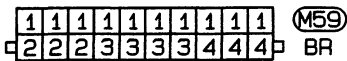
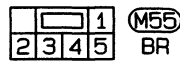
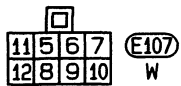
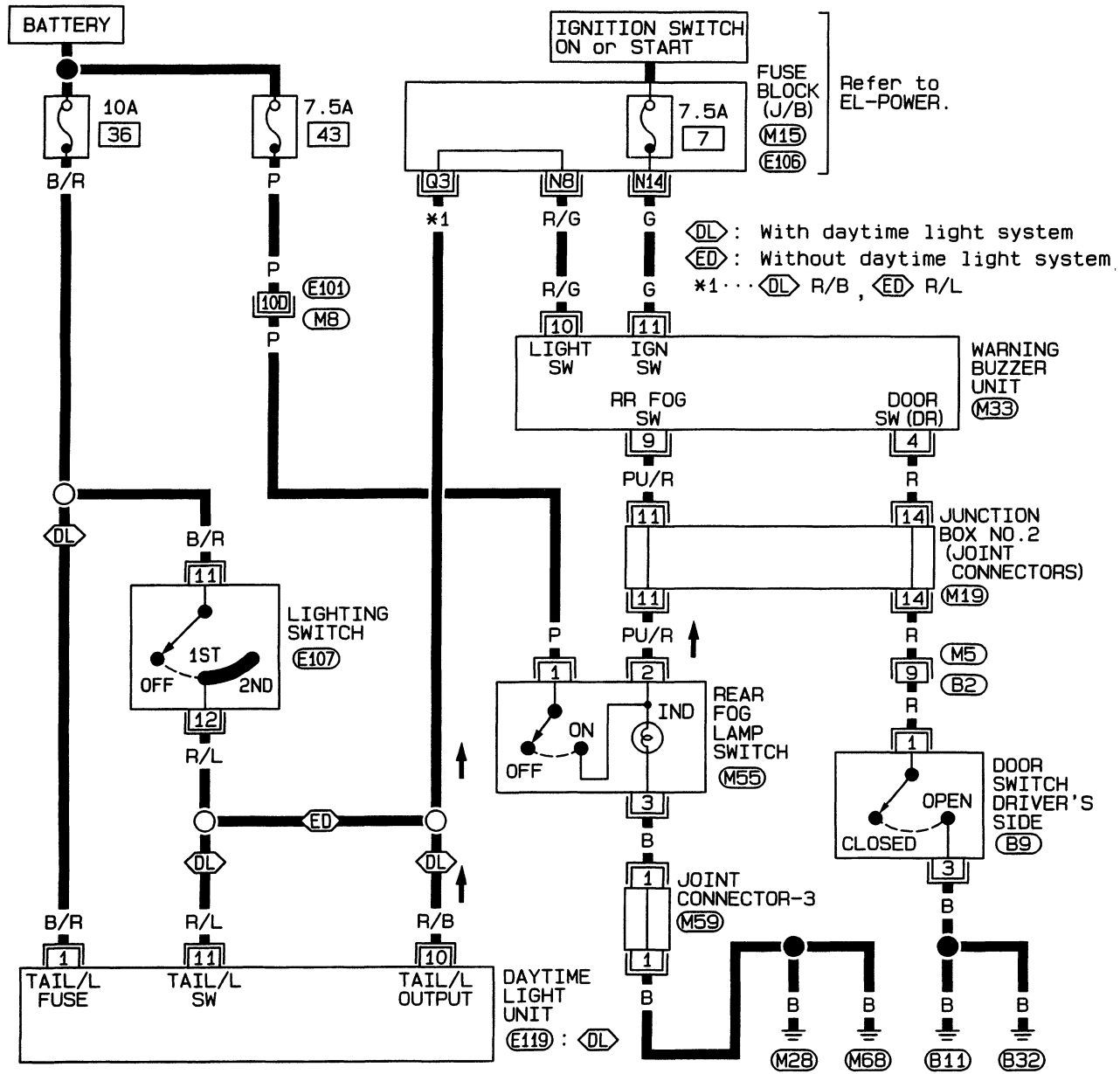
Refer to last page
(Foldout page).

(M19)

WARNING LAMPS AND BUZZER

Warning Buzzer/Wiring Diagram — BUZZER —

EL-BUZZER-01



Refer to last page (Foldout page).

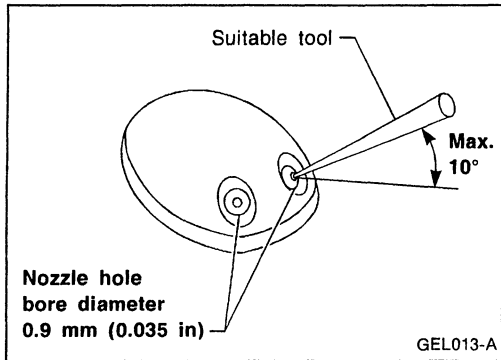
[M8], [E101]

[M15], [E106]

[M19]

EL

WIPER AND WASHER

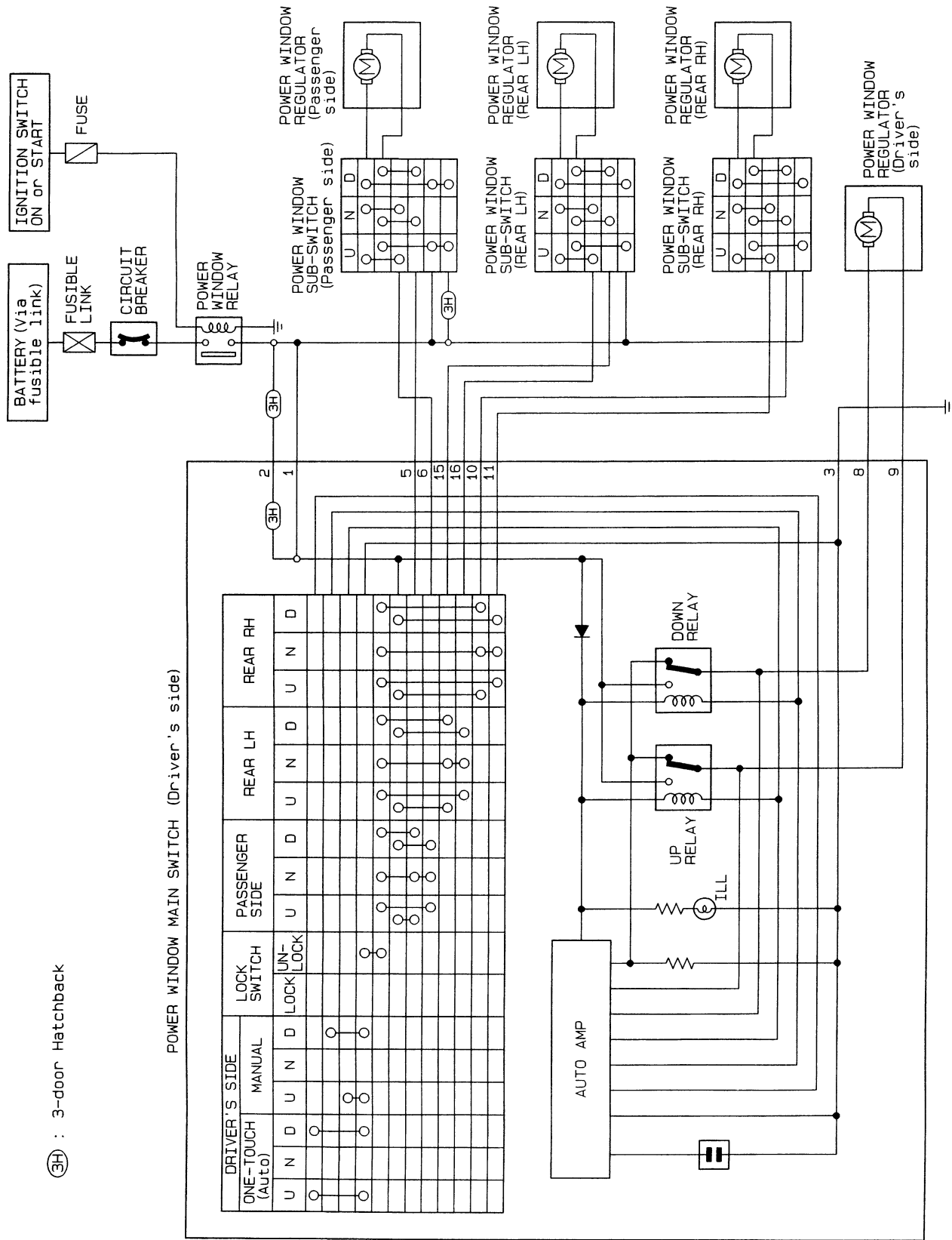


Front Washer Nozzle Adjustment

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

Adjustable range: $\pm 10^\circ$ (In any direction)

Schematic



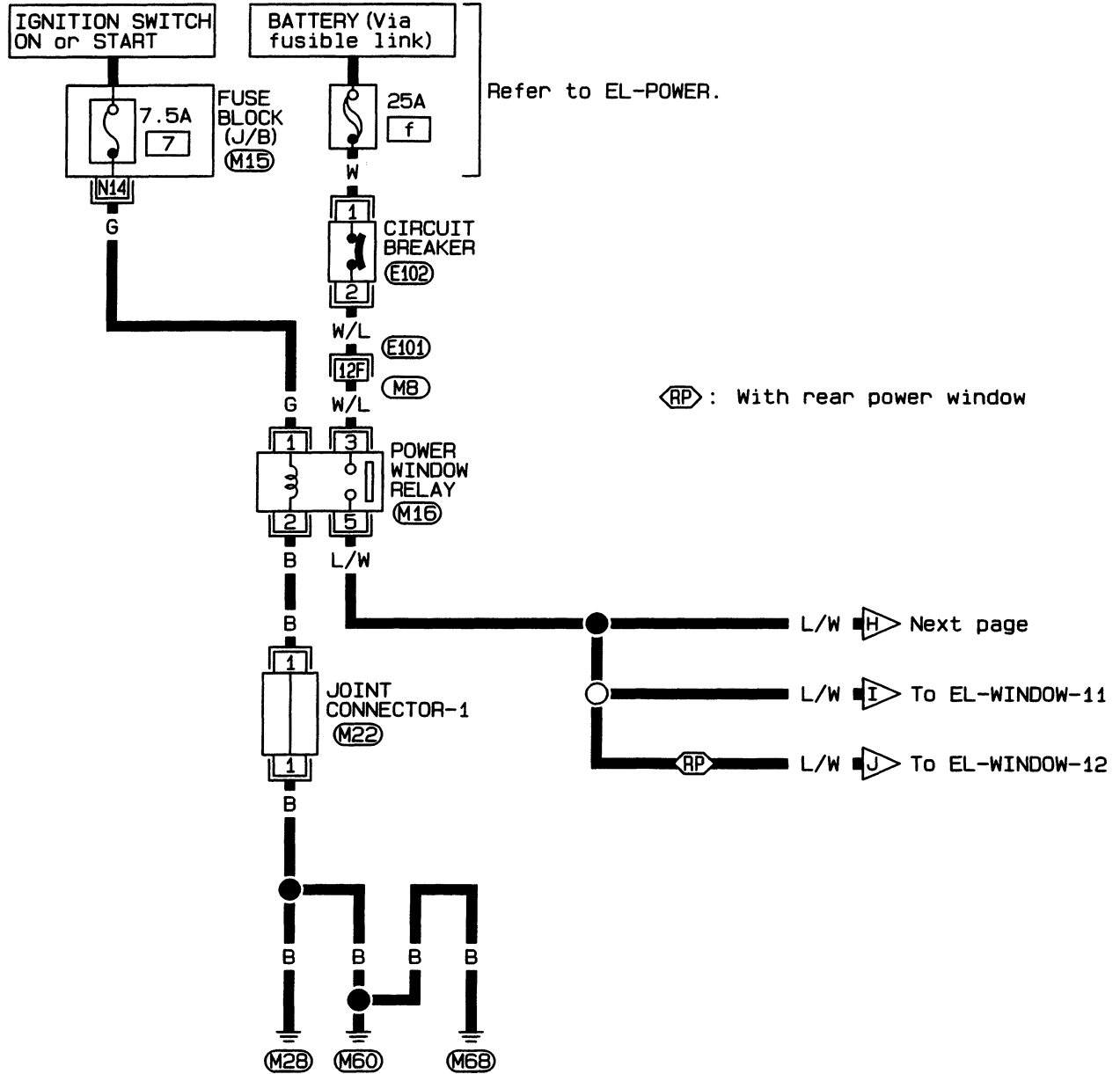
EL

POWER WINDOW

Wiring Diagram — WINDOW —

RHD MODELS

EL-WINDOW-05



Refer to last page (Foldout page).

(M8), (E101)
(M15)

POWER WINDOW

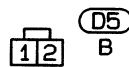
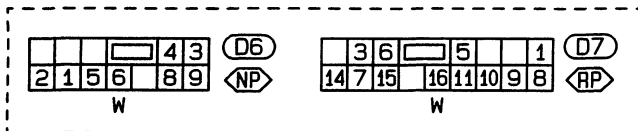
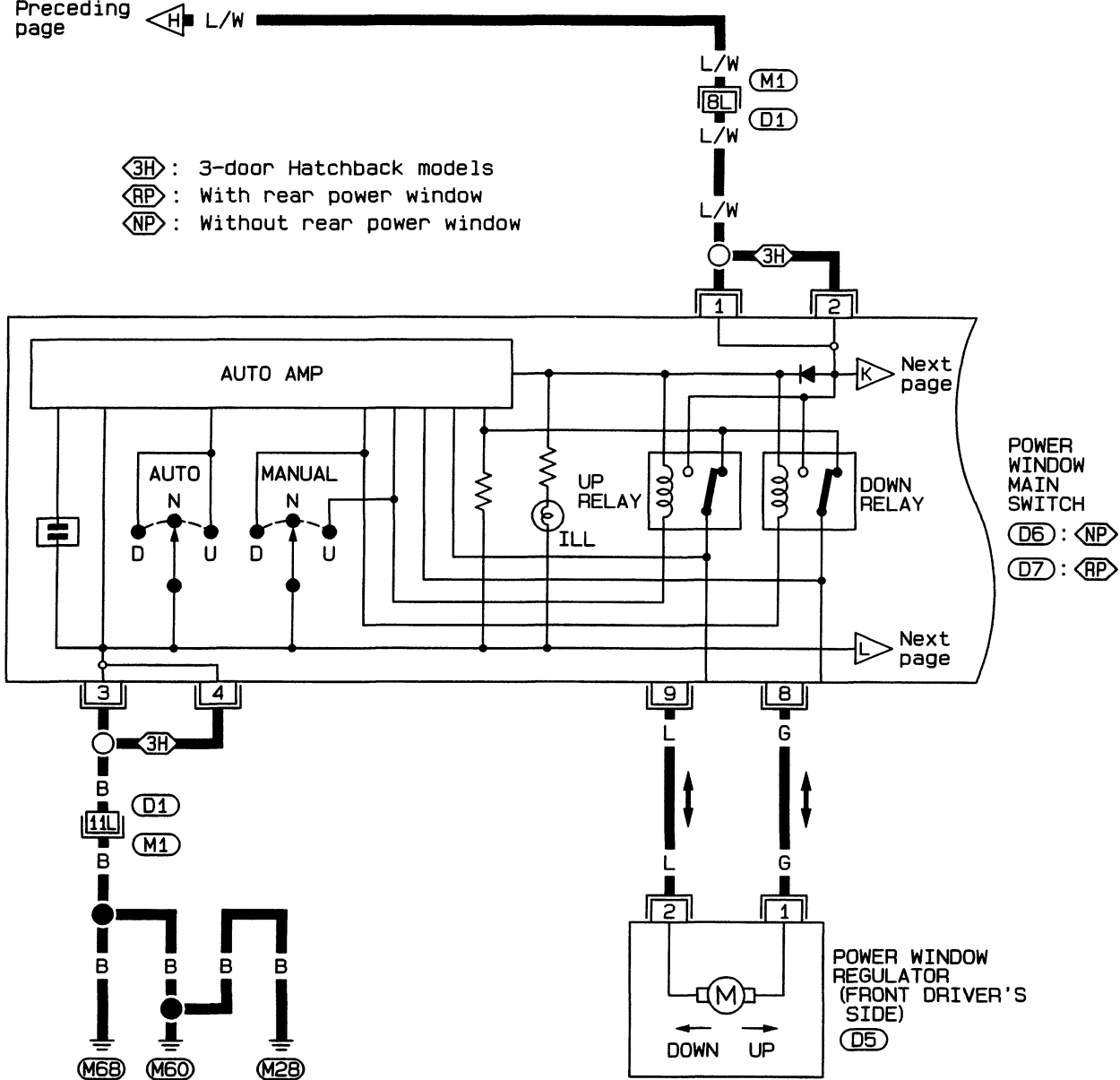
Wiring Diagram — WINDOW — (Cont'd)

EL-WINDOW-06

Preceding
page



- ◻3H: 3-door Hatchback models
- ◻RP: With rear power window
- ◻NP: Without rear power window



Refer to last page
(Foldout page).

◻M1, ◻D1

EL

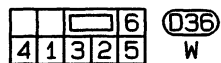
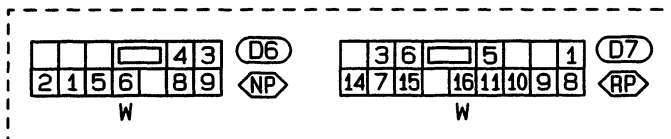
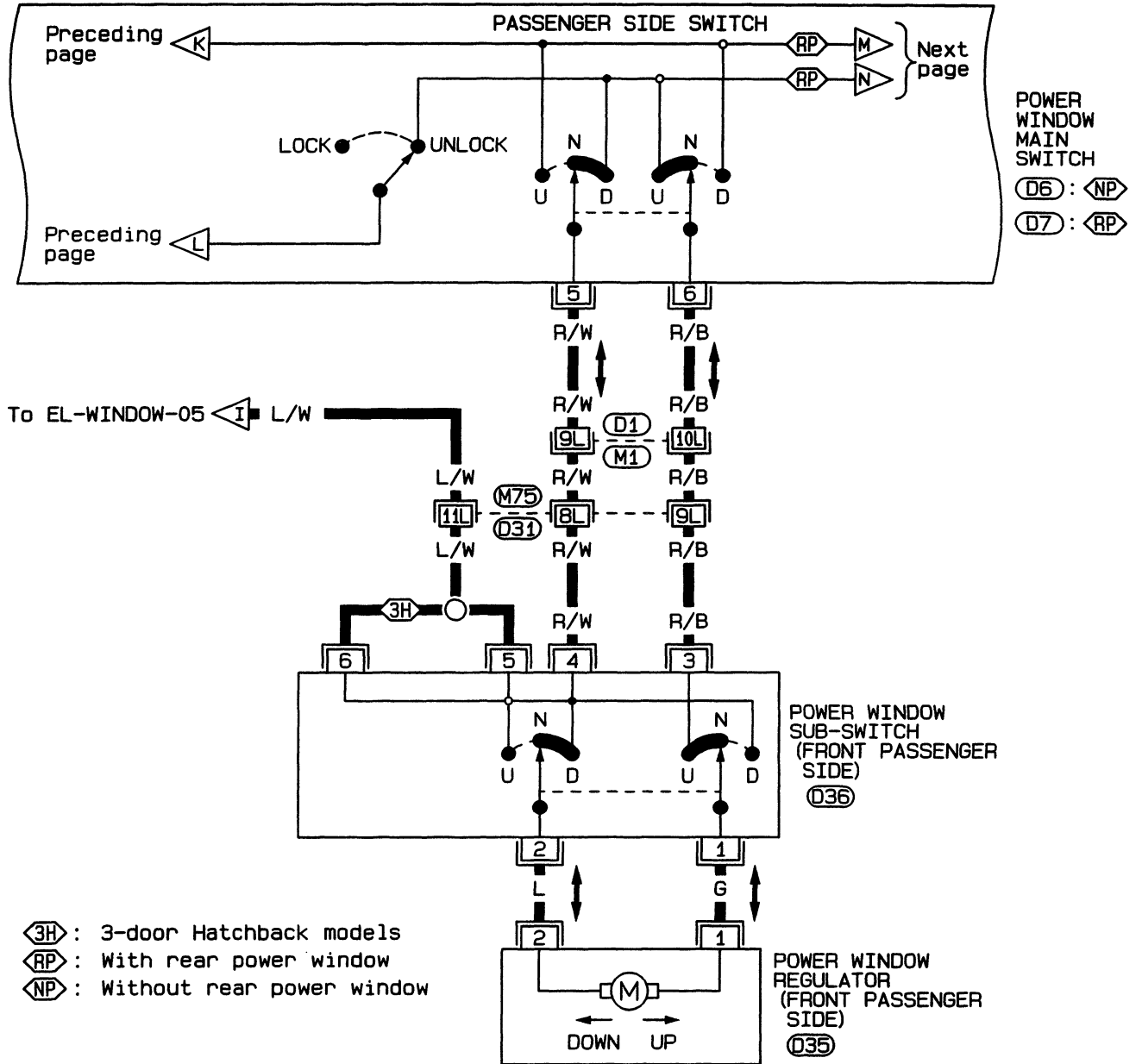
CAUTION : Don't attempt to repair, splice or modify the flexible flat circuit (FFC). If the FFC is damaged, replace with a new one.

HEL544

POWER WINDOW

Wiring Diagram — WINDOW — (Cont'd)

EL-WINDOW-07



Refer to last page (Foldout page).

M1, D1

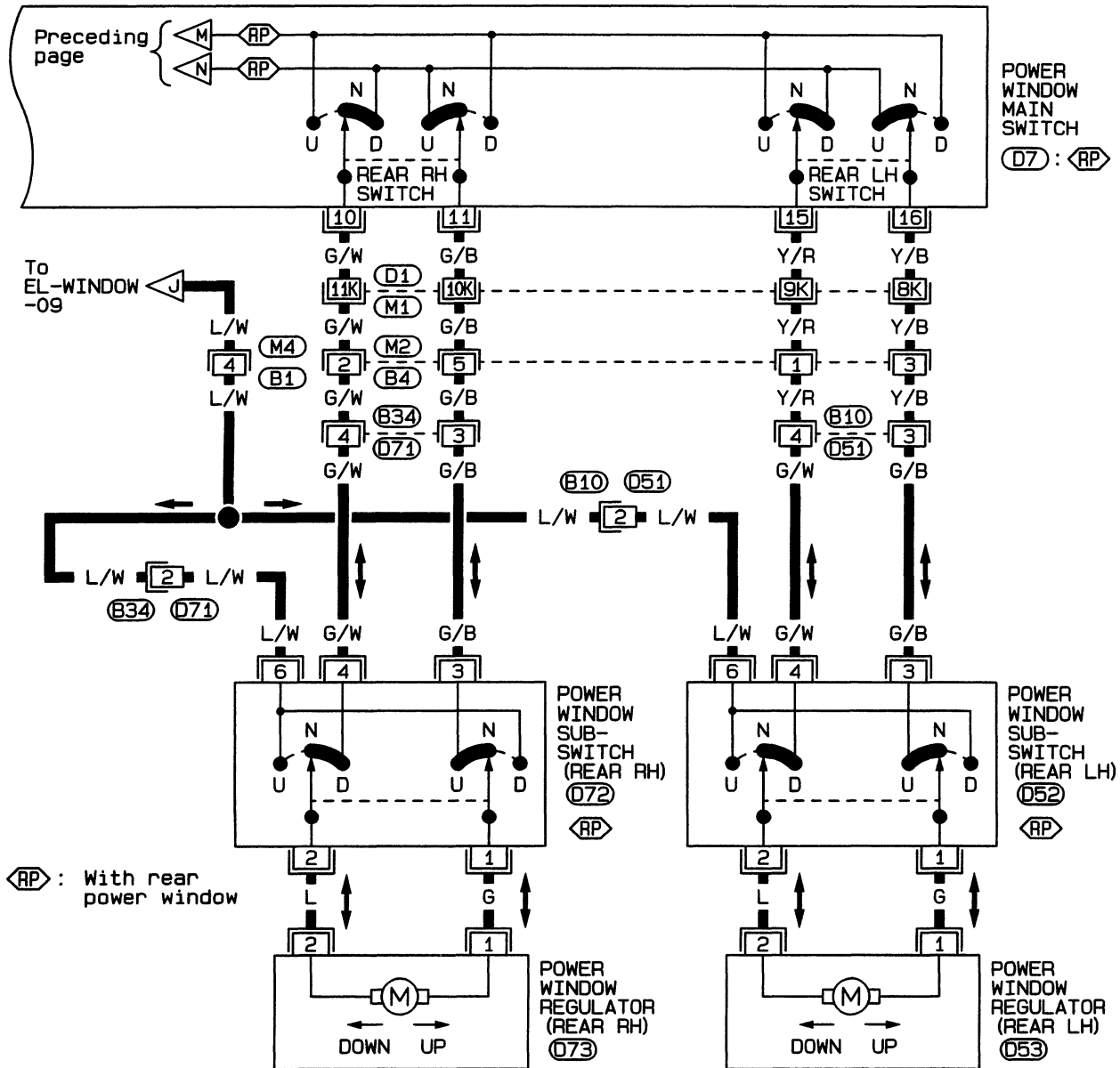
M75, D31

CAUTION : Don't attempt to repair, splice or modify the flexible flat circuit (FFC). If the FFC is damaged, replace with a new one.

POWER WINDOW

Wiring Diagram — WINDOW — (Cont'd)

EL-WINDOW-08



3 6 5 1 (D7) W
14 7 15 16 11 10 9 8

1 2 (M4) W
3 4

1 2 (M2) (B10), (B34) W W
3 4 5 6

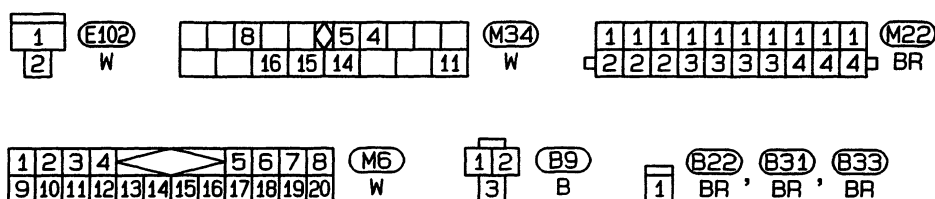
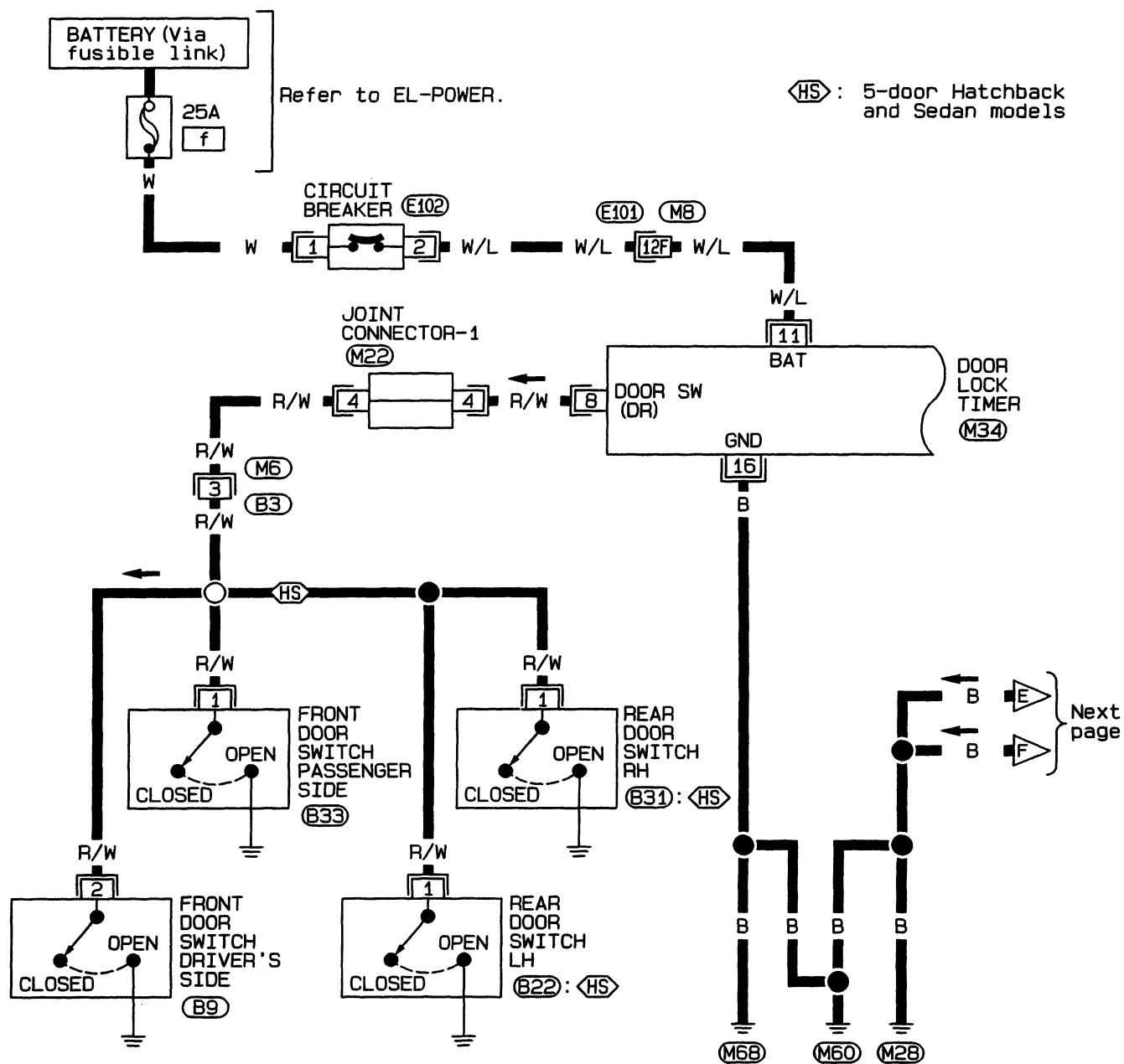
Refer to last page (Foldout page).

(M1), (D1)

EL

6 (D52), (D72) W W
4 1 3 2 5

(D53), (D73) B B
1 2

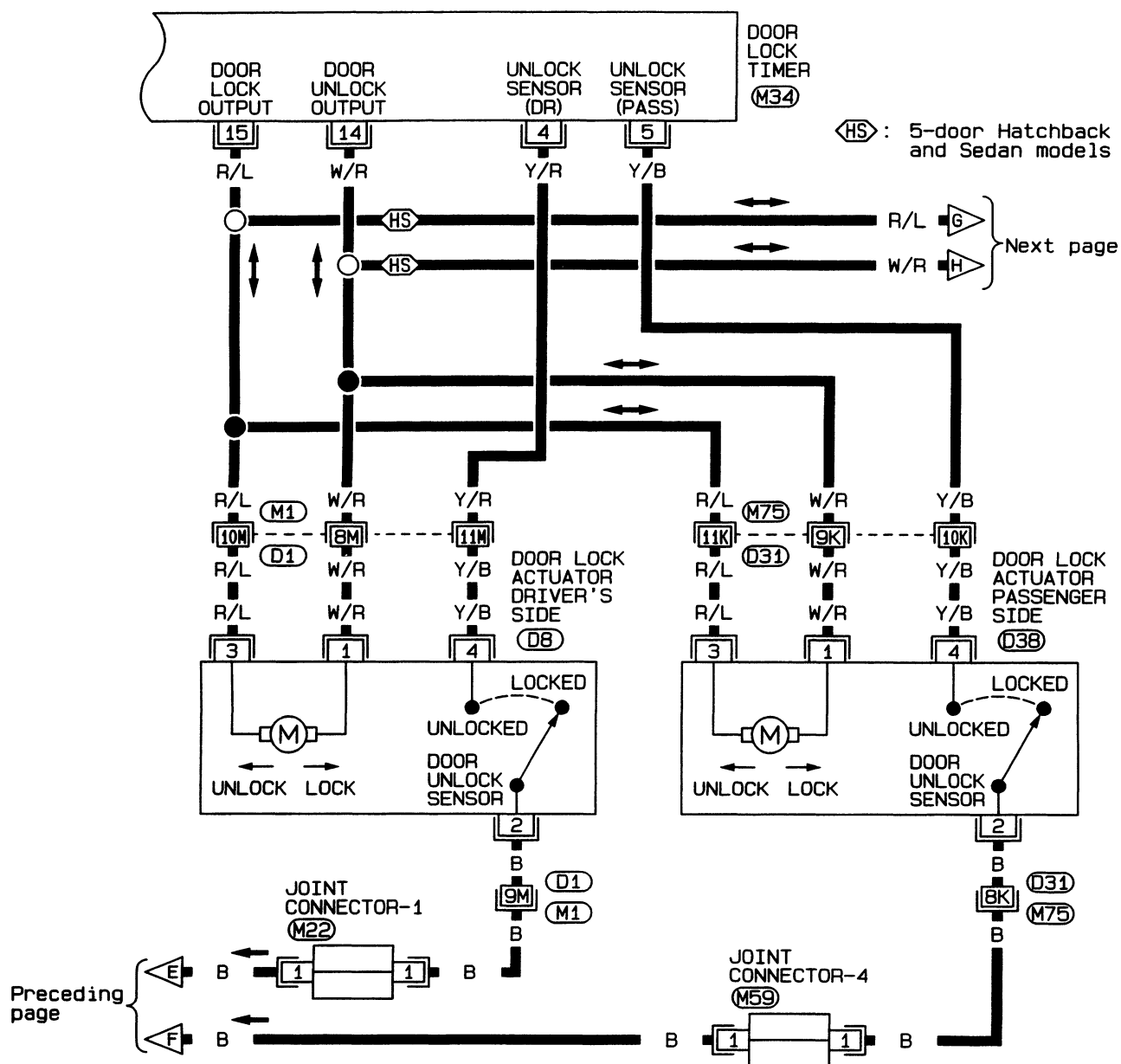


1

POWER DOOR LOCK

Wiring Diagram — D/LOCK — (Cont'd)

EL-D/LOCK-05



		8		5	4					(M34)
		16	15	14						W

3	4	(D8)	(D38)
1	2	GY	GY

1	1	1	1	1	1	1	1	1	1	(M22)
2	2	2	3	3	3	3	4	4	4	BR

1	1	1	1	1	1	1	1	1	1	(M59)
2	2	2	2	2	2	3	3	3	3	P

Refer to last page (Foldout page).

(M1), (D1)

(M75), (D31)

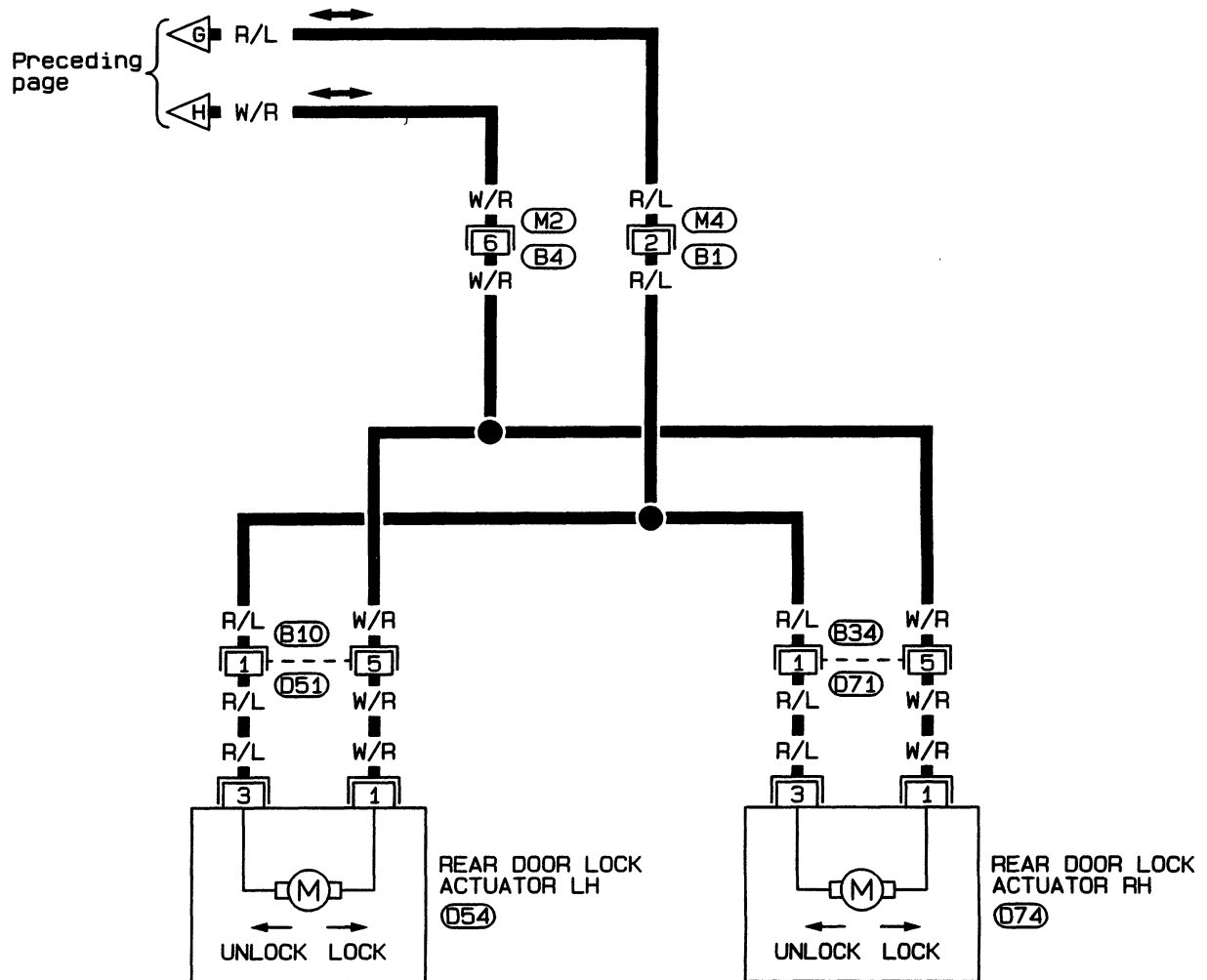
CAUTION : Don't attempt to repair, splice or modify the flexible flat circuit (FFC). If the FFC is damaged, replace with a new one.

HEL120

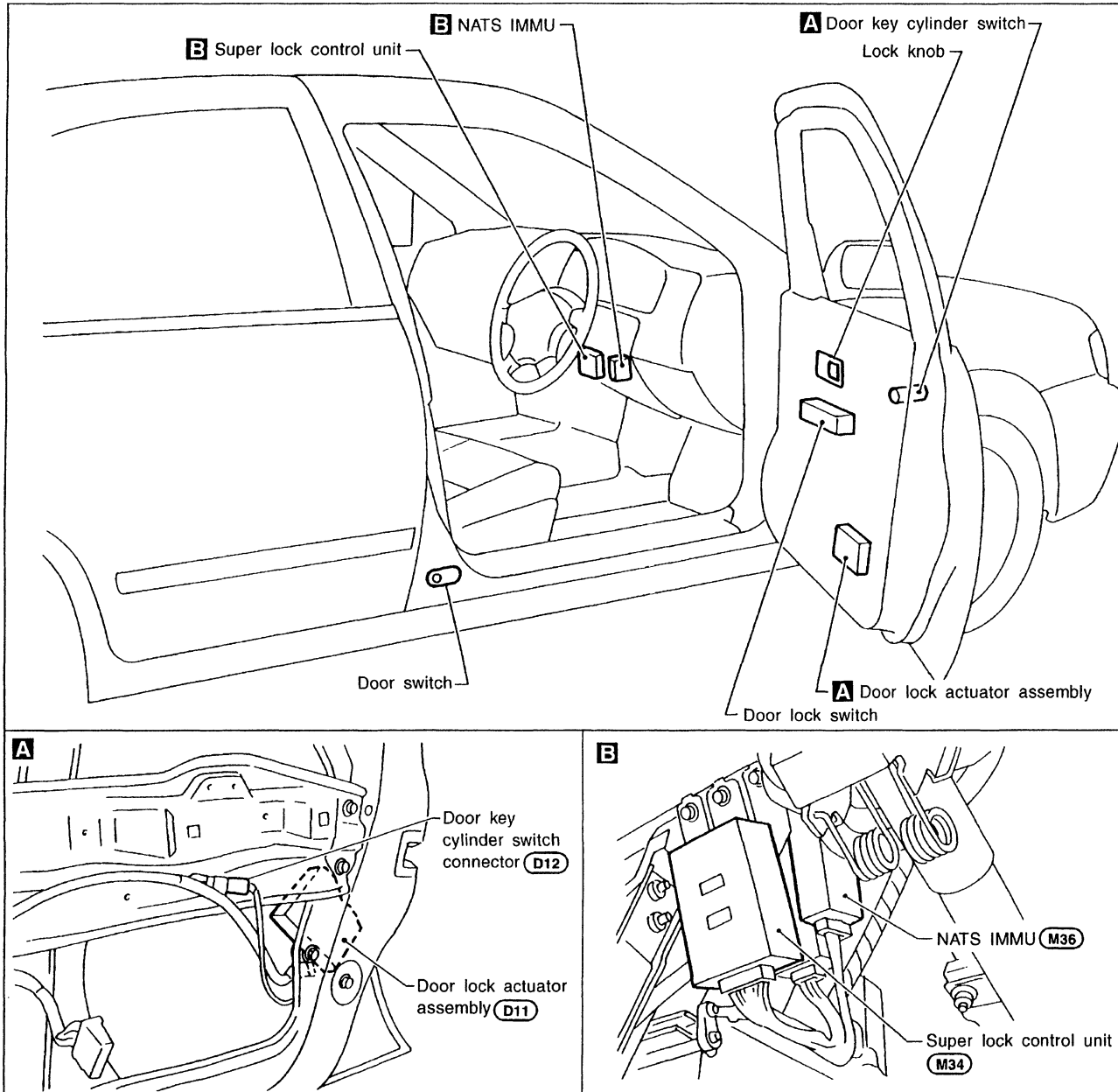
POWER DOOR LOCK

Wiring Diagram — D/LOCK — (Cont'd)

EL-D/LOCK-06



Component Parts Location

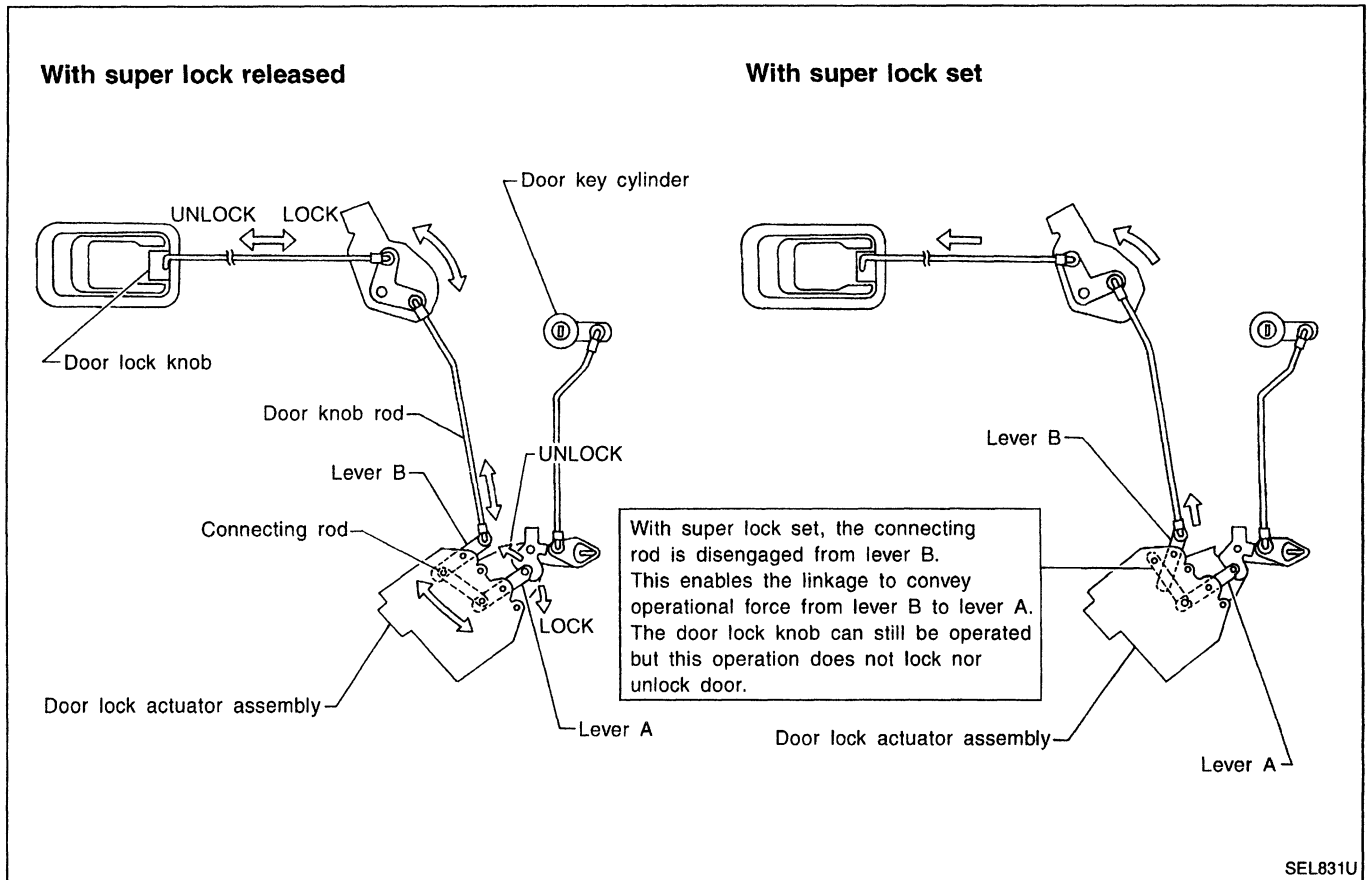


POWER DOOR LOCK — Super Lock —

System Description

OUTLINE

Power door lock system with super lock and key reminder is controlled by super lock 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

Power door lock/unlock and super lock set/release operation by door key cylinder

- With the key inserted into door key cylinder on driver or passenger door, turning it to LOCK will lock all doors and set super lock while all doors are closed or one or more door is open.
- With the key inserted into door key cylinder on driver or passenger door, turning it to UNLOCK will unlock all doors and release super lock.

Power door lock and super lock release operation (by NATS IMMU signal)

- With the key inserted in ignition key cylinder and turning it to ON for about 5 - 6 sec. will unlock all doors and release super lock.

Power door lock/unlock operation by lock knob

- With lock knob on driver or passenger door setting to LOCK while all doors are closed will lock all doors.
When one or more door is opened, with lock knob on passenger door setting to LOCK will lock passenger door only. (Power door lock system will not operate.)
- With lock knob on driver or passenger door setting to UNLOCK while all doors are closed will unlock all doors.

Lock knob operation cannot control super lock.

System Description (Cont'd)

Key reminder system

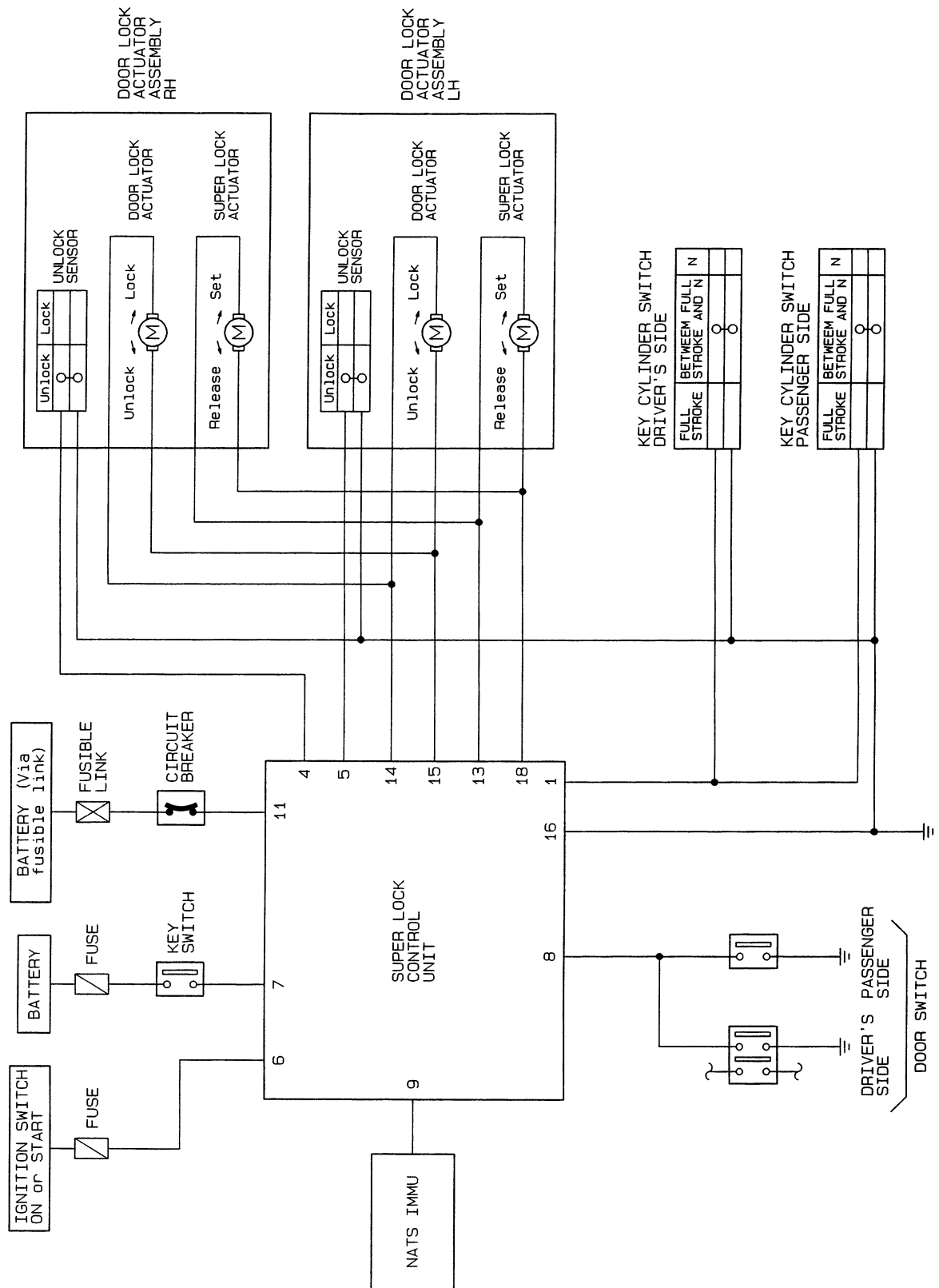
- If the ignition key is in the ignition key cylinder and any door is open, setting the lock & unlock switch and lock knob on driver door to “LOCK” locks the door once but then immediately unlocks it.

System initialisation

- System initialisation is required when battery cables are reconnected. Conduct one of the followings;
 - insert the key into ignition key cylinder and turn it to ON.
 - LOCK/UNLOCK operation using door key cylinder.

POWER DOOR LOCK — Super Lock —

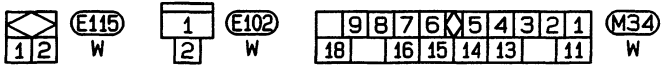
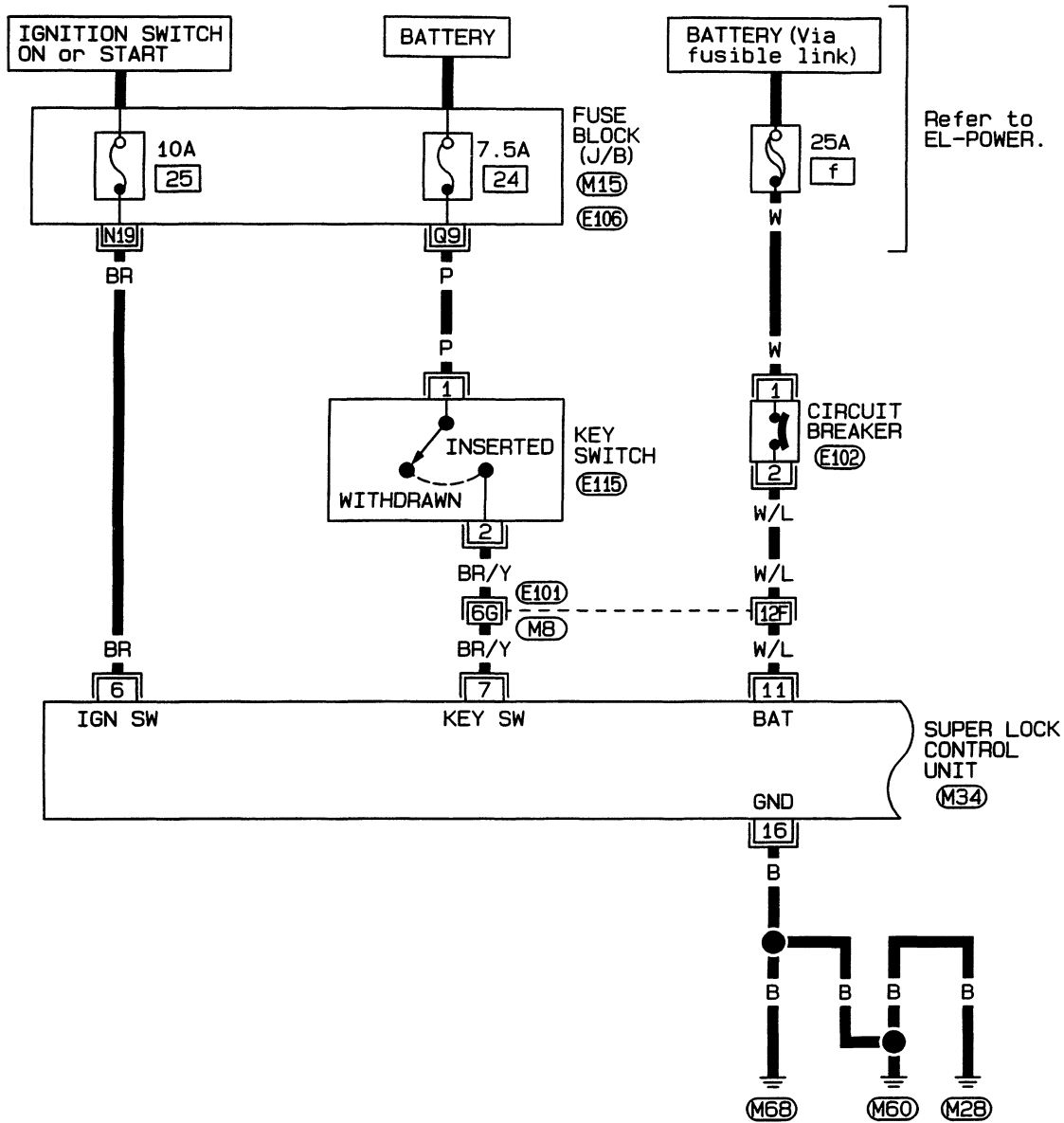
Schematic



POWER DOOR LOCK — Super Lock —

Wiring Diagram — S/LOCK —

EL-S/LOCK-01

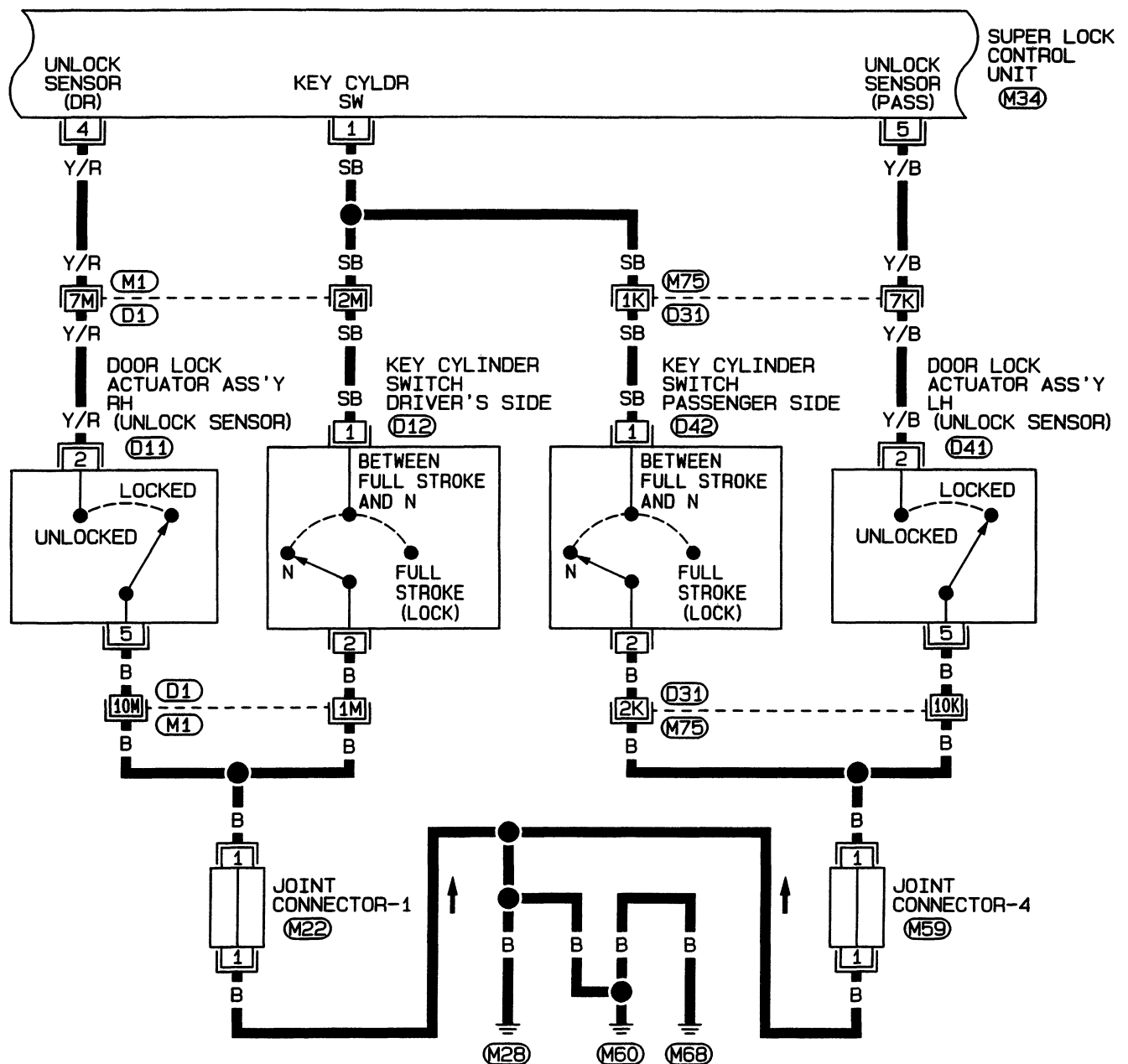


M8, E101
 M15, E106

EL

Wiring Diagram — S/LOCK — (Cont'd)

EL-S/LOCK-02










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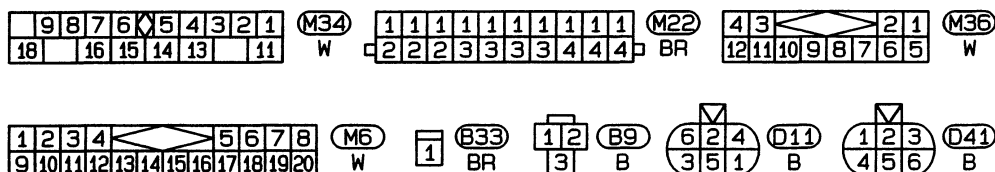
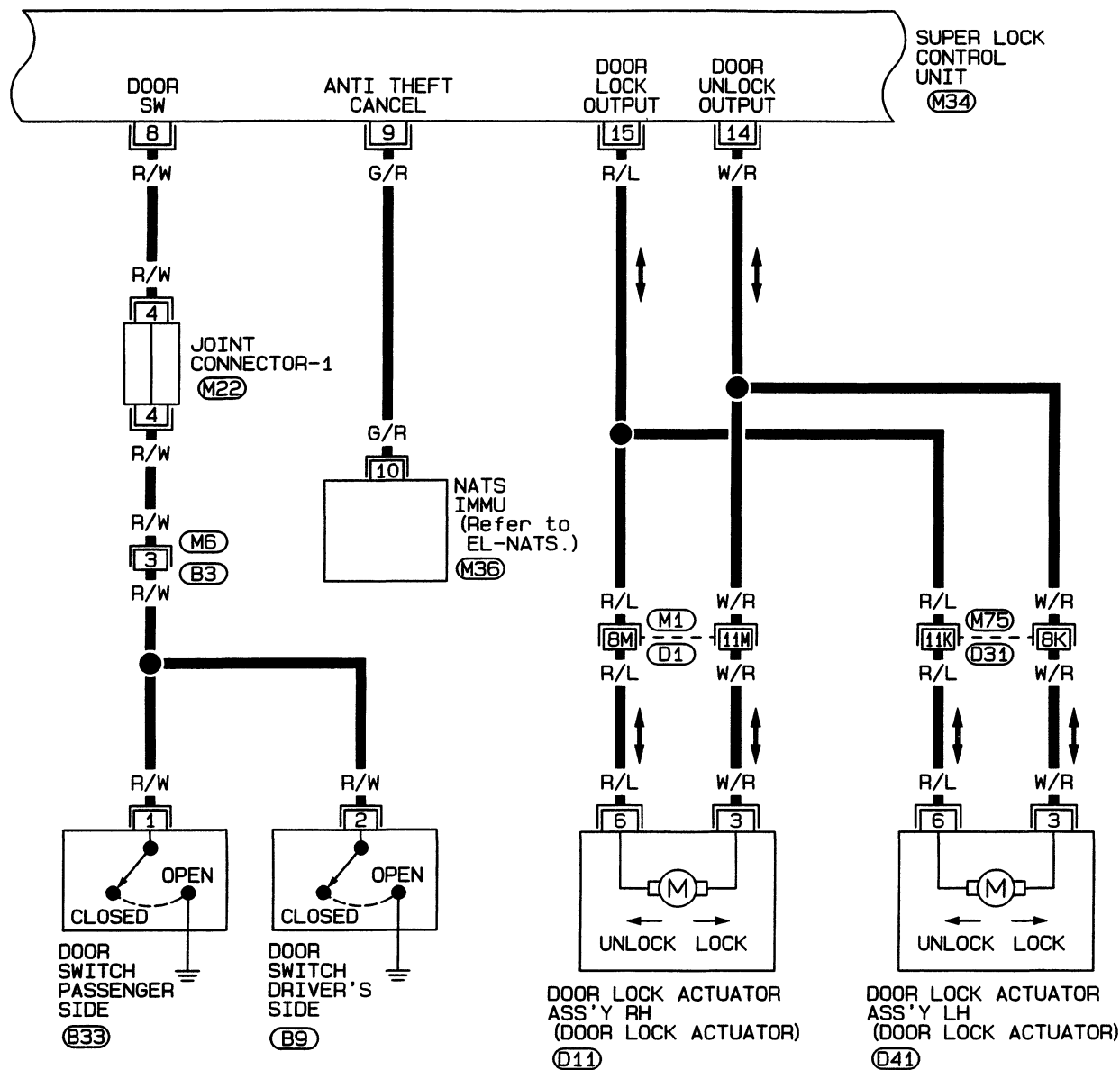
(M1) . (D1)

(M75) (D31)

CAUTION : Don't attempt to repair, splice or modify the flexible flat circuit (FFC) . If the FFC is damaged, replace with a new one.

POWER DOOR LOCK — Super Lock — **Wiring Diagram — S/LOCK — (Cont'd)**

EL-S/LOCK-03



Refer to last page (Foldout page).

(M1), (D1)
(M75), (O31)

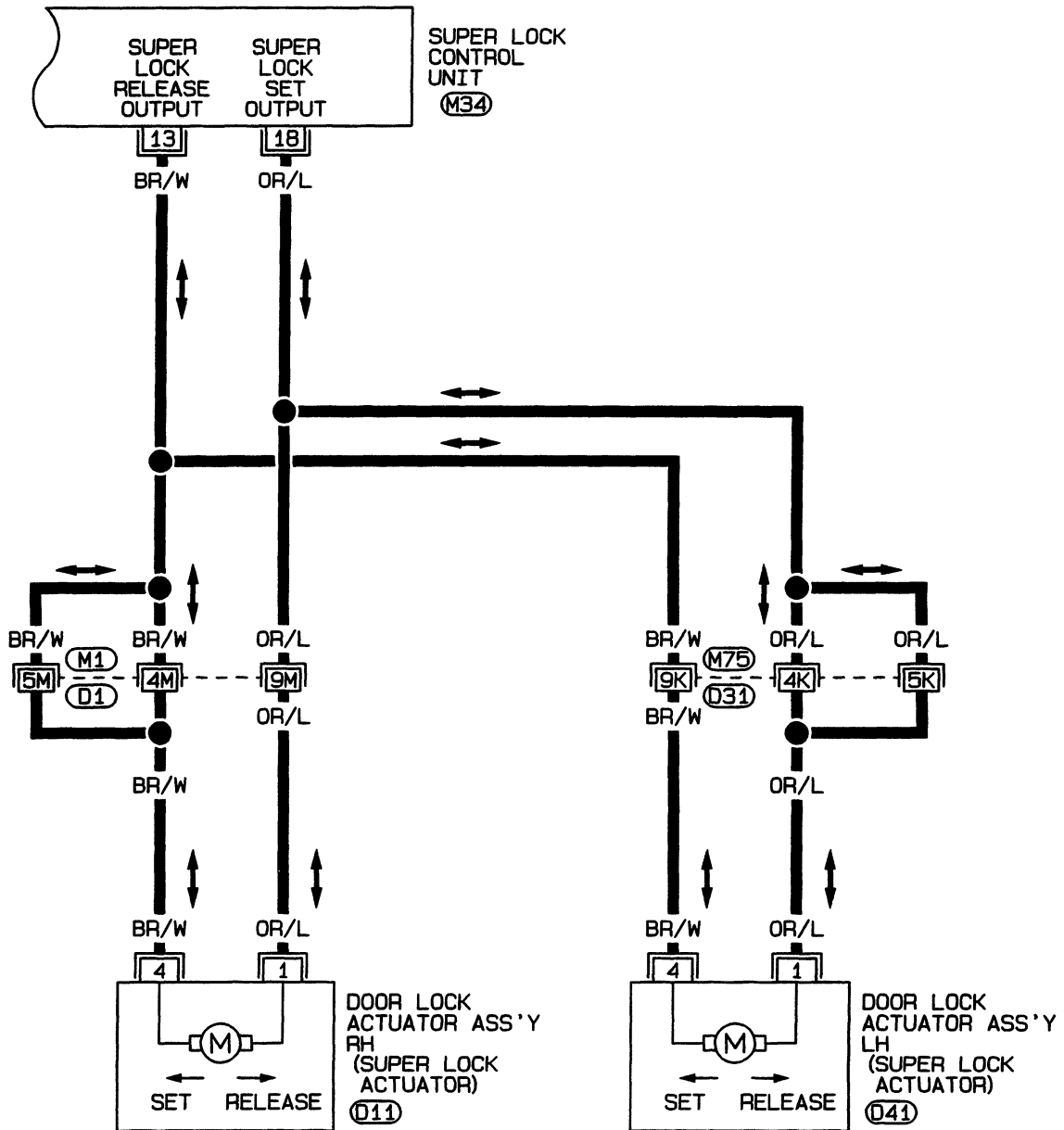
EL

CAUTION : Don't attempt to repair, splice or modify the flexible flat circuit (FFC) . If the FFC is damaged, replace with a new one.

POWER DOOR LOCK — Super Lock —

Wiring Diagram — S/LOCK — (Cont'd)

EL-S/LOCK-04



	9	8	7	6	5	4	3	2	1	(M34)
18		16	15	14	13				11	W

6	2	4	(D11)
3	5	1	B

1	2	3	(D41)
4	5	6	B

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(Foldout page).

(M1), (D1)

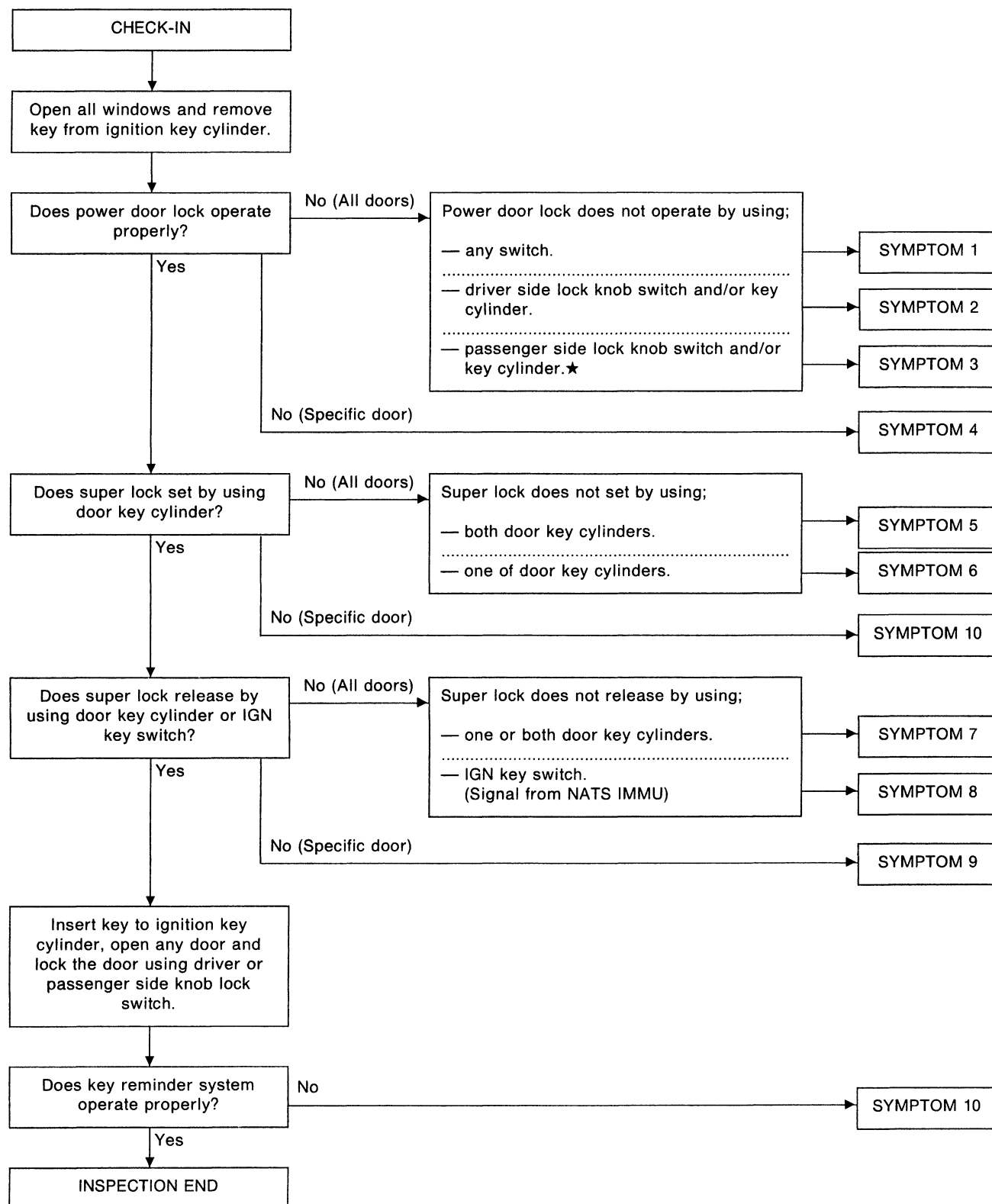
(M75), (D31)

CAUTION : Don't attempt to repair, splice or modify the flexible flat circuit (FFC). If the FFC is damaged, replace with a new one.

POWER DOOR LOCK — Super Lock —

Trouble Diagnoses

PRELIMINARY CHECK



EL

After performing preliminary check, fluid diagnostic procedure in symptom chart, EL-90.

★ When one or more doors are opened, with lock knob on passenger door setting to LOCK, will lock passenger door only. (Power door lock system will not operate.)

POWER DOOR LOCK — Super Lock —

Trouble Diagnoses (Cont'd)

Before starting trouble diagnoses below, perform preliminary check, EL-89.

Symptom numbers in the symptom chart correspond with those of Preliminary check.

SYMPTOM CHART

REFERENCE PAGE		EL-91	EL-92	EL-93	EL-94	EL-95	EL-96	EL-97	EL-98	EL-98
SYMPTOM		Power supply and ground circuit check	Procedure 1 (Door unlock sensor check)	Procedure 2 (Door key cylinder switch check)	Procedure 3 (Door lock actuator check)	Procedure 4 (Super lock actuator check)	Procedure 5 (Door switch check)	Procedure 6 (NATS release signal check)	Procedure 7 (Ignition key switch check)	Procedure 8 (Ignition switch "ON" circuit check)
1	Power door lock does not operate using any switch.	X	X		X					
2	Power door lock does not operate with any switch of driver side.		X							
3	Power door lock does not operate with any switch of passenger side.		X				X			
4	Specific door lock actuator does not operate.				X					
5	Super lock cannot be set by both door key cylinders.	X		X		X			X	X
6	Super lock cannot be set by one of door key cylinders.			X						
7	*Super lock cannot be released by one or both door key cylinders.		X							
8	*Super lock cannot be released by ignition key switch. (Signal from NATS IMMU)							X		
9	Specific super lock actuator does not operate.					X				
10	*Key reminder system does not operate.						X		X	

X: Applicable

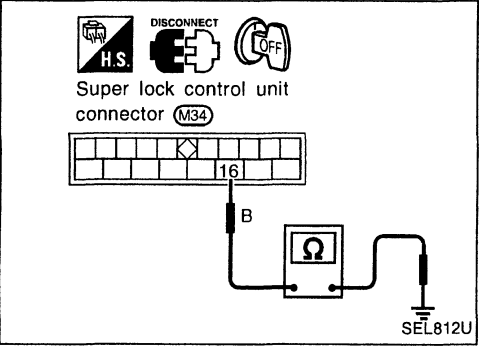
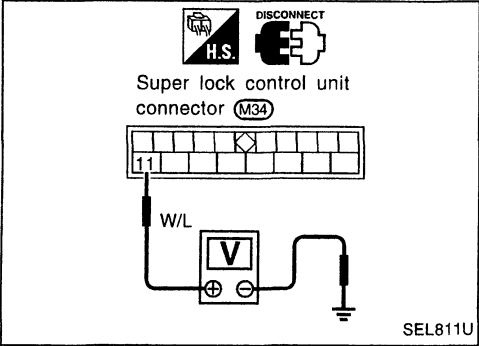
*: Make sure the power door lock system operates properly.

POWER DOOR LOCK — Super Lock —

Trouble Diagnoses (Cont'd)
POWER SUPPLY AND GROUND CIRCUIT CHECK

Main power supply circuit check

Terminals		Ignition switch position		
⊕	⊖	OFF	ACC	ON
⑪	Ground	Battery voltage	Battery voltage	Battery voltage



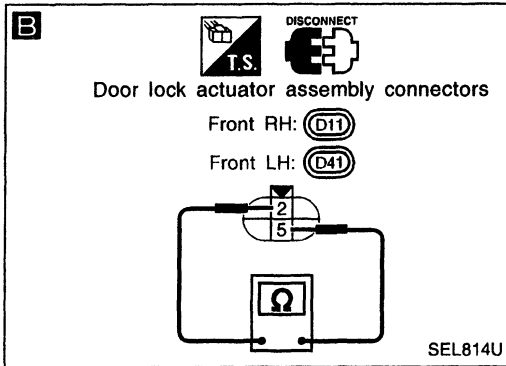
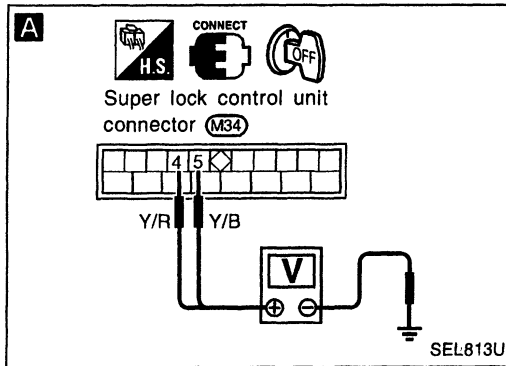
Ground circuit check

Terminals	Continuity
⑩ - Ground	Yes

POWER DOOR LOCK — Super Lock —

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 1 (Door unlock sensor check)



A

CHECK DOOR UNLOCK SENSOR INPUT SIGNAL.

Check voltage between control unit terminals ④ or ⑤ and ground.

	Terminals		Condi- tion	Voltage [V]
	⊕	⊖		
Driver side	④	Ground	Locked	Approx. 5
			Unlocked	0
Pas- senger side	⑤	Ground	Locked	Approx. 5
			Unlocked	0

OK

Go to the next procedure.

NG

B

CHECK DOOR UNLOCK SENSOR.

- 1) Disconnect door unlock sensor connector.
- 2) Check continuity between door unlock sensor terminals.

Terminals	Condition	Continuity
② - ⑤	Locked	No
	Unlocked	Yes

NG

Replace door lock actuator assembly.

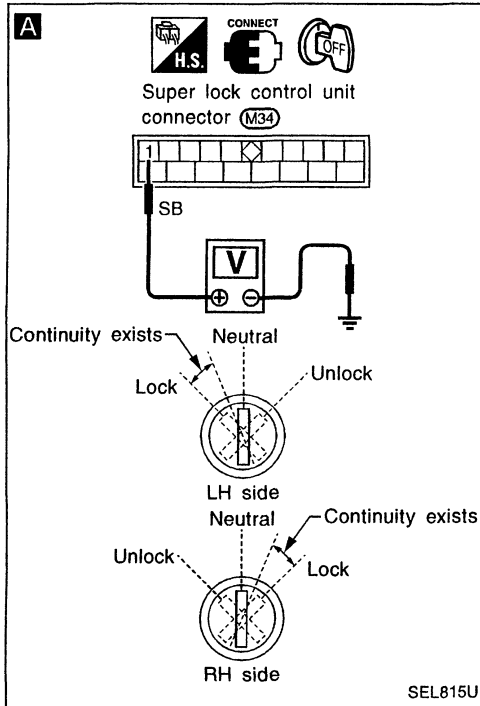
OK

Check the following.

- Door unlock sensor ground circuit
- Harness for open or short between control unit and door unlock sensor

POWER DOOR LOCK — Super Lock —

Trouble Diagnoses (Cont'd) DIAGNOSTIC PROCEDURE 2 (Door key cylinder switch check)



A

CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL (LOCK SIGNAL).
Check voltage between control unit terminal ① and ground.

Key cylinder switch operation	Voltage [V]
Between neutral and lock	0
Unlock/neutral	Approx. 5

OK

Go to the next procedure.

NG

B

CHECK DOOR KEY CYLINDER SWITCH.
1) Disconnect door key cylinder switch connector.
2) Check continuity between door key cylinder switch terminals.

Terminals	Key position	Continuity
① - ②	Neutral	No
	Between neutral and lock	Yes
	Unlock/neutral	No

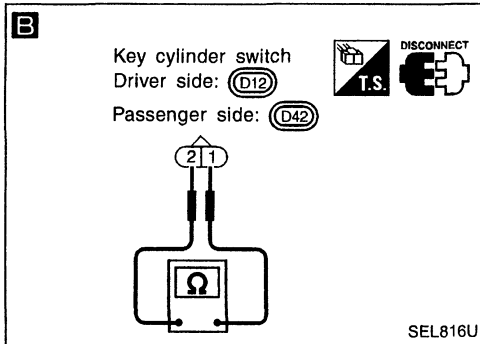
NG

Replace key cylinder switch.

OK

Check the following.

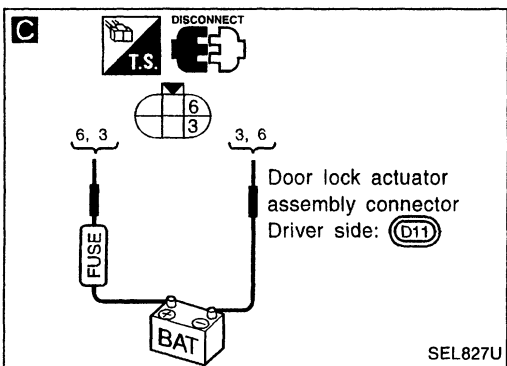
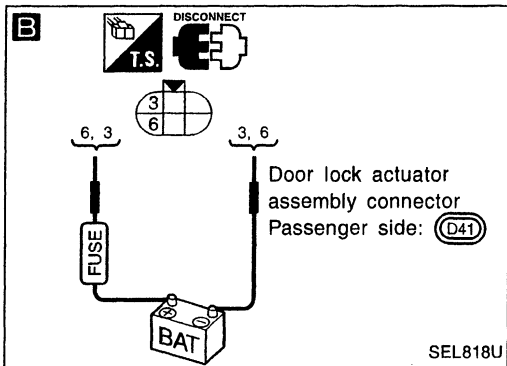
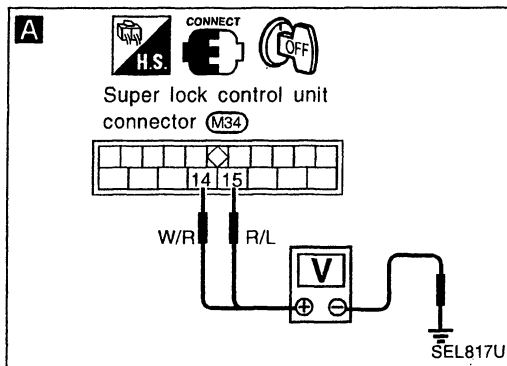
- Door key cylinder switch ground circuit
- Harness for open or short between control unit and door key cylinder



POWER DOOR LOCK — Super Lock —

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 3 (Door lock actuator check)



A

CHECK DOOR LOCK ACTUATOR CIRCUIT.
Check voltage for door lock actuator.

Knob lock switch condition	Terminals		Voltage (V)
	⊕	⊖	
Unlock → Lock	⑮	Ground	Approx. 12 (Approx. 5 seconds)
Lock → Unlock	⑭	Ground	

Before operating passenger side knob lock switch, close all doors.

NG → Go to next procedure.

OK

B C

CHECK DOOR LOCK ACTUATOR.

1. Disconnect door lock actuator connector.
2. Apply 12V direct current to door lock actuator and check operation.

Door lock actuator operation	Terminals	
	⊕	⊖
Unlocked → Locked	⑥	③
Locked → Unlocked	③	⑥

OK → Check harness between control unit and door lock actuator.

NG

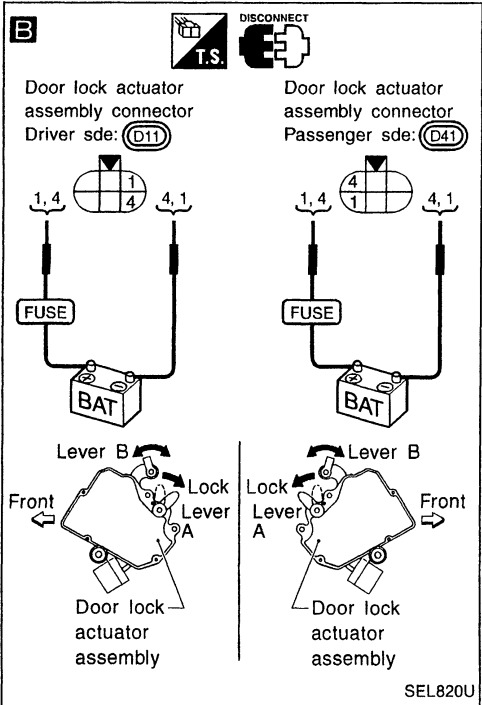
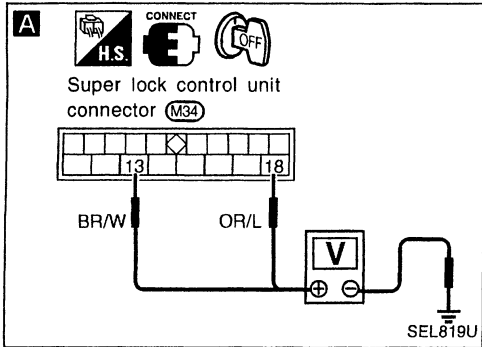
Replace door lock actuator assembly.

POWER DOOR LOCK — Super Lock —

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 4

[Super lock actuator (in door lock actuator assembly) check]



A

CHECK SUPER LOCK ACTUATOR CIRCUIT.

Check voltage for super lock actuator.

Door key cylinder switch condition	Terminals		Voltage (V)
	⊕	⊖	
Lock (Set)	⑩	Ground	Approx. 12
Unlock (Released)	⑬	Ground	

Put the system in set condition before checking release signal.

NG → Go to next procedure.

OK →

B

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 operation	Terminals		Connection from lever B to lever A
	⊕	⊖	
Released → Set	①	④	Disconnect
Set → Released	④	①	Connect

OK → Check harness between control unit and door lock actuator assembly.

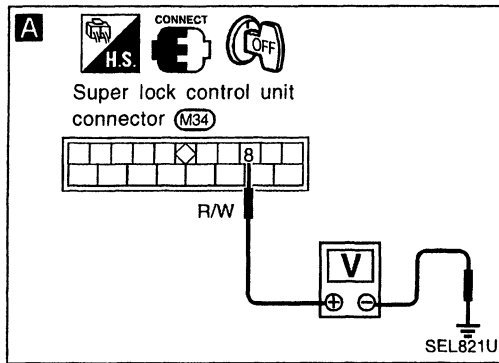
NG →

Replace door lock actuator assembly.

POWER DOOR LOCK — Super Lock —

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 5 (Door switch check)



A

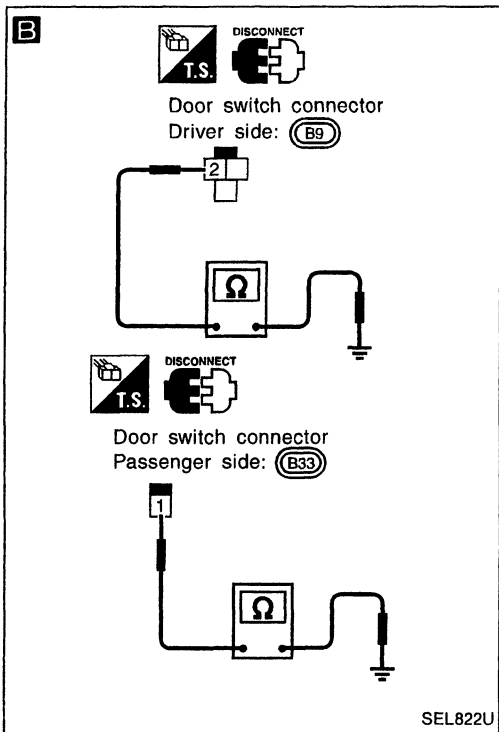
CHECK DOOR SWITCH INPUT SIGNAL.
Check voltage between control unit terminal ⑧ and ground.

OK

Go to the next procedure.

Condition	Voltage [V]
Any door is opened.	0
All doors are closed.	Approx. 12

NG



B

CHECK DOOR SWITCH.
1) Disconnect door switch connector.
2) Check continuity between door switch terminals.

NG

Replace door switch.

	Terminals	Condition	Continuity
Driver side door switch	② - ground	Closed	No
		Open	Yes
Other door switches	① - ground	Closed	No
		Open	Yes

OK

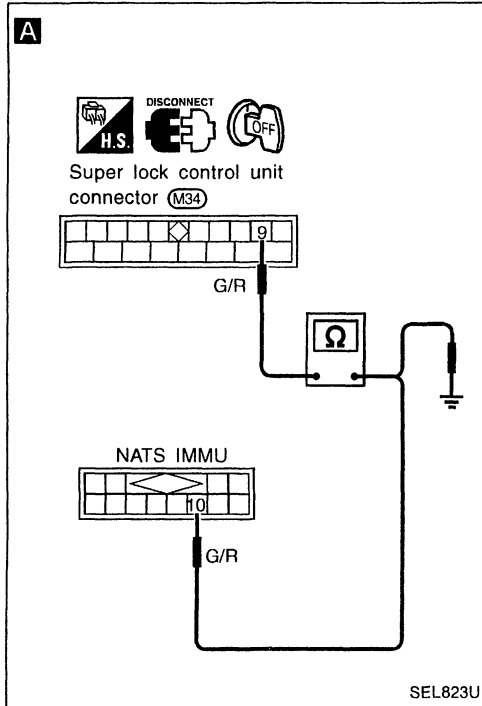
Check the following.

- Door switch ground condition
- Harness for open or short between control unit and door switch

POWER DOOR LOCK — Super Lock —

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 6 (NATS release signal check)



Does engine start properly? No → Check NATS system.

Yes

A

CHECK NATS SIGNAL CIRCUIT.

- 1) Disconnect control unit connector and NATS IMMU connector.
- 2) Check continuity between control unit terminal ⑨ and NATS IMMU terminal ⑩.

Continuity should exist.

- 3) Check continuity between control unit terminal ⑨ and ground.

Continuity should not exist.

NG

Repair harness.

OK

B

CHECK NATS RELEASE SIGNAL.

- 1) Connect control unit connector and NATS IMMU connector.
- 2) Check voltage between control unit terminal ⑨ and ground.

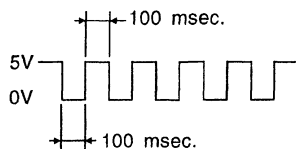
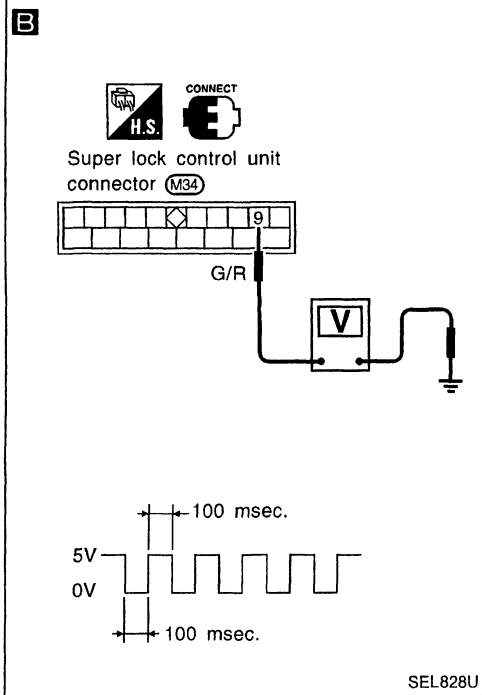
NG

Check NATS system.

Ignition switch condition	Voltage [V]
OFF	5
More than 10 seconds after ignition switch turned ON	
For 10 seconds after ignition switch turned ON	Pulse

OK

Replace super lock control unit.

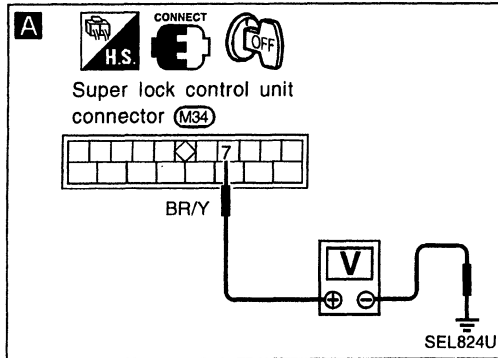


EL

POWER DOOR LOCK — Super Lock —

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 7 (Ignition key switch check)



A

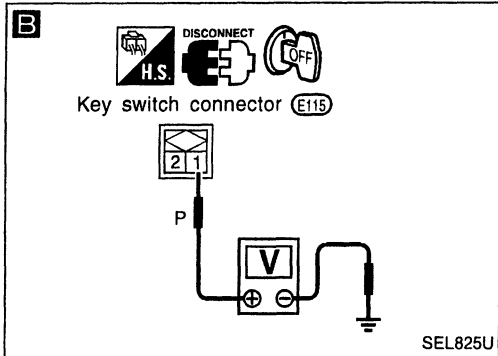
CHECK IGNITION KEY SWITCH INPUT SIGNAL.
Check voltage between control unit terminal ⑦ and ground.

Condition of key switch	Voltage [V]
Key is inserted.	Approx. 12
Key is withdrawn.	0

OK

Go to next procedure.

NG



B

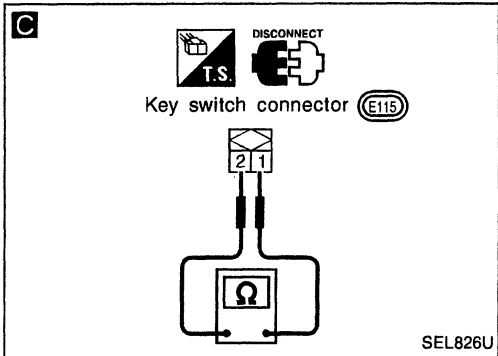
CHECK KEY SWITCH POWER SUPPLY.
Check voltage between key switch harness terminal ① and ground.
Battery voltage should exist.

NG

Check the following.

- 7.5A fuse [No. 24], located in fuse block (J/B)]
- Harness for open or short between key switch and fuse

OK



C

CHECK WARNING BUZZER.
1) Disconnect key switch connector.
2) Check continuity between key switch terminals.

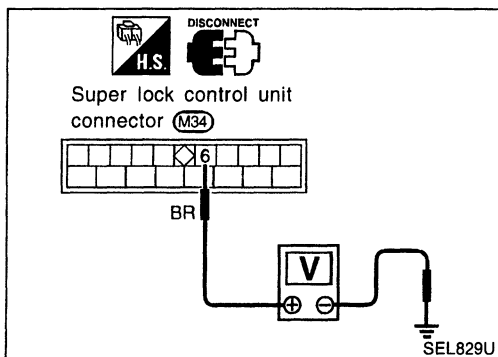
Terminals	Condition	Continuity
① - ②	Key is inserted.	Yes
	Key is withdrawn.	No

NG

Replace key switch.

OK

Check harness for open or short between control unit and key switch.



DIAGNOSTIC PROCEDURE 8 (Ignition switch "ON" circuit check)

Terminals		Ignition switch position		
⊕	⊖	OFF	ACC	ON
⑥	Ground	0V	0V	Battery voltage

If NG, check the following.

- 10A fuse [No. 25], located in the fuse block (J/B)]
- Harness for open or short

NATS (Nissan Anti-Theft System)

System Description

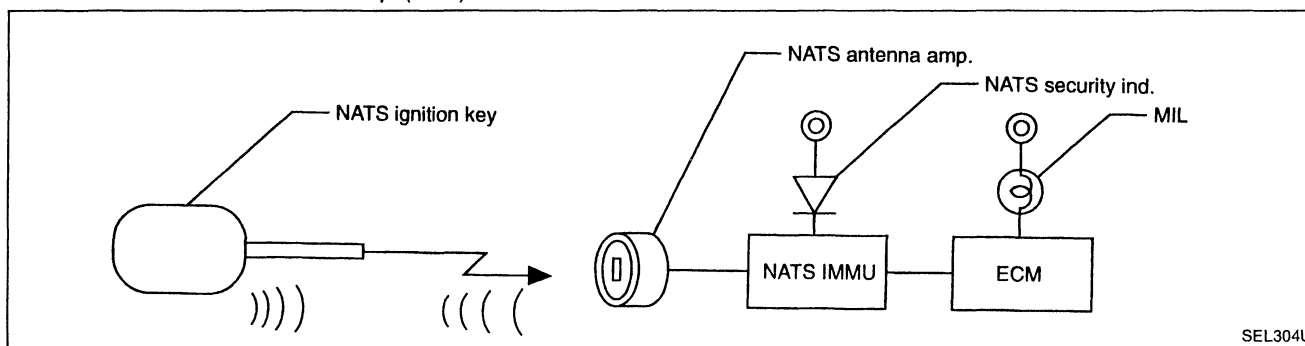
NATS V2.0 for Nissan model N15 has the following immobiliser functions:

- 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 V2.0 will immobilize the engine if someone tries to start it without the registered key of NATS V2.0.
- Both of the originally supplied ignition key IDs have been NATS registered.
If requested by the vehicle owner, a maximum of four key IDs can be registered into the NATS components.
- The NATS security indicator (NATS security ind.) 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 malfunction indicator lamp (MIL) blinks.
- NATS trouble diagnoses, system initialisation and additional registration of other NATS ignition key IDs must be carried out using CONSULT hardware and CONSULT NATS software.
When NATS initialisation has been completed, the ID of the inserted ignition key is automatically NATS registered. Then, if necessary, additional registration of other NATS ignition key IDs can be carried out.
Regarding the procedures of NATS initialisation and NATS ignition key ID registration, refer to CONSULT operation manual, NATS V2.0.
- When diagnosing NATS V2.0 using CONSULT, adapter and adapter harness for NATS V1.0 are not necessary, although a direct DDL cable connection between CONSULT and DDL connector is required.
- When servicing a malfunction of the NATS V2.0 (indicated by flashing of Malfunction 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

The immobiliser function of the NATS for Nissan model N15 consists of the following:

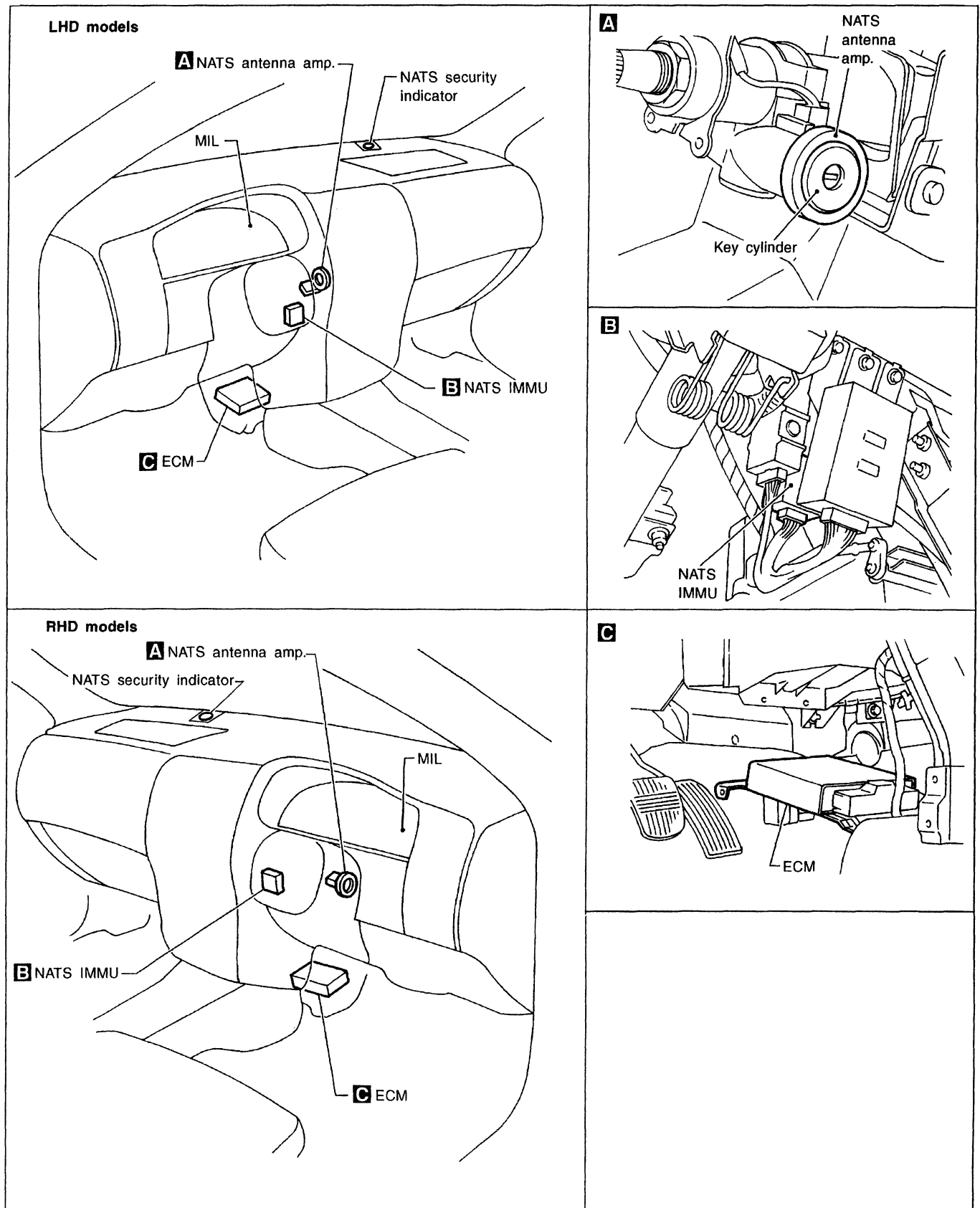
- NATS ignition key
- NATS antenna amp. located in the ignition key cylinder
- NATS immobiliser control unit (NATS IMMU)
- Engine control module (ECM)
- NATS security indicator located under the center cluster (NATS security ind.)
- Malfunction indicator lamp (MIL)



EL

NATS (Nissan Anti-Theft System)

Component Parts Location

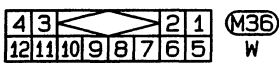
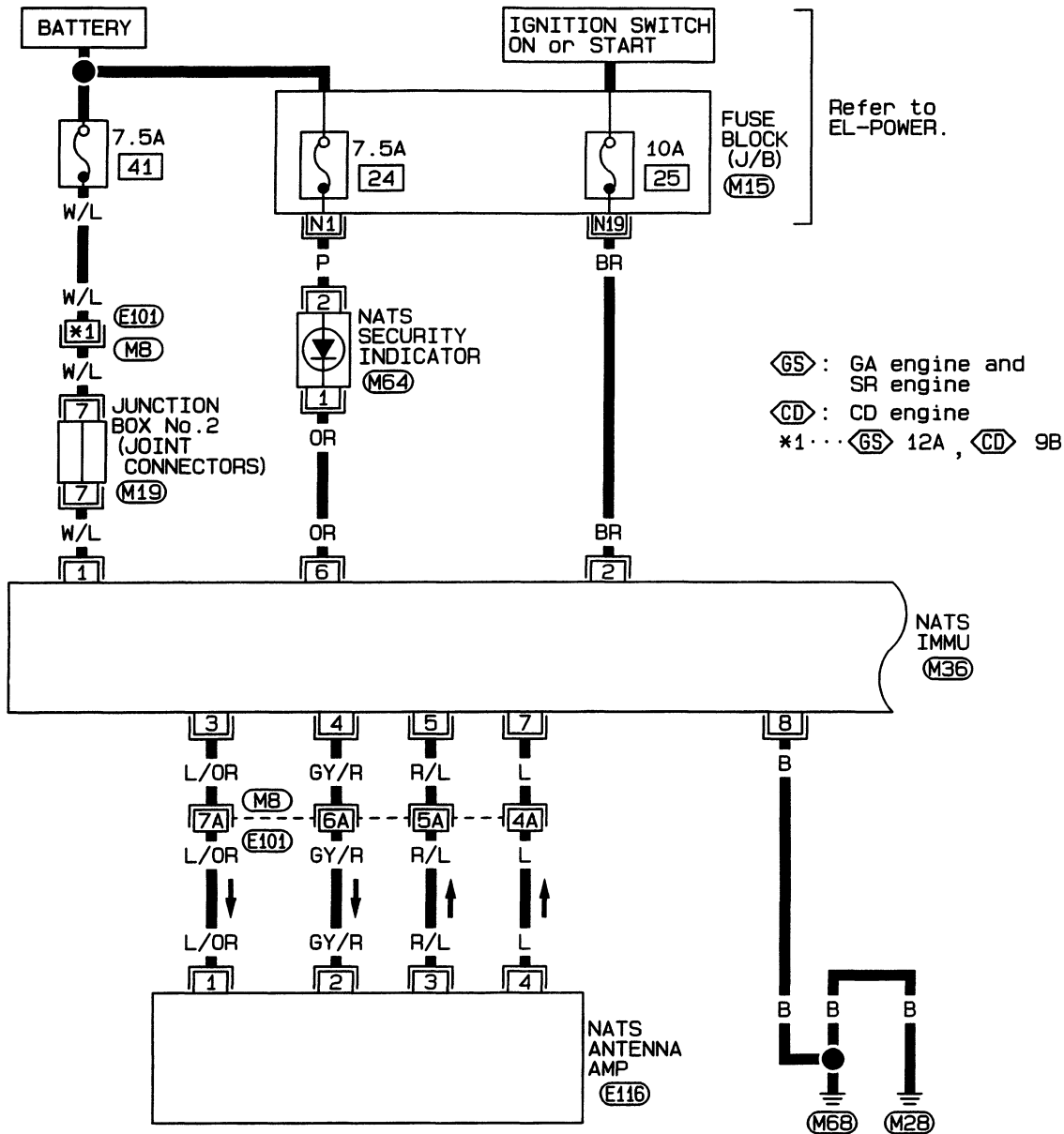


NATS (Nissan Anti-Theft System)

Wiring Diagram — NATS —

LHD MODELS

EL-NATS-01



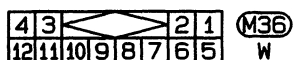
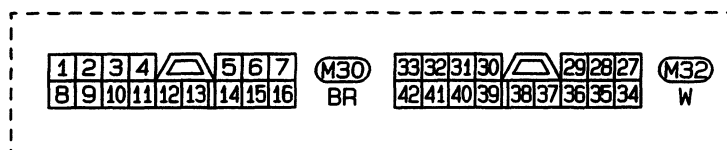
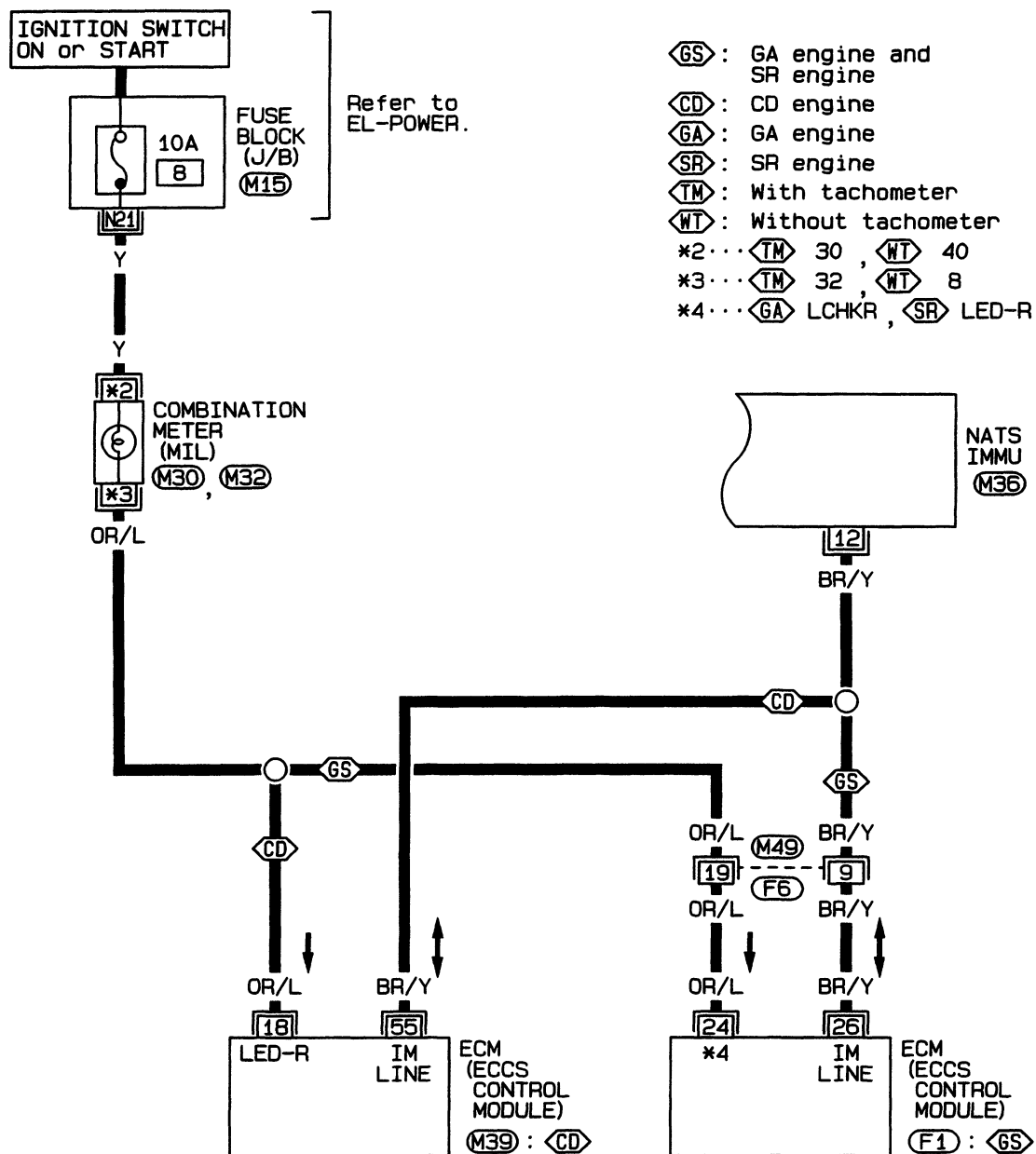
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M8, E101
 M15
 M19

EL

Wiring Diagram — NATS — (Cont'd)

EL-NATS-02



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M15

(M39)

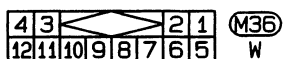
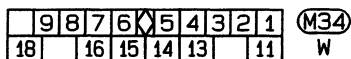
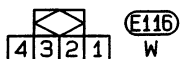
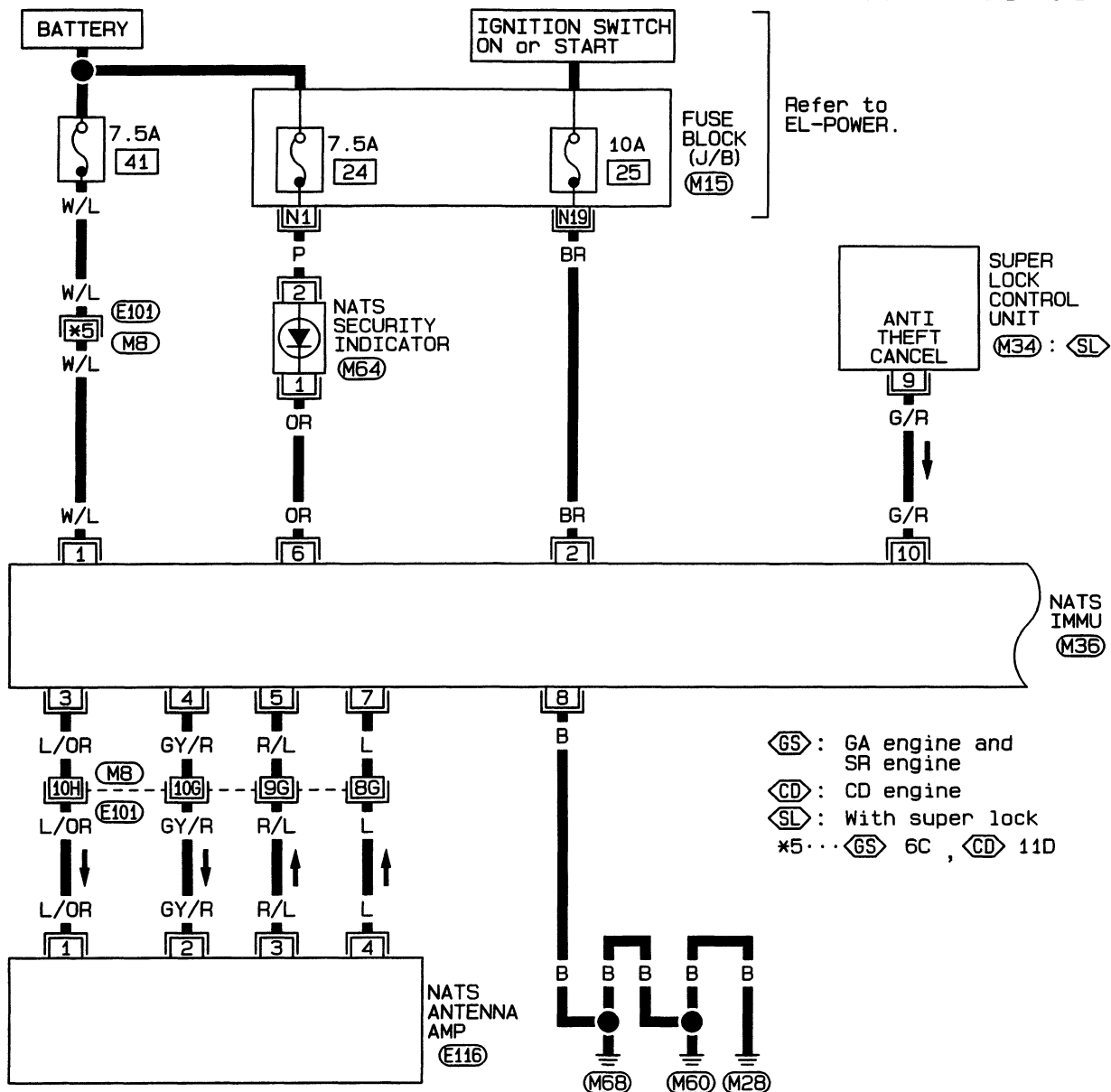
F1

NATS (Nissan Anti-Theft System)

Wiring Diagram — NATS — (Cont'd)

RHD MODELS

EL-NATS-03



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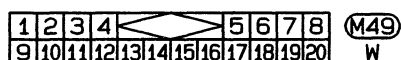
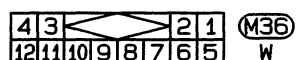
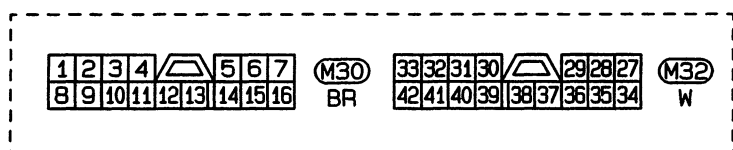
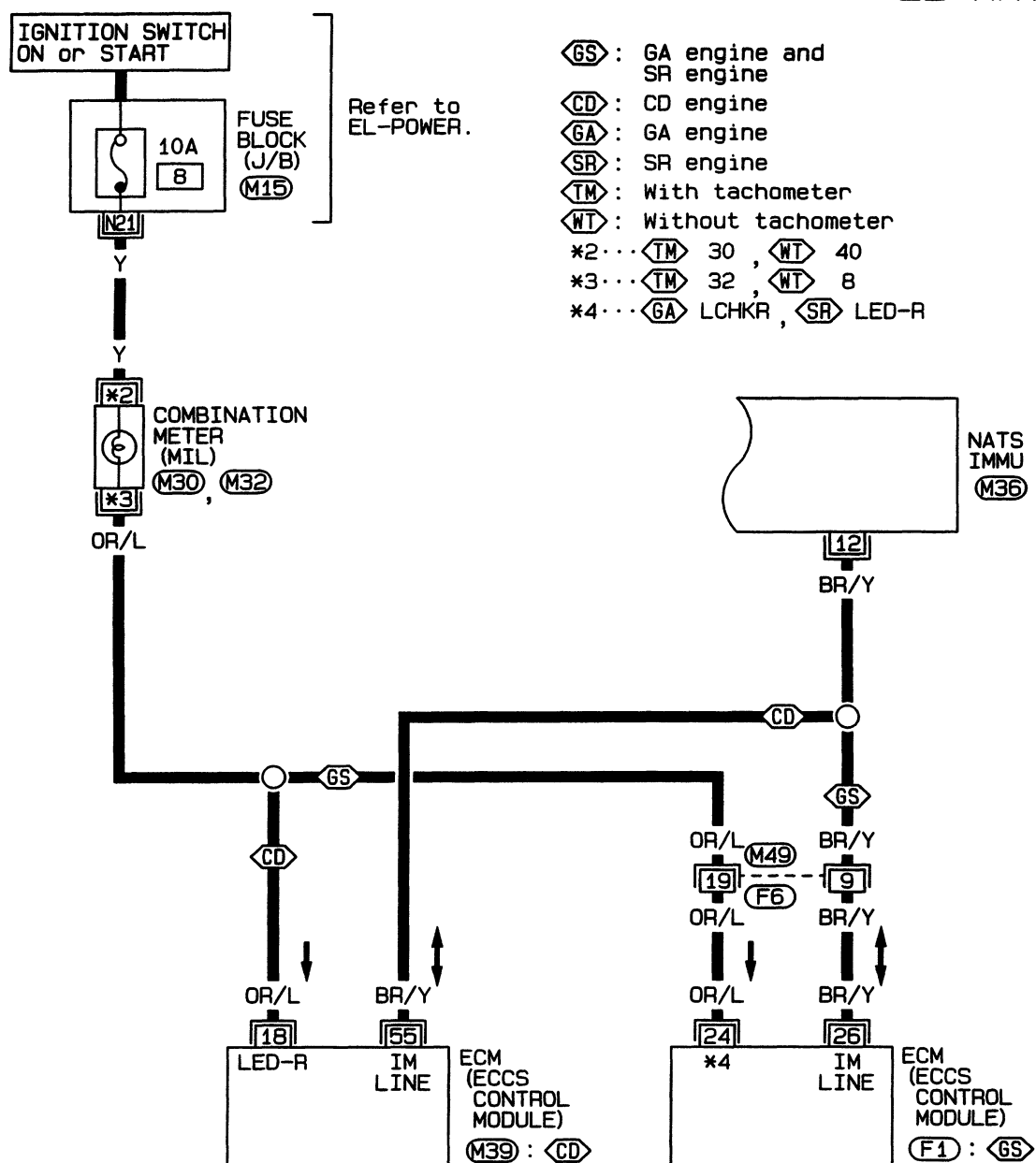
(M8), (E101)

(M15)

EL

Wiring Diagram — NATS — (Cont'd)

EL-NATS-04



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(M15)

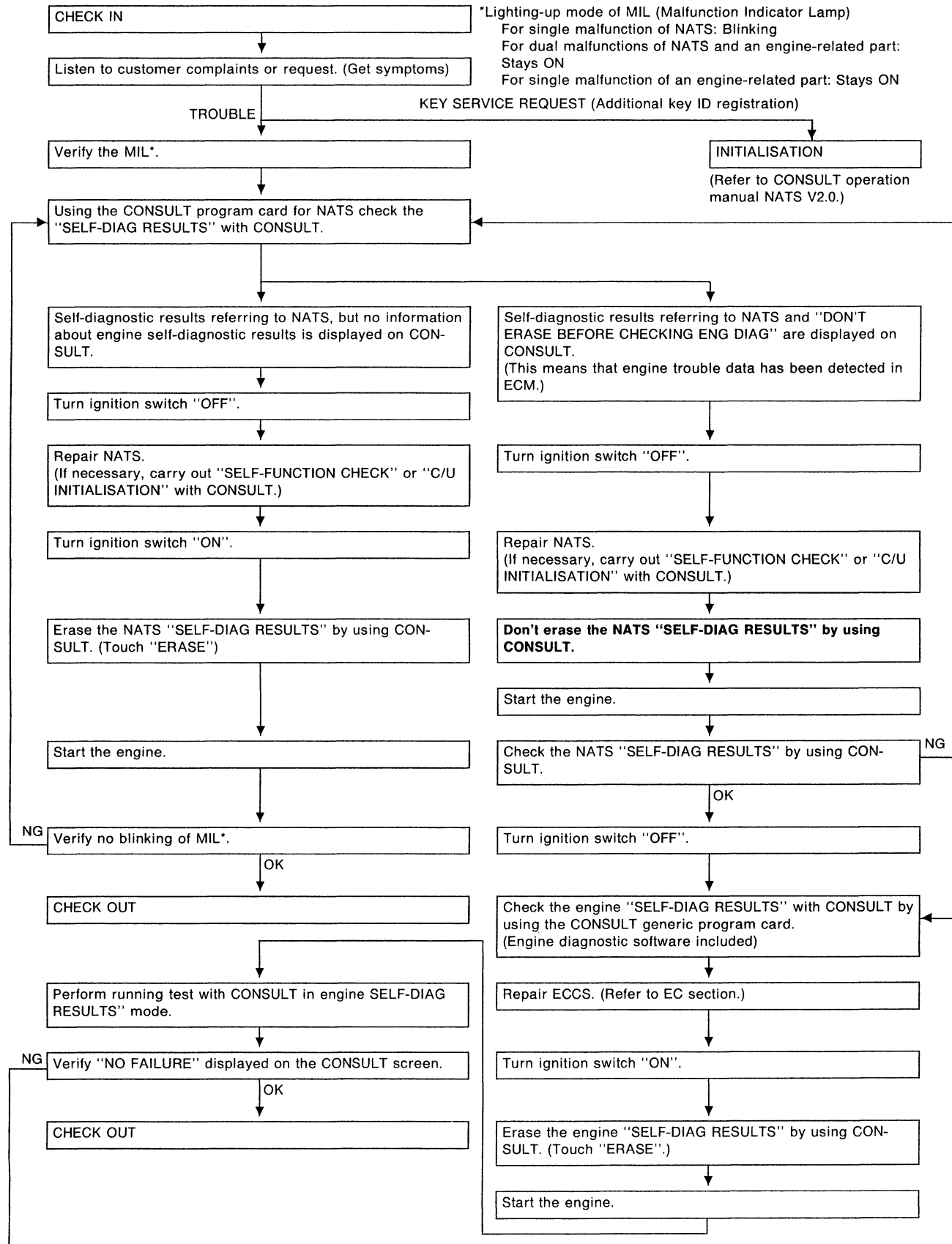
(M39)

F1

NATS (Nissan Anti-Theft System)

Trouble Diagnoses

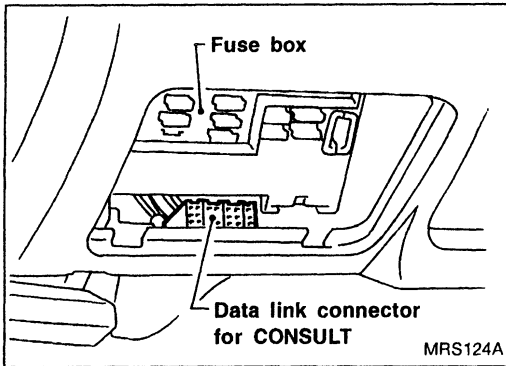
WORK FLOW



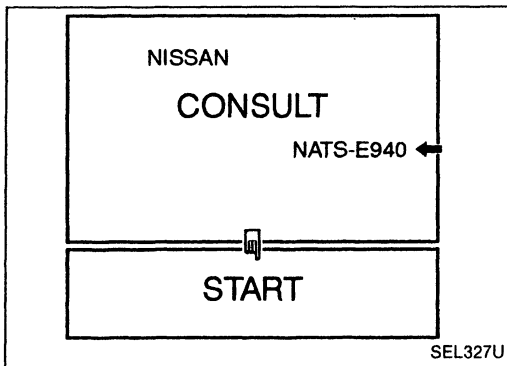
NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)

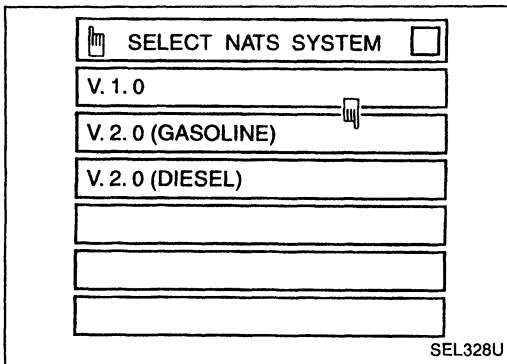
CONSULT INSPECTION PROCEDURE



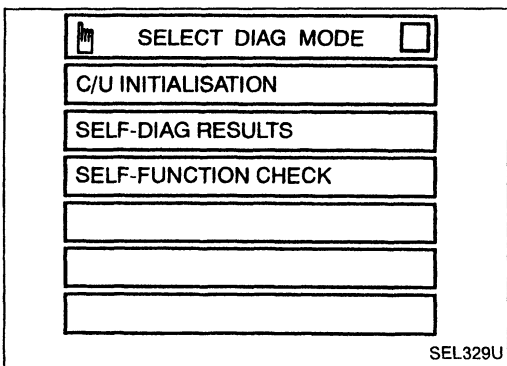
1. Turn off ignition switch.
2. Connect "CONSULT" to Data link connector for CONSULT. (Data link connector for CONSULT is located behind the fuse box cover.)



3. Insert NATS program card into CONSULT.
←: Program card
NATS-E940
4. Turn on ignition switch.
5. Touch "START".



6. Touch "V.2.0 (GASOLINE)".
Touch "V2.0 (GASOLINE)" even if diesel engine is equipped.



7. Perform each diagnostic test mode according to each service procedure.
For further information, see the CONSULT Operation Manual, NATS V2.0.

NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)

CONSULT DIAGNOSTIC TEST MODE FUNCTION

CONSULT DIAGNOSTIC TEST MODE	Description
C/U INITIALIZATION	When replacing any of the following three components, C/U initialization is necessary. [NATS ignition key/IMMU/ECM]
SELF-FUNCTION CHECK	ECM checks its own NATS communication interface by itself.
SELF-DIAGNOSTIC RESULTS	Detected items (screen terms) are as shown in the chart below.

HOW TO READ SELF-DIAGNOSTIC RESULTS

Result display screen (When no malfunction is detected)

■ SELF-DIAG RESULTS ■
☐

FAILURE DETECTED TIME

*NO SELF DIAGNOSTIC FAILURE INDICATED.

FURTHER TESTING MAY BE REQUIRED. **

ERASE

PRINT

Result display screen (When malfunction is detected)

■ SELF-DIAG RESULTS ■
☐

FAILURE DETECTED TIME

IMMU 0

DIFFERENCE OF KEY 1

ERASE

PRINT

← Page mark

← Time data*

This indicates how many times the vehicle was driven after the last detection of a malfunction. If the malfunction is being detected currently, the time data will be "0".

← When touched, the self-diagnostic results are printed out.

Detected items →

When touched, the self-diagnostic results stored in the engine control module (ECM) are erased.

SEL332UC

* If trip number is more than 1, MIL does not blink.

SELF-DIAGNOSTIC RESULTS ITEM CHART

Detected items (Screen terms)	Description	Reference page
IMMU	ECM received the signal from IMMU that IMMU is malfunctioning.	EL-110
ECM	ECM is malfunctioning.	EL-110
CHAIN OF ECM-IMMU	Communication impossible between ECM and IMMU.	EL-111
DIFFERENCE OF KEY	IMMU can receive the key ID signal but the result of ID verification between key ID and IMMU is NG.	EL-113
CHAIN OF IMMU-KEY	IMMU cannot receive the key ID signal.	EL-114
ID DISCORD, IMM-ECM	The result of ID verification between IMMU and ECM is NG. System initialisation is required.	EL-116
MINGLE NOISE	Noise (interference) mingled into NATS communication lines during communicating.	EL-117
DON'T ERASE BEFORE CHECK-ING ENG DIAG	Engine trouble data and NATS trouble data have been detected in ECM.	EL-105
LOCK MODE	When an unregistered ignition key is used, or if the starting operation is carried out two or more times consecutively with the ignition key, IMMU or ECM malfunctioning, NATS will shift the mode to one which prevents the engine from being started.	EL-119

EL

NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)

SYMPTOM MATRIX CHART 1

(Self-diagnosis related item)

SYMPTOM	Displayed "SELF-DIAG RESULTS" on CONSULT screen.	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON NEXT PAGE
- MIL blinking - Engine will start.	IMMU	PROCEDURE 1 (EL-110)	IMMU	A
	ECM	PROCEDURE 2 (EL-110)	ECM	B
- MIL blinking - Engine hard to start	CHAIN OF ECM-IMMU	PROCEDURE 3 (EL-111)	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
			Open circuit in power source line of ANT/AMP circuit	E3
			ECM	B
			IMMU	A
	DIFFERENCE OF KEY	PROCEDURE 4 (EL-113)	Unregistered key	D
			IMMU	A
	CHAIN OF IMMU-KEY	PROCEDURE 5 (EL-114)	Communication line between ANT/AMP and IMMU: Open circuit or short circuit of battery voltage line or short circuit of ground line	E1
				E2
			Open circuit in power source line of ANT/AMP circuit	E3
			Open circuit in ground line of ANT/AMP circuit	E4
			Malfunction of key ID chip	E5
			IMMU	A
			Antenna amp.	E6

NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)

SYMPTOM	Displayed "SELF-DIAG RESULTS" on CONSULT screen.	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)	REFERENCE PART NO. OF ILLUSTRATION ON NEXT PAGE
- MIL blinking - Engine hard to start	ID DISCORD, IMM-ECM	PROCEDURE 6 (EL-116)	System initialisation has not yet been completed.	F
	MINGLE NOISE	PROCEDURE 7 (EL-117)	Noise interference in communication line	F
	LOCK MODE	PROCEDURE 9 (EL-119)	LOCK MODE	D
MIL staying ON	DON'T ERASE BEFORE CHECKING ENG DIAG	WORK FLOW (EL-105)	Engine trouble data and NATS trouble data have been detected in ECM	

*Lighting-up mode of MIL (Malfunction Indicator Lamp)

For single malfunction of NATS: Blinking

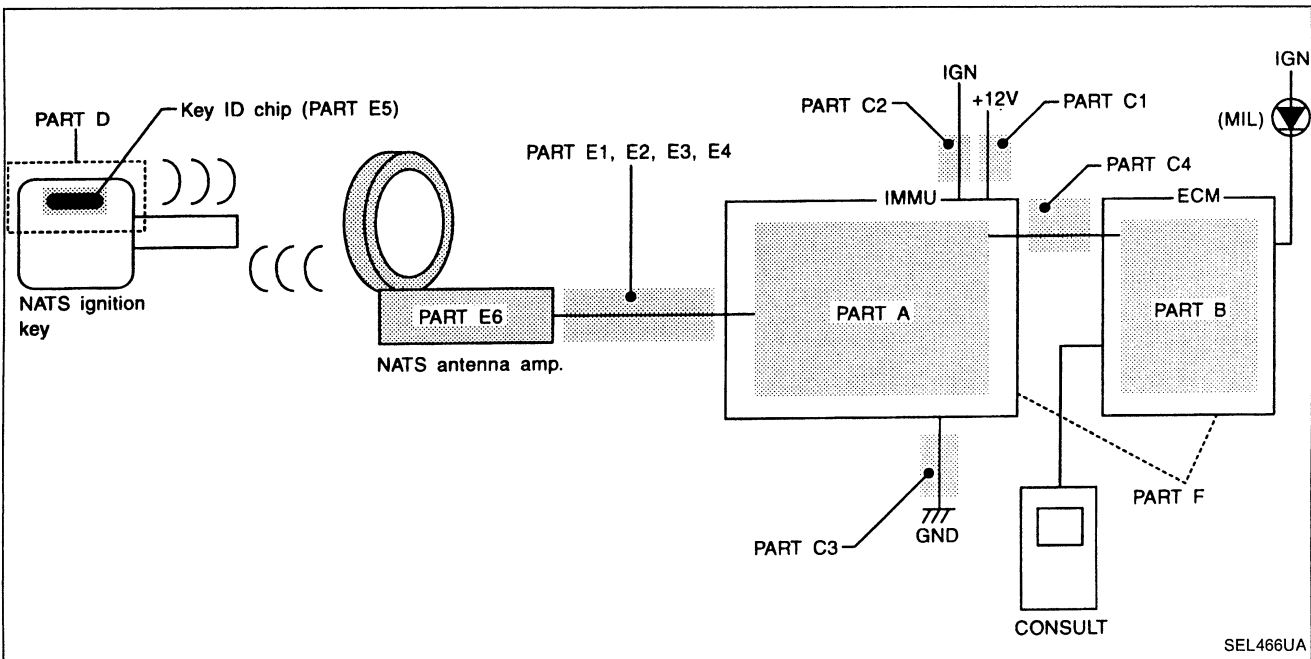
For dual malfunctions of NATS and an engine-related part: Stays ON

For single malfunction of an engine-related part: Stays ON

SYMPTOM MATRIX CHART 2 (Non self-diagnosis related item)

SYMPTOM	DIAGNOSTIC PROCEDURE (Reference page)	SYSTEM (Malfunctioning part or mode)
NATS security ind. does not light up.	PROCEDURE 8 (EL-117)	NATS security ind.
		Open circuit between Fuse and NATS IMMU
		Continuation of initialisation mode
		NATS IMMU

DIAGNOSTIC SYSTEM DIAGRAM



EL

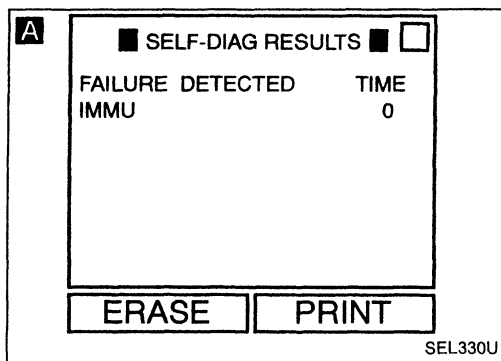
NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 1

Self-diagnostic results:

"IMMU" displayed on CONSULT screen



A



Confirm SELF-DIAGNOSTIC RESULTS "IMMU" displayed on CONSULT screen.
Ref. part No.* A.

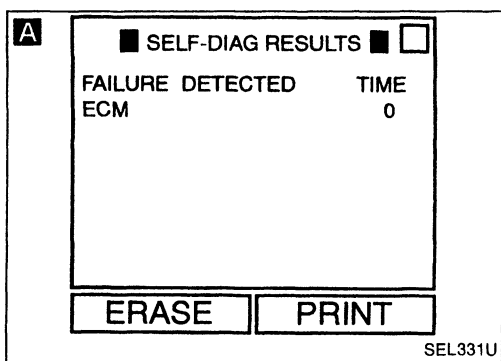
Yes

Replace IMMU.



Perform initialisation with CONSULT.
For the operation of initialisation, refer to "CONSULT operation manual NATS V2.0".

* Ref. part No.: reference part No. of Diagnostic System Diagram on EL-109.



DIAGNOSTIC PROCEDURE 2

Self-diagnostic results:

"ECM" displayed on CONSULT screen

A



Confirm SELF-DIAGNOSTIC RESULTS "ECM" displayed on CONSULT screen.
Ref. part No. B.

Replace ECM.



Perform initialisation with CONSULT.
For the operation of initialisation, refer to "CONSULT operation manual NATS V2.0".

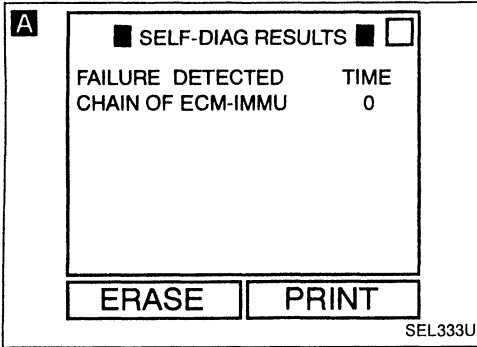
NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 3

Self-diagnostic results:

"CHAIN OF ECM-IMMU" displayed on CONSULT screen



A

Confirm SELF-DIAGNOSTIC RESULTS "CHAIN OF ECM-IMMU" displayed on CONSULT screen.

OK

B

Check voltage between terminal ① of IMMU and ground with CONSULT or tester.

Voltage: Battery voltage

NG

Check the following:

- 7.5A fuse (No. 41, located in the fusible link and fuse box)
- Harness for open or short between fuse and IMMU connector

Ref. part No. C1

OK

C

Check voltage between terminal ② of IMMU and ground with CONSULT or tester.

Voltage: Battery voltage

NG

Check the following:

- 7.5A fuse [No. 7], located in the fuse block (J/B)]
- Harness for open or short between fuse and IMMU connector

Ref. part No. C2

OK

D

Check harness continuity between IMMU terminal ⑧ or ⑨ and ground.

Continuity should exist.

NG

Repair harness.

Ref. part No. C3

OK

E

Check harness continuity between the following ECM terminals and IMMU terminals.

Engine	ECM connector No.	Terminal No.	IMMU terminal No.
SR	F1	26	12
CD	M39	55	12

Continuity should exist.

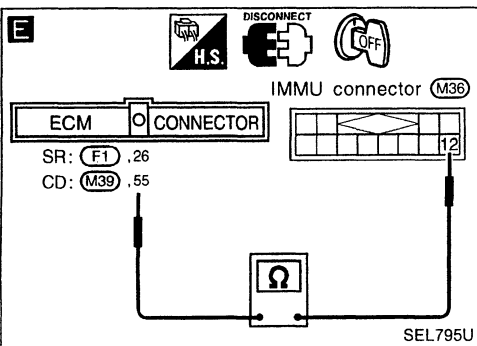
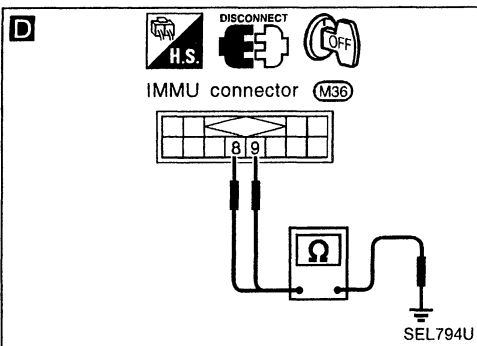
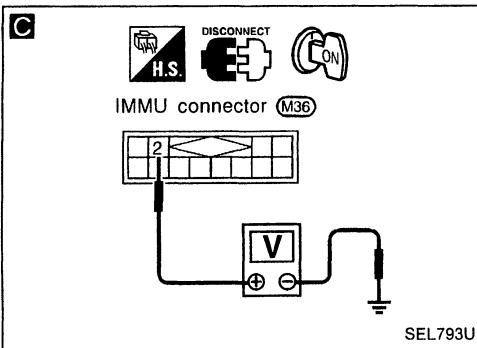
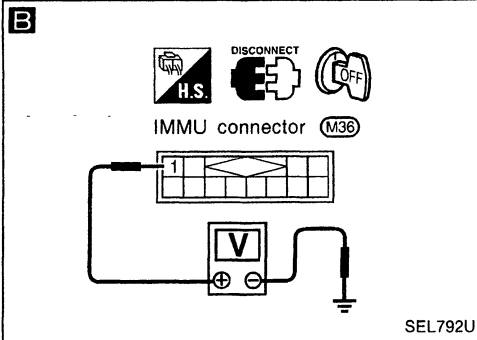
NG

Communication line is open circuit. Repair harness or connectors.

Ref. part No. C4

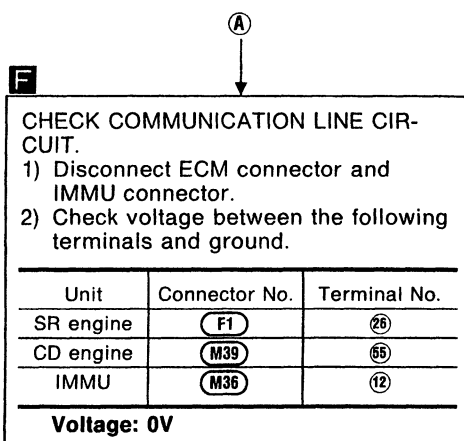
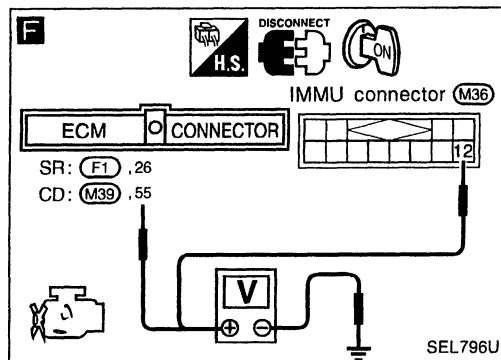
OK

A



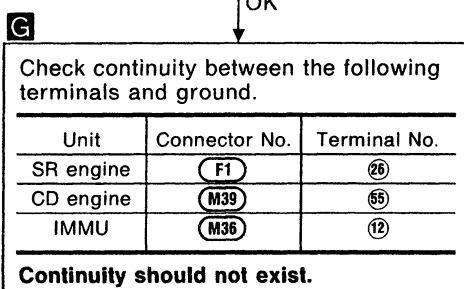
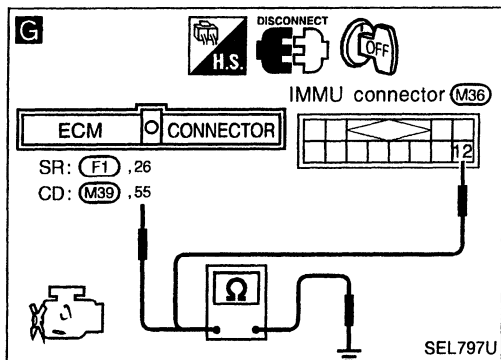
NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)



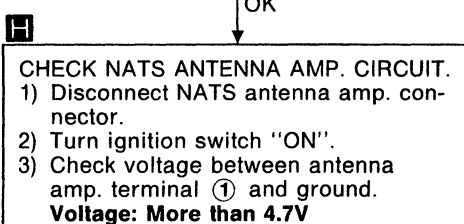
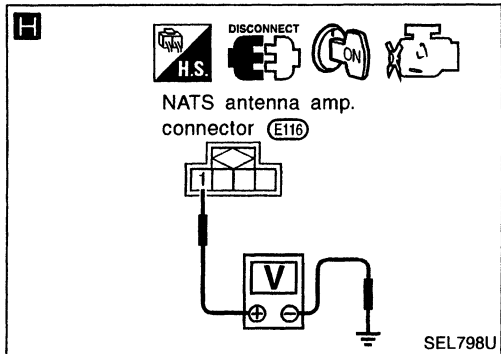
NG

Communication line is short-circuited with battery voltage line or ignition switch ON line. Repair harness or connectors.
Ref. part No. C4



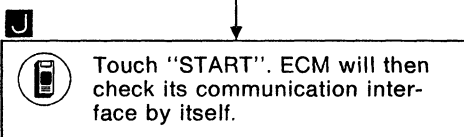
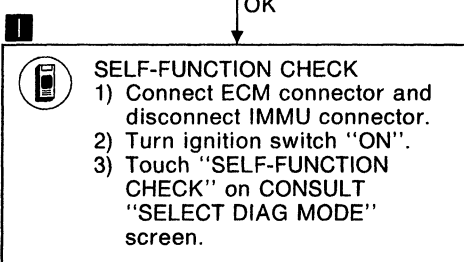
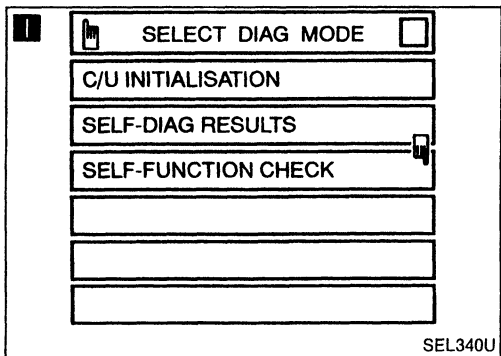
NG

Communication line is short-circuited with ground line. Repair harness or connectors.
Ref. part No. C4



NG

NATS antenna amp. +5V line is short-circuited with battery voltage line or ground line. Repair harness or connectors.
Ref. part No. E3



K (See next page.)

NG

ECM is malfunctioning. Replace ECM.
Ref. part No. B

OK

L (See next page.)

Perform initialisation with CONSULT. For the operation of initialisation, refer to "CONSULT operation manual NATS V2.0".

NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)

K

■ SELF-FUNCTION CHECK ■

ECM's IMMU
COMMUNICATION
INTERFACE

***** **NG** *****

PRINT

SEL342U

L

■ SELF-FUNCTION CHECK ■

ECM's IMMU
COMMUNICATION
INTERFACE

***** **OK** *****

PRINT

SEL343U

A

■ SELF-DIAG RESULTS ■

FAILURE DETECTED TIME
DIFFERENCE OF KEY 0

ERASE PRINT

SEL344U

B

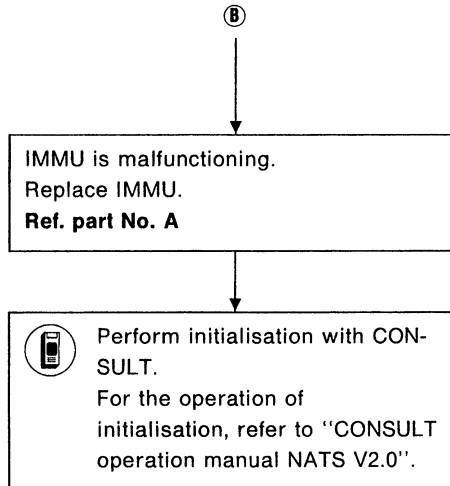
■ C/U INITIALISATION ■

INITIALISATION
STOPPED or FAILED

TURN IGN KEY SW "OFF"
AND "ON", AFTER CON-
FIRMING SELF-DIAG
RESULTS, PERFORM C/U
INITIALISATION AGAIN.

ERASE PRINT

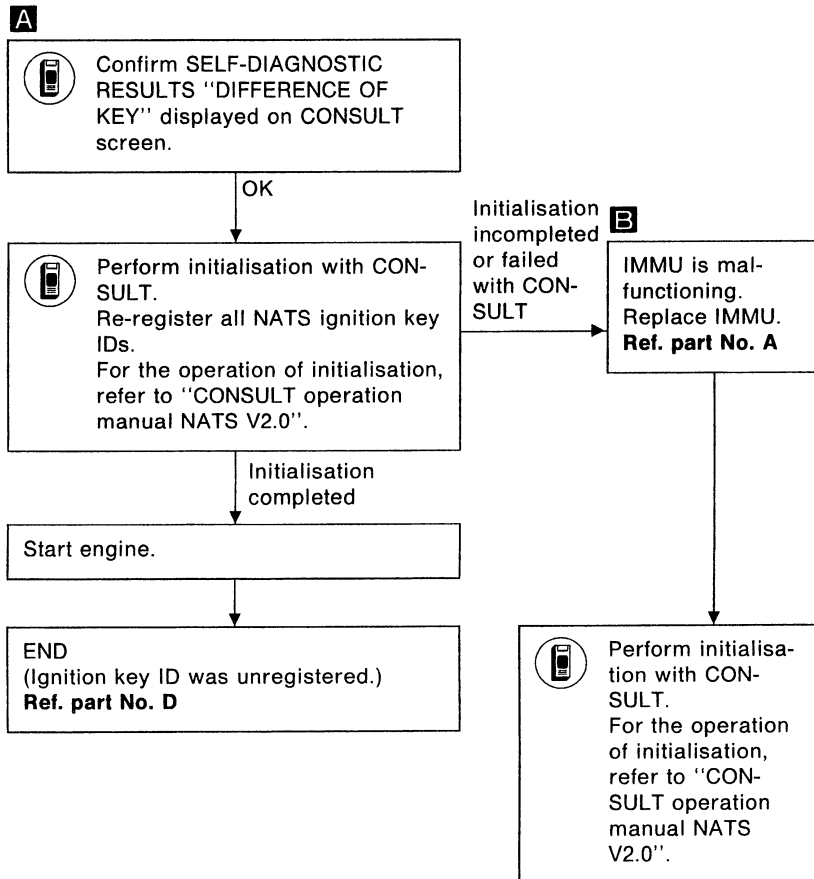
SEL372U



DIAGNOSTIC PROCEDURE 4

Self-diagnostic results:

"DIFFERENCE OF KEY" displayed on CONSULT screen



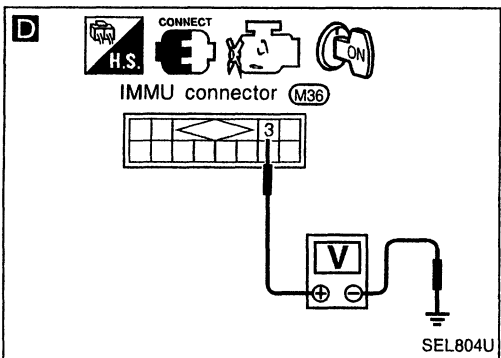
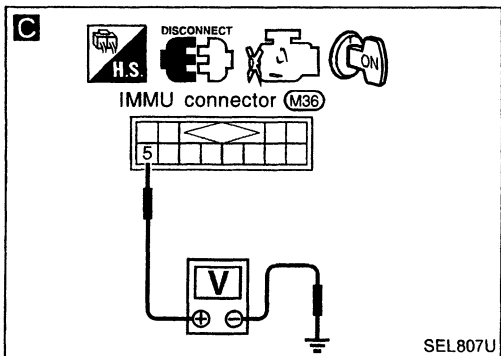
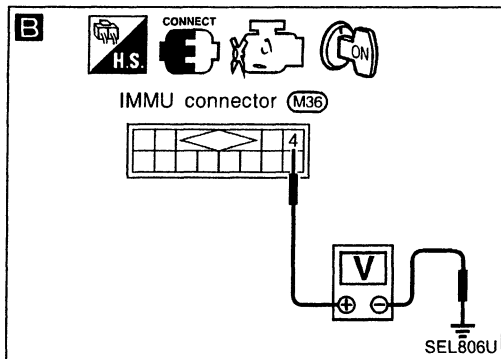
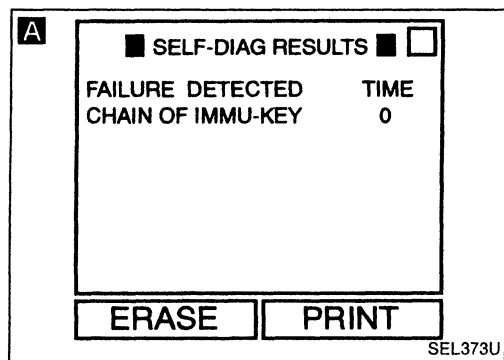
NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 5

Self-diagnostic results:

"CHAIN OF IMMU-KEY" displayed on CONSULT screen



A

Confirm SELF-DIAGNOSTIC RESULTS "CHAIN OF IMMU-KEY" displayed on CONSULT screen.

OK

CHECK NATS IGNITION KEY ID CHIP.
1) Connect NATS antenna amp. connector.
2) Pull the ignition key out.
3) Start engine with another registered NATS ignition key.

Start OK

Ignition key ID chip was malfunctioning.
Replace the ignition key.
Ref. part No. E5

Start NG

B

CHECK IMMU FUNCTION 1.
1) Connect IMM connector and NATS antenna amp. connector.
2) Check voltage between IMM terminal ④ and ground.

Voltage

Time (After turning ignition switch "ON".)	Voltage [V]
For approx. 0.5 sec.	Approx. 2.3 - 5
After 1 sec.	0

NG

Replace IMMU.
Ref. part No. A

OK

C

CHECK IMMU FUNCTION 2.
1) Disconnect NATS antenna amp. connector.
2) Turn ignition switch "ON".
3) Check voltage between IMM terminal ⑤ and ground.
Voltage:
6 sec. after turning ignition switch "ON"
Approx. 4.5 - 5V

NG

Replace IMMU.
Ref. part No. A

OK

D

CHECK IMMU OUTPUT VOLTAGE.
1) Turn the ignition switch "ON".
2) Check voltage between IMM terminal ③ and ground.
Voltage: More than 4.7V

NG

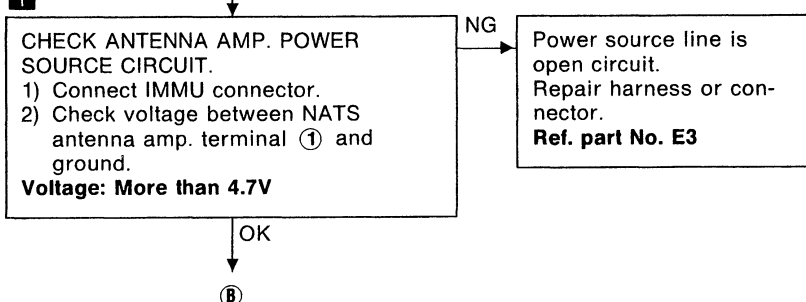
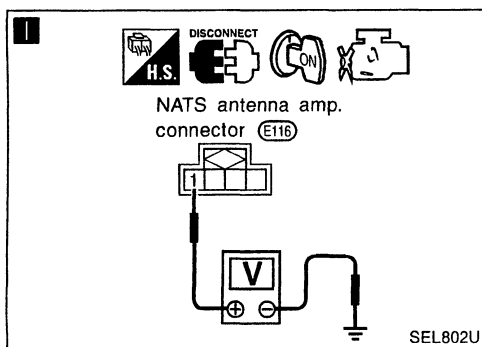
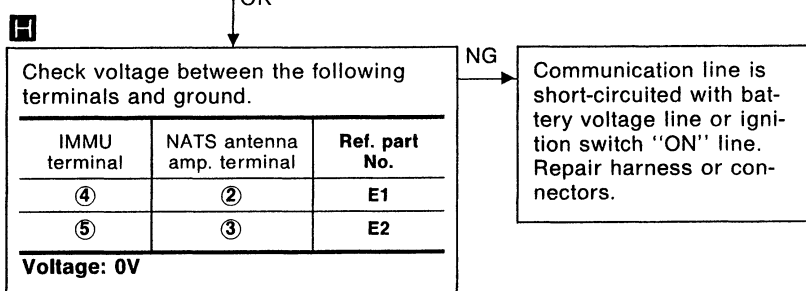
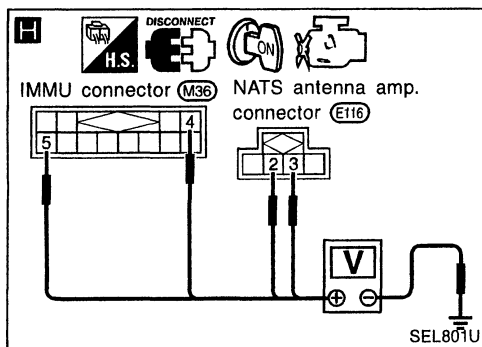
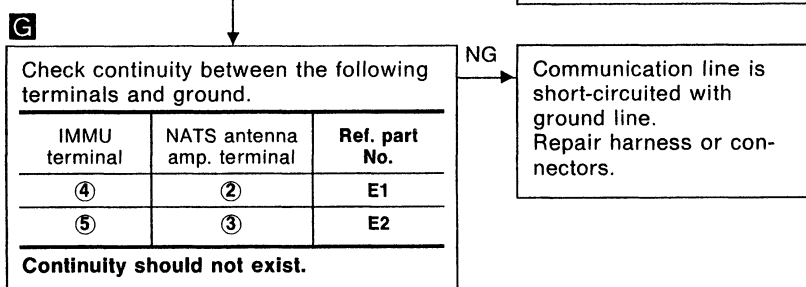
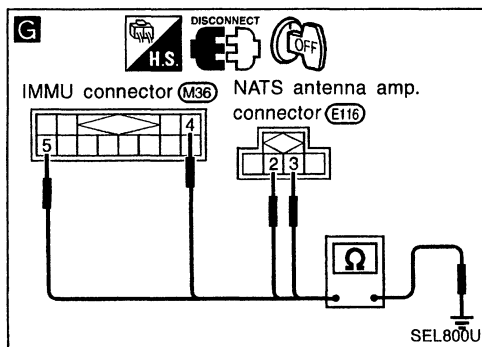
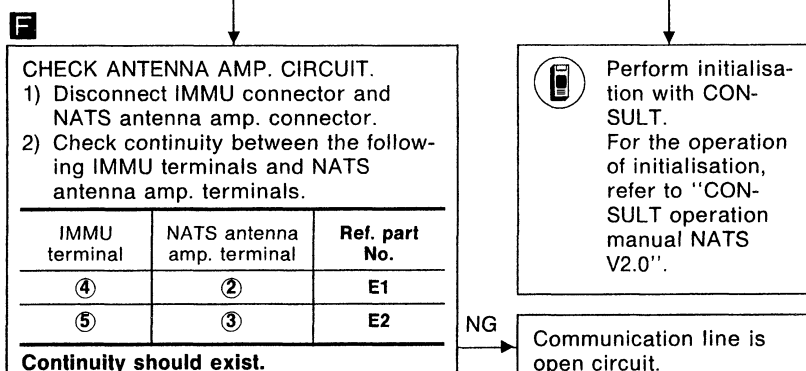
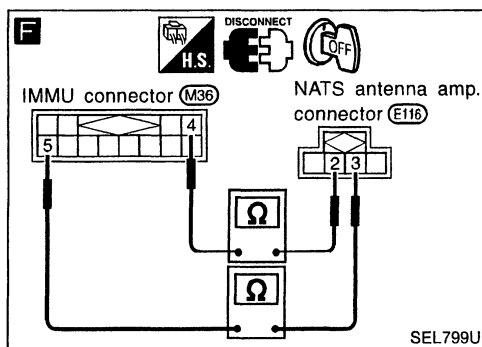
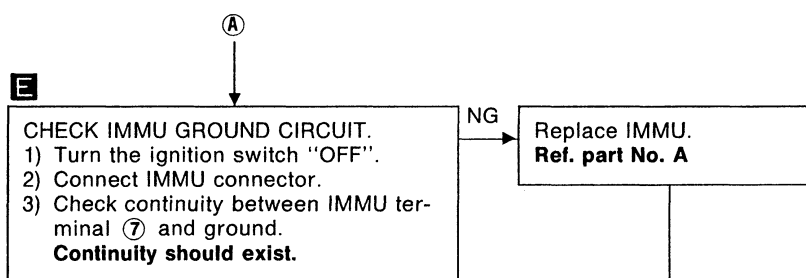
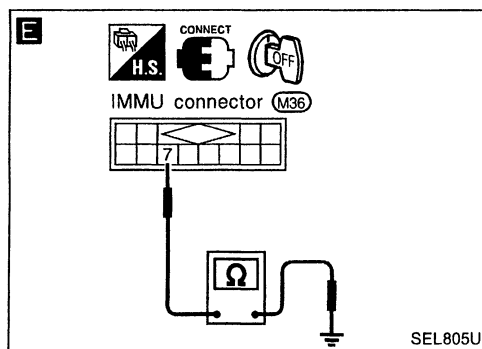
Replace IMMU.
Ref. part No. A

OK

A

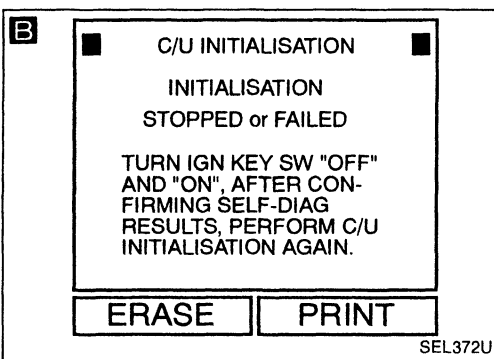
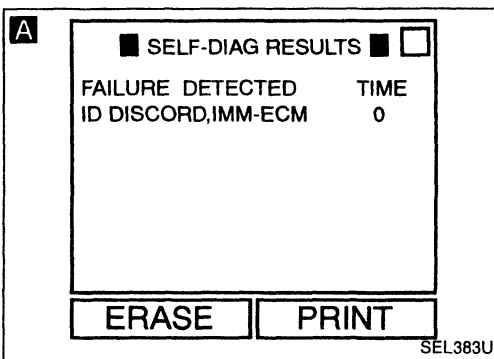
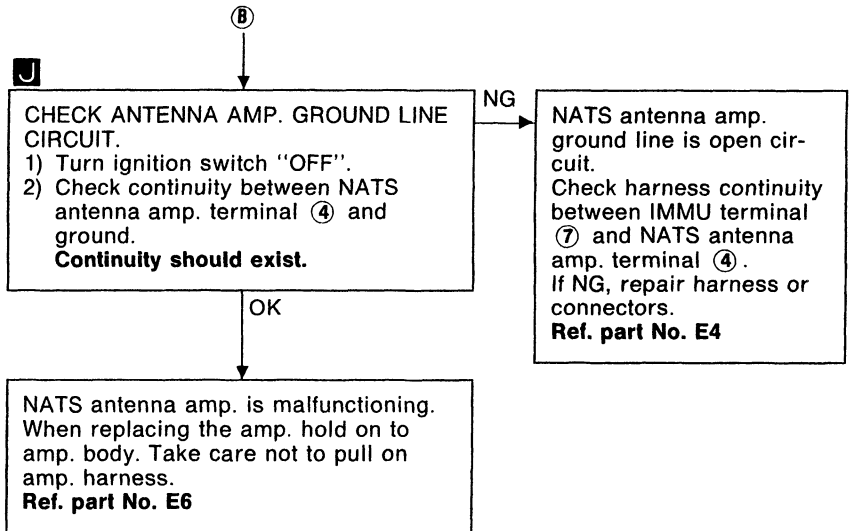
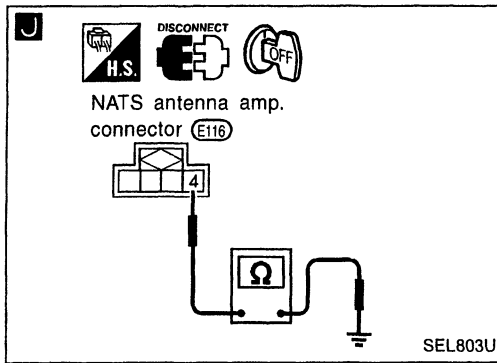
NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)



NATS (Nissan Anti-Theft System)

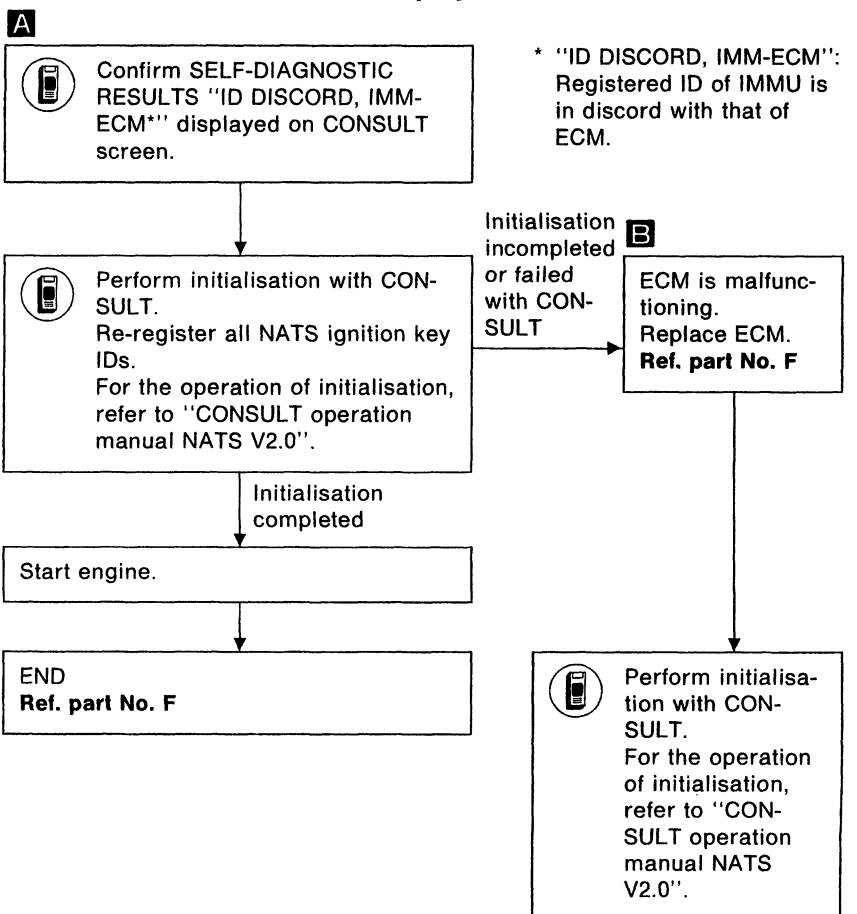
Trouble Diagnoses (Cont'd)



DIAGNOSTIC PROCEDURE 6

Self-diagnostic results:

"ID DISCORD, IMM-ECM" displayed on CONSULT screen



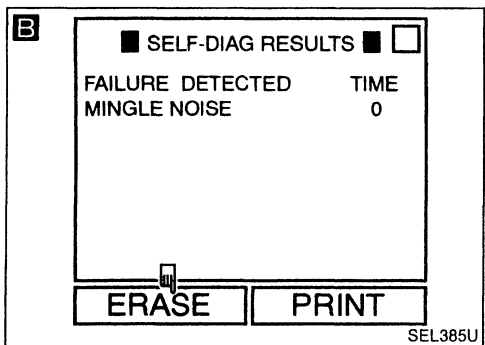
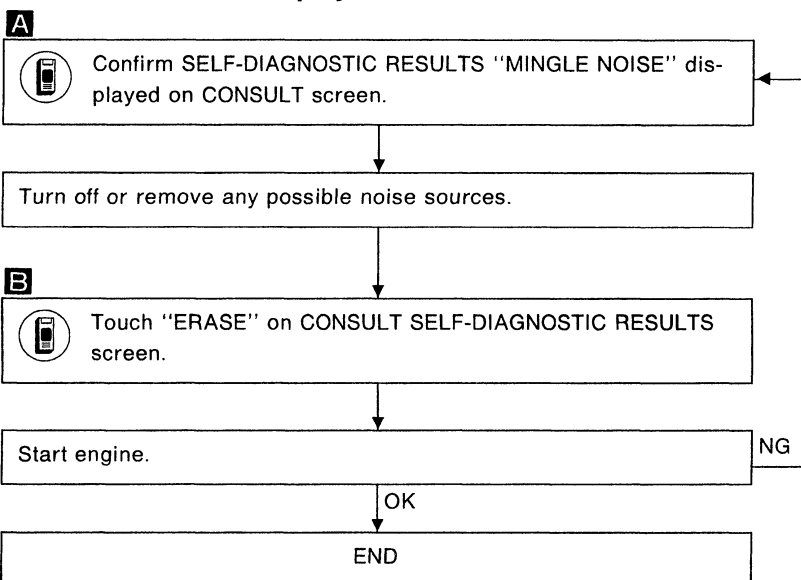
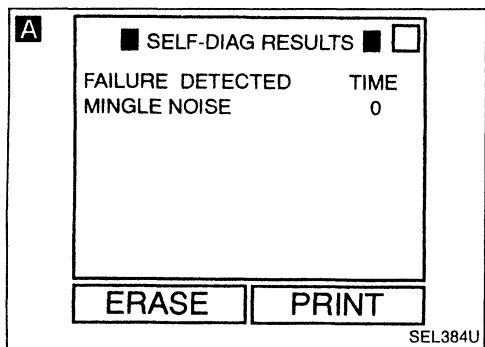
NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 7

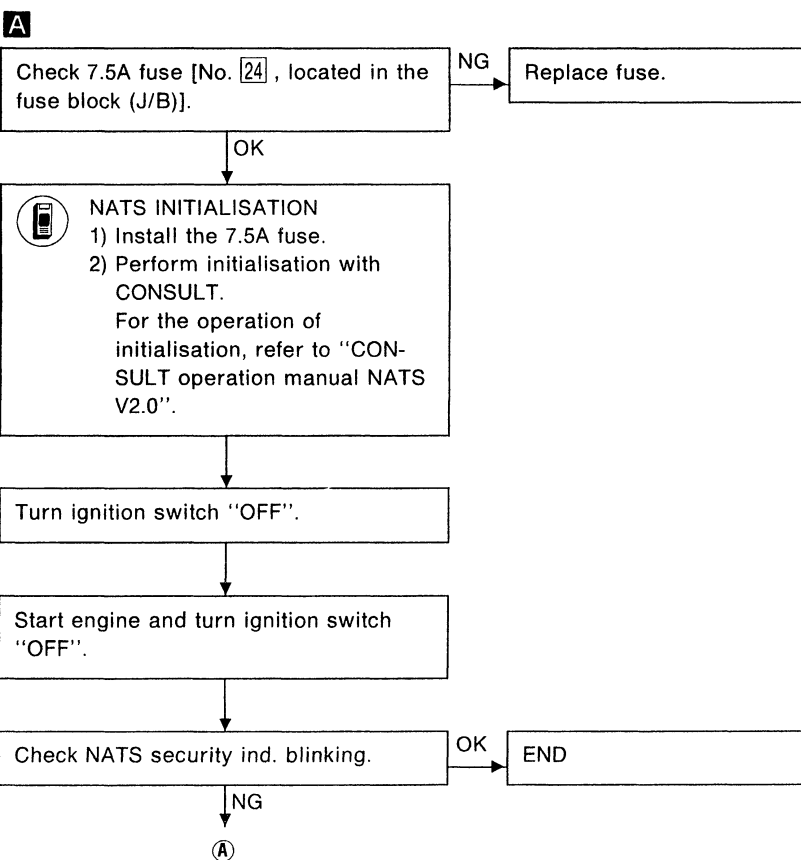
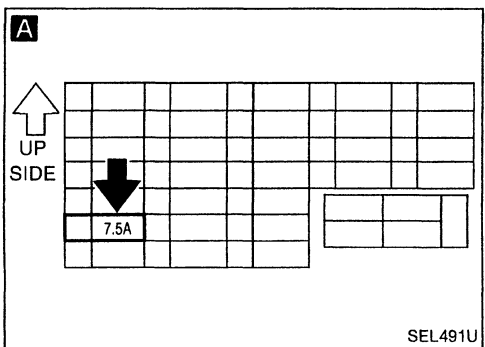
Self-diagnostic results:

"MINGLE NOISE" displayed on CONSULT screen



DIAGNOSTIC PROCEDURE 8

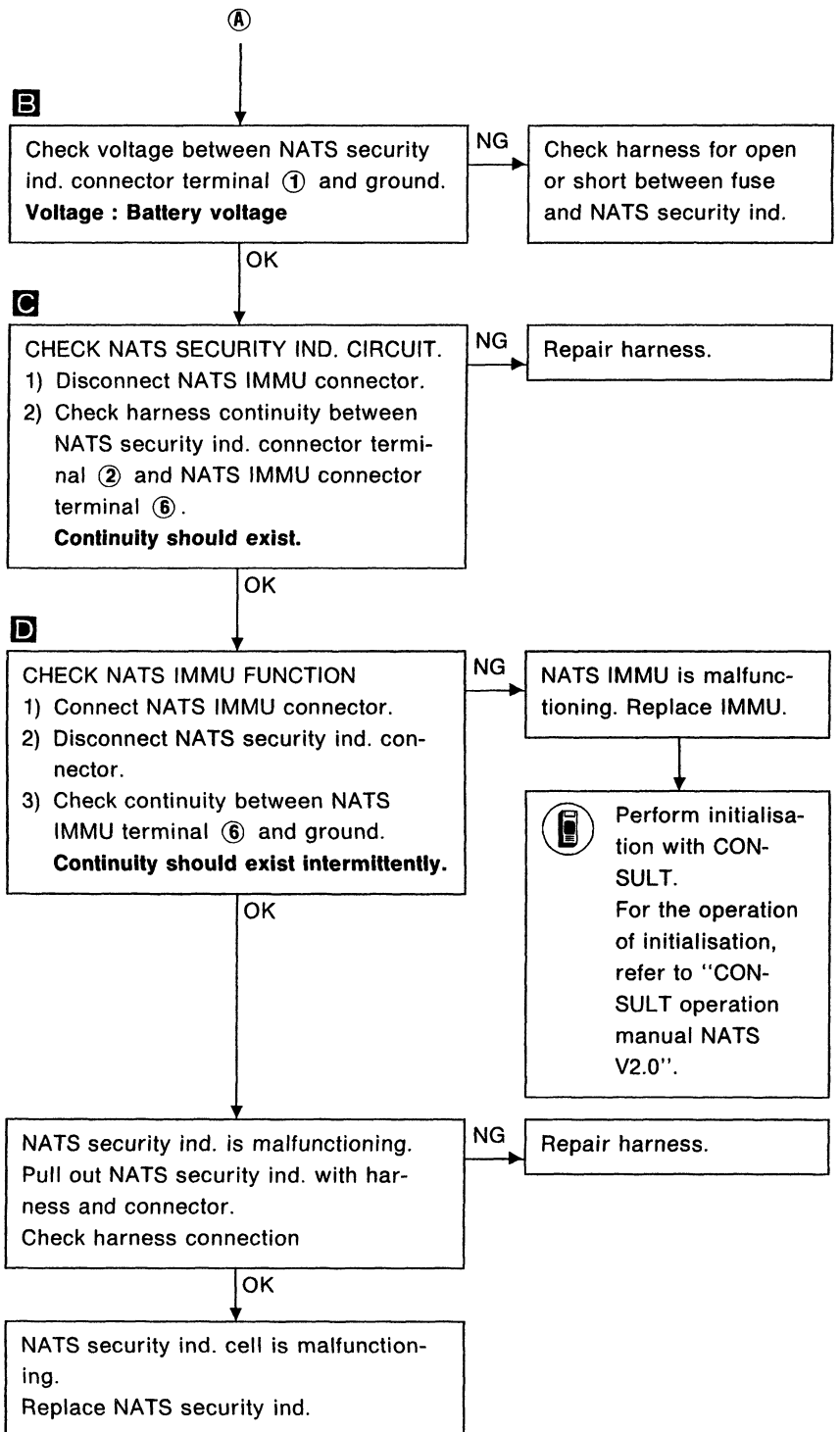
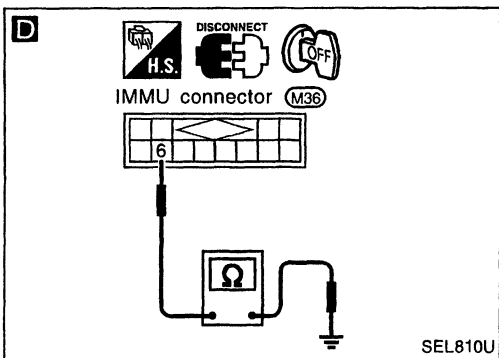
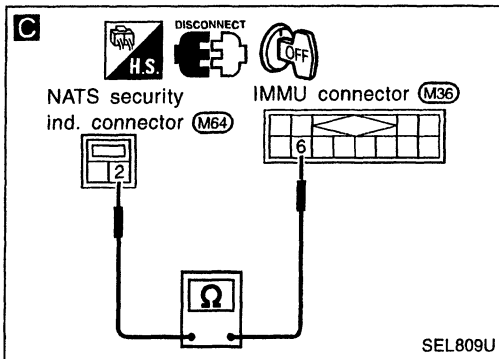
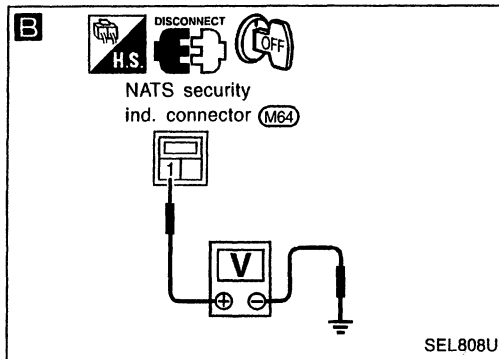
"NATS SECURITY IND. DOES NOT LIGHT UP"



EL

NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)



NATS (Nissan Anti-Theft System)

Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE 9

Self-diagnostic results:

"LOCK MODE" displayed on CONSULT screen

A

■ SELF-DIAG RESULTS ■
☐

FAILURE DETECTED
LOCK MODE

TIME
0

DIFFERENCE OF KEY

ERASE
PRINT

SEL790U

B

■ C/U INITIALISATION ■
■

INITIALISATION
STOPPED or FAILED

TURN IGN KEY SW "OFF"
AND "ON", AFTER CON-
FIRMING SELF-DIAG
RESULTS, PERFORM C/U
INITIALISATION AGAIN.

ERASE
PRINT

SEL372U

C

■ SELF-DIAG RESULTS ■
☐

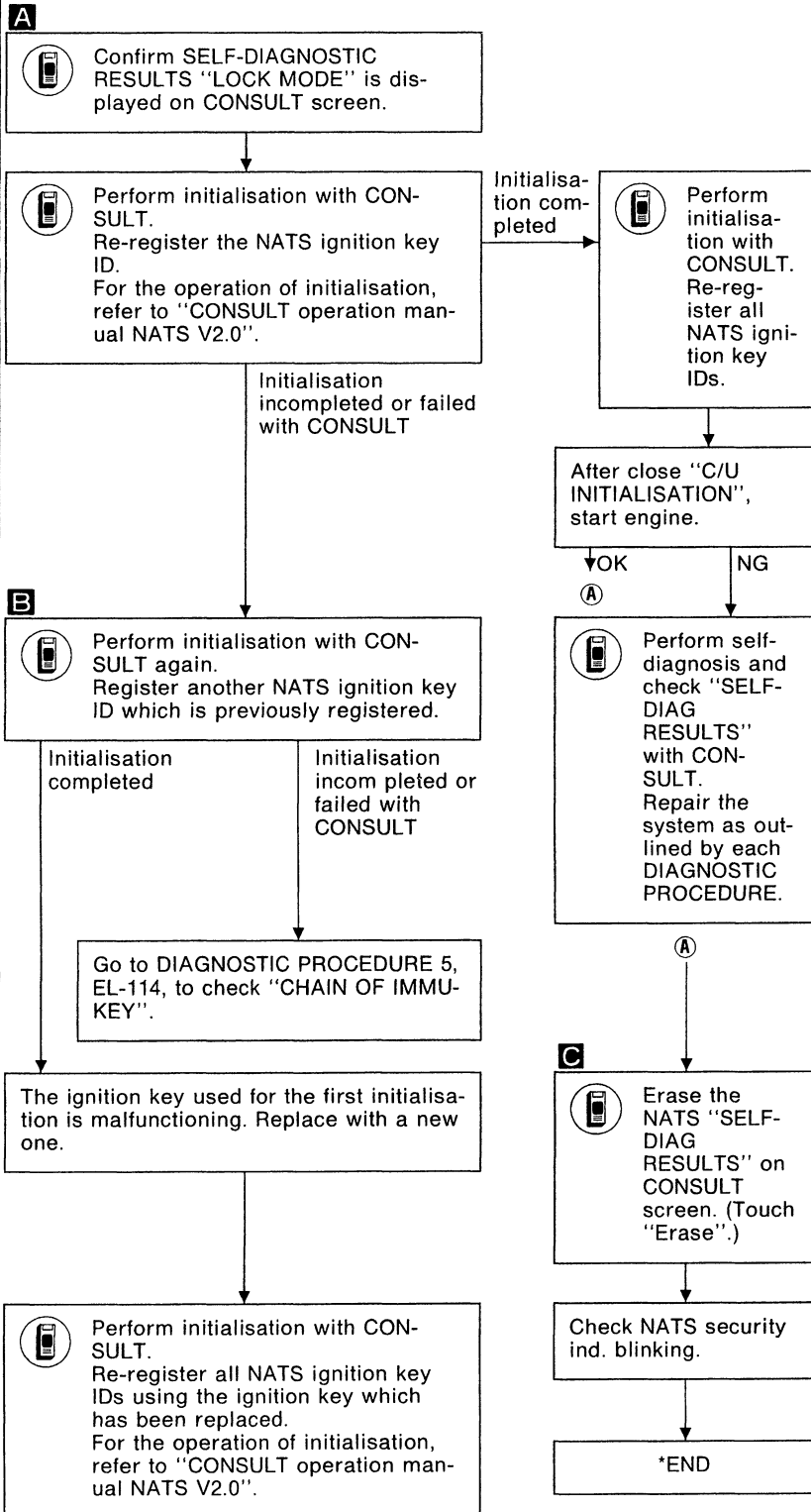
FAILURE DETECTED
LOCK MODE

TIME
0

DIFFERENCE OF KEY

ERASE
PRINT

SEL791U



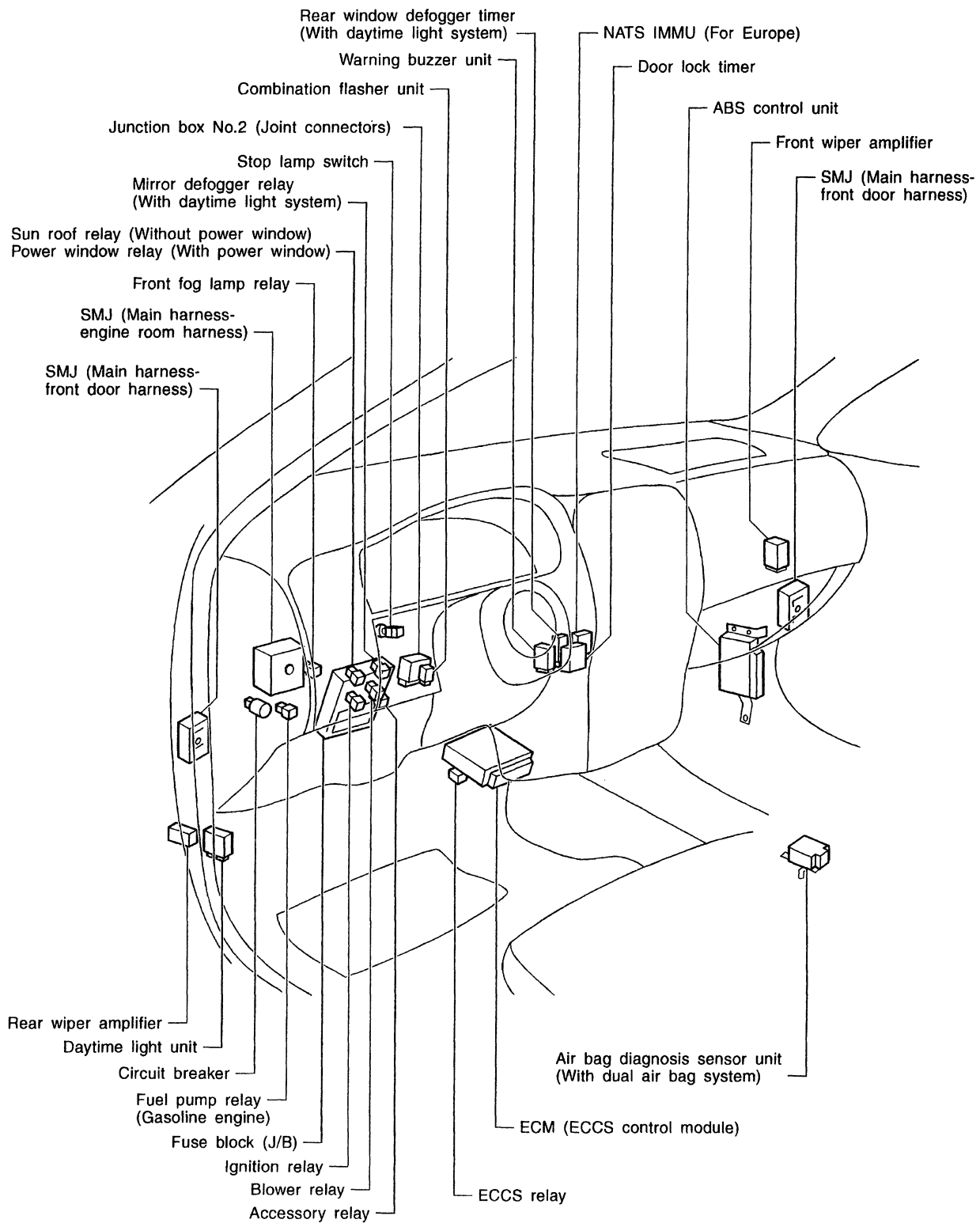
EL

*: There is a trace that an engine-start was tried with incorrect key or procedure. No abnormality exists in the system itself.

LOCATION OF ELECTRICAL UNITS

Passenger Compartment

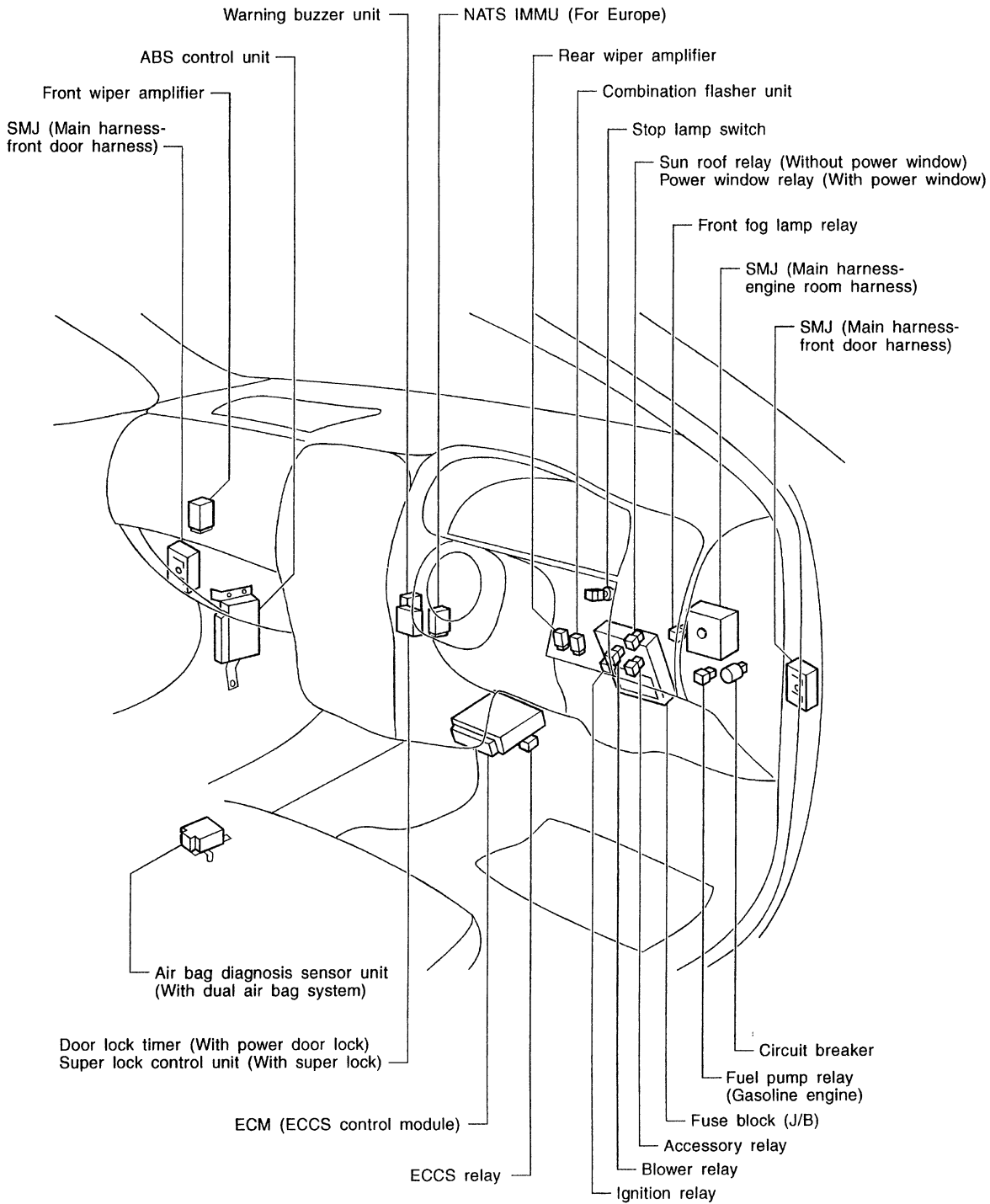
LHD MODELS



LOCATION OF ELECTRICAL UNITS

Passenger Compartment (Cont'd)

RHD MODELS

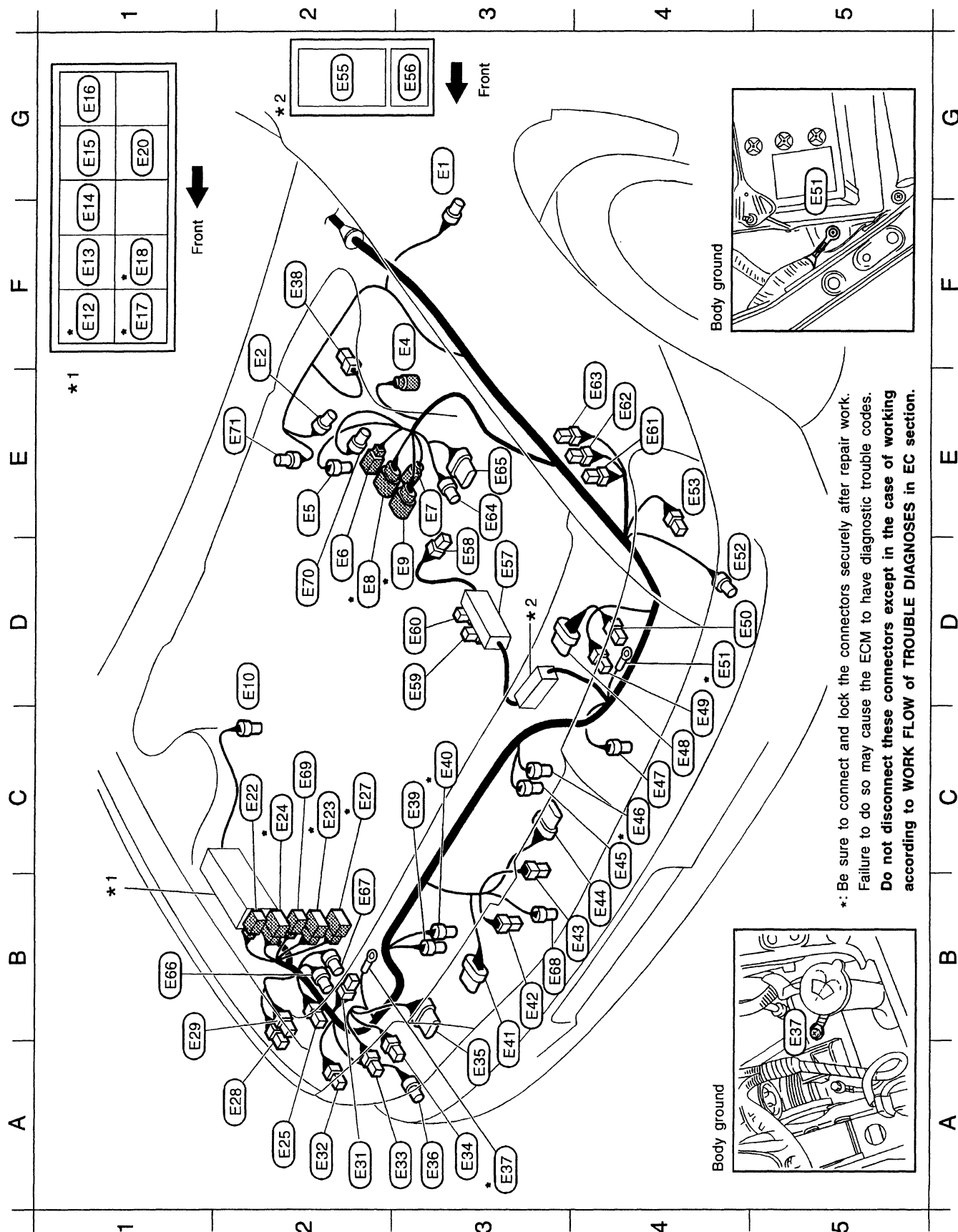


EL

HARNESS LAYOUT

Engine Room Harness

ENGINE COMPARTMENT — LHD models



*: 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 section.

HARNESS LAYOUT

Engine Room Harness (Cont'd)

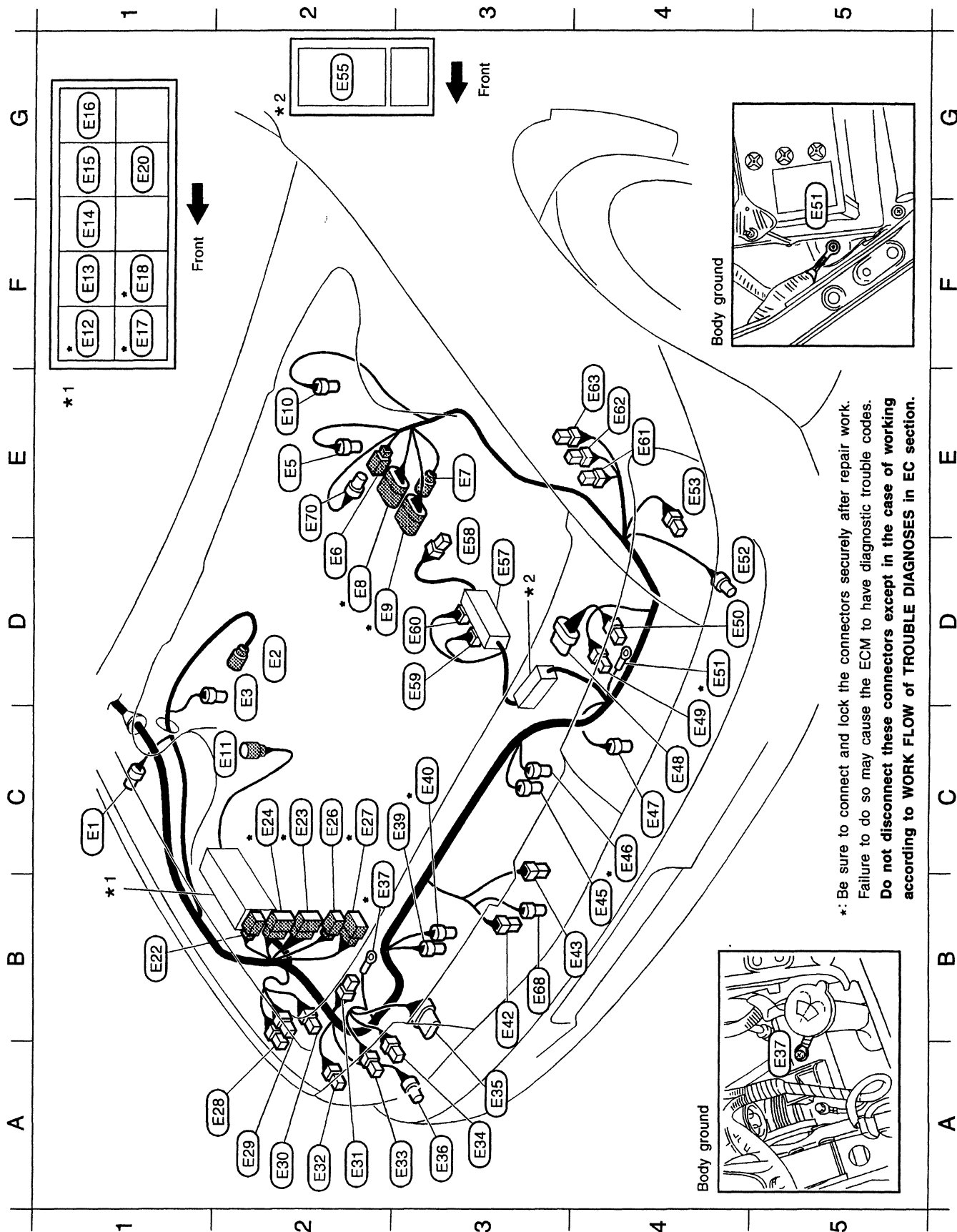
G3 (E1)	GY/2	: Side turn signal lamp LH	C3 (E39)	GY/2	: Cooling fan motor-2 (1-mode type)
F2 (E2)	GY/2	: Brake fluid level switch	C3 (E40)	GY/4	: Cooling fan motor-2 (2-mode type with CD engine)
F3 (E4)	BR/2	: Front wheel speed sensor LH (For ABS)	A3 (E41)	GY/6	: Headlamp wiper motor RH (With daytime light system)
E2 (E5)	GY/2	: Fuel filter sensor (CD engine)	B3 (E42)	B/1	: Horn high
D2 (E6)	B/1	: To (E228) (CD engine)	B4 (E43)	B/1	: Horn low
E3 (E7)	GY/1	: To (E229) (CD engine)	B4 (E44)	GY/6	: Headlamp wiper motor LH (With daytime light system)
D2 (E8)	GY/8	: To (E231) (CD engine)	C4 (E45)	GY/2	: Cooling fan motor-1 (1-mode type)
D3 (E9)	B/8	: To (E230) (CD engine)	C4 (E46)	GY/4	: Cooling fan motor-1 (2-mode type with CD engine)
D2 (E10)	GY/2	: ABS relay box	C4 (E47)	B/2	: Dual-pressure switch
F1 (E12)	L/4	: Cooling fan relay-1 (Gasoline engine)	C4 (E48)	GY/6	: Headlamp aiming motor unit LH
F1 (E13)	BR/6	: Cooling fan relay-1 (CD engine)	C4 (E49)	B/3	: Headlamp LH
F1 (E14)	L/4	: Horn relay	D4 (E50)	B/2	: Clearance lamp LH
G1 (E15)	B/5	: Inhibitor relay	D4 (E51)	—	: Body ground
G1 (E16)	L/4	: Rear wiper relay	D4 (E52)	GY/2	: Front fog lamp LH (GA engine M/T models and SR engine)
F1 (E17)	BR/6	: A/C relay	E4 (E53)	B/2	: Front turn signal lamp LH
F1 (E18)	BR/6	: Cooling fan relay-2 (GA engine A/T models for Europe without daytime light system and CD engine)	G2 (E55)	—	: Fusible link
F1 (E18)	L/4	: Cooling fan relay-3 (CD engine)	G3 (E56)	L/4	: Rear window defogger relay
G1 (E20)	L/4	: Rear window defogger relay	D3 (E57)	—	: (CD engine with daytime light system)
C2 (E22)	B/2	: Rear fog lamp relay (Without daytime light system)	D3 (E58)	B/1	: Fusible link and fuse box
C2 (E23)	B/6	: Rear fog lamp relay (With daytime light system)	D3 (E59)	B/1	: Battery
C2 (E24)	B/8	: To (E204) (GA engine and CD engine)	D3 (E60)	W/1	: Fusible link and fuse box
A2 (E25)	W/2	: To (A1) (SR engine)	E4 (E61)	G/2	: Glow relay (CD engine)
C2 (E27)	GY/6	: To (E201) (GA engine and CD engine)	E4 (E62)	W/1	: Glow relay (CD engine)
A2 (E28)	W/2	: To (E202) (GA engine and CD engine)	E4 (E63)	W/1	: Glow relay (CD engine)
B1 (E29)	G/2	: Headlamp washer motor (With daytime light system)	E3 (E64)	GY/1	: To (E237) (SR engine)
A2 (E31)	GY/2	: To (E234) (CD engine)	E3 (E65)	GY/8	: To (E236) (SR engine)
A2 (E32)	B/2	: Front washer motor	B1 (E66)	GY/4	: Cooling fan motor-1 (2-mode type with GA engine)
A3 (E33)	B/2	: Rear washer motor	B2 (E67)	GY/4	: A/T models without daytime light system
A3 (E34)	B/3	: To front fog lamp sub-harness	B3 (E68)	GY/2	: Cooling fan motor-2 (2-mode type with GA engine)
A3 (E35)	GY/6	: (GA engine and CD engine)	C2 (E69)	GY/4	: A/T models without daytime light system
A3 (E36)	GY/2	: Front turn signal lamp RH	D2 (E70)	G/2	: Ambient air temperature switch (SR engine)
A3 (E37)	—	: Clearance lamp RH	E2 (E71)	L/2	: To (A2) (SR engine)
F2 (E38)	GY/1	: Headlamp RH			: Throttle control solenoid valve (CD engine)
		: Headlamp aiming motor unit RH			: EVAP canister purge volume control solenoid valve (SR engine)
		: Front fog lamp RH			
		: (GA engine M/T models and SR engine)			
		: Body ground			
		: Brake vacuum switch (CD engine)			

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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 section.

HARNESS LAYOUT

Engine Room Harness (Cont'd)

ENGINE COMPARTMENT — RHD models



HARNESS LAYOUT

Engine Room Harness (Cont'd)

C1	(E1)	GY/2	: Side turn signal lamp RH
D2	(E2)	GY/2	: Brake fluid level switch
D2	(E3)	GY/2	: Power steering oil pressure switch (Gasoline engine)
E2	(E5)	GY/2	: Fuel filter sensor (CD engine)
D2	(E6)	B/1	: To (E228) (CD engine)
E3	(E7)	GY/1	: To (E229) (CD engine)
D2	(E8)	GY/8	: To (E231) (CD engine)
D2	(E9)	B/8	: To (E230) (CD engine)
E2	(E10)	GY/2	: ABS relay box (For ABS)
C2	(E11)	GY/2	: Front wheel speed sensor RH (For ABS)
F1	(E12)	L/4	: Cooling fan relay-1 (SR engine M/T models and GA engine)
		BR/6	: Cooling fan relay-1 (SR engine A/T models and CD engine)
F1	(E13)	W/3	: Horn relay
F1	(E14)	L/4	: Inhibitor relay (A/T models)
G1	(E15)	B/5	: Rear wiper relay
G1	(E16)	L/4	: A/C relay
F1	(E17)	BR/6	: Cooling fan relay-2 (A/T models for Australia and CD engine)
F1	(E18)	BR/6	: Cooling fan relay-3 (SR engine A/T models and CD engine)
G1	(E20)	L/4	: Rear fog lamp relay (For Europe)
B1	(E22)	B/2	: To (E204)
C2	(E23)	B/6	: To (E201) (Except SR engine A/T models)
C2	(E24)	B/8	: To (E202)
C2	(E26)	GY/8	: To (E203) (SR engine A/T models)
C2	(E27)	GY/6	: To (E234) (CD engine)
A2	(E28)	W/2	: Front washer motor
A2	(E29)	G/2	: Rear washer motor
A2	(E30)	B/2	: Washer fluid level switch (Except for Europe and Australia)
A2	(E31)	GY/2	: To front fog lamp sub-harness (GA engine and CD engine)
A2	(E32)	B/2	: Front turn signal lamp RH
A3	(E33)	B/2	: Clearance lamp RH
A3	(E34)	B/3	: Headlamp RH
A3	(E35)	GY/6	: Headlamp aiming motor unit RH (For Europe)
A3	(E36)	GY/2	: Front fog lamp RH (Gasoline engine)
B2	(E37)	—	: Body ground
C3	(E39)	GY/2	: Cooling fan motor-2 (1-mode type)
C3	(E40)	GY/4	: Cooling fan motor-2 (2-mode type)
B3	(E42)	B/1	: Horn high
B4	(E43)	B/1	: Horn low (Except for New Zealand, LX and Q grade for Australia)
B4	(E45)	GY/2	: Cooling fan motor-1 (1-mode type)
C4	(E46)	GY/4	: Cooling fan motor-1 (2-mode type)
C4	(E47)	B/2	: Dual-pressure switch
C4	(E48)	GY/6	: Headlamp aiming motor unit LH (For Europe)
C4	(E49)	B/3	: Headlamp LH
D4	(E50)	B/2	: Clearance lamp LH
D4	(E51)	—	: Body ground
D4	(E52)	GY/2	: Front fog lamp LH (Gasoline engine)
E4	(E53)	B/2	: Front turn signal lamp LH
G2	(E55)	—	: Fusible link
D3	(E57)	—	: Fusible link and fuse box
D3	(E58)	B/1	: Battery
D3	(E59)	B/1	: Fusible link and fuse box
D3	(E60)	W/1	: Fusible link and fuse box
E4	(E61)	G/2	: Glow relay (CD engine)
E4	(E62)	W/1	: Glow relay (CD engine)
E4	(E63)	W/1	: Glow relay (CD engine)
B3	(E68)	GY/2	: Ambient air temperature switch (SR engine for Europe)
E2	(E70)	G/2	: Throttle control solenoid valve (CD engine)

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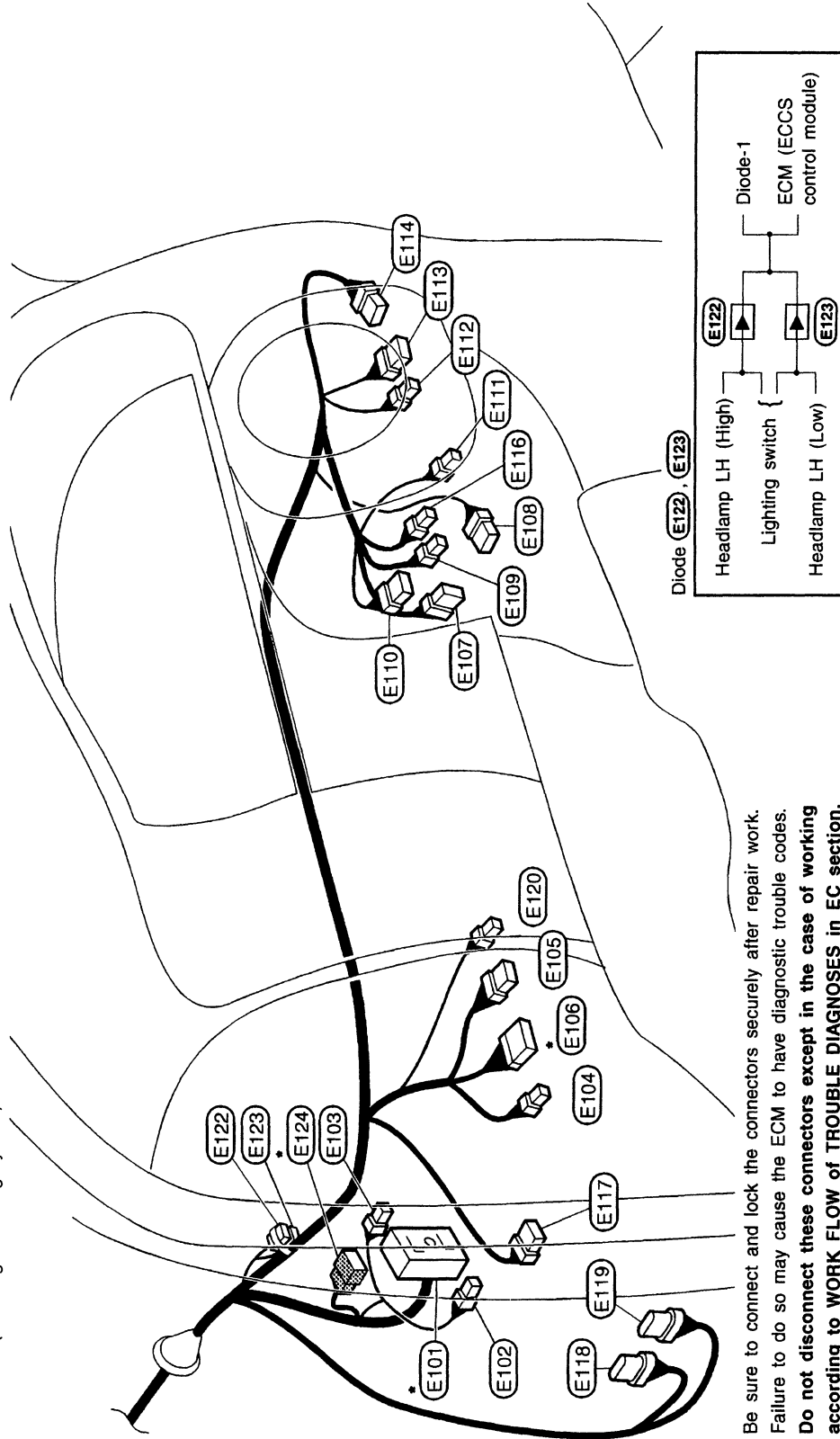
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HARNESS LAYOUT

Engine Room Harness (Cont'd)

PASSENGER COMPARTMENT — LHD models

*E101	SMJ	:	To M8
E102	W/2	:	Circuit breaker
E103	L/4	:	Front fog lamp relay
E104	B/2	:	Fuse block (J/B)
E105	W/6	:	Fuse block (J/B)
*E106	W/16	:	Fuse block (J/B)
E107	W/8	:	Lighting switch
E108	BR/6	:	Spiral cable (For single air bag system)
E109	W/3	:	Rear fog lamp switch
E110	W/6	:	Turn signal lamp switch
E111	B/1	:	Horn switch (For without air bag system)
E112	BR/4	:	Rear wiper and washer switch
E113	L/8	:	Front wiper and washer switch
E114	W/6	:	Ignition switch
E116	W/4	:	NATS antenna amplifier (For Europe)
E117	W/8	:	To B6
E118	GY/6	:	Daytime light unit
E119	GY/8	:	Daytime light unit
E120	B/2	:	Fuse block (J/B)
E122	—	:	Diode-2 (SR engine)
E123	—	:	Diode-3 (SR engine)
*E124	W/8	:	To M76 (CD engine)

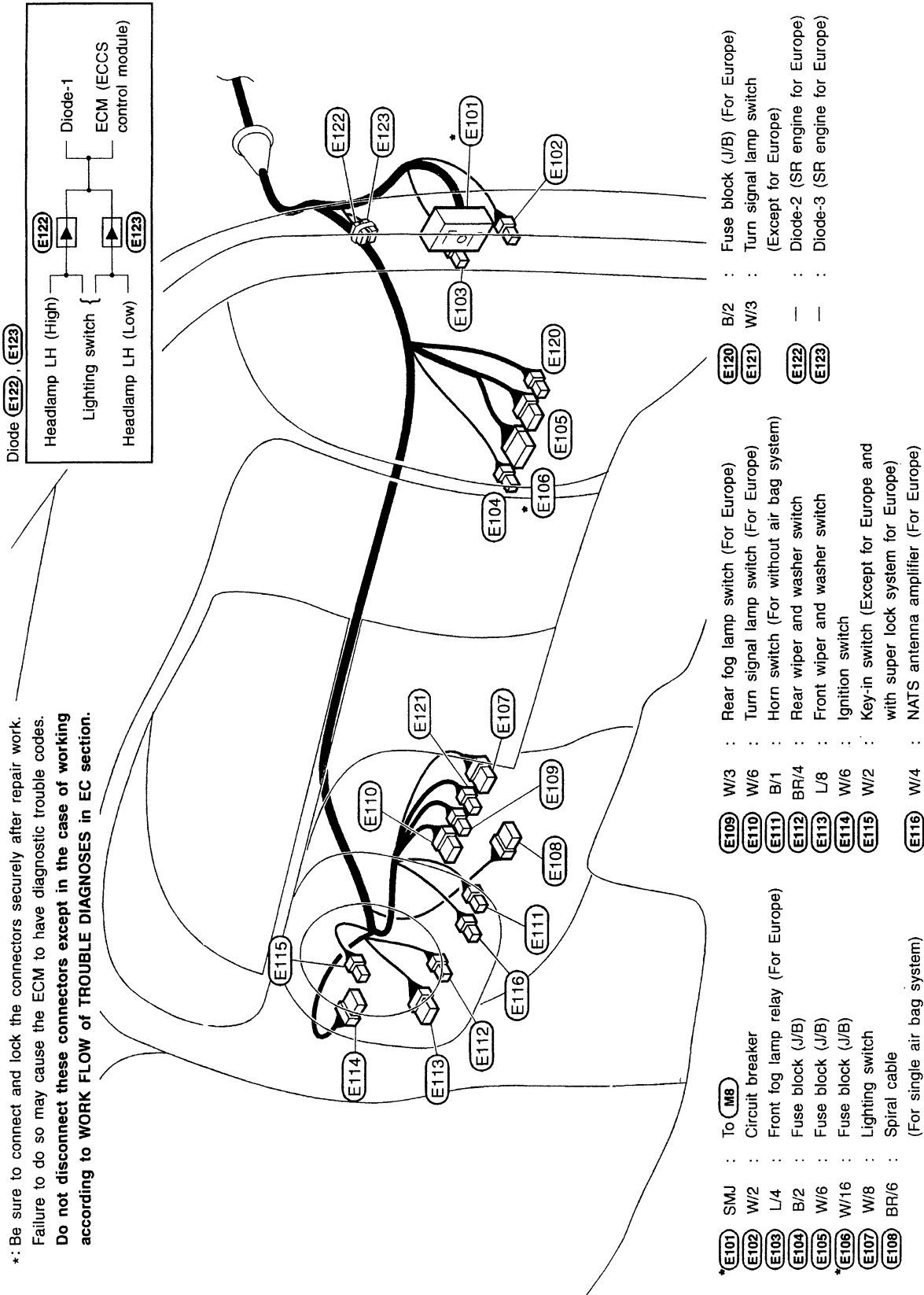


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 according to WORK FLOW OF TROUBLE DIAGNOSES in EC section.

HARNESS LAYOUT

Engine Room Harness (Cont'd)

PASSENGER COMPARTMENT — RHD models

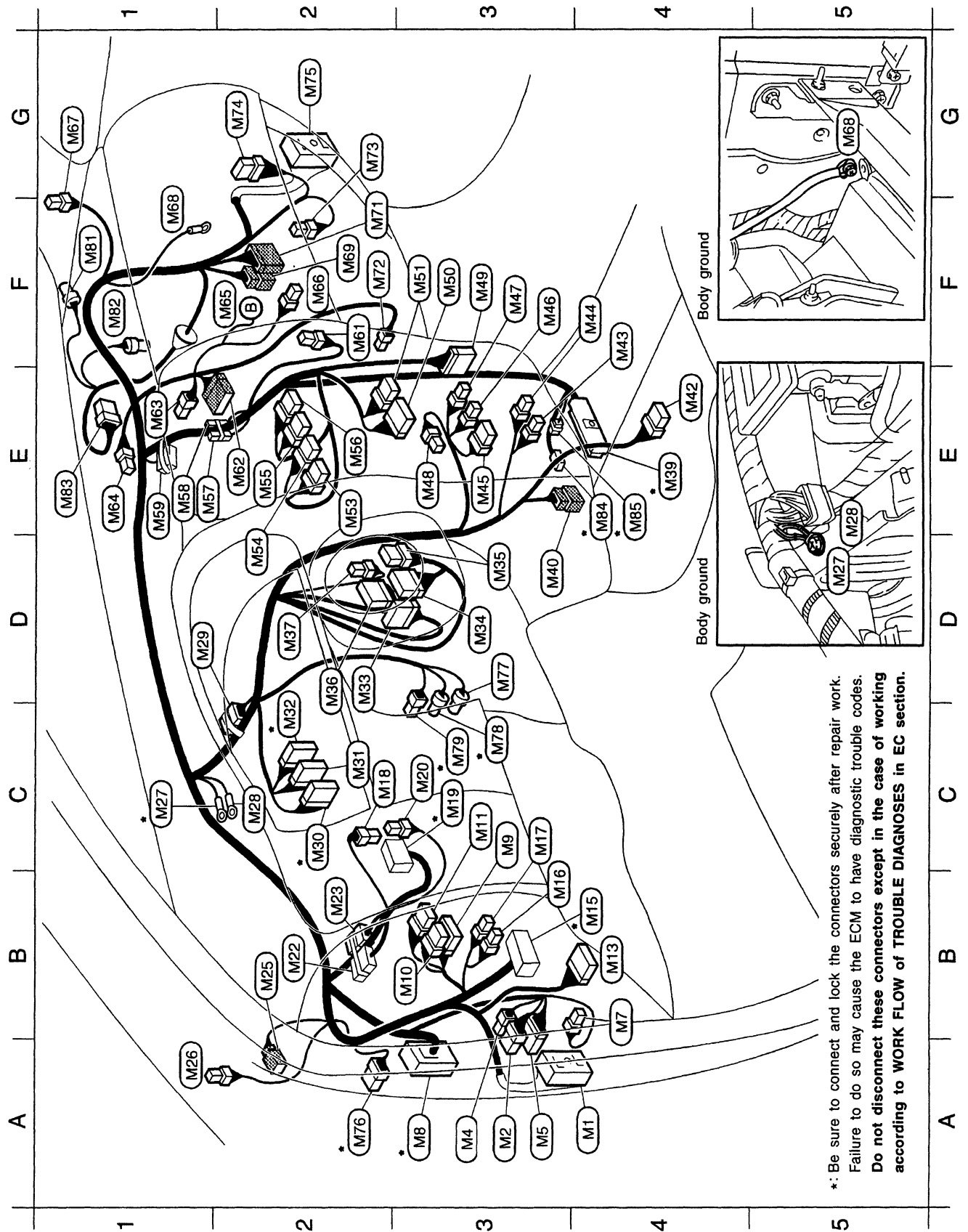


EL

HARNESS LAYOUT

Main Harness

LHD MODELS



HARNESS LAYOUT

Main Harness (Cont'd)

A4	M1	SMJ	: To D1
A3	M2	W/6	: To B4 (With power door lock)
A3	M4	W/4	: To B1
A3	M5	W/12	: To B2
B4	M7	L/4	: Fuel pump relay (Gasoline engine)
A3	M8	SMJ	: To E101
C3	M9	GY/12	: Door mirror remote control switch
B3	M10	B/6	: Front fog lamp switch
C3	M11	W/8	: Headlamp aiming switch
B4	M13	GY/14	: Data link connector for CONSULT
B4	M15	—	: Fuse block (J/B)
B3	M16	L/4	: Power window relay (With power window) Sun roof relay (Without power window)
C3	M17	L/4	: Mirror defogger relay (With daytime light system)
C2	M18	B/2	: Stop lamp switch
C3	M19	—	: Junction box No.2 (Joint connectors)
C3	M20	B/3	: Combination flasher unit
B2	M22	BR/20	: Joint connector-1
B2	M23	GY/6	: Joint connector-2
B2	M25	W/4	: To R1
A1	M26	BR/2	: Pillar speaker LH (For 6-speaker system)
C1	M27	—	: Body ground
C2	M28	—	: Body ground
D1	M29	W/6	: Joint connector-8
C2	M30	BR/16	: Combination meter
C2	M31	W/10	: Combination meter (With tachometer)
C2	M32	W/16	: Combination meter
D2	M33	B/12	: Warning buzzer unit
D3	M34	W/18	: Door lock timer (For Europe)
D3	M35	W/8	: Door lock timer (Except for Europe)
D2	M36	W/12	: NATS IMMU (For Europe)
D2	M37	W/4	: Rear window defogger timer (With daytime light system)
E4	M39	W/88	: ECM (ECSS control module) (Diesel engine)
D3	M40	W/6	: To F4 (Gasoline engine)
E4	M42	W/6	: Overdrive control switch • A/T illumination
F4	M43	B/2	: Cigarette lighter
F4	M44	W/2	: Ashtray illumination
E3	M45	W/6	: Fan switch
F3	M46	W/4	: Recirculation switch
F3	M47	W/3	: A/C switch
E3	M48	W/3	: Fan switch illumination
F3	M49	W/20	: To F6 (Gasoline engine)

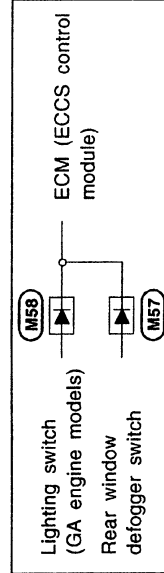
★: Be sure to connect and lock the connectors

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 section.

F3	M50	W/10	: Radio
F3	M51	W/6	: Radio (For rear speaker)
E2	M53	W/6	: Rear window defogger switch
D2	M54	W/8	: Hazard switch
E2	M55	BR/6	: Rear fog lamp switch
E2	M56	BR/8	: Headlamp wiper and washer switch (With daytime light system)
E1	M57	—	: Diode-1 (Gasoline engine)
E1	M58	—	: Diode-2 (GA engine)
E1	M59	BR/20	: Joint connector-3
F2	M61	W/3	: Thermo control amplifier
E2	M62	Y/12	: To Z3 (For dual air bag system)
E1	M63	W/4	: Intake door motor
E1	M64	B/2	: NATS security indicator (For Europe)
F2	M65	Bulb	: Glove box lamp
F2	M66	BR/2	: Glove box lamp switch
G1	M67	BR/2	: Pillar speaker RH (For 6-speaker system)
F1	M68	—	: Body ground
F2	M69	W/8	: To B113
F2	M71	W/12	: To B115
F2	M72	BR/4	: Fan resistor
G2	M73	W/2	: Blower motor
G2	M74	W/8	: Front wiper amplifier
G2	M75	SMJ	: To D31
A2	M76	W/8	: To E124 (Diesel engine)
D3	M77	GY/3	: Accelerator position switch (Diesel engine)
C3	M78	BR/3	: Accelerator position sensor (Diesel engine)
C3	M79	W/3	: Accelerator switch (FC) (Diesel engine)
F1	M81	GY/2	: Side turn signal lamp RH (Without ABS, dual air bag, daytime light system and rear power window)
F1	M82	GY/2	: Power steering oil pressure switch (GA engine without ABS, dual air bag, daytime light system and rear power window)
E1	M83	GY/6	: Front wiper motor (Without ABS, dual air bag, daytime light system and rear power window)
E4	M84	BR/6	: ECSS relay (Diesel engine)
E4	M85	BR/20	: Joint connector-10 (Diesel engine)

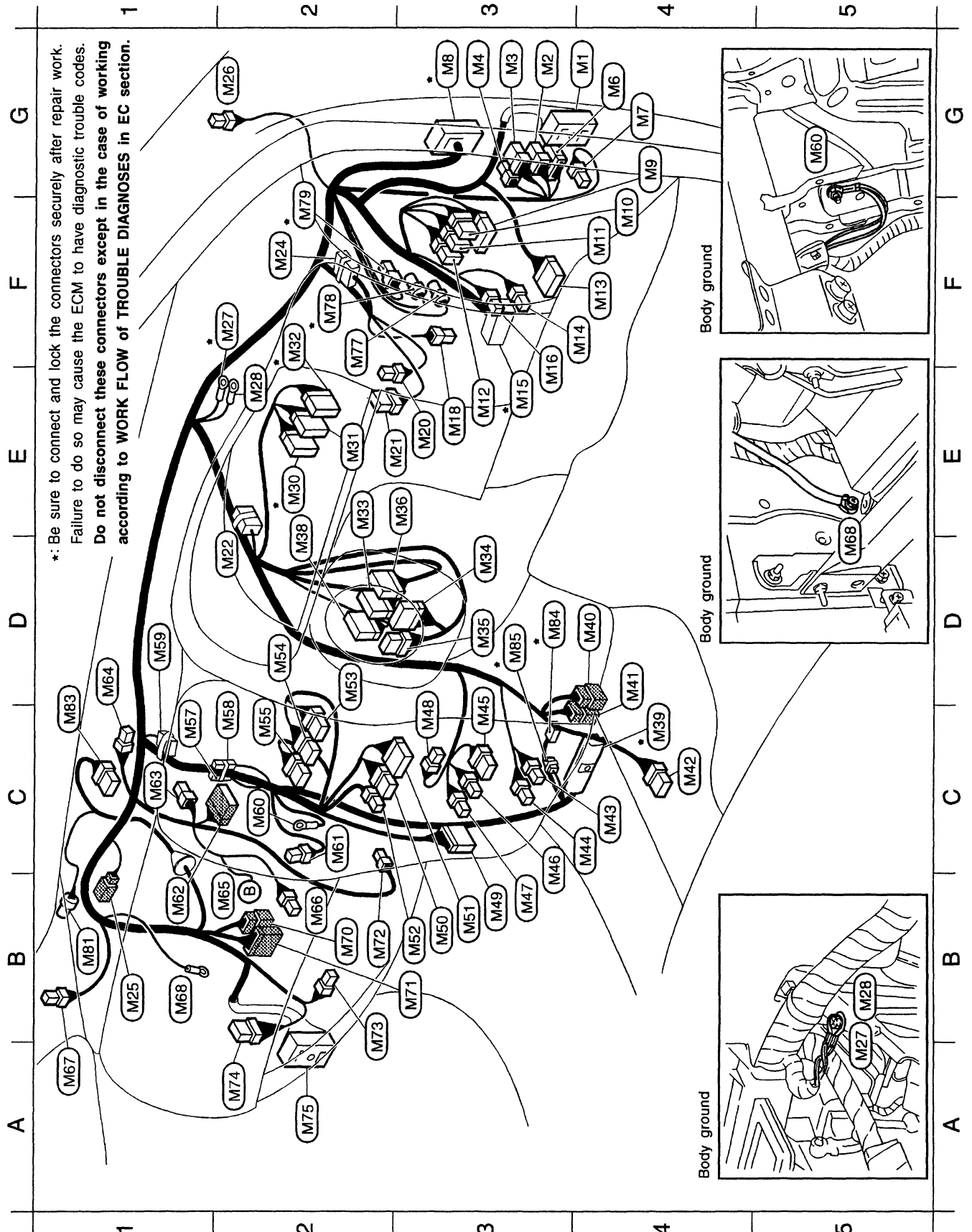
Diode-1 M57, Diode-2 M58



HARNESS LAYOUT

Main Harness (Cont'd)

RHD MODELS



HARNESS LAYOUT

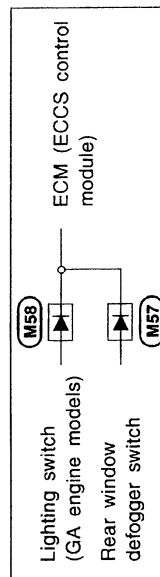
Main Harness (Cont'd)

G4	M1	SMJ	: To D1	B3	M49	W/20	: To F6 (Gasoline engine)
G3	M2	W/6	: To B4 (With rear power door lock for Europe)	B3	M50	W/10	: Radio
G3	M3	W/8	: To B5 (With power door lock except for Europe)	B3	M51	W/6	: Radio (For rear speaker)
G3	M4	W/4	: To B1	B3	M52	W/4	: Compact disk deck (Except for Europe)
G4	M6	W/20	: To B3	D2	M53	W/6	: Rear window defogger switch
G4	M7	L/4	: Fuel pump relay (Gasoline engine)	D2	M54	W/8	: Hazard switch
G3	M8	SMJ	: To E101	C2	M55	BR/6	: Rear fog lamp switch (For Europe)
G4	M9	GY/12	: Door mirror remote control switch	C1	M57	—	: Diode-1 (GA engine except for Australia and SR engine for Europe)
F4	M10	B/6	: Front fog lamp switch	C2	M58	—	: Diode-2 (GA engine except for Australia)
F4	M11	W/8	: Headlamp aiming switch (For Europe)	D1	M59	P/20	: Joint connector-4
E3	M12	W/6	: Illumination control switch (Except for Europe)	C2	M60	—	: Body ground
F4	M13	GY/14	: Data link connector for CONSULT	C2	M61	W/3	: Thermo control amplifier
F4	M14	B/2	: Fuse block (J/B) (Except for Europe)	B1	M62	Y/12	: To Z3 (For dual air bag system)
E3	M15	—	: Fuse block (J/B)	C1	M63	W/4	: Intake door motor
F3	M16	L/4	: Power window relay (With power window)	D1	M64	B/2	: NATS security indicator (For Europe)
		L/4	: Sun roof relay (Without power window)	B2	M65	Bulb	: Glove box lamp
E3	M18	B/2	: Stop lamp switch	B2	M66	BR/2	: Glove box lamp switch
E3	M20	B/3	: Combination flasher unit	A1	M67	BR/2	: Pillar speaker LH (For 6-speaker system)
E3	M21	W/6	: Rear wiper amplifier	B1	M68	—	: Body ground
D2	M22	BR/20	: Joint connector-1	B2	M70	W/12	: To B114
F2	M24	OR/20	: Joint connector-5	B3	M71	W/12	: To B115
B1	M25	W/4	: To R1	B2	M72	BR/4	: Fan resistor
G2	M26	BR/2	: Pillar speaker RH (For 6-speaker system)	B2	M73	W/2	: Blower motor
F2	M27	—	: Body ground	A2	M74	W/8	: Front wiper amplifier
E2	M28	—	: Body ground	A2	M75	SMJ	: To D31
E2	M30	BR/16	: Combination meter	F2	M77	GY/3	: Accelerator position switch (Diesel engine)
E2	M31	W/10	: Combination meter (With tachometer)	F2	M78	BR/3	: Accelerator position sensor (Diesel engine)
F2	M32	W/16	: Combination meter	F2	M79	W/3	: Accelerator switch (FC) (Diesel engine)
E2	M33	B/12	: Warning buzzer unit (Except for Australia)	B1	M81	GY/2	: Side turn signal lamp LH (GA engine without ABS, dual air bag and rear power window)
D3	M34	W/18	: Door lock timer (With power door lock for Europe and Australia)	C1	M83	GY/6	: Front wiper motor (GA engine without ABS, dual air bag and rear power window)
			Super lock control unit (With super lock)	D3	M84	BR/6	: ECCS relay (Diesel engine)
D3	M35	W/8	: Door lock timer (With power door lock except for Europe and Australia)	D3	M85	BR/20	: Joint connector-10 (Diesel engine)
E3	M36	W/12	: NATS IMMU (For Europe)				
D2	M38	W/8	: Warning buzzer unit (For Australia)				
C4	M39	W/88	: ECM (ECCS control module) (Diesel engine)				
D4	M40	W/6	: To F4 (Gasoline engine for Europe and Australia)				
D4	M41	W/8	: To F5 (Except for Europe and Australia)				
C4	M42	W/6	: Overdrive control switch • A/T illumination				
C4	M43	B/2	: Cigarette lighter				
C4	M44	W/2	: Ashtray illumination				
C3	M45	W/6	: Fan switch				
C3	M46	W/4	: Recirculation switch				
B3	M47	W/3	: A/C switch				
C3	M48	W/3	: Fan switch illumination				

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Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC section.

Diode-1 M57, Diode-2 M58



SEDAN — RHD models



HARNESS LAYOUT

Body Harness (Cont'd)

Body harness

G2 B1	W/4	: To M4
F1 B3	W/20	: To M6
G2 B4	W/6	: To M2 (With rear power door lock for Europe)
G2 B5	W/8	: To M3 (With power door lock except for Europe)
G3 B7	W/12	: Fuse block (J/B)
F3 B9	B/3	: Front door switch driver's side
D1 B10	W/6	: To D51 (With power door lock)
E2 B11	—	: Body ground
D3 B14	B/1	: Parking brake switch
D3 B17	GY/2	: To fuel pump sub-harness (Gasoline engine)
D3 B18	GY/3	: Fuel tank gauge unit
E1 B19	B/1	: Condenser(For rear window defogger)
D2 B21	W/8	: To T1
B1 B22	BR/1	: Rear door switch LH
B2 B23	BR/2	: Rear speaker LH
B2 B29	W/2	: Trunk room lamp
C2 B30	BR/2	: Rear speaker RH
E2 B31	BR/1	: Rear door switch RH
F2 B32	—	: Body ground
D2 B33	BR/1	: Front door switch passenger side
F2 B34	W/6	: To D71 (With power door lock)
D1 B35	W/8	: To D76 (With super lock models for Europe)
F2 B36	W/8	: To D56 (With super lock models for Europe)

Tail harness

D3 T1	W/8	: To B21
A2 T2	W/4	: Rear combination lamp LH (Outer)
A3 T3	W/4	: Rear combination lamp LH (Inner)
B3 T4	B/2	: Trunk room lamp switch
B3 T5	W/2	: License plate lamp LH
A2 T6	BR/2	: High-mounted stop lamp
B3 T7	W/2	: License plate lamp RH
B3 T8	W/4	: Rear combination lamp RH (Inner)
C3 T9	W/4	: Rear combination lamp RH (Outer)
B3 T10	—	: Body ground
B3 T11	—	: Body ground

Sub-harness

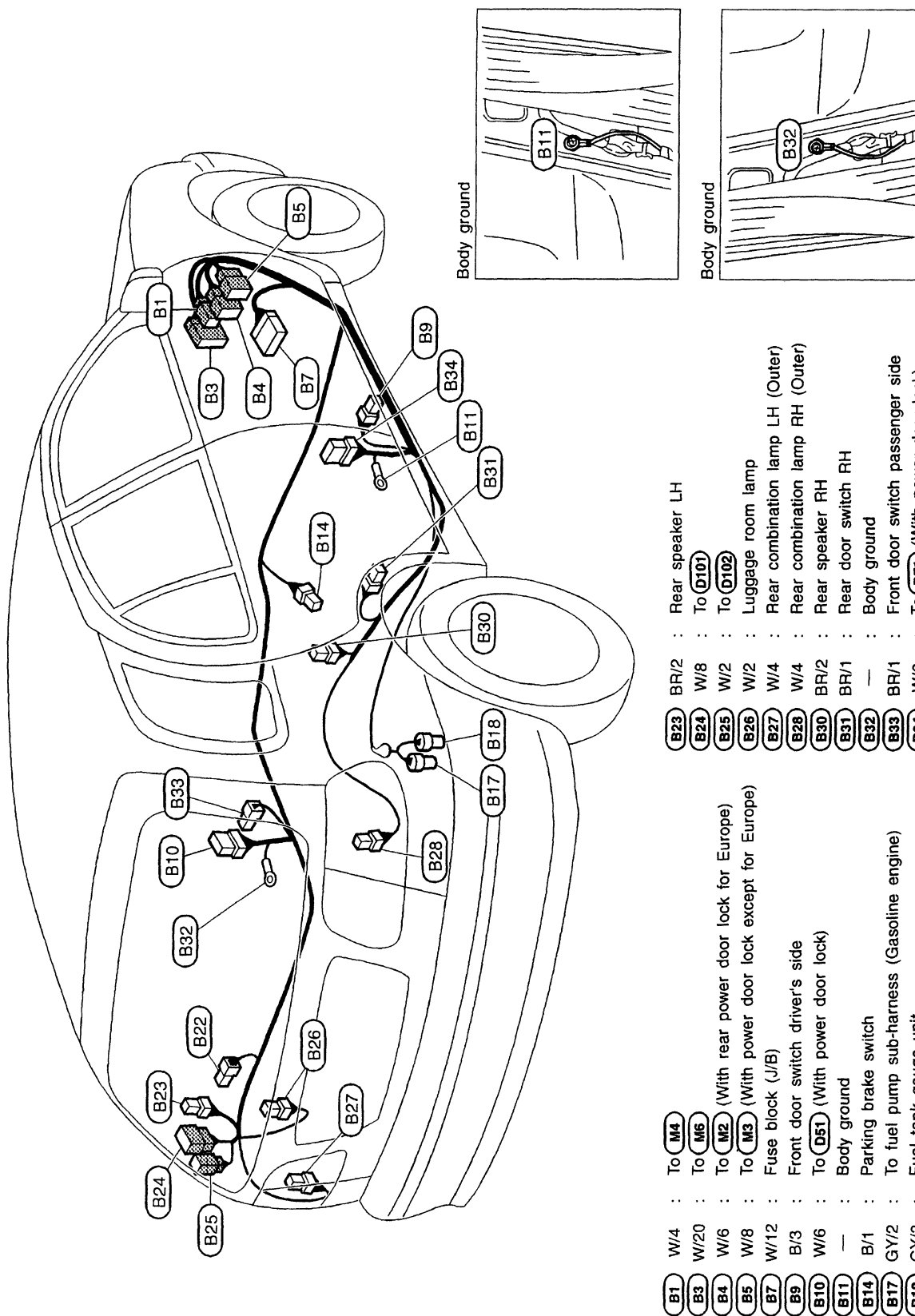
D1 B201	B/1	: Condenser
D1 B202	B/1	: Rear window defogger (+)
B1 B203	B/1	: Rear window defogger (-)
C1 B204	—	: Body ground

EL

HARNESS LAYOUT

Body Harness (Cont'd)

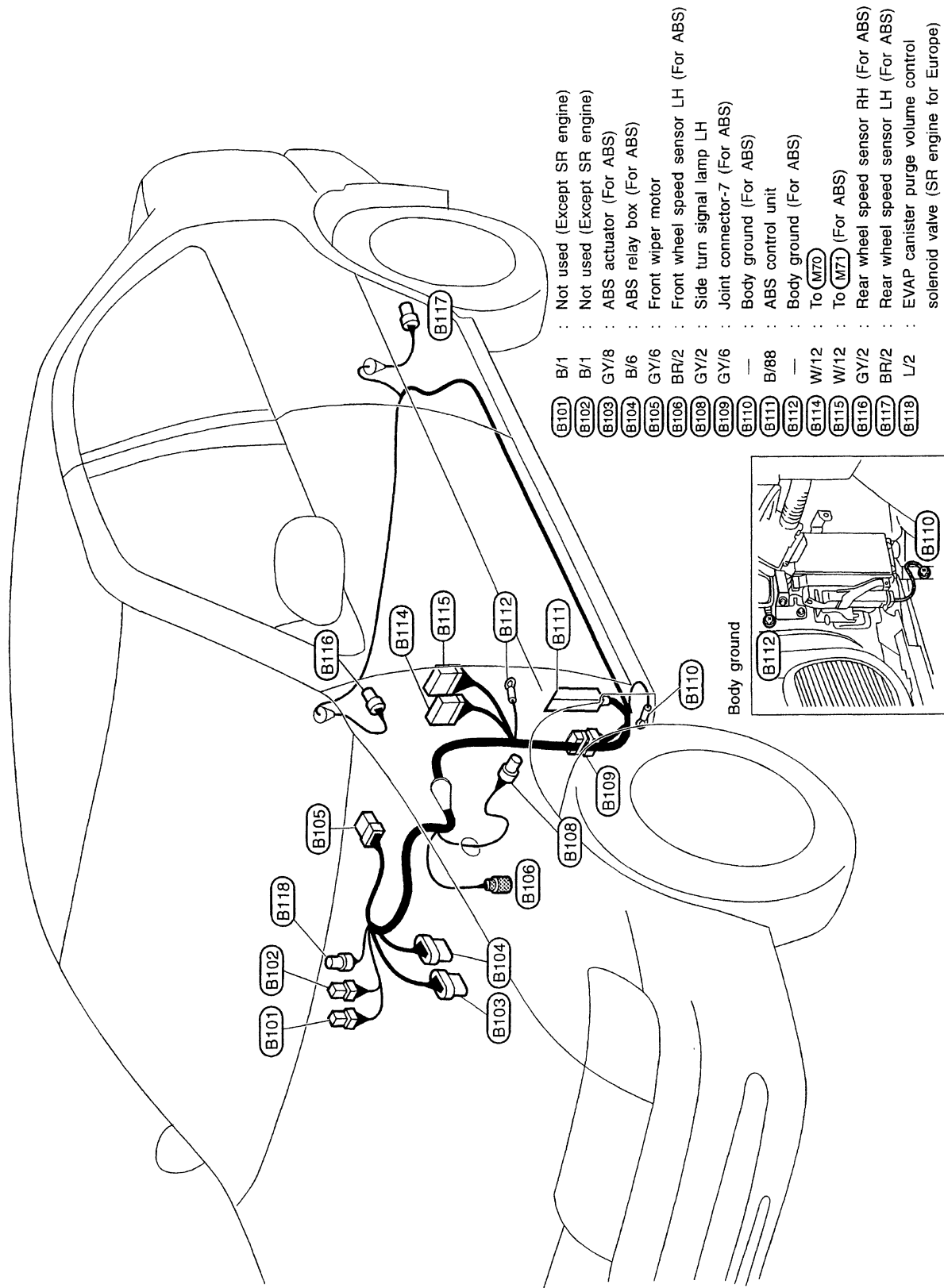
5-DOOR HATCHBACK — RHD models



HARNESS LAYOUT

Body No. 2 Harness

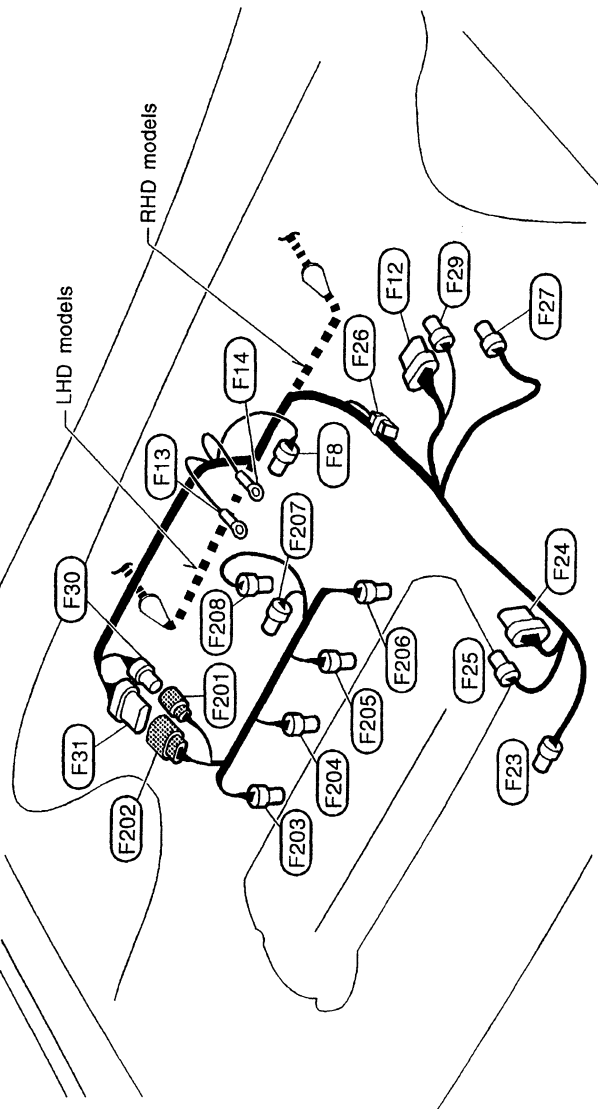
RHD MODELS



EL

Engine Control Harness

SR20DE ENGINE (For Europe)



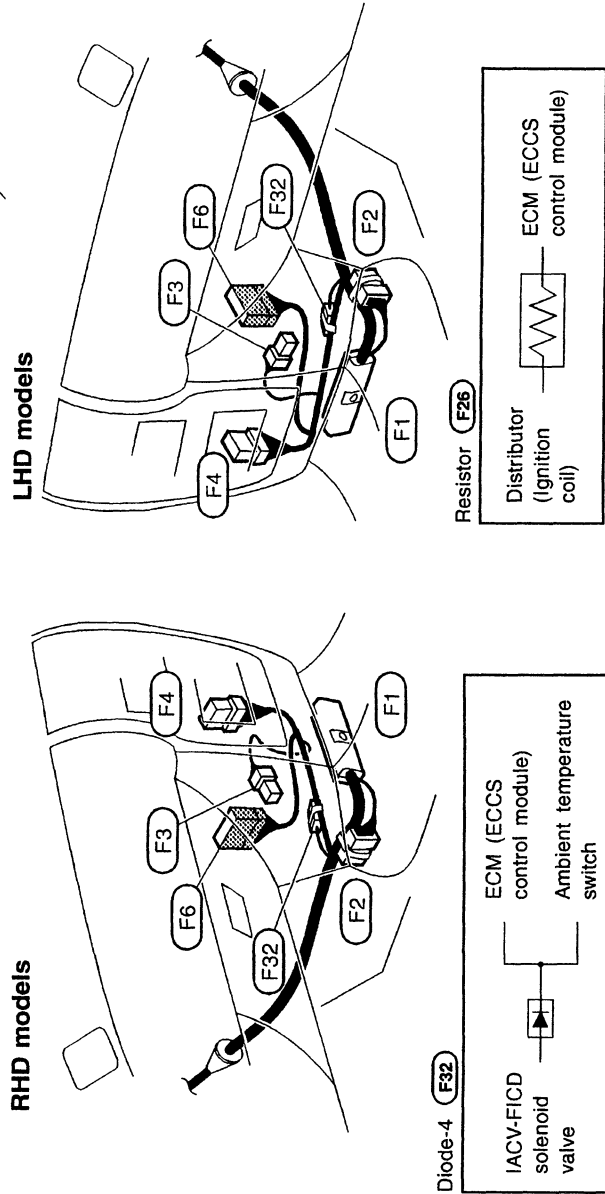
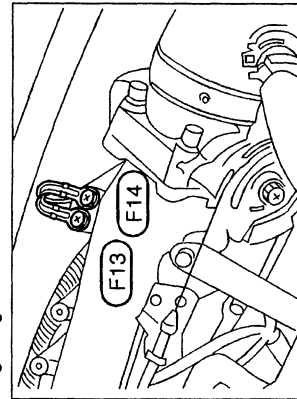
ENGINE CONTROL HARNESS

F1	L/64	: ECM (ECCS control module)
F2	GY/6	: Joint connector-6
F3	L/4	: ECCS relay
F4	W/6	: To M40
F6	W/20	: To M49
F8	BR/3	: Throttle position sensor
F12	GY/6	: To E227 (RHD models)
F13	—	: Engine ground
F14	—	: Engine ground
F23	GY/3	: Heated oxygen sensor
F24	GY/6	: Distributor (Camshaft position)
F25	GY/2	: Distributor (Ignition coil)
F26	—	: Resistor
F27	BR/4	: Mass air flow sensor
F29	GY/4	: To E235 (LHD models)
F30	GY/4	: To F201
F31	GY/6	: To F202
F32	—	: Diode-4

ENGINE SUB-HARNESS

F201	GY/4	:	To	F30
F202	GY/6	:	To	F31
F203	B/2	:	Injector No.1	
F204	B/2	:	Injector No.2	
F205	B/2	:	Injector No.3	
F206	B/2	:	Injector No.4	
F207	PU/2	:	IACV-FICD solenoid valve	
F208	BR/2	:	IACV-AAC valve	

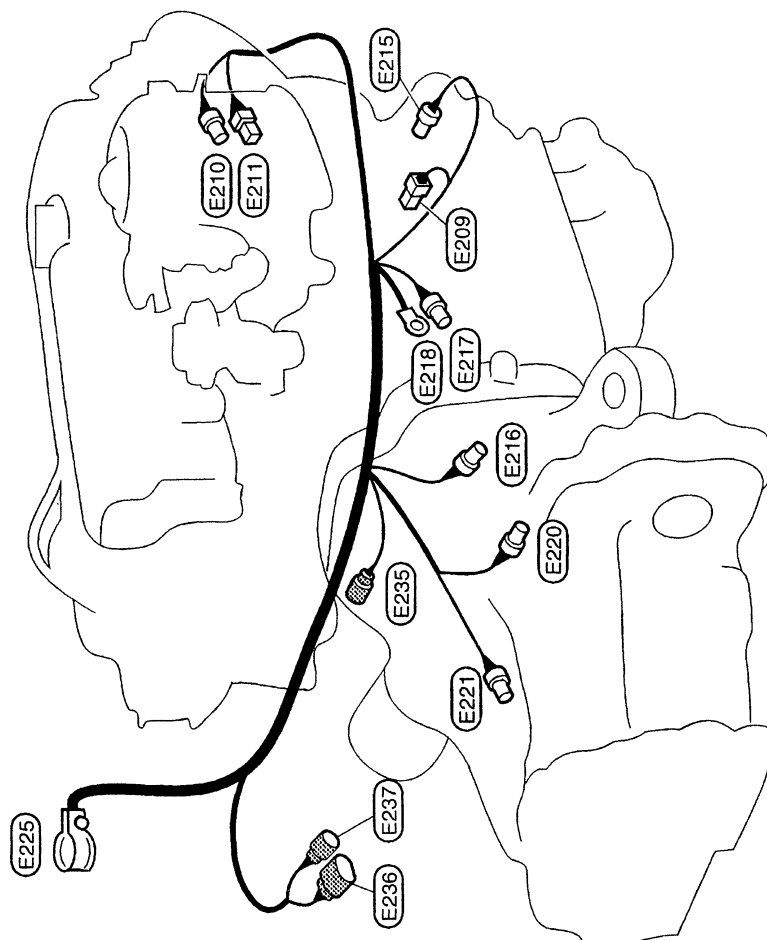
Engine ground



HARNESS LAYOUT

Engine Harness

SR ENGINE — LHD models



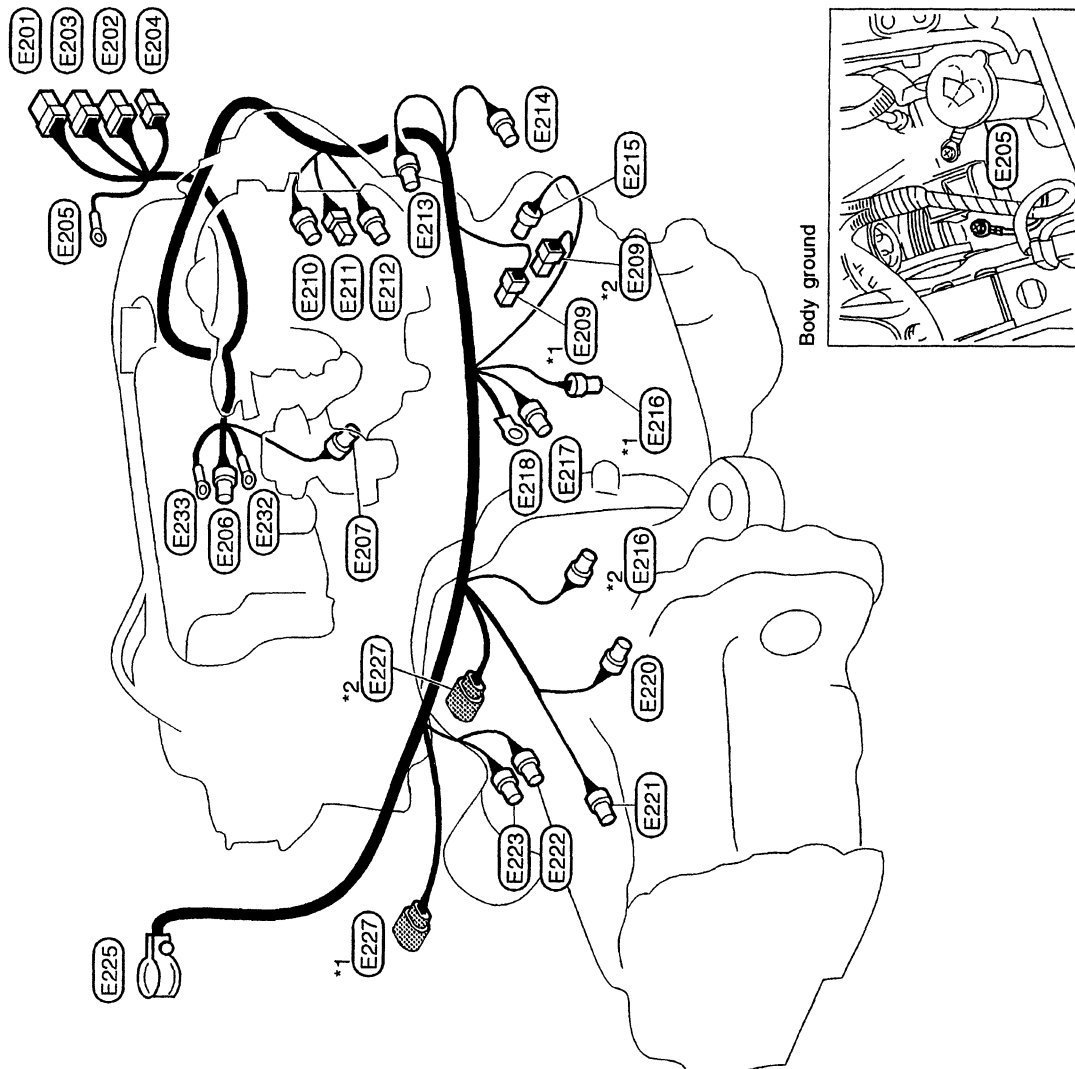
E209	B/1	: Oil pressure switch
E210	GY/2	: Engine coolant temperature sensor
E211	B/1	: Thermal transmitter
E215	B/2	: Knock sensor
E216	GY/2	: Vehicle speed sensor
E217	GY/1	: Starter motor
E218	—	: Starter motor
E220	B/2	: Neutral position switch
E221	GY/2	: Back-up lamp switch
E225	—	: Battery+
E235	GY/4	: To E29
E236	GY/8	: To E65
E237	GY/1	: To E64

EL

HARNESS LAYOUT

Engine Harness (Cont'd)

SR ENGINE — RHD models



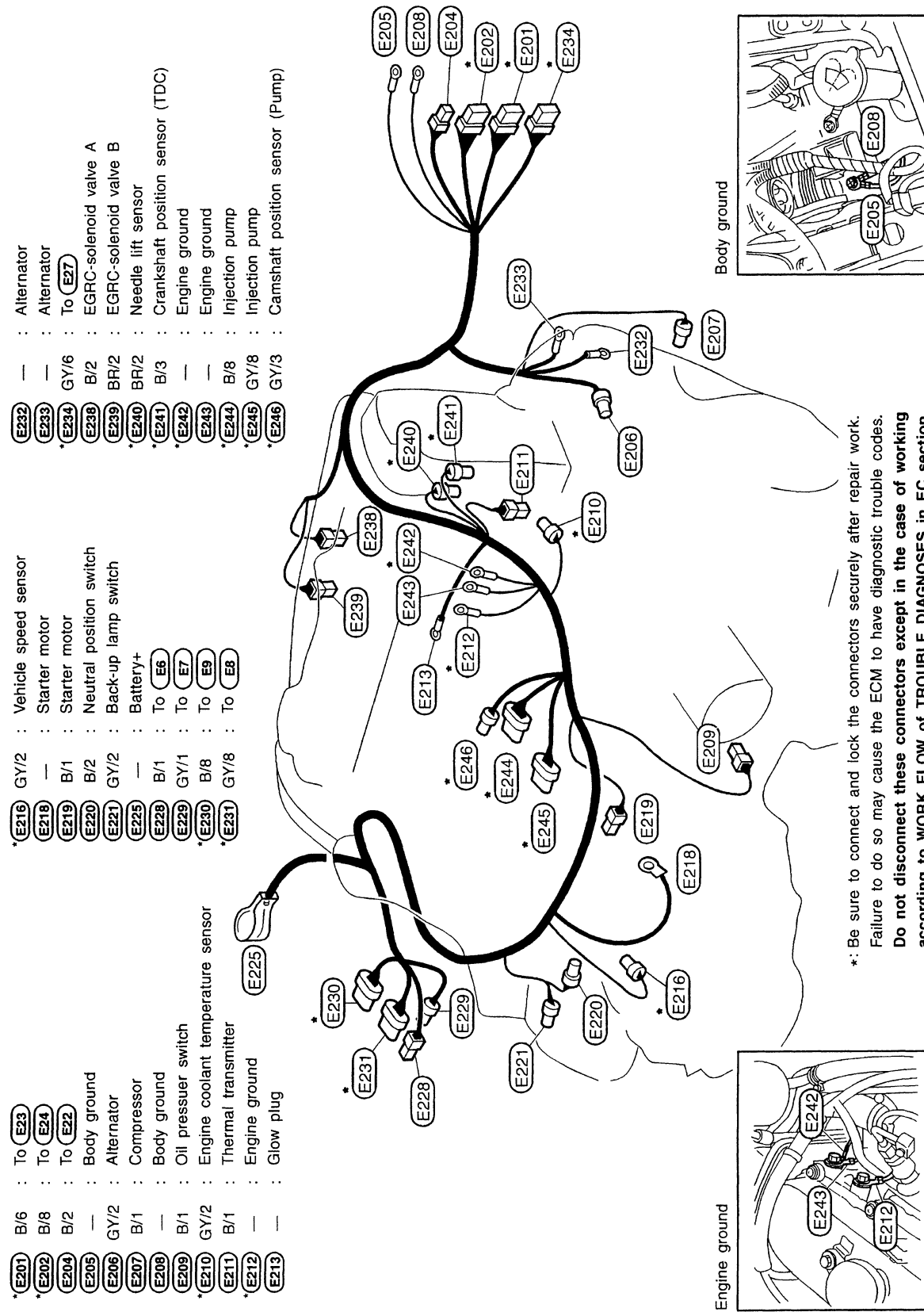
E201	B/6	:	To E23 (M/T models)
E202	B/8	:	To E24
E203	GY/8	:	To E26 (A/T models)
E204	B/2	:	To E22
E205	—	:	Body ground
E206	GY/2	:	Alternator
E207	B/1	:	Compressor
E209	B/1	:	Oil pressure switch
E210	GY/2	:	Engine coolant temperature sensor
E211	B/1	:	Thermal transmitter
E212	GY/2	:	IACV-FICD solenoid valve (For Australia)
E213	BR/2	:	IACV-AAC valve (For Australia)
E214	GY/2	:	IACV-Air regulator (For Australia)
E215	B/2	:	Knock sensor
E216	GY/2	:	Vehicle speed sensor
E217	GY/1	:	Starter motor
E218	—	:	Starter motor
E220	B/2	:	Neutral position switch (M/T models)
E221	GY/2	:	Back-up lamp switch (M/T models)
E222	GY/4	:	Inhibitor switch (A/T models)
E223	B/3	:	A/T control solenoid valve (A/T models)
E225	—	:	Battery+
E227	GY/6	:	To F12
E232	—	:	Alternator
E233	—	:	Alternator

*1 : For Australia

*2 : For Europe

Engine Harness (Cont'd)

CD ENGINE



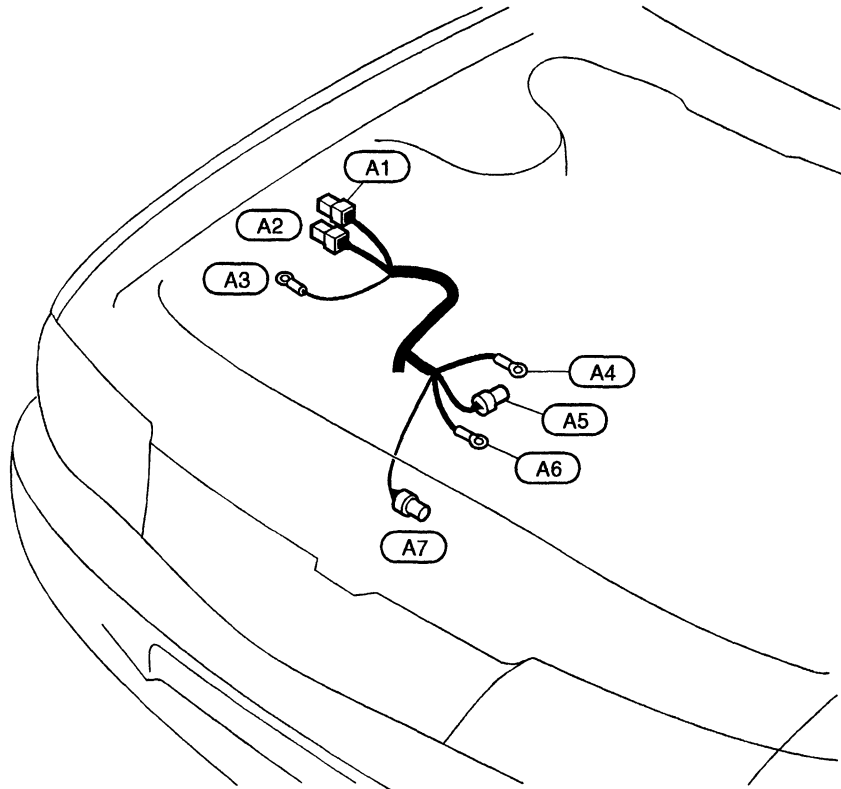
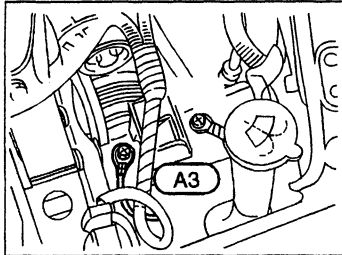
*: Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. **Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC section.**

HARNESS LAYOUT

Alternator Harness

- (A1) B/2 : To (E22)
- (A2) GY/4 : To (E69)
- (A3) — : Body ground
- (A4) — : Alternator
- (A5) GY/2 : Alternator
- (A6) — : Alternator
- (A7) B/1 : Compressor

Body ground



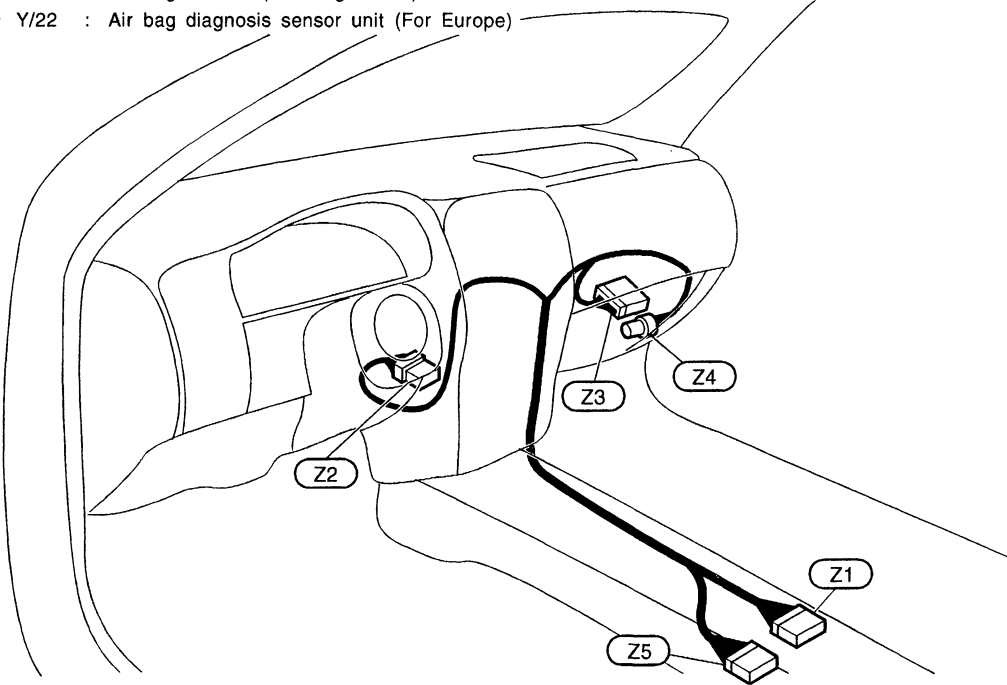
HEL605

HARNESS LAYOUT

LHD MODELS

Air Bag Harness

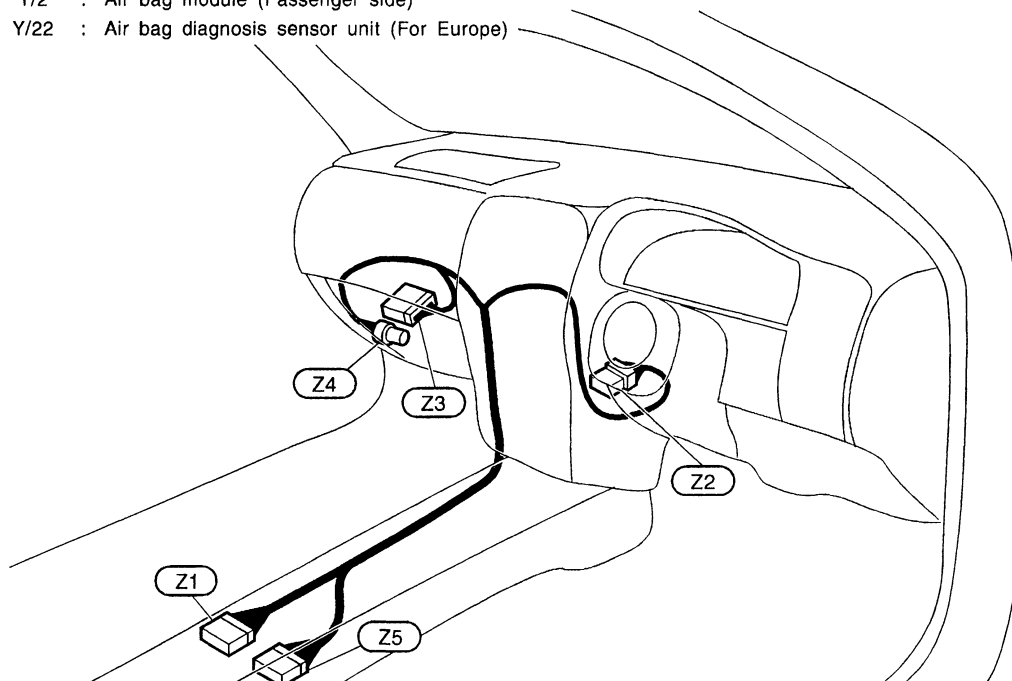
- Z1** Y/24 : Air bag diagnosis sensor unit (Except for Europe)
- Z2** Y/6 : Spiral cable
- Z3** Y/12 : To **M62**
- Z4** Y/2 : Air bag module (Passenger side)
- Z5** Y/22 : Air bag diagnosis sensor unit (For Europe)



HEL593

RHD MODELS

- Z1** Y/24 : Air bag diagnosis sensor unit (Except for Europe)
- Z2** Y/6 : Spiral cable
- Z3** Y/12 : To **M62**
- Z4** Y/2 : Air bag module (Passenger side)
- Z5** Y/22 : Air bag diagnosis sensor unit (For Europe)



HEL594

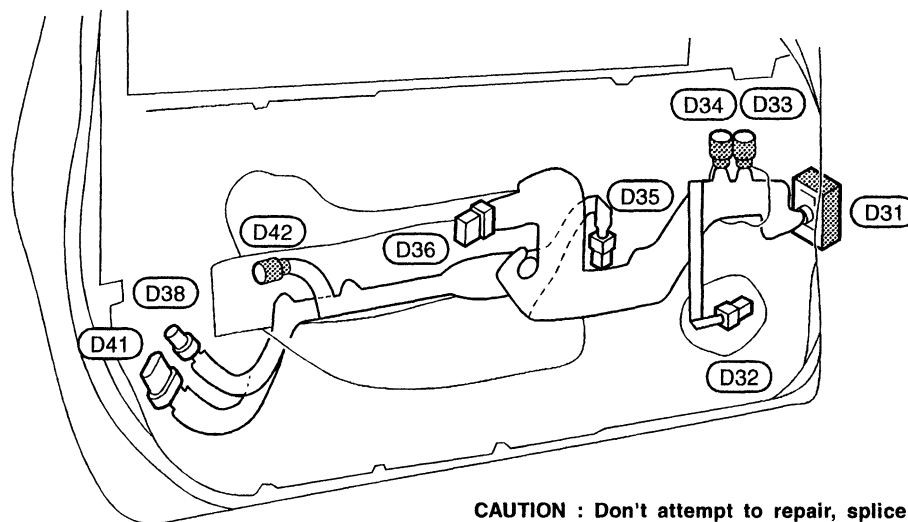
EL

HARNESS LAYOUT

Front Door Harness (LH side)

RHD MODELS (FFC type)

- | | | | | | |
|------------|---|------------------------|------------|---|---|
| (D31) SMJ | : | To (M75) | (D36) W/8 | : | Power window sub-switch |
| (D32) BR/2 | : | Door speaker | (D38) GY/4 | : | Door lock actuator
(With power door lock type-1) |
| (D33) BR/3 | : | Door mirror actuator | (D41) B/6 | : | Door lock actuator assembly (With super lock) |
| (D34) GY/2 | : | Door mirror defogger | (D42) GY/2 | : | Key cylinder switch (With super lock) |
| (D35) B/2 | : | Power window regulator | | | |



CAUTION : Don't attempt to repair, splice or modify the flexible flat circuit (FFC). If the FFC is damaged, replace with a new one.

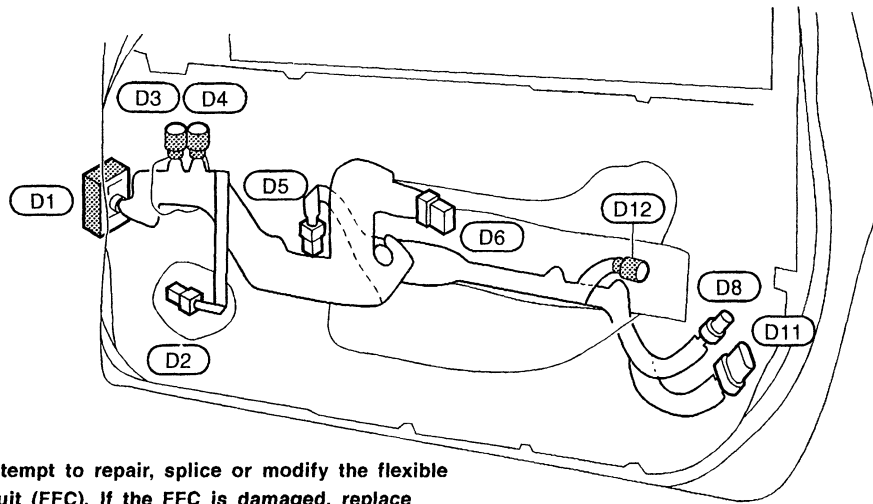
HEL598

HARNESS LAYOUT

Front Door Harness (RH side)

RHD MODELS (FFC type)

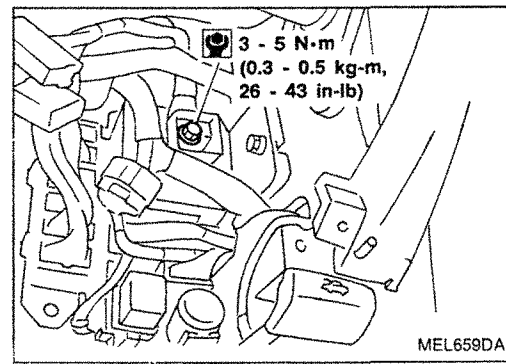
- | | | | | | |
|-----------|---|------------------------|------------|---|---|
| (D1) SMJ | : | To (M1) | (D6) W/12 | : | Power window main switch |
| (D2) BR/2 | : | Door speaker | (D8) GY/4 | : | Door lock actuator |
| (D3) BR/3 | : | Door mirror actuator | | : | (With power door lock type-1) |
| (D4) GY/2 | : | Door mirror defogger | (D11) B/6 | : | Door lock actuator assembly (With super lock) |
| (D5) B/2 | : | Power window regulator | (D12) GY/2 | : | Key cylinder switch (With super lock) |



CAUTION : Don't attempt to repair, splice or modify the flexible flat circuit (FFC). If the FFC is damaged, replace with a new one.

HEL602

SUPER MULTIPLE JUNCTION (SMJ)



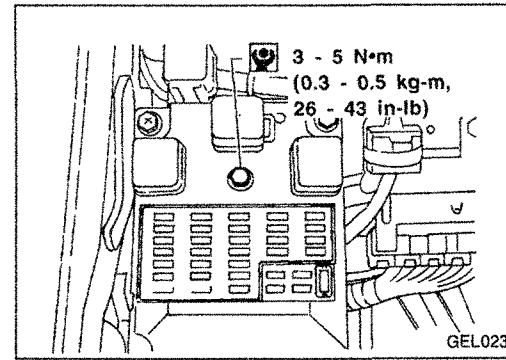
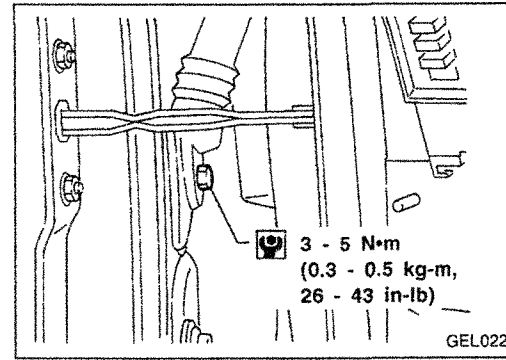
INSTALLATION

To install SMJ and FUSE BLOCK (J/B), tighten bolts until orange "fulltight" mark appears and then retighten to specified torque as required.

Torque: 3 - 5 N·m
(0.3 - 0.5 kg-m, 26 - 43 in-lb)

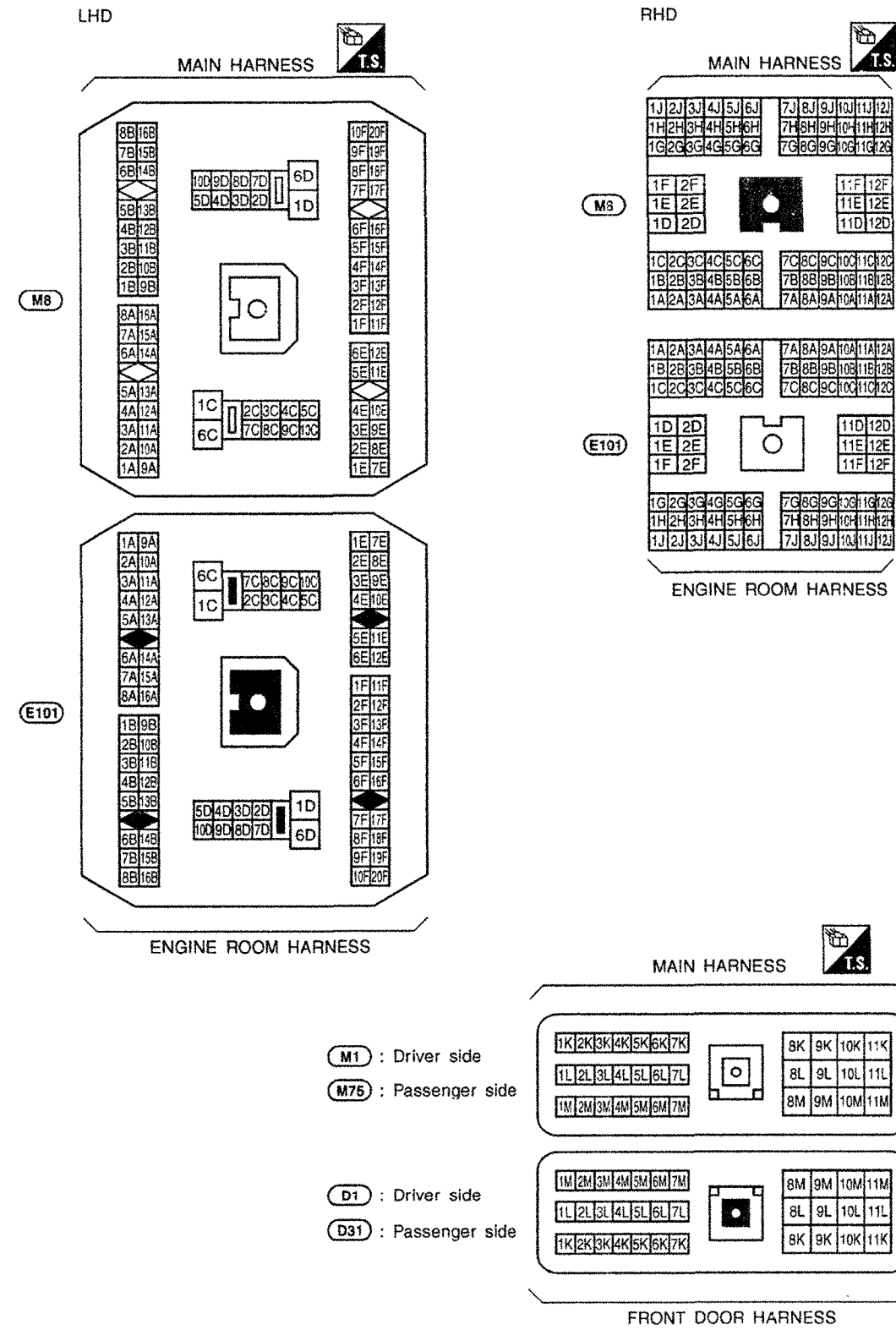
CAUTION:

Do not overtighten bolts, otherwise, they may be damaged.



SUPER MULTIPLE JUNCTION (SMJ)

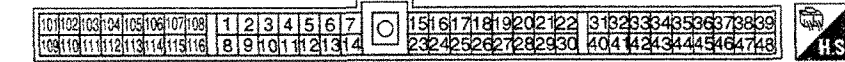
Terminal Arrangement



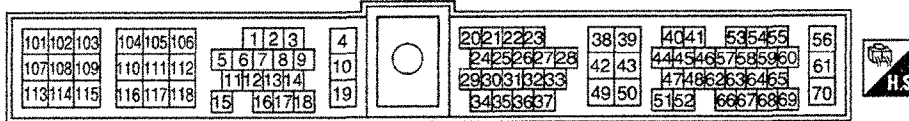
ELECTRICAL UNITS

Terminal Arrangement

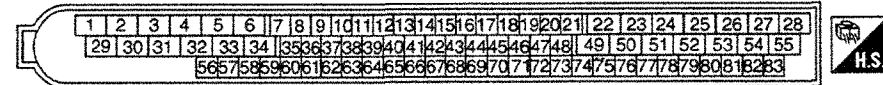
ECM (ECES control module) (F1) (GA engine except for Australia and SR engine)



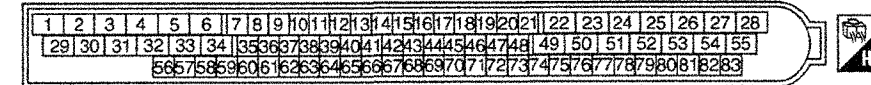
ECM (ECES control module) (F1) (GA engine for Australia)
(M3) (CD engine)



ABS CONTROL UNIT (B11) (LHD models)



ABS CONTROL UNIT (B11) (RHD models)



JOINT CONNECTOR (J/C)

Terminal Arrangement

