

## 2. Station Wagon

### 2. ENGINE

Engine type	Horizontally opposed, liquid cooled, 4-cylinder, 4-stroke gasoline engine	
Valve arrangement	Overhead camshaft type	
Bore x Stroke	mm (in)	96.9 x 75.0 (3.815 x 2.953)
Displacement	cm <sup>3</sup> (cu in)	2,212 (135.0)
Compression ratio	9.7	
Firing order	1 — 3 — 2 — 4	
Idle speed at Park/Neutral position	rpm	700
Maximum output	kW (HP)/rpm	101 (135)/5,400
Maximum torque	N.m (kg-m, ft-lb)/rpm	190 (19.4, 140)/4,400

### 3. ELECTRICAL

Ignition timing at idling speed	BTDC/rpm	20°/700
Spark plug	Type and manufacturer	CHAMPION: RC10YC4 (Standard) NGK: BKR6E-11 NIPPONDENSO: K20PR-U11
Generator	12V — 85A	
Battery	Reserve capacity	min 100
	Cold cranking amperes	amp. 490

**10. WEIGHT**

Model		AWD	
		POST	
		4AT	
Curb weight (C.W.)	Front	kg (lb)	748 (1,650)
	Rear	kg (lb)	619 (1,365)
	Total	kg (lb)	1,367 (3,015)
Gross vehicle weight (G.V.W.)	Front	kg (lb)	936 (2,065)
	Rear	kg (lb)	989 (2,180)
	Total	kg (lb)	1,925 (4,245)

**NOTE:**

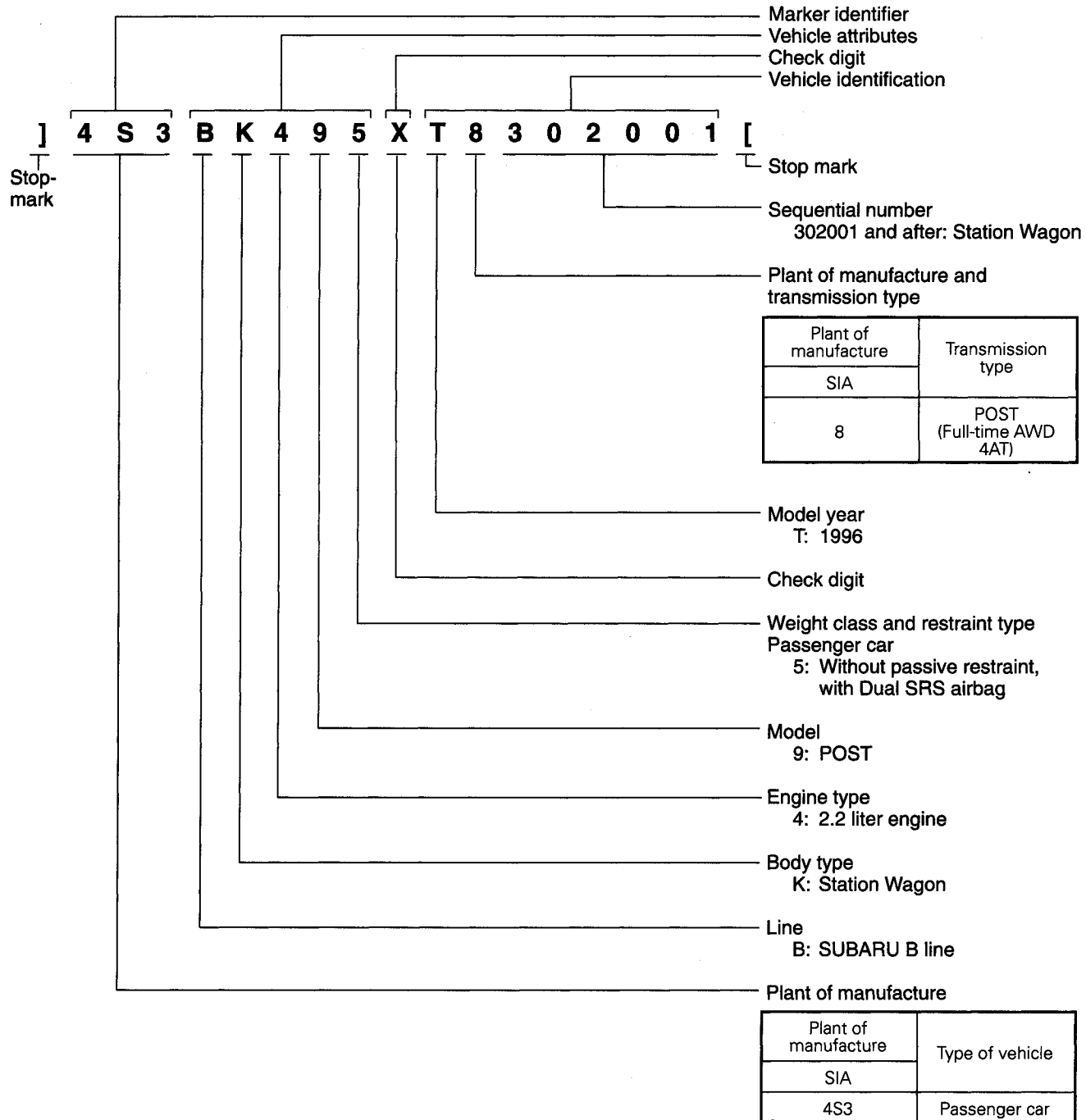
Includes the weights of power window, power door lock and air conditioning in the curb weight.

### 3. Vehicle Identification Numbers (V.I.N)

#### 1. APPLICABLE V.I.N. IN THIS MANUAL

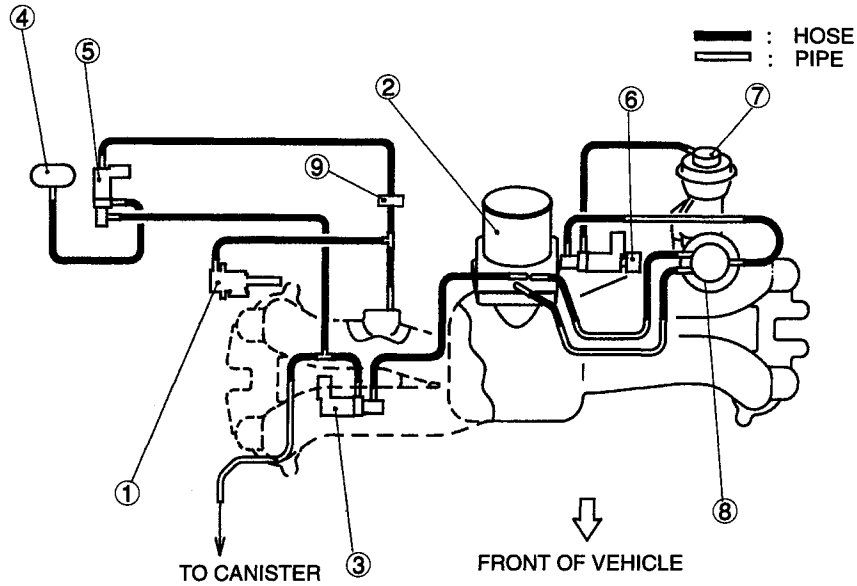
Station Wagon	2200 cc engine	AWD POST	4AT	4	S	3	B	K	4	9	5	X	T	8	3	0	2	0	0	1	and after
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#### 2. THE MEANING OF V.I.N.



### 9. Vacuum Fitting

The hose and pipe connections of intake manifold, throttle body and related parts are as shown in the illustration.

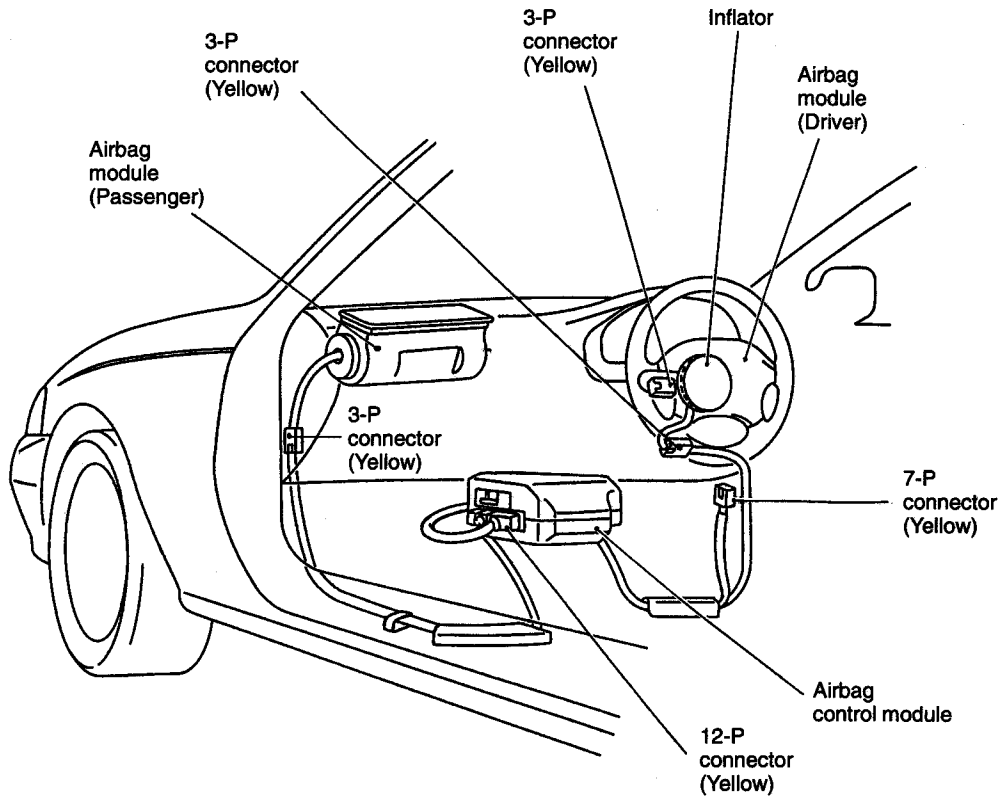


B2H0901A

- ① Pressure regulator
- ② Throttle body
- ③ Purge control solenoid valve
- ④ Pressure sensor
- ⑤ Pressure sources switching solenoid valve
- ⑥ EGR solenoid valve
- ⑦ EGR valve
- ⑧ BPT
- ⑨ Filter

# 1. SRS Airbag System

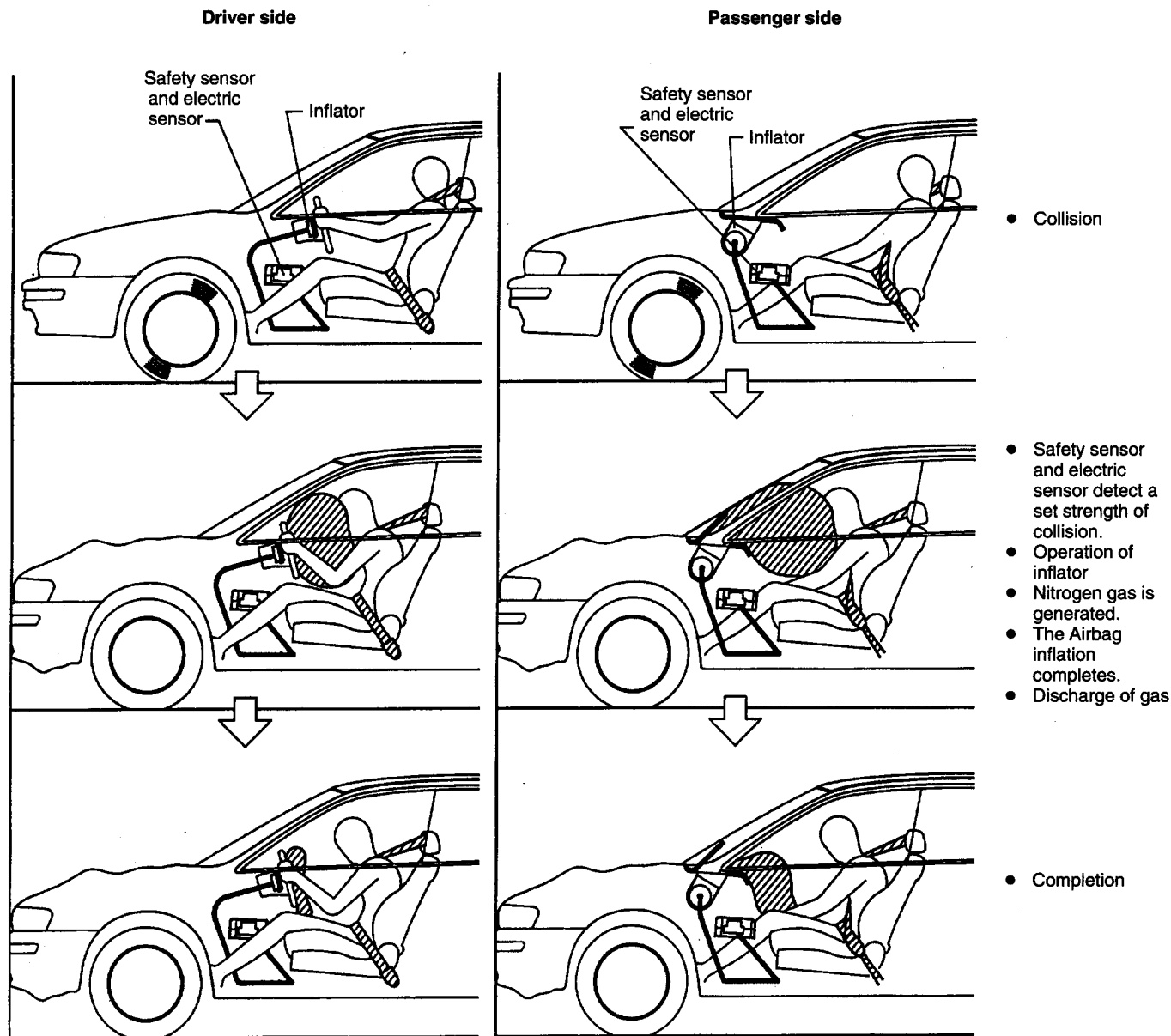
## 1. INSTALLATION



B5H0431A

**2. FUNCTION**

The SRS airbag is provided as an auxiliary driver and passenger front seat restraint system to be used in combination with the seat belt. When an impact greater than a set level is applied to the front of the vehicle, the sensor senses it and generates an electrical pulse to inflate the bag in the airbag module, thus preventing the upper bodies of the driver and passenger in the front seat from impacting the steering wheel, instrument panel and windshield.

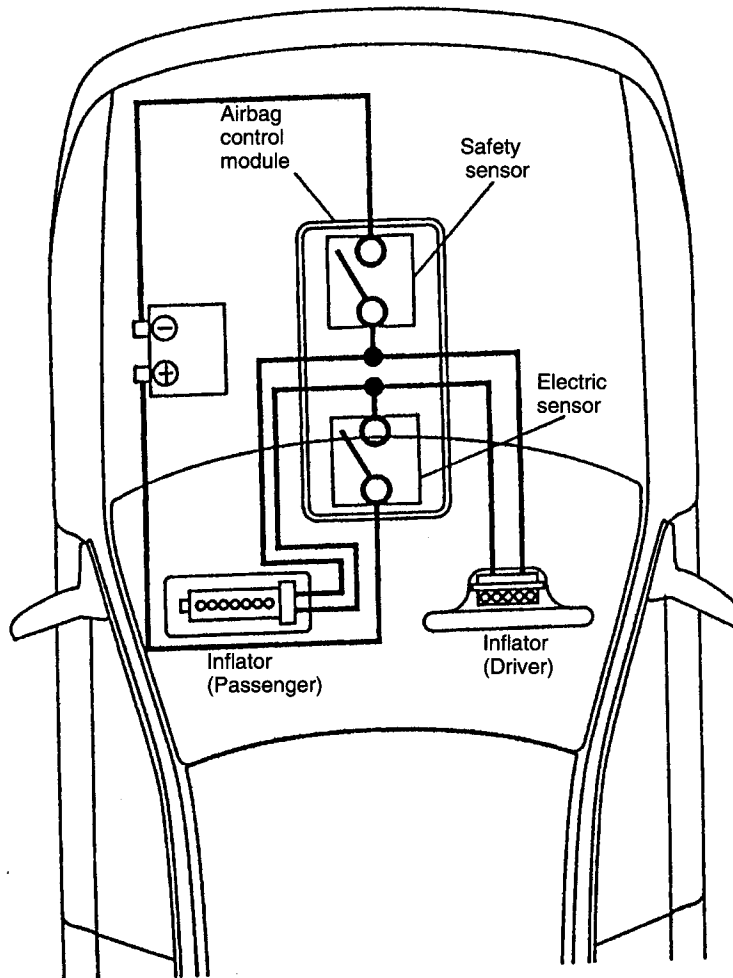


H5H0656A

## 2. Construction

### 1. GENERAL

The SRS airbag consists of an airbag control module, electric sensor and safety sensor built into the control module, and airbag modules of driver and passenger containing an inflator and airbag. Electric sensor and safety sensor are connected in series, so that the airbag will inflate if electric sensor and safety sensor sense an impact at the same time.



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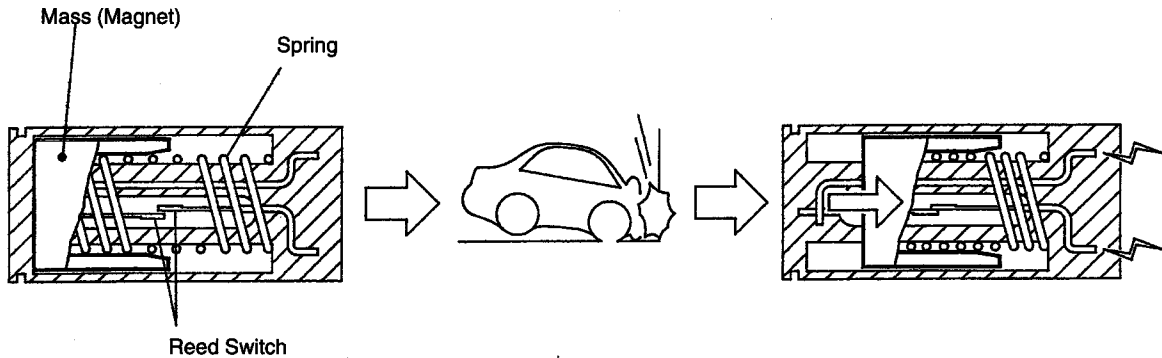
#### 4. SAFETY SENSOR AND ELECTRIC SENSOR

Safety sensor and electric sensor are built into the airbag control module.

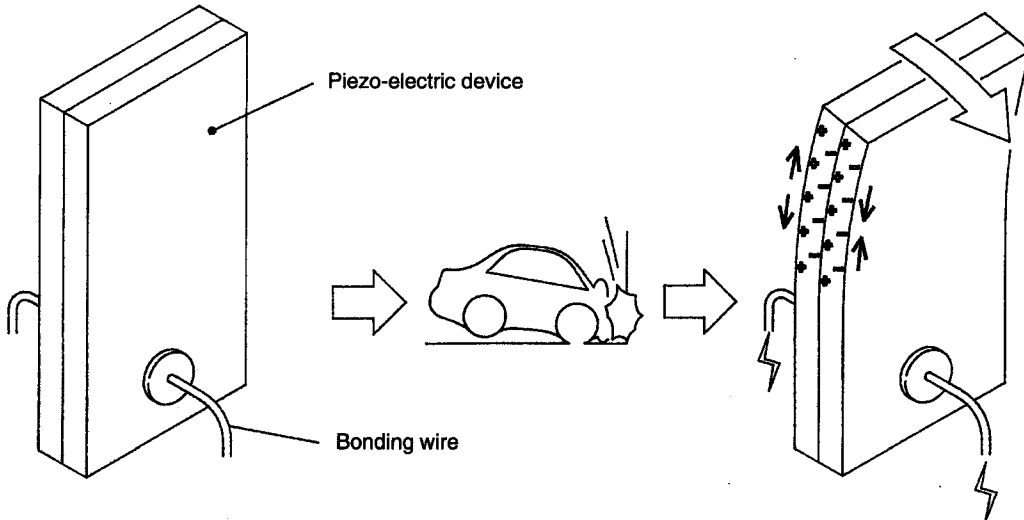
Safety sensor is the magnet piston type sensor. If the sensor receives a frontal impact exceeding a certain limit, the mass in the sensor moves forward to turn the switch ON.

The electric sensor consists of a piezo-electric device and generates a voltage corresponding to the deceleration speed that occurs in the body.

##### SAFETY SENSOR



##### ELECTRIC SENSOR



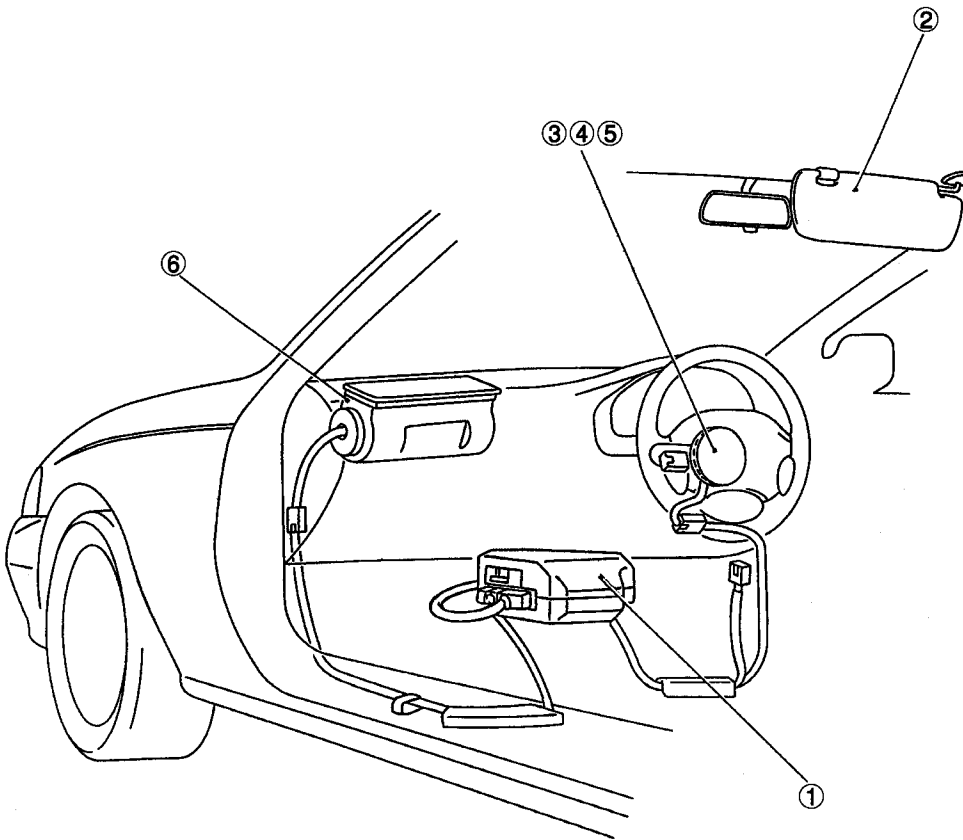
B5H0397A



# 5-5b [M2-10] SUPPLEMENTAL RESTRAINT SYSTEM (ELECTRIC SENSOR TYPE)

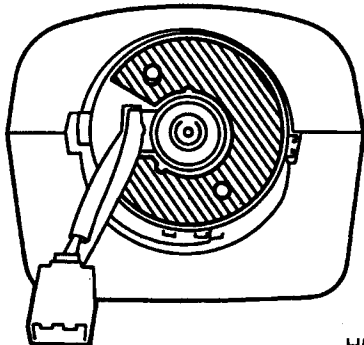


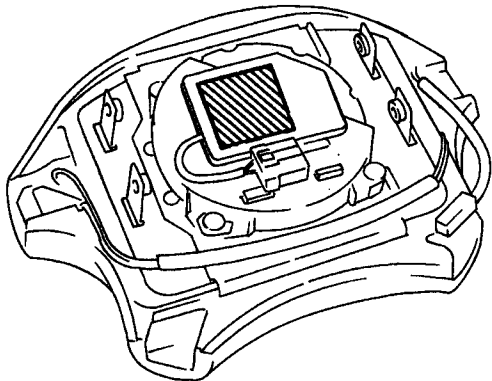
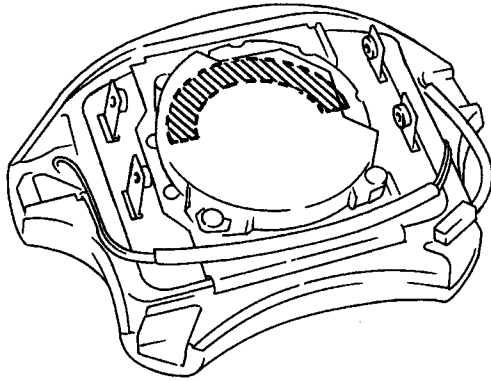
## 2. Construction

### 10. WARNING AND CAUTION LABELS



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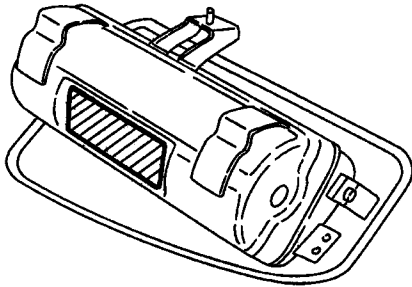
①	<p><b>SRS AIRBAG CONTROL UNIT CAUTION</b></p> <ul style="list-style-type: none"> <li>• READ SERVICE MANUAL</li> <li>• NO SERVICEABLE INSIDE</li> <li>• DO NOT DISASSEMBLE OR TAMPER</li> <li>• DO NOT DROP; KEEP DRY</li> <li>• STORE IN CLEAN DRY AREA</li> </ul>	<p><b>Précaution</b></p> <ul style="list-style-type: none"> <li>• lisez le manuel d'entretien</li> <li>• aucune pièce interne ne peut être remplacée ou réparée</li> <li>• ne démontez ou altérez pas cette unité de contrôle</li> <li>• n'échappez pas</li> <li>• emmagasinez dans un endroit sec</li> </ul>	<ul style="list-style-type: none"> <li>• 取り扱いには、サービスマニュアルを参照して下さい。</li> <li>• 分解しないで下さい。</li> <li>• 乾燥したクリーンな場所に保管して下さい。</li> <li>• 落としたり濡らしたりしないで下さい。</li> </ul>
②	<p><b>CAUTION: ALWAYS USE SEATBELTS OR CHILD SEAT</b></p> <ul style="list-style-type: none"> <li>• This car is equipped with driver and front seat passenger SRS AIRBAG. It is designed to SUPPLEMENT THE SEATBELT.</li> <li>• If your "AIRBAG" indicator in the instrument panel lights while driving, see your nearest SUBARU dealer.</li> <li>• See your owner's manual for more information.</li> </ul> <p><b>ATTENTION: ATTACHEZ VOTRE CEINTURE DE SECURITE ET UTILISEZ UN SIEGE POUR ENFANT.</b></p> <ul style="list-style-type: none"> <li>• Cette voiture est pourvue d'un coussin d'air SRS pour le conducteur et le passager du siège avant. Ce coussin a été conçu comme COMPLEMENT A LA CEINTURE DE SECURITE.</li> <li>• Si l'indication "AIRBAG" (coussin d'air) s'allume sur le tableau de bord pendant la conduite, consultez votre revendeur SUBARU le plus proche.</li> <li>• Consultez votre manuel du propriétaire.</li> </ul> <p><b>VORSICHT: Verwenden Sie stets den Sicherheitsgurt oder den Kindersitz.</b></p> <ul style="list-style-type: none"> <li>• Dieses Fahrzeug ist mit einer Fahrer-und Beifahrer-SRS-Luftsackanlage ausgerüstet. Es wurde vorgesehen, um den Sicherheitsgurt zu ergänzen.</li> <li>• Wenn während der Fahrt die „AIRBAG“-Anzeige am Instrumentenbrett leuchtet, setzen Sie sich mit Ihrem örtlichen SUBARU-Händler in Verbindung.</li> <li>• Nähere Angaben dazu sind aus der Bedienungsanleitung zu entnehmen.</li> </ul>		

<p>③</p>	 <p>H5H0660</p>	<p><b>CAUTION [BEFORE INSTALLING]</b></p> <ol style="list-style-type: none"> <li>1. POINT FRONT WHEELS STRAIGHT AHEAD.</li> <li>2. ROTATE 2.65 TURNS FROM RIGHT END STOP.</li> <li>3. ALIGN MATCH-MARKS (CENTER MARKS: ).</li> <li>4. READ SERVICE MANUAL.</li> </ol> <p>注意 (取り付け前に)</p> <ol style="list-style-type: none"> <li>1. 前輪を直進状態にする。</li> <li>2. 右回転終点より左へ約2.65回転回す。</li> <li>3. センターマーク (CENTER MARK: ) を合わせる。</li> <li>4. 詳細はサービスマニュアルに従うこと。</li> </ol>
<p>④</p>	 <p>G5H0287</p>	<p><b>AIR BAG MODULE</b></p> <p>警告 この部品は分解、修理、他車への取り付けをしないで下さい。 取り扱い・交換・廃棄方法は整備解説書に従って下さい。</p> <p><b>WARNING</b> To prevent personal injury. Do not dismantle, repair or install in another vehicle. Service or dispose as directed in the service manual.</p> <p><b>ATTENTION</b> Pour éviter tout risque de blessures corporelles: Ne pas démonter, réparer, installer dans un autre véhicule. L'entretenir ou le remplacer comme indiqué dans le manual d'entretien.</p> <p><b>ACHTUNG</b> Zur Vermeidung von Verletzungen. Nicht zerlegen, reparieren oder in einem anderen Fahrzeug installieren. Wartung und Ausbau wie im Reparaturhandbuch beschrieben.</p>
<p>⑤</p>	 <p>G5H0288</p>	<p><b>AIRBAG GAS GENERATOR</b> HERG. :94/94 UTM TG-6 BAM . PT<sub>1</sub> . 0369</p> <p>THIS GAS GENERATOR SHOULD ONLY BE INSTALLED IN VEHICLES EQUIPPED WITH AIRBAG SYSTEMS AND IS TO BE INSTALLED AND/OR DISASSEMBLED ONLY BY TRAINED PERSONNEL. CONTENTS ARE POISONOUS AND EXTREMELY FLAMMABLE. DO NOT DISMANTLE, INCINERATE, OR BRING INTO CONTACT WITH ELECTRICITY, OR STORE AT TEMPERATURES EXCEEDING 200°F. FIRST AID: IF CONTENTS ARE SWALLOWED, INDUCE VOMITING; FOR EYE CONTACT, FLUSH EYES WITH WATER FOR 15 MIN. IN EVERY CASE GET PROMPT MEDICAL ATTENTION.</p> <p>UMGANG NUR DURCH GESCHULTES PERSONAL ERLAUBT. VERWENDUNG NUR ALS INSASSEN-RÜCKHALTE SYSTEM MIT LUFTSACK FÜR KRAFTFAHRZEUGE ERLAUBT. BEI AUSLÖSUNG KANN DIE NICHT MONTIERTE AIRBAG-EINHEIT ZUM GEFÄHRLICHEN WURFSTÜCK WERDEN.</p> <p>SUBARU DEUTSCHLAND GmbH DUSSELDORF MORTON INTERNATIONAL, INC. OGDEM, USA</p> <p><b>DANGER</b> <b>ACHTUNG</b> <b>ATTENTION</b></p>

## 5-5b [M2-10] SUPPLEMENTAL RESTRAINT SYSTEM (ELECTRIC SENSOR TYPE)

### 2. Construction

⑥



G5H0586

危険 有毒性、可燃性物質封入部品

DANGER: POISONOUS FLAMMABLE MATERIAL

ACHTUNG: GIFTIGES LEICHT ENTZÜNDLICHES MATERIAL

ATTENTION: MATERIAU TOXIQUE ET INFLAMMABLE

- DO NOT USE ELECTRIC TESTING EQUIPMENTS AND OTHER ELECTRIC RELATED PRODUCTS.
- DO NOT OVERHAUL THE SYSTEM AND AVOID STRONG IMPACT.
- MAXIMUM SAFE TEMPERATURE FOR THE AIR BAG SYSTEM IS 200°F (93°C).
- STORE THE SYSTEM WITH TOP SIDE UP.
- REFER TO SERVICE MANUAL FOR HANDLING STORAGE AND DISPOSAL PROCEDURES.
- KEINE ELEKTRISCHEN PRÜFGERÄTE ODER ÄHNLICHE INSTRUMENTE VERWENDEN.
- NICHT VERSUCHEN, ZU ZERLEGEN ODER ZU REPARIEREN. VOR STÖßEN SCHÜTZEN.
- LAGERTEMPERATUR DARF 93°C (200°F) NICHT ÜBERSCHREITEN.
- MIT DEM DECKEL NACH OBEN LAGERN.
- ZU BEDienung, LAGERUNG UND BESEITIGUNG SIEHE WARTUNGSHANDBUCH.
- NE PAS UTILISER LE TESTEUR ELECTRIQUE.
- CE MODULE NE PEUT ETRE NI DEMONTE NI REPARER. EVITER LES CHOCS.
- NE JAMAIS ENTREPOSER SOUS UNE TEMPERATURE SUPERIEURE A 93°C (200°F).
- LE MODULE DOIT TOUJOURS ETRE POSE AVEC LE COUVERCLE VERS LE HAUT.
- CONCERNANT LE MODE D'EMPLOI, DE CONSERVATION ET DE REJET, VEUILLEZ VOUS REFERER A LA NOTICE D'UTILISATION.

AIRBAG GAS GENERATOR UT12016 MORTON INTERNATIONAL. INC. OGDEN. UT. USA.

BAM-PT<sub>1</sub>-0437

EINFÜHRER: SUBARU

TELEFON (06031) 6060

DEUTSCHLAND GmbH,

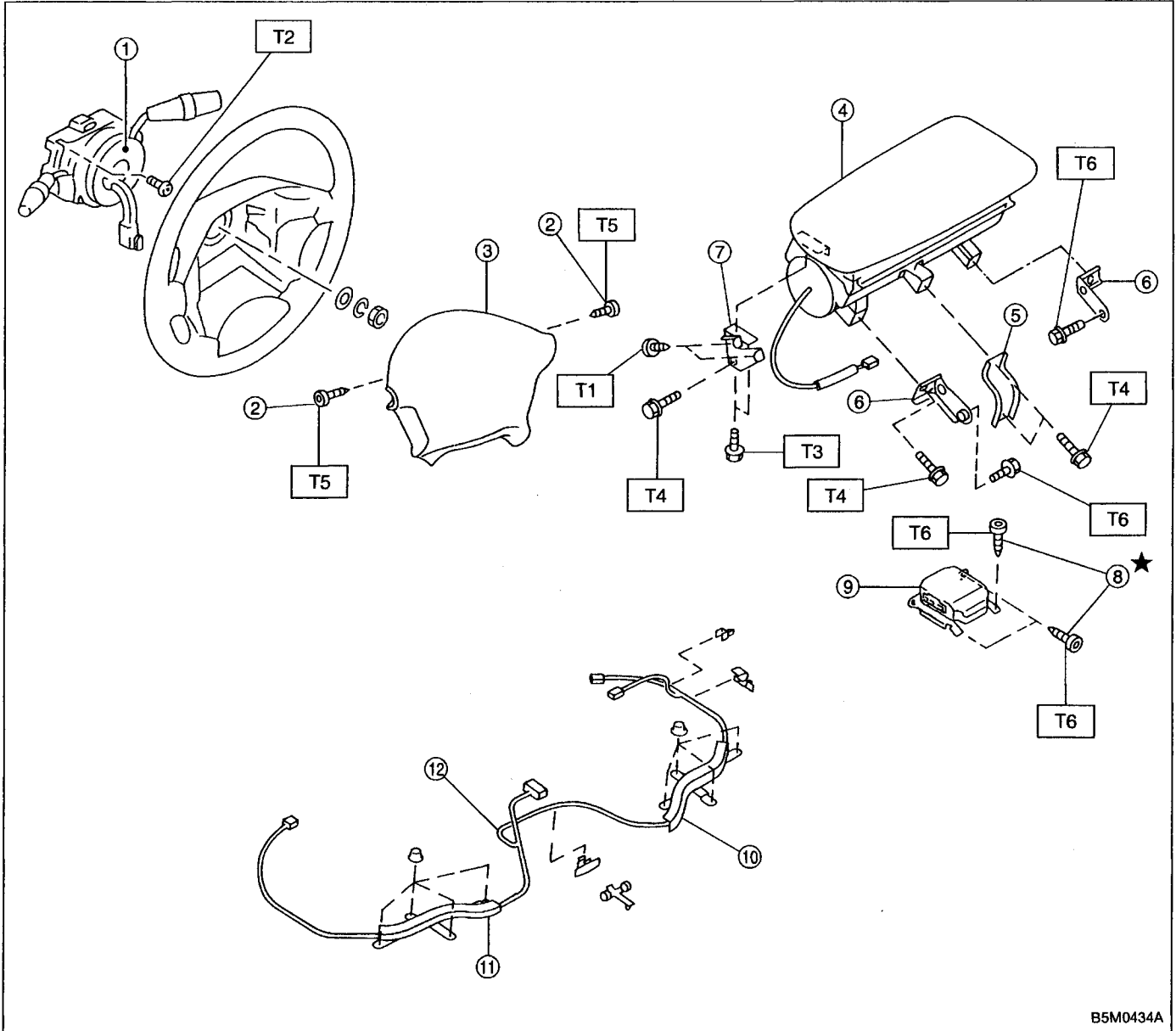
FRIEDBURG HERG, :94/95 BC.

UMGANG NUR DURCH GESCHULTES PERSONAL ER-LAUBT. VERWENDUNG NUR ALS INSASSEN-RÜCKHALTESYSTEM MIT LUFTSACK FÜR KRAFTFAHRZEUGE ER-LAUBT.

BEI AUSLÖSUNG KANN DIE NICHT MONTIERTE AIR-BAG-EINHEIT ZUM GEFÄHRLICHEN WURFSTÜCK WERDEN.

- 電気テスター等は使用しないこと。
- 分解、修理不可。衝撃を与えないこと。
- 高温（93℃以上）での保管禁止。
- リッド面を上にして保管すること。
- 取り扱い、保管、廃却方法は整備解説書を参照。

1. SRS Airbag



B5M0434A

- ① Combination switch ASSY with roll connector
- ② TORX® bolt
- ③ Airbag module ASSY (Driver)
- ④ Airbag module ASSY (Passenger)
- ⑤ BRKT B
- ⑥ BRKT P AB
- ⑦ BRKT SD A
- ⑧ TORX® bolt
- ⑨ Airbag control module
- ⑩ Protector RH
- ⑪ Protector LH
- ⑫ Airbag main harness

**Tightening torque: N-m (kg-m, ft-lb)**

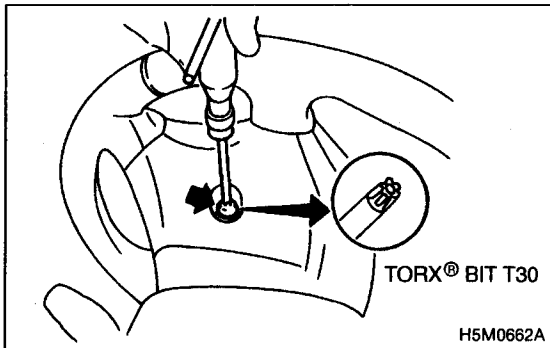
- T1: 1.8 ± 0.5 (0.18 ± 0.05, 1.3 ± 0.4)**
- T2: 2.5 ± 0.5 (0.25 ± 0.05, 1.8 ± 0.4)**
- T3: 4.4 ± 1.5 (0.45 ± 0.15, 3.3 ± 1.1)**
- T4: 7.4 ± 0.5 (0.75 ± 0.05, 5.4 ± 0.4)**
- T5: 10 ± 2 (1.0 ± 0.2, 7.2 ± 1.4)**
- T6: 32 ± 10 (3.3 ± 1.0, 23.9 ± 7.2)**

### 3. Airbag Module

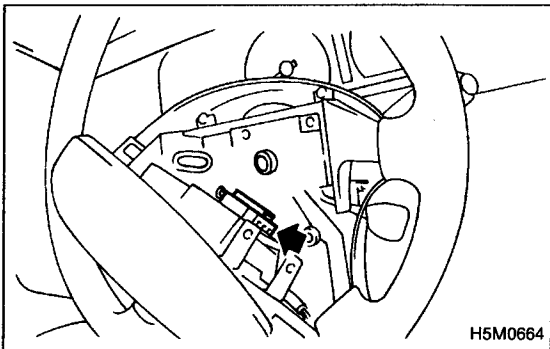
#### A: REMOVAL

##### 1. DRIVER SIDE

- 1) Set front wheels in straight ahead position.
- 2) Turn ignition switch off.
- 3) Disconnect ground cable from battery and wait for at least 20 seconds before starting work.



- 4) Using TORX® BIT T30, remove two TORX® bolts.



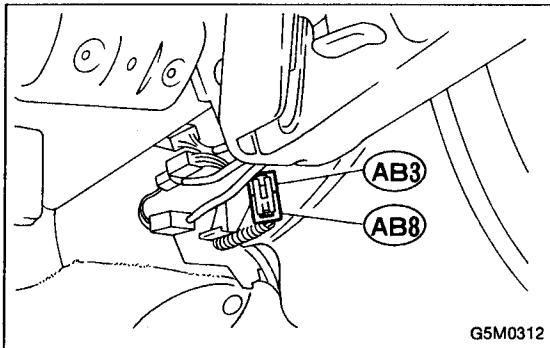
- 5) Disconnect airbag connector on back of airbag module. <Ref. to 5-5 [M2-6].☆1 >

- 6) Refer to "**CAUTION**" for handling of a removed airbag module. <Ref. to 5-5 [W300].☆1 >

## 6. Airbag Control Module

### A: REMOVAL

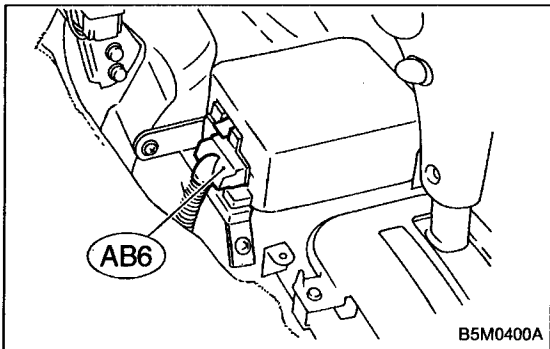
- 1) Turn ignition switch off.
- 2) Disconnect ground cable from battery and wait for at least 20 seconds before starting work.



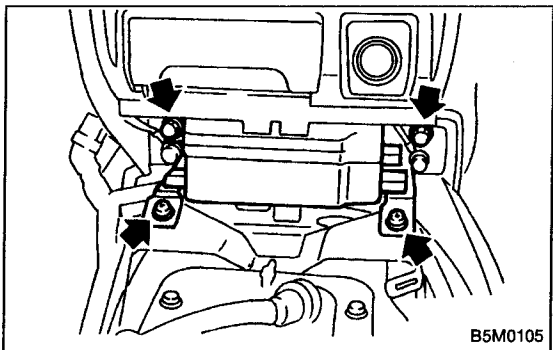
- 3) Remove lower cover. <Ref. to 5-4 [W1A0].☆1 >  
Disconnect airbag connector (AB3) and (AB8) below steering column.

#### CAUTION:

**Do not reconnect airbag connector at steering column until airbag control module is securely re-installed.**



- 4) Remove console box. <Ref. to 5-4 [W1A0].☆1 >
- 5) Disconnect 12-pin yellow connector from airbag control module. <Ref. to 5-5 [M2-6].☆1 >



- 6) Using TORX® BIT T40 (Tamper resistant type), remove two TORX® bolts.  
Discard the old TORX® bolts.

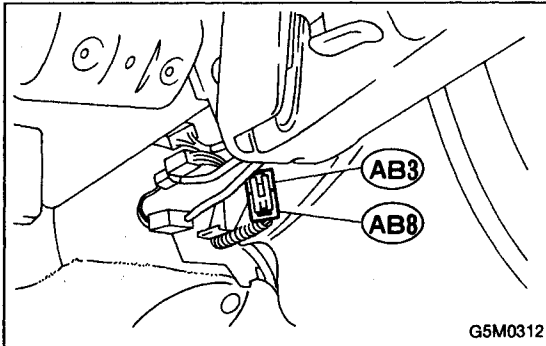
#### CAUTION:

**Use new TORX® bolts during re-assembly.**

## 7. Combination Switch

### A: REMOVAL

- 1) Turn ignition switch off.
- 2) Disconnect ground cable from battery and wait for at least 20 seconds before starting work.

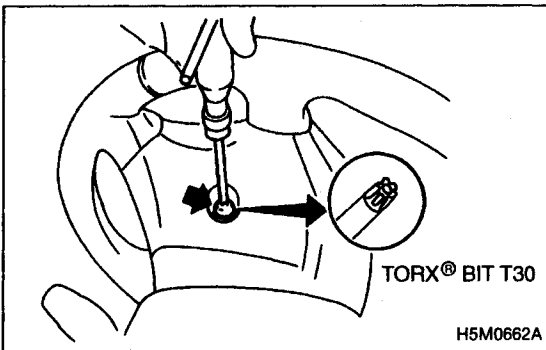


- 3) Remove lower cover. <Ref. to 5-4 [W1A0].☆1 > Disconnect airbag connector (AB3) and (AB8) below steering column.

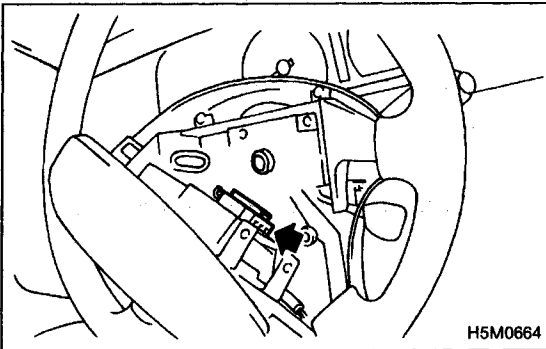
**CAUTION:**

**Do not reconnect airbag connector at steering column until combination switch is securely re-installed.**

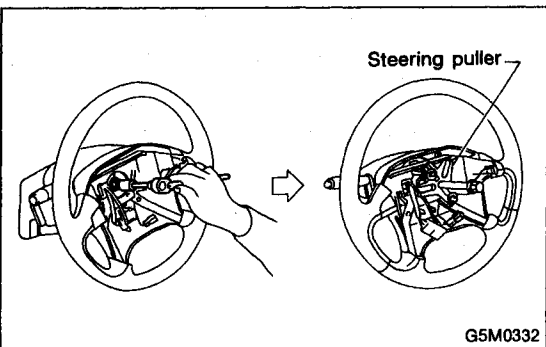
- 4) Disconnect combination switch connectors from body harness connector.



- 5) Set front wheels in straight ahead position. Using TORX® BIT T30, remove two TORX® bolts.



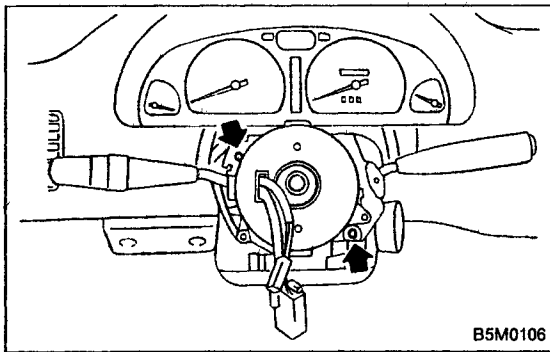
- 6) Disconnect airbag connector on back of airbag module. <Ref. to 5-5 [M2-6].☆1 > Remove airbag module, and place it with pad side facing upward. <Ref. to 5-5 [W300].☆1 >



- 7) Using steering puller, remove steering wheel.

**CAUTION:**

**Do not allow connector to interfere when removing steering wheel.**



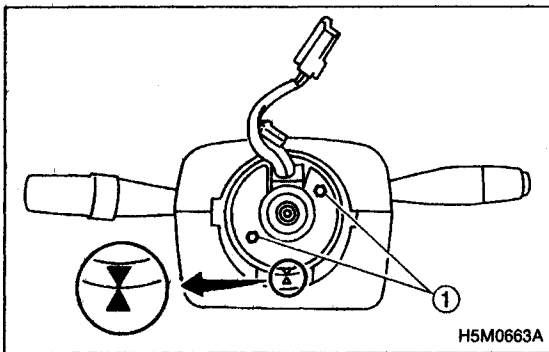
- 8) Remove steering column covers.
- 9) Removing two retaining screws, remove combination switch.

## B: ADJUSTMENT

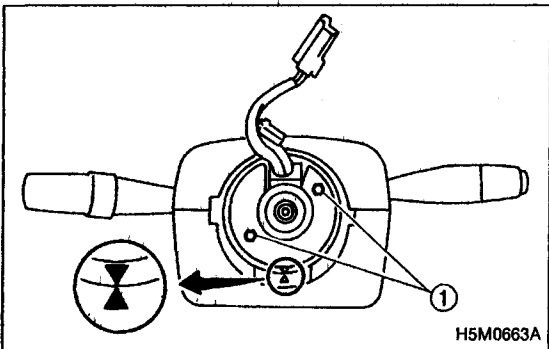
### 1. CENTERING ROLL CONNECTOR

Before installing steering wheel, make sure to center roll connector built into combination switch.

- 1) Make sure that front wheels are positioned straight ahead.
- 2) Install steering gearbox, steering shaft and combination switch properly. Turn roll connector pin ① **clockwise** until it stops.



- 3) Then, back off roll connector pin ① approximately 2.65 turns until "▲" marks aligned.



## C: INSTALLATION

- 1) Before installing combination switch, check to ensure that combination switch is off and front wheels are set in the straight ahead position.

### CAUTION:

**Failure to do this might damage roll connector.**

- 2) Install column cover and center roll connector.

- 3) Install steering wheel in neutral position. Carefully insert roll connector pin ① into hole on steering wheel.

### NOTE:

If steering wheel angle requires fine adjustment, adjust tie-rod. <Ref. to 4-3 [W3F0].☆1>

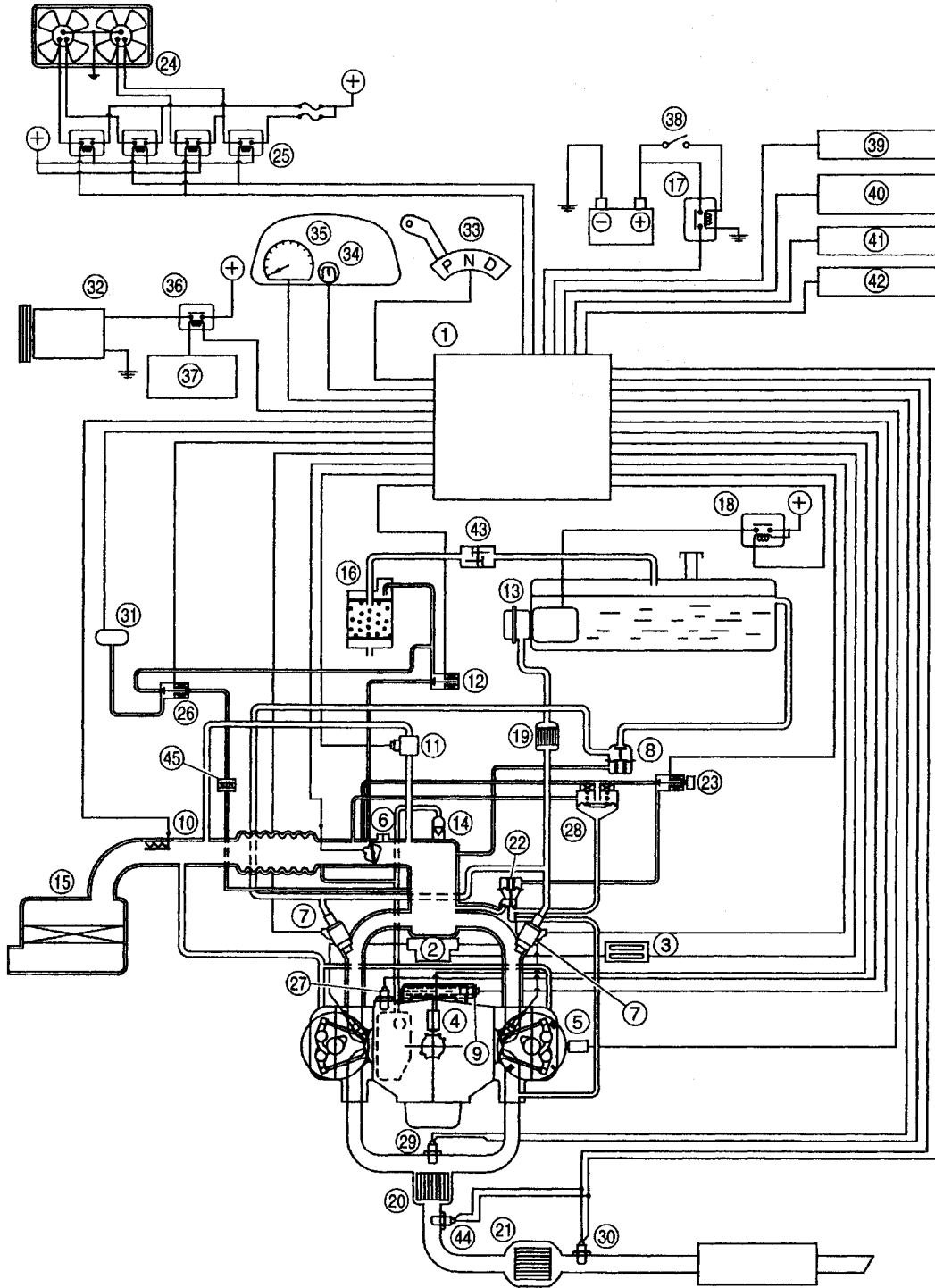
- 4) Install airbag module and lower cover in the reverse order of removal.



1. General

A: ENGINE

2. SCHEMATIC

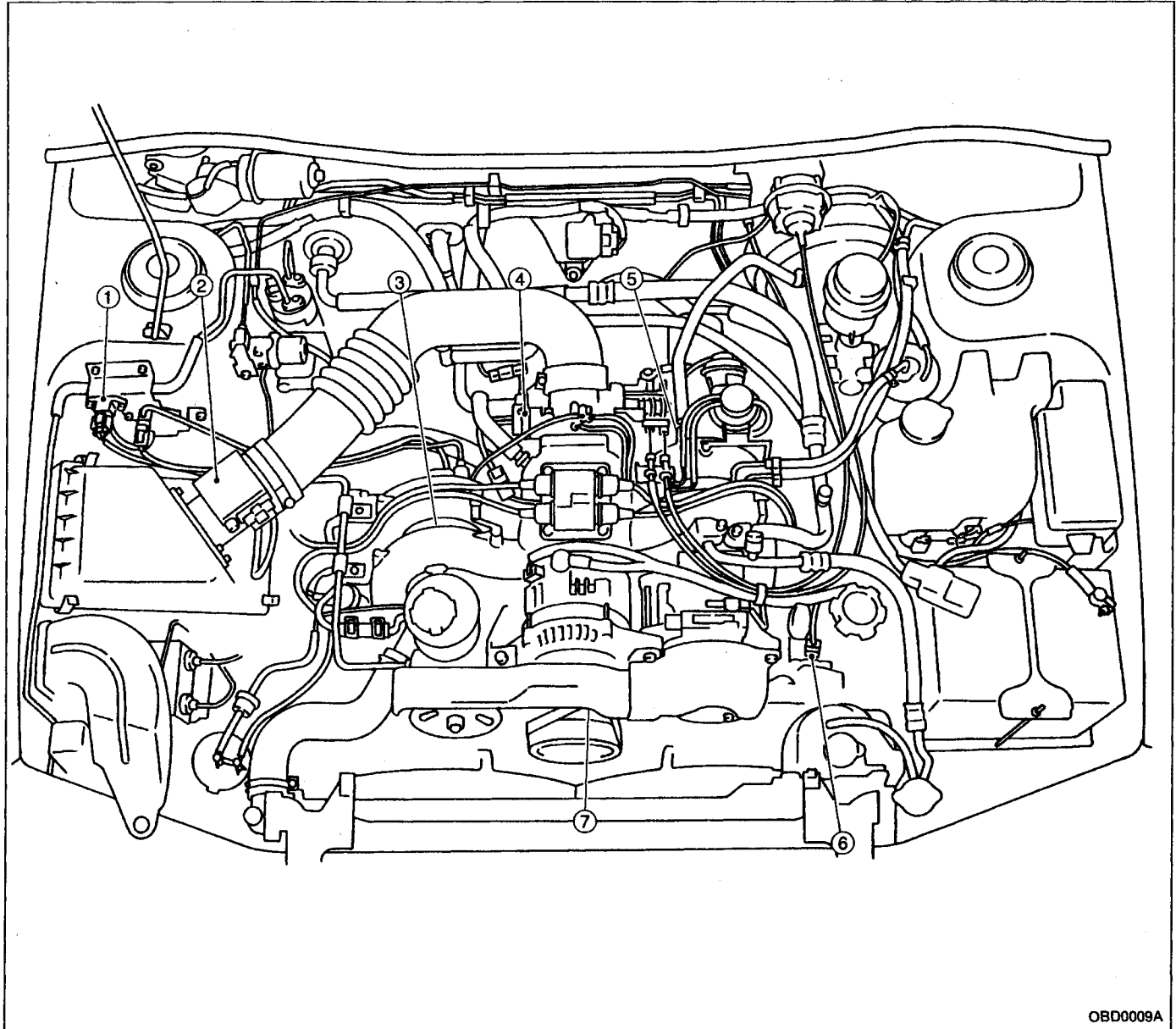


- 
- ① Engine control module (ECM)
  - ② Ignition coil
  - ③ Ignitor
  - ④ Crankshaft position sensor
  - ⑤ Camshaft position sensor
  - ⑥ Throttle position sensor
  - ⑦ Fuel injectors
  - ⑧ Pressure regulator
  - ⑨ Engine coolant temperature sensor
  - ⑩ Mass air flow sensor
  - ⑪ Idle air control solenoid valve
  - ⑫ Purge control solenoid valve
  - ⑬ Fuel pump
  - ⑭ PCV valve
  - ⑮ Air cleaner
  - ⑯ Canister
  - ⑰ Main relay
  - ⑱ Fuel pump relay
  - ⑲ Fuel filter
  - ⑳ Front catalytic converter
  - ㉑ Rear catalytic converter
  - ㉒ EGR valve
  - ㉓ EGR control solenoid valve
  - ㉔ Radiator fan
  - ㉕ Radiator fan relay
  - ㉖ Pressure sources switching solenoid valve
  - ㉗ Knock sensor
  - ㉘ Back-pressure transducer
  - ㉙ Front oxygen sensor
  - ㉚ Rear oxygen sensor (Except California model)
  - ㉛ Pressure sensor
  - ㉜ A/C compressor
  - ㉝ Inhibitor switch
  - ㉞ CHECK ENGINE malfunction indicator lamp (MIL)
  - ㉟ Tachometer
  - ㊱ A/C relay
  - ㊲ A/C control module
  - ㊳ Ignition switch
  - ㊴ Transmission control module (TCM)
  - ㊵ Vehicle speed sensor 2
  - ㊶ Data link connector (For Subaru select monitor)
  - ㊷ Data link connector (For Subaru select monitor and OBD-II general scan tool)
  - ㊸ Two way valve
  - ㊹ Rear oxygen sensor (California model only)
  - ㊺ Filter

2. Electrical Components Location

A: ENGINE

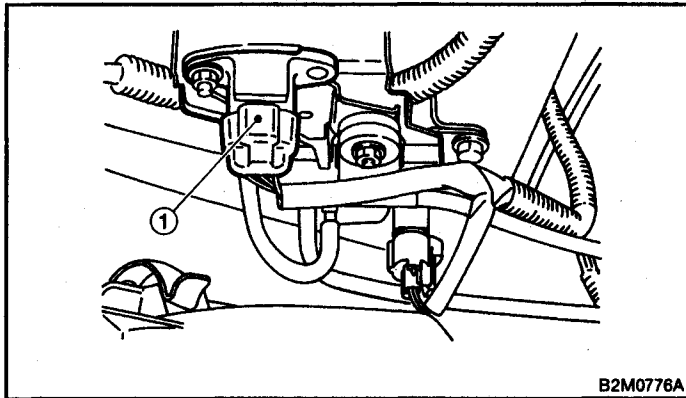
2. SENSOR



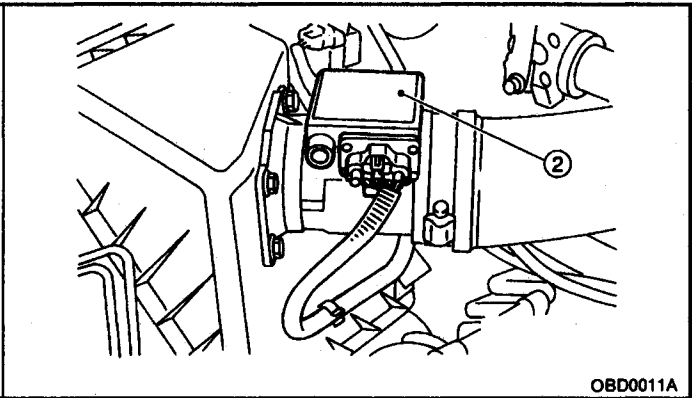
OBD0009A

- ① Pressure sensor
- ② Mass air flow sensor
- ③ Engine coolant temperature sensor
- ④ Throttle position sensor

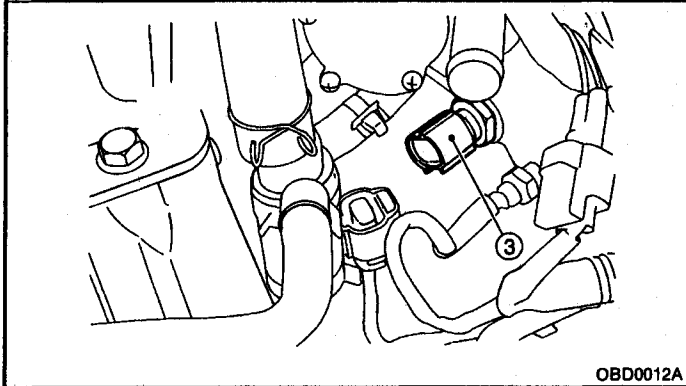
- ⑤ Knock sensor
- ⑥ Camshaft position sensor
- ⑦ Crankshaft position sensor



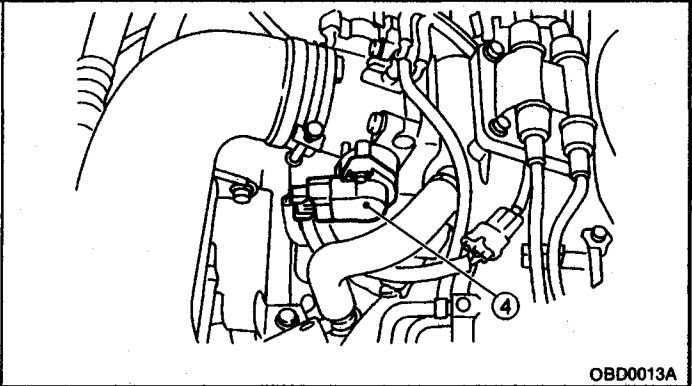
B2M0776A



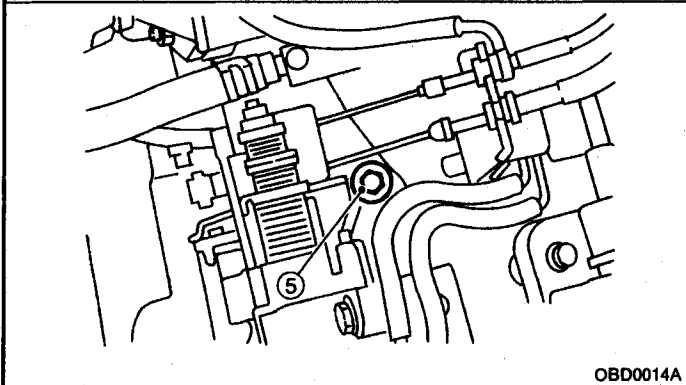
OBD0011A



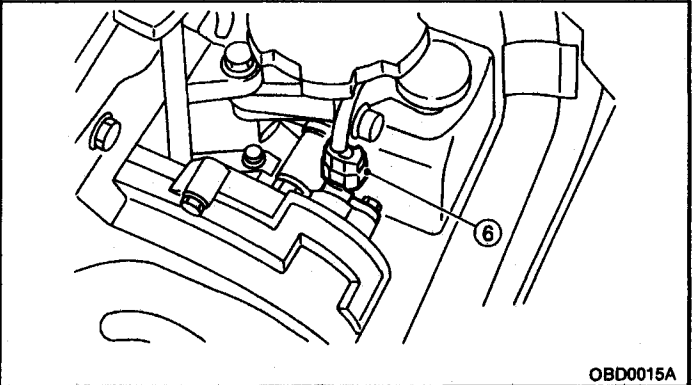
OBD0012A



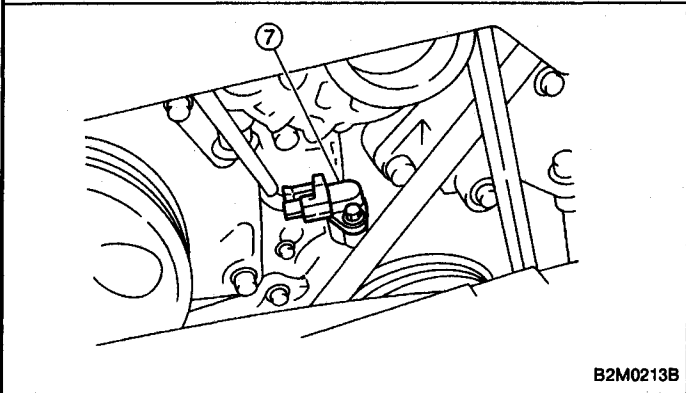
OBD0013A



OBD0014A

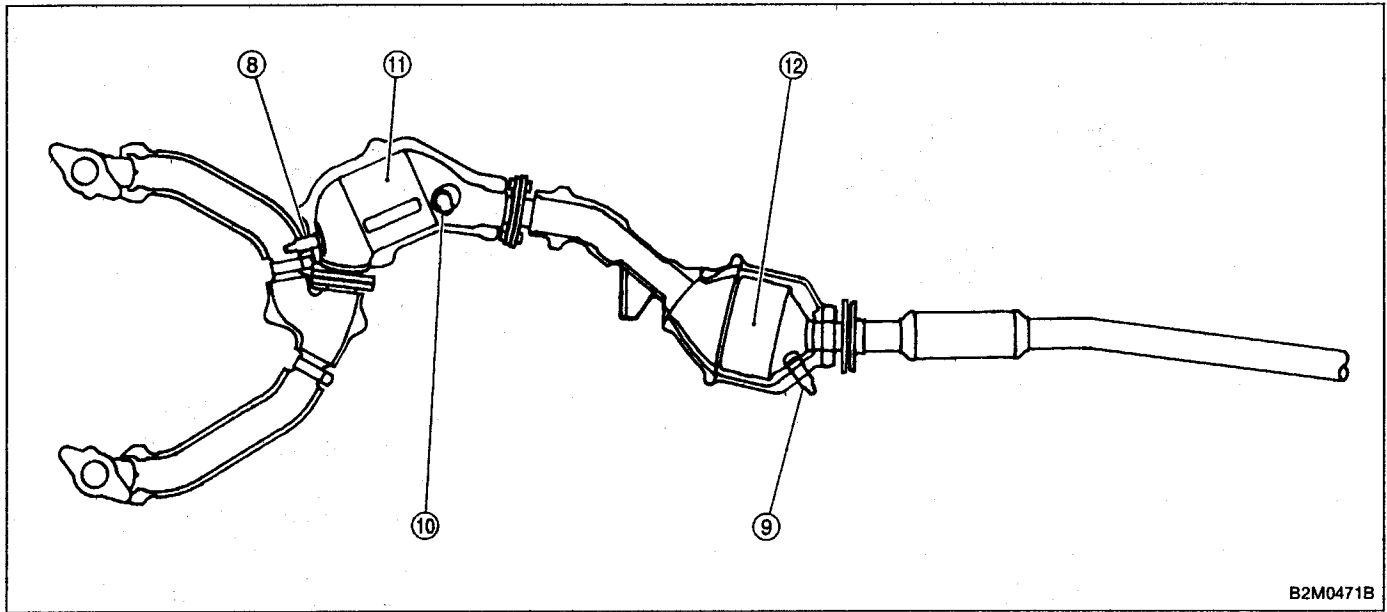


OBD0015A

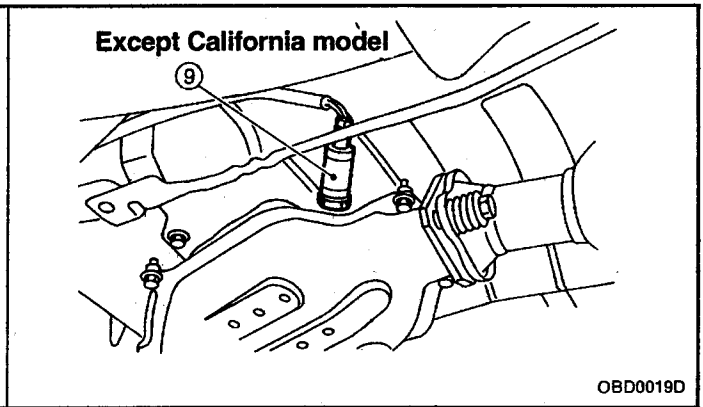
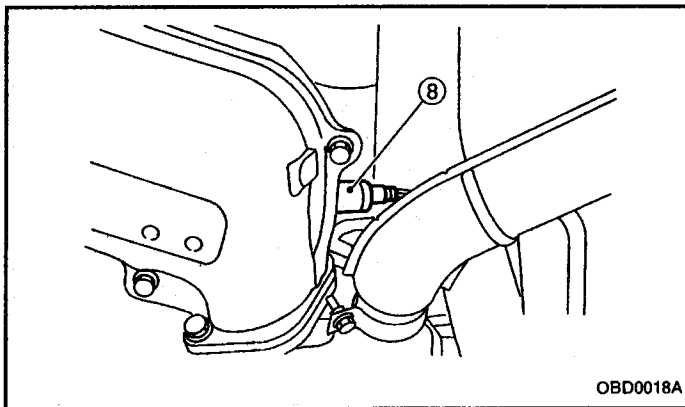


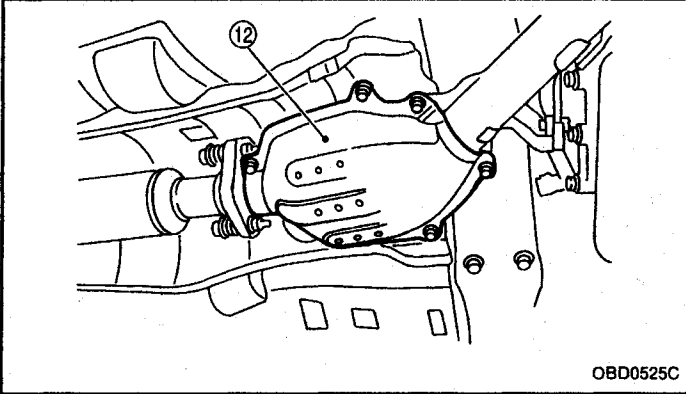
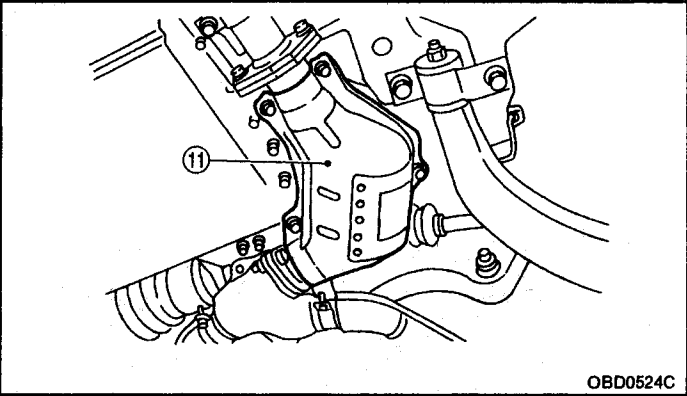
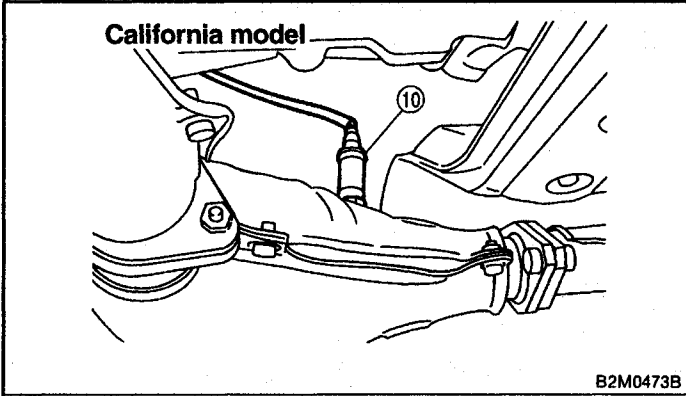
B2M0213B

2. Electrical Components Location

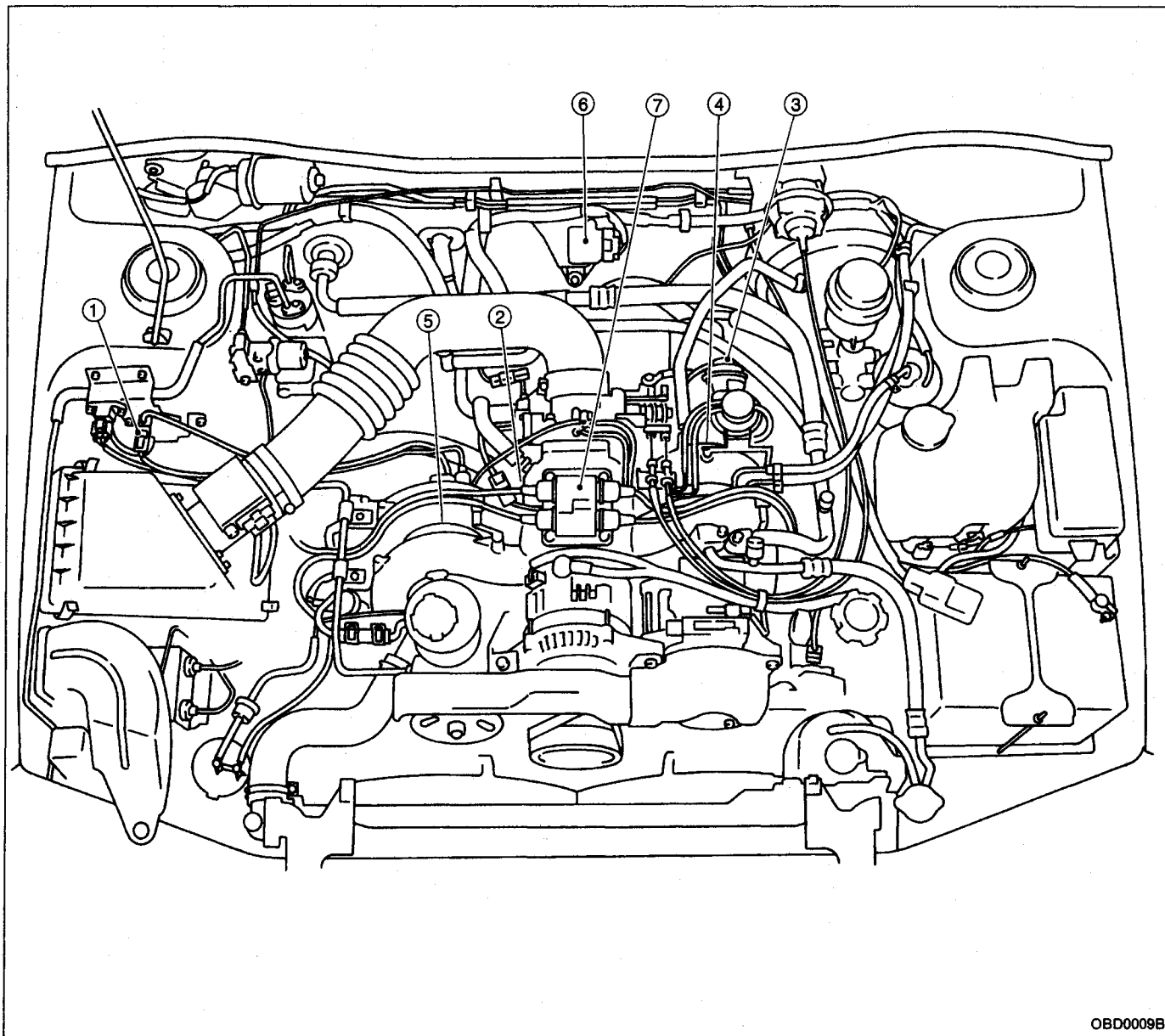


- ⑧ Front oxygen sensor
- ⑨ Rear oxygen sensor (Except California model)
- ⑩ Rear oxygen sensor (California model)
- ⑪ Front catalytic converter
- ⑫ Rear catalytic converter





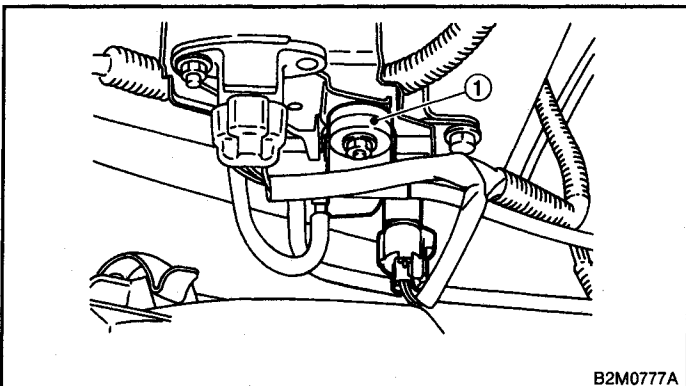
3. SOLENOID VALVE, EMISSION CONTROL SYSTEM PARTS AND IGNITION SYSTEM PARTS



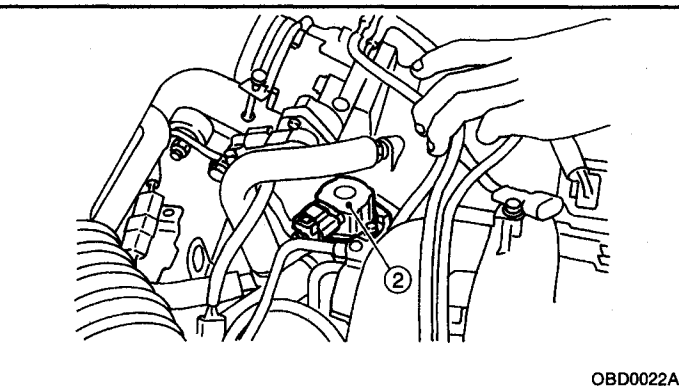
OBD0009B

- ① Pressure sources switching solenoid valve
- ② Idle air control solenoid valve
- ③ EGR valve
- ④ EGR control solenoid valve

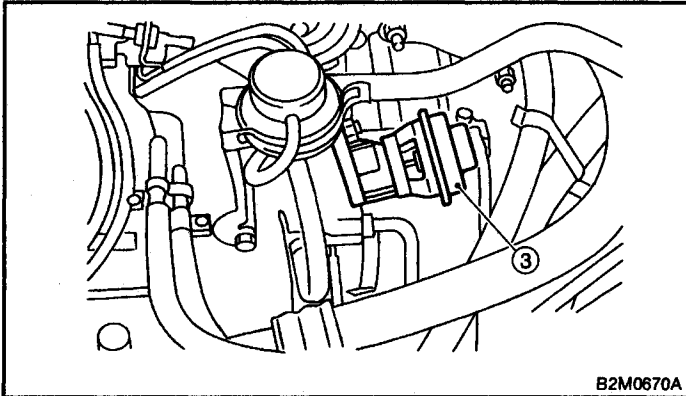
- ⑤ Purge control solenoid valve
- ⑥ Ignitor
- ⑦ Ignition coil



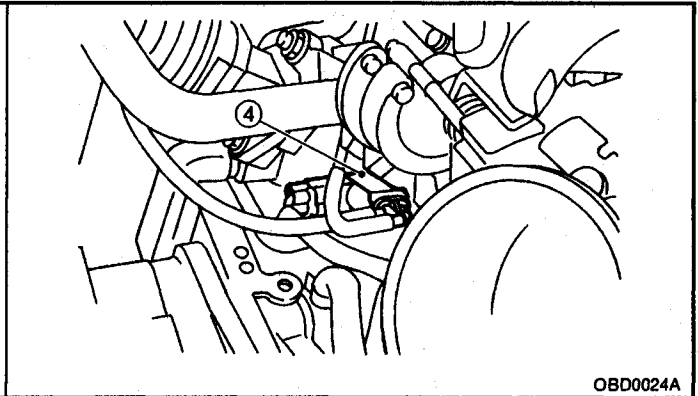
B2M0777A



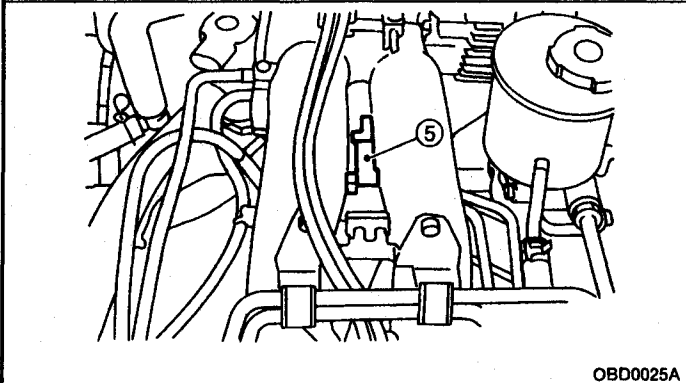
OBD0022A



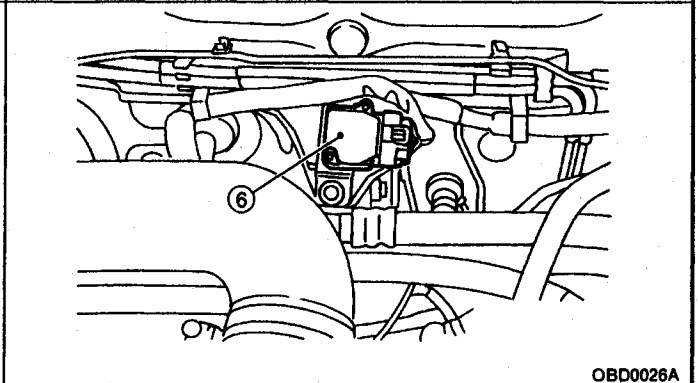
B2M0670A



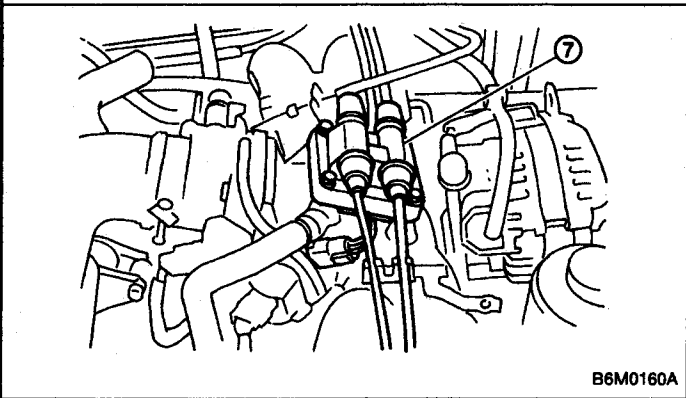
OBD0024A



OBD0025A



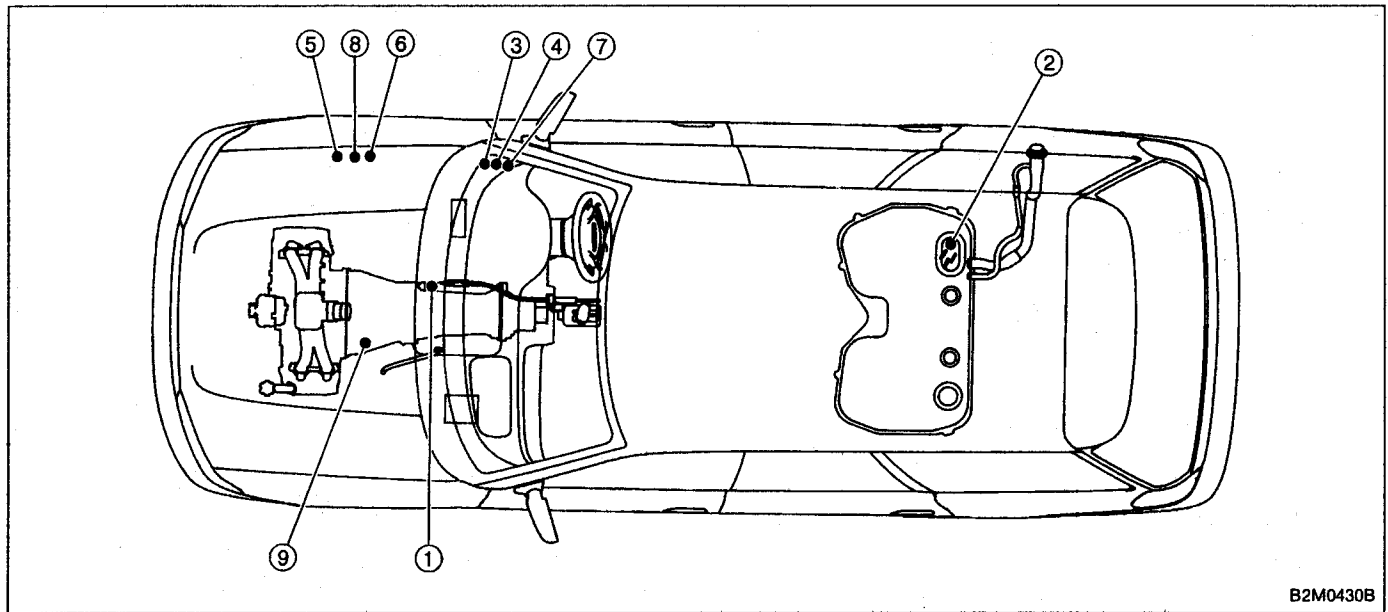
OBD0026A



B6M0160A

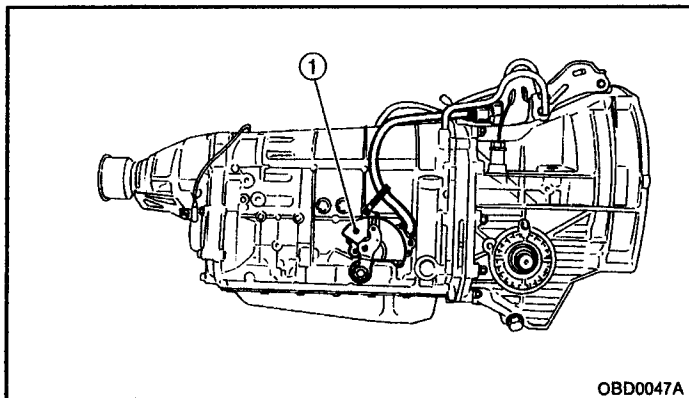


2. Electrical Components Location

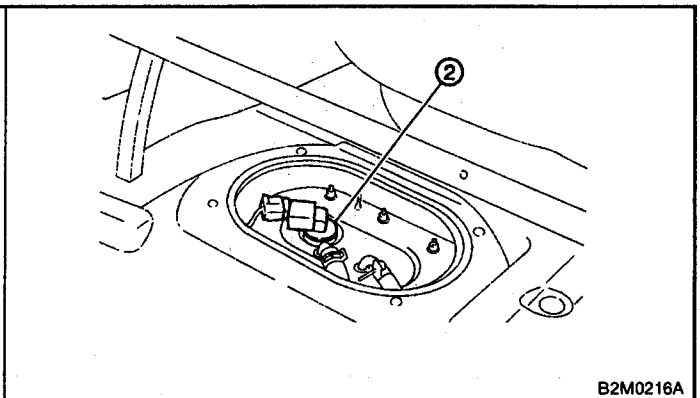


B2M0430B

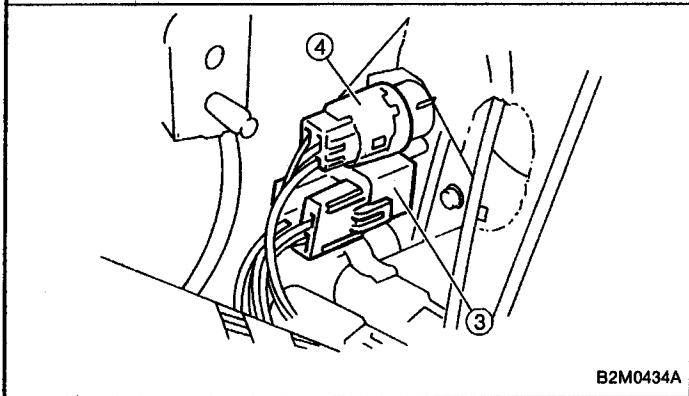
- ① Inhibitor switch
- ② Fuel pump
- ③ Main relay
- ④ Fuel pump relay
- ⑤ Radiator main fan relay 1
- ⑥ Radiator main fan relay 2
- ⑦ Radiator sub fan relay 1
- ⑧ Radiator sub fan relay 2
- ⑨ Starter



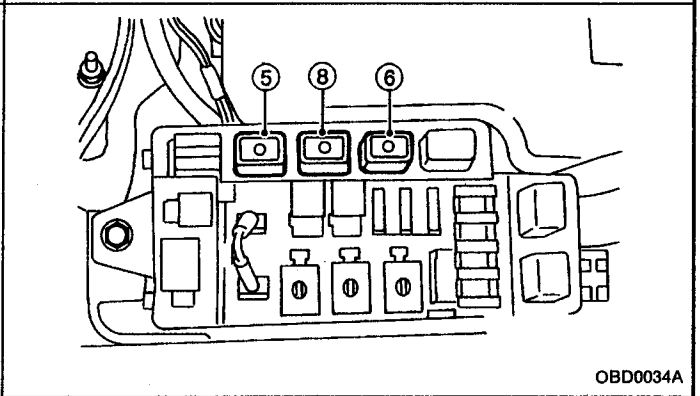
OBD0047A



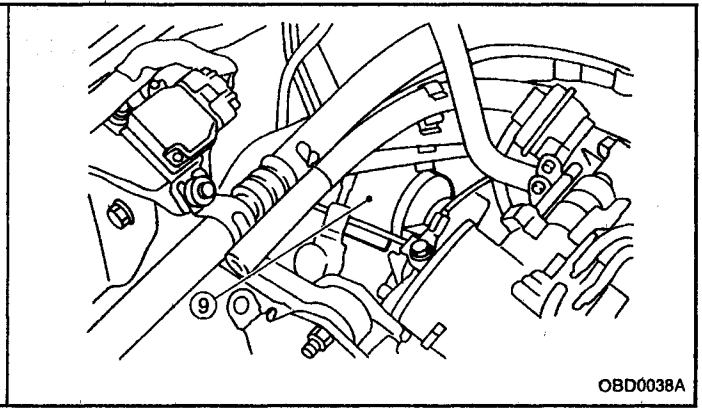
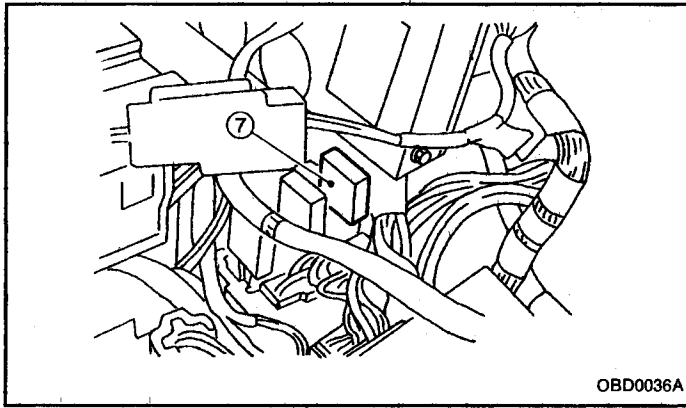
B2M0216A



B2M0434A



OBD0034A



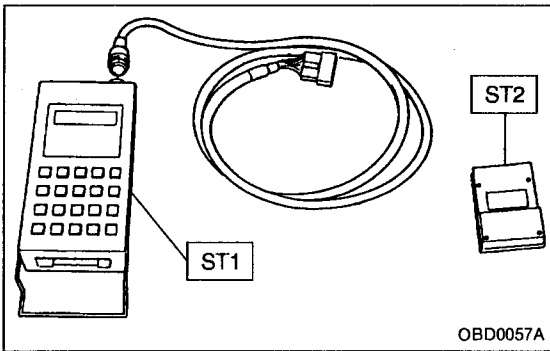
**5. EMISSION-RELATED POWERTRAIN DIAGNOSTIC TROUBLE CODE (MODE \$03)**

Refers to data denoting emission-related powertrain diagnostic trouble codes.

For details concerning diagnostic trouble codes, refer to the DIAGNOSTIC TROUBLE CODE (DTC) LIST, 2-7 [T11A0]☆4.

**NOTE:**

Refer to OBD-II general scan tool manufacturer's instruction manual to access emission-related powertrain diagnostic trouble codes (MODE \$03).

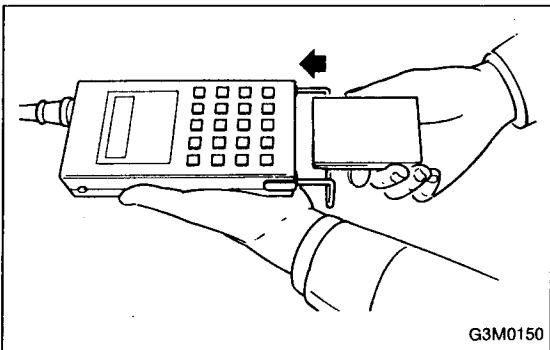


### 3. Diagnosis System

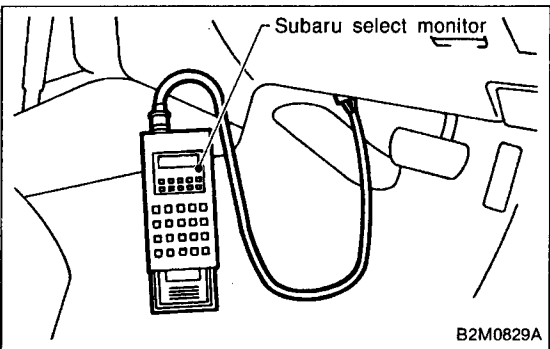
#### C: SUBARU SELECT MONITOR

##### 1. HOW TO USE SUBARU SELECT MONITOR

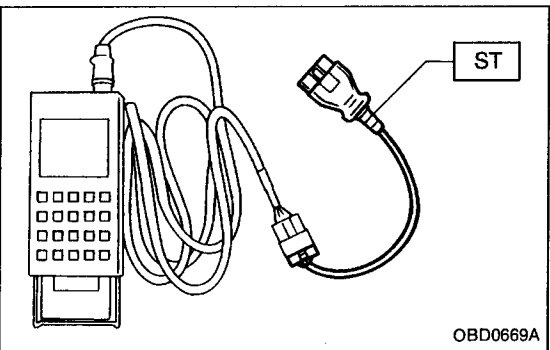
- 1) Prepare Subaru select monitor and cartridge.
- ST1 498307500 SELECT MONITOR KIT  
ST2 498345700 CARTRIDGE



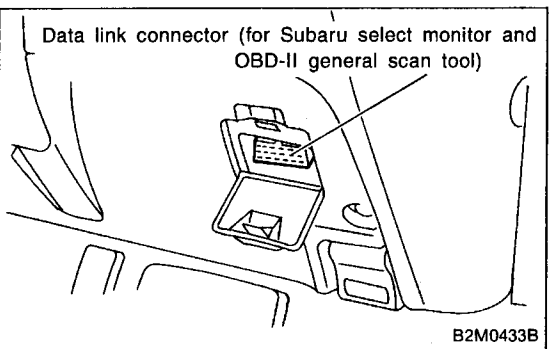
- 2) Turn ignition switch and Subaru select monitor switch to OFF.
- 3) Insert cartridge into Subaru select monitor.



- 4) Connect Subaru select monitor to data link connector.
  - Using data link connector for Subaru select monitor only, connect Subaru select monitor to its data link connector located in the lower portion of the instrument panel (on the driver's side), to the side of the center console box.



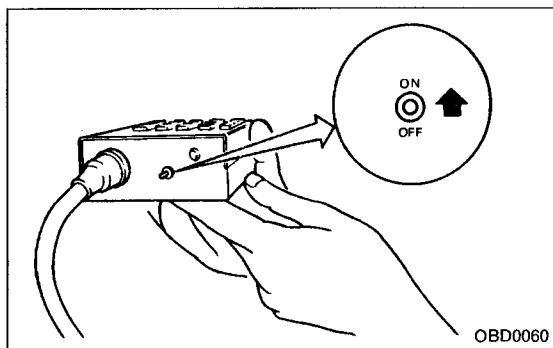
- Using data link connector for Subaru select monitor and OBD-II general scan tool;
    - (1) Connect ST to Subaru select monitor cable.
- ST 498357200 ADAPTER CABLE



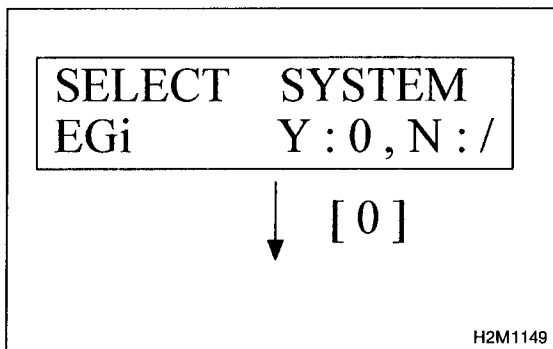
- (2) Open the cover and connect Subaru select monitor to data link connector located in the lower portion of the instrument panel (on the driver's side), to the lower cover.

**CAUTION:**  
**Do not connect scan tools except for Subaru select monitor and OBD-II general scan tool.**

3. Diagnosis System

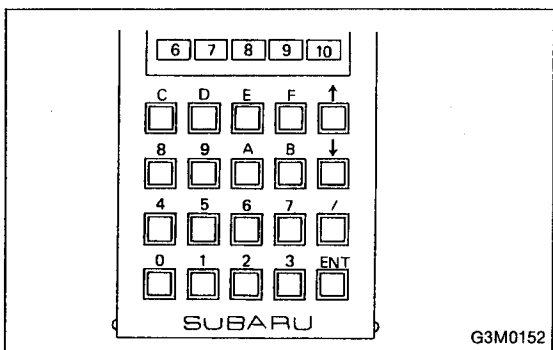


- 5) Turn ignition switch to ON (engine OFF) and Subaru select monitor switch to ON.
- 6) Using Subaru select monitor, call up diagnostic trouble code(s) and various data, then record them.

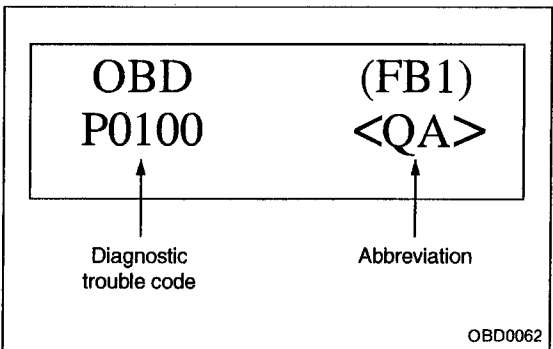


**2. READ DIAGNOSTIC TROUBLE CODE (DTC) SHOWN ON DISPLAY. (MODE FB1)**

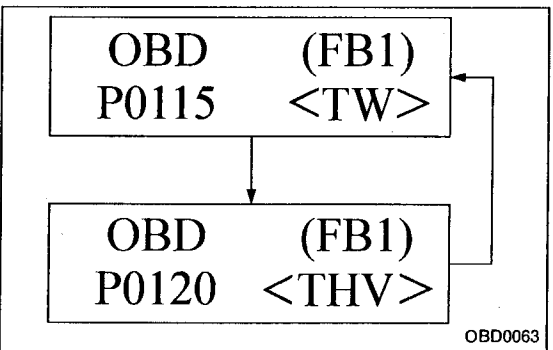
- 1) Select engine mode using function key. Press the function key [0].



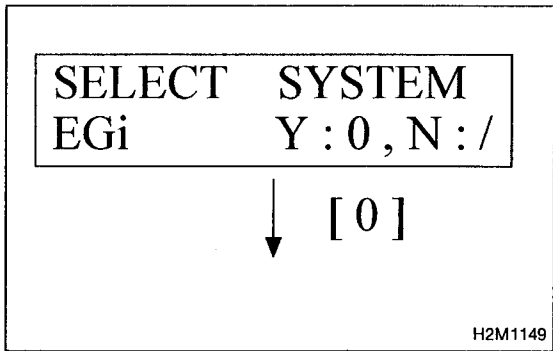
- 2) Designate mode using function key. Press [F] [B] [1] [ENT] in that order.



- 3) Ensure diagnostic trouble code(s) is shown.
  - (1) When there is only one diagnostic trouble code.

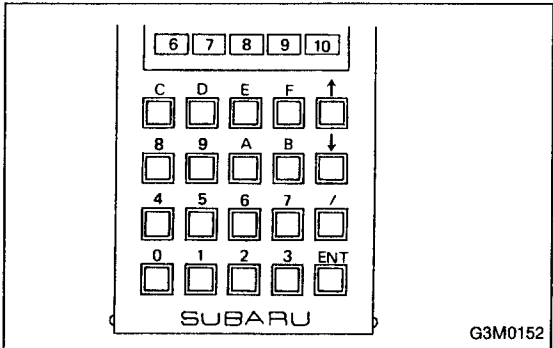


- (2) When there are multiple diagnostic trouble codes.
- NOTE:  
For details concerning diagnostic trouble codes, refer to the DIAGNOSTIC TROUBLE CODE (DTC) LIST, 2-7 [T11A0]☆4.



**3. READ CURRENT DATA SHOWN ON DISPLAY FOR ENGINE. (FUNCTION MODE)**

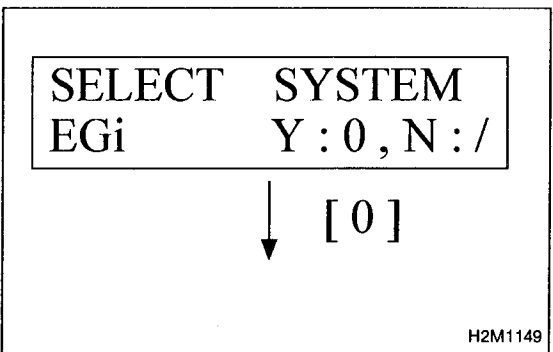
1) Select engine mode using function key.  
Press the function key [0].



2) Designate mode using function key.  
Refer to "6. READ DATA FUNCTION KEY LIST FOR ENGINE" 2-7 [T3C6]☆4.

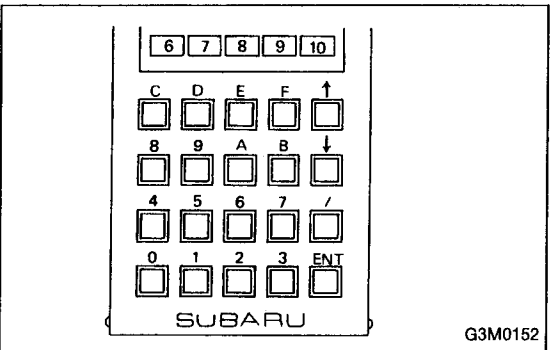
(Example: Press [F] [0] [1] [ENT] in that order.)

3) Ensure data of input or output signal is shown.



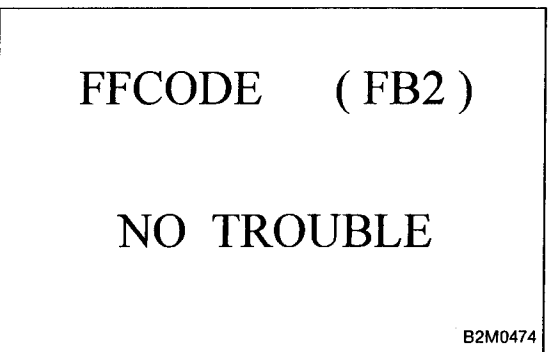
**4. READ FREEZE FRAME DATA SHOWN ON DISPLAY. (MODE FB2)**

1) Select engine mode using function key.  
Press the function key [0].



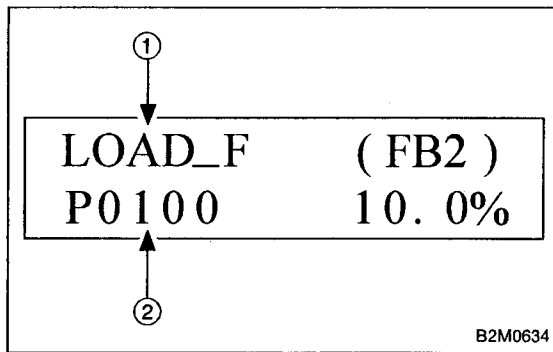
2) Designate mode using function key.

Press [F] [B] [2] [ENT] in that order.



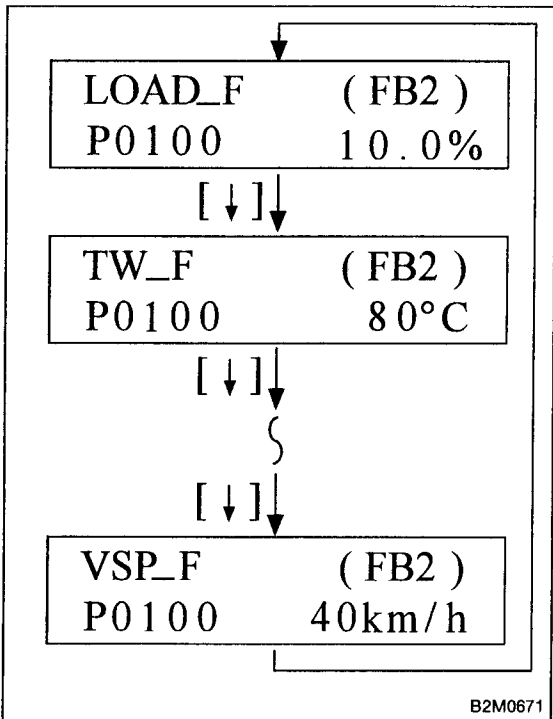
3) Ensure freeze frame data(s) is (are) shown.

(1) When no trouble is detected, or after memory is cleared.



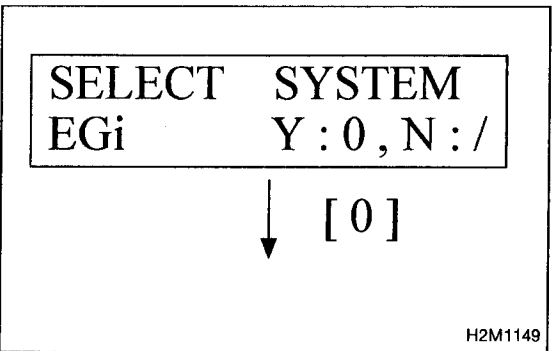
(2) When some trouble is detected.

- ① Abbreviation
- ② Diagnostic trouble code of trouble occurred



NOTE:

Other freeze frame data is shown on display by pushing the function key [↓].



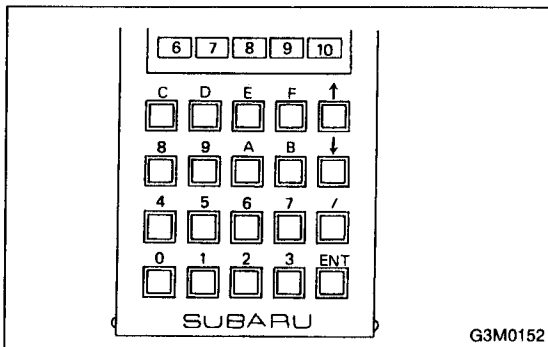
**5. READ FREEZE FRAME DATA SHOWN ON DISPLAY. (MODE FB3)**

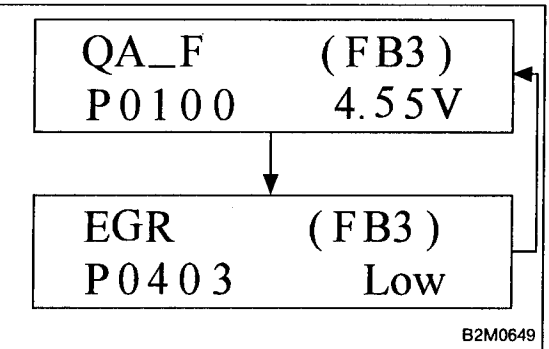
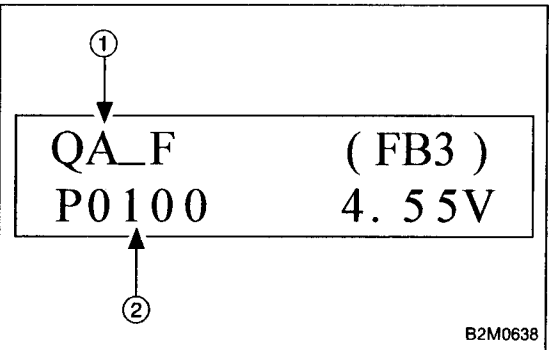
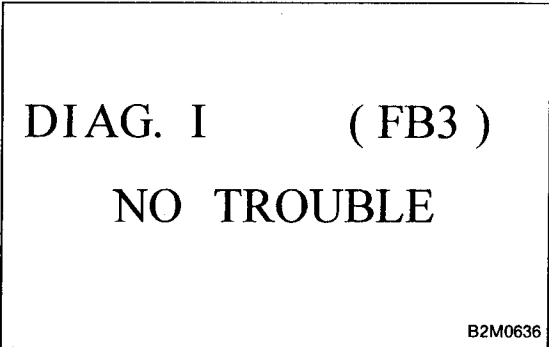
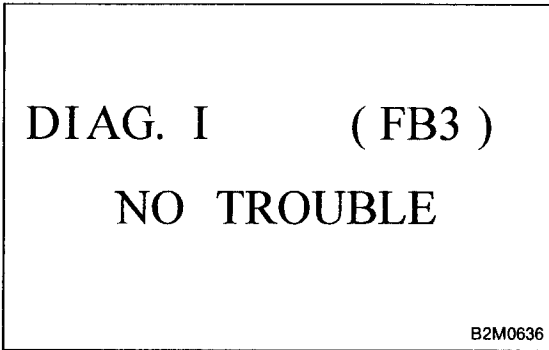
NOTE:

- For items and contents shown on display, refer to "6. READ DATA FUNCTION KEY LIST FOR ENGINE" 2-7 [T3C6]☆4.
- Freeze frame data will not erase without clearing memory.

1) Select engine mode using function key. Press the function key [0].

2) Designate mode using function key. Press [F] [B] [3] [ENT] in that order.





3) Ensure freeze frame data(s) is (are) shown.  
(1) When no trouble is detected, or after memory is cleared.

(2) When a trouble occurs but the corresponding item is not displayed.

(3) When only one trouble corresponding to the displayed item has occurred.

- ① Abbreviation
- ② Diagnostic trouble code of trouble occurred

(4) When multiple troubles corresponding to the displayed item are detected.

NOTE:

Freeze frame data is shown on display for 2 seconds at a time.



## 6. READ DATA FUNCTION KEY LIST FOR ENGINE

Function mode	Contents	Abbreviation	Unit of measure
F00	ROM ID number	YEAR	—
F01	Battery voltage	VB	V
F02	Vehicle speed signal	VSP	km/h, MPH
F03	Engine speed signal	EREV	rpm
F04	Engine coolant temperature signal	TW	°C, °F
F05	Ignition signal	ADVS	deg
F06	Mass air flow signal	QA	g/s, V
F07	Throttle position signal	THV	%, V
F08	Injector pulse width	TIM	mS
F09	Idle air control signal	ISC	%
F10	Load data	LOAD	%
F11	Front oxygen sensor output signal	O2	V
F12	Front oxygen sensor maximum and minimum output signal	O2max - min	V, V
F13	Rear oxygen sensor output signal	RO2	V
F14	Rear oxygen sensor maximum and minimum output signal	RO2max - min	V, V
F17	Short term fuel trim	ALPHA	%
F19	Knock sensor signal	KNOCK	deg
F20	Atmospheric absolute pressure signal	BARO. P	kPa, mmHg
F21	Intake manifold absolute pressure signal	MANI. P	kPa, mmHg
F29	A/F correction (short term trim) by rear oxygen sensor	PHOS	%
F30	Long term fuel trim	KBLRC	%
F31	Long term whole fuel trim	K0	%
F32	Front oxygen sensor heater current	FO2H	A
F33	Rear oxygen sensor heater current	RO2H	A
F36	Maximum value of cylinder #1 misfire times during 100 rotations	MF1	%
F37	Maximum value of cylinder #2 misfire times during 100 rotations	MF2	%
F38	Maximum value of cylinder #3 misfire times during 100 rotations	MF3	%
F39	Maximum value of cylinder #4 misfire times during 100 rotations	MF4	%
F42	Maximum and minimum EGR system pressure value	EGRmax - min	kPa
FA0	ON ↔ OFF signal	—	—
FA1	ON ↔ OFF signal	—	—
FA2	ON ↔ OFF signal	—	—
FA3	ON ↔ OFF signal	—	—
FA4	ON ↔ OFF signal	—	—
FA5	ON ↔ OFF signal	—	—
FB0	Diagnostic trouble code (DTC)	INSPECT	—

Function mode	Contents	Abbreviation	Unit of measure
FB1	Diagnostic trouble code (DTC)	OBD	—
FB2	Load data (Freeze frame data)	LOAD-F	%
	Engine coolant temperature signal (Freeze frame data)	TW-F	°C
	Throttle position signal (Freeze frame data)	ALPH-F	%
	Long term fuel trim (Freeze frame data)	KBLR-F	%
	Intake manifold absolute pressure signal (Freeze frame data)	MANI-F	kPa
	Engine speed signal (Freeze frame data)	EREV-F	rpm
	Vehicle speed signal (Freeze frame data)	VSP-F	km/h
FB3	Mass air flow signal (Freeze frame data)	QA-F (P0100)	V
	Pressure signal (Freeze frame data)	PS-F (P0105)	V
	Pressure signal (Freeze frame data)	PR-F (P0106)	V
	Engine coolant temperature signal (Freeze frame data)	TW-F (P0115)	V
	Throttle position signal (Freeze frame data)	THV-F (P0120)	V
	EGR control solenoid valve signal (Freeze frame data)	EGR (P0403)	—*1
	Purge control solenoid valve signal (Freeze frame data)	CPC (P0443)	—*1
	Start switch signal (Freeze frame data)	STSW (P1100)	—*1
	Pressure sources switching solenoid valve signal (Freeze frame data)	BR1 (P1102)	—*1
	Radiator fan relay 1 signal (Freeze frame data)	FAN1 (P1500)	—*1
FC0	Clear memory	—	—
FD01	Compulsory fuel pump relay operation check	FUEL PUMP	—
FD02	Compulsory purge control solenoid valve operation check	CPC SOL	—
FD03	Compulsory radiator fan relay operation check	RAD FAN	—
FD04	Compulsory A/C relay operation check	A/C RELAY	—
FD05	Compulsory EGR control solenoid valve operation check	EGR SOL	—
FD10	Compulsory pressure sources switching solenoid valve operation check	BR SOL	—

NOTE:

1) Subaru select monitor is also available for monitoring information other than that used for check and repair of the vehicle.

2) F42 (Maximum and minimum EGR system pressure value) will not read accurately until the EGR flow diagnosis terminates.

EGR flow diagnosis terminates when LED No. 2 illuminates at function mode FA4.

3) \*1: "Hi" or "Low" is shown instead of measured value.

4) Because valve is not installed, FD06, FD07, FD08, FD09 and FD11 will be displayed but non-functional.

1996	( F00 )
2 . 2	SOHC
B2M0476	

**7. FUNCTION MODE: F00**  
— ROM ID NUMBER (YEAR) —

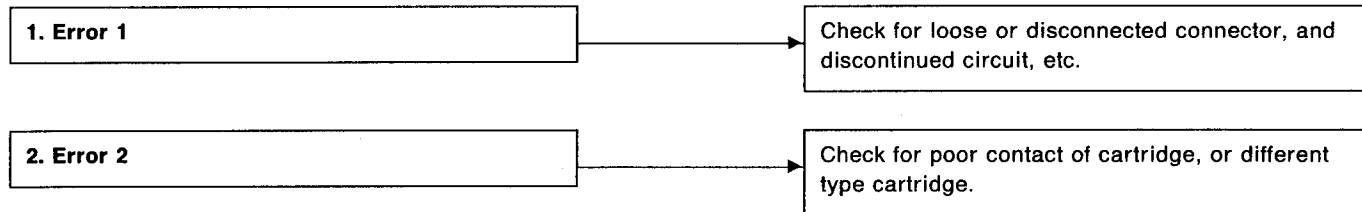
**CONDITION:**

Ignition switch "ON"

**SPECIFIED DATA:**

Presentation display

- Probable cause (Item outside "specified data")



VB	(F01)
12.4 V	
B2M0270	

**8. FUNCTION MODE: F01**  
— BATTERY VOLTAGE (VB) —

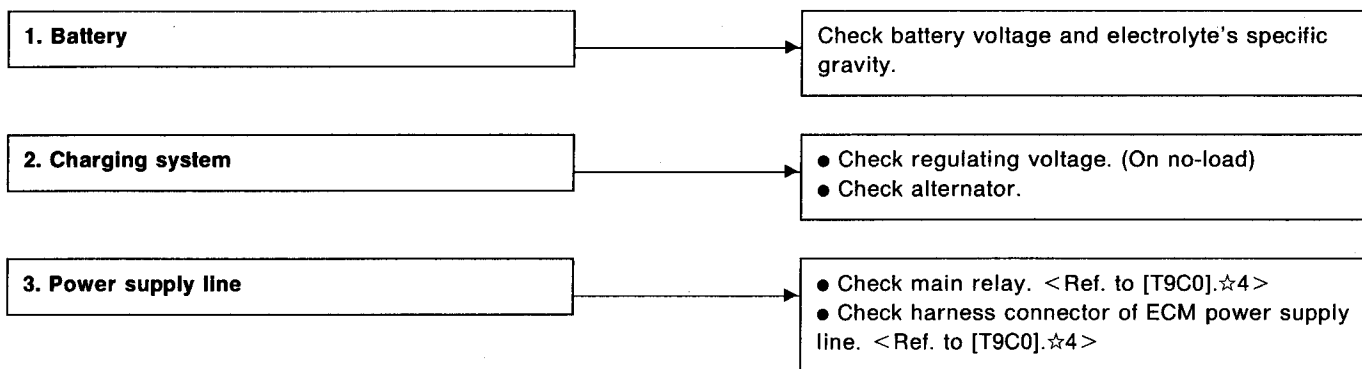
**CONDITION:**

- (1) Ignition switch "ON"
- (2) Idling after warm-up

**SPECIFIED DATA:**

- (1)  $11 \pm 1$  V
- (2)  $13 \pm 1$  V

- Probable cause (Item outside "specified data")



VSP (F02)

24km/h 15MPH

B2M0754

**9. FUNCTION MODE: F02****— VEHICLE SPEED SIGNAL (VSP) —**

- Vehicle speed is indicated in kilometer per hour (km/h) and mile per hour (MPH) at the same time.

EREV (F03)

1500 rpm

B2M0478

**10. FUNCTION MODE: F03****— ENGINE SPEED SIGNAL (EREV) —**

TW (F04)

80 °C 176 °F

B2M0479

**11. FUNCTION MODE: F04****— ENGINE COOLANT TEMPERATURE SIGNAL (TW) —**

- Engine coolant temperature is indicated in "°C" and "°F" at the same time.

ADVS (F05)

15 deg

B2M0480

**12. FUNCTION MODE: F05****— IGNITION SIGNAL (ADVS) —****NOTE:**

The ignition timing value displayed in mode F05 is a value computed by ECM and will not always correspond with the value measured with a timing light.

QA (F06)

1.67g/s 2.02V

B2M0481

**13. FUNCTION MODE: F06****— MASS AIR FLOW SIGNAL (QA) —**

- Mass air flow and voltage input from mass air flow sensor are shown on display at the same time.

THV ( F07 )  
  
0% 0.21V  
  
B2M0482

**14. FUNCTION MODE: F07**

**— THROTTLE POSITION SIGNAL (THV) —**

- Throttle position is indicated in percentage (%) and voltage (V) at the same time.

**NOTE:**

Be sure that the displayed value changes smoothly when changing throttle valve from fully closed to fully opened.

TIM ( F08 )  
  
2.82 mS  
  
B2M0483

**15. FUNCTION MODE: F08**

**— INJECTOR PULSE WIDTH (TIM) —**

ISC ( F09 )  
  
35.7 %  
  
B2M0484

**16. FUNCTION MODE: F09**

**— IDLE AIR CONTROL SIGNAL (ISC) —**

LOAD ( F10 )  
  
10.0 %  
  
B2M0485

**17. FUNCTION MODE: F10**

**— LOAD DATA (LOAD) —**

O2 ( F11 )  
  
0.60 V  
  
B2M0486

**18. FUNCTION MODE: F11**

**— FRONT OXYGEN SENSOR OUTPUT SIGNAL (O2) —**

O2max - min ( F12 )

0 . 80V 0 . 10V

B2M0487

**19. FUNCTION MODE: F12****— FRONT OXYGEN SENSOR MAXIMUM AND MINIMUM OUTPUT SIGNAL (FO2MAX - MIN) —**

- Front oxygen sensor maximum and minimum output signals are indicated at the same time.

RO2 ( F13 )

0 . 60 V

B2M0488

**20. FUNCTION MODE: F13****— REAR OXYGEN SENSOR OUTPUT SIGNAL (RO2) —**

RO2max - min ( F14 )

0 . 80V 0 . 10V

B2M0489

**21. FUNCTION MODE: F14****— REAR OXYGEN SENSOR MAXIMUM AND MINIMUM OUTPUT SIGNAL (RO2MAX - MIN) —**

- Rear oxygen sensor maximum and minimum output signals are indicated at the same time.

ALPHA ( F17 )

- 0 . 8 %

B2M0490

**22. FUNCTION MODE: F17****— SHORT TERM FUEL TRIM [A/F CORRECTION COEFFICIENT] (ALPHA) —**

KNOCK ( F19 )

3 . 0 deg

B2M0491

**23. FUNCTION MODE: F19****— KNOCK SENSOR SIGNAL [IGNITION TIMING CORRECTION COEFFICIENT] (KNOCK) —**

BARO. P (F 2 0)  
1 0 0 kPa 752 mmHg  
B2M0755

24. FUNCTION MODE: F20  
— ATMOSPHERIC ABSOLUTE PRESSURE SIGNAL (BARO. P) —

- Atmospheric absolute pressure is indicated in "kPa" and "mmHg" at the same time.

MANI. P (F 2 1)  
2 9 kPa 218 mmHg  
B2M0756

25. FUNCTION MODE: F21  
— INTAKE MANIFOLD ABSOLUTE PRESSURE SIGNAL (MANI. P) —

- Intake manifold absolute pressure is indicated in "kPa" and "mmHg" at the same time.

PHOS (F29)  
0 . 7 8 %  
B2M0494

26. FUNCTION MODE: F29  
— A/F CORRECTION COEFFICIENT [SHORT TERM TRIM] BY REAR OXYGEN SENSOR (PHOS) —

KBLRC (F30)  
5 . 5 %  
B2M0495

27. FUNCTION MODE: F30  
— LONG TERM FUEL TRIM [A/F LEARNING CORRECTION COEFFICIENT] (KBLRC) —

K0 (F31)  
0 . 0 %  
B2M0496

28. FUNCTION MODE: F31  
— LONG TERM FUEL TRIM WHOLE [A/F LEARNING CONTROL COEFFICIENT] (K0) —

FO2H ( F32 )  
  
1 . 00 A  
  
B2M0497

29. FUNCTION MODE: F32  
— FRONT OXYGEN SENSOR HEATER CURRENT (FO2H) —

RO2H ( F33 )  
  
1 . 00 A  
  
B2M0498

30. FUNCTION MODE: F33  
— REAR OXYGEN SENSOR HEATER CURRENT (RO2H) —

MF1 ( F36 )  
  
0 %  
  
B2M0499

31. FUNCTION MODE: F36  
— MAXIMUM VALUE OF CYLINDER #1 MISFIRE RATE DURING 100 ROTATIONS (MF1) —

MF2 ( F37 )  
  
0 %  
  
B2M0500

32. FUNCTION MODE: F37  
— MAXIMUM VALUE OF CYLINDER #2 MISFIRE RATE DURING 100 ROTATIONS (MF2) —

MF3 ( F38 )  
  
0 %  
  
B2M0501

33. FUNCTION MODE: F38  
— MAXIMUM VALUE OF CYLINDER #3 MISFIRE RATE DURING 100 ROTATIONS (MF3) —



MF4 (F39)  
0 %  
B2M0502

**34. FUNCTION MODE: F39**  
**— MAXIMUM VALUE OF CYLINDER #4 MISFIRE RATE DURING 100 ROTATIONS (MF4) —**

EGRmax-min (F42)  
100kPa 4kPa  
B2M0759

**35. FUNCTION MODE: F42**  
**— MAXIMUM AND MINIMUM EGR SYSTEM PRESSURE VALUE [AT VEHICLES] (EGRMAX-MIN) —**  
● Maximum and minimum EGR system pressure value are indicated at the same time.

## 36. FA MODE FOR ENGINE

Function mode	LED No.	Contents	Display	LED "ON" requirements
FA0	3	Neutral switch	NT	When neutral position signal is entered.
	7	Test mode connector	UD	When test mode connector is connected.
	8	AT/MT identification signal	AT	When AT identification signal is entered.
	9	Ignition switch	IG	When ignition switch is turned ON.
FA1	1	Radiator fan relay 2	R2	When radiator fan relay 2 is in function.
	2	Knock signal	KS	When knock signal is entered.
	3	Purge control solenoid valve	CN	When purge control solenoid valve is in function.
	4	Fuel pump relay	FP	When fuel pump relay is in function.
	6	Radiator fan relay 1	R1	When radiator fan relay 1 is in function.
	7	Air conditioner relay	AR	When air conditioner relay is in function.
	8	Air conditioner switch	AC	When air conditioner switch is turned ON.
FA2	2	AEC signal	EC	When AEC signal is entered.
	3	EAM signal	AM	When EAM signal is gone out.
	4	AEB signal	EB	When AEB signal is entered.
	6	AET signal	ET	When AET signal is entered.
	7	Engine torque control signal	TR	When engine torque control signal is entered.
FA3	7	Pressure sources switching solenoid valve	BR	When pressure sources switching solenoid valve is in function.
FA4	1	Catalyst	CA	When diagnosis of catalyzer is finished.
	2	EGR system	E1	When diagnosis of EGR system is finished.
	3	California model identification signal	FC	When California model identification signal is entered.
	8	Rear oxygen sensor signal	OR	When rear oxygen sensor mixture ratio is rich.
	9	Front oxygen sensor signal	O2	When front oxygen sensor mixture ratio is rich.
FA5	7	EGR solenoid valve	ER	When EGR solenoid valve is in function.

LED No.	Signal name	Display
1	—	—
2	—	—
3	Neutral switch	NT
4	—	—
5	—	—
6	—	—
7	Test mode connector	UD
8	Identification of AT model	AT
9	Ignition switch	IG
0	—	—

—	—	NT	—	—
—	UD	AT	IG	—

1	2	3	4	5
6	7	8	9	0

**37. FUNCTION MODE: FA0**

**— ON ↔ OFF SIGNAL —**

Requirement for LED "ON".

- LED No. 3 Shift position is in "P" or "N".
- LED No. 7 Test mode connector is connected.
- LED No. 8 Vehicle is AT model.
- LED No. 9 Ignition switch is turned ON.

LED No.	Signal name	Display
1	Radiator fan relay 2	R2
2	Knock signal	KS
3	Purge control solenoid valve	CN
4	Fuel pump relay	FP
5	—	—
6	Radiator fan relay 1	R1
7	A/C relay	AR
8	A/C switch	AC
9	—	—
0	—	—

R2	KS	CN	FP	—
R1	AR	AC	—	—

1	2	3	4	5
6	7	8	9	0

**38. FUNCTION MODE: FA1**

**— ON ↔ OFF SIGNAL —**

Requirement for LED "ON".

- LED No. 1 Radiator fan relay 2 is turned ON.
- LED No. 2 Engine is knocking.
- LED No. 3 Purge control solenoid valve is in function.
- LED No. 4 Fuel pump relay is turned ON.
- LED No. 6 Radiator fan relay 1 is turned ON.
- LED No. 7 A/C relay is turned ON.
- LED No. 8 A/C switch is turned ON.

NOTE:

- When LED No. 1, 3, 4, 6 and 7 blinks with the test mode connector connected and the ignition switch turned to ON, the corresponding part is functioning properly.
- When LED No. 4 illuminates for only 2 seconds after the ignition switch is turned to ON, (and then goes out), the corresponding part is functioning properly.

LED No.	Signal name	Display
1	—	—
2	AEC signal	EC
3	EAM signal	AM
4	AEB signal	EB
5	—	—
6	AET signal	ET
7	Engine torque control signal	TR
8	—	—
9	—	—
0	—	—

—	EC	AM	EB	—
ET	TR	—	—	—

1	2	3	4	5
---	---	---	---	---

6	7	8	9	0
---	---	---	---	---

**39. FUNCTION MODE: FA2**

— ON ↔ OFF SIGNAL —

Requirement for LED "ON".

LED No. 2 ECM entered the AEC signal emitted from TCS C/M.

LED No. 3 EAM signal goes out.

LED No. 4 ECM entered the AEB signal emitted from TCS C/M.

LED No. 6 ECM entered the AET signal emitted from TCS C/M.

LED No. 7 ECM entered the torque control signal emitted from TCM.

LED No.	Signal name	Display
1	—	—
2	—	—
3	—	—
4	—	—
5	—	—
6	—	—
7	Pressure sources switching solenoid valve	BR
8	—	—
9	—	—
0	—	—

—	—	—	—	—
—	BR	—	—	—

1	2	3	4	5
---	---	---	---	---

6	7	8	9	0
---	---	---	---	---

**40. FUNCTION MODE: FA3**

— ON ↔ OFF SIGNAL —

Requirement for LED "ON".

LED No. 7 Pressure sources switching solenoid valve is in function.

NOTE:

When LED No. 7 blinks with the test mode connector connected and the ignition switch turned to ON, the corresponding part is functioning properly.

LED No.	Signal name	Display
1	Catalyst	CA
2	EGR system	E1
3	California model identification signal	FC
4	—	—
5	—	—
6	—	—
7	—	—
8	Rear oxygen sensor signal	OR
9	Front oxygen sensor signal	O2
0	—	—

CA	E1	FC	—	—
—	—	OR	O2	—

1	2	3	4	5
6	7	8	9	0

LED No.	Signal name	Display
1	—	—
2	—	—
3	—	—
4	—	—
5	—	—
6	—	—
7	EGR solenoid valve	ER
8	—	—
9	—	—
0	—	—

—	—	—	—	—
—	ER	—	—	—

1	2	3	4	5
6	7	8	9	0

**41. FUNCTION MODE: FA4**

— ON ↔ OFF SIGNAL —

Requirement for LED "ON".

- LED No. 1 Diagnosis of catalyzer is finished.
- LED No. 2 Diagnosis of EGR system is finished.
- LED No. 3 Vehicle is except California model.
- LED No. 8 Rear oxygen sensor mixture ratio is rich.
- LED No. 9 Front oxygen sensor mixture ratio is rich.

**42. FUNCTION MODE: FA5**

— ON ↔ OFF SIGNAL —

Requirement for LED "ON".

- LED No. 7 EGR solenoid valve is in function.

NOTE:

When LED No. 7 blinks with the test mode connector connected and the ignition switch turned to ON, the corresponding part is functioning properly.

43. FB MODE FOR ENGINE

Function mode	Abbreviation	Contents	Contents of display	Page
FB0	INSPECT	On-board diagnostics (Inspection)	Current trouble code indicated by on-board diagnostics after clear memory.	[T3E1]☆2
FB1	OBD	On-board diagnostics (Read data)	Current trouble code indicated by on-board diagnostics.	14
FB2	LOAD-F	Load data	<ul style="list-style-type: none"> <li>● Freeze frame data</li> <li>● Data stored at the time of trouble occurrence, is shown on display.</li> </ul>	15
	TW-F	Engine coolant temperature signal		
	ALPH-F	Throttle position signal		
	KBLR-F	Long term fuel trim		
	MANI-F	Intake manifold absolute pressure signal		
	EREV-F	Engine speed signal		
	VSP-F	Vehicle speed signal		
FB3	QA-F (P0100)	Mass air flow signal	<ul style="list-style-type: none"> <li>● Freeze frame data</li> <li>● Data stored at the time of trouble occurrence, is shown on display.</li> </ul>	16
	PS-F (P0105)	Pressure signal		
	PR-F (P0106)	Pressure signal		
	TW-F (P0115)	Engine coolant temperature signal		
	THV-F (P0120)	Throttle position signal		
	EGR (P0403)	EGR control solenoid valve signal		
	CPC (P0443)	Purge control solenoid valve signal		
	STSW (P1100)	Start switch signal		
	BR1 (P1102)	Pressure sources switching solenoid valve signal		
	FAN1 (P1500)	Radiator fan relay 1 signal		

44. FC MODE FOR ENGINE

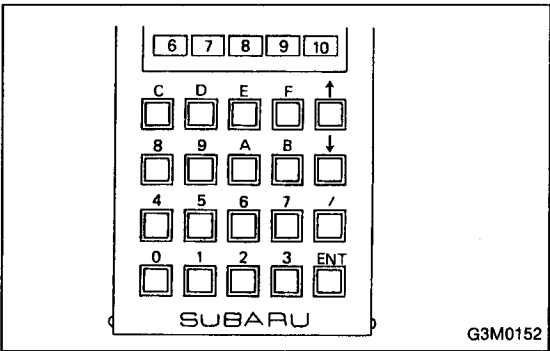
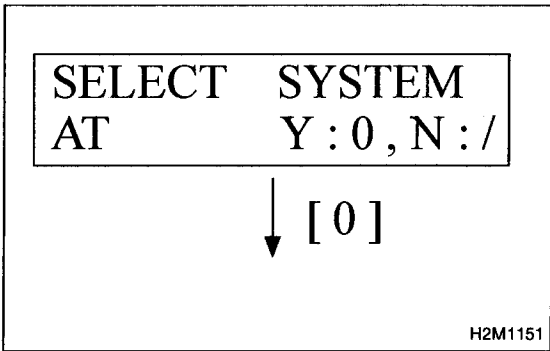
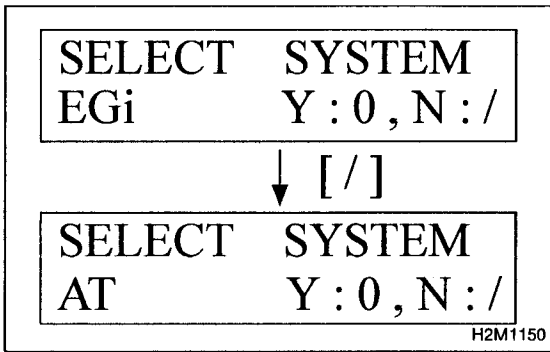
Function mode	Abbreviation	Contents	Contents of display	Page
FC0	MEMORY CLR	Back-up memory clear	Function of clearing trouble code stored in memory.	[T3D1]☆2

45. FD MODE FOR ENGINE

Function mode	Abbreviation	Contents	Contents of display	Page
FD01	FUEL PUMP	Compulsory valve operation check	Function of checking operation of fuel pump relay, purge control solenoid valve, radiator fan relay, A/C relay, EGR control solenoid valve and pressure sources switching valve.	39
FD02	CPC SOL			
FD03	RAD FAN			
FD04	A/C RELAY			
FD05	EGR SOL			
FD10	BR SOL			

NOTE:

Because valve is not installed, FD06, FD07, FD08, FD09 and FD11 will be displayed but non-functional.



**46. READ CURRENT DATA SHOWN ON DISPLAY FOR AT. (FUNCTION MODE)**

1) Select AT mode using function key.  
 Press the function key [ / ], and change to AT mode.

2) Press the function key [0].

3) Designate mode using function key.  
 Refer to "READ DATA FUNCTION KEY LIST FOR AT" 3-2 [T3C6]☆2.

(Example: Press [F] [0] [2] [ENT] in that order.)

4) Ensure data of input or output signal is shown.

## 47. READ DATA FUNCTION KEY LIST FOR AT

Function mode	Contents	Abbr.	Unit
F00	Mode display	—	—
F01	Battery voltage	VB	V
F02	Vehicle speed sensor 1	VSP1	m/h
F03	Vehicle speed sensor 1	VSP1	km/h
F04	Vehicle speed sensor 2	VSP2	m/h
F05	Vehicle speed sensor 2	VSP2	km/h
F06	Engine speed	EREV	rpm
F07	ATF temperature sensor	ATFT	deg F
F08	ATF temperature sensor	ATFT	deg C
F09	Throttle position sensor	THV	V
F10	Gear position	GEAR	—
F11	Line pressure duty	PLDTY	%
F12	Lock-up duty	LUPTY	%
F13	AWD duty	4WDTY	%
F14	Throttle position sensor power supply	THVCC	V
F15	Mass air flow sensor	AFM	V



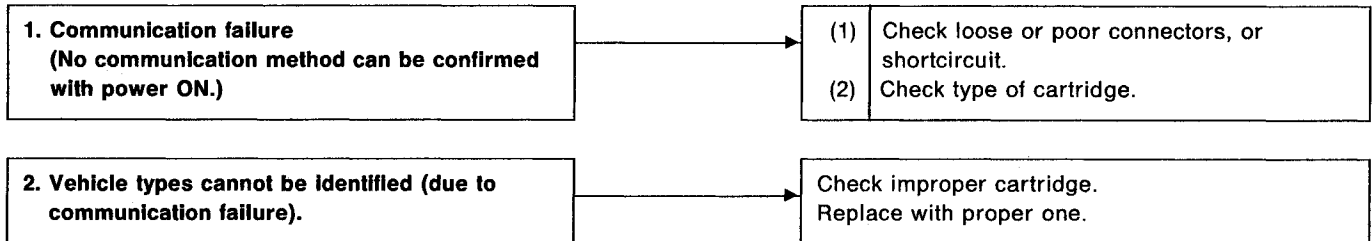
E-4AT	(F00)
4WD	1993
G3M0723	

**48. FUNCTION MODE: F00**  
**— MODE DISPLAY —**

**SPECIFIED DATA:**

Data at the left should be indicated.

Probable cause (if outside "specified data")



VB	(F01)
12.7 V	
OBD0673	

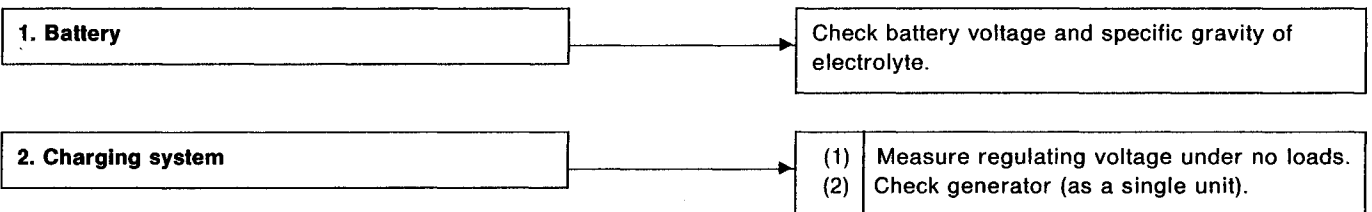
**49. FUNCTION MODE: F01**  
**— BATTERY VOLTAGE (VB) —**

**CONDITION:**

- (1) Ignition switch ON
- (2) Engine idling after warm-up

**SPECIFIED DATA:**

- (1)  $12 \pm 1$  V
- (2)  $13 \pm 1$  V



VSP1 (F02)

18 m/h

G3M0725

**50. FUNCTION MODE: F02****— VEHICLE SPEED SENSOR 1 (VSP1) —**

- F02: Vehicle speed is indicated in mile per hour (m/h).
- F03: Vehicle speed is indicated in kilometer per hour (km/h).

VSP2 (F04)

12 m/h

G3M0726

**51. FUNCTION MODE: F04****— VEHICLE SPEED SENSOR 2 (VSP2) —**

- F04: Vehicle speed is indicated in mile per hour (m/h).
- F05: Vehicle speed is indicated in kilometer per hour (km/h).

EREV (F06)

1,500 rpm

G3M0727

**52. FUNCTION MODE: F06****— ENGINE SPEED (EREV) —**

ATFT deg F (F07)

176 deg F

G3M0728

**53. FUNCTION MODE: F07****— ATF TEMPERATURE SENSOR (ATFT) —**

- F07: ATF temperature is indicated in "deg F".
- F08: ATF temperature is indicated in "deg C".

THV (F09)

4.0 V

G3M0935

**54. FUNCTION MODE: F09****— THROTTLE POSITION SENSOR (THV) —**

GEAR (F10)  
  
1st  
  
G3M0730

55. FUNCTION MODE: F10  
— GEAR POSITION (GEAR) —

PLDTY (F11)  
  
50%  
  
G3M0731

56. FUNCTION MODE: F11  
— LINE PRESSURE DUTY (PLDTY) —

LUPTY (F12)  
  
5%  
  
G3M0732

57. FUNCTION MODE: F12  
— LOCK-UP DUTY (LUPTY) —

4WDTY (F13)  
  
95%  
  
G3M0733

58. FUNCTION MODE: F13  
— AWD DUTY (4WDTY) —

THVCC (F14)  
  
5.2 V  
  
B3M0259

59. FUNCTION MODE: F14  
— THROTTLE POSITION SENSOR POWER SUPPLY (THVCC) —

LED No.	Signal name	Display
1	FWD switch	FF
2	Kick-down switch	KD
3	—	—
4	—	—
5	Brake switch	BR
6	ABS switch	AB
7	Cruise control set	CR
8	Power switch	PW
9	—	—
10	—	—

FF	KD	—	—	BR
AB	CR	PW	—	—

1	2	3	4	5
6	7	8	9	10

**60. FUNCTION MODE: FA0**

— ON ↔ OFF SIGNAL —

Requirement for LED "ON".

- LED No. 1 Fuse is installed in FWD switch.
- LED No. 2 Kick-down switch is turned ON. (Not equipped)
- LED No. 5 Brake pedal is depressed.
- LED No. 6 ABS signal is entered.
- LED No. 7 Cruise control is set.
- LED No. 8 Power switch is turned ON. (Not equipped)

LED No.	Signal name	Display
1	N/P range switch	NP
2	R range switch	RR
3	D range switch	RD
4	3 range switch	R3
5	2 range switch	R2
6	1 range switch	R1
7	Diagnosis switch	SS
8	—	—
9	—	—
10	—	—

NP	RR	RD	R3	R2
R1	SS	—	—	—

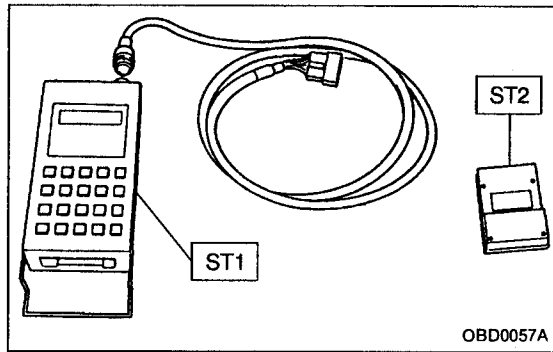
1	2	3	4	5
6	7	8	9	10

**61. FUNCTION MODE: FA1**

— ON ↔ OFF SIGNAL —

Requirement for LED "ON".

- LED No. 1 "N" or "P" range is selected.
- LED No. 2 "R" range is selected.
- LED No. 3 "D" range is selected.
- LED No. 4 "3" range is selected.
- LED No. 5 "2" range is selected.
- LED No. 6 "1" range is selected.
- LED No. 7 Diagnosis connector is connected.



**E: INSPECTION MODE**

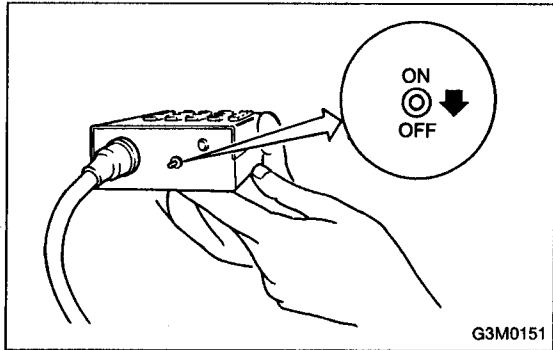
**2. SUBARU SELECT MONITOR**

After performing diagnostics and clearing the memory, check for any remaining unresolved trouble data.

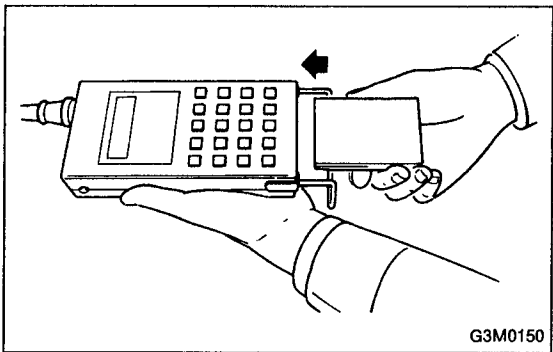
1) Prepare Subaru select monitor and cartridge.

ST1 498307500 SELECT MONITOR KIT

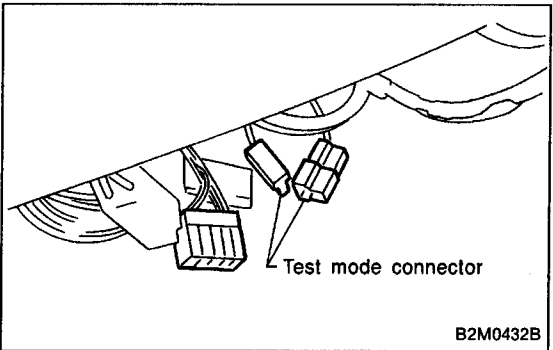
ST2 498345700 CARTRIDGE



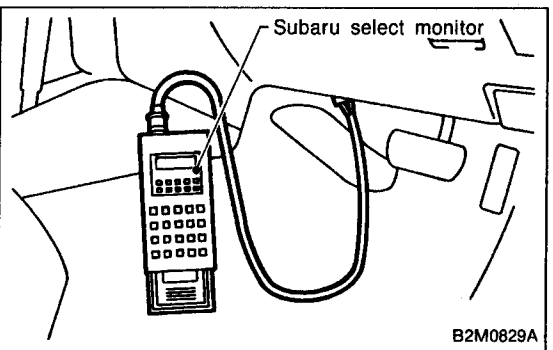
2) Turn ignition switch and Subaru select monitor switch to OFF.



3) Insert cartridge into Subaru select monitor.



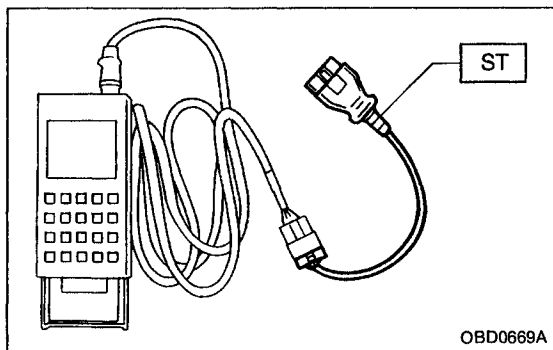
4) Connect test mode connector at the lower portion of instrument panel (on the driver's side), to the side of the center console box.



5) Connect Subaru select monitor to data link connector.

● Using data link connector for Subaru select monitor only:

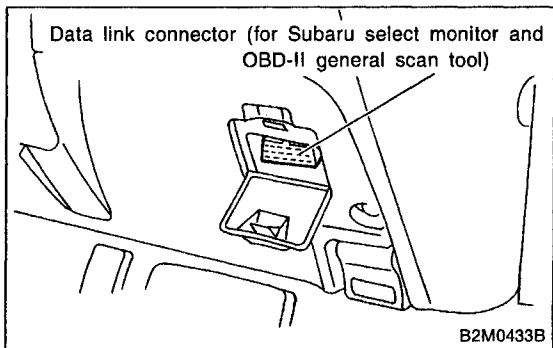
Connect Subaru select monitor to its data link connector located in the lower portion of the instrument panel (on the driver's side), to the side of the center console box.



● Using data link connector for Subaru select monitor and OBD-II general scan tool:

(1) Connect ST to Subaru select monitor cable.

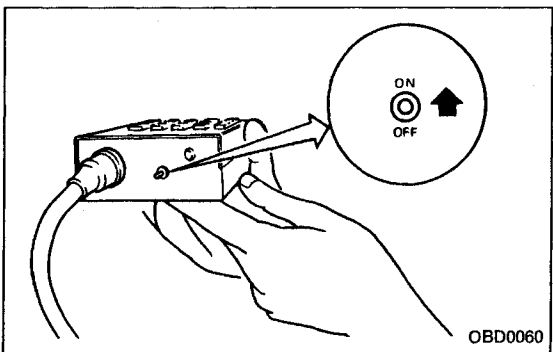
ST 498357200 ADAPTER CABLE



(2) Open the cover and connect Subaru select monitor to data link connector located in the lower portion of the instrument panel (on the driver's side), to the lower cover.

**CAUTION:**

**Do not connect scan tools except for Subaru select monitor and OBD-II general scan tool.**



6) Turn ignition switch to ON (engine OFF) and Subaru select monitor switch to ON.

7) Start the engine.

**NOTE:**

Ensure the selector lever is placed in the "P" position before starting.

8) Using the selector lever or shift lever, turn the "P" position switch and the "N" position switch to ON.

9) Depress the brake pedal to turn the brake switch ON.

10) Keep engine speed in the 2,500 — 3,000 rpm range for 40 seconds.

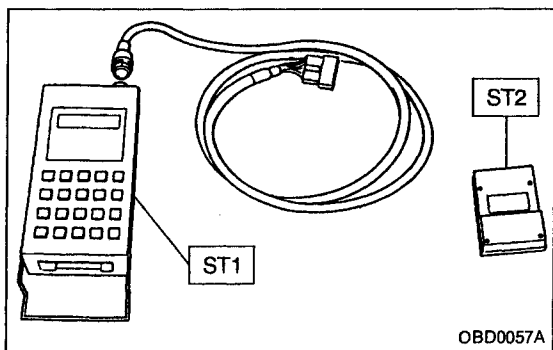
**NOTE:**

On models without tachometer, use the Subaru select monitor or tachometer (Secondary pickup type).

11) Place the selector lever or shift lever in the "D" position and drive the vehicle at 5 to 10 km/h (3 to 6 MPH).

**NOTE:**

On AWD vehicles, release the parking brake.



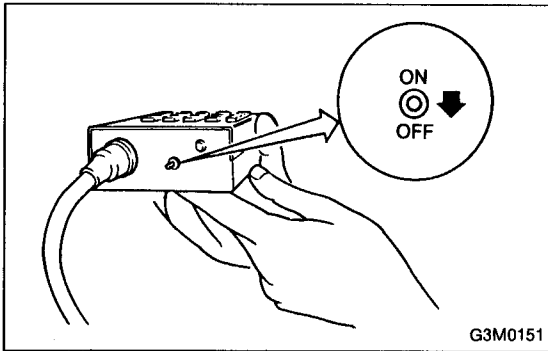
**F: COMPULSORY VALVE OPERATION CHECK MODE**

**1. SUBARU SELECT MONITOR**

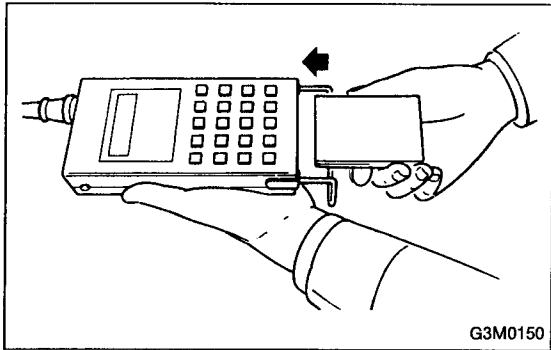
1) Prepare Subaru select monitor and cartridge.

ST1 498307500 SELECT MONITOR KIT

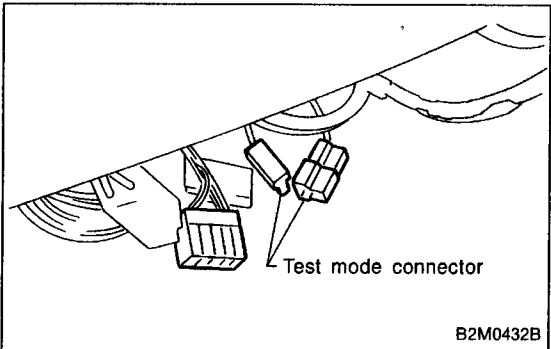
ST2 498345700 CARTRIDGE



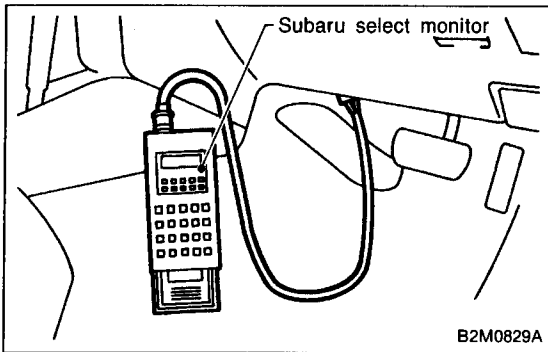
2) Turn ignition switch and Subaru select monitor switch to OFF.



3) Insert cartridge into Subaru select monitor.

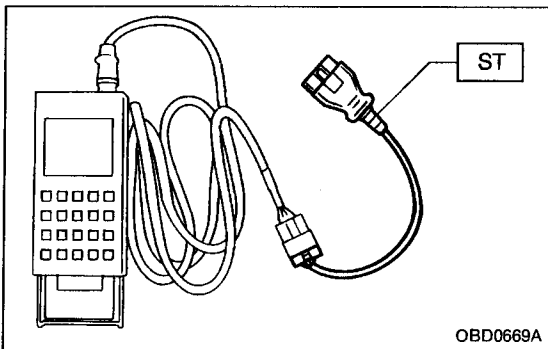


4) Connect test mode connector at the lower portion of instrument panel (on the driver's side), to the side of the center console box.



5) Connect Subaru select monitor to data link connector.  
● Using data link connector for Subaru select monitor only:

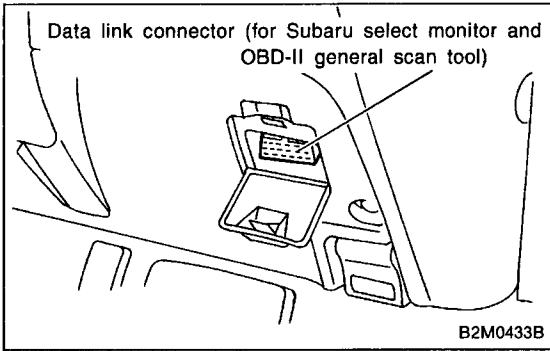
Connect Subaru select monitor to its data link connector located in the lower portion of the instrument panel (on the driver's side), to the side of the center console box.



● Using data link connector for Subaru select monitor and OBD-II general scan tool:

(1) Connect ST to Subaru select monitor cable.

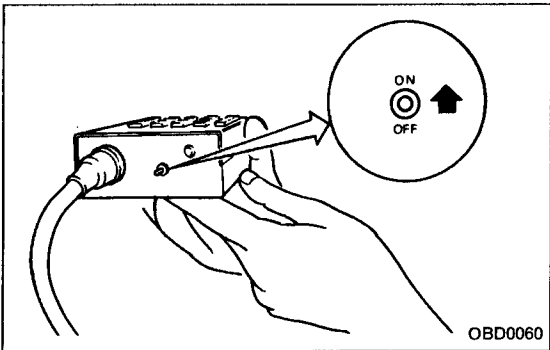
ST1 498357200 ADAPTER CABLE



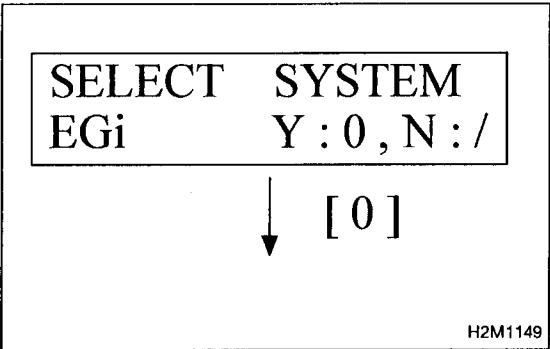
(2) Open the cover and connect Subaru select monitor to data link connector located in the lower portion of the instrument panel (on the driver's side), to the lower cover.

**CAUTION:**

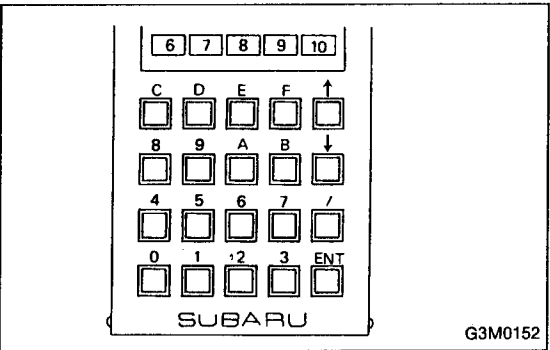
**Do not connect scan tools except for Subaru select monitor and OBD-II general scan tool.**



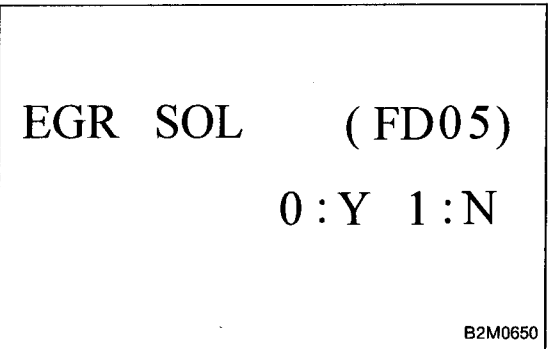
6) Turn ignition switch to ON (engine OFF) and Subaru select monitor switch to ON.



7) Select engine mode using function key. Press the function key [0].

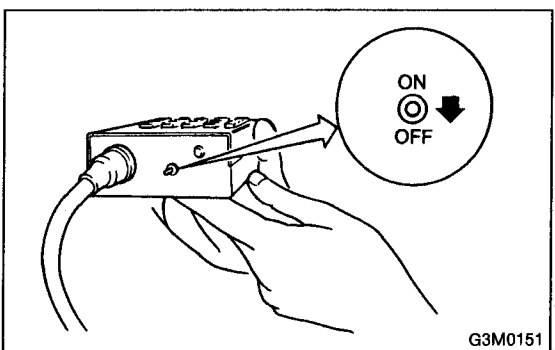
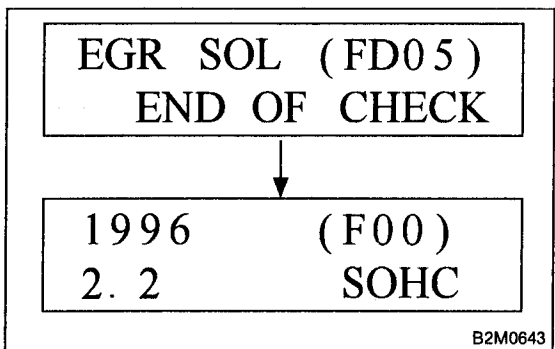
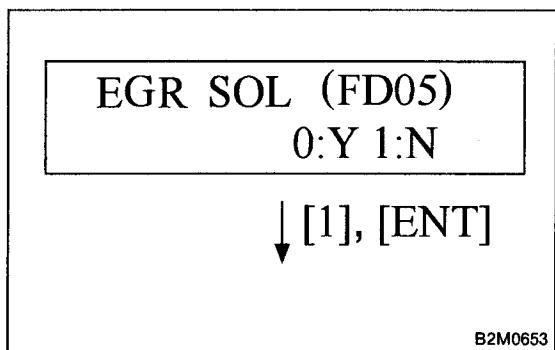
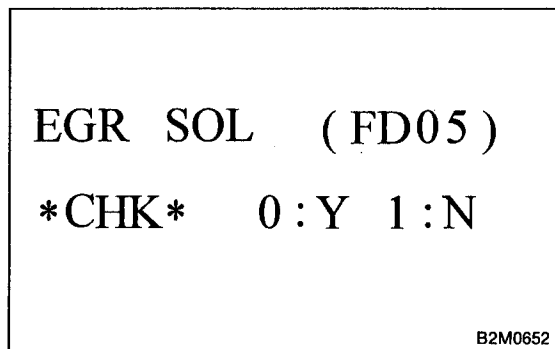
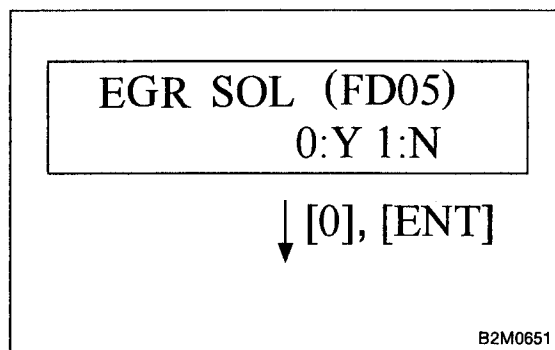


8) Designate mode using function key. Refer to "6. READ DATA FUNCTION KEY LIST FOR ENGINE" 2-7 [T3C6]☆4. (Example: Press [F] [D] [0] [5] [ENT] in that order.)



9) Ensure displayed message.





- 10) Press the function key.
  - (1) When executing, press the function key [0].

NOTE:  
When in compulsory valve operation check mode the monitor indicates the execution of valve check on display.

- (2) When not executing or stopping the compulsory valve check mode, press the function key [1].

11) When compulsory valve operation check mode is exited or check completed, the monitor indicates the completion of compulsory valve operation check on the display, and automatically returns to the initial mode (FUNCTION MODE: F00).

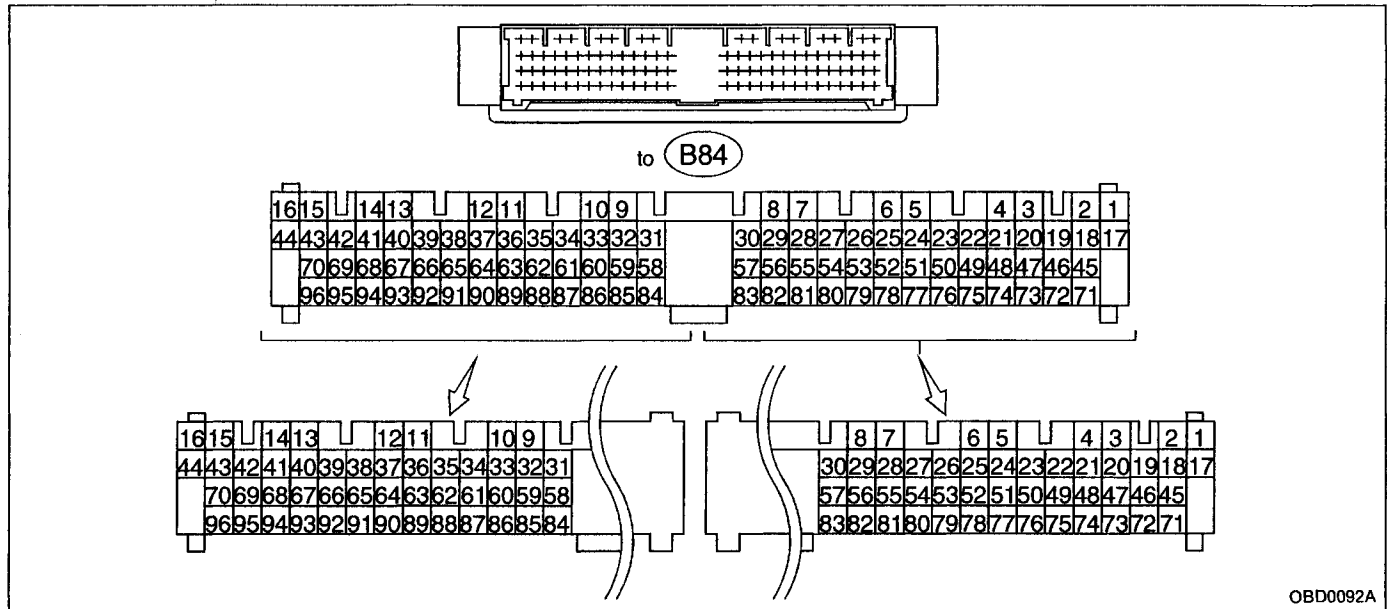
## G: FINISHING DIAGNOSIS OPERATION

### 1. SUBARU SELECT MONITOR

- 1) Disconnect test mode connector at the lower portion of instrument panel (on the driver's side), to the side of the center console box.
- 2) Turn Subaru select monitor switch and ignition switch to OFF.
- 3) Disconnect Subaru select monitor from its data link connector.

### 5. Specified Data

#### 1. ENGINE CONTROL MODULE (ECM) I/O SIGNAL



OBD0092A

Content	Connector No.	Terminal No.	Signal (V)		Note	
			Ignition SW ON (Engine OFF)	Engine ON (Idling)		
Crankshaft position sensor	Signal (+)	B84	8	0	-7 — +7	Sensor output waveform
	Signal (-)	B84	29	0	0	—
	Shield	B84	54	0	0	—
Camshaft position sensor	Signal (+)	B84	7	0	-7 — +7	Sensor output waveform
	Signal (-)	B84	28	0	0	—
	Shield	B84	54	0	0	—
Mass air flow sensor	Signal	B84	5	0 — 0.3	0.8 — 1.2	—
	Shield	B84	57	0	0	—
	GND	B84	20	0	0	—
Throttle position sensor	Signal	B84	6	Fully closed: 0.2 — 1.0 Fully opened: 4.2 — 4.7		—
	Power supply	B84	21	5	5	—
	GND	B84	20	0	0	—
Front oxygen sensor	Signal	B84	23	0	0 — 0.9	—
	Shield	B84	56	0	0	—
Rear oxygen sensor	Signal	B84	24	0	0 — 0.9	—
	Shield	B84	56	0	0	—
Engine coolant temperature sensor	B84	22	1.0 — 1.4	1.0 — 1.4	After warm-up	
Vehicle speed sensor 2	B84	83	0 or 5	0 or 5	"5" and "0" are repeatedly displayed when vehicle is driven.	

Content	Connector No.	Terminal No.	Signal (V)		Note	
			Ignition SW ON (Engine OFF)	Engine ON (Idling)		
Starter switch	B84	86	0	0	Cranking: 8 to 14	
A/C switch	B84	60	ON: 10 — 13 OFF: 0	ON: 13 — 14 OFF: 0	—	
Ignition switch	B84	85	10 — 13	13 — 14	—	
Neutral position switch	B84	82	ON: 0 OFF: 5.0 ± 0.5		Switch is ON when shift is in "N" or "P" position.	
Test mode connector	B84	84	5	5	When connected: 0	
Knock sensor	Signal	B84	3	2.8	—	
	Shield	B84	56	0	—	
AT/MT identification	B84	81	5	5	When measuring voltage between ECM and body.	
Back-up power supply	B84	39	10 — 13	13 — 14	Ignition switch "OFF": 10 — 13	
Control unit power supply	B84	1	10 — 13	13 — 14	—	
		2				
Ignition control	# 1, # 2	B84	41	0	1 — 3.4	—
	# 3, # 4	B84	40	0	1 — 3.4	—
Fuel injector	# 1	B84	96	10 — 13	1 — 14	Waveform
	# 2	B84	70	10 — 13	1 — 14	Waveform
	# 3	B84	44	10 — 13	1 — 14	Waveform
	# 4	B84	16	10 — 13	1 — 14	Waveform
Idle air control solenoid valve	OPEN end	B84	14	—	1 — 13	Waveform
	CLOSE end	B84	13	—	13 — 1	Waveform
Fuel pump relay control	B84	32	ON: 0.5, or less OFF: 10 — 13	0.5, or less	—	
A/C relay control	B84	31	ON: 0.5, or less OFF: 10 — 13	ON: 0.5, or less OFF: 13 — 14	—	
Radiator fan relay 1 control	B84	74	ON: 0.5, or less OFF: 10 — 13	ON: 0.5, or less OFF: 13 — 14	—	
Radiator fan relay 2 control	B84	73	ON: 0.5, or less OFF: 10 — 13	ON: 0.5, or less OFF: 13 — 14	With A/C vehicles only	
Self-shutoff control	B84	63	10 — 13	13 — 14	—	
Malfunction indicator lamp	B84	58	—	—	Light "ON": 1, or less Light "OFF": 10 — 14	
Engine speed output	B84	64	—	0 — 13, or more	Waveform	
Torque control signal	B84	79	5	5	—	
Mass air flow signal	B84	47	0 — 0.3	0.8 — 1.2	—	
Purge control solenoid valve	B84	72	ON: 1, or less OFF: 10 — 13	ON: 1, or less OFF: 13 — 14	—	
Atmospheric pressure sensor	B84	26	3.9 — 4.1	2.0 — 2.3	—	
Pressure sources switching solenoid valve	B84	15	ON: 1, or less OFF: 10 — 13	ON: 1, or less OFF: 13 — 14	—	
EGR solenoid valve	B84	71	ON: 1, or less OFF: 10 — 13	ON: 1, or less OFF: 13 — 14	—	
Front oxygen sensor heater signal	B84	38	0 — 1.0	0 — 1.0	—	

## 5. Specified Data

Content	Connector No.	Terminal No.	Signal (V)		Note
			Ignition SW ON (Engine OFF)	Engine ON (Idling)	
Rear oxygen sensor heater signal	B84	37	0 — 1.0	0 — 1.0	—
AT diagnosis input signal	B84	80	Less than 1 ↔ More than 4	Less than 1 ↔ More than 4	Waveform
GND (sensors)	B84	20	0	0	—
GND (injectors)	B84	69	0	0	—
		95			
GND (ignition system)	B84	94	0	0	—
GND (power supply)	B84	19	0	0	—
		46			
GND (control systems)	B84	17	0	0	—
		18			
GND (oxygen sensor heater)	B84	42	0	0	—

## 2. ENGINE CONDITION DATA

Content	Specified data
Mass air flow	1.7 — 3.3 (g/sec): Idling
	7.1 — 14.2 (g/sec): 2,500 rpm racing
Engine load	1.6 — 2.9 (%): Idling
	6.4 — 12.8 (%): 2,500 rpm racing

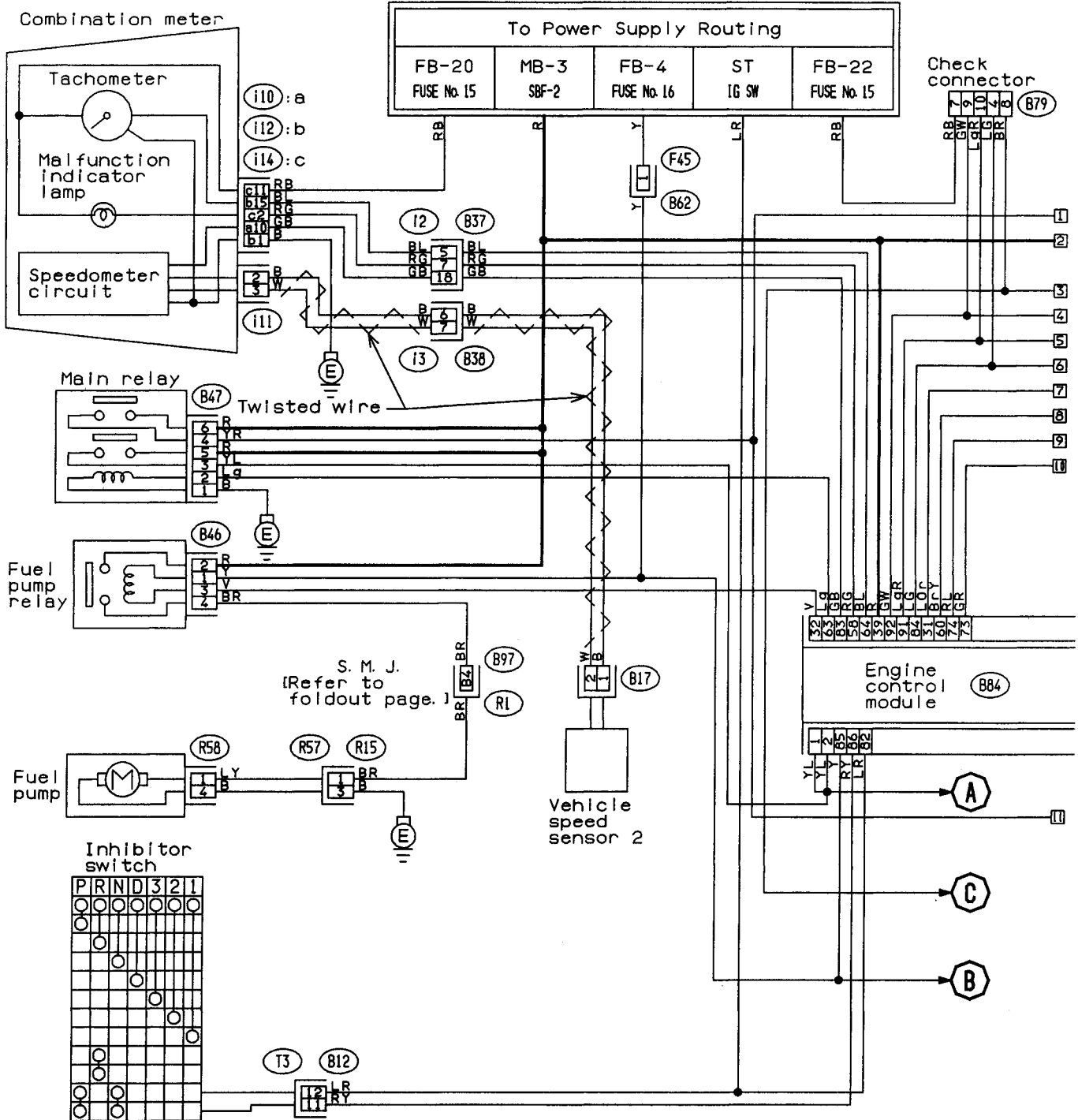
Measuring condition:

- After warm-up the engine.
- Gear position is in "N" or "P" position.
- A/C is turned OFF.
- All accessory switches are turned OFF.

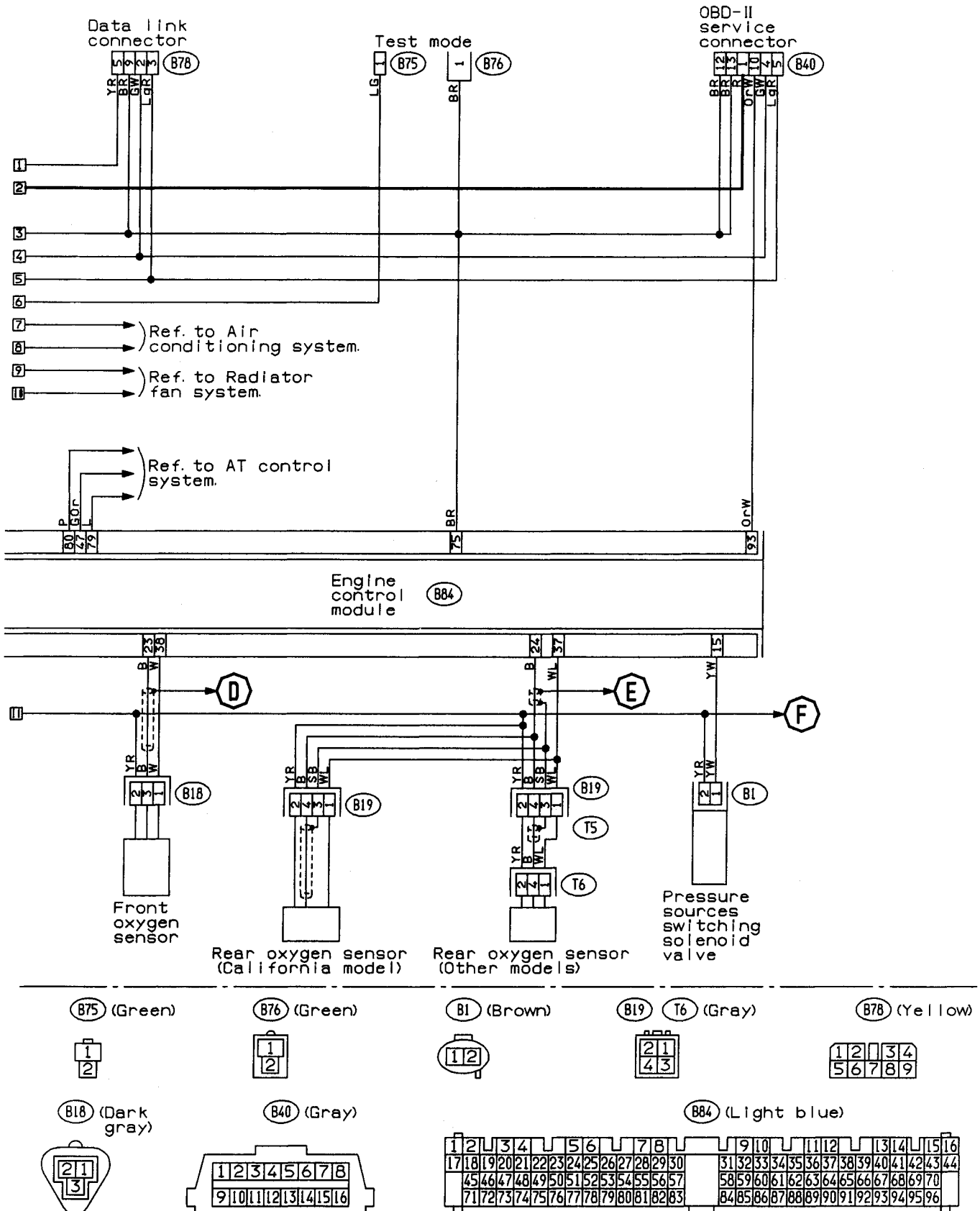
6. Wiring Diagram and Wiring Harness

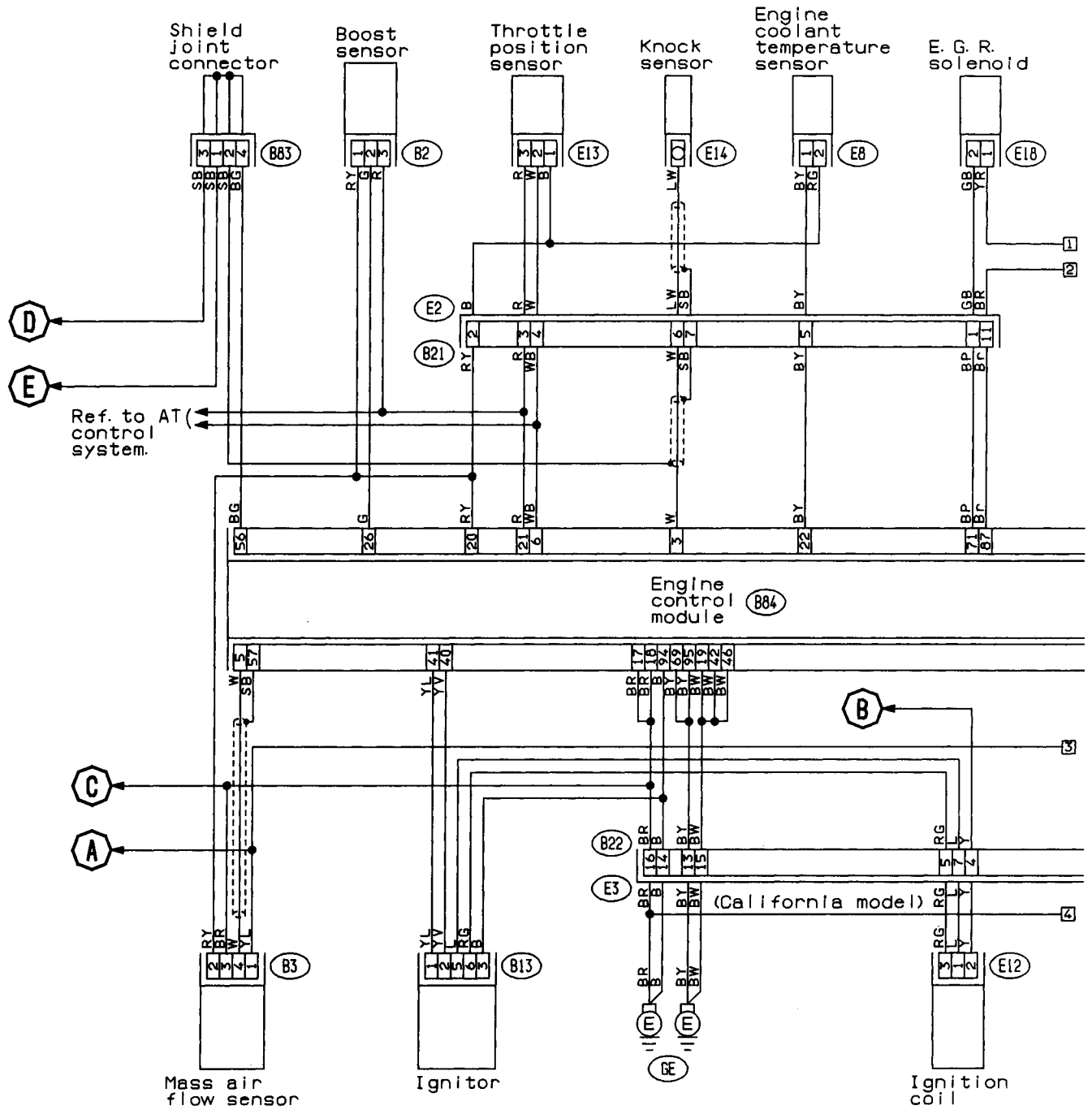
A: WIRING DIAGRAM

1. ENGINE ELECTRICAL SYSTEM

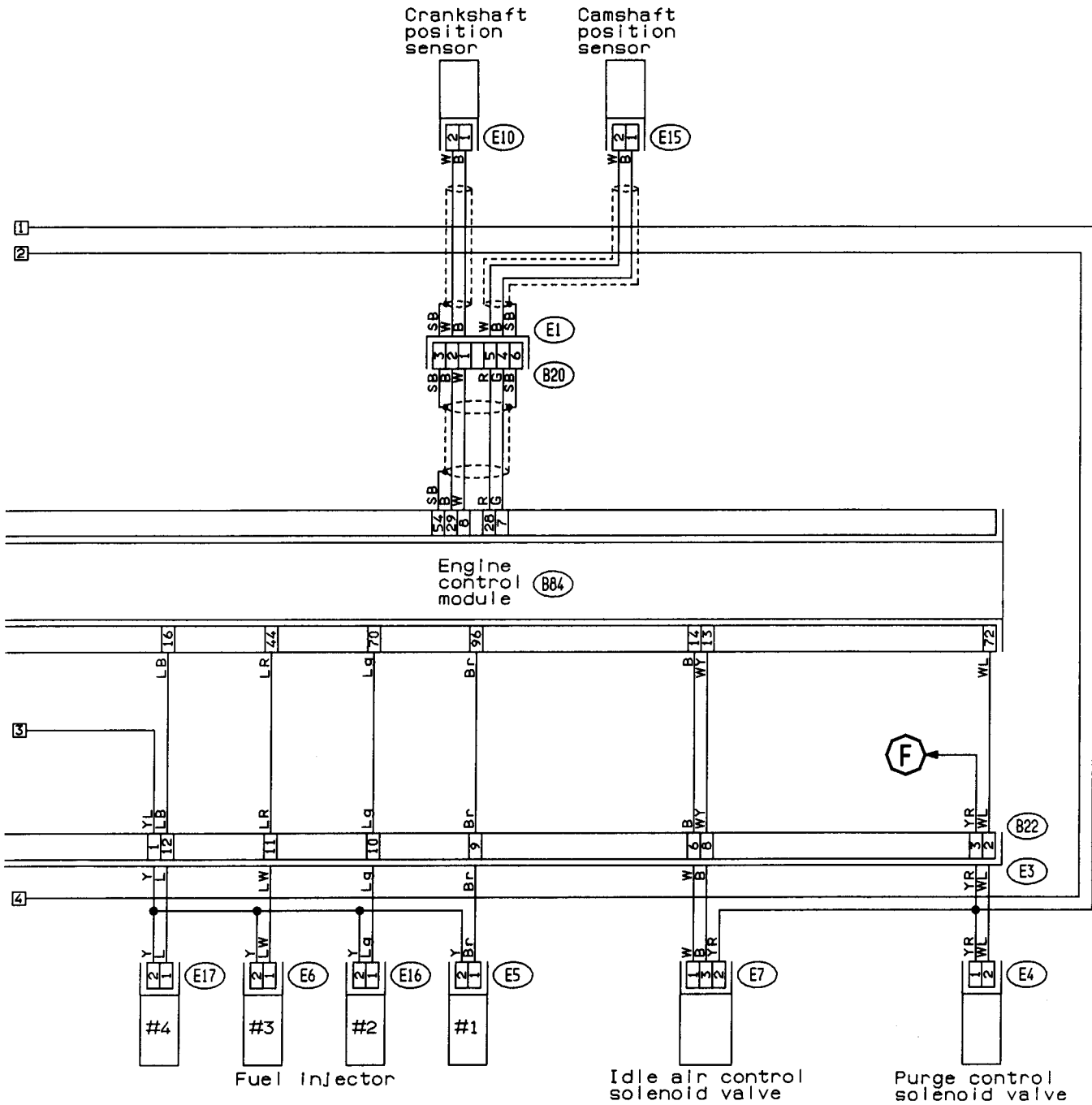


- (B17) (Black)
- (i11)
- (B46) (Green)
- (R15) (Black)
- (R58)
- (B47) (Brown)
- (B12) (Gray)
- (B79) (Gray)
- (i14) (Light gray)
- (i10) (Light gray)
- (i12) (Light gray)
- (F45)
- (i2) (Brown)
- (i3) (Brown)





- (Brown) (E18) (E8) (Brown) (Black) (B2) (E13) (Brown)
- (E12) (Gray) (B83)
- (B3) (Gray) (B13) (Gray) (B21) (Light gray) (B22) (Light gray)
- (E12) (Gray) (B83)



- (E15) (Dark gray)    (Light gray)    (E5)    (E16) (Light gray)
- (E10) (Gray)        (Dark gray)    (E6)    (E17) (Dark gray)



(B84) (Light blue)

(E4) (Blue)

(E7) (Gray)

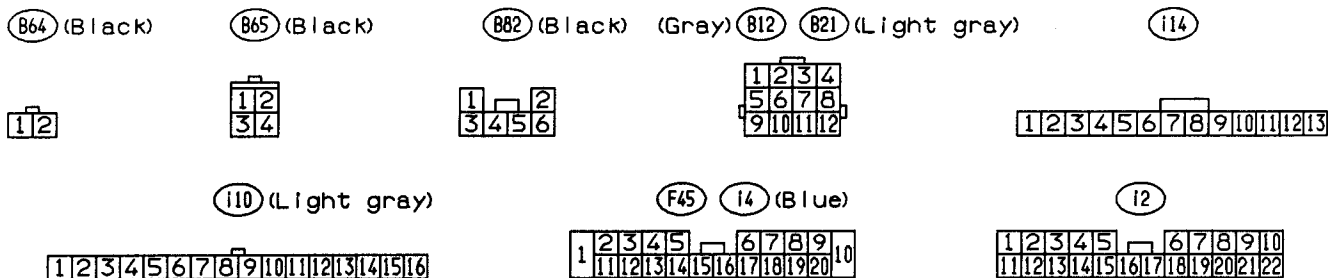
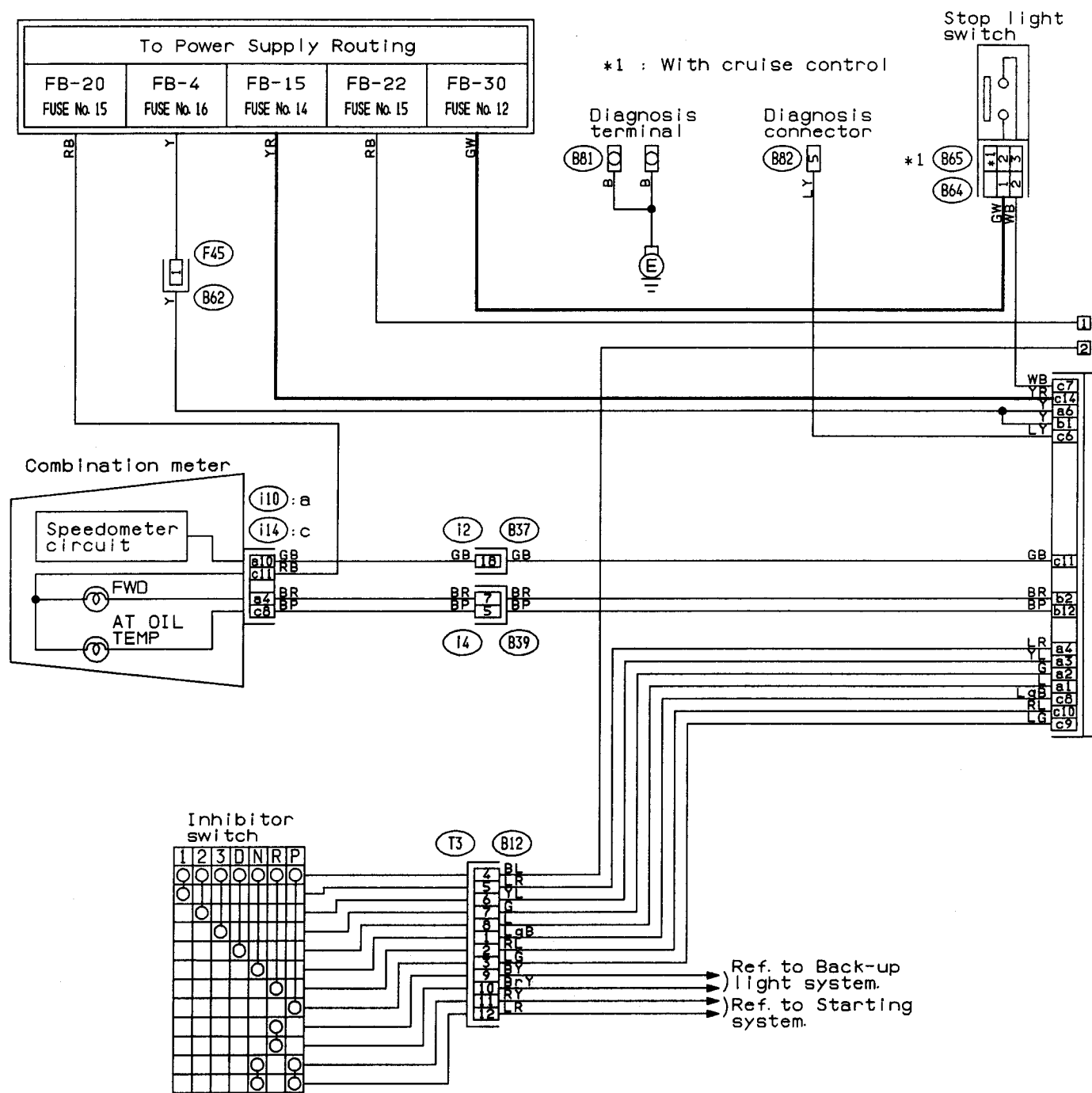
(B20) (Light gray)

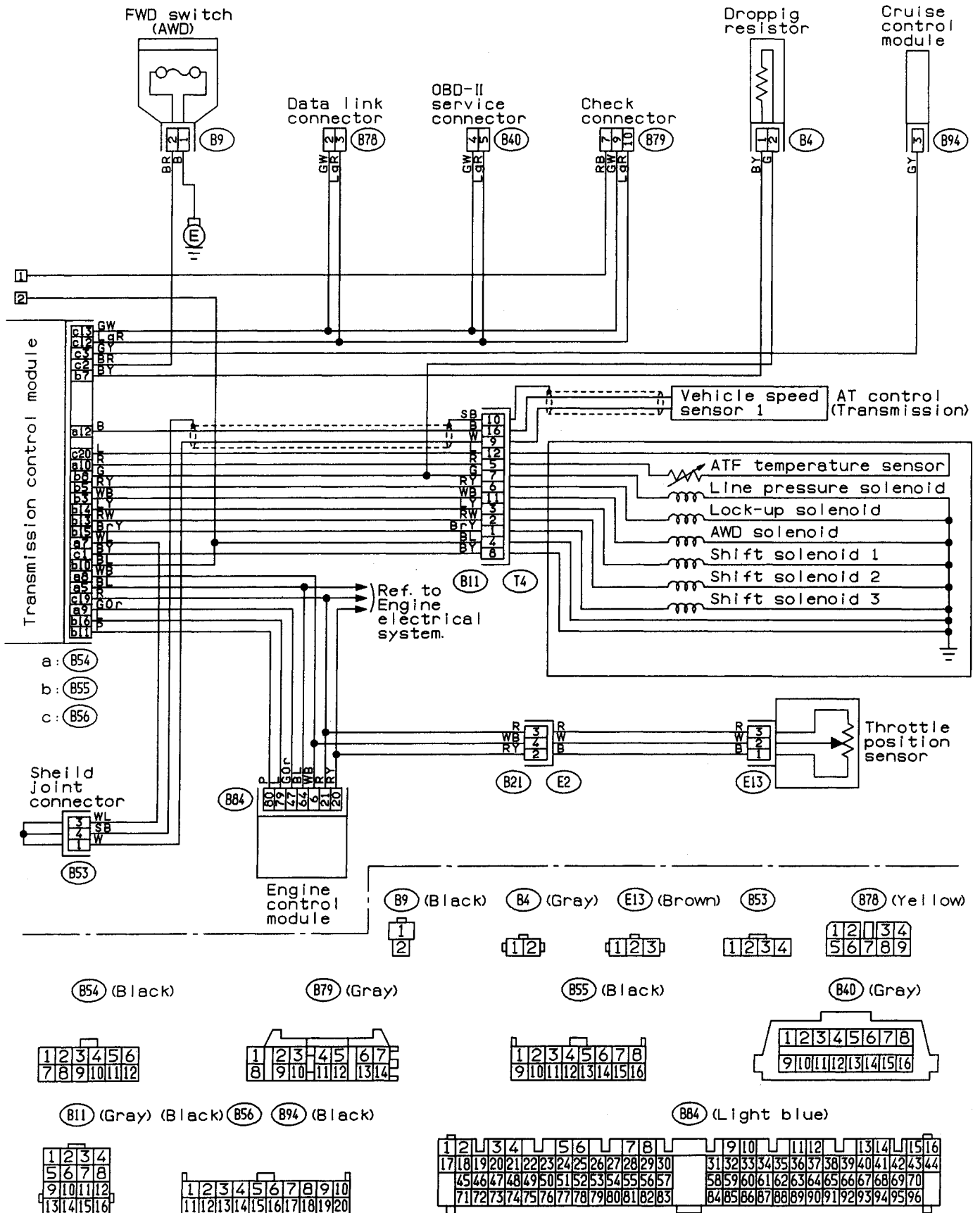


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																																				
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44																								
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96



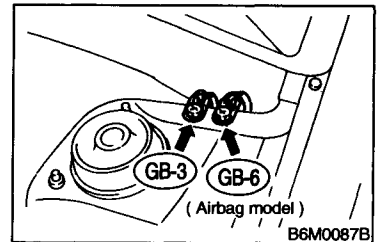
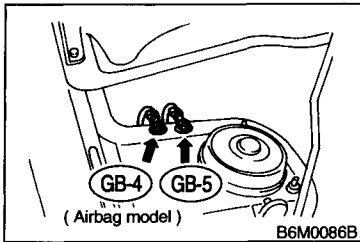
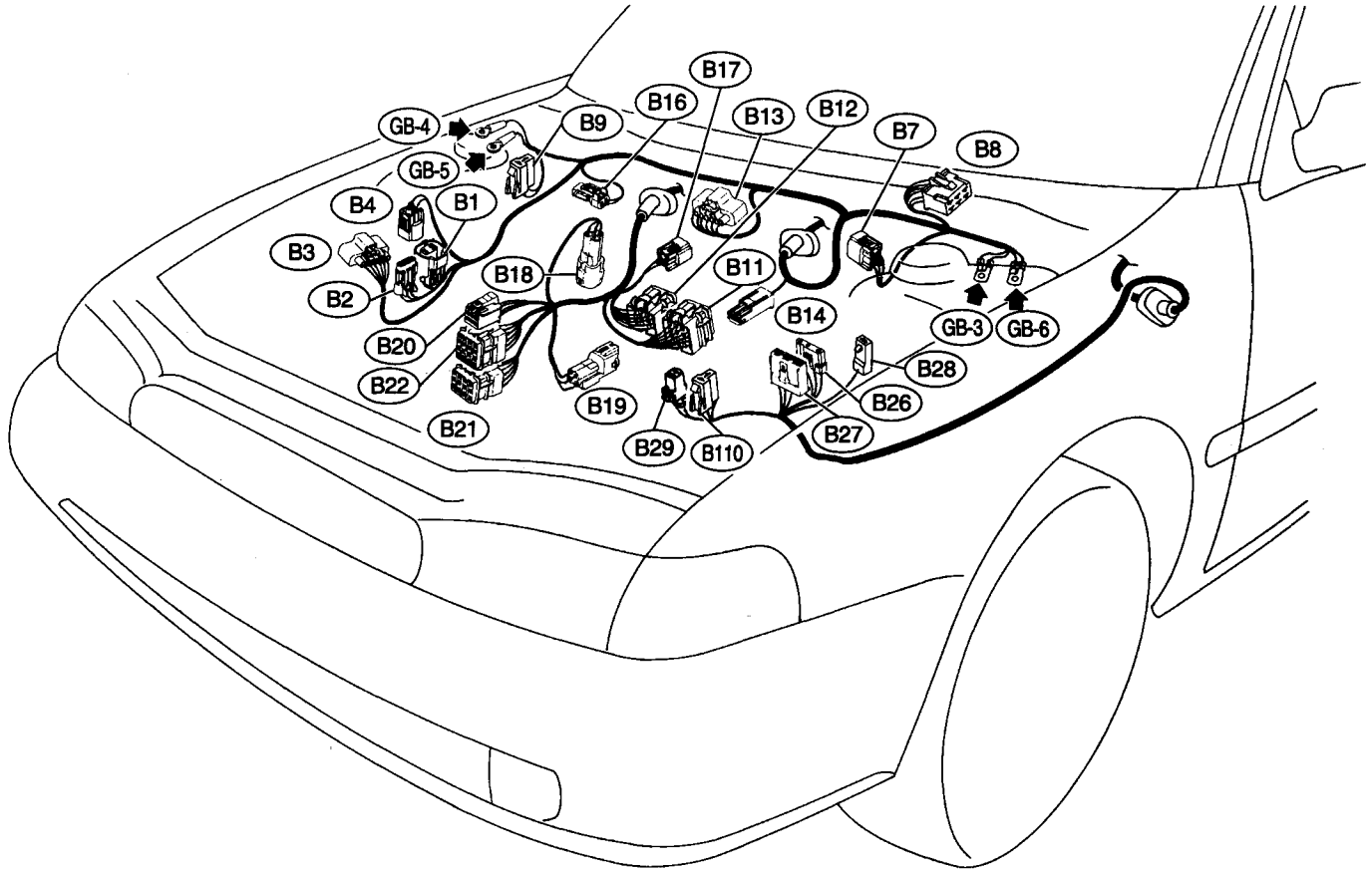
2. AT CONTROL SYSTEM



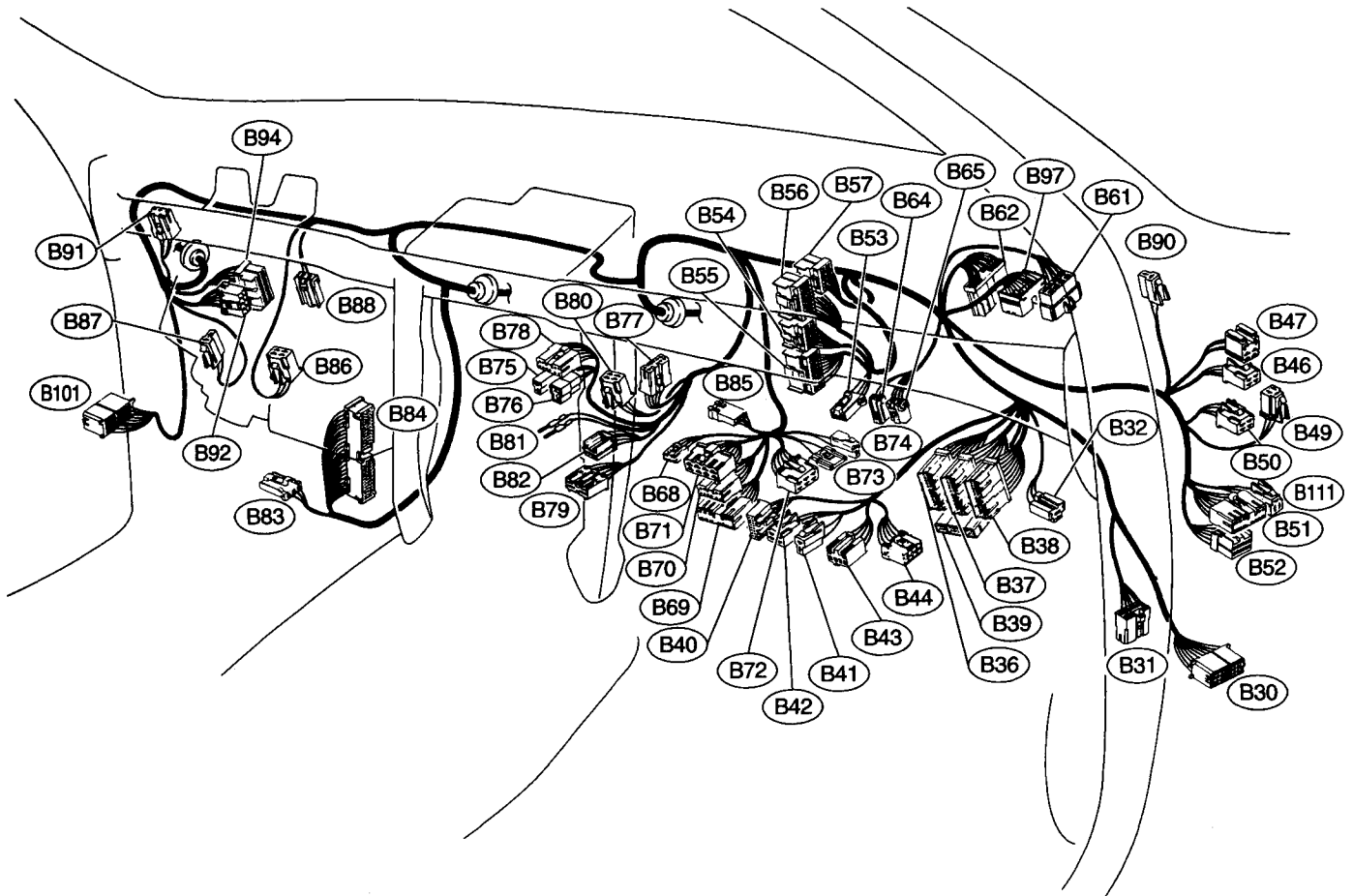


**B: ELECTRICAL WIRING HARNESS AND GROUND POINT**

**2. BULKHEAD WIRING HARNESS AND GROUND POINT (IN ENGINE ROOM)**



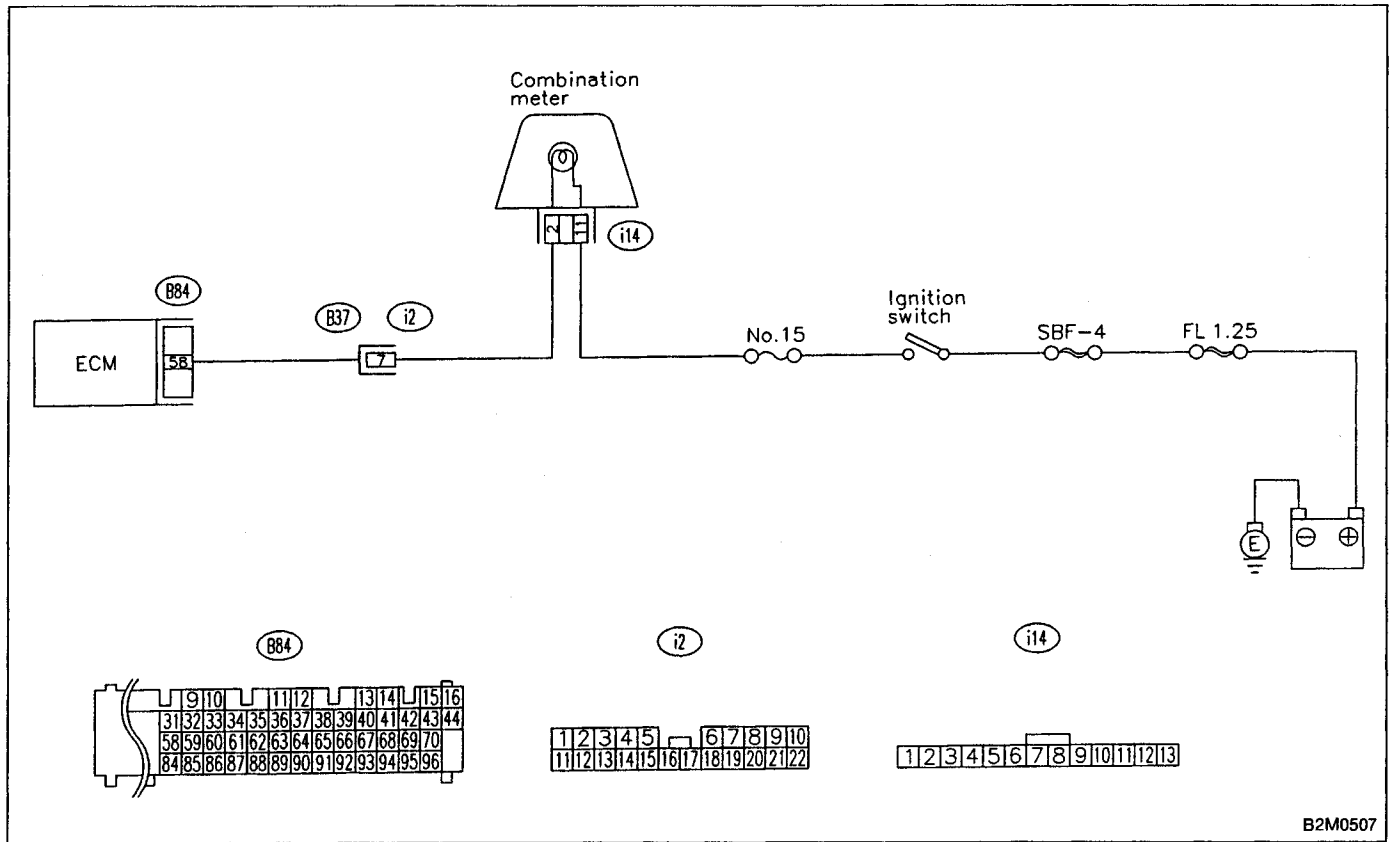
4. BULKHEAD WIRING HARNESS (IN COMPARTMENT)



B6M0513A

**8. Diagnostics for CHECK ENGINE Malfunction Indicator Lamp (MIL)**  
**A: CHECK ENGINE MALFUNCTION INDICATOR LAMP (MIL) DOES NOT COME ON.**

**WIRING DIAGRAM:**

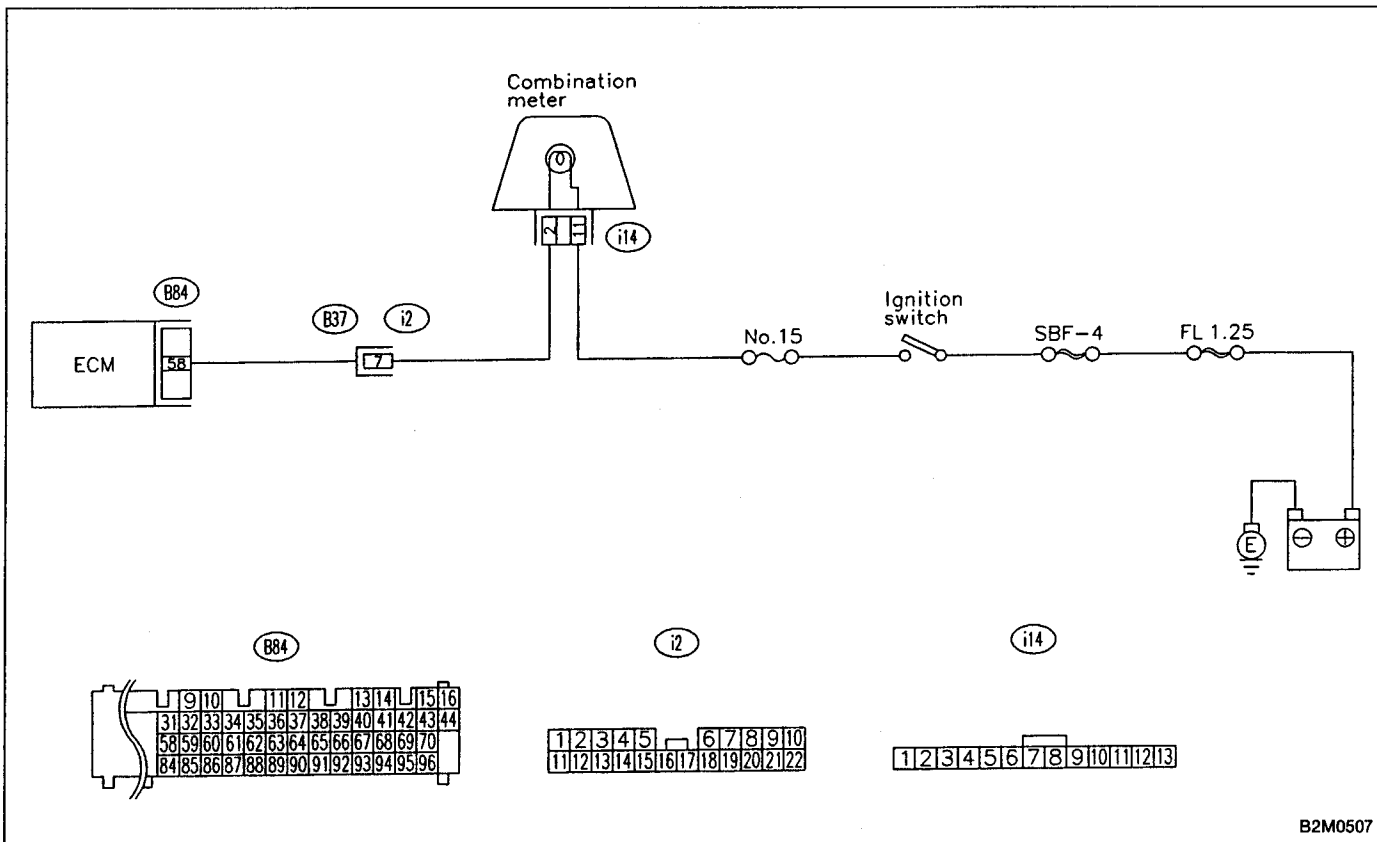


B2M0507

**NOTE:**  
 For the diagnostic procedure on indicator lamp (MIL) does not go on, refer to 2-7 [T7A0]☆2.

**B: CHECK ENGINE MALFUNCTION INDICATOR LAMP (MIL) DOES NOT GO OFF.**

**WIRING DIAGRAM:**



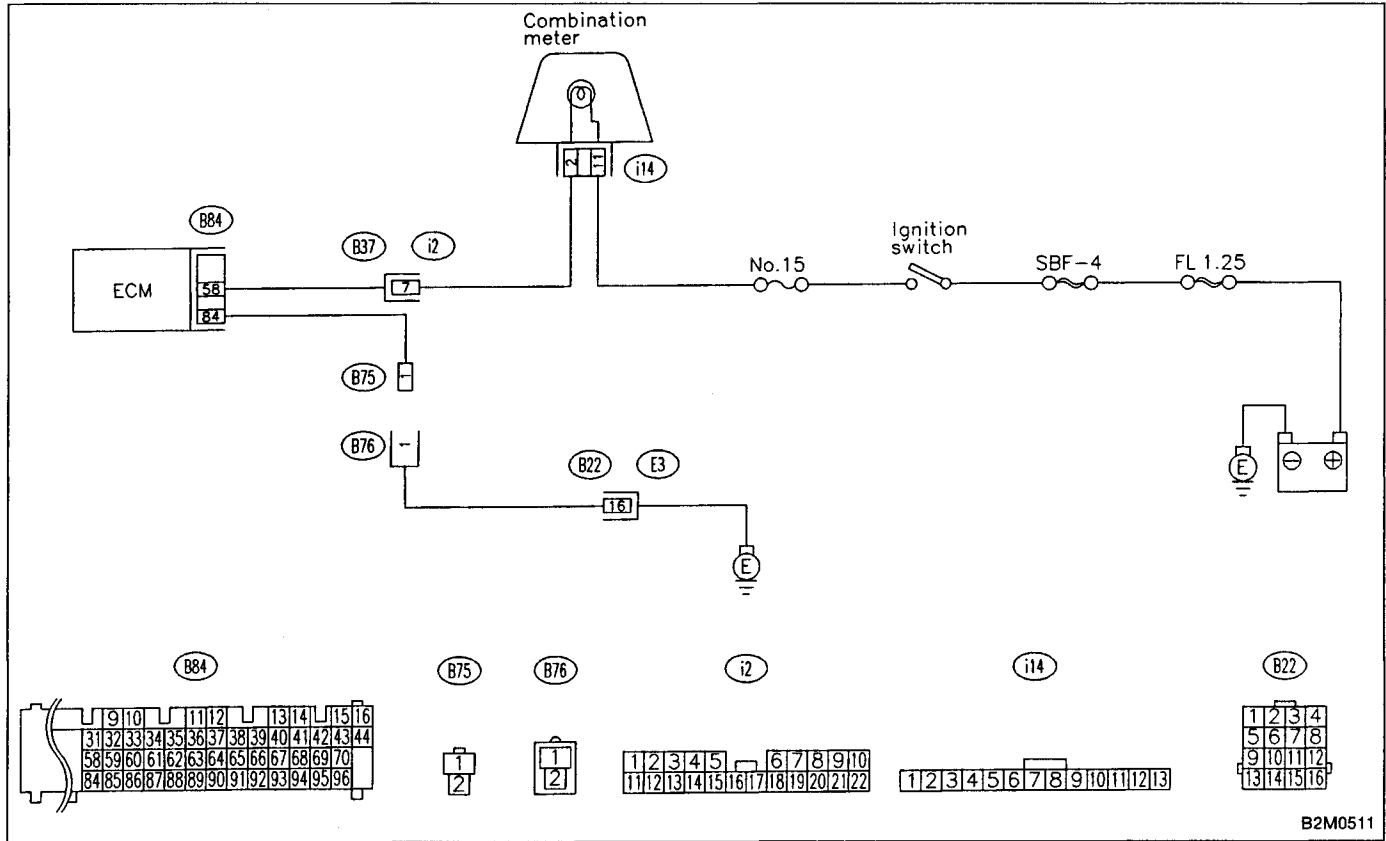
B2M0507

**NOTE:**

For the diagnostic procedure on indicator lamp (MIL) does not go off, refer to 2-7 [T7B0]☆2.

C: CHECK ENGINE MALFUNCTION INDICATOR LAMP (MIL) DOES NOT BLINK AT A CYCLE OF 3 HZ.

WIRING DIAGRAM:

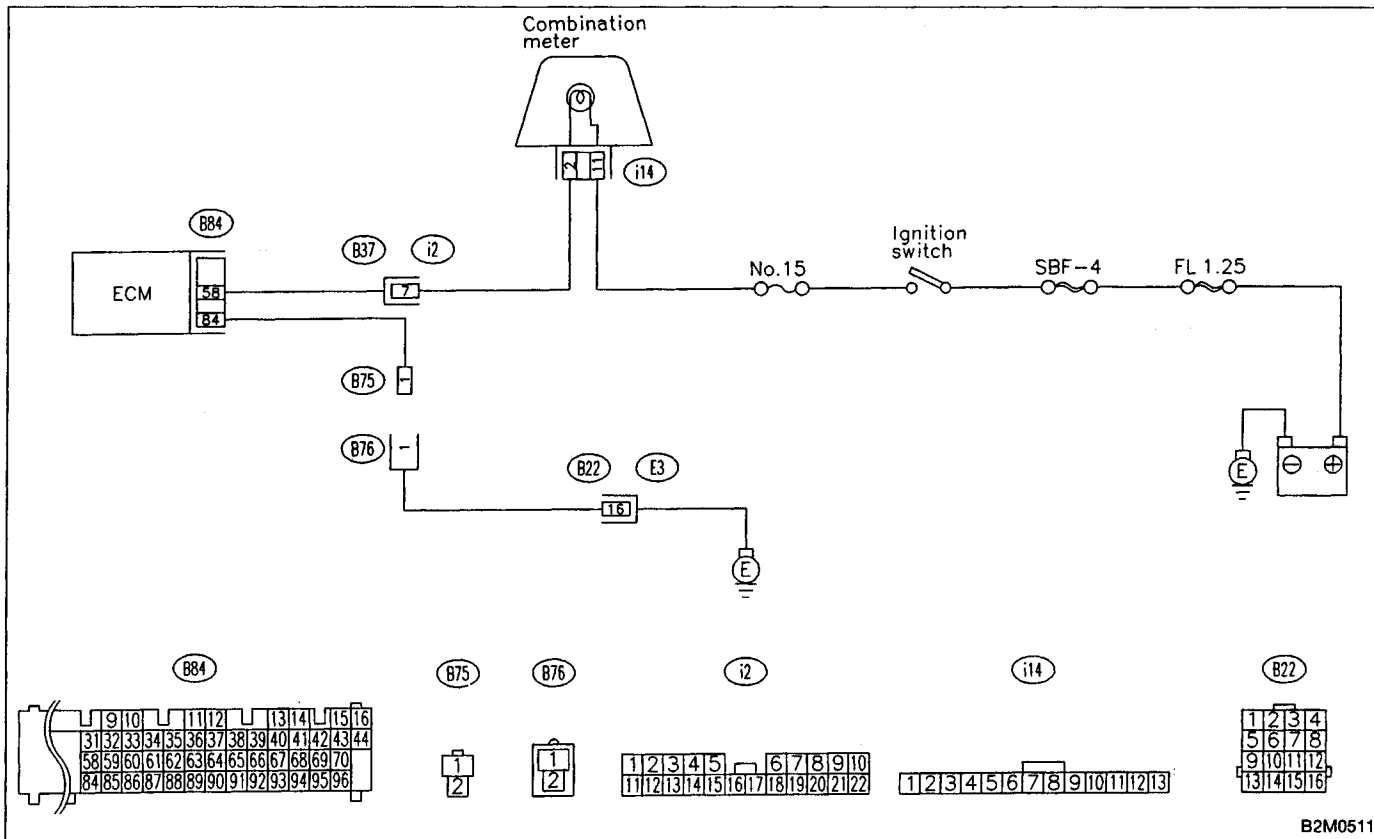


NOTE:

For the diagnostic procedure on indicator lamp (MIL) does not blink at a cycle of 3 Hz, refer to 2-7 [T7C0]☆2.

**D: CHECK ENGINE MALFUNCTION INDICATOR LAMP (MIL) REMAINS BLINKING AT A CYCLE OF 3 Hz.**

**WIRING DIAGRAM:**



B2M0511

**NOTE:**

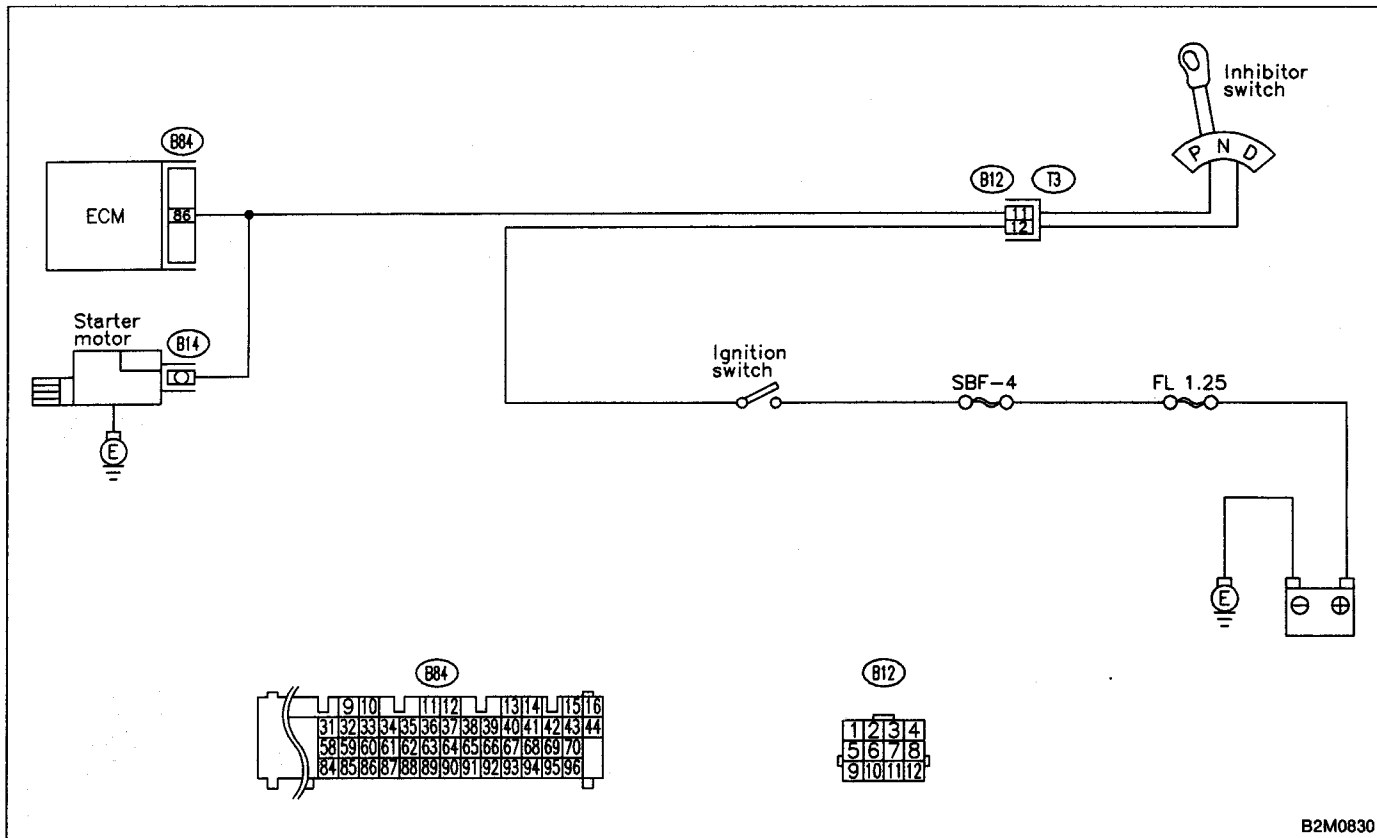
For the diagnostic procedure on indicator lamp (MIL) remains blinking at a cycle of 3 Hz, refer to 2-7 [T7D0]☆2.



### 9. Diagnostics for Engine Starting Failure

#### B: STARTER MOTOR CIRCUIT

##### WIRING DIAGRAM:



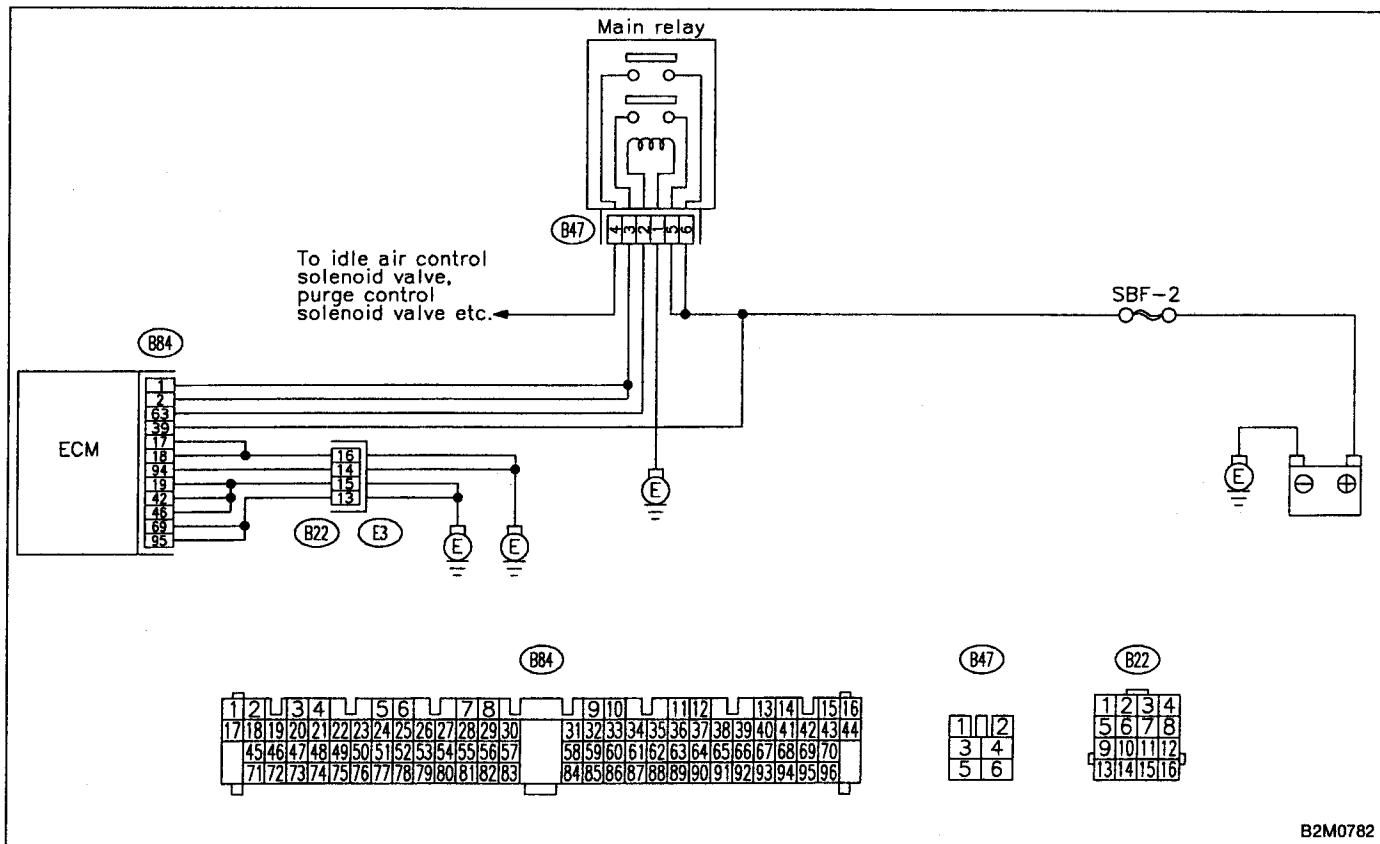
B2M0830

##### NOTE:

For the diagnostic procedure on starter motor circuit, refer to 2-7 [T8B0]☆2.

**C: CONTROL MODULE POWER SUPPLY AND GROUND LINE**

**WIRING DIAGRAM:**



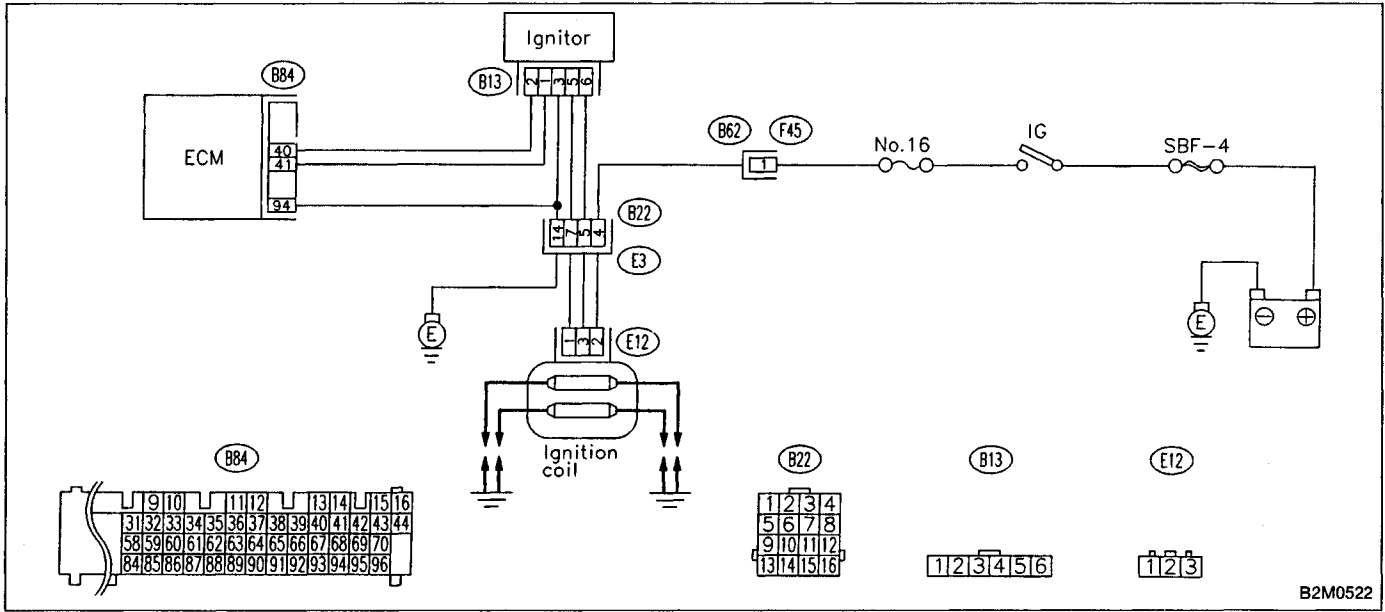
B2M0782

**NOTE:**

For the diagnostic procedure on control module power supply and ground line, refer to 2-7 [T8C0]☆2.

D: IGNITION CONTROL SYSTEM

WIRING DIAGRAM:

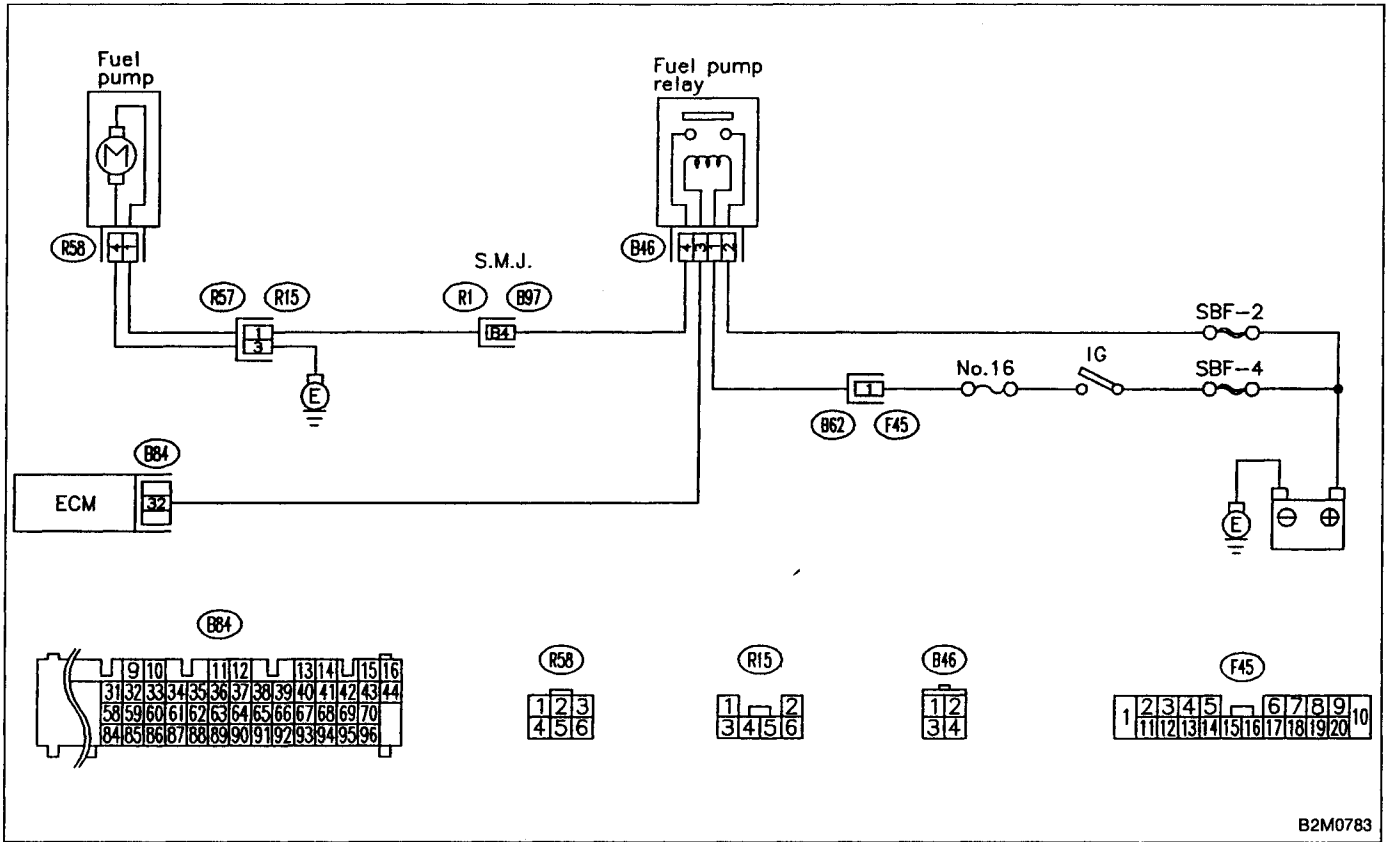


NOTE:

For the diagnostic procedure on ignition control system, refer to 2-7 [T8D0]☆2.

E: FUEL PUMP CIRCUIT

WIRING DIAGRAM:



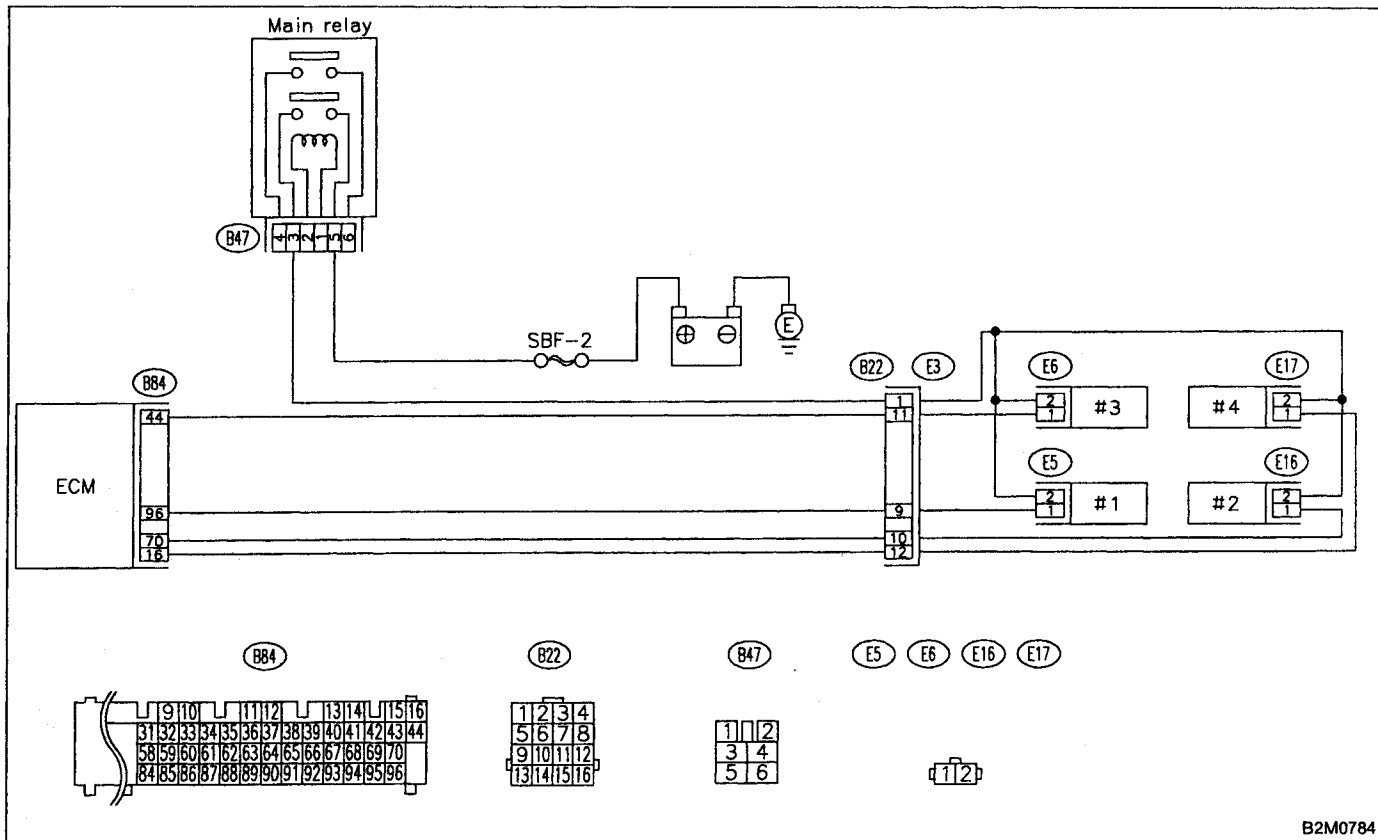
B2M0783

NOTE:

For the diagnostic procedure on fuel pump circuit, refer to 2-7 [T8E0]☆2.

F: FUEL INJECTOR CIRCUIT

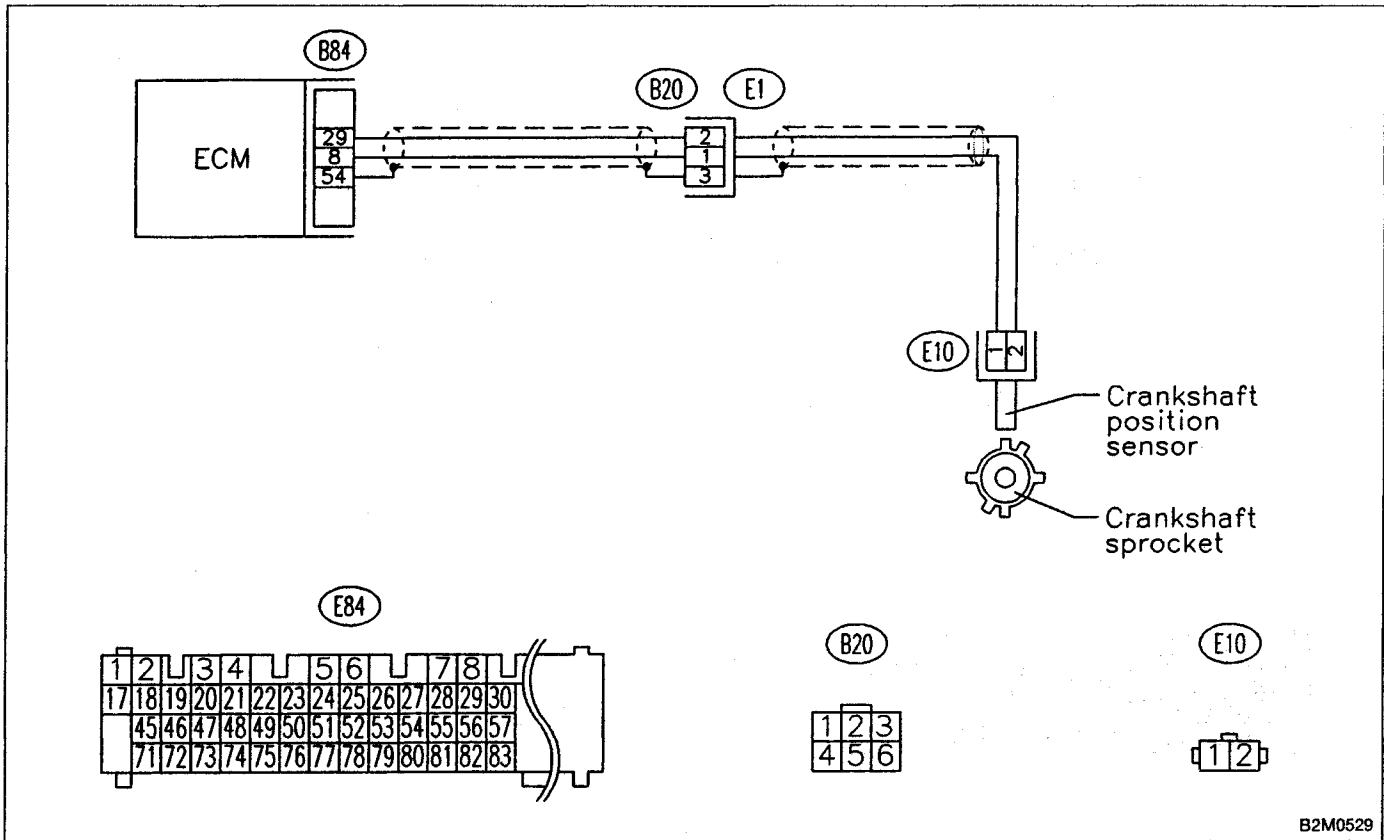
WIRING DIAGRAM:



NOTE:  
For the diagnostic procedure on fuel injector circuit, refer to 2-7 [T10Q0]☆2.

**G: CRANKSHAFT POSITION SENSOR CIRCUIT**

**WIRING DIAGRAM:**

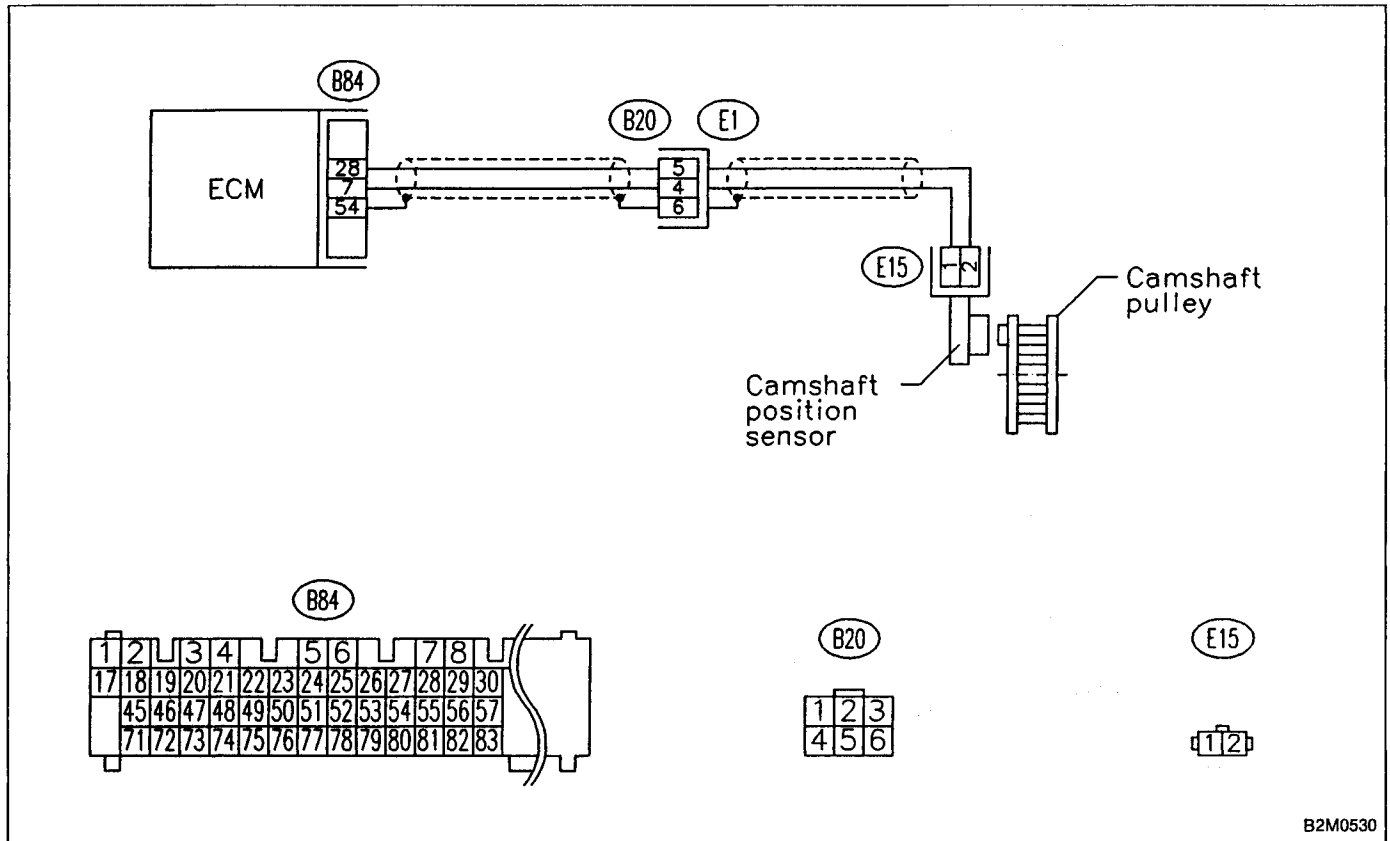


**NOTE:**

For the diagnostic procedure on crankshaft position sensor circuit, refer to 2-7 [T10Z0]☆2.

H: CAMSHAFT POSITION SENSOR CIRCUIT

WIRING DIAGRAM:



NOTE:

For the diagnostic procedure on crankshaft position sensor circuit, refer to 2-7 [T10AA0]☆2.

## 10. General Diagnostics Table

### 1. FOR ENGINE

Symptom		1	2	3	4	5	6	7	8	9	10	11	12	13
		Mass air flow sensor	Engine coolant temperature sensor (*1)	Throttle position sensor	Crankshaft position sensor & Camshaft position sensor (*2)	Idle air control solenoid valve	Knock sensor	Purge control solenoid valve	EGR valve	Fuel injection parts (*3)	Ignition parts (*4)	Fuel pump and relay	A/C switch and A/C cut relay	Engine torque control signal circuit
1	Engine stalls during idling.	○	△		□	○			○	○	○			
2	Rough idling	○	△	○	□	○			○					
3	Engine does not return to idle.	○		○		○								
4	Poor acceleration	○	△		□					○		○	○	○
5	Engine stalls or engine sags or hesitates at acceleration.	○	△	○	□			○	○	○		○		
6	Surge	○	△	○					○	○		○		
7	Spark knock	○					○			○		○		
8	After burning in exhaust system	○	△							○		○		

\*1: The mark, △, indicates the symptom occurring only in cold temperatures.

\*2: For items with the mark, □, ensure the secure installation of crankshaft position sensor and camshaft position sensor. Replacement is not necessary.

\*3: Check fuel injector, fuel pressure regulator and fuel filter.

\*4: Check ignitor, ignition coil and spark plug.

**NOTE:**

Malfunction of parts other than the above is also possible. Refer to 1. Engine Trouble in General [K100] in Repair Section 2-3 of the Service Manual.



2. FOR AT

Symptom	Problem parts																														
	Inhibitor switch	Control module	Vehicle speed sensor 1	Vehicle speed sensor 2	Select cable	Select lever	FWD switch	Starter motor and harness	Throttle position sensor	Hold switch	Accumulator ("N" — "D")	Accumulator (2A)	Accumulator (4A)	Accumulator (3R)	ATF temperature sensor	Strainer	Duty solenoid A	Duty solenoid B	Shift solenoid 1	Shift solenoid 2	Shift solenoid 3	Control valve	Detent spring	Manual plate	Transfer clutch	Transfer valve	Transfer pipe	Duty solenoid C	Forward clutch		
Starter does not rotate when select lever is in "P" or "N"; starter rotates when select lever is "R", "D", "3" or "2."	○					○	○	○																							
Abnormal noise when select lever is in "P" or "N."																○														○	
Hissing noise occurs during standing starts.																○															
Noise occurs while driving in "D <sub>1</sub> " range.																															
Noise occurs while driving in "D <sub>2</sub> " range.																															
Noise occurs while driving in "D <sub>3</sub> " range.																															
Noise occurs while driving in "D <sub>4</sub> " range.																															
Engine stalls while shifting from one range to another.																							○								
Vehicle moves when select lever is in "N."																														○	
Shock occurs when select lever is moved from "N" to "D."		○									○												○								
Excessive time lag occurs when select lever is moved from "N" to "D."																							○							○	
Shock occurs when select lever is moved from "N" to "R."		○											○										○								
Excessive time lag occurs when select lever is moved from "N" to "R."																							○								
Vehicle does not start in any shift range (engine revving up).																○						○									
Vehicle does not start in any shift range (engine stall).																															
Vehicle does not start in "R" range only (engine revving up).					○	○																○									
Vehicle does not start in "R" range only (engine stall).																														○	
Vehicle does not start in "D" or "3" range (engine revving up).																														○	
Vehicle does not start in "D", "3" or "2" range (engine revving up).																														○	
Vehicle does not start in "D", "3" or "2" range (engine stall).																														○	
Vehicle starts in "R" range only (engine revving up).																							○								
Acceleration during standing starts is poor (high stall rpm).																							○							○	
Acceleration during standing starts is poor (low stall rpm).																															
Acceleration is poor when select lever is in "D", "3" or "2" range (normal stall rpm).		○																					○								
Acceleration is poor when select lever is in "R" (normal stall rpm).																							○								
No shift occurs from 1st to 2nd gear.		○	○	○					○														○	○							
No shift occurs from 2nd to 3rd gear.		○																													
No shift occurs from 3rd to 4th gear.		○												○	○																
No "kick-down" shifts occur.		○							○																						
Engine brake is not effected when select lever is in "3" range.	○	○							○														○								

30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	Problem parts	Symptom
																													Starter does not rotate when select lever is in "P" or "N."; starter rotates when select lever is "R", "D", "3" or "2."	
							○												○										Abnormal noise when select lever is in "P" or "N."	
																													Hissing noise occurs during standing starts.	
					○												○												Noise occurs while driving in "D <sub>1</sub> " range.	
					○												○												Noise occurs while driving in "D <sub>2</sub> " range.	
					○												○												Noise occurs while driving in "D <sub>3</sub> " range.	
					○												○												Noise occurs while driving in "D <sub>4</sub> " range.	
																						○							Engine stalls while shifting from one range to another.	
																													Vehicle moves when select lever is in "N."	
																								○					Shock occurs when select lever is moved from "N" to "D."	
																													Excessive time lag occurs when select lever is moved from "N" to "D."	
																									○				Shock occurs when select lever is moved from "N" to "R."	
										○	○																		Excessive time lag occurs when select lever is moved from "N" to "R."	
	○	○	○	○		○									○	○	○		○						○				Vehicle does not start in any shift range (engine revving up).	
																										○			Vehicle does not start in any shift range (engine stall).	
										○	○																		Vehicle does not start in "R" range only (engine revving up).	
									○								○												Vehicle does not start in "R" range only (engine stall).	
												○																	Vehicle does not start in "D" or "3" range (engine revving up).	
																													Vehicle does not start in "D", "3" or "2" range (engine revving up).	
																													Vehicle does not start in "D", "3" or "2" range (engine stall).	
																													Vehicle starts in "R" range only (engine revving up).	
																													Acceleration during standing starts is poor (high stall rpm).	
							○														○								Acceleration during standing starts is poor (low stall rpm).	
								○	○									○											Acceleration is poor when select lever is in "D", "3" or "2" range (normal stall rpm).	
○								○	○									○											Acceleration is poor when select lever is in "R" (normal stall rpm).	
																													No shift occurs from 1st to 2nd gear.	
								○				○																	No shift occurs from 2nd to 3rd gear.	
																													No shift occurs from 3rd to 4th gear.	
																													No "kick-down" shifts occur.	
																													Engine brake is not effected when select lever is in "3" range.	

10. General Diagnostics Table

Symptom	Problem parts																													
	Inhibitor switch	Control module	Vehicle speed sensor 1	Vehicle speed sensor 2	Select cable	Select lever	FWD switch	Starter motor and harness	Throttle position sensor	Hold switch	Accumulator ("N" --- "D")	Accumulator (2A)	Accumulator (4A)	Accumulator (8R)	ATF temperature sensor	Strainer	Duty solenoid A	Duty solenoid B	Shift solenoid 1	Shift solenoid 2	Shift solenoid 3	Control valve	Detent spring	Manual plate	Transfer clutch	Transfer valve	Transfer pipe	Duty solenoid C	Forward clutch	
Engine brake is not effected when select lever is in "3" or "2" range.																														
Engine brake is not effected when select lever is in "1" range.																							○							
Shift characteristics are erroneous.	○	○	○	○					○														○							
No lock-up occurs.		○							○							○							○							
Vehicle cannot be set in "D" range power mode.		○							○																					
"D" range power mode cannot be released.		○							○							○														
Parking brake is not effected.					○	○																								
Select lever cannot be moved or is hard to move from "P" range.					○	○																								
Select lever is hard to move.					○	○																		○	○					
Select lever is too light to move (unreasonable resistance).																								○	○					
ATF spurts out.																														
Differential oil spurts out.																														
Differential oil level changes excessively.																														
Odor is produced from oil supply pipe.																										○				○
Shock occurs when select lever is moved from "1" to "2" range.		○							○			○				○		○					○							
Slippage occurs when select lever is moved from "1" to "2" range.		○							○			○				○		○					○							
Shock occurs when select lever is moved from "2" to "3" range.		○							○						○	○		○					○							
Slippage occurs when select lever is moved from "2" to "3" range.		○							○						○	○		○					○							
Shock occurs when select lever is moved from "3" to "4" range.		○							○						○	○		○					○							
Slippage occurs when select lever is moved from "3" to "4" range.		○							○						○	○		○					○							
Shock occurs when select lever is moved from "3" to "2" range.		○							○						○	○		○					○							
Shock occurs when select lever is moved from "D" to "1" range.		○							○						○	○		○					○							
Shock occurs when select lever is moved from "2" to "1" range.		○							○						○	○		○					○							
Shock occurs when accelerator pedal is released at medium speeds.		○							○						○	○		○					○							
Vibration occurs during straight-forward operation.		○																○												
Select lever slips out of position during acceleration or while driving on rough terrain.					○	○																		○	○					
Vibration occurs during turns (tight corner "braking" phenomenon).		○	○	○					○	○						○										○	○		○	
Front wheel slippage occurs during standing starts.		○		○				○	○							○							○			○	○	○	○	
Vehicle is not set in FWD mode.		○						○																		○	○		○	
	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	49	50	51	52	53	54	55	56	57	58	Problem parts	Symptom
																													Engine brake is not effected when select lever is in "3" or "2" range.	
																													Engine brake is not effected when select lever is in "1" range.	
																													Shift characteristics are erroneous.	
																													No lock-up occurs.	
																													Vehicle cannot be set in "D" range power mode.	
																													"D" range power mode cannot be released.	
																													○ Parking brake is not effected.	
																													○ Shift lever cannot be moved or is hard to move from "P" range.	
																													Select lever is hard to move.	
																													Select lever is too light to move (unreasonable resistance).	
																													ATF spurts out.	
																													○ Differential oil spurts out.	
																													Differential oil level changes excessively.	
																													○ Odor is produced from oil supply pipe.	
																													Shock occurs when select lever is moved from "1" to "2" range.	
																													Slippage occurs when select lever is moved from "1" to "2" range.	
																													Shock occurs when select lever is moved from "2" to "3" range.	
																													Slippage occurs when select lever is moved from "2" to "3" range.	
																													Shock occurs when select lever is moved from "3" to "4" range.	
																													Slippage occurs when select lever is moved from "3" to "4" range.	
																													Shock occurs when select lever is moved from "3" to "2" range.	
																													Shock occurs when select lever is moved from "D" to "1" range.	
																													Shock occurs when select lever is moved from "2" to "1" range.	
																													Shock occurs when accelerator pedal is released at medium speeds.	
																													Vibration occurs during straight-forward operation.	
																													Select lever slips out of position during acceleration or while driving on rough terrain.	
																													Vibration occurs during turns (tight corner "braking" phenomenon).	
																													Front wheel slippage occurs during standing starts.	
																													Vehicle is not set in FWD mode.	

## 11. Diagnostics Chart with Trouble Code

### A: DIAGNOSTIC TROUBLE CODE (DTC) LIST

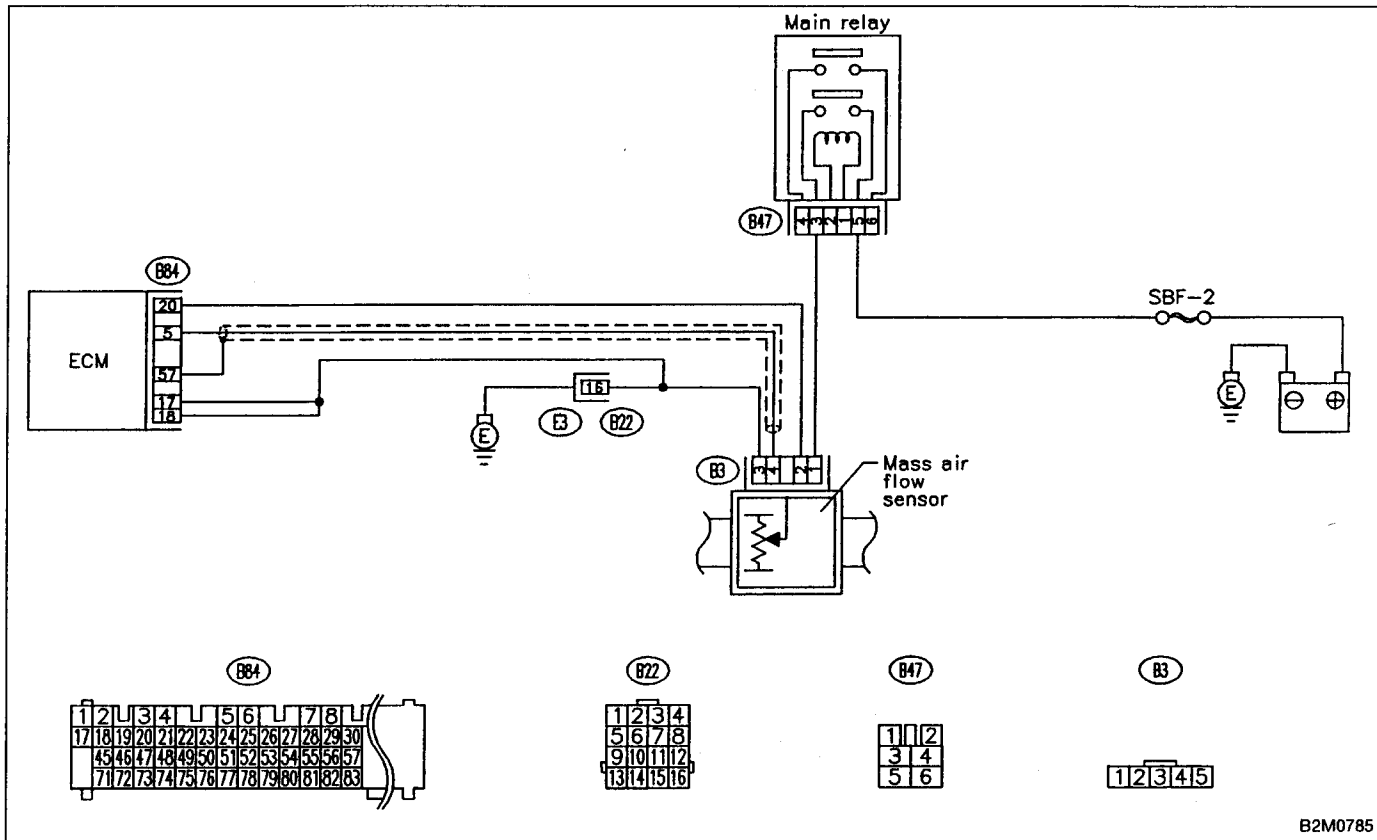
DTC No.	Abbreviation (Subaru select monitor)	Item	Page
P0100	QA	Mass air flow sensor circuit malfunction	76
P0101	QA — R	Mass air flow sensor circuit range/performance problem	77
P0105	P — S	Pressure sensor circuit malfunction	78
P0106	PS — R	Pressure sensor circuit range/performance problem	79
P0115	TW	Engine coolant temperature sensor circuit malfunction	80
P0120	THV	Throttle position sensor circuit malfunction	81
P0121	TH — R	Throttle position sensor circuit range/performance problem	82
P0125	TW — CL	Insufficient coolant temperature for closed loop fuel control	83
P0130	FO2 — V	Front oxygen sensor circuit malfunction	84
P0133	FO2 — R	Front oxygen sensor circuit slow response	85
P0135	FO2H	Front oxygen sensor heater circuit malfunction	86
P0136	RO2 — V	Rear oxygen sensor circuit malfunction	87
P0139	RO2 — R	Rear oxygen sensor circuit slow response	88
P0141	RO2H	Rear oxygen sensor heater circuit malfunction	89
P0170	FUEL	Fuel trim malfunction	90
P0201	INJ1	Fuel injector circuit malfunction - #1	91
P0202	INJ2	Fuel injector circuit malfunction - #2	
P0203	INJ3	Fuel injector circuit malfunction - #3	
P0204	INJ4	Fuel injector circuit malfunction - #4	
P0301	MIS — 1	Cylinder 1 misfire detected	92
P0302	MIS — 2	Cylinder 2 misfire detected	
P0303	MIS — 3	Cylinder 3 misfire detected	
P0304	MIS — 4	Cylinder 4 misfire detected	
P0325	KNOCK	Knock sensor circuit malfunction	93
P0335	CRANK	Crankshaft position sensor circuit malfunction	94
P0340	CAM	Camshaft position sensor circuit malfunction	95
P0400	EGR	Exhaust gas recirculation flow malfunction	96
P0403	EGRSOL	Exhaust gas recirculation circuit malfunction	97
P0420	CAT	Catalyst system efficiency below threshold	98
P0441	CPC — F	Evaporative emission control system incorrect purge flow	99
P0443	CPC	Evaporative emission control system purge control valve circuit malfunction	100
P0500	VSP	Vehicle speed sensor malfunction	101
P0505	ISC	Idle control system malfunction	102
P0506	ISC — L	Idle control system RPM lower than expected	103
P0507	ISC — H	Idle control system RPM higher than expected	104
P0600	—	Serial communication link malfunction	105
P0601	RAM	Internal control module memory check sum error	106
P0703	ATBRK	Brake switch input malfunction	107

DTC No.	Abbreviation (Subaru select monitor)	Item	Page
P0705	ATRNG	Transmission range sensor circuit malfunction	108
P0710	ATF	Transmission fluid temperature sensor circuit malfunction	109
P0720	ATVSP	Output speed sensor (vehicle speed sensor 1) circuit malfunction	110
P0725	ATNE	Engine speed input circuit malfunction	111
P0731	ATGR1	Gear 1 incorrect ratio	112
P0732	ATGR2	Gear 2 incorrect ratio	
P0733	ATGR3	Gear 3 incorrect ratio	
P0734	ATGR4	Gear 4 incorrect ratio	
P0740	ATLU — F	Torque converter clutch system malfunction	114
P0743	ATLU	Torque converter clutch system (duty solenoid B) electrical	115
P0748	ATPL	Pressure control solenoid (duty solenoid A) electrical	116
P0753	ATSFT1	Shift solenoid A (shift solenoid 1) electrical	117
P0758	ATSFT2	Shift solenoid B (shift solenoid 2) electrical	118
P0760	ATOVR — F	Shift solenoid C (shift solenoid 3) malfunction	119
P0763	ATOVR	Shift solenoid C (shift solenoid 3) electrical	120
P1100	ST — SW	Starter switch circuit malfunction	121
P1101	N/P — SW	Neutral position switch circuit malfunction	122
P1102	BR	Pressure sources switching solenoid valve circuit malfunction	123
P1103	TRQ	Engine torque control signal circuit malfunction	124
P1500	FAN — 1	Radiator fan relay 1 circuit malfunction	125
P1502	FAN — F	Radiator fan function problem	126
P1700	ATTH	Throttle position sensor circuit malfunction	127
P1701	ATCRS	Cruise control set signal circuit malfunction	128
P1702	ATDIAG	Automatic transmission diagnosis input signal circuit malfunction	129



**C: DTC P0101**  
**— MASS AIR FLOW SENSOR CIRCUIT**  
**RANGE/PERFORMANCE PROBLEM**  
**(QA — R) —**

**WIRING DIAGRAM:**



B2M0785

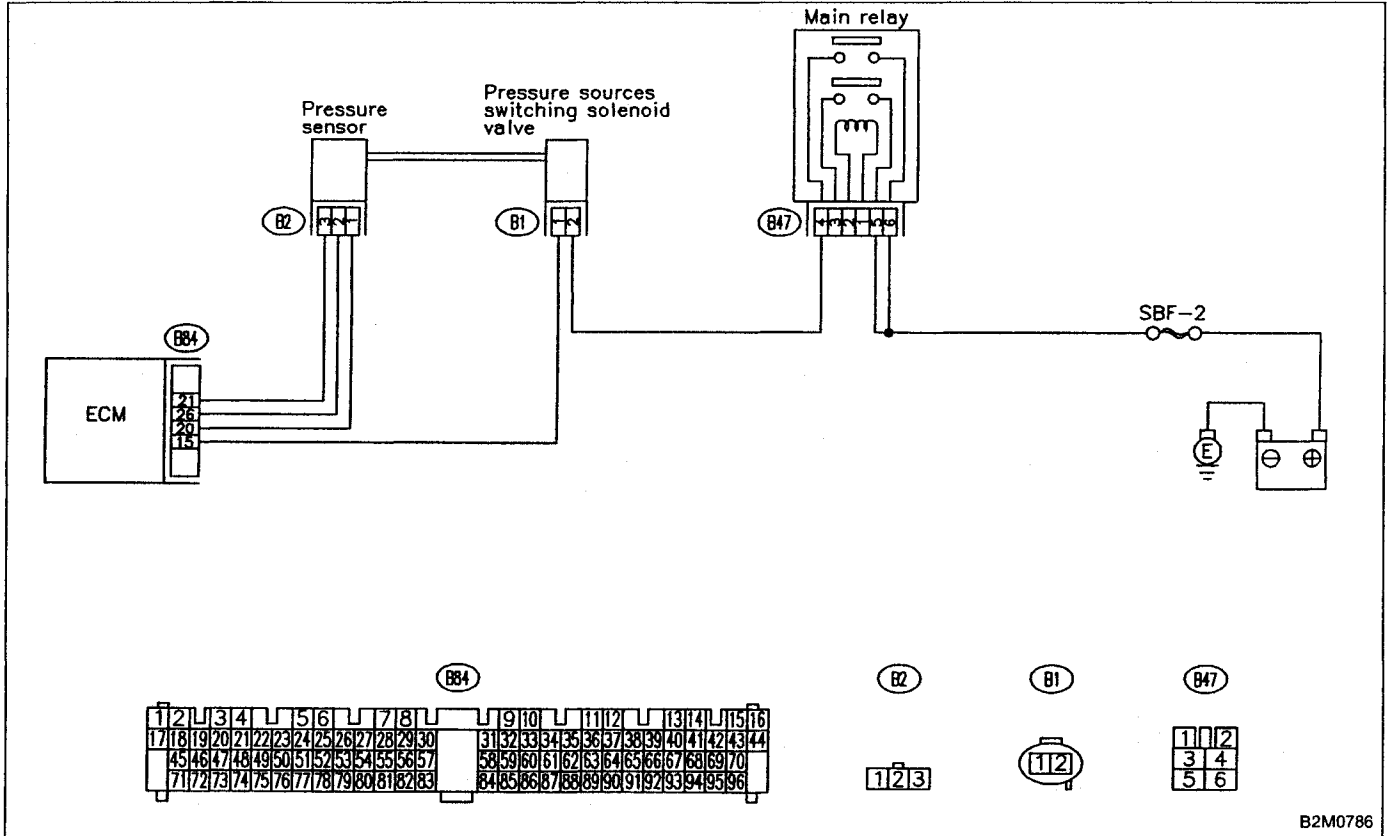
**NOTE:**

For the diagnostic procedure on mass air flow sensor circuit range/performance problem (DTC P0101), refer to 2-7 [T10C0]☆2.



**D: DTC P0105  
 — PRESSURE SENSOR CIRCUIT  
 MALFUNCTION (P — S) —**

**WIRING DIAGRAM:**

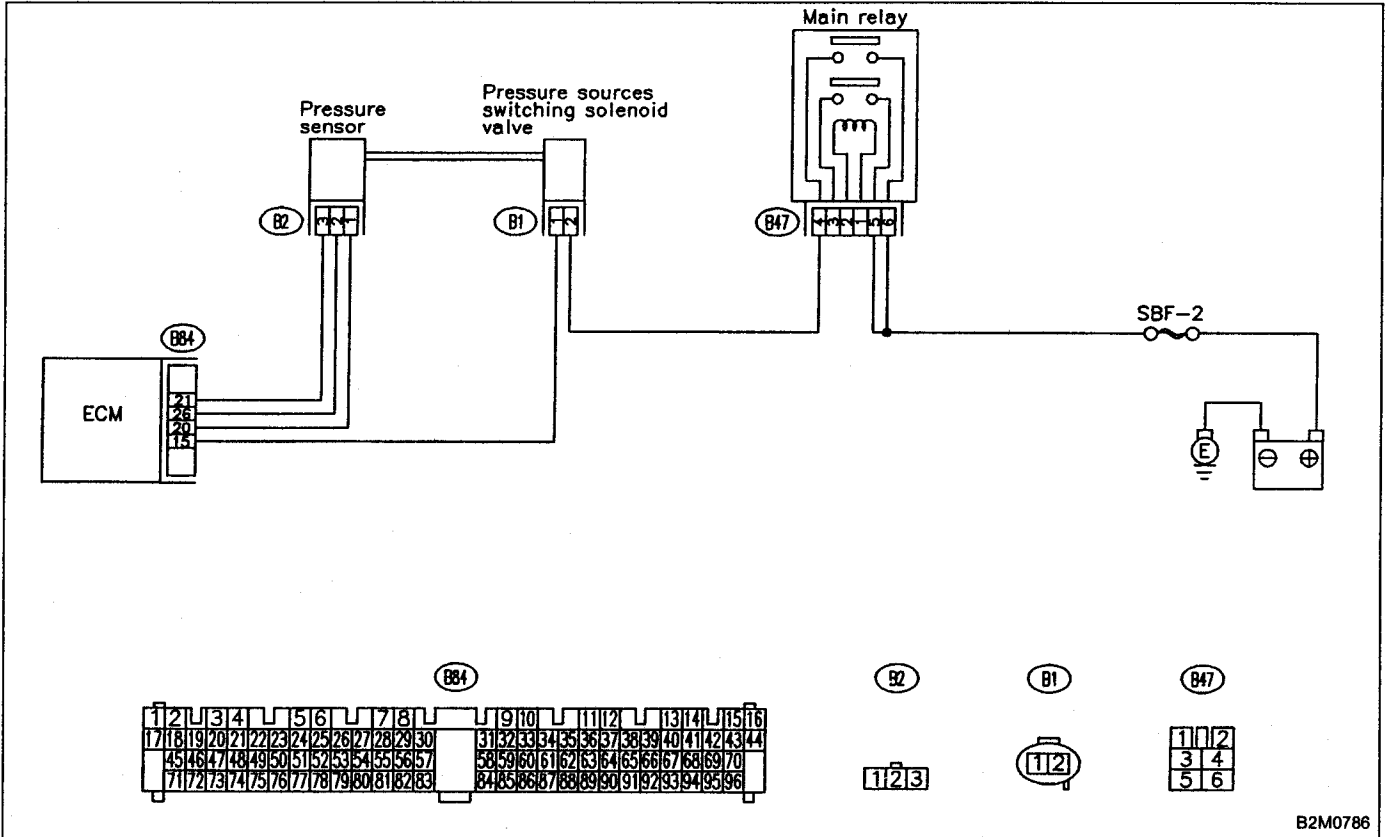


B2M0786

NOTE:  
 For the diagnostic procedure on pressure sensor circuit malfunction (DTC P0105), refer to 2-7 [T10D0]☆2.

**E: DTC P0106**  
**— PRESSURE SENSOR CIRCUIT**  
**RANGE/PERFORMANCE PROBLEM (PS — R) —**

**WIRING DIAGRAM:**

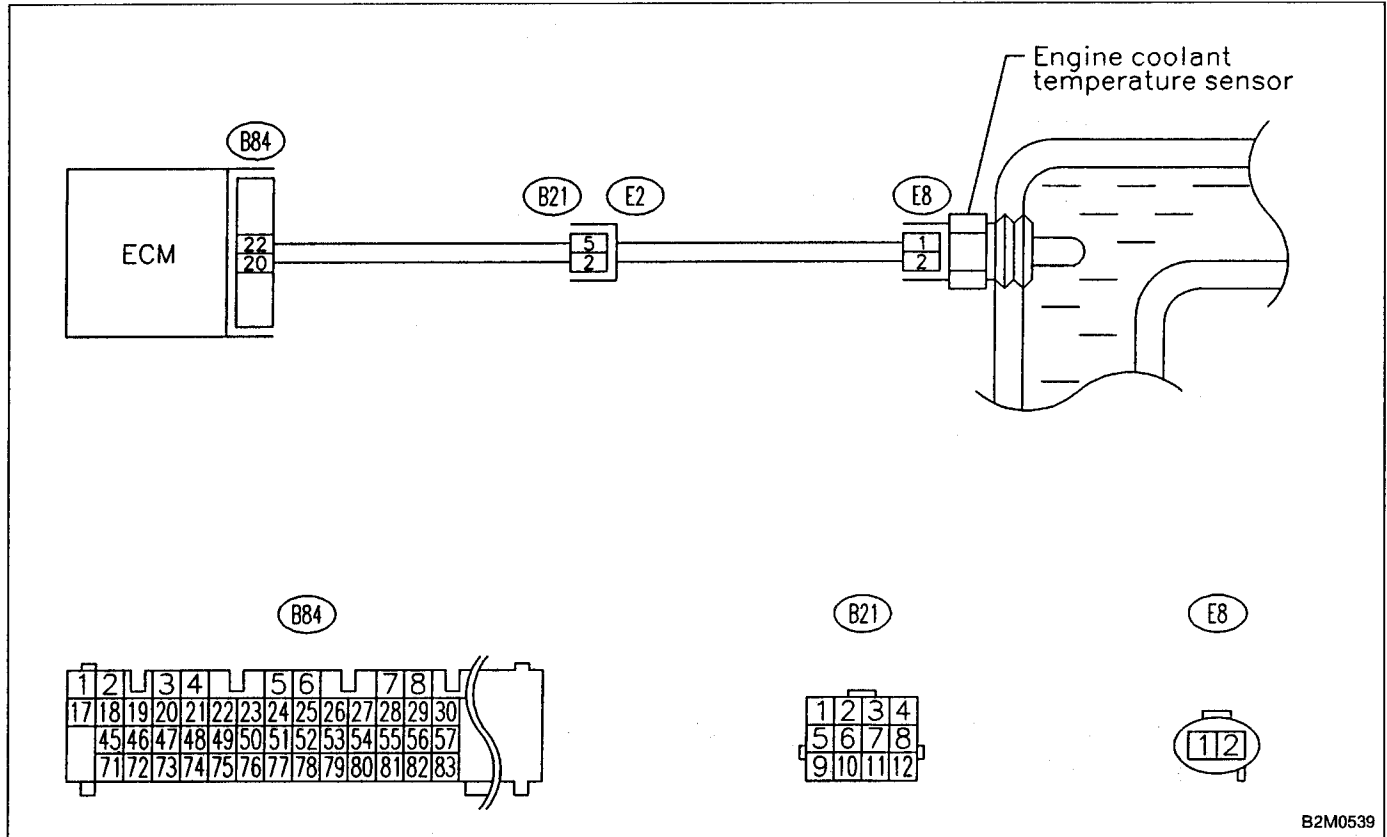


B2M0786

**NOTE:**  
 For the diagnostic procedure on pressure sensor circuit range/performance problem (DTC P0106), refer to 2-7 [T10E0]☆2.

**F: DTC P0115**  
**— ENGINE COOLANT TEMPERATURE**  
**SENSOR CIRCUIT MALFUNCTION (TW) —**

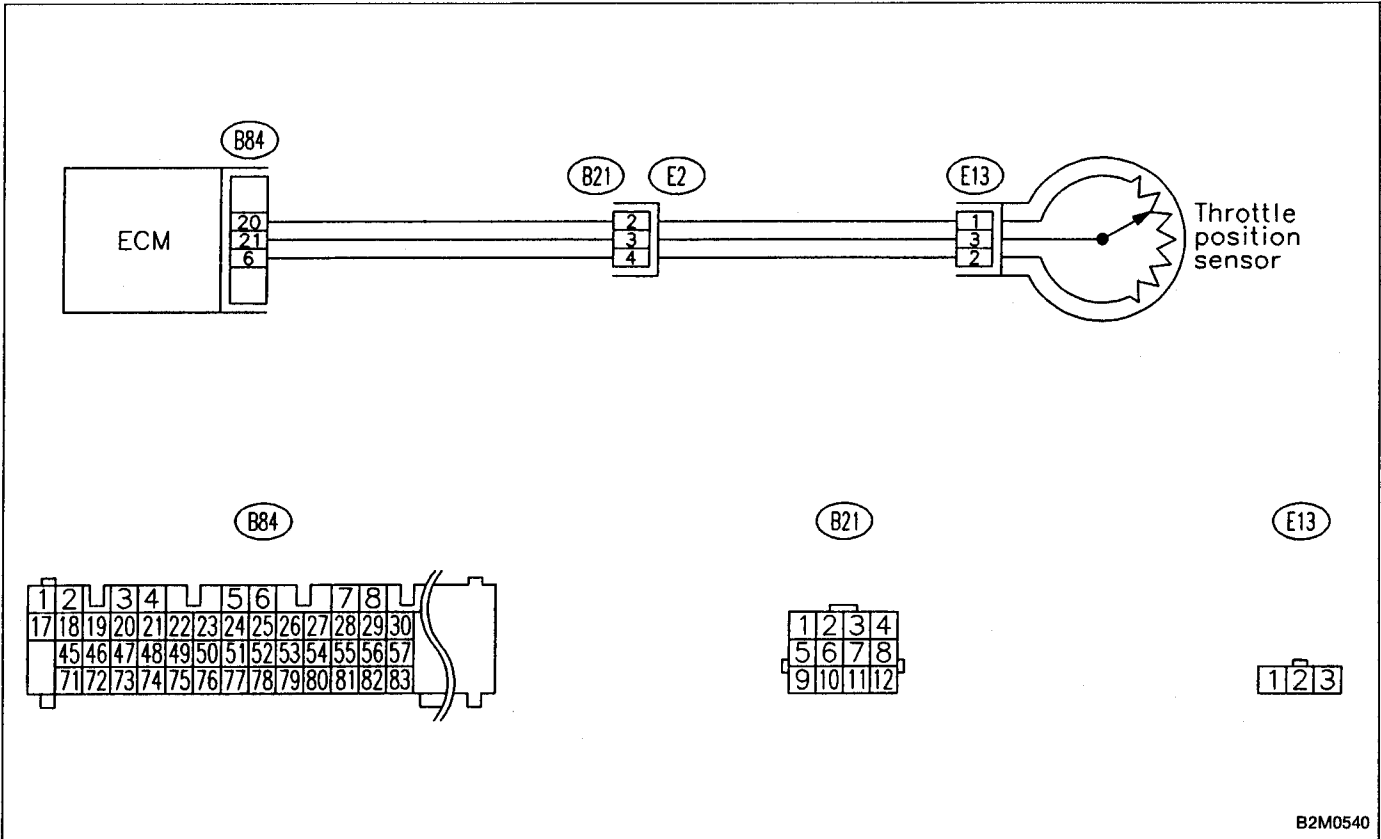
**WIRING DIAGRAM:**



**NOTE:**  
 For the diagnostic procedure on engine coolant temperature sensor circuit malfunction (DTC P0115), refer to 2-7 [T10F0]☆2.

**G: DTC P0120  
 — THROTTLE POSITION SENSOR CIRCUIT  
 MALFUNCTION (THV) —**

**WIRING DIAGRAM:**



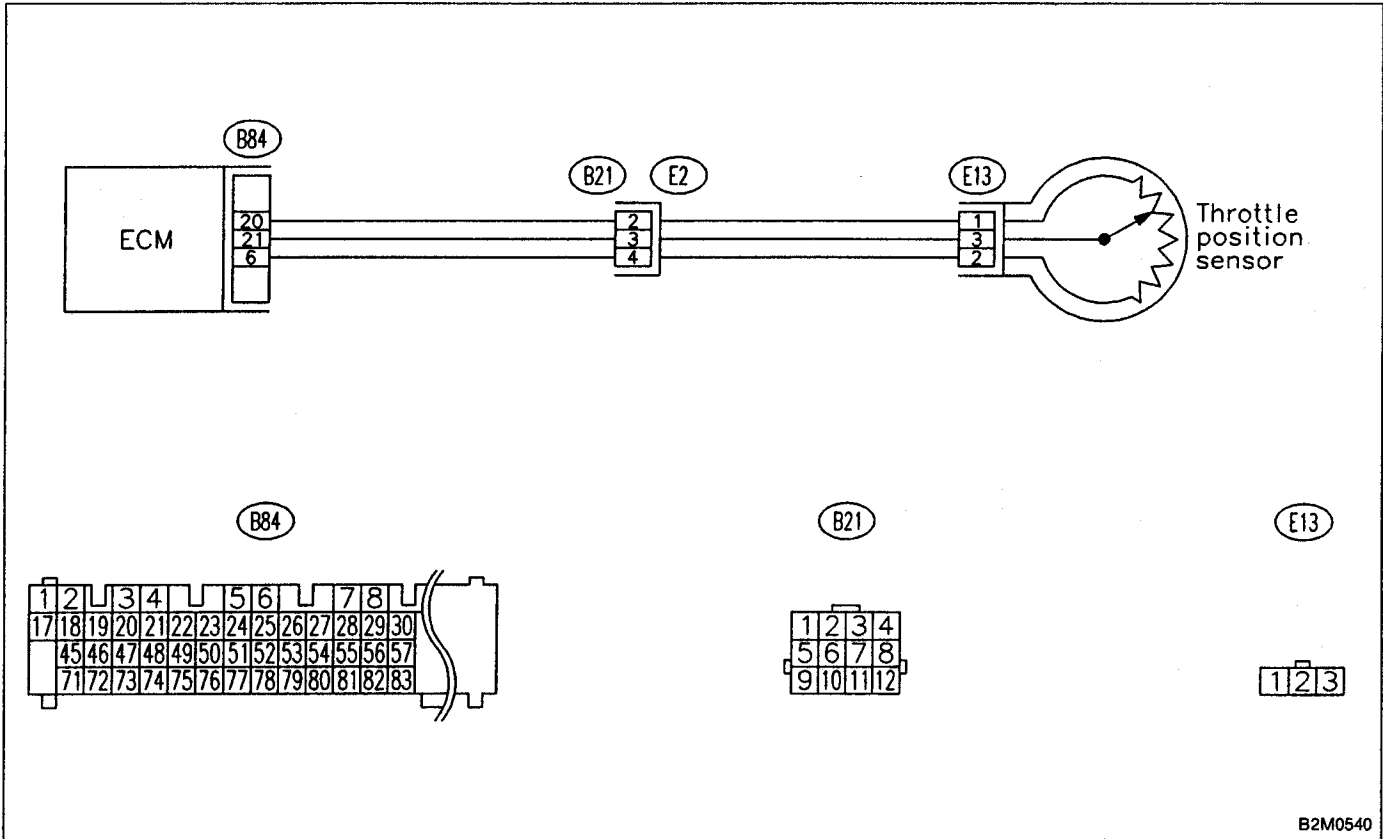
B2M0540

**NOTE:**

For the diagnostic procedure on throttle position sensor circuit malfunction (DTC P0120), refer to 2-7 [T10G0]☆2.

**H: DTC P0121**  
**— THROTTLE POSITION SENSOR CIRCUIT**  
**RANGE/PERFORMANCE PROBLEM**  
**(TH — R) —**

**WIRING DIAGRAM:**



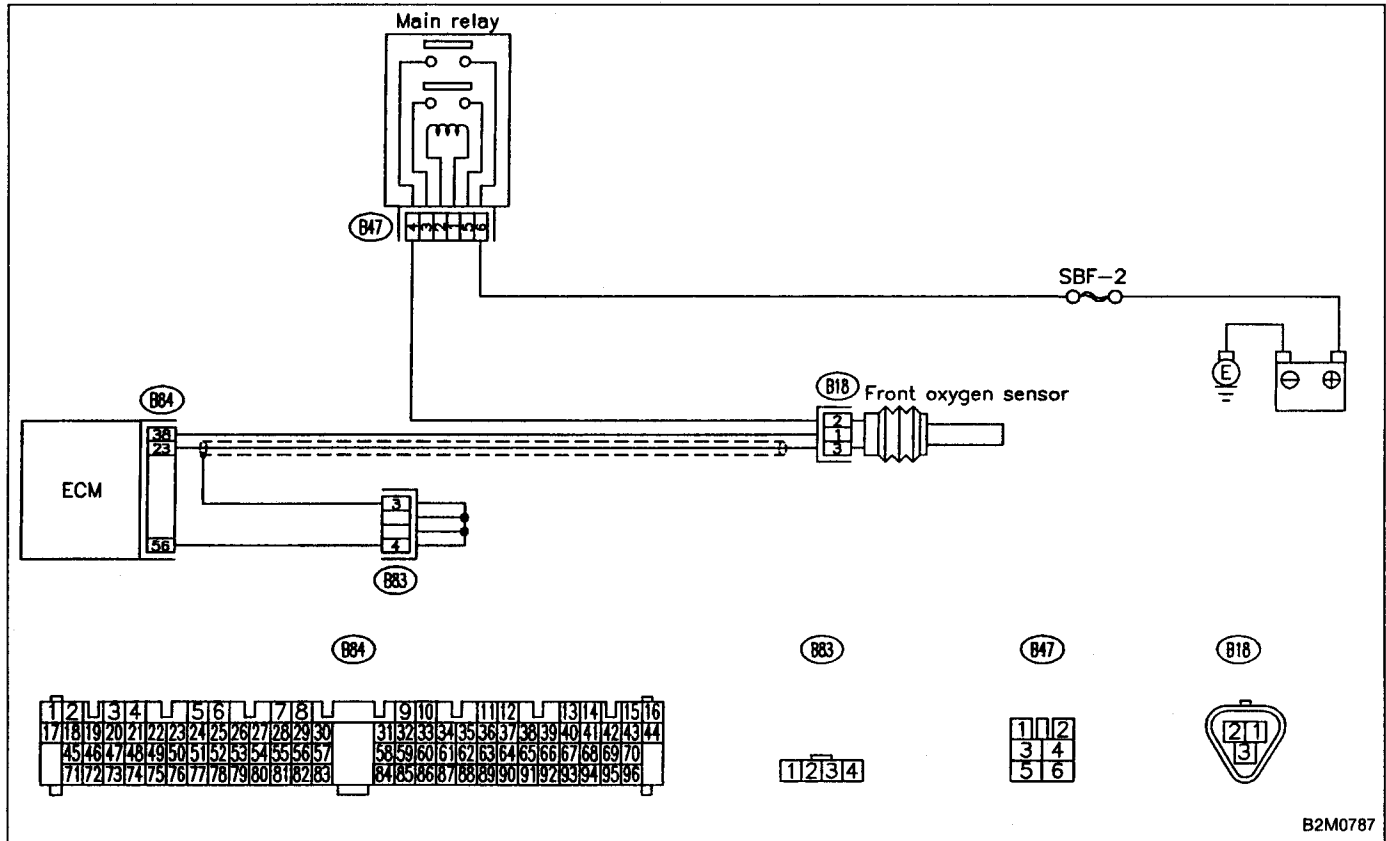
B2M0540

**NOTE:**  
 For the diagnostic procedure on throttle position sensor circuit range/performance problem (DTC P0121), refer to 2-7 [T10H0]☆2.



**J: DTC P0130  
 — FRONT OXYGEN SENSOR CIRCUIT  
 MALFUNCTION (FO2 — V) —**

**WIRING DIAGRAM:**



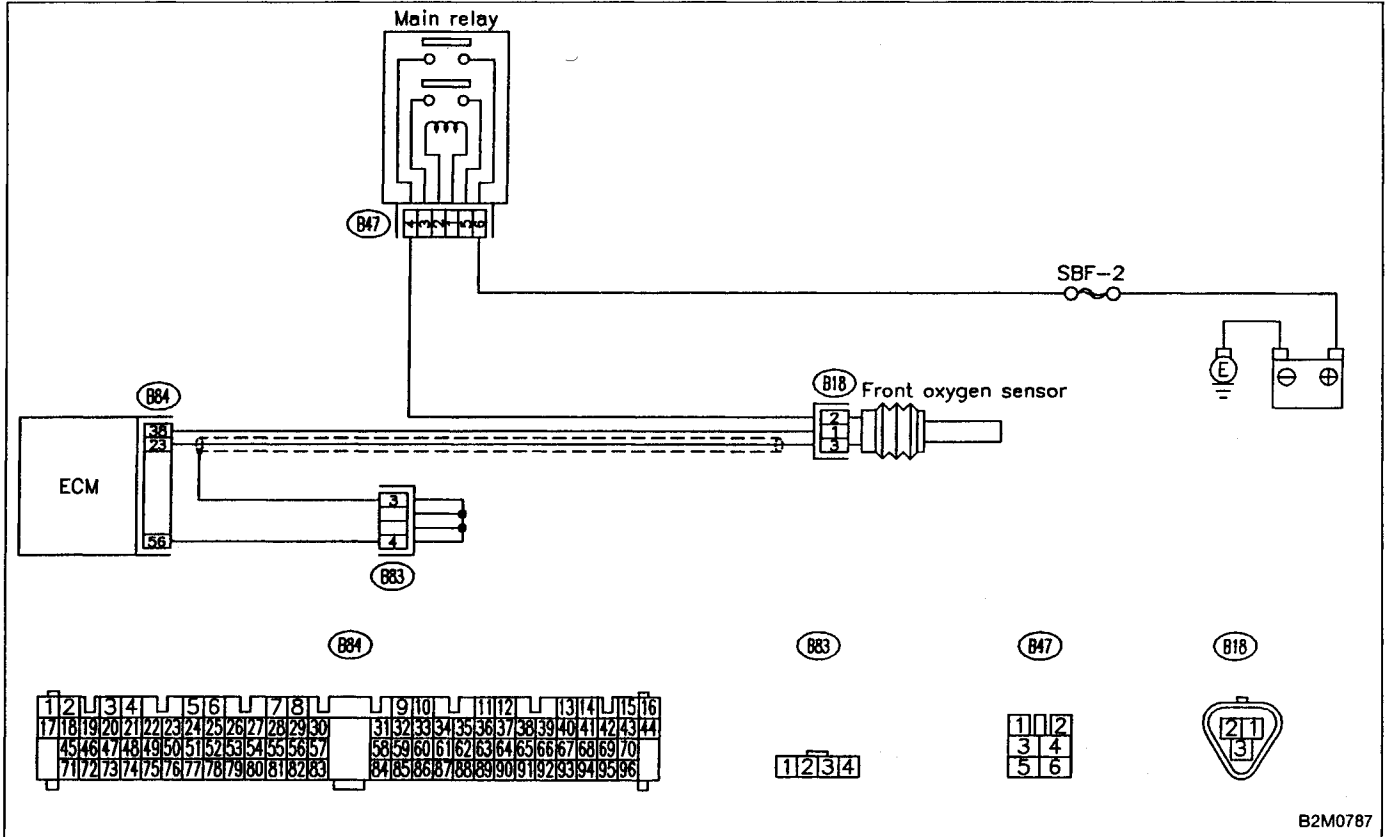
B2M0787

**NOTE:**

For the diagnostic procedure on front oxygen sensor circuit malfunction (DTC P0130), refer to 2-7 [T10J0]☆2.

**K: DTC P0133**  
**— FRONT OXYGEN SENSOR CIRCUIT SLOW**  
**RESPONSE (FO2 — R) —**

**WIRING DIAGRAM:**

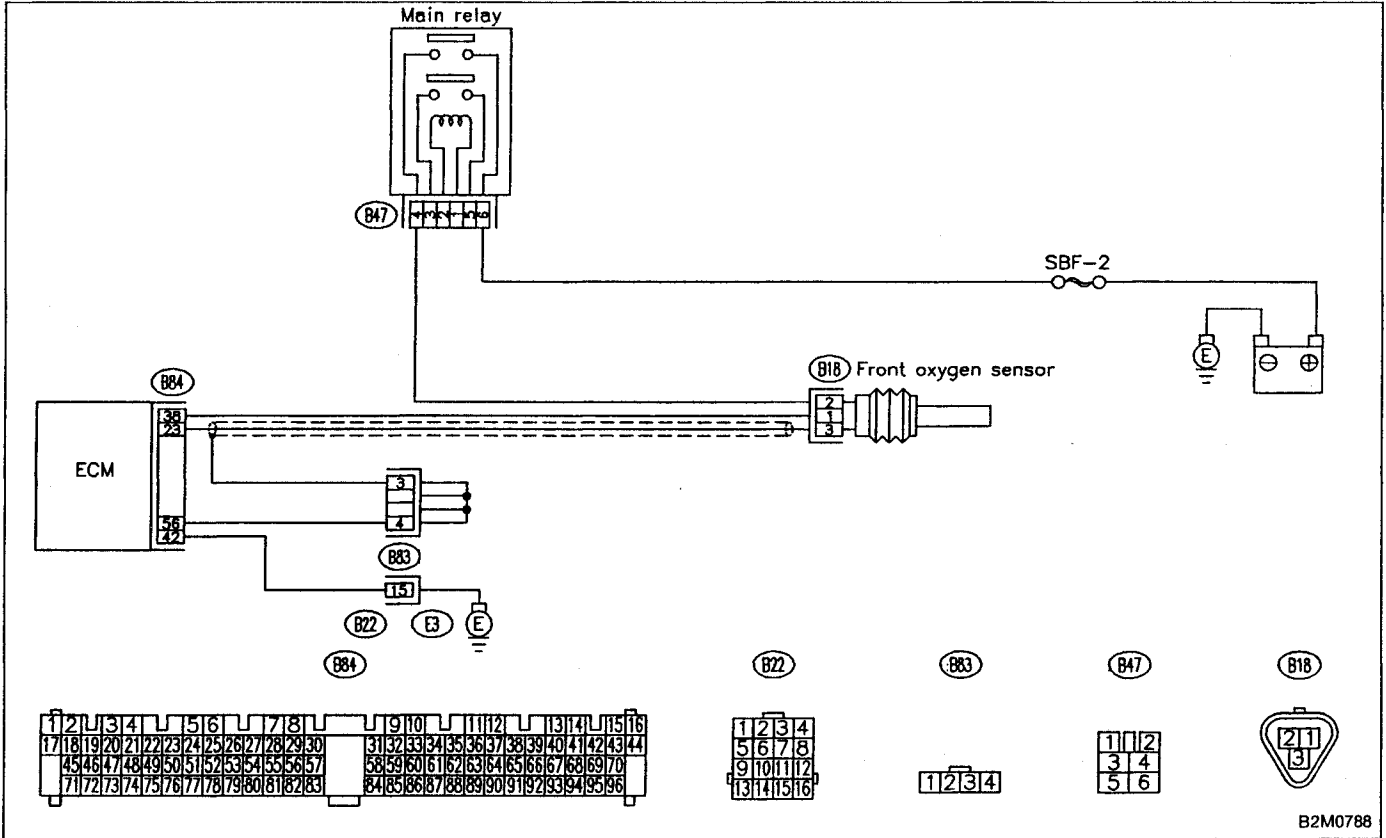


**NOTE:**  
 For the diagnostic procedure on front oxygen sensor circuit slow response (DTC P0133), refer to 2-7 [T10K0]☆2.



**L: DTC P0135**  
**— FRONT OXYGEN SENSOR HEATER CIRCUIT**  
**MALFUNCTION (FO2H) —**

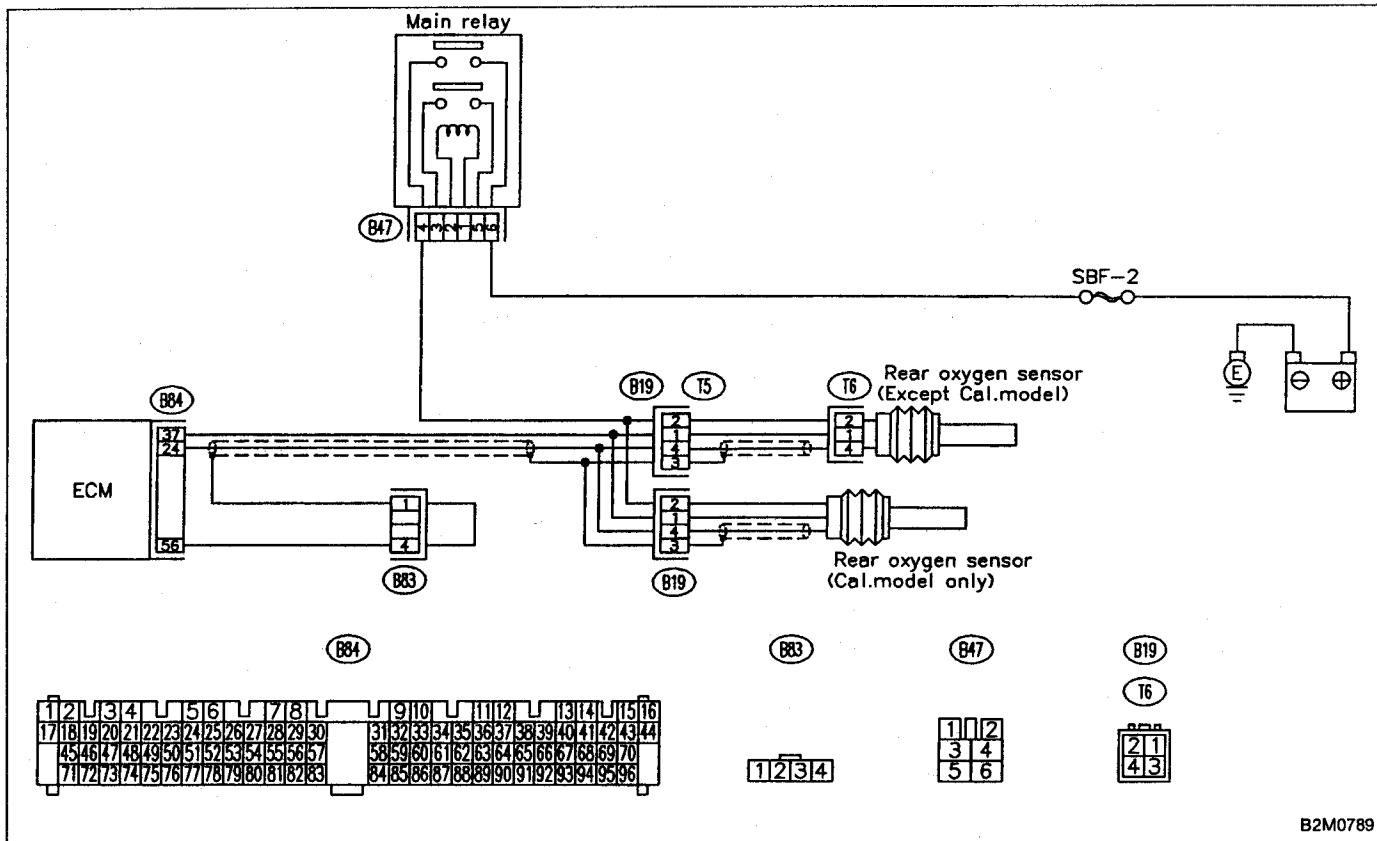
**WIRING DIAGRAM:**



**NOTE:**  
 For the diagnostic procedure on front oxygen sensor heater circuit malfunction (DTC P0135), refer to 2-7 [T10L0]☆2.

**M: DTC P0136**  
**— REAR OXYGEN SENSOR CIRCUIT**  
**MALFUNCTION (RO2 — V) —**

**WIRING DIAGRAM:**

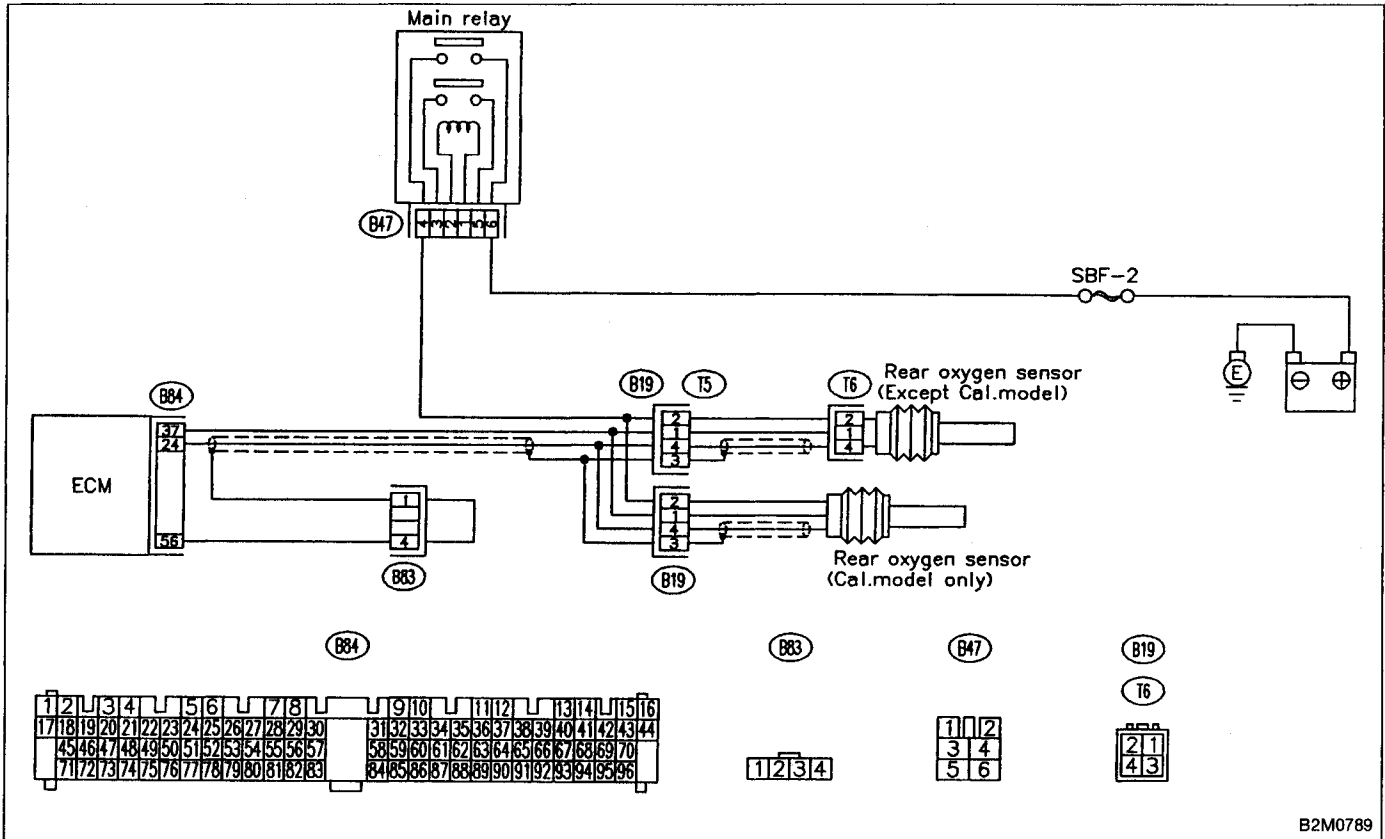


B2M0789

**NOTE:**  
 For the diagnostic procedure on rear oxygen sensor circuit malfunction (DTC P0136), refer to 2-7 [T10M0]☆2.

N: DTC P0139  
— REAR OXYGEN SENSOR CIRCUIT SLOW  
RESPONSE (RO2 — R) —

WIRING DIAGRAM:

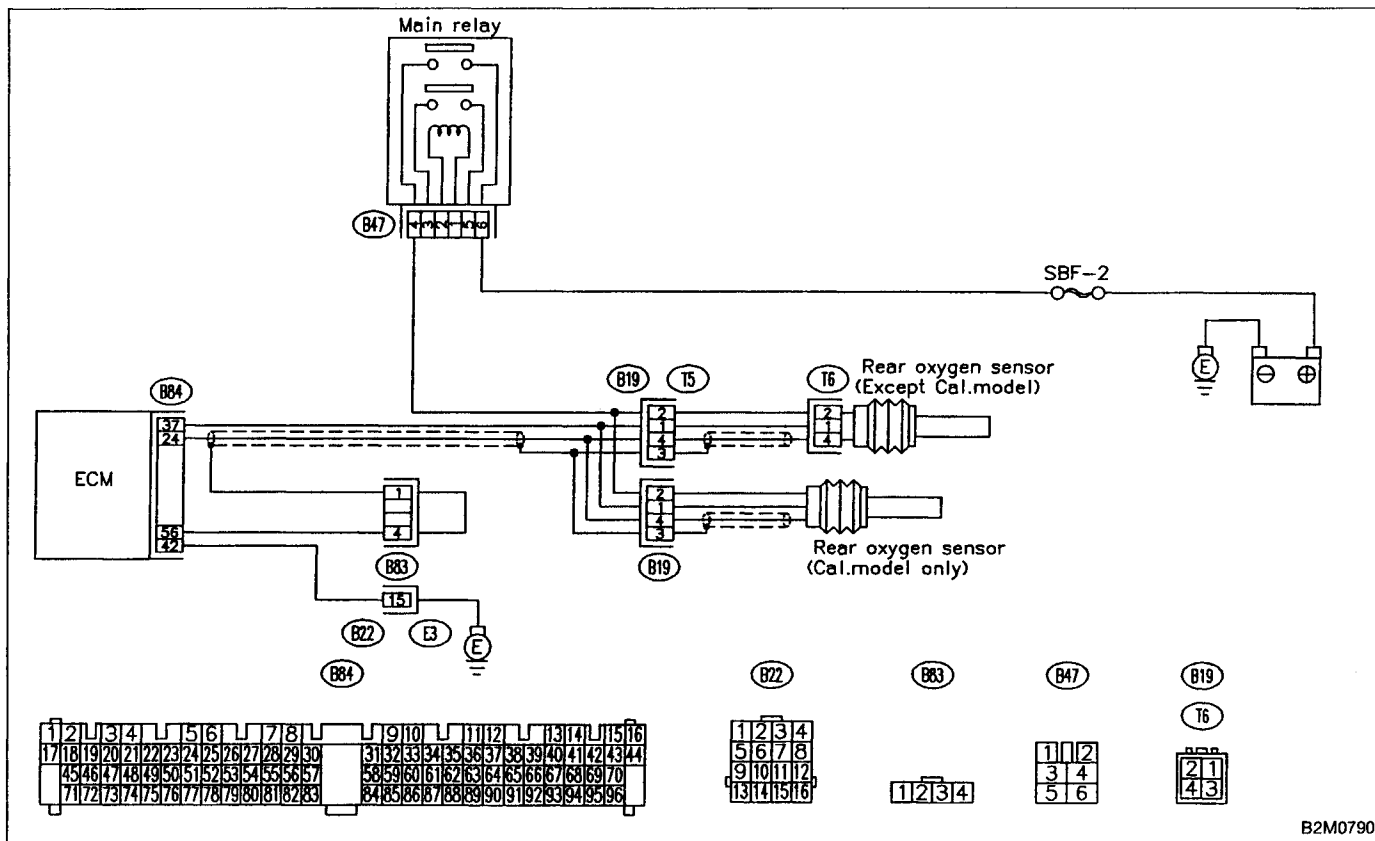


B2M0789

NOTE:  
For the diagnostic procedure on rear oxygen sensor circuit slow response (DTC P0139), refer to 2-7 [T10N0]☆2.

**O: DTC P0141**  
**— REAR OXYGEN SENSOR HEATER CIRCUIT**  
**MALFUNCTION (RO2H) —**

**WIRING DIAGRAM:**



B2M0790

**NOTE:**

For the diagnostic procedure on rear oxygen sensor heater circuit malfunction (DTC P0141), refer to 2-7 [T1000]☆2.

**P: DTC P0170**

**— FUEL TRIM MALFUNCTION (FUEL) —**

NOTE:

For the diagnostic procedure on fuel trim malfunction (DTC P0170), refer to 2-7 [T10P0]☆2.

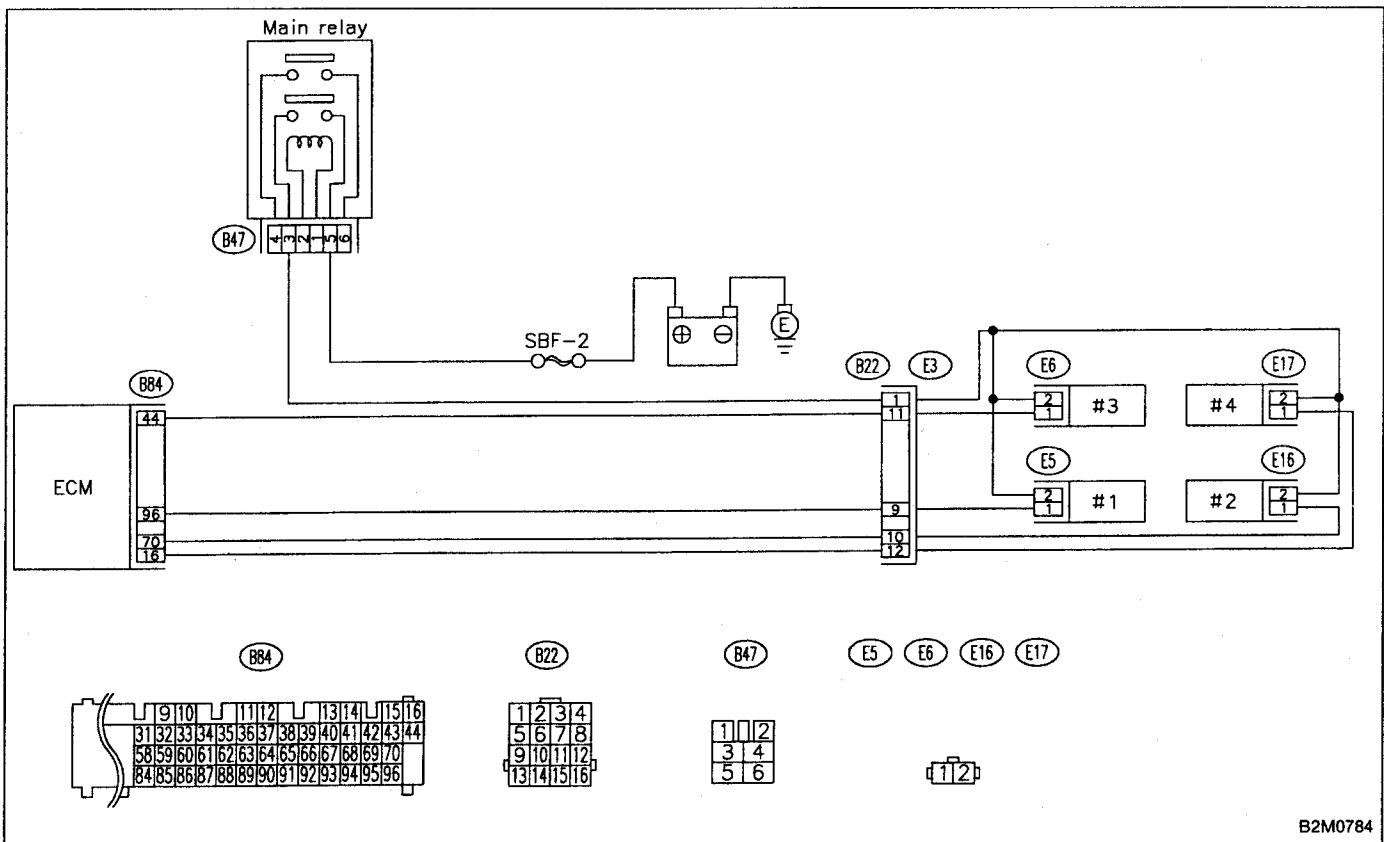
**Q: DTC P0201**  
 — FUEL INJECTOR CIRCUIT MALFUNCTION -  
 #1 (INJ1) —

**R: DTC P0202**  
 — FUEL INJECTOR CIRCUIT MALFUNCTION -  
 #2 (INJ2) —

**S: DTC P0203**  
 — FUEL INJECTOR CIRCUIT MALFUNCTION -  
 #3 (INJ3) —

**T: DTC P0204**  
 — FUEL INJECTOR CIRCUIT MALFUNCTION -  
 #4 (INJ4) —

**WIRING DIAGRAM:**



B2M0784

**NOTE:**

For the diagnostic procedure on fuel injector circuit malfunction — #1 (DTC P0201), #2 (DTC P0202), #3 (DTC P0203) and #4 (DTC P0204), refer to 2-7 [T10Q0, T10R0, T10S0 and T10T0]☆2.

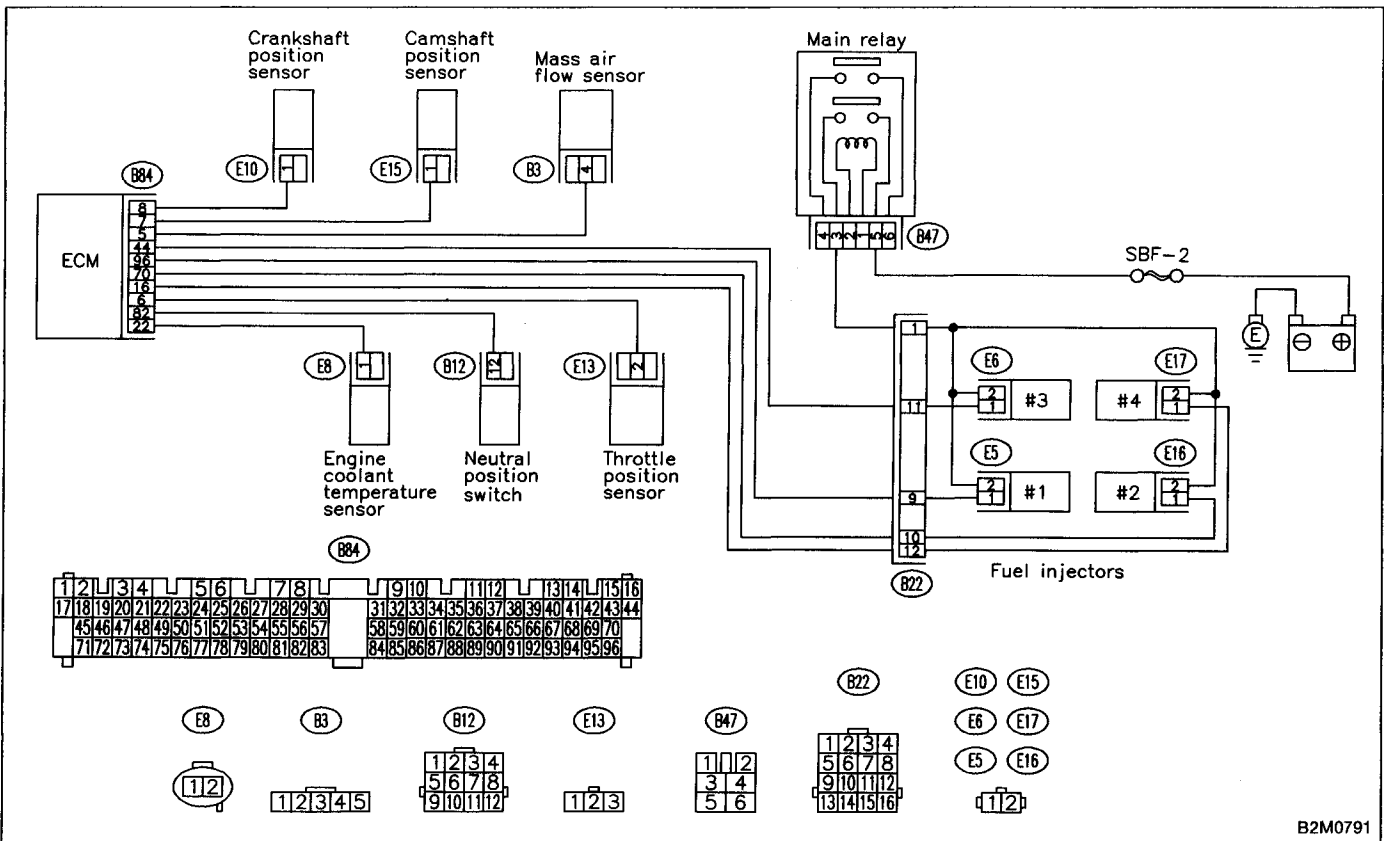
**U: DTC P0301**  
**— CYLINDER 1 MISFIRE DETECTED**  
**(MIS — 1) —**

**V: DTC P0302**  
**— CYLINDER 2 MISFIRE DETECTED**  
**(MIS — 2) —**

**W: DTC P0303**  
**— CYLINDER 3 MISFIRE DETECTED**  
**(MIS — 3) —**

**X: DTC P0304**  
**— CYLINDER 4 MISFIRE DETECTED**  
**(MIS — 4) —**

**WIRING DIAGRAM:**



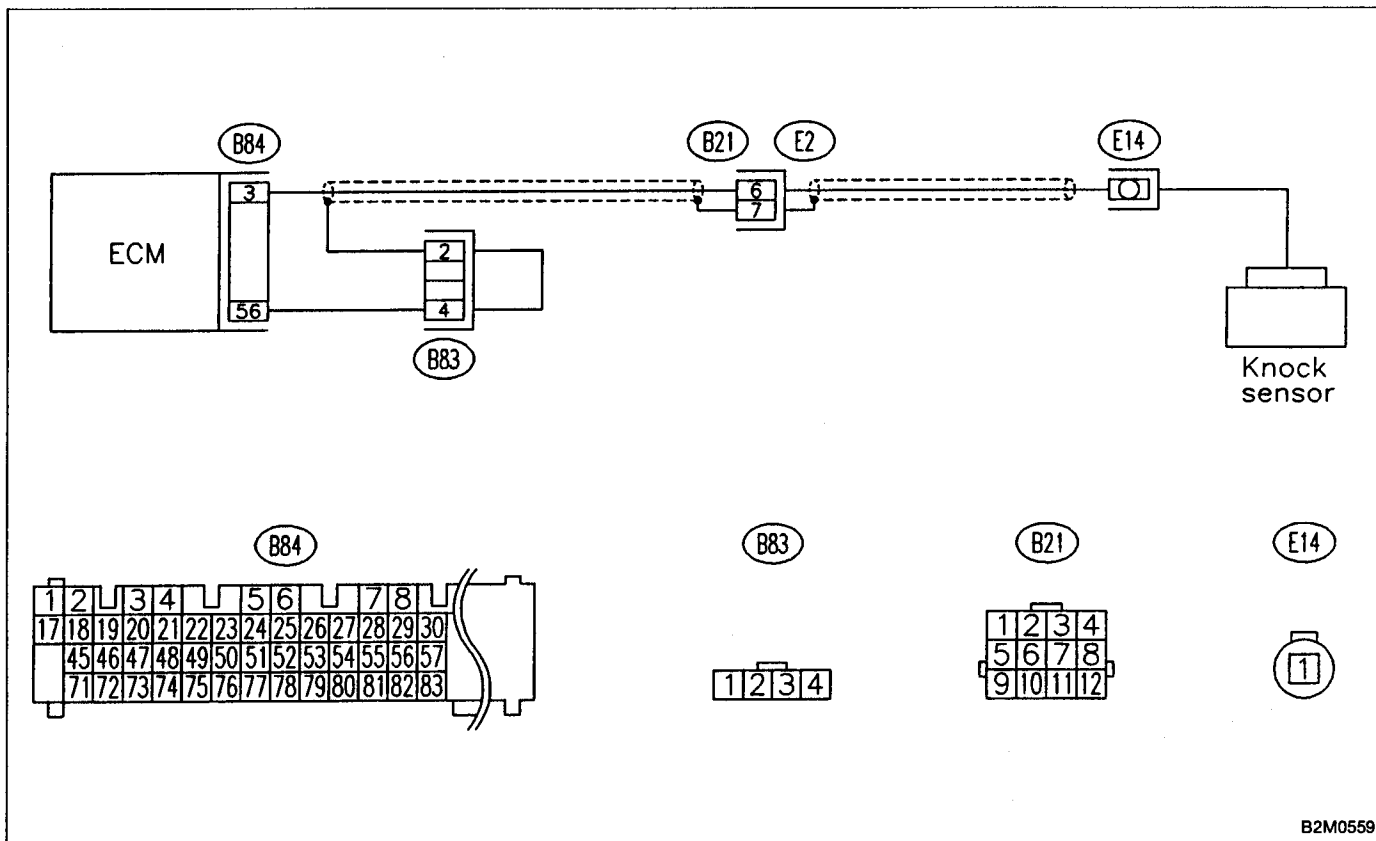
B2M0791

**NOTE:**

For the diagnostic procedure on cylinder misfire detected — #1 (DTC P0301), #2 (DTC P0302), #3 (DTC P0303) and #4 (DTC P0304), refer to 2-7 [T10U0, T10V0, T10W0 and T10X0]☆2.

**Y: DTC P0325**  
**— KNOCK SENSOR CIRCUIT MALFUNCTION (KNOCK) —**

**WIRING DIAGRAM:**



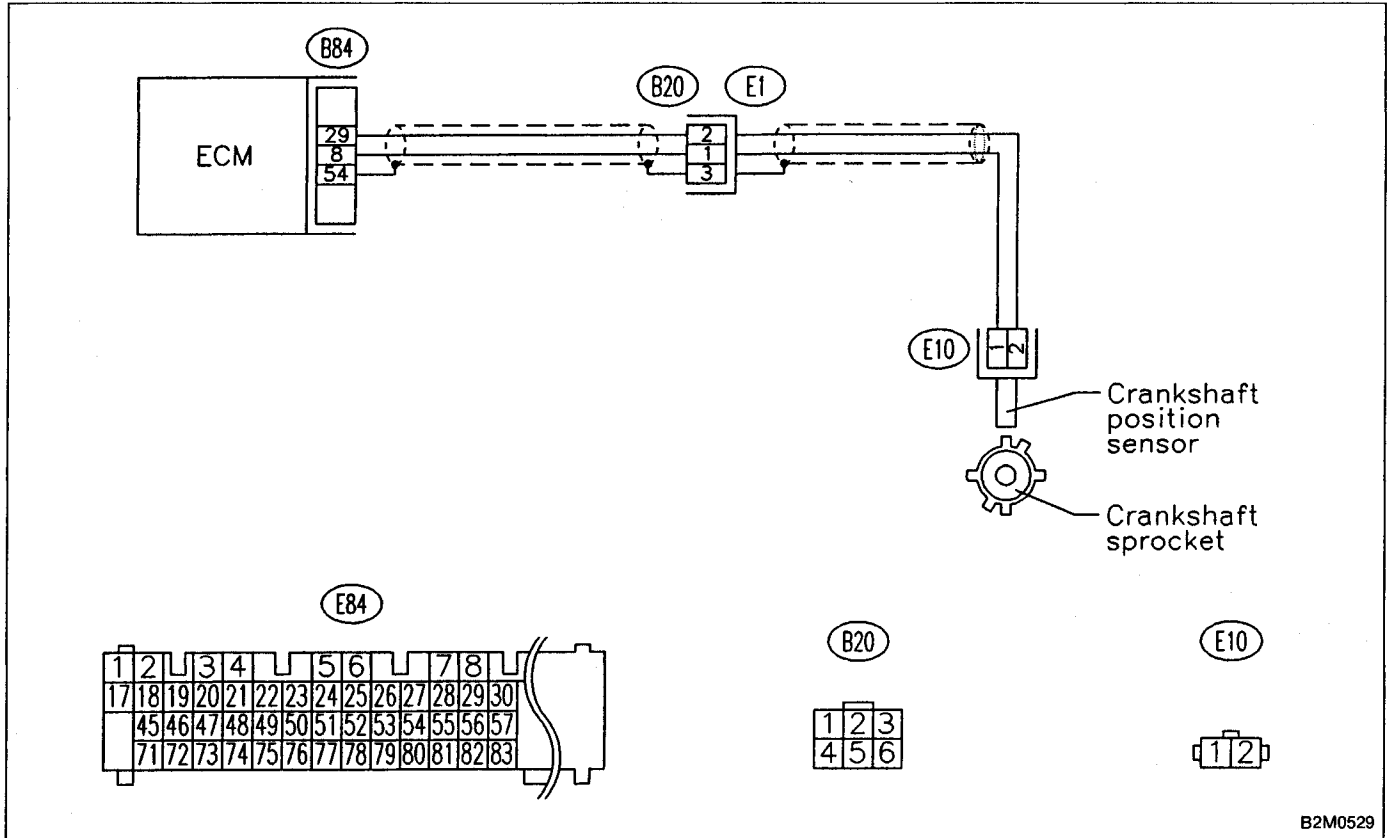
B2M0559

**NOTE:**  
 For the diagnostic procedure on knock sensor circuit malfunction (DTC P0325), refer to 2-7 [T10Y0]☆2.



**Z: DTC P0335**  
**— CRANKSHAFT POSITION SENSOR CIRCUIT**  
**MALFUNCTION (CRANK) —**

**WIRING DIAGRAM:**



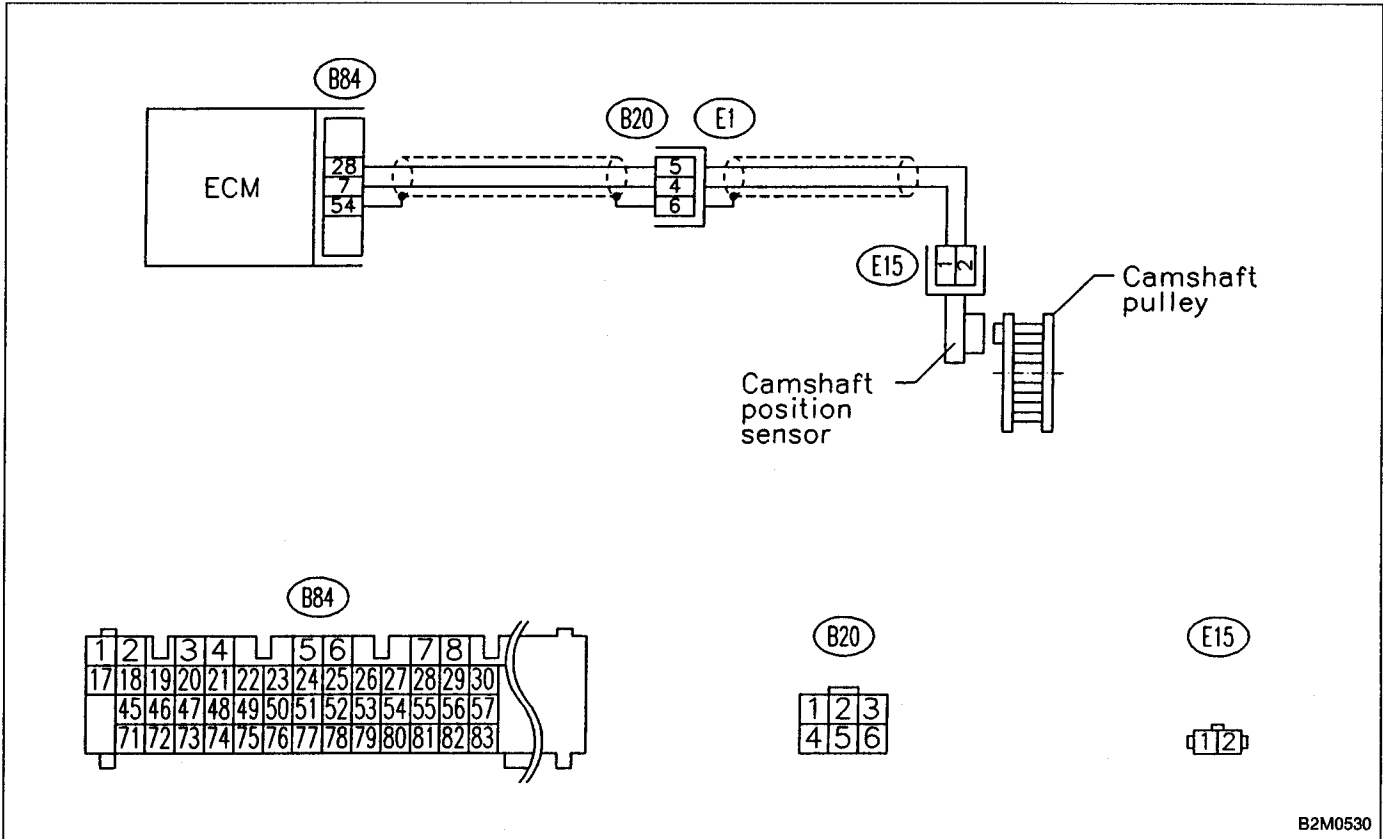
B2M0529

**NOTE:**

For the diagnostic procedure on crankshaft position sensor circuit malfunction (DTC P0335), refer to 2-7 [T10Z0]☆2.

**AA: DTC P0340**  
**— CAMSHAFT POSITION SENSOR CIRCUIT**  
**MALFUNCTION (CAM) —**

**WIRING DIAGRAM:**

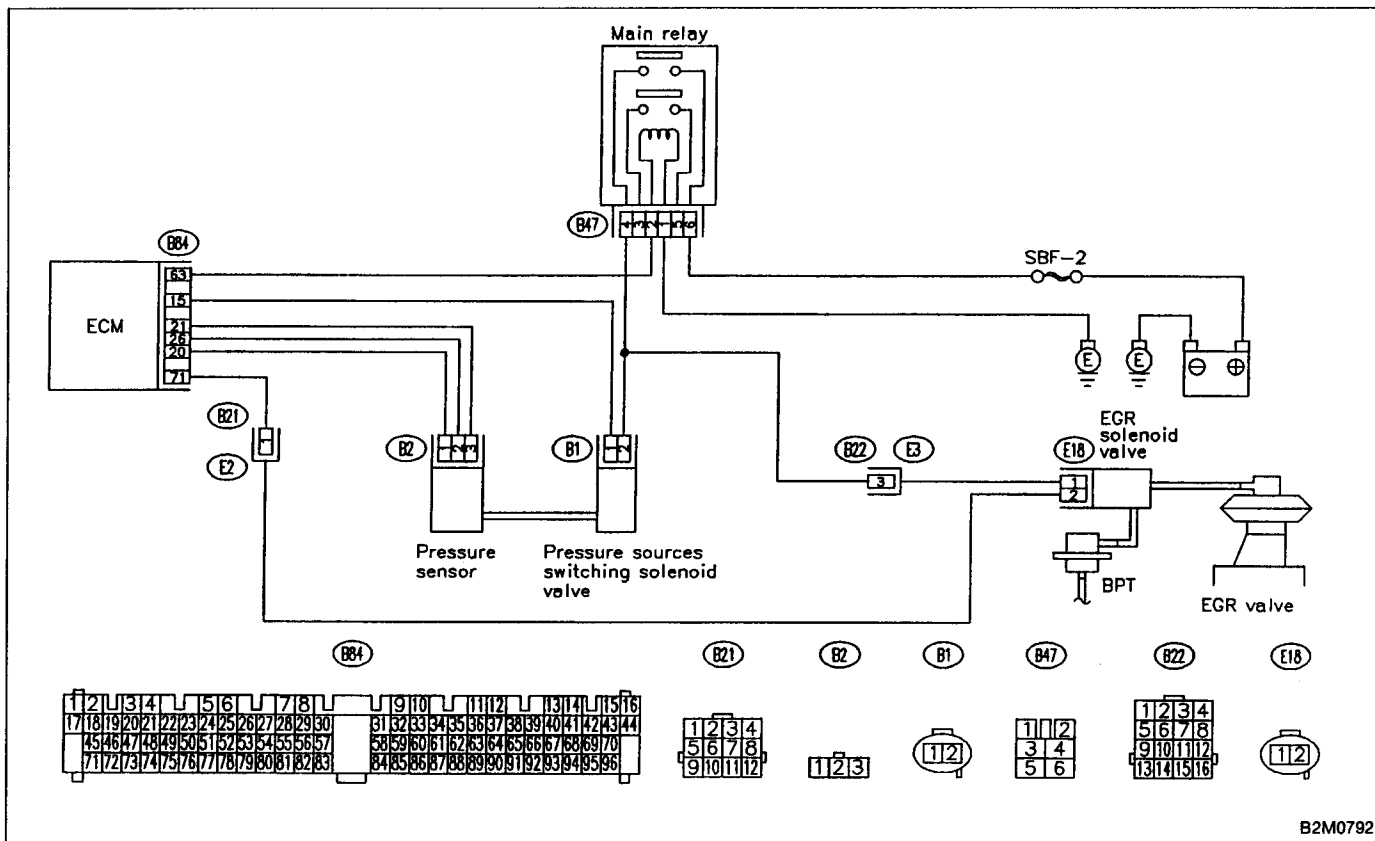


**NOTE:**

For the diagnostic procedure on camshaft position sensor malfunction (DTC P0340), refer to 2-7 [T10AA0]☆2.

**AB: DTC P0400**  
**— EXHAUST GAS RECIRCULATION FLOW**  
**MALFUNCTION (EGR) —**

**WIRING DIAGRAM:**

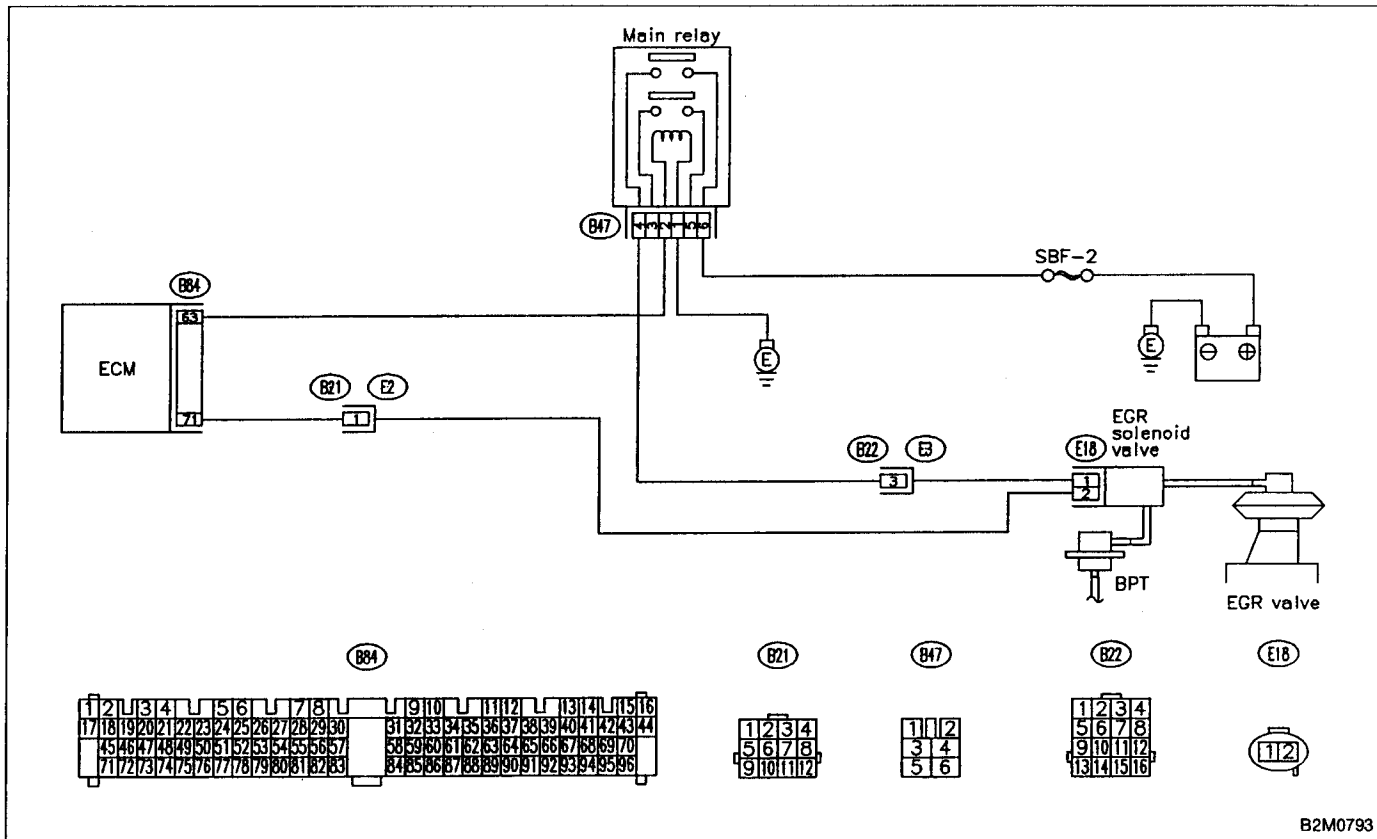


B2M0792

**NOTE:**  
 For the diagnostic procedure on exhaust gas recirculation flow malfunction (DTC P0400), refer to 2-7 [T10AB0]☆2.

**AC: DTC P0403**  
**— EXHAUST GAS RECIRCULATION CIRCUIT**  
**MALFUNCTION (EGRSOL) —**

**WIRING DIAGRAM:**

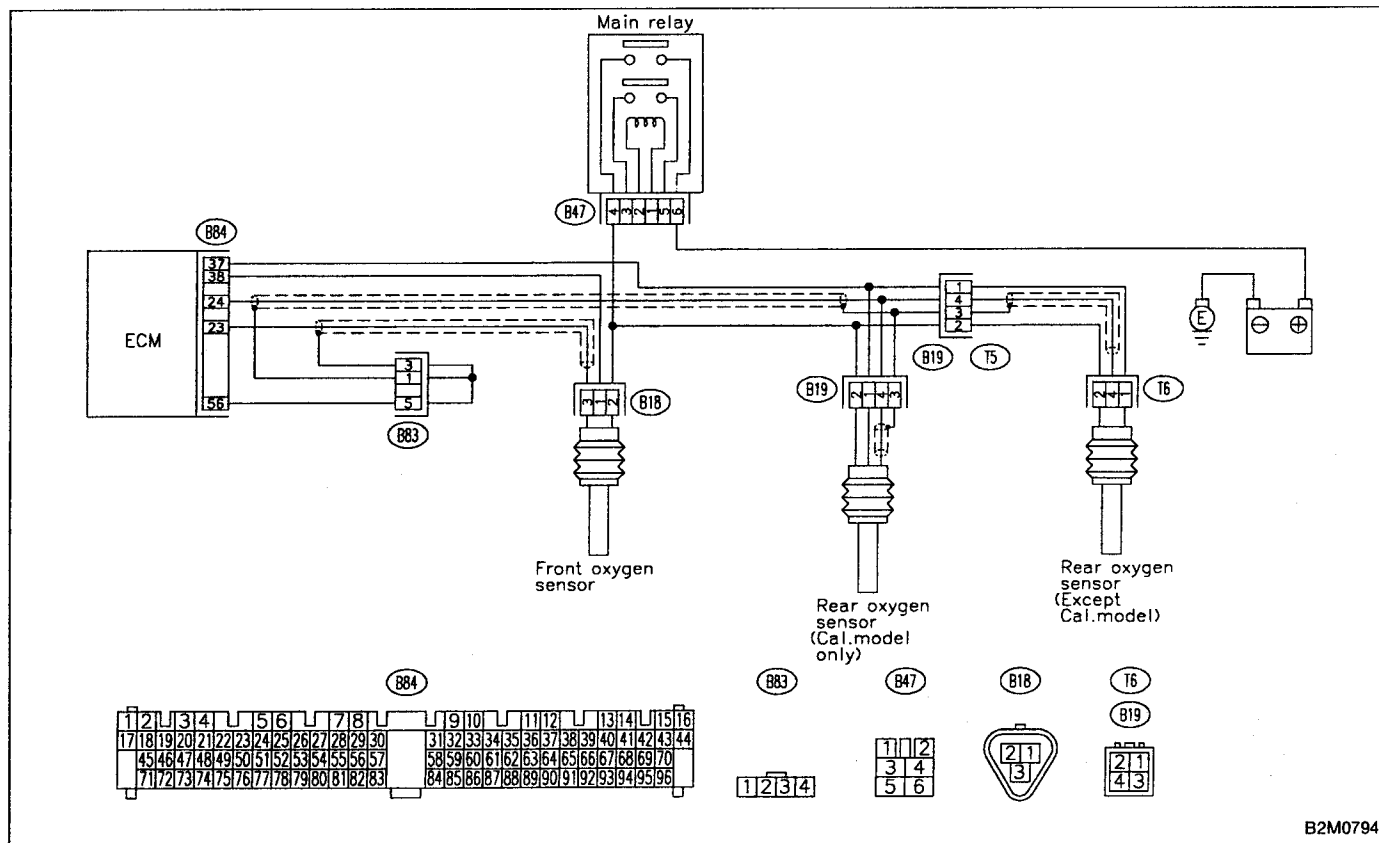


**NOTE:**

For the diagnostic procedure on exhaust gas recirculation circuit malfunction (DTC P0403), refer to 2-7 [T10AC0]☆2.

**AD: DTC P0420**  
**— CATALYST SYSTEM EFFICIENCY BELOW THRESHOLD (CAT) —**

**WIRING DIAGRAM:**



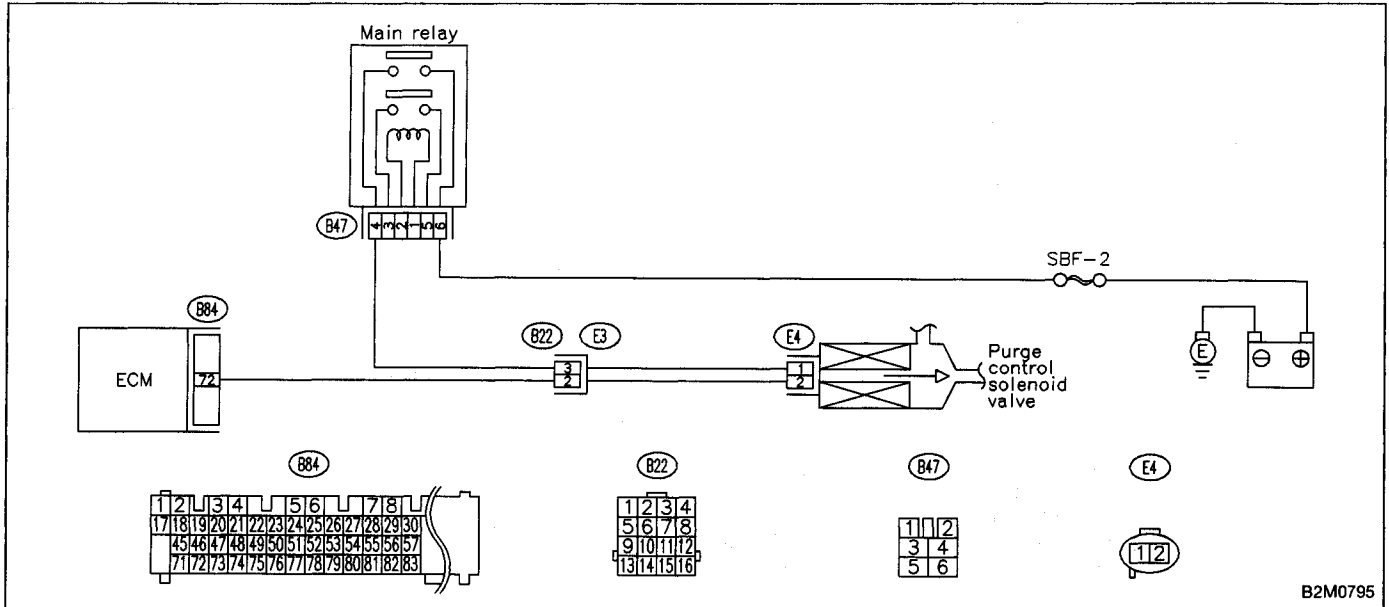
B2M0794

**NOTE:**

For the diagnostic procedure on catalyst system efficiency below threshold (DTC P0420), refer to 2-7 [T10AD0]☆2.

**AE: DTC P0441**  
**— EVAPORATIVE EMISSION CONTROL**  
**SYSTEM INCORRECT PURGE FLOW**  
**(CPC — F) —**

**WIRING DIAGRAM:**

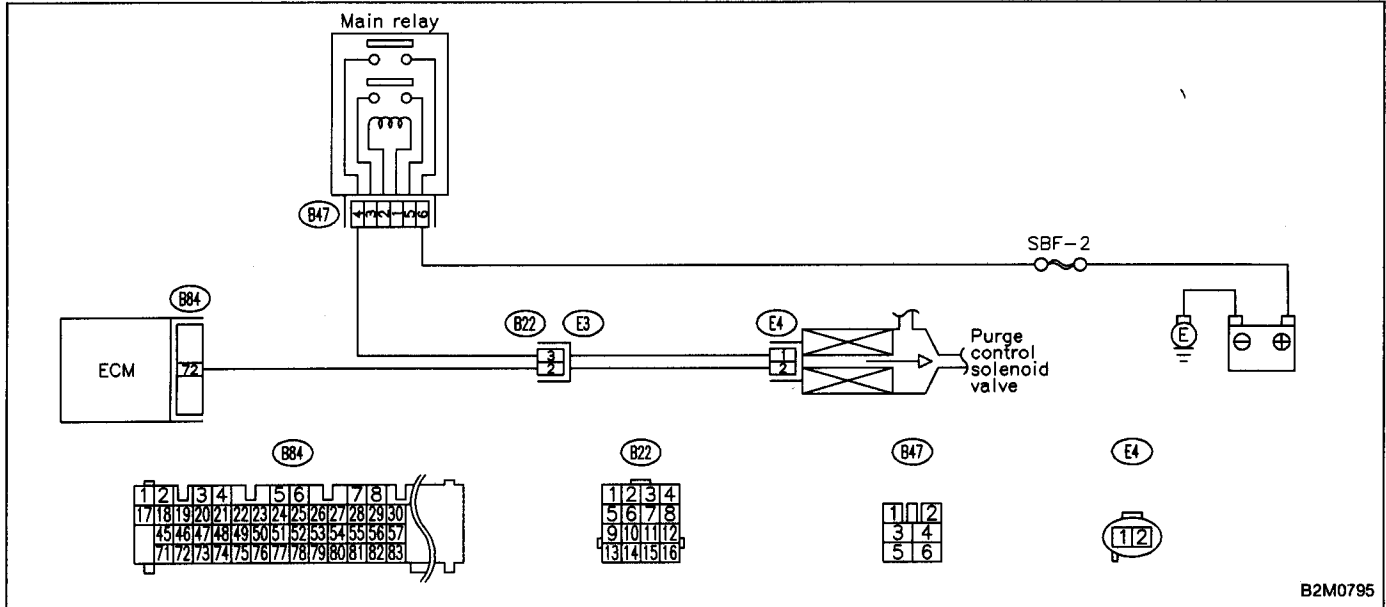


**NOTE:**

For the diagnostic procedure on evaporative emission control system incorrect purge flow (DTC P0441), refer to 2-7 [T10AE0]☆2.

**AF: DTC P0443**  
**— EVAPORATIVE EMISSION CONTROL**  
**SYSTEM PURGE CONTROL VALVE CIRCUIT**  
**MALFUNCTION (CPC) —**

**WIRING DIAGRAM:**

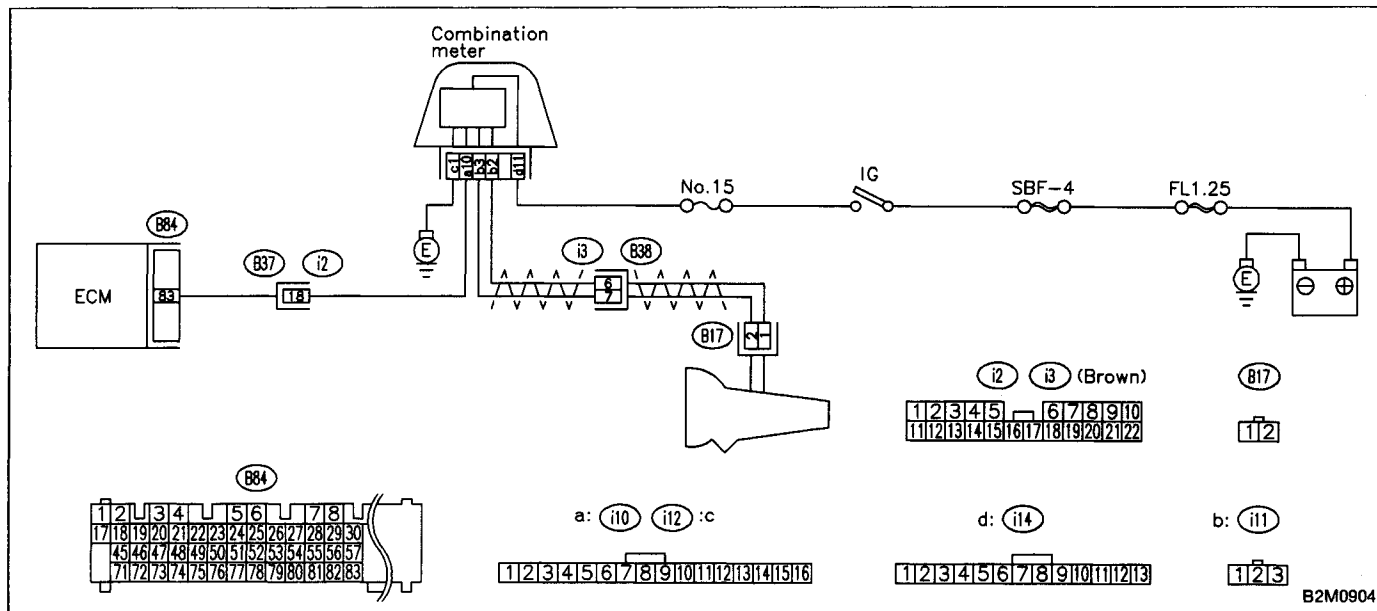


**NOTE:**

For the diagnostic procedure on evaporative emission control system purge control valve circuit malfunction (DTC P0443), refer to 2-7 [T10AF0]☆2.

**AG: DTC P0500**  
**— VEHICLE SPEED SENSOR MALFUNCTION (VSP) —**

**WIRING DIAGRAM:**

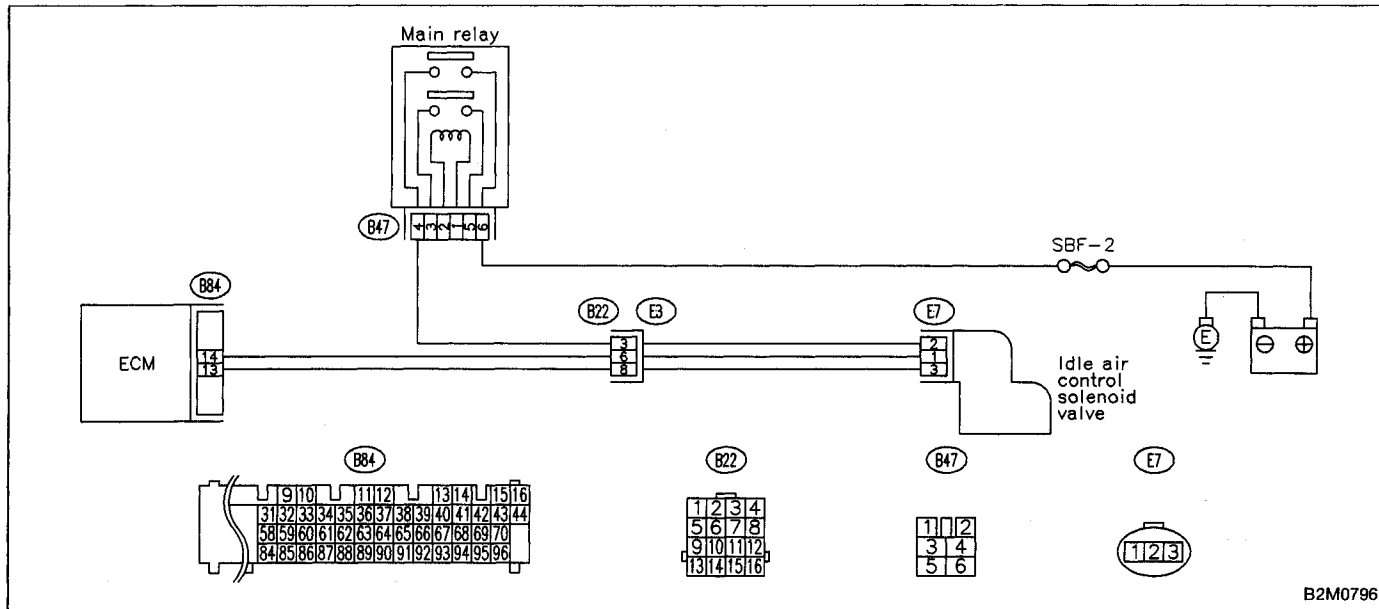


**NOTE:**  
 For the diagnostic procedure on vehicle speed sensor malfunction (DTC P0500), refer to 2-7 [T10AG0]☆2.



**AH: DTC P0505**  
**— IDLE CONTROL SYSTEM MALFUNCTION (ISC) —**

**WIRING DIAGRAM:**



B2M0796

**NOTE:**  
 For the diagnostic procedure on idle control system malfunction (DTC P0505), refer to 2-7 [T10AH0]☆2.

**AI: DTC P0506  
— IDLE CONTROL SYSTEM RPM LOWER  
THAN EXPECTED (ISC — L) —**

**NOTE:**

For the diagnostic procedure on idle control system RPM lower than expected (DTC P0506), refer to 2-7 [T10A10]☆2.

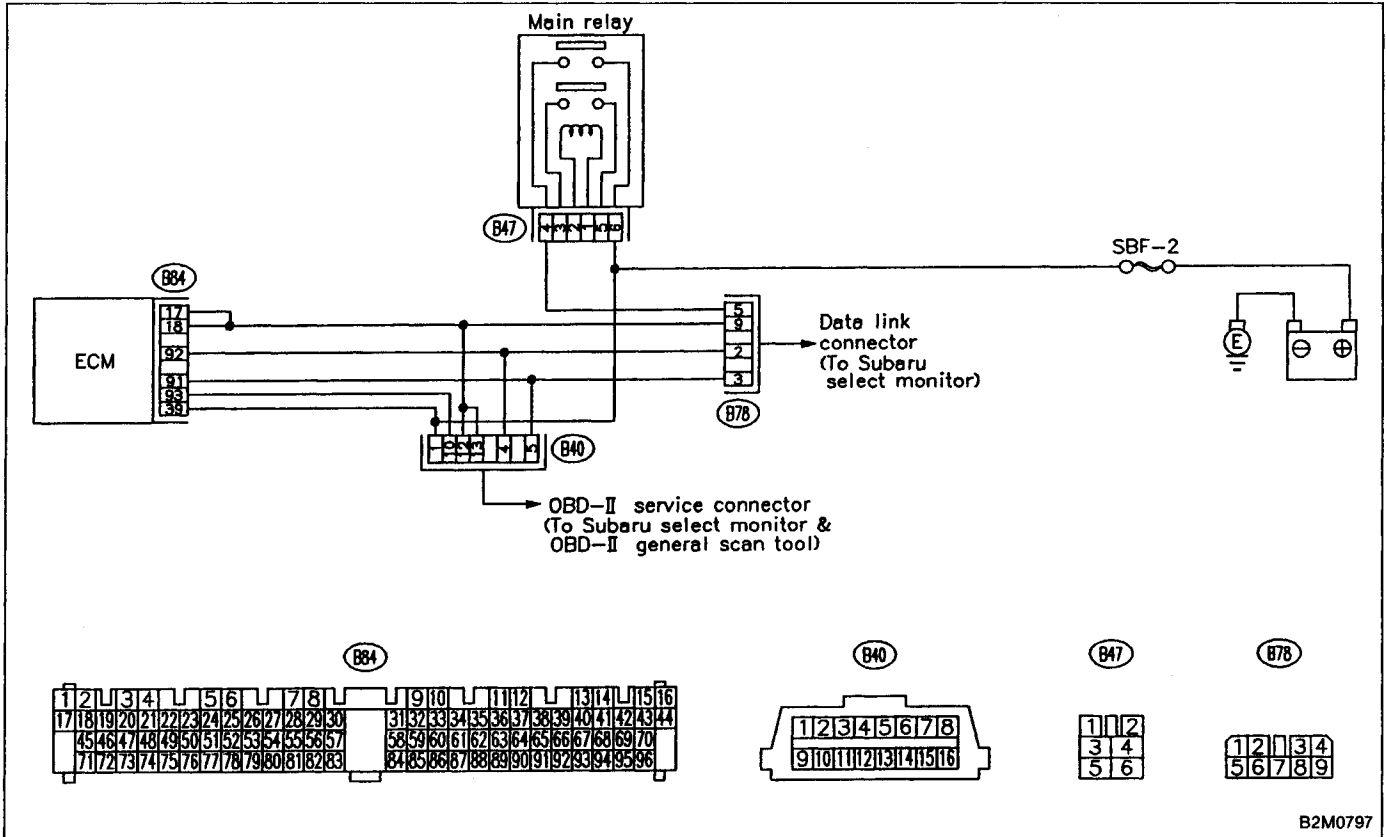
**AJ: DTC P0507  
— IDLE CONTROL SYSTEM RPM HIGHER  
THAN EXPECTED (ISC — H) —**

NOTE:

For the diagnostic procedure on idle control system RPM higher than expected (DTC P0507), refer to 2-7 [T10AJ0]☆2.

**AK: DTC P0600**  
**— SERIAL COMMUNICATION LINK**  
**MALFUNCTION —**

**WIRING DIAGRAM:**

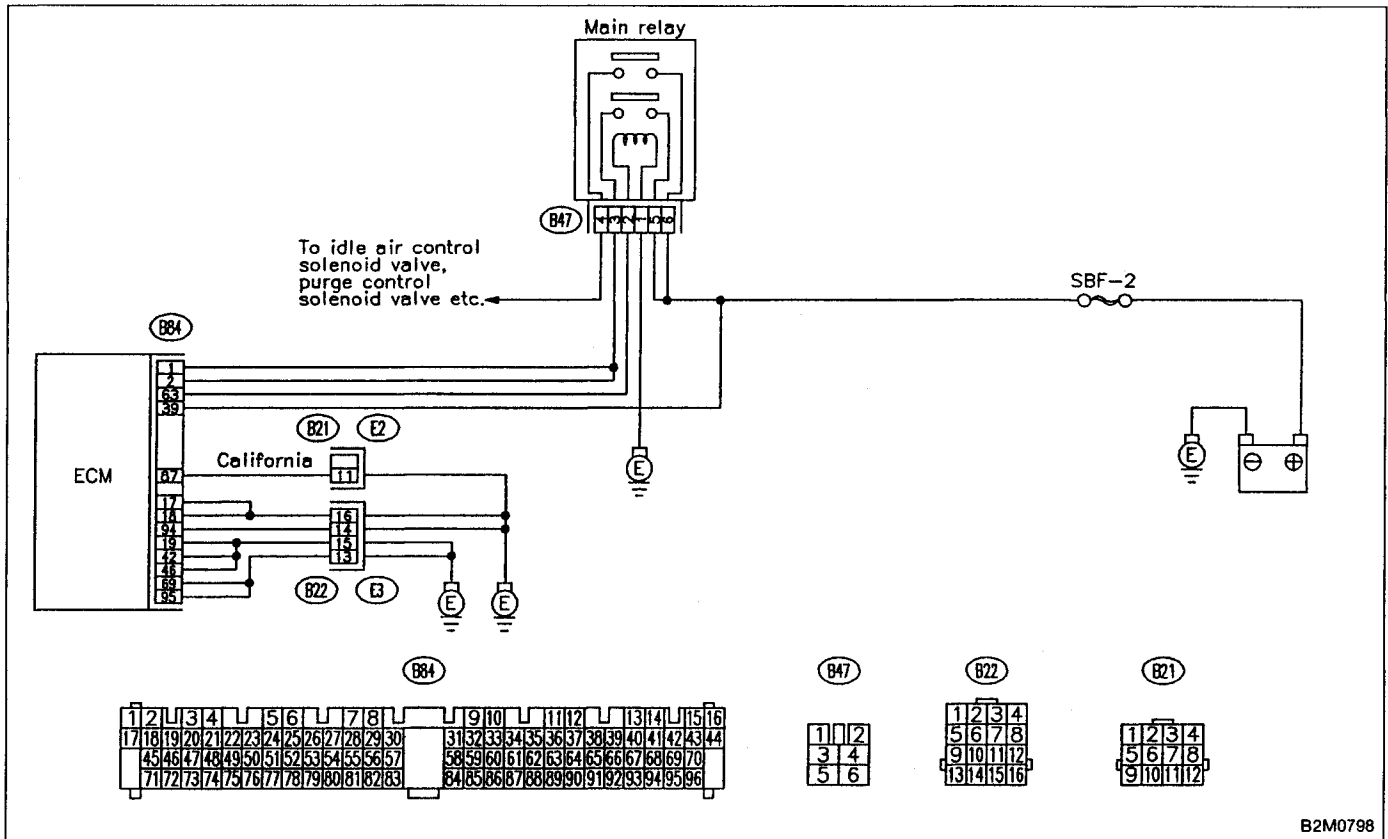


B2M0797

**NOTE:**  
 For the diagnostic procedure on serial communication link malfunction (DTC P0600), refer to 2-7 [T10AK0]☆2.

**AL: DTC P0601**  
**— INTERNAL CONTROL MODULE MEMORY**  
**CHECK SUM ERROR (RAM) —**

**WIRING DIAGRAM:**



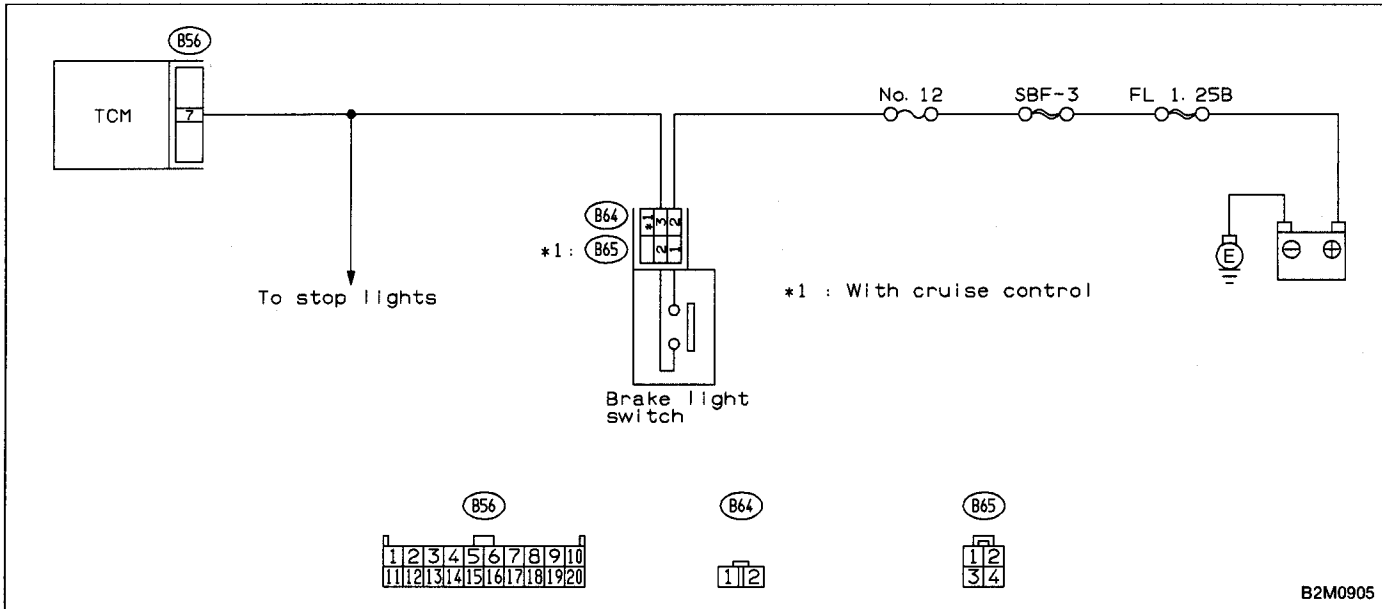
B2M0798

**NOTE:**

For the diagnostic procedure on internal control module memory check sum error (DTC P0601), refer to 2-7 [T10AL0]☆2.

**AM: DTC P0703  
 — BRAKE SWITCH INPUT MALFUNCTION  
 (ATBRK) —**

**WIRING DIAGRAM:**

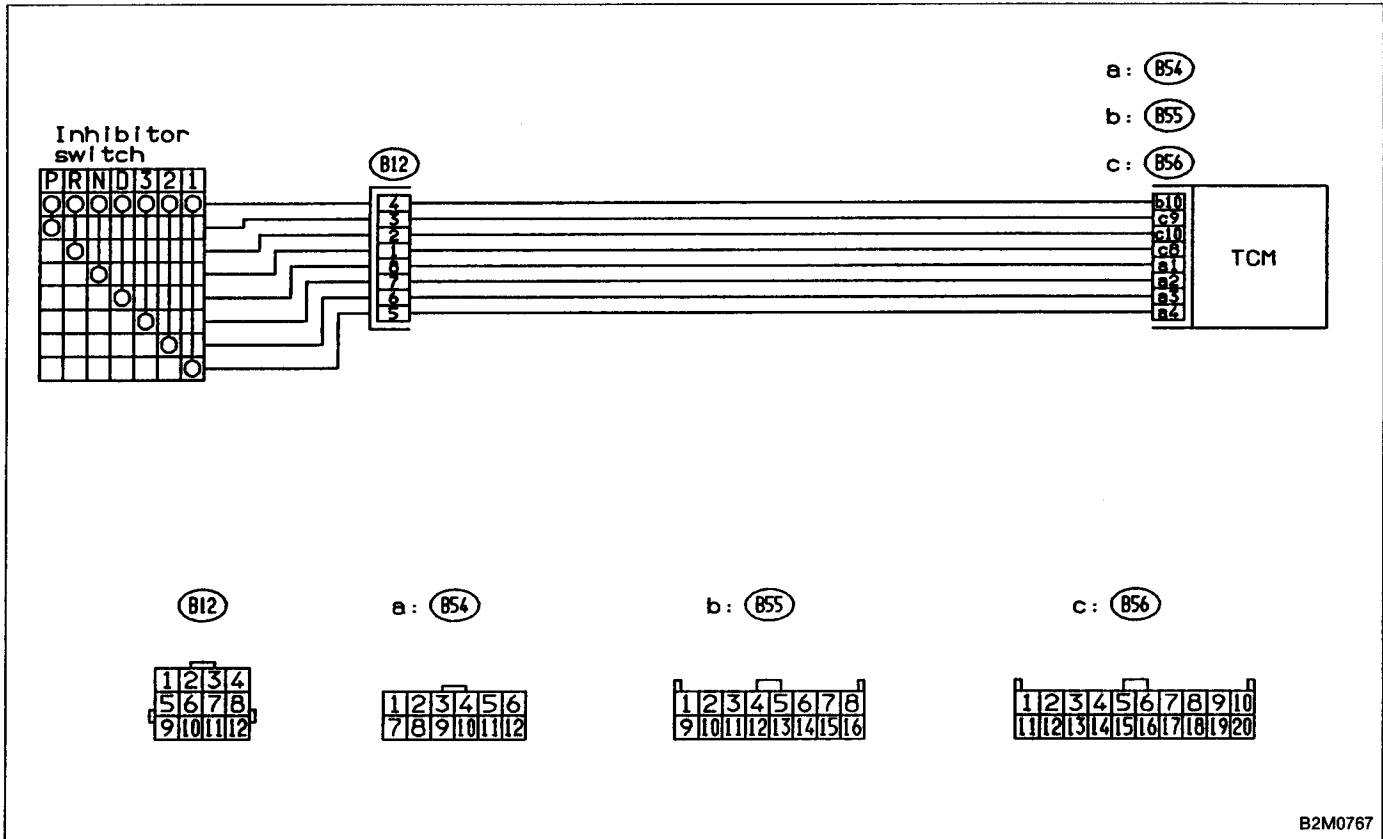


**NOTE:**

For the diagnostic procedure on brake switch input malfunction (DTC P0703), refer to 2-7 [T10AM0]☆2.

**AN: DTC P0705  
 — TRANSMISSION RANGE SENSOR CIRCUIT  
 MALFUNCTION (ATRNG) —**

**WIRING DIAGRAM:**



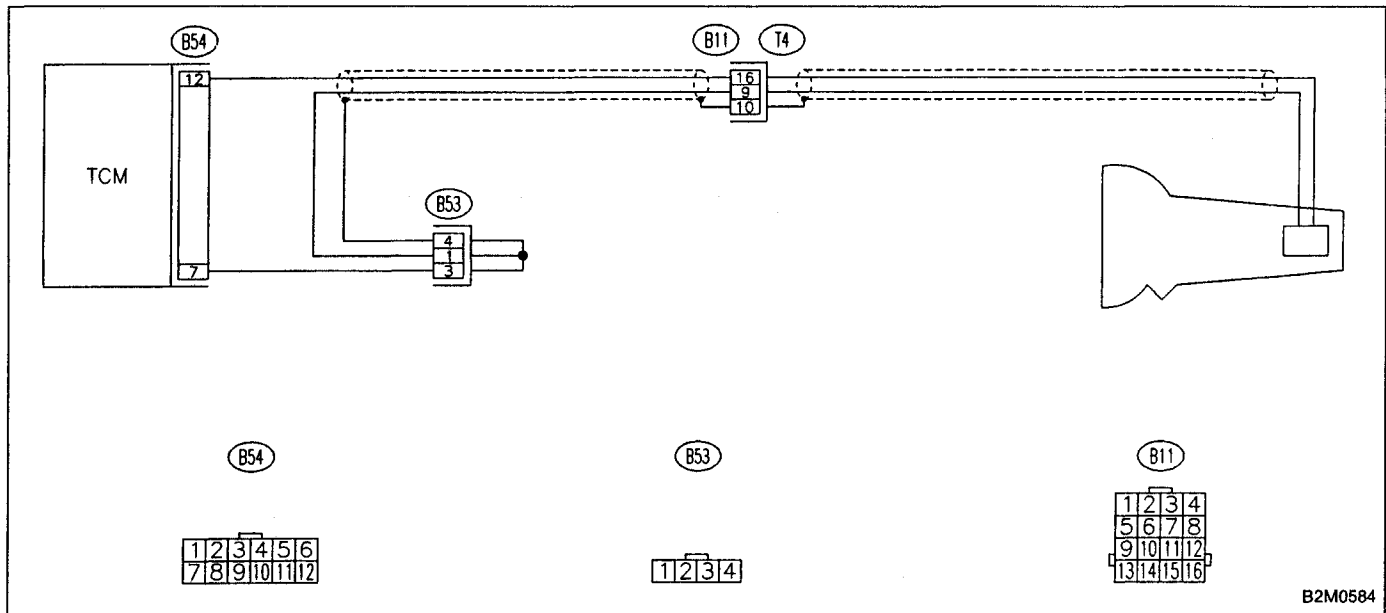
NOTE:  
 For the diagnostic procedure on transmission range sensor circuit malfunction (DTC P0705), refer to 2-7 [T10AN0]☆2.





**AP: DTC P0720**  
**— OUTPUT SPEED SENSOR (VEHICLE SPEED**  
**SENSOR 1) CIRCUIT MALFUNCTION**  
**(ATVSP) —**

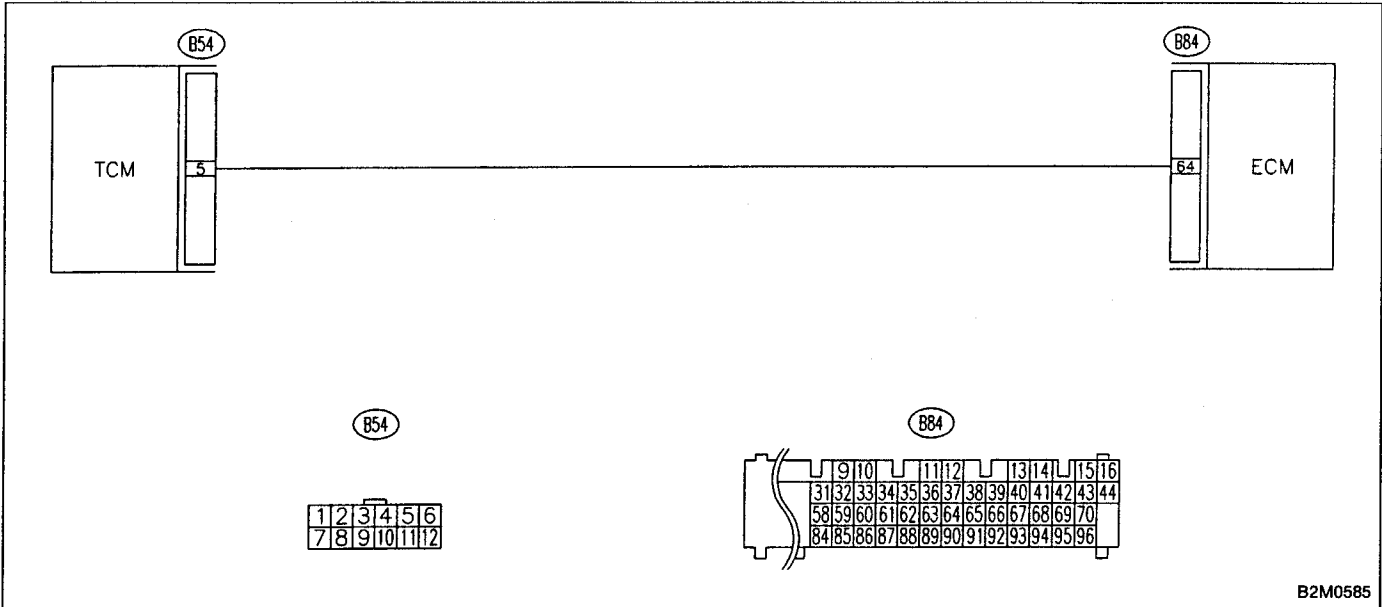
**WIRING DIAGRAM:**



**NOTE:**  
For the diagnostic procedure on output speed sensor (vehicle speed sensor 1) circuit malfunction (DTC P0720), refer to 2-7 [T10AP0]☆2.

**AQ: DTC P0725**  
**— ENGINE SPEED INPUT CIRCUIT**  
**MALFUNCTION (ATNE) —**

**WIRING DIAGRAM:**



**NOTE:**  
 For the diagnostic procedure on engine speed input circuit malfunction (DTC P0725), refer to 2-7 [T10AQ0]☆2.

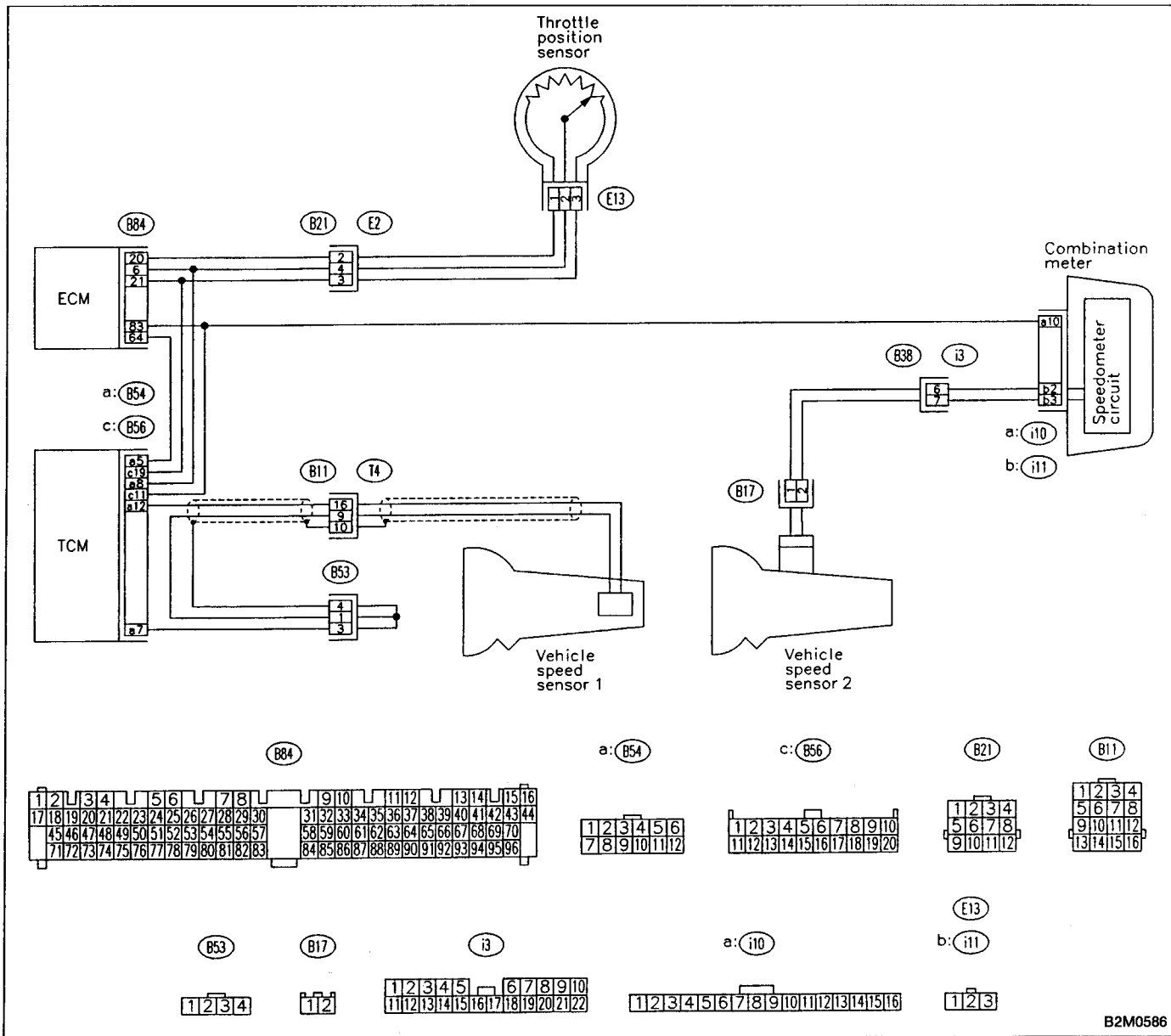
**AR: DTC P0731**  
**— GEAR 1 INCORRECT RATIO (ATGR1) —**

**AS: DTC P0732**  
**— GEAR 2 INCORRECT RATIO (ATGR2) —**

**AT: DTC P0733**  
**— GEAR 3 INCORRECT RATIO (ATGR3) —**

**AU: DTC P0734**  
**— GEAR 4 INCORRECT RATIO (ATGR4) —**

WIRING DIAGRAM:



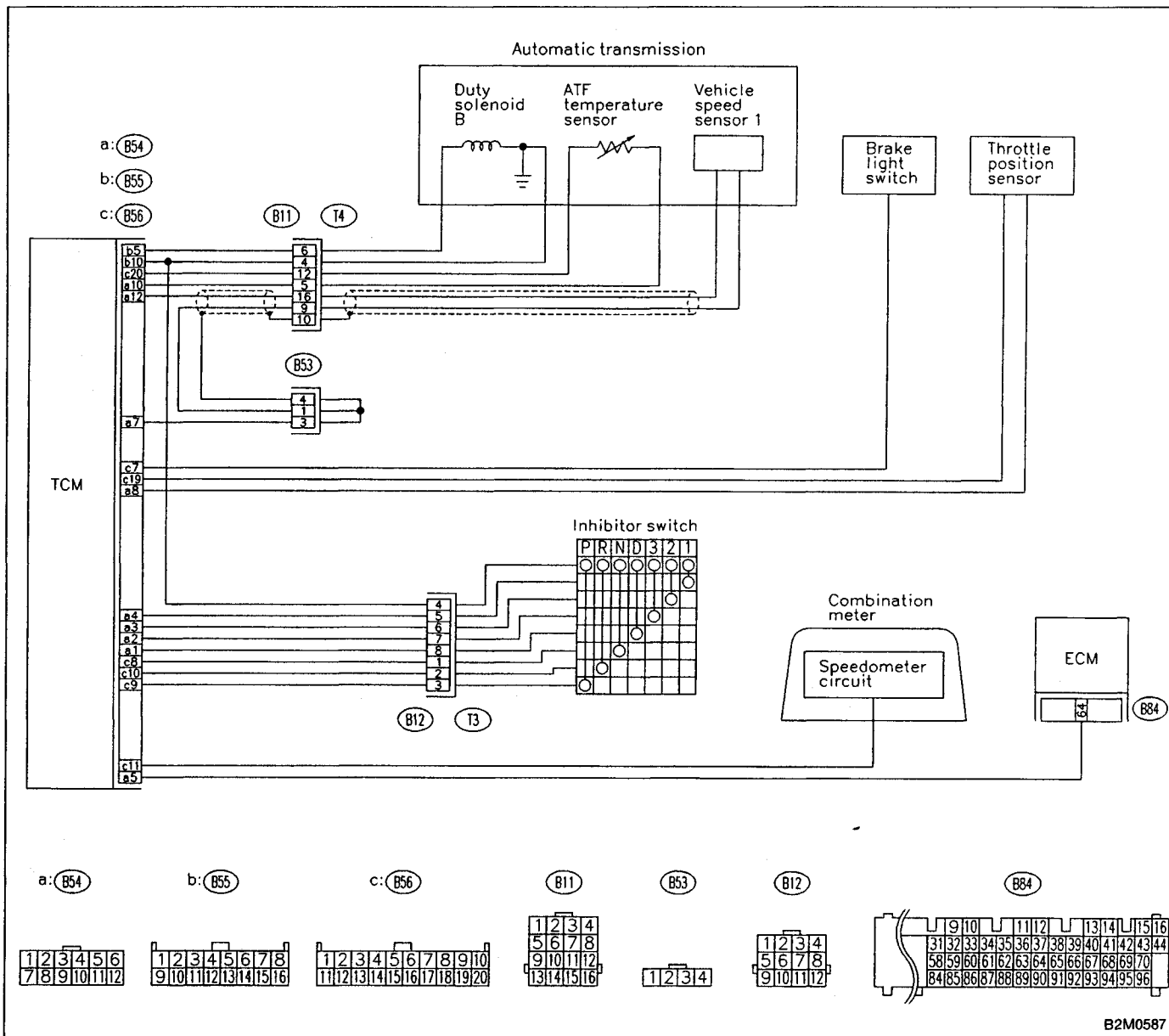
B2M0586

NOTE:

For the diagnostic procedure on gear 1, gear 2, gear 3 and gear 4 incorrect ratio (DTC P0731, DTC P0732, DTC P0733 and DTC P0734), refer to 2-7 [T10AR0, T10AS0, T10AT0 and T10AU0]☆2.

**AV: DTC P0740**  
**— TORQUE CONVERTER CLUTCH SYSTEM**  
**MALFUNCTION (ATLU — F) —**

**WIRING DIAGRAM:**

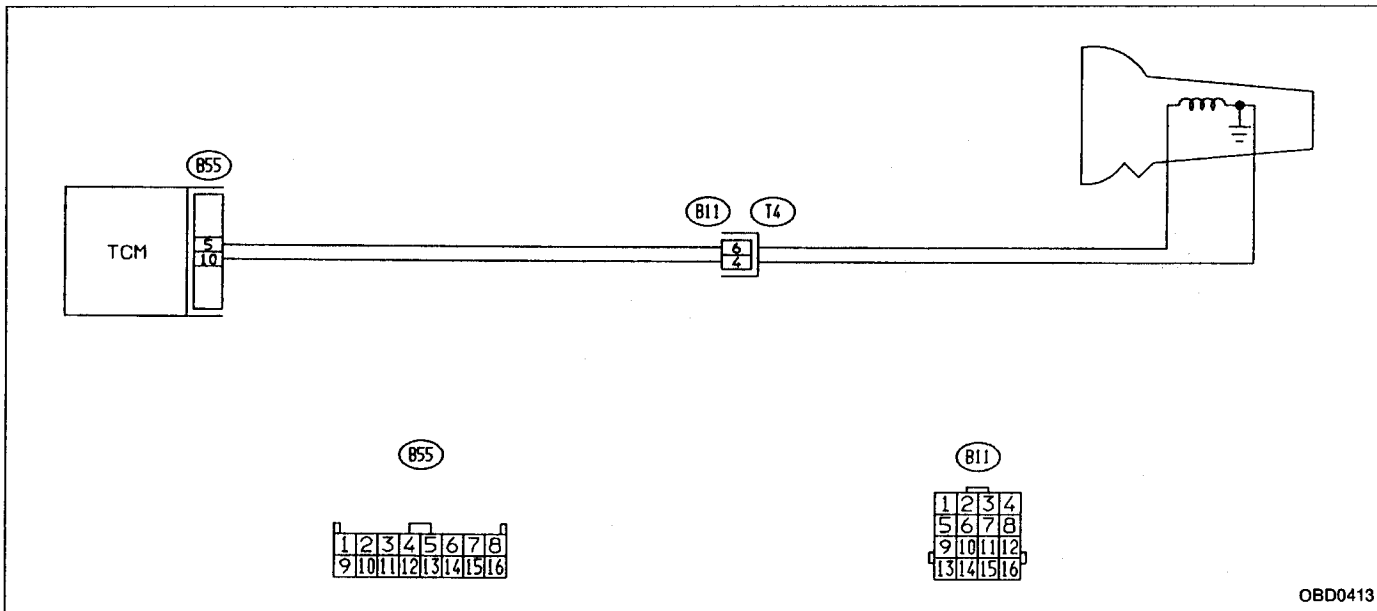


**NOTE:**

For the diagnostic procedure on torque converter clutch system malfunction (DTC P0740), refer to 2-7 [T10AV0]☆2.

**AW: DTC P0743**  
**— TORQUE CONVERTER CLUTCH SYSTEM**  
**(DUTY SOLENOID B) ELECTRICAL (ATLU) —**

**WIRING DIAGRAM:**

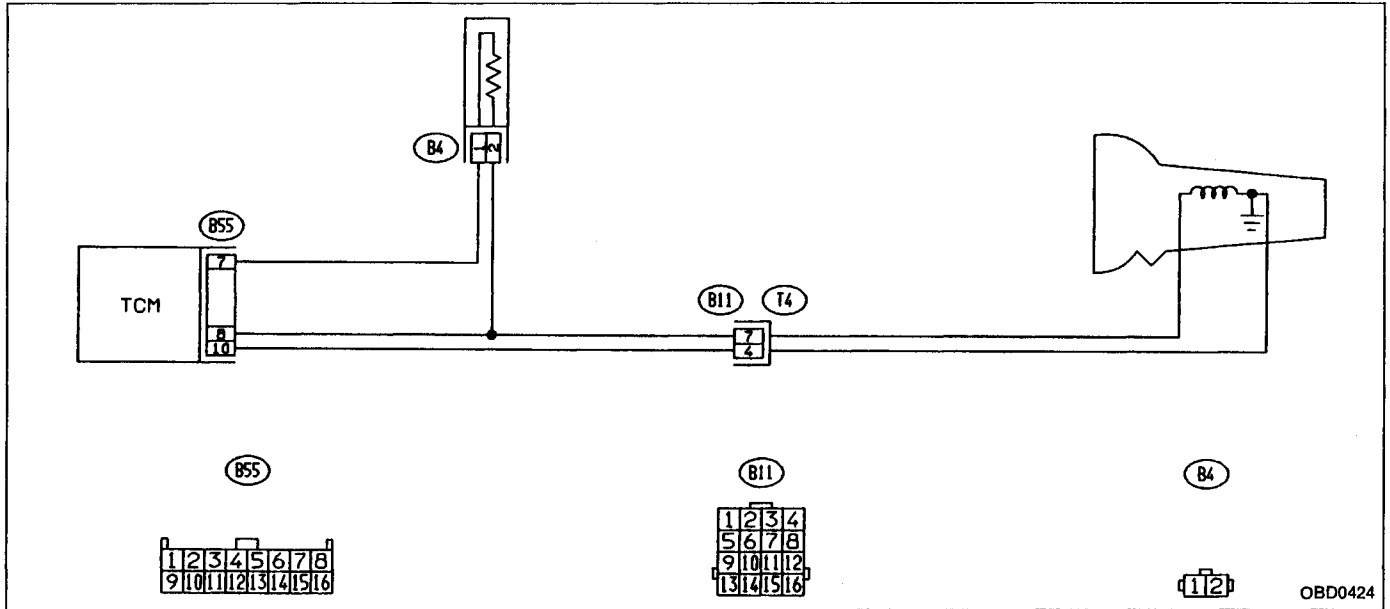


OBD0413

**NOTE:**  
For the diagnostic procedure on torque converter clutch system electrical (DTC P0743), refer to 2-7 [T10AW0]☆2.

**AX: DTC P0748**  
**— PRESSURE CONTROL SOLENOID (DUTY SOLENOID A) ELECTRICAL (ATPL) —**

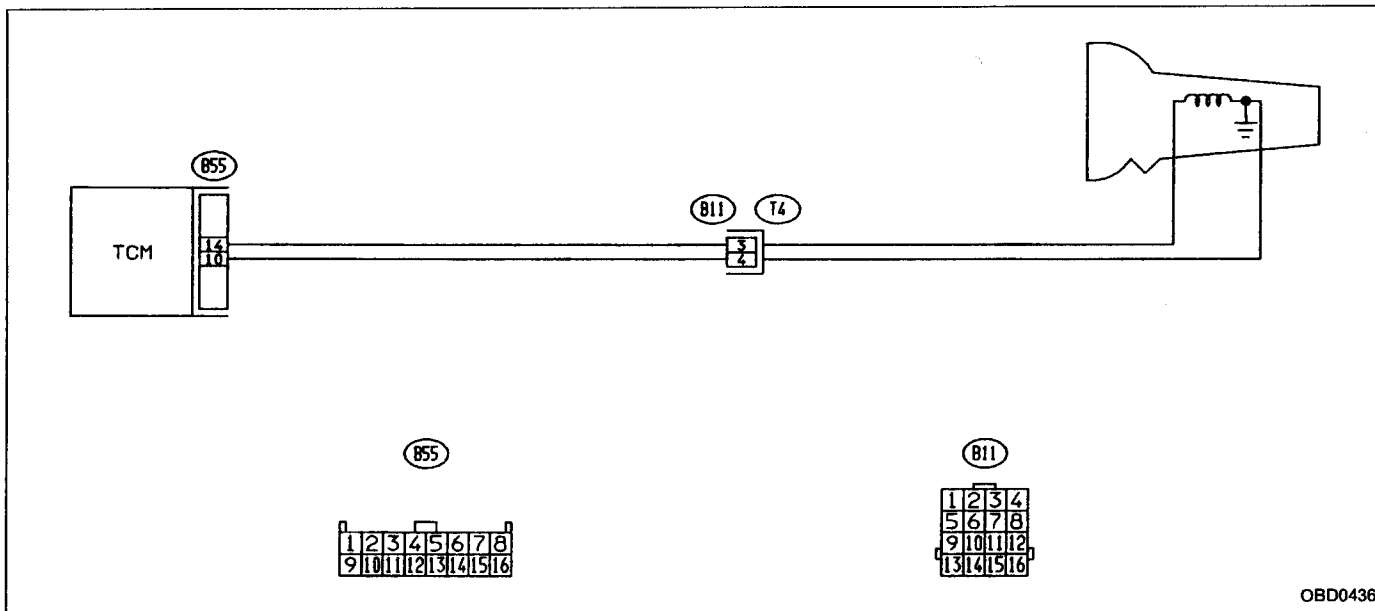
**WIRING DIAGRAM:**



NOTE:  
For the diagnostic procedure on pressure control solenoid electrical (DTC P0748), refer to 2-7 [T10AX0]☆2.

**AY: DTC P0753**  
**— SHIFT SOLENOID A (SHIFT SOLENOID 1)**  
**ELECTRICAL (ATSFT1) —**

**WIRING DIAGRAM:**



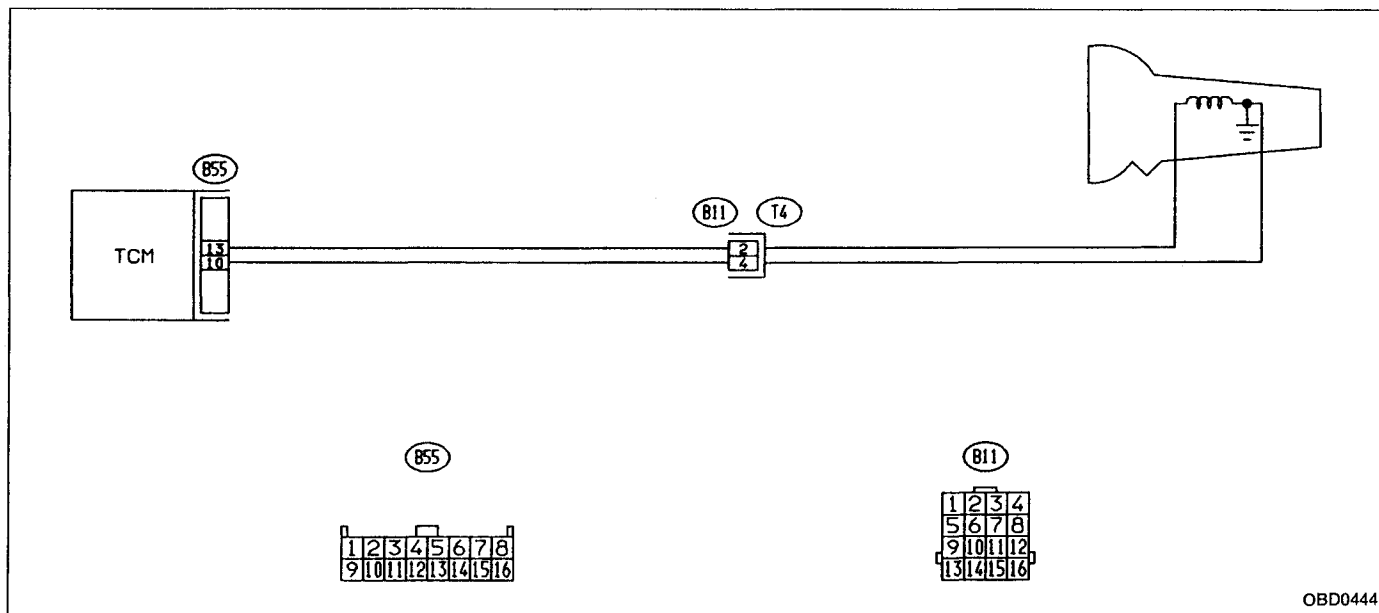
OBD0436

**NOTE:**  
 For the diagnostic procedure on shift solenoid A electrical (DTC P0753), refer to 2-7 [T10AY0]☆2.



**AZ: DTC P0758**  
**— SHIFT SOLENOID B (SHIFT SOLENOID 2)**  
**ELECTRICAL (ATSFT2) —**

**WIRING DIAGRAM:**

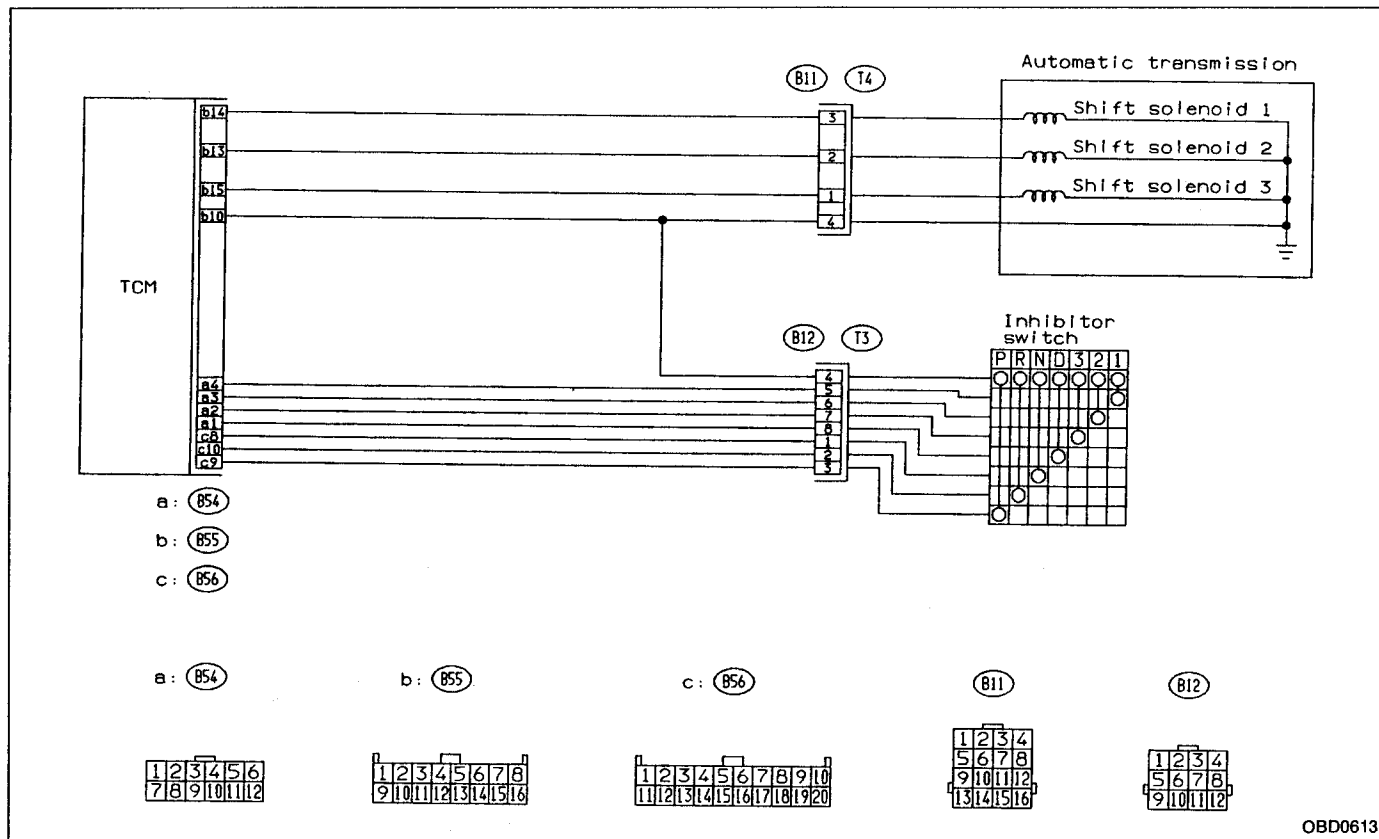


**NOTE:**

For the diagnostic procedure on shift solenoid B electrical (DTC P0758), refer to 2-7 [T10AZ0]☆2.

**BA: DTC P0760**  
**— SHIFT SOLENOID C (SHIFT SOLENOID 3)**  
**MALFUNCTION (ATOVR — F) —**

**WIRING DIAGRAM:**

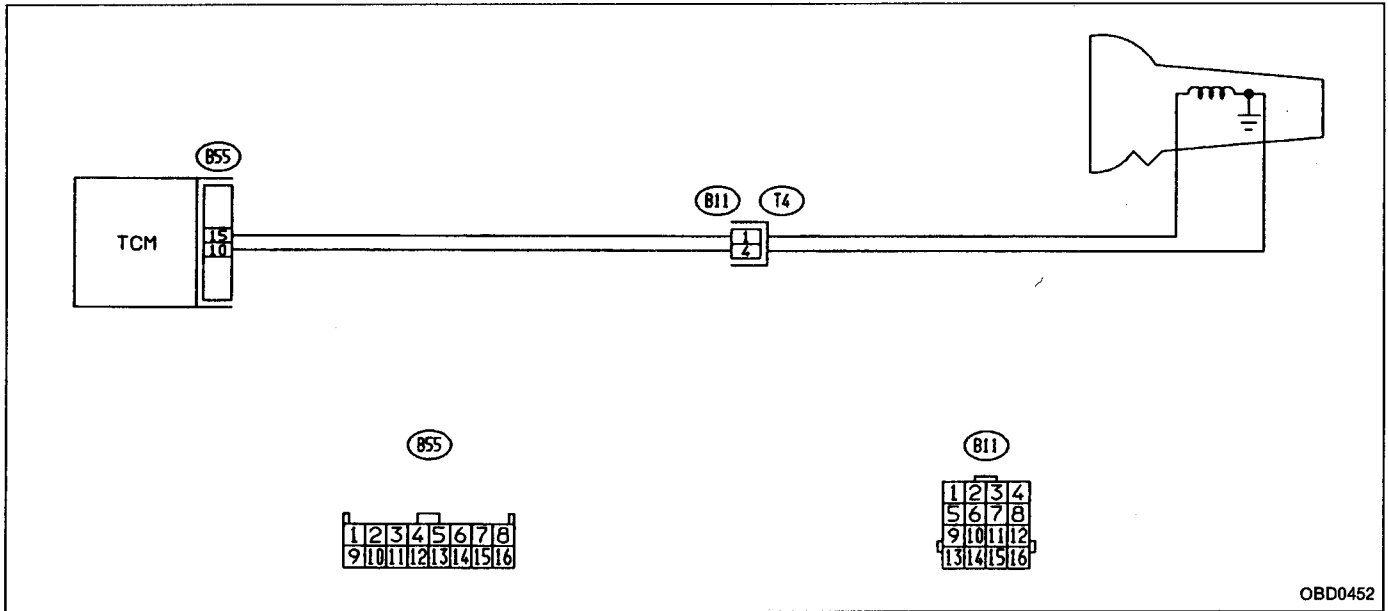


OBD0613

**NOTE:**  
 For the diagnostic procedure on shift solenoid C malfunction (DTC P0760), refer to 2-7 [T10BA0]☆2.

**BB: DTC P0763**  
**— SHIFT SOLENOID C (SHIFT SOLENOID 3)**  
**ELECTRICAL (ATOVR) —**

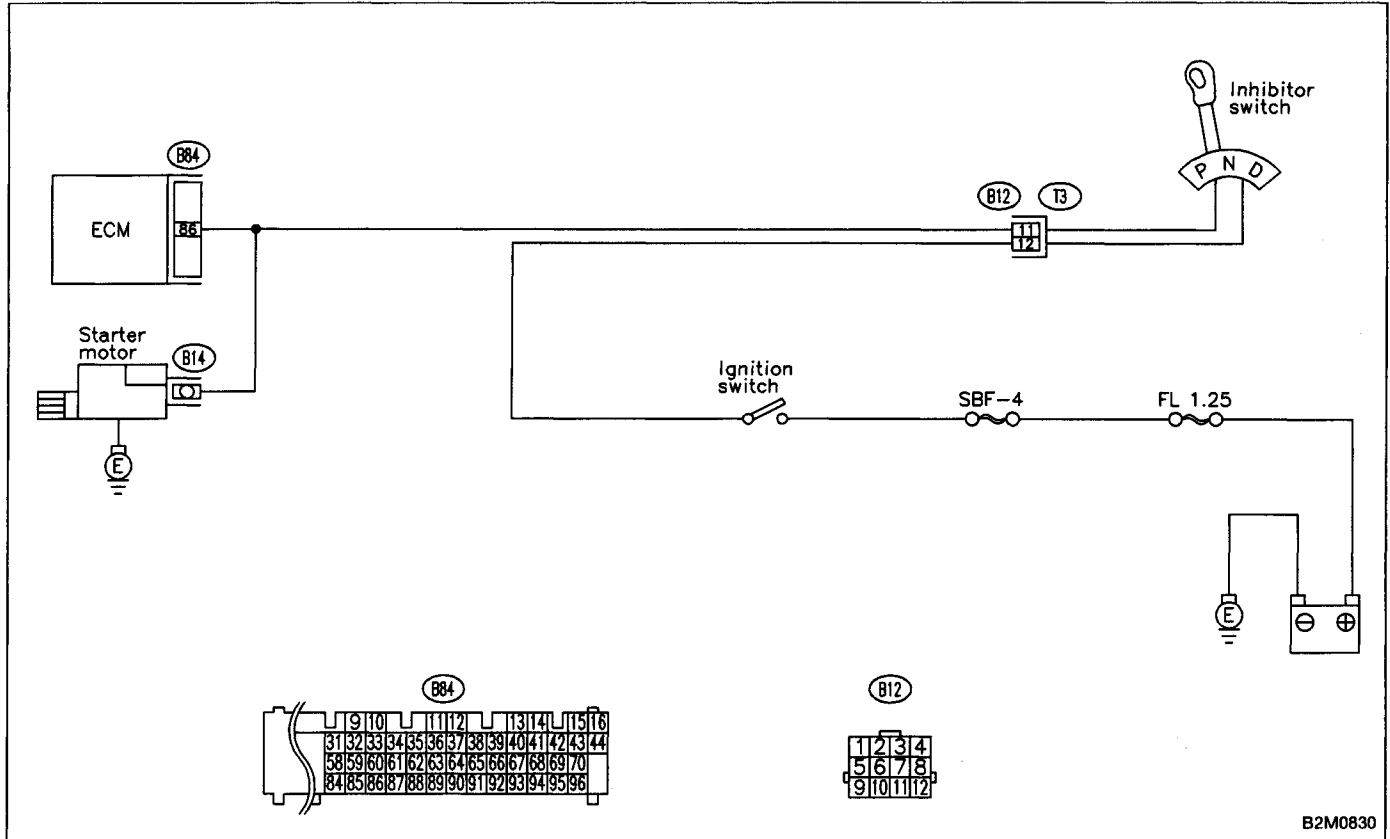
**WIRING DIAGRAM:**



NOTE:  
For the diagnostic procedure on shift solenoid C electrical (DTC P0763), refer to 2-7 [T10BB0]☆2.

**BC: DTC P1100**  
**— STARTER SWITCH CIRCUIT MALFUNCTION**  
**(ST — SW) —**

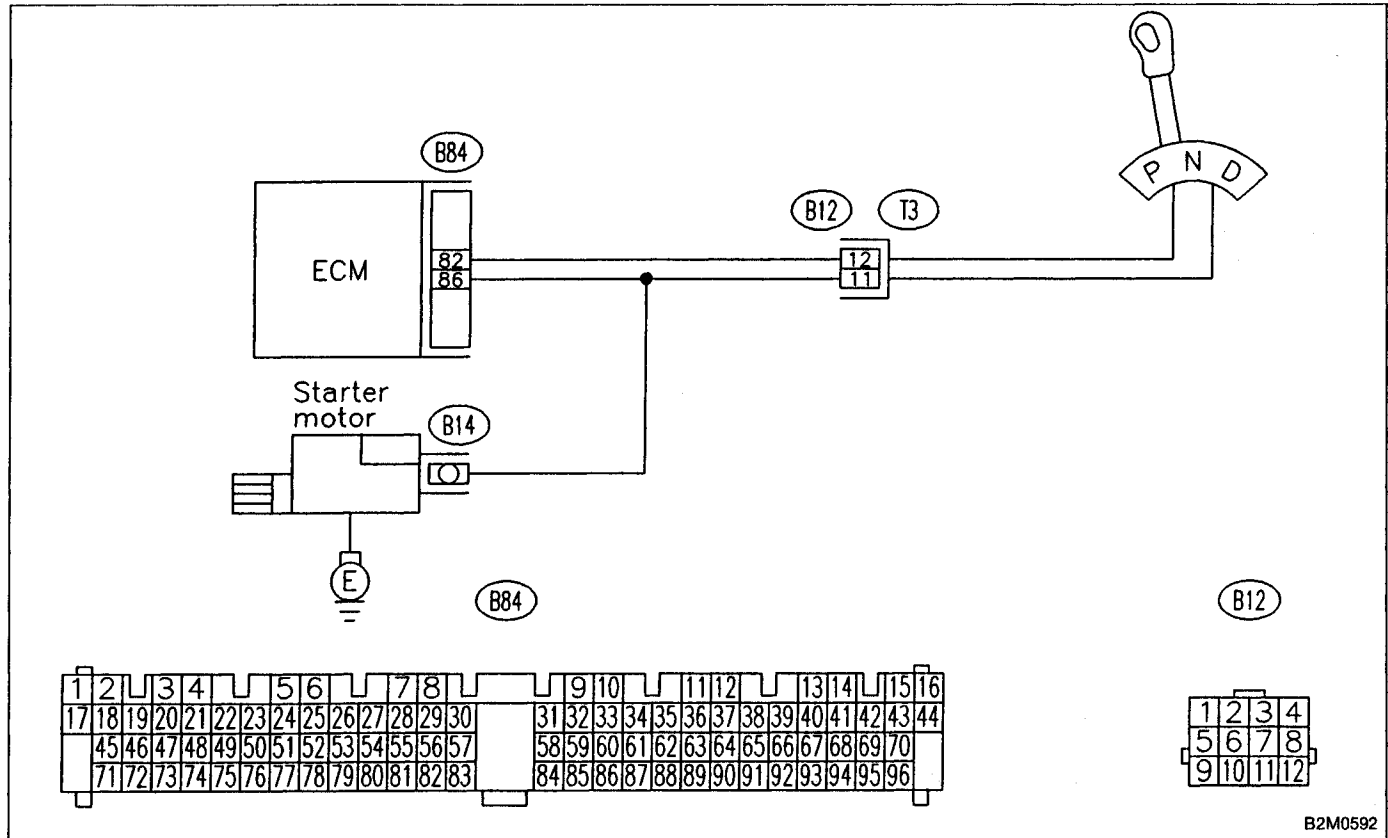
**WIRING DIAGRAM:**



**NOTE:**  
 For the diagnostic procedure on starter switch circuit malfunction (DTC P1100), refer to 2-7 [T10BC0]☆2.

**BD: DTC P1101**  
**— NEUTRAL POSITION SWITCH CIRCUIT**  
**MALFUNCTION (N/P — SW) —**

**WIRING DIAGRAM:**



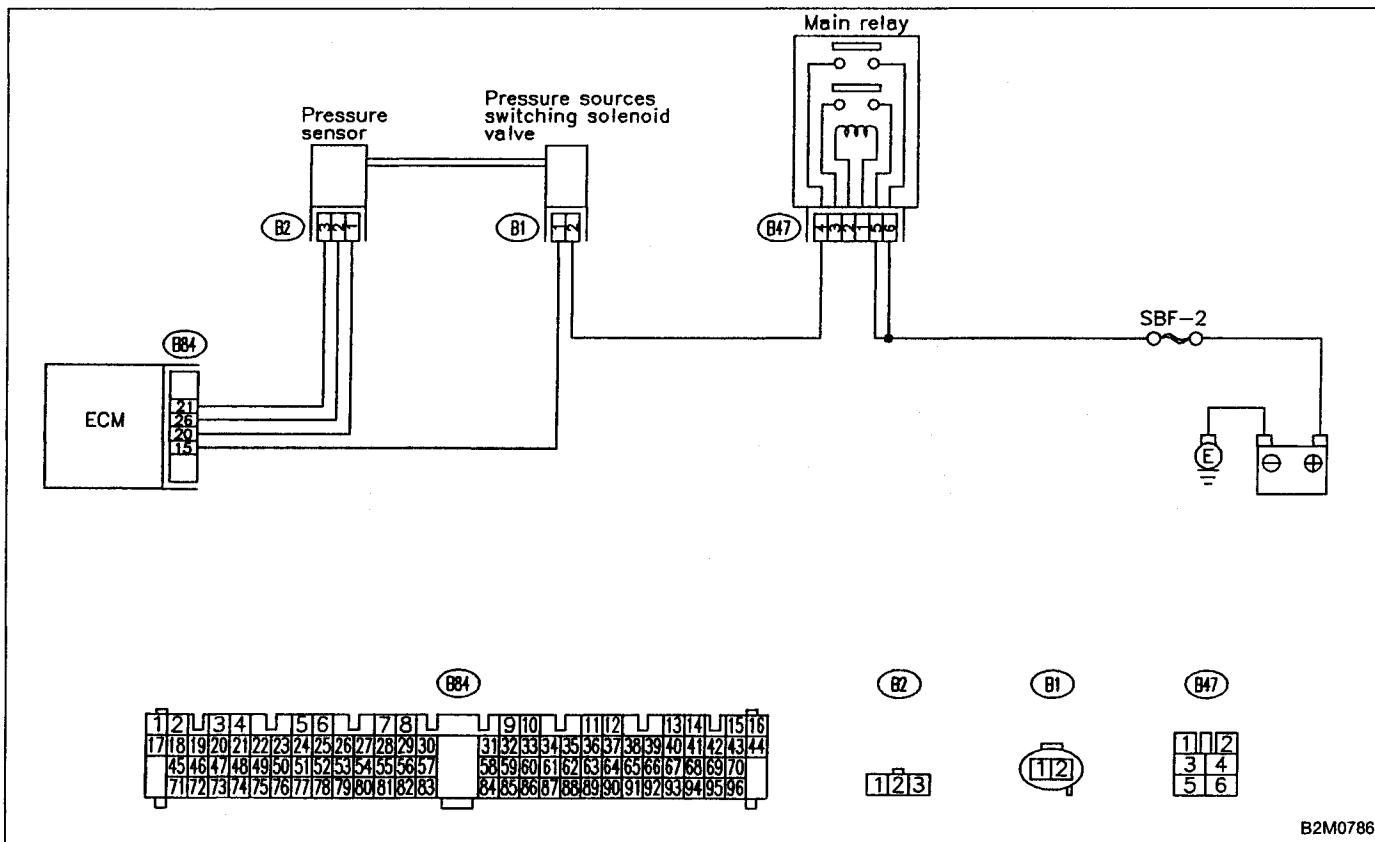
B2M0592

**NOTE:**

For the diagnostic procedure on neutral position switch circuit malfunction (DTC P1101), refer to 2-7 [T10BE0]☆2.

**BE: DTC P1102**  
**— PRESSURE SOURCES SWITCHING**  
**SOLENOID VALVE CIRCUIT MALFUNCTION**  
**(BR) —**

**WIRING DIAGRAM:**



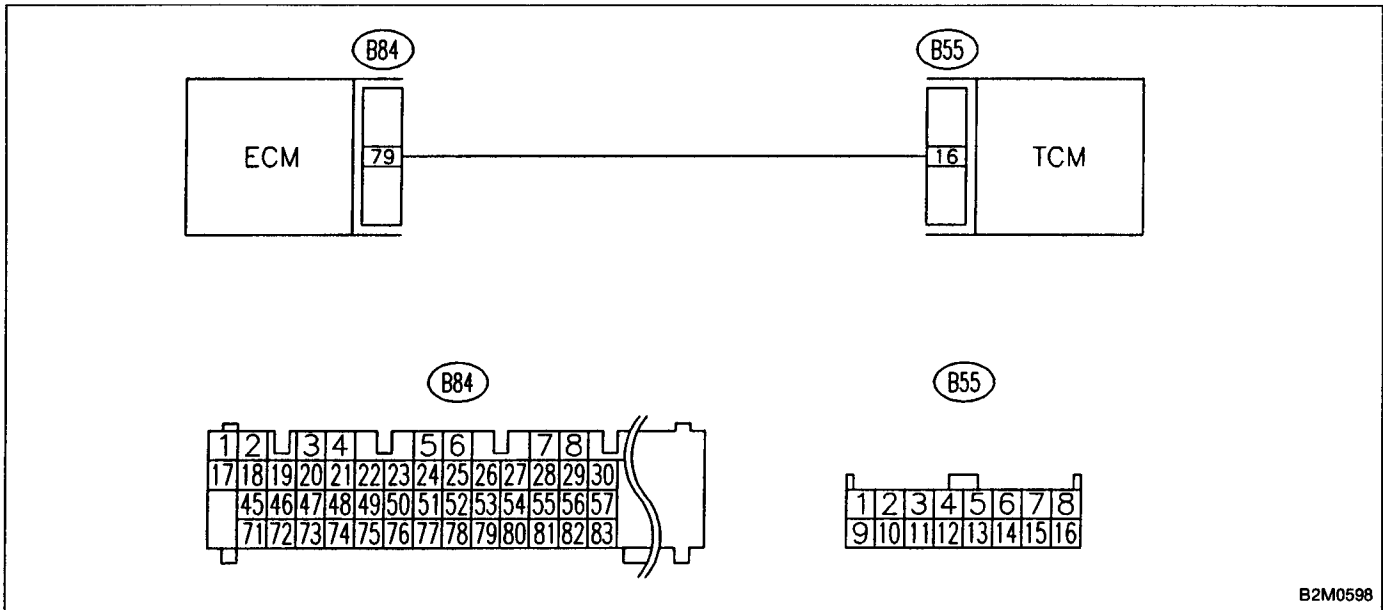
B2M0786

**NOTE:**

For the diagnostic procedure on pressure sources switching solenoid valve circuit malfunction (DTC P1102), refer to 2-7 [T10BF0]☆2.

**BF: DTC P1103**  
**— ENGINE TORQUE CONTROL SIGNAL**  
**CIRCUIT MALFUNCTION (TRQ) —**

**WIRING DIAGRAM:**



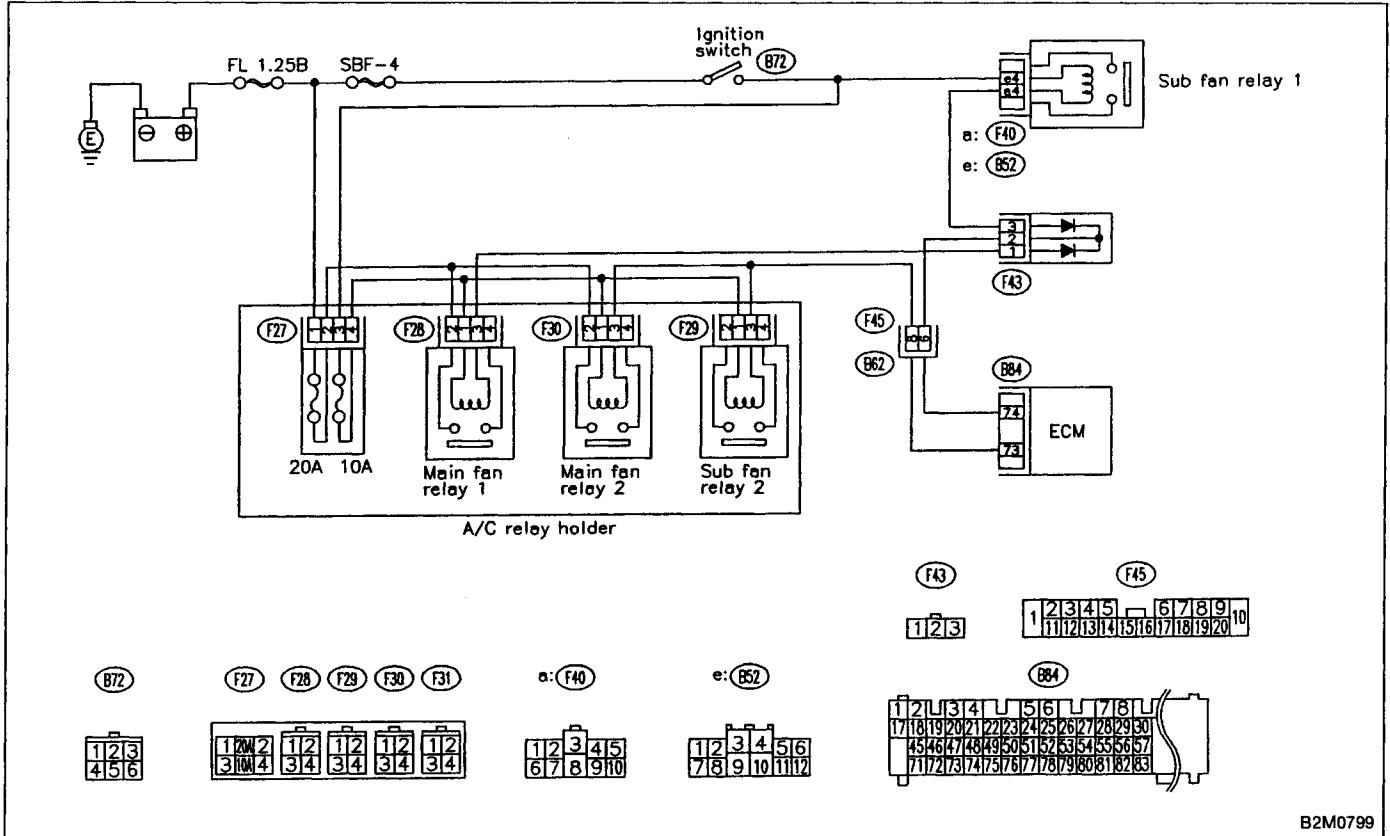
B2M0598

**NOTE:**

For the diagnostic procedure on engine torque control signal circuit malfunction (DTC P1103), refer to 2-7 [T10BG0]☆2.

**BG: DTC P1500  
— RADIATOR FAN RELAY 1 CIRCUIT  
MALFUNCTION (FAN — 1) —**

**WIRING DIAGRAM:**



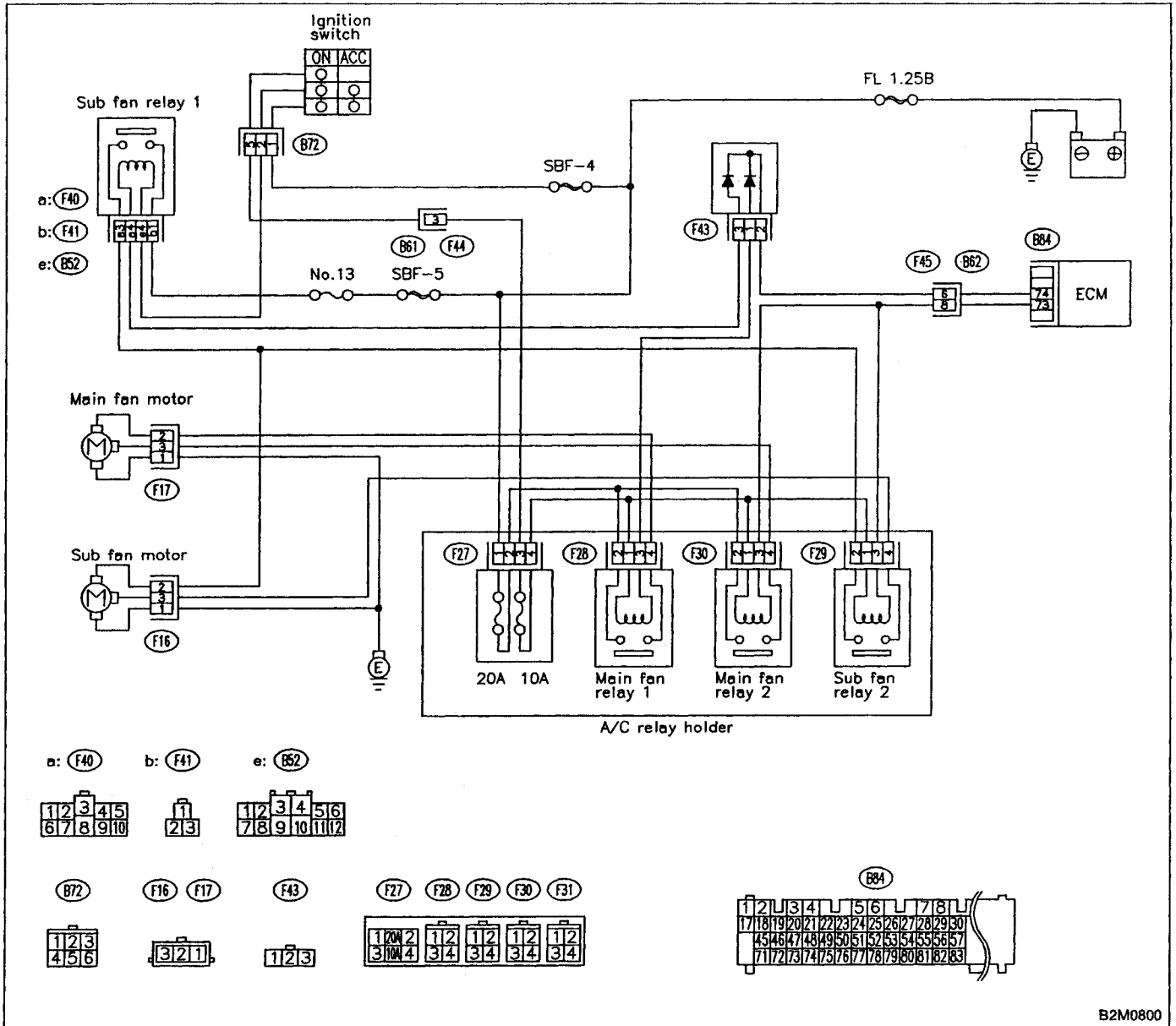
B2M0799

**NOTE:**  
For the diagnostic procedure on radiator fan relay 1 circuit malfunction (DTC P1500), refer to 2-7 [T10BI0]☆2.



**BH: DTC P1502**  
**— RADIATOR FAN FUNCTION PROBLEM**  
**(FAN — F) —**

**WIRING DIAGRAM:**

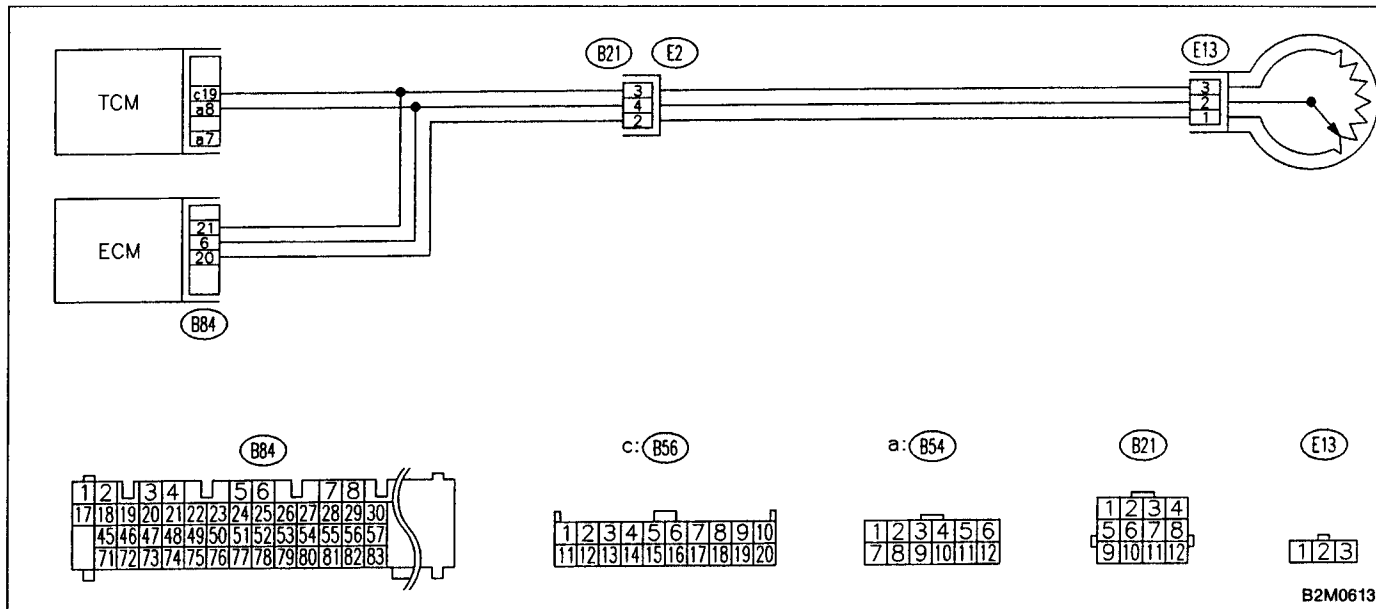


B2M0800

**NOTE:**  
 For the diagnostic procedure on radiator fan function problem (DTC P1502), refer to 2-7 [T10BJ0]☆2.

**BI: DTC P1700**  
**— THROTTLE POSITION SENSOR CIRCUIT**  
**MALFUNCTION (ATTH) —**

**WIRING DIAGRAM:**

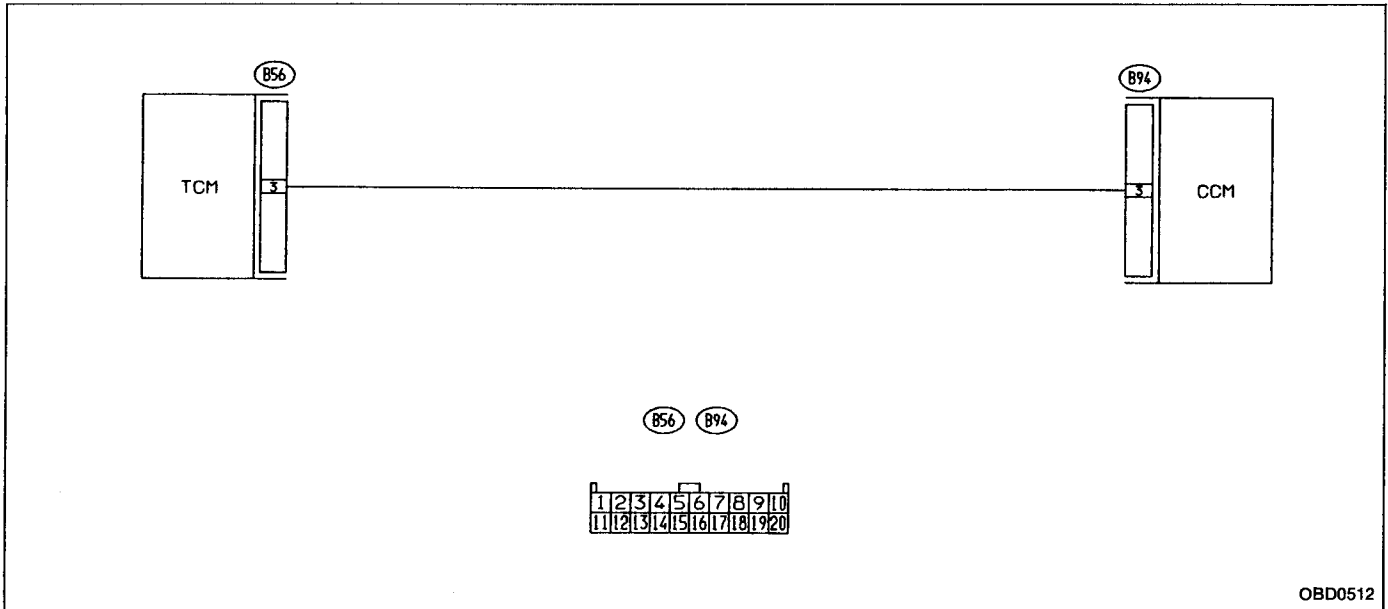


**NOTE:**

For the diagnostic procedure on throttle position sensor circuit malfunction (DTC P1700), refer to 2-7 [T10BK0]☆2.

**BJ: DTC P1701**  
**— CRUISE CONTROL SET SIGNAL CIRCUIT**  
**MALFUNCTION (ATCRS) —**

**WIRING DIAGRAM:**



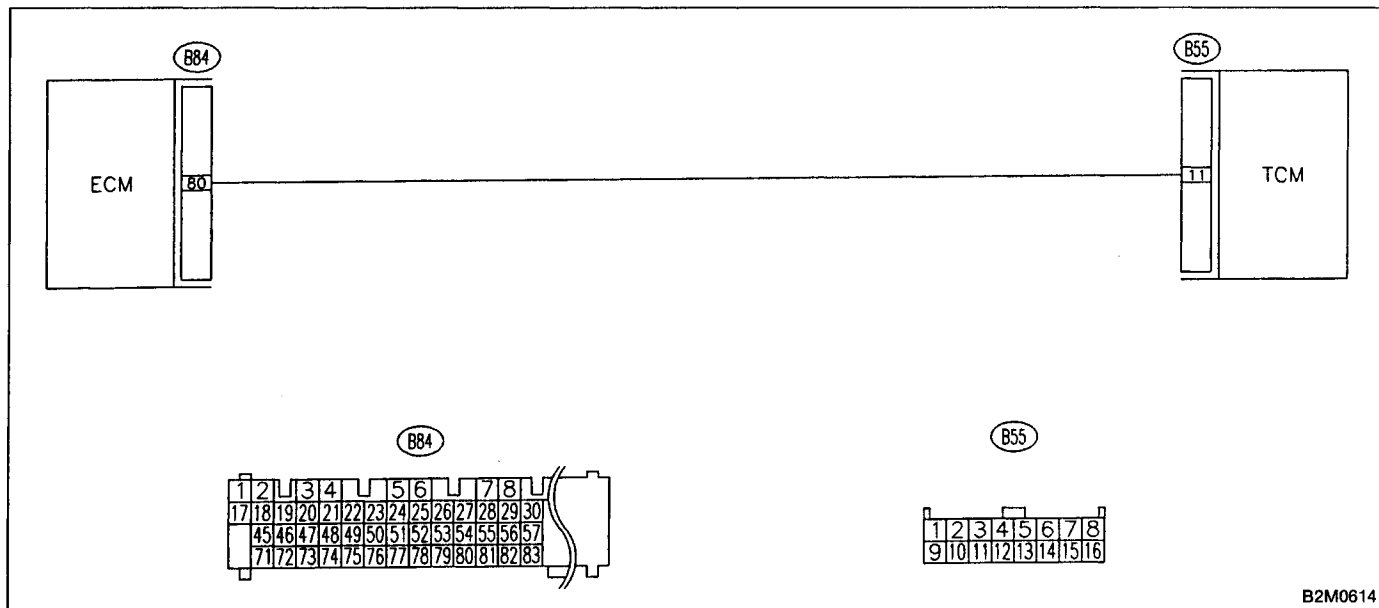
OBD0512

**NOTE:**

For the diagnostic procedure on cruise control set signal circuit malfunction (DTC P1701), refer to 2-7 [T10BL0]☆2.

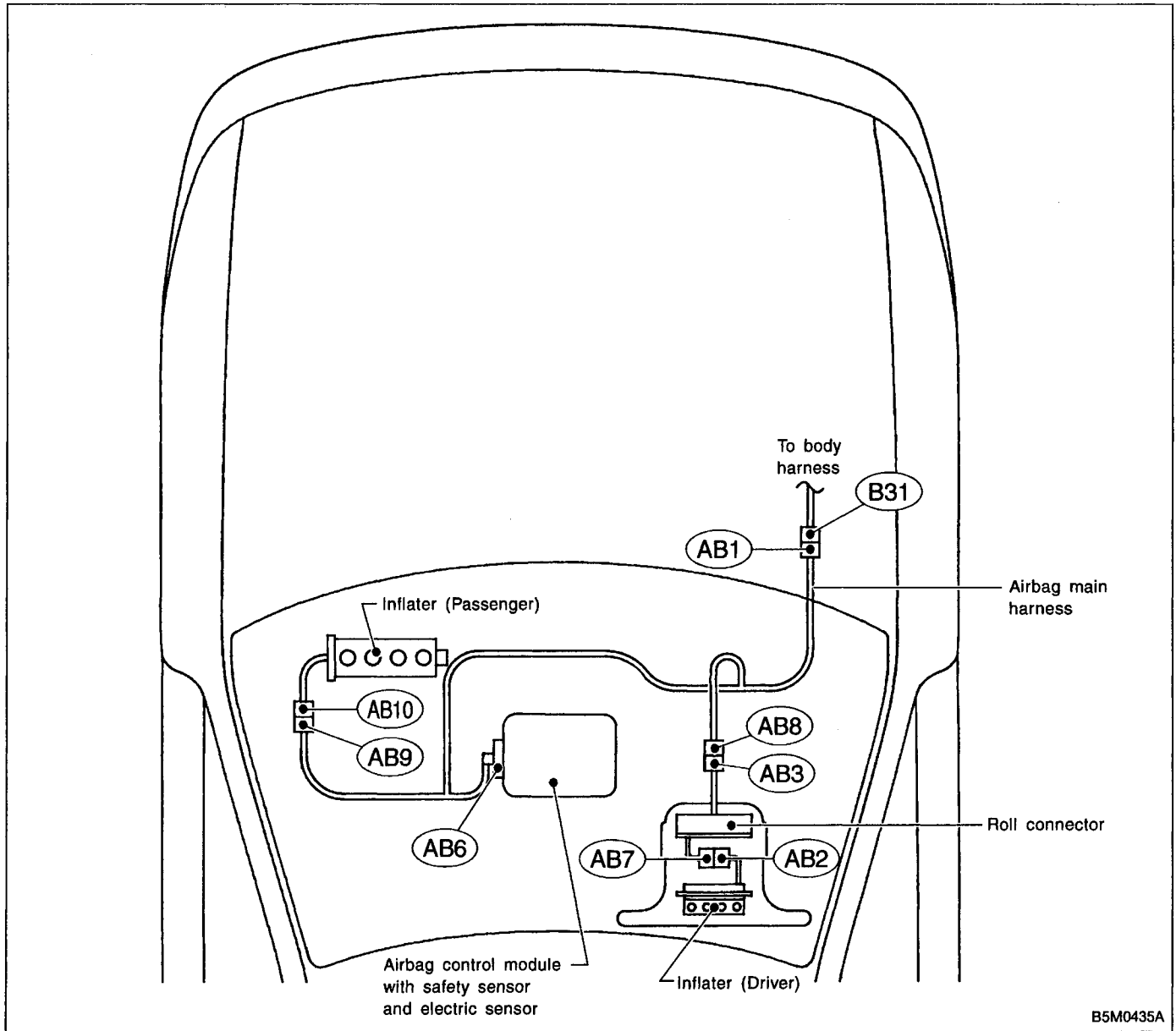
**BK: DTC P1702**  
**— AUTOMATIC TRANSMISSION DIAGNOSIS**  
**INPUT SIGNAL CIRCUIT MALFUNCTION**  
**(ATDIAG) —**

**WIRING DIAGRAM:**



**NOTE:**  
 For the diagnostic procedure on automatic transmission diagnosis input signal circuit malfunction (DTC P1702), refer to 2-7 [T10BM0]☆2.

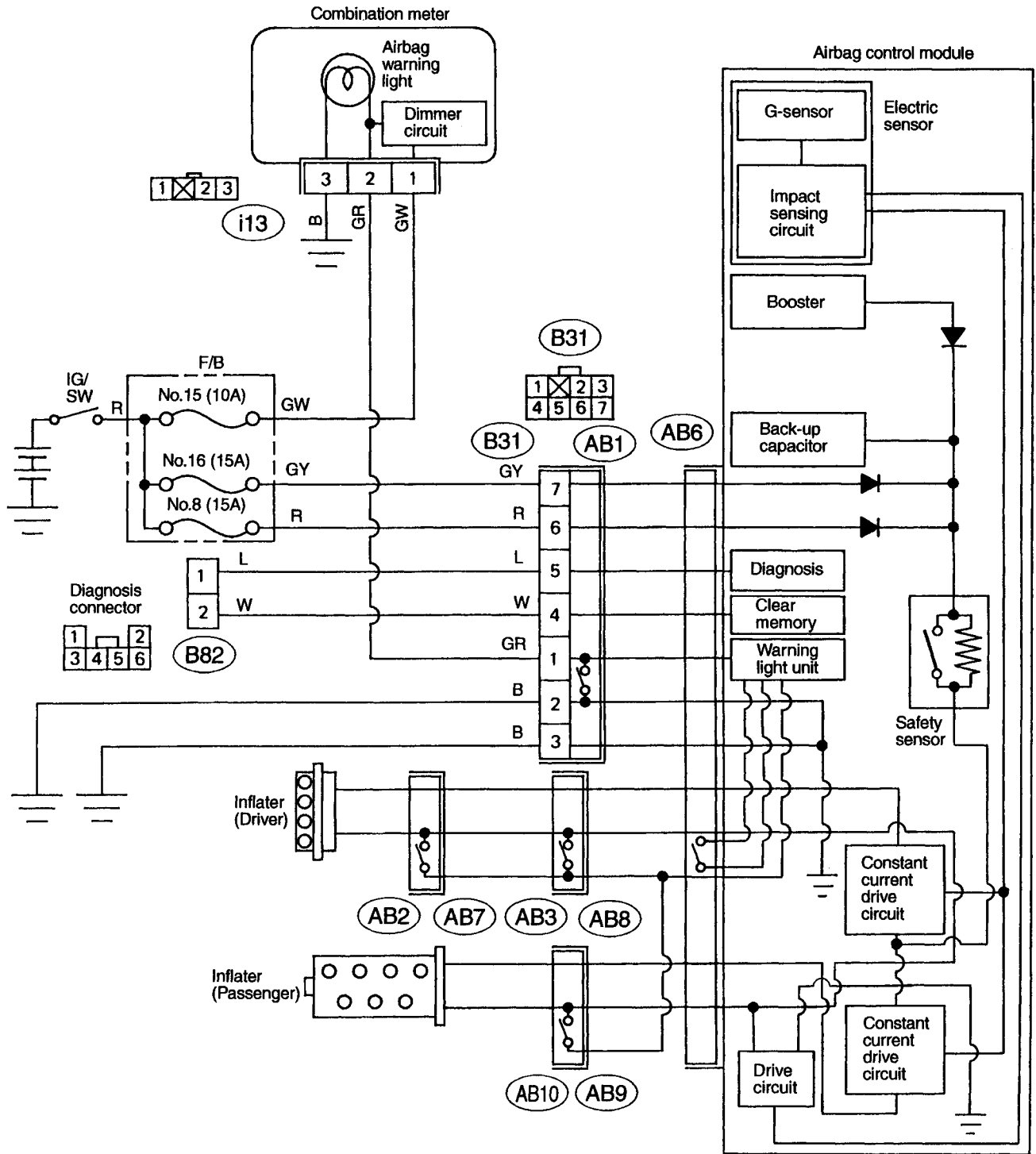
**1. Electrical Components Location**



B5M0435A

Connector No.	(AB1)	(AB2)	(AB3)	(AB6)	(AB7)	(AB8)	(AB9)	(AB10)
Pole	7	3	3	12	3	3	3	3
Color	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Male/Female	Male	Female	Female	Female	Male	Male	Male	Female

2. Schematic



B5M0403A

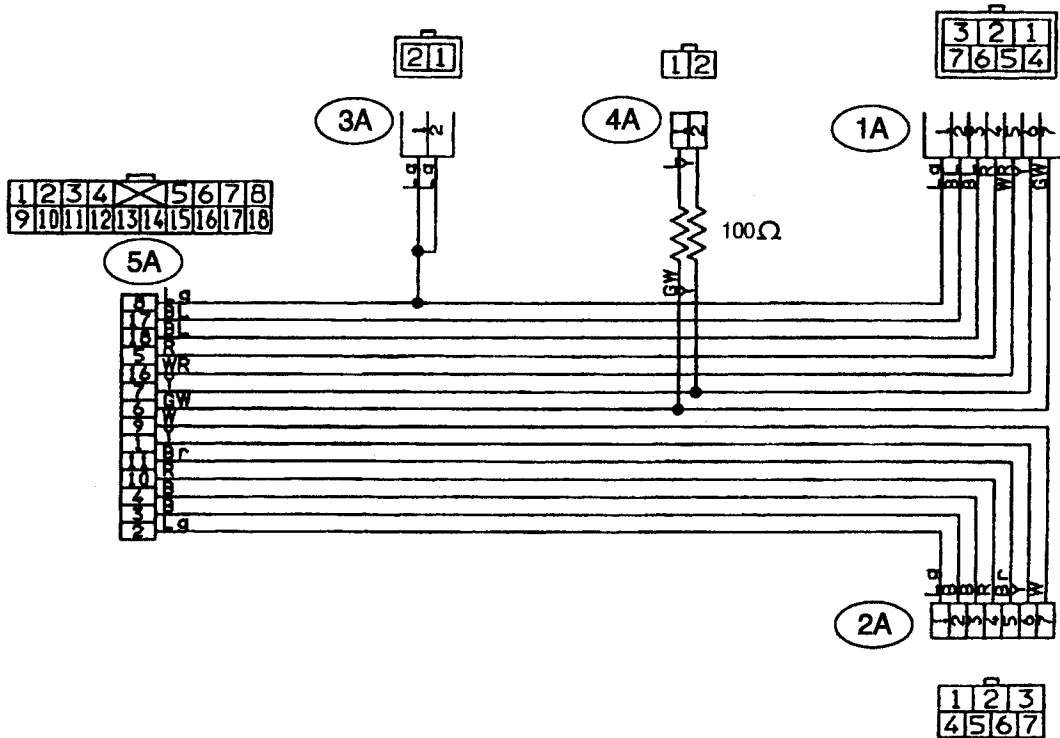
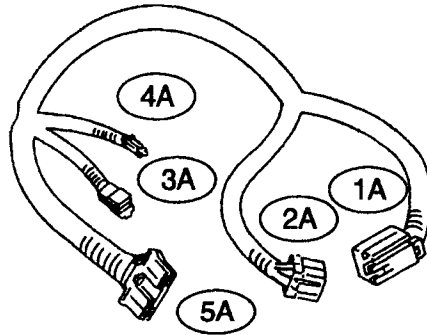
### 3. Tools for Diagnostics

**CAUTION:**

Be sure to use specified test harness A, B or C when measuring voltage, resistance, etc. of AIRBAG system component parts.

**A: TEST HARNESS A**

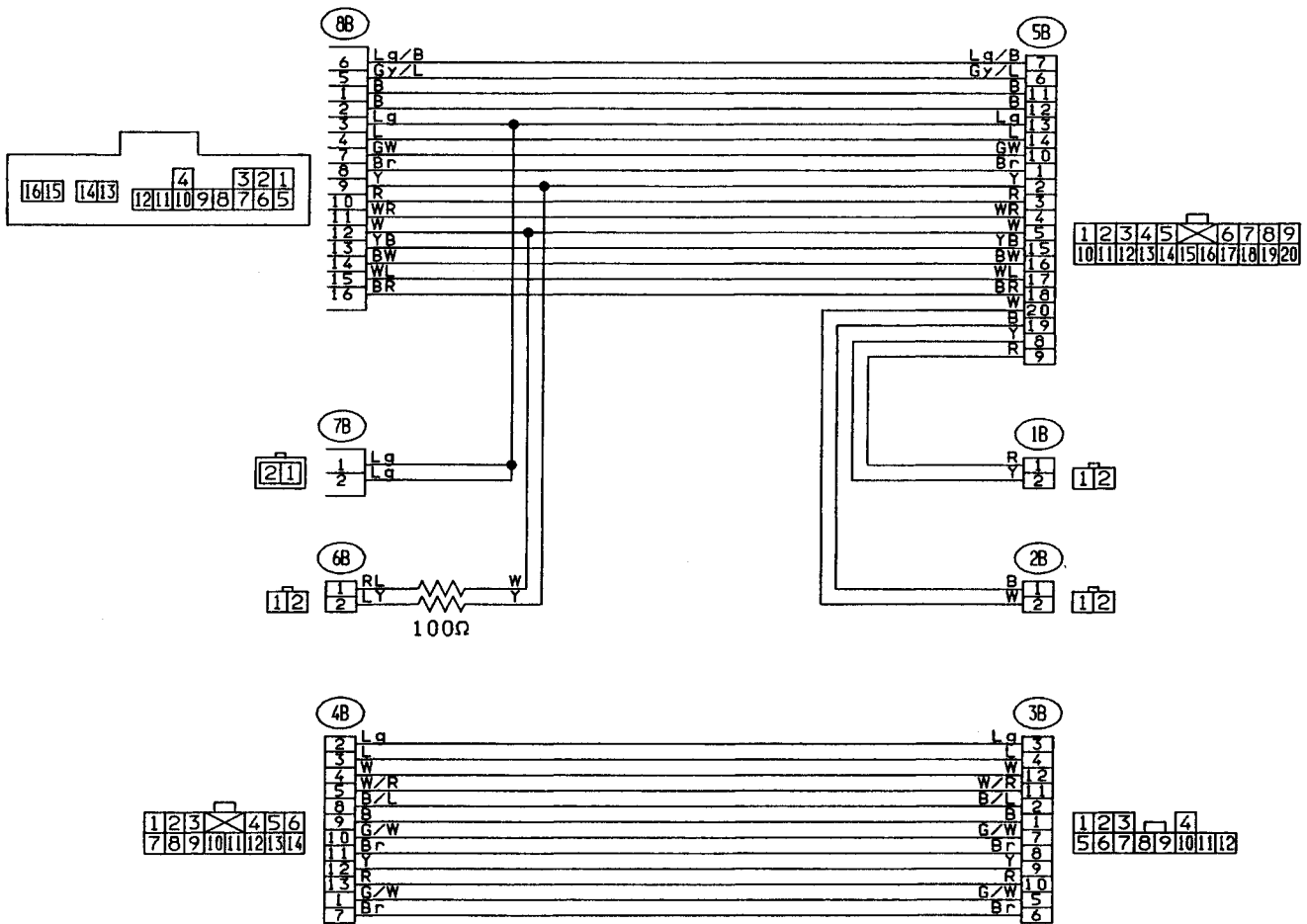
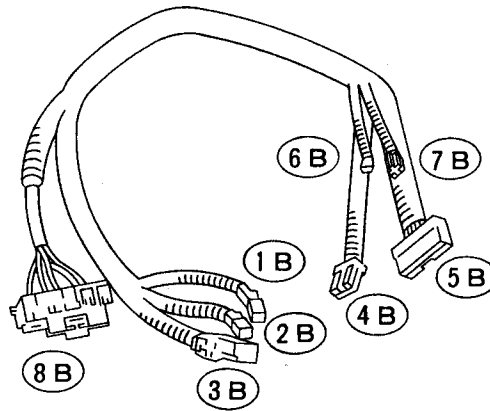
PN 98299PA000



B5M0112A

**B: TEST HARNESS B2**

PN 98299PA011

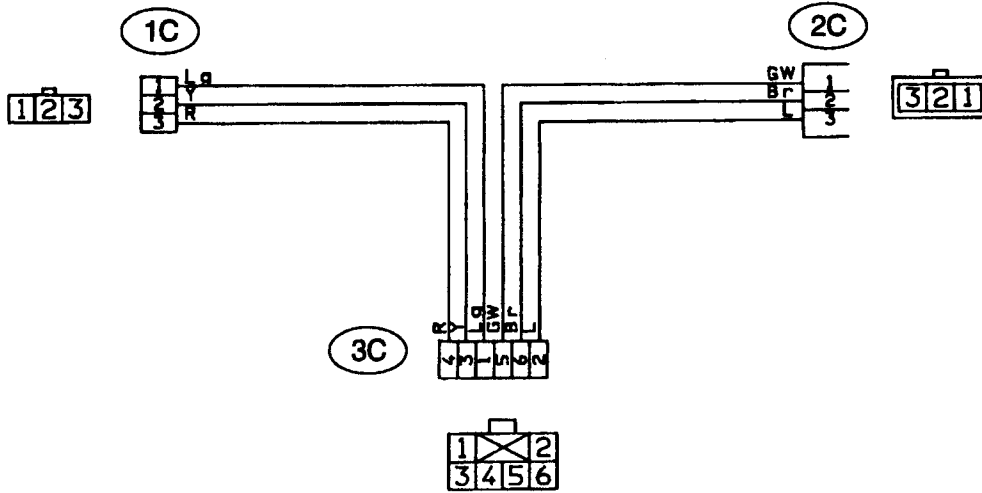
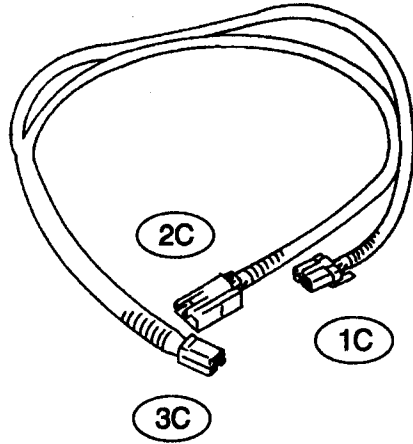


G5M0593



**C: TEST HARNESS C**

PN 98299PA020

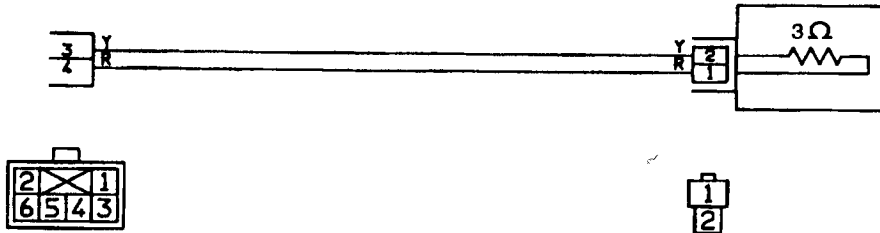
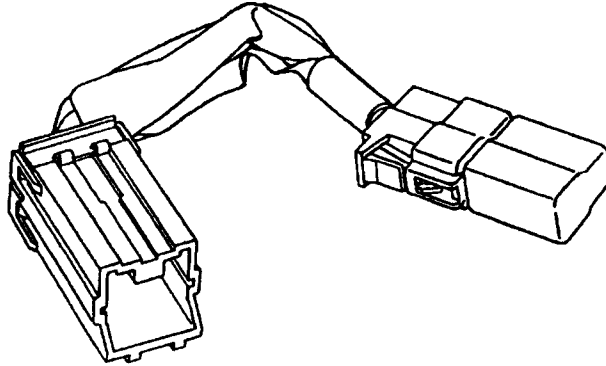


B5M0113A

### D: AIRBAG RESISTOR

The airbag resistor is used during diagnostics. The airbag resistor has the same resistance as the airbag module and thus provides safety when used instead of the airbag module. It also makes it possible to finish, diagnostics in less time.

PN 98299PA040

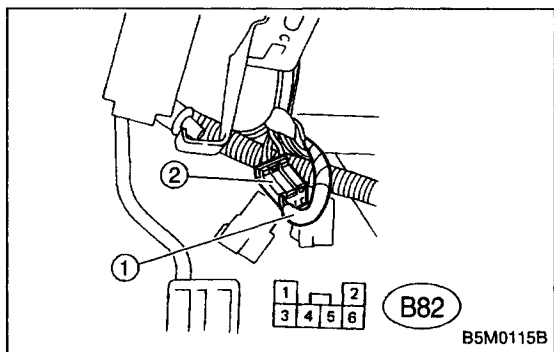


B5M0114A

## 4. Diagnostics Chart for On-board Diagnostic System

### A: BASIC DIAGNOSTICS PROCEDURE

1) Airbag warning light comes "ON".
2) Turn ignition switch to "ON", (engine "OFF") and observe airbag warning light.
3) If airbag warning light stays "ON" after 8 seconds or remains "OFF", or comes back "ON" after 30 seconds, this indicates a current problem. Proceed to step 8). If airbag warning light comes "ON" for 8 seconds, then goes out and stays out, this indicates normal system operation at this time. Check the memory for intermittent problems by performing the procedure outlined in [T4B0]☆2 "ON-BOARD DIAGNOSTICS". Proceed to step 4).
4) If trouble code indicated, <Ref. to [T4D1]☆2 — [T4D2].☆2> proceed to step 5). If normal code indicated, <Ref. to [T4D2].> proceed to step 6).
5) Repair and replacement, <Ref. to [T5P1].☆2> proceed to step 7).
6) Repair and replacement, <Ref. to [T5Q1].☆2> proceed to step 7).
7) Turn ignition switch "ON", (engine "OFF") and observe airbag warning light. If airbag warning light stays "ON" after 8 seconds or comes back "ON" after 30 seconds, proceed to step 8). If airbag warning light comes "ON" for 8 seconds, then goes out and stays out, proceed to step 9).
8) Repair and replacement. <Ref. to [T4E1].☆2> Proceed to step 10).
9) Clear memory. <Ref. to [T4C0].☆2> Proceed to step 10).
10) END

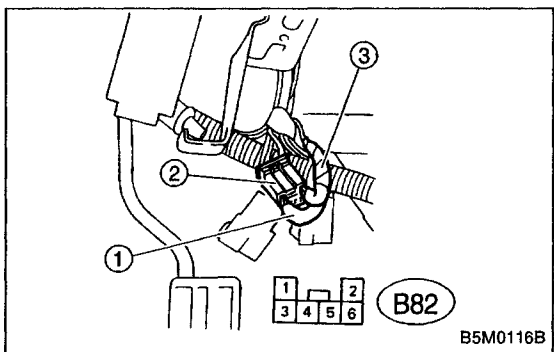


**B: ON-BOARD DIAGNOSTIC**

When the airbag system is in functioning condition, the airbag warning light will remain on for 8 seconds and go out when the ignition switch is set to ON.

If there is any malfunction, the airbag warning light will either stay on or off continuously. In such cases, perform on-board diagnostic in accordance with the specified procedure to determine trouble codes.

- 1) Turn ignition switch ON (with engine OFF).
- 2) Connect DIAG. terminal ① to No. 1 terminal of diagnosis connector ② located below lower cover.
- 3) Check in accordance with the trouble code indicated by the AIRBAG warning light, and record the trouble codes.
- 4) Turn the ignition switch "OFF" and remove the DIAG. terminal from No.1 terminal of diagnosis connector.



**C: CLEAR MEMORY**

After eliminating problem as per trouble code, clear memory as follows:

Make sure ignition switch is ON (and engine off). Connect one DIAG. terminal ① on diagnosis connector ② terminal No. 1.

While warning light is flashing, connect the other DIAG. terminal ③ on terminal No. 2 for at least three seconds. After memory is cleared, normal warning light flashing rate resumes. (Warning light flashes every 0.6 seconds ON-OFF operation.) Memory cannot be cleared if any problem exists.

After clear memory and then DIAG. terminals ① and ③, extract from diagnosis connector ②.

**D: LIST OF TROUBLE CODES**

**1. TROUBLE CODES**

Trouble code/Contents of troubles	Memory function	Contents of diagnosis	Page
04	Provided.	1) Airbag main harness circuit is shorted. 2) Airbag module harness (Ps) circuit is shorted. 3) Airbag control module is faulty.	15
11	Provided.	1) Airbag control module is faulty. 2) Airbag main harness circuit is open. 3) Fuse No. 8 is blown. 4) Body harness circuit is open.	16
12	Provided.	1) Airbag main harness circuit is open. 2) Airbag module harness (Dr) circuit is open. 3) Roll connector circuit is open. 4) Airbag control module is faulty.	19
13	Provided.	1) Airbag main harness circuit is shorted. 2) Airbag module harness (Dr) is shorted. 3) Roll connector circuit is shorted. 4) Airbag control module is faulty.	20
14	Not provided.	1) (AB9) and (AB10) are not connected properly. 2) (AB2) and (AB7) are not connected properly. 3) (AB3) and (AB8) are not connected properly. 4) (AB6) is not connected properly to airbag control module.	21
21	Provided.	Airbag control module is faulty.	23
22	Provided.	1) Airbag main harness circuit is open. 2) Airbag module harness (Ps) circuit is open. 3) Airbag control module is faulty.	24
31	Not provided.	1) Airbag control module is faulty. 2) Airbag main harness circuit is open. 3) Fuse No. 16 is blown. 4) Body harness circuit is open.	25
33	Provided.	Airbag module is inflated.	27
34	Provided.	1) Airbag main harness circuit (Ps) is shorted to power supply. 2) Airbag module harness (Ps) is shorted to power supply. 3) Airbag control module is faulty.	28
41	Provided.	1) Airbag main harness circuit (Dr) is shorted to ground. 2) Airbag module harness circuit (Dr) is shorted to ground. 3) Roll connector circuit is shorted to ground. 4) Airbag control module is faulty.	29
42	Provided.	1) Airbag main harness circuit (Ps) is shorted to ground. 2) Airbag module harness circuit (Ps) is shorted to ground. 3) Airbag control module is faulty.	30
43	Provided.	1) Airbag main harness circuit (Dr) is shorted to power supply. 2) Airbag module harness (Dr) is shorted to power supply. 3) Roll connector is shorted to power supply. 4) Airbag control module is faulty.	31

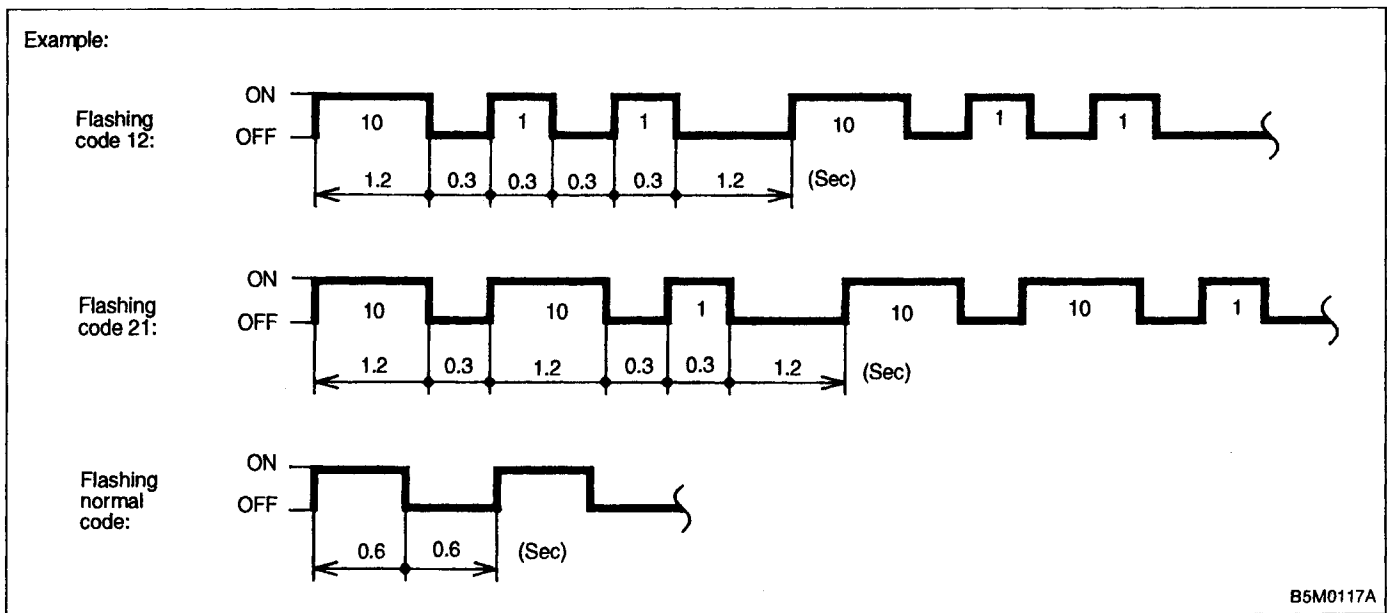
Trouble code/Contents of troubles	Memory function	Contents of diagnosis	Page
Airbag warning light remains on.	Not provided.	1) Airbag warning light is faulty. 2) Airbag control module to airbag warning light harness circuit is shorted or open. 3) Grounding circuit is faulty. 4) Airbag control module is faulty. 5) (AB1) and (B39) are not connected properly.	32
Airbag warning light remains off.	Not provided.	1) Fuse No. 15 is blown. 2) Body harness circuit is open. 3) Airbag warning light is faulty. 4) Airbag main harness is faulty. 5) Airbag control module is faulty.	35
Warning light indicates trouble code, then normal code. (Flashing trouble code.)	Provided.	Airbag system component parts are faulty.	38
Warning light indicates trouble code, then normal code. (Flashing normal code.)	Not provided.	1) Airbag connector is faulty. 2) Fuse No. 16 is blown. 3) Airbag main harness is faulty. 4) Airbag control module is faulty. 5) Body harness is faulty.	41

[NOTE] Dr: Driver side Ps: Passenger side

## 2. HOW TO READ TROUBLE CODES

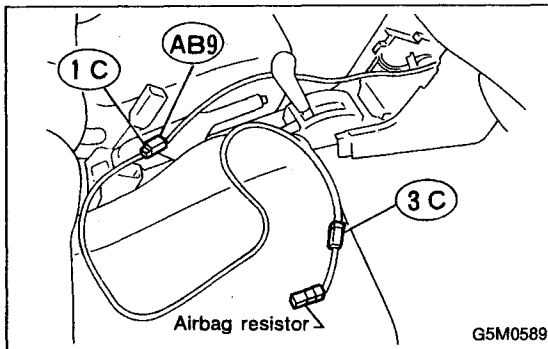
The AIRBAG warning light flashes a code corresponding to the faulty parts.

The long segment (1.2 sec on) indicates a "ten", and the short segment (0.3 sec on) indicates a "one".



**E: DIAGNOSTICS PROCEDURE****1. AIRBAG WARNING LIGHT STAYS ON AFTER 8 SECONDS.**

- 1) Perform on-board diagnostic. <Ref. to 5-5 [T4B0]. ☆2>
- 2) Are trouble codes 4, 12, 13, 22, 34, 41, 42 or 43 indicated? <Ref. to 5-5 [T4D1]☆2—[T4D2].☆2>  
Record trouble codes. If "YES" proceed to step 4). If "NO" proceed to step 3).
- 3) Proceed with diagnostics and repair according to trouble code indicated then perform step 15).
- 4) If codes 4, 22, 34, 42 are indicated, proceed to step 5). If codes 4, 22, 34, 42 are not indicated, proceed to step 10).
- 5) If codes 12, 13, 41, 43 are indicated, proceed to step 6). If codes 12, 13, 41, 43 are not indicated, proceed to step 11).



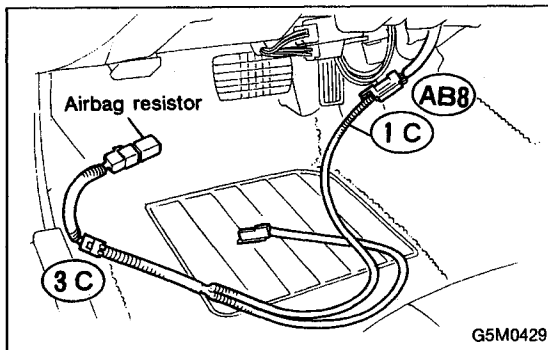
- 6) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Disconnect passenger side airbag module connector (AB9) to (AB10). <Ref. to 5-5 [W3A2].☆1> Connect test harness C connector (1C) to (AB9).

Connect airbag resistor to test harness C connector (3C). Remove lower cover panel and connect test harness C connector (1C) to (AB8) <Ref. to 5-4 [W1A0].☆1> with airbag resistor attached to test harness C connector (3C). Connect battery ground cable and turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds?

See "NOTE:".

If "YES" proceed to step 7).

If "NO" proceed to step 3).

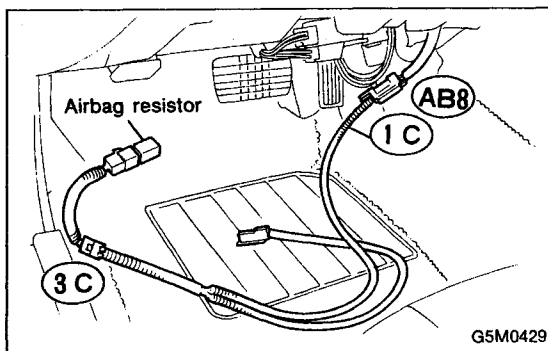


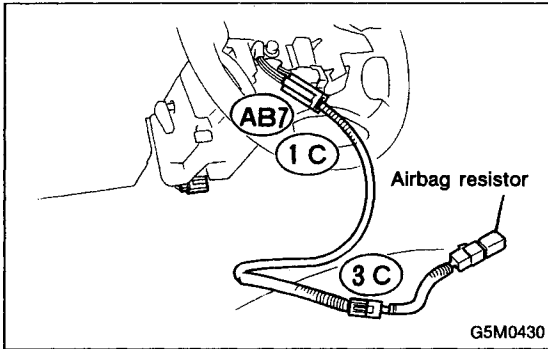
- 7) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Connect passenger side airbag module connector (AB9) to (AB10). Connect battery ground cable and turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds?

See "NOTE:".

If "YES" proceed to step 8).

If "NO" proceed to step 13).





8) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Connect connector (AB8) to (AB3). Remove driver side airbag module and connect test harness C connector (1C) to (AB7). <Ref. to 5-5 [W3A1].☆1 >

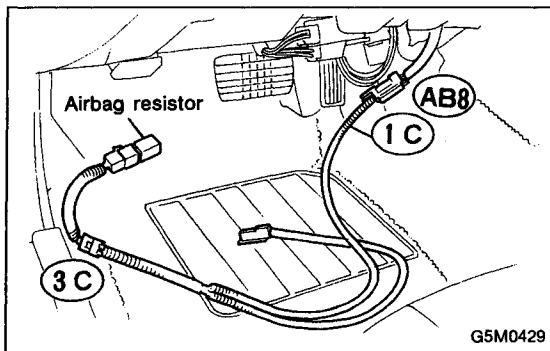
Connect airbag resistor to test harness C connector (3C). Connect battery ground cable and turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds?

See "NOTE:".

If "YES" proceed to step 9).

If "NO" proceed to step 14).

9) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Replace with a new driver side airbag module. <Ref. to 5-5 [W3A1].☆1 > Proceed to step 15).



10) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Remove lower cover panel and connect test harness C connector (1C) to (AB8) <Ref. to 5-4 [W1A0].☆1 > with airbag resistor attached to test harness C connector (3C).

Connect battery ground cable and turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds?

See "NOTE:".

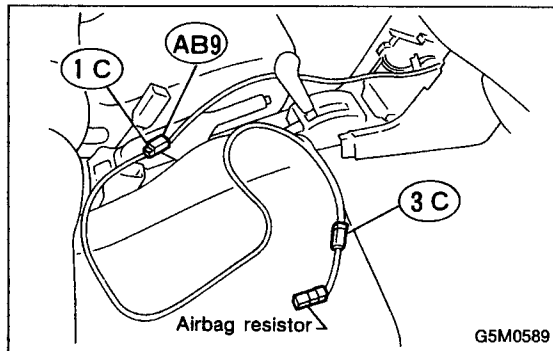
If "YES" proceed to step 8).

If "NO" proceed to step 3).



## 5-5b [T4E1] SUPPLEMENTAL RESTRAINT SYSTEM (ELECTRIC SENSOR TYPE)

### 4. Diagnostics Chart for On-board Diagnostic System



11) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Disconnect passenger side airbag module connector (AB9) to (AB10). <Ref. to 5-5 [W3A2].☆1 >

Connect test harness C connector (1C) to (AB9). Connect airbag resistor to test harness C connector (3C).

Connect battery ground cable and turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds?

See "NOTE:".

If "YES" proceed to step 12).

If "NO" proceed to step 3).

12) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Replace with a new passenger side airbag module <Ref. to 5-5 [W3A2].☆1 > then proceed to step 15).

13) Turn ignition switch "OFF", disconnect battery ground cable and wait 20 seconds. Replace with a new passenger side airbag module <Ref. to 5-5 [W3A2].☆1 > then proceed to step 7).

14) Turn ignition switch "OFF", disconnect battery ground cable, and wait 20 seconds. Replace with a new combination switch, <Ref. to 5-5 [W7A0].☆2 > and install driver side airbag module <Ref. to 5-5 [W3A1].☆1 >.

Connect battery ground cable and turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds?

See "NOTE:".

If "YES" proceed to step 16).

If "NO" proceed to step 9).

15) Connect battery ground cable and turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds? See "NOTE:".

If "YES" proceed to step 16).

If "NO" proceed to step 1).

16) Perform clear memory procedure. <Ref. to 5-5 [T4C0].☆2 >

If memory cannot be cleared, another trouble code exists. Return to step 1).

If memory can be cleared, proceed to step 17).

17) END

NOTE:

- Always remember to secure the green double locks before turning the ignition switch "ON".

- In some cases the airbag warning light will go "OFF" after 8 seconds but will turn "ON" again within 30 seconds. In this case continue diagnostics with the basic diagnostics procedures or trouble code procedures.

**G: TROUBLE CODE 22**

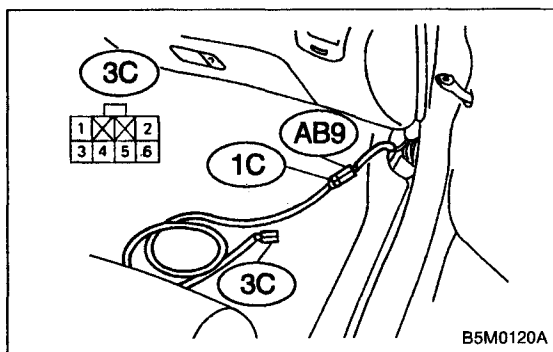
**DIAGNOSIS:**

- Airbag main harness circuit is open.
- Airbag module harness (Passenger) circuit is open.
- Airbag control module is faulty.

**1. Airbag main harness inspection**

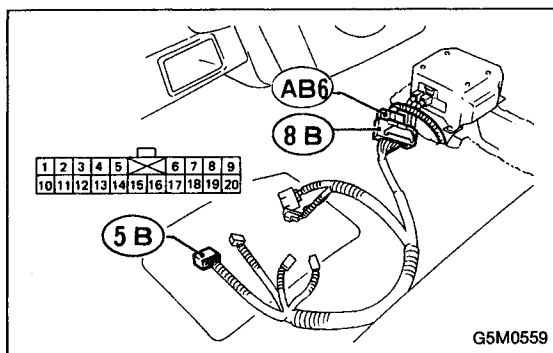
**CAUTION:**

**Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds.**



**1. AIRBAG MAIN HARNESS INSPECTION**

1) Remove front pillar lower trim (Passenger side). <Ref. to 5-3 [W5A1].☆1>, disconnect connector (AB9) and (AB10) and connect connector (AB9) to test harness C connector (1C).



2) Disconnect connector (AB6) <Ref. to 5-5 [W6A0].☆2> from airbag control module, and connect it to test harness B2 connector (8B) terminal.

3) Measure resistance between test harness B2 connector (5B) and test harness C connector (3C) terminals.

**CHECK** : **Connector & terminal (5B) No. 6 — (3C) No. 4:**  
**Is resistance less than 10 Ω?**

**YES** : Go to next **CHECK** .

**NO** : Replace airbag main harness.

**CHECK** : **Connector & terminal (5B) No. 7 — (3C) No. 3:**  
**Is resistance less than 10 Ω?**

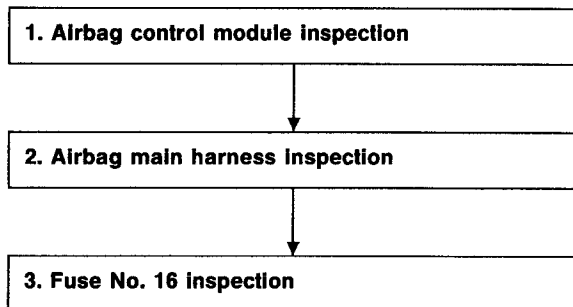
**YES** : Replace airbag control module.

**NO** : Replace airbag main harness.

**H: TROUBLE CODE 31**

**DIAGNOSIS:**

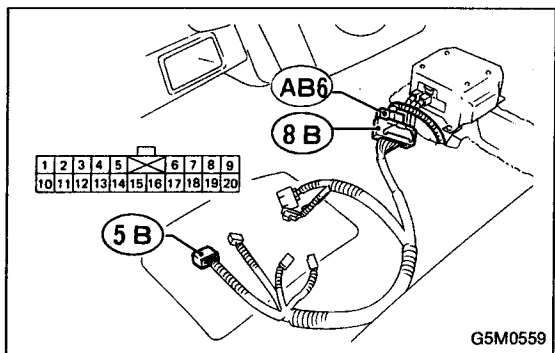
- Airbag control module is faulty.
- Airbag main harness circuit is open.
- Fuse No. 16 is blown.
- Body harness circuit is open.



**CAUTION:**

Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds.

After 20 seconds elapse, remove instrument panel lower cover, and disconnect (AB3) and (AB8), (AB9) and (AB10).



**1. AIRBAG CONTROL MODULE INSPECTION**

1) Disconnect connector (AB6) from airbag control module <Ref. to 5-5 [W6A0].☆2>, and connect it to test harness B2 connector (8B).

2) Connect battery ground cable and turn ignition switch "ON" (engine off).

3) Measure voltage across connector (5B) terminal and chassis ground.

**CHECK** : **Connector & terminal (5B) No. 5 (+) — Chassis ground (-): Is voltage more than 10 V?**

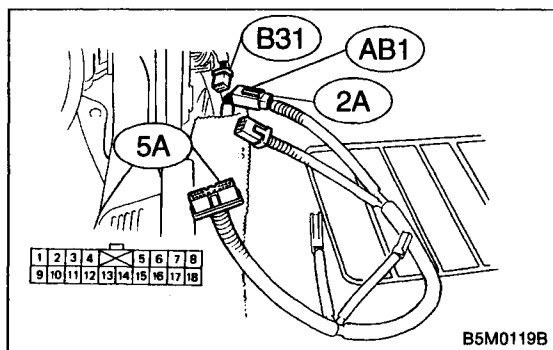
**YES** : Replace airbag control module.

**NO** : Go to step 2.

**2. AIRBAG MAIN HARNESS INSPECTION**

1) Go to step 2) below after performing diagnostics on airbag system as per diagnosis procedure under "1. AIRBAG CONTROL MODULE INSPECTION" previously outlined.

2) Turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds.



3) Disconnect connector (AB1) from body harness connector (B31) at front lower pillar (driver side), and connect connector (AB1) to test harness A connector (2A).

4) Measure resistance between test harness A connector (5A) and test harness B2 connector (5B) terminals.

**CHECK** : **Connector & terminal (5A) No. 9 — (5B) No. 5:**  
**Is resistance less than 10 Ω?**

**YES** : Go to step 5).

**NO** : Replace airbag main harness.

5) Measure resistance between each terminal of connectors (5A) and (5B) and chassis ground.

**CHECK** : **Connector & terminal (5A) No. 9 (+) — Chassis ground (-):**

**YES** : Go to next **CHECK** .

**NO** : Replace airbag main harness.

**CHECK** : **Connector & terminal (5B) No. 5 (+) — Chassis ground (-):**  
**Is resistance more than 10 kΩ?**

**YES** : Go to step 3.

**NO** : Replace airbag main harness.

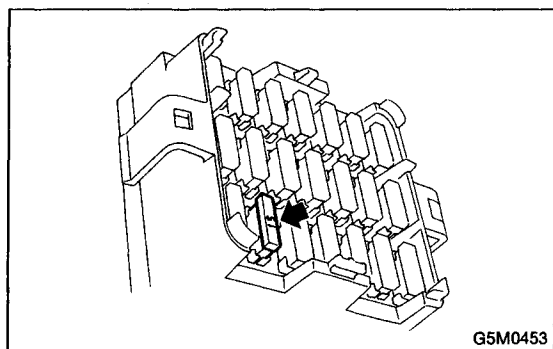
**3. FUSE No. 16 INSPECTION**

Make sure ignition switch is turned "OFF", then remove and visually check fuse No. 16.

**CHECK** : **Is fuse No. 16 blown?**

**YES** : Replace fuse No. 16. If fuse No. 16 blows again, repair body harness.

**NO** : Repair body harness.



**I: TROUBLE CODE 33**

**DIAGNOSIS:**

- Airbag module is inflated.

1. Check if trouble code 33 is indicated.

**CAUTION:**

Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground terminal, and then wait at least 20 seconds. < Ref. to 5-5 [W6A0].☆2 >

**1. CHECK IF TROUBLE CODE 33 IS INDICATED.**

Confirm flashing trouble code according to [T4A0]☆2 "BASIC DIAGNOSTICS PROCEDURE".

**CHECK** : *Is airbag warning light trouble code 33 indicated?*

**YES** : Replace airbag control module.

**NO** : Clear memory.

**J: TROUBLE CODE 34**

**DIAGNOSIS:**

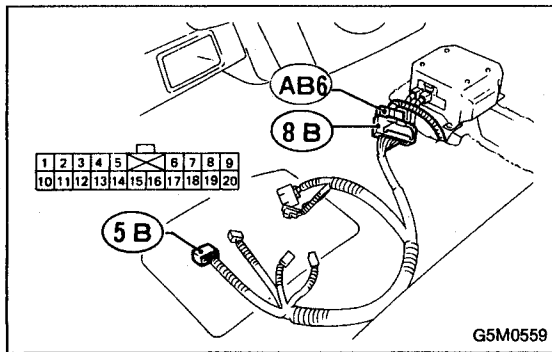
- Airbag main harness circuit (Passenger) is shorted to power supply.
- Airbag module harness (Passenger) is shorted to power supply.
- Airbag control module is faulty.

**1. Airbag main harness inspection**

**CAUTION:**

**Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground terminal and then wait at least 20 seconds.**

**After 20 seconds elapse, remove instrument panel lower cover, and disconnect (AB3) and (AB8), (AB9) and (AB10).**



**1. AIRBAG MAIN HARNESS INSPECTION**

- 1) Disconnect connector (AB6) from airbag control module <Ref. to 5-5 [W6A0].☆2>, and connect it to test harness B2 connector (8B).
- 2) Connect battery ground cable and turn ignition switch "ON" (engine off).
- 3) Measure voltage across each test harness B2 connector (5B) terminal and chassis ground.

**CHECK** : **Connector & terminal (5B) No. 6 (+) — Chassis ground (-): Is voltage less than 1 V?**

**YES** : Go to next **CHECK** .

**NO** : Replace airbag main harness.

**CHECK** : **Connector & terminal (5B) No. 7 (+) — Chassis ground (-): Is voltage less than 1 V?**

**YES** : Replace airbag control module.

**NO** : Replace airbag main harness.

**K: TROUBLE CODE 41**

**DIAGNOSIS:**

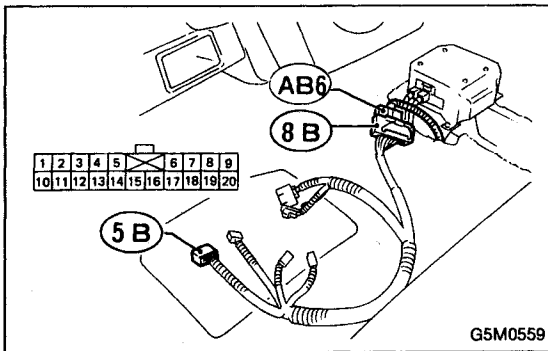
- Airbag main harness circuit (Driver) is shorted to ground.
- Airbag module harness (Driver) is shorted to ground.
- Roll connector circuit is shorted to ground.
- Airbag control module is faulty.

**1. Airbag main harness inspection**

**CAUTION:**

Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds.

After 20 seconds elapse, remove instrument panel lower cover, and disconnect (AB3) and (AB8), (AB9) and (AB10).



**1. AIRBAG MAIN HARNESS INSPECTION**

- 1) Disconnect connector (AB6) from airbag control module <Ref. to 5-5 [W6A0].☆2>, and connect it to test harness B2 connector (8B).
- 2) Measure resistance between test harness B2 connector (5B) terminals and chassis ground.

**CHECK** : **Connector & terminal (5B) No. 1 (+) — Chassis ground (-): Is resistance more than 200 Ω?**

**YES** : Go to next **CHECK** .

**NO** : Replace airbag main harness.

**CHECK** : **Connector & terminal (5B) No. 14 (+) — Chassis ground (-): Is resistance more than 200 Ω?**

**YES** : Replace airbag control module.

**NO** : Replace airbag main harness.

**L: TROUBLE CODE 42**

**DIAGNOSIS:**

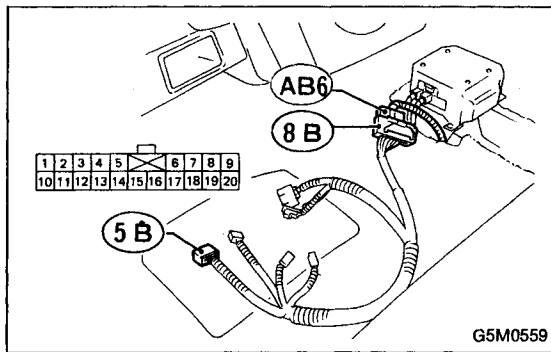
- Airbag main harness circuit (Passenger) is shorted to ground.
- Airbag module harness circuit (Passenger) is shorted to ground.
- Airbag control module is faulty.

**1. Airbag main harness inspection**

**CAUTION:**

**Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds.**

**After 20 seconds elapse, remove instrument panel lower cover, and disconnect (AB3) and (AB8), (AB9) and (AB10).**



**1. AIRBAG MAIN HARNESS INSPECTION**

- 1) Disconnect connector (AB6) from airbag control module <Ref. to 5-5 [W6A0].☆2>, and connect it to test harness B2 connector (8B).
- 2) Measure resistance between test harness B2 connector (5B) terminals and chassis ground.

**CHECK** : **Connector & terminal (5B) No. 6 (+) — Chassis ground (-): Is resistance more than 200 Ω?**

**YES** : Go to next **CHECK** .

**NO** : Replace airbag main harness.

**CHECK** : **Connector & terminal (5B) No. 7 (+) — Chassis ground (-): Is resistance more than 200 Ω?**

**YES** : Replace airbag control module.

**NO** : Replace airbag main harness.



**M: TROUBLE CODE 43**

**DIAGNOSIS:**

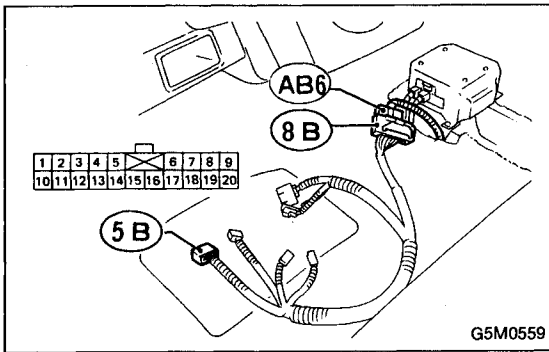
- Airbag main harness circuit (Driver) is shorted to power supply.
- Airbag module harness (Driver) is shorted to power supply.
- Roll connector is shorted to power supply.
- Airbag control module is faulty.

**1. Airbag main harness inspection**

**CAUTION:**

**Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground terminal and then wait at least 20 seconds.**

**After 20 seconds elapse, remove instrument panel lower cover, and disconnect (AB3) and (AB8), (AB9) and (AB10).**



**1. AIRBAG MAIN HARNESS INSPECTION**

- 1) Disconnect connector (AB6) from airbag control module <Ref. to 5-5 [W6A0].☆2>, and connect it to test harness B2 connector (8B).
- 2) Connect battery ground cable and turn ignition switch "ON" (engine off).
- 3) Measure voltage across each test harness B2 connector (5B) terminal and chassis ground.

**CHECK** : **Connector & terminal (5B) No. 1 (+) — Chassis ground (-): Is voltage less than 1 V?**

**YES** : Go to next **CHECK** .

**NO** : Replace airbag main harness.

**CHECK** : **Connector & terminal (5B) No. 14 (+) — Chassis ground (-): Is voltage less than 1 V?**

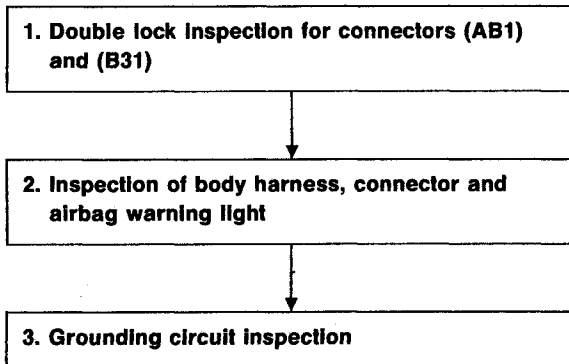
**YES** : Replace airbag control module.

**NO** : Replace airbag main harness.

**N: AIRBAG WARNING LIGHT REMAINS ON.**

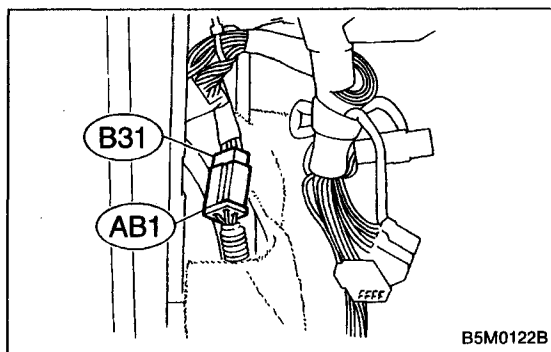
**DIAGNOSIS:**

- Airbag warning light is faulty.
- Airbag control module to airbag warning light harness circuit is shorted or open.
- Grounding circuit is faulty.
- Airbag control module is faulty.
- (AB1) and (B31) are not connected properly.



**CAUTION:**

Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds.



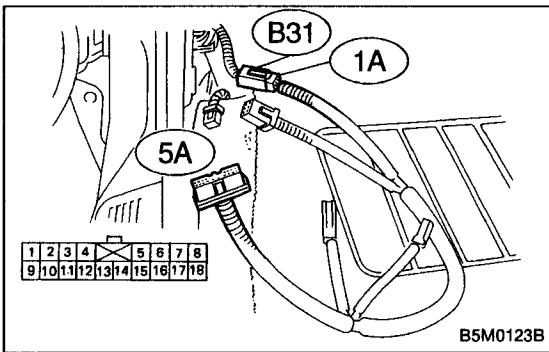
**1. DOUBLE LOCK INSPECTION FOR CONNECTORS (AB1) AND (B31)**

- 1) Remove front pillar lower trim (Driver side).
- 2) Check double lock of connectors (AB1) and (B31).

**CHECK** : *Is there poor contact in double lock of connectors (AB1) and (B31)?*

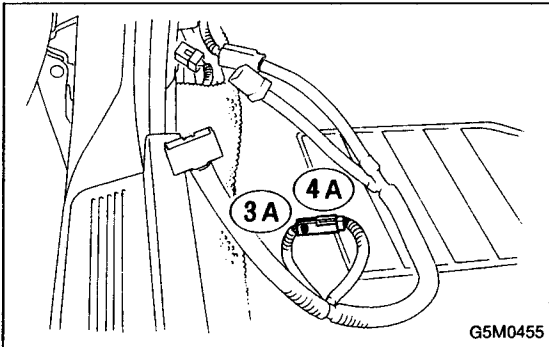
**YES** : Repair poor contact in double lock of connectors (AB1) and (B31).

**NO** : Go to step 2.



**2. INSPECTION OF BODY HARNESS, CONNECTOR AND AIRBAG WARNING LIGHT**

1) Turn ignition switch "OFF" and connect body harness connector (B31) to test connector A connector (1A).

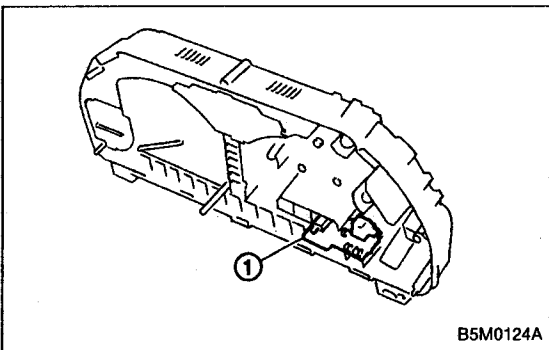


2) Connect battery ground cable and turn ignition switch "ON", (engine off) and connect connectors (3A) and (4A).

**CHECK** : Does the airbag warning light come off?

**YES** : Go to step 3).

**NO** : Go to next **CHECK**.



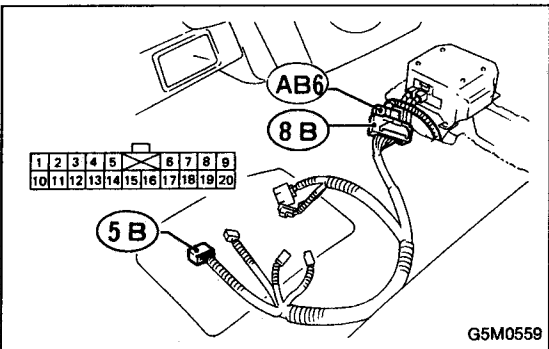
**CHECK** : Is there anything unusual to body harness?

**YES** : Repair body harness.

**NO** : Replace airbag warning light module ①.

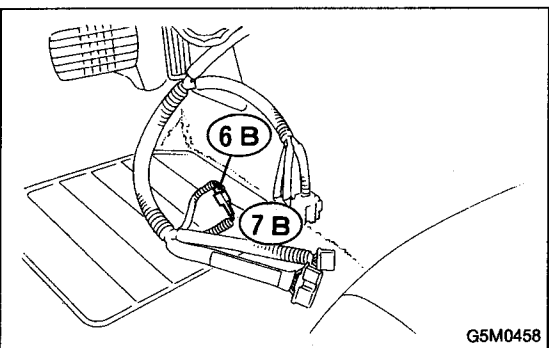
NOTE:

After problem has been eliminated, disconnect connectors (3A) and (4A).



3) Turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds, and re-connect connectors (AB1) and (B31).

4) Remove instrument panel lower cover and disconnect (AB3) with (AB8), then disconnect connector (AB6) from airbag control module, <Ref. to 5-5 [W6A0].☆2> and connect it to test harness B2 connector (8B).



5) Connect battery ground cable and turn ignition switch "ON," (engine off) and connect connectors (6B) and (7B).

**CHECK** : Does the airbag warning light come on?

**YES** : Go to step 3.

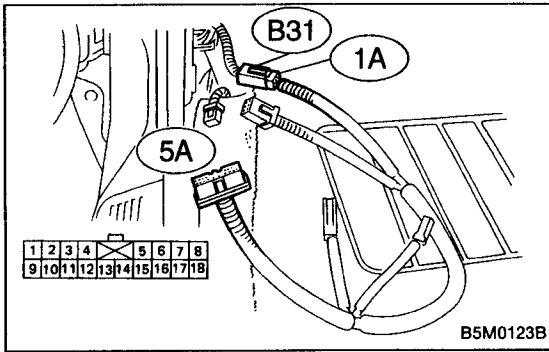
**NO** : Replace airbag main harness.

NOTE:

After problem has been eliminated, disconnect connectors (6B) and (7B).

## 5-5b [T5N3] SUPPLEMENTAL RESTRAINT SYSTEM (ELECTRIC SENSOR TYPE)

### 5. Diagnostics Chart with Trouble Code



### 3. GROUNDING CIRCUIT INSPECTION

1) Turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds. Disconnect connector (AB1) from body harness connector (B31), and connect connector (B31) to test harness A connector (1A). Measure resistance between connector (5A) terminal and chassis ground.

**CHECK** : **Connector & terminal**  
**(5A) No. 17 (+) — Chassis ground (-):**  
**Is resistance less than 10 Ω?**

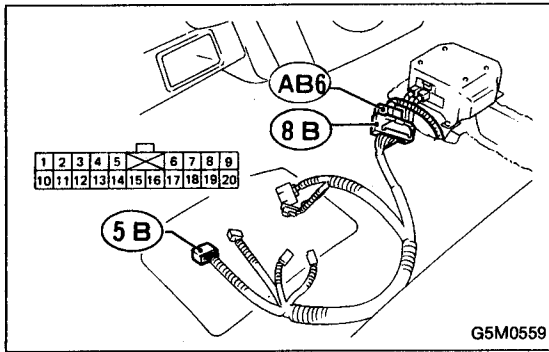
**YES** : Go to next **CHECK** .

**NO** : Repair body grounding circuit.

**CHECK** : **Connector & terminal**  
**(5A) No. 18 (+) — Chassis ground (-):**  
**Is resistance less than 10 Ω?**

**YES** : Go to step 2).

**NO** : Repair body grounding circuit.



2) Connect connectors (AB1) and (B31). Disconnect connector (AB6) from airbag control module <Ref. to 5-5 [W6A0]. ☆2>, and connect it to test harness B2 connector (8B).

3) Measure resistance between each test harness B2 connector (5B) terminal and chassis ground.

**CHECK** : **Connector & terminal**  
**(5B) No. 11 (+) — Chassis ground (-):**  
**Is resistance less than 10 Ω?**

**YES** : Go to next **CHECK** .

**NO** : Replace airbag main harness.

**CHECK** : **Connector & terminal**  
**(5B) No. 12 (+) — Chassis ground (-):**  
**Is resistance less than 10 Ω?**

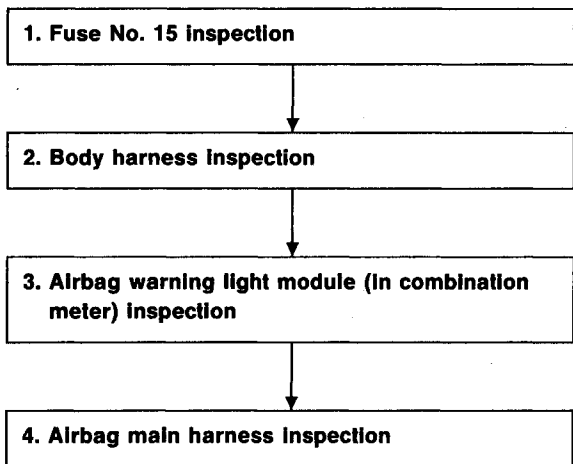
**YES** : Replace airbag control module.

**NO** : Replace airbag main harness.

**O: AIRBAG WARNING LIGHT REMAINS OFF.**

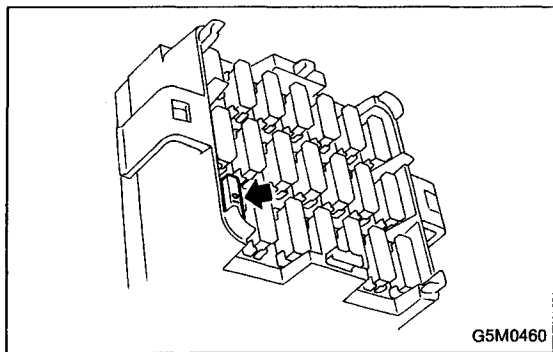
**DIAGNOSIS:**

- Fuse No. 15 is blown.
- Body harness circuit is open.
- Airbag warning light is faulty.
- Airbag main harness is faulty.
- Airbag control module is faulty.



**CAUTION:**

Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground terminal, and then wait at least 20 seconds.



**1. FUSE No. 15 INSPECTION**

Remove and visually check fuse No. 15.

- CHECK** : *Is fuse No. 15 blown?*
- YES** : Replace fuse No. 15.  
If fuse No. 15 blows again, go to step 2.
- NO** : Go to step 2.

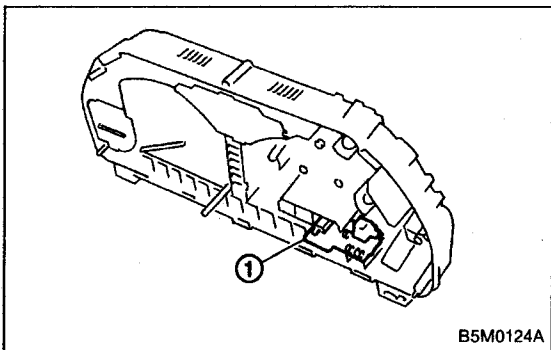
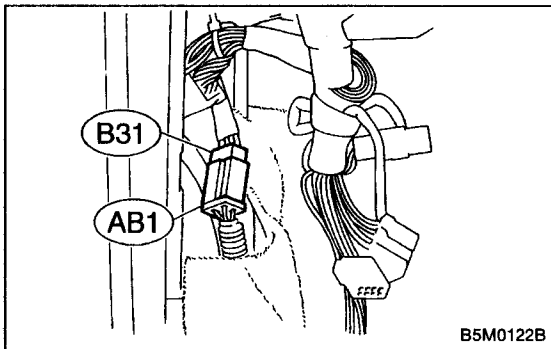
**2. BODY HARNESS INSPECTION**

Turn ignition switch "ON" (engine off) to make sure other warning lights (in combination meter) illuminate.

- CHECK** : *Do all the warning lights (in combination meter) except airbag warning light come on?*
- YES** : Go to step 3.
- NO** : Repair body harness.

## 5-5b [T503] SUPPLEMENTAL RESTRAINT SYSTEM (ELECTRIC SENSOR TYPE)

### 5. Diagnostics Chart with Trouble Code



### 3. AIRBAG WARNING LIGHT MODULE (IN COMBINATION METER) INSPECTION

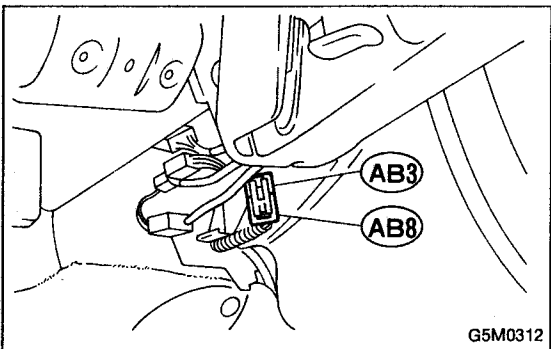
- 1) Turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds.
- 2) Disconnect body harness connector (B31) from connector (AB1).

- 3) Connect battery ground cable and turn ignition switch "ON" (engine off) to make sure airbag warning light illuminates.

**CHECK** : Does the airbag warning light come on?

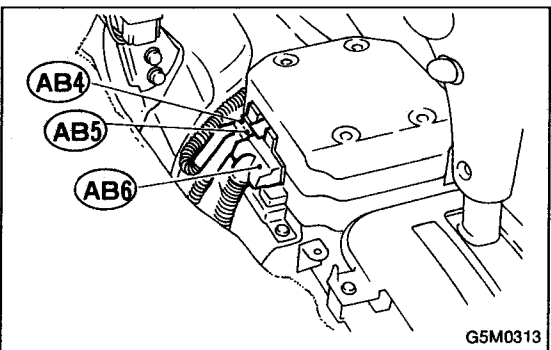
**YES** : Go to step 4.

**NO** : Replace airbag warning light module ①.



### 4. AIRBAG MAIN HARNESS INSPECTION

- 1) Turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds.
- 2) Connect body harness connector (B31) and connector (AB1).
- 3) Disconnect connectors (AB3) and (AB8) below steering column. <Ref. to 5-5 [M2-6].☆1 >



- 4) Disconnect connector (AB6) from airbag control module. <Ref. to 5-5 [W6A0].☆2 >

- 5) Connect battery ground cable and turn ignition switch "ON" to make sure airbag warning light illuminates.

**CHECK** : Does the airbag warning light come on?

**YES** : Replace airbag control module.

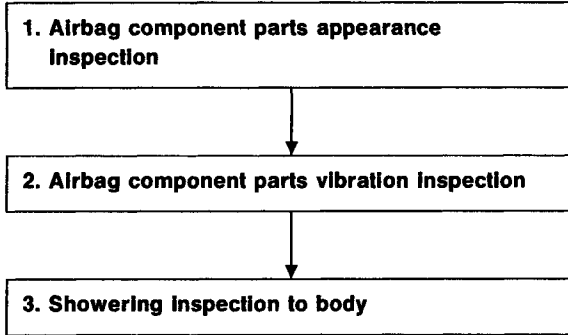
**NO** : Replace airbag main harness.

**P: WARNING LIGHT INDICATES TROUBLE CODE, THEN NORMAL CODE.**

**— FLASHING TROUBLE CODE. —**

**DIAGNOSIS:**

- Airbag system component parts are faulty.



**CAUTION:**

**Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground cable, and then wait at least 20 seconds.**

**1. AIRBAG COMPONENT PARTS APPEARANCE INSPECTION**

1) Conduct on-board diagnostic and call up trouble codes stored in memory. <Ref. to [T4B0].☆2>

2) Select trouble code required to check airbag component parts from those listed in table and reproduce symptom.

Trouble codes	Check parts	Refer to 5-5:
04	<ul style="list-style-type: none"> <li>● Airbag module (Passenger)</li> <li>● Airbag main harness</li> <li>● Airbag control module</li> </ul>	W3A2 ☆1 W5A0 ☆1 W6A0 ☆2
11	<ul style="list-style-type: none"> <li>● Fuse No. 8</li> <li>● Airbag main harness</li> <li>● Airbag control module</li> <li>● Body harness</li> </ul>	T5D3 ☆1 W5A0 ☆1 W6A0 ☆2 —
12	<ul style="list-style-type: none"> <li>● Roll connector</li> <li>● Airbag module (Driver)</li> <li>● Airbag main harness</li> <li>● Airbag control module</li> </ul>	W7A0 ☆2 W3A1 ☆1 W5A0 ☆1 W6A0 ☆2
13	<ul style="list-style-type: none"> <li>● Airbag module (Driver)</li> <li>● Roll connector</li> <li>● Airbag main harness</li> <li>● Airbag control module</li> </ul>	W3A1 ☆1 W7A0 ☆2 W5A0 ☆1 W6A0 ☆2
21	<ul style="list-style-type: none"> <li>● Airbag control module</li> </ul>	W6A0 ☆2
22	<ul style="list-style-type: none"> <li>● Airbag module (Passenger)</li> <li>● Airbag main harness</li> <li>● Airbag control module</li> </ul>	W3A2 ☆1 W5A0 ☆1 W6A0 ☆2
33	<ul style="list-style-type: none"> <li>● Airbag control module</li> </ul>	W6A0 ☆2
34	<ul style="list-style-type: none"> <li>● Airbag main harness</li> <li>● Airbag module (Passenger)</li> <li>● Airbag control module</li> </ul>	W5A0 ☆1 W3A2 ☆1 W6A0 ☆2
41	<ul style="list-style-type: none"> <li>● Airbag module (Driver)</li> <li>● Roll connector</li> <li>● Airbag main harness</li> <li>● Airbag control module</li> </ul>	W3A1 ☆1 W7A0 ☆2 W5A0 ☆1 W6A0 ☆2
42	<ul style="list-style-type: none"> <li>● Airbag module (Passenger)</li> <li>● Airbag main harness</li> <li>● Airbag control module</li> </ul>	W3A2 ☆1 W5A0 ☆1 W6A0 ☆2
43	<ul style="list-style-type: none"> <li>● Airbag module (Driver)</li> <li>● Roll connector</li> <li>● Airbag main harness</li> <li>● Airbag control module</li> </ul>	W3A1 ☆1 W7A0 ☆2 W5A0 ☆1 W6A0 ☆2



3) Conduct appearance inspection on parts selected.

**CHECK** : *Is there anything unusual about the appearance of airbag component parts?*

**YES** : Replace faulty airbag component parts.

**NO** : Go to step 2.

NOTE:

Also check connector terminals, wiring harness, case, etc. for damage.

**2. AIRBAG COMPONENT PARTS VIBRATION INSPECTION**

1) Gently shake check parts (to determine faults.).

2) To check airbag module or roll connector, turn and tilt steering wheel.

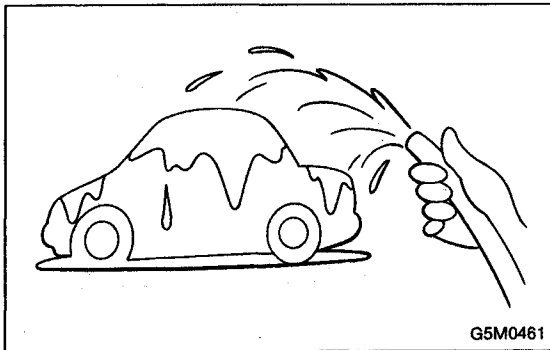
**CAUTION:**

**Do not shake or vibrate airbag control module.**

**CHECK** : *Does the component malfunction again when shaking?*

**YES** : Replace faulty airbag component parts.

**NO** : Go to step 3.



**3. SHOWERING INSPECTION TO BODY**

Spray water on vehicle body.

**CAUTION:**

**Do not directly spray water on airbag components.**

**CHECK** : *Does water leak into the passenger compartment when showering vehicle?*

**YES** : Replace faulty airbag component parts.

**NO** : Clear memory.

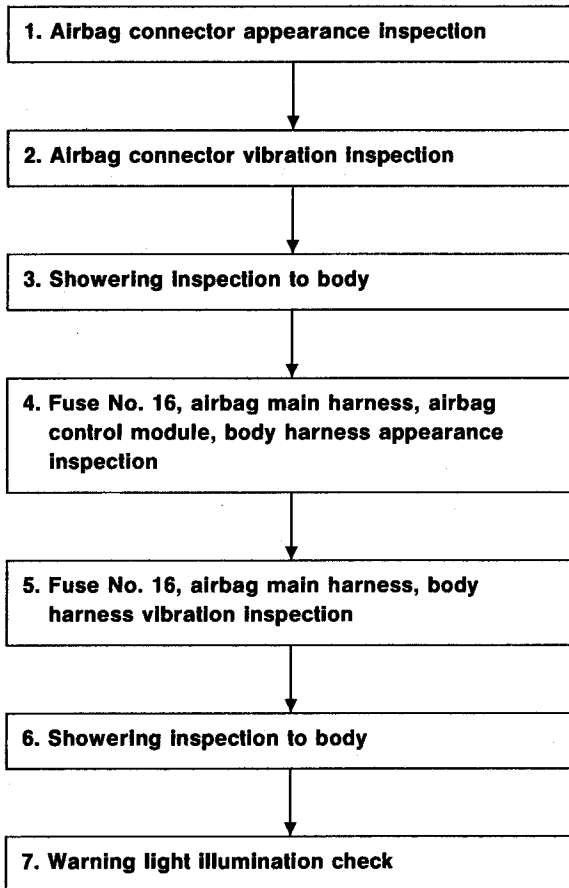
NOTE:

Also check wiring harnesses as water may leak along them and get airbag component parts wet.

**Q: WARNING LIGHT INDICATES TROUBLE CODE, THEN NORMAL CODE. — FLASHING NORMAL CODE. —**

**DIAGNOSIS:**

- Airbag connector is faulty.
- Fuse No. 16 is blown.
- Airbag main harness is faulty.
- Airbag control module is faulty.
- Body harness is faulty.



**CAUTION:**

Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground cable, and then wait at least 20 seconds.

**1. AIRBAG CONNECTOR APPEARANCE INSPECTION**

Conduct appearance inspection on airbag connectors (AB2) through (AB8). <Ref. to 5-5 [T100].☆2 >

**CHECK** : *Is there anything unusual about the appearance of connectors (AB2) through (AB8)?*

**YES** : Replace faulty airbag component parts.

**NO** : Go to step 2.

**NOTE:**

Check terminals, case and wiring harnesses for damage.

**2. AIRBAG CONNECTOR VIBRATION INSPECTION**

Conduct vibration inspection on airbag connectors (AB2) through (AB8). <Ref. to 5-5 [T100].☆2>

**CHECK** : **Do the connectors (AB2) through (AB8) malfunction again when shaking?**

**YES** : Replace faulty airbag component parts.

**NO** : Go to step 3.

NOTE:

Gently shake each airbag connector.

**3. SHOWERING INSPECTION TO BODY**

Spray water on vehicle body.

**CAUTION:**

**Do not directly spray water on airbag components.**

**CHECK** : **Does water leak into the passenger compartment when showering vehicle?**

**YES** : Replace faulty airbag component parts.

**NO** : Go to step 4.

NOTE:

If leaks are noted, also check wiring harnesses as water may leak along them and wet airbag connectors.



G5M0461

**4. FUSE No. 16, AIRBAG MAIN HARNESS, AIRBAG CONTROL MODULE, BODY HARNESS APPEARANCE INSPECTION**

Conduct appearance inspection on fuse No. 16 <Ref. to [T5L3].☆1>, airbag main harness <Ref. to [W5A0].☆1>, airbag control module <Ref. to [W6A0].☆2> and body harness.

**CHECK** : **Is there anything unusual about the appearance of fuse No. 16, airbag main harness, airbag control module or body harness?**

**YES** : Replace faulty airbag component parts.

**NO** : Go to step 5.

NOTE:

Also check connectors, terminals, wiring harness and case for damage.

### 5. FUSE No. 16, AIRBAG MAIN HARNESS, BODY HARNESS VIBRATION INSPECTION

Conduct vibration inspection on fuse No. 16, airbag main harness and body harness.

#### CAUTION:

**Do not shake or vibrate airbag control module.**

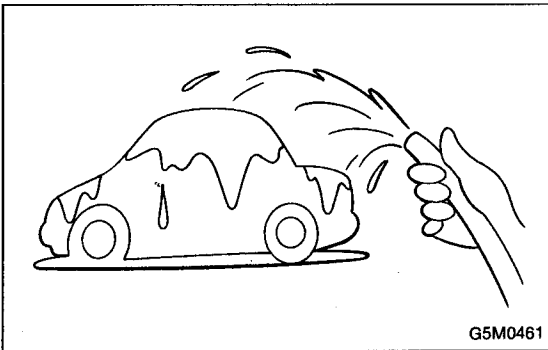
**CHECK** : **Do fuse No. 16, airbag main harness or body harness malfunction again when shaking?**

**YES** : Replace faulty airbag component parts.

**NO** : Go to step 6.

#### NOTE:

Gently shake each part.



### 6. SHOWERING INSPECTION TO BODY

Spray water on vehicle body.

#### CAUTION:

**Do not directly spray water on each part.**

**CHECK** : **Does water leak into the passenger compartment when showering vehicle?**

**YES** : Replace faulty airbag component parts.

**NO** : Go to step 7.

#### NOTE:

If leaks are noted, check wiring harnesses as water may leak along them and get parts wet.

### 7. WARNING LIGHT ILLUMINATION CHECK

Turn ignition switch "ON" (engine off) and observe airbag warning light.

**CHECK** : **Does the airbag warning light comes on for 8 seconds, then go out and stay out?**

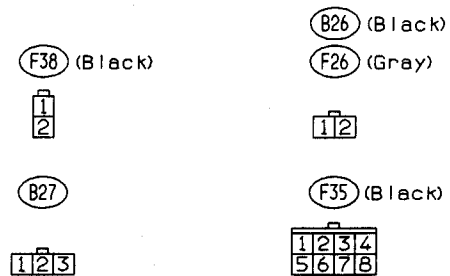
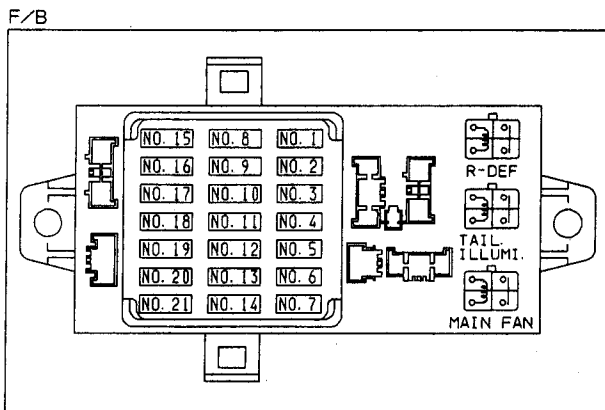
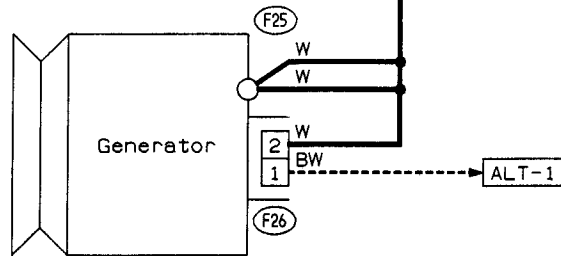
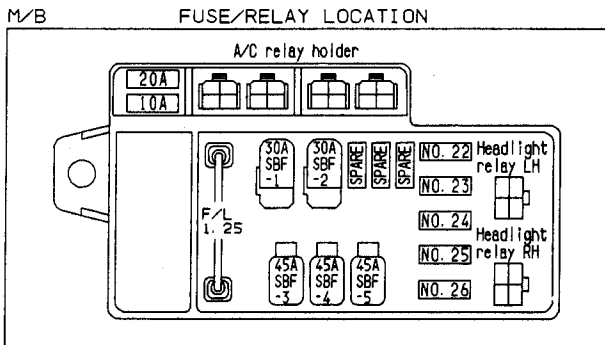
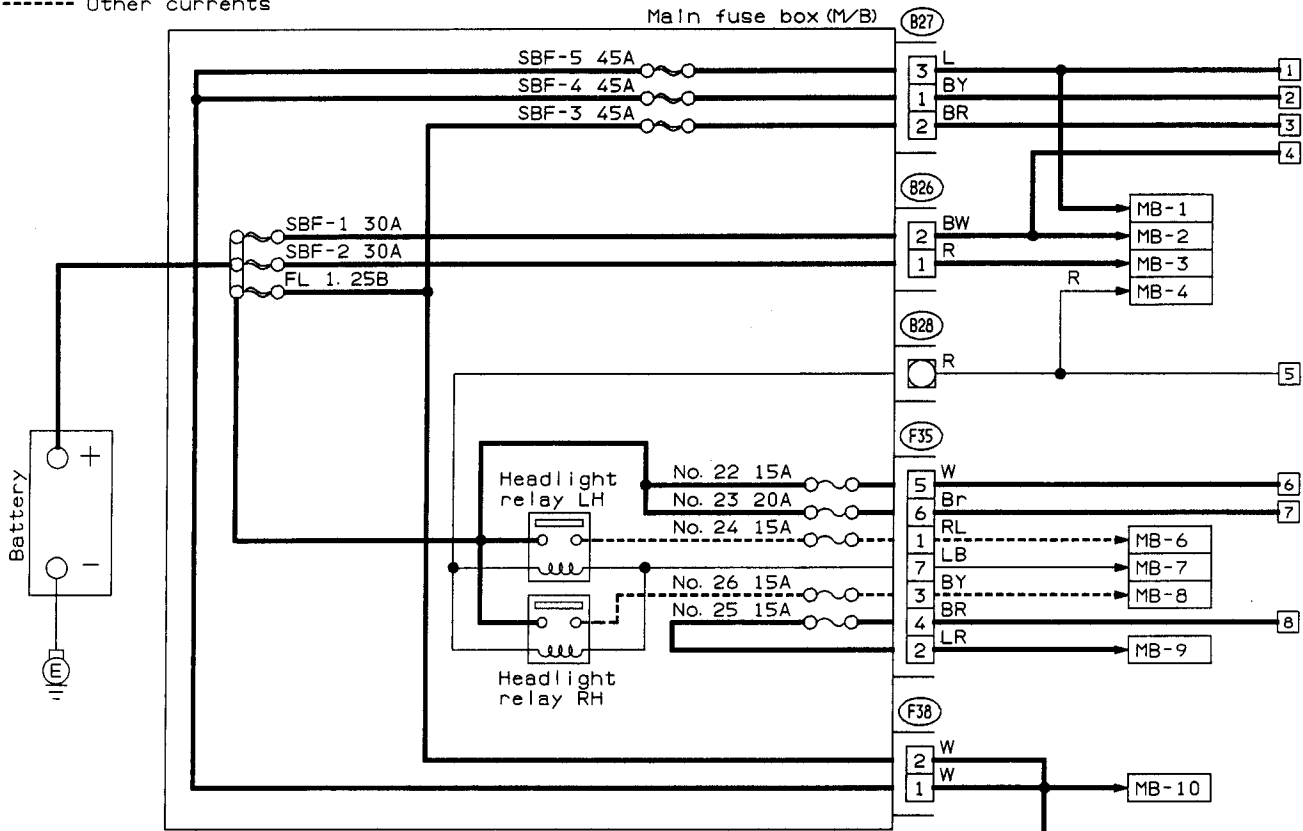
**YES** : Clear memory.

**NO** : Go to [T4E0]☆2 "DIAGNOSTICS PROCEDURE".

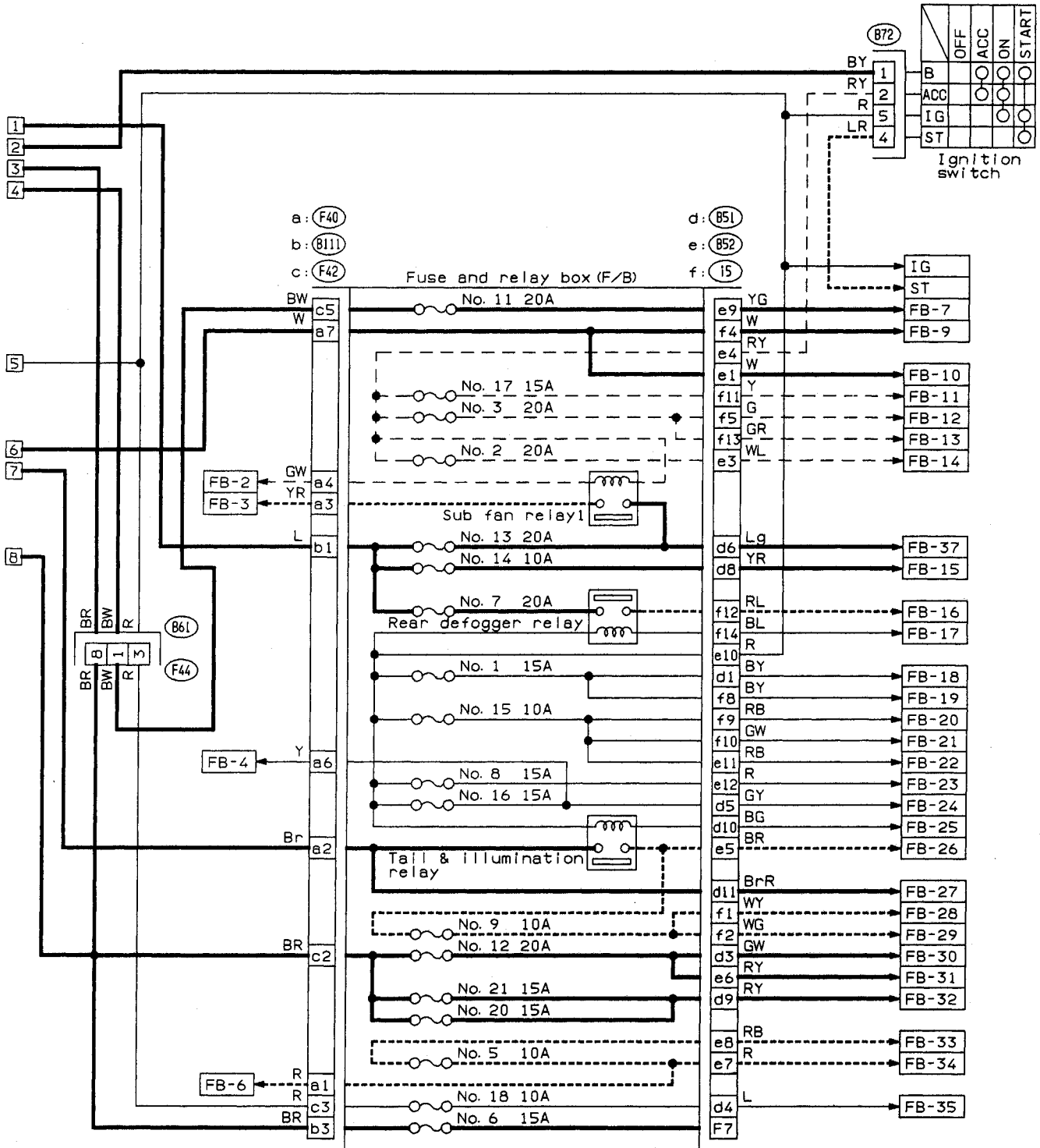
6. Wiring Diagram

1. POWER SUPPLY ROUTING

- Battery current
- Current from ignition switch IG terminal
- - - Current from ignition switch ACC terminal
- Other currents



# WIRING DIAGRAM



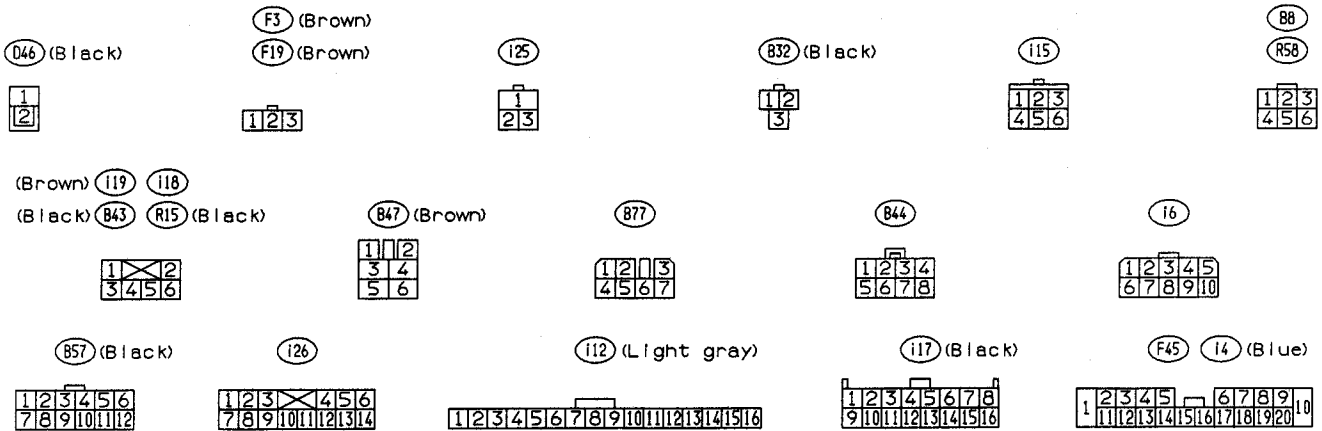
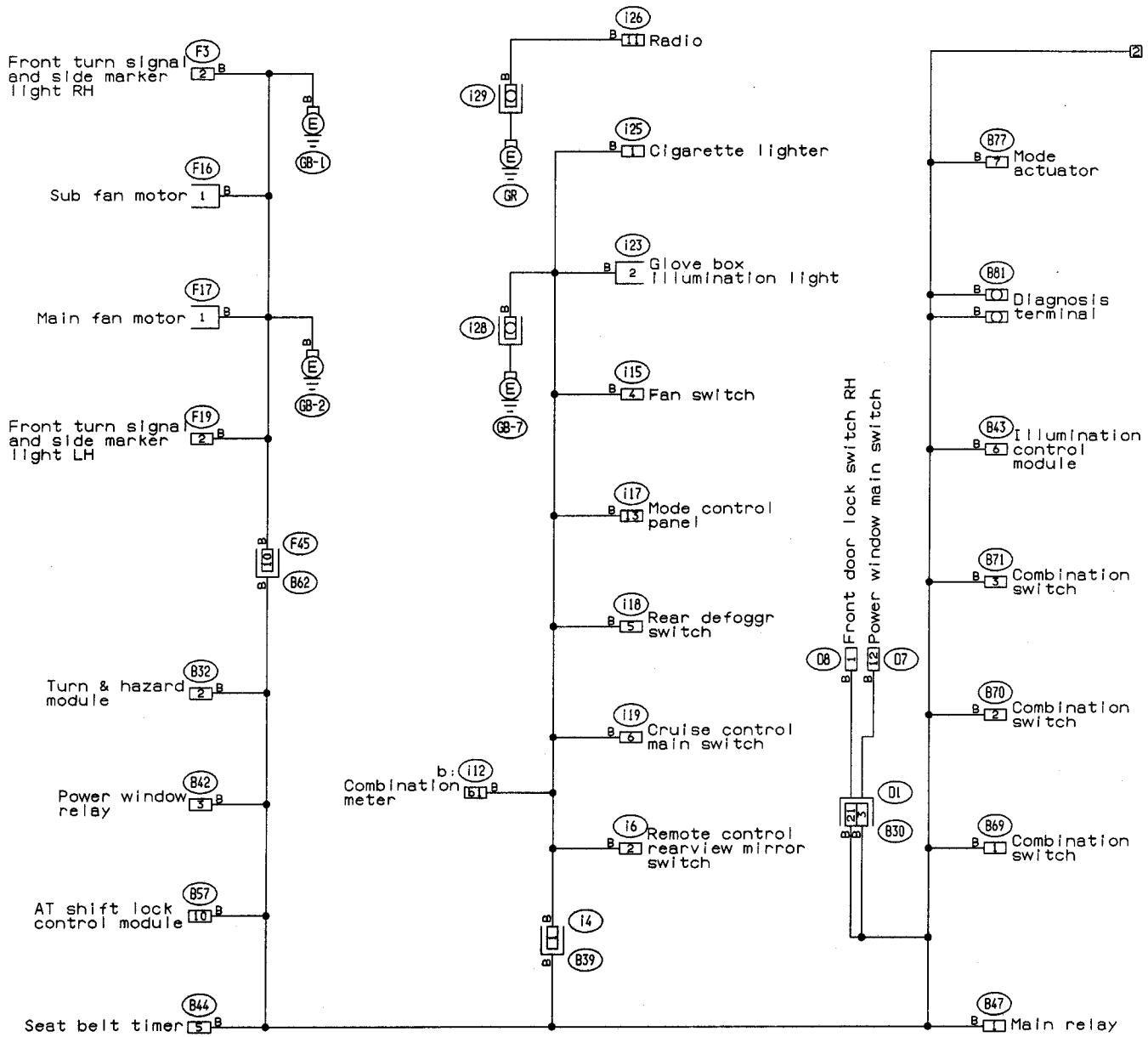
(F44)	(B72)	(F40)	(B111)	(F42)	(B51)	(B52)	(I5)
(Black)	(Gray)	(Gray)	(Gray)	(Gray)	(Gray)	(Gray)	(Gray)
1 2 3 4 5 6 7 8	1 2 3 4 5 6	1 2 3 4 5 6 7 8 9 10	1 2 3	1 2 3 4 5	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

## 6. Wiring Diagram

No.	Load
MB-2	Power window circuit breaker
MB-3	Engine control module Fuel pump relay Main relay OBD-II service connector
MB-4	A/C relay holder
MB-6	Headlight LH
MB-7	Diode (Lighting) Lighting switch
MB-8	Combination meter Headlight RH
MB-9	Combination meter Door lock timer Luggage room light Radio Room light
MB-10	A/C relay holder
ALT-1	Combination meter
IG	A/C relay holder
ST	Cruise control module Engine control module Inhibitor switch
FB-2	Diode (A/C)
FB-3	Sub fan motor Sub fan relay-2
FB-4	Engine control module Fuel pump relay Ignition coil Transmission control module
FB-6	Side marker light LH Side marker light RH
FB-7	Door lock timer
FB-9	Hazard switch
FB-10	AT shift lock control module Key warning switch Power antenna
FB-11	Radio
FB-12	Cigarette lighter
FB-13	Remote control rearview mirror switch
FB-14	AT shift lock control module Combination switch Front washer motor Front wiper motor Rear washer motor Rear wiper motor Rear wiper relay
FB-15	Transmission control module

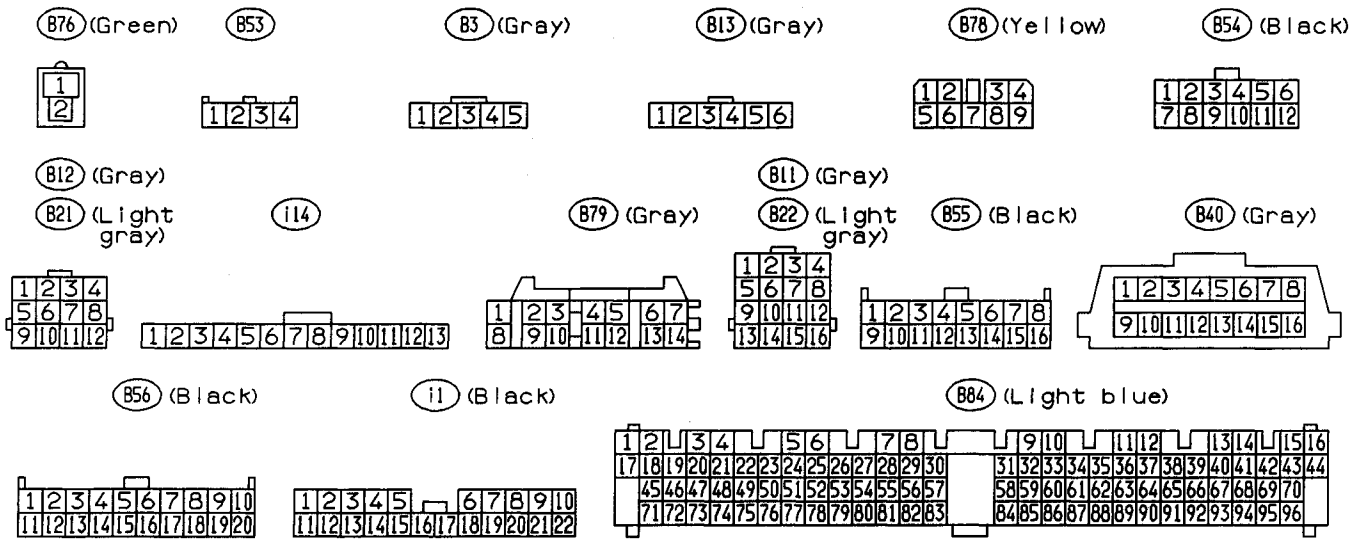
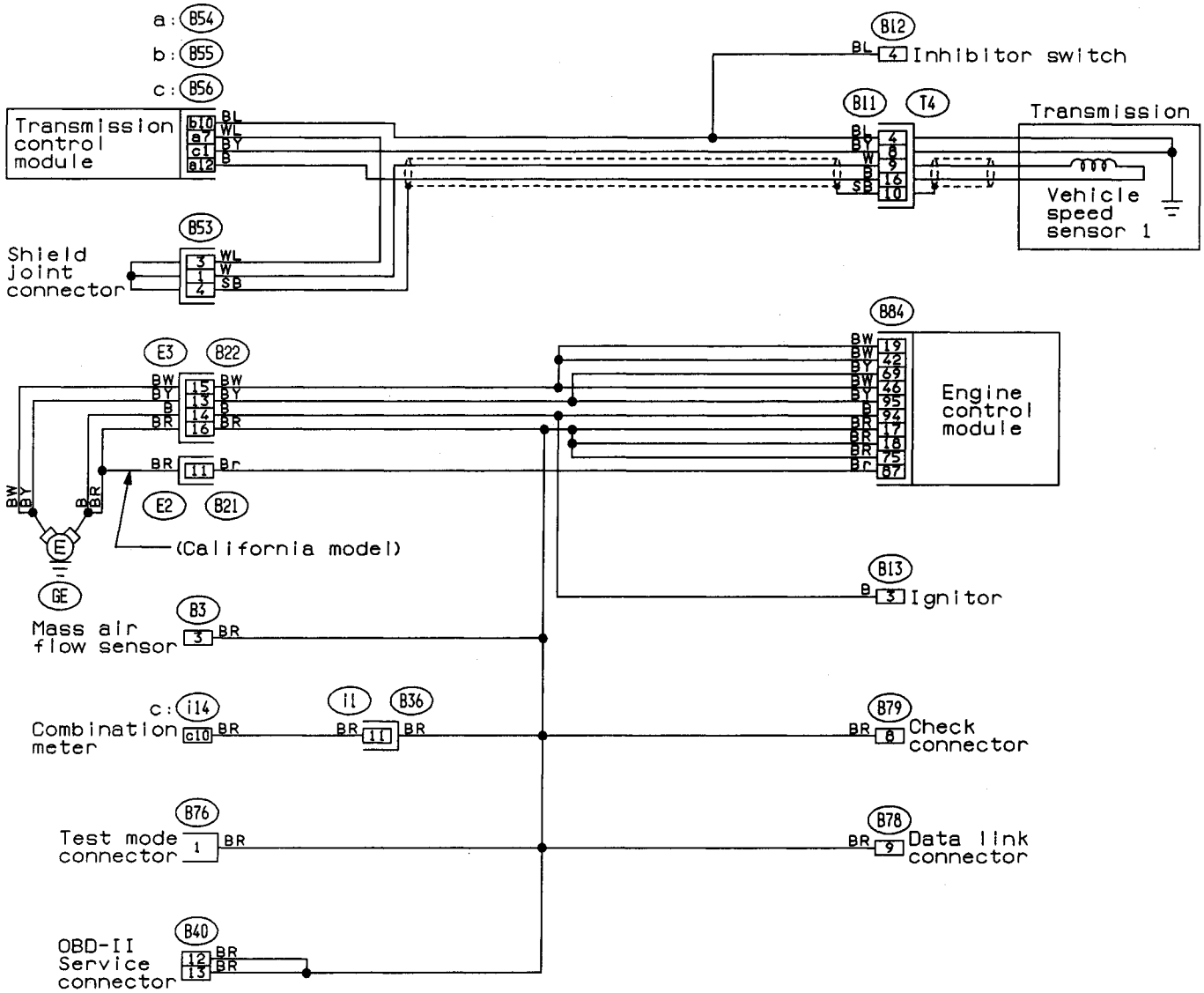
No.	Load
FB-16	Rear defogger Rear defogger condenser Rear defogger switch
FB-17	Rear defogger switch
FB-18	AT shift lock control module Inhibitor switch
FB-19	Hazard switch
FB-20	Combination meter Mode control panel
FB-21	Combination meter (Airbag)
FB-22	Blower motor relay Check connector FRESH/RECIRC actuator Mode actuator Power window relay Seat belt timer
FB-23	Airbag control module
FB-24	Airbag control module
FB-25	Lighting switch
FB-26	Parking switch
FB-27	Parking switch
FB-28	Illumination light
FB-29	Illumination light
FB-30	Stop light switch Stop & brake switch
FB-31	Horn relay
FB-32	Blower motor relay
FB-33	Parking switch
FB-34	License plate light LH License plate light RH Rear combination light LH Rear combination light RH Rear finisher light LH Rear finisher light RH
FB-35	Cruise control main switch Cruise control module

2. GROUND DISTRIBUTION

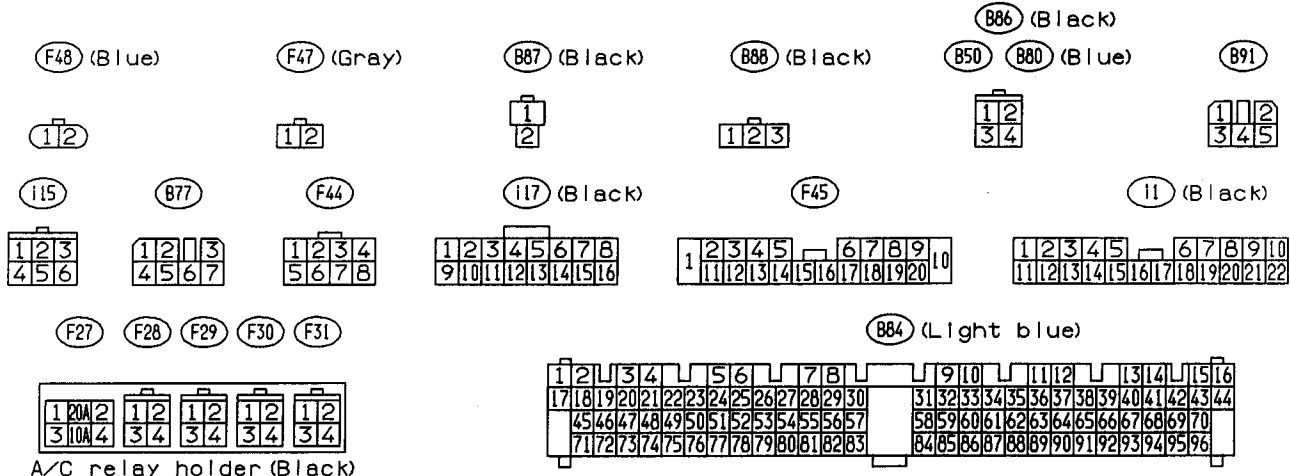
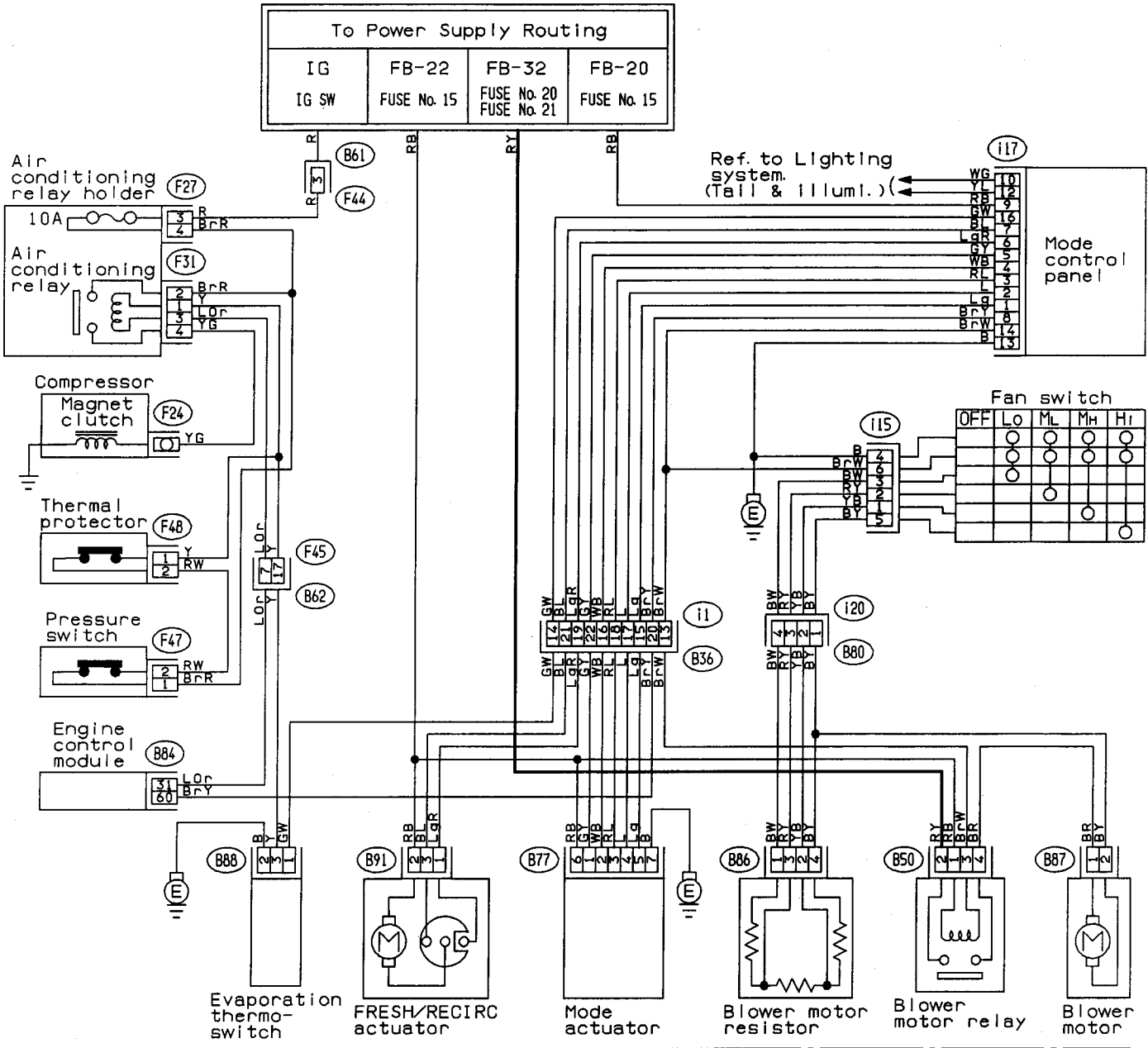








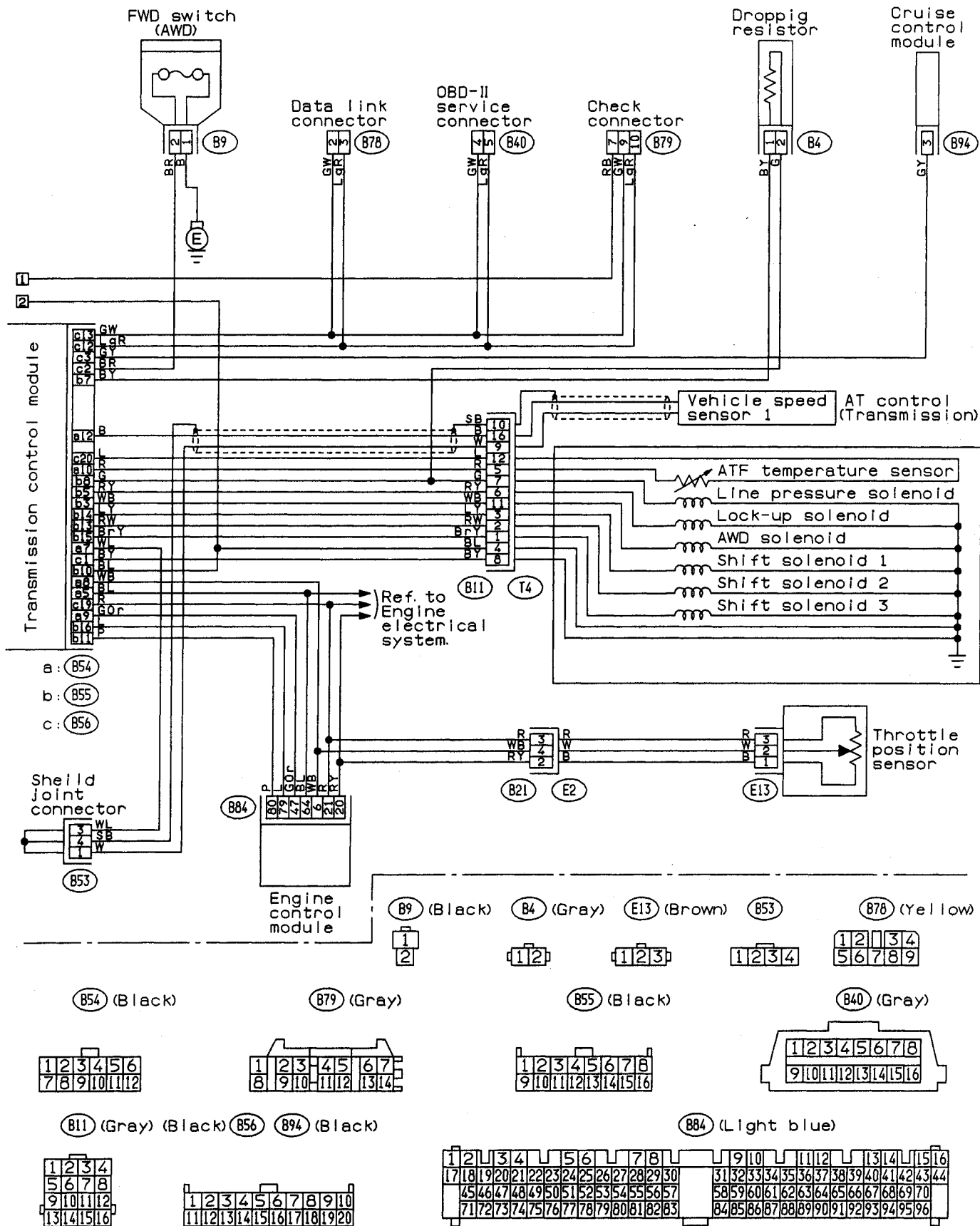
3. AIR CONDITIONING SYSTEM





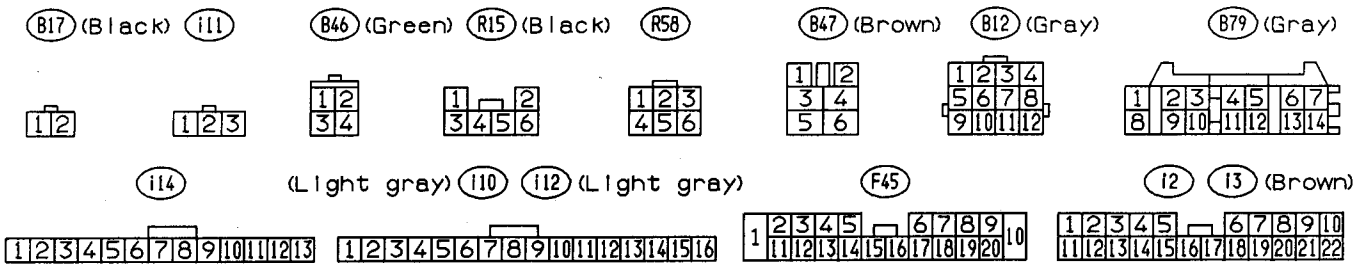
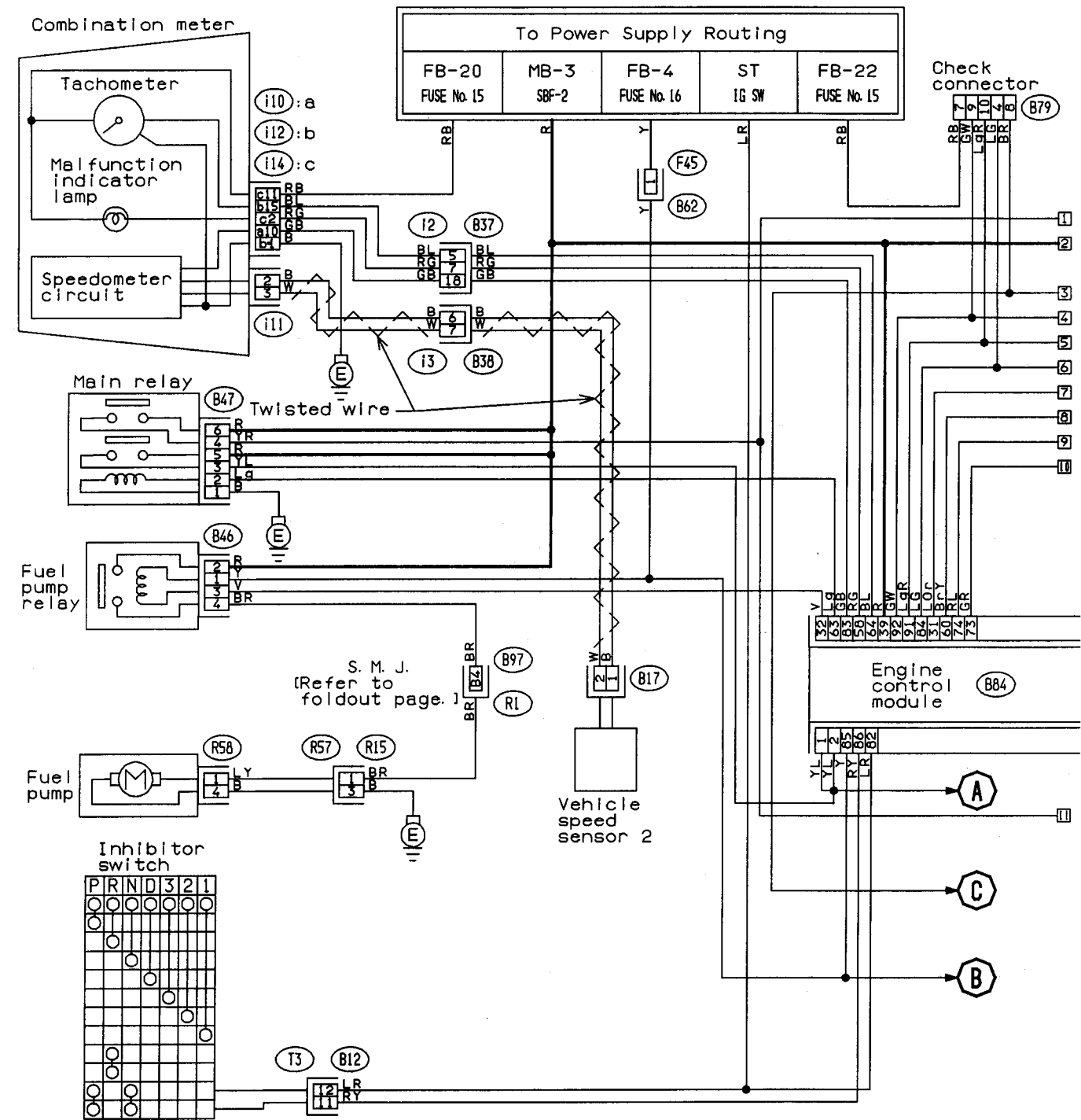
# WIRING DIAGRAM

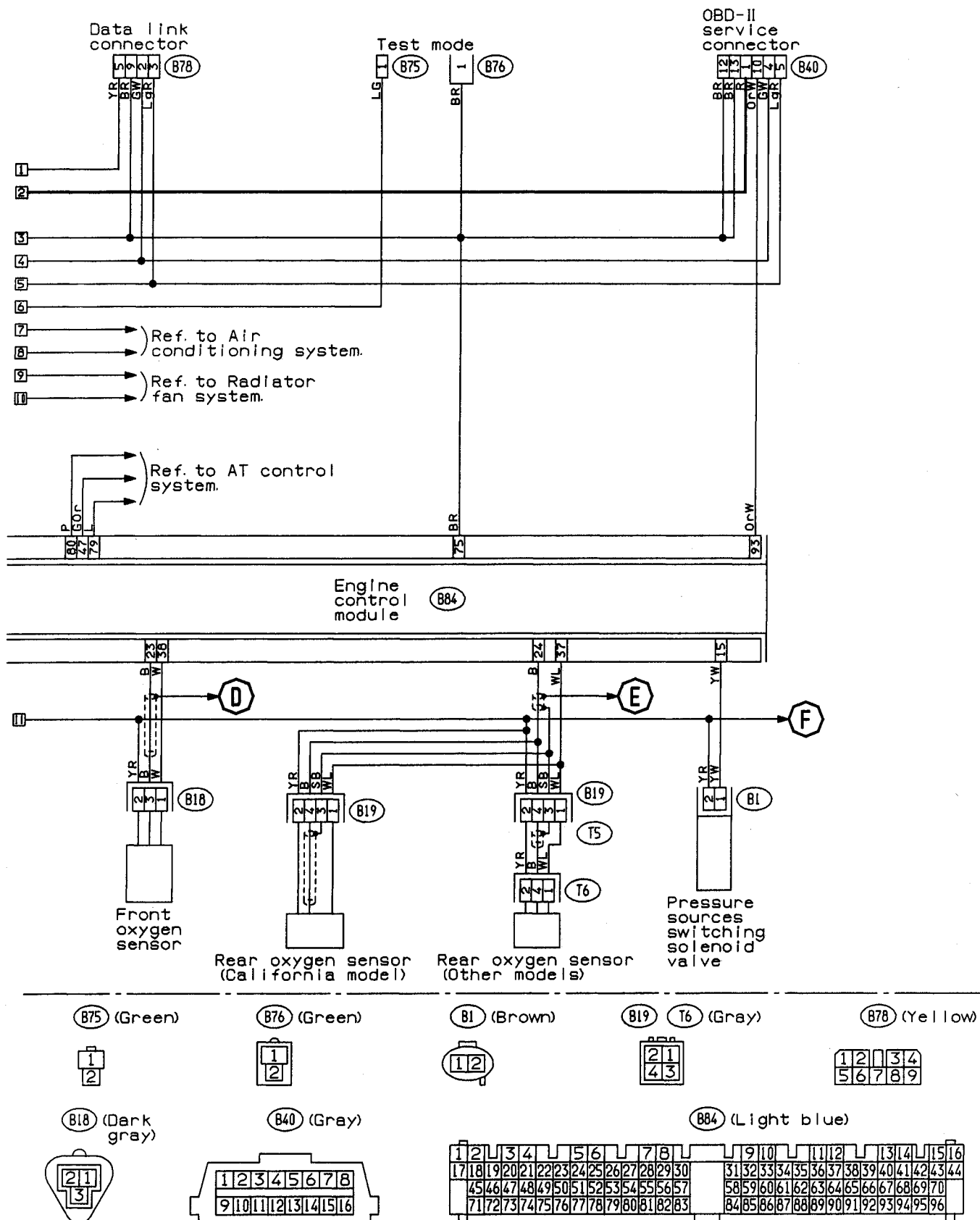
[D605] 6-3  
6. Wiring Diagram



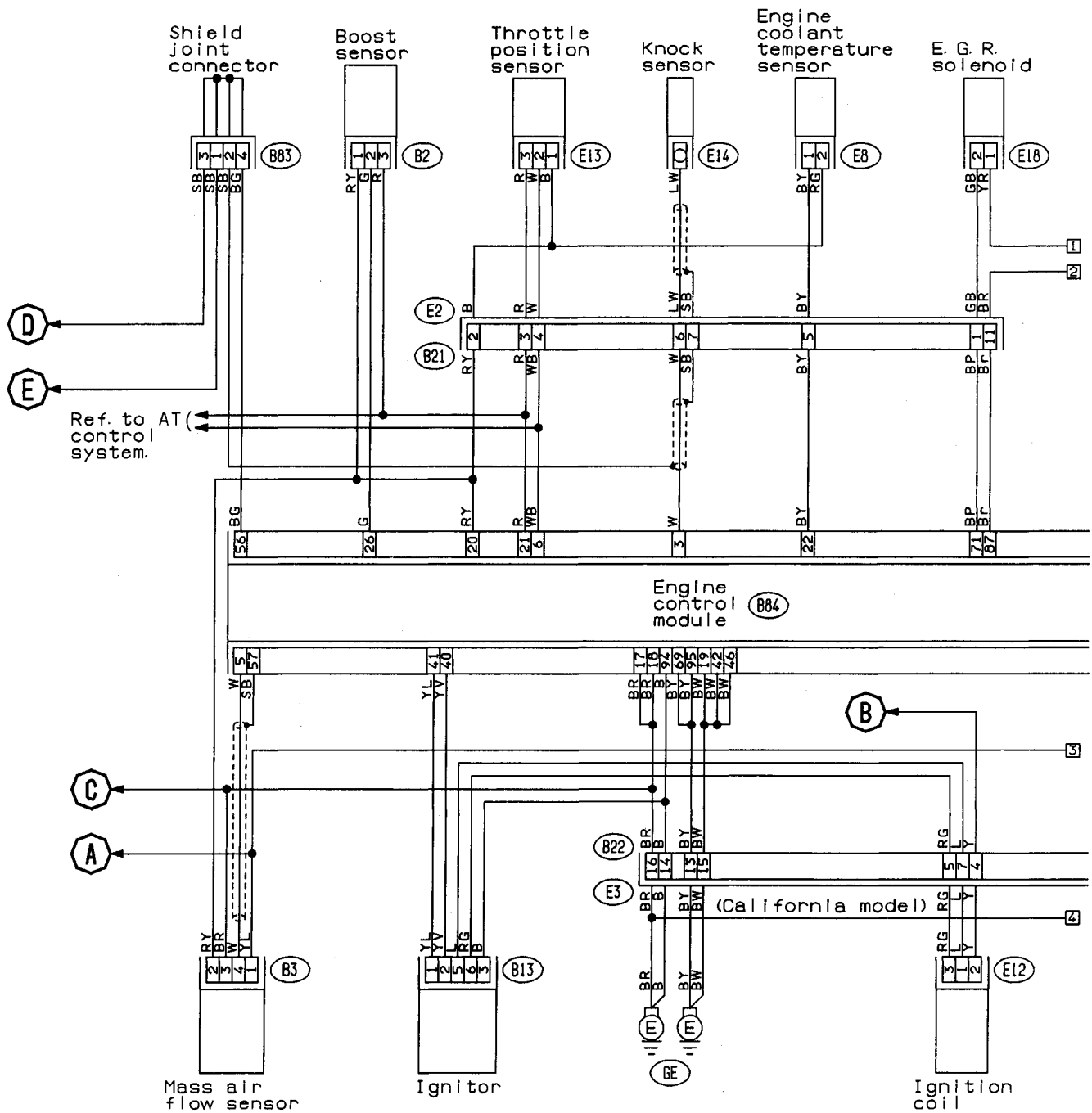
BUR41-02B

13. ENGINE ELECTRICAL SYSTEM





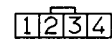
6. Wiring Diagram



(Brown) E18 E8 (Brown) (Black) B2 E13 (Brown)

E12 (Gray)

B83

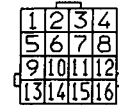
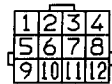
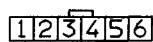
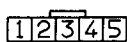


B3 (Gray)

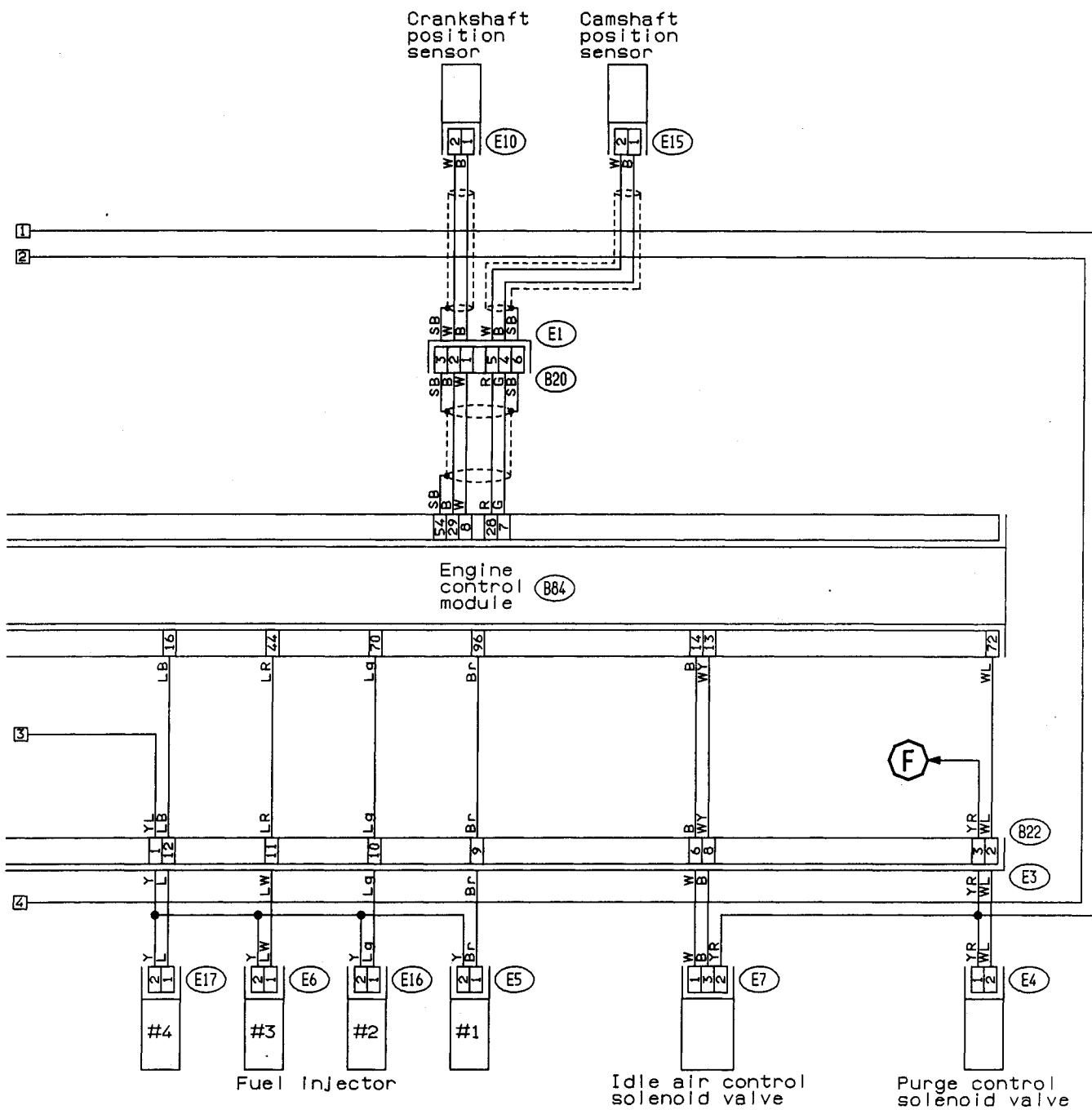
B13 (Gray)

B21 (Light gray)

B22 (Light gray)







E15 (Dark gray)    E5    E16 (Light gray)  
E10 (Gray)    E6 (Dark gray)    E17 (Dark gray)



B84 (Light blue)

E4 (Blue)

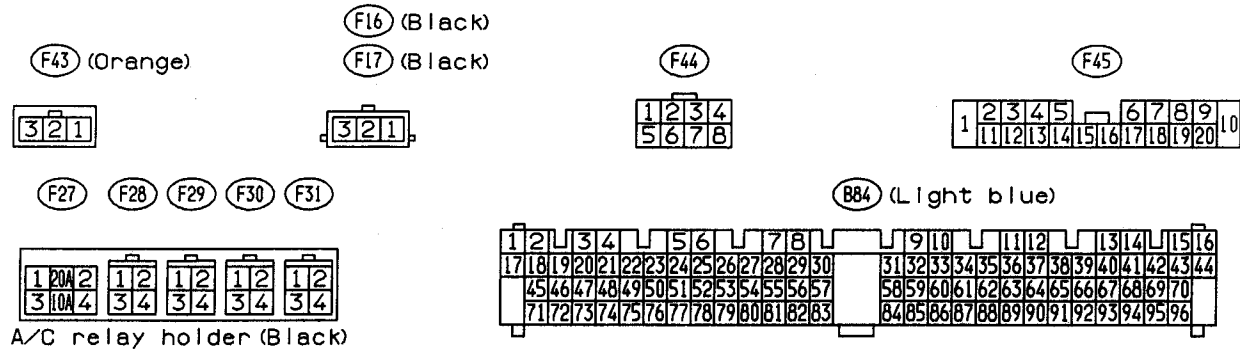
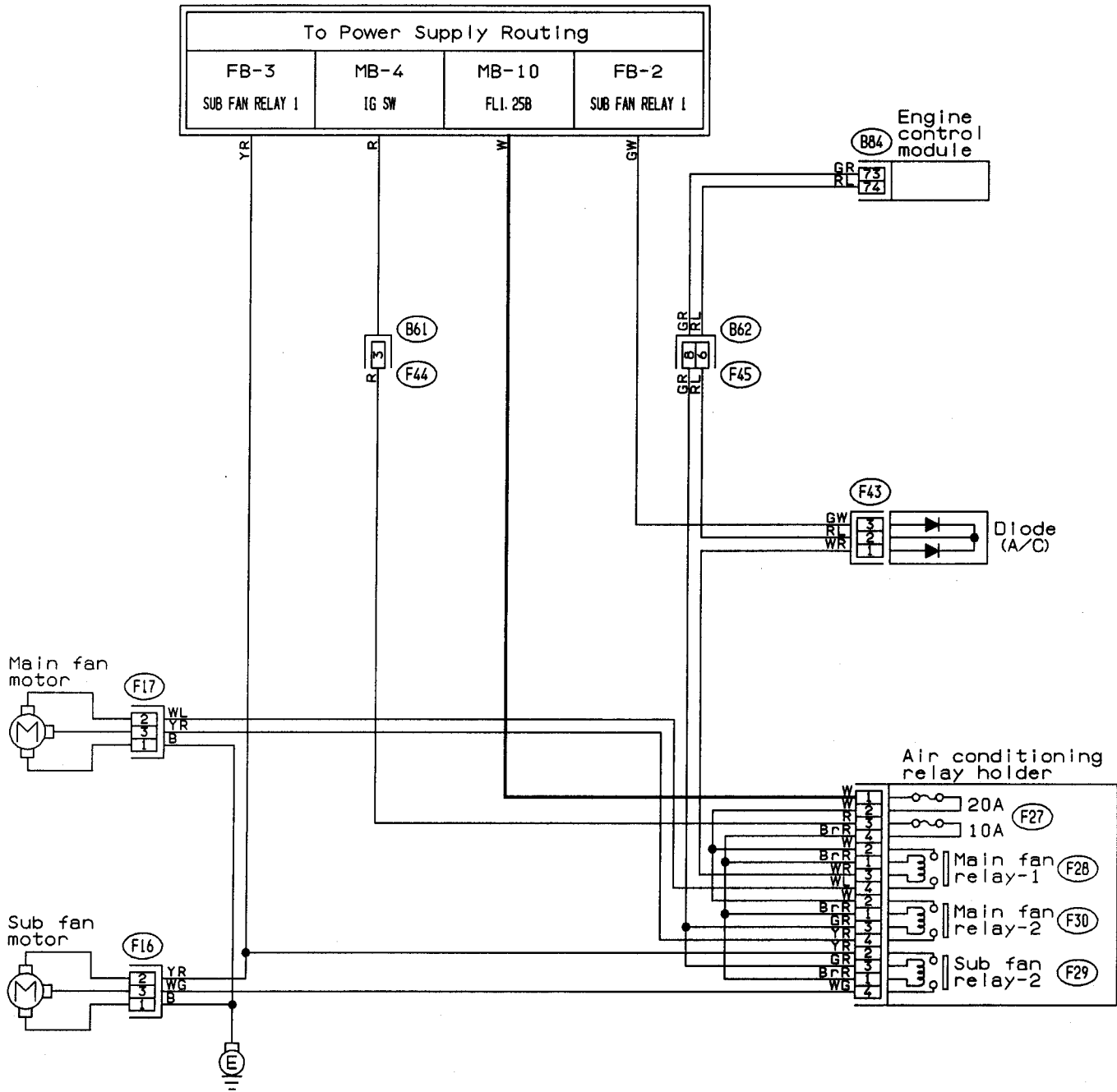
E7 (Gray)

B20 (Light gray)

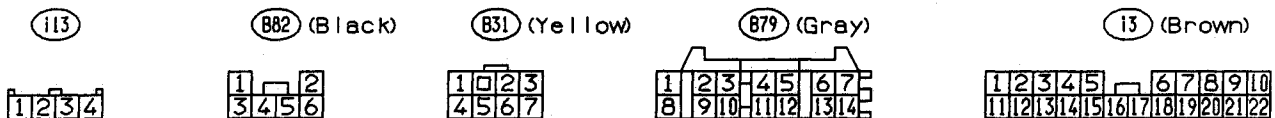
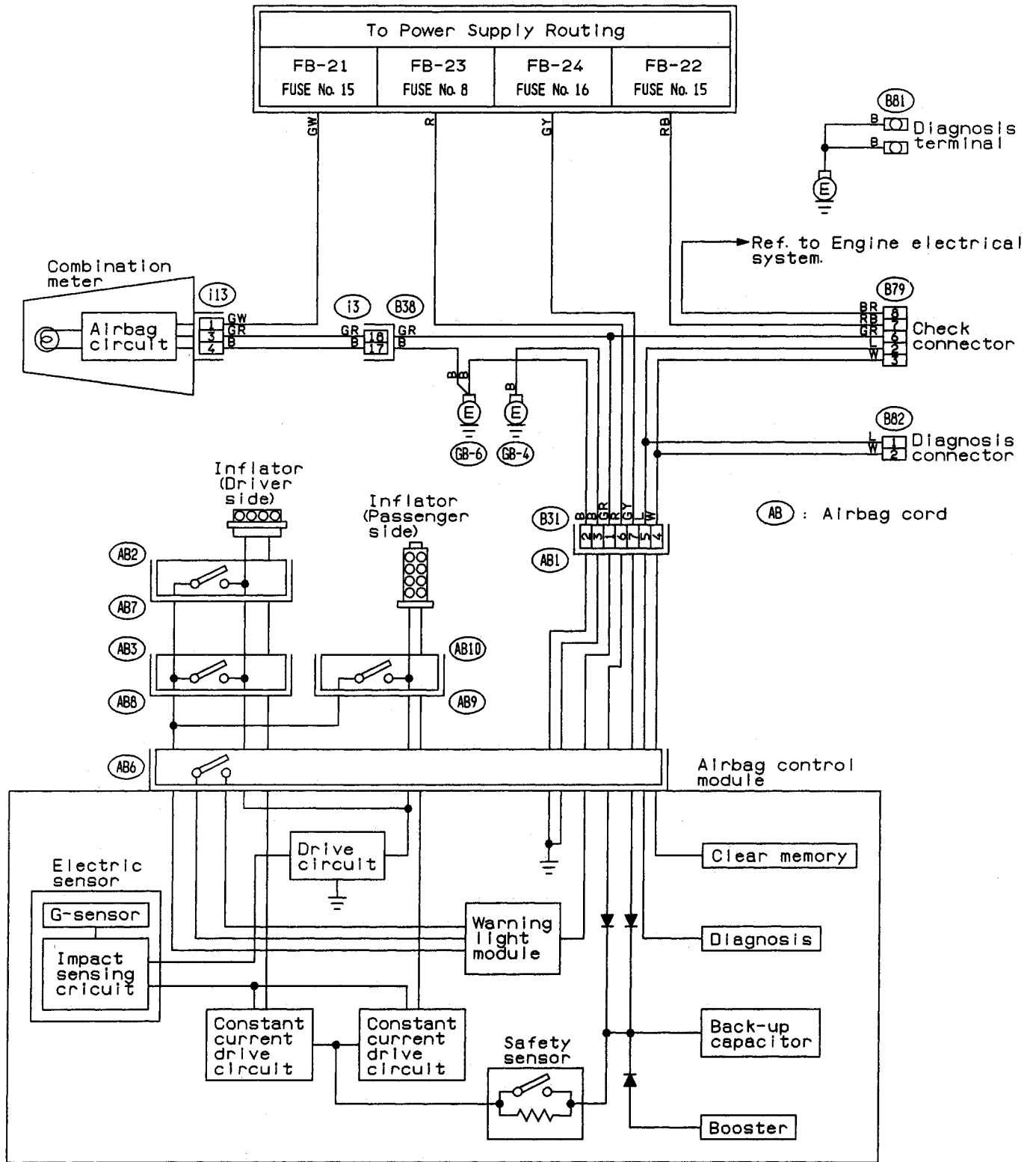


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																																				
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44																								
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96

23. RADIATOR FAN SYSTEM



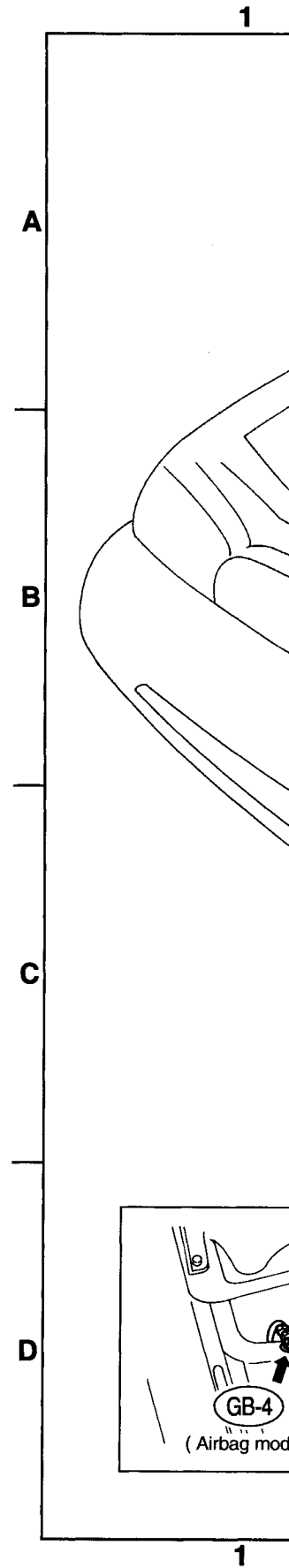
30. SRS (AIRBAG SYSTEM)



## cal Wiring Harness and Ground Point

## 2. BULKHEAD WIRING

Connector			Connecting to	
Pole	Color	Area	No.	Name
2	Brown	B-2		Pressure sources switching solenoid
3	Black	B-2		Pressure sensor
5	Gray	B-2		Mass air flow sensor
2	Gray	B-2		AT dropping resistor
4	Gray	B-3		Cruise control pump
6	*	B-3		Front wiper motor
2	Black	A-2		FWD switch
16	Gray	B-3	T4	Transmission
12	Gray	B-2	T3	
6	Gray	B-3		Ignitor
1	Black	B-3		Starter (Magnet)
2	Gray	B-2		Brake fluid level switch
2	Black	B-3		Vehicle speed sensor
3	Dark gray	B-2		Front oxygen sensor
4	*	B-2	T5	Rear oxygen sensor cord (Other models)
4	*	B-2		Rear oxygen sensor (California model)
6	Light gray	B-2	E1	Engine wiring harness
12	Light gray	B-2	E2	
16	Light gray	B-2	E3	
2	Black	B-3		M/B
3	*	B-3		
1	Brown	B-3		
2	*	B-2		Rear washer motor
2	Green	B-3		Front washer motor

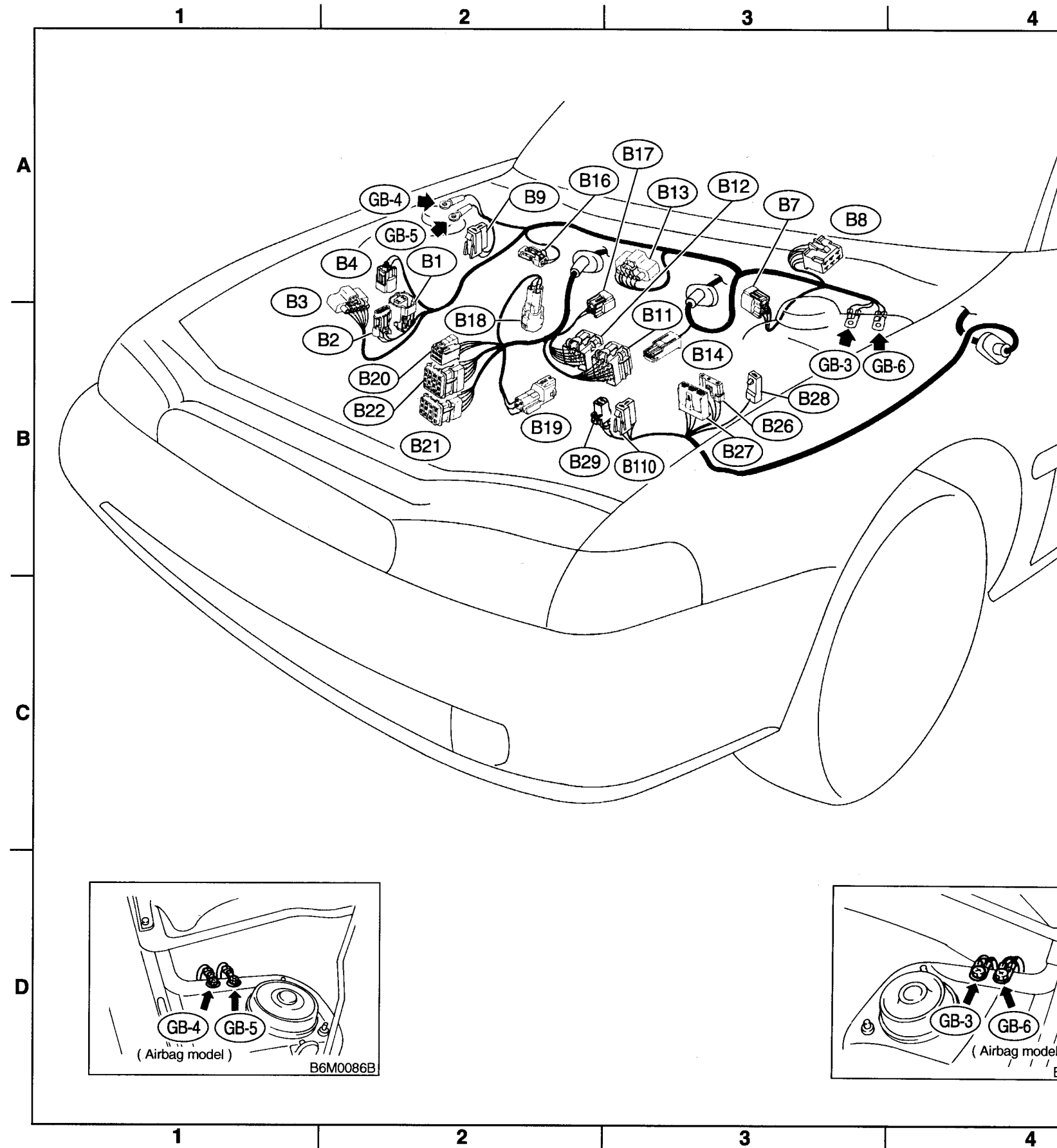


## 8. Electrical Wiring Harness and Ground Point

Connector				Connecting to	
No.	Pole	Color	Area	No.	Name
B1	2	Brown	B-2		Pressure sources switching solenoid
B2	3	Black	B-2		Pressure sensor
B3	5	Gray	B-2		Mass air flow sensor
B4	2	Gray	B-2		AT dropping resistor
B7	4	Gray	B-3		Cruise control pump
B8	6	*	B-3		Front wiper motor
B9	2	Black	A-2		FWD switch
B11	16	Gray	B-3	T4	Transmission
B12	12	Gray	B-2	T3	
B13	6	Gray	B-3		Ignitor
B14	1	Black	B-3		Starter (Magnet)
B16	2	Gray	B-2		Brake fluid level switch
B17	2	Black	B-3		Vehicle speed sensor
B18	3	Dark gray	B-2		Front oxygen sensor
B19	4	*	B-2	T5	Rear oxygen sensor cord (Other models)
	4	*	B-2		Rear oxygen sensor (California model)
B20	6	Light gray	B-2	E1	Engine wiring harness
B21	12	Light gray	B-2	E2	
B22	16	Light gray	B-2	E3	
B26	2	Black	B-3		M/B
B27	3	*	B-3		
B28	1	Brown	B-3		
B29	2	*	B-2		Rear washer motor
B110	2	Green	B-3		Front washer motor

\*: Non-colored

## 2. BULKHEAD WIRING HARNESS AND GROUND POINT (IN ENGINE ROOM)



Connecting to			
Area	No.	Name	
C-4	D1	Front door cord RH	
C-4	AB1	SRS (Airbag) harness	
C-4		Turn & hazard module	
C-3	i1	Instrument panel wiring harness	
C-3	i2		
C-3	i3		
C-3	i4		
C-3		OBD-II service connector	
C-3		Power window circuit breaker	
C-3		Power window relay	
C-3		Illumination control module	
C-3		Seat belt timer	
B-4		Fuel pump relay	
B-4		Main relay	
B-4		Horn relay	
B-4		Blower relay	
C-4		F/B	
C-4		Shield joint connector (AT)	
B-3		Transmission control module	
B-3			
B-3		Shift-lock control module	
B-4	F44	Front wiring harness	
B-4	F45		
B-3		Stop light switch	
B-3		Stop & brake switch (With cruise control)	
B-3		Cruise control sub switch	

Connector				Connecting to	
No.	Pole	Color	Area	No.	Name
B69	11	Black	C-3		Combination switch
B70	9	*	C-3		
B71	8	*	B-3		
B72	6	Black	C-3		Ignition switch
B73	2	Black	B-3		Key lock solenoid
B74	2	Black	B-3		Key warning switch
B75	2	Green	B-2	B76	Test mode connector
B76	2	Green	B-2	B75	
B77	7	*	B-2		Mode actuator
B78	9	Yellow	B-2		Data link connector
B79	14	Gray	C-2		Check connector
B80	4	Blue	B-2	i20	Instrument panel wiring harness
B81	1 x 2	*	B-2		Diagnosis terminal (Ground)
B82	6	Black	B-2		Diagnosis connector
B83	4	*	C-1		Shield joint connector (E/G)
B84	96	Light blue	C-2		Engine control module
B85	4	Brown	B-3		Diode (Lighting)
B86	4	Black	B-1		Blower motor resistor
B87	2	Black	B-1		Blower motor
B88	3	Black	B-1		Evaporator thermostwitch
B90	2	Green	B-4	R50	Room light cord
B91	5	*	B-1		FRESH/RECIRC actuator
B92	8	*	B-1		Door lock timer
B94	20	Black	B-1		Cruise control module
B97	56	*	B-4	R1	Rear wiring harness (S.M.J.)
B101	24	*	B-1	D11	Front door cord LH
B111	3	Gray	C-4		F/B

\*: Non-colored

#### 4. BULKHEAD WIRING HARNESS (IN COMPARTMENT)



Connector				Connecting to	
No.	Pole	Color	Area	No.	Name
B30	24	*	C-4	D1	Front door cord RH
B31	7	Yellow	C-4	AB1	SRS (Airbag) harness
B32	3	Black	C-4		Turn & hazard module
B36	22	Black	C-3	i1	Instrument panel wiring harness
B37	22	*	C-3	i2	
B38	22	Brown	C-3	i3	
B39	20	Blue	C-3	i4	
B40	16	Gray	C-3		OBD-II service connector
B41	2	*	C-3		Power window circuit breaker
B42	4	*	C-3		Power window relay
B43	6	Black	C-3		Illumination control module
B44	8	*	C-3		Seat belt timer
B46	4	Green	B-4		Fuel pump relay
B47	6	Brown	B-4		Main relay
B49	3	Black	B-4		Horn relay
B50	4	*	B-4		Blower relay
B51	11	Gray	C-4		F/B
B52	12	Gray	C-4		
B53	4	*	B-3		Shield joint connector (AT)
B54	12	Black	B-3		Transmission control module
B55	16	Black	B-3		
B56	20	Black	B-3		
B57	12	Black	B-3		Shift-lock control module
B61	8	*	B-4	F44	Front wiring harness
B62	20	*	B-4	F45	
B64	2	Black	B-3		Stop light switch
B65	4	Black	B-3		Stop & brake switch (With cruise control)
B68	5	Black	B-3		Cruise control sub switch

Connector				Connecting to	
No.	Pole	Color	Area	No.	Name
B69	11	Black	C-3		Combination switch
B70	9	*	C-3		
B71	8	*	B-3		
B72	6	Black	C-3		Ignition switch
B73	2	Black	B-3		Key lock solenoid
B74	2	Black	B-3		Key warning switch
B75	2	Green	B-2	B76	Test mode connector
B76	2	Green	B-2	B75	
B77	7	*	B-2		Mode actuator
B78	9	Yellow	B-2		Data link connector
B79	14	Gray	C-2		Check connector
B80	4	Blue	B-2	i20	Instrument panel wiring harness
B81	1 x 2	*	B-2		Diagnosis terminal (Ground)
B82	6	Black	B-2		Diagnosis connector
B83	4	*	C-1		Shield joint connector (E/G)
B84	96	Light blue	C-2		Engine control module
B85	4	Brown	B-3		Diode (Lighting)
B86	4	Black	B-1		Blower motor resistor
B87	2	Black	B-1		Blower motor
B88	3	Black	B-1		Evaporator thermostwitch
B90	2	Green	B-4	R50	Room light cord
B91	5	*	B-1		FRESH/RECIRC actuator
B92	8	*	B-1		Door lock timer
B94	20	Black	B-1		Cruise control module
B97	56	*	B-4	R1	Rear wiring harness (S.M.J.)
B101	24	*	B-1	D11	Front door cord LH
B111	3	Gray	C-4		F/B

\*: Non-colored

#### 4. BULKHEAD WIRING HARNESS (IN COMPARTMENT)

