

# ENGINE CONTROL SYSTEM

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## SECTION EC

### MODIFICATION NOTICE:

- The wiring diagram has been changed.
- Distributor for the GA engine model has been changed. In accordance, TROUBLE DIAGNOSIS FOR DTC 11 and TROUBLE DIAGNOSIS FOR DTC 21 have been changed.

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

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER (Mechanically activated type)” used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger, for certain types of collision. The SRS system composition which is available to NISSAN MODEL N15 is as follows (The composition varies according to the destination and optional equipment.):

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

Information necessary to service the system safely is included in the **RS section** of this Service Manual.

### WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance should be performed by an authorized NISSAN dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the RS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. Spiral cable and wiring harnesses covered with yellow insulation either just before the harness connectors or for the complete harness are related to the SRS.

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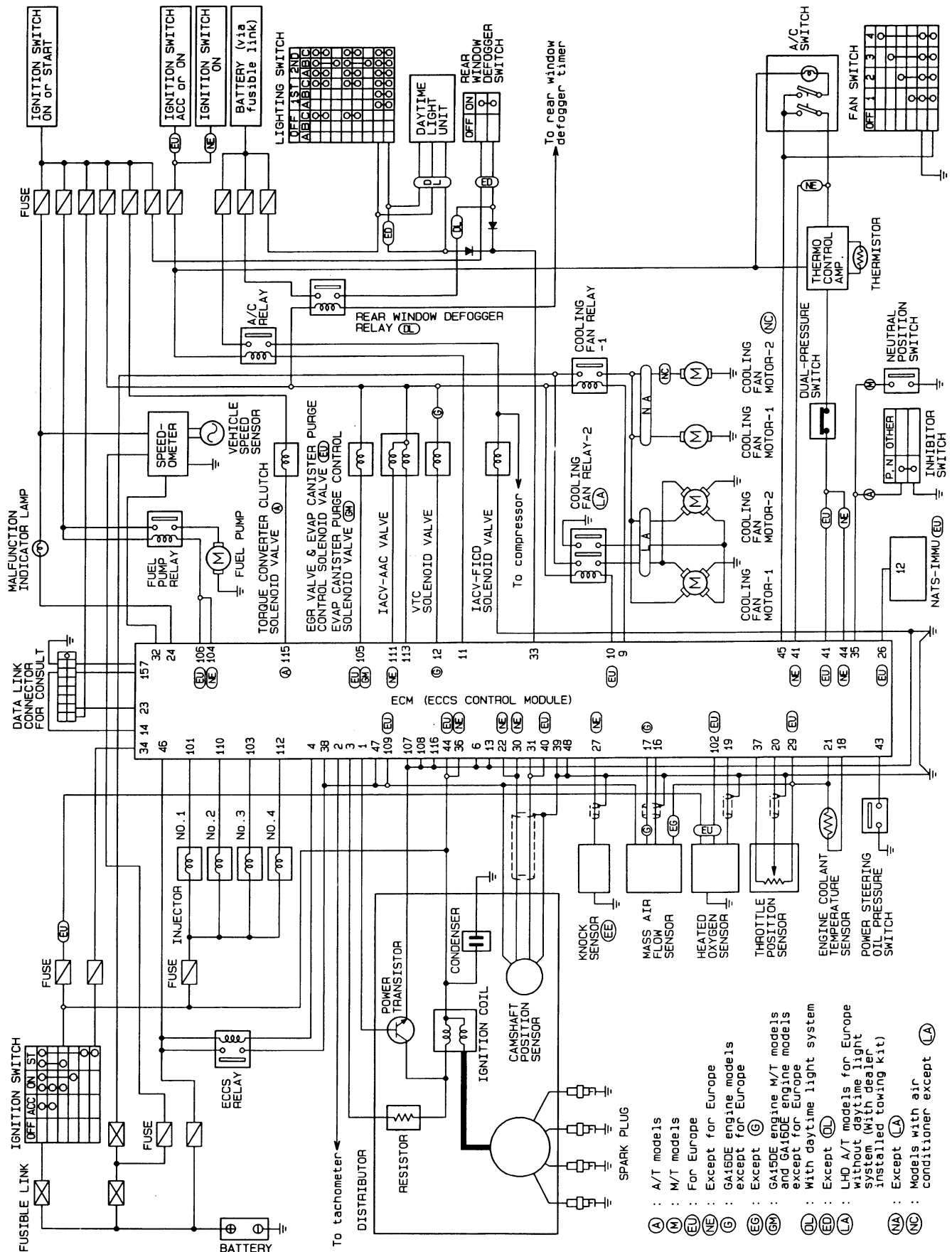
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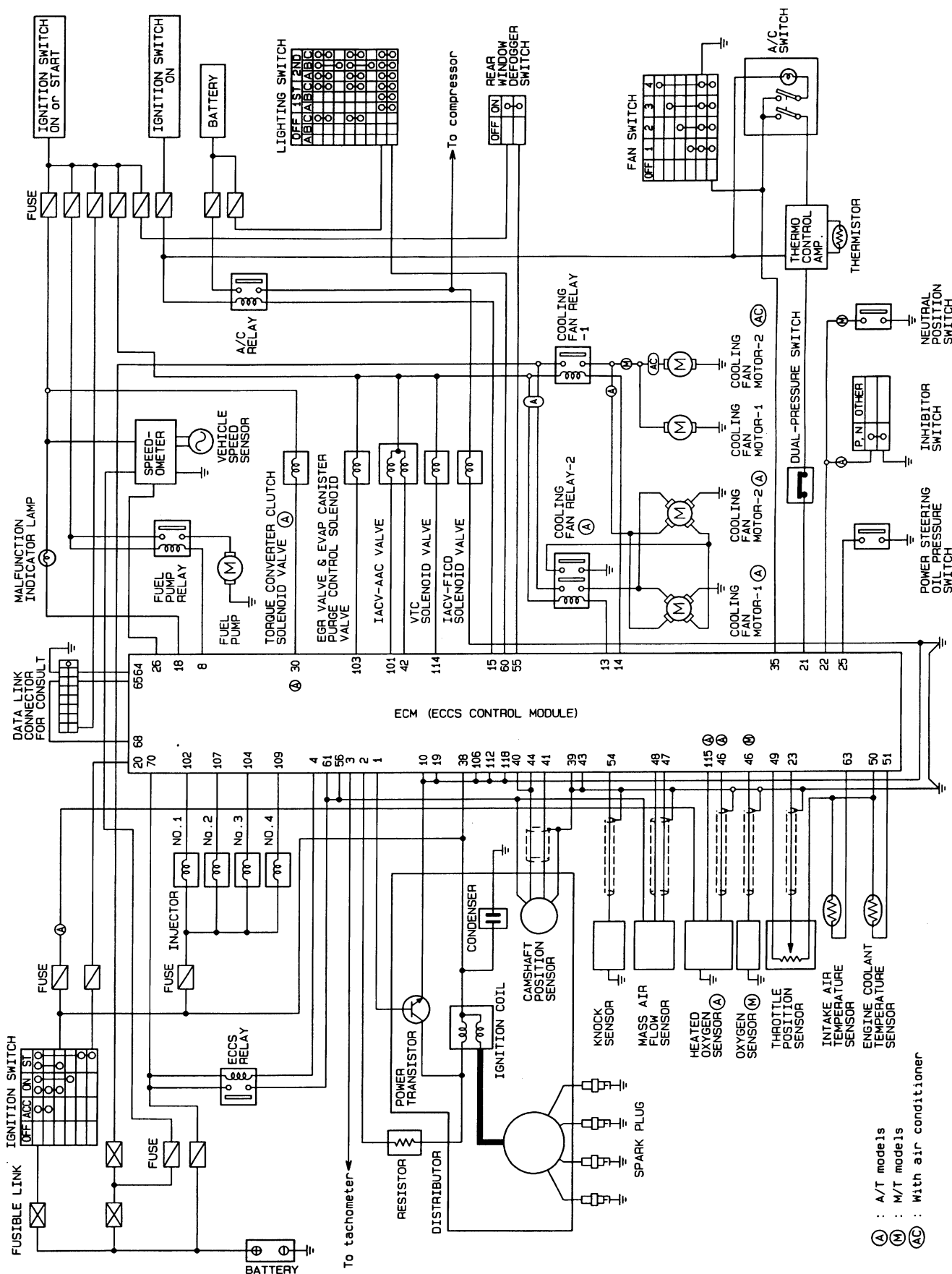
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## Circuit Diagram — Except for Australia



## Circuit Diagram — For Australia



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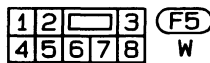
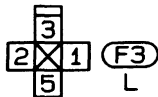
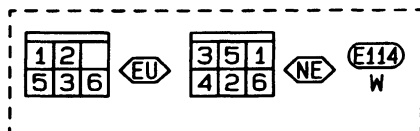
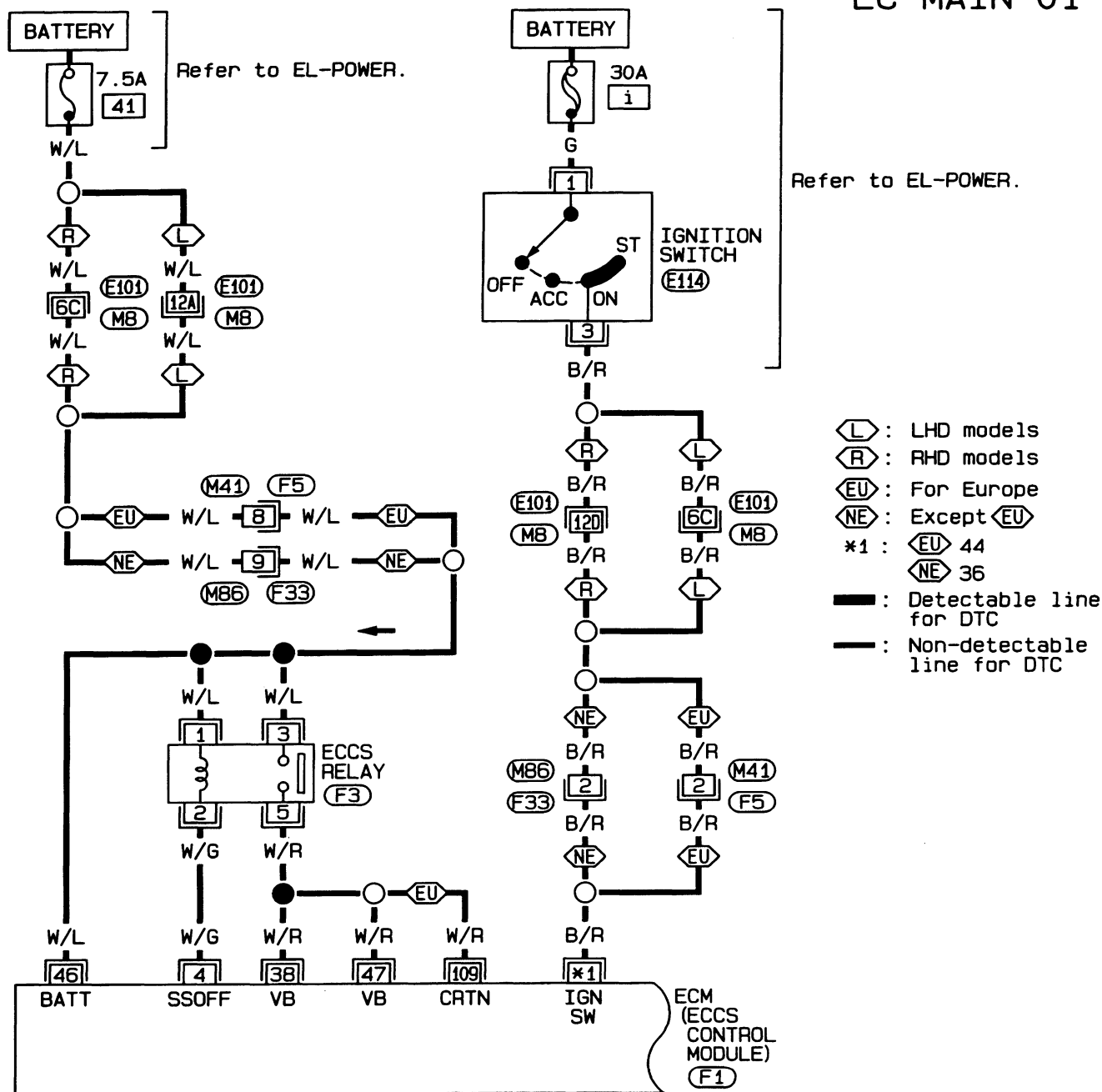
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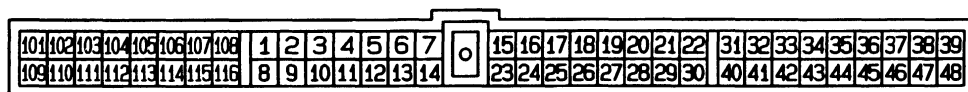
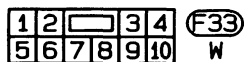
## Main Power Supply and Ground Circuit

Except for Australia

EC-MAIN-01



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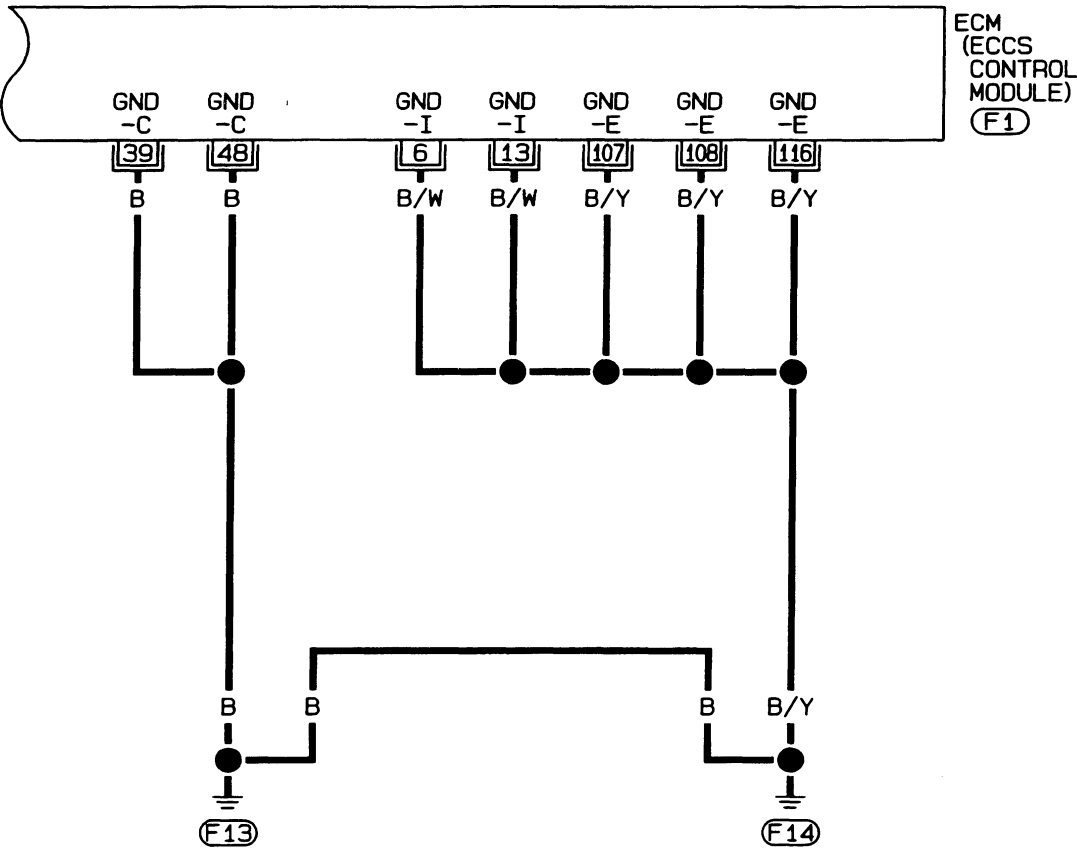
**[MB]**, **[E101]****(F1)**  
L

Main Power Supply and Ground Circuit  
(Cont'd)

Except for Australia

EC-MAIN-02

: Detectable line for DTC  
: Non-detectable line for DTC



ECM  
(ECSS  
CONTROL  
MODULE)  
(F1)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

(F1)  
L

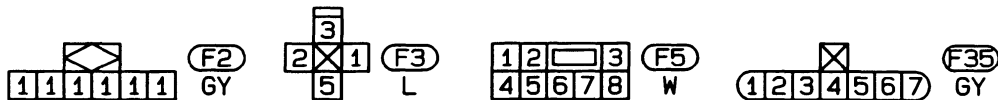
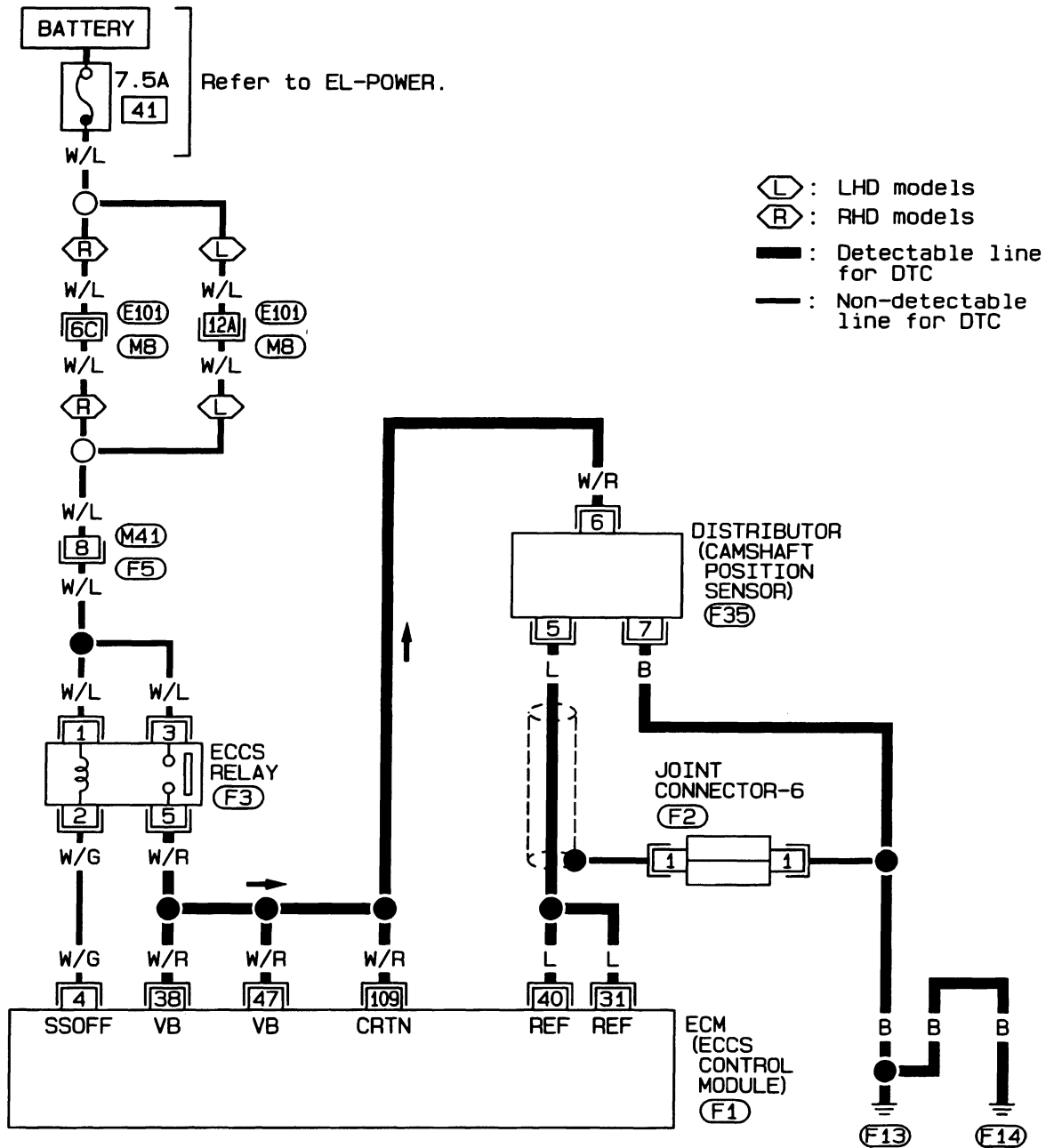


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## Camshaft Position Sensor (CMPS)

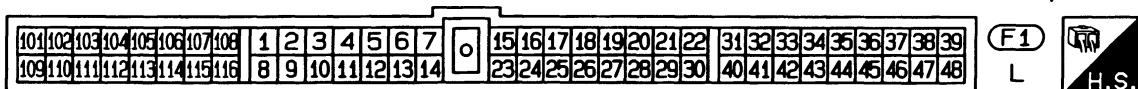
For Europe

EC-CMPS-01



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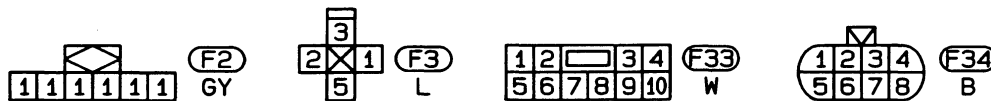
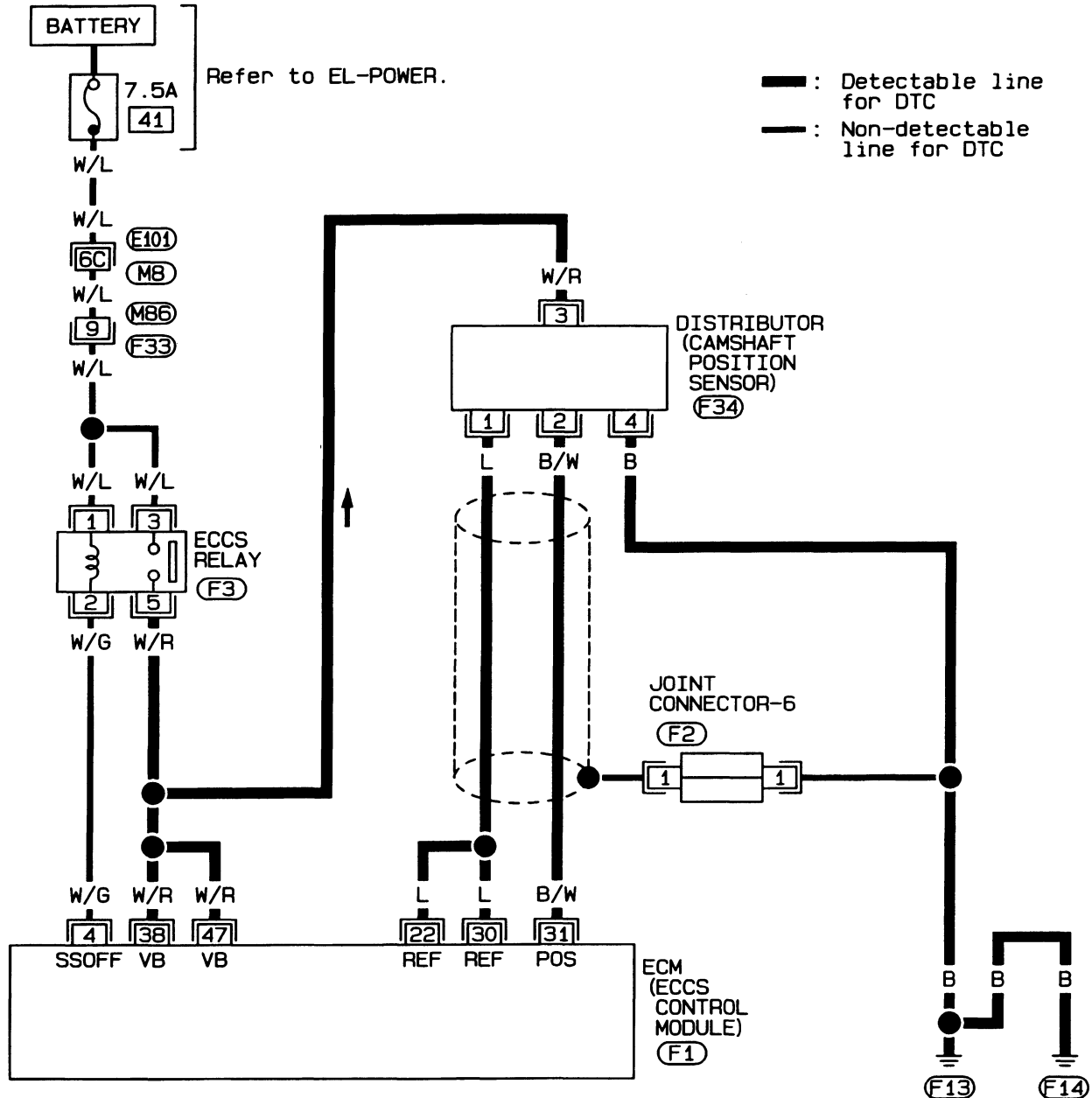
(MB), (E101)



## Camshaft Position Sensor (CMPS) (Cont'd)

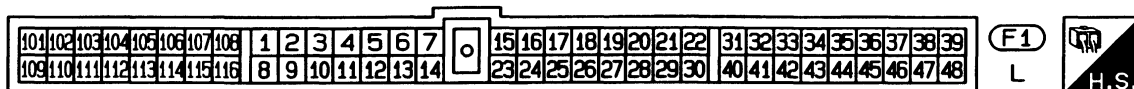
Except for Europe and Australia

EC-CMPS-02



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(MB), (E101)



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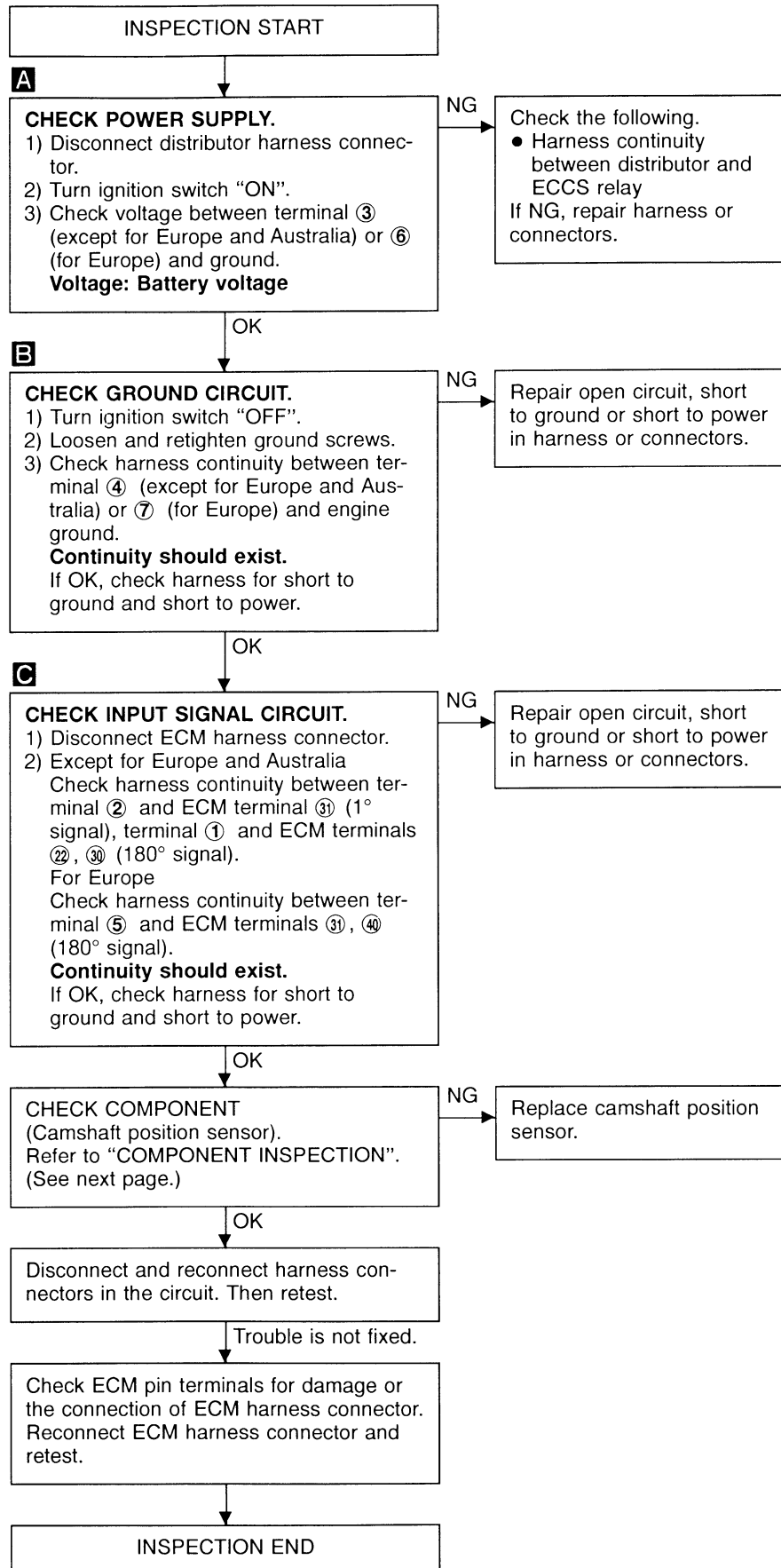
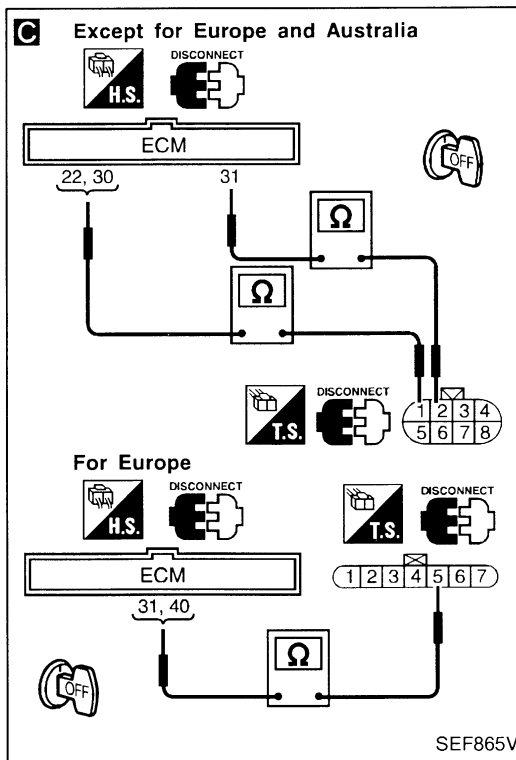
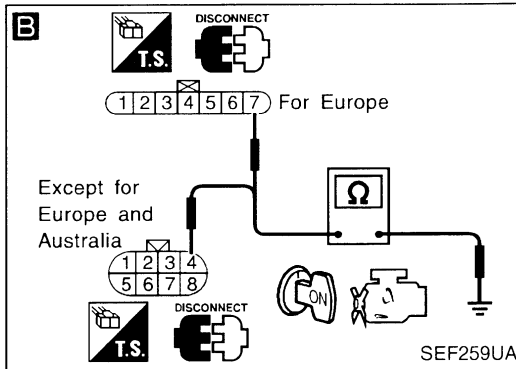
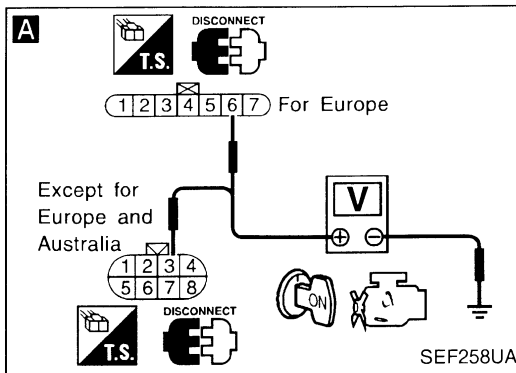
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## Camshaft Position Sensor (CMPS) (Cont'd)

## DIAGNOSTIC PROCEDURE

## Models except for Australia



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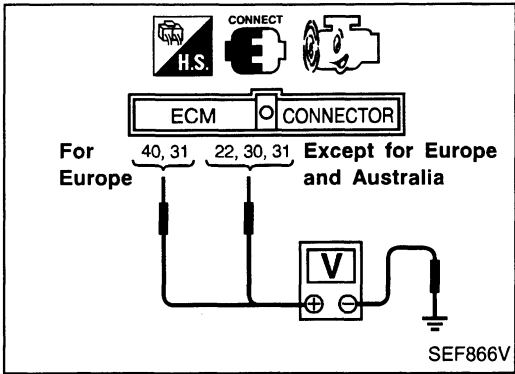
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Camshaft Position Sensor (CMPS) (Cont'd)  
COMPONENT INSPECTION

Camshaft position sensor (Except for Australia)

- 1. Start engine.
- 2. Check voltage between ECM terminals and ground with AC range.



| ECM Terminal                                    | Voltage                                        |
|-------------------------------------------------|------------------------------------------------|
| ② ③: Except for Europe and Australia            | Tester's pointer fluctuates between 5V and 0V. |
| ③ ④: For Europe (REF signal)                    |                                                |
| ③: Except for Europe and Australia (POS signal) |                                                |

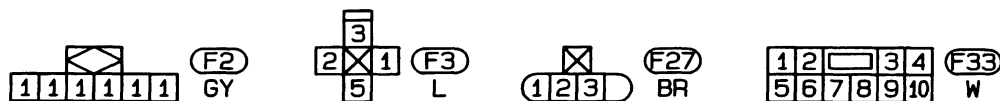
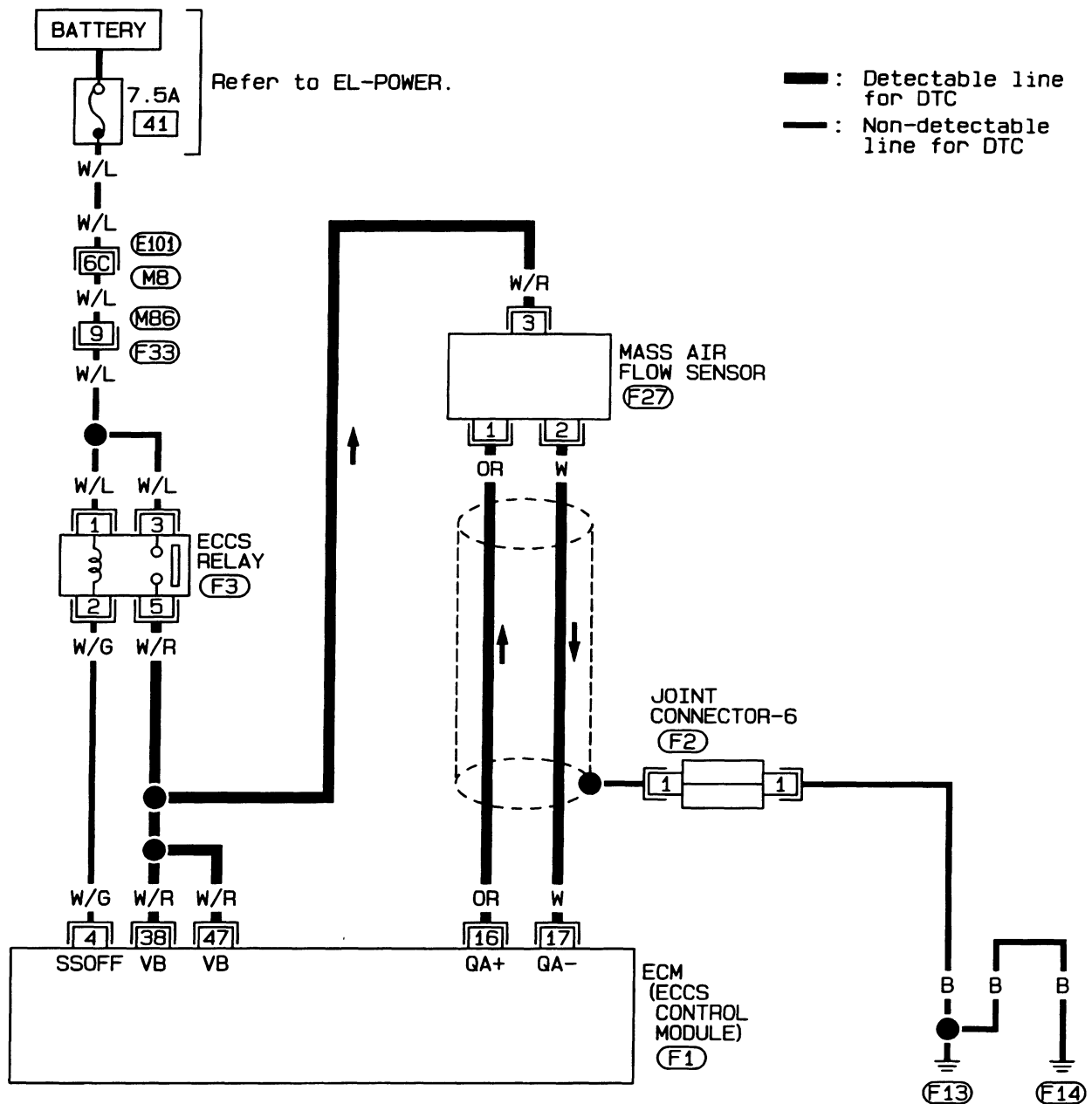
- 3. If NG, replace distributor assembly with camshaft position sensor.



## Mass Air Flow Sensor (MAFS) (Cont'd)

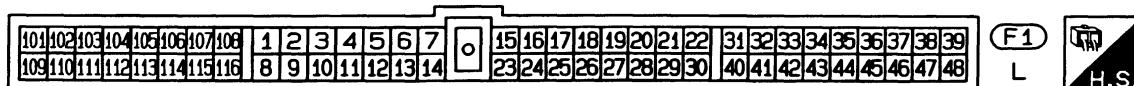
GA16DE engine models except for Europe and Australia

EC-MAFS-02



Refer to last page (Foldout page).

(MB), (E101)



## For Europe

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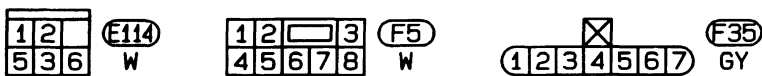
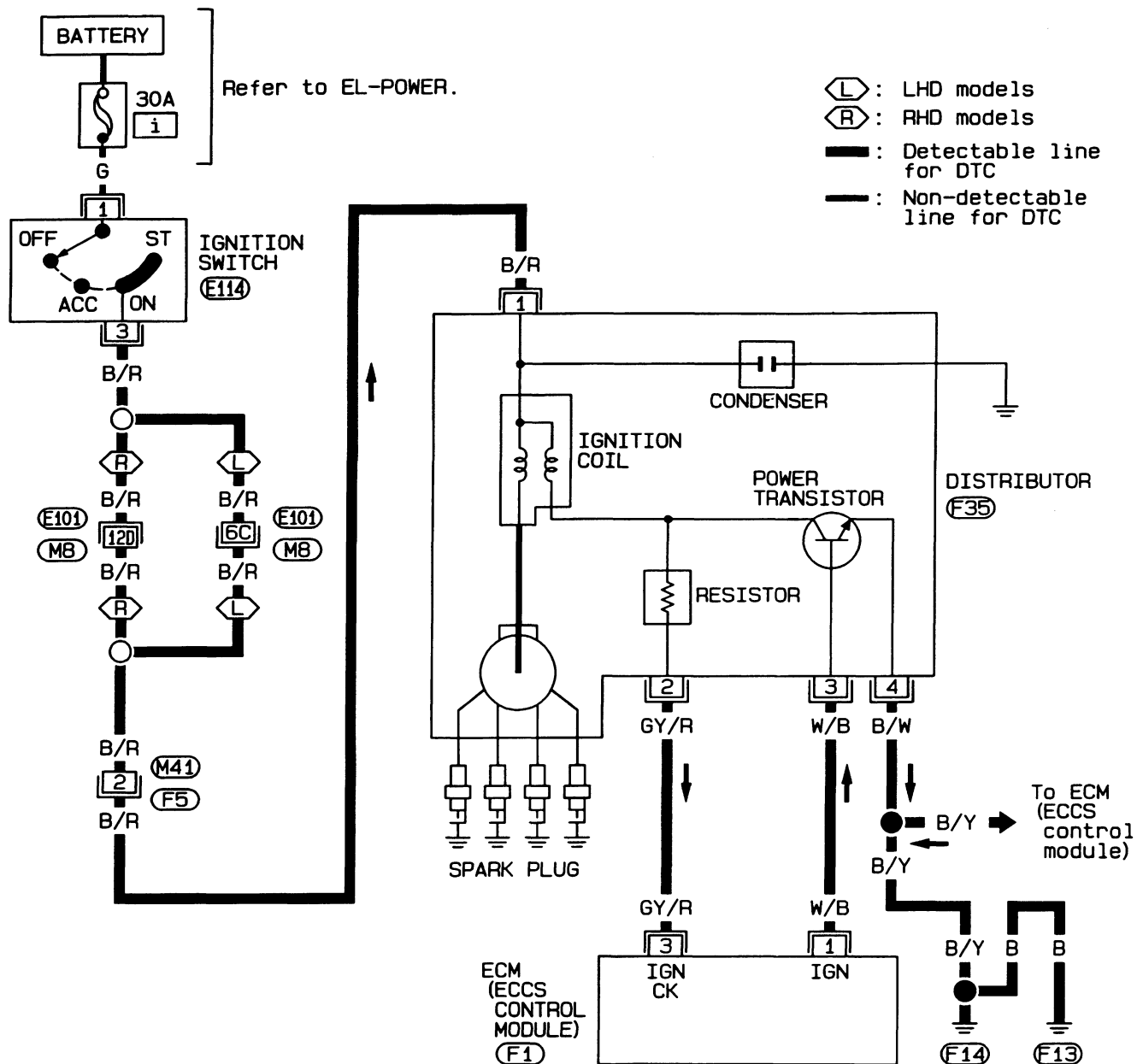
RS

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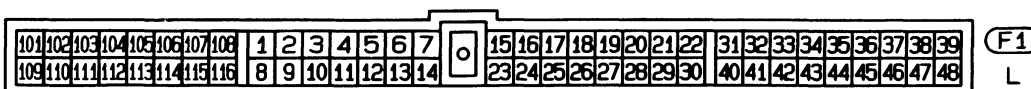
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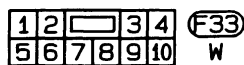
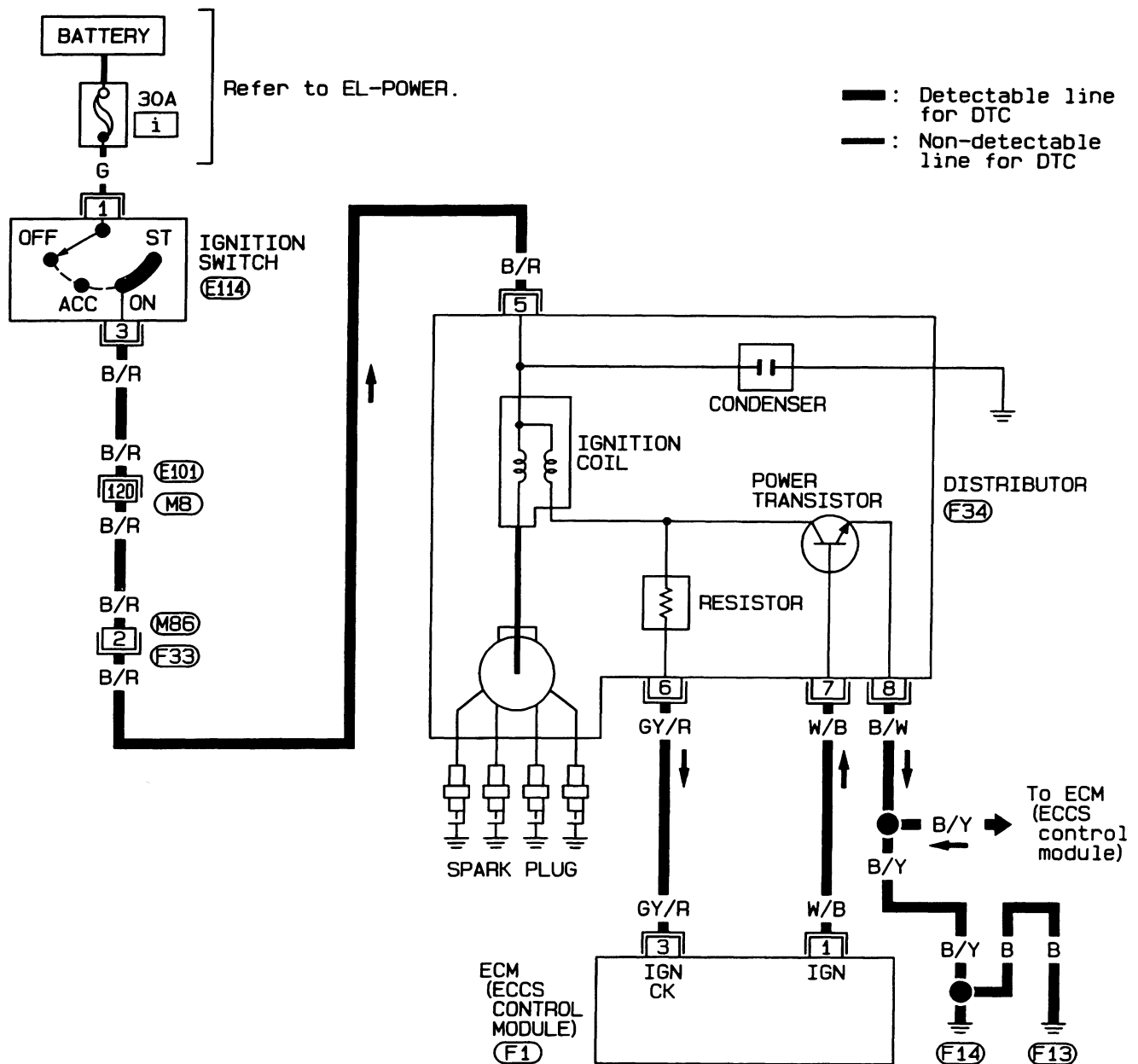
MB E101



## Ignition Signal (Cont'd)

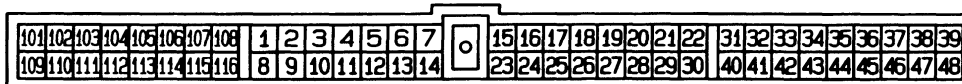
Except for Europe and Australia

EC-IGN/SG-02



Refer to last page (Foldout page).

(MB), (E101)

(F1)

H.S.

EC-16

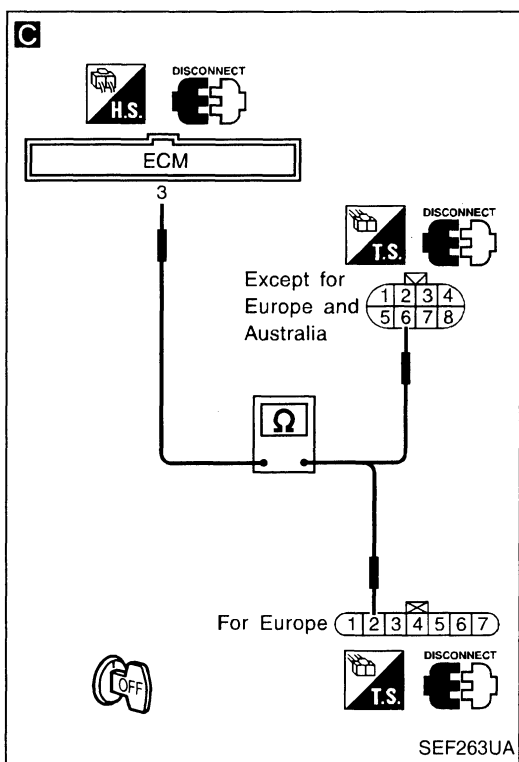
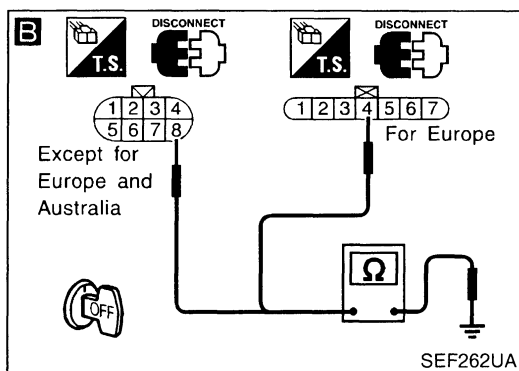
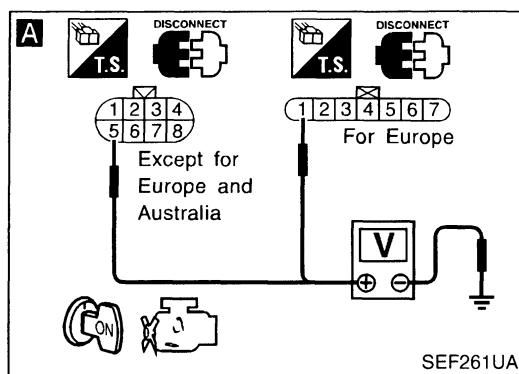
HEC505



## Ignition Signal (Cont'd)

## DIAGNOSTIC PROCEDURE

Models except for Australia



INSPECTION START

**A****CHECK POWER SUPPLY.**

- 1) Disconnect distributor harness connectors.
- 2) Turn ignition switch "ON".
- 3) Check voltage between terminal ⑤ (except for Europe and Australia) or ① (for Europe) and ground.

**Voltage: Battery voltage**

NG

Check the following.

- Harness connectors (E101), (M8)
  - Harness connectors (M86), (F33) (except for Europe and Australia)
  - Harness connectors (M41), (F5) (for Europe)
  - Harness continuity between distributor and ignition switch
- If NG, repair harness or connectors.

OK

**B****CHECK GROUND CIRCUIT.**

- 1) Turn ignition switch "OFF".
- 2) Check harness continuity between terminal ⑧ (except for Europe and Australia) or ④ (for Europe) and engine ground.

**Continuity should exist.**

If OK, check harness for short to ground and short to power.

NG

Repair open circuit, short to ground or short to power in harness or connectors.

OK

**C****CHECK INPUT SIGNAL CIRCUIT.**

- 1) Disconnect resistor harness connector.
- 2) Disconnect ECM harness connector.
- 3) Check harness continuity between terminal ⑥ (except for Europe and Australia) or ② (for Europe) and ECM terminal ③.

**Continuity should exist.**

If OK, check harness for short to ground and short to power.

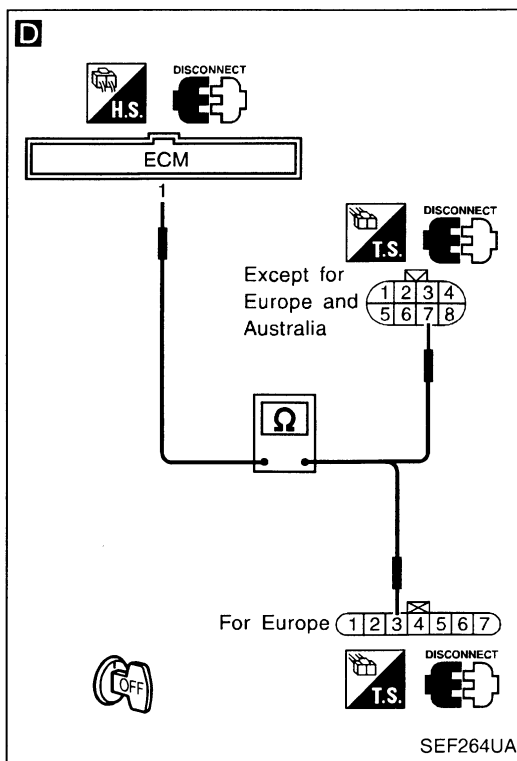
NG

Repair open circuit, short to ground or short to power in harness or connectors.

OK

Ⓐ

## Ignition Signal (Cont'd)

**D****CHECK OUTPUT SIGNAL CIRCUIT.**

- 1) Check harness continuity between terminal ⑦ (except for Europe and Australia) or ③ (for Europe) and ECM terminal ①.

**Continuity should exist.**

If OK, check harness for short to ground and short to power.

NG

Repair open circuit, short to ground or short to power in harness or connectors.

OK

**CHECK COMPONENTS**

(Ignition coil and power transistor). Refer to "Electrical Components Inspection". (See next page.)

NG

Replace malfunctioning component(s).

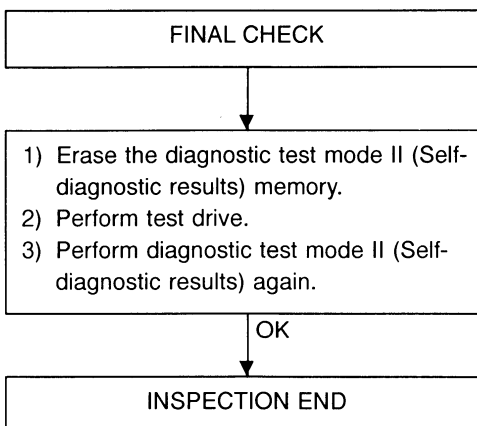
OK

Disconnect and reconnect harness connectors in the circuit. Then retest.

Trouble is not fixed.

Check ECM pin terminals for damage or the connection of ECM harness connector. Reconnect ECM harness connector and retest.

**Perform FINAL CHECK by the following procedure after repair is completed.**



NG

Recheck ECM pin terminals for damage or the connection of ECM harness connector.

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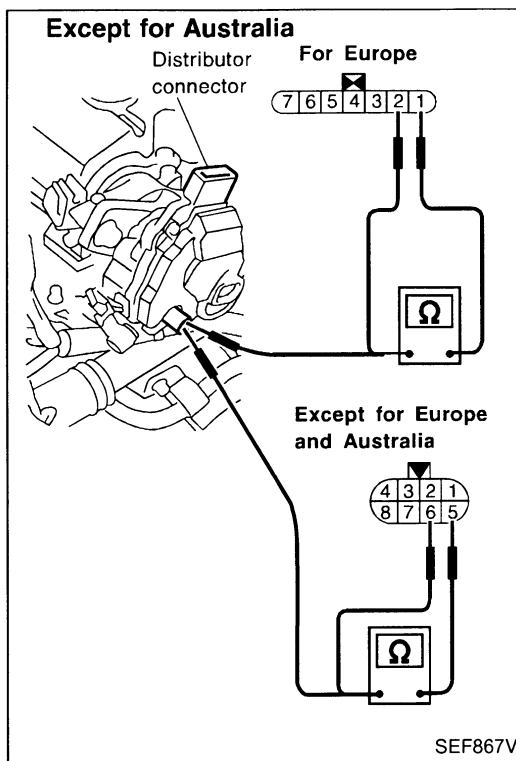
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## Ignition Signal (Cont'd)

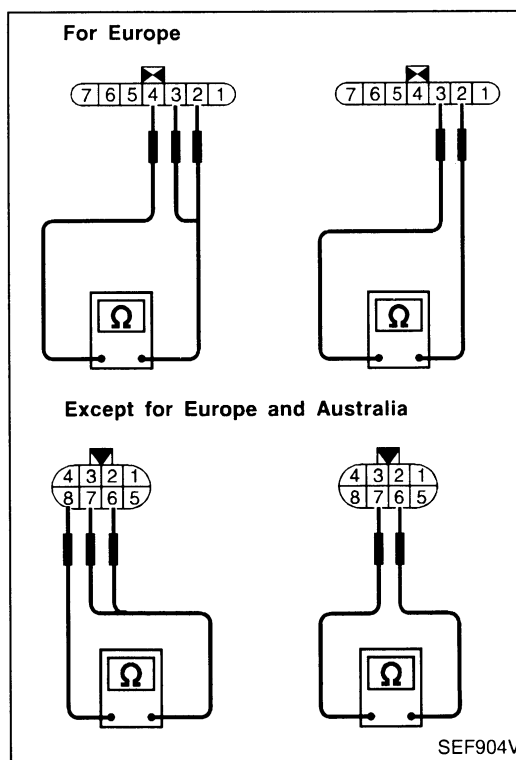
### COMPONENT INSPECTION

#### Ignition coil (Except for Australia)

1. Disconnect distributor harness connector.
2. Check resistance as shown in the figure.

| Terminal                                                                                                              | Resistance [at 25°C (77°F)] |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------|
| ① - ② (for Europe)<br>⑤ - ⑥ (except for Europe and Australia)<br>(Primary coil)                                       | Approximately 2.2 kΩ        |
| ① (for Europe) or<br>⑤ (except for Europe and Australia)<br>- secondary terminal on distributor head (Secondary coil) | Approximately 10 kΩ         |

3. For checking secondary coil, remove distributor cap.
4. Check resistance between distributor harness connector terminal and the secondary terminal on the distributor head.  
If NG, replace distributor.



#### Power transistor (Except for Australia)

1. Disconnect distributor harness connector.
2. Check resistance with analog tester as shown in the figure.

| For Europe      |   | Except for Europe and Australia |   | Resistance [at 25°C (77°F)]<br>Ω |
|-----------------|---|---------------------------------|---|----------------------------------|
| Tester polarity |   | Tester polarity                 |   |                                  |
| ⊕               | ⊖ | ⊕                               | ⊖ |                                  |
| ④               | ③ | ⑧                               | ⑦ | Not ∞ or 0                       |
| ④               | ② | ⑧                               | ⑥ | ∞                                |
| ③               | ④ | ⑦                               | ⑧ | Not ∞ or 0                       |
| ③               | ② | ⑦                               | ⑥ | ∞                                |
| ②               | ④ | ⑥                               | ⑧ | Not ∞ or 0                       |
| ②               | ③ | ⑥                               | ⑦ | Not ∞ or 0                       |

Note: When using digital tester, polarity may differ depending on the tester.

If NG, replace distributor assembly.



EC-VSS-01

**EC-VSS-01**

BATTERY  
IGNITION SWITCH ON or START

FUSE BLOCK (J/B) (M15)

7.5A [24]  
10A [18]

P [N17] [23]  
Y [N15] [1]

Refer to EL-POWER.

COMBINATION METER  
(M30)  
(M31)  
(M32)

UNIFIED METER CONTROL UNIT (WITH SPEEDOMETER AND ODO/TRIP METER)

FPC CONNECTOR  
[28] R/Y  
[30] R

L R

R/Y MB R R/Y MB R  
[14F] E101 [13F]  
R/Y [2J] E101 [4H]  
R/Y R R/Y R

L R

R/Y E24 R  
[7] E202 [8]  
R/Y R

[1] [2]

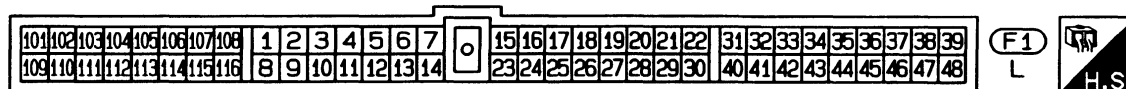
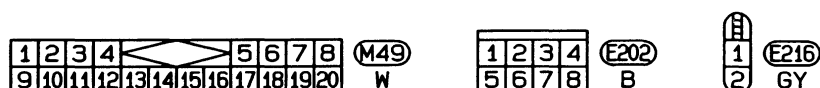
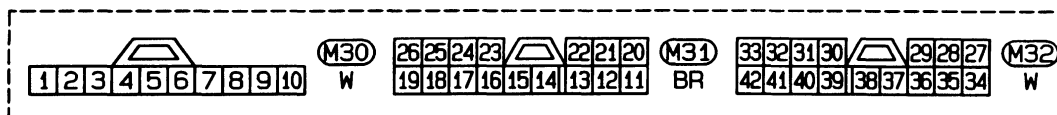
VEHICLE SPEED SENSOR (E216)

ECM (ECES CONTROL MODULE) (F1)

VSP [32] PU/R [18] (M49) (F6) PU/R

B/R [22] B/R [27] (M27)

Legend:  
L : LHD models  
R : RHD models  
— : Detectable line for DTC  
— : Non-detectable line for DTC



Refer to last page  
(Foldout page) .

(M8), (E101)  
(M15)

## Vehicle Speed Sensor (VSS) (Cont'd)

Without tachometer

EC-VSS-02

GI

MA

EM

LC

EC

FE

CL

MT

AT

FA

RA

BR

ST

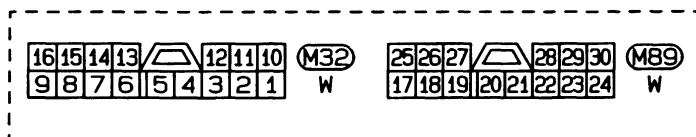
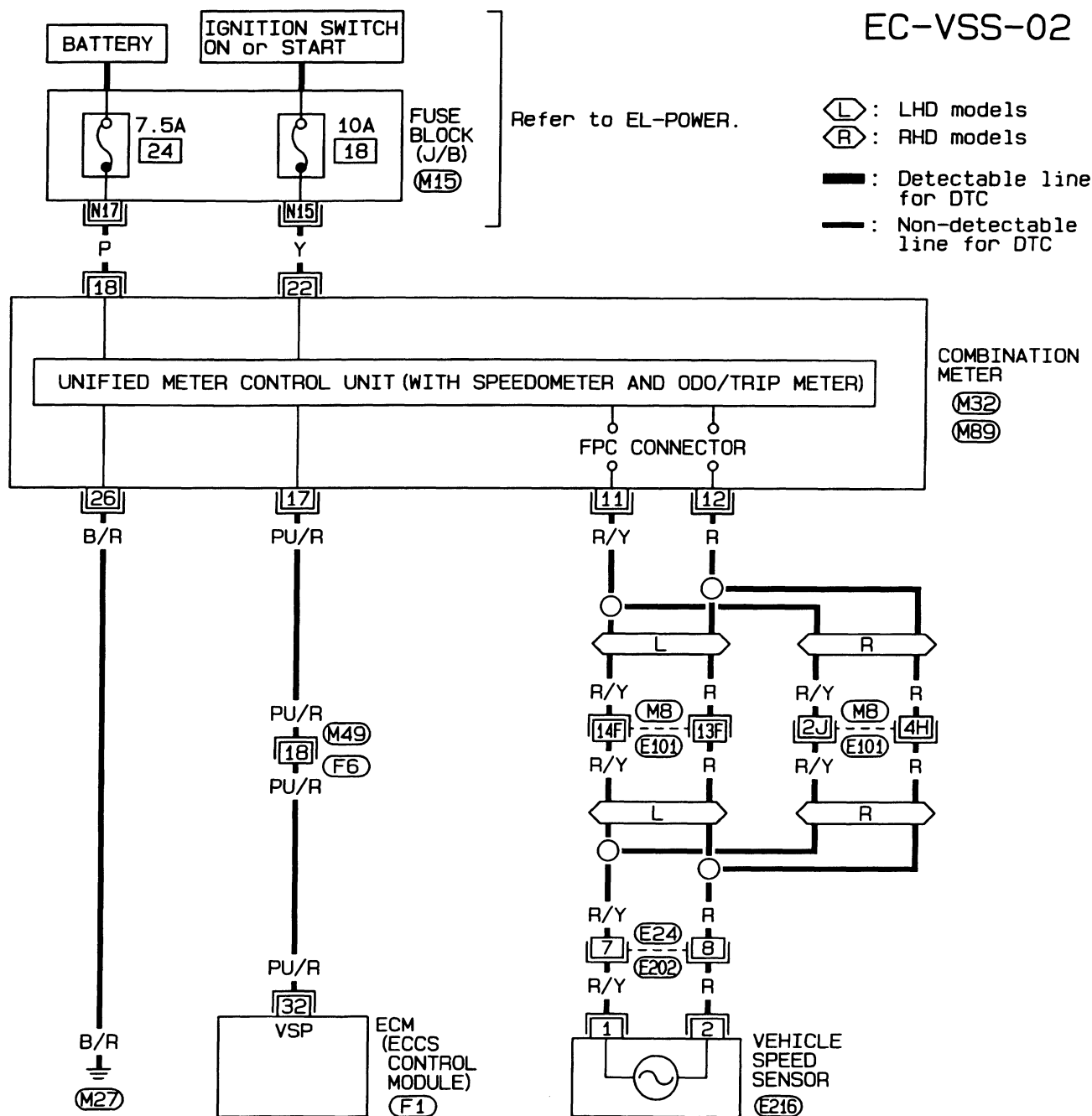
RS

BT

HA

EL

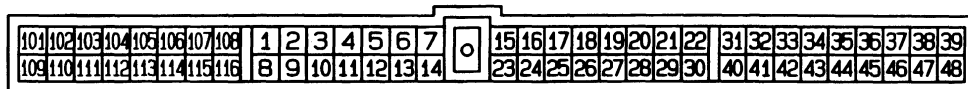
IDX



Refer to last page (Foldout page).

MB, E101

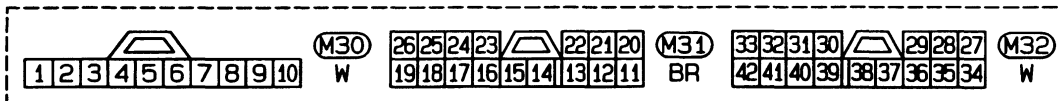
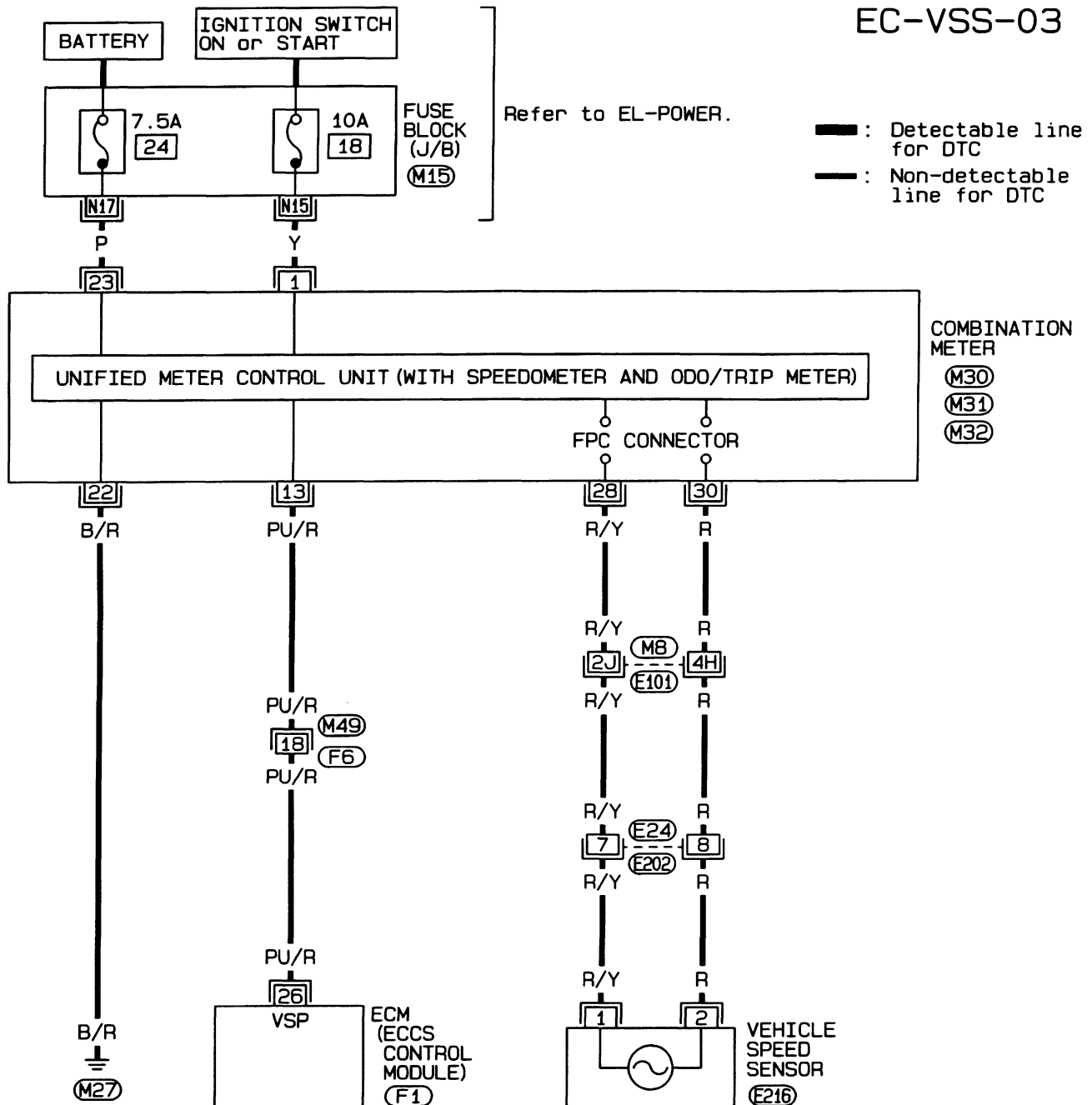
M15

F1  
L

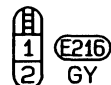
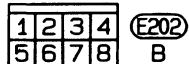
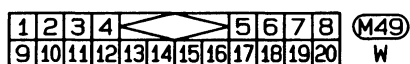
## Vehicle Speed Sensor (VSS) (Cont'd)

GA16DE for Australia

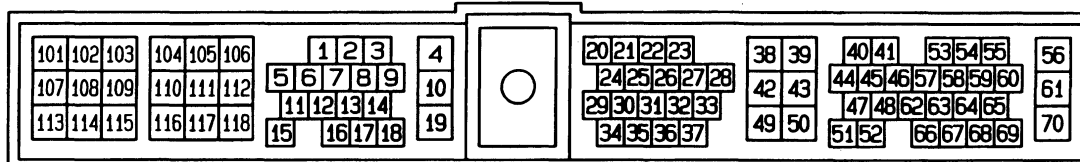
EC-VSS-03



Refer to last page (Foldout page).



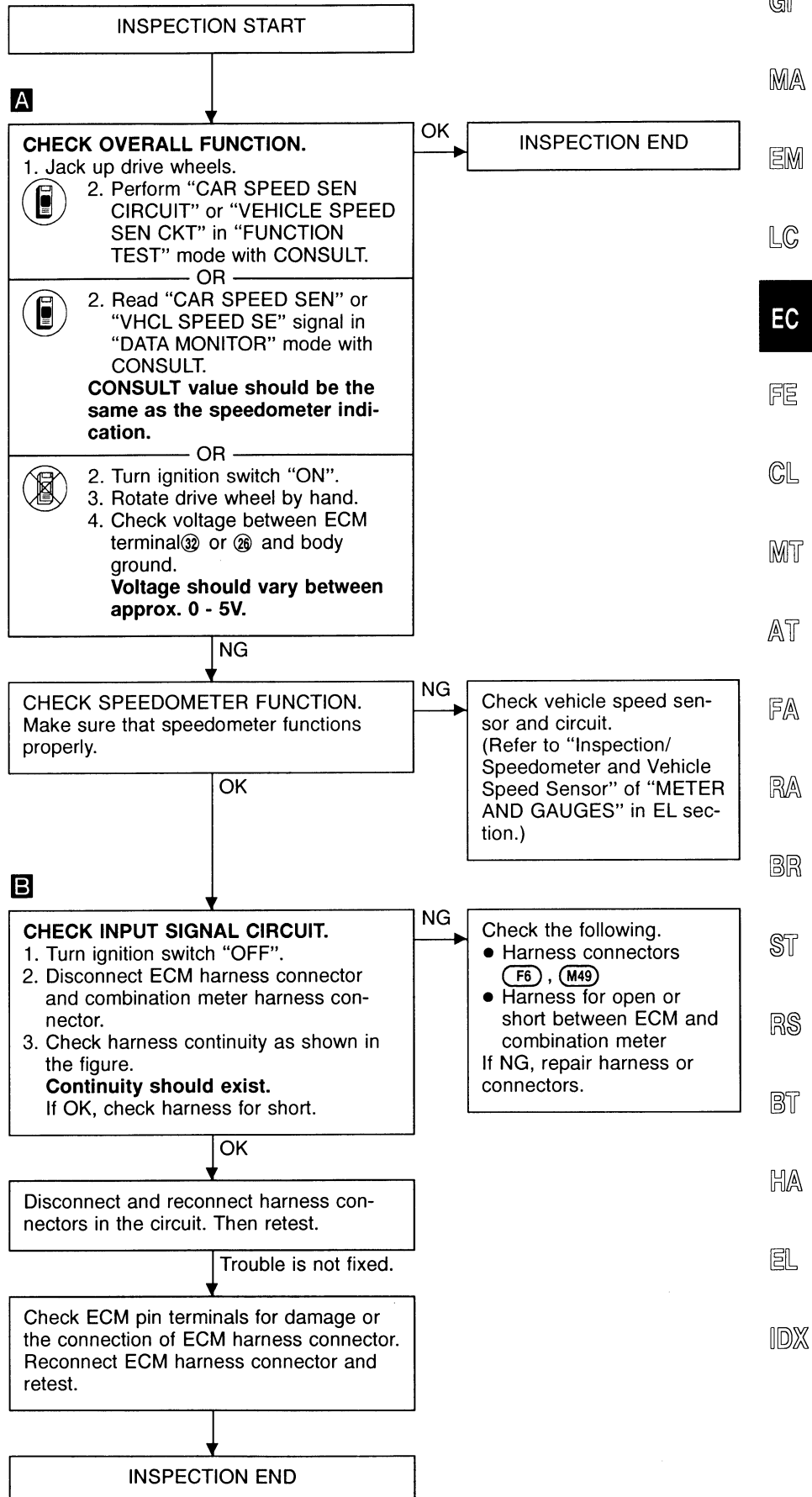
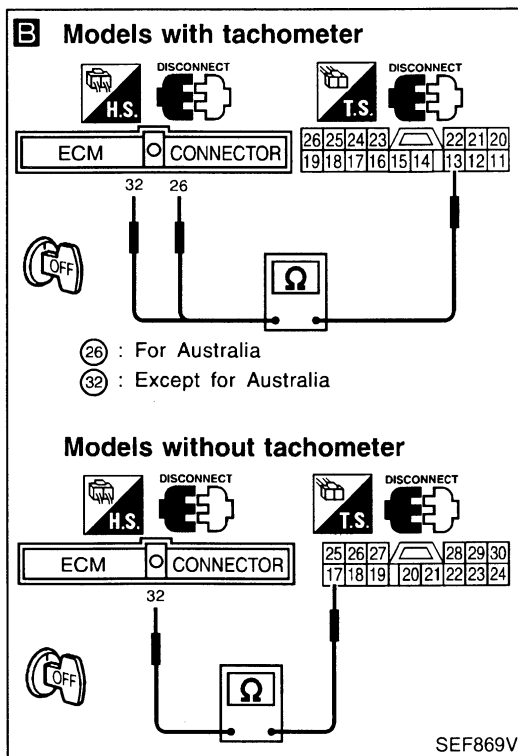
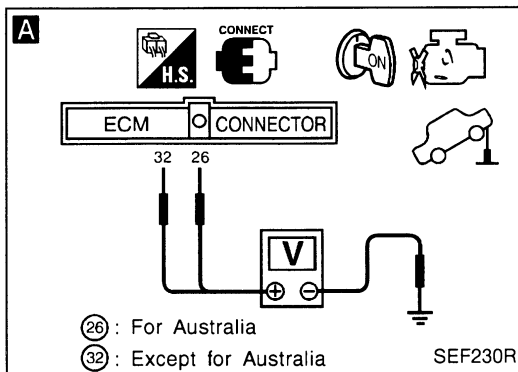
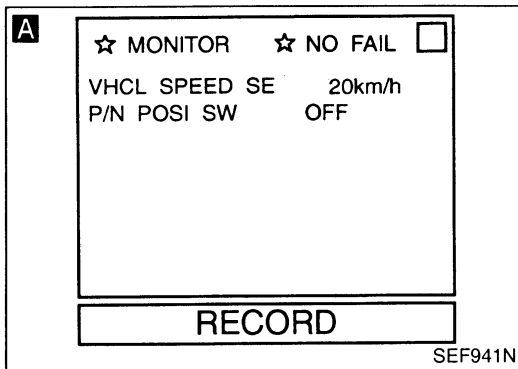
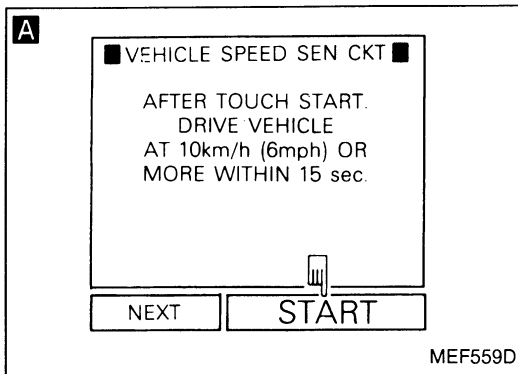
M8, E101  
 M15



F1  
 W  
 H.S.

## Vehicle Speed Sensor (VSS) (Cont'd)

## DIAGNOSTIC PROCEDURE



GI

MA

EM

LC

EC

FE

CL

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AT

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BR

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RS

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HA

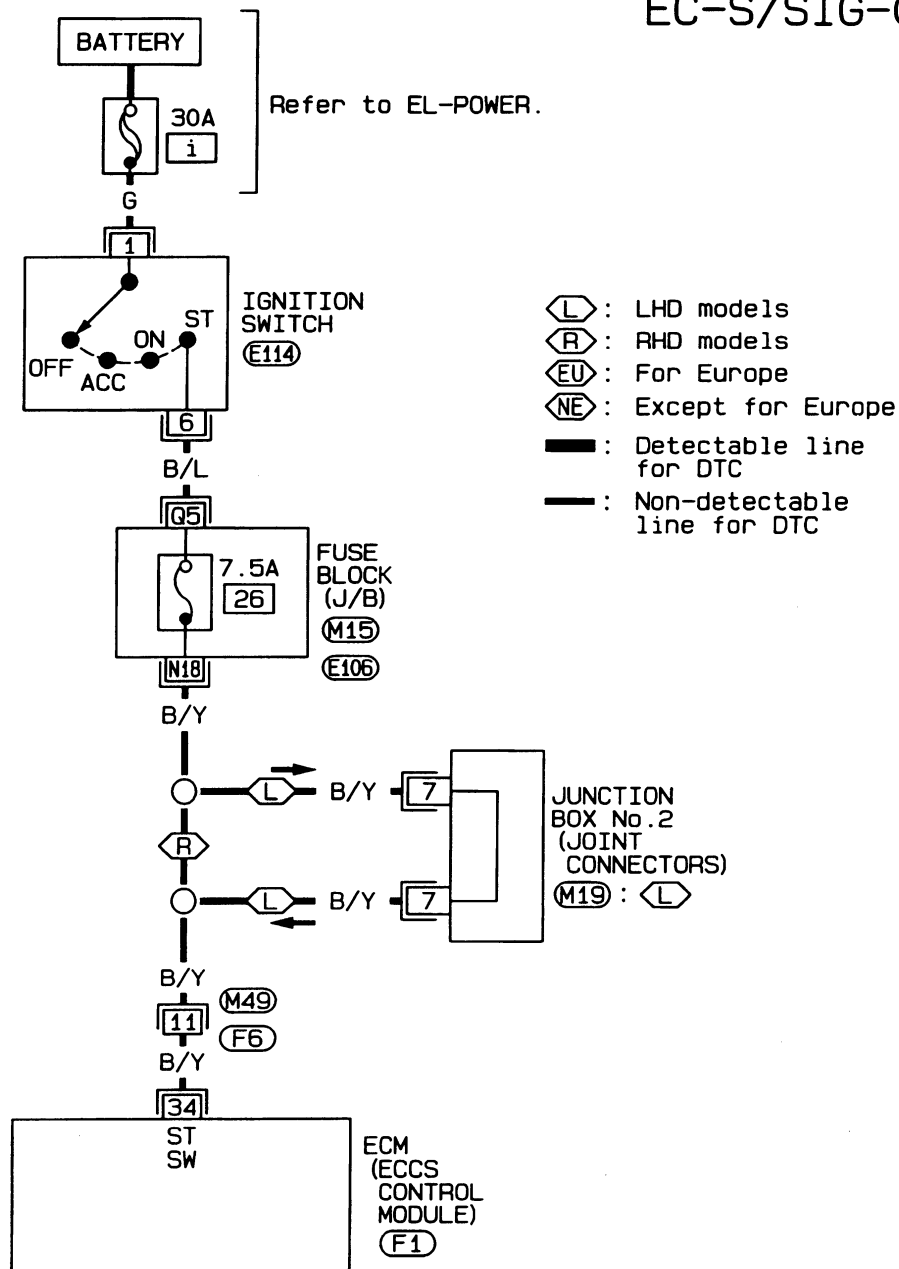
EL

IDX

## Start Signal

Except for Australia

EC-S/SIG-01



|    |    |    |    |         |    |    |    |
|----|----|----|----|---------|----|----|----|
| 1  | 2  | 3  | 4  | 5       | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 | 13      | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | (M49) W |    |    |    |

|      |   |      |   |          |
|------|---|------|---|----------|
| 1    | 2 | 3    | 5 | 1        |
| 5    | 3 | 6    | 4 | 2        |
| (EU) |   | (NE) |   | (E114) W |

Refer to last page  
(Foldout page).

(M15), (E106)

(M19)

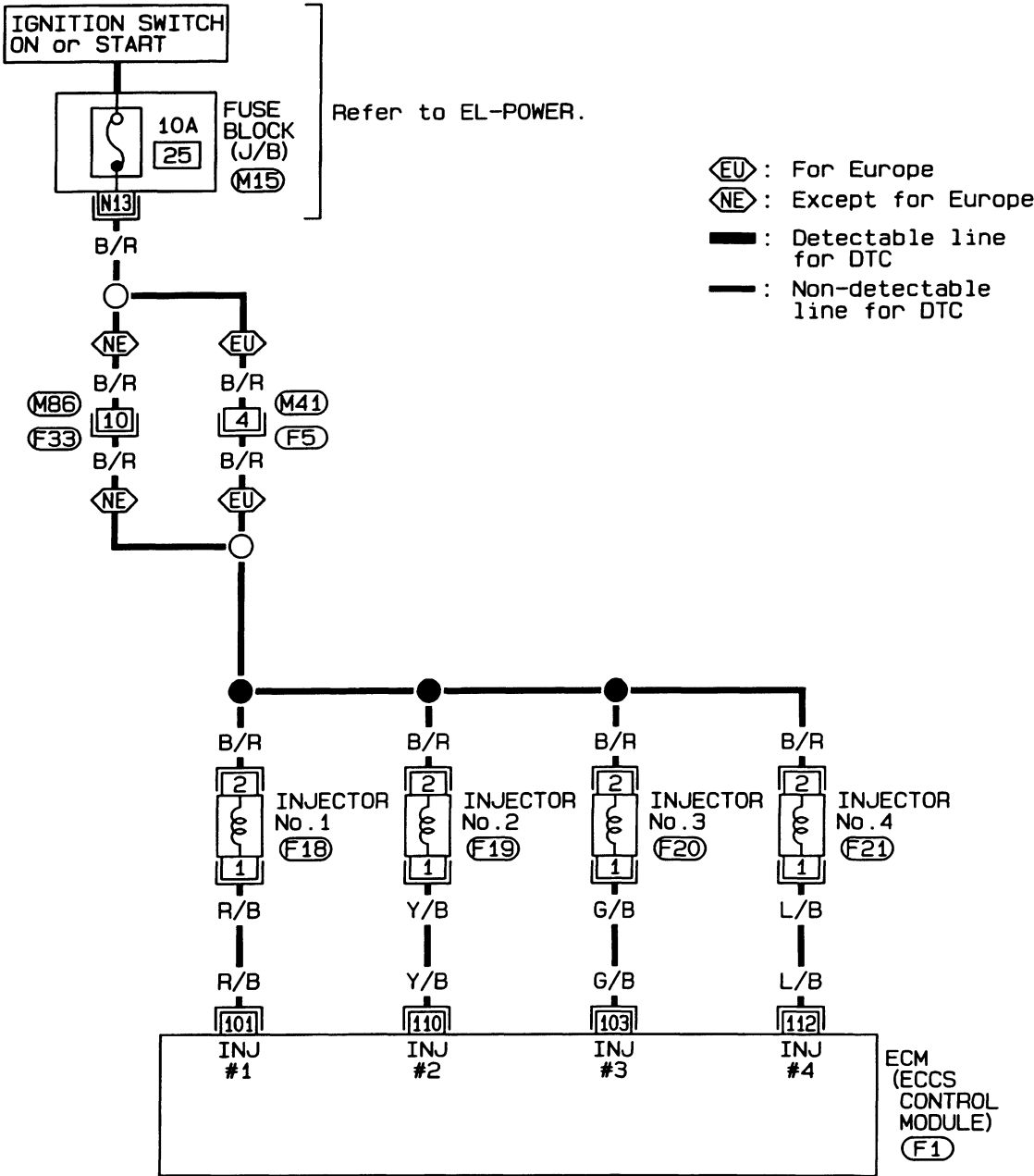
|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |    |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

(F1)  
L

Injector

Except for Australia

EC-INJECT-01



|   |   |   |    |
|---|---|---|----|
| 1 | 2 | 3 | F5 |
| 4 | 5 | 6 | W  |

|   |   |     |     |     |     |
|---|---|-----|-----|-----|-----|
| 1 | 2 | F18 | F19 | F20 | F21 |
| 3 | 4 | B   | B   | B   | B   |

|   |   |   |   |     |
|---|---|---|---|-----|
| 1 | 2 | 3 | 4 | F33 |
| 5 | 6 | 7 | 8 | W   |

Refer to last page (Foldout page).

(M15)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

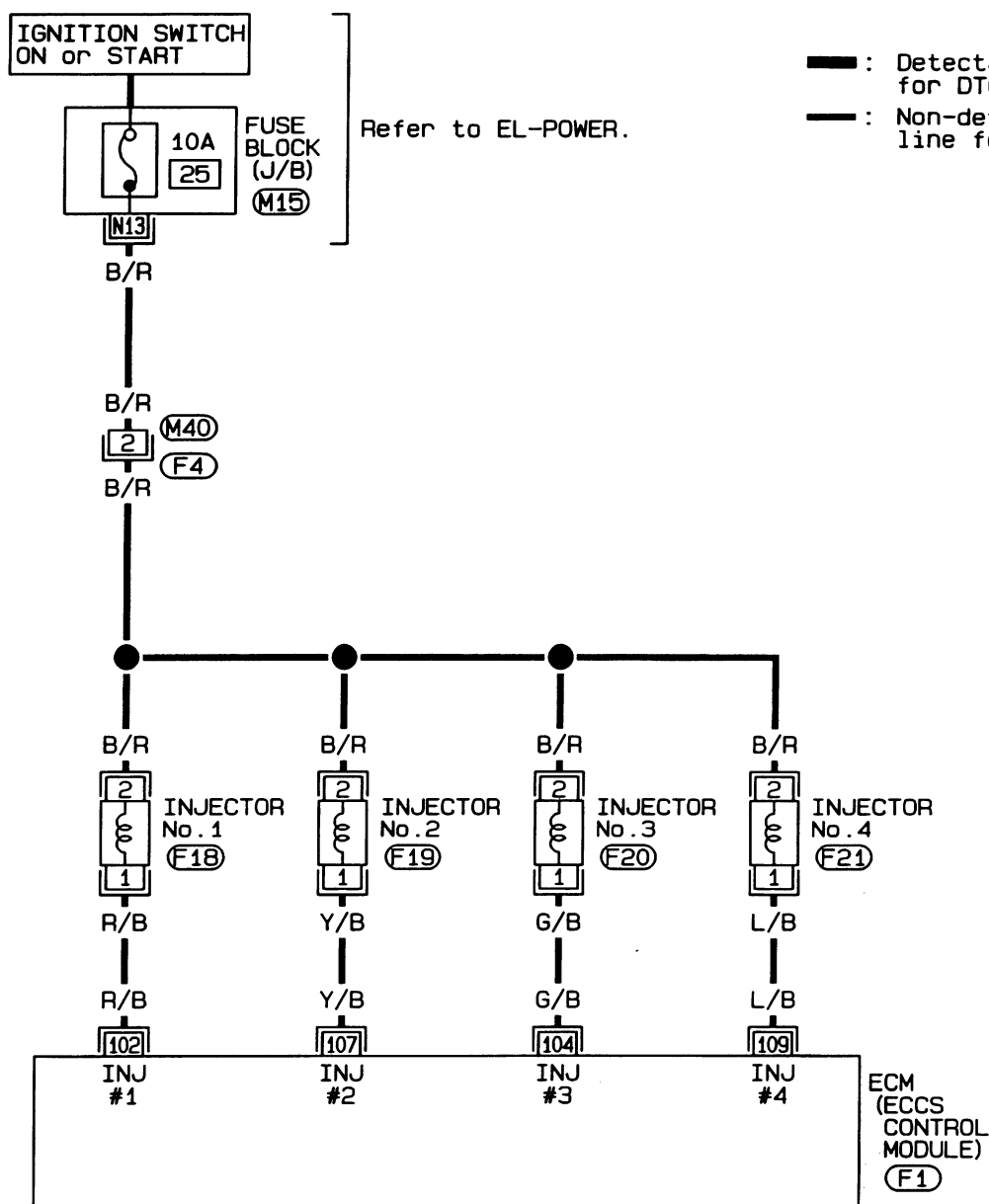
(F1)  
L



## Injector (Cont'd)

GA16DE for Australia

## EC-INJECT-02

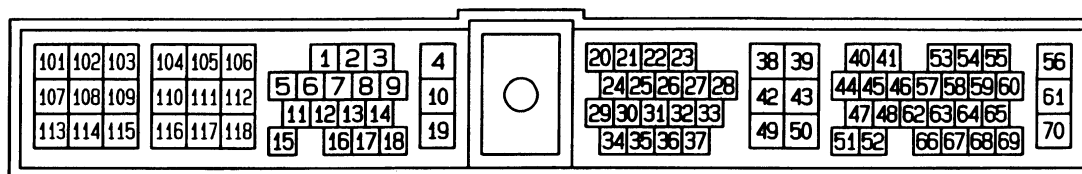


1 2 (F4) 3 4 5 6 W

1 2 (F18), (F19), (F20), (F21) B B B B

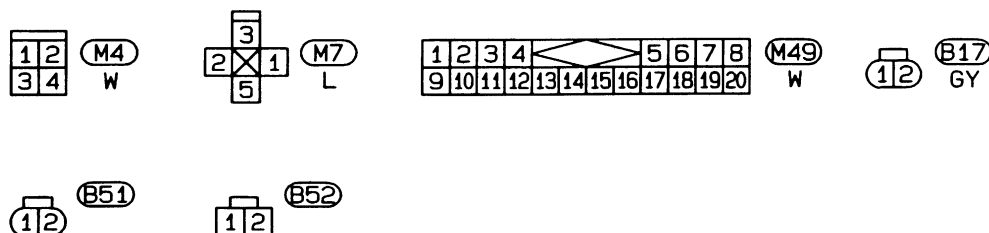
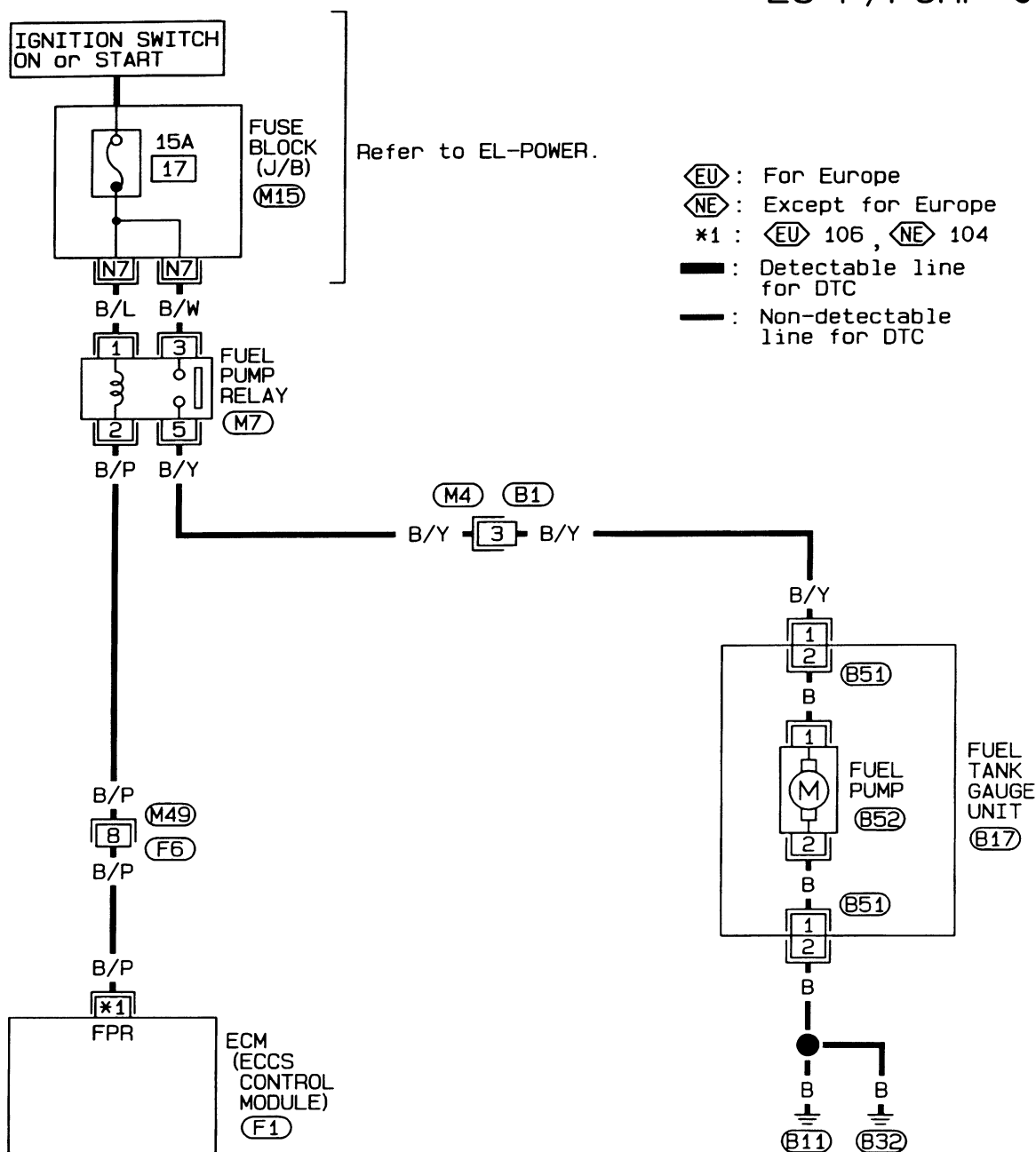
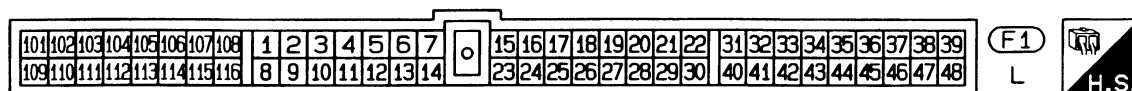
Refer to last page  
(Foldout page).

(M15)



## Fuel Pump

EC-F/PUMP-01

Refer to last page  
(Foldout page).

GI

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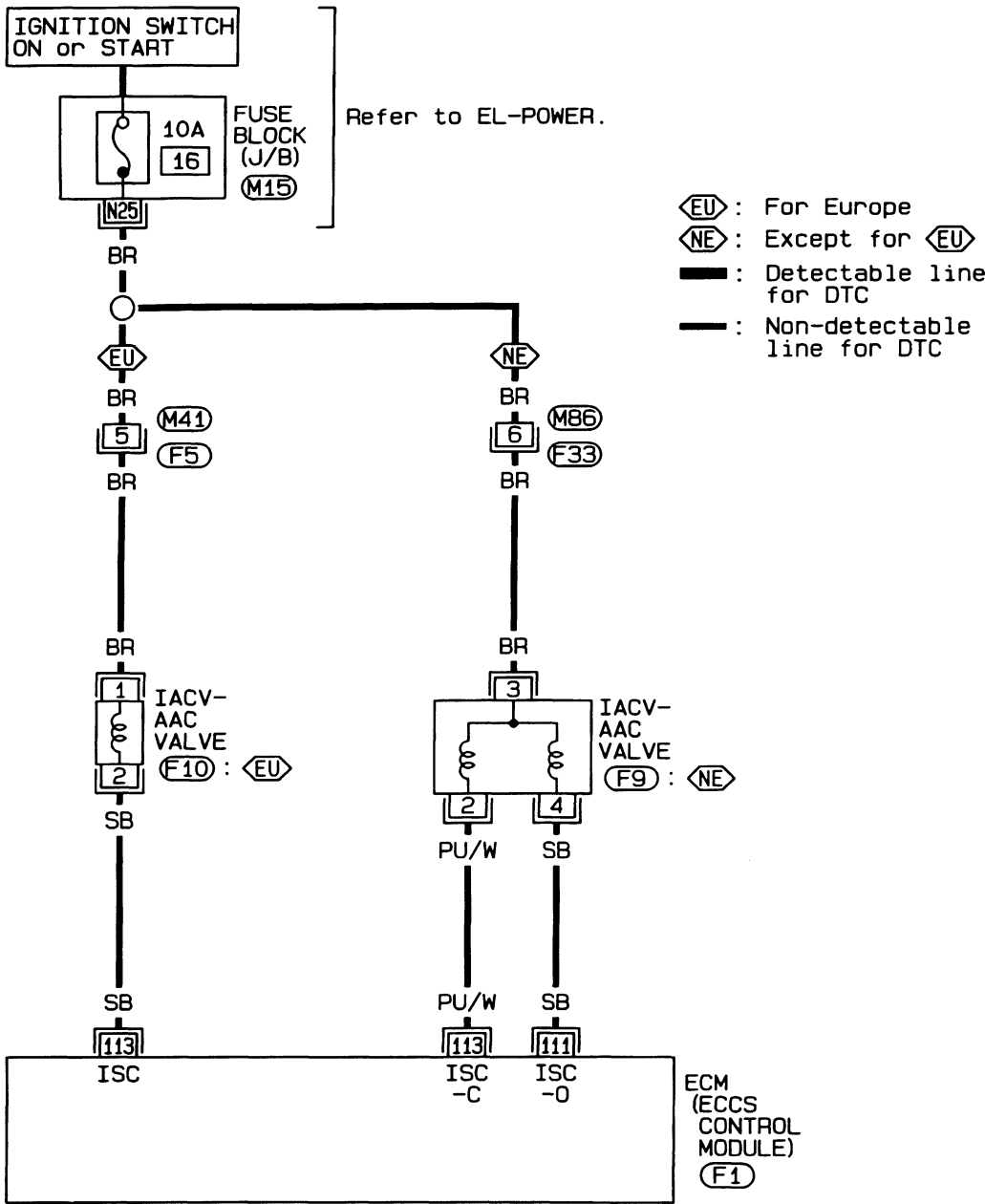
IDX



Idle Air Control Valve (IACV) — Auxiliary Air Control (AAC) Valve

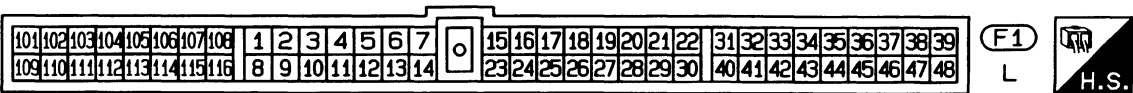
Except for Australia

EC-AAC/V-01



Refer to last page (Foldout page) .

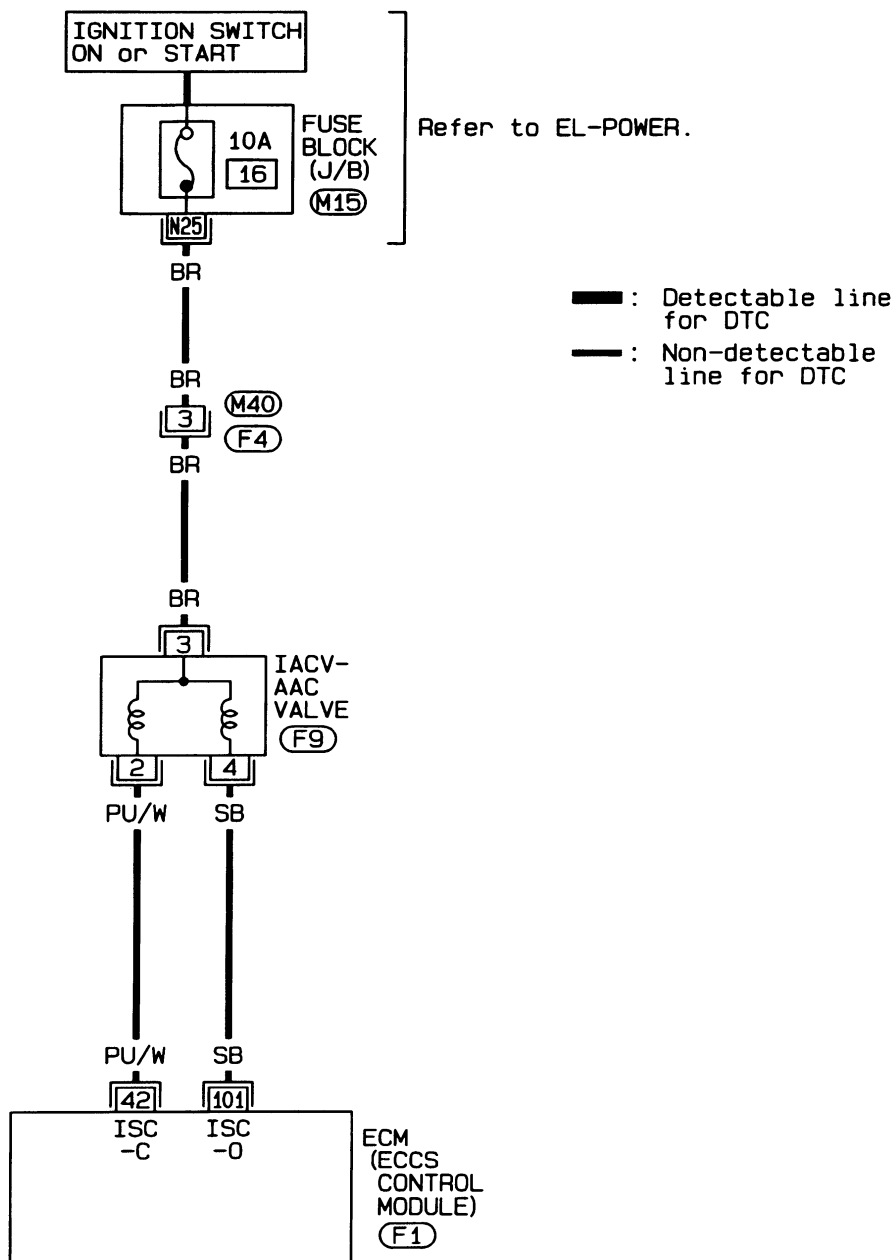
M15



## Idle Air Control Valve (IACV) — Auxiliary Air Control (AAC) Valve (Cont'd)

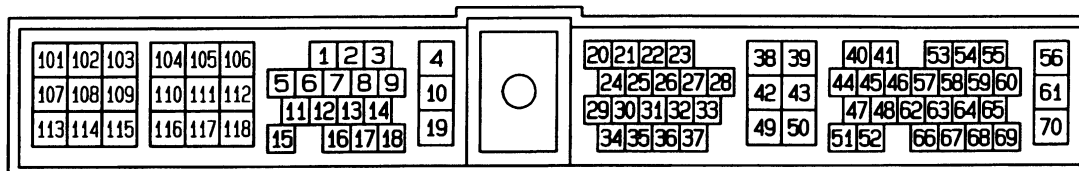
GA16DE for Australia

EC-AAC/V-02



Refer to last page (Foldout page).

(M15)



## Cooling Fan Control

Except for Australia

## EC-COOL/F-01

GI

MA

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ST

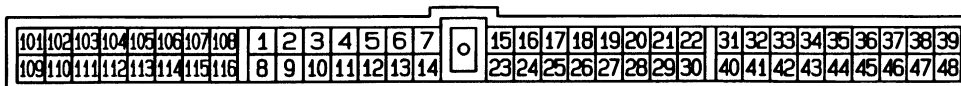
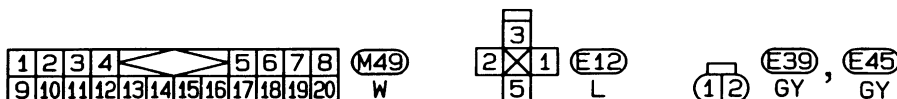
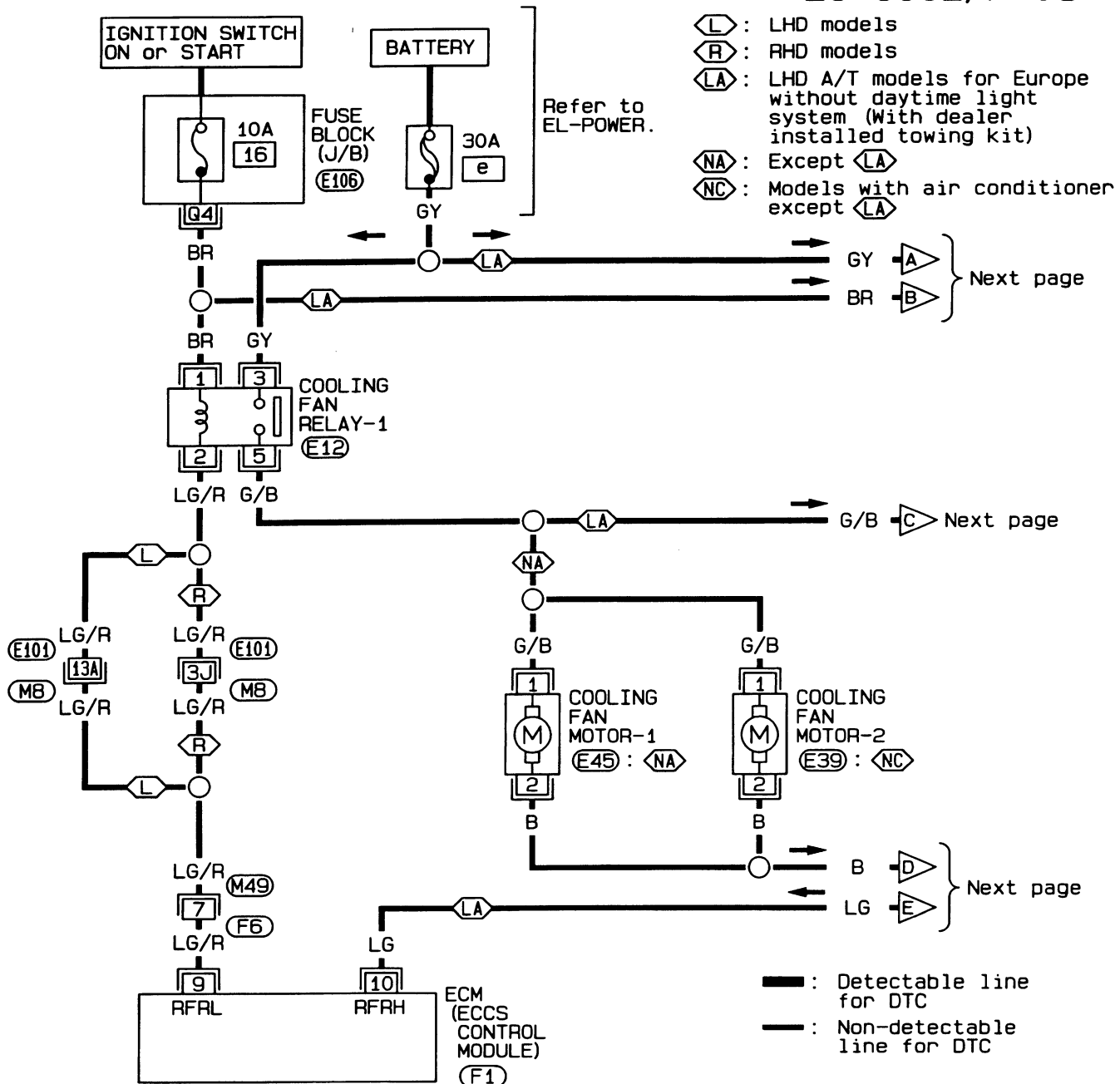
RS

BT

HA

EL

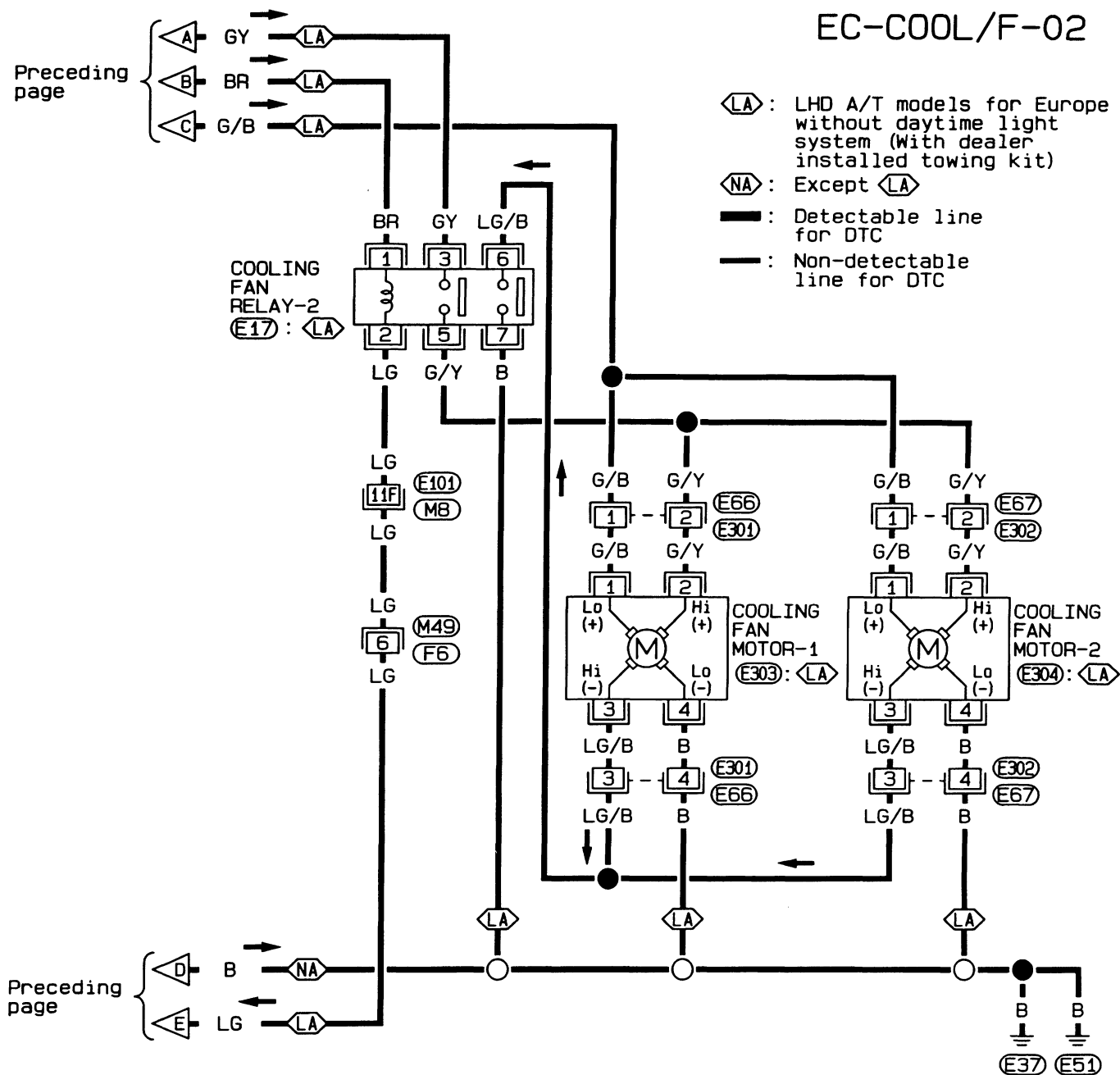
IDX



## Cooling Fan Control (Cont'd)

Except for Australia

EC-COOL/F-02



|   |    |    |    |    |    |    |    |       |
|---|----|----|----|----|----|----|----|-------|
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | (M49) |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | W     |

|   |   |
|---|---|
| 1 | 2 |
| 5 | 7 |
| 3 | 6 |

(E17)  
BR

|   |   |       |       |        |        |
|---|---|-------|-------|--------|--------|
| 1 | 2 | (E66) | (E67) | (E303) | (E304) |
| 3 | 4 | GY    | GY    | GY     | GY     |

Refer to last page (Foldout page).

(MB), (E101)

## Cooling Fan Control (Cont'd)

GA16DE for Australia

EC-COOL/F-03

GI

MA

EM

LC

EC

FE

CL

MT

AT

FA

RA

BR

ST

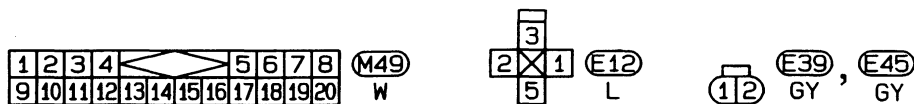
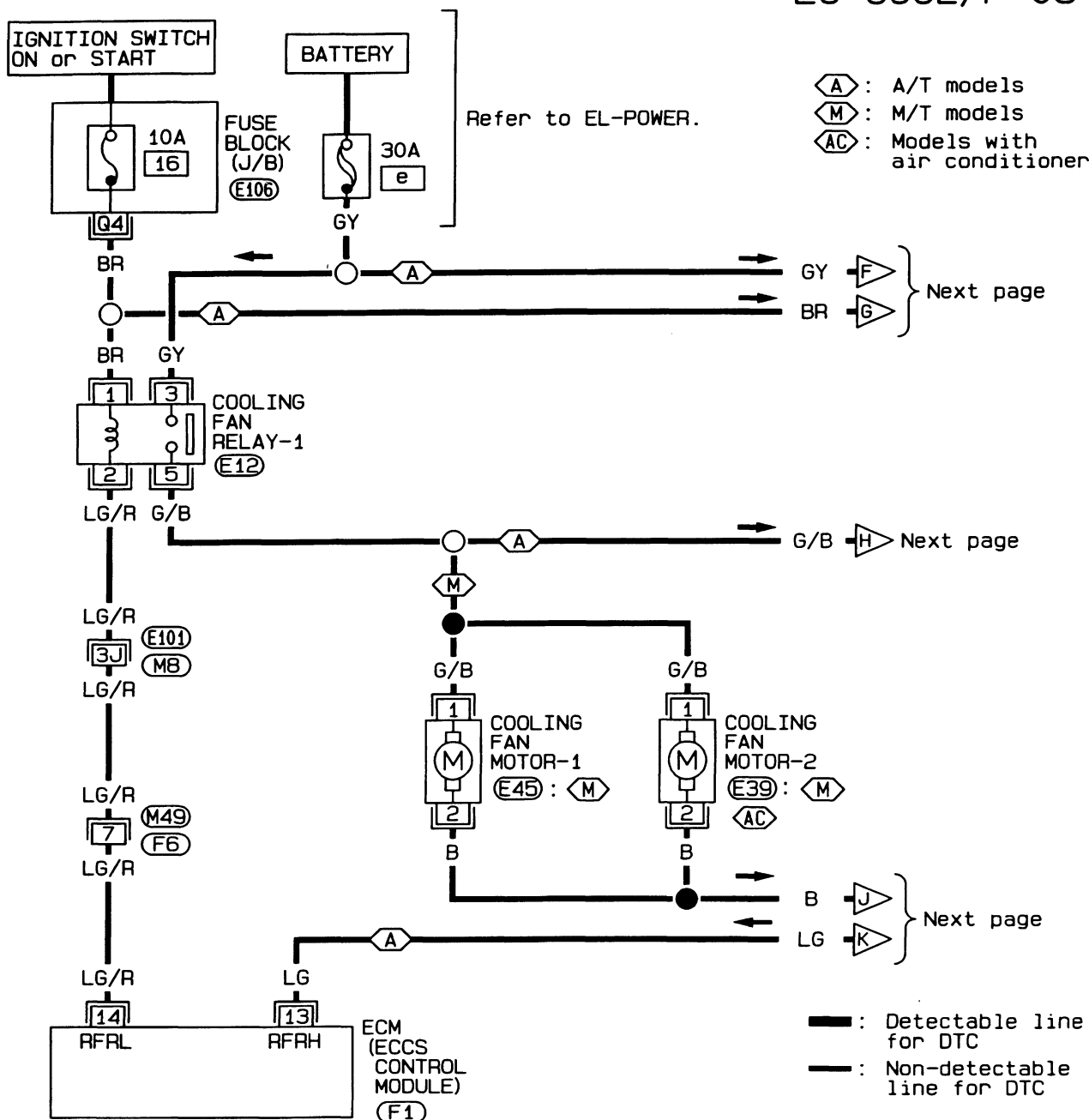
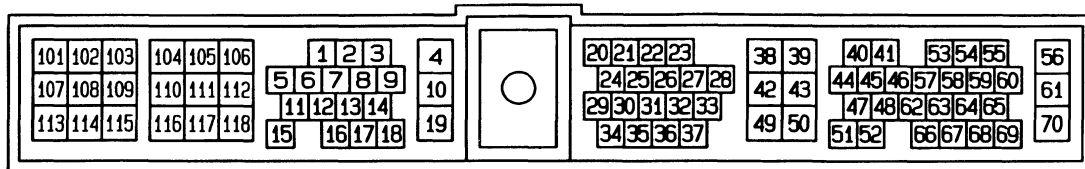
RS

BT

HA

EL

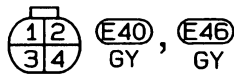
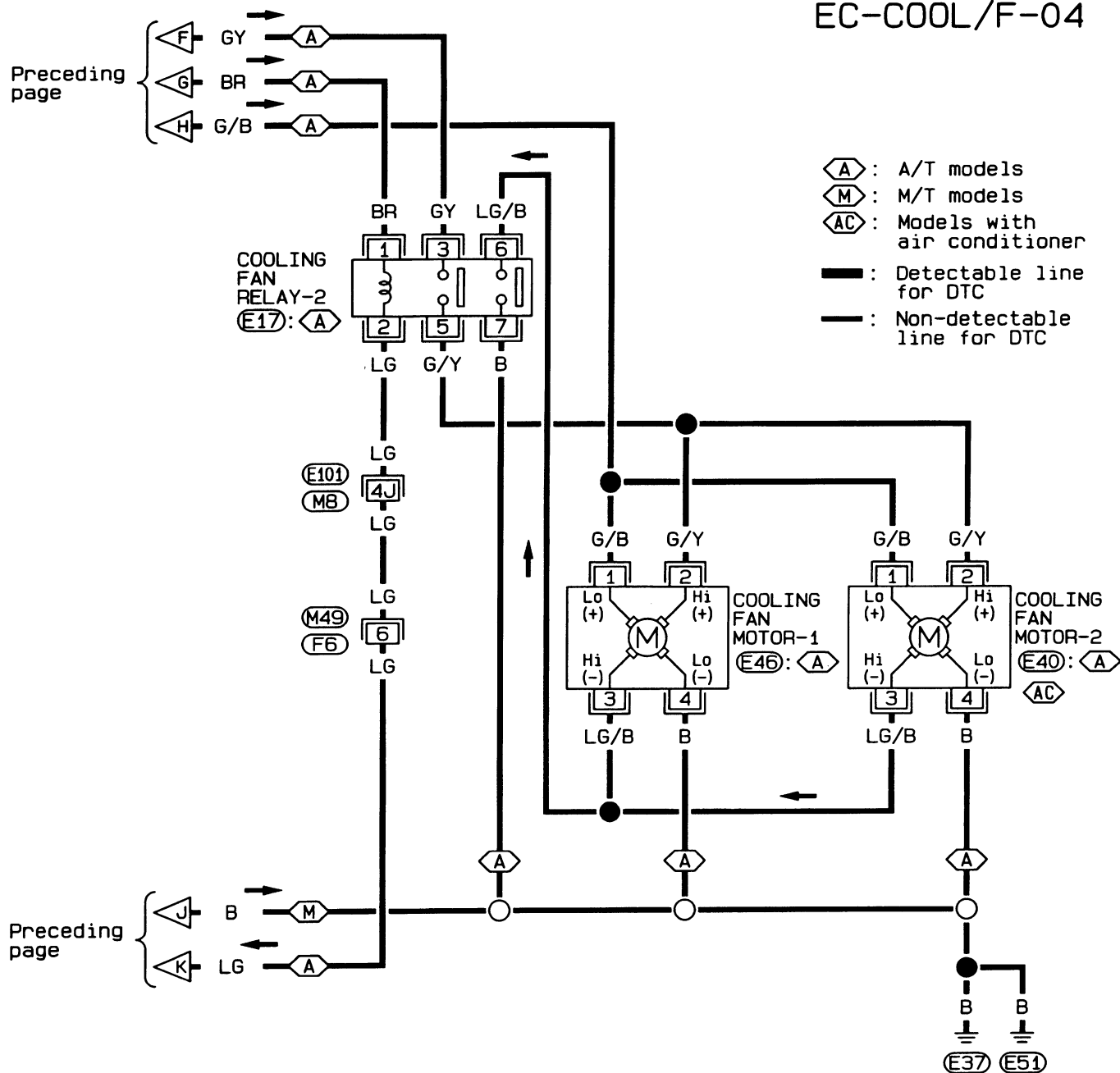
IDX

Refer to last page  
(Foldout page).(M8), (E101)  
(E106)

## Cooling Fan Control (Cont'd)

GA16DE for Australia

EC-COOL/F-04



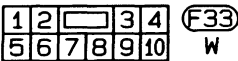
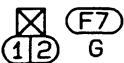
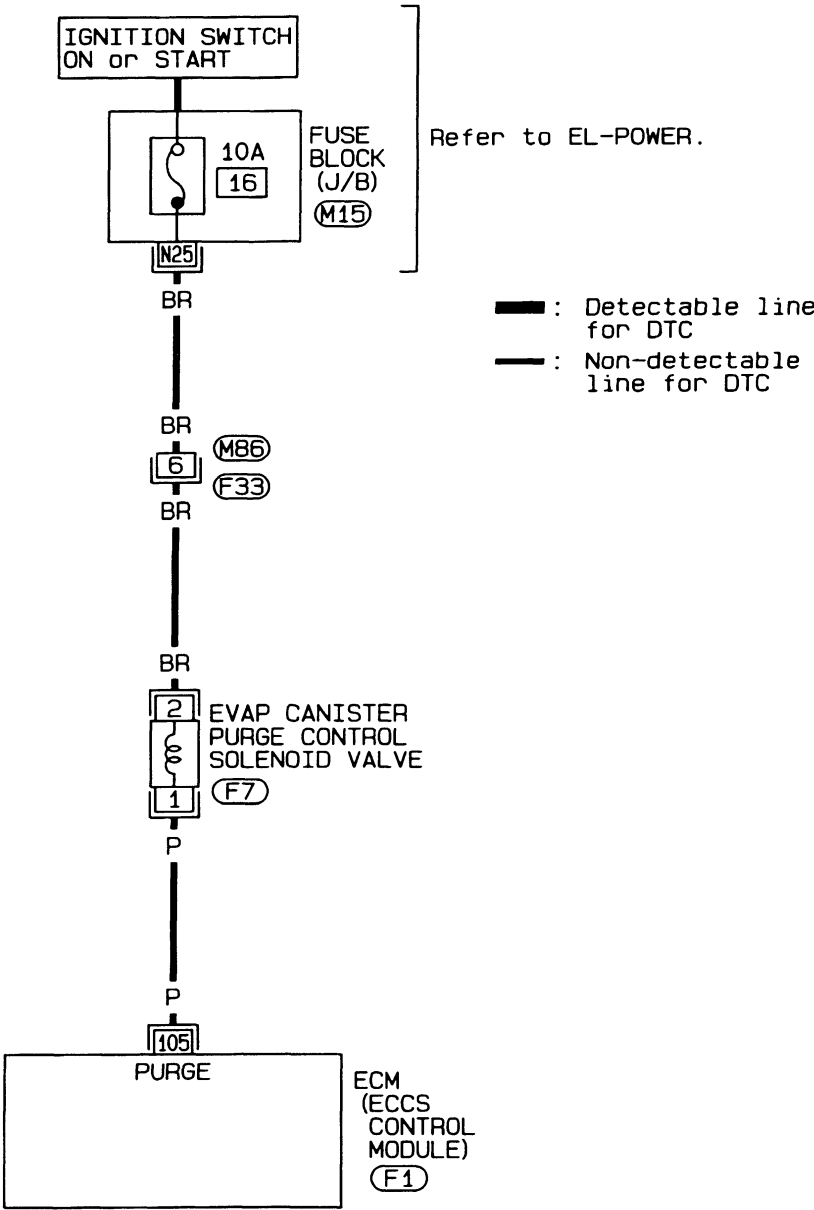
Refer to last page (Foldout page).

(MB), (E101)

EVAP Canister Purge Control Solenoid Valve

M/T models except for Europe and Australia

EC-PGC/V-01



Refer to last page  
(Foldout page) .

M15

|     |     |     |     |     |     |     |     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |

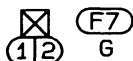
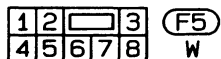
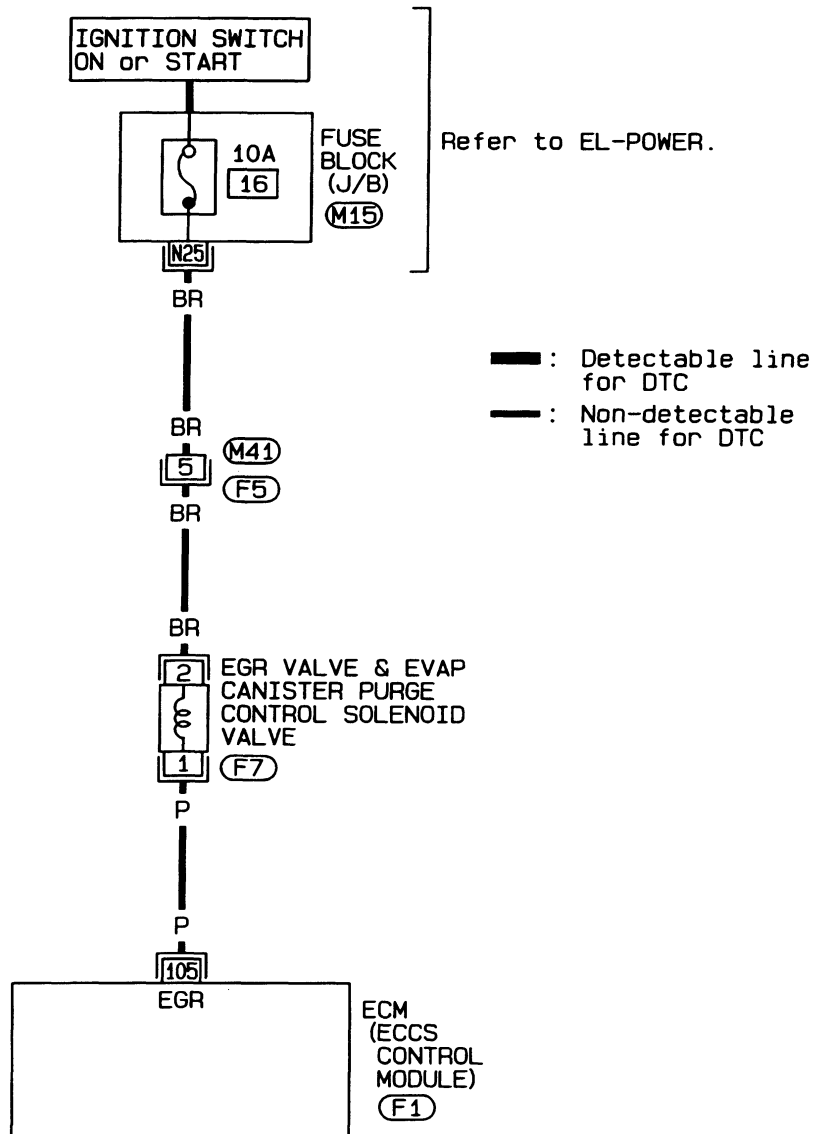
F1  
L



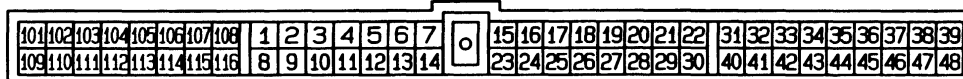
# EGR Valve and EVAP Canister Purge Control Solenoid Valve

For Europe

EC-EGRC/V-01

Refer to last page  
(Foldout page).

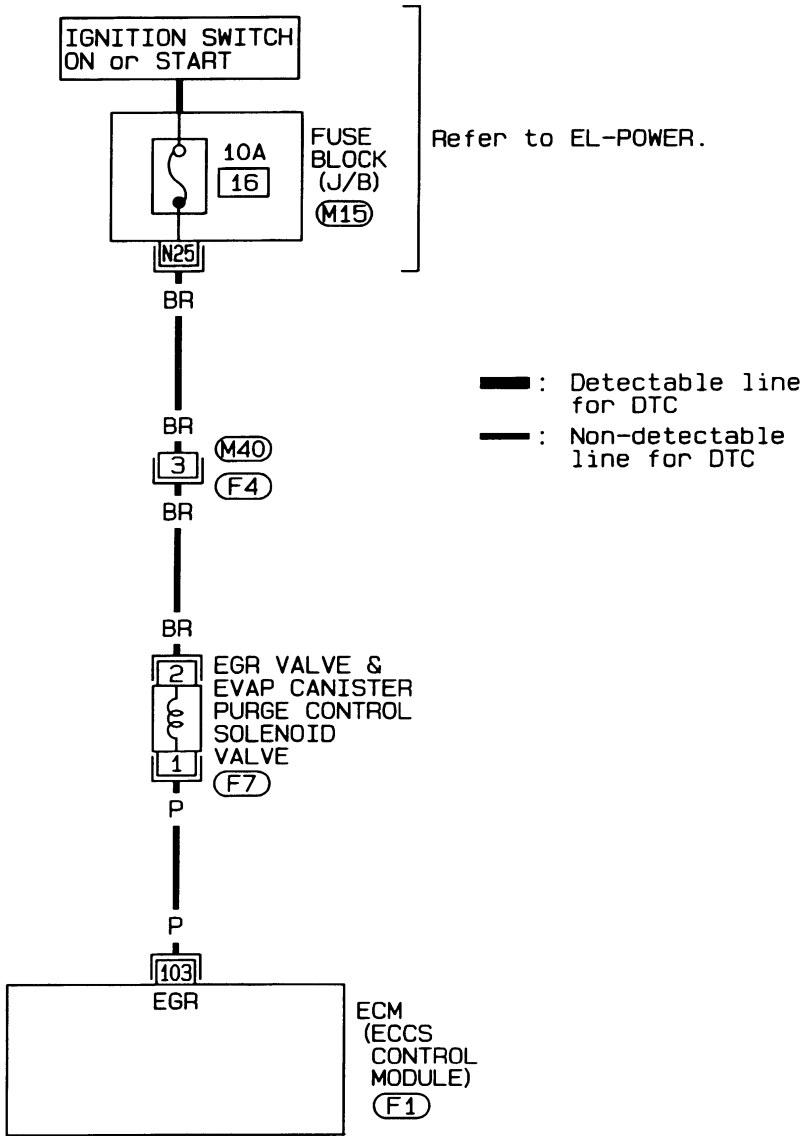
(M15)



EGR Valve and EVAP Canister Purge Control Solenoid Valve (Cont'd)

GA16DE for Australia

EC-EGRC/V-02



GI

MA

EM

LC

EC

FE

CL

MT

AT

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RS

BT

HA

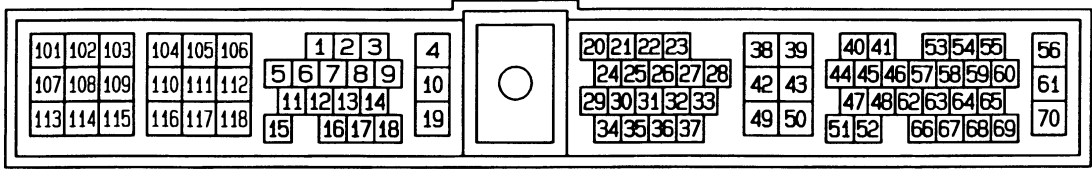
EL

IDX



Refer to last page (Foldout page).

(M15)



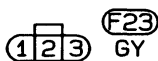
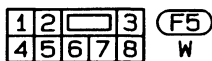
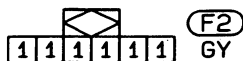
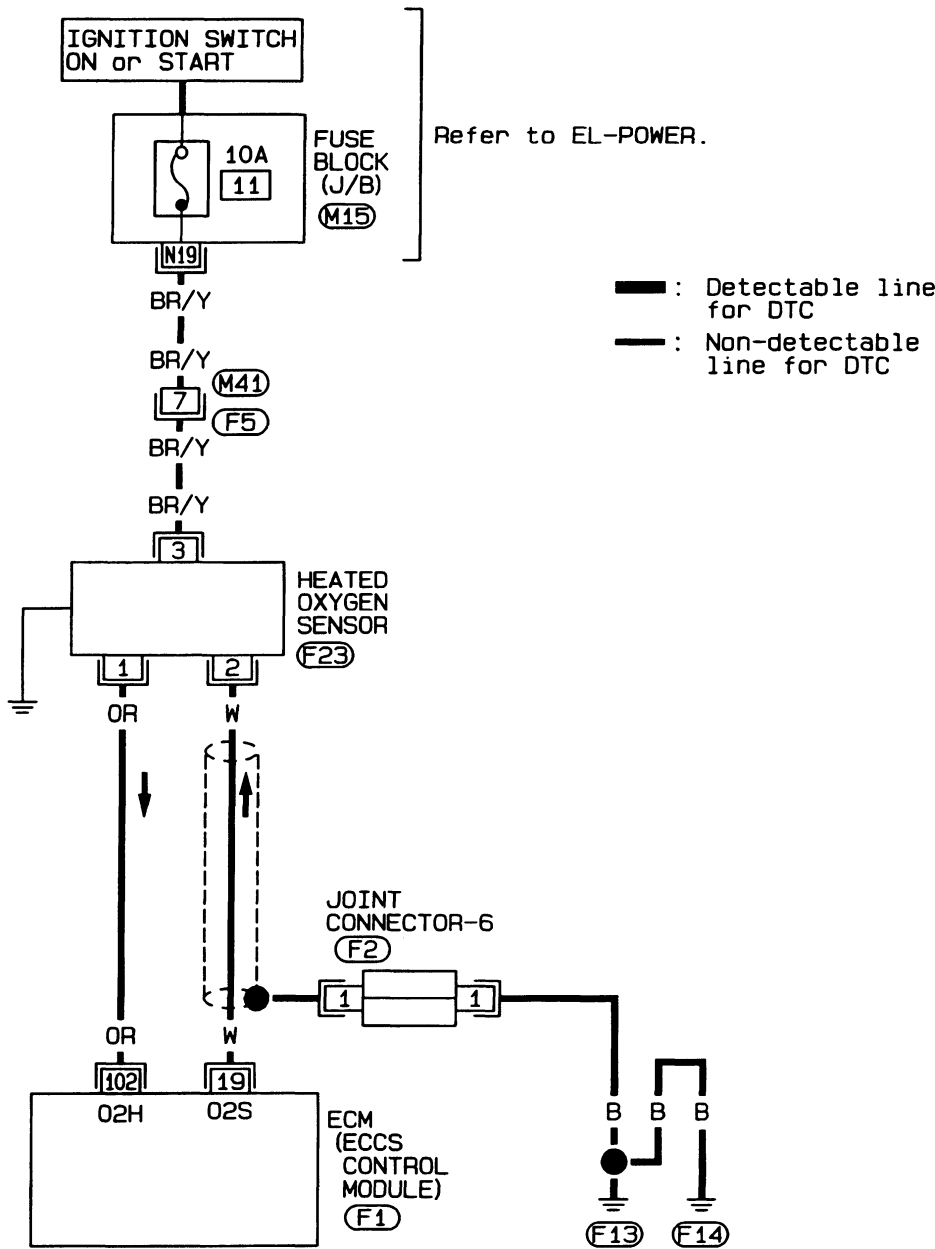
(F1)  
W



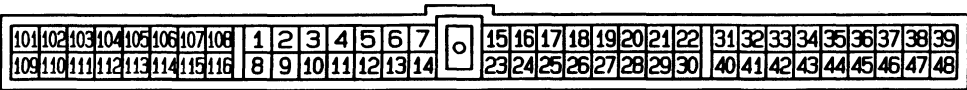
Heated Oxygen Sensor (HO2S)

For Europe

EC-H02S-01



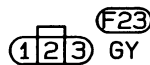
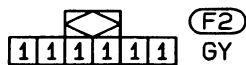
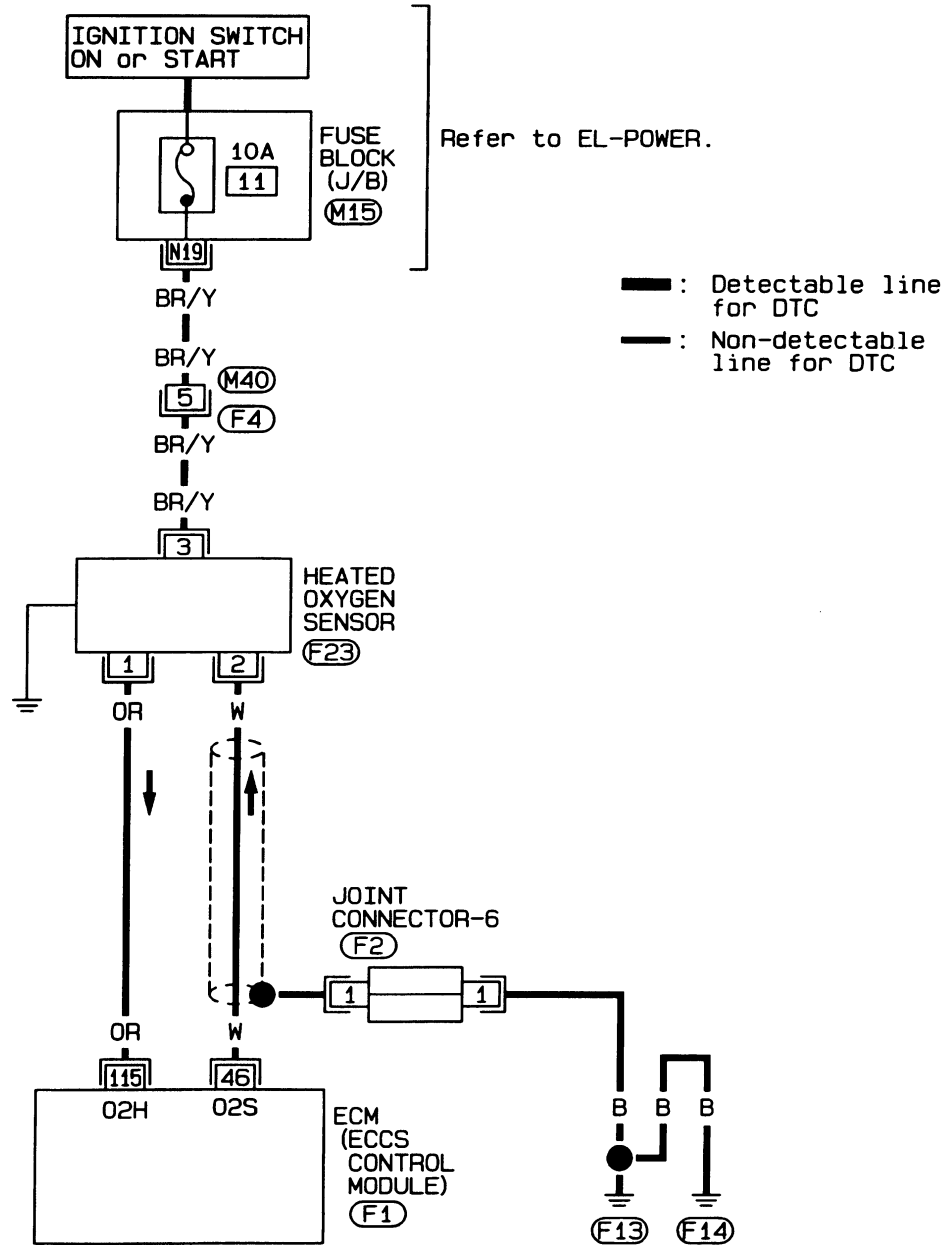
Refer to last page (Foldout page).  
(M15)



## Heated Oxygen Sensor (HO2S) (Cont'd)

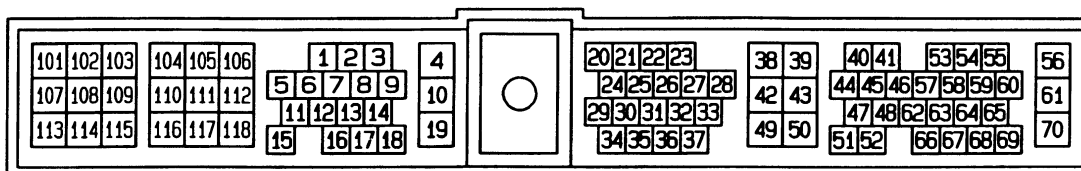
GA16DE for Australia (A/T models)

EC-HO2S-02



Refer to last page (Foldout page).

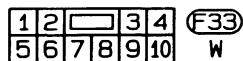
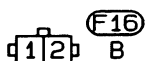
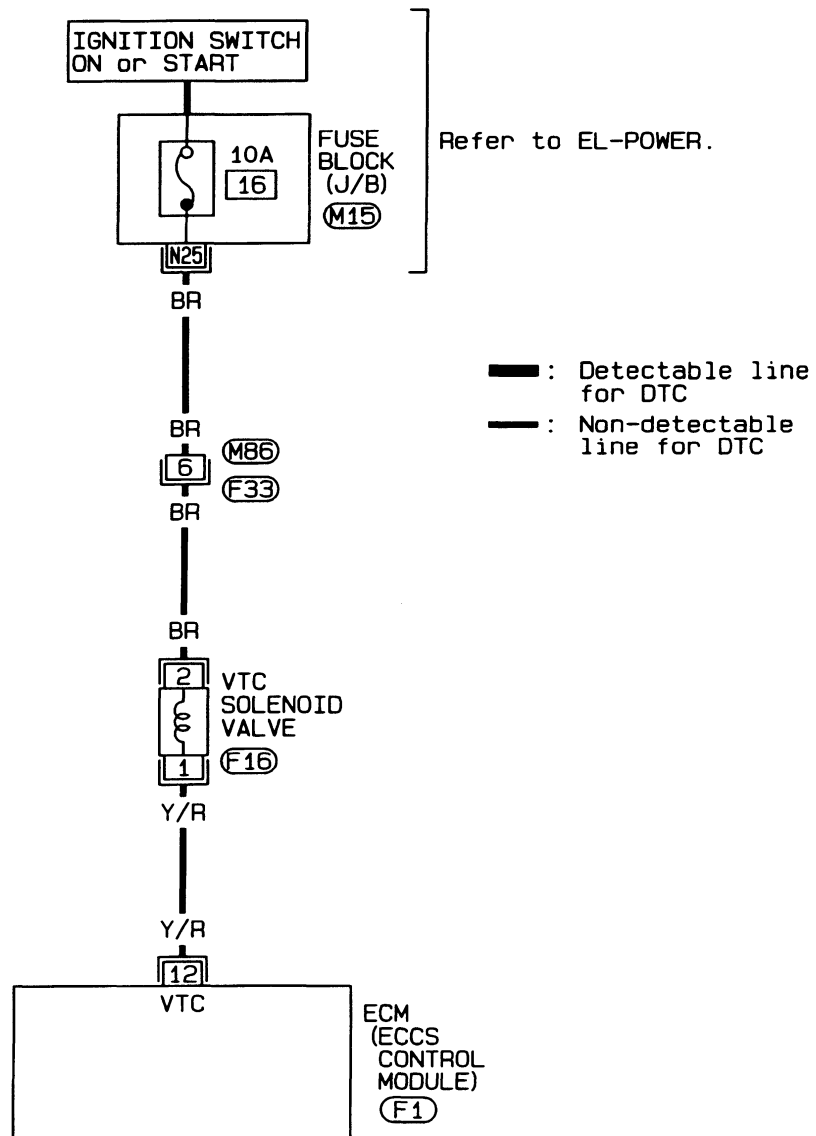
(M15)



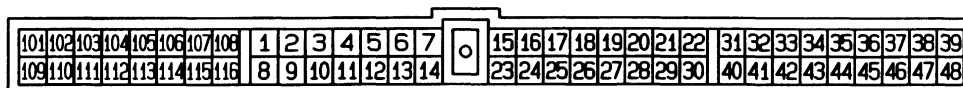
## Valve Timing Control (VTC)

GA16DE engine models except for Europe and Australia

EC-VTC-01

Refer to last page  
(Foldout page).

(M15)

F1  
L

Valve Timing Control (VTC) (Cont'd)

GA16DE for Australia

EC-VTC-02

GI

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BR

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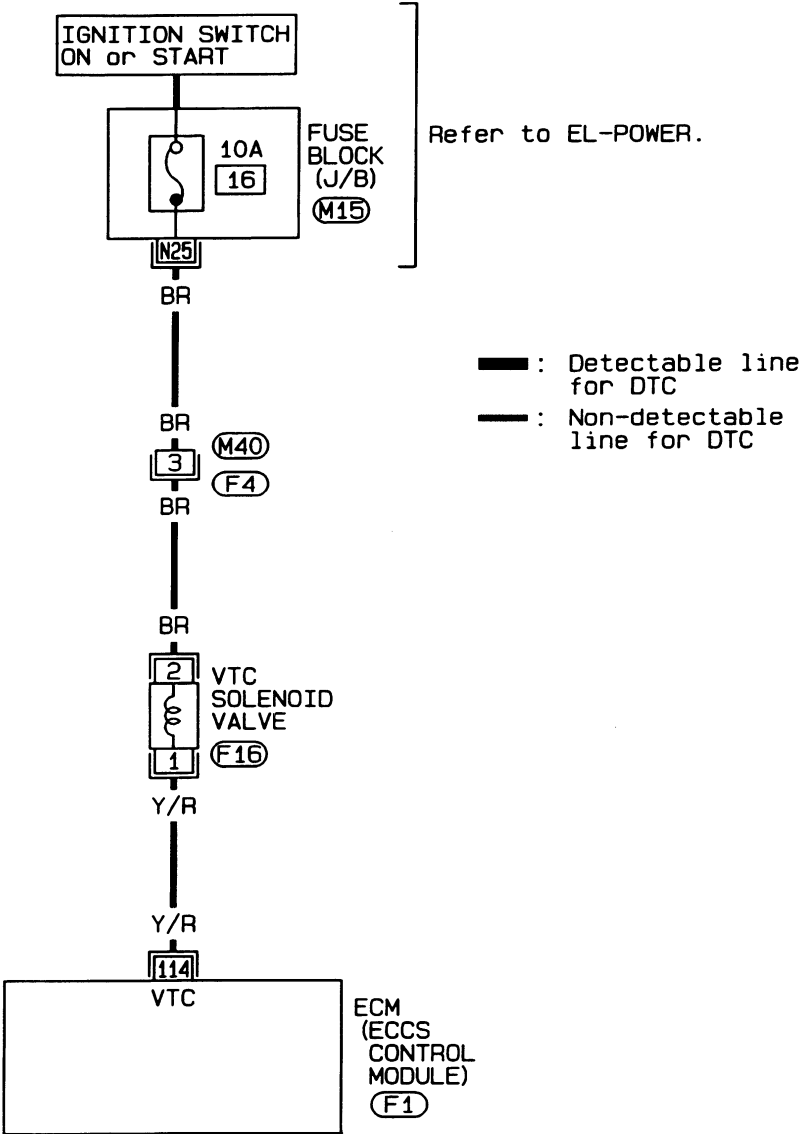
RS

BT

HA

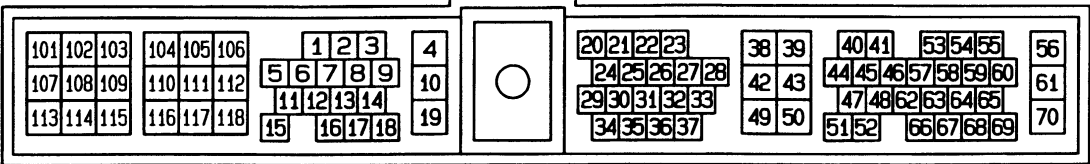
EL

IDX



Refer to last page (Foldout page).

(M15)



F1 W



## EC-FICD-01

**IGNITION SWITCH**  
ACC or ON

**BATTERY**

**FUSE BLOCK (J/B)**  
7.5A (6) (M15) (E106)  
7.5A (30) (L/Y)

**AIR CONDITIONER RELAY**  
(E16)

**JOINT CONNECTOR-9**  
(M80)

**IACV-FICD SOLENOID VALVE**  
(F11)

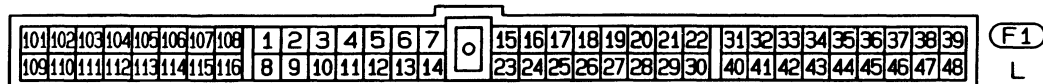
**ACRLY**  
(F1)

**ECM (ECCS CONTROL MODULE)**  
(F1)

**Legend:**  
 (L): LHD models  
 (R): RHD models  
 —: Detectable line for DTC  
 —: Non-detectable line for DTC

**Refer to EL-POWER.**

**Next page**



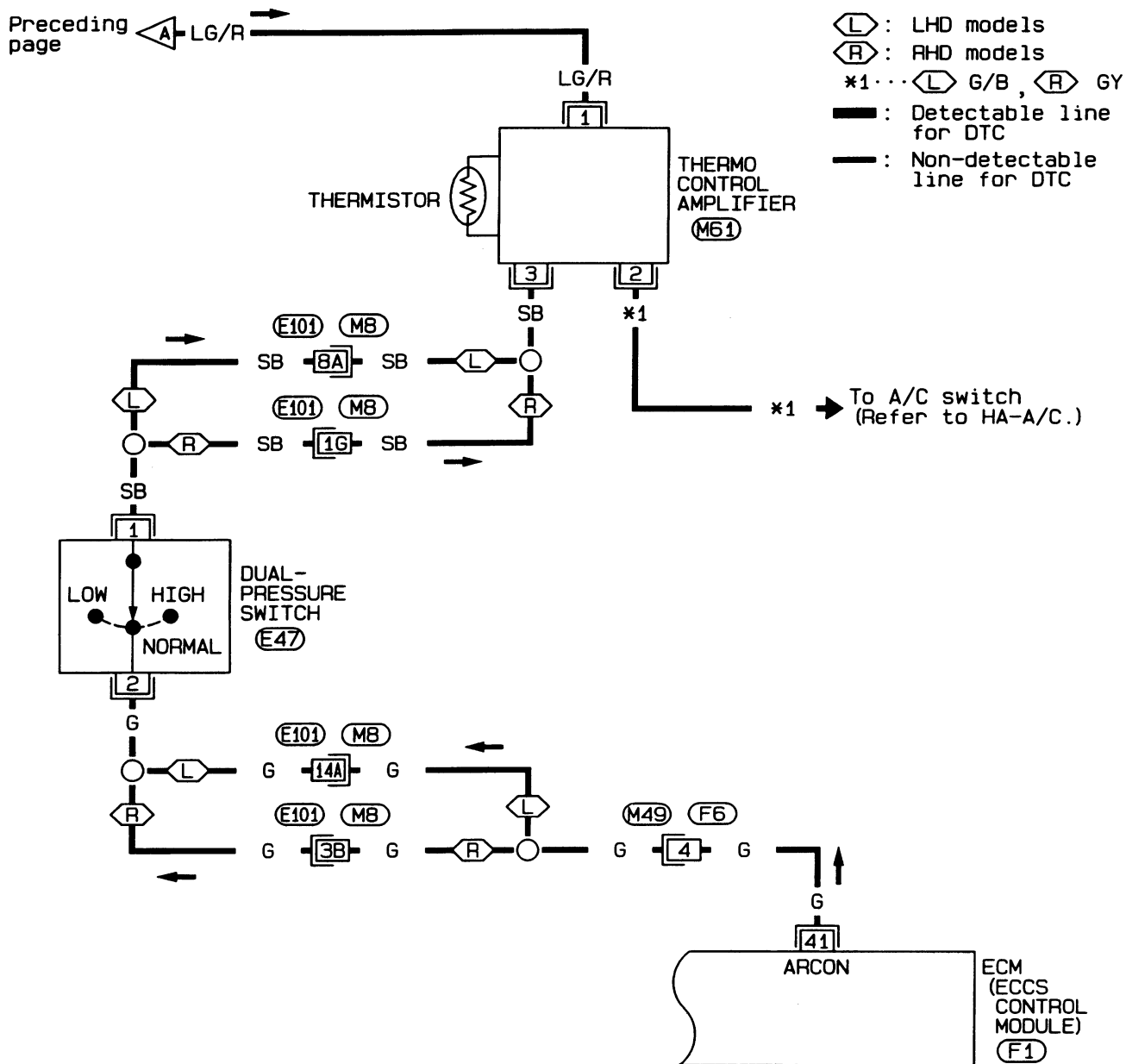
M8, E101  
M15, E106



## IACV-FICD Solenoid Valve (Cont'd)

For Europe

EC-FICD-02



|   |    |    |    |    |    |    |    |       |
|---|----|----|----|----|----|----|----|-------|
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | (M49) |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | W     |

|   |       |
|---|-------|
| 1 | (M61) |
| 2 | W     |
| 3 |       |

|   |   |       |
|---|---|-------|
| 1 | 2 | (E47) |
| 1 | 2 | B     |

Refer to last page (Foldout page).

(M8), (E101)

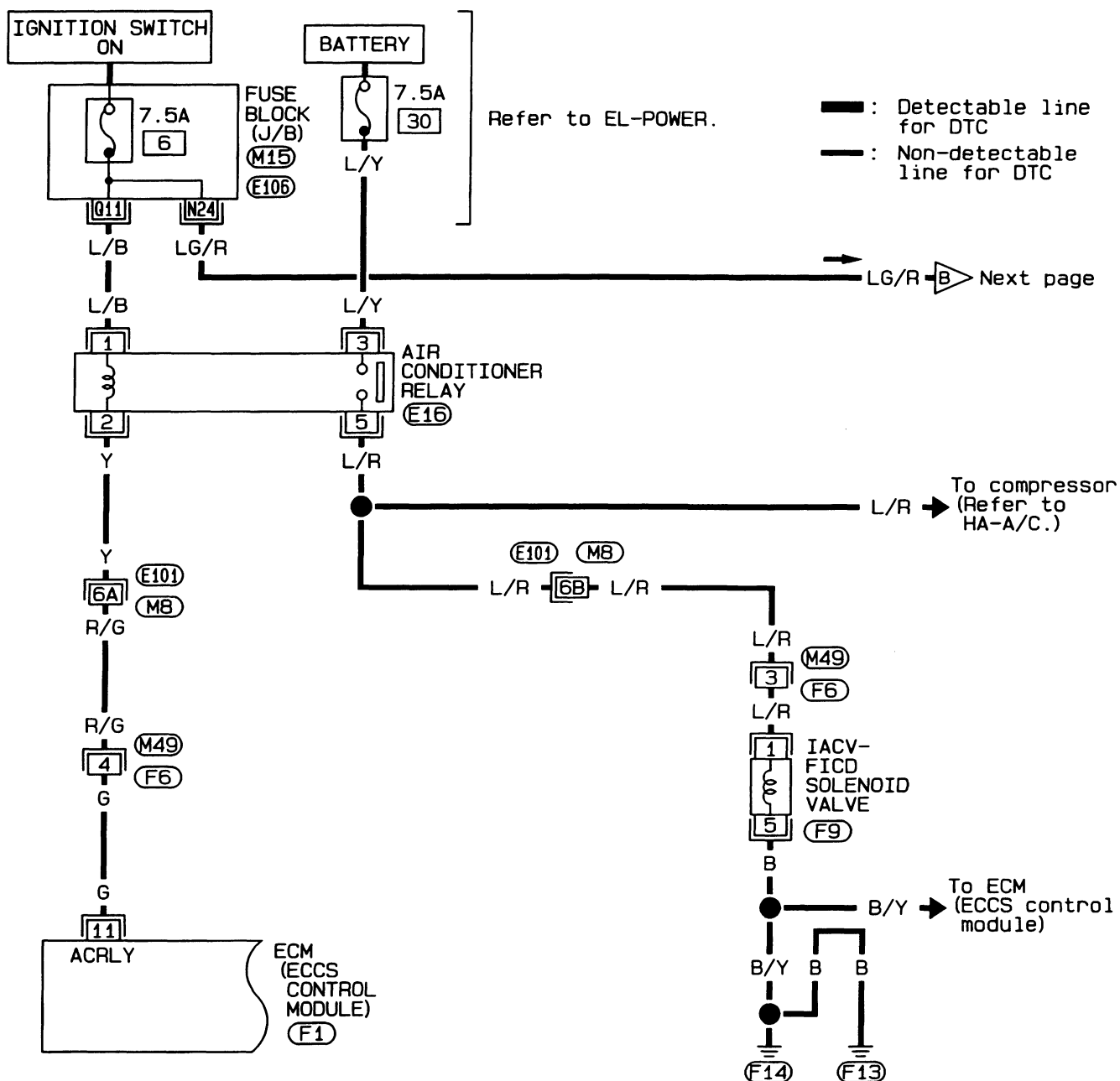
|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

(F1)  
L

## IACV-FICD Solenoid Valve (Cont'd)

Except for Europe and Australia

EC-FICD-03



|   |    |    |    |    |    |    |    |       |
|---|----|----|----|----|----|----|----|-------|
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | (M49) |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | W     |

|   |   |   |
|---|---|---|
|   | 3 |   |
| 2 | X | 1 |
|   | 5 |   |

(E16)  
L

|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                     |                                                                                     |  |                                                                                     |                                                                                     |  |
|  |  |  |  |  |                                                                                     |
|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Refer to last page (Foldout page).

(M8), (E101)

(M15), (E106)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

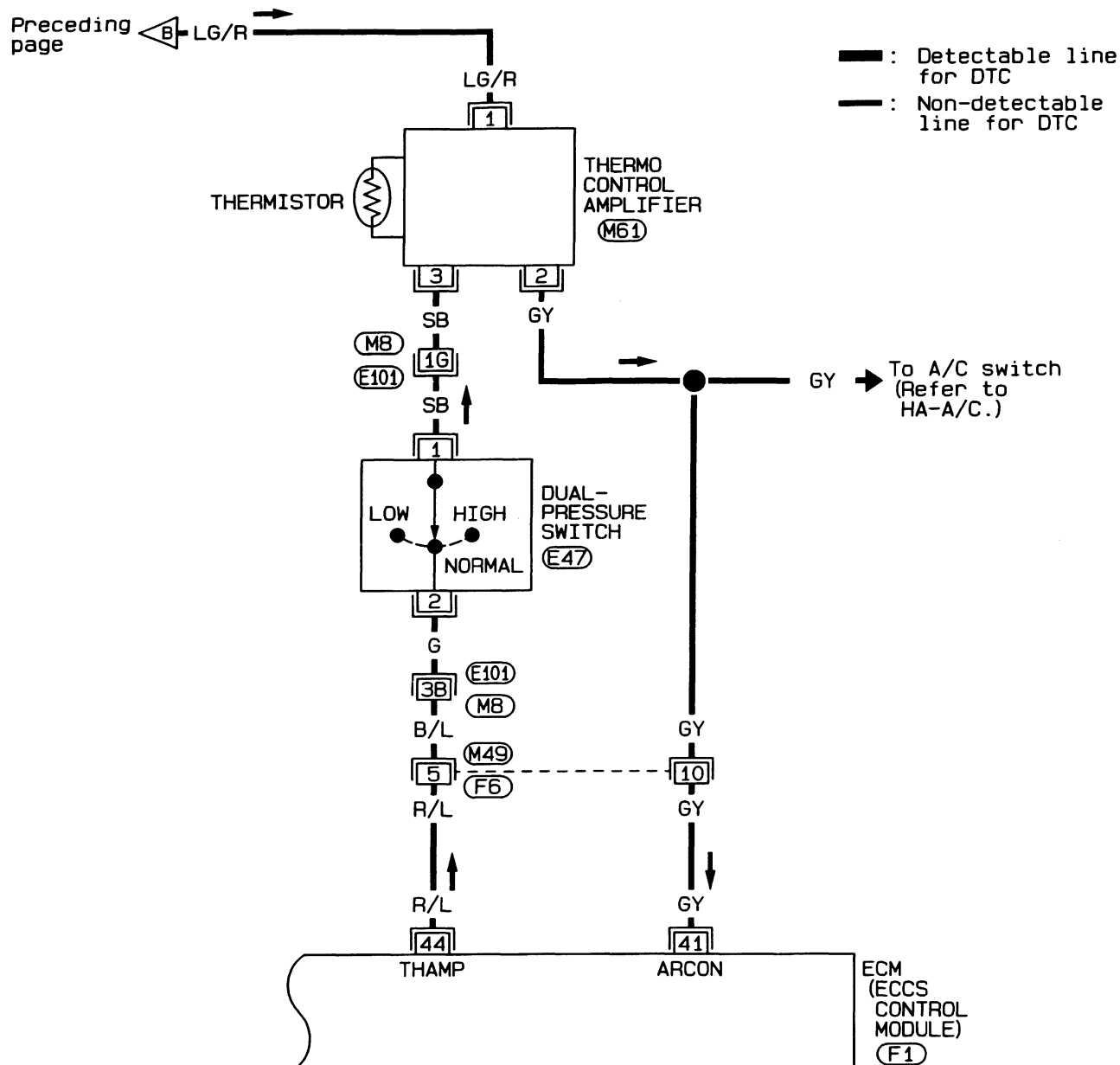
(F1) L



## IACV-FICD Solenoid Valve (Cont'd)

Except for Europe and Australia

EC-FICD-04



|   |    |    |    |    |    |    |    |       |
|---|----|----|----|----|----|----|----|-------|
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | (M49) |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | W     |

|   |       |
|---|-------|
| 1 | (M61) |
| 2 | W     |
| 3 |       |

|   |   |       |
|---|---|-------|
| 1 | 2 | (E47) |
|   |   | B     |

Refer to last page (Foldout page).

(M8), (E101)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

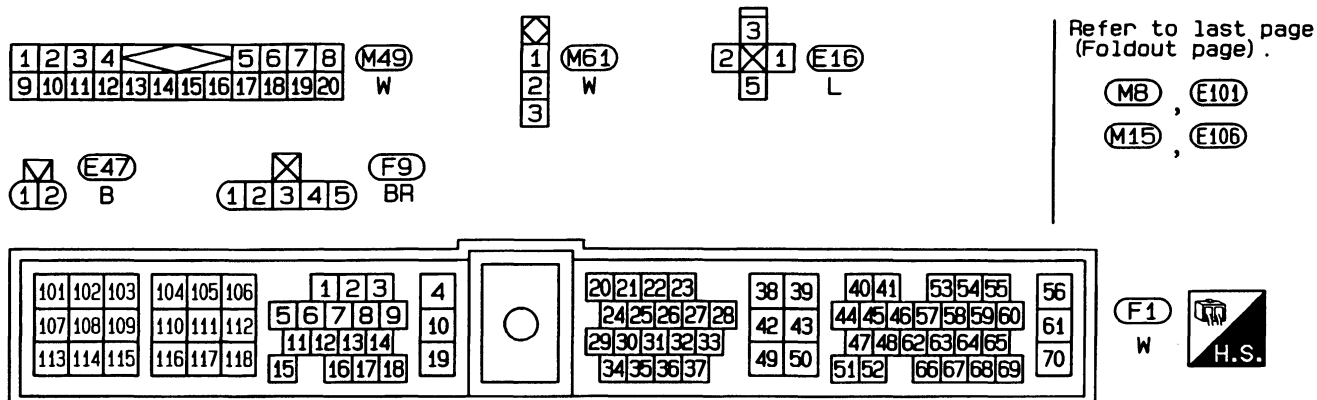
(F1)  
L

## GA16DE for Australia

**Legend:**  
 — : Detectable line for DTC  
 — : Non-detectable line for DTC

**Components and Connections:**  
 - **IGNITION SWITCH ON**: Connected to the **7.5A** fuse (6) in the **FUSE BLOCK (J/B)**.  
 - **BATTERY**: Connected to the **7.5A** fuse (30) in the **FUSE BLOCK (J/B)**.  
 - **Thermo Control Amplifier (M61)**: Receives input from the **THERMISTOR** (LG/R) and the **DUAL-PRESSURE SWITCH (E47)**. It outputs to the **AIR CONDITIONER RELAY (E16)** (L/B) and the **ECM (ECSS CONTROL MODULE)** (Y).  
 - **DUAL-PRESSURE SWITCH (E47)**: Outputs to the **ECM (ECSS CONTROL MODULE)** (Y) and the **AIR CONDITIONER RELAY (E16)** (L/R).  
 - **AIR CONDITIONER RELAY (E16)**: Controls the **IACV-FICD SOLENOID VALVE (F9)** (L/R) and the **ECM (ECSS CONTROL MODULE)** (Y).  
 - **IACV-FICD SOLENOID VALVE (F9)**: Controls the **ECM (ECSS CONTROL MODULE)** (Y).  
 - **ECM (ECSS CONTROL MODULE)**: Controls the **AIR CONDITIONER RELAY (E16)** (Y) and the **IACV-FICD SOLENOID VALVE (F9)** (Y).

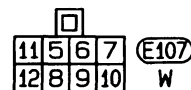
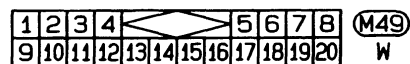
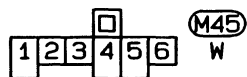
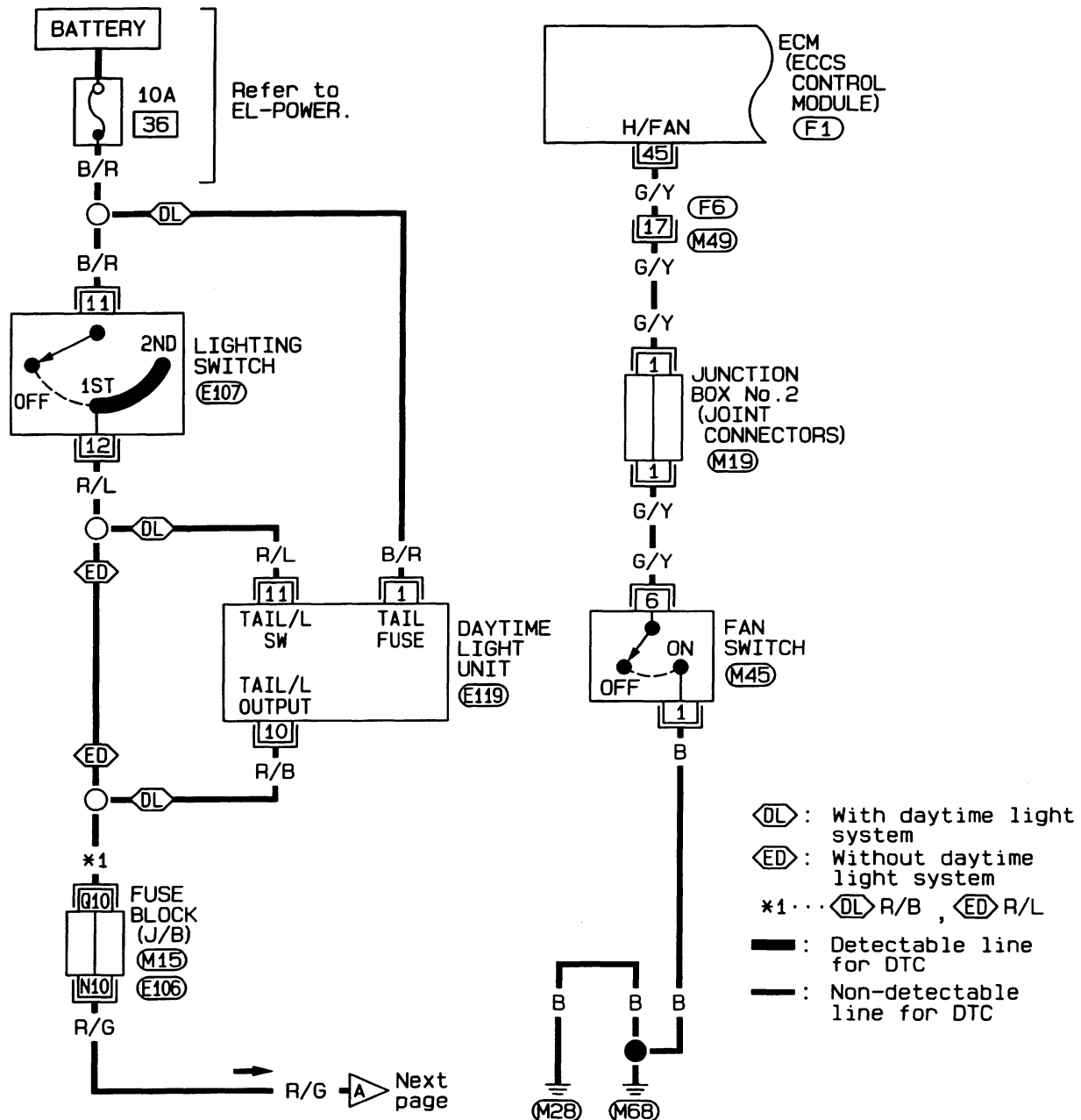
Refer to EL-POWER.



## Electrical Load Signal

LHD models

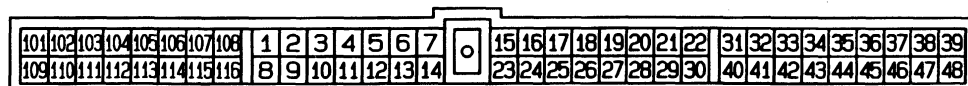
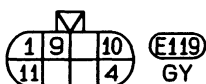
EC-LOAD-01



Refer to last page (Foldout page).

(M15), (E106)

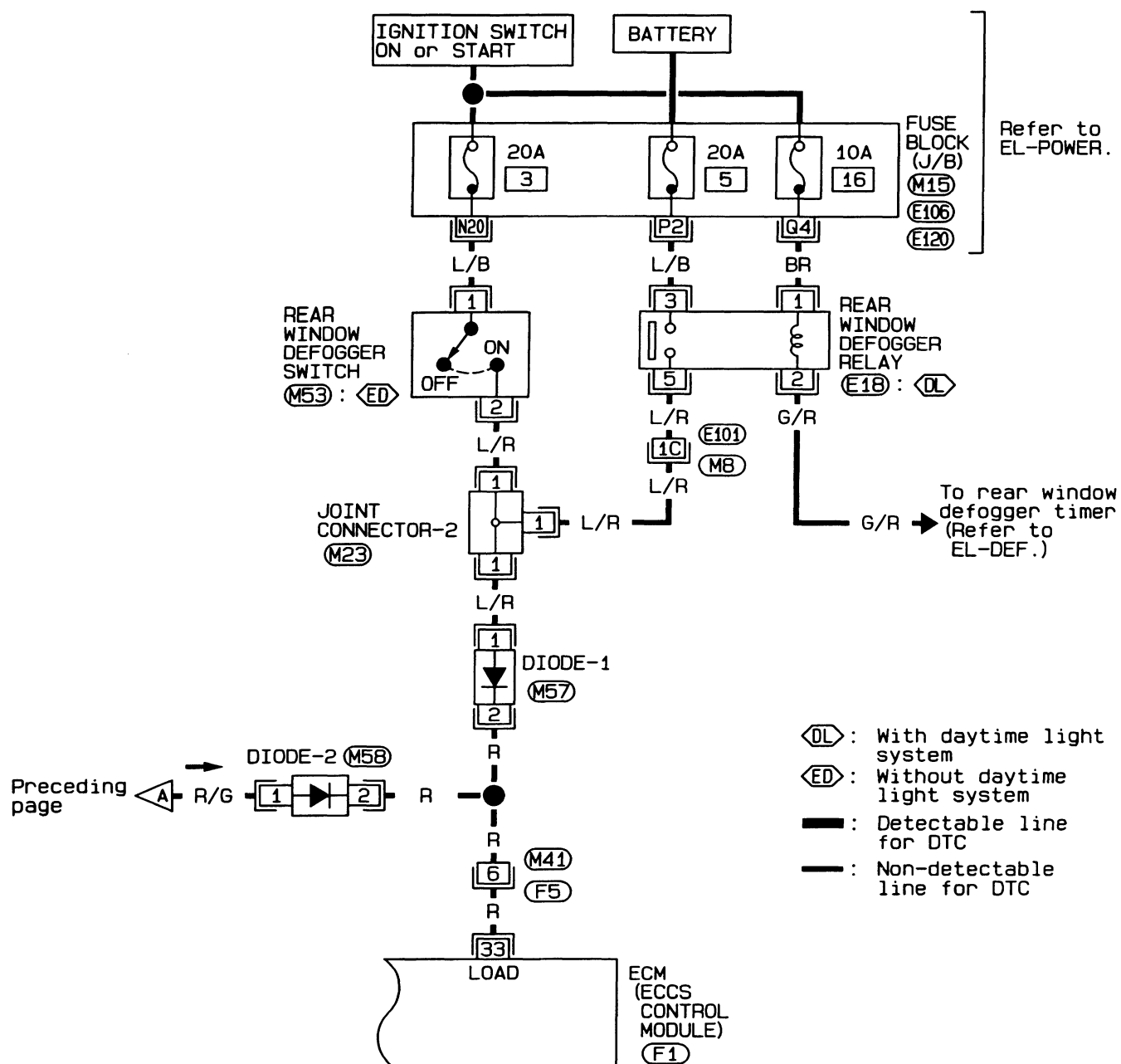
(M19)



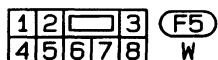
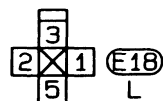
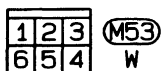
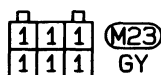
## Electrical Load Signal (Cont'd)

LHD models

EC-LOAD-02



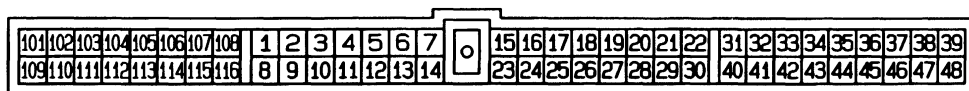
Preceding page



Refer to last page (Foldout page).

(M8), (E101)

(M15), (E106), (E120)



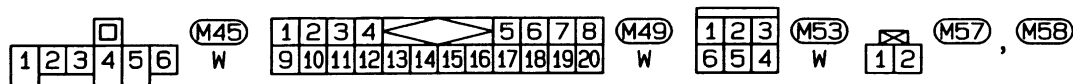
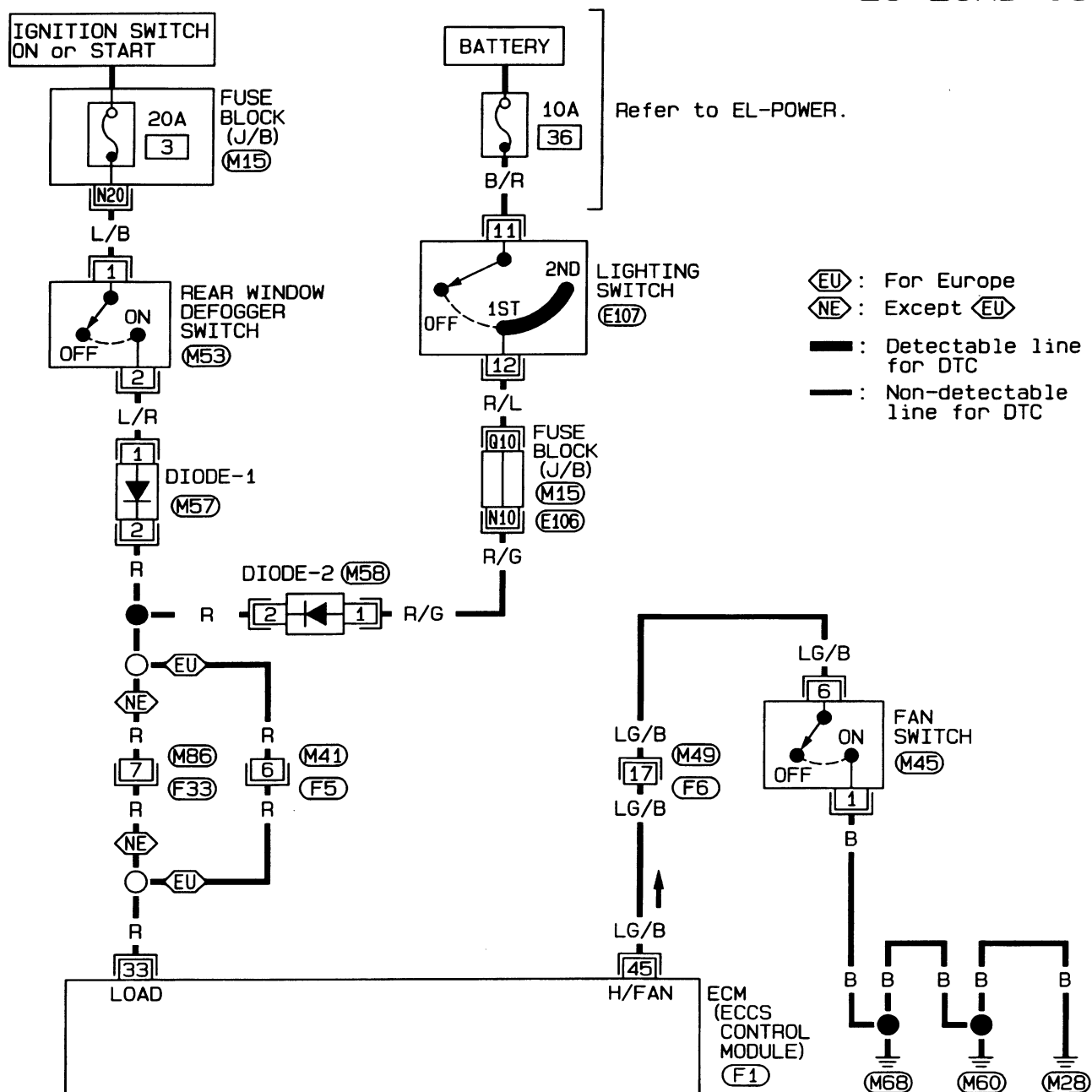
(F1) L



## Electrical Load Signal (Cont'd)

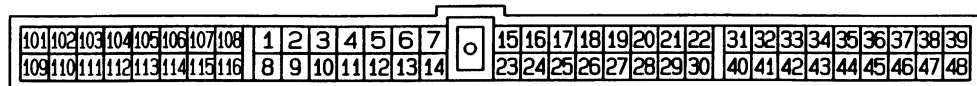
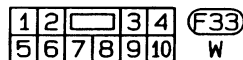
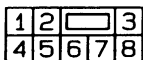
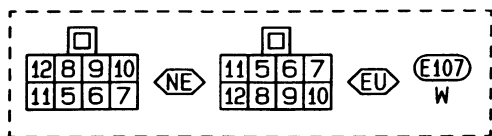
RHD models except for Australia

EC-LOAD-03



Refer to last page (Foldout page).

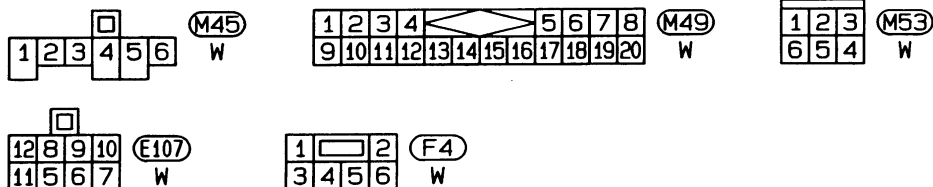
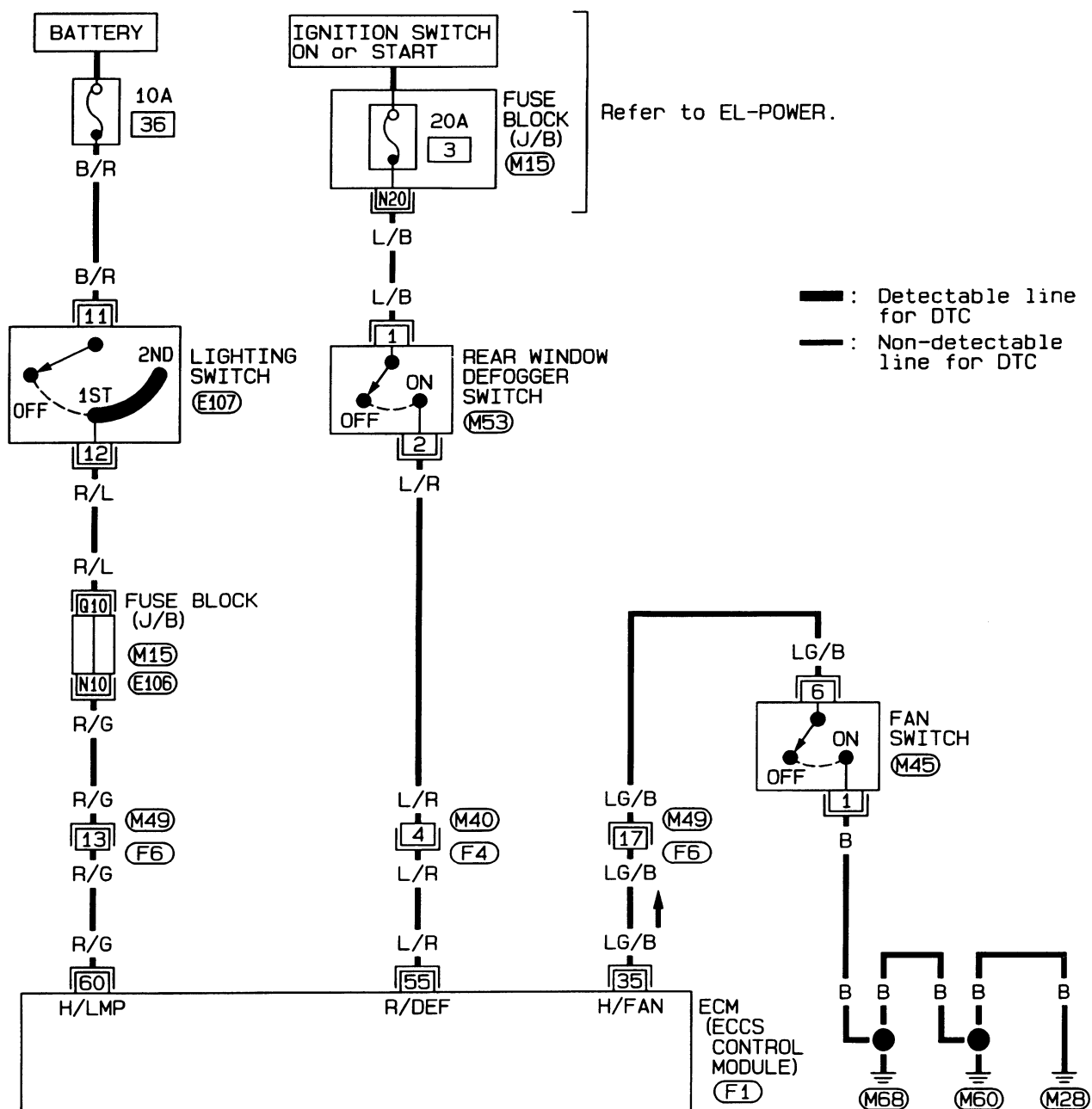
(M15, E106)

F1  
L

## Electrical Load Signal (Cont'd)

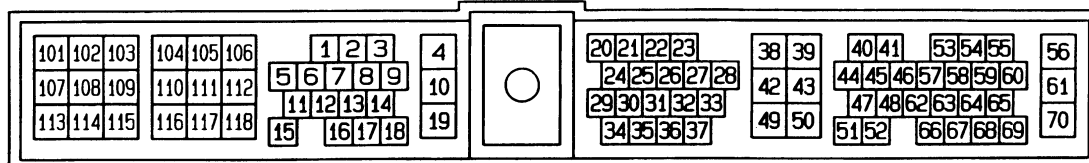
GA16DE for Australia

EC-LOAD-04



Refer to last page (Foldout page).

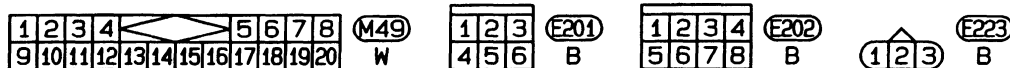
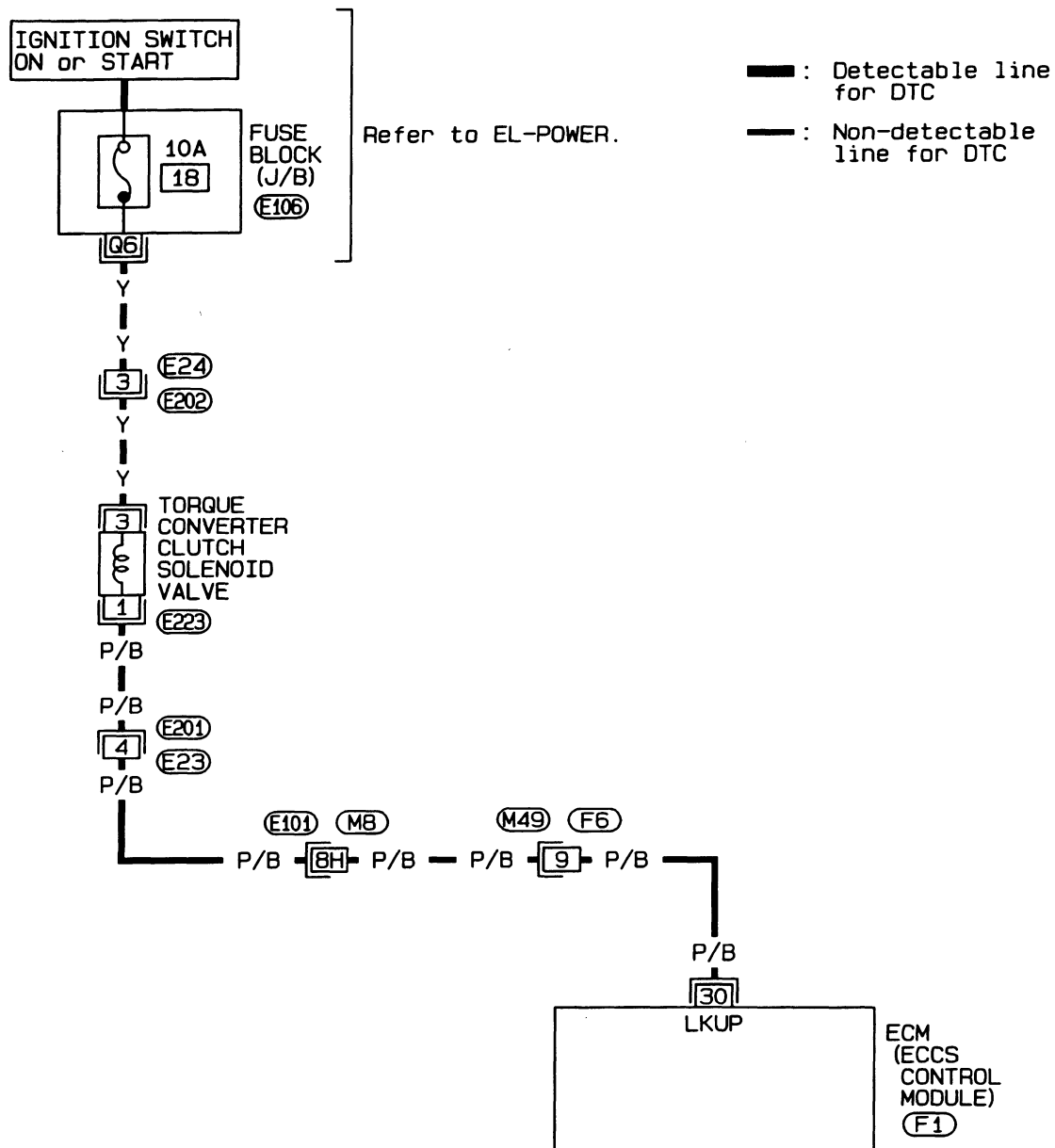
(M15), (E106)

(F1)  
W

## Torque Converter Clutch Solenoid Valve

GA16DE for Australia (A/T models)

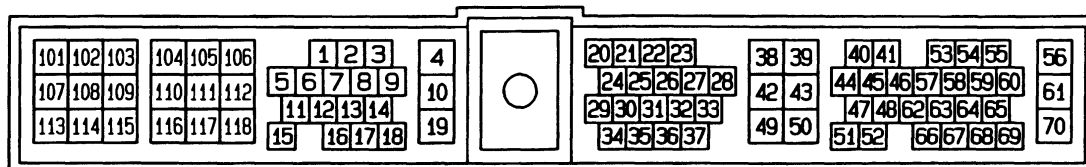
EC-LKUP-01



Refer to last page (Foldout page).

(M8), (E101)

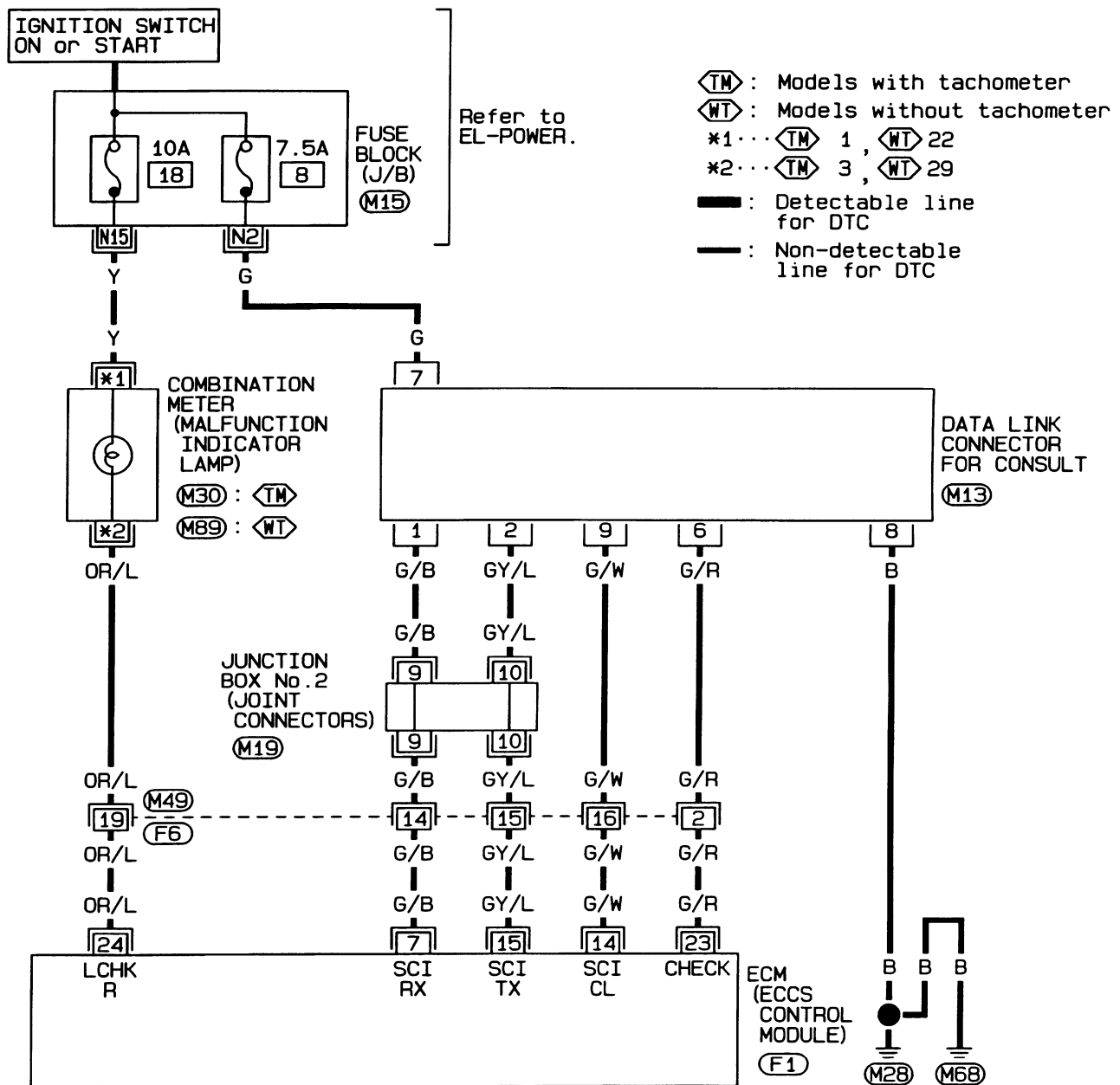
(E106)



## MIL &amp; Data Link Connectors

LHD models

EC-MIL/DL-01



|   |   |    |    |    |    |    |       |
|---|---|----|----|----|----|----|-------|
| 1 | 2 | 3  | 4  | 5  | 6  | 7  | (M13) |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | GY    |

|   |    |    |    |    |    |    |    |       |
|---|----|----|----|----|----|----|----|-------|
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | (M49) |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | W     |

Refer to last page (Foldout page).

(M15)

(M19)

|    |    |    |    |    |    |    |    |    |    |            |    |    |    |    |    |    |            |
|----|----|----|----|----|----|----|----|----|----|------------|----|----|----|----|----|----|------------|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | (M30) : TM | 25 | 26 | 27 | 28 | 29 | 30 | (M89) : WT |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | W          | 31 | 32 | 33 | 34 | 35 | 36 | W          |

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

(F1)

L



## MIL &amp; Data Link Connectors (Cont'd)

RHD models except for Australia

EC-MIL/DL-02

GI

MA

EM

LC

EC

FE

CL

MT

AT

FA

RA

BR

ST

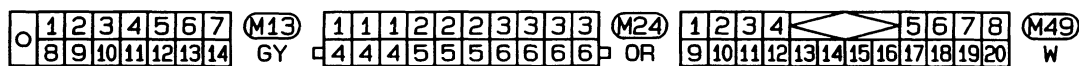
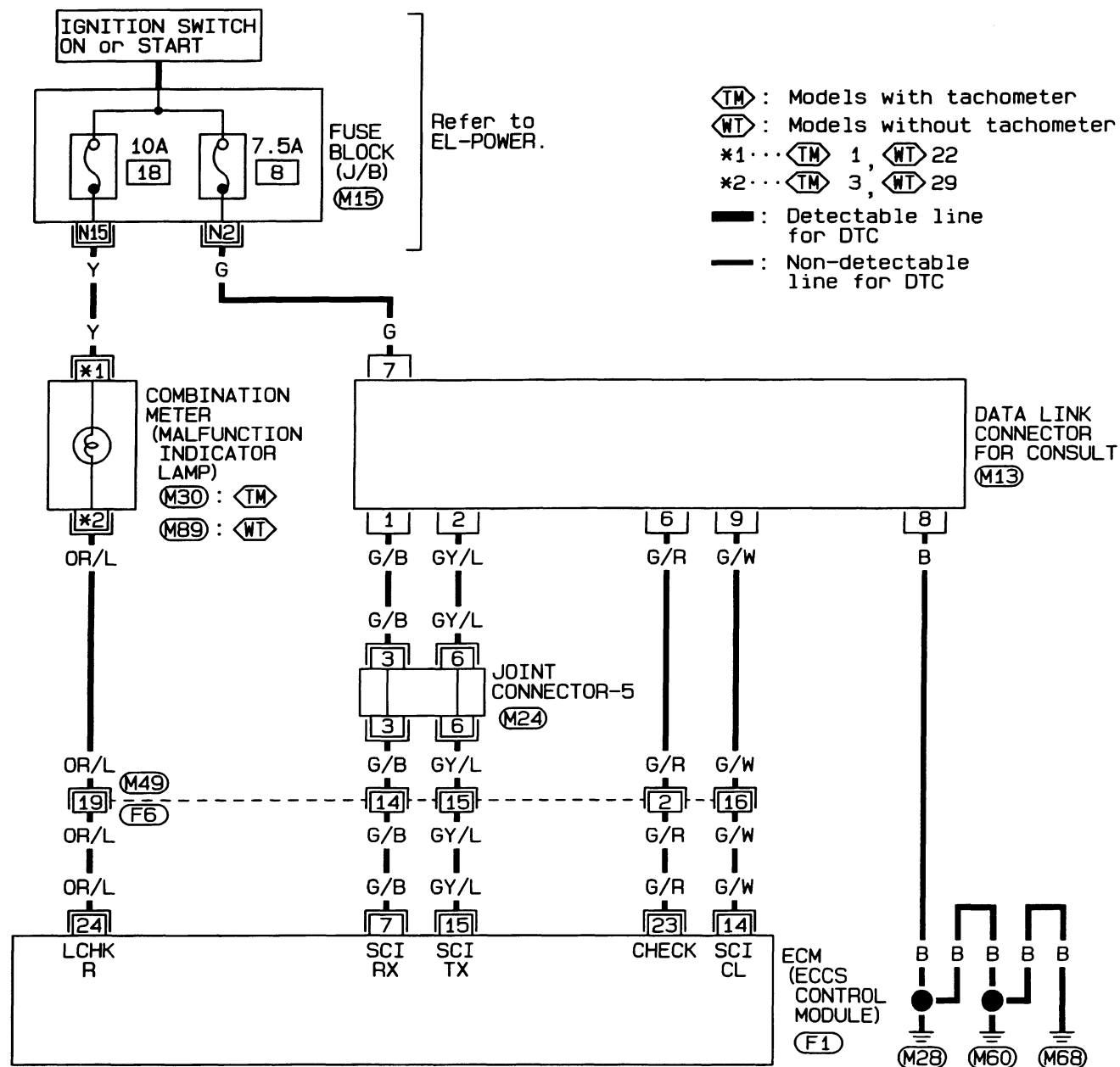
RS

BT

HA

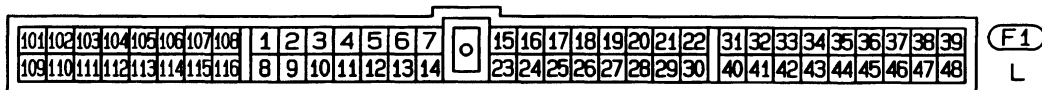
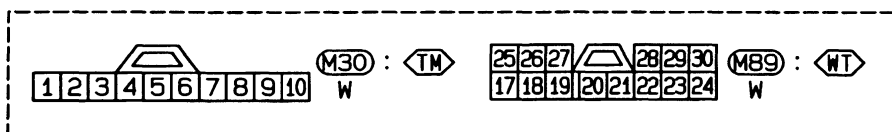
EL

IDX

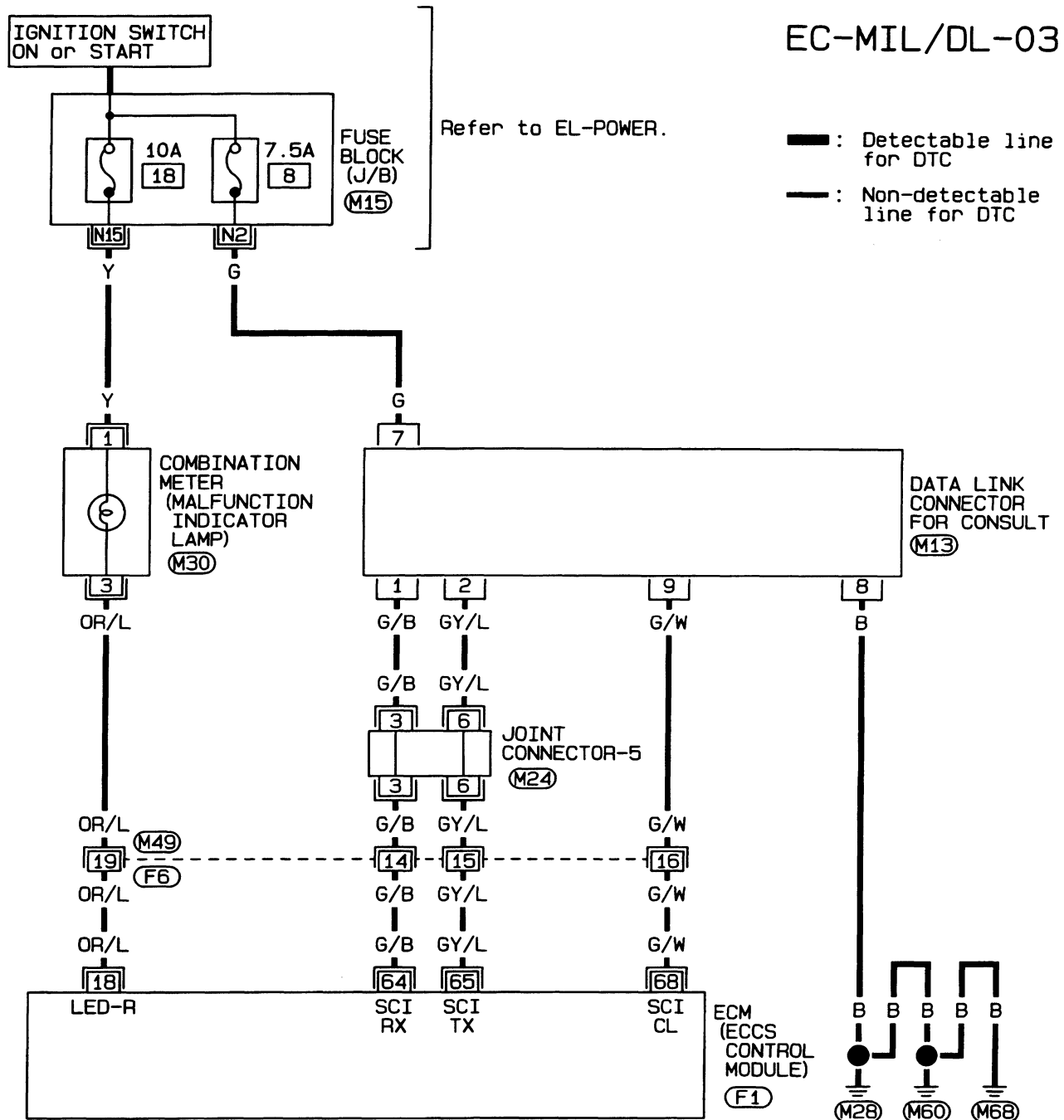


Refer to last page (Foldout page).

(M15)



## GA16DE for Australia



|   |   |   |    |    |    |    |    |
|---|---|---|----|----|----|----|----|
| ○ | 1 | 2 | 3  | 4  | 5  | 6  | 7  |
|   | 8 | 9 | 10 | 11 | 12 | 13 | 14 |

M13

GY

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |

M24

OR

1 2 3 4 5 6 7 8 9 10

M30

W

|   |    |    |    |                                                                                     |  |  |  |    |    |    |    |
|---|----|----|----|-------------------------------------------------------------------------------------|--|--|--|----|----|----|----|
| 1 | 2  | 3  | 4  |  |  |  |  | 5  | 6  | 7  | 8  |
| 9 | 10 | 11 | 12 |                                                                                     |  |  |  | 13 | 14 | 15 | 16 |

M49

W

Refer to last page  
(Foldout page) .

**M15**

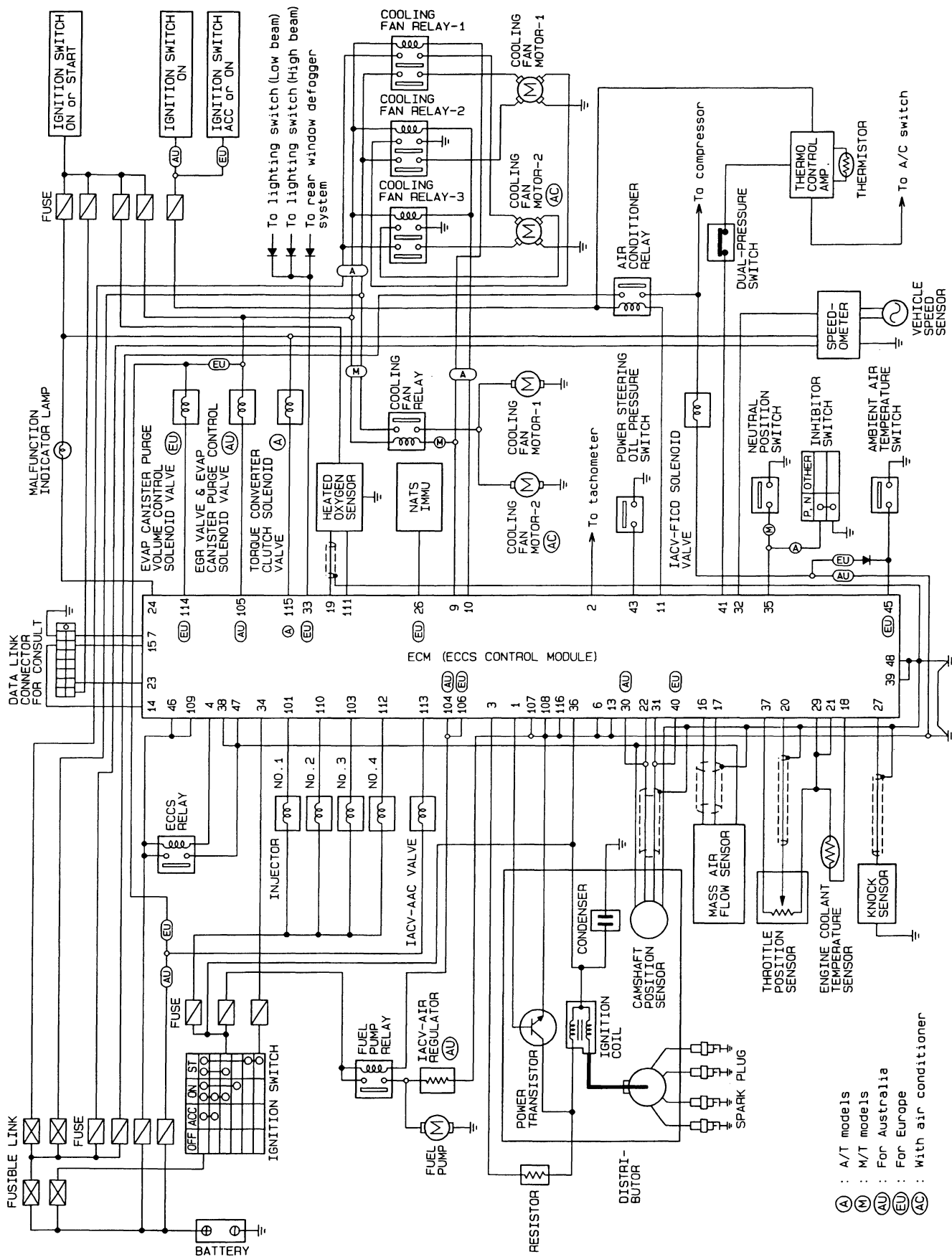
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|-----|-----|-----|-----|-----|-----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 1  | 2  | 3  | 4  |   | 20 | 21 | 22 | 23 | 38 | 39 | 40 | 41 | 53 | 54 | 55 | 56 |    |    |    |
| 107 | 108 | 109 | 110 | 111 | 112 | 5  | 6  | 7  | 8  | 9 | 24 | 25 | 26 | 27 | 28 | 42 | 43 | 44 | 45 | 46 | 57 | 58 | 59 | 60 | 61 |
| 113 | 114 | 115 | 116 | 117 | 118 | 11 | 12 | 13 | 14 |   | 29 | 30 | 31 | 32 | 33 | 49 | 50 | 47 | 48 | 62 | 63 | 64 | 65 | 70 |    |
|     |     |     |     |     |     | 15 | 16 | 17 | 18 |   | 34 | 35 | 36 | 37 |    |    | 51 | 52 | 66 | 67 | 68 | 69 |    |    |    |

**F1**

W



## Circuit Diagram



GI

MA

EM

LC

EC

FE

CL

MT

AT

FA

RA

BR

ST

RS

BT

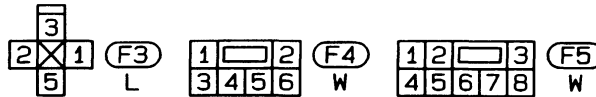
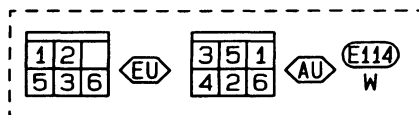
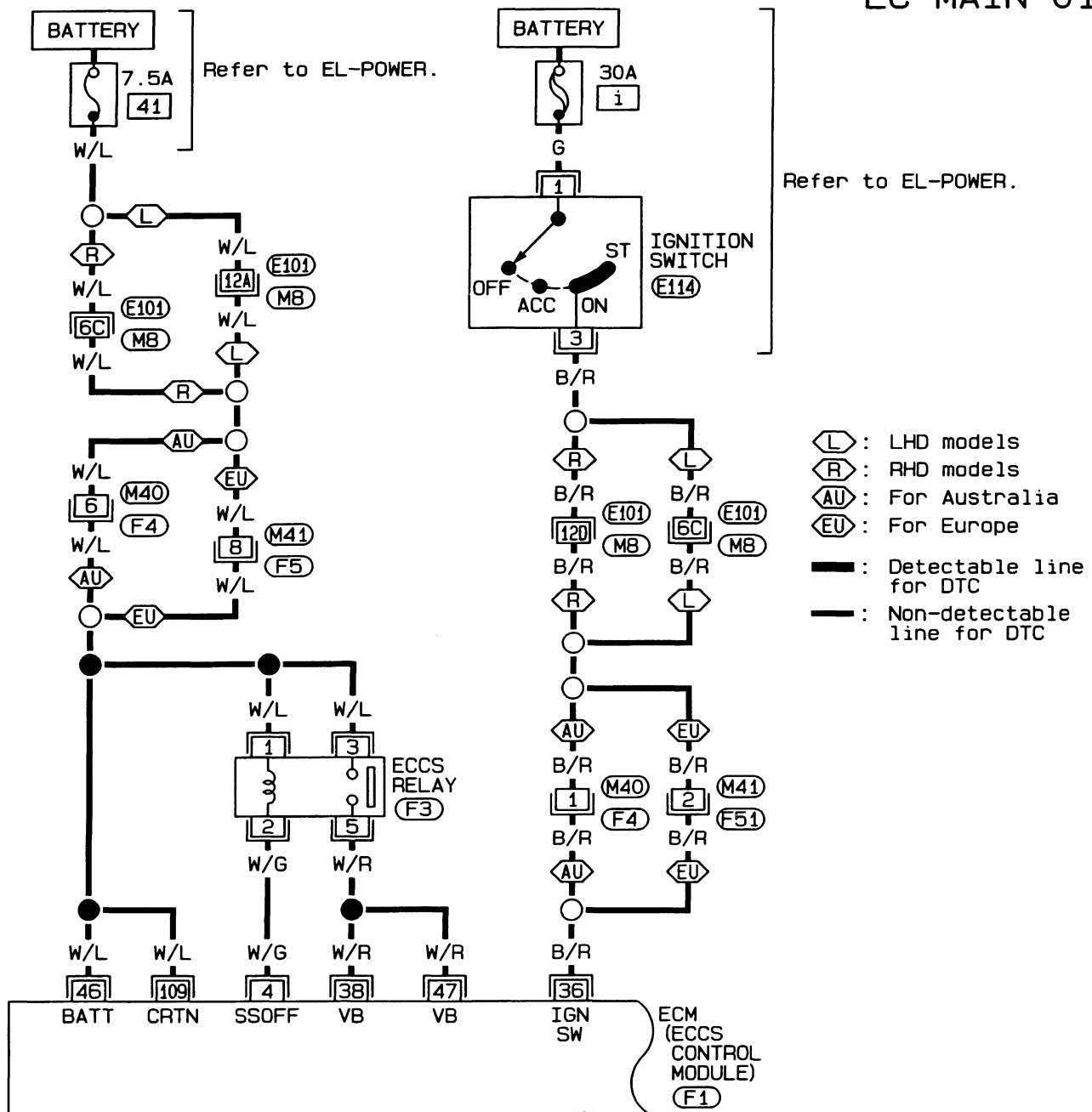
HA

EL

IDX

## Main Power Supply and Ground Circuit

EC-MAIN-01



Refer to last page (Foldout page).

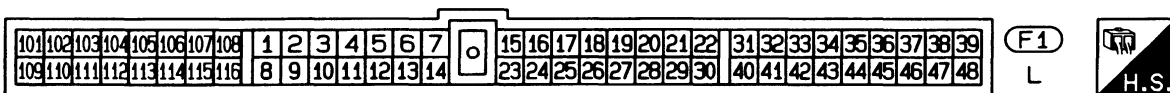
(MB), (E101)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |    |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

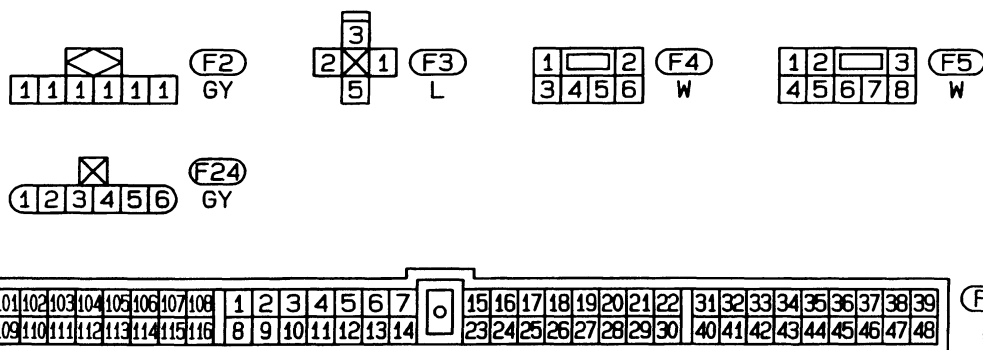
(F1)  
L

EC-MAIN-02

GI  
MA  
EM  
LC  
EC  
FE  
CL  
MT  
AT  
FA  
RA  
BR  
ST  
RS  
BT  
HA  
EL  
IDX



EC-CMPS-01

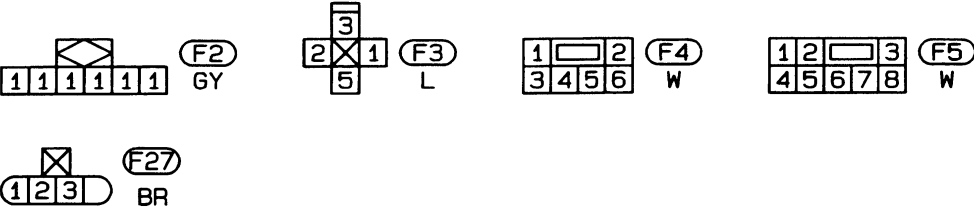
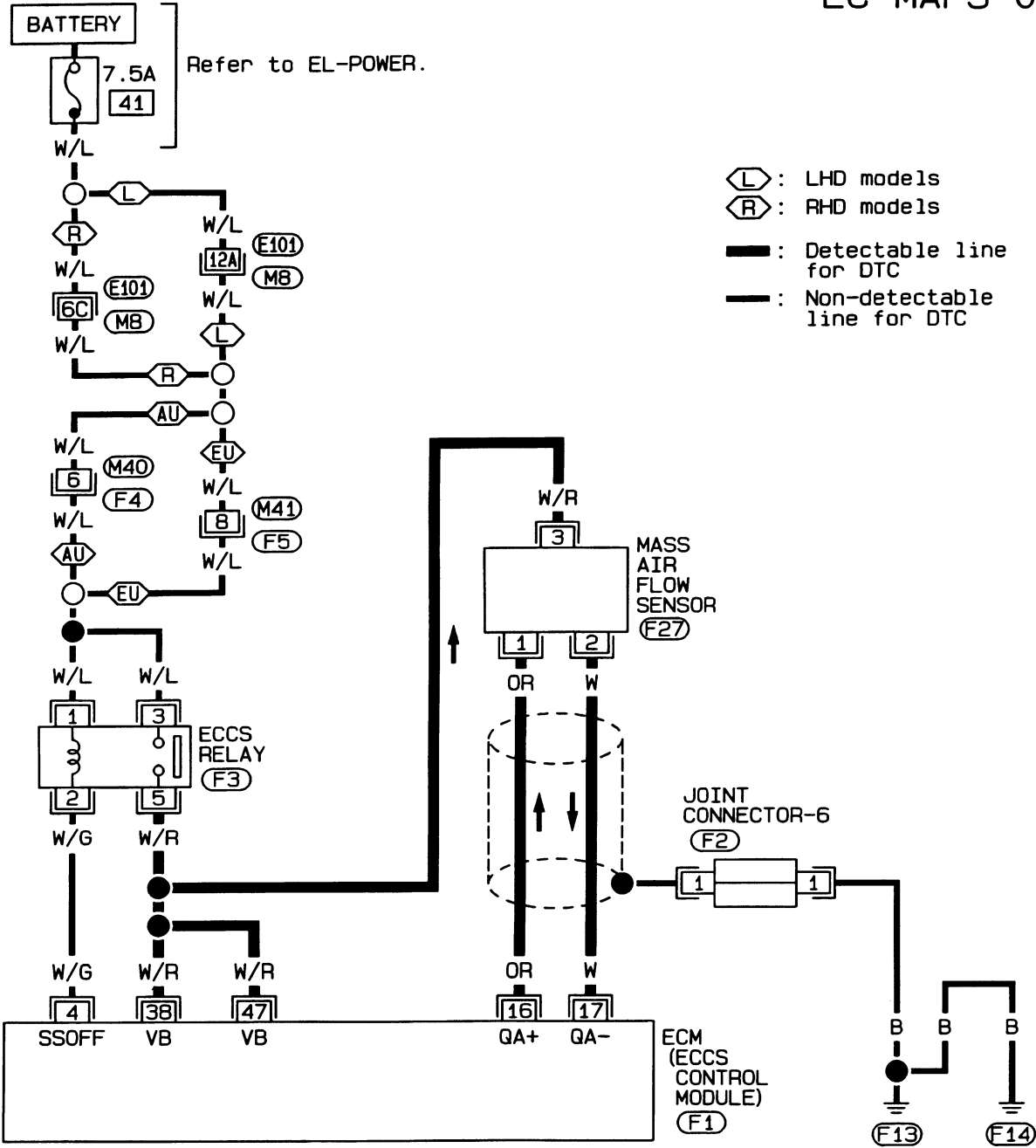


M8 E101

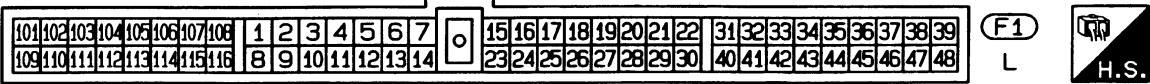


Mass Air Flow Sensor (MAFS)

EC-MAFS-01

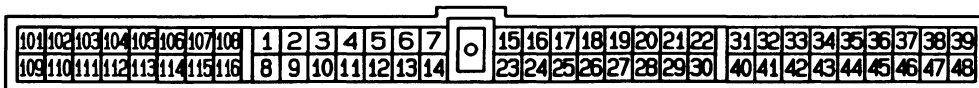
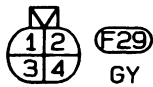
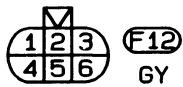
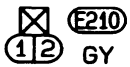
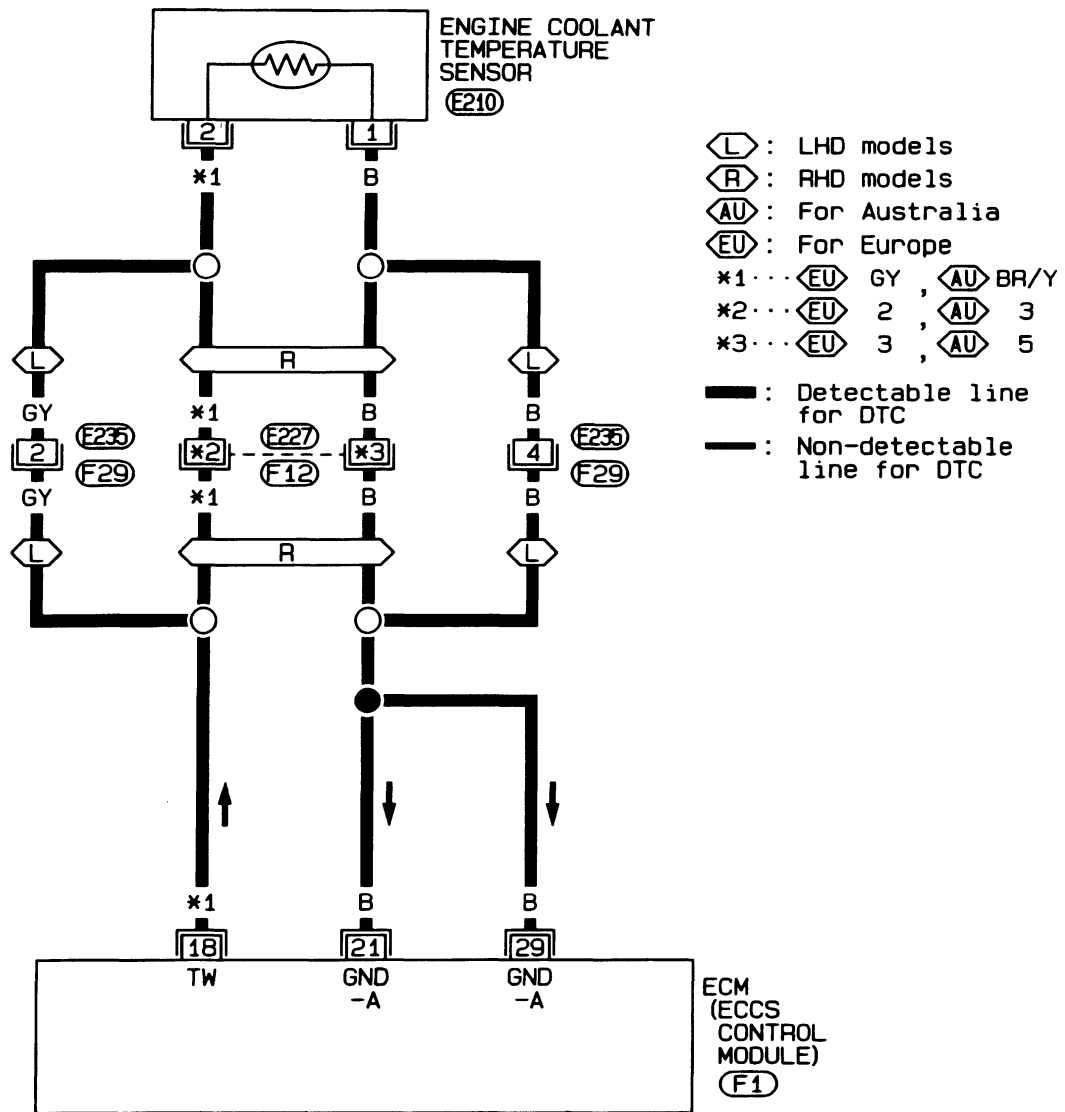


Refer to last page (Foldout page).  
MB, E101



## Engine Coolant Temperature Sensor (ECTS)

EC-ECTS-01



(F1)  
L

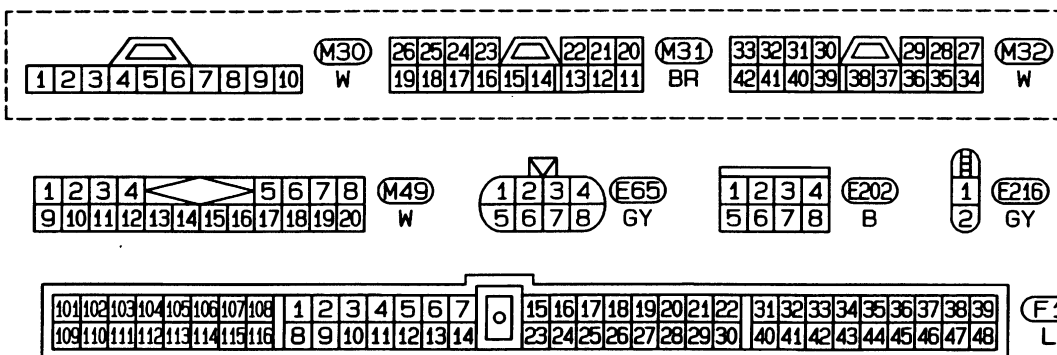
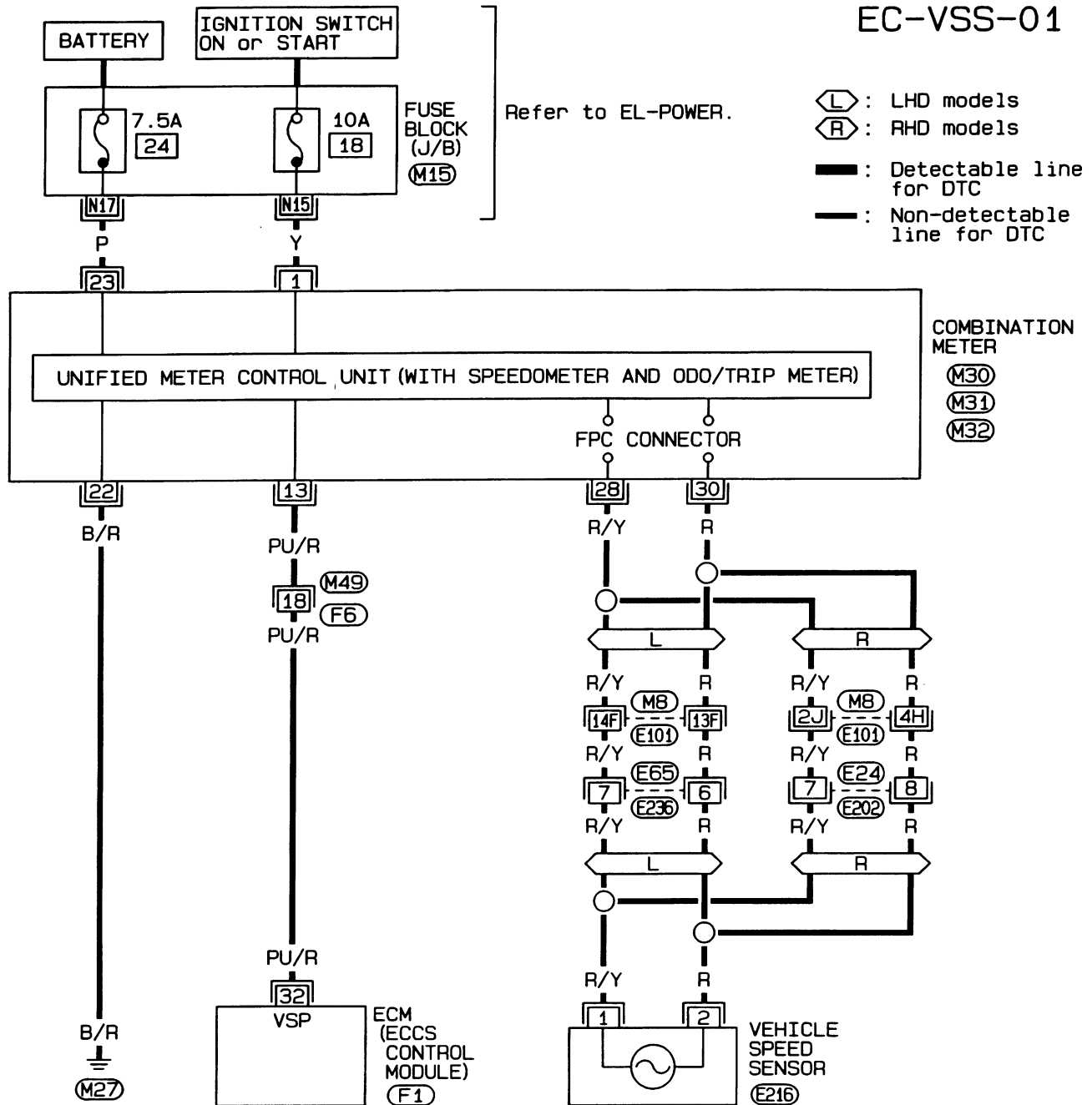


EC-IGN/SG-01



## Vehicle Speed Sensor (VSS)

EC-VSS-01



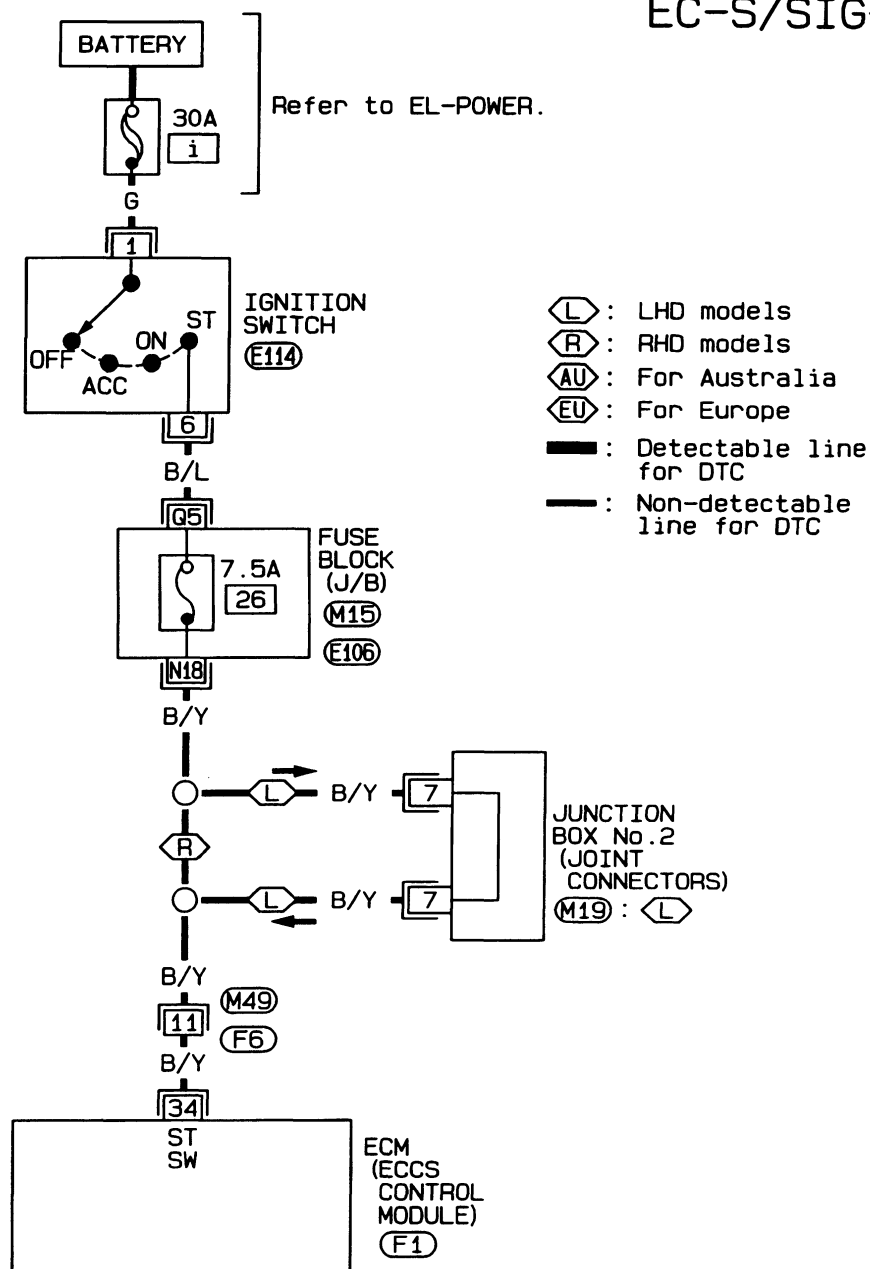
Refer to last page (Foldout page).

(M8, E101)  
(M15)



## Start Signal

EC-S/SIG-01



|   |    |    |    |    |    |    |    |       |
|---|----|----|----|----|----|----|----|-------|
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | (M49) |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | W     |

|   |    |    |    |    |    |      |   |   |   |      |        |
|---|----|----|----|----|----|------|---|---|---|------|--------|
| 1 | 2  | 3  | 4  | 5  | 6  | (EU) | 3 | 5 | 1 | (AU) | (E114) |
| 9 | 10 | 11 | 12 | 13 | 14 | W    | 4 | 2 | 6 |      |        |

Refer to last page (Foldout page).

(M15), (E106)

(M19)

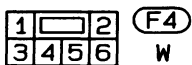
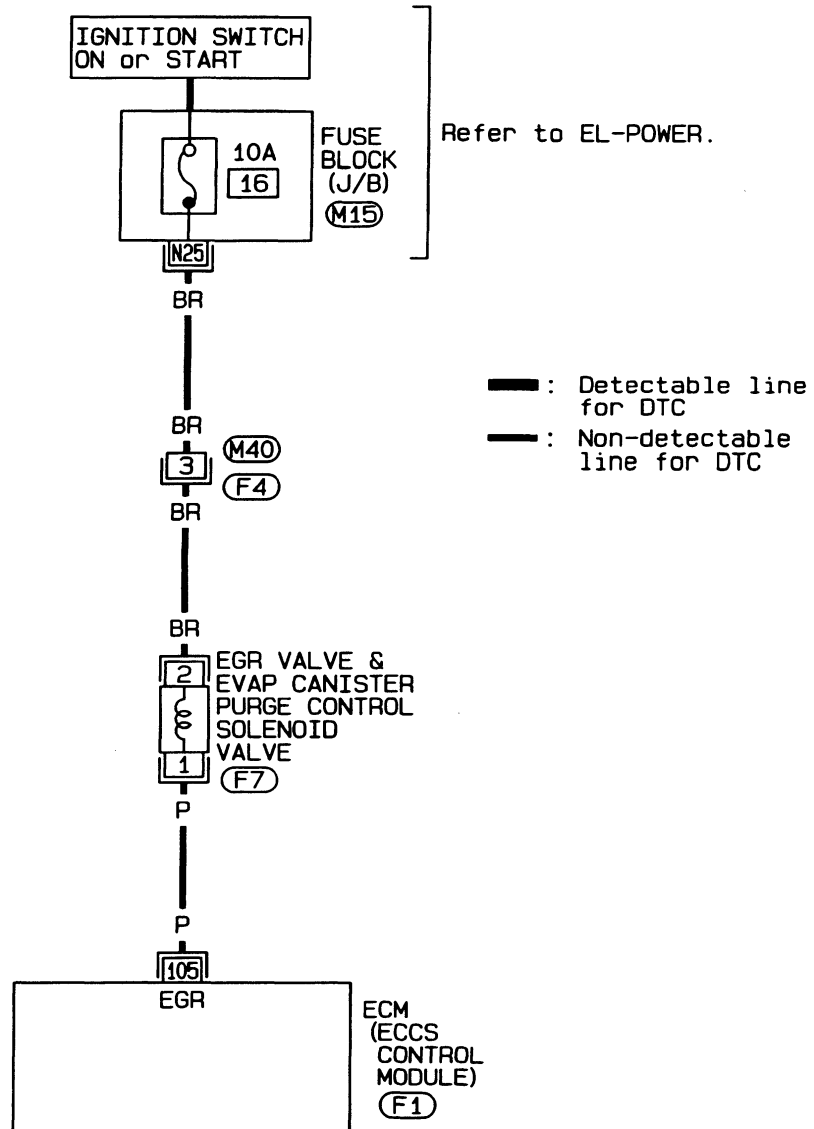
|     |     |     |     |     |     |     |     |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

(F1)  
L

# Exhaust Gas Recirculation (EGR) valve and EVAP Canister Purge Control Solenoid Valve

FOR AUSTRALIA

EC-EGRC/V-01

Refer to last page  
(Foldout page).

(M15)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

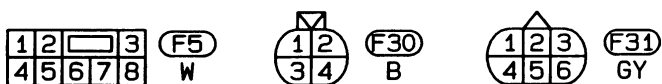
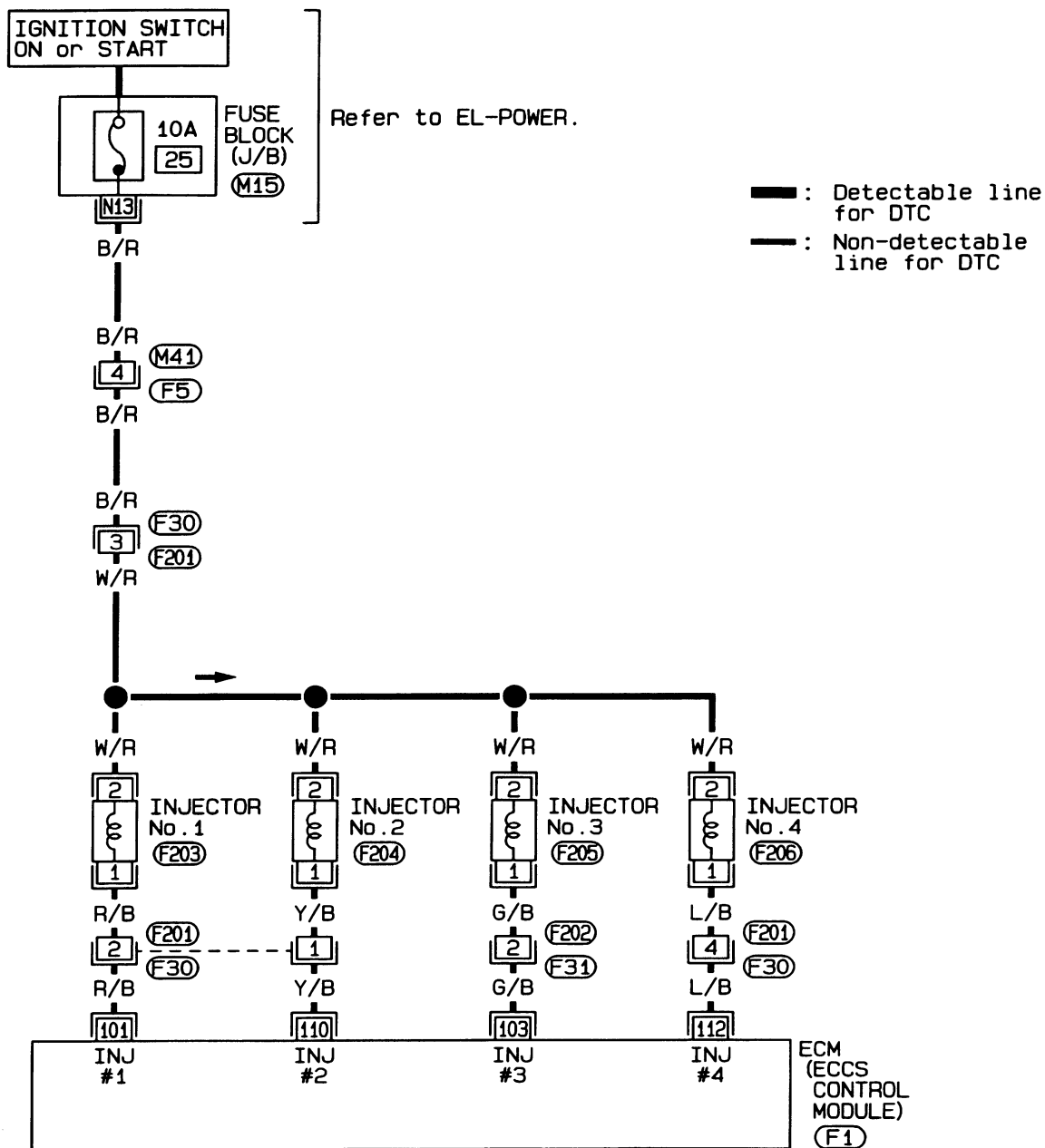
(F1)  
L



## Injector

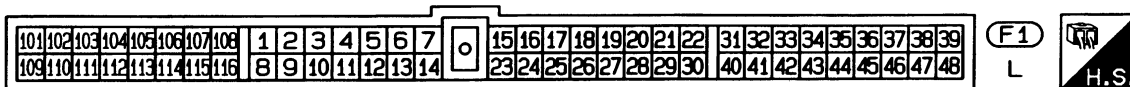
FOR EUROPE

EC-INJECT-01



Refer to last page (Foldout page).

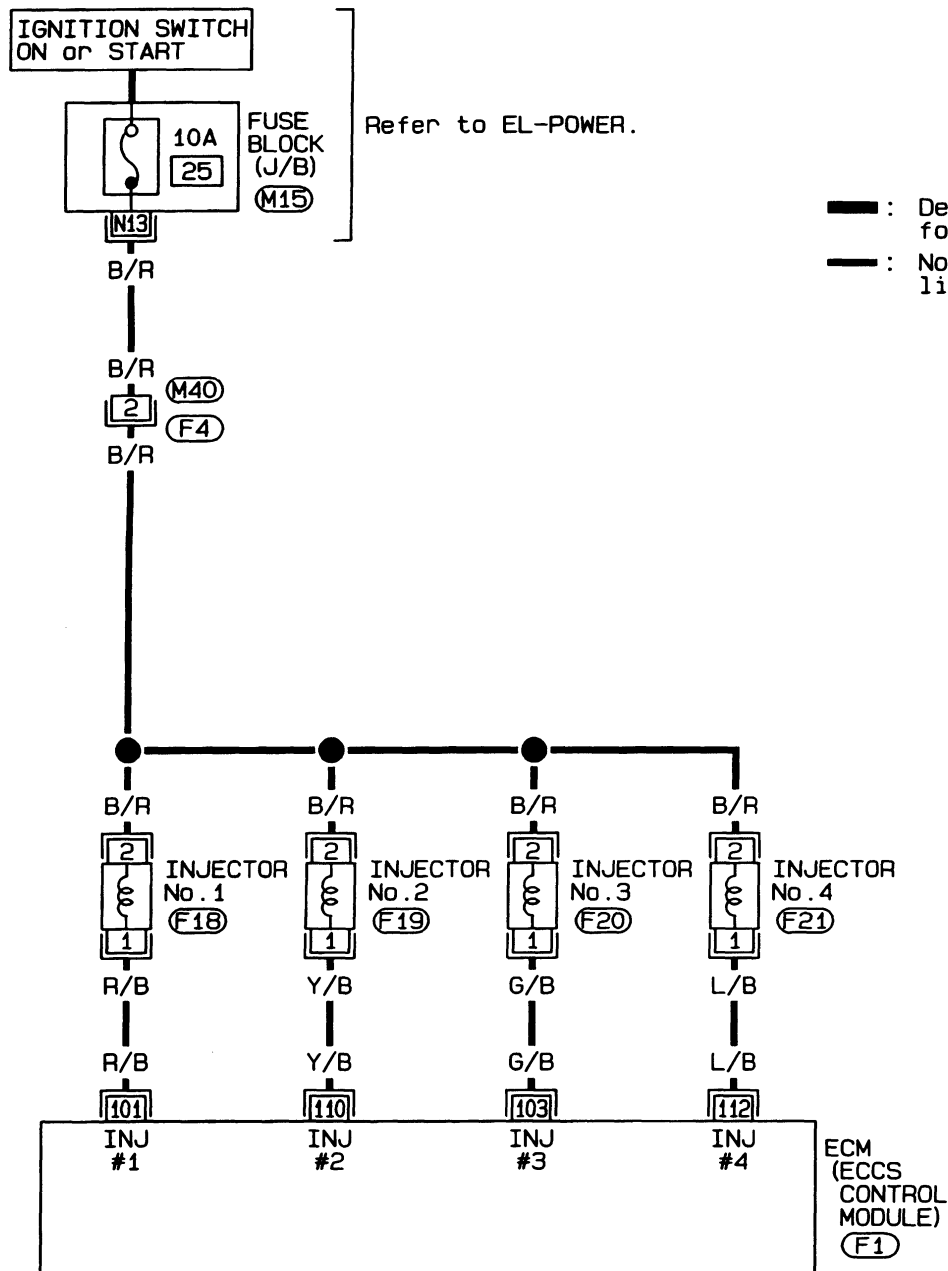
(M15)



## Injector (Cont'd)

FOR AUSTRALIA

EC-INJECT-02

Refer to last page  
(Foldout page).

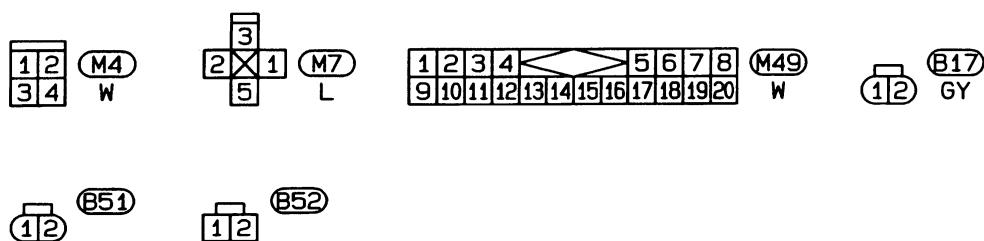
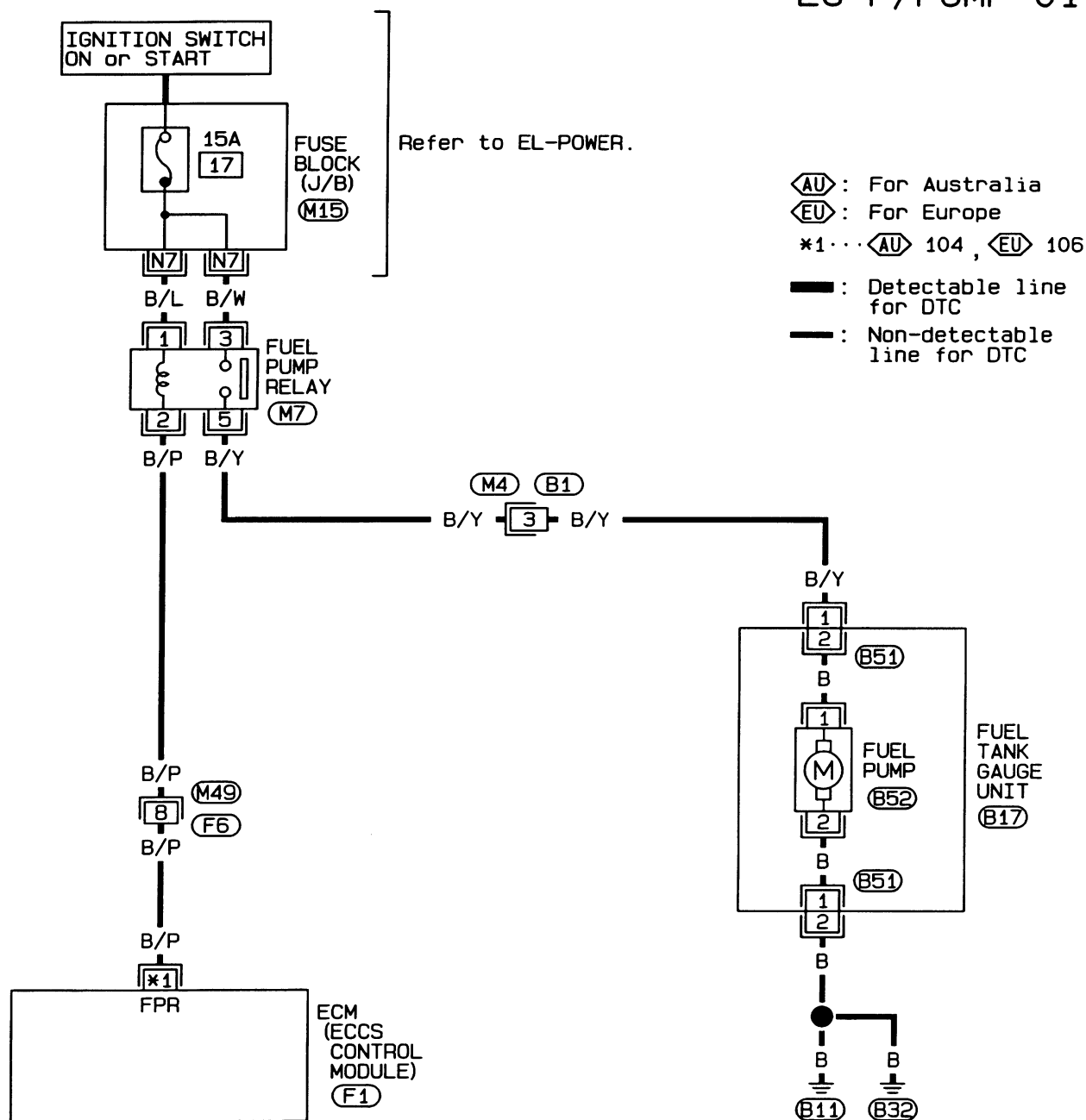
(M15)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 0 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |   | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

(F1)  
L

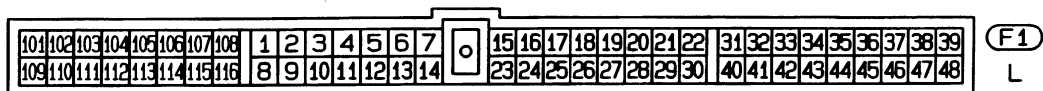


## EC-F/PUMP-01



Refer to last page  
(Foldout page) .

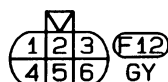
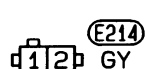
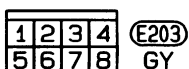
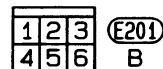
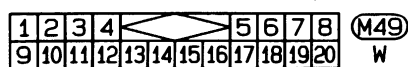
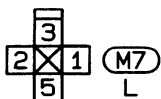
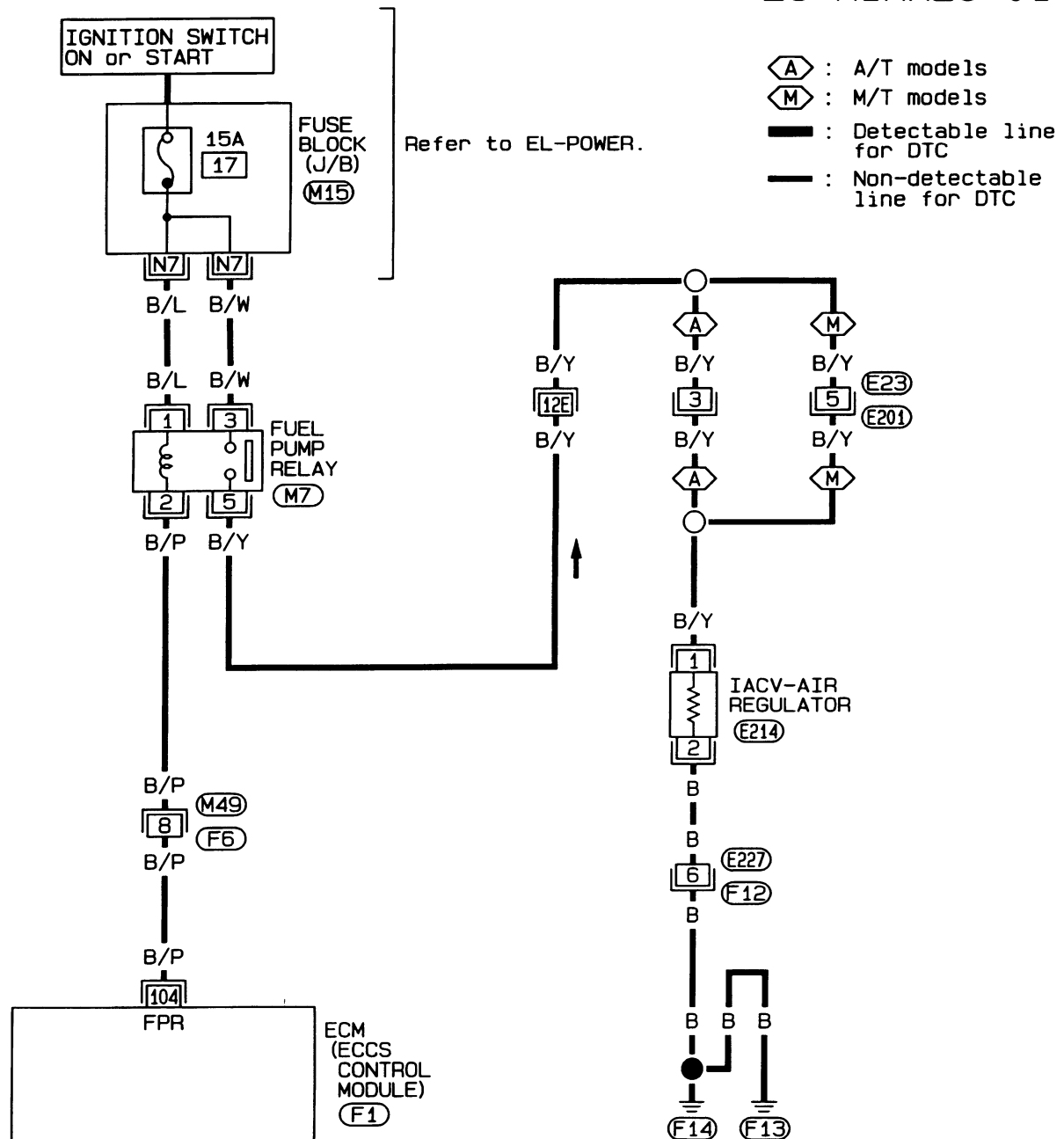
**(M15)**



## Idle Air Control Valve (IACV) — Air Regulator

FOR AUSTRALIA

EC-AIRREG-01



Refer to last page (Foldout page).

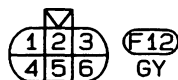
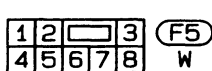
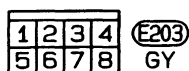
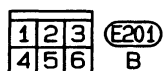
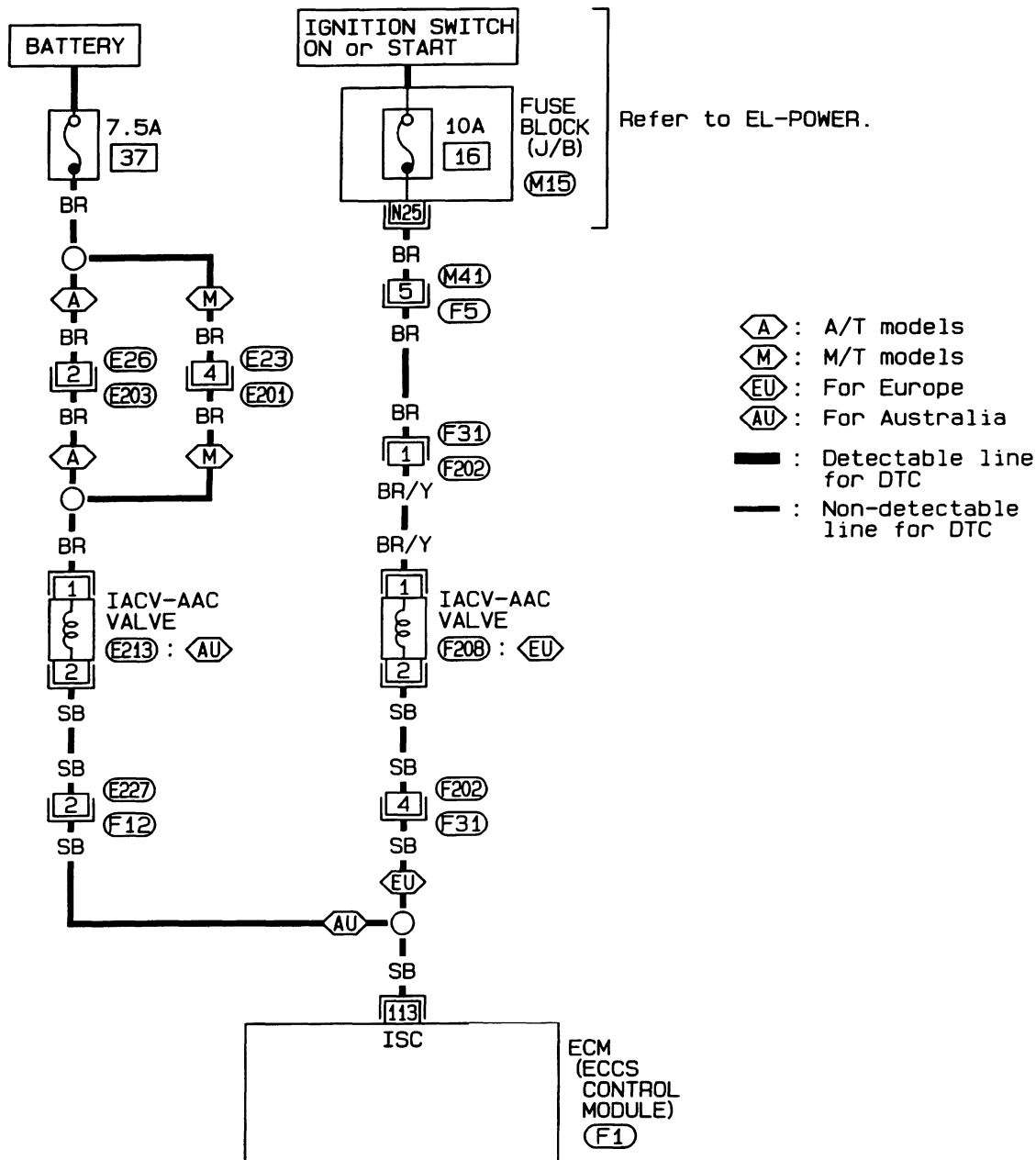
(M8), (E101)

(M15)



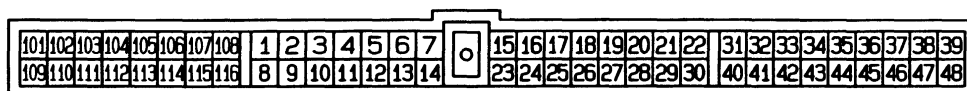
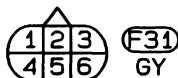
## Idle Air Control Valve (IACV) — Auxiliary Air Control (AAC) Valve

EC-AAC/V-01



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(M15)



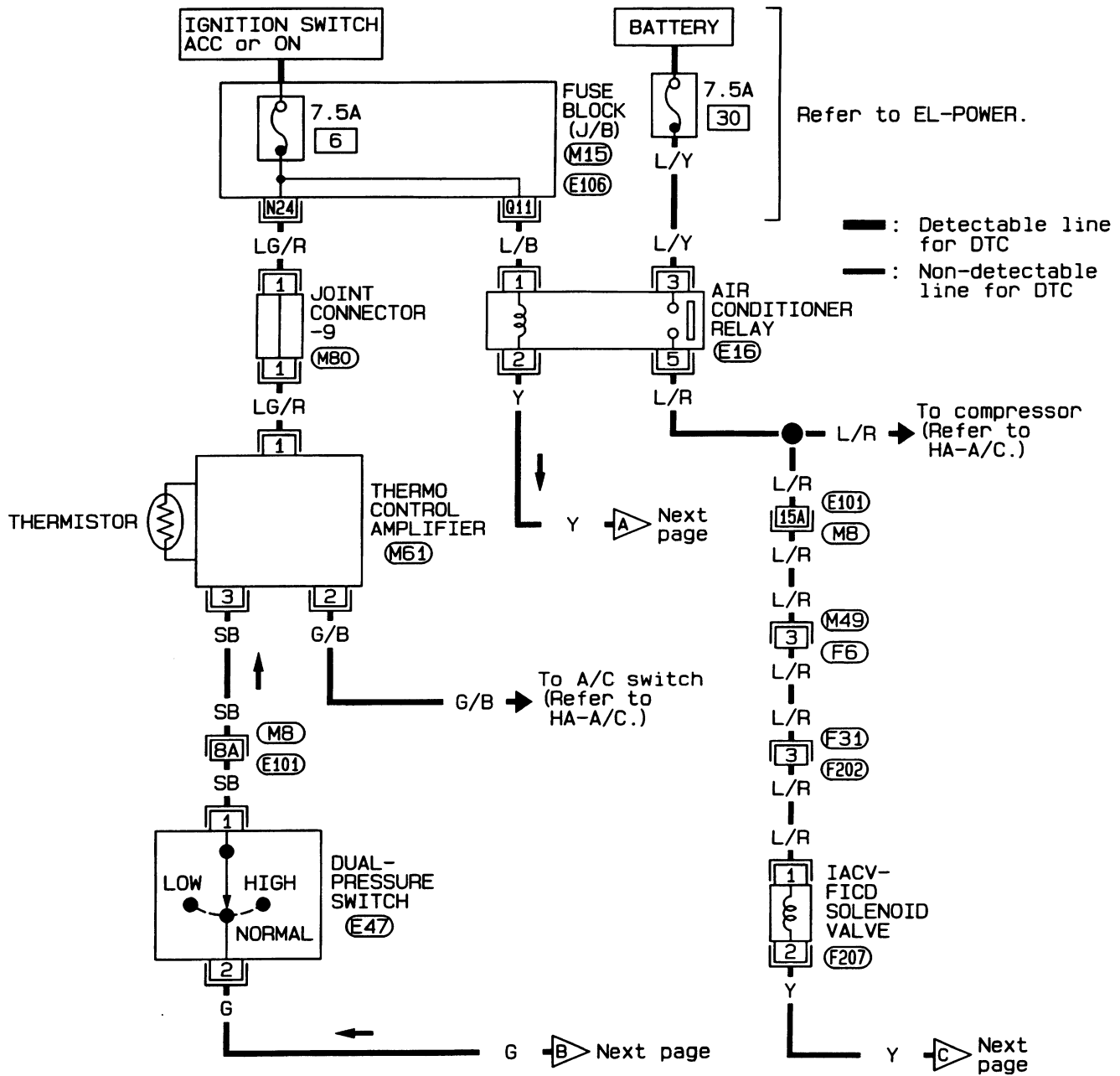
(F1) L



## Idle Air Control Valve (IACV)-FICD Solenoid Valve

## LHD MODELS

EC-FICD-01



GI

MA

EM

LC

EC

FE

CL

MT

AT

FA

RA

BR

ST

RS

BT

HA

EL

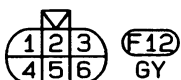
IDX

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(Foldout page).

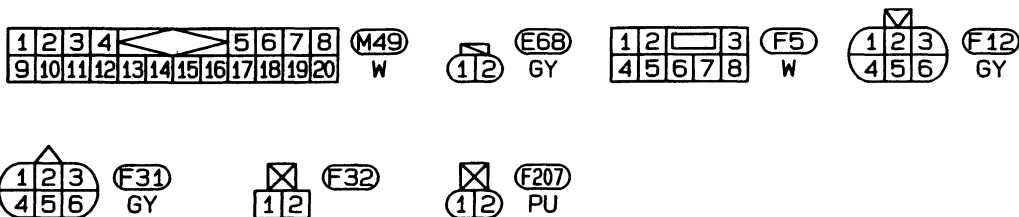
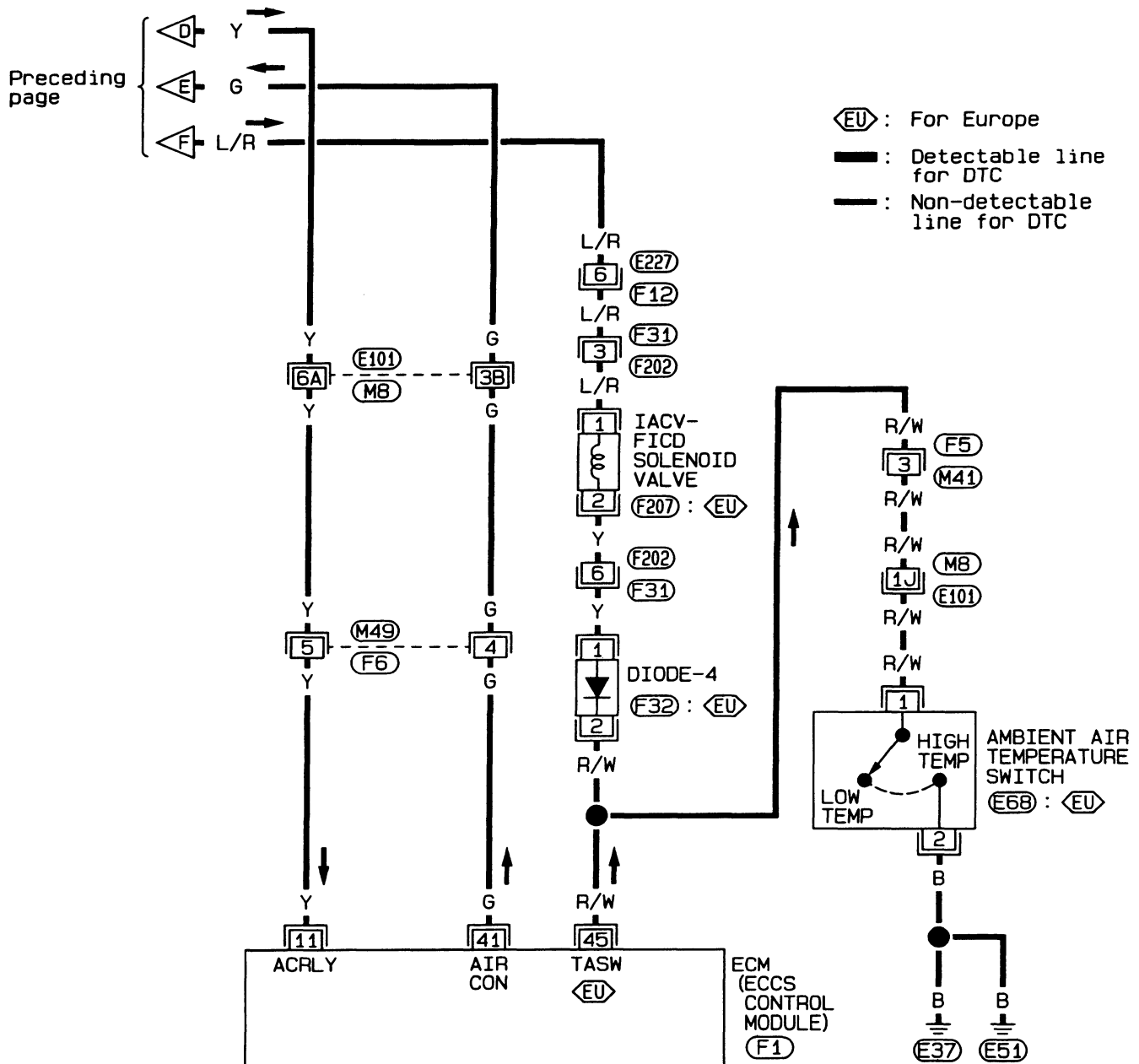
M8, E101  
 M15, E106



## RHD MODELS

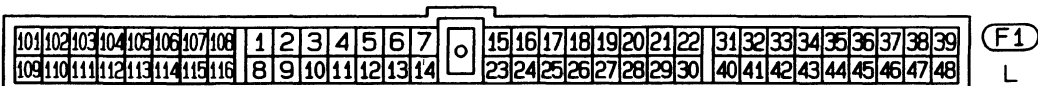


EC-FICD-04



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(Foldout page) .

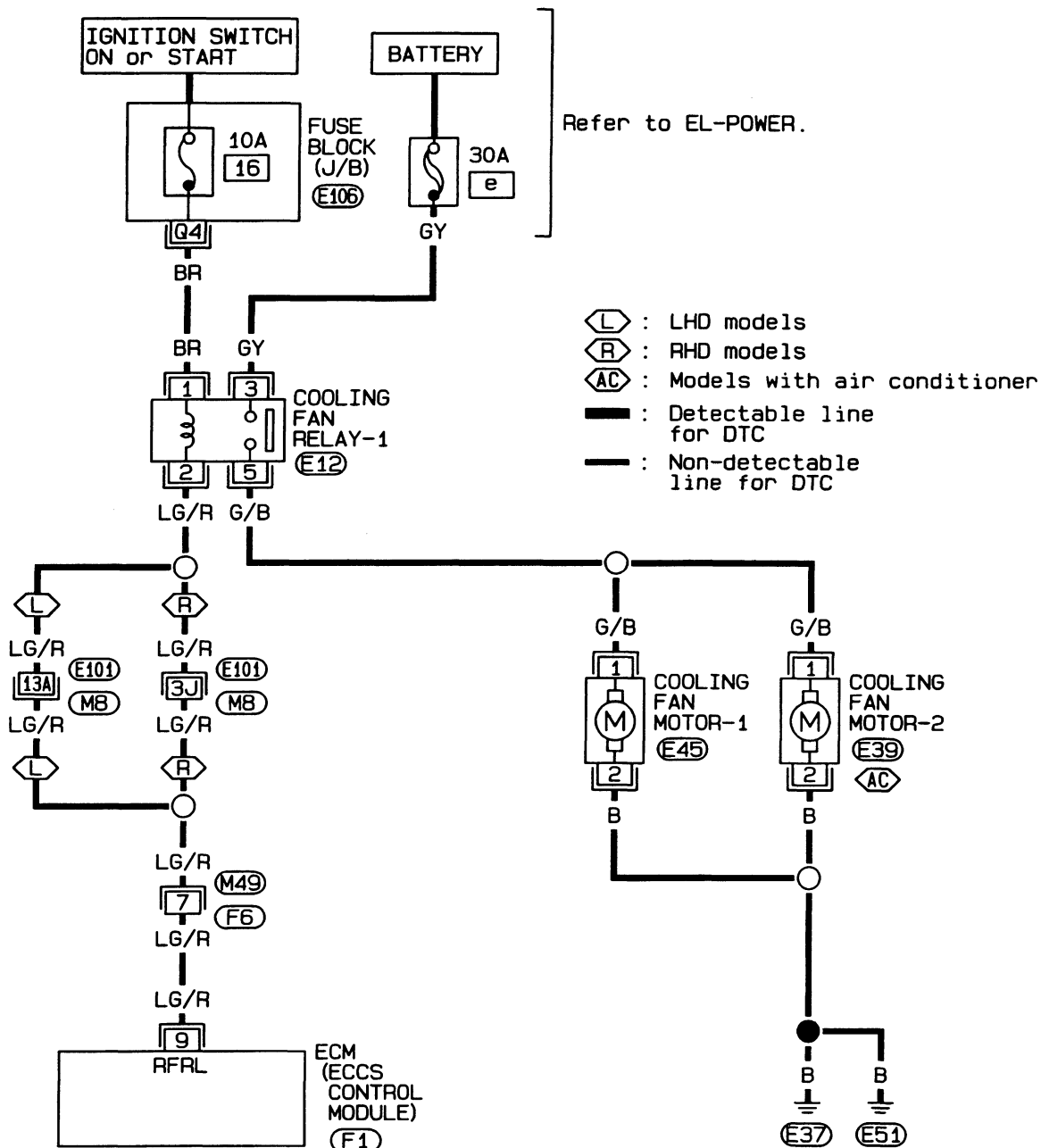
M8 E101



## Cooling Fan Control

M/T MODELS

EC-COOL/F-01



GI

MA

EM

LC

EC

FE

CL

MT

AT

FA

RA

BR

ST

RS

BT

HA

EL

IDX

|   |    |    |    |    |    |    |    |       |
|---|----|----|----|----|----|----|----|-------|
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | (M49) |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | W     |

|   |       |
|---|-------|
| 3 | (E12) |
| 2 | 1     |
| 5 | L     |

|      |       |       |
|------|-------|-------|
| (12) | (E39) | (E45) |
|      | GY    | GY    |

Refer to last page (Foldout page).

|        |        |
|--------|--------|
| (MB)   | (E101) |
| (E106) |        |

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

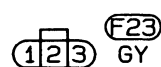
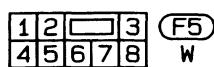
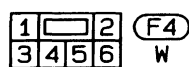
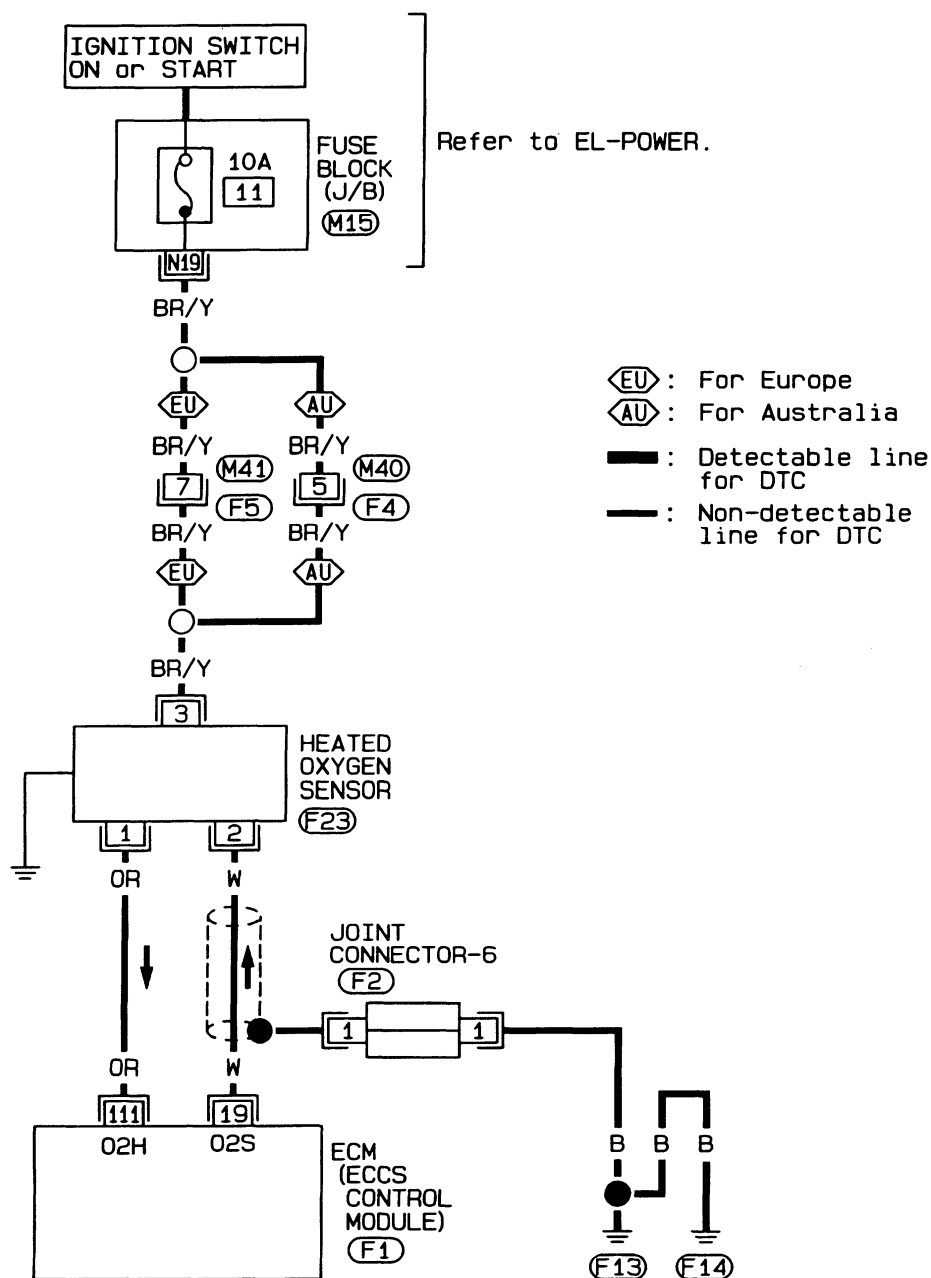
|      |
|------|
| (F1) |
| L    |





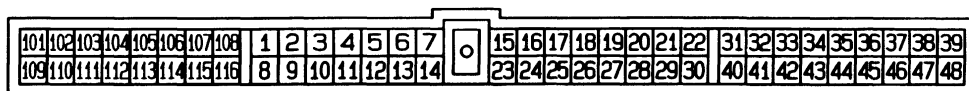
## Heated Oxygen Sensor (HO2S)

EC-HO2S-01



Refer to last page (Foldout page).

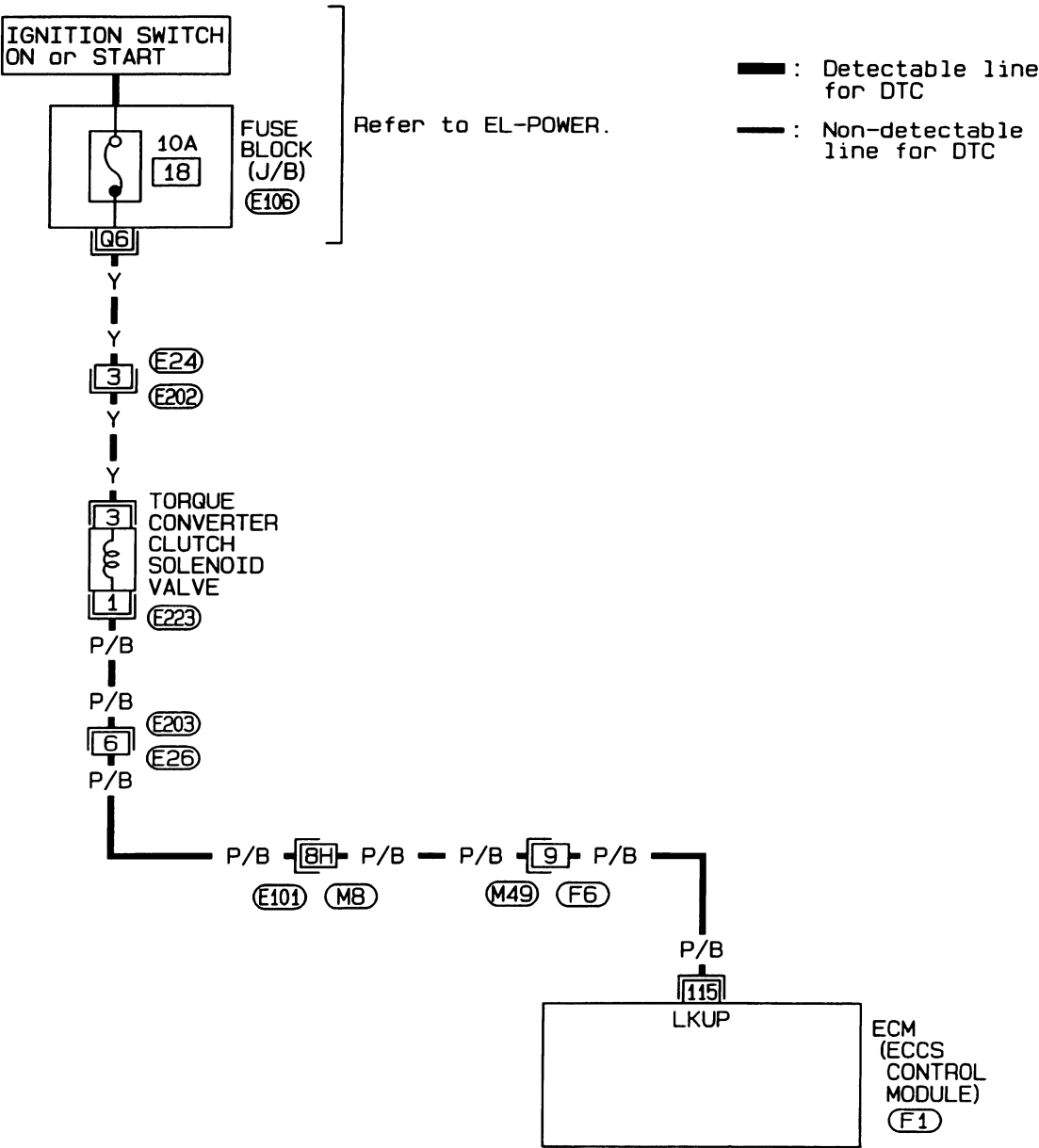
(M15)



Torque Converter Clutch Solenoid Valve

EC-LKUP-01

A/T MODELS



|   |    |    |    |    |    |    |    |       |
|---|----|----|----|----|----|----|----|-------|
| 1 | 2  | 3  | 4  | 5  | 6  | 7  | 8  | (M49) |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | W     |

|   |   |   |   |        |        |        |
|---|---|---|---|--------|--------|--------|
| 1 | 2 | 3 | 4 | (E202) | (E203) | (E223) |
| 5 | 6 | 7 | 8 | B      | GY     | B      |

Refer to last page  
(Foldout page).

(M8) (E101)  
(E106)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |      |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | (F1) |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | L    |

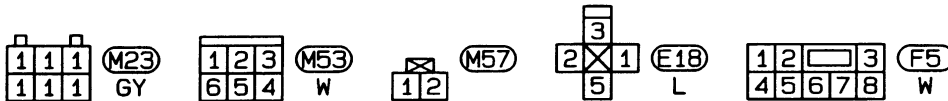
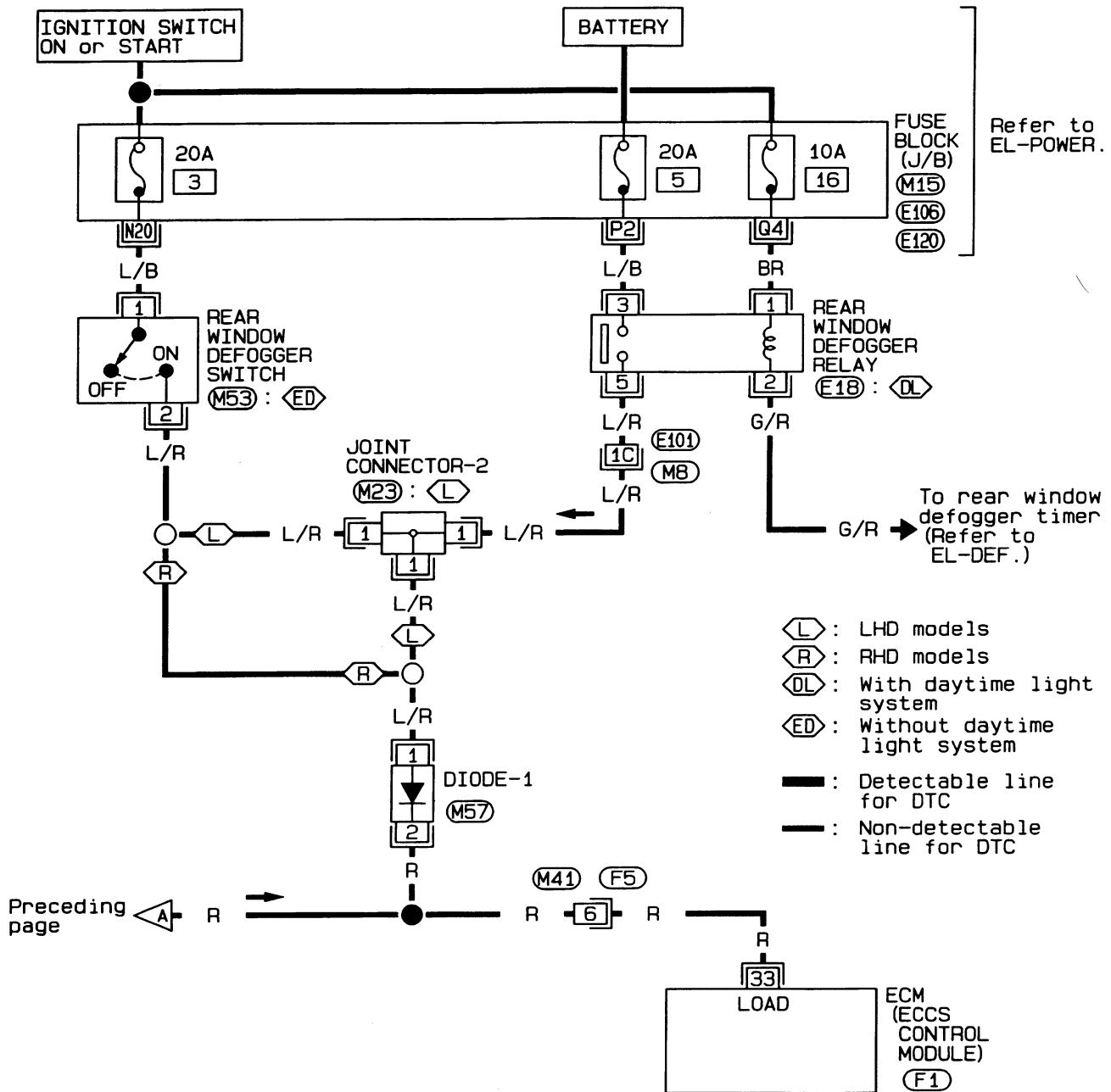




## Electrical Load Signal (Cont'd)

FOR EUROPE

## EC-LOAD-02



Refer to last page (Foldout page).

(M8), (E101)  
 (M15), (E106), (E120)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |    |    |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

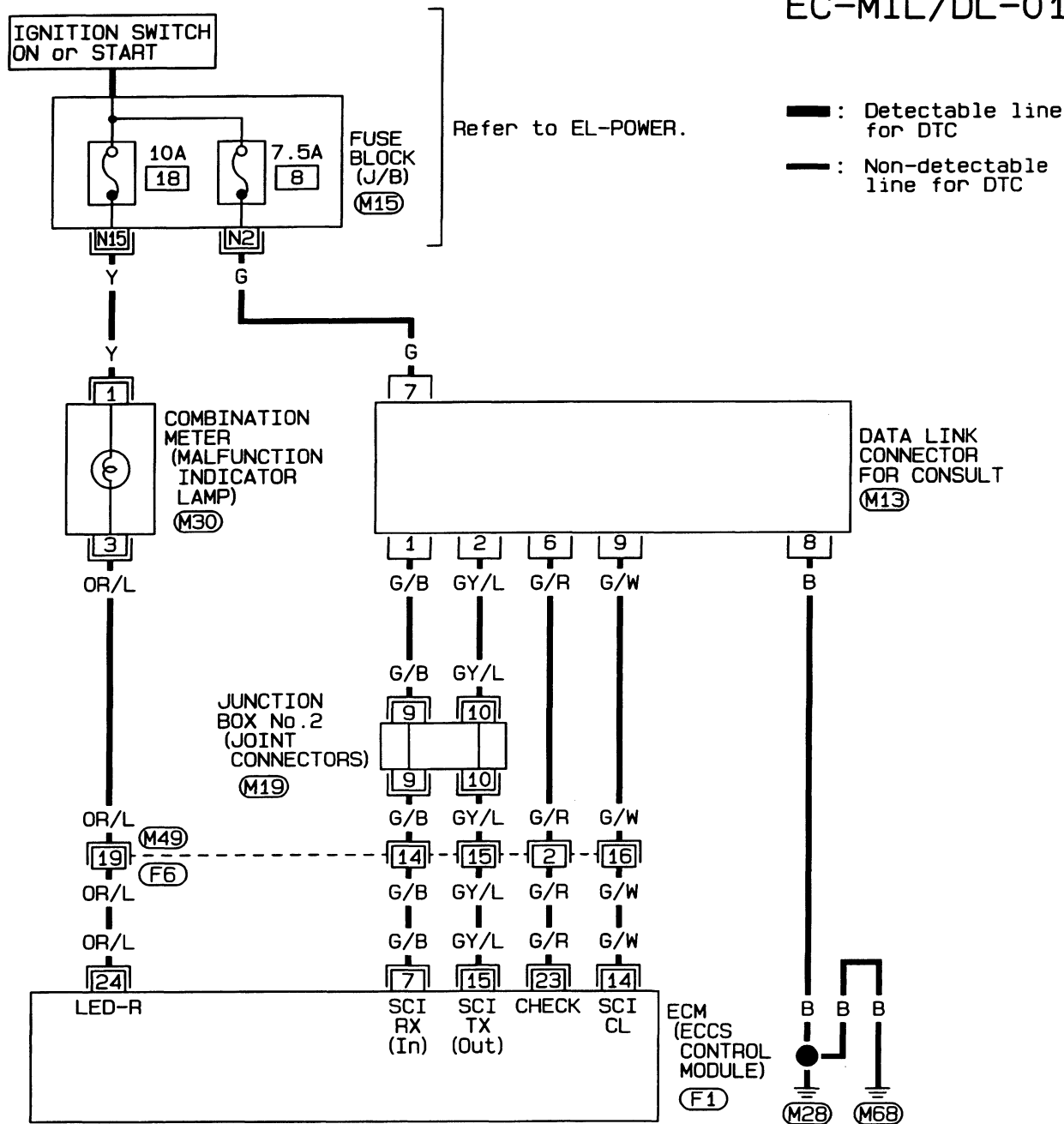
(F1)  
 L



# Malfunction Indicator Lamp (MIL) & Data Link Connector (DLC) for CONSULT

## LHD MODELS

### EC-MIL/DL-01



|   |   |    |    |    |    |    |       |
|---|---|----|----|----|----|----|-------|
| 1 | 2 | 3  | 4  | 5  | 6  | 7  | (M13) |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | GY    |

|   |   |   |   |   |   |   |   |   |    |       |
|---|---|---|---|---|---|---|---|---|----|-------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | (M30) |
|   |   |   |   |   |   |   |   |   |    | W     |

|   |    |    |    |                                                                                     |    |    |    |    |    |    |    |       |
|---|----|----|----|-------------------------------------------------------------------------------------|----|----|----|----|----|----|----|-------|
| 1 | 2  | 3  | 4  |  |    |    |    | 5  | 6  | 7  | 8  | (M49) |
| 9 | 10 | 11 | 12 | 13                                                                                  | 14 | 15 | 16 | 17 | 18 | 19 | 20 | W     |

Refer to last page (Foldout page).

(M15)

(M19)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

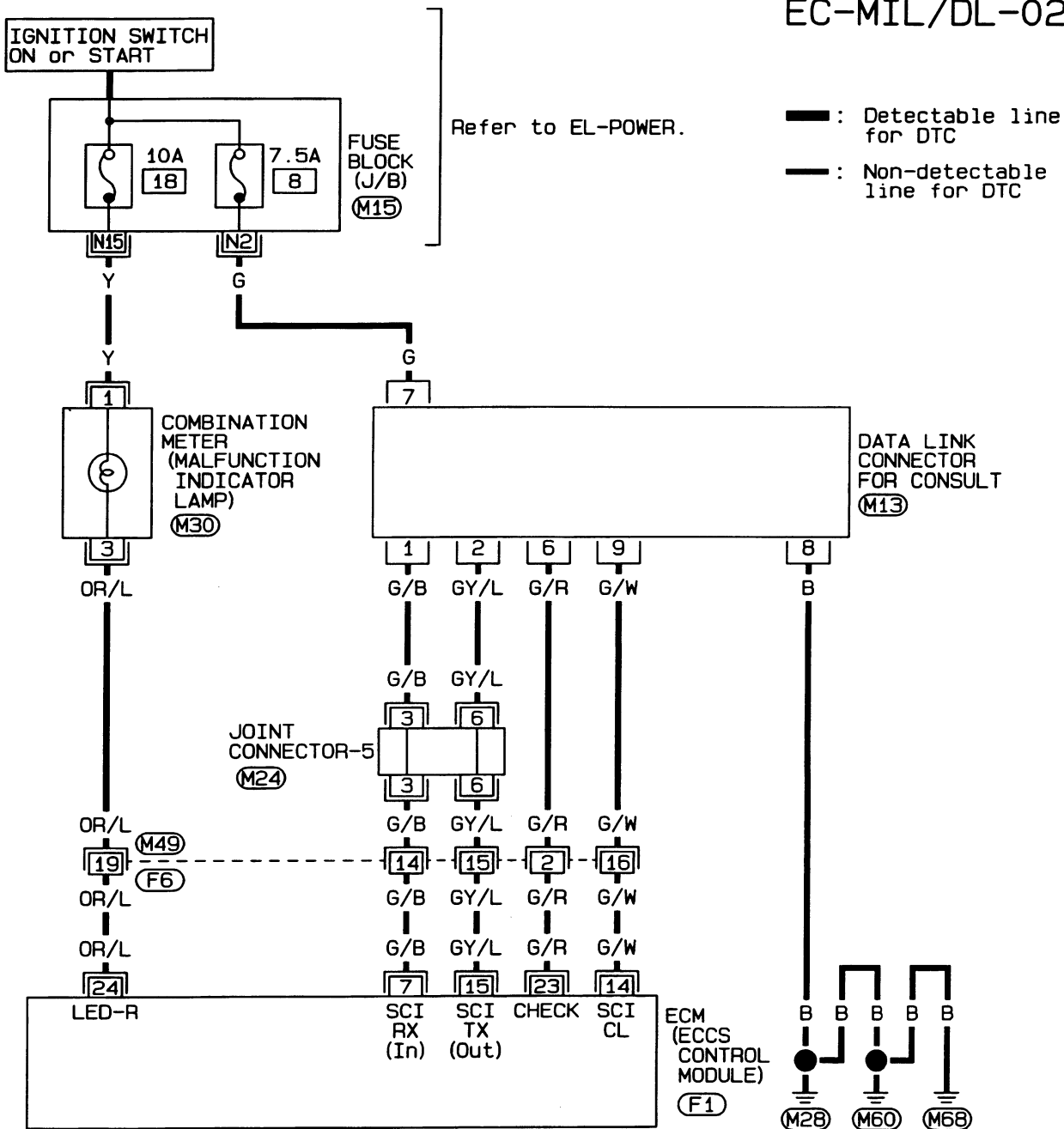
(F1)  
L



# Malfunction Indicator Lamp (MIL) & Data Link Connector (DLC) for CONSULT (Cont'd)

## RHD MODELS

EC-MIL/DL-02



|   |   |    |    |    |    |    |       |
|---|---|----|----|----|----|----|-------|
| 1 | 2 | 3  | 4  | 5  | 6  | 7  | (M13) |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | GY    |

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

|   |   |   |   |   |   |   |   |   |    |       |
|---|---|---|---|---|---|---|---|---|----|-------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | (M30) |
|   |   |   |   |   |   |   |   |   |    | W     |

|   |    |    |    |                                                                                     |    |    |    |    |    |    |    |       |
|---|----|----|----|-------------------------------------------------------------------------------------|----|----|----|----|----|----|----|-------|
| 1 | 2  | 3  | 4  |  |    |    |    | 5  | 6  | 7  | 8  | (M49) |
| 9 | 10 | 11 | 12 | 13                                                                                  | 14 | 15 | 16 | 17 | 18 | 19 | 20 | W     |

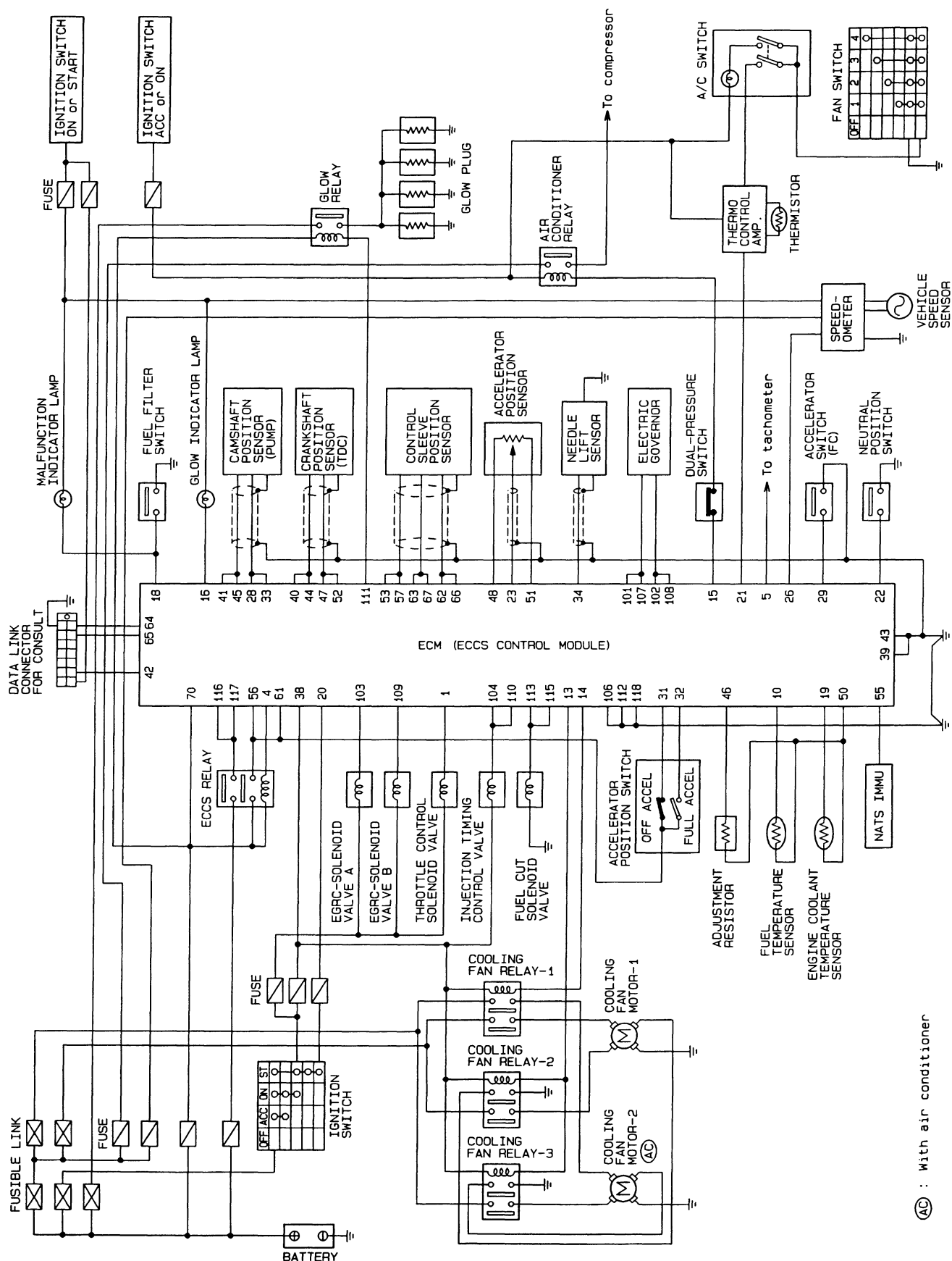
Refer to last page (Foldout page).

(M15)

|     |     |     |     |     |     |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |

(F1)  
L

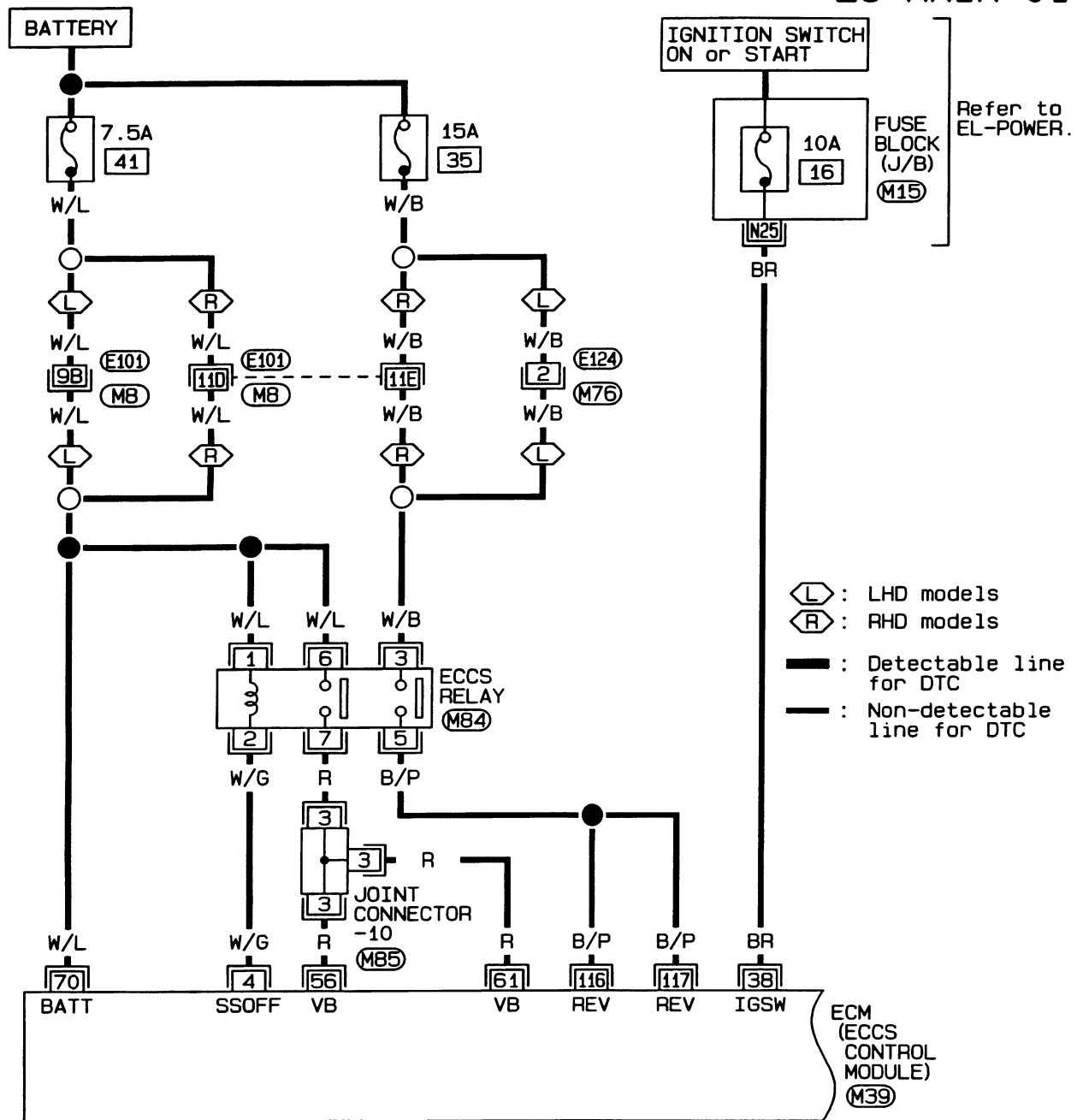
## Circuit Diagram



Ⓐ : With air conditioner

## Main Power Supply and Ground Circuit

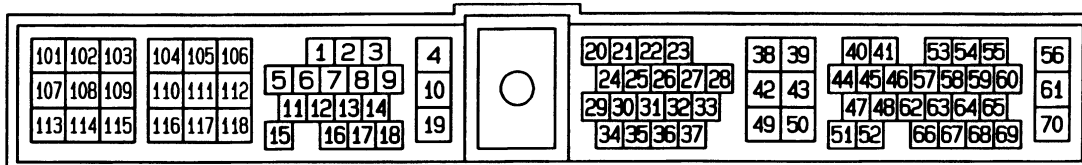
EC-MAIN-01



Refer to last page (Foldout page).

(M8), (E101)

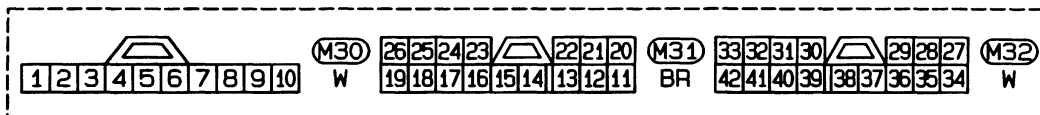
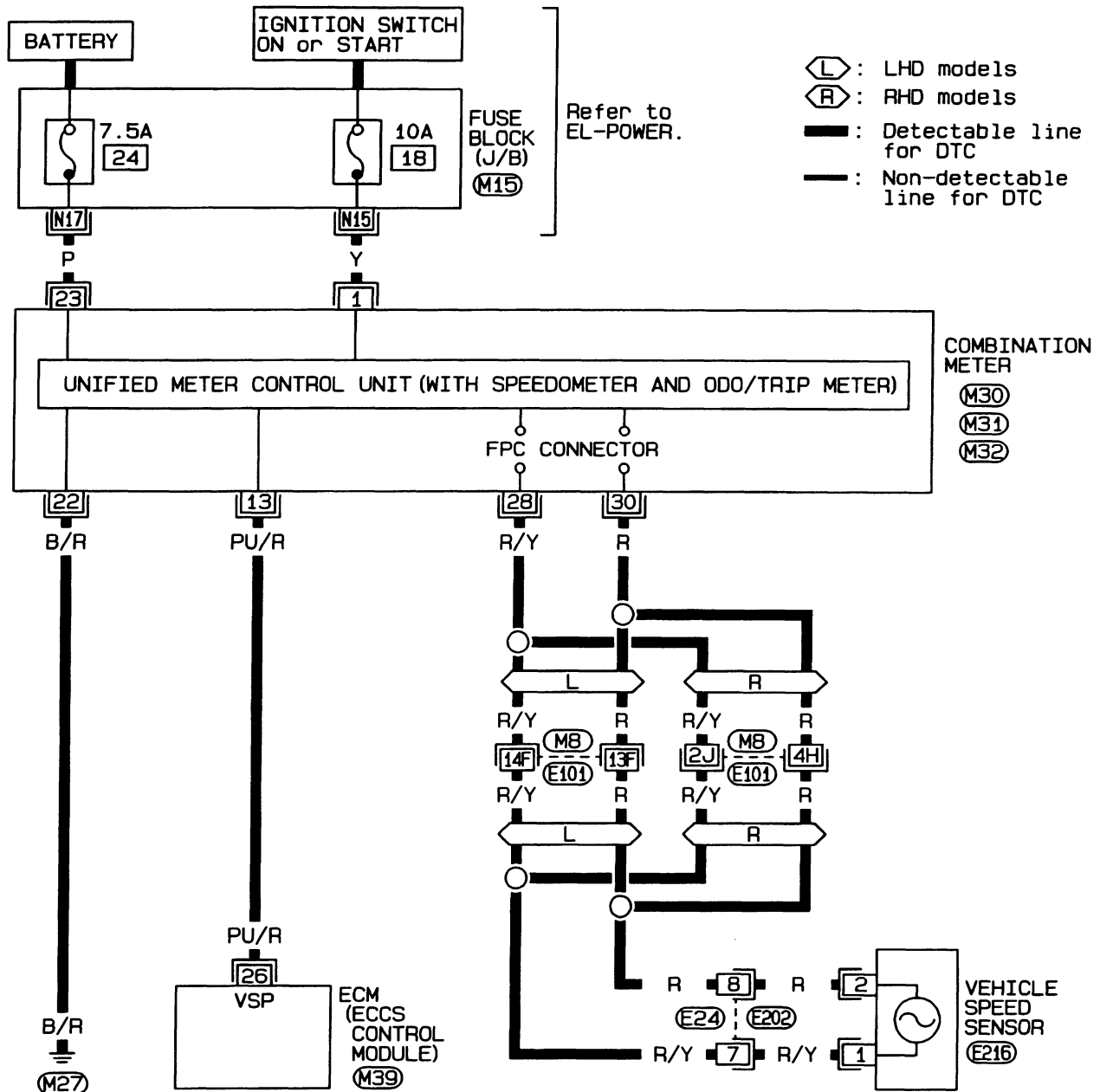
(M15)





## Vehicle Speed Sensor (VSS)

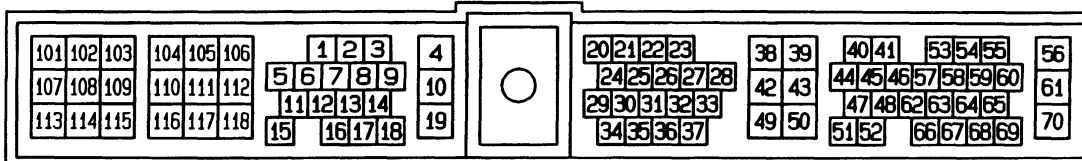
EC-VSS-01



Refer to last page (Foldout page).

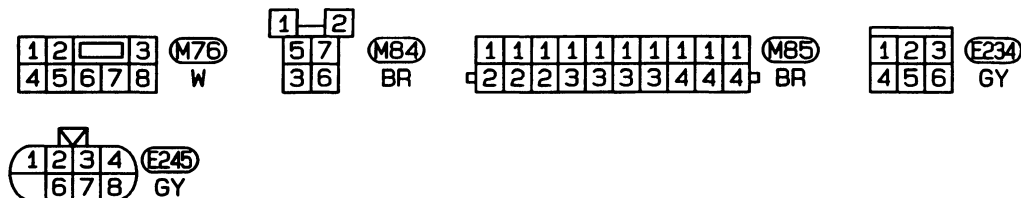
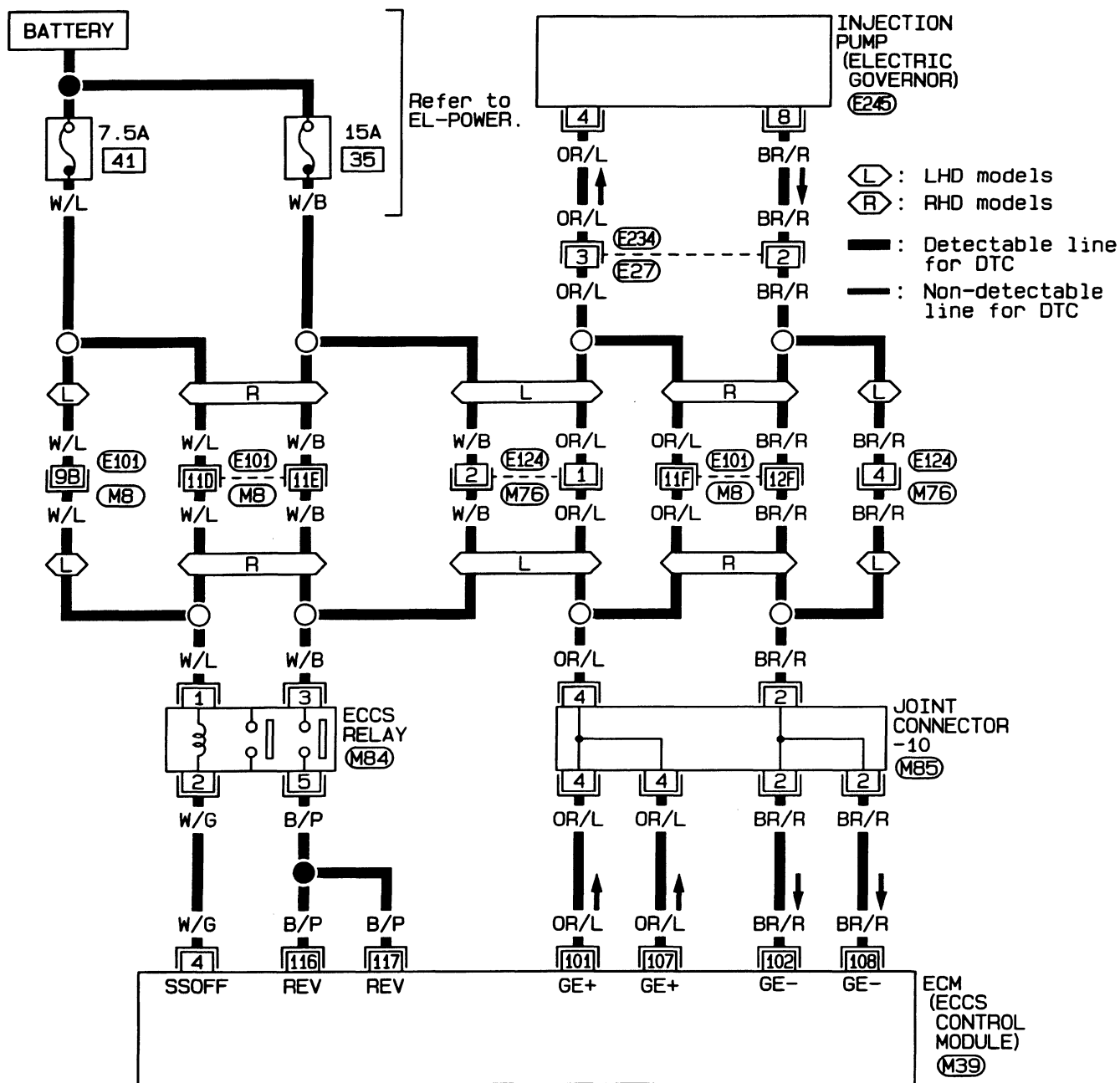
(M8), (E101)  
(M15)

(M39) W H.S.



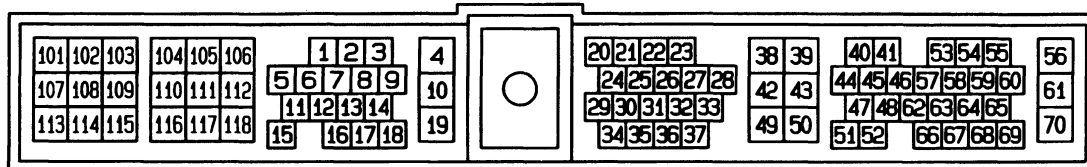
## Electric Governor

EC-GOVNR-01



Refer to last page (Foldout page).

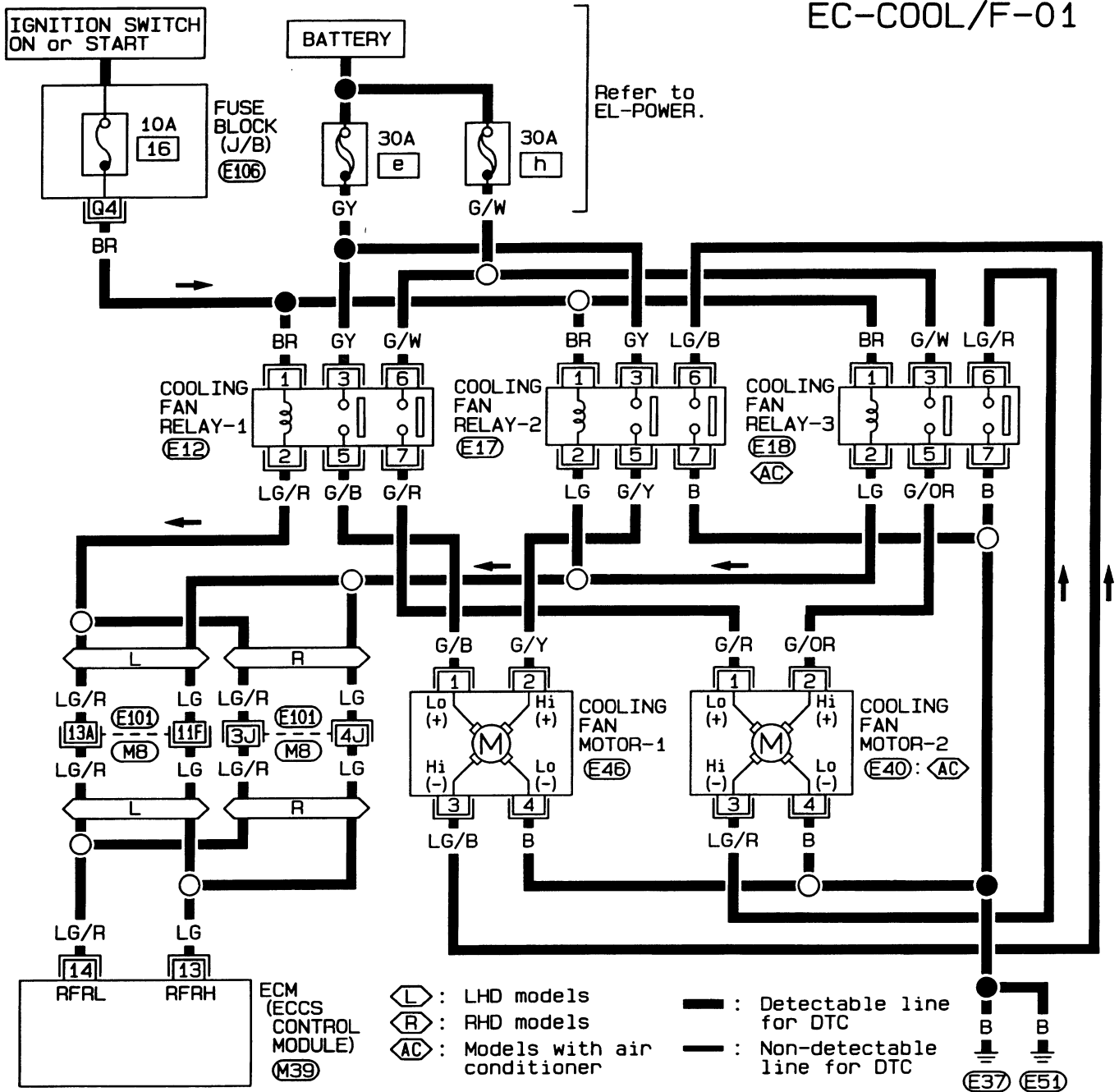
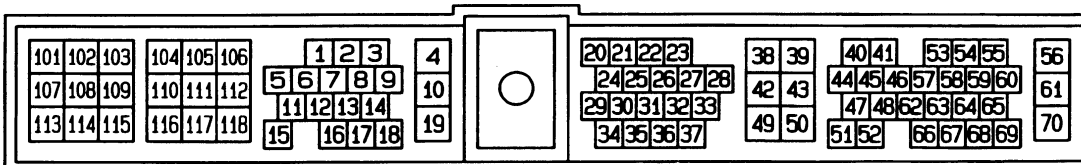
(M8), (E101)





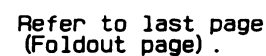
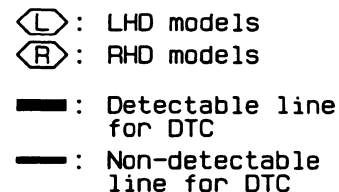
## Cooling Fan (Overheat)

EC-COOL/F-01

E12, E17, E18  
BR, BR, BRE40, E46  
GY, GY(MB), (E101)  
(E106)

(M39) W H.S.

EC-FCUT-01

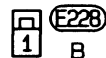
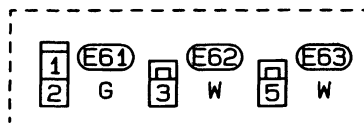
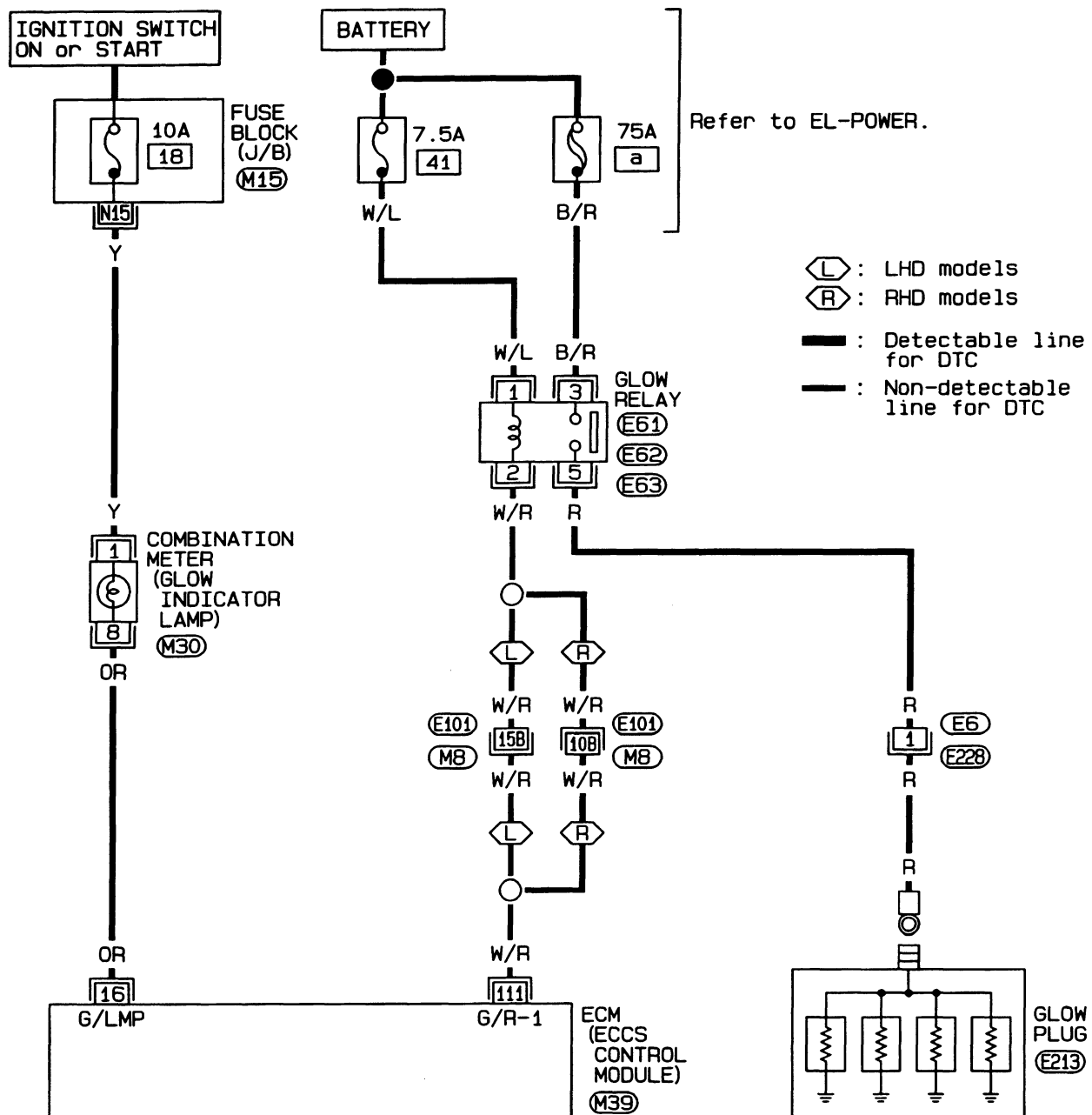


MB E101



## Glow Control System

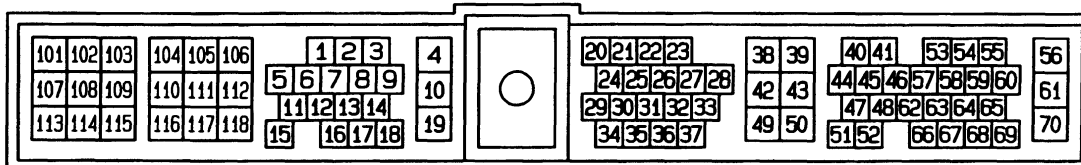
EC-GLOW-01



Refer to last page (Foldout page).

(M8), (E101)

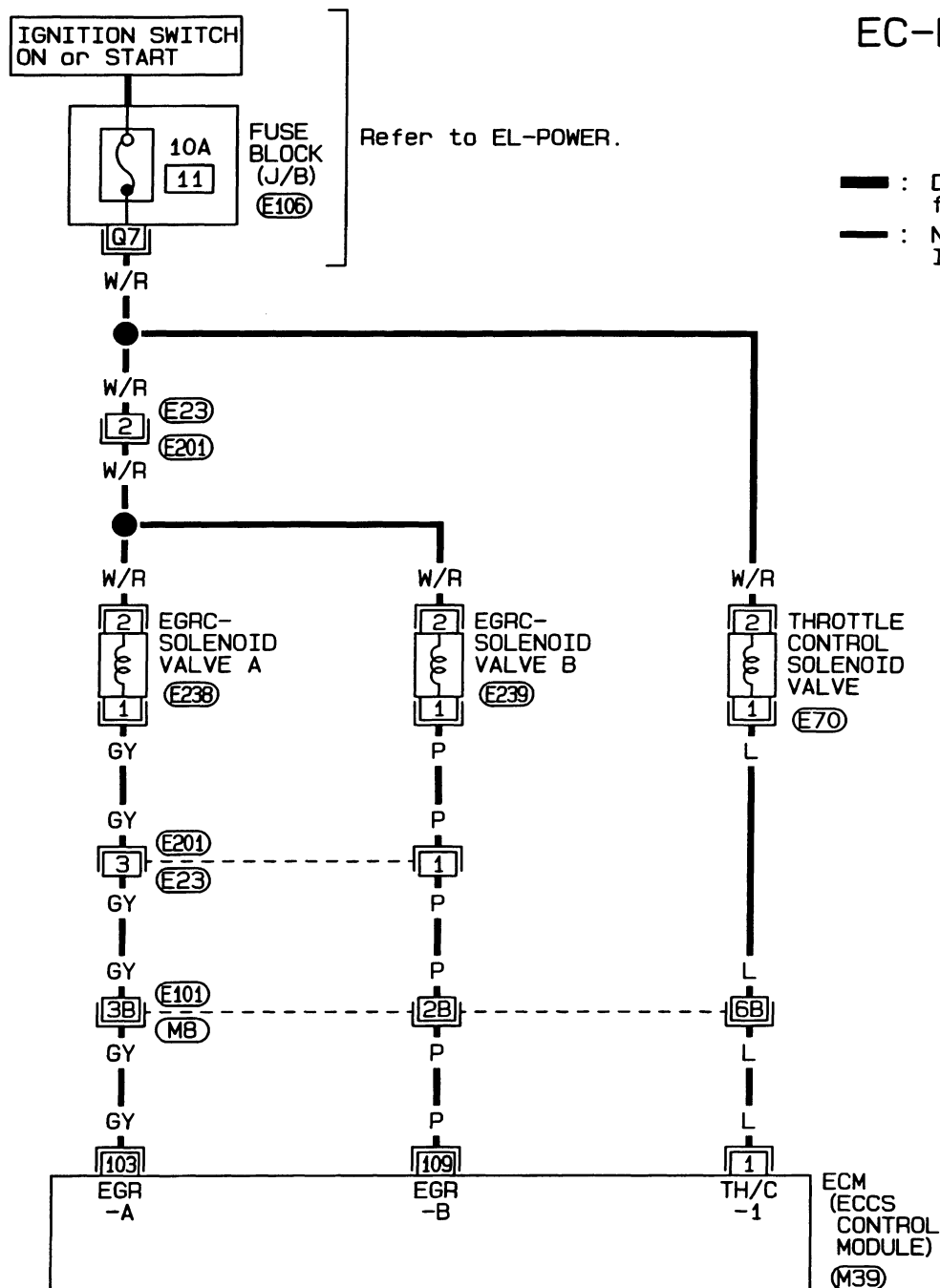
(M15)



## EGRC-Solenoid Valve A, B and Throttle Control Solenoid Valve

## LHD MODELS

EC-EGRC/V-01

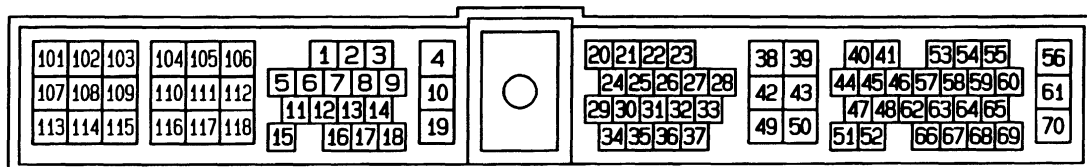


12 (E70) G, (E238) B, (E239) BR

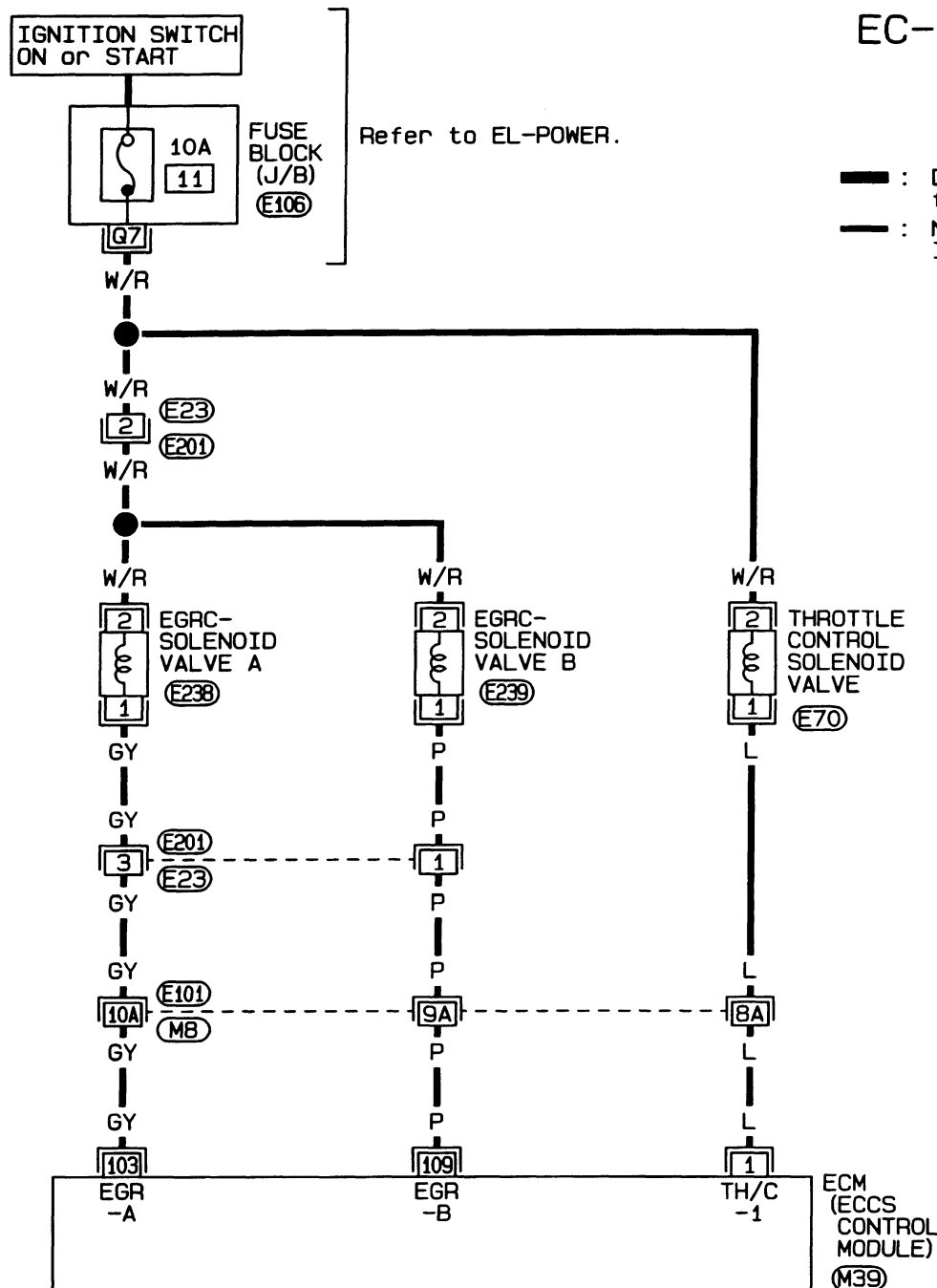
1 2 3 (E201)  
4 5 6 B

Refer to last page (Foldout page).

(MB), (E101)  
(E106)



## RHD MODELS



|   |   |   |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |

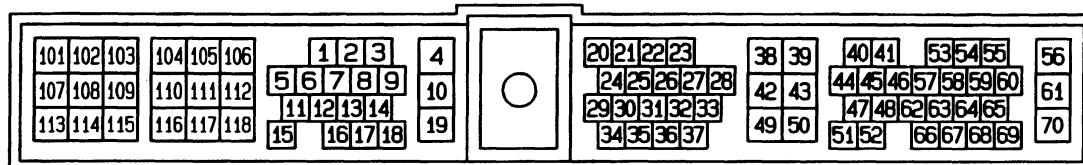
E201

  
 B

Refer to last page  
(Foldout page) .

M8 E101

(E106)

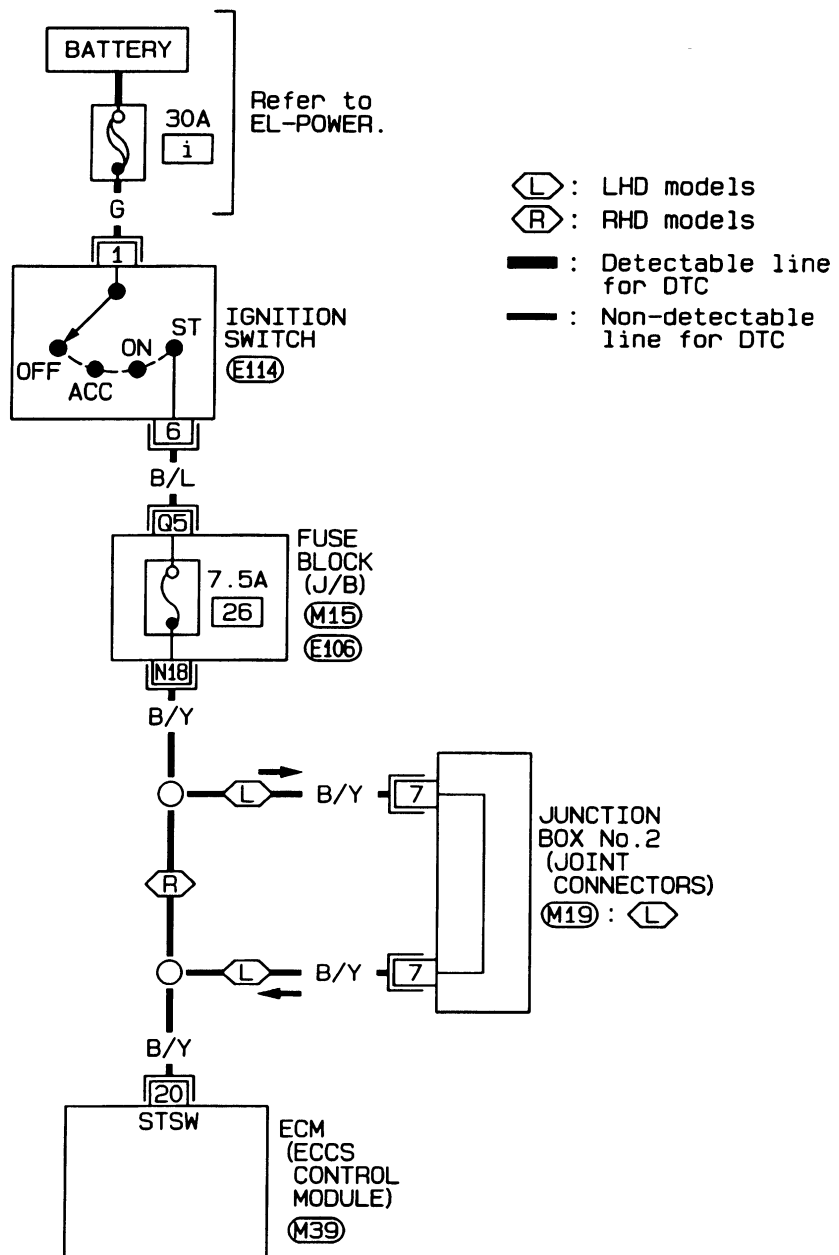


M39



## Start Signal

EC-S/SIG-01

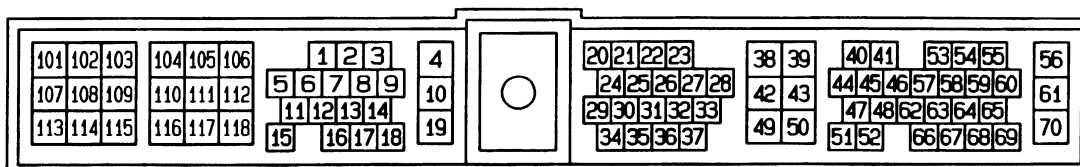


|   |   |
|---|---|
| 1 | 2 |
| 5 | 3 |

(E114)  
W

Refer to last page (Foldout page).

(M15), (E106)  
(M19)



(M39)  
W

H.S.

## Start Signal (Cont'd)

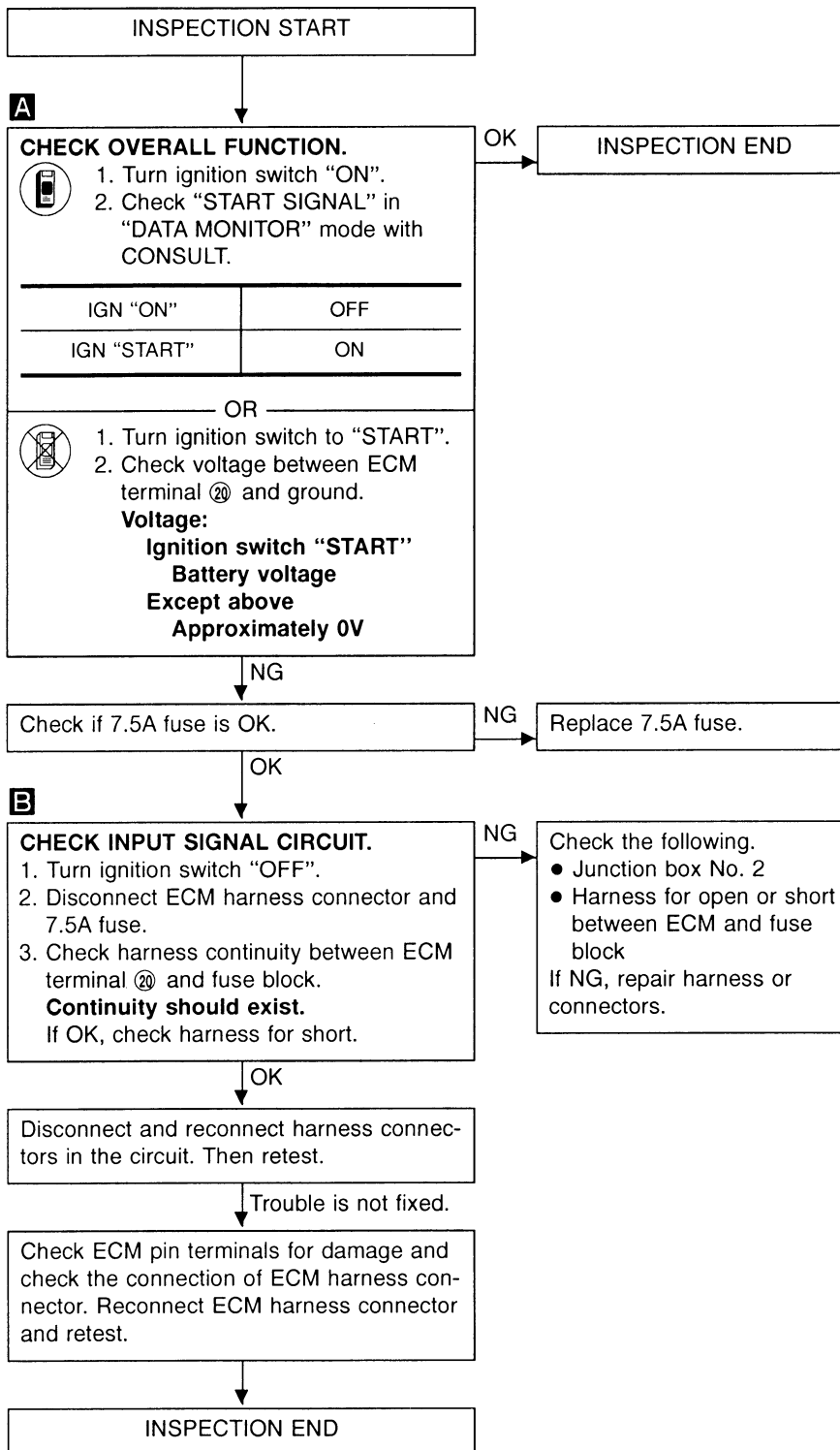
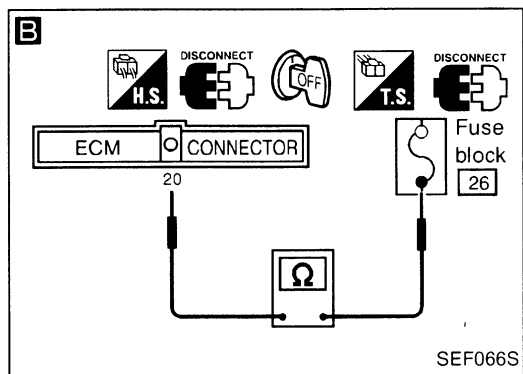
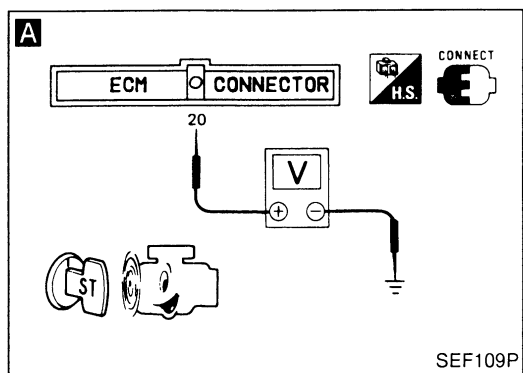
### DIAGNOSTIC PROCEDURE

**A**

|              |           |                          |
|--------------|-----------|--------------------------|
| ☆ MONITOR    | ☆ NO FAIL | <input type="checkbox"/> |
| START SIGNAL | OFF       |                          |

**RECORD**

SEF625S



GI

MA

EM

LC

EC

FE

CL

MT

AT

FA

RA

BR

ST

RS

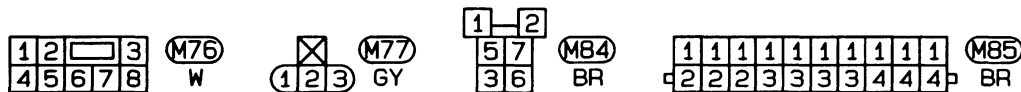
BT

HA

EL

IDX

EC-ACL/SW-01



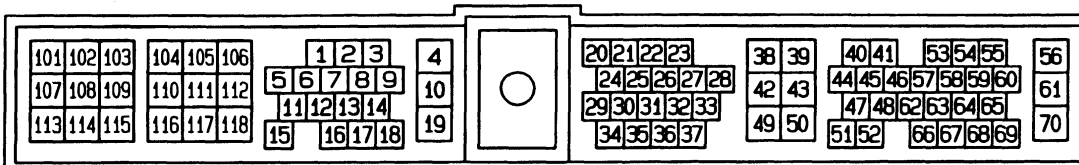
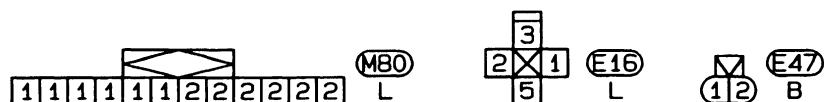
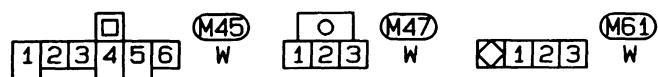
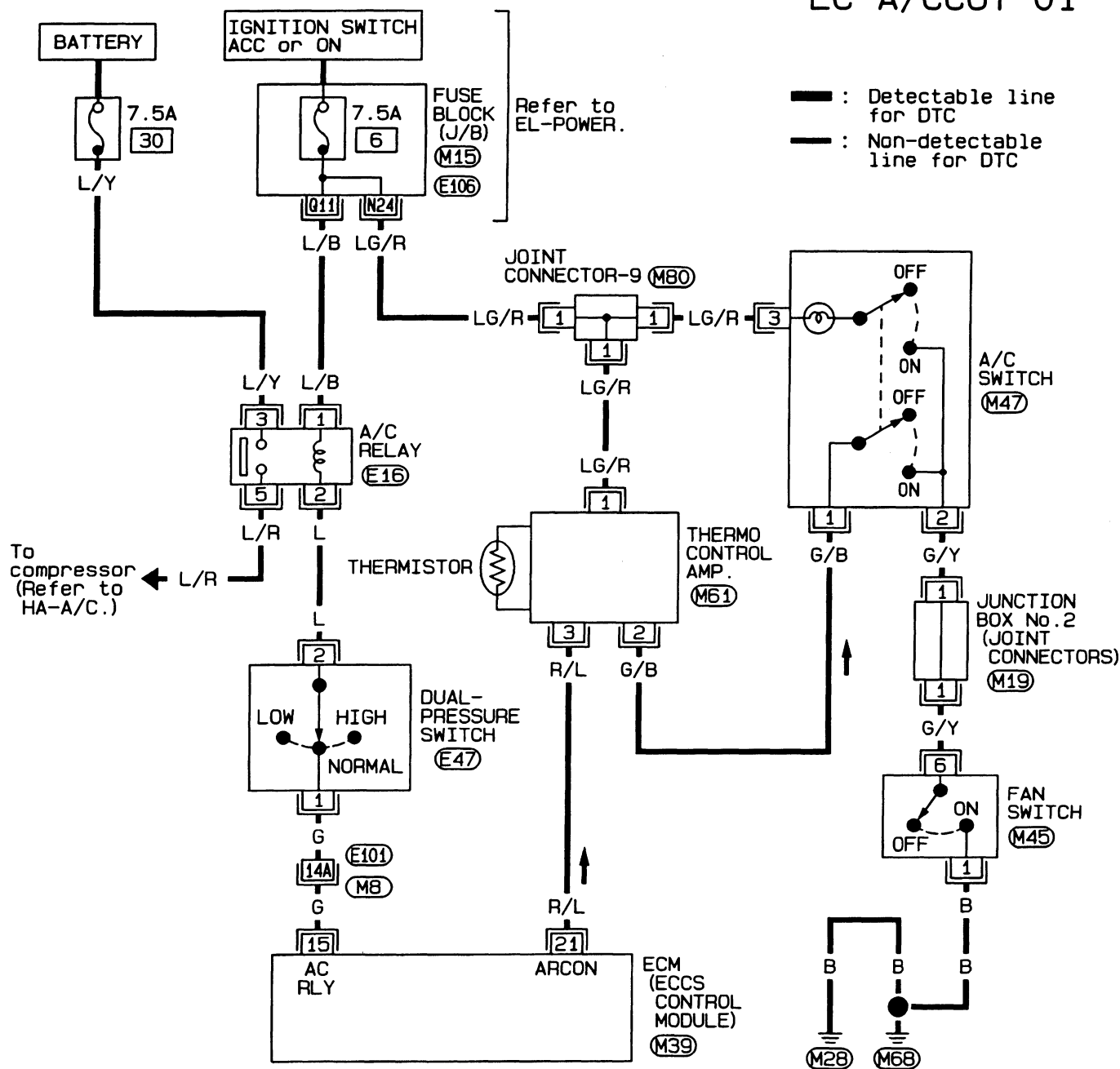
MB E101



## Air Conditioner Control

## LHD MODELS

EC-A/CCUT-01



Refer to last page (Foldout page).

(M8), (E101)

(M15), (E106)

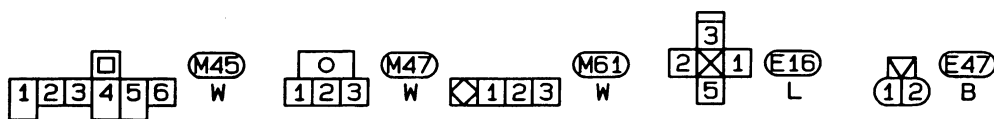
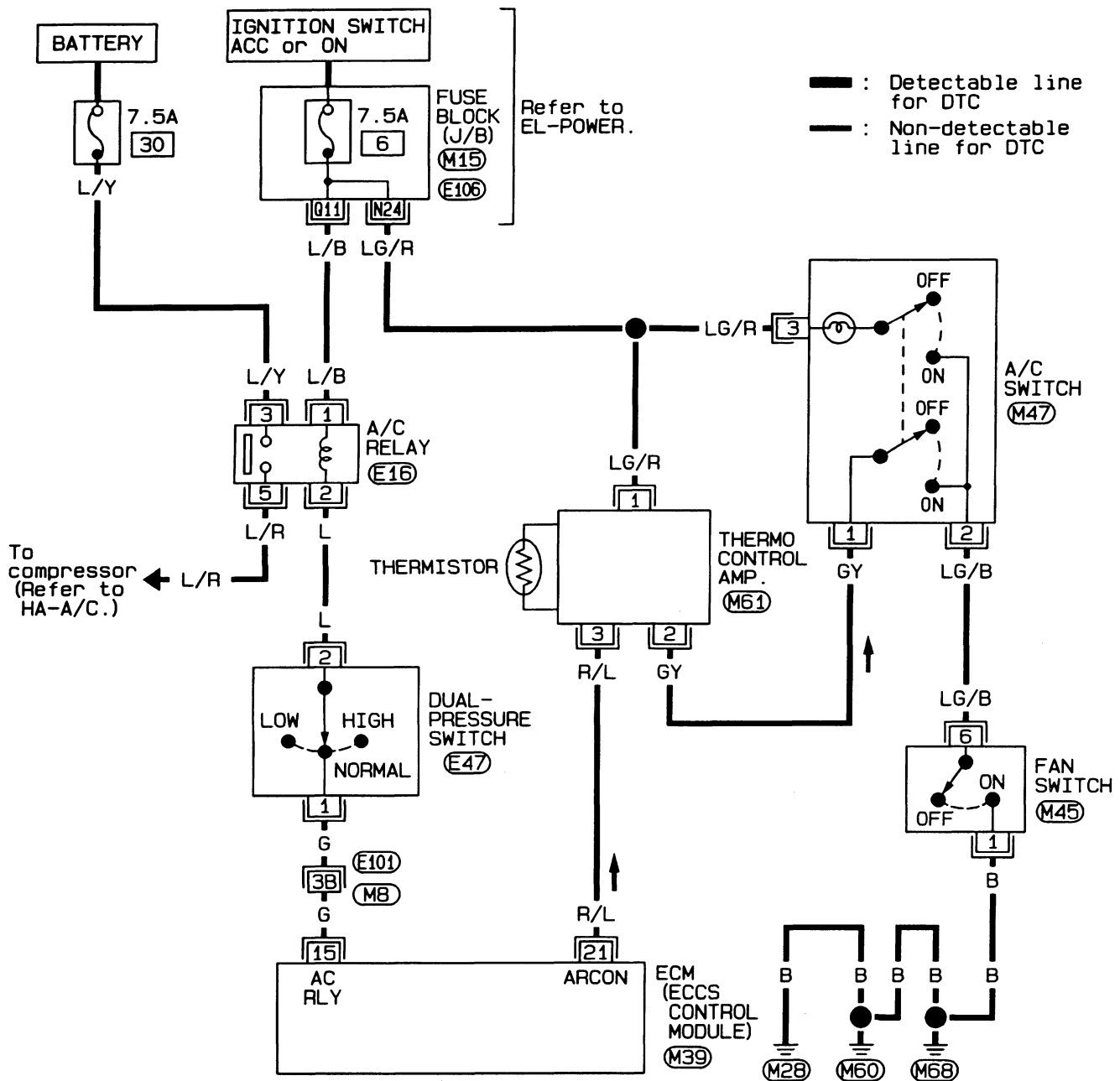
(M19)

(M39) W H.S.

## Air Conditioner Control (Cont'd)

## RHD MODELS

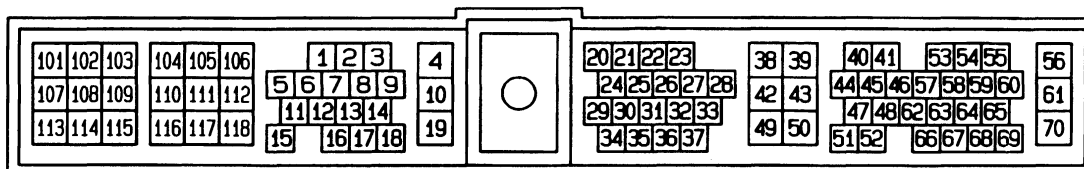
EC-A/CCUT-02



Refer to last page (Foldout page).

(M8), (E101)

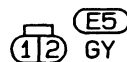
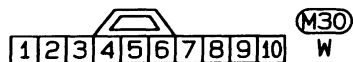
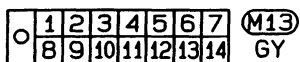
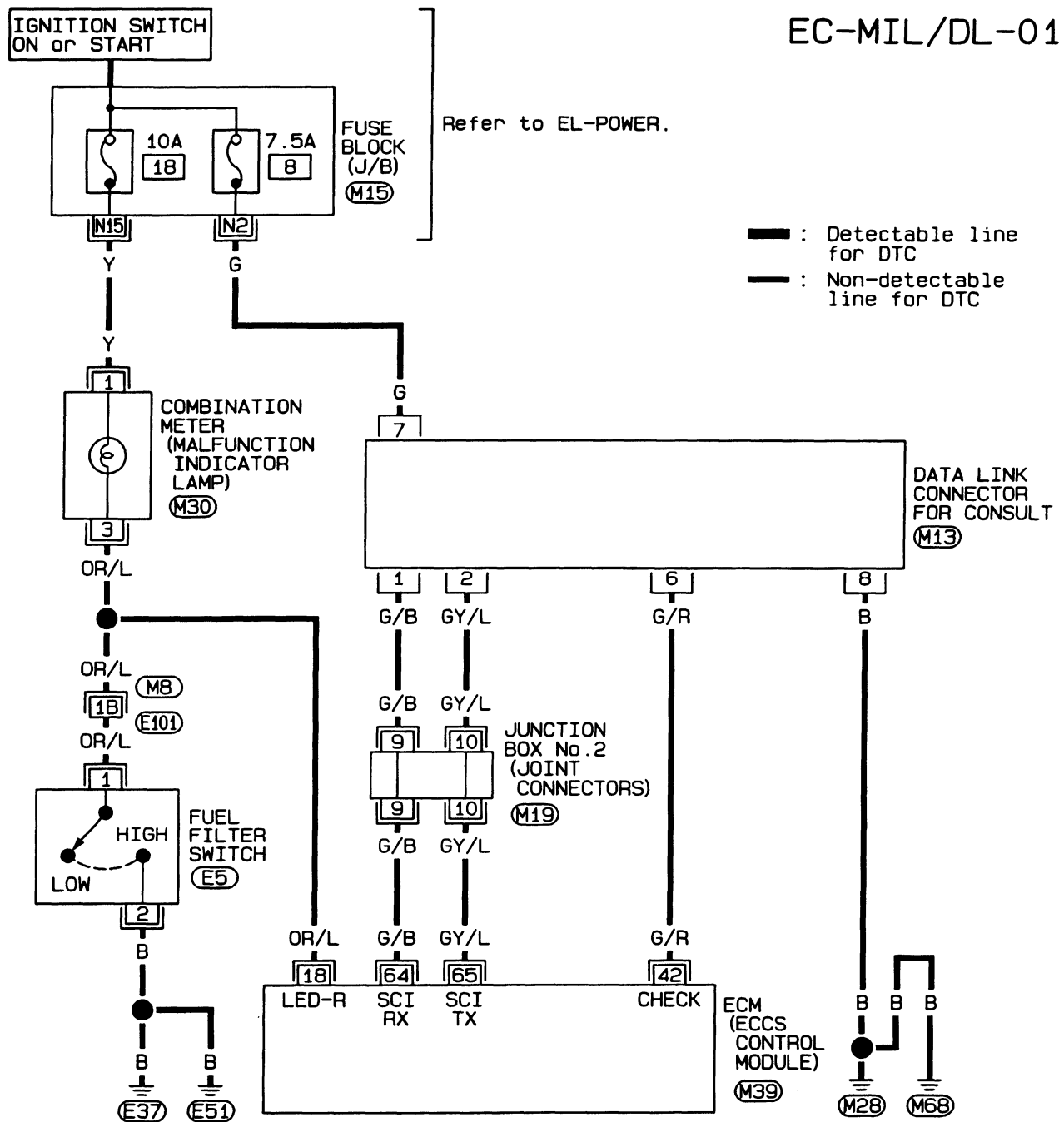
(M15), (E106)



(M39) W H.S.

## MIL &amp; Data Link Connectors

## LHD MODELS

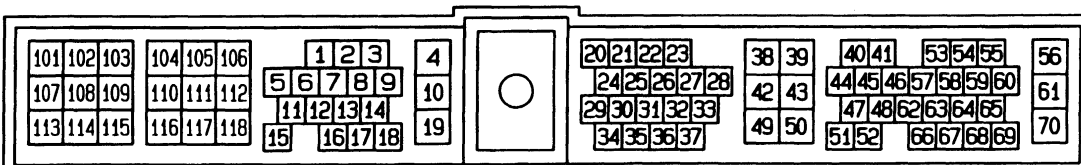


Refer to last page (Foldout page).

(MB) (E101)

(M15)

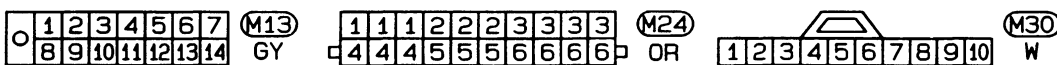
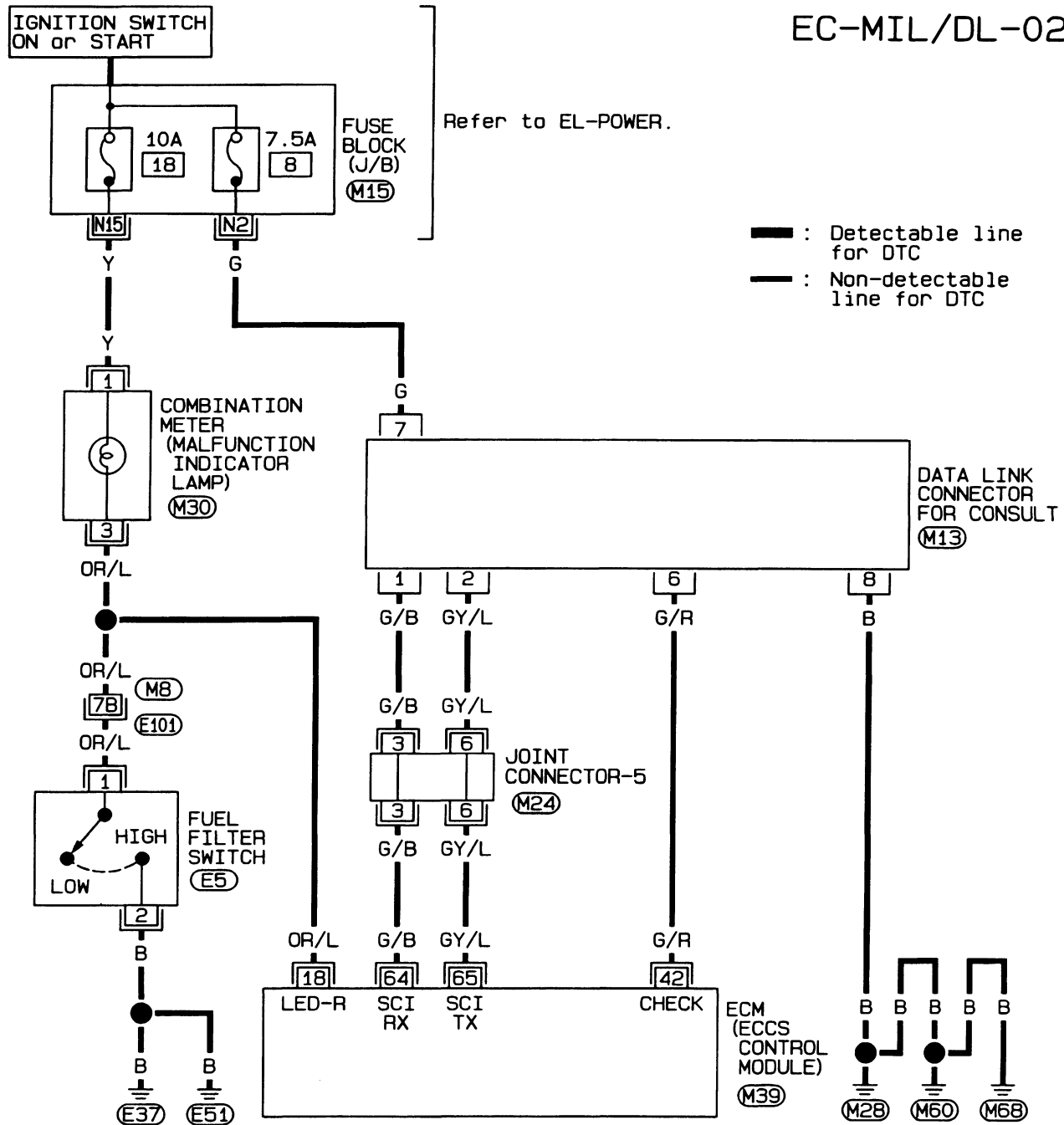
(M19)



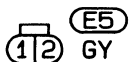
## MIL &amp; Data Link Connectors (Cont'd)

## RHD MODELS

EC-MIL/DL-02



Refer to last page (Foldout page).



(M8), (E101)

(M15)

