1. Basic Diagnostics Procedure

A: BASIC PROCEDURES

1. GENERAL

The most important purpose of diagnostics is to determine which part is malfunctioning quickly, to save time and labor.

2. IDENTIFICATION OF TROUBLE SYMPTOM

Determine what the problem is based on the symptom.

3. PROBABLE CAUSE OF TROUBLE

Look at the wiring diagram and check the system's circuit. Then check the switch, relay, fuse, ground, etc.

4. LOCATION AND REPAIR OF TROUBLE

1) Using the diagnostics narrow down the causes.
2) If necessary, use a voltmeter, ohmmeter, etc.
3) Before replacing certain component parts (switch, relay, etc.), check the power supply, ground, for open wiring harness, poor connectors, etc. If no problems are encountered, check the component parts.

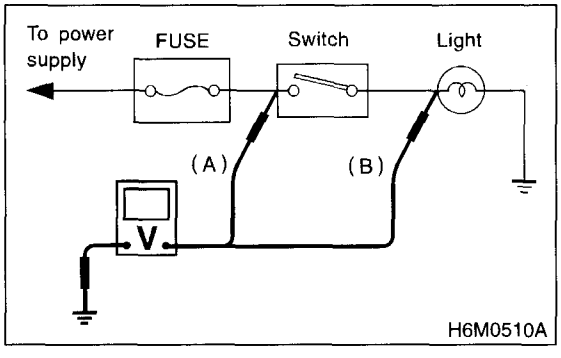
5. CONFIRMATION OF SYSTEM OPERATION

After repairing, ensure that the system operates properly.

B: BASIC INSPECTION

1. VOLTAGE MEASUREMENT

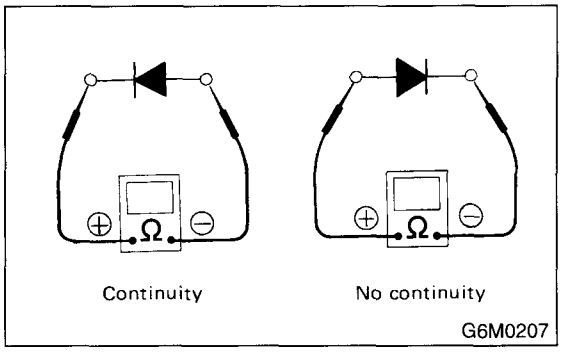
1) Using a voltmeter, connect the negative lead to a good ground point or negative battery terminal and the positive lead to the connector or component terminal.
2) Contact the positive probe of the voltmeter on connector (A).
The voltmeter will indicate a voltage.
3) Shift the positive probe to connector (B). The voltmeter will indicate no voltage.



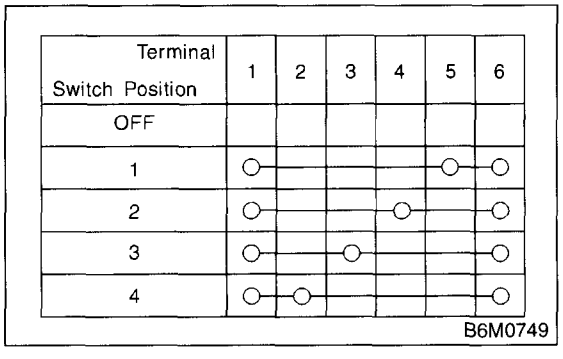
4) With the test set-up held as it is, turn the switch ON. The voltmeter will indicate a voltage and, at the same time, the light will come on.
5) The circuit is in good order. If a problem such as a lamp failing to light occurs, use the procedures outlined above to track down the malfunction.

2. CIRCUIT CONTINUITY CHECKS

1) Disconnect the battery terminal or connector so there is no voltage between the check points.
Contact the two leads of an ohmmeter to each of the check points.
If the circuit has diodes, reverse the two leads and check again.
2) Use an ohmmeter to check for diode continuity.
When contacting the negative lead to the diode positive side and the positive lead to the negative side, there should be continuity.
When contacting the two leads in reverse, there should be no continuity.

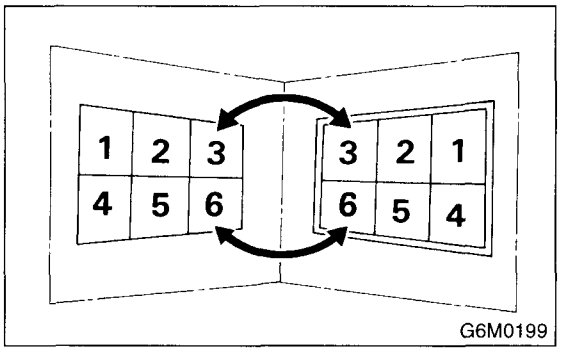


3) Symbol "○—○" indicates that continuity exists between two points or terminals. For example, when a switch position is at "3", continuity exists among terminals 1, 3 and 6, as shown in the table below.



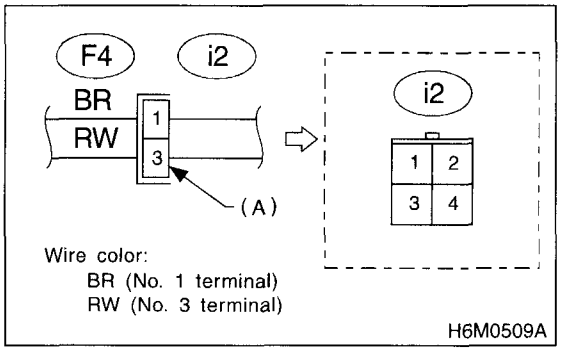
Terminal / Switch Position	1	2	3	4	5	6
OFF						
1	○				○	○
2	○			○		○
3	○		○			○
4	○	○				○

• When one set of connectors is viewed from the front side, the pole numbers of one connector are symmetrical to those of the other. When these two connectors are connected as a unit, the poles which have the same number are joined.

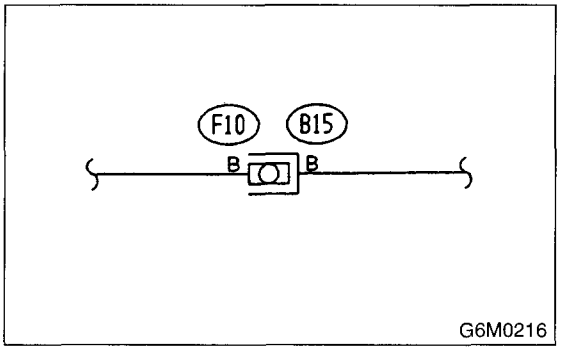


• Electrical wiring harness:
The connectors are numbered along with the number of poles, external colors, and mating connections in the accompanying list.
• The sketch of each connector in the wiring diagram usually shows the (A) side of the connector. The relationship between the wire color, terminal number and connector is described in the figure.

NOTE:
A wire which runs in one direction from a connector terminal sometimes may have a different color from that which runs in the other direction from that terminal.

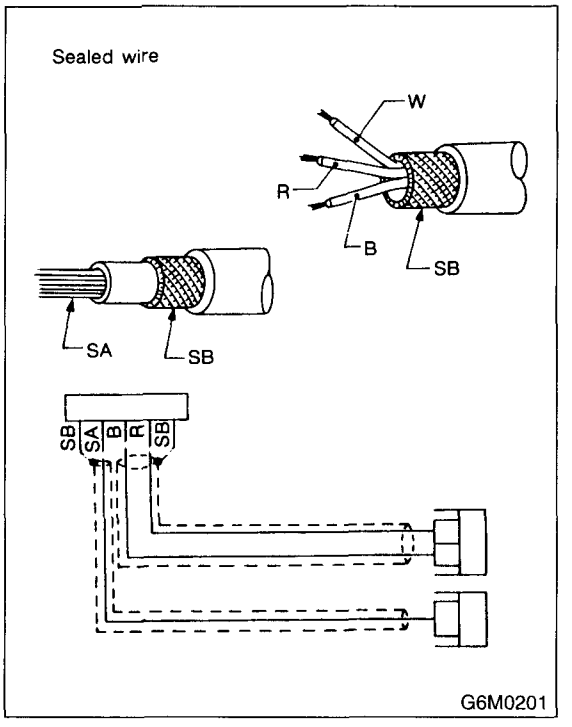


• In the wiring diagram, connectors which have no terminal number refer to one-pole types. Sketches of these connectors are omitted intentionally.



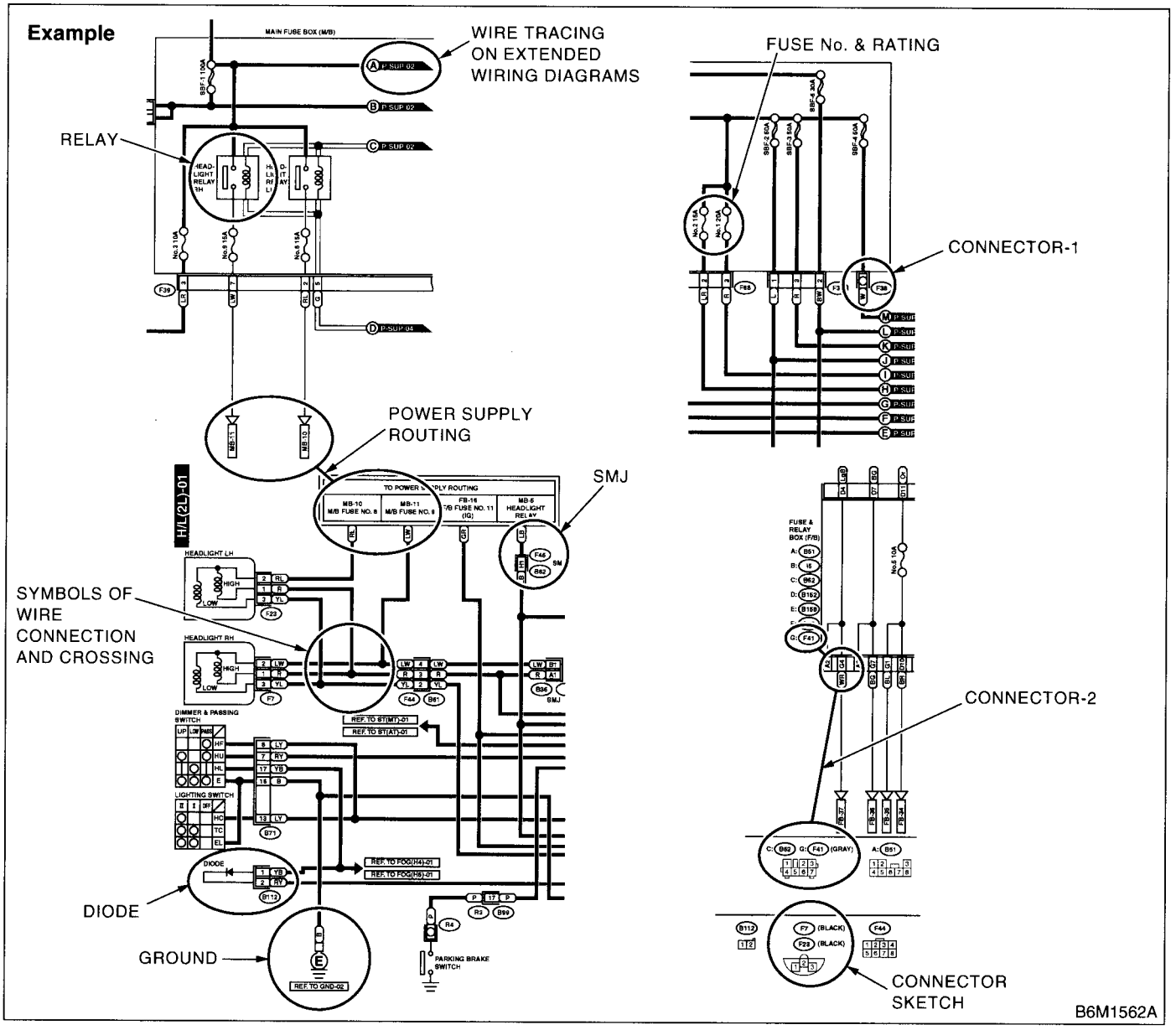
• The following color codes are used to indicate the colors of the wires used.

Color code	Color
L	Blue
B	Black
Y	Yellow
G	Green
R	Red
W	White
Br	Brown
Lg	Light green
Gr	Gray
P	Pink
Or	Orange
Lb	Light Blue
V	Violet
SA	Sealed (Inner)
SB	Sealed (Outer)



D: SYMBOLS IN WIRING DIAGRAMS

A number of symbols are used in each wiring diagram to easily identify parts or circuits.



1. RELAY

A symbol used to indicate a relay.

2. CONNECTOR-1

The sketch of the connector indicates the one-pole types.

3. WIRING CONNECTION

Some wiring diagrams are indicated in foldouts for convenience. Wiring destinations are indicated where necessary by corresponding symbols (as when two pages are needed for clear indication).

4. FUSE NO. & RATING

The "FUSE No. & RATING" corresponds with that used in the fuse box (main fuse box, fuse and joint box).

5. CONNECTOR-2

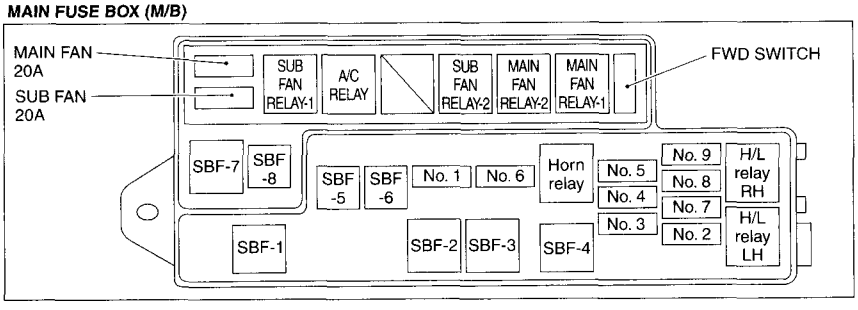
- Each connector is indicated by a symbol.
- Each terminal number is indicated in the corresponding wiring diagram in an abbreviated form.
- For example, terminal number "C2" refers to No. 2 terminal of connector (C: F41) shown in the connector sketch.

4. Power Supply Routing

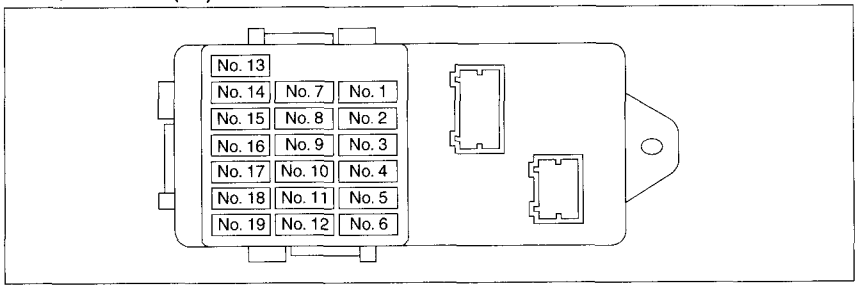
A: SCHEMATIC

P-SUP-01

MAIN FUSE BOX (M/B)



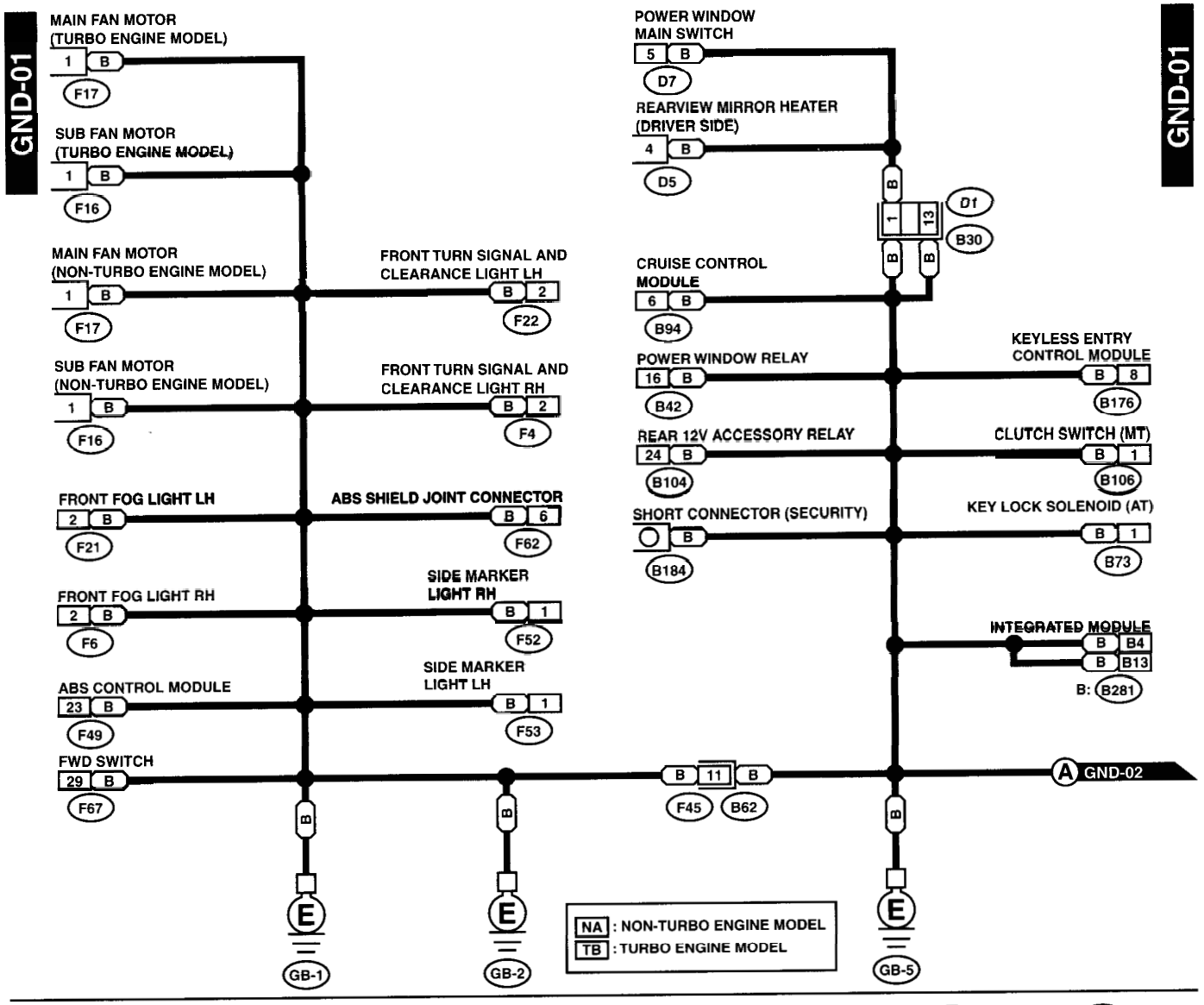
FUSE & RELAY BOX (F/B)

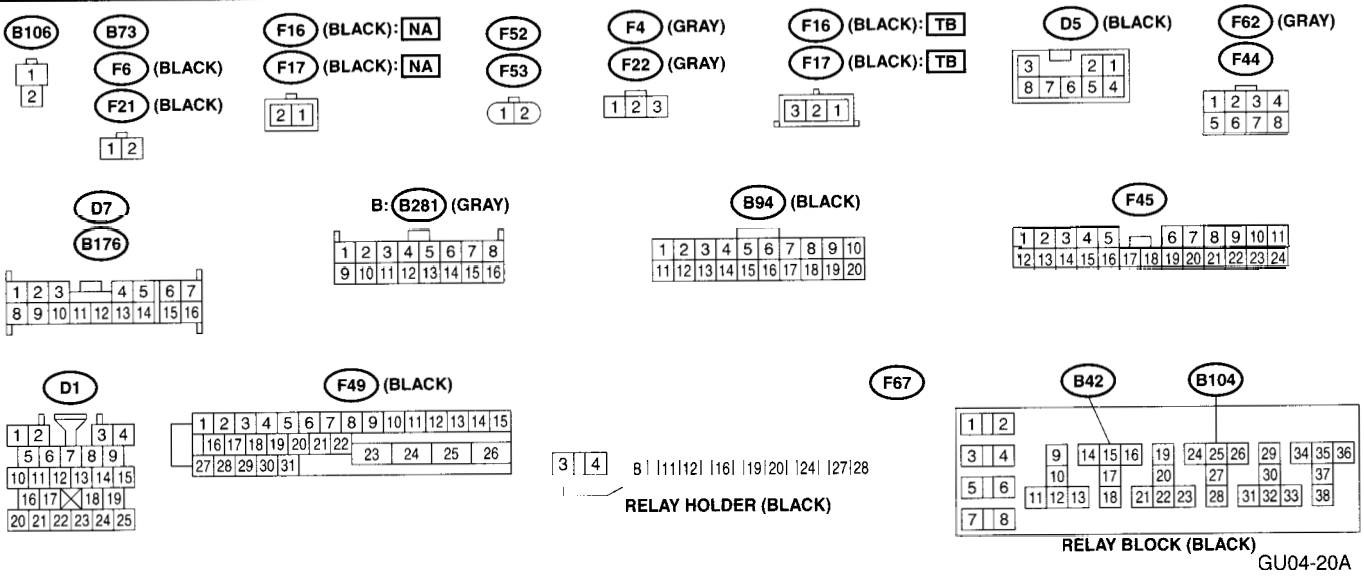


GU01-20A

5. Ground Distribution

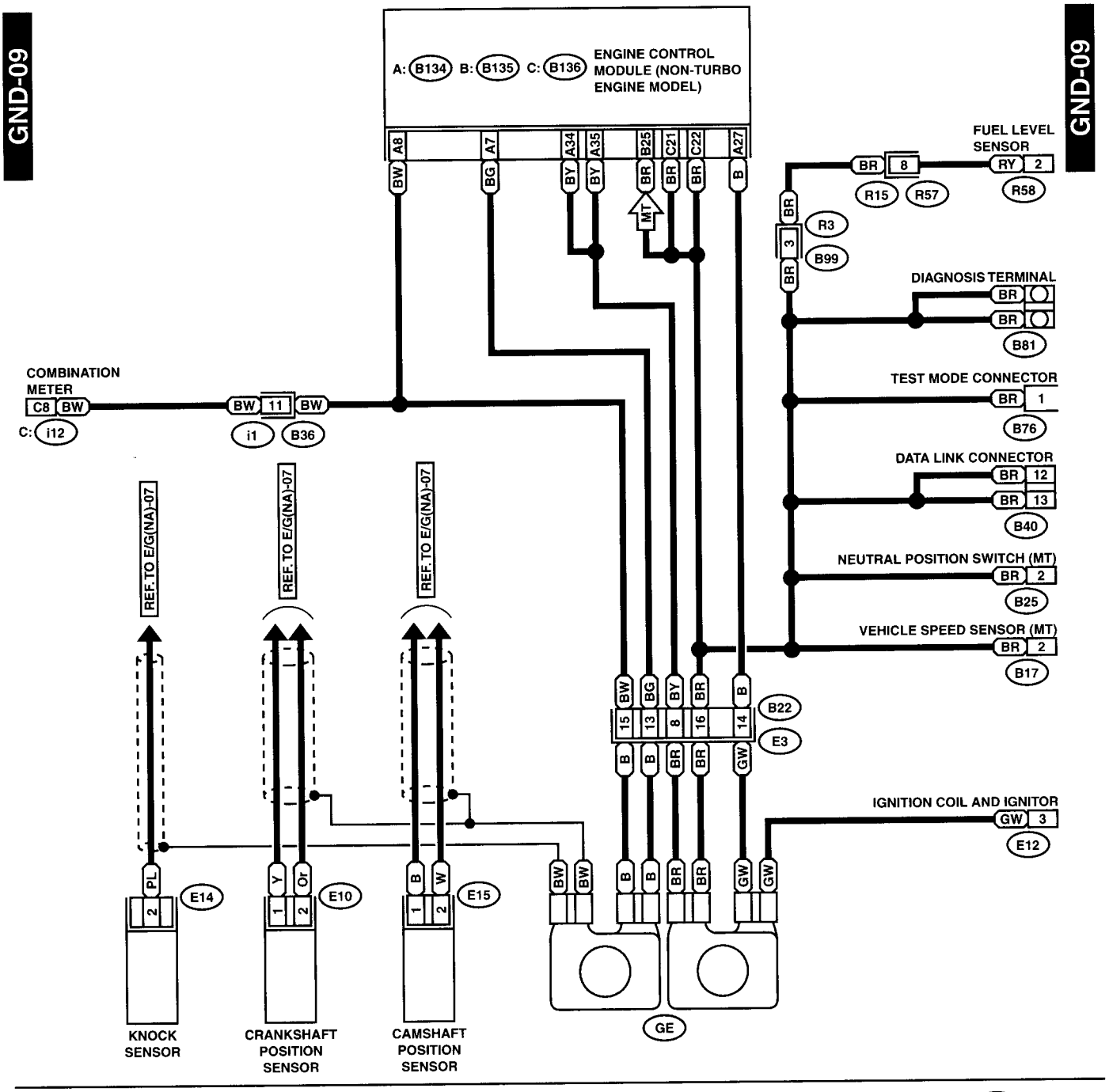
A: SCHEMATIC

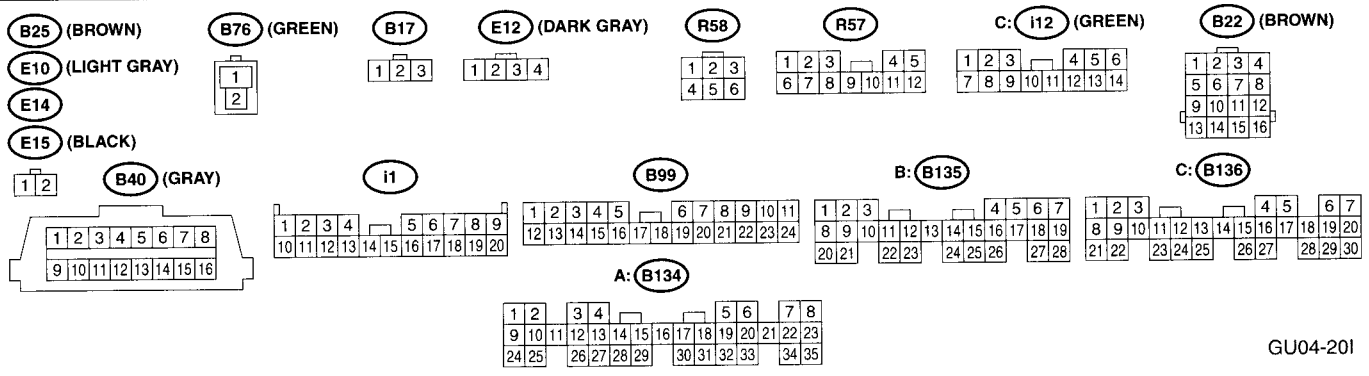




GU04-20A

GROUND DISTRIBUTION

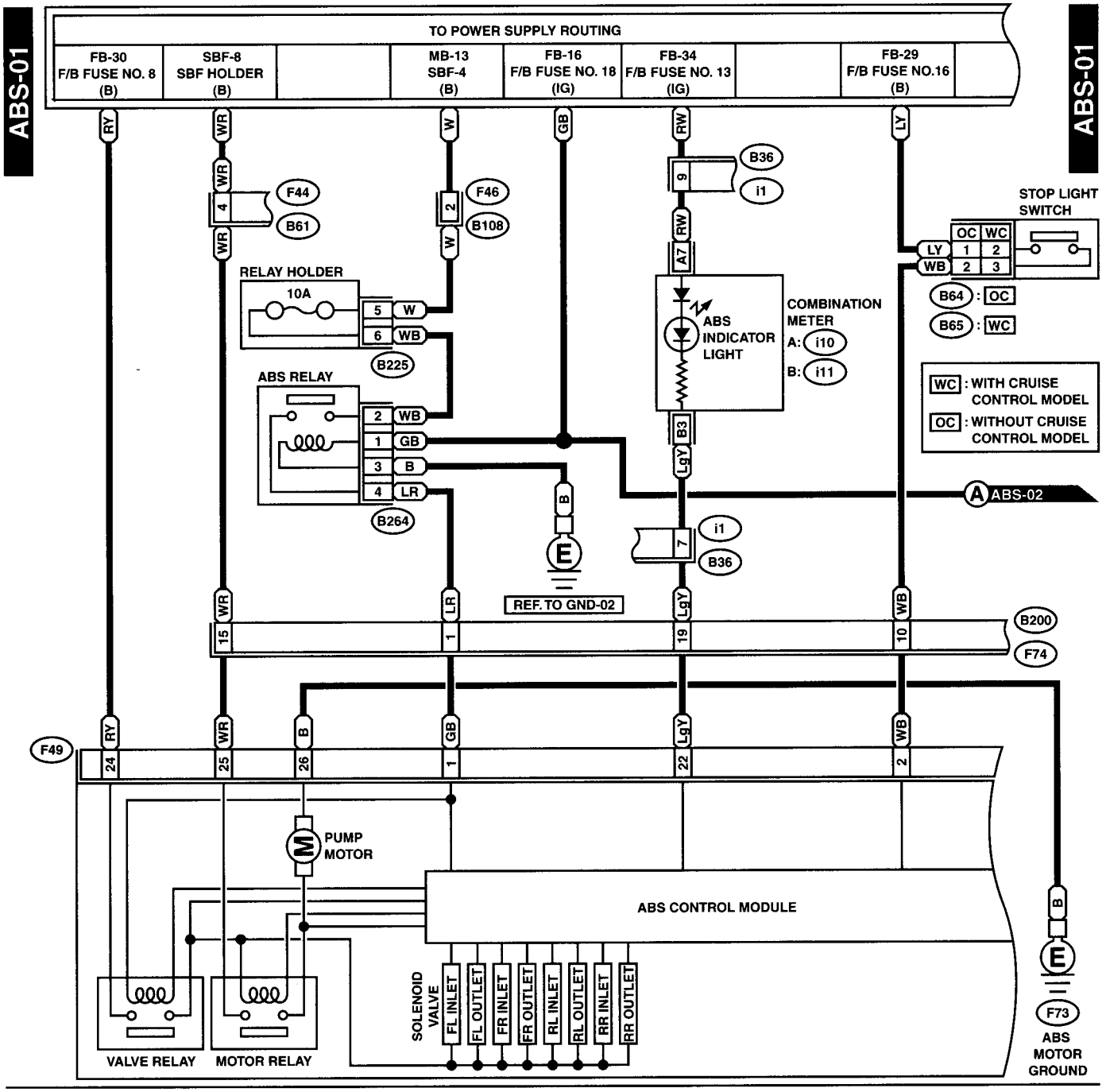




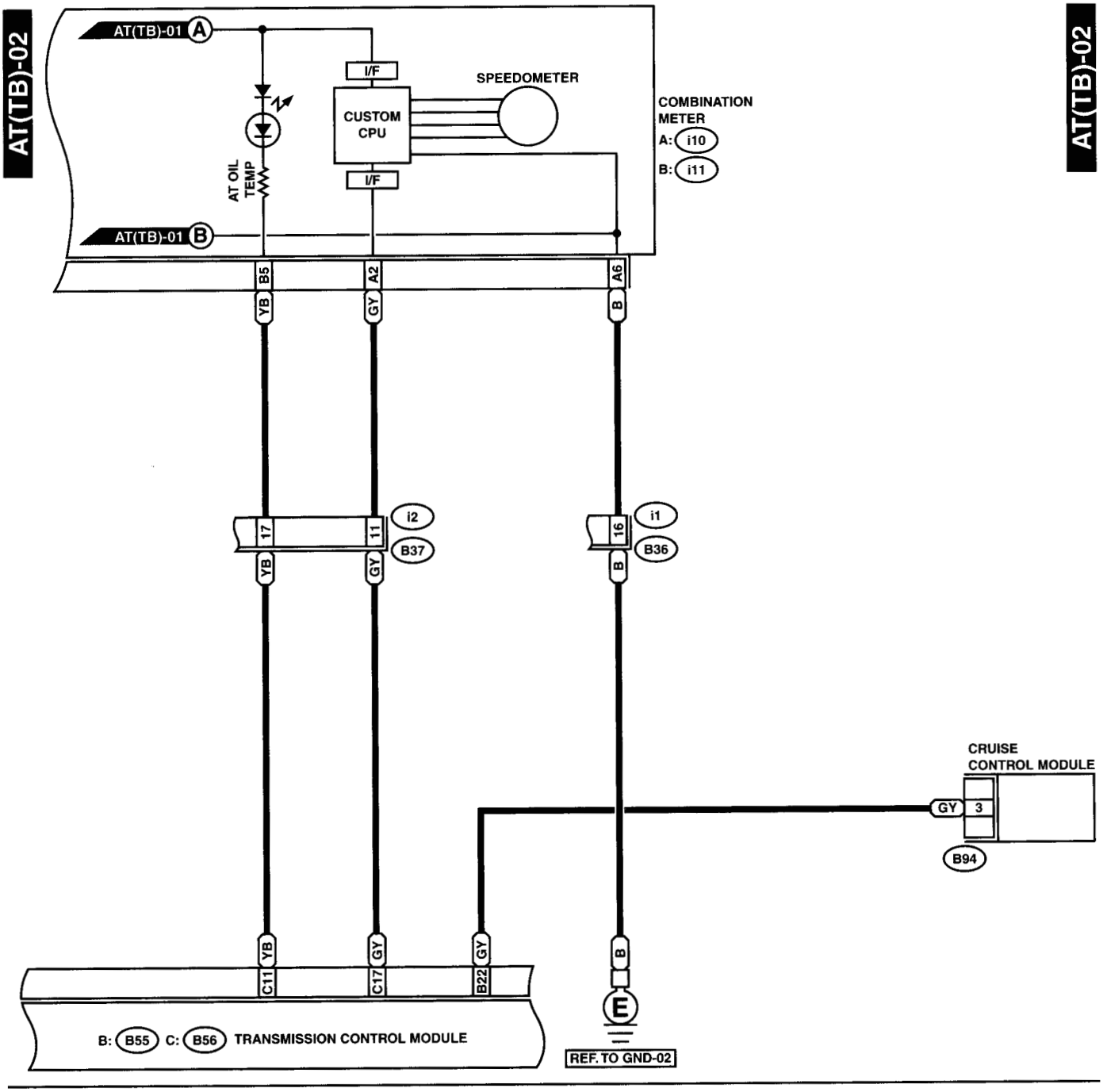
GU04-201

8. Anti-lock Brake System

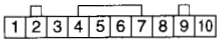
A: SCHEMATIC



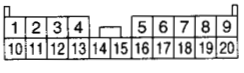
GU82-20A



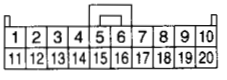
A: i10 (GREEN)



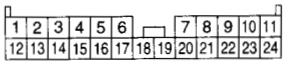
i1



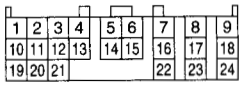
B94 (BLACK)



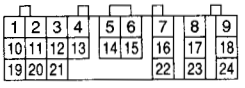
i2 (BROWN)



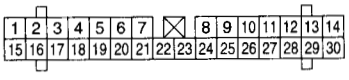
B: B55 (GRAY)



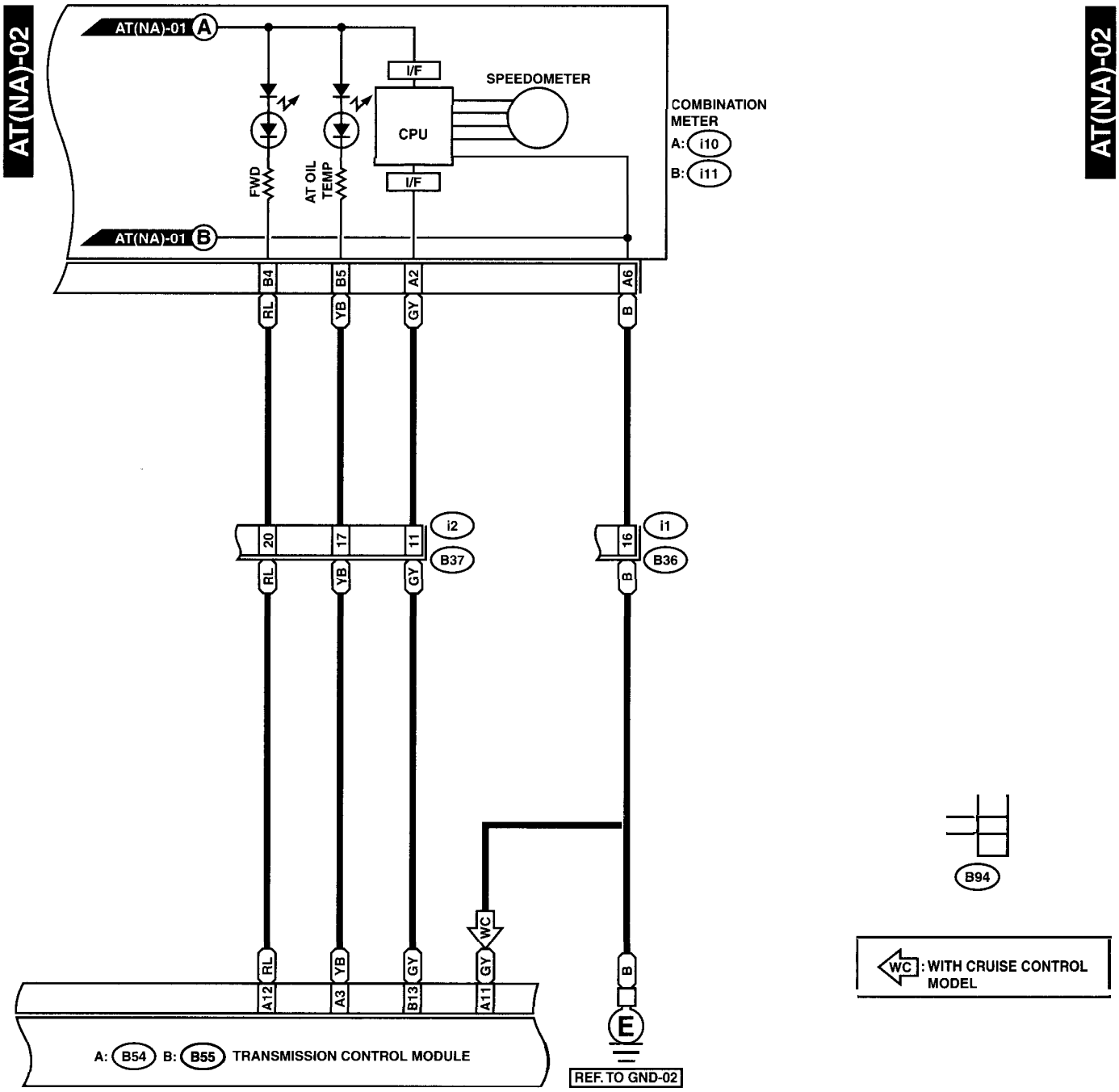
C: B56 (GREEN)



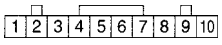
B: i11 (GREEN)



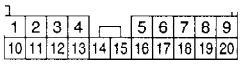
GU41-20B



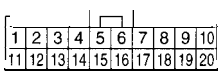
A: i10 (GREEN)



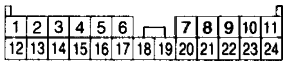
i1



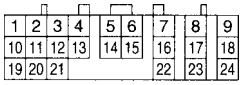
B94 (BLACK)



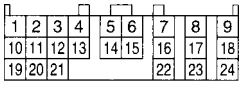
i2 (BROWN)



A: B54



B: B55 (GRAY)

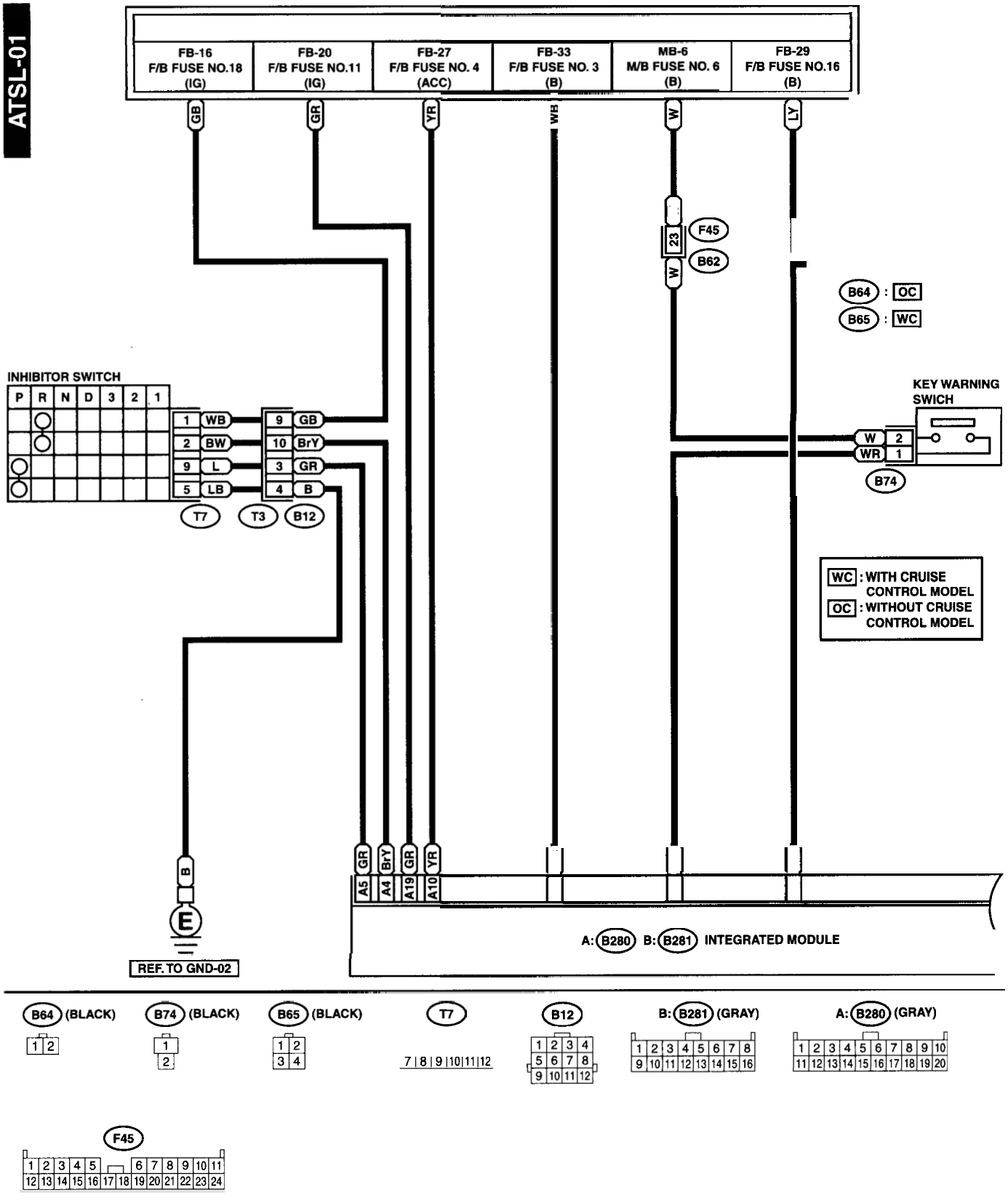


B: i11 (GREEN)

GU41-21B

10.A/T Shift Lock Control System

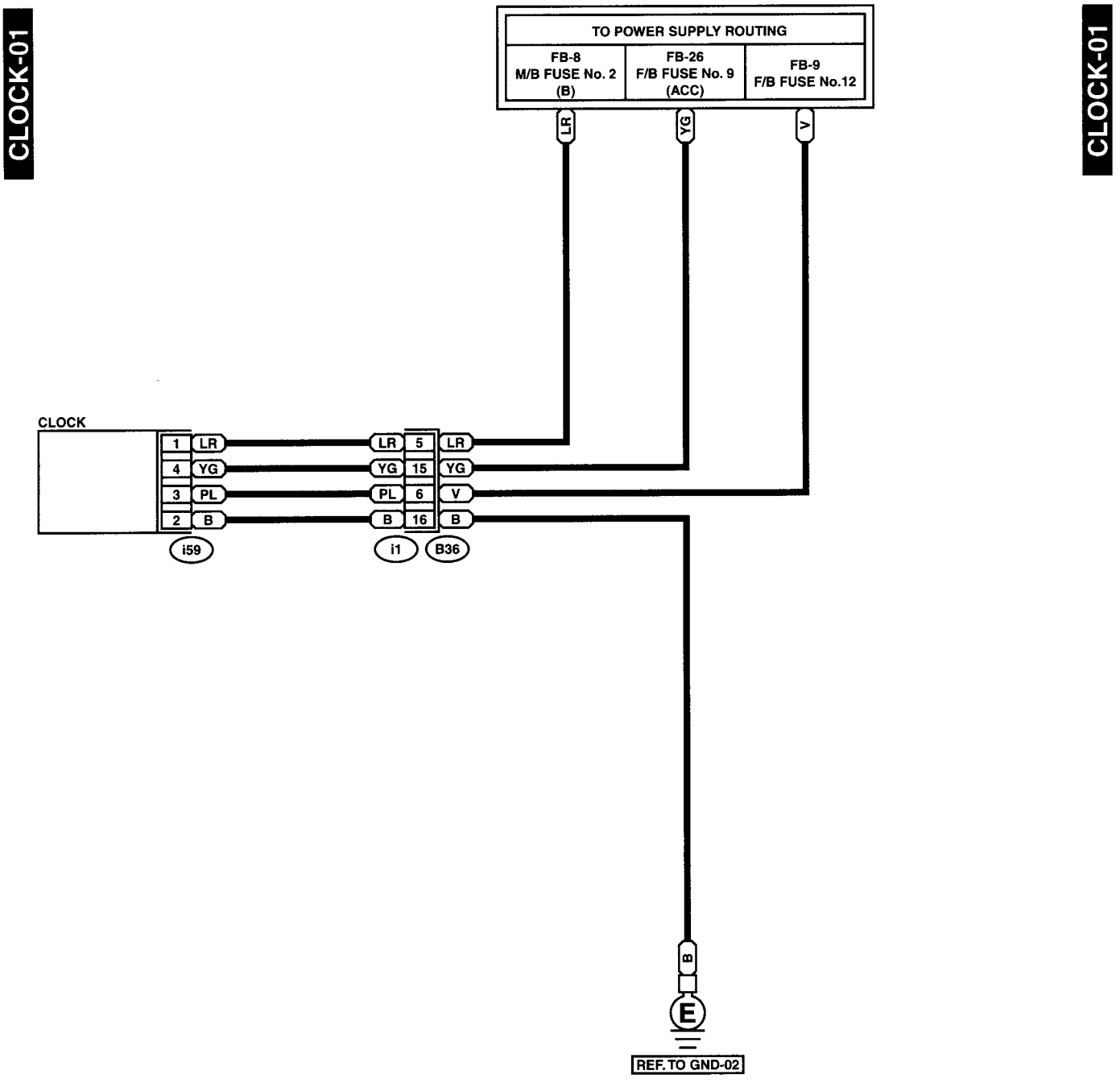
A: SCHEMATIC

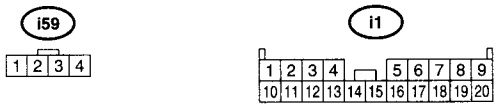


GU42-20A

13.Clock System

A: SCHEMATIC

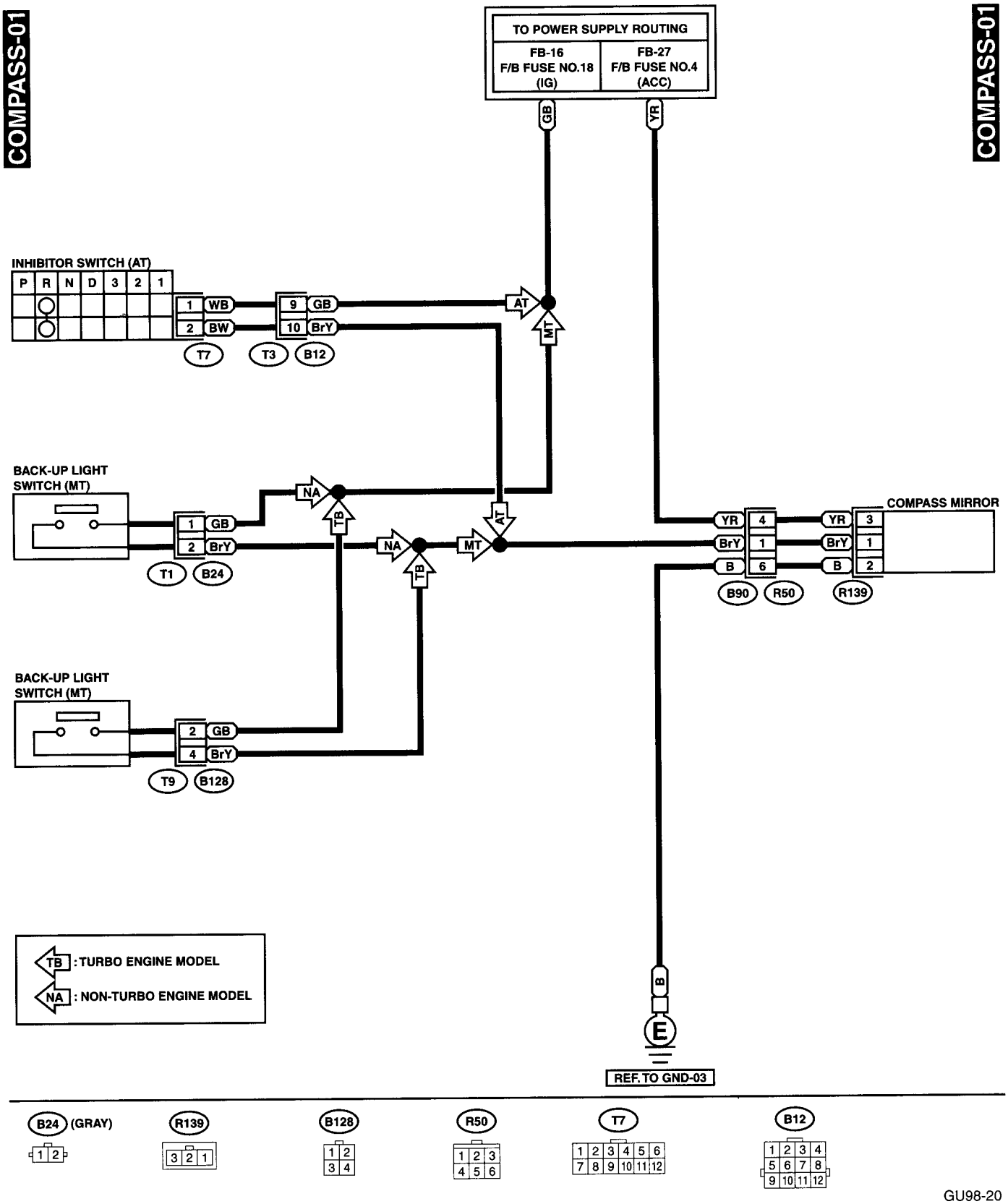




GU69-20

15.Compass Mirror System

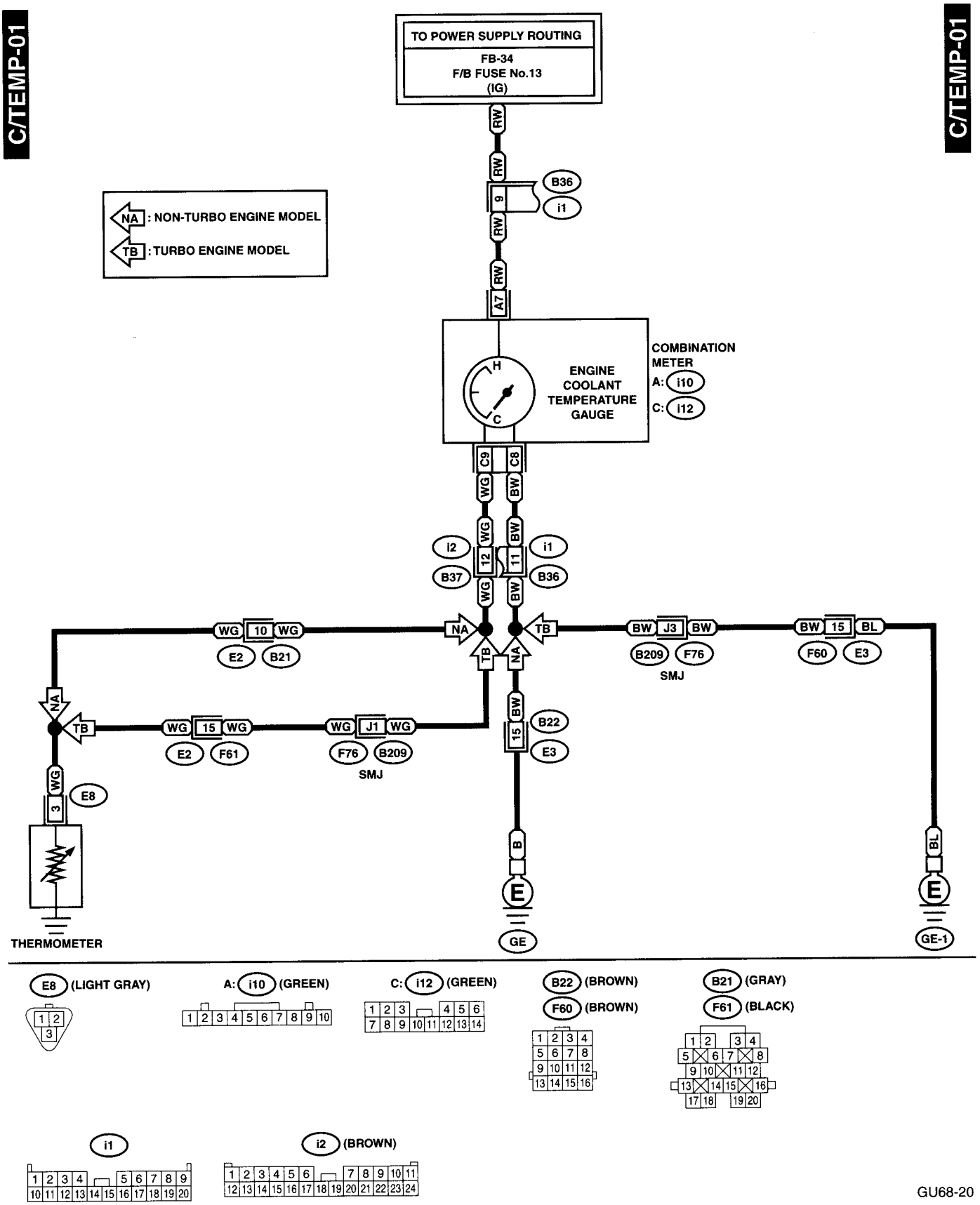
A: SCHEMATIC



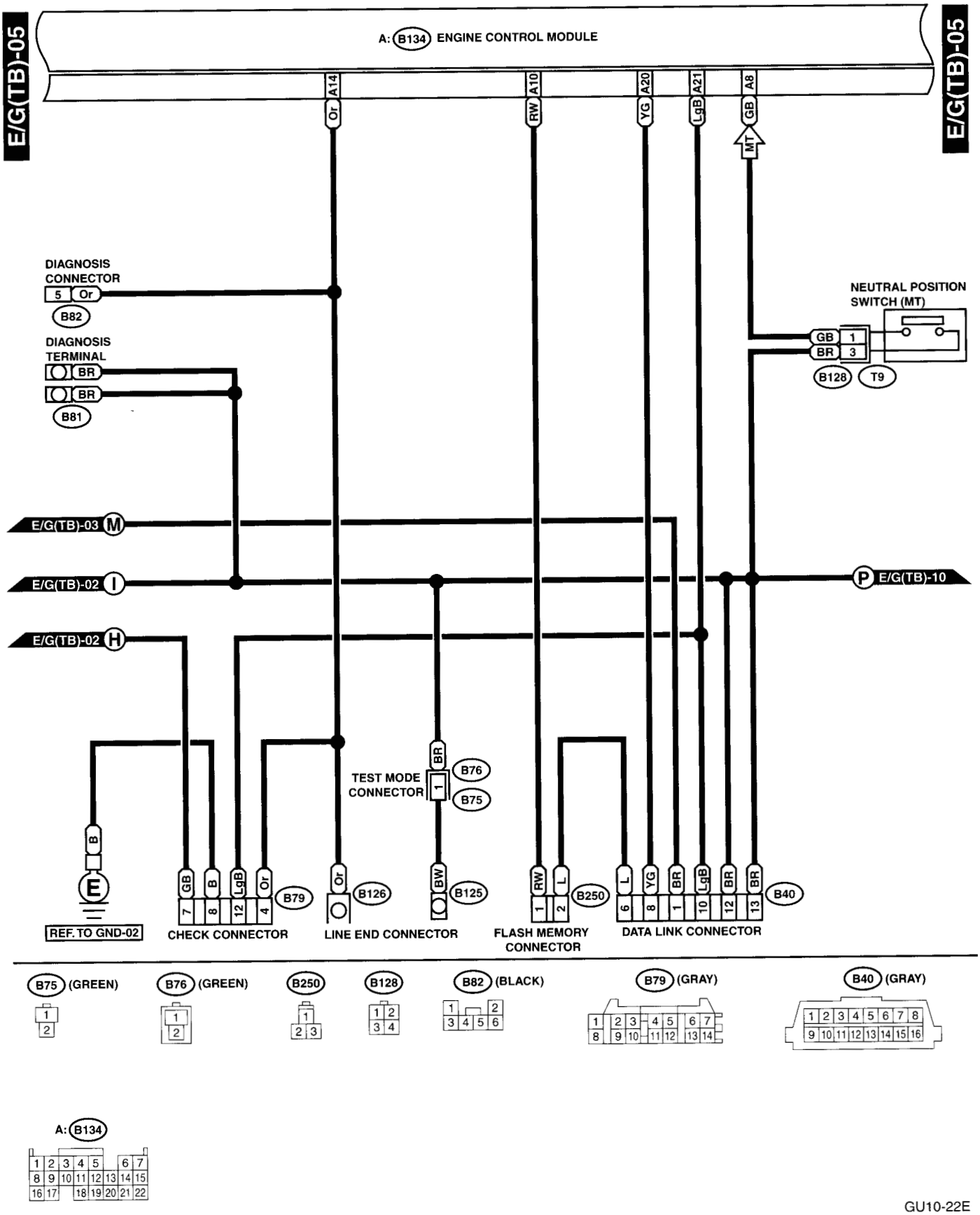
GU98-20

18.Engine Coolant Temperature Gauge System

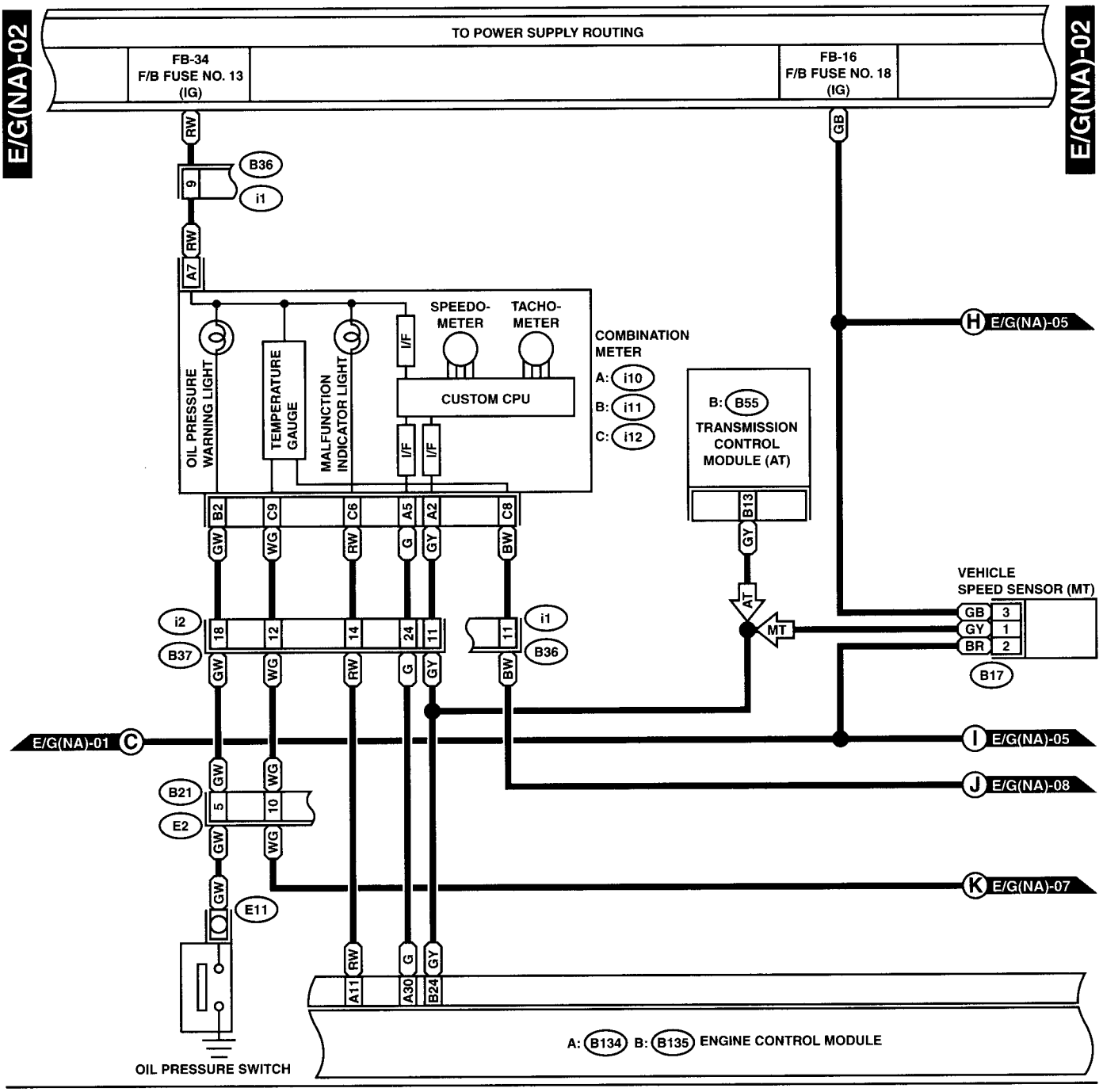
A: SCHEMATIC

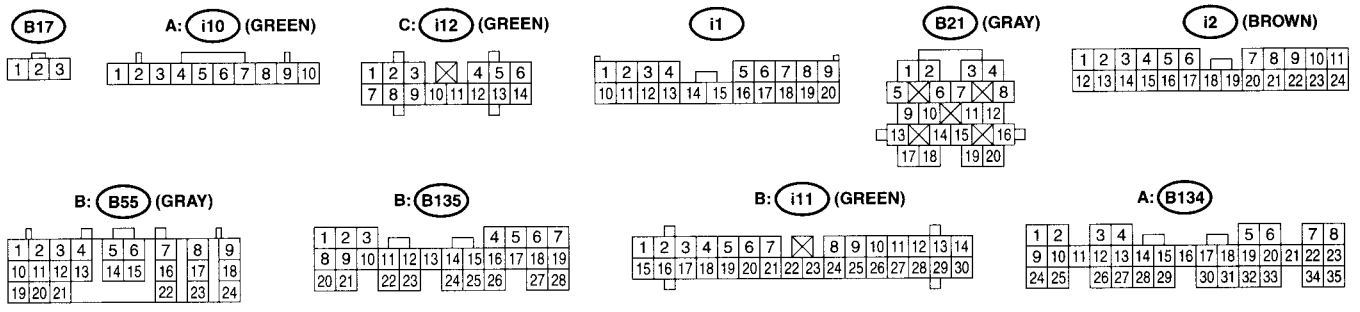


GU68-20


E/G(TB)-05
A: B134 ENGINE CONTROL MODULE
E/G(TB)-05
A14
A10
A20
A21
A8
Or
RW
YG
LgB
GB
MT
DIAGNOSIS CONNECTOR
5 Or
B82
DIAGNOSIS TERMINAL
BR
BR
B81
NEUTRAL POSITION SWITCH (MT)
GB 1
BR 3
B128
T9
E/G(TB)-03 M
E/G(TB)-02 I
E/G(TB)-02 H
P E/G(TB)-10
TEST MODE CONNECTOR
BR
1
B76
B75
B
E
REF. TO GND-02
GB
B
LgB
Or
7
8
12
4
B79
CHECK CONNECTOR
Or
B126
LINE END CONNECTOR
BW
B125
RW
L
1
2
B250
FLASH MEMORY CONNECTOR
L
YG
BR
LgB
BR
BR
6
8
1
10
12
13
B40
DATA LINK CONNECTOR
B75 (GREEN)
B76 (GREEN)
B250
B128
B82 (BLACK)
B79 (GRAY)
B40 (GRAY)
A: B134

GU10-22E


E/G(NA)-02
TO POWER SUPPLY ROUTING
FB-34
F/B FUSE NO. 13
(IG)
FB-16
F/B FUSE NO. 18
(IG)
E/G(NA)-02
RW
B36
9
i1
RW
A7
SPEEDO-METER
TACHO-METER
COMBINATION METER
A: i10
B: i11
C: i12
OIL PRESSURE WARNING LIGHT
TEMPERATURE GAUGE
MALFUNCTION INDICATOR LIGHT
I/F
CUSTOM CPU
I/F
I/F
B: B55
TRANSMISSION CONTROL MODULE (AT)
B13
GY
AT
MT
H E/G(NA)-05
VEHICLE SPEED SENSOR (MT)
GB 3
GY 1
BR 2
B17
B2
C9
C6
A5
A2
C8
GW
WG
RW
G
GY
BW
i2
B37
18
12
14
24
11
i1
B36
11
E/G(NA)-01 C
I E/G(NA)-05
J E/G(NA)-08
B21
5
10
E2
K E/G(NA)-07
E11
A11
A30
B24
OIL PRESSURE SWITCH
A: B134 B: B135 ENGINE CONTROL MODULE


B17
A: i10 (GREEN)
C: i12 (GREEN)
i1
B21 (GRAY)
i2 (BROWN)
B: B55 (GRAY)
B: B135
B: i11 (GREEN)
A: B134

GU10-23B