

ENGINE FUEL & EMISSION CONTROL SYSTEM

SECTION EF & EC

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VG30E

KA24E

ENGINE AND EMISSION CONTROL OVERALL

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ENGINE AND EMISSION CONTROL OVERALL

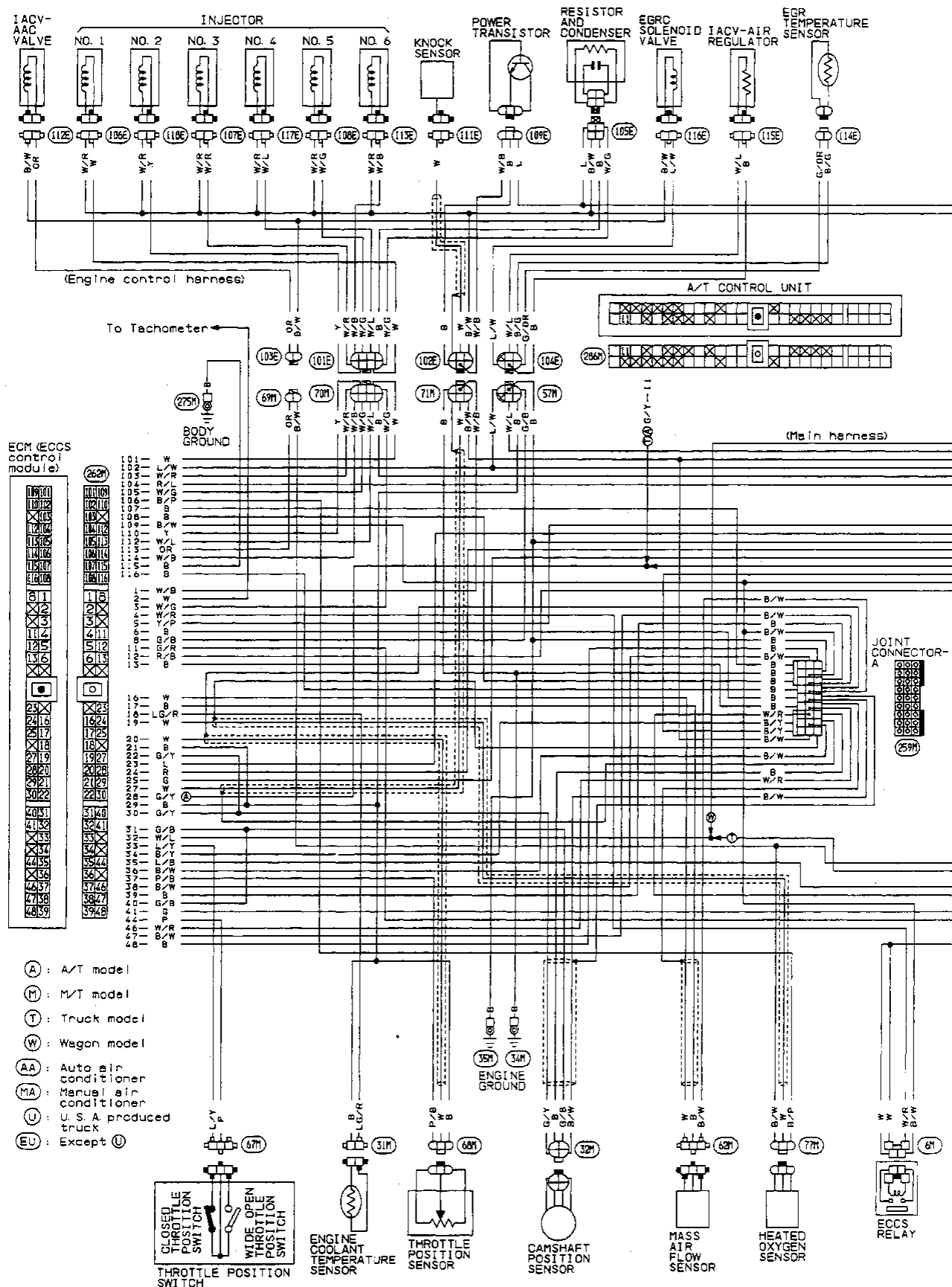
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When you read wiring diagrams:

- Read GI section, "HOW TO READ WIRING DIAGRAMS".
- See EL section, "POWER SUPPLY ROUTING" for power distribution circuit.

When you perform trouble diagnoses, read GI section, "HOW TO FOLLOW FLOW CHART IN TROUBLE DIAGNOSES".

Wiring Diagram



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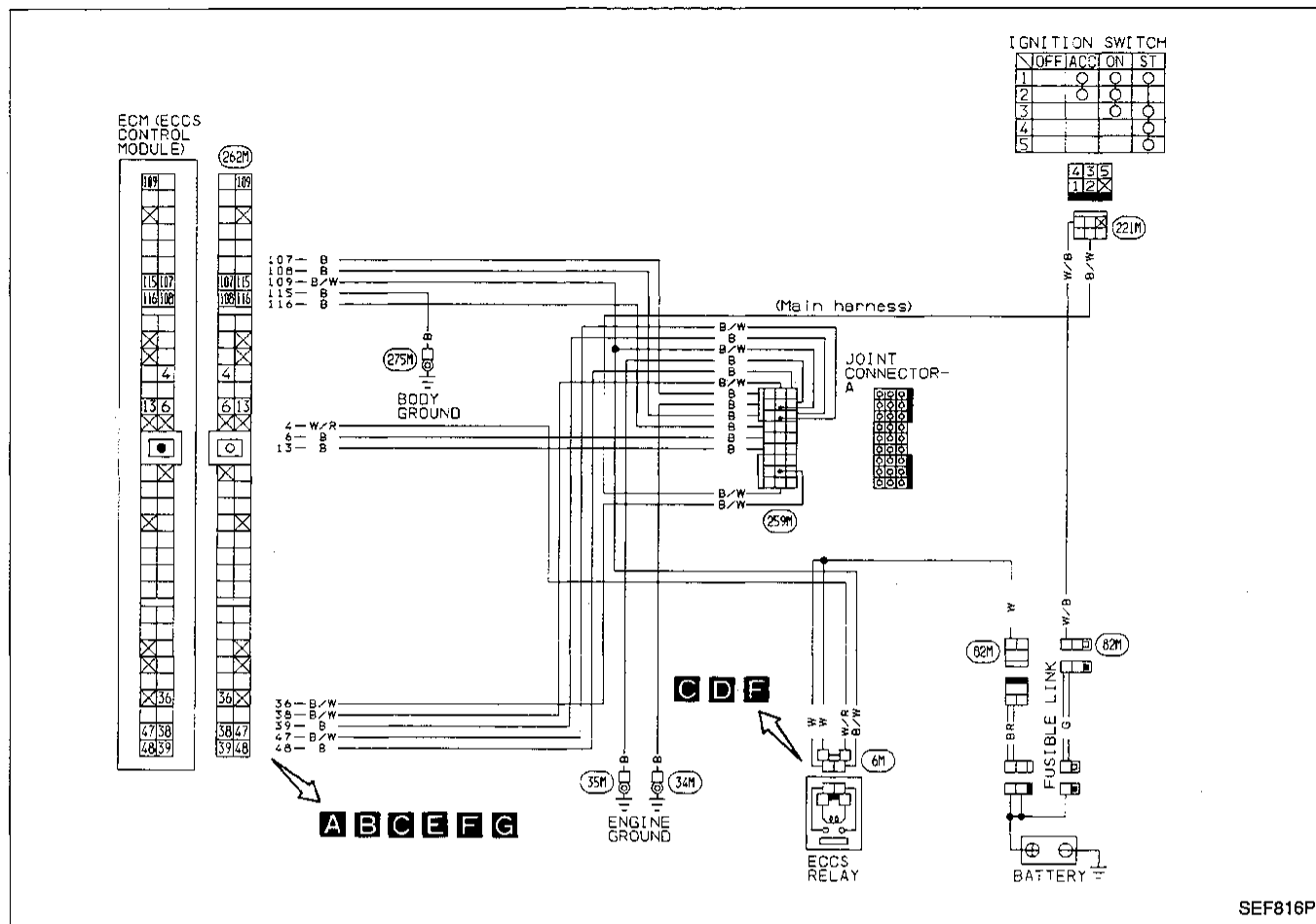
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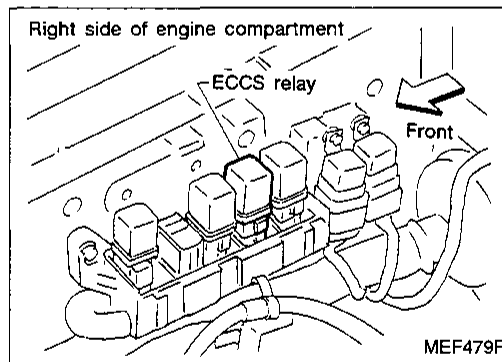
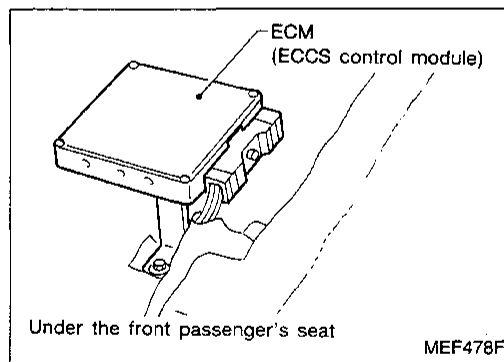
[illegible]

Diagnostic Procedure 22

MAIN POWER SUPPLY AND GROUND CIRCUIT (Not self-diagnostic item)

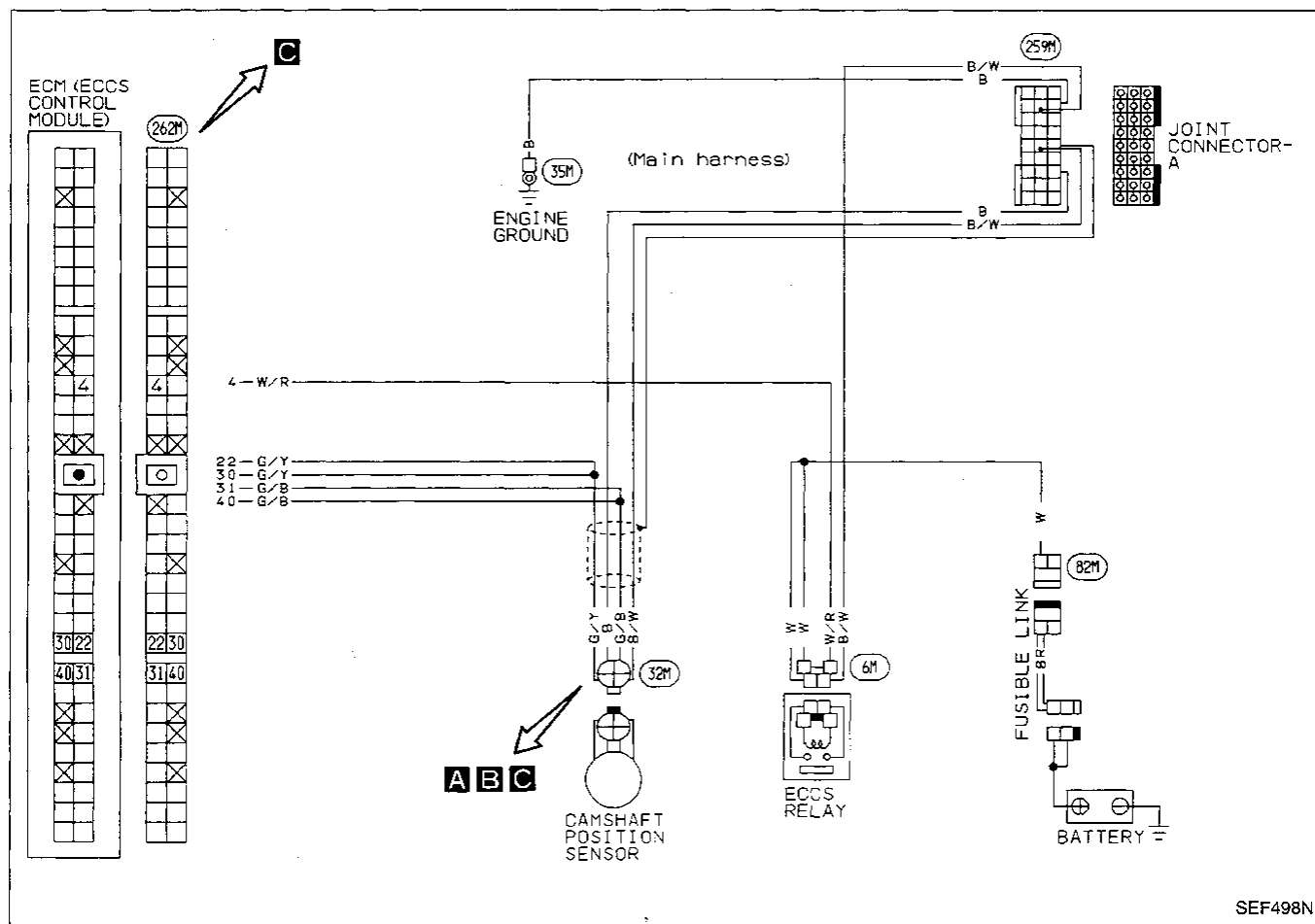


Harness layout

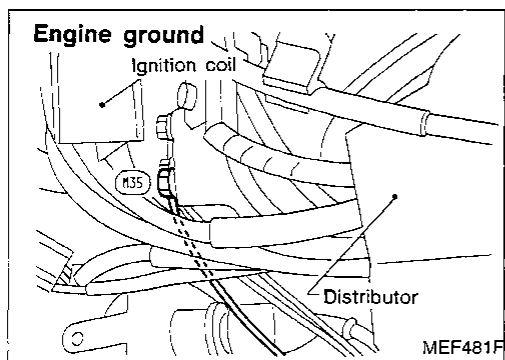
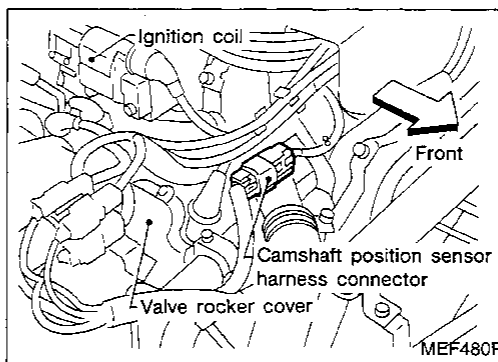
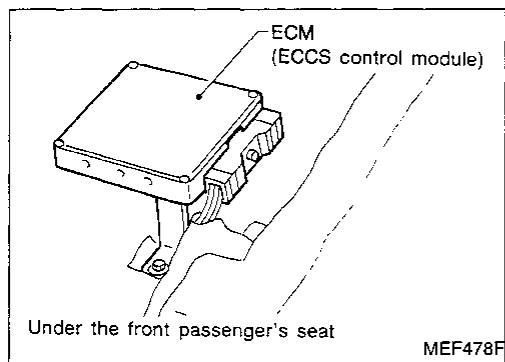


Diagnostic Procedure 23

CAMSHAFT POSITION SENSOR (Diagnostic trouble code No. 11)



Harness layout



Diagnostic Procedure 24

MASS AIR FLOW SENSOR (Diagnostic trouble code No. 12) (MALFUNCTION INDICATOR LAMP ITEM)



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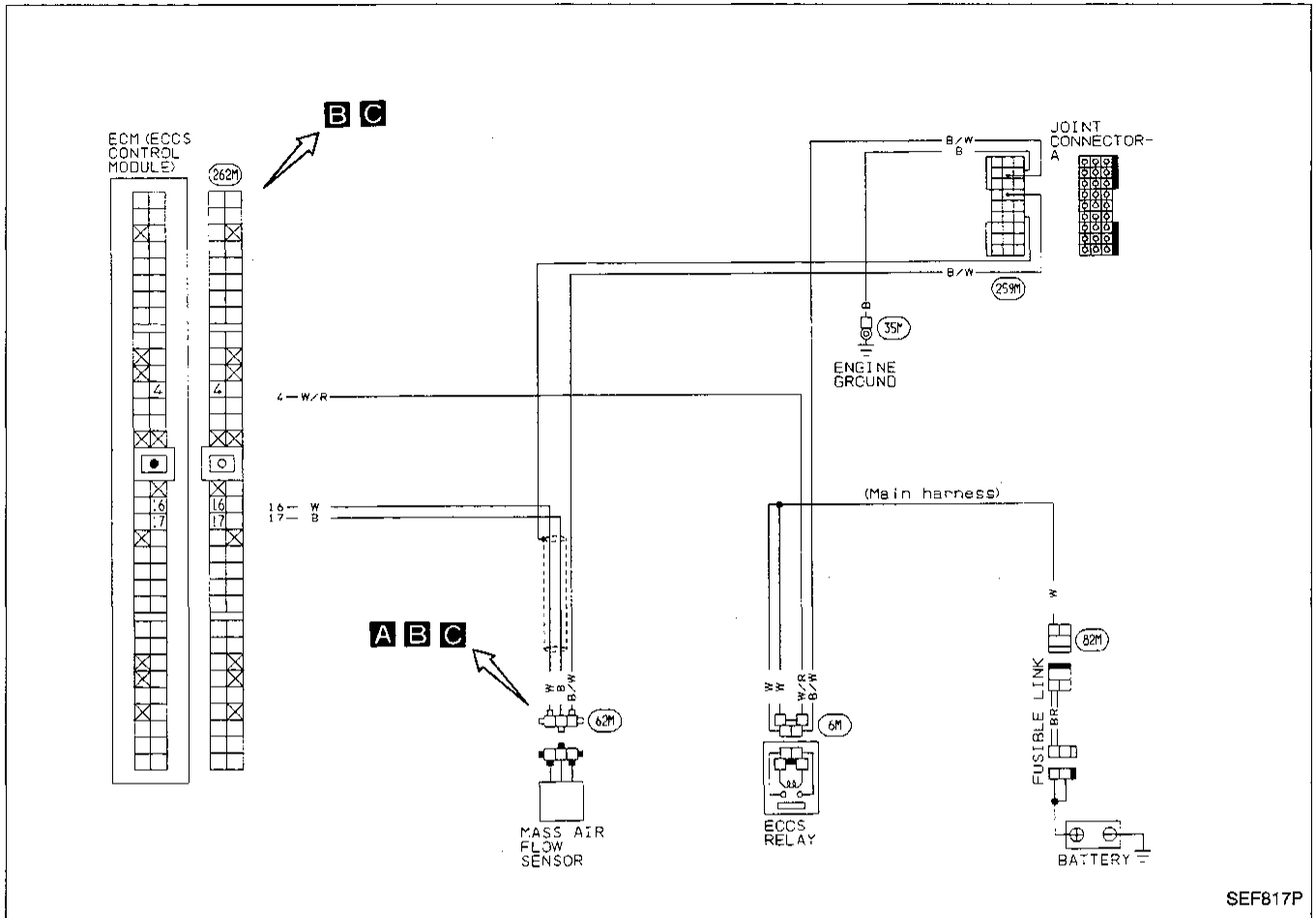
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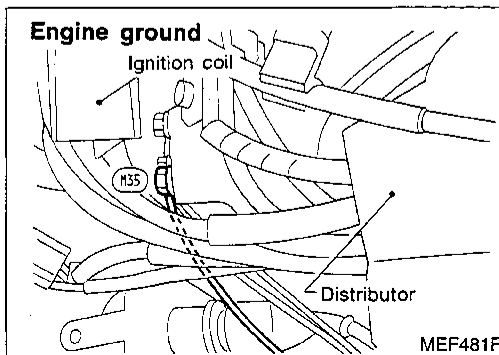
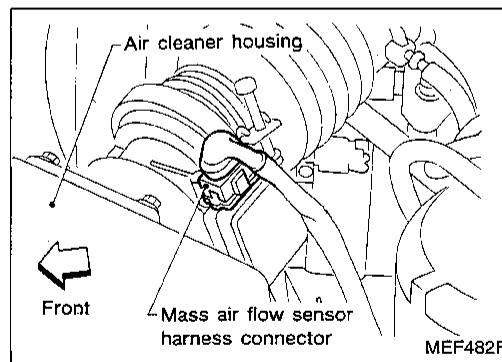
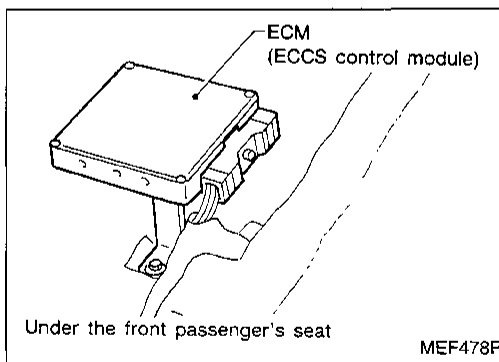
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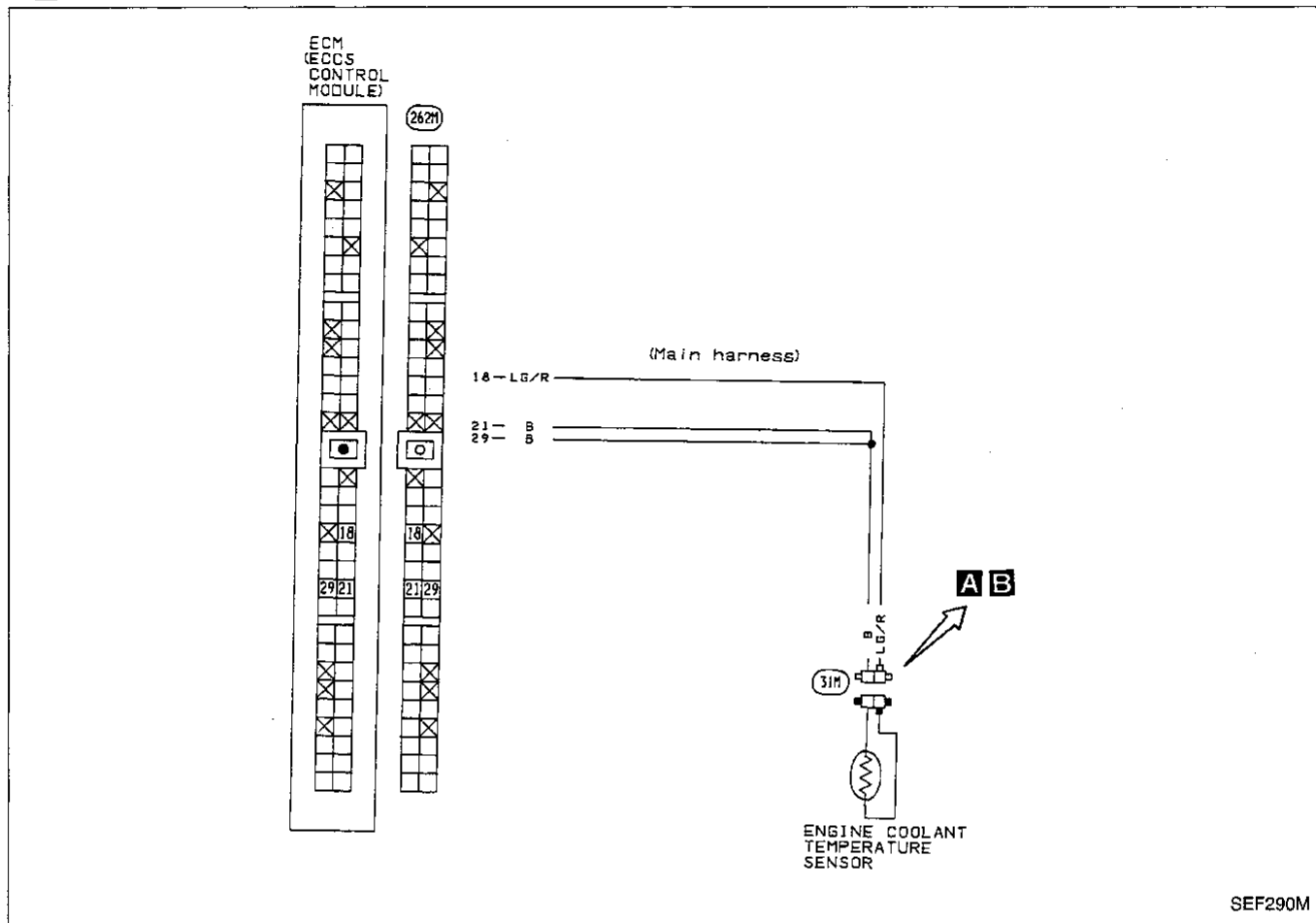
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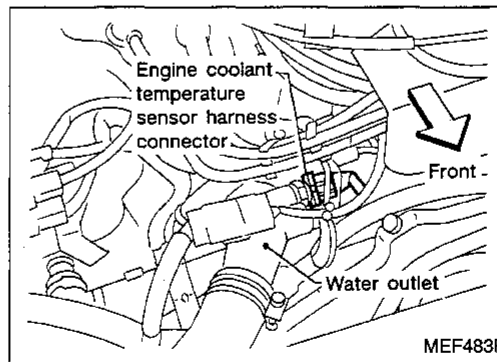
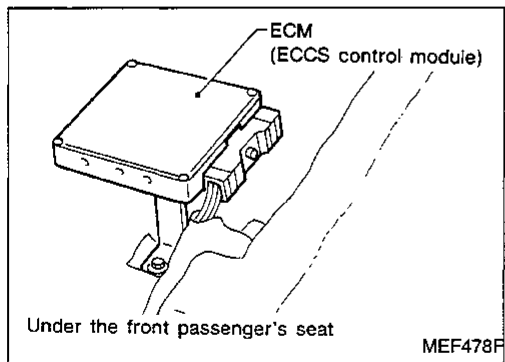
Harness layout



Diagnostic Procedure 25

ENGINE COOLANT TEMPERATURE SENSOR (Diagnostic trouble code No. 13)
(MALFUNCTION INDICATOR LAMP ITEM)

Harness layout



Diagnostic Procedure 26

VEHICLE SPEED SENSOR (Diagnostic trouble code No. 14) (Switch ON/OFF diagnostic item)  **(MALFUNCTION INDICATOR LAMP ITEM)**

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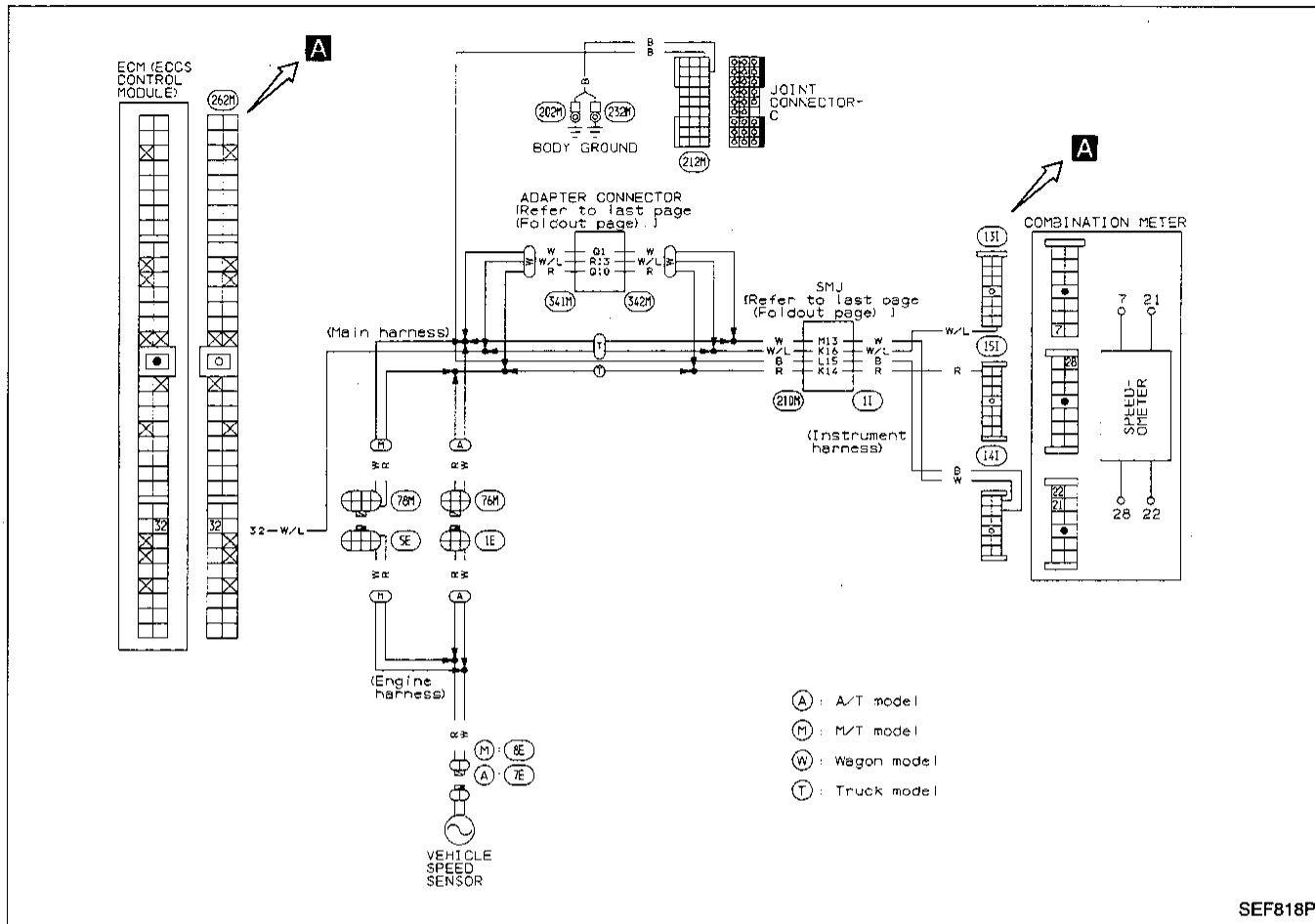
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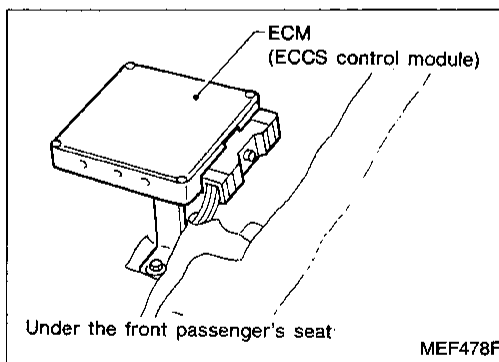
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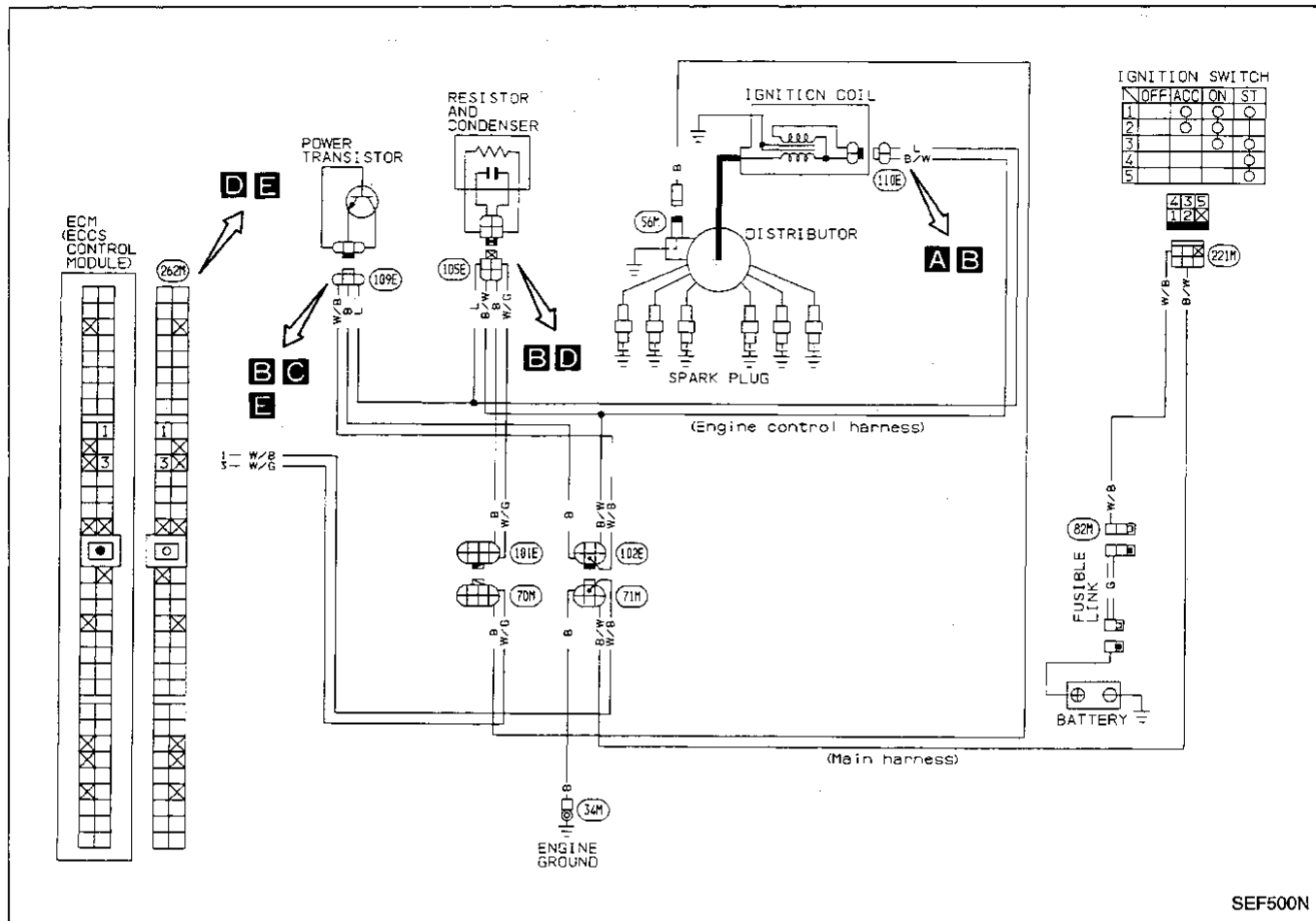
SEF818P

Harness layout

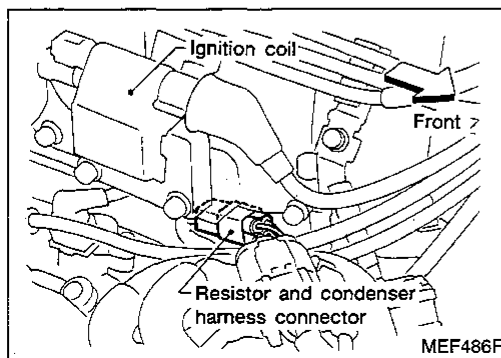
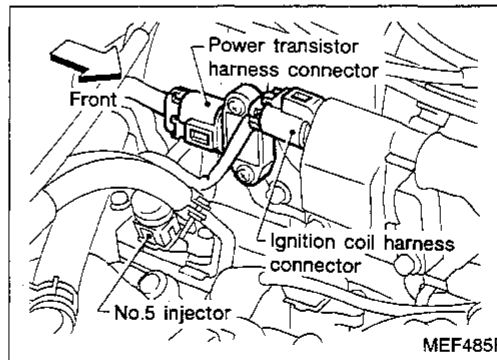
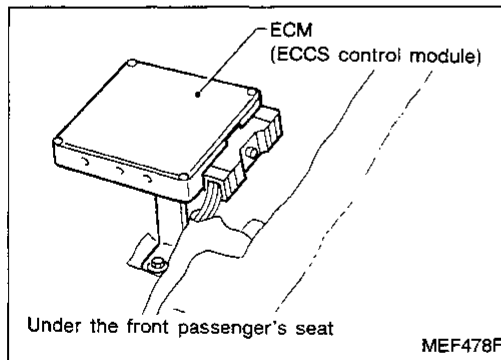


Diagnostic Procedure 27

IGNITION SIGNAL (Diagnostic trouble code No. 21)

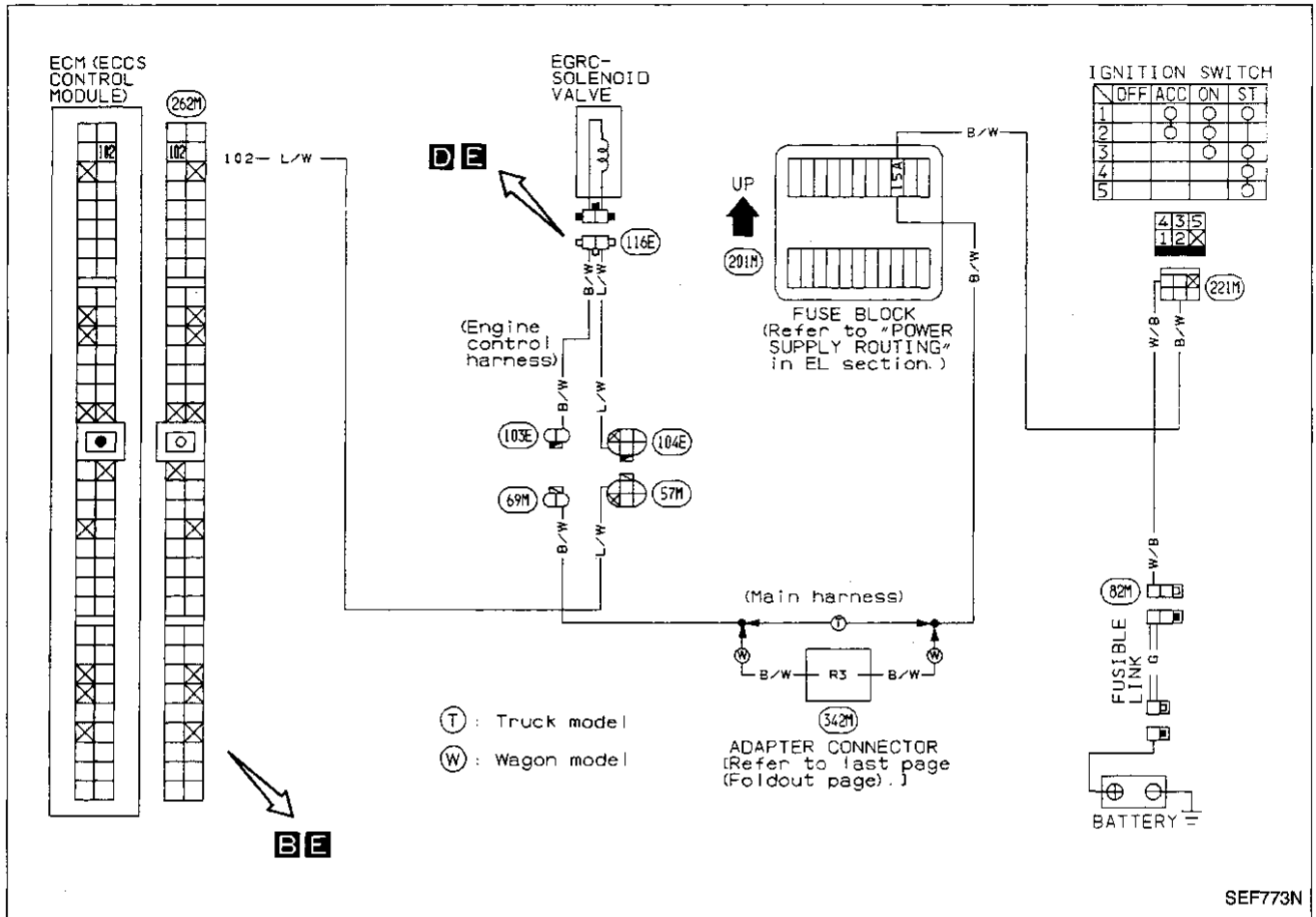


Harness layout

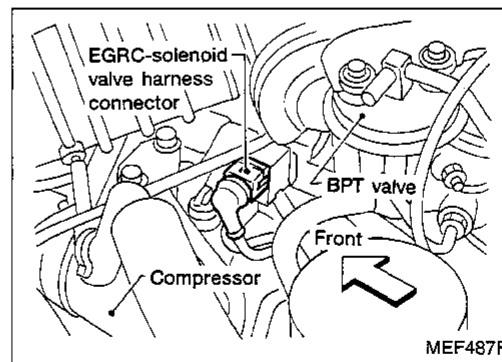
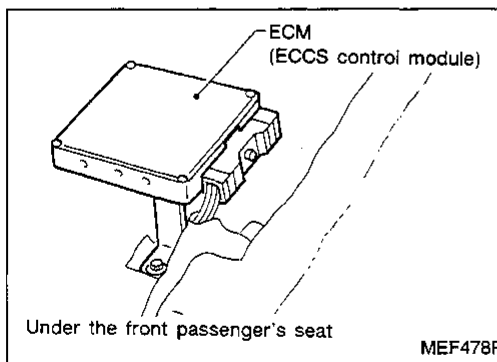


Diagnostic Procedure 29

EGR FUNCTION (Diagnostic trouble code No. 32) (MALFUNCTION INDICATOR LAMP ITEM)



Harness layout



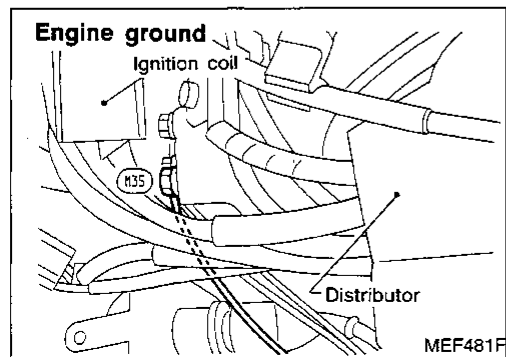
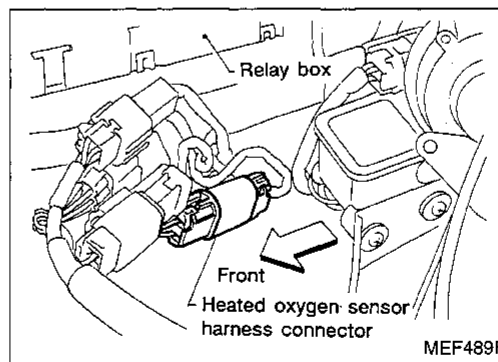
HEATED OXYGEN SENSOR (Diagnostic trouble code No. 33) (MALFUNCTION INDICATOR LAMP ITEM)



ECM
(ECCS control module)

Under the front passenger's seat

MEF478F



Diagnostic Procedure 31

KNOCK SENSOR (Diagnostic trouble code No. 34)

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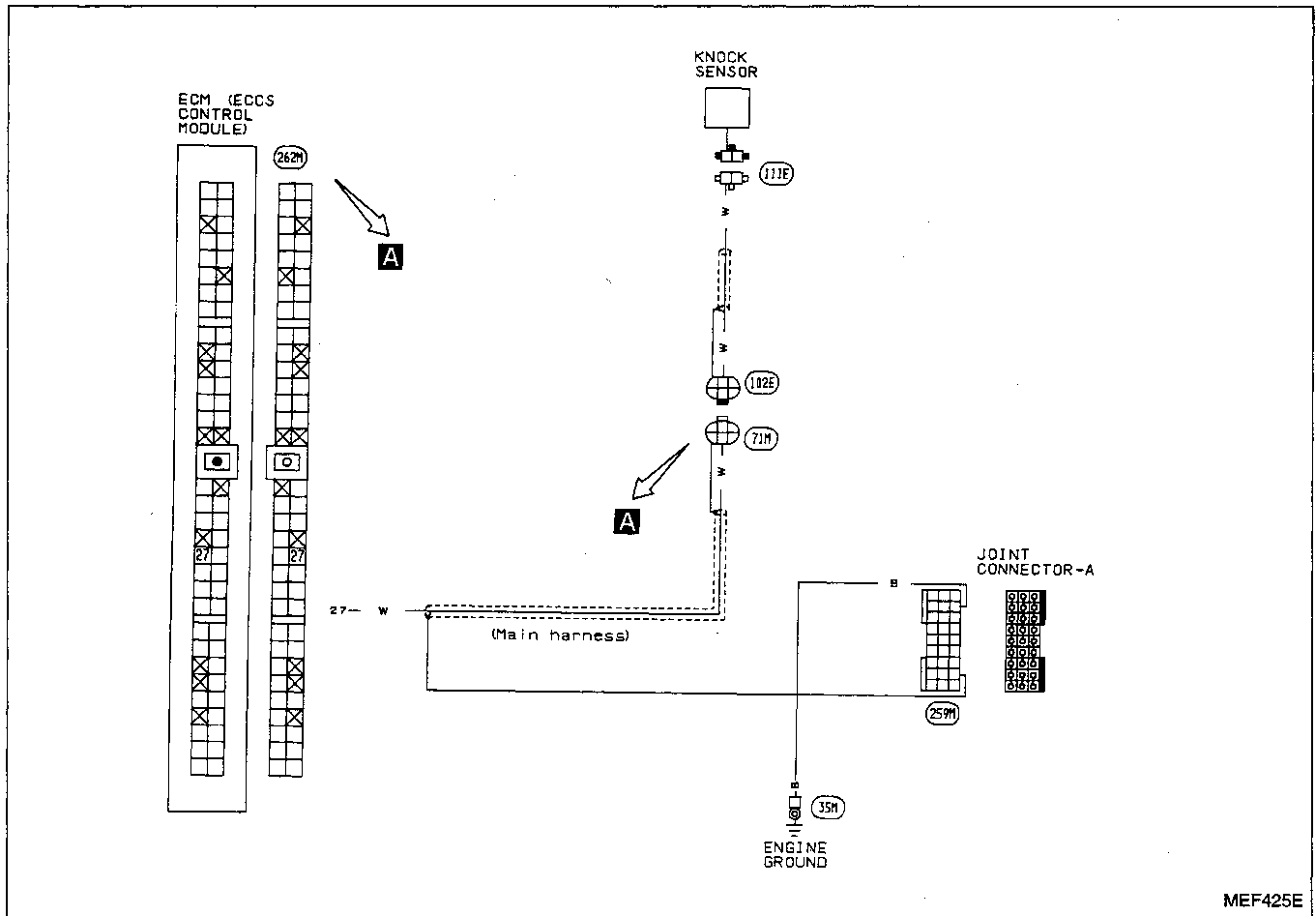
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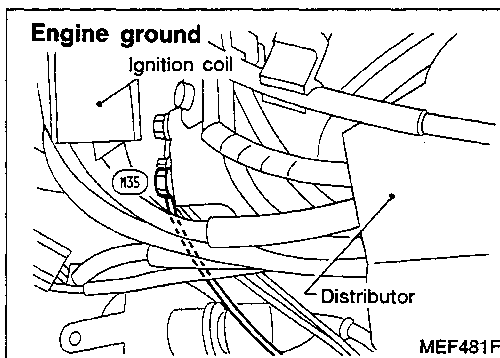
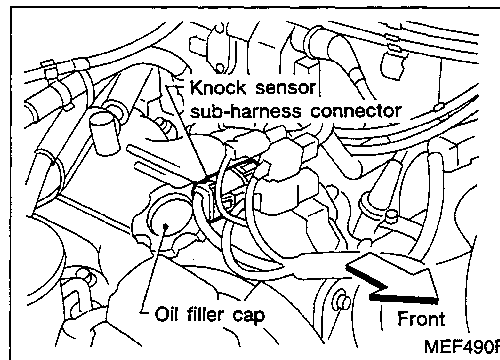
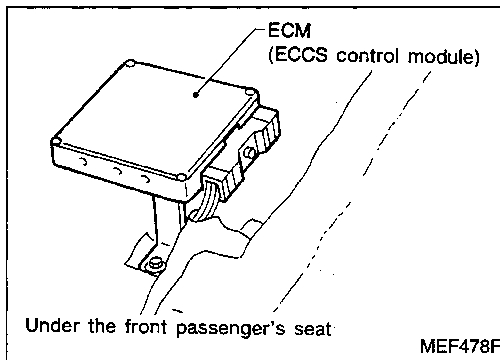
BF

HA

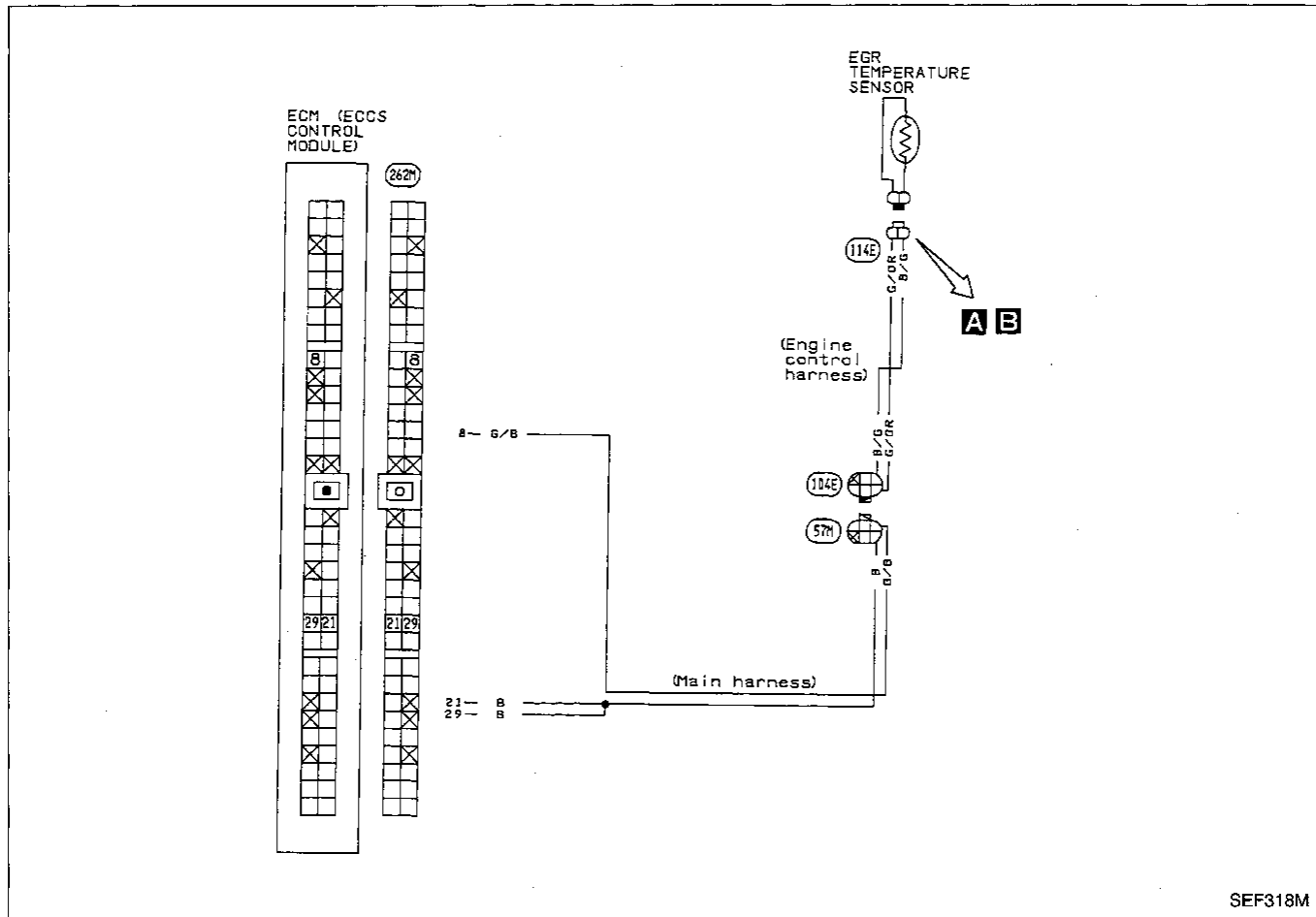
EL



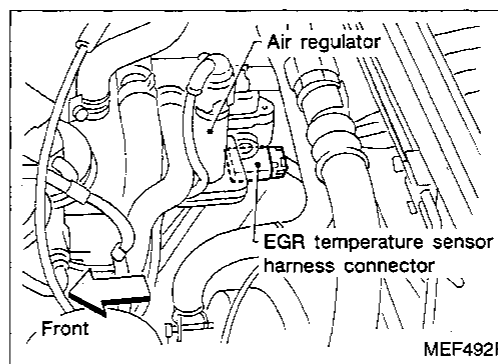
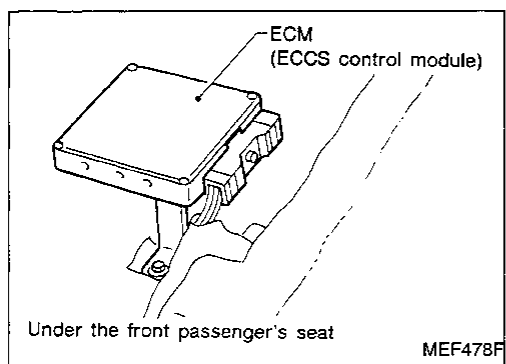
Harness layout



EGR TEMPERATURE SENSOR (Diagnostic trouble code No. 35) (MALFUNCTION INDICATOR LAMP ITEM)



Harness layout



Diagnostic Procedure 33

THROTTLE POSITION SENSOR (Diagnostic trouble code No. 43) (MALFUNCTION INDICATOR LAMP ITEM)EF &
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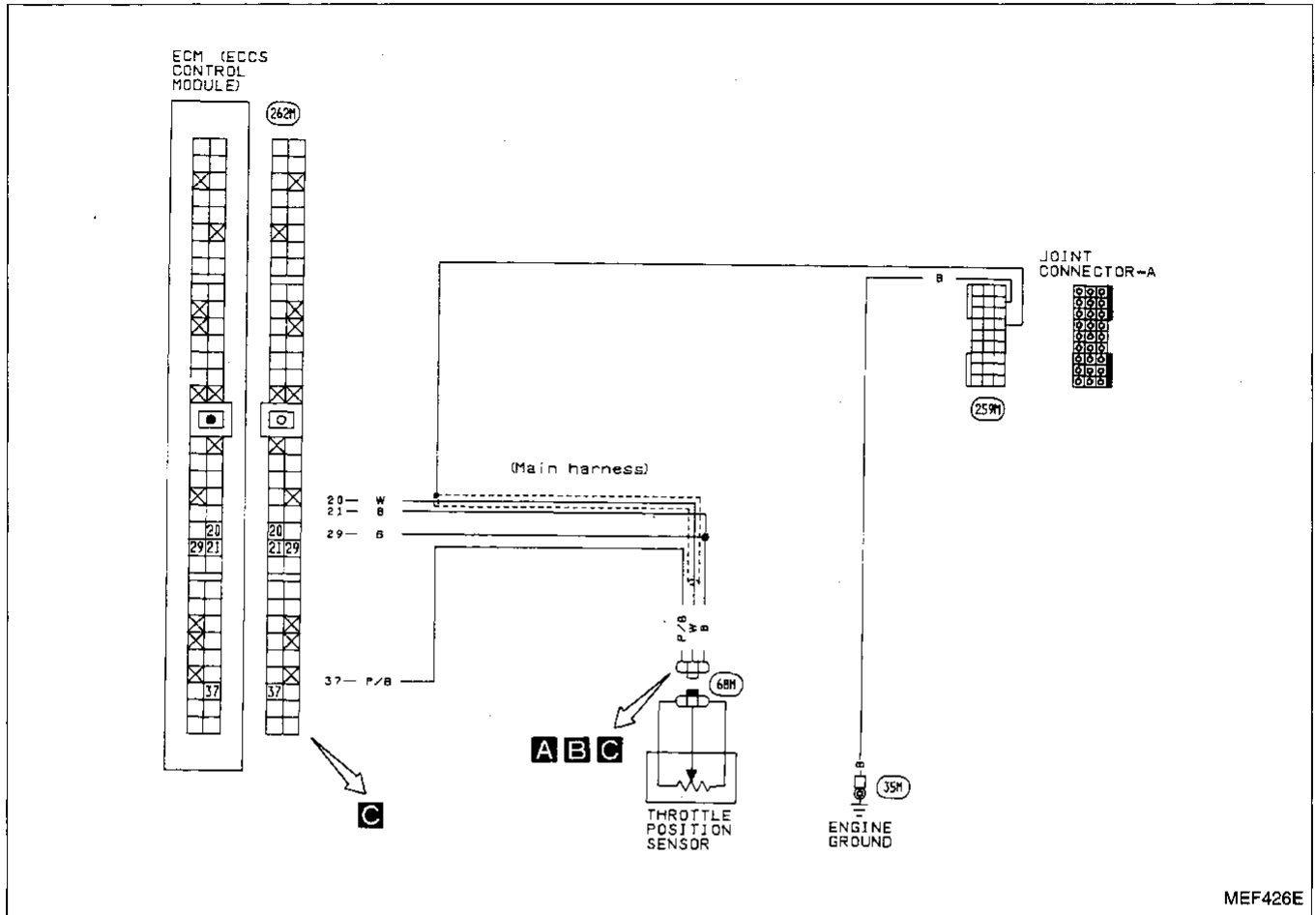
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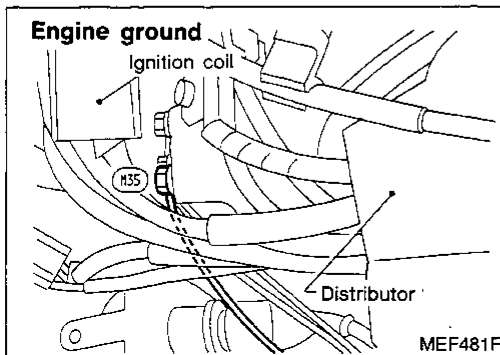
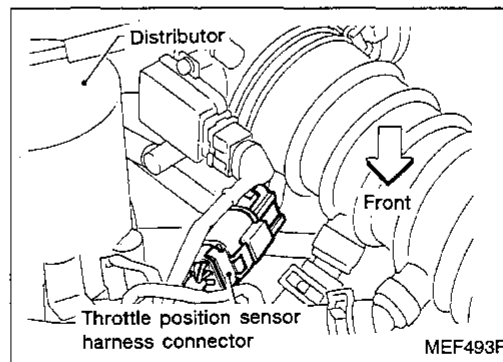
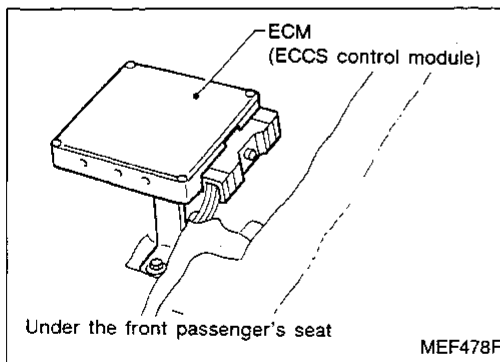
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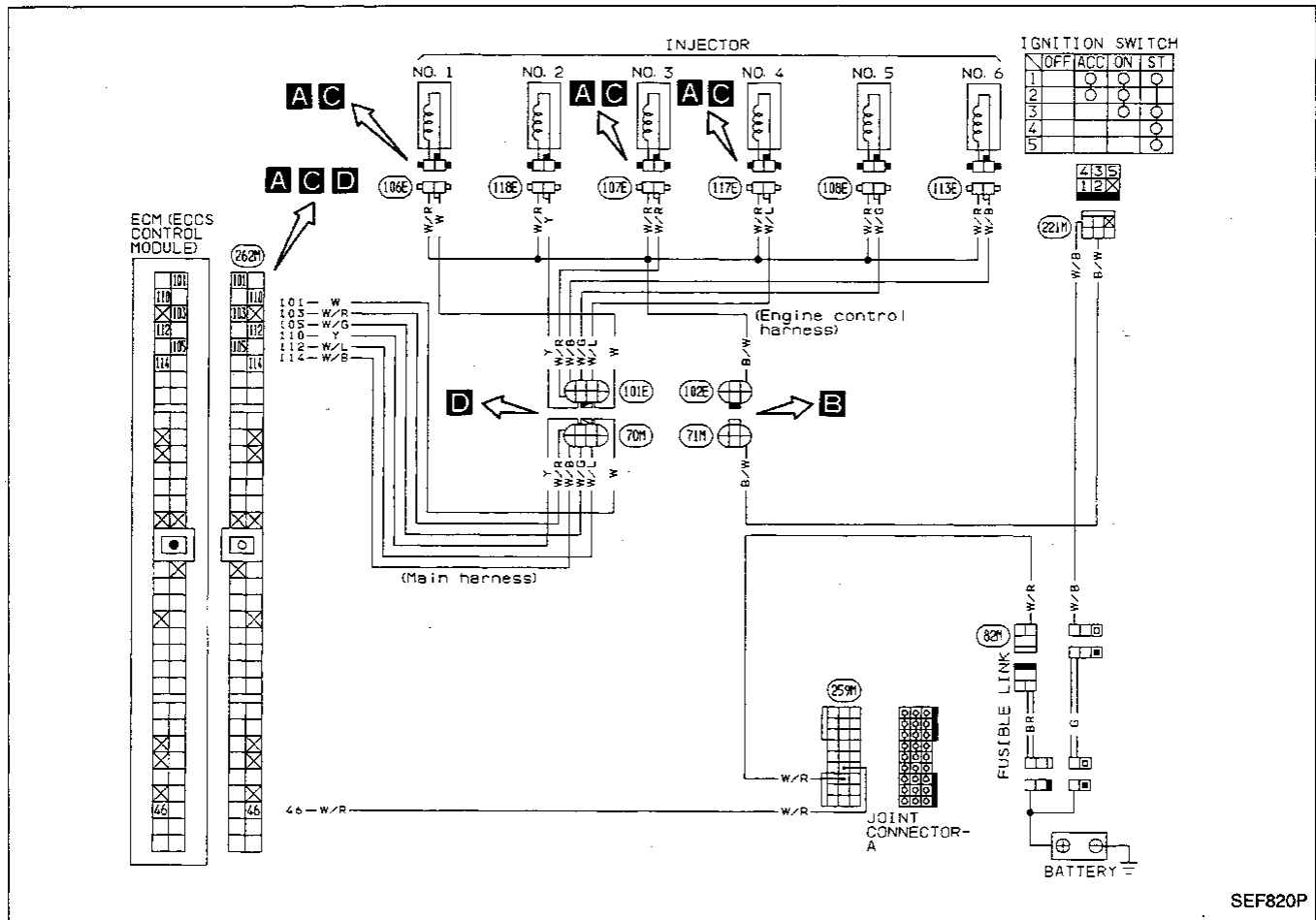
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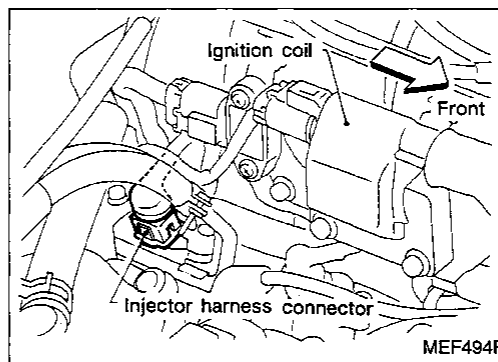
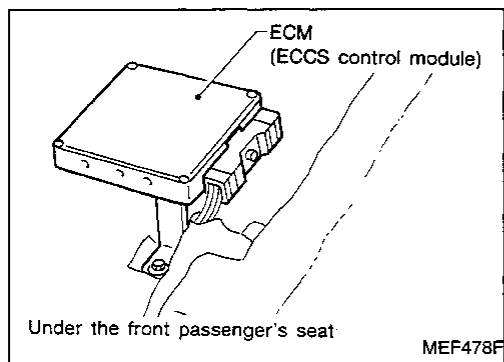
Harness layout



INJECTOR CIRCUIT (Diagnostic trouble code No. 51) (MALFUNCTION INDICATOR LAMP ITEM)



Harness layout



Diagnostic Procedure 36

CLOSED THROTTLE POSITION SWITCH (Switch ON/OFF diagnostic item)

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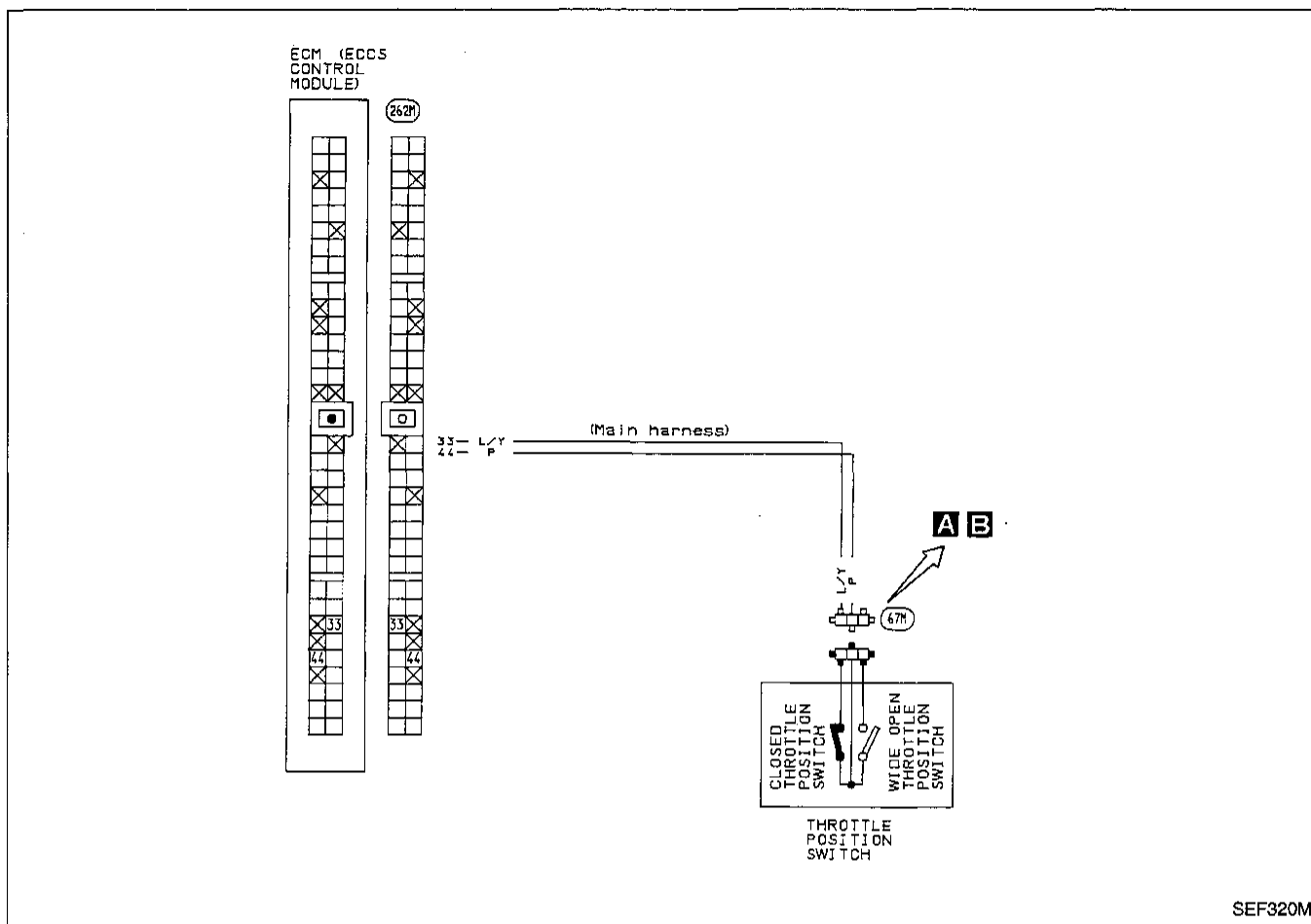
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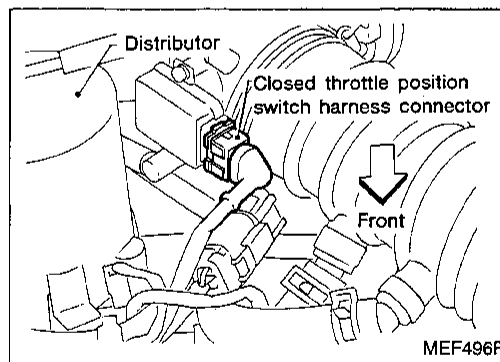
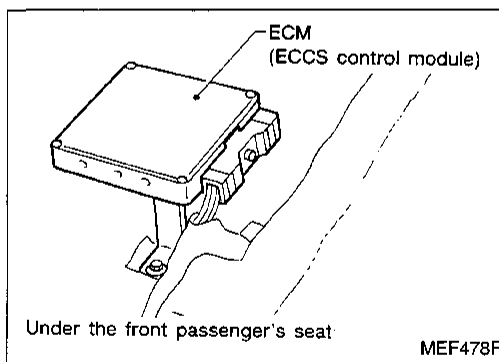
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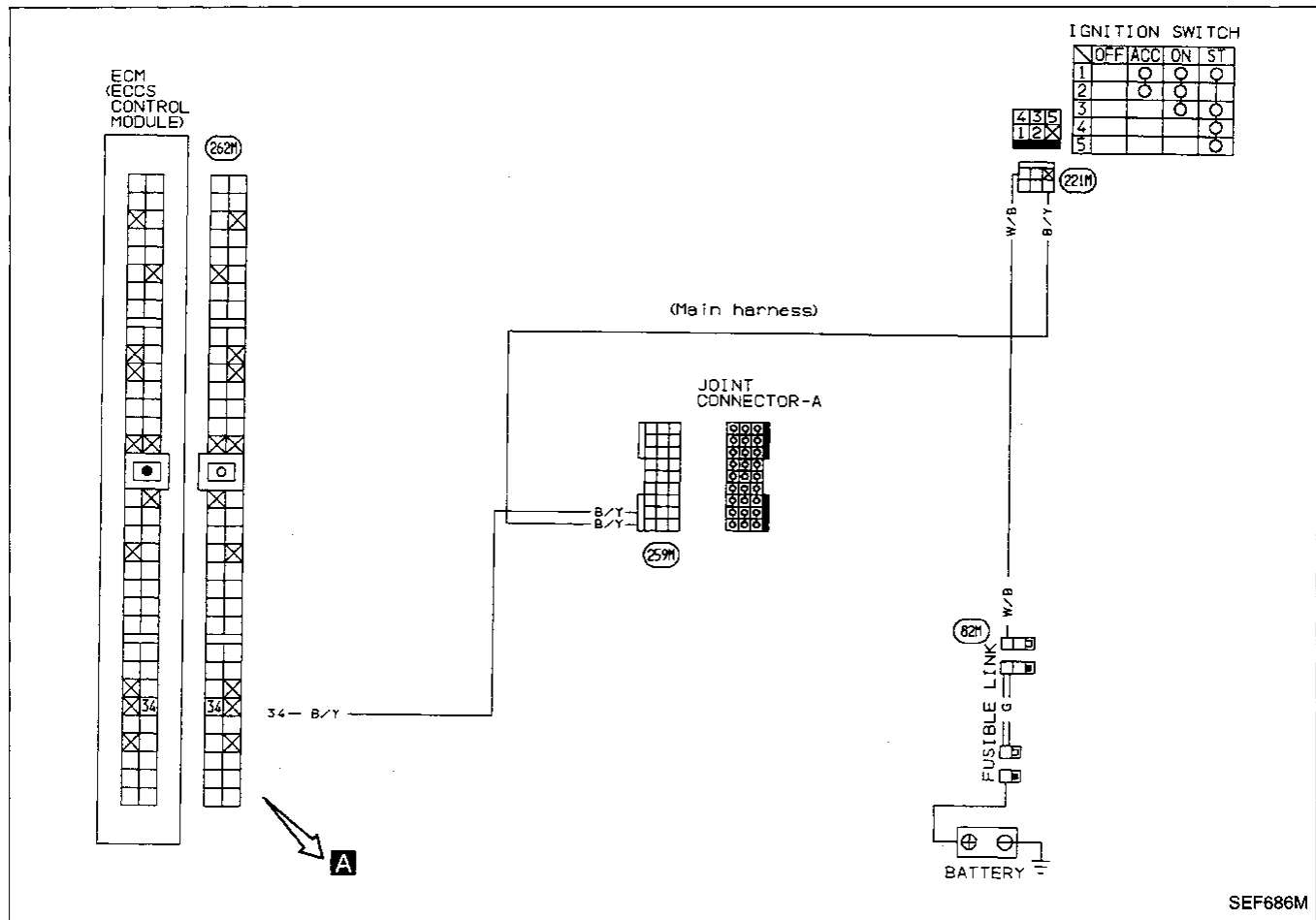


Harness layout

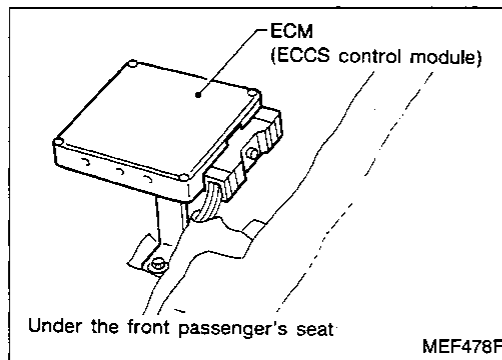


Diagnostic Procedure 37

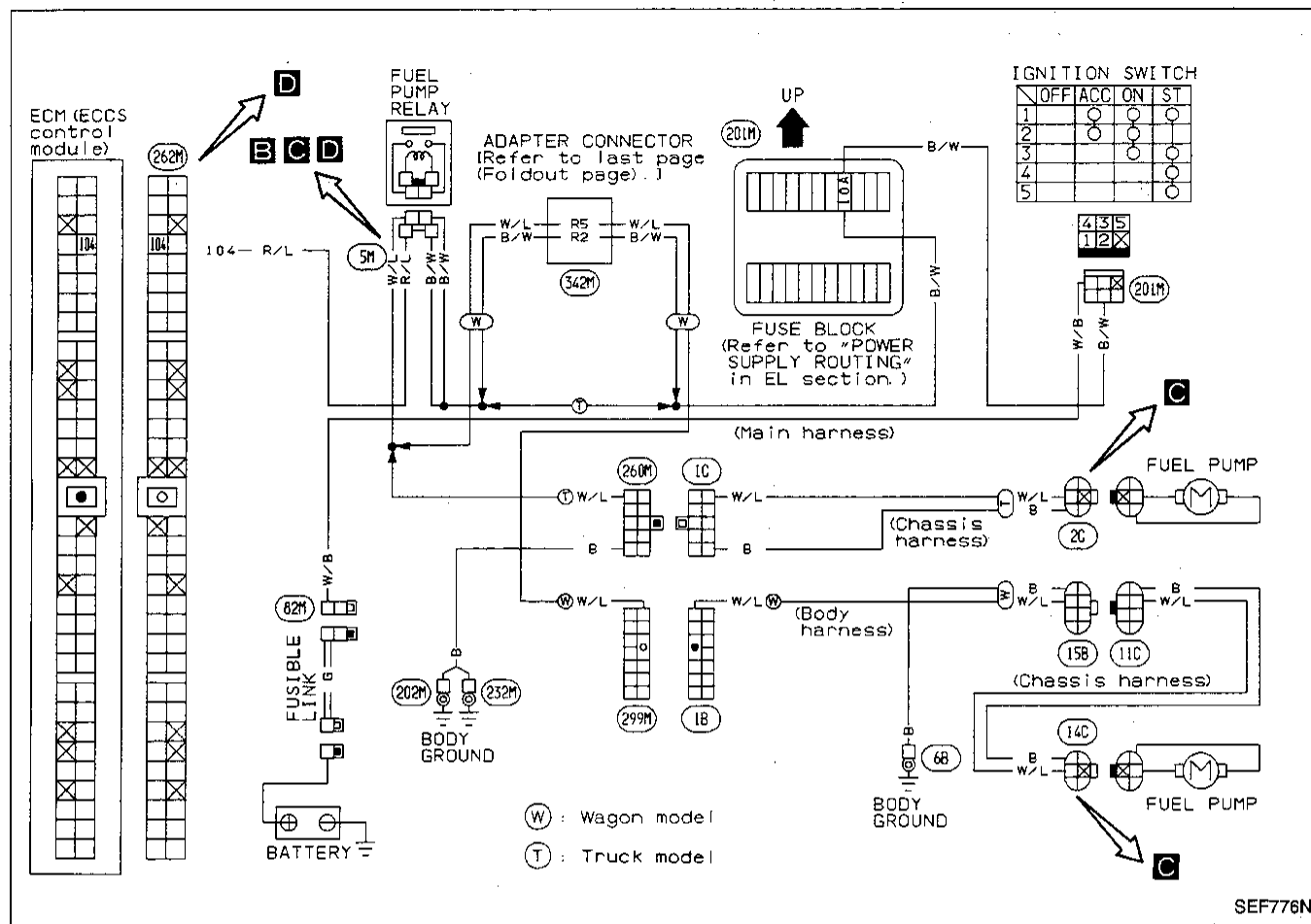
START SIGNAL (Switch ON/OFF diagnostic item)



Harness layout



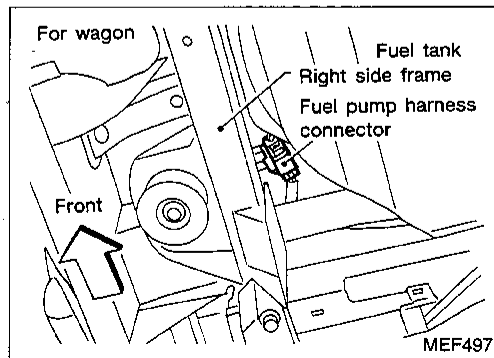
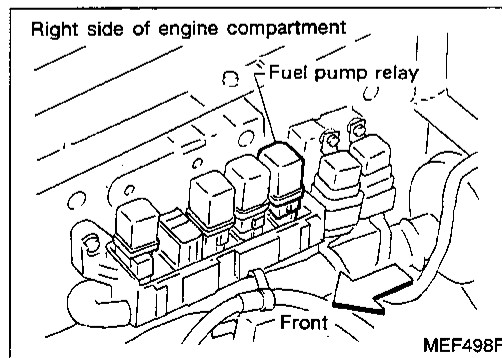
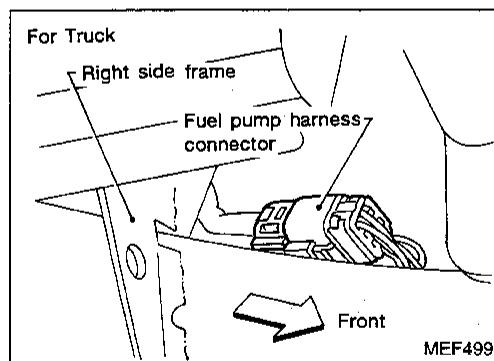
FUEL PUMP (Not self-diagnostic item)



ECM
(ECCS control module)

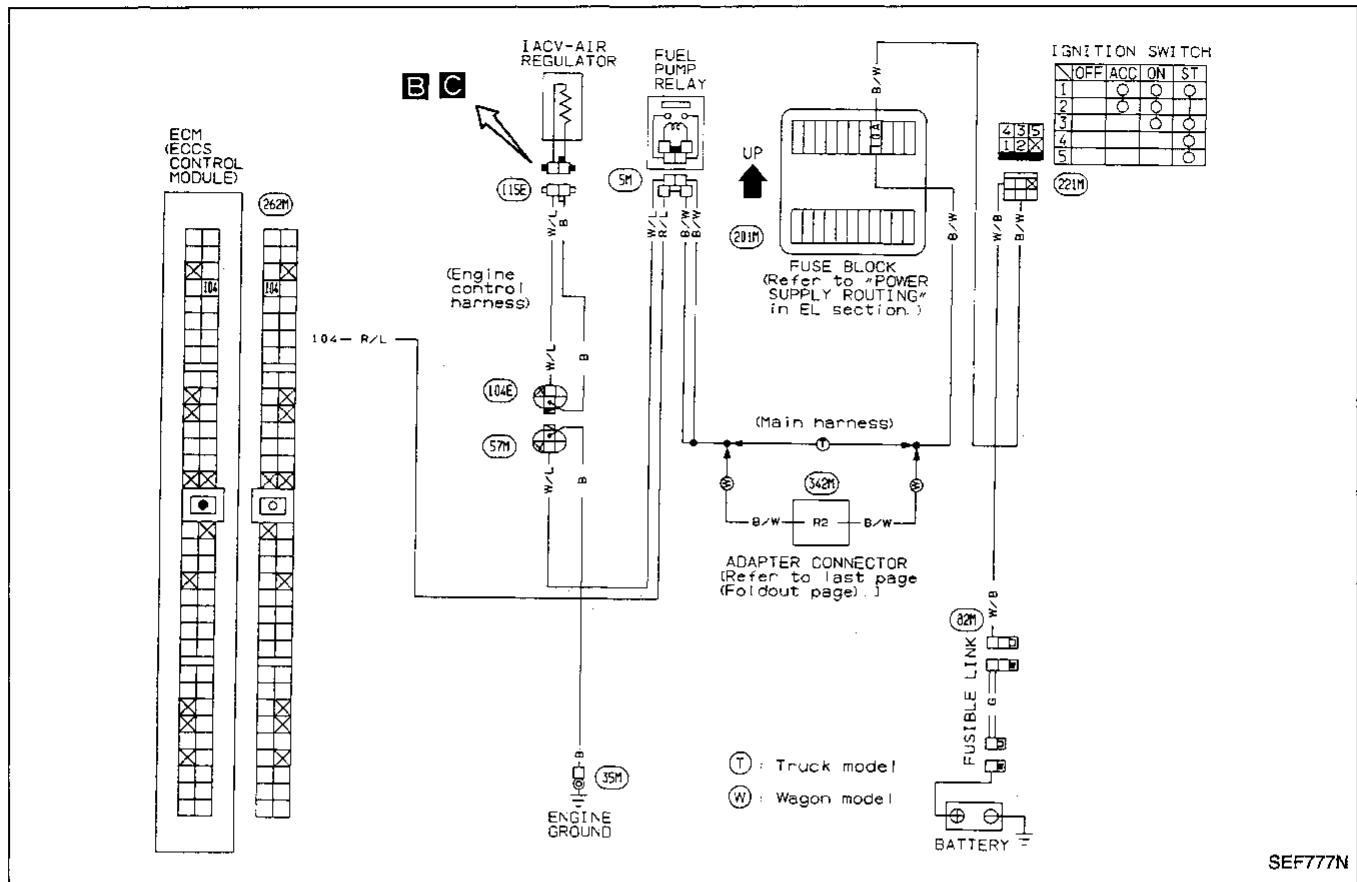
Under the front passenger's seat

MEF478F

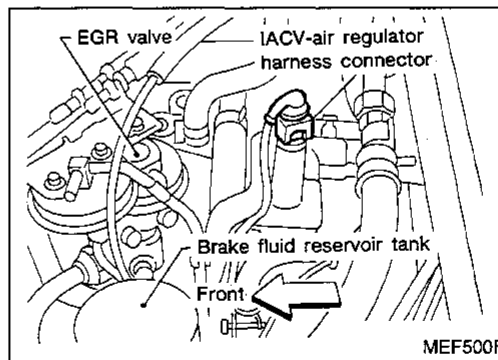
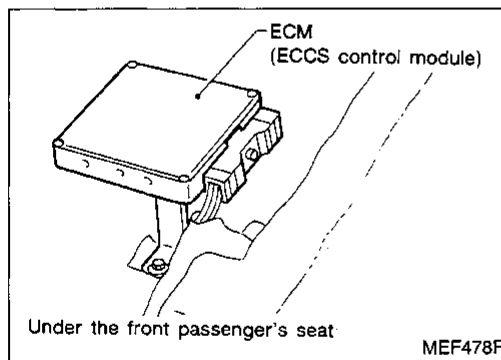


Diagnostic Procedure 39

IACV-AIR REGULATOR (Not self-diagnostic item)



Harness layout



Diagnostic Procedure 40

IACV-AAC VALVE (Not self-diagnostic item)

EF &
EC

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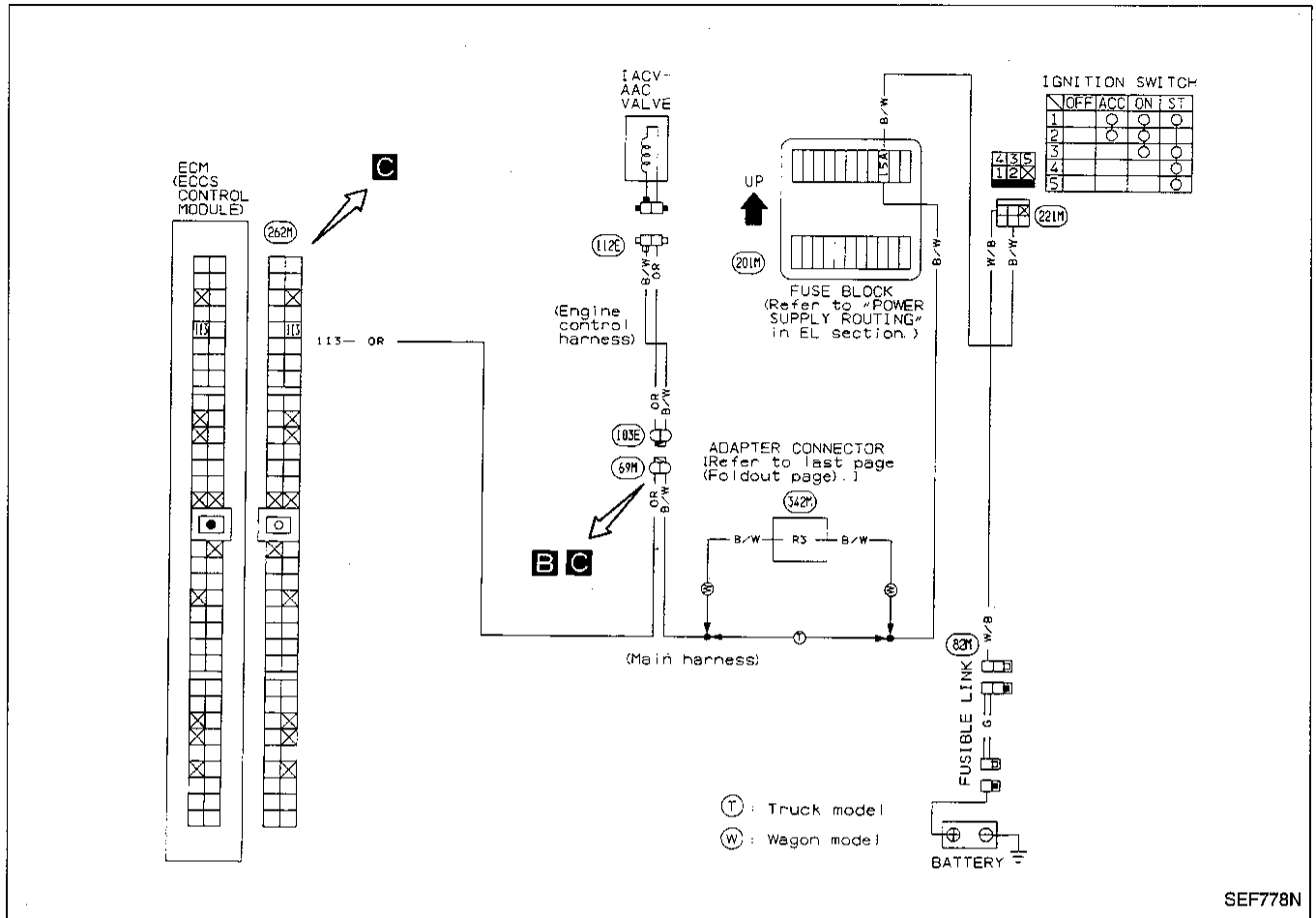
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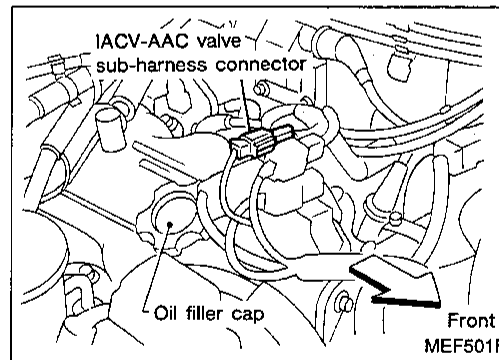
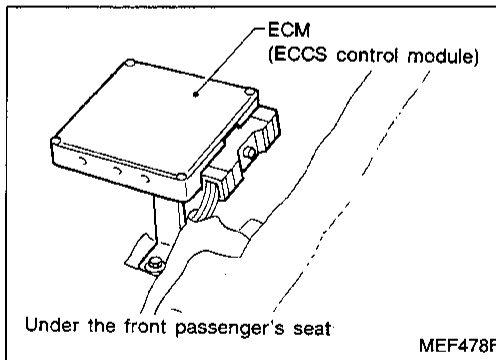
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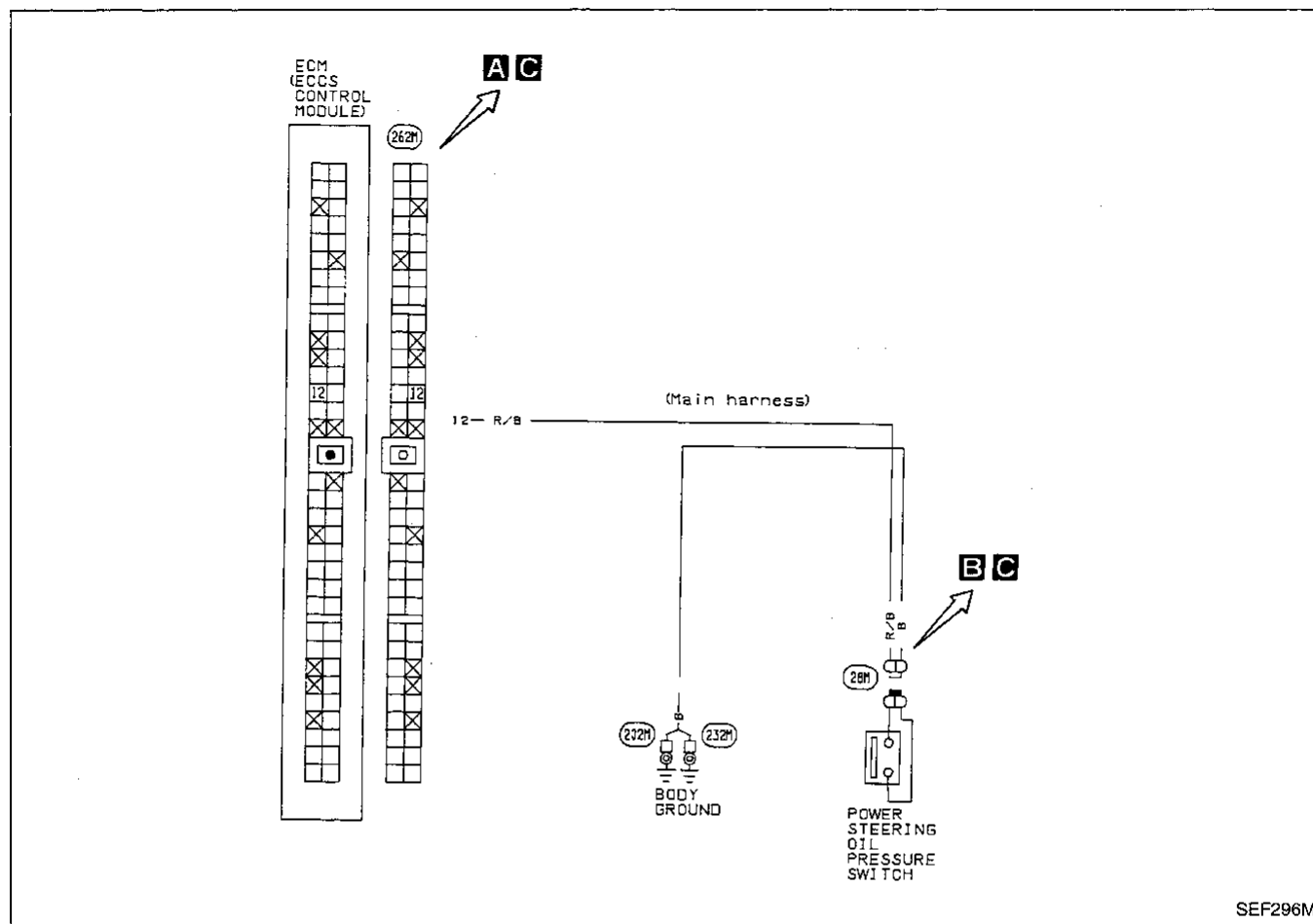
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Harness layout



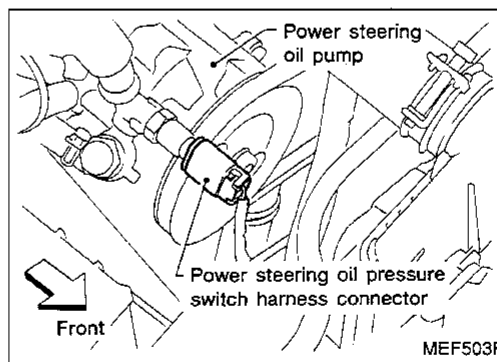
POWER STEERING OIL PRESSURE SWITCH (Not self-diagnostic item)



ECM
(ECCS control module)

Under the front passenger's seat

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ECM (ECCS CONTROL MODULE)

INHIBITOR SWITCH

	1	2	3	4	5	6	7	8	9
P	○	○	○	○	○	○	○	○	○
R	○	○	○	○	○	○	○	○	○
N	○	○	○	○	○	○	○	○	○
D	○	○	○	○	○	○	○	○	○
2	○	○	○	○	○	○	○	○	○
1	○	○	○	○	○	○	○	○	○

IGNITION SWITCH
ON or START

FUSE BLOCK
(Refer to "POWER SUPPLY ROUTING" in EL section.)

UP

(Main harness)

ADAPTER CONNECTOR
(Refer to last page (Foldout page).)

PARK/NEUTRAL POSITION RELAY

NEUTRAL POSITION SWITCH

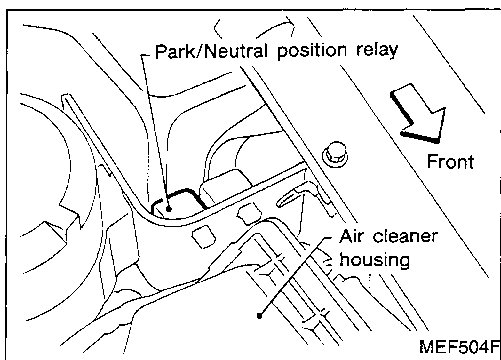
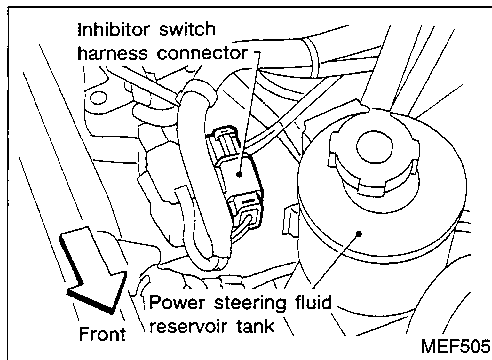
LEGEND:

- (A) : A/T model
- (M) : M/T model
- (T) : Truck model
- (W) : Wagon model

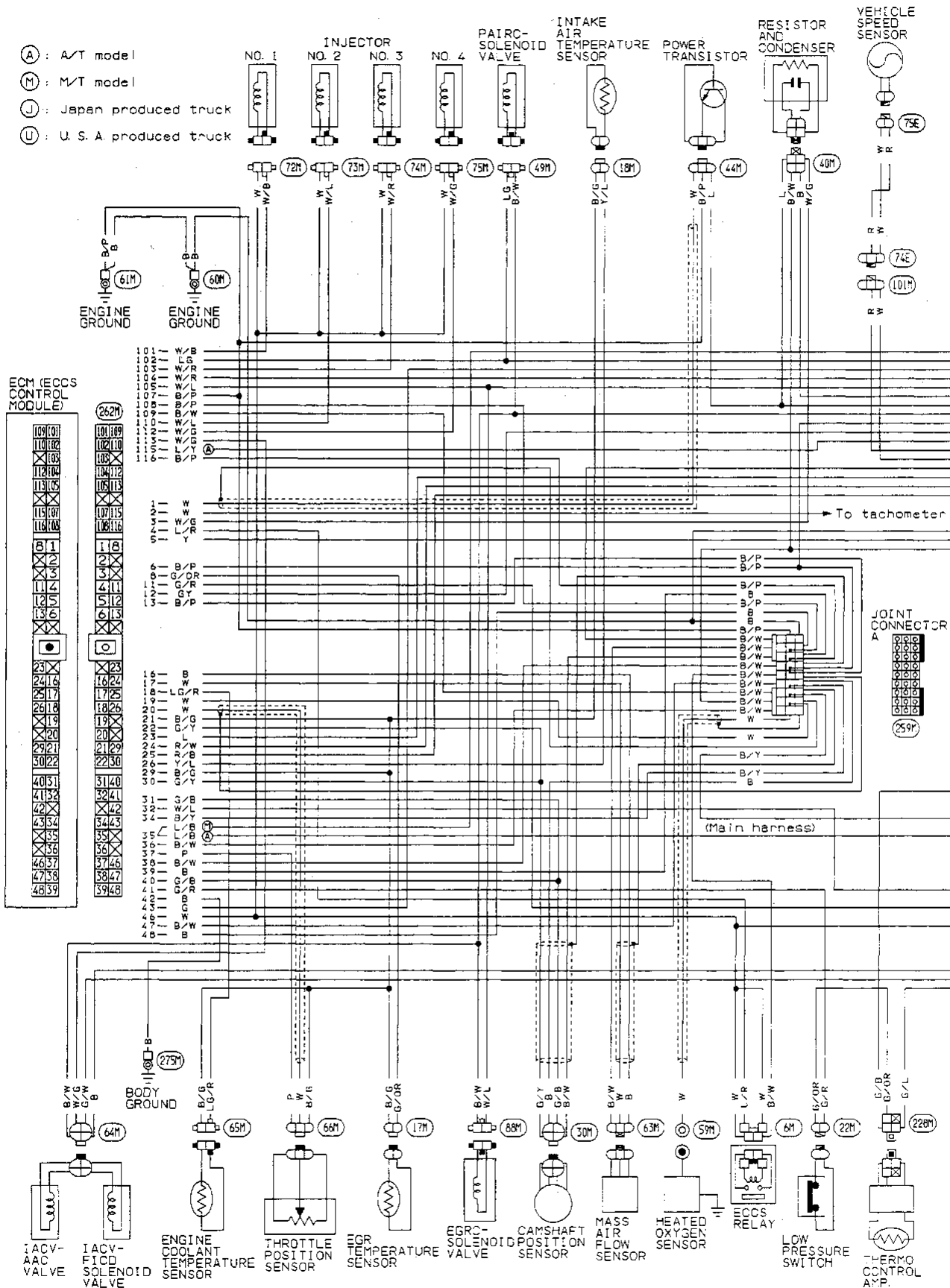
ECM
(ECCS control module)

Under the front passenger's seat

MEF478F



Wiring Diagram



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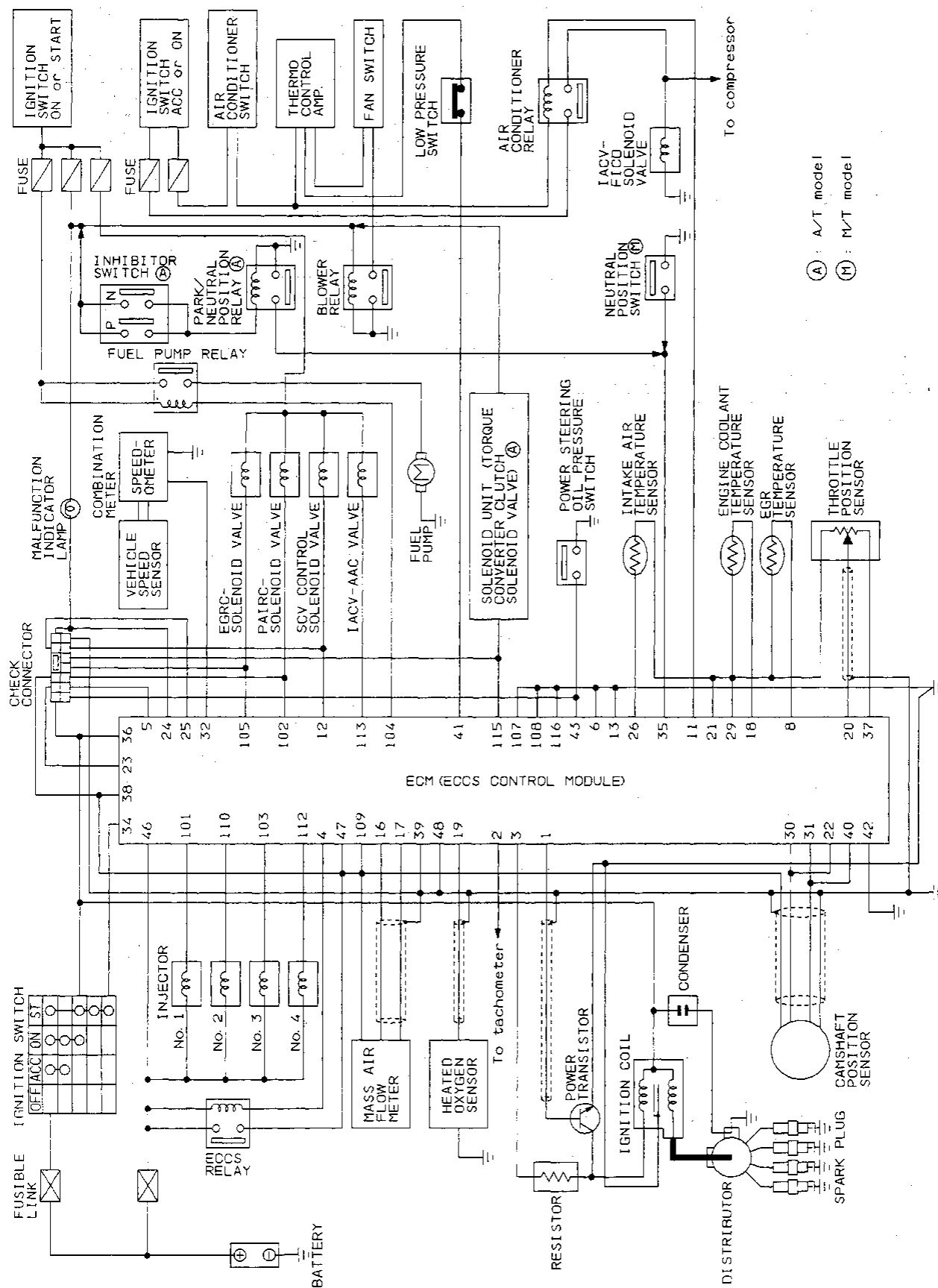
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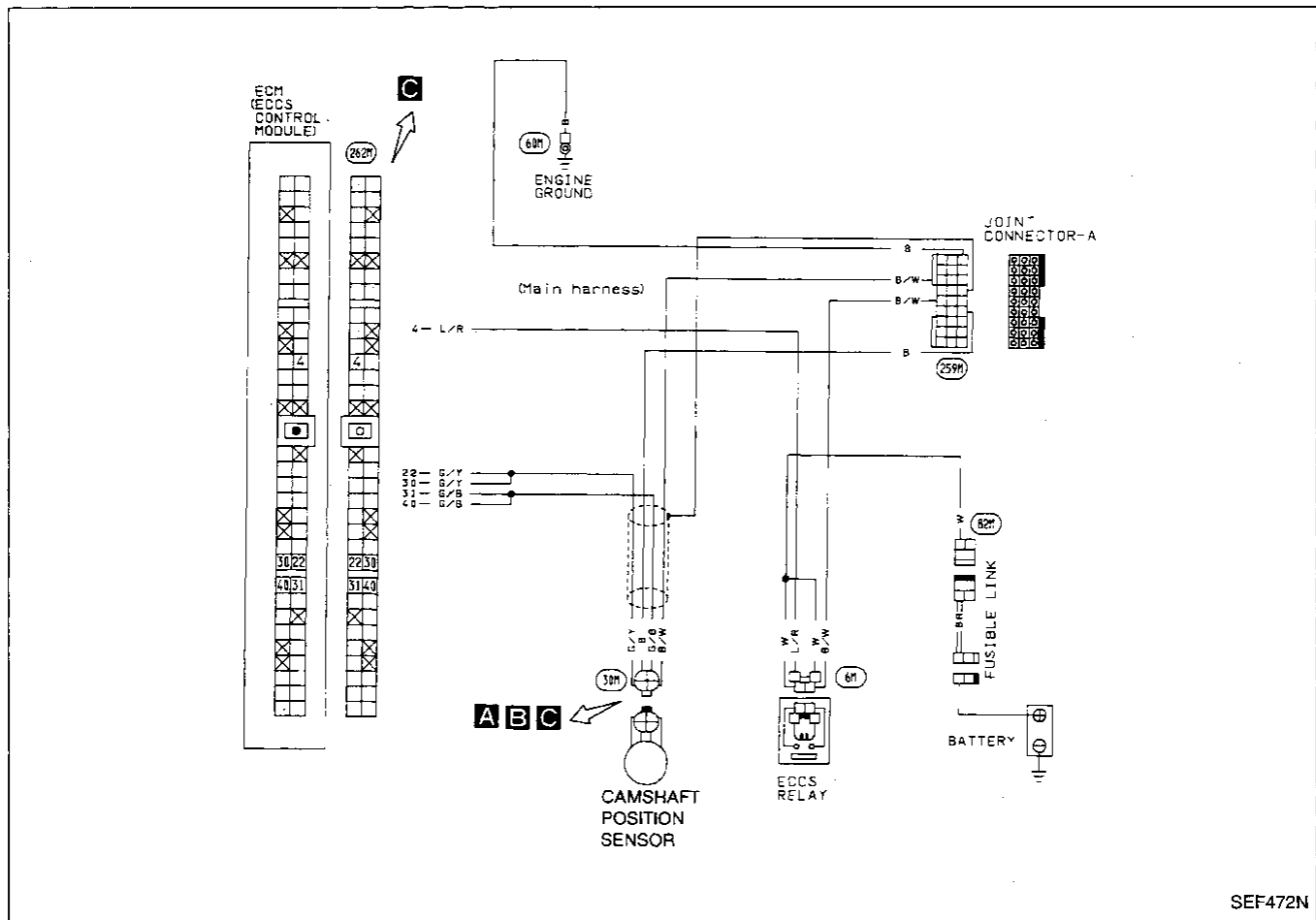
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Circuit Diagram



CAMSHAFT POSITION SENSOR (Diagnostic trouble code No. 11)

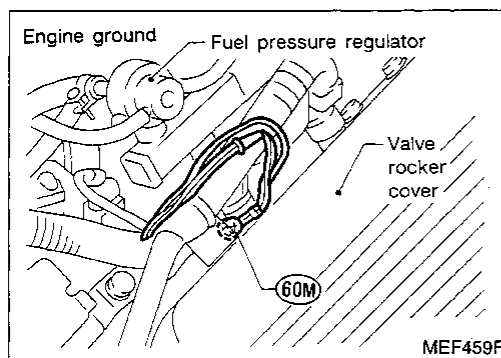
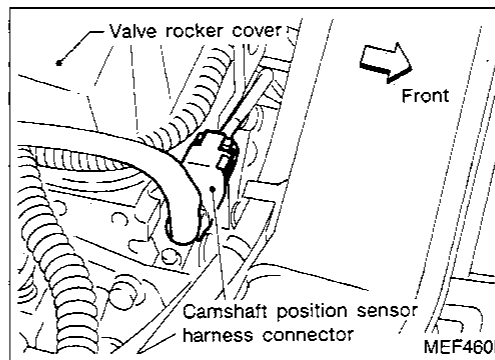


Under the front passenger's seat

ECM (ECSS control module)

Front

MEF457F



Diagnostic Procedure 24

MASS AIR FLOW SENSOR (Diagnostic trouble code No. 12) (MALFUNCTION INDICATOR LAMP ITEM)EF &
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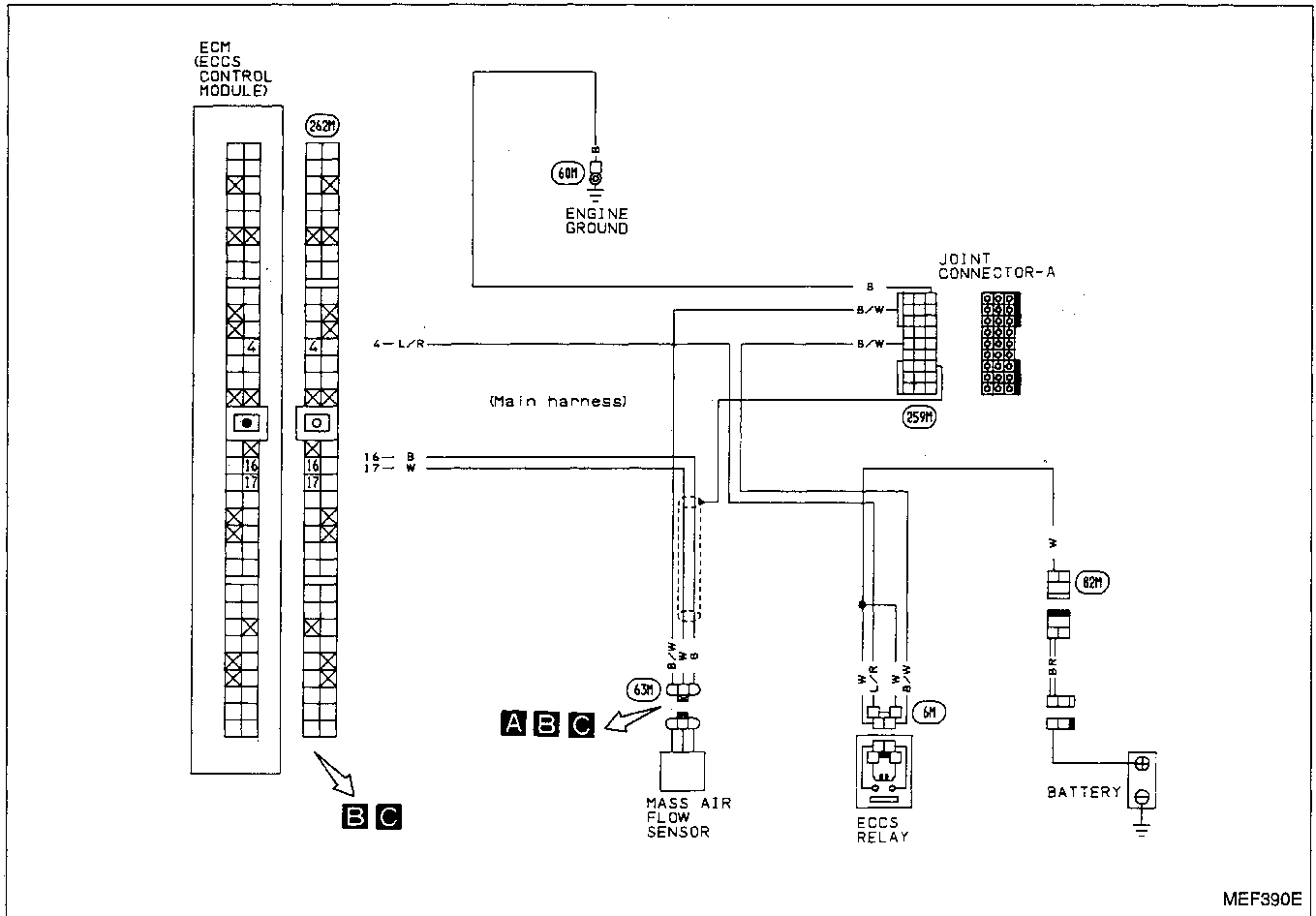
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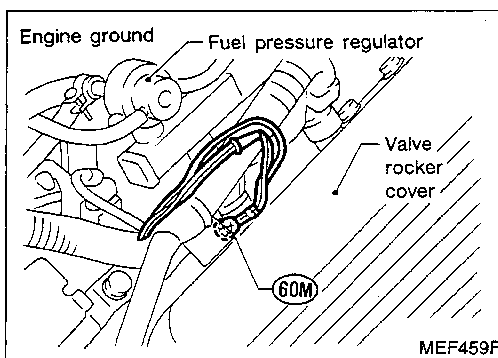
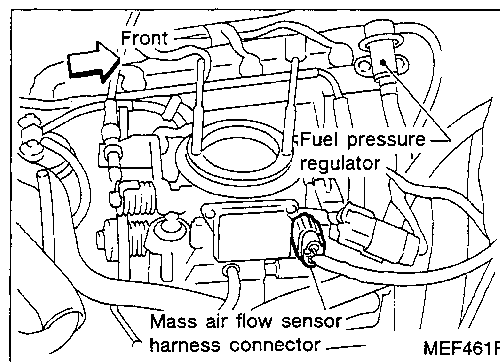
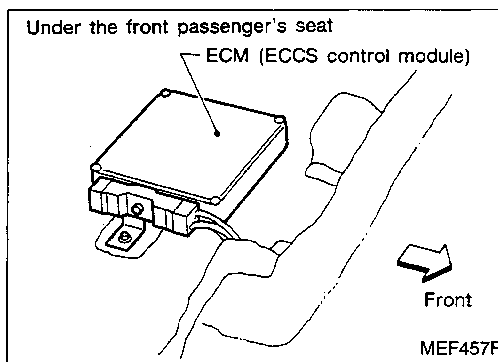
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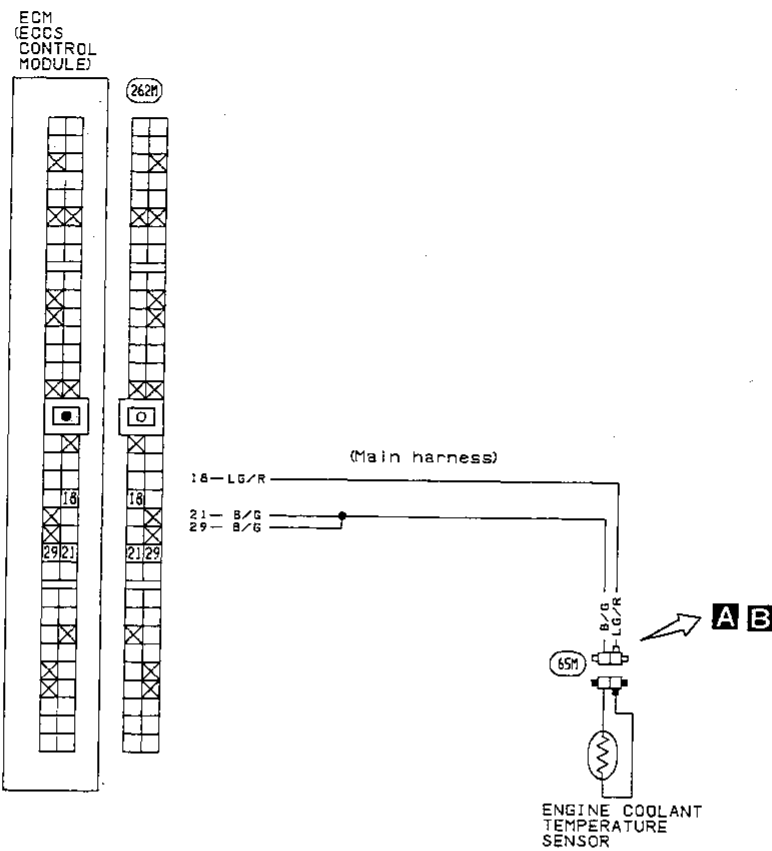
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Harness layout

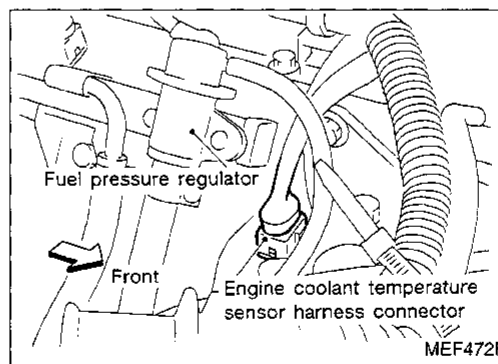
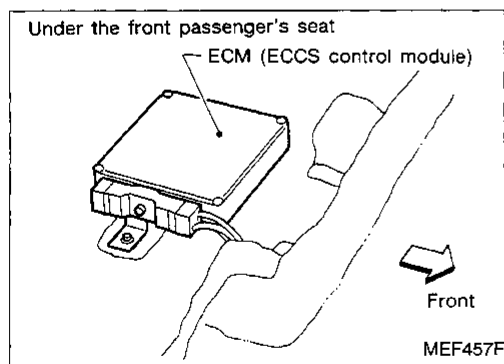


Diagnostic Procedure 25

ENGINE COOLANT TEMPERATURE SENSOR (Diagnostic trouble code No. 13)
(MALFUNCTION INDICATOR LAMP ITEM)

SEF325M

Harness layout



Diagnostic Procedure 26

VEHICLE SPEED SENSOR (Diagnostic trouble code No. 14) (Switch ON/OFF diagnostic item)  **(MALFUNCTION INDICATOR LAMP ITEM)**

EF & EC

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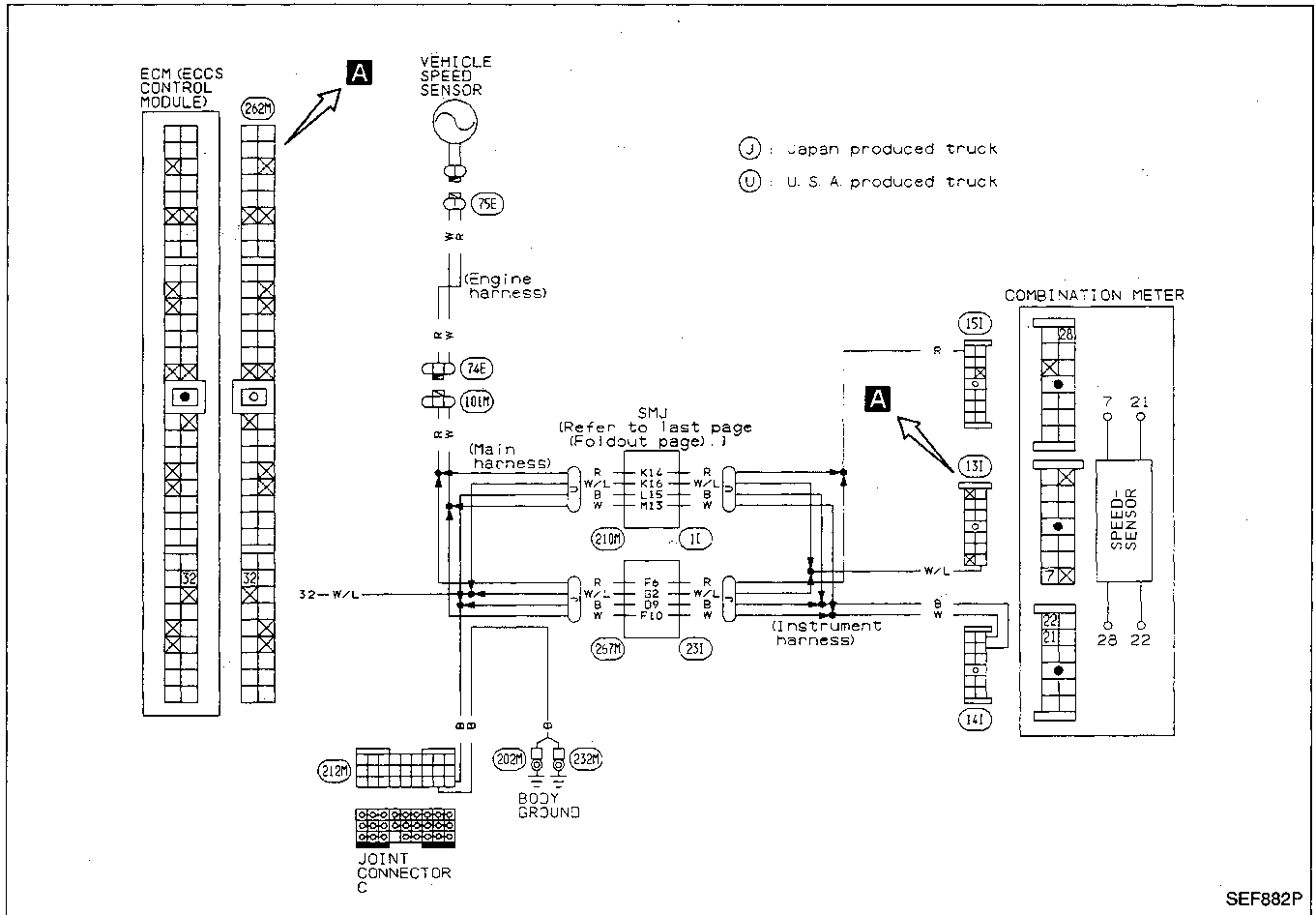
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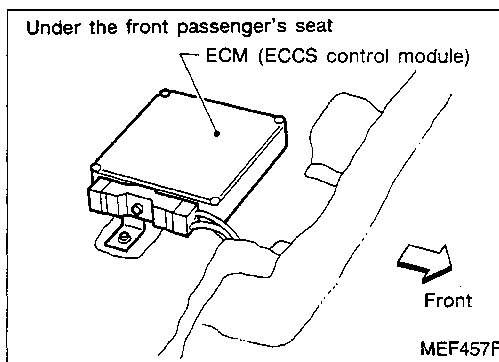
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HA

EL

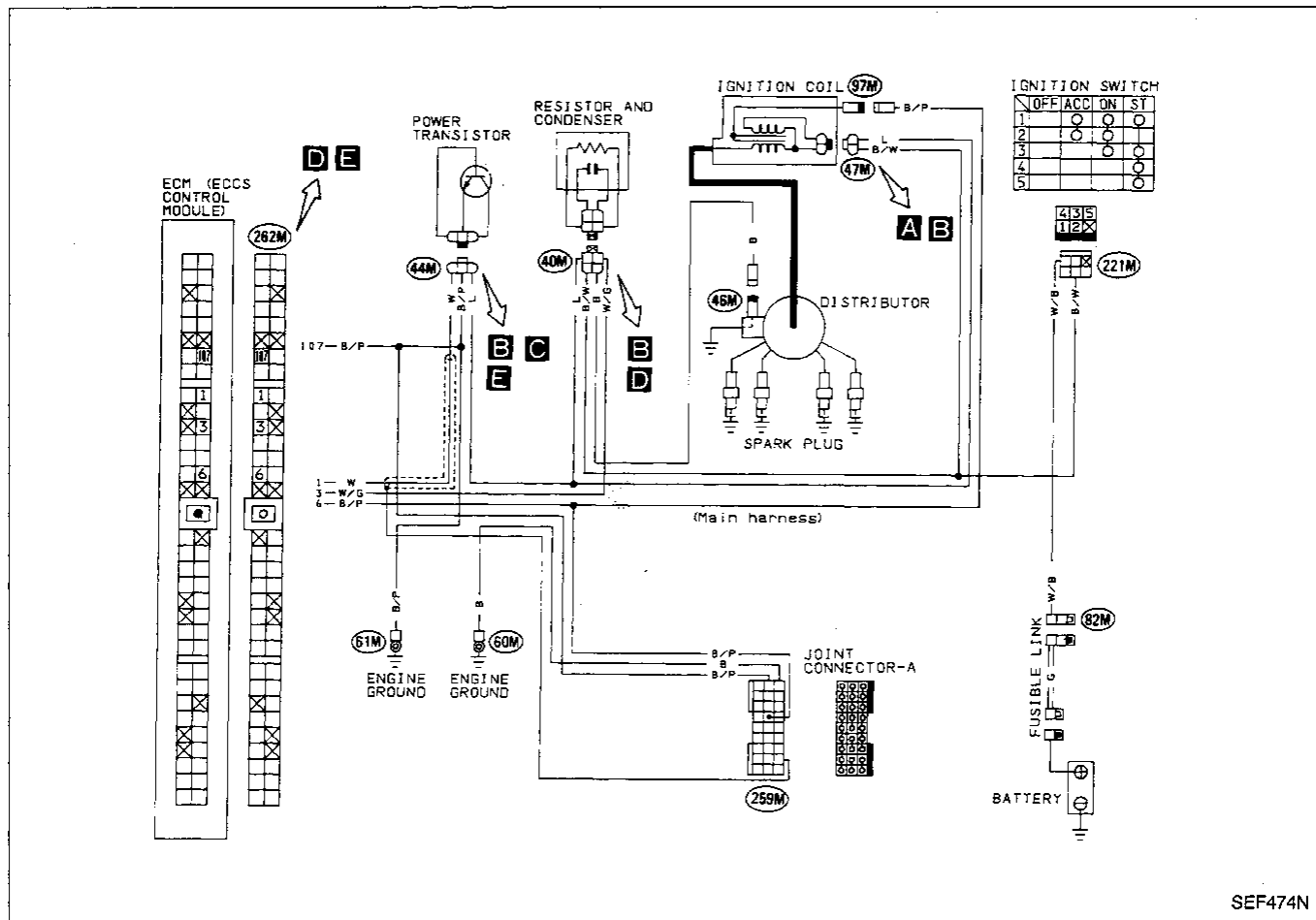


Harness layout



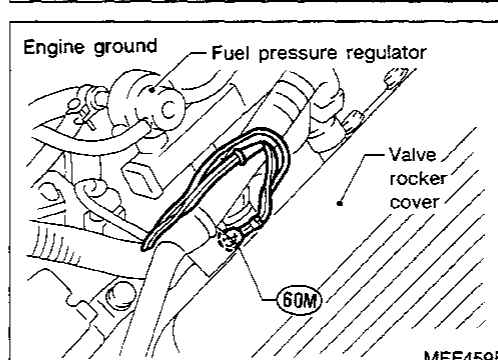
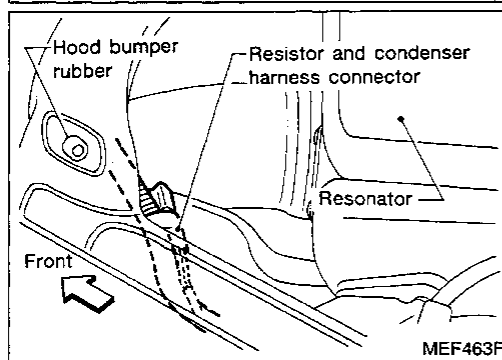
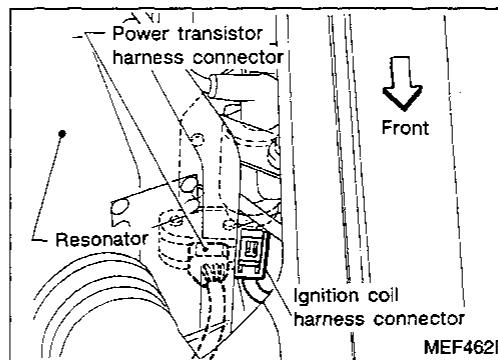
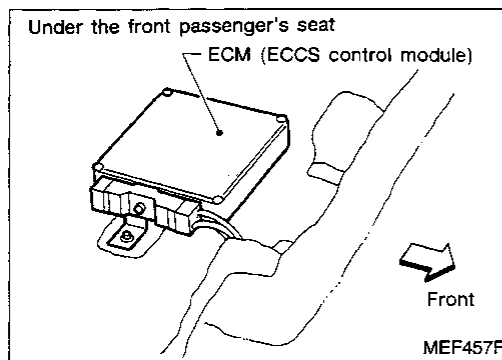
Diagnostic Procedure 27

IGNITION SIGNAL (Diagnostic trouble code No. 21)



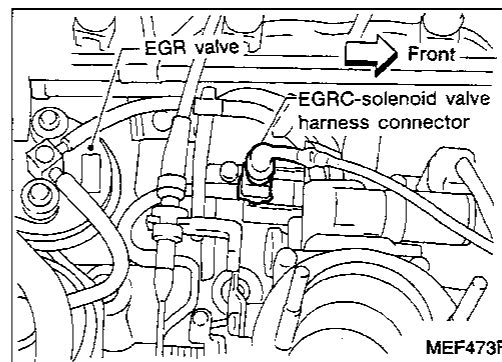
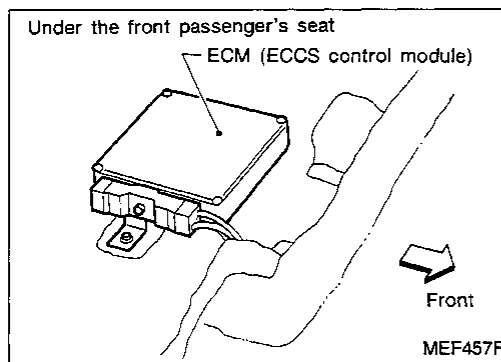
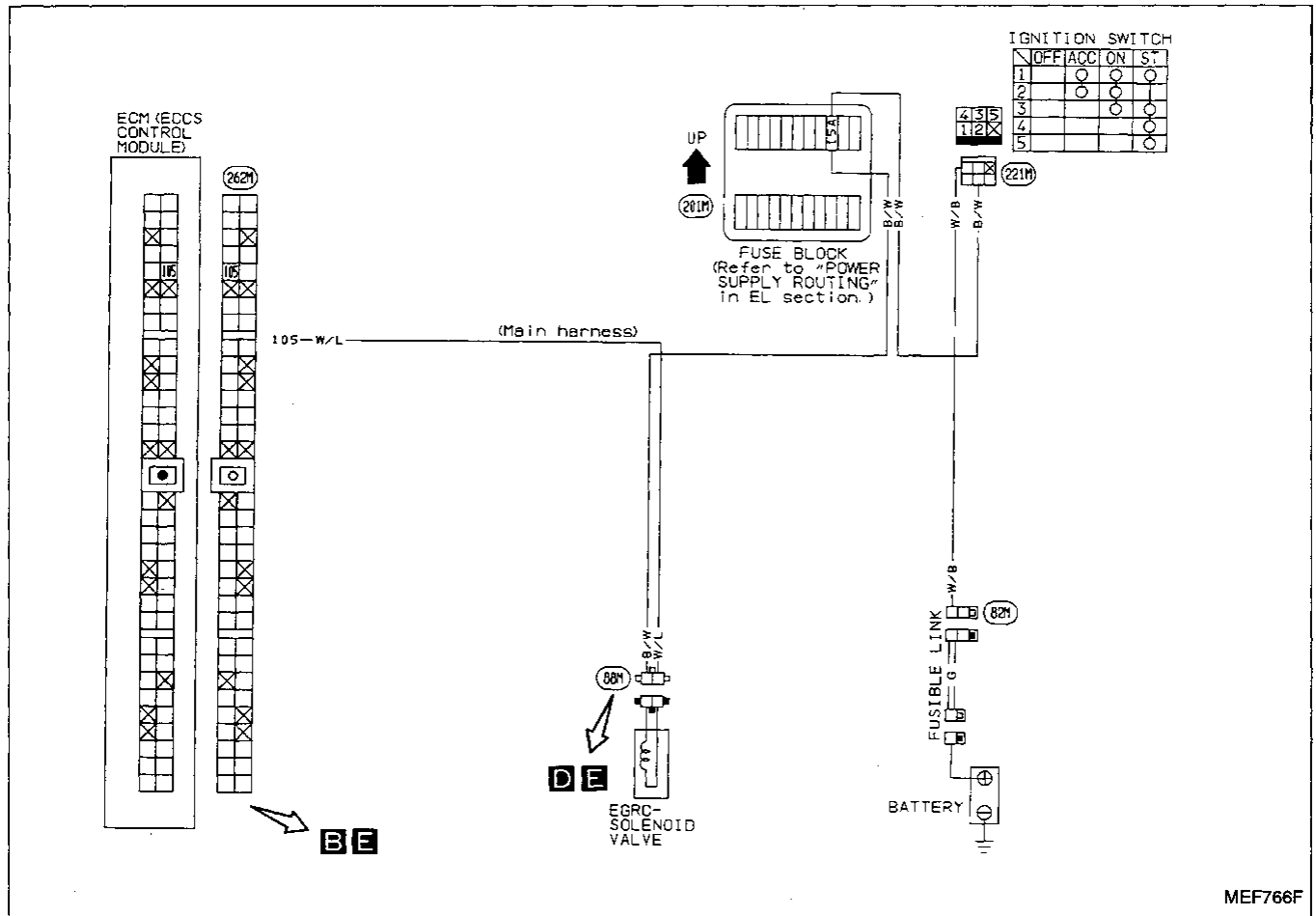
SEF474N

Harness layout



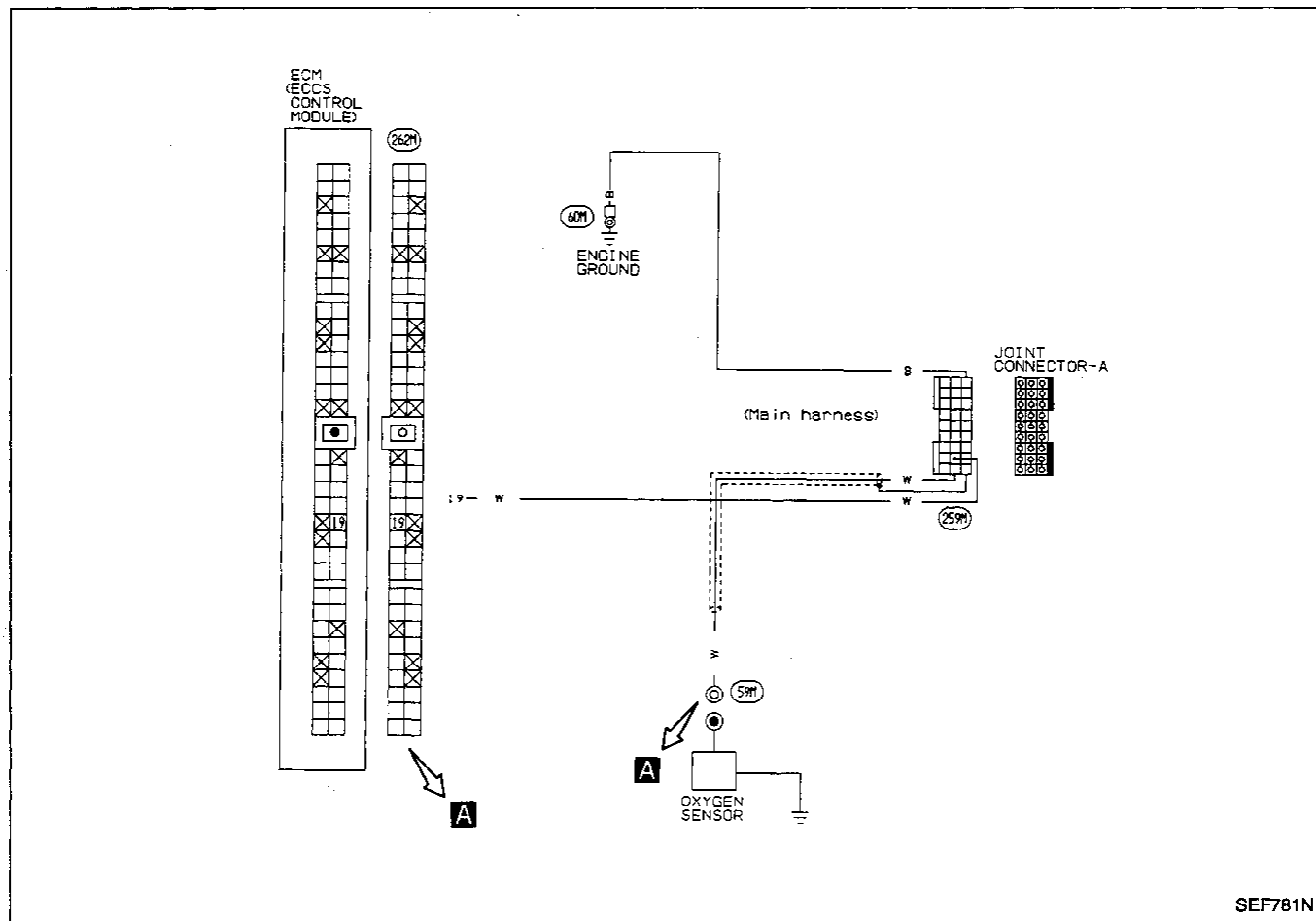
**EF &
EC**

EL

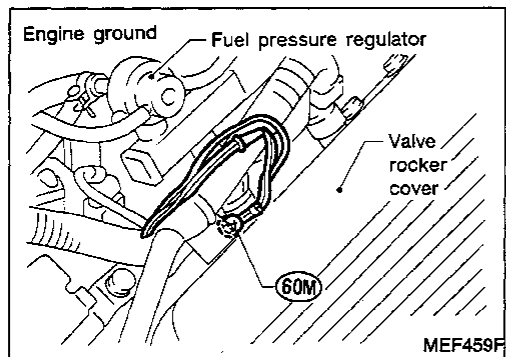
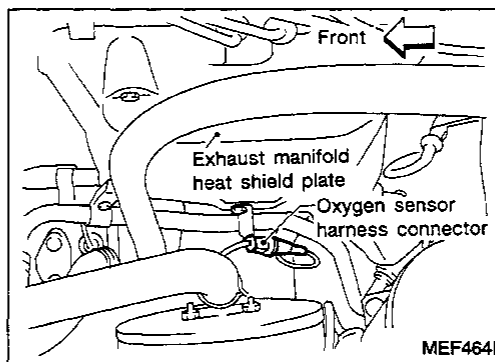
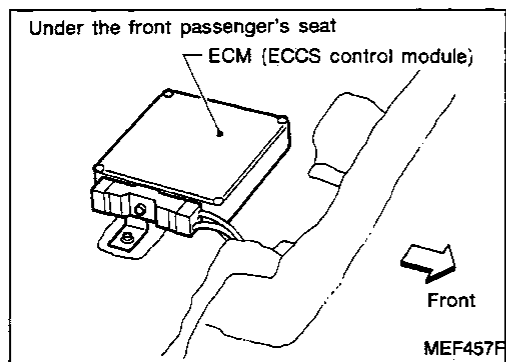


Diagnostic Procedure 30

OXYGEN SENSOR (Diagnostic trouble code No. 33)  (MALFUNCTION INDICATOR LAMP ITEM)



Harness layout



Diagnostic Procedure 31

EGR TEMPERATURE SENSOR (Diagnostic trouble code No. 35)  (MALFUNCTION INDICATOR LAMP ITEM)

EF & EC

AT

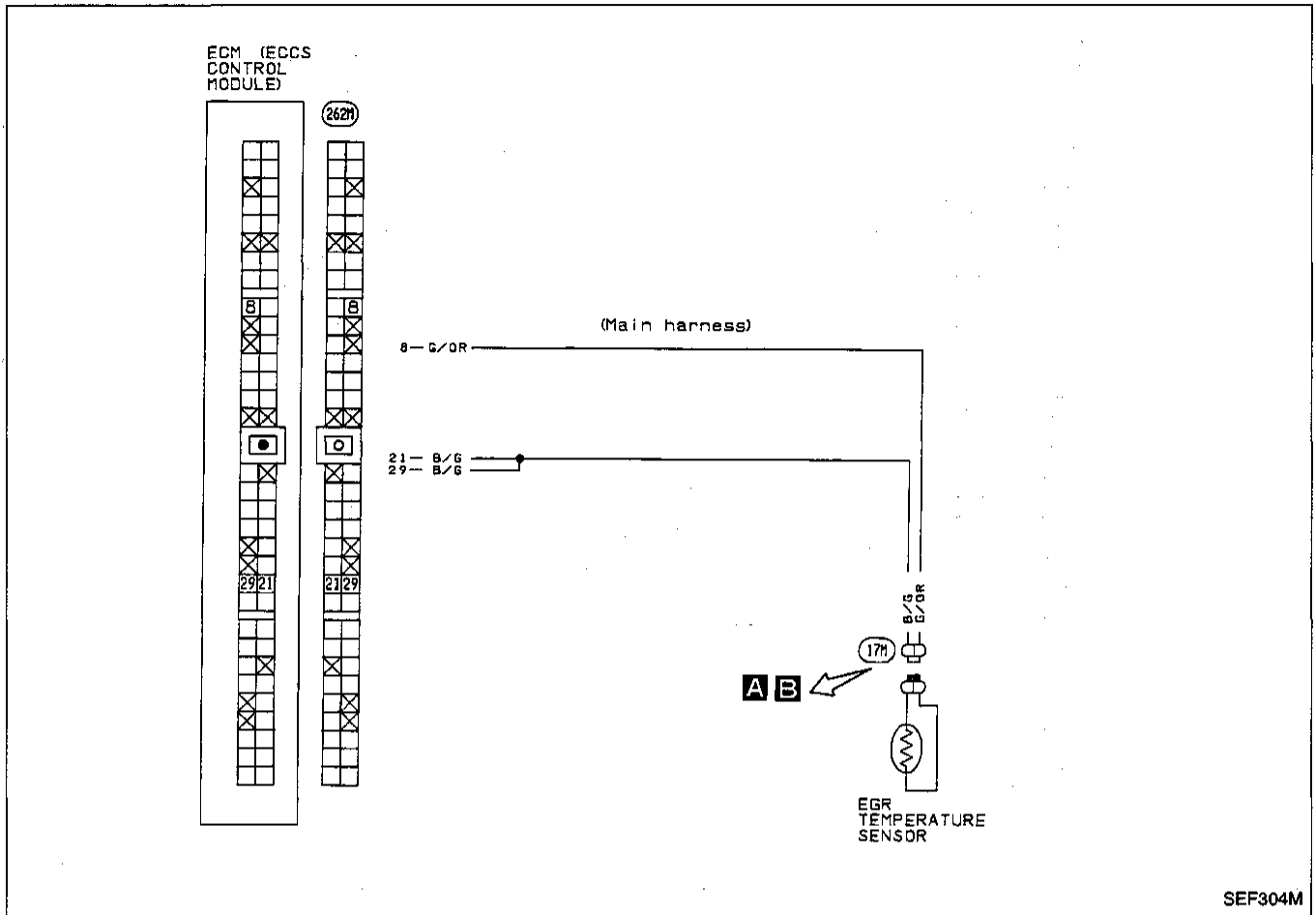
FA

BR

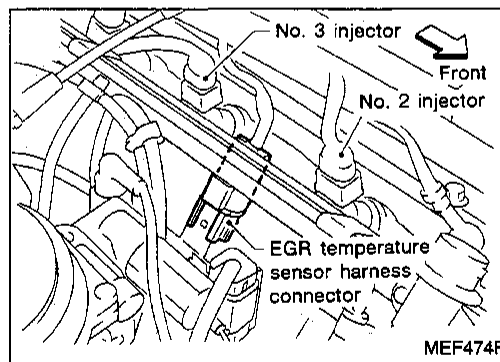
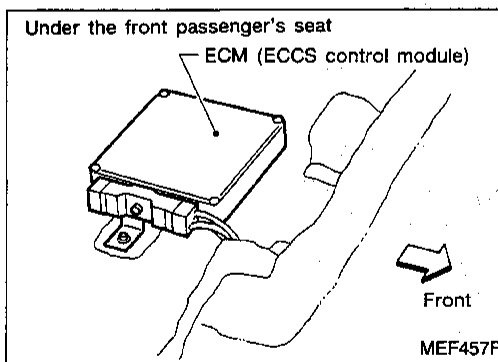
BF

HA

EL

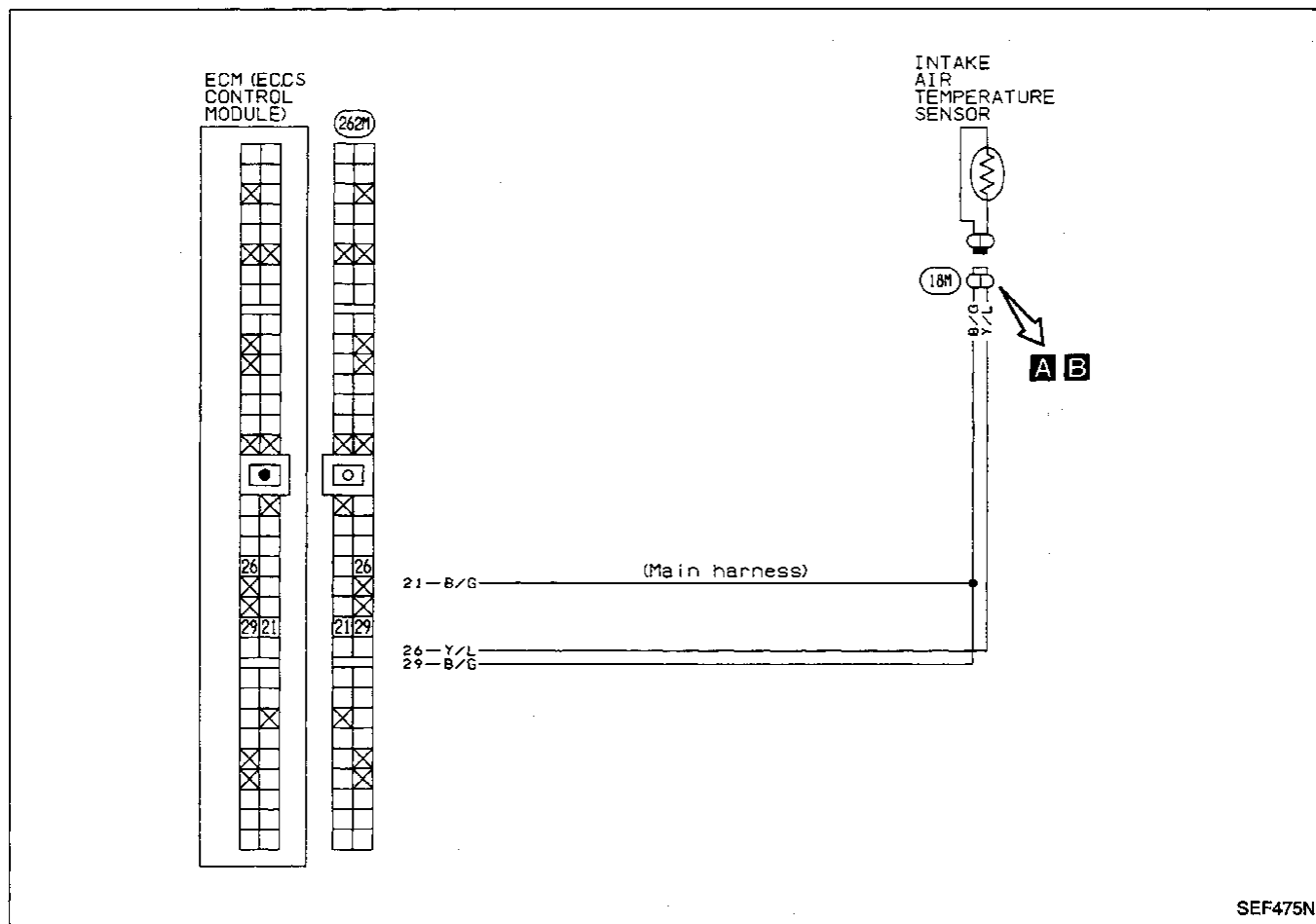


Harness layout

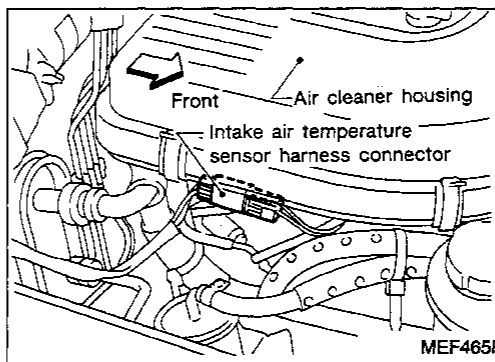
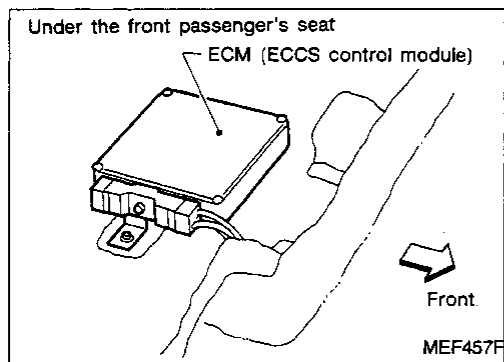


Diagnostic Procedure 32

INTAKE AIR TEMPERATURE SENSOR (Diagnostic trouble code No. 41)

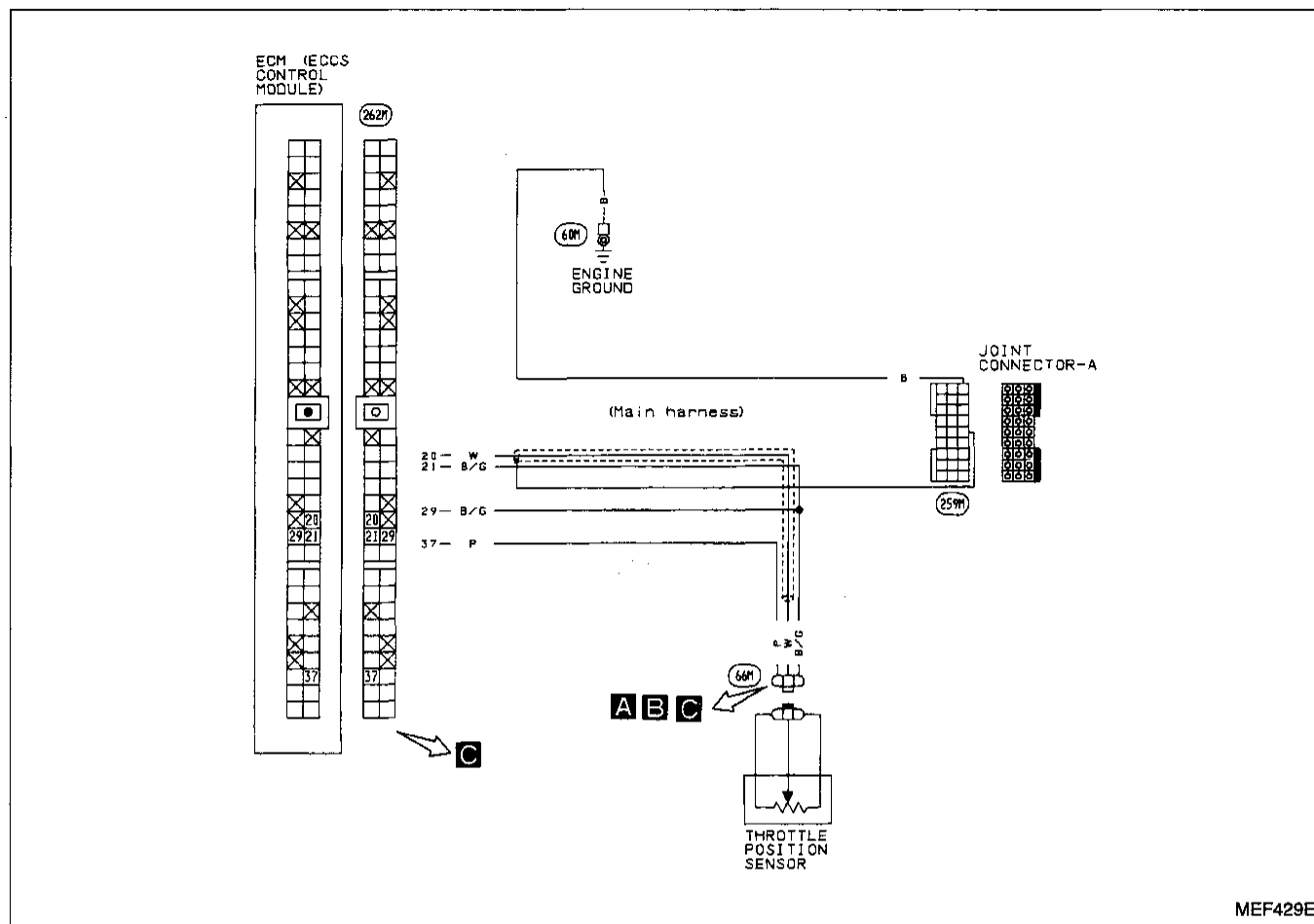


Harness layout

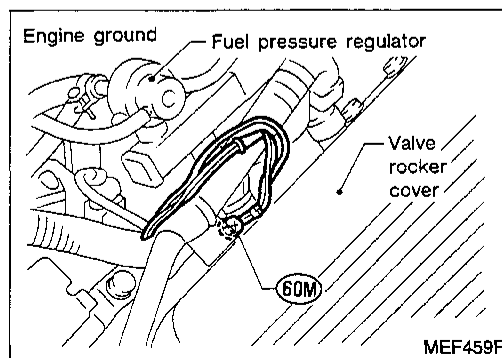
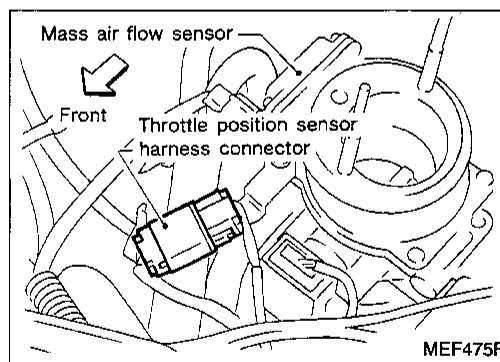
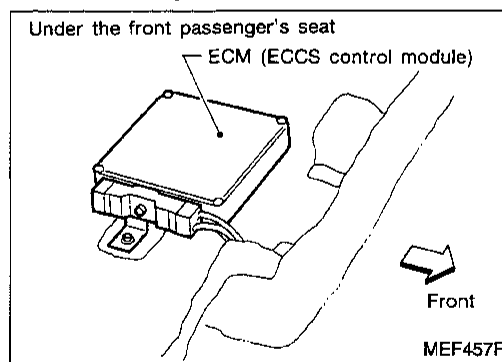


Diagnostic Procedure 33

THROTTLE POSITION SENSOR (Diagnostic trouble code No. 43)  (MALFUNCTION INDICATOR LAMP ITEM)

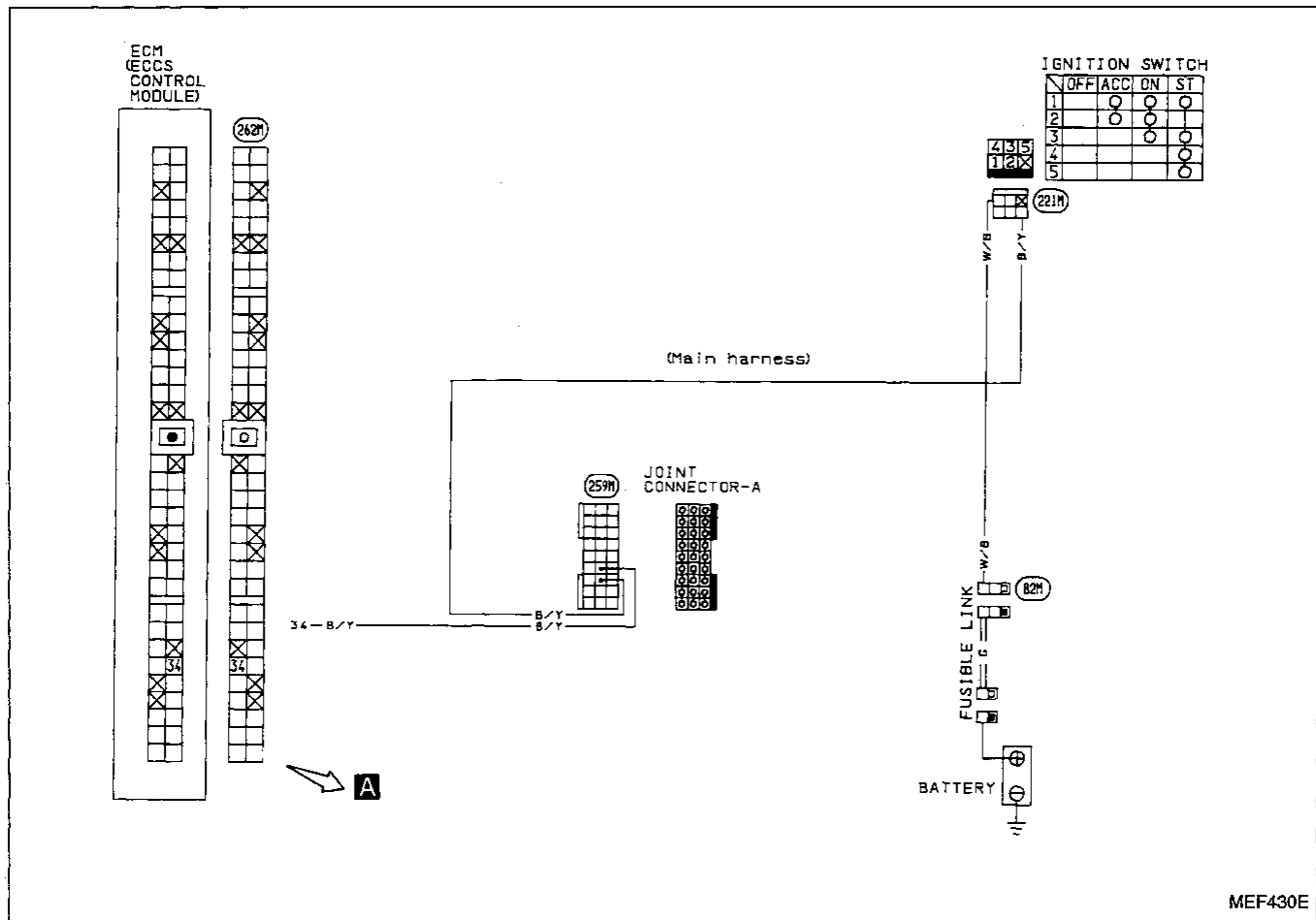


Harness layout

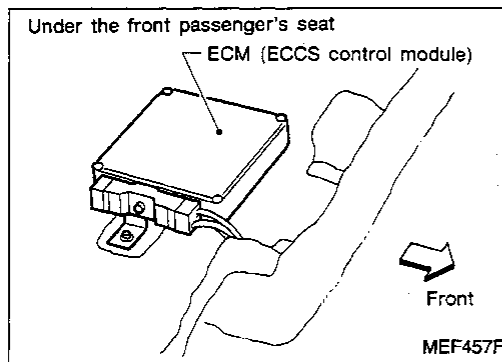


Diagnostic Procedure 35

START SIGNAL (Switch ON/OFF diagnostic item)



Harness layout



Diagnostic Procedure 36

PAIR VALVE SYSTEM (Not self-diagnostic item)

EF &
EC

AT

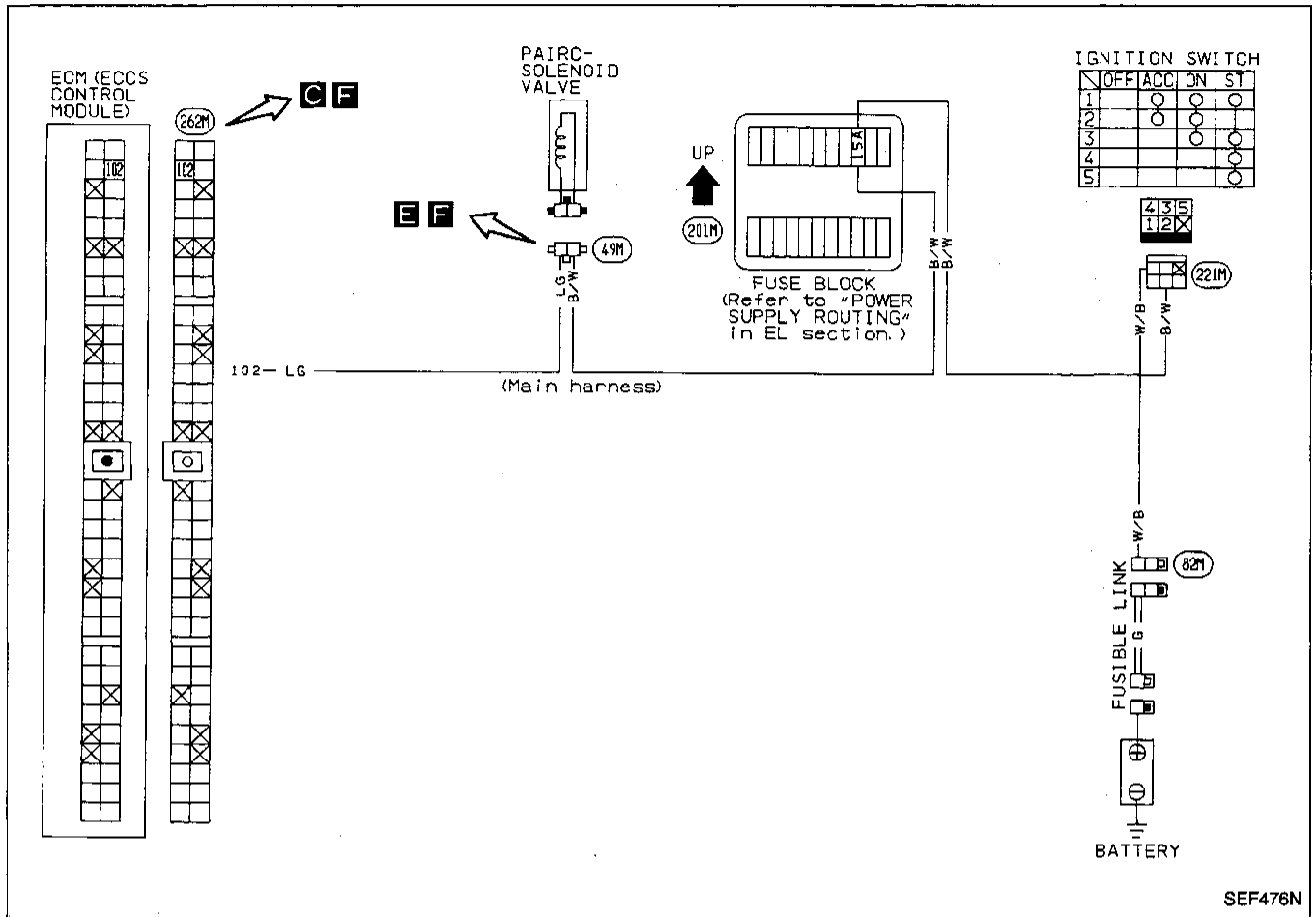
FA

BR

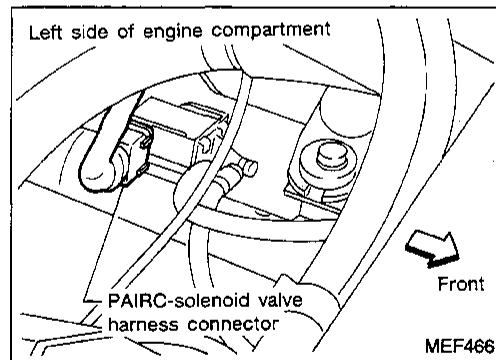
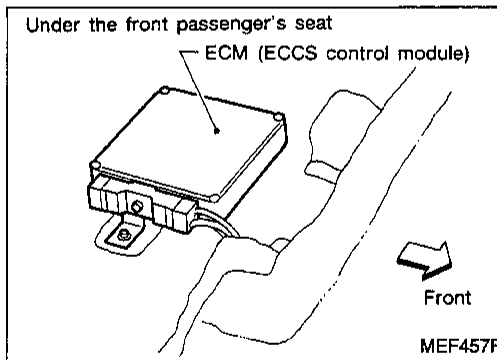
BF

HA

EL

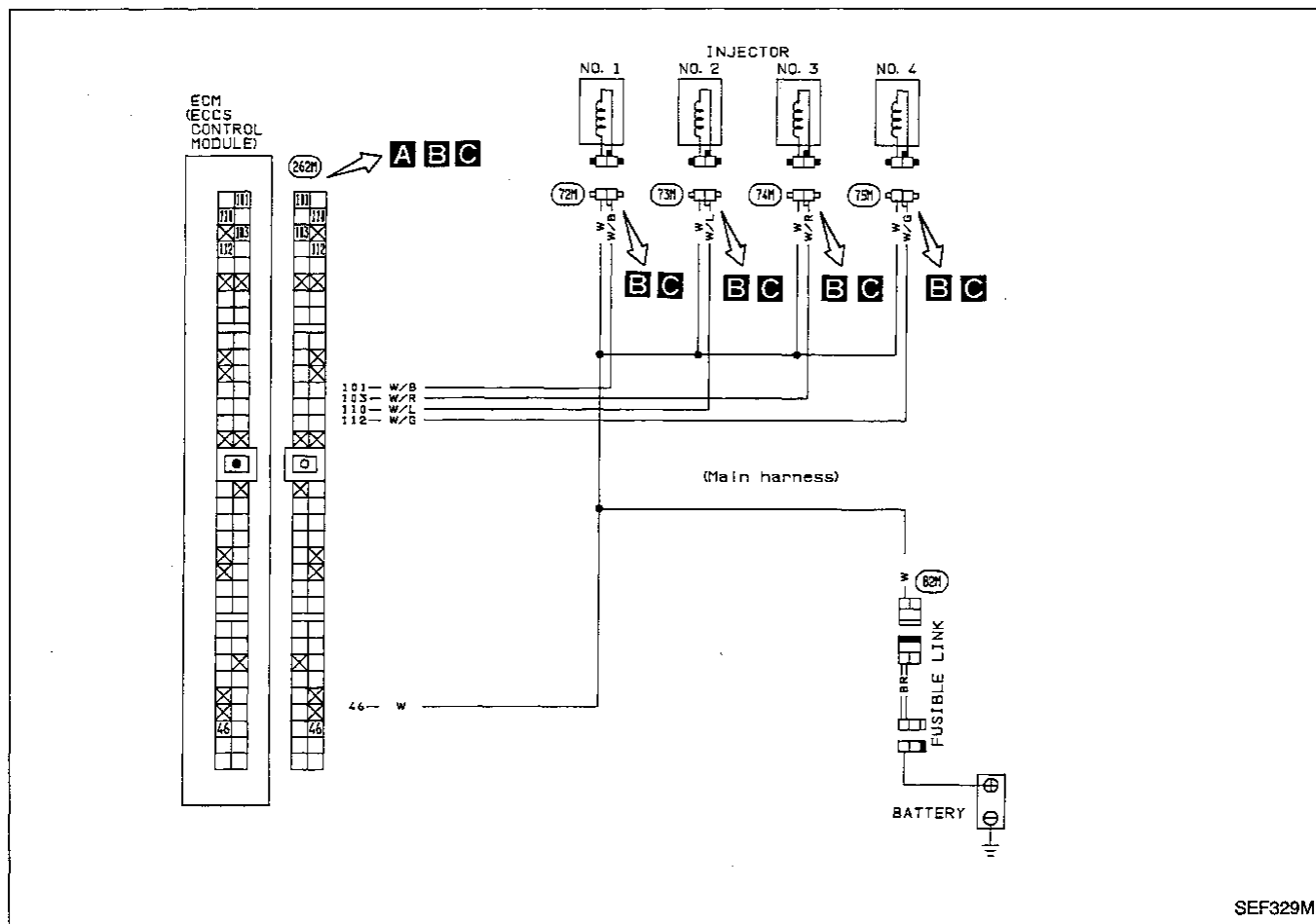


Harness layout

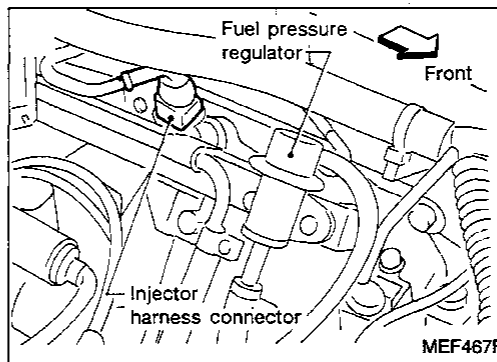
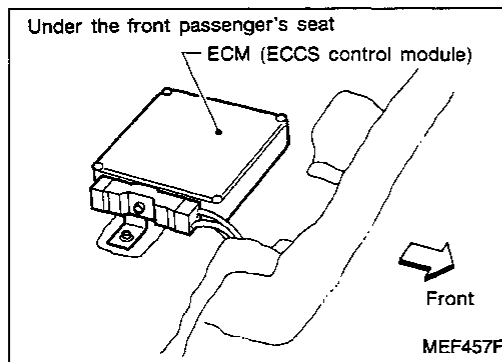


Diagnostic Procedure 37

INJECTOR (Not self-diagnostic item)



Harness layout



Diagnostic Procedure 38

FUEL PUMP (Not self-diagnostic item)

EF &
EC

AT

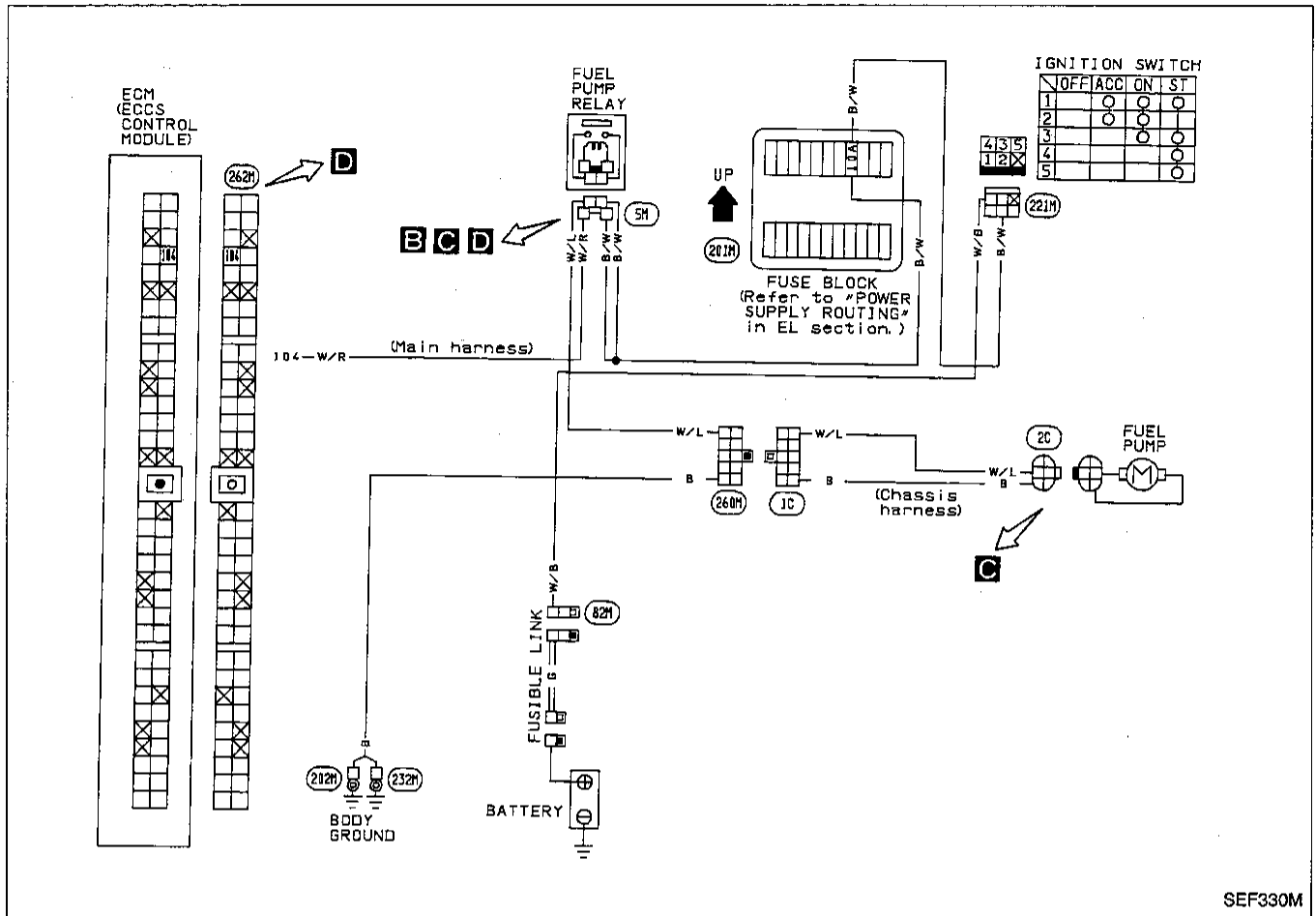
FA

BR

BF

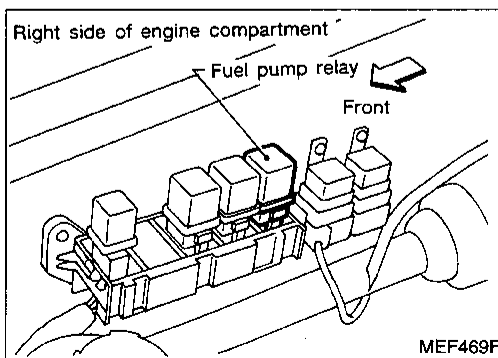
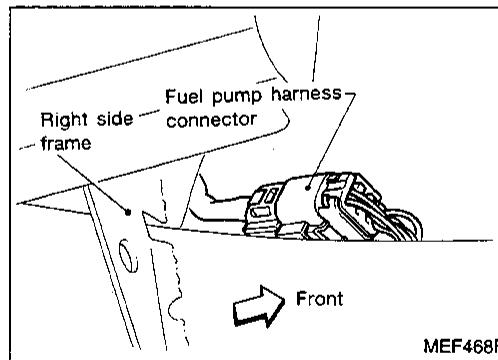
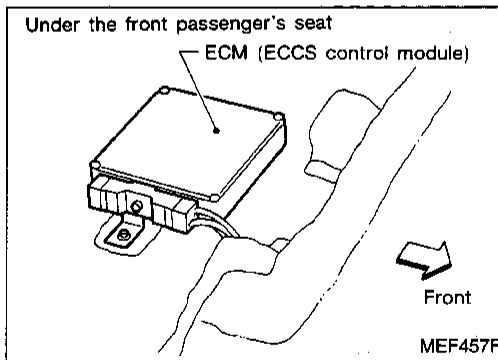
HA

EL



SEF330M

Harness layout



SCV CONTROL (Not self-diagnostic item)

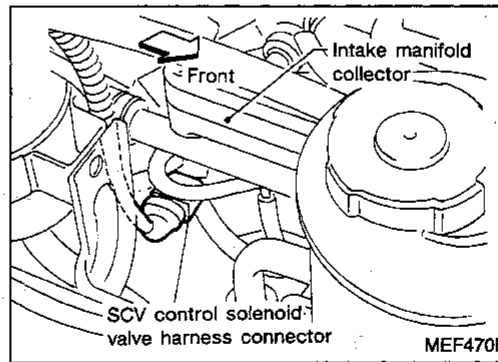


Under the front passenger's seat

ECM (ECCS control module)

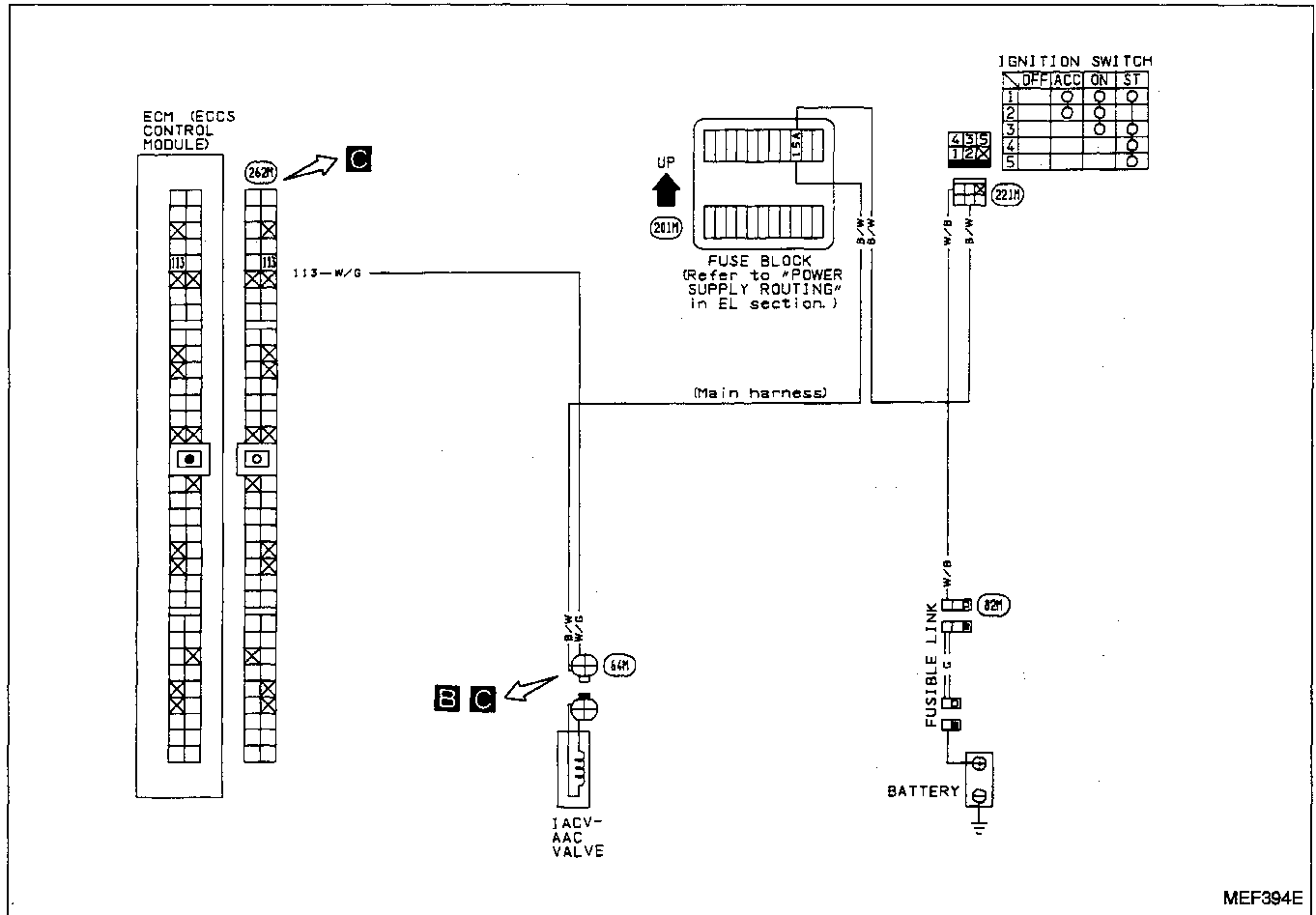
Front

MEF457F



Diagnostic Procedure 40

IACV-AAC VALVE (Not self-diagnostic item)

EF &
EC

AT

FA

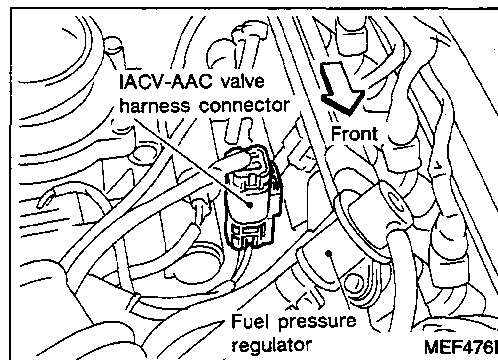
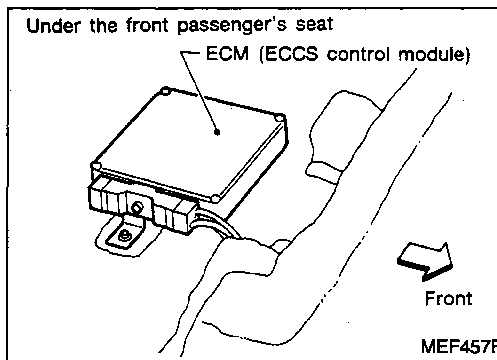
BR

BF

HA

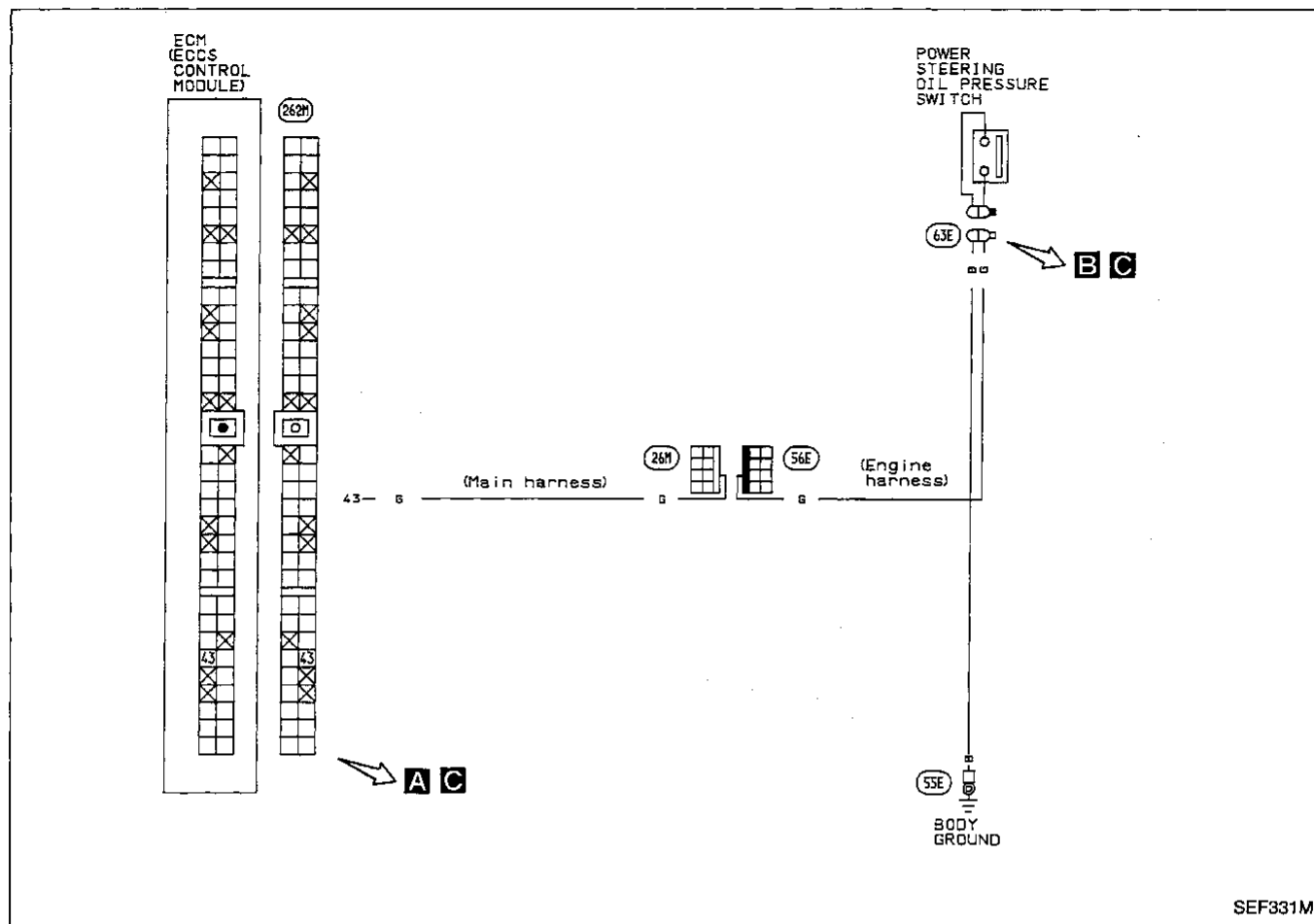
EL

Harness layout

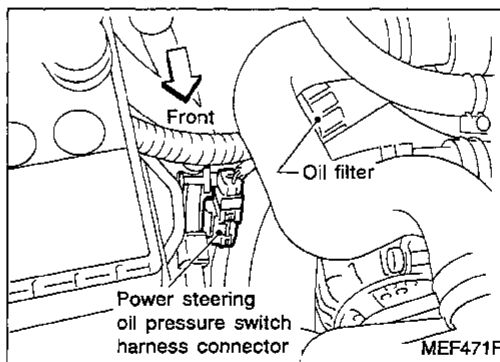
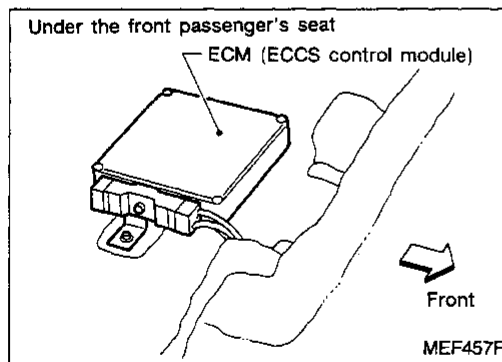


Diagnostic Procedure 41

POWER STEERING OIL PRESSURE SWITCH (Not self-diagnostic item)

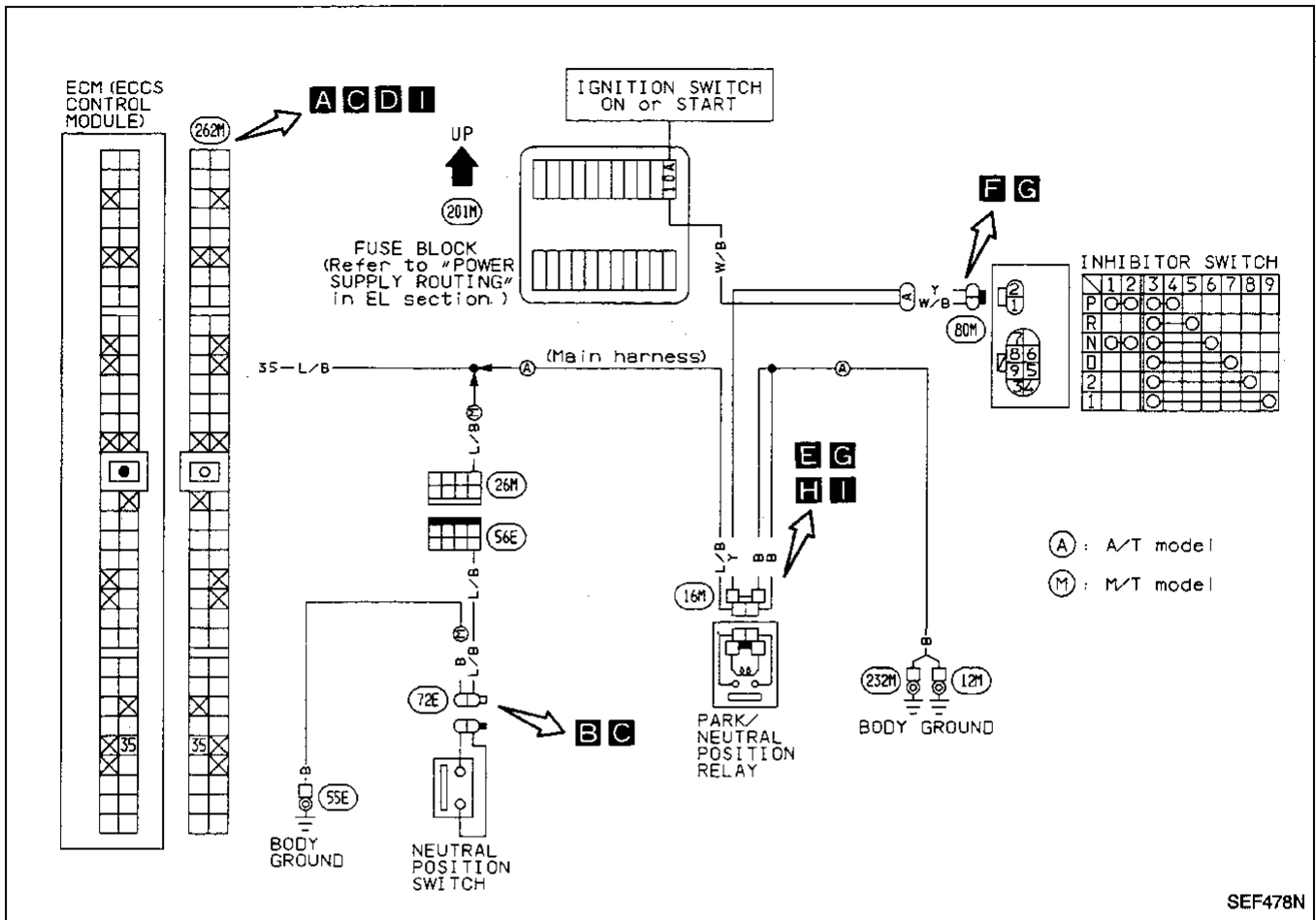


Harness layout

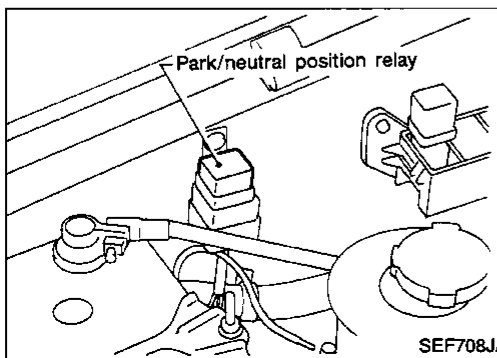
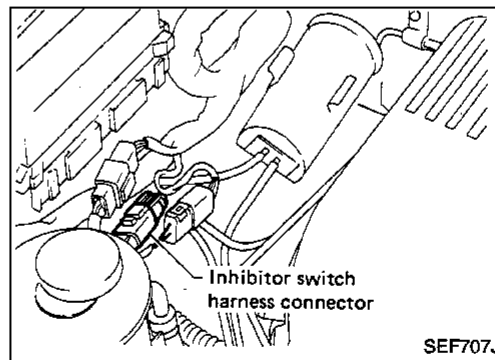
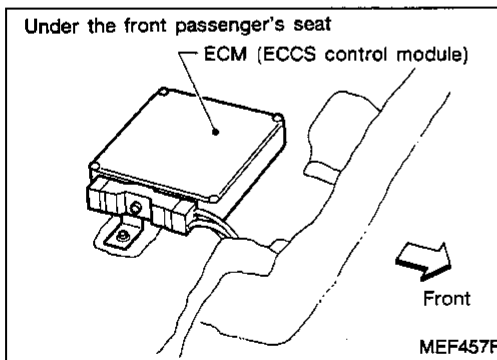


Diagnostic Procedure 42

NEUTRAL POSITION/INHIBITOR SWITCH (Not self-diagnostic item)

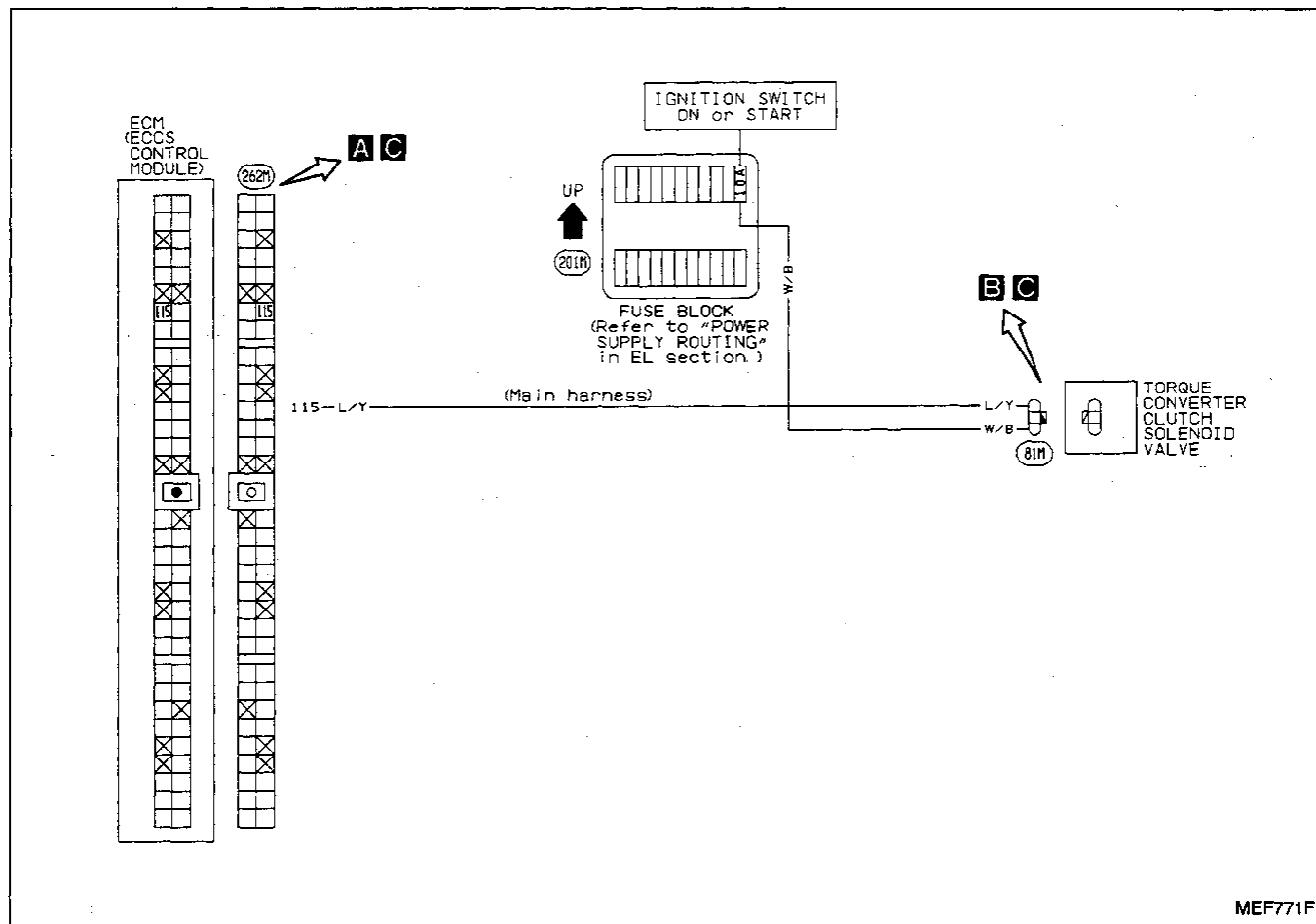


Harness layout



Diagnostic Procedure 43

TORQUE CONVERTER CLUTCH SOLENOID VALVE (Not self-diagnostic item)



Harness layout

