

SUBARU

SVX

FOREWORD

This service manual supplement has been prepared to provide SUBARU service personnel with the necessary information and data for the correct maintenance and repair of the SUBARU SVX SRS Airbag System.

Please study and then utilize this supplement together with 1992 SERVICE MANUAL (Pub No. G301BE) Sections 1 to 6 published already.

When replacement of parts during repair work is needed, be sure to use SUBARU genuine parts.

All information, illustration and specifications contained in this manual are based on the latest product information available at the time of publication approval.

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M MECHANISM AND FUNCTION

1. SRS Airbag

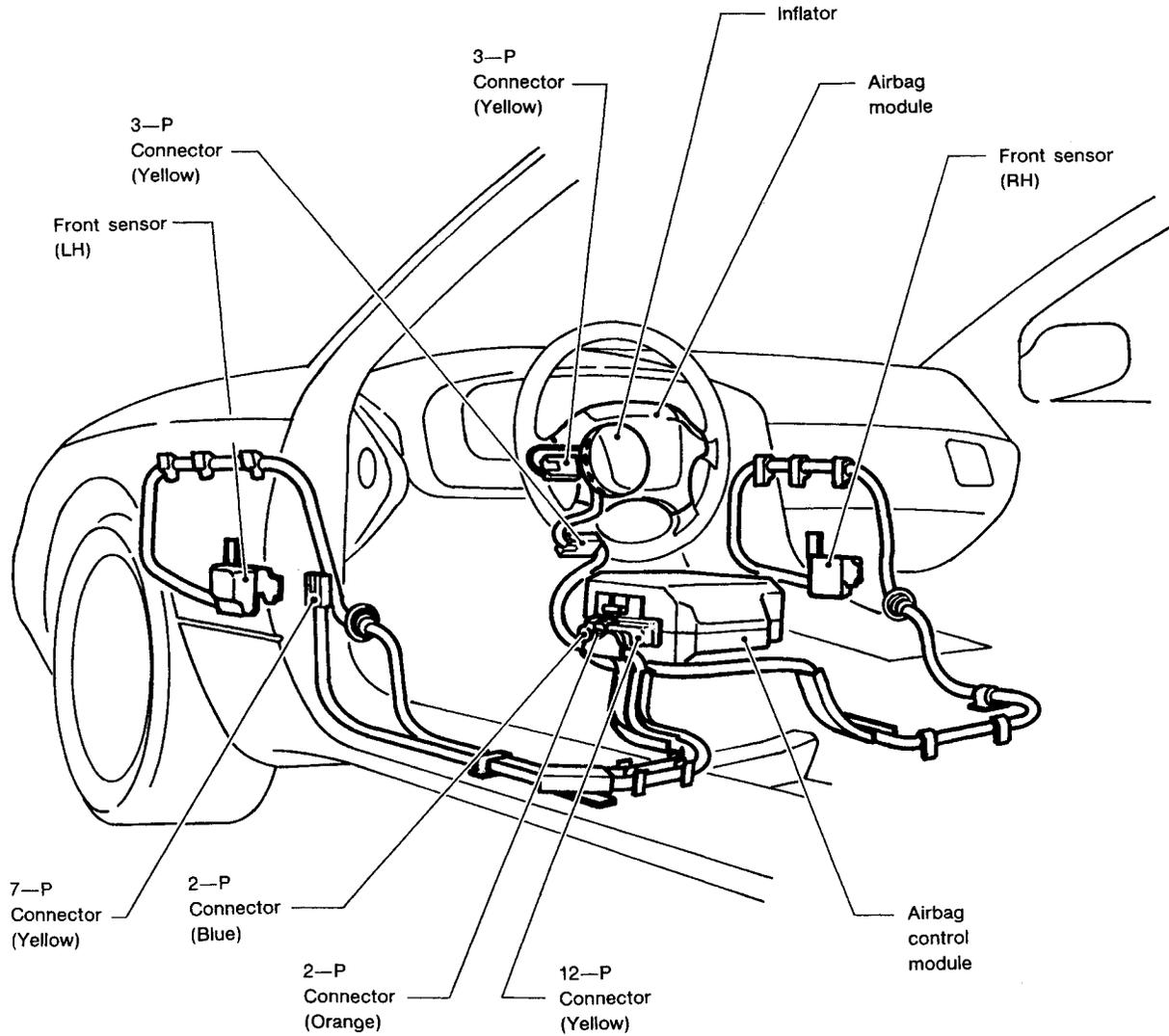
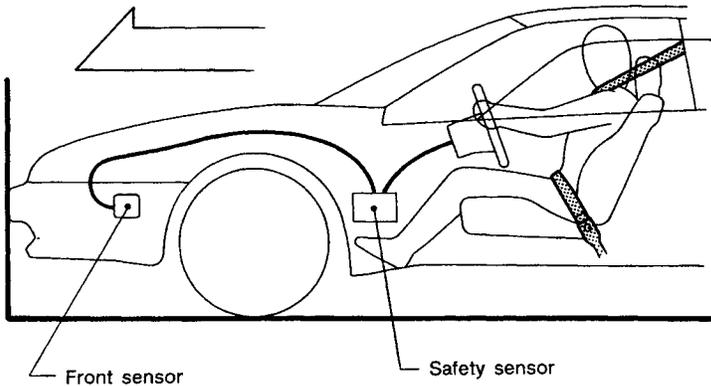


Fig. 1

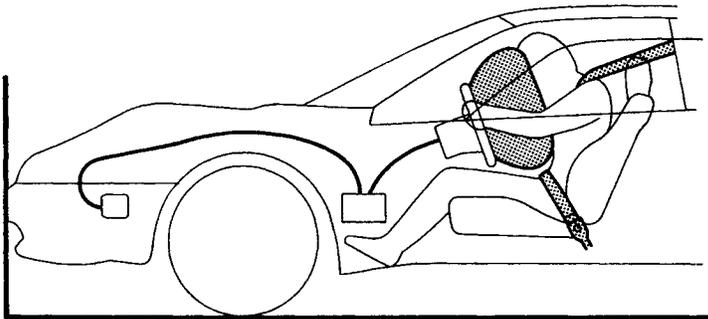
A: OUTLINE

The SRS airbag is provided as an auxiliary driver 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

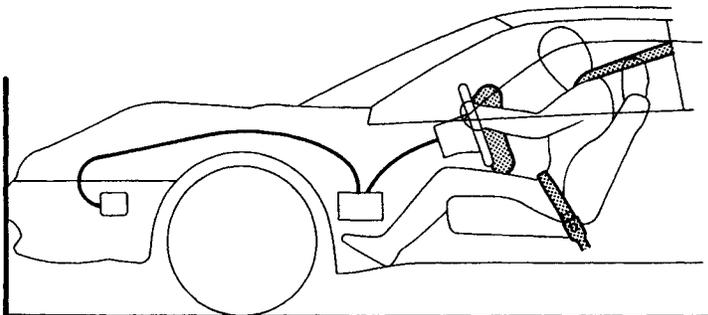
the vehicle, the sensor senses it and generates an electrical pulse to inflate the bag in the airbag module, thus preventing the driver's upper body from impacting the steering wheel.



Zero second:
● Collision



- Front and safety sensors detect a set strength of collision.
- Operation of inflator
- Nitrogen gas is generated.
- The Airbag inflation completes.
- Discharge of gas



- Completion

Fig. 2

B: CONSTRUCTION

The SRS airbag consists of a control module, left and right front sensors, two safety sensors built into the control module, and an airbag module containing an inflator and airbag. The left and right front sensors and two safety sensors are connected in parallel respectively, and the front sensors and safety sensors are connected in series, so that the airbag will inflate if at least one front sensor and at least one safety sensor sense an impact at the same time.

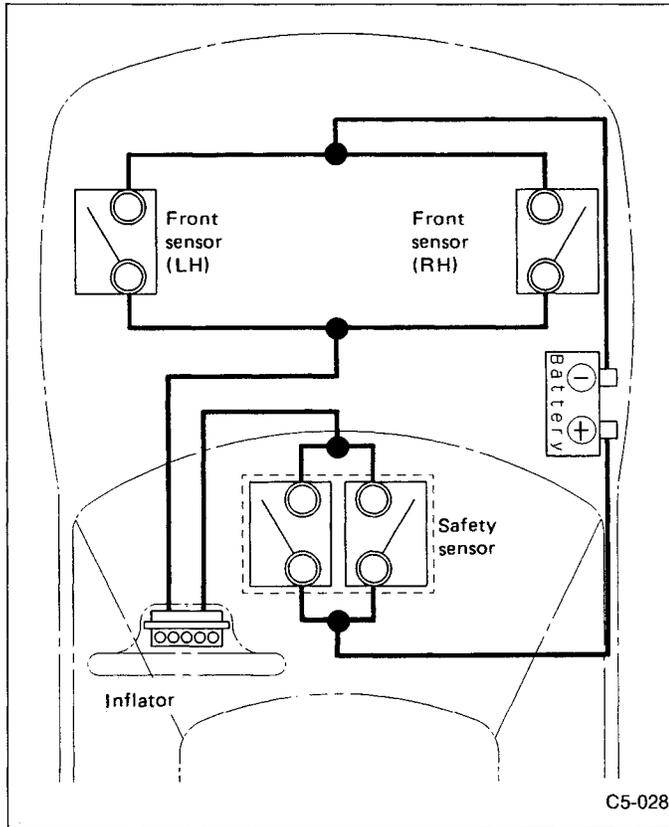


Fig. 3

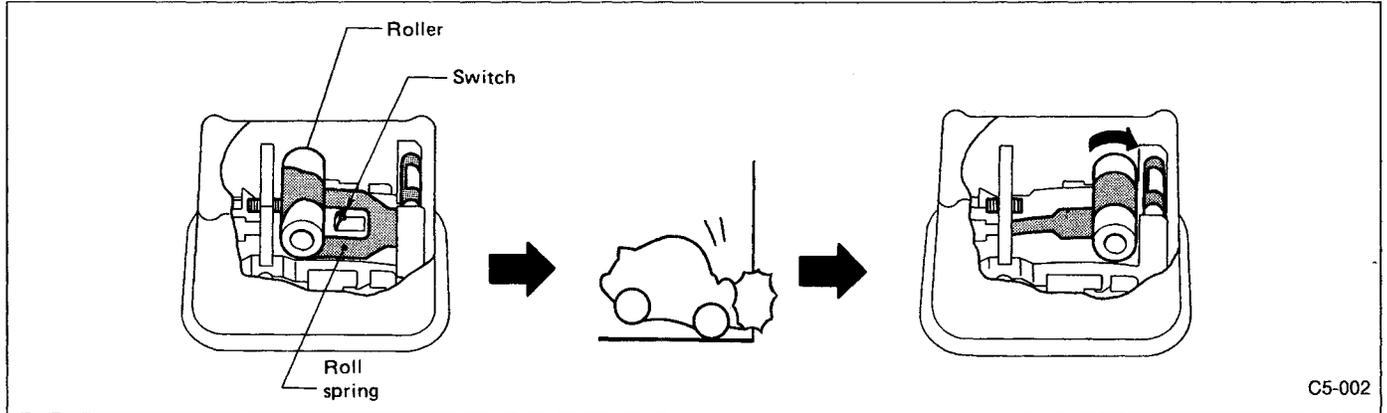
1. AIRBAG CONTROL MODULE

The airbag control module is installed ahead of the front floor tunnel. It detects the vehicle's deceleration by receiving electrical signals from the sensors and judges whether to fire the airbag. This control module has a built-in on-board diagnostic function. If a trouble occurs inside the system, it lights up the airbag warning light in the combination meter. The trouble data is stored in the control module. A back-up power supply is provided for possible damage to the battery during an accident, and a boosting circuit is built into the control module in case of a battery voltage drop.

2. FRONT SENSOR

One front sensor is installed on both left and right sides ahead of the front wheel apron wall. If the roller-might

type sensor-receives a frontal impact exceeding a certain set limit. The roller rotates to turn the switch ON.



C5-002

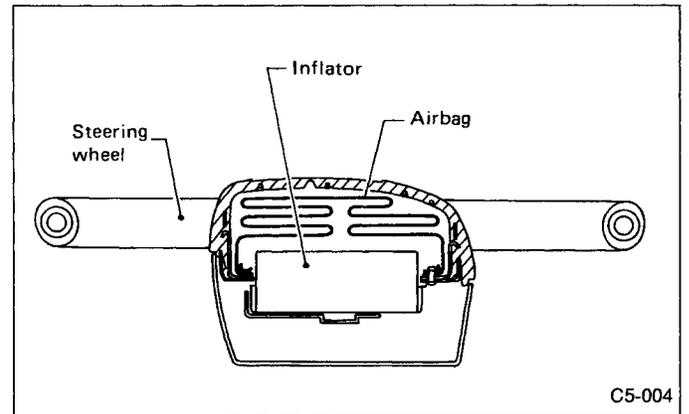
Fig. 4

3. SAFETY SENSOR

Two safety sensors are built into the airbag control module. The construction is similar to that of the front sensors.

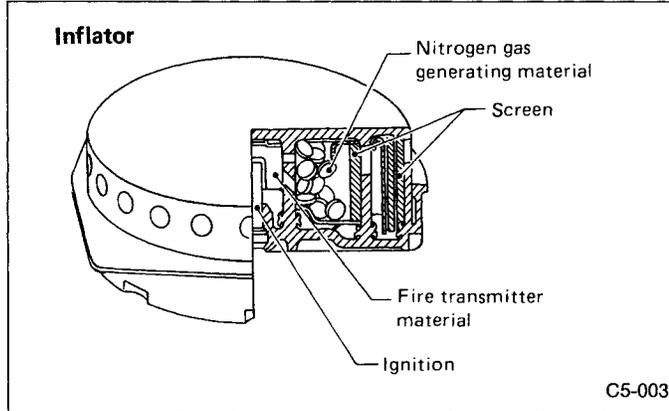
4. AIRBAG MODULE

The airbag module is located at the center of the steering wheel, and it contains an airbag and inflator. If a collision occurs, the inflator produces a large volume of nitrogen gas inflating the nylon airbag in a very short time.



C5-004

Fig. 6



C5-003

Fig. 5

5. STEERING ROLL CONNECTOR

The steering roll connector is located between the steering column and steering wheel. A flat cable stored in a spiral form transmits the electrical signal from the control module to the steering wheel from the body harness.

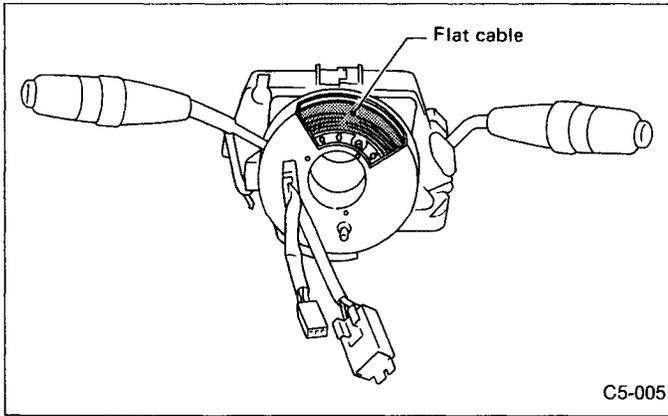


Fig. 7

6. AIRBAG CONNECTOR

The SRS airbag adopts a connector which has a double lock mechanism and coupling error detection mechanism for enhanced reliability. If coupling is incomplete, the airbag warning light comes on in the combination meter.

1) Connector coupled to airbag control module

To disconnect the connector, press wire ① of the control module as illustrated below until the green lever ② tilts up. This unlocks the double lock, then you can pull off the connector while pressing the connector lock.

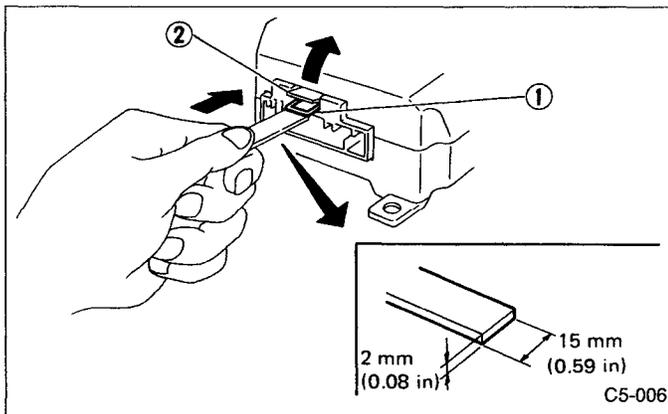


Fig. 8

To couple the connector, insert the three connectors until a "click" is heard, then push in the green lever ② to apply the double lock.

2) Connector between harnesses

To disconnect the connector, press lever ① to pop green lever ② out, this unlocks the double lock system.

Then separate the connector by pulling both sides while holding the connector sections and pressing in lever ①.

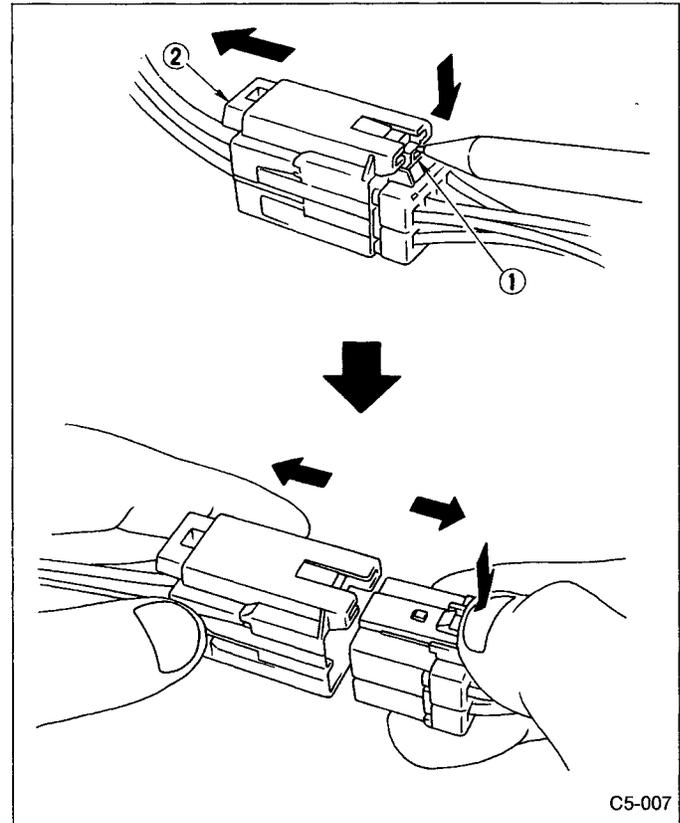


Fig. 9

To couple the connector, insert both connectors until a "click" is heard, then push in the green lever ② until a "click" is heard; this applies the double lock.

7. AIRBAG WARNING LIGHT

The airbag warning light is located inside the combination meter. It illuminates if a poor connection occurs, or if the airbag control module detects an abnormality. When the airbag system is normal, this light goes out approximately eight seconds after turning the ignition switch ON.

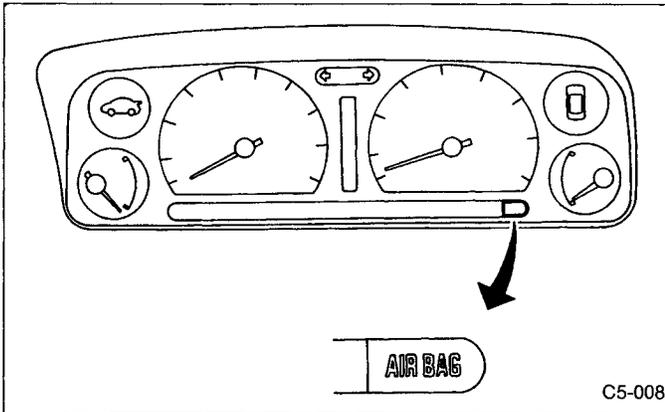
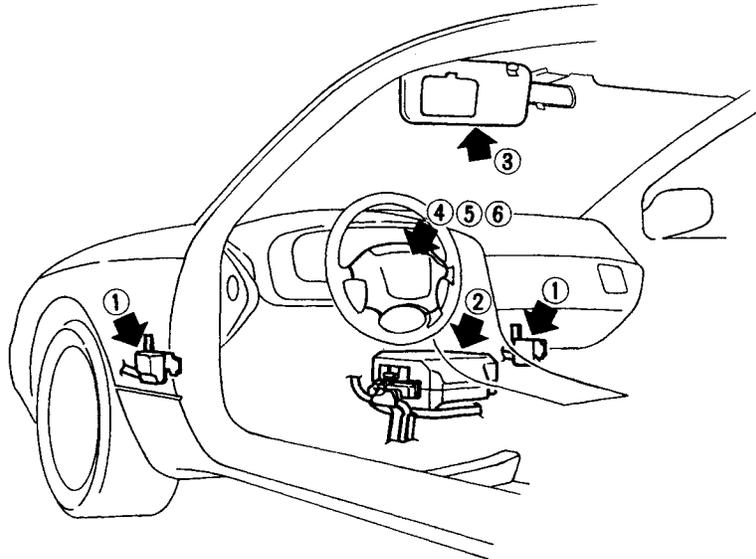


Fig. 10

8. WIRE HARNESS

The wire harness of the SRS airbag is entirely covered with a yellow protective tube, and can easily be identified from harnesses of other systems.

9. WARNING AND CAUTION LABELS



C5-268

①	<p>CAUTION READ SERVICE MANUAL</p>	
②	<p>SRS AIRBAG CONTROL UNIT CAUTION</p> <ul style="list-style-type: none"> ● READ SERVICE MANUAL ● NO SERVICEABLE INSIDE ● DO NOT DISASSEMBLE OR TAMPER ● DO NOT DROP; KEEP DRY ● STORE IN CLEAN DRY AREA 	<p>Précaution</p> <ul style="list-style-type: none"> ● lisez le manuel d'entretien ● aucune pièce interne ne peut être remplacée ou réparée ● ne démontez ou altérez pas cette unité de contrôle ● n'échappez pas ● emmagasinez dans un endroit sec
③	<p>CAUTION: ALWAYS WEAR YOUR SEATBELT</p> <ul style="list-style-type: none"> ● This car is equipped with a driver AIRBAG as a SUPPLEMENTAL RESTRAINT SYSTEM (SRS). ● It is designed to SUPPLEMENT THE SEAT BELT. It is not a substitute for the seat belt. ● The AIRBAG provides additional protection for the driver in a FRONTAL COLLISION. ● It is NOT designed to inflate in most side, rear, or rollover crashes. ● The SRS AIRBAG SYSTEM is operational if the "AIRBAG" light, in the instrument panel, illuminates briefly when the ignition key is turned ON. ● However, if any of the following conditions occur see your nearest SUBARU dealer immediately. <ol style="list-style-type: none"> 1. The "AIRBAG" light does not operate when the key is turned ON. 2. The "AIRBAG" light remains lit after the key is first turned ON. 3. The "AIRBAG" light illuminates while driving. 4. The SRS AIRBAG SYSTEM has deployed. ● TEN YEARS AFTER THE DATE OF VEHICLE MANUFACTURE AS NOTED ON THE CERTIFICATION PLATE, THE SRS AIRBAG SYSTEM MUST BE INSPECTED BY A SUBARU DEALER. ● See your owner's manual for more information about the SRS AIRBAG SYSTEM. <p>PRECAUTION: TOUJOURS BOUCLER VOTRE CEINTURE DE SECURITE</p> <ul style="list-style-type: none"> ● Cette voiture est équipée d'un COUSSIN D'AIR pour le conducteur comme SYSTÈME DE RETENUE SUPPLÉMENTAIRE (SRS). ● Il est conçu pour compléter la CEINTURE DE SÉCURITÉ. Il ne s'agit pas d'un système de remplacement pour la ceinture de sécurité. ● Le COUSSIN D'AIR fournit une protection supplémentaire pour le conducteur en cas de COLLISION FRONTALE. ● Il n'est pas conçu pour se gonfler dans la plupart des accidents avec impact latéral, arrière ou retournement. ● Le SYSTÈME DE COUSSIN D'AIR est opérationnel si le voyant "AIRBAG", dans le tableau de bord, s'allume brièvement lorsque le contact d'ignition est placé à la position "ON". ● Toutefois, consultez immédiatement le concessionnaire SUBARU le plus proche dans l'un des cas suivants: <ol style="list-style-type: none"> 1. Le voyant "AIRBAG" ne s'allume pas lorsque l'on met le contact. 2. Le voyant "AIRBAG" reste allumé lorsque le contact a été mis. 3. Le voyant "AIRBAG" s'allume pendant la conduite. 4. Le SYSTÈME DE COUSSIN D'AIR s'est déployé. ● DIX ANS APRÈS LA DATE DE FABRICATION DU VÉHICULE, NOTÉE SUR LA PLAQUE DE CERTIFICATION, LE SYSTÈME DE COUSSIN D'AIR (SRS) DOIT ÊTRE INSPECTÉ PAR UN CONCESSIONNAIRE SUBARU. ● Reportez-vous à votre manuel du conducteur pour de plus amples renseignements sur le SYSTÈME DE COUSSIN D'AIR (SRS). 	

Fig. 11

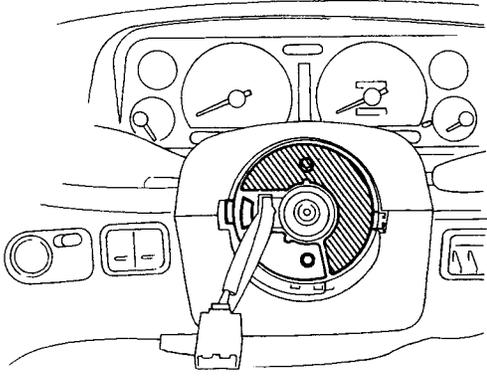
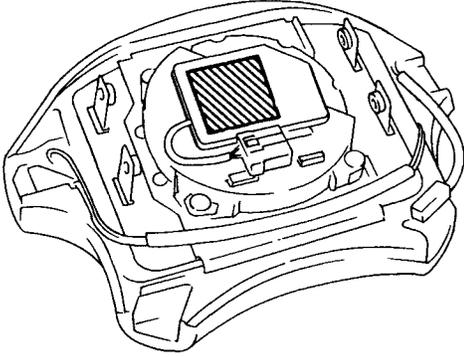
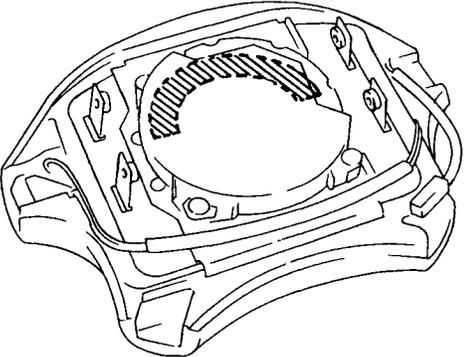
<p>④</p>	 <p>C5-358-1</p>	<p>CAUTION [BEFORE INSTALLING]</p> <ol style="list-style-type: none"> 1. POINT FRONT WHEELS STRAIGHT AHEAD. 2. ROTATE 2.65 TURNS FROM RIGHT END STOP. 3. ALIGN MATCH-MARKS (CENTER MARKS: ▼). 4. READ SERVICE MANUAL.
<p>⑤</p>	 <p>C5-358-2</p>	<p>AIRBAG MODULE</p> <p>警告 この部品は分解、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>WARNING To prevent personal injury, do not dismantle, repair or install in another vehicle. Service or dispose as directed in the service manual.</p> <p>ATTENTION 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>ACHTUNG Zur Vermeidung von Verletzungen. Nicht zerlegen, reparieren oder in einem anderen Fahrzeug installieren. Wartung und Ausbau wie im Reparaturhandbuch beschrieben.</p>
<p>⑥</p>	 <p>C5-358-3</p>	<p>AIRBAG GAS GENERATOR UT 10225 US-DOT-E-8214 BAM . PT. . 0432 BRUTTOGEWICHT 620g.</p> <p>THIS GAS GENERATOR SHOULD ONLY BE INSTALLED IN VEHICLES EQUIPPED WITH AIRBAG SYSTEM AND IS TO BE INSTALLED AND/OR DISASSEMBLED ONLY BY TRAINED PERSONNEL.</p> <p>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>DER GASGENERATOR DARF NUR FÜR INSASSEN-RÜCKHALTSYSTEME MIT LUFTSACK IN KRAFTFAHRZEUGE MONTEIERT WERDEN. DIE MONTAGE UND DEMONTAGE DES GASGENERATORS DARF NUR VON DAFÜR GESCHULTEM PERSONALVORGEGENOMMEN WERDEN. INHALT IST GIFTIG UND ÄUSSERST FEUERGEFÄHRlich. NICHT ÖFFNEN, VERBRENNEN, ELEKTRISCHEN STROM ANLEGEN ODER BEI TEMPERATUREN ÜBER 200°F LAGERN. ERSTE HILFE: WENN INHALT VERSCHLUCKT WURDE, ERBRECHEN HERBEIFÜHREN; BEI AUGENKONTAKT DIE AUGEN 15 MINUTEN MIT WASSER SPÜEN. I JEDEM FALL SICHT SOFORT IN ÄRZTLICHE BEHANDLUNG BEGEBEN.</p> <p>SUBARU DEUTSCHLAND GmbH-DUSSELDORF MORTON INTERNATIONAL, INC. OGDEM, USA</p> <p>DANGER ACHTUNG ATTENTION</p>

Fig. 12

S SPECIFICATIONS AND SERVICE DATA

1. Inspection and Replacement Standards

1. VEHICLES WHICH BECOME INVOLVED IN A COLLISION

If the vehicle equipped with an SRS airbag system is damaged in a collision, the airbag system parts must be checked and replaced in accordance with the following standards:

After faulty parts are replaced, the warning light operation must be checked.

- When the ignition switch is turned ON, it lights up for 8 seconds and then it goes out for at least 30 seconds.
- The trouble code stored in memory must be erased after the check.

2. AIRBAG MODULE

Inspection standard:

- The vehicle damaged in a collision (regardless of whether or not airbag is deployed).
- The designated trouble code is output during on-board diagnostics. (Refer to "Diagnostics" Section.)

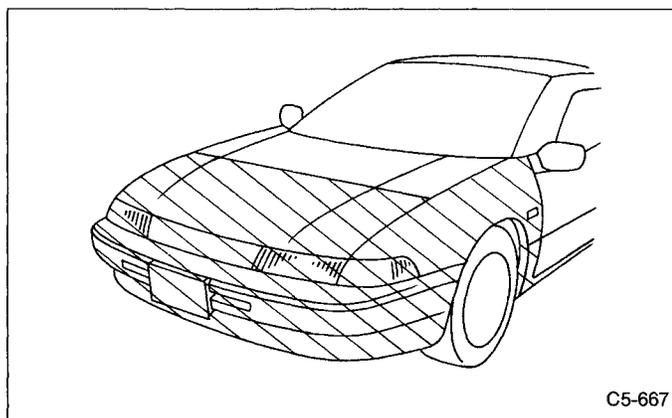
Replacement standard:

- Airbag is deployed.
- The pad surface is scratched or cracked.
- Harness and/or connector is deformed or cracked, their circuits are broken, lead wire is exposed, etc.
- Mounting bracket is cracked or deformed.
- The module surface is fouled with foreign matter (grease, oil, water, cleaning solvent, etc.)
- Airbag module dropped to the floor/ground.
- Airbag module determined as faulty during on-board diagnostics.

3. FRONT SENSOR

Inspection standard:

- Check the front section (Refer to shaded area of vehicle in figure) for damage, regardless of whether or not airbag is deployed.



C5-667

Fig. 13

- Check whether or not the designated trouble code is output during on-board diagnostics. (Refer to "Diagnostics" Section.)

Replacement standard:

- Bracket is deformed.
- Housing is cracked or deformed.
- The label (that identifies the manufacturing number) is peeled or deteriorated.
- Harness circuit is broken, lead wire is exposed, corrugated tube is cracked, etc.
- Front sensor determined as faulty as a result of diagnostics.
- Airbag is deployed.

4. MAIN HARNESS

Inspection standard:

- A vehicle damaged in a collision (regardless of whether or not airbag is deployed).
- The designated trouble code is output during on-board diagnostics. (Refer to "Diagnostics" Section.)

Replacement standard:

- Harness circuit is broken, lead wire is exposed, corrugated tube is cracked, etc.
- Connector is scratched or cracked.
- The designated trouble code is output during on-board diagnostics.

5. AIRBAG CONTROL MODULE

Inspection standard:

- A vehicle damaged in a collision (regardless of whether or not airbag is deployed).
- The designated trouble code is output during on-board diagnostics. (Refer to "Diagnostics" Section.)

Replacement standard:

- Control module is cracked or deformed.
- Mounting bracket is cracked or deformed.
- Connector is scratched or cracked.
- Control module dropped to the floor/ground.
- Control module determined as faulty during diagnostics.

6. COMBINATION SWITCH

Inspection standard:

- A vehicle damaged in a collision (regardless of whether or not airbag is deployed).
- The designated trouble code is output during on-board diagnostics. (Refer to "Diagnostics" Section.)

Replacement standard:

- Combination switch or steering roll connector is deformed or cracked.

7. STEERING WHEEL

Inspection standard:

- A vehicle damaged in a collision (regardless of whether or not airbag is deployed).

Replacement standard:

- Check steering wheel insert for cracks or deformities.

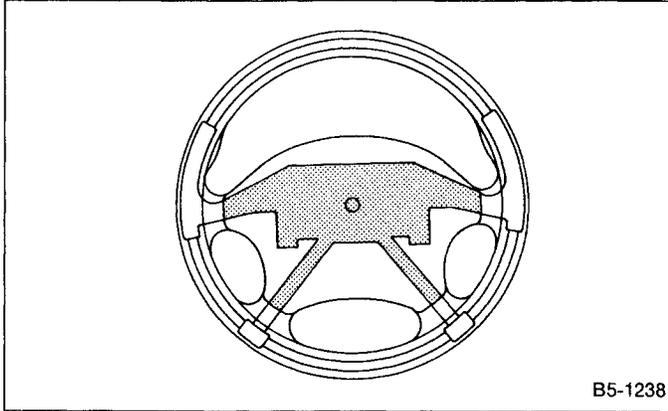


Fig. 14

- Check to ensure that new airbag module is properly installed in steering wheel.
- After installing airbag module, check to ensure that it is free of interference with steering wheel and that clearance between the two is equal at all points.

8. STEERING COLUMN ASSEMBLY

Inspection standard:

- A vehicle damaged in a collision (regardless of whether or not airbag is deployed).

Replacement standard:

- Check steering wheel free play in axial and radial directions:

Specifications:

Axial free play A

Less than ± 6 mm (0.24 in)

Radial free play L

Less than ± 7 mm (0.28 in)

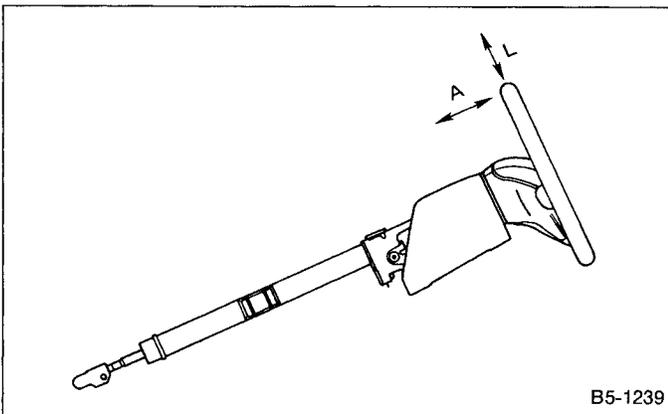


Fig. 15

- Check to ensure that clearance between capsule ① (at steering column) and cutout portion of column bracket ② on steering column upper side is within specifications.

Clearance between capsule and cutout portion of column bracket: L

Less than 0.5 mm (0.020 in)

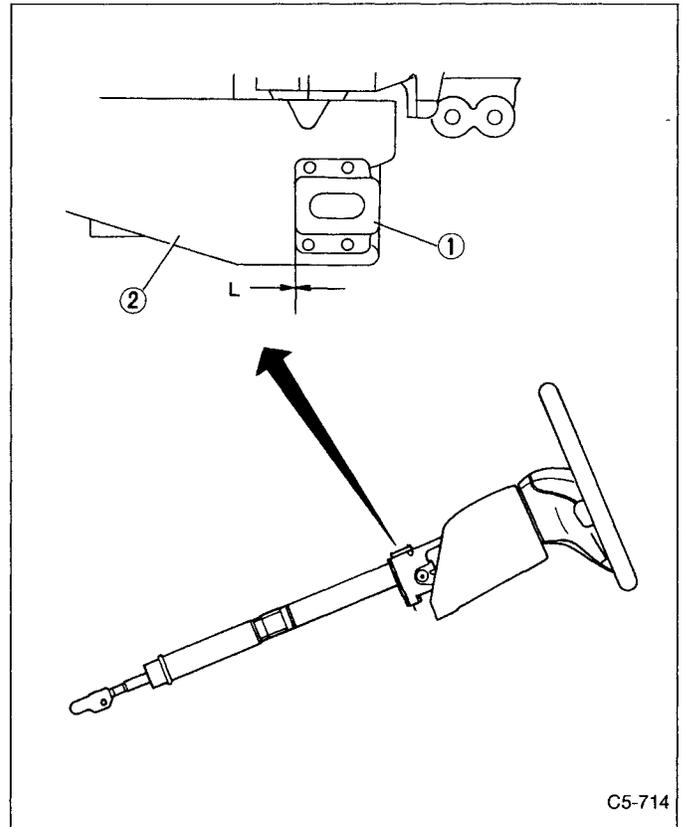


Fig. 16

C COMPONENT PARTS

1. SRS Airbag

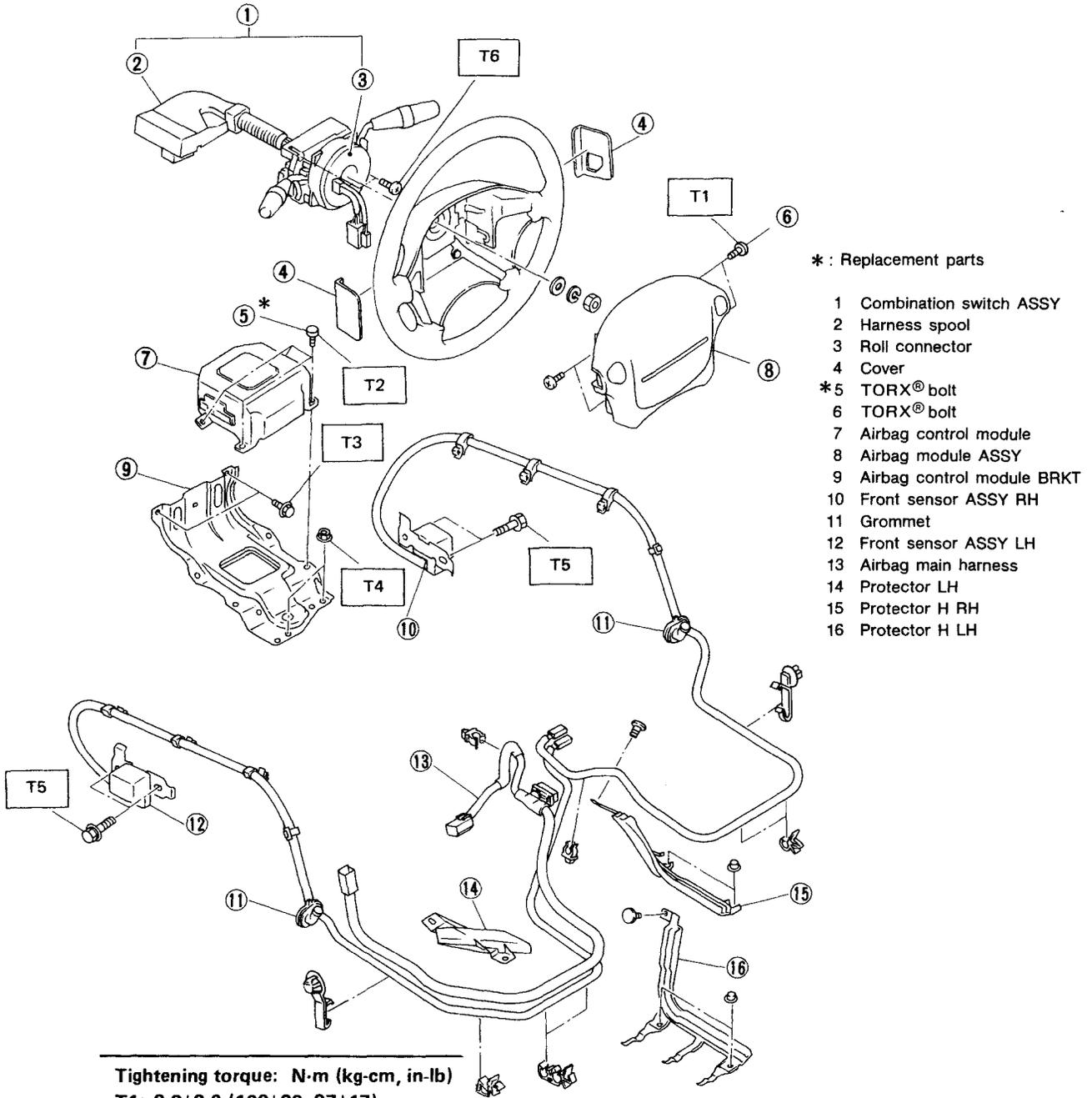


Fig. 17

W SERVICE PROCEDURE

1. SRS Airbag

A: GENERAL PRECAUTIONS

1) If any of the airbag system parts such as sensors, airbag module, control module and harness are damaged or deformed, replace with new genuine parts.

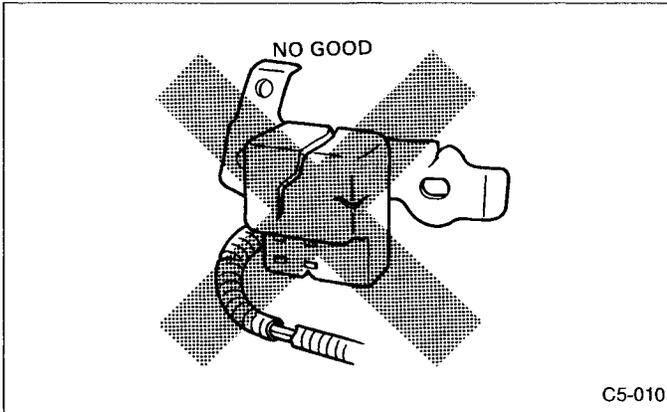


Fig. 18

2) When servicing, be sure to turn the ignition switch "off", disconnect the negative (-) battery terminal then the positive (+) terminal in advance, and wait for more than 20 seconds before starting work.

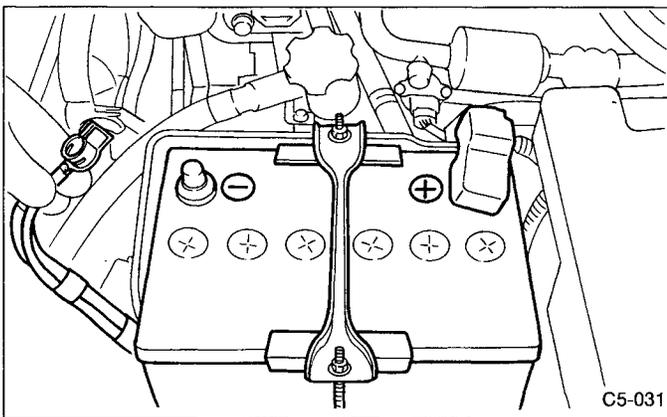


Fig. 19

3) When checking the system, be sure to use a digital circuit tester. Use of an analog circuit tester may cause the airbag to activate erroneously. Do not directly apply the tester probe to any connector terminal of the airbag. When checking, use a test harness.

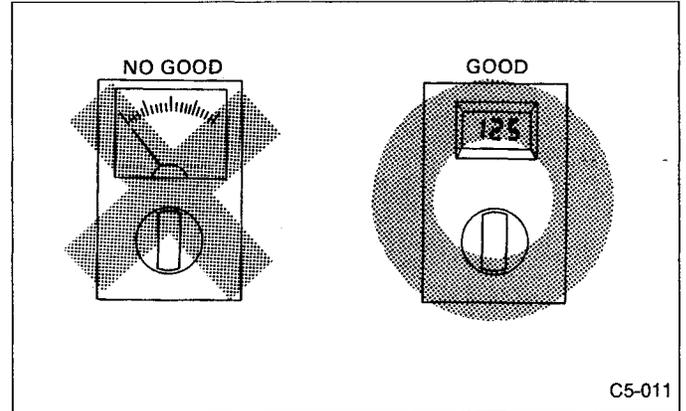


Fig. 20

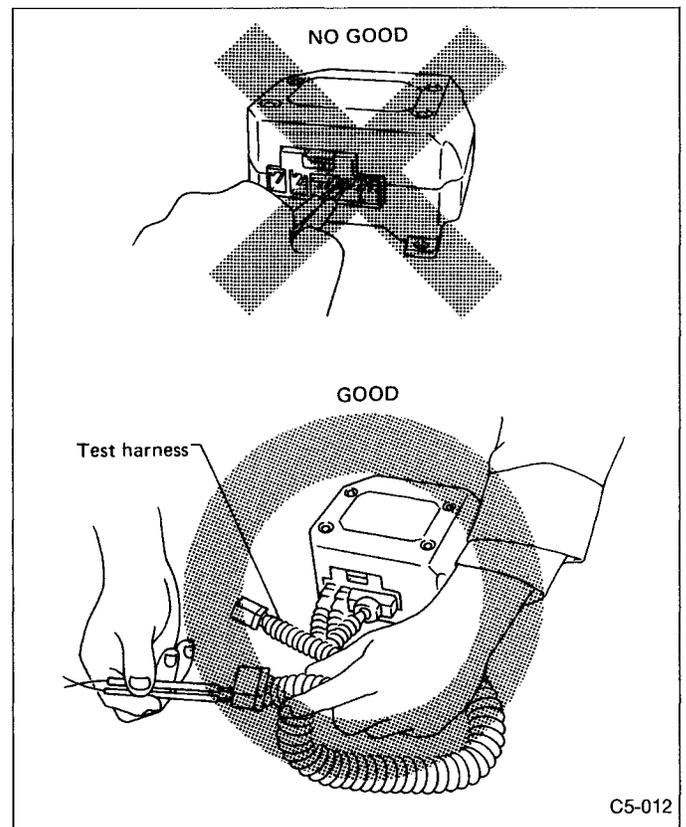


Fig. 21

4) Do not drop the airbag modulator parts, subject it to high temperatures over 90°C (194°F), or apply oil, grease, or water to it; otherwise, the internal parts may be damaged and its reliability greatly lowered.

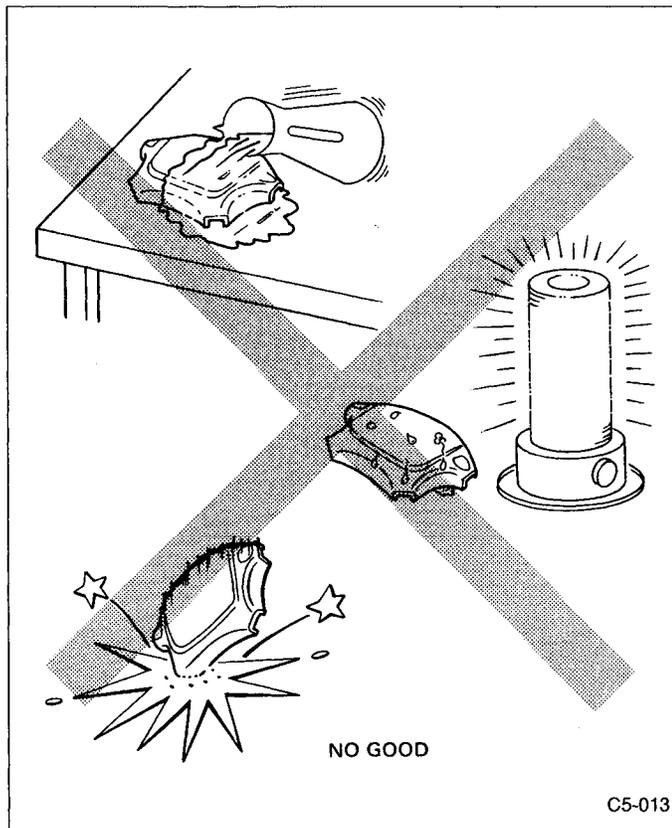


Fig. 22

5) If any damage or open is found on the SRS airbag system wire harness, do not attempt to repair using soldering, etc. Be sure to replace the faulty harness with a new genuine part.

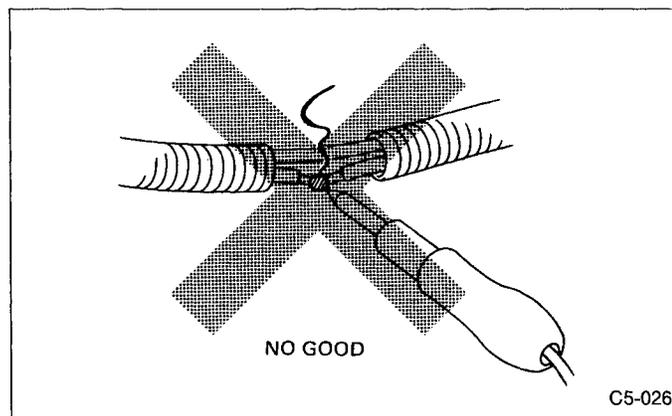


Fig. 23

6) Install the wire harness securely with the specified clips so as to avoid interference or jamming with other parts.

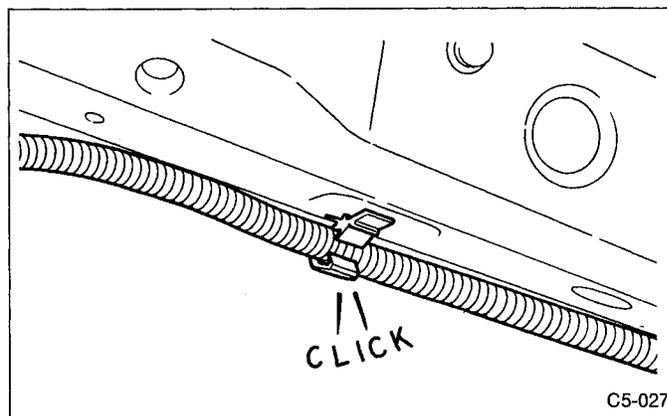


Fig. 24

7) Before connecting the airbag system to ground, make sure that the grounding terminal is free from paint and contamination.

8) Do not allow water or oil to come in contact with the connector terminals. Do not touch the connector terminals.

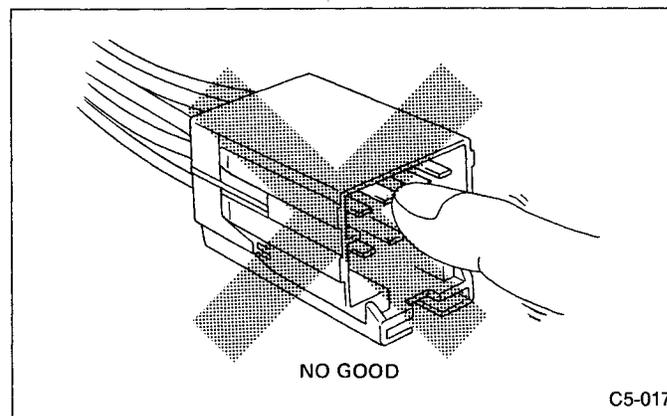


Fig. 25

B: AIRBAG MODULE

1. CAUTION

1) The airbag module must not be disassembled. The airbag module cannot be used again once inflated.

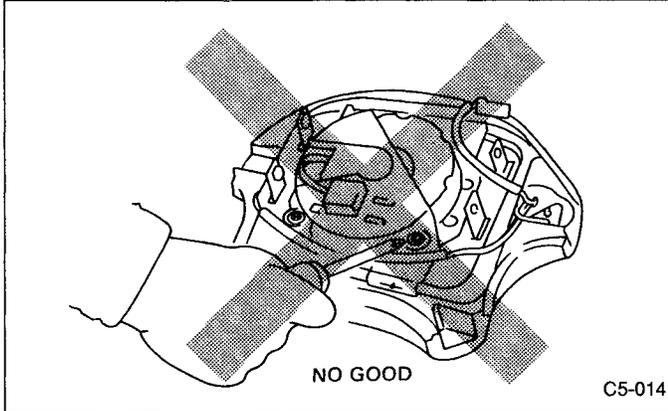


Fig. 26

2) When removing and installing the airbag module, the operator should stand, as much as possible, on the side of the airbag module.

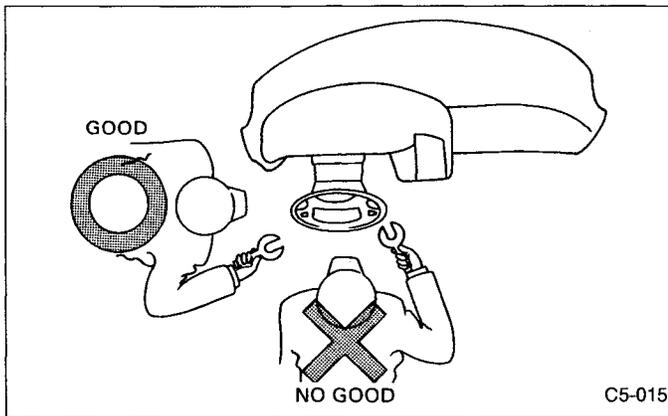


Fig. 27

3) After removal, the airbag module should be kept away from heat and light sources, and stored on a clean, flat surface to prevent from any damage to its lower structure.

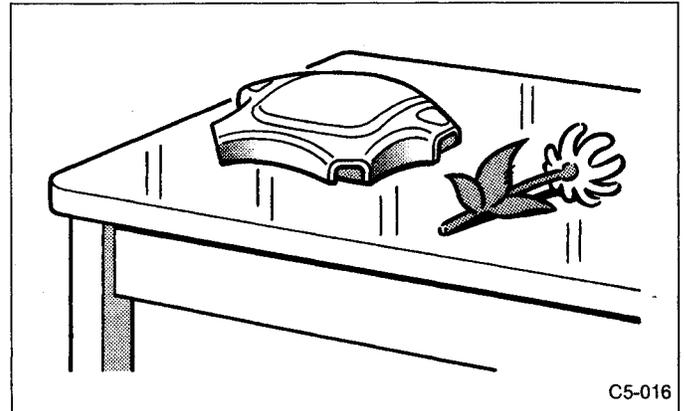


Fig. 28

4) Do not check airbag module continuity with airbag removed from the vehicle body.

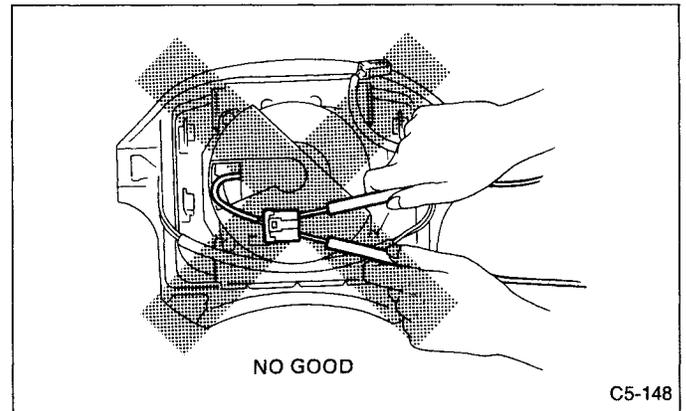


Fig. 29

5) Replace airbag module with a new one, should any of the following conditions develop.

- Pad surface is scratched or cracked.
- Connector harness is damaged.
- Inflator side structure of module is cracked or deformed.
- Module is excessively stained with water, oil, etc.
- Module was accidentally dropped.

6) When storing a removed airbag module, be sure to place it in parallel with floor with the pad facing up. Do not place it against a wall, or place anything on the pad; otherwise, a dangerous condition may be created if the module malfunctions.

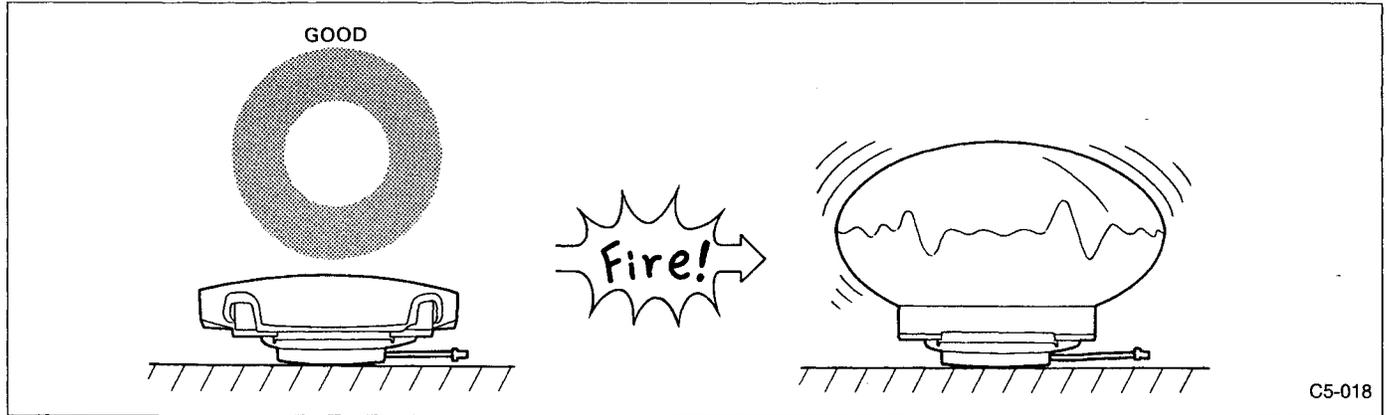


Fig. 30

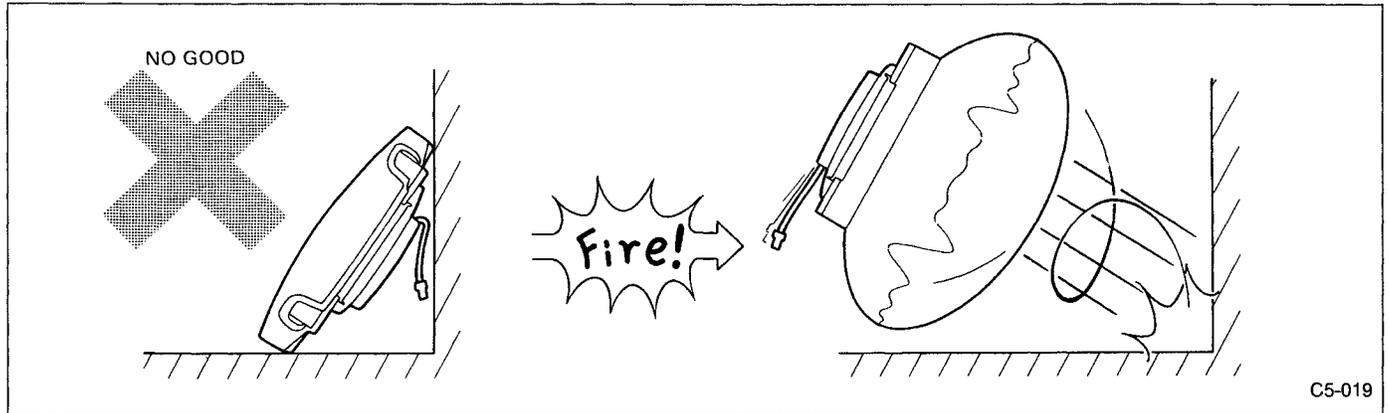


Fig. 31

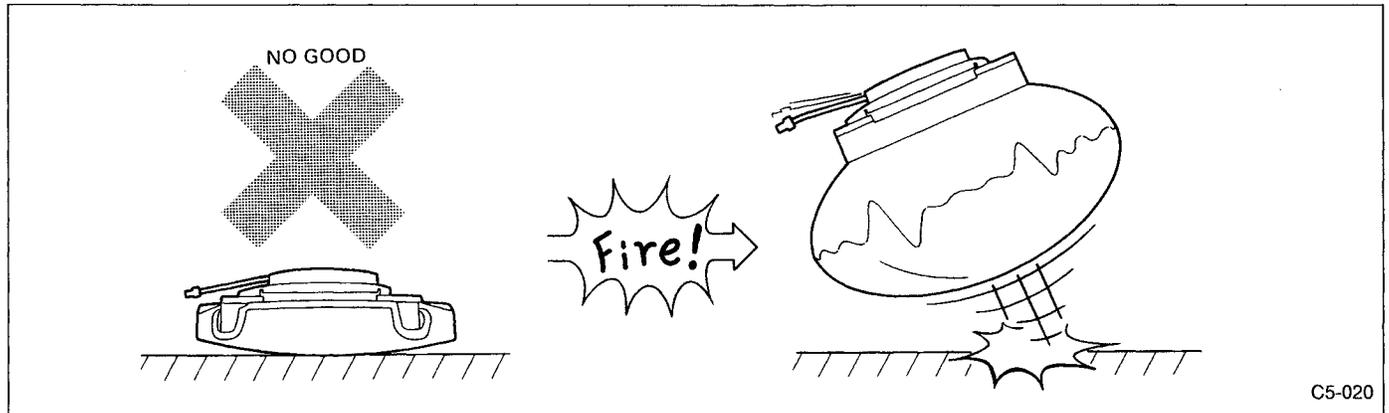
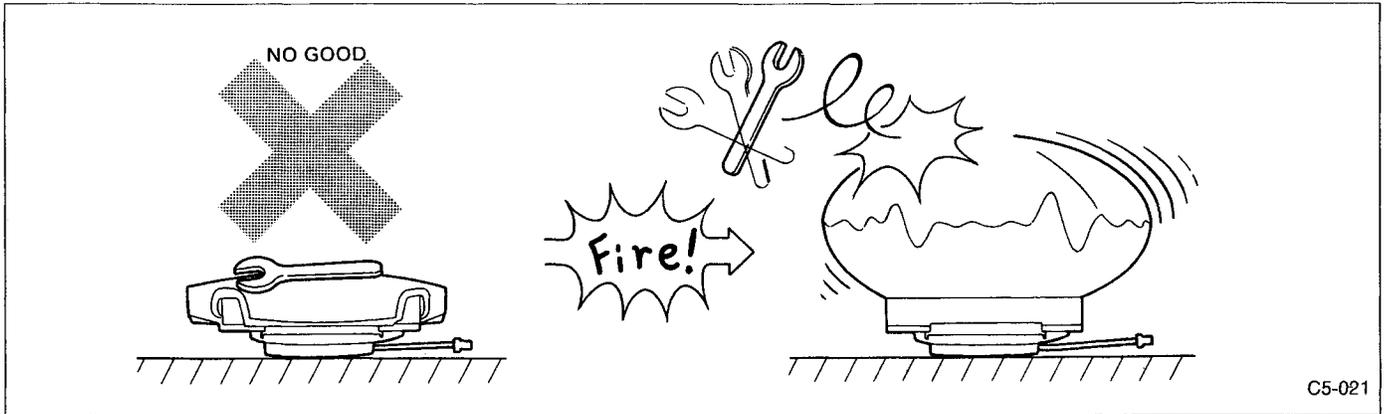


Fig. 32

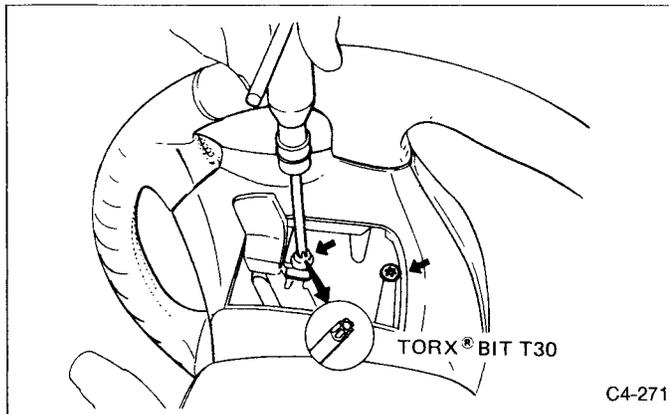


C5-021

Fig. 33

2. REMOVAL

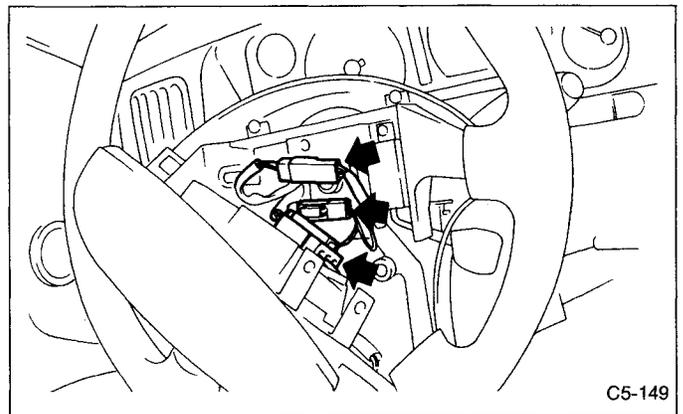
- 1) Set front wheels in straight ahead position.
- 2) Turn ignition switch off.
- 3) Disconnect ground cable from battery and wait for at least 20 seconds before starting work.
- 4) Remove covers from both sides of steering wheel. Using TORX® BIT T30 (Tamper resistant type), remove four TORX® bolts.



C4-271

Fig. 34

- 5) Disconnect airbag and horn connectors on back of air-bag module. <Refer to 5-5 [M1B6].>



C5-149

Fig. 35

- 6) Refer to 5-5 [W1B1] for handling of a removed airbag module.

3. INSTALLATION

First, make sure that ignition switch is off. Installation is in reverse order of removal procedures.

Do not allow harness and connectors to interfere or get caught with other parts.

C: FRONT SENSOR

1. CAUTION

1) If the front end of the vehicle body is damaged by a collision, be sure to check the left and right front sensors, even if the airbag was not inflated. If any damage to the sensor or any deformation of the sensor mount is found, replace with a new genuine part.

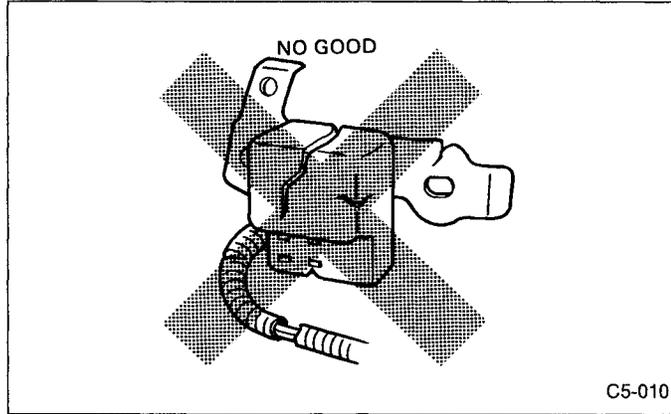


Fig. 36

2) When painting or performing sheet metal work on the front part of vehicle body, including the front wheel apron, front fender and front side frame, take utmost care not to apply dryer heat, painting mist, or the flame of the welding burner directly to the front sensors and wire harness of the airbag system.

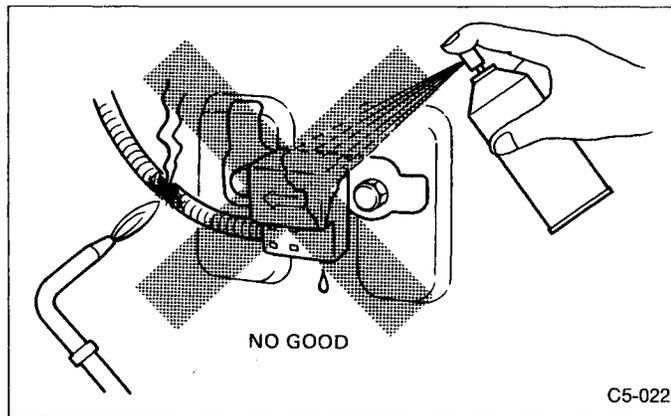


Fig. 37

2. 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 and lower cover panel. <Refer to 5-4 [W3A0].>
Disconnect airbag connector at harness spool.

Do not reconnect airbag connector at spool until front sensors are securely re-installed.

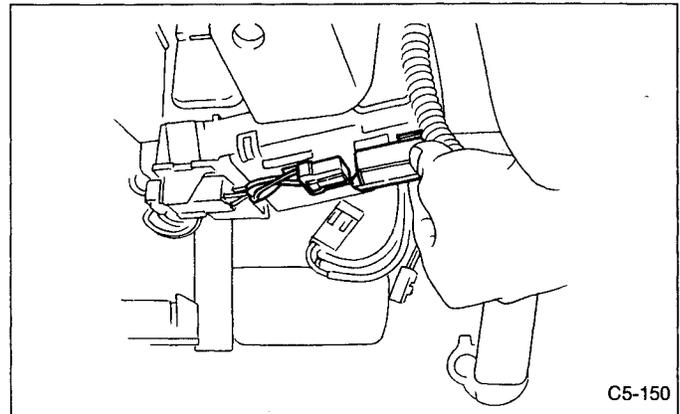


Fig. 38

- 4) Remove console panel and base on driver seat side. Disconnect 2-pin blue connector (right side front sensor) and 2-pin orange connector (left side front sensor) from airbag control module. <Refer to 5-5 [M1B6].>

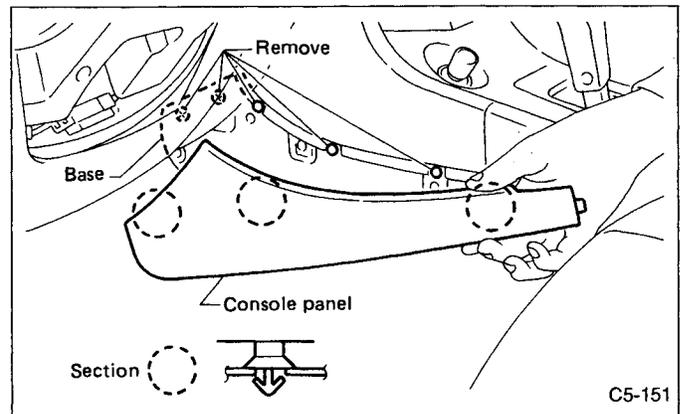
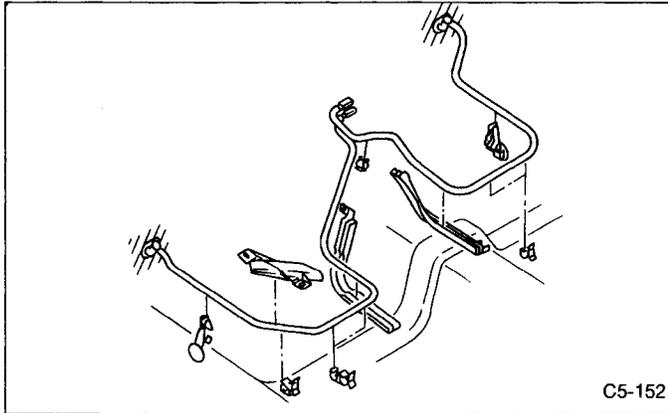


Fig. 39

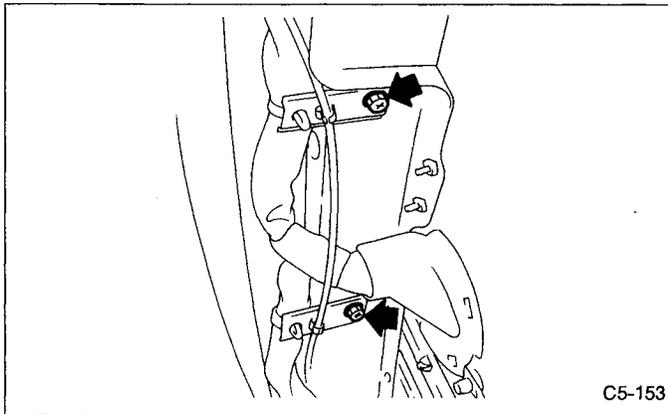
5) Roll up floor mat and remove side sill lower cover. <Refer to 5-3 [W9A0].> Remove front sensor harness from clip and protector.



C5-152

Fig. 40

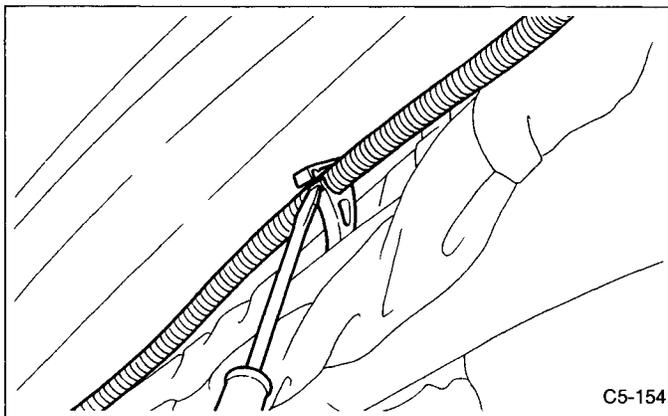
- 6) Remove front wheels.
- 7) Remove front mud guard. <Refer to 5-1 [W12A1].>
- 8) Remove wiring harness bracket.



C5-153

Fig. 41

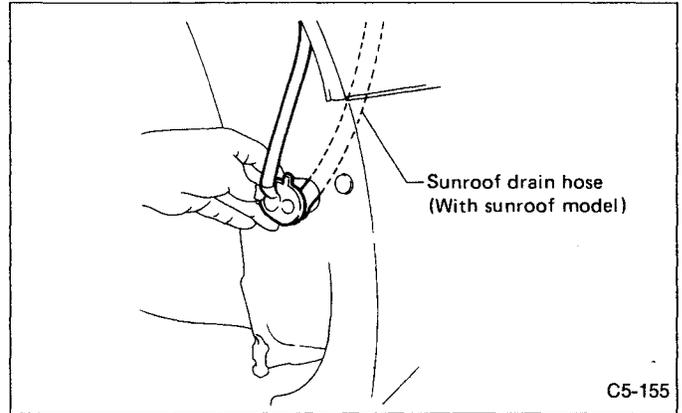
9) Pry off four clips securing front sensor harness with standard screwdriver.



C5-154

Fig. 42

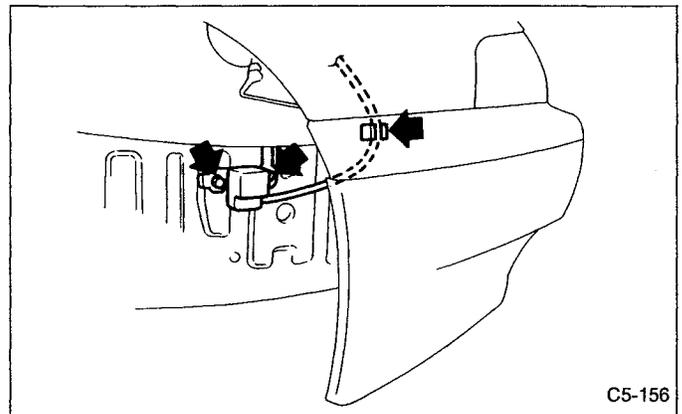
10) Remove grommet.



C5-155

Fig. 43

11) Remove front sensor unit.



C5-156

Fig. 44

3. INSTALLATION

Installation is in the reverse order of removal procedures. On models equipped with sunroof, route sunroof drain hose through grommet during grommet installation.

D: MAIN HARNESS**1. 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 and lower cover panel. <Refer to 5-4 [W3A0].>
Disconnect airbag connector at harness spool.

Do not reconnect airbag connector at spool until front sensors are securely re-installed.

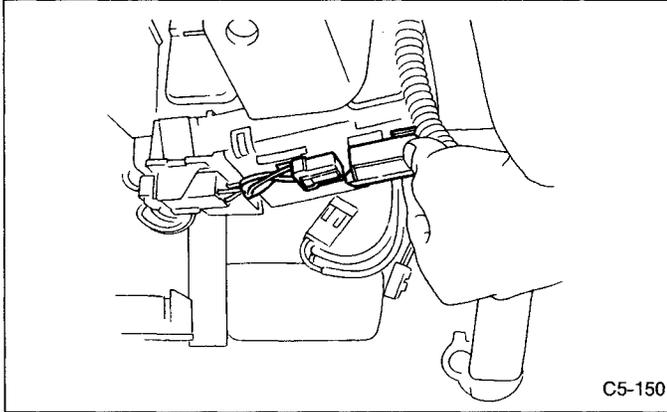


Fig. 45

- 4) Remove console panel and base on driver seat side. Disconnect 12-pin yellow connector from airbag control module. <Refer to 5-5 [M1B6].>

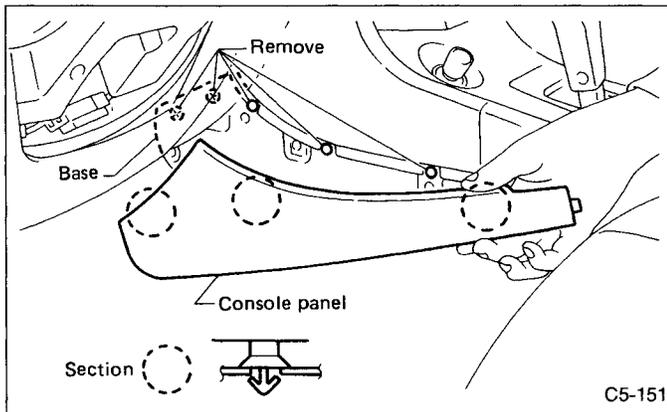


Fig. 46

- 5) Disconnect body harness connector (B58) from connector (AB1).

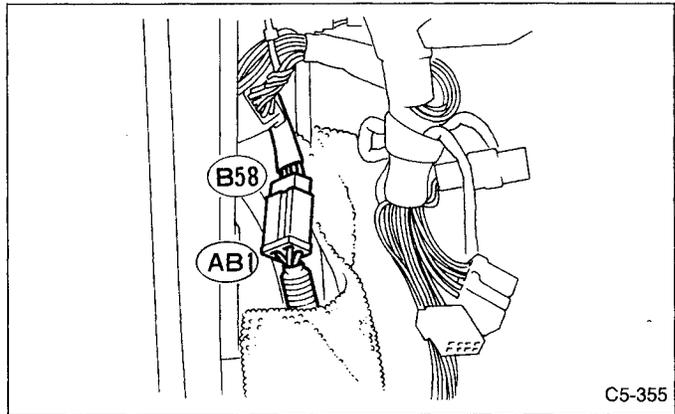


Fig. 47

- 6) Roll-up floor mat and remove side sill lower cover (LH side). <Refer to 5-3 [W9A0].> Remove main harness from clip and protector.

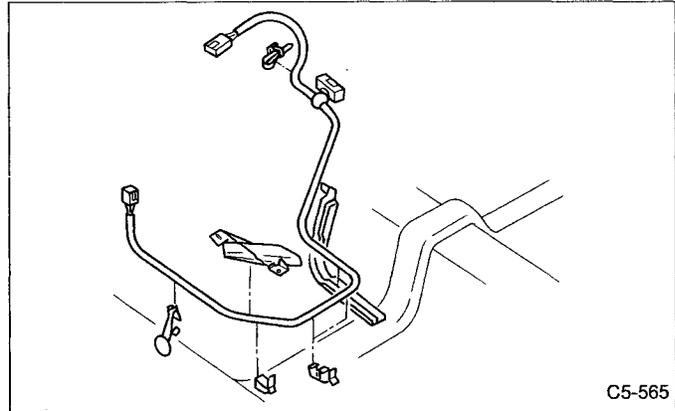


Fig. 48

2. INSTALLATION

Installation is in the reverse order of removal procedures.

E: AIRBAG CONTROL MODULE

1. CAUTION

1) Do not disassemble the airbag control module.

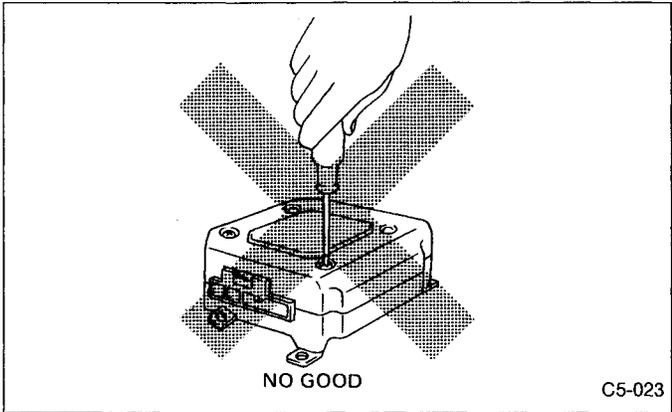


Fig. 49

2) If the airbag control module is deformed, or if water damage is suspected, replace the airbag control module with a new genuine part.

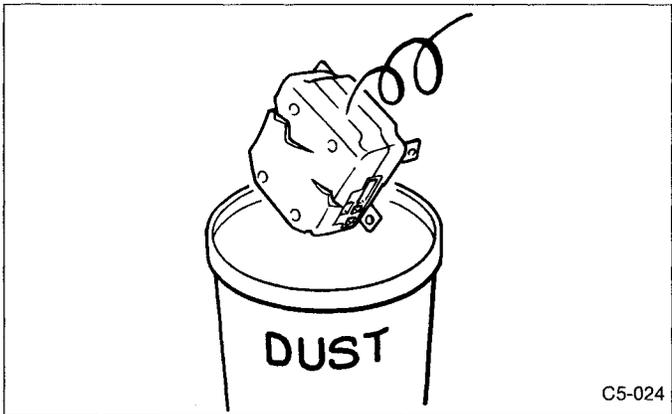


Fig. 50

3) After removal, keep the airbag control module on a dry, clean surface away from heat and light sources, and moisture and dust.

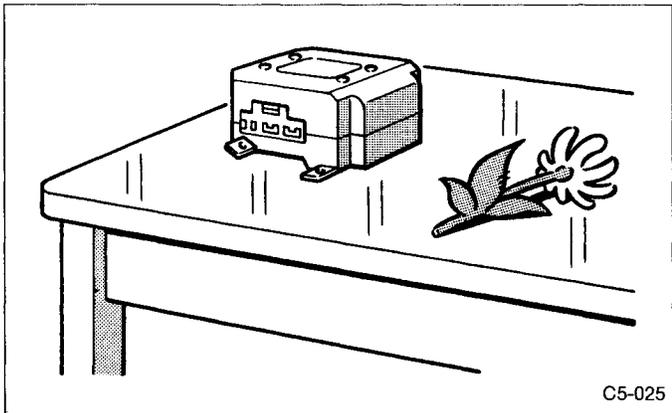


Fig. 51

2. 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 and lower cover panel. <Refer to 5-4 [W3A0].>
Disconnect airbag connector at harness spool.

Do not reconnect airbag connector at spool until airbag control module is securely re-installed.

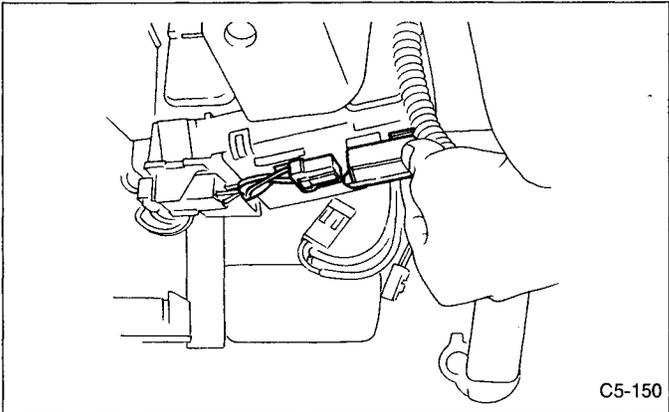


Fig. 52

- 4) Remove console box and instrument panel. <Refer to 5-4 [W3A0].>
- 5) Disconnect 12-pin yellow, 2-pin blue and 2-pin orange connectors from airbag control module. <Refer to 5-5 [M1B6].>

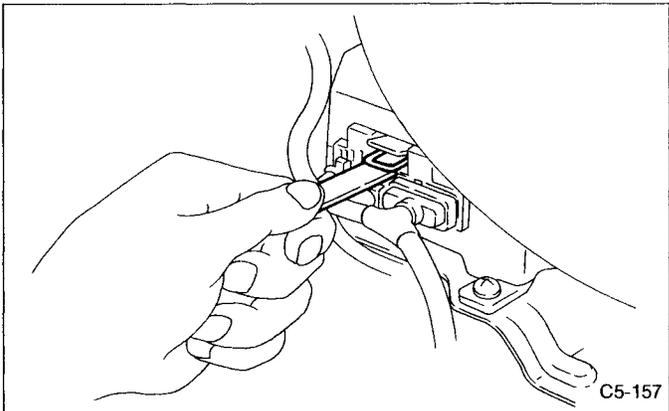


Fig. 53

6) Remove control module from bracket. Using TORX® BIT T30 (Tamper resistant type), remove four TORX® bolts. Discard the old TORX® bolts, and replace with new ones during reassembly.

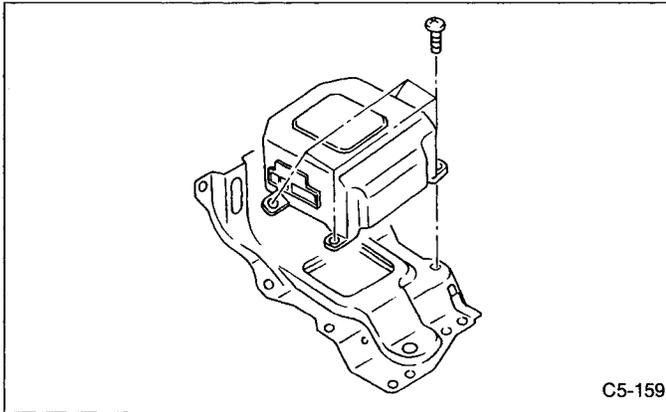


Fig. 54

3. INSTALLATION

Reassemble in the reverse order of the removal procedures. Be sure to fully secure all SRS airbag system connectors during reassembly and confirm that all green double lock mechanisms are engaged.

F: COMBINATION SWITCH ASSY

1. CENTERING ROLL CONNECTOR

Before installing combination switch assembly and steering gearbox, make sure to center roll connector built into combination switch assembly.

- 1) Make sure that front wheels are positioned straight ahead.
- 2) Install gearbox, steering shaft and combination switch assembly properly. Turn roll connector pin **clockwise** until it stops.
- 3) Then, back off roll connector pin approximately 2.65 turns until "CENTER" appears on indicator with "◀" marks aligned.

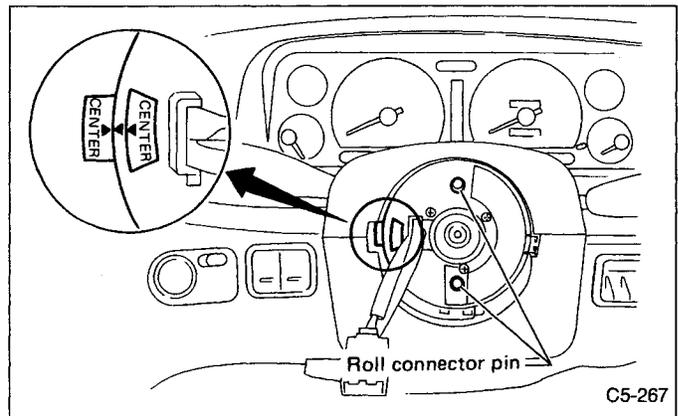


Fig. 55

2. 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 and lower cover panel <Refer to 5-4 [W3A0].> Disconnect airbag connector at harness spool. Remove harness spool from steering column. Disconnect combination switch connector (B55) (B56) (B57).

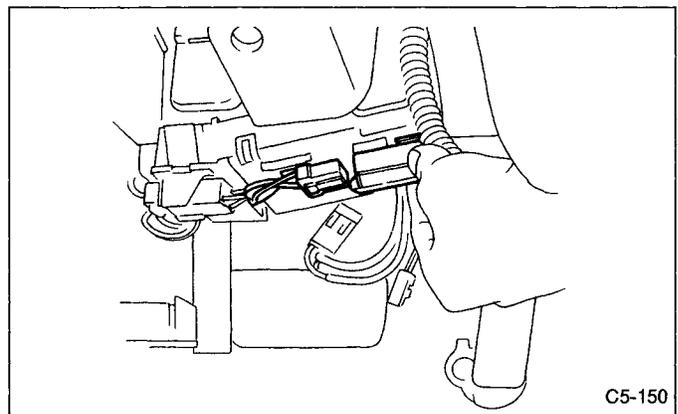
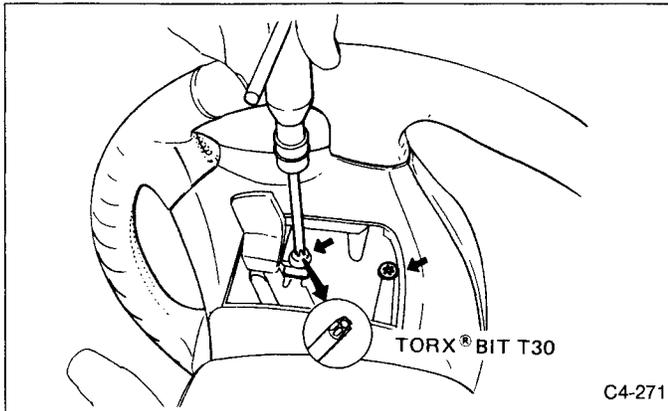


Fig. 56

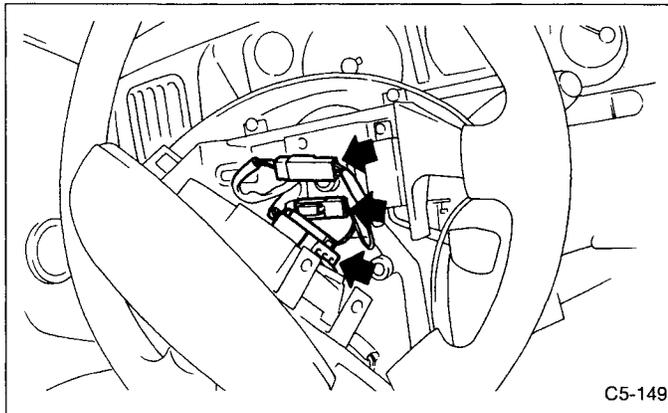
4) Set front wheels in straight ahead position. Remove covers from both sides of steering wheels. Using TORX® BIT T30 (Tamper resistant type), remove four TORX® bolts.



C4-271

Fig. 57

5) Disconnect airbag connector <Refer to 5-5 [M1B6].> and horn connector on back of airbag module. Remove airbag module, and place it with pad side facing upward. <Refer to 5-5 [W1B1].>

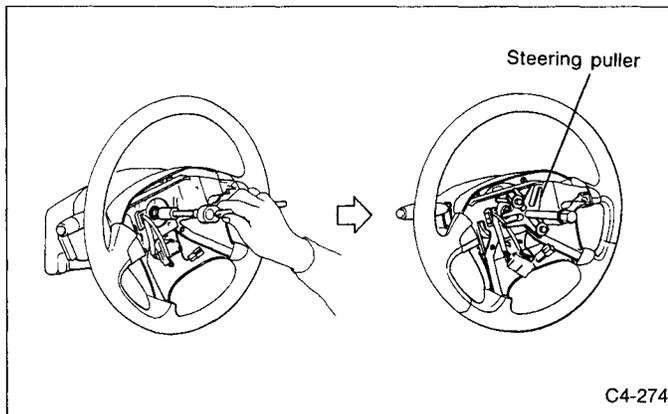


C5-149

Fig. 58

6) Using steering puller, remove steering wheel.

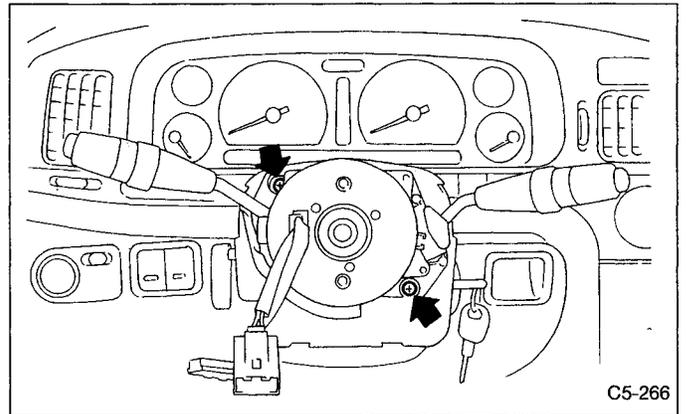
Do not allow connector to interfere when removing steering wheel.



C4-274

Fig. 59

7) Remove steering column covers. After removing two retaining screws, remove combination switch assembly.



C5-266

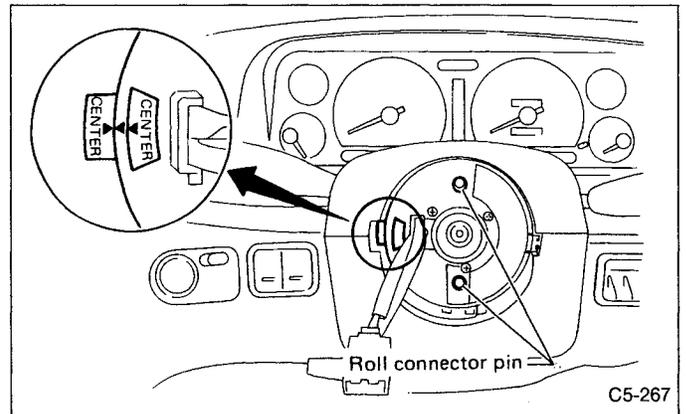
Fig. 60

3. INSTALLATION

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

Failure to do this might damage roll connector.

2) Install column cover and center roll connector.



C5-267

Fig. 61

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

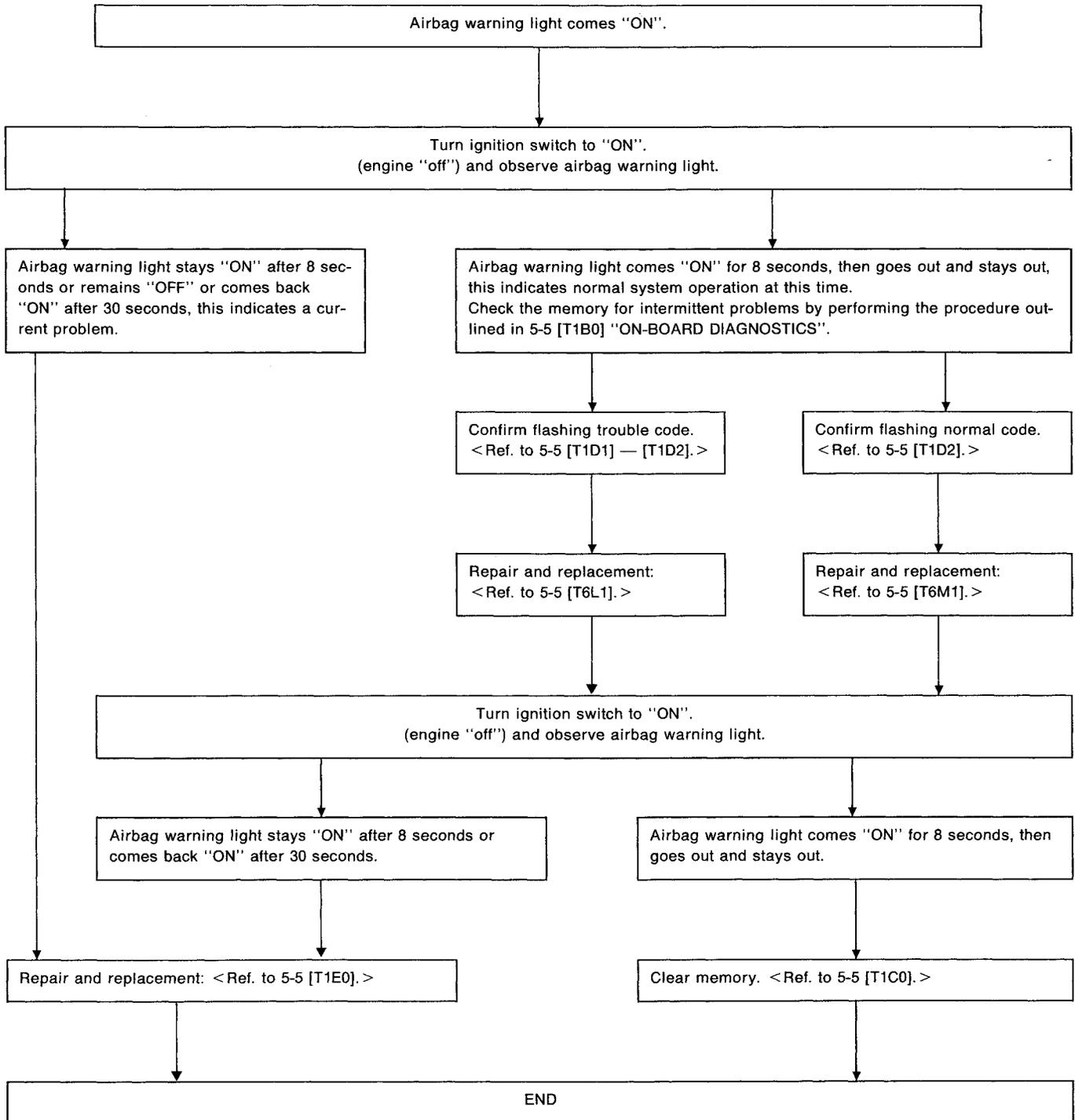
If steering wheel angle requires fine adjustment, adjust tie-rod. <Refer to 4-3 [W3G0].>

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

T DIAGNOSTICS

1. On-board Diagnostic System

A: PRELIMINARY INSPECTION



B: ON-BOARD DIAGNOSTICS

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 diagnostics in accordance with the specified procedure to determine trouble codes.

- 1) Turn ignition switch ON (with engine OFF).
- 2) Connect DIAG. terminal to No. 9 terminal of diagnosis connector located below pillar lower cover LH side.
- 3) Check in accordance with the trouble code indicated by the AIRBAG warning light. Record the trouble codes.

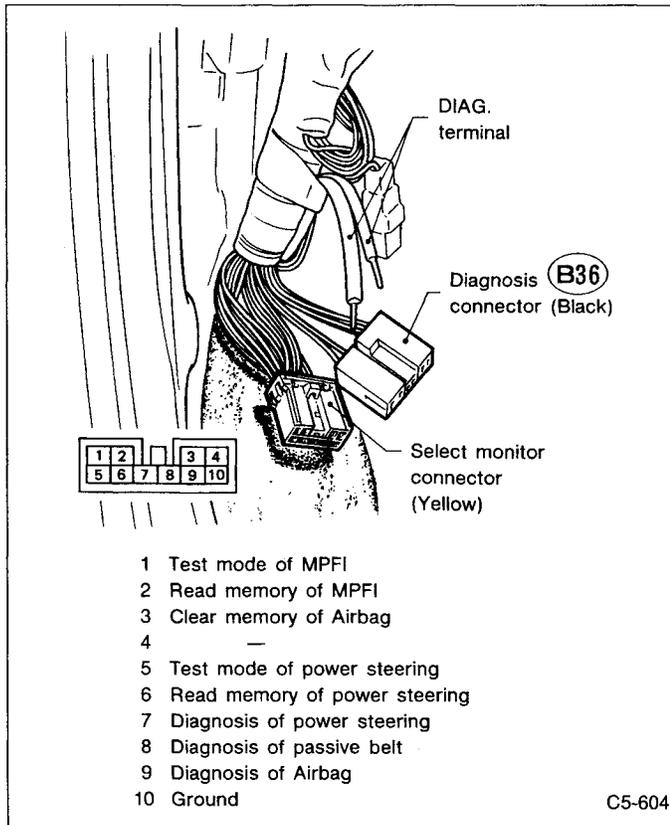


Fig. 62

- 4) Turn the ignition switch "OFF" and remove the DIAG. terminal from No. 9 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 on diagnosis connector terminal No. 9. While warning light is flashing, connect the other DIAG. terminal on terminal No. 3 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.

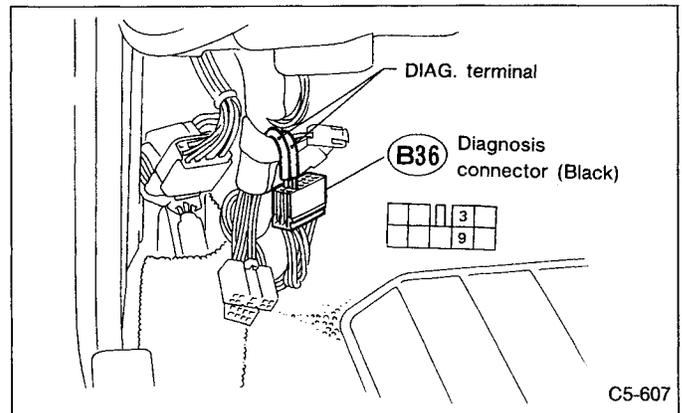


Fig. 63

D: TROUBLE CODES

1. LIST OF TROUBLE CODES

Trouble code		Memory function	Contents of diagnosis
02		Provided.	1) Front sensor harness is shorted. 2) Airbag main harness is shorted. 3) Airbag module harness is shorted. 4) Roll connector is shorted. 5) Airbag control module is faulty.
03		Provided.	1) Front sensor harness circuit is open. 2) Front sensor unit circuit is open.
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.
12		Provided.	1) Airbag main harness circuit is open. 2) Airbag module harness circuit is open. 3) Roll connector circuit is open. 4) Airbag control module is faulty.
13		Provided.	1) Airbag main harness circuit is shorted. 2) Airbag module harness is shorted. 3) Roll connector circuit is shorted. 4) Airbag control module is faulty.
14		Not provided.	1) (AB2) and (AB7) are not connected properly. 2) (AB3) and (AB8) are not connected properly. 3) (AB4), (AB5) and (AB6) are not connected properly to airbag control module.
21		Provided.	Airbag control module is faulty.
23		Provided.	1) Airbag main harness is shorted to power supply. 2) Front sensor harness is shorted to power supply. 3) Airbag module harness is damaged. 4) Roll connector is shorted to power supply. 5) Airbag control module is faulty.
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.
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 (B58) are not connected properly.
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.
Warning light indicates trouble code, then normal code.	Flashing trouble code	Provided.	Airbag system component parts are faulty.
	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.

2. HOW TO READ TROUBLE CODE

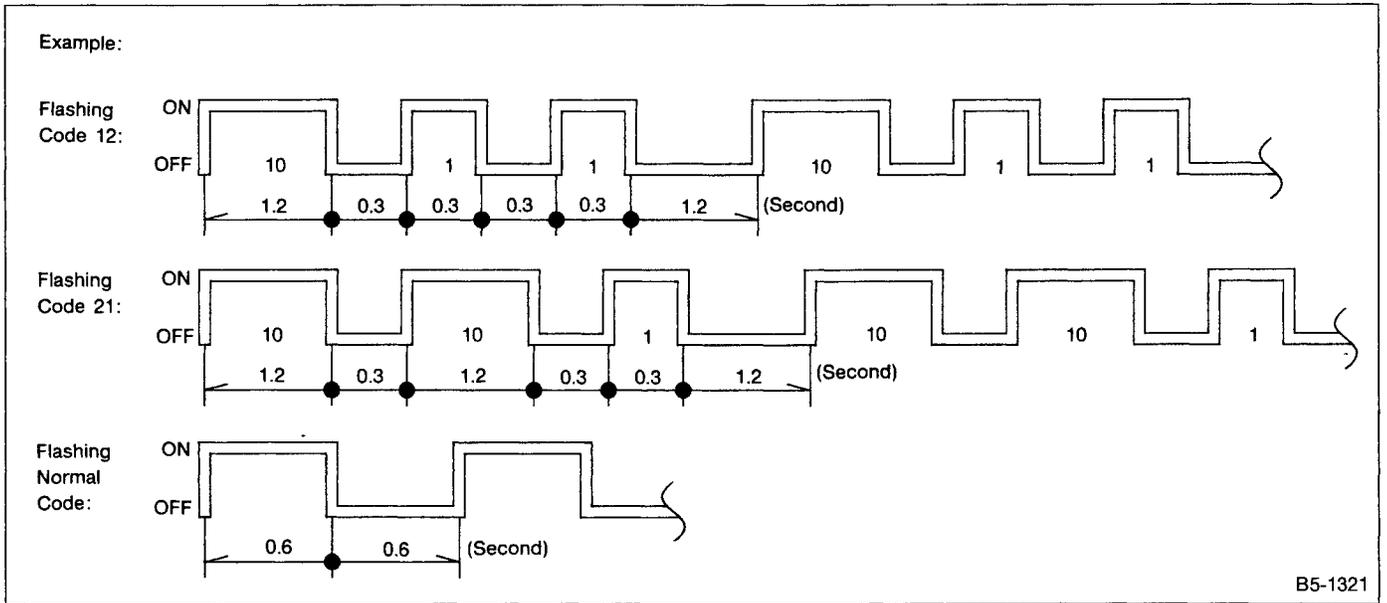


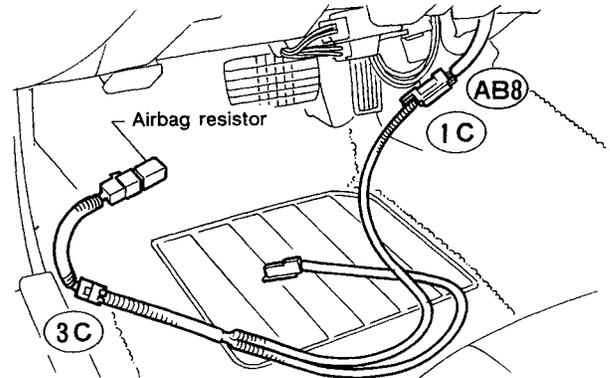
Fig. 64

E: BASIC DIAGNOSTICS PROCEDURE

Airbag warning light stays on after 8 seconds.

- 1) Perform on-board diagnostics. < Refer to 5-5 [T1B0]. >
- 2) Are trouble codes 02, 12, 13, or 23 indicated? < Refer to 5-5 [T1D1]. >
Record the trouble codes.
- 3) If "NO", proceed with diagnostics and repair according to trouble code indicated then perform step 20.
- 4) If "YES", proceed by turning ignition switch "OFF", disconnecting the battery, and waiting 20 seconds. If codes 12 or 13 are indicated proceed to step 6. If codes 02 or 23 are not indicated proceed to step 5.

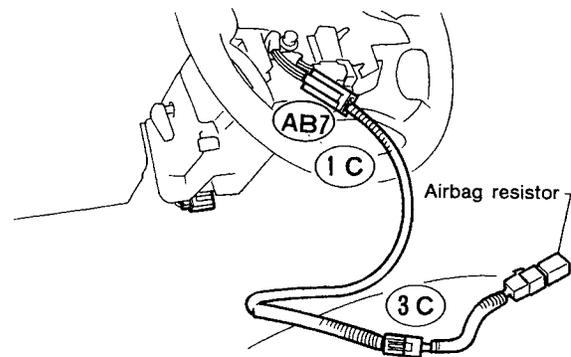
- 5) Remove lower cover and panel and connect test harness C connector (1C) to (AB8) < Refer to 5-4 [W3A0]. > with airbag resistor attached to test harness C connector (3C).
Turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds?
See notes 1) and 2). (Refer to end of chart.)
If "YES" proceed to step 6.
If "NO" proceed to step 3.



C5-605

Fig. 65

- 6) Remove airbag module and connect test harness C connector (1C) to (AB7). < Refer to 5-5 [W1B2]. >
Connect airbag resistor to test harness C connector (3C).

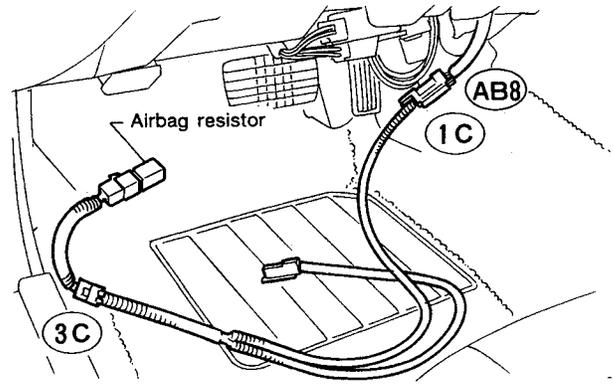


C5-606

Fig. 66

- 7) Reconnect battery cable.
- 8) Turn ignition switch "ON", does airbag warning light go out after 8 seconds and remain "OFF" for more than 30 seconds? See notes 1) and 2).
- 9) If "YES", disconnect battery, turn ignition switch "OFF", and wait 20 seconds. Install a new airbag module < Refer to 5-5 [W1B3]. > then proceed to step 20.

- 10) If "NO", connect test harness C connector (1C) to (AB8) <Refer to 5-4 [W3A0].> with airbag resistor attached to test harness C connector (3C).

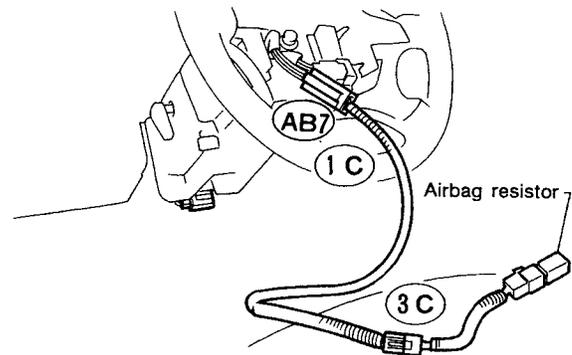


C5-605

Fig. 67

- 11) Turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds? See notes 1) and 2).
- 12) If "YES", replace combination switch, <Refer to 5-5 [W1F2].> and proceed to step 16.
- 13) If "NO", proceed with diagnostics according to trouble code indicated during on-board diagnostics.

- 14) After repair, reconnect test harness C connector (1C) to (AB7) <Refer to 5-5 [W1B2].> with airbag resistor attached to (3C).



C5-606

Fig. 68

- 15) Turn ignition switch "ON". Does airbag warning light go "OFF" after 8 seconds and remain off for more than 30 seconds? See notes 1) and 2).
- 16) If "YES", disconnect battery. Turn ignition switch "OFF", and wait 20 seconds. Install airbag module <Refer to 5-5 [W1B5].> and proceed to step 18.
- 17) If "NO", replace combination switch, <Refer to 5-5 [W1F2].> and proceed to step 16.
- 18) Reconnect battery and turn ignition switch "ON". Does airbag warning light go off after 8 seconds and remain off for more than 30 seconds? See notes 1) and 2).
- 19) If "NO", disconnect battery, turn ignition switch "OFF", replace airbag module <Refer to 5-5 [W1B2].> and repeat step 18.
- 20) If "YES", perform clear memory procedure. <Refer to 5-5 [T1C0].>
- 21) If memory cannot be cleared, another trouble code exists. Return to step 1.

NOTES:

- 1) Always remember to secure the green double locks before turning the ignition switch "ON".
- 2) 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.

2. Diagram of SRS Airbag

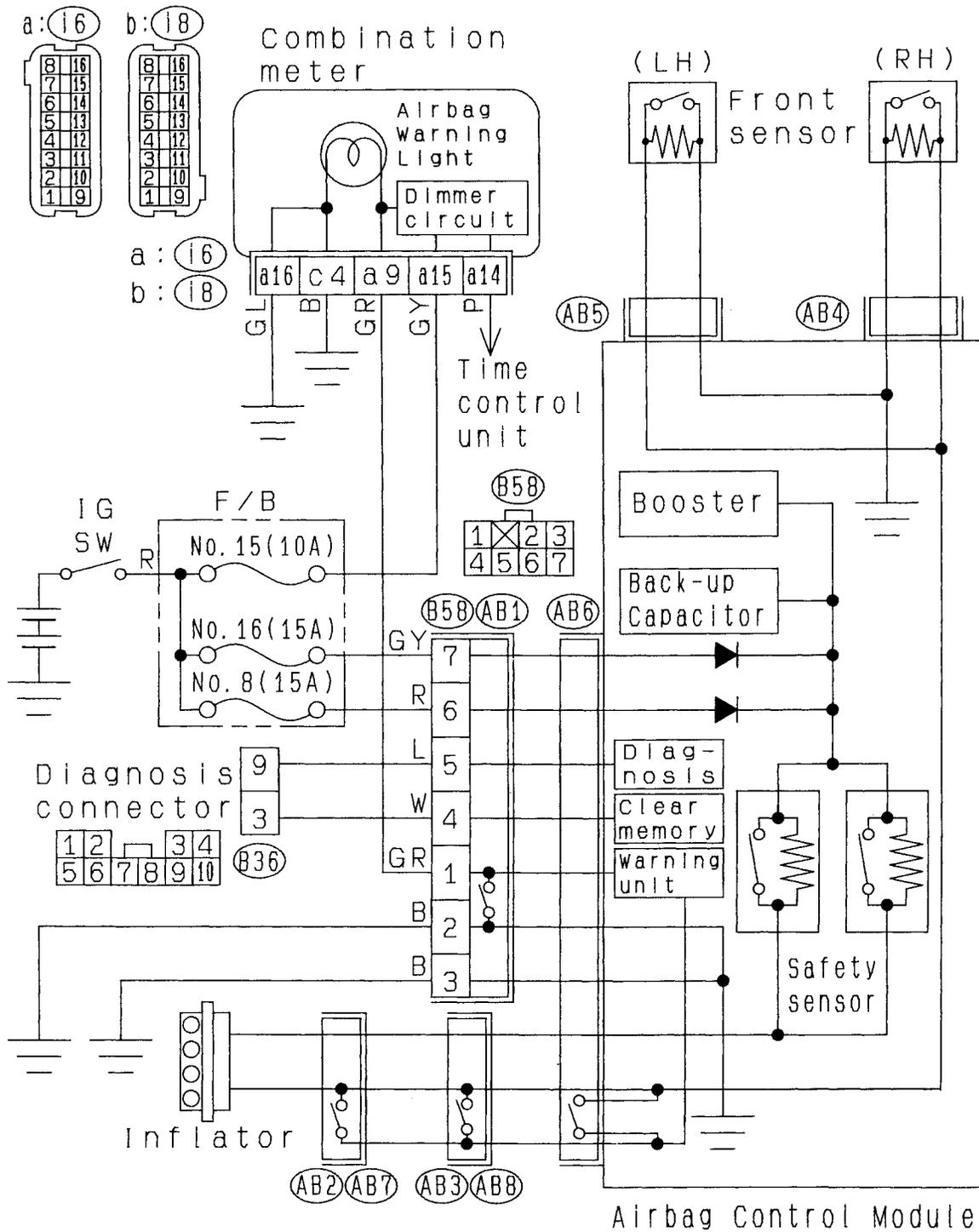
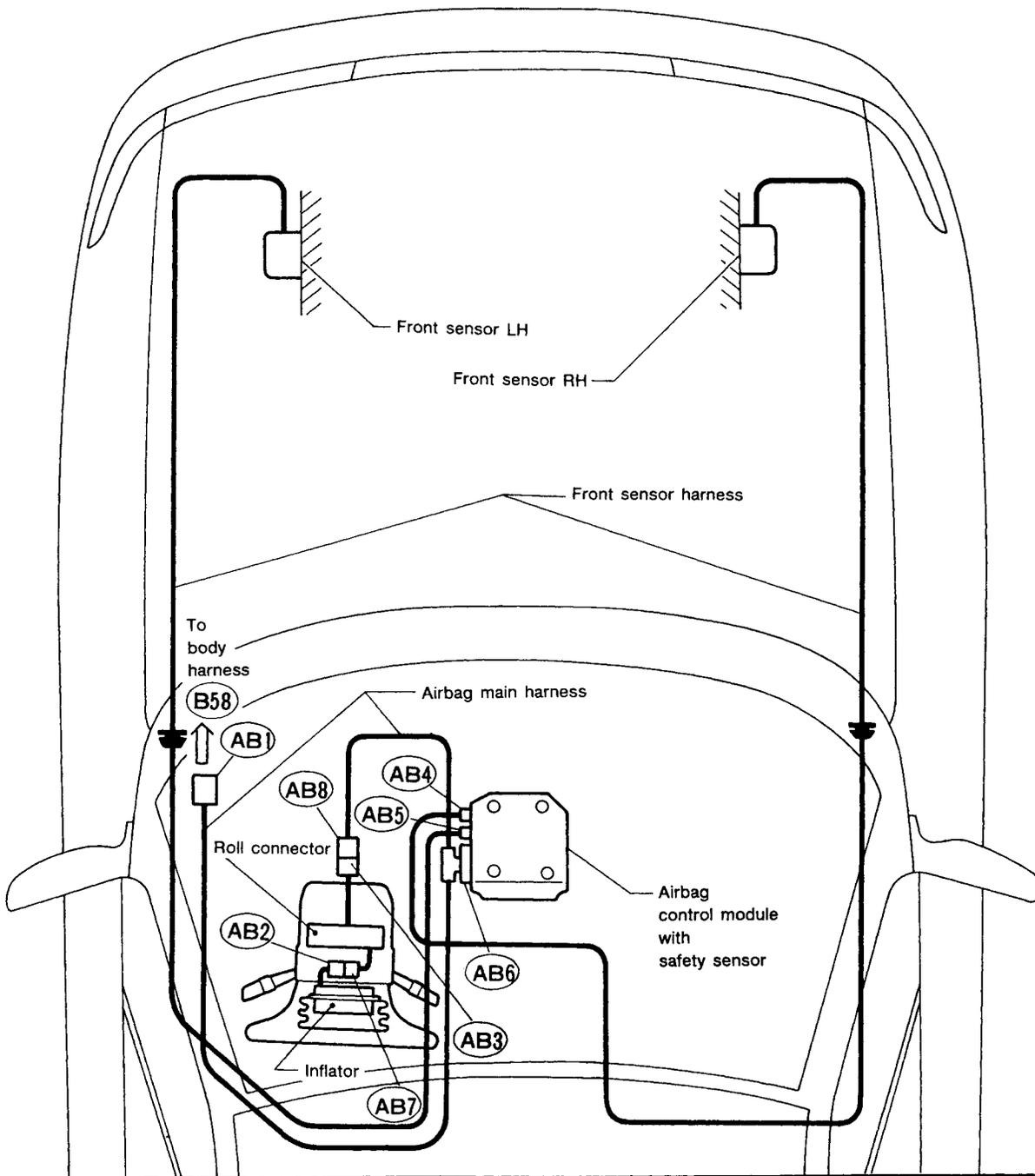


Fig. 69

C5-712

3. Wiring Location



Connector No.	AB1	AB2	AB3	AB4	AB5	AB6	AB7	AB8
Pole	7	3	3	2	2	12	3	3
Color	Yellow	Yellow	Yellow	Blue	Orange	Yellow	Yellow	Yellow
	male	female	female	female	female	female	male	male

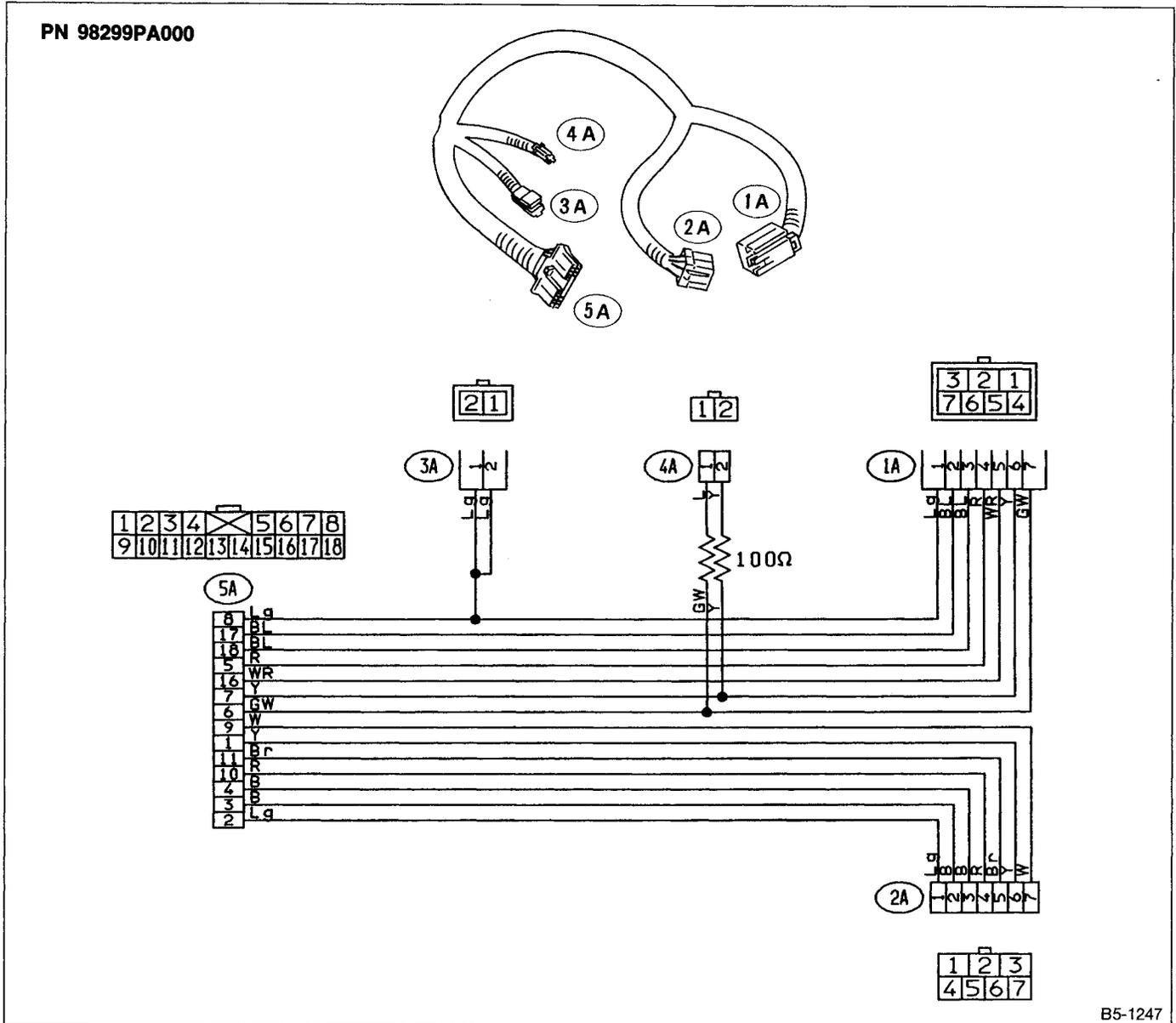
Fig. 70

C5-730

4. Test Harnesses

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



B5-1247

Fig. 71

B: TEST HARNESS B

PN 98299PA010

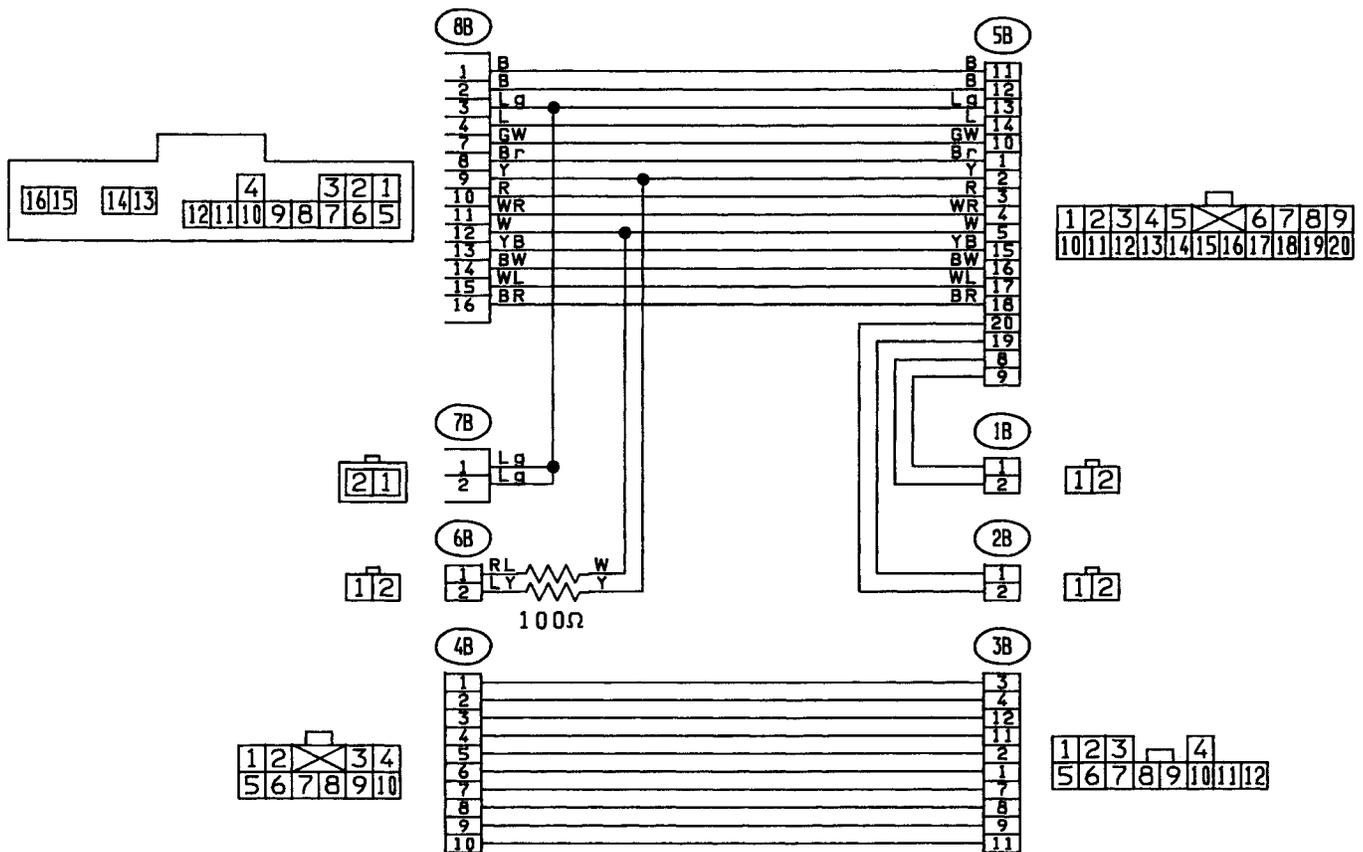
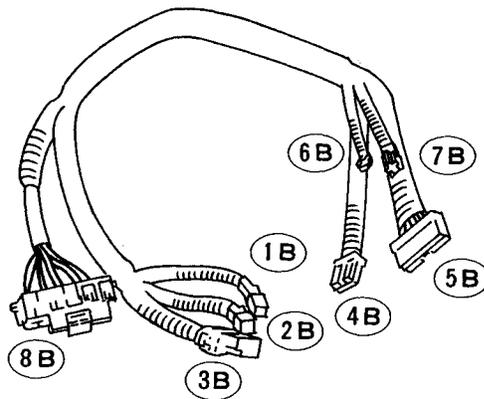
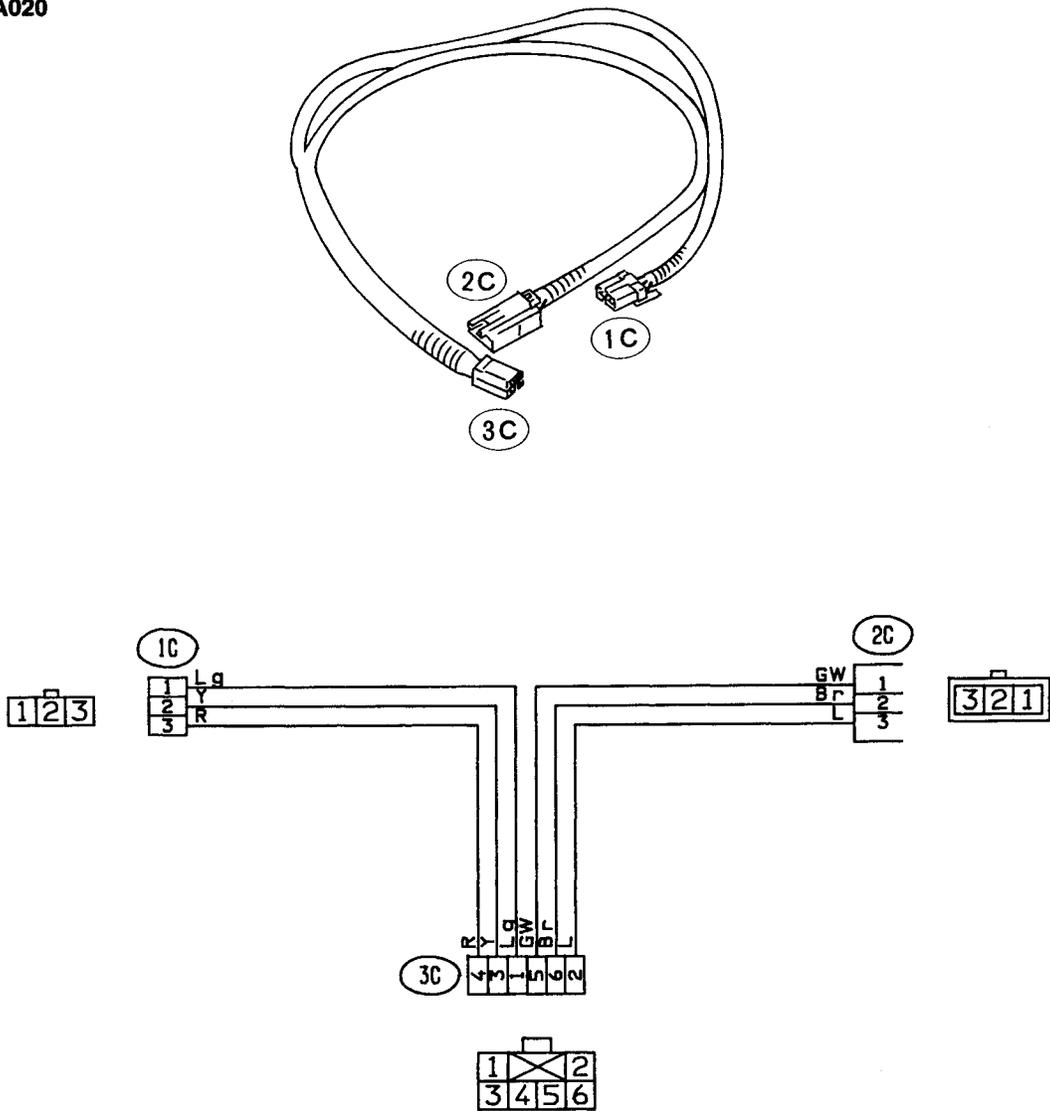


Fig. 72

C: TEST HARNESS C

PN 98299PA020



B5-1249

Fig. 73

5. 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 mod-

ule. It also makes it possible to finish, diagnostics in less time.

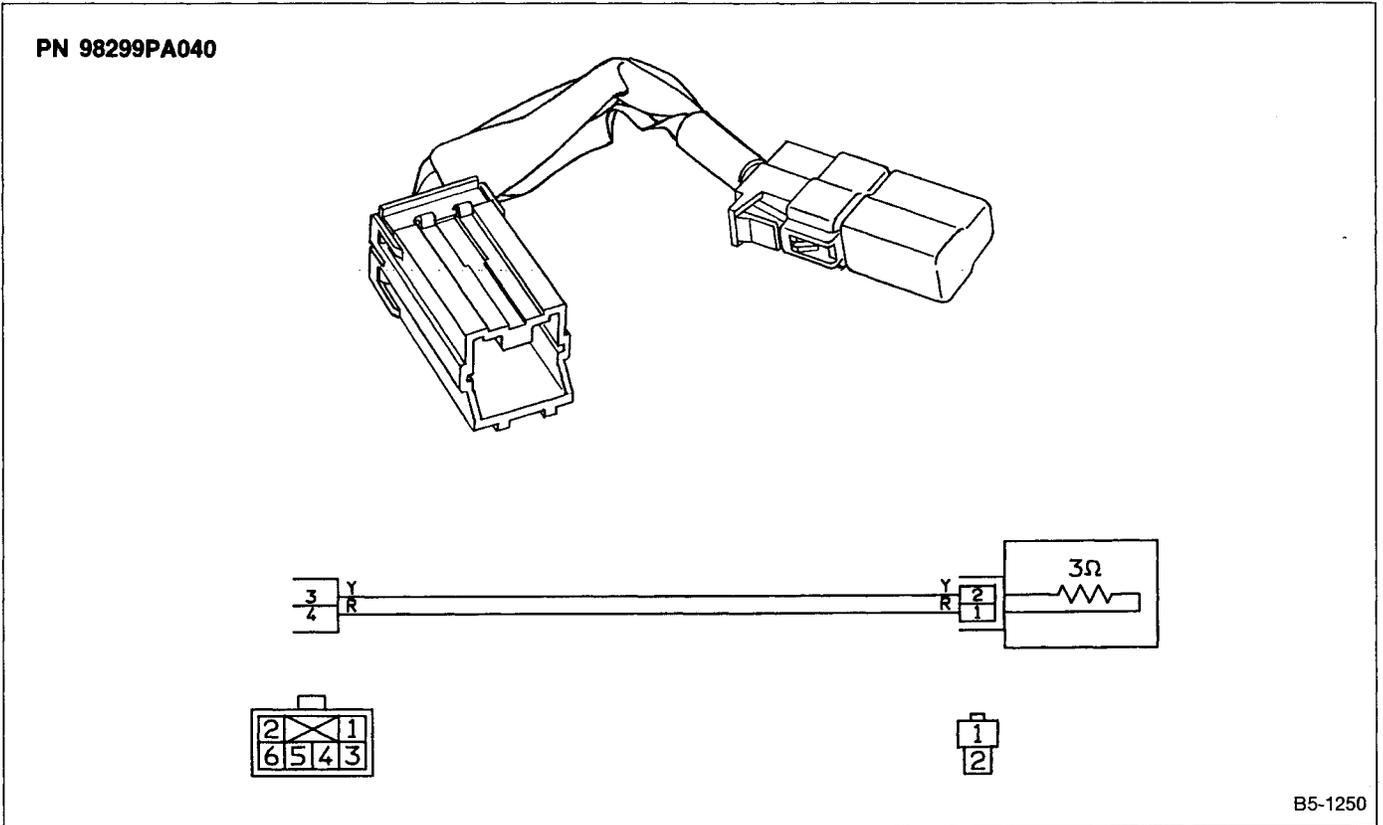


Fig. 74

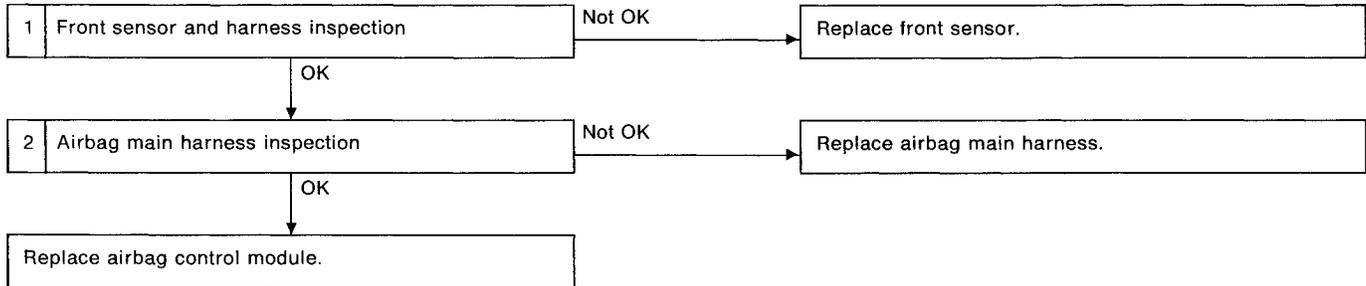
6. Diagnostic Chart with Trouble Code

A: TROUBLE CODE 02

CONTENTS OF DIAGNOSIS:

- Front sensor harness is shorted.
- Airbag main harness is shorted.
- Airbag module harness is shorted.
- Roll connector is shorted.

- 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.

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

1. FRONT SENSOR AND HARNESS INSPECTION

- 1) Disconnect connectors (AB4) and (AB5) from airbag control module. <Refer to 5-5 [W1E2].>
- 2) Connect connectors (AB4) and (AB5) to connector (8B) of test harness B.

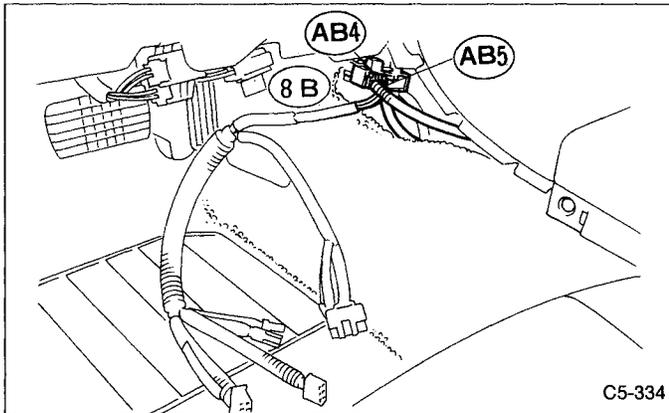


Fig. 75

- 3) Measure resistance between connector (5B) terminals indicated below.

(5B) Terminals / Specified resistance:

- (RH: AB4): No. 17 — No. 18 / 1.4 — 1.6 kΩ
- (LH: AB5): No. 15 — No. 16 / 1.4 — 1.6 kΩ

- 4) Measure resistance between each connector (5B) terminal and ground.

(5B) Terminals / Specified resistance:

- (RH: AB4): No. 17 — Body / 1 MΩ, or more
- No. 18 — Body / 1 MΩ, or more
- (LH: AB5): No. 15 — Body / 1 MΩ, or more
- No. 16 — Body / 1 MΩ, or more

2. AIRBAG MAIN HARNESS INSPECTION

- 1) Disconnect connector (AB6) from airbag control module, and connect (AB6) to test harness B connector (8B).

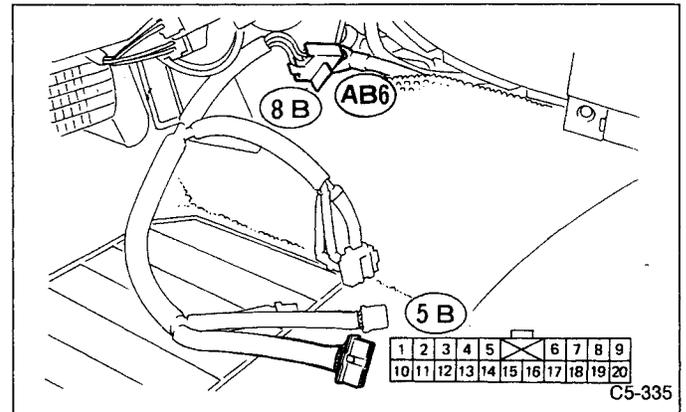


Fig. 76

- 2) Measure resistance between each (5B) terminal and ground.

(5B) Terminals / Specified resistance:

- No. 1 — Body / 1 MΩ, or more
- No. 14 — Body / 1 MΩ, or more

B: TROUBLE CODE 03

CONTENTS OF DIAGNOSIS:

- Front sensor harness circuit is open.
- Front sensor unit circuit is open.

1 Front sensor (LH and RH) inspection

Identify faulty sensor and replace front sensor.

CAUTION:

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

1. FRONT SENSOR (LH AND RH) INSPECTION

- 1) Disconnect connectors (AB4) and (AB5) from airbag control module.
- 2) Connect connectors (AB4) and (AB5) to test harness B connector (8B).

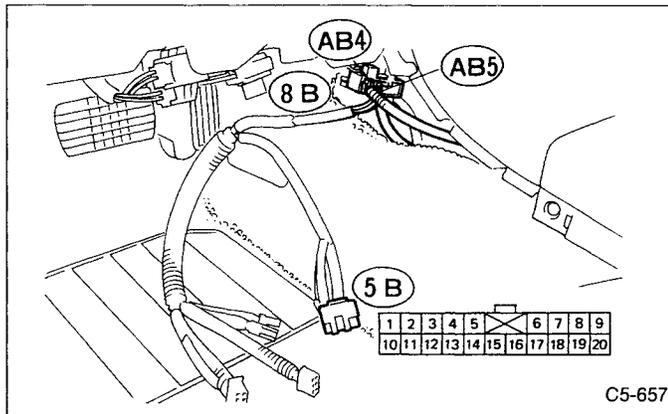


Fig. 77

- 3) Measure resistance between connector (5B) terminals.

(5B) Terminals / Specified resistance:

(RH: AB4): No. 17 — No. 18 / 1.4 — 1.6 k Ω

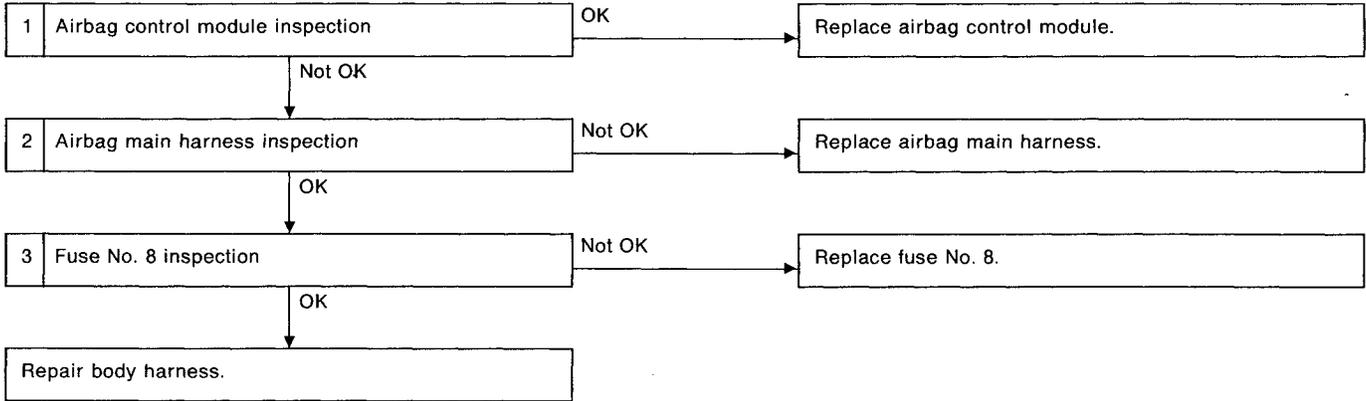
(LH: AB5): No. 15 — No. 16 / 1.4 — 1.6 k Ω

C: TROUBLE CODE 11

CONTENTS OF DIAGNOSIS:

- Airbag control module is faulty.
- Airbag main harness circuit is open.

- Fuse No. 8 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).

1. AIRBAG CONTROL MODULE INSPECTION

1) Disconnect connector (AB6) from airbag control module <Refer to 5-5 [W1E2].> and connect it to test harness B connector (8B).

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

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

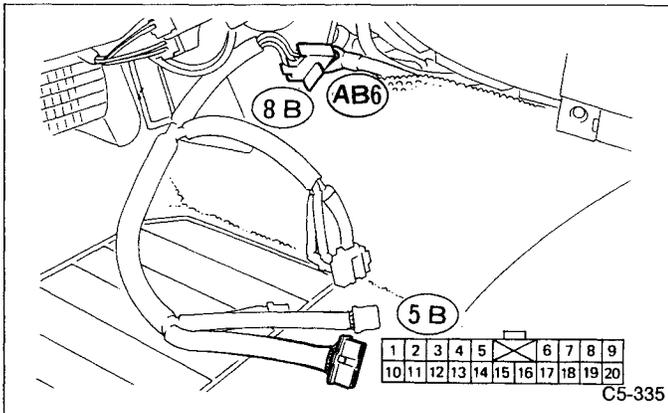


Fig. 78

(5B) Terminal / Specified voltage:
No. 2 — Body / 10 V, or more

2. AIRBAG MAIN HARNESS INSPECTION

- 1) Go to step 2) below after performing diagnostics on airbag system as per flowchart under "1. AIRBAG CONTROL MODULE INSPECTION " previously outlined.
- 2) Turn ignition switch "OFF", disconnect battery ground terminal and then wait at least 20 seconds.
- 3) Disconnect body harness connector (B58) from connector (AB1) at front lower pillar, and connect connector (AB1) to test harness A connector (2A).

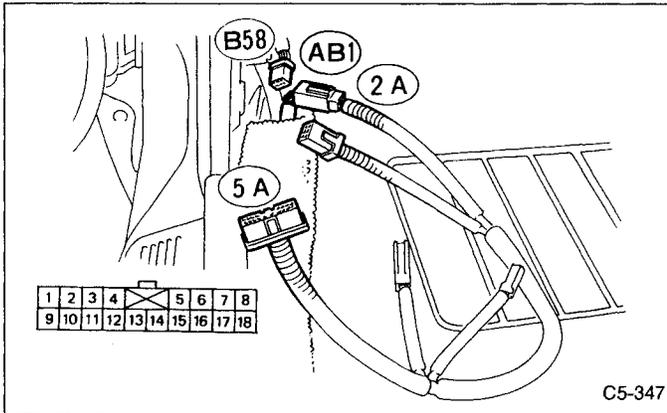


Fig. 79

- 4) Measure resistance between test harness A connector (5A) terminal and test harness B connector (5B) terminal.

Connector & terminal / Specified resistance:
(5A) No. 1 — (5B) No. 2 / 10 Ω, or less

(5A) Terminal / Specified resistance:
No. 1 — Body / 10 kΩ, or more

(5B) Terminal / Specified resistance:
No. 2 — Body / 10 kΩ, or more

3. FUSE No. 8 INSPECTION

- 1) Turn ignition switch "OFF", and remove airbag fuse protector.

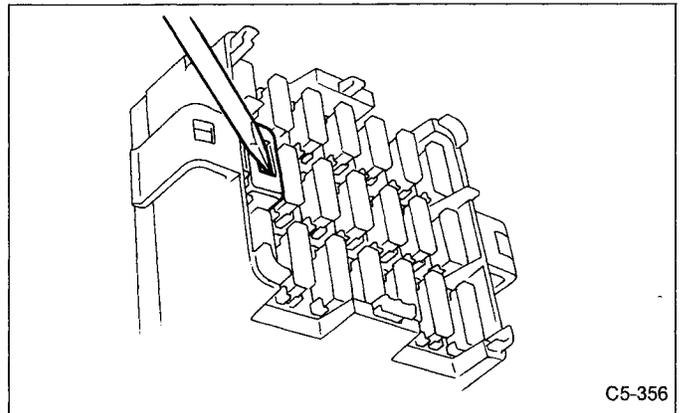


Fig. 80

- 2) Remove and visually check fuse No. 8.

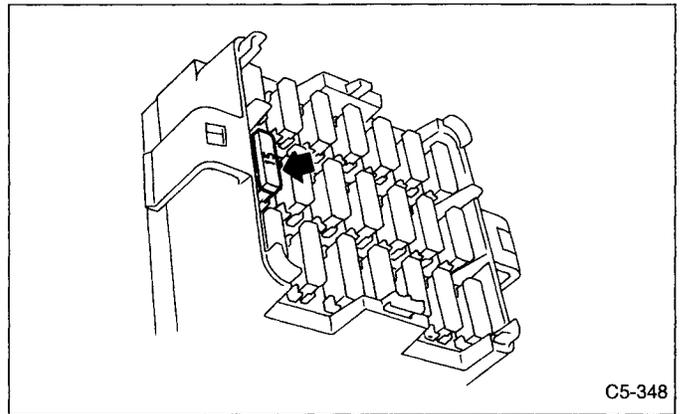


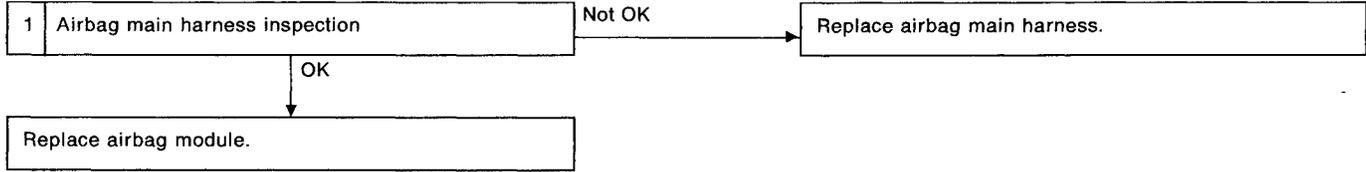
Fig. 81

D: TROUBLE CODE 12

CONTENTS OF DIAGNOSIS:

- Airbag main harness circuit is open.
- Airbag module harness circuit is open.

- Roll connector circuit is open.
- Airbag control module 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 MAIN HARNESS INSPECTION

1) Remove lower cover and panel <Refer to 5-4 [W3A0].>, and connect connector (AB8) at harness spool to test harness C connector (1C).

2) Disconnect connector (AB6) <Refer to 5-5 [W1E2].> from airbag control module, and connect it to test harness B connector (8B) terminal.

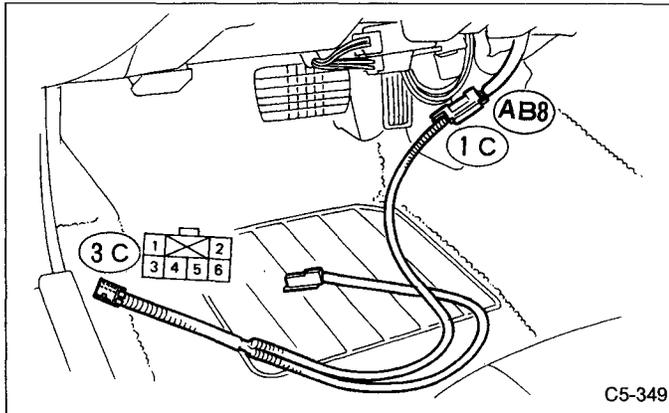


Fig. 82

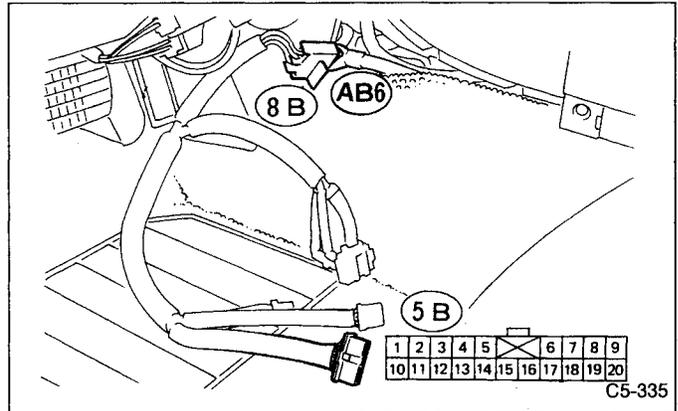


Fig. 83

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

Connector & terminal / Specified resistance:

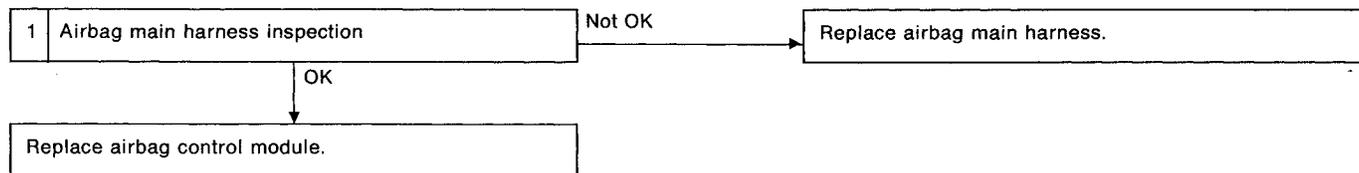
- (5B) No. 14 — (3C) No. 4 / 10 Ω, or less
- (5B) No. 1 — (3C) No. 3 / 10 Ω, or less

E: TROUBLE CODE 13

CONTENTS OF DIAGNOSIS:

- Airbag main harness circuit is shorted.
- Airbag module harness is shorted.
- Roll connector circuit is shorted.

- Airbag control module is faulty.



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).

1. AIRBAG MAIN HARNESS INSPECTION

1) Disconnect connector (AB6) from airbag control module <Refer to 5-5 [W1E2].>, and connect it to test harness B connector (8B).

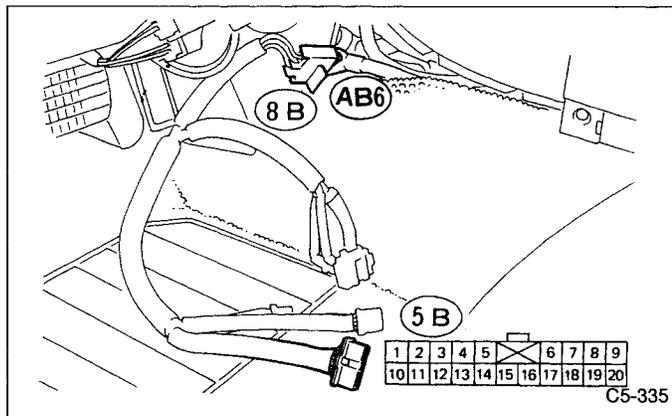


Fig. 84

2) Measure resistance between test harness B connector (5B) terminals.

(5B) Terminals / Specified resistance:

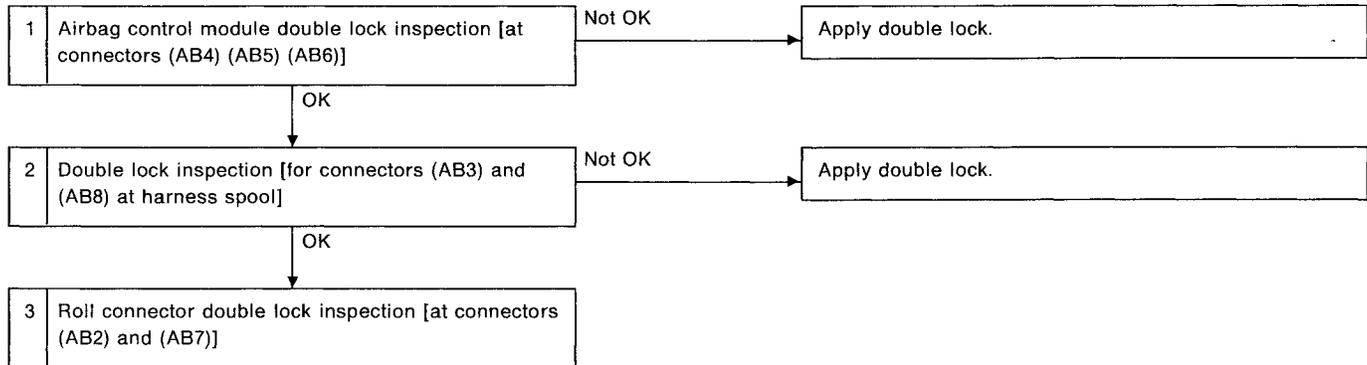
No. 1 — No. 14 / 10 kΩ, or more

F: TROUBLE CODE 14

CONTENTS OF DIAGNOSIS:

- (AB2) and (AB7) are not connected properly.
- (AB3) and (AB8) are not connected properly.

- (AB4), (AB5) and (AB6) are not connected properly to airbag control module.

**CAUTION:**

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

1. AIRBAG CONTROL MODULE DOUBLE LOCK INSPECTION [AT CONNECTORS (AB4) (AB5) (AB6)]

1) Check double lock of connectors (AB4) (AB5) (AB6) connected to airbag control module. <Refer to 5-5 [W1E2].>

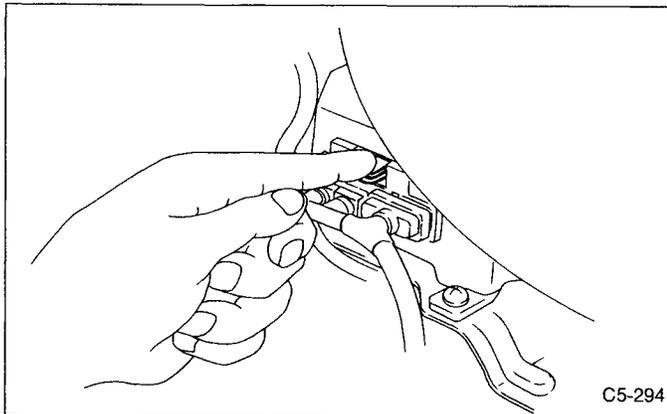


Fig. 85

C5-294

2. DOUBLE LOCK INSPECTION [FOR CONNECTORS (AB3) AND (AB8) AT HARNESS SPOOL]

1) Remove lower cover and panel. <Refer to 5-4 [W3A0].>
2) Check double lock of connectors (AB3) and (AB8) at harness spool.

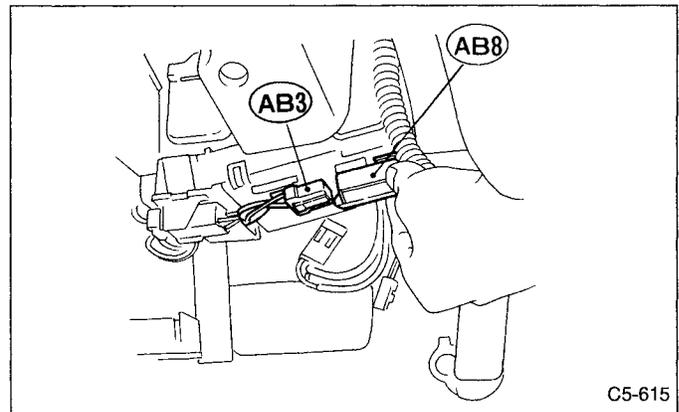


Fig. 86

C5-615

G: TROUBLE CODE 21

CONTENTS OF DIAGNOSIS:

- Airbag control module is faulty.

Replace airbag control module.

CAUTION:

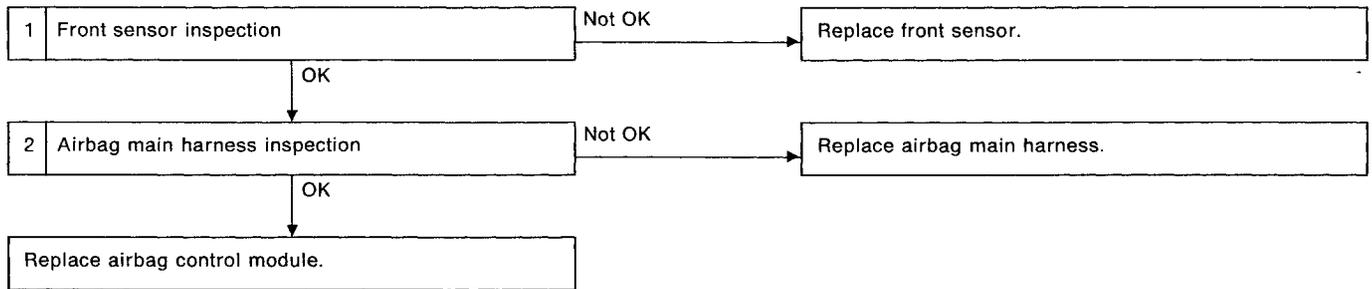
Before performing diagnostics on airbag system, turn ignition switch "OFF", disconnect battery ground cable, and then wait at least 20 seconds.

< Refer to 5-5 [W1E2]. >

H: TROUBLE CODE 23

CONTENTS OF DIAGNOSIS:

- Airbag main harness is shorted to power supply.
- Front sensor harness is shorted to power supply.
- Airbag module harness is damaged.
- Roll connector is shorted to power supply.
- 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.

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

1. FRONT SENSOR INSPECTION

- 1) Disconnect connectors (AB4) and (AB5) from airbag control module. <Refer to 5-5 [W1E2].>
- 2) Connect connectors (AB4) and (AB5) to test harness B connector (8B).

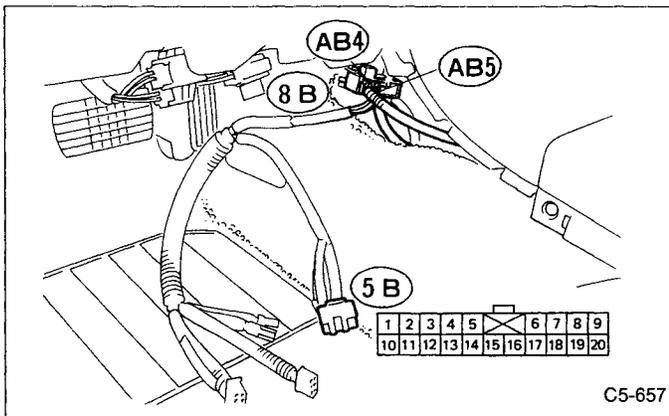


Fig. 88

- 3) Measure resistance between test harness B connector (5B) terminals.

(5B) Terminals / Specified resistance:

- (RH: AB4): No. 17 — No. 18 / 1.4 — 1.6 kΩ
- (LH: AB5): No. 15 — No. 16 / 1.4 — 1.6 kΩ

2. AIRBAG MAIN HARNESS INSPECTION

- 1) Disconnect connector (AB6) from airbag control module <Refer to 5-5 [W1E2].>, and connect it to test harness B connector (8B).

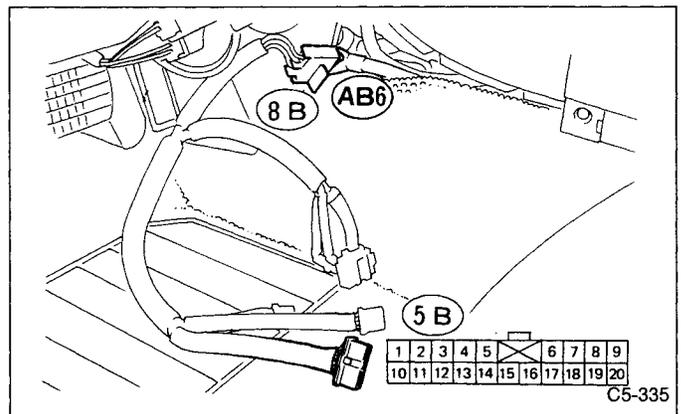


Fig. 89

- 2) Connect battery ground cable and turn ignition switch “ON” (engine off).
- 3) Measure voltage across each test harness B connector (5B) terminal and ground.

(5B) Terminals / Specified voltage:

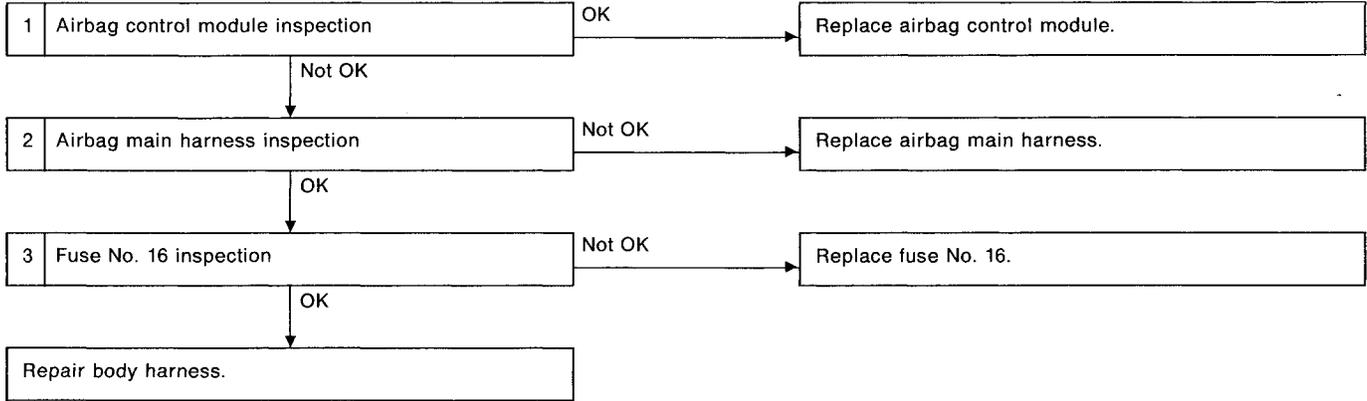
- No. 1 — Body / 1 V, or less
- No. 14 — Body / 1 V, or less

I: TROUBLE CODE 31

CONTENTS OF 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).

1. AIRBAG CONTROL MODULE INSPECTION

1) Disconnect connector (AB6) from airbag control module <Refer to 5-5 [W1E2].>, and connect it to test harness B connector (8B).

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

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

(5B) Terminal / Specified voltage:
No. 5 — Body / 10 V, or more

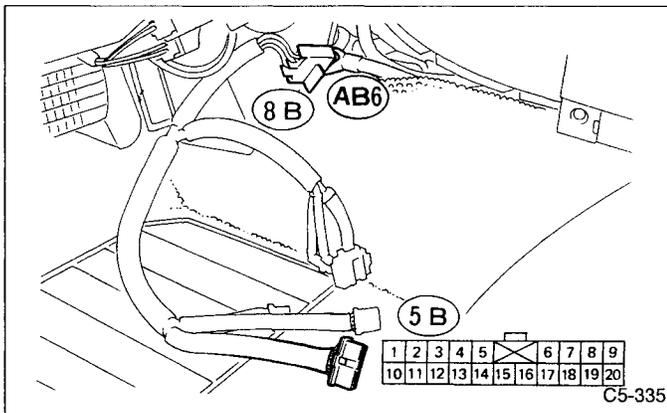


Fig. 90

2. AIRBAG MAIN HARNESS INSPECTION

- 1) Go to step 2) below after performing diagnostics on airbag system as per flowchart 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 (B58) at front lower pillar, and connect connector (AB1) to test harness A connector (2A).

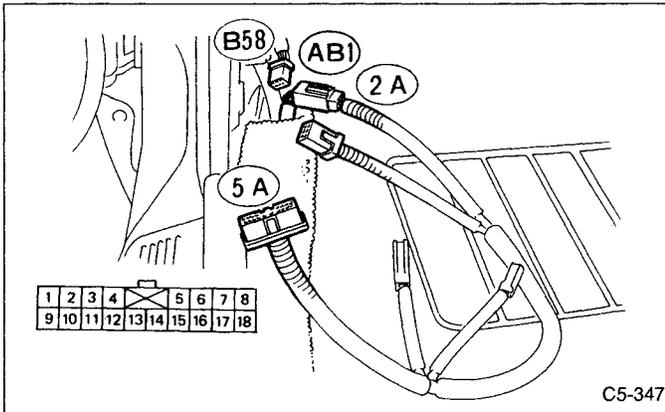


Fig. 91

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

Connector & terminal / Specified resistance:
(5A) No. 9 — (5B) No. 5 / 10 Ω, or less

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

(5A) Terminal / Specified resistance:
No. 9 — Body / 10 kΩ, or more

(5B) Terminal / Specified resistance:
No. 5 — Body / 10 kΩ, or more

3. FUSE No. 16 INSPECTION

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

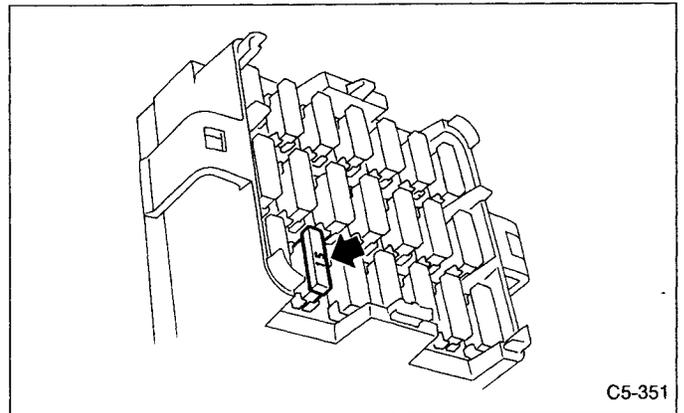


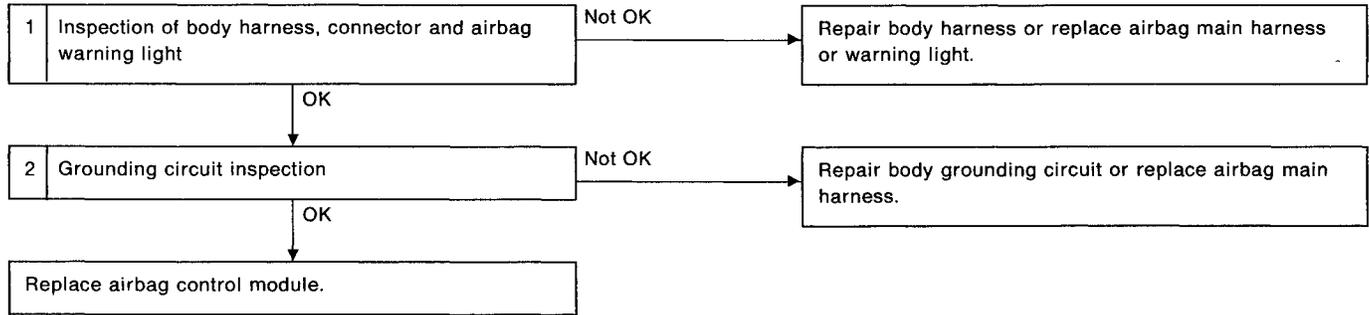
Fig. 92

J: AIRBAG WARNING LIGHT REMAINS ON.

CONTENTS OF DIAGNOSIS:

- Airbag warning light is faulty.
- Airbag control module-to-airbag warning light harness circuit is open or shorted.

- Grounding circuit is faulty.
- Airbag control module is faulty.
- (AB1) and (B58) 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. INSPECTION OF BODY HARNESS, CONNECTOR AND AIRBAG WARNING LIGHT

1) Turn ignition switch "OFF" and connect body harness connector (B58) to test harness A connector (1A).

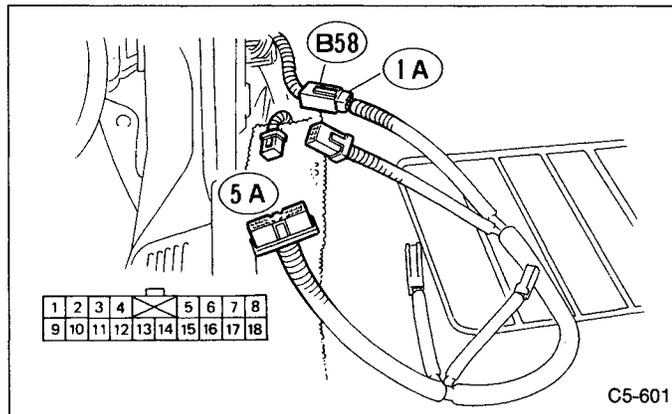


Fig. 93

2) Connect battery ground cable and turn ignition switch "ON," (engine off) and connect connectors (3A) and (4A) to check if warning light goes out. If it does, go to step 3). If it remains on, check body harness and repair if necessary. If body harness is satisfactory, replace warning light. After problem has been eliminated, disconnect connectors (3A) and (4A).

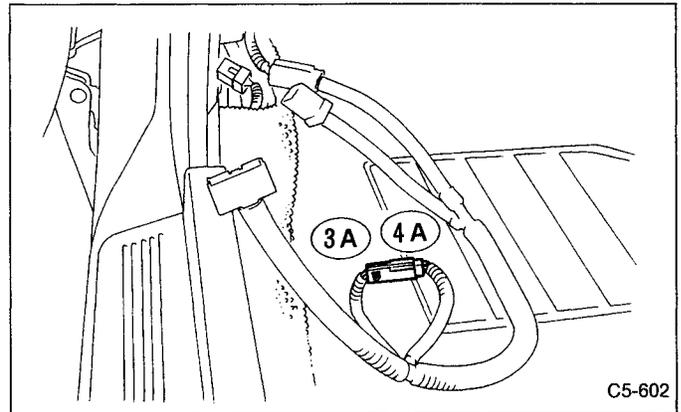


Fig. 94

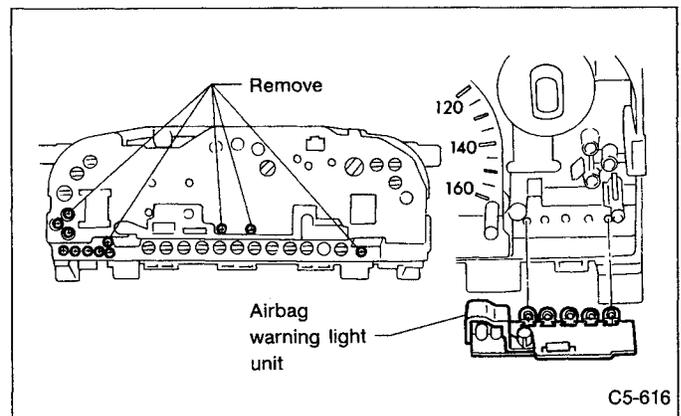


Fig. 95

- Turn ignition switch "OFF," disconnect battery ground cable and then wait at least 20 seconds, and re-connect connectors (AB1) and (B58).
- Remove instrument panel lower cover and disconnect (AB3) with (AB8), then disconnect connector (AB6) from airbag control module, and connect it to test harness B connector (8B).

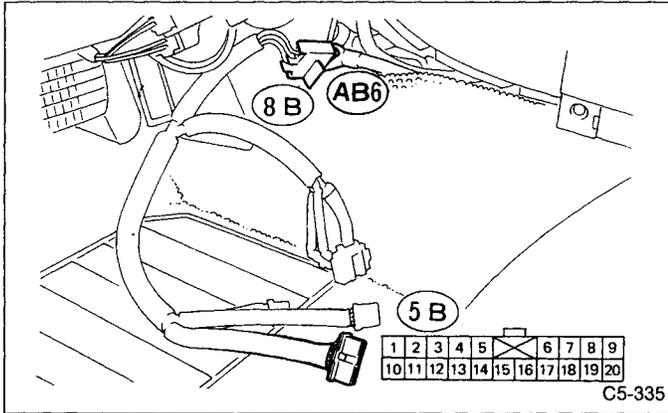


Fig. 96

- Connect battery ground cable and turn ignition switch "ON," (engine off) and connect connectors (6B) and (7B) to check if warning light goes out. If it does, go to "2. GROUNDING CIRCUIT INSPECTION" below. If it remains on, replace airbag main harness. After problem has been eliminated, disconnect connectors (6B) and (7B).

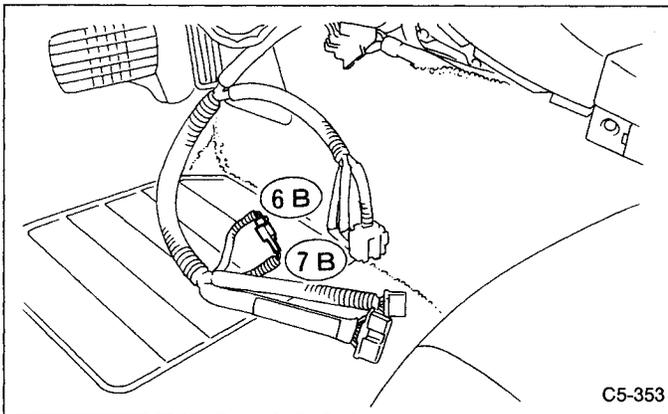


Fig. 97

2. GROUNDING CIRCUIT INSPECTION

- Turn ignition switch "OFF", disconnect battery ground cable and then wait at least 20 seconds. Disconnect connector (AB1) from body harness connector (B58), and connect connector (B58) to test harness A connector (1A). Measure resistance between connector (5A) terminal and ground.

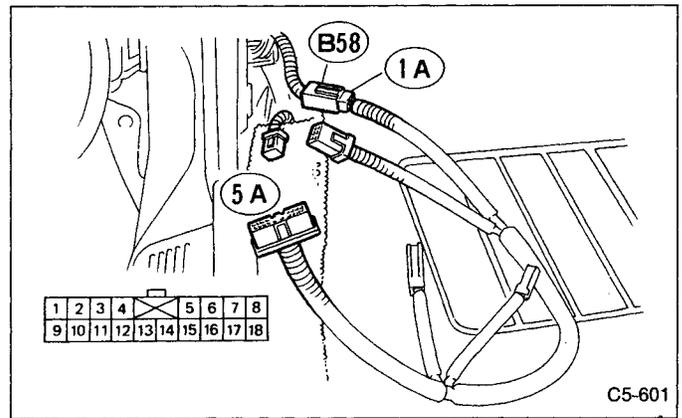


Fig. 98

- (5A) Terminal / Specified resistance:**
No. 17 — Body / 10 Ω, or less
No. 18 — Body / 10 Ω, or less

If resistance is greater than 10 ohms, body grounding circuit is faulty and should be repaired. If resistance is less than 10 ohms, go to step 2) below.

- Connect connectors (AB1) and (B58). Disconnect connector (AB6) from airbag control module, and connect it to test harness B connector (8B).

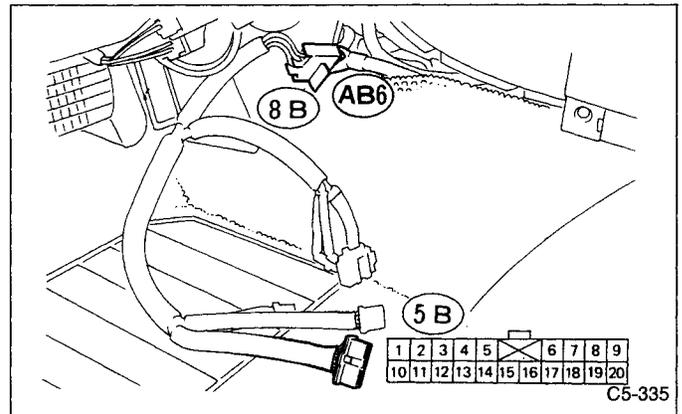


Fig. 99

- Measure resistance between each test harness B connector (5B) terminal and ground.

- (5B) Terminal / Specified resistance:**
No. 11 — Body / 10 Ω, or less
No. 12 — Body / 10 Ω, or less

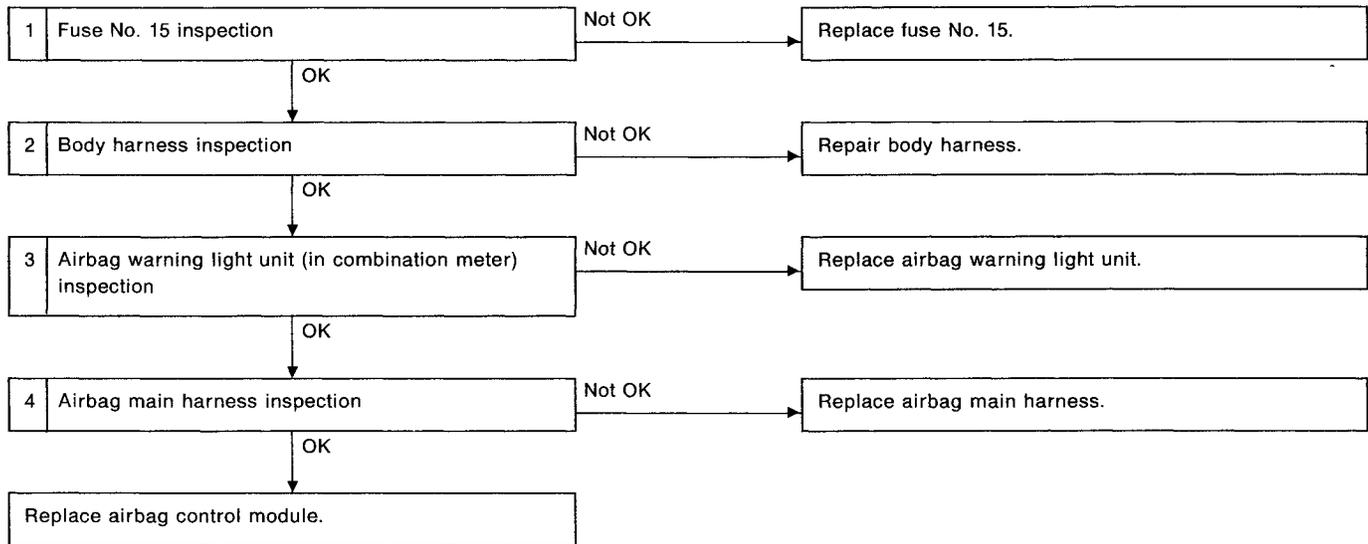
If resistance is greater than 10 ohms, replace airbag main harness.
 If resistance is less than 10 ohms, replace airbag control module.

K: AIRBAG WARNING LIGHT REMAINS OFF.

CONTENTS OF DIAGNOSIS:

- Fuse No. 15 is blown.
- Body harness circuit is open.
- Airbag warning light cluster 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 cable, and then wait at least 20 seconds.

1. FUSE No. 15 INSPECTION

1) Remove and visually check fuse No. 15.

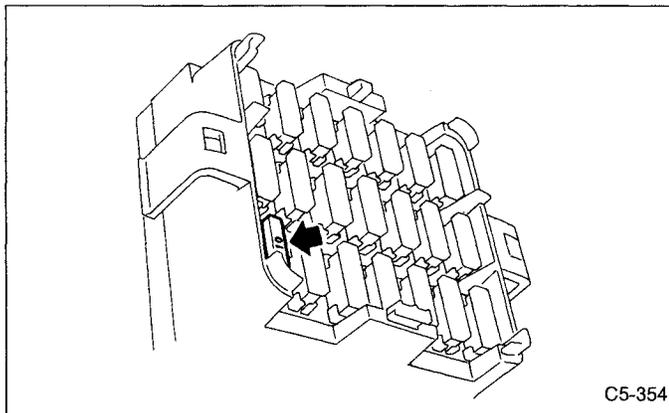


Fig. 100

2) If fuse is blown, replace it with a new one. After connecting battery cable and turning ignition switch "ON" (engine off), if it blows again, proceed to "2. BODY HARNESS INSPECTION".

2. BODY HARNESS INSPECTION

Turn ignition switch "ON" (engine off) to make sure other warning lights (in combination meter) illuminate. If they do not, check body harness.

3. AIRBAG WARNING LIGHT UNIT (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 (B58) from connector (AB1).

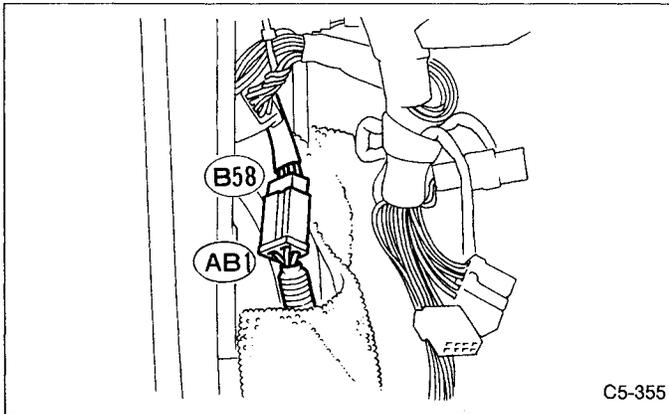


Fig. 101

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

If it does not, replace airbag warning light unit.

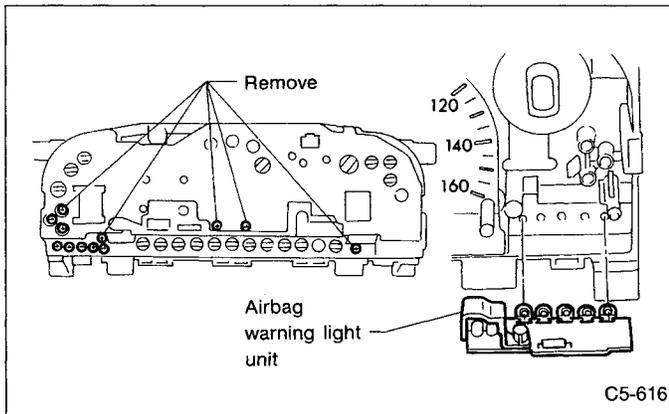


Fig. 102

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 (B58) and connector (AB1).
- 3) Disconnect connectors (AB3) and (AB8) at harness spool. < Refer to 5-5 [W1E2]. >

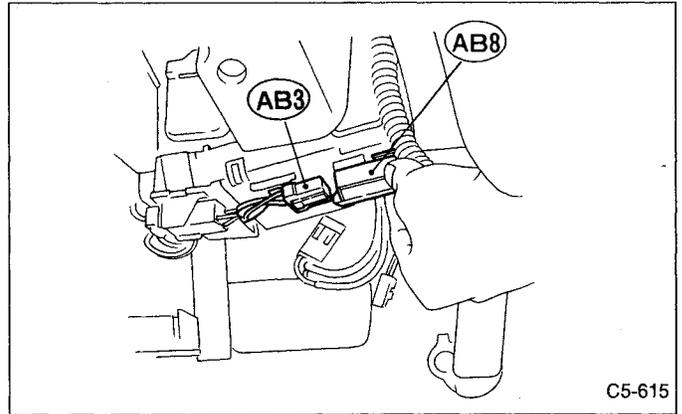


Fig. 103

- 4) Disconnect connector (AB6) from airbag control module. < Refer to 5-5 [W1E2]. >

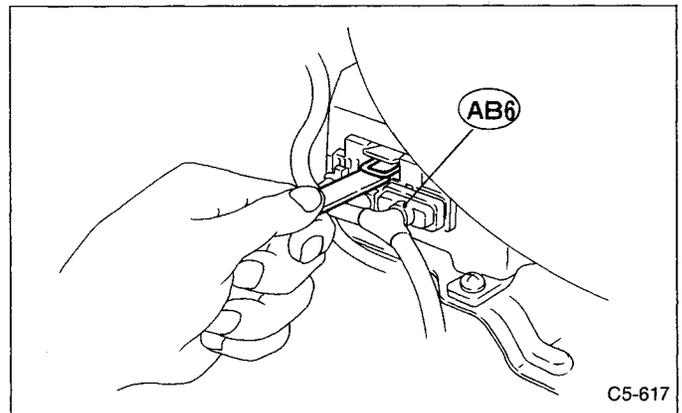


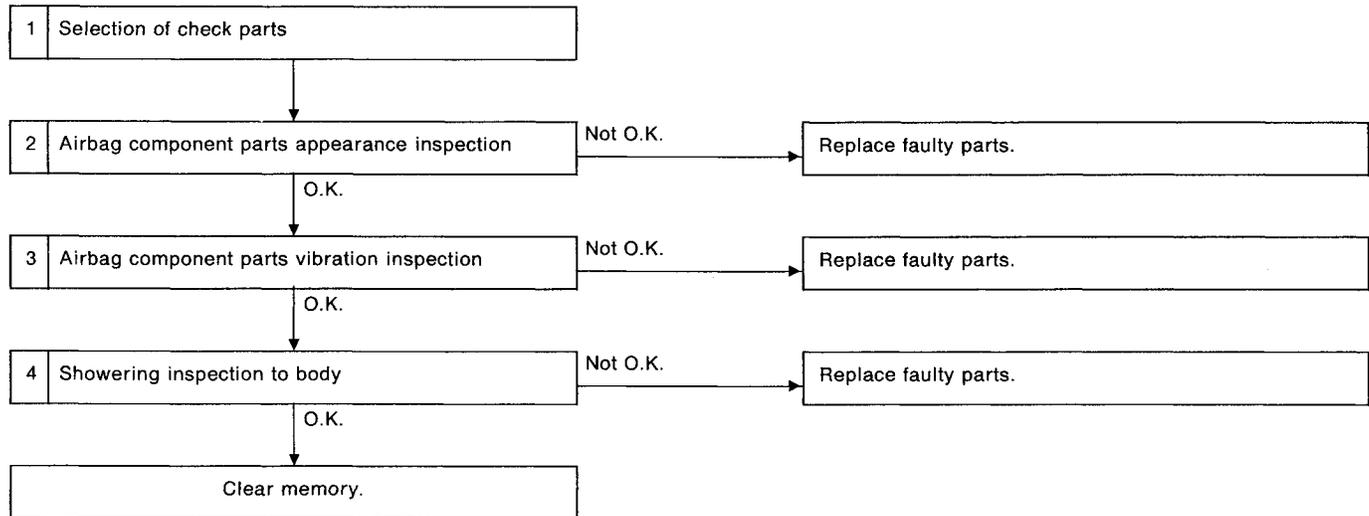
Fig. 104

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

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

CONTENTS OF 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. SELECTION OF CHECK PARTS

1) Conduct on-board diagnostics and call up trouble codes stored in memory. <Ref. to 5-5 [T1B0].>

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:
02	<ul style="list-style-type: none"> ● Front sensor (RH, LH) ● Airbag main harness ● Airbag module ● Roll connector ● Airbag control module 	W1C1 W1D1 W1B1 W1F1 W1E1
03	<ul style="list-style-type: none"> ● Front sensor (RH, LH) ● Airbag control module 	W1C1 W1E1
11	<ul style="list-style-type: none"> ● Fuse No. 8 ● Airbag main harness ● Airbag control module ● Body harness 	T6C3 W1D1 W1E1 —
12	<ul style="list-style-type: none"> ● Roll connector ● Airbag module ● Airbag main harness ● Airbag control module 	W1F1 W1B1 W1D1 W1E1
13	<ul style="list-style-type: none"> ● Airbag module ● Roll connector ● Airbag main harness ● Airbag control module 	W1B1 W1F1 W1D1 W1E1
21	<ul style="list-style-type: none"> ● Airbag control module 	W1E1
23	<ul style="list-style-type: none"> ● Airbag main harness ● Roll connector ● Airbag module ● Front sensor (RH, LH) ● Airbag control module 	W1D1 W1F1 W1B1 W1C1 W1E1

2. AIRBAG COMPONENT PARTS APPEARANCE INSPECTION

1) Conduct appearance inspection on parts selected.

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

3. 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 and front sensor at the same time as erroneous operation may result.

4. SHOWERING INSPECTION TO BODY

1) Spray water on vehicle body.

CAUTION:

Do not directly spray water on airbag components.

2) Check passenger compartment for traces of leaking.

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

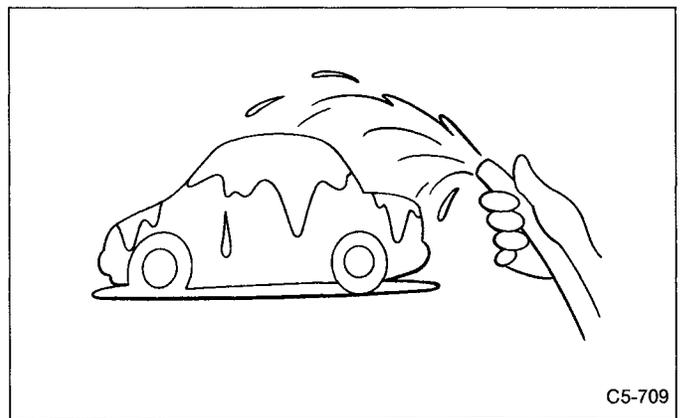


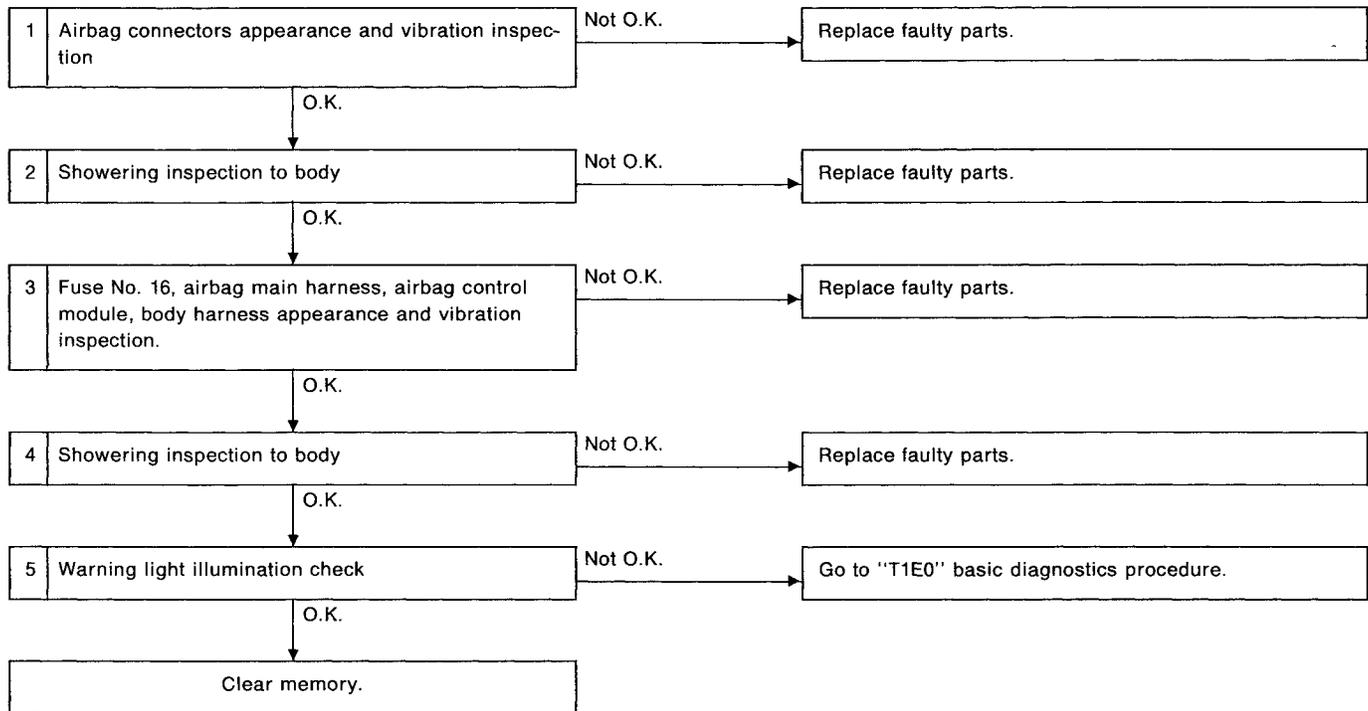
Fig. 105

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

CONTENTS OF 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 CONNECTORS APPEARANCE AND VIBRATION INSPECTION

1) Conduct appearance inspection on airbag connectors (AB2 through AB8). <Ref. to 5-5 [T300].>

Check terminals, case and wiring harnesses for damage.

2) Conduct vibration inspection on airbag connectors (AB2 through AB8). <Ref. to 5-5 [T300].>

Gently shake each airbag connector.

2. SHOWERING INSPECTION TO BODY

1) Spray water on vehicle body.

CAUTION:

Do not directly spray water on airbag connectors.

2) Check passenger compartment for traces of leaking.

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



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Fig. 106

3. FUSE No. 16, AIRBAG MAIN HARNESS, AIRBAG CONTROL MODULE, BODY HARNESS APPEARANCE AND VIBRATION INSPECTION

1) Conduct appearance inspection on fuse No. 16 <Ref. to 5-5 [T6I3].>, airbag main harness <Ref. to 5-5 [W1D1].>, airbag control module <Ref. to 5-5 [W1E1].> and body harness.

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

2) Conduct vibration inspection on fuse No. 16, airbag main harness, airbag control module and body harness.

Gently shake each part.

4. SHOWERING INSPECTION TO BODY

1) Spray water on vehicle body.

CAUTION:

Do not directly spray water on each part.

2) Check passenger compartment for traces of leaking.

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

5. WARNING LIGHT ILLUMINATION CHECK

1) Turn ignition switch "ON" (engine "OFF") and observe airbag warning light. Airbag warning light comes "ON" for 8 seconds then goes out and stays out.

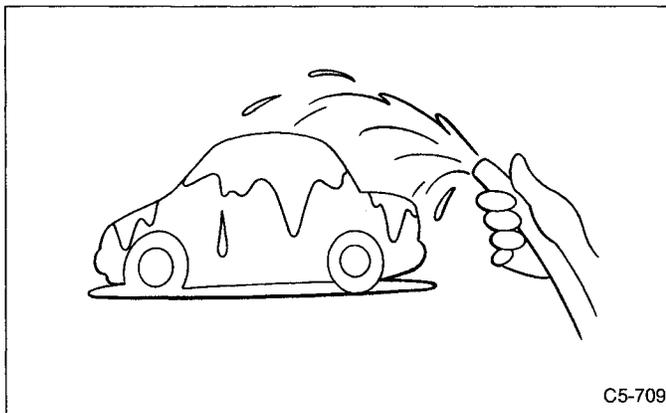


Fig. 107

SUBARU®

SVX

SERVICE MANUAL

FOREWORD

This service manual has been prepared to provide SUBARU service personnel with the necessary information and data for the correct maintenance and repair of SUBARU SVX.

This manual includes the procedures for maintenance disassembling, reassembling, inspection and adjustment of components and troubleshooting for guidance of both the fully qualified and the less-experienced mechanics.

Please peruse and utilize this manual fully to ensure complete repair work for satisfying our customers by keeping their vehicle in optimum condition. When replacement of parts during repair work is needed, be sure to use SUBARU genuine parts.

All information, illustration and specifications contained in this manual are based on the latest product information available at the time of publication approval.

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6 ELECTRICAL SECTION

ENGINE ELECTRICAL SYSTEM 6-1

BODY ELECTRICAL SYSTEM 6-2

WIRING DIAGRAM AND
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