

A GENERAL INFORMATION

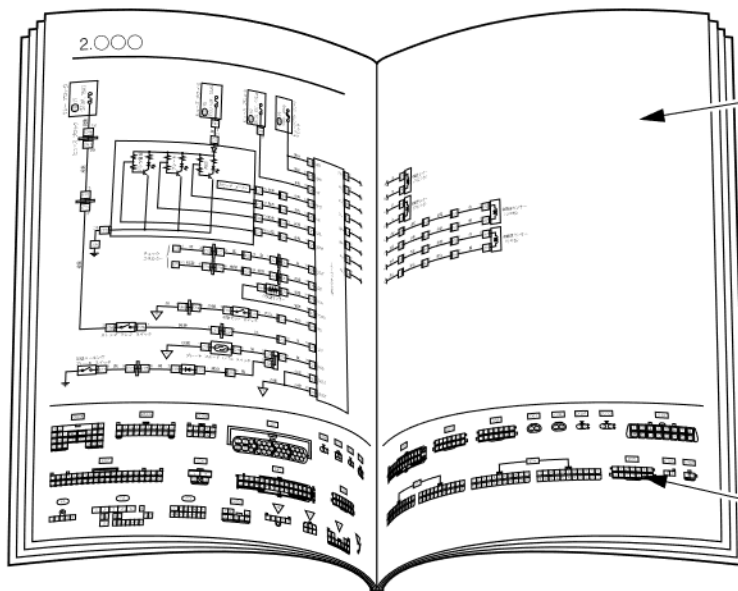
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1 CONFIGURATION OF THIS MANUAL

1.This wiring diagram manual consists of the following five sections given below.

Section		Contents of configuration
A	GENERAL INFORMATION	This section explains the configuration of this manual, how to read this manual, handling instructions, cautions on handling of SRS airbags, items omitted in this manual, abbreviation, symbol marks, table of vehicle models and table of harness codes.
B	POWER SUPPLY SYSTEM DIAGRAM	This diagram explains systems (functions) which the wirings from the positive terminal of the battery to the main fuse as well as to various fuses are used for.
C	EARTH SYSTEM DIAGRAM	This diagram explains the earth route of each system (function).
D	CIRCUIT DIAGRAM BY FUNCTION	This section consists of two portions, namely circuit diagrams and equipment diagrams. The circuit diagrams show electric circuits from the battery or fuse of each system (function) to the earth. Also the circuit diagrams explain the shapes of the connectors used in that system (function) and connector terminal arrangement. The equipment diagrams explain the installing positions of all the connectors used in that system (function), the number of connector pins, connector colors and connector names.
E	INDEX	The index shows page which each part can be found at.

2 HOW TO READ THIS MANUAL

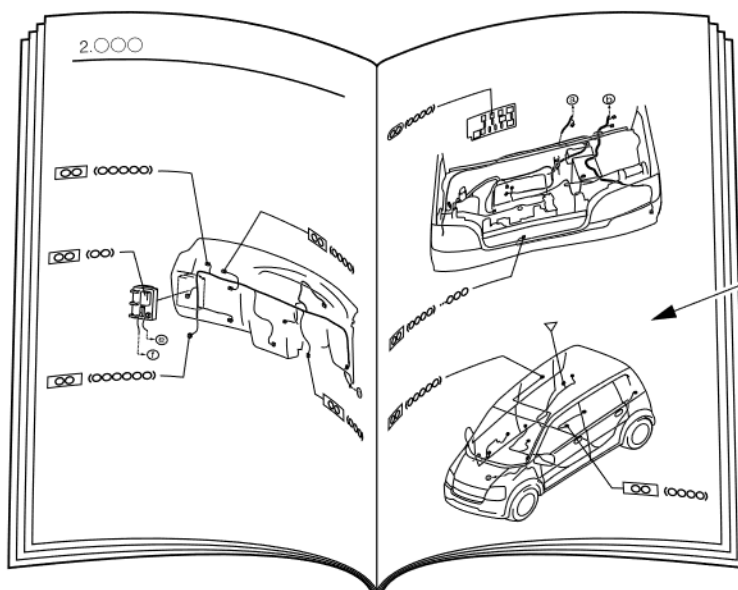


Circuit diagram by function

Circuits from each fuse to the earth are posted according to the system.

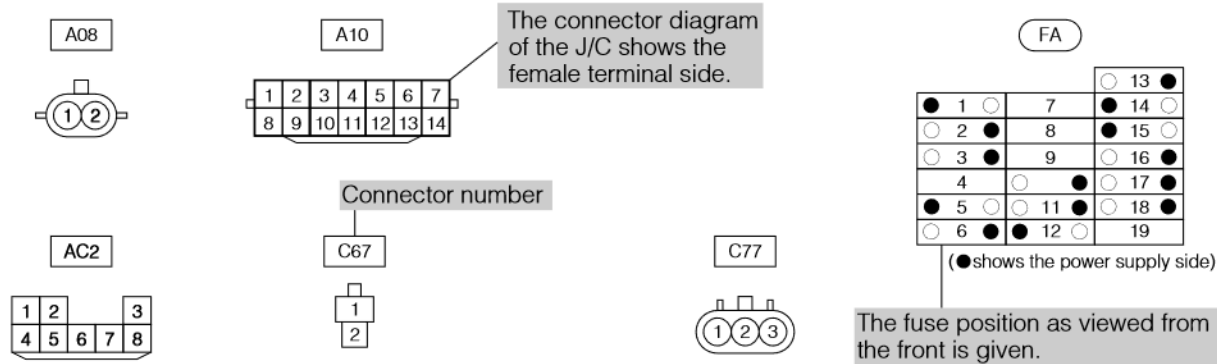
Connector diagram

The connector diagram indicates the connector numbers and connector terminal arrangement of the circuit diagram by function of that particular page.



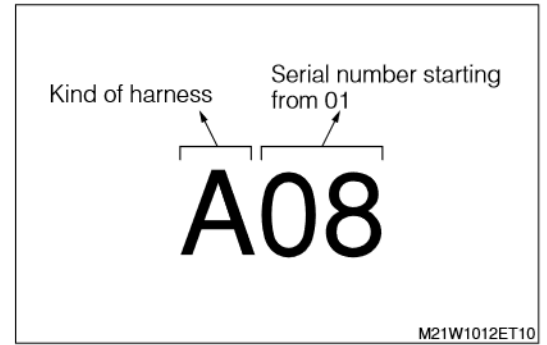
Equipment diagram

Concerning the engine compartment, portions related to the instrument panel and the whole body, the equipment diagrams indicate the positions of the connectors and earth posted in the circuit by function.

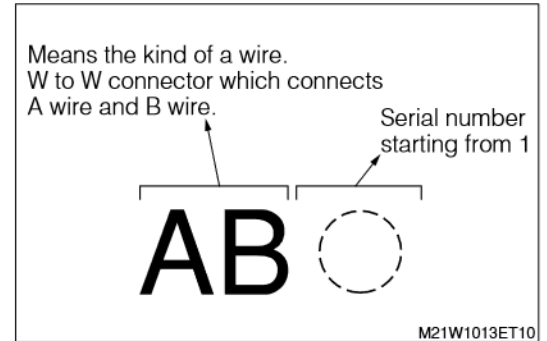


1.CONNECTOR NUMBER

- (1) The part connector is indicated by a combination of single-digit alphabet and number. The alphabet represents the kind of harness, thus indicating harness which the part belongs to. The wire harness code is given at "9. WIRE HARNESS CODE TABLE" of this chapter. The number is a serial number, starting from 01.

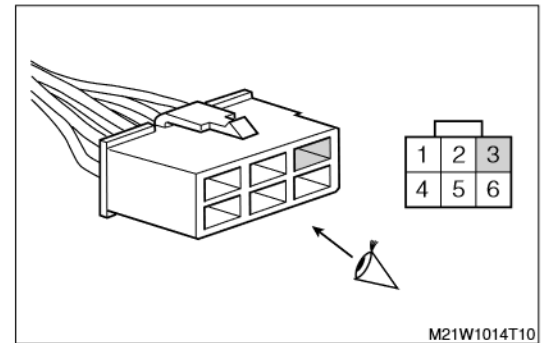


- (2) W to W is a combination of two-digit alphabets and two-digit numbers. The alphabets indicate the kind of harness, thus indicating which harness is connected to which harness. The wire harness code is given at "9. WIRE HARNESS CODE TABLE" of this chapter. The number is a serial number. The connector diagram indicates only the female connector side.



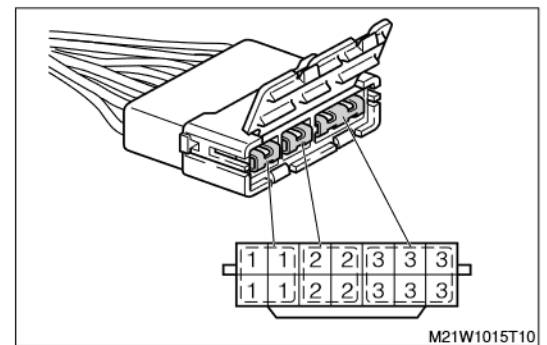
2.CONNECTOR TERMINAL NUMBER

- (1) The connector terminal position indicates a position when the connector is viewed from the joint surface direction. Only the female connector side is indicated. Blank terminals are also given numbers.

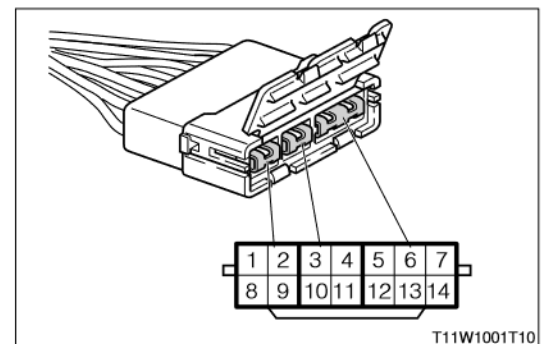


- (2) J/C is indicated in the following two methods.

Indication is made in such a way that the same number is assigned to terminals that are short circuited by the same short circuit pin.



Indication is made in such a way that terminals that are short circuited by the same short circuit pin are enclosed by bold lines.



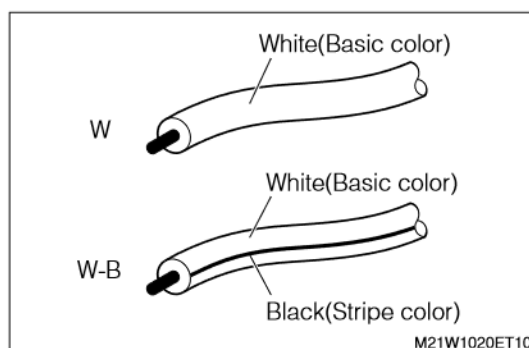
3.WIRE COLOR CODE

- (1) The wire color in the circuit diagram is indicated by a code. The table showing the relationship between the code and color is given at right table.

Code	Color	Code	Color
B	Black	V	Violet
G	Green	W	White
L	Blue	Y	Yellow
O	Orange	BR	Brown
P	Pink	GR	Gray
R	Red	LG	Light green

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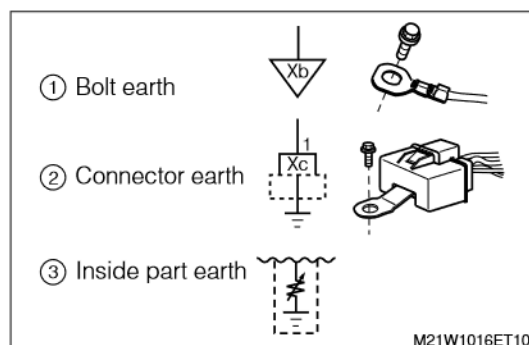
- (2) The wires come in two kinds; mono-color wires and dual color wires. The mono-color wire has only a basic color, whereas the dual color wire has stripes on the basic color background.



4.EARTH

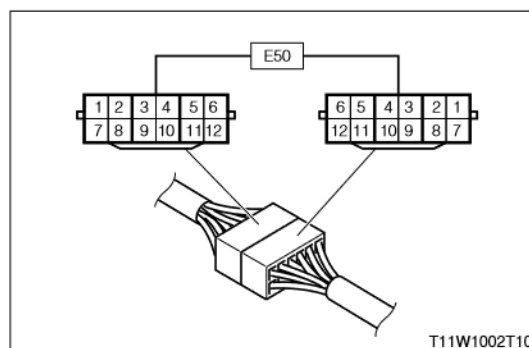
- (1) The circuit diagram by function in this manual explains three kinds of earth.

Bolt earth	The terminal is directly bolted to the vehicle body.
Connector earth	More than one harness are combined to one connector, then which is bolted to the vehicle body.
Inside part earth	Earth connection is made within a part, and this part is directly bolted to the vehicle body.



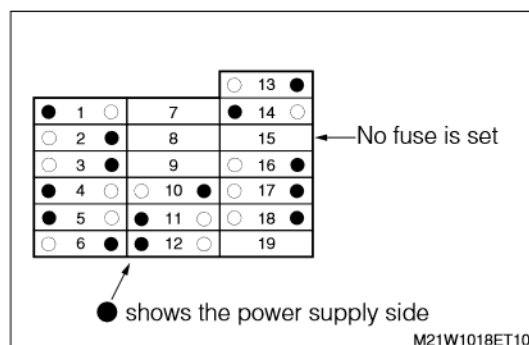
5.WIRE TO WIRE JUNCTION CONNECTOR (W to W J/C)

- (1) This connector is a junction connector in which a shorting pin shorts two connectors. The connector diagram of the W to W J/C is given at the right figure.



6.FUSE BLOCK, RELAY BLOCK

- (1) The position of each fuse is indicated when the fuse block or relay block is viewed from the front. The ● mark indicates the power supply plus side of the fuse and the ○ mark indicates the power supply minus side of the fuse. No fuse is provided where no ● ○ mark is provided.



3 HANDLING INSTRUCTIONS

3-1 HANDLING OF HARNESS AND CONNECTOR

1. When assembling the wire harness, do not pull or step on the connectors. Be careful not to allow the harness to be damaged by burrs or edges.
2. When installing the harness, be careful not to allow the harness to wind or twist.
3. Ensure that the clamp section of the resin clamp has been inserted into the body hole.

CAUTION

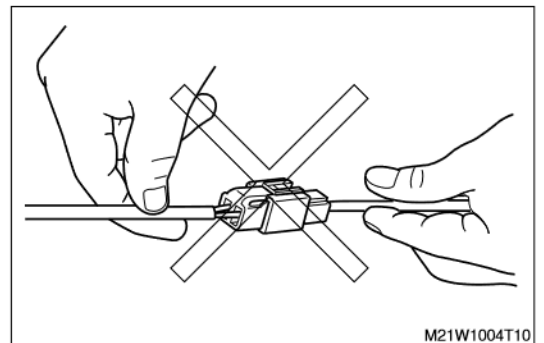
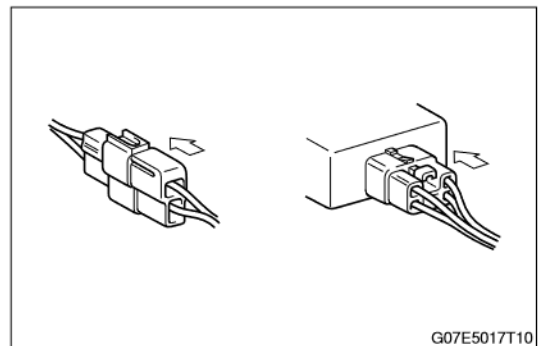
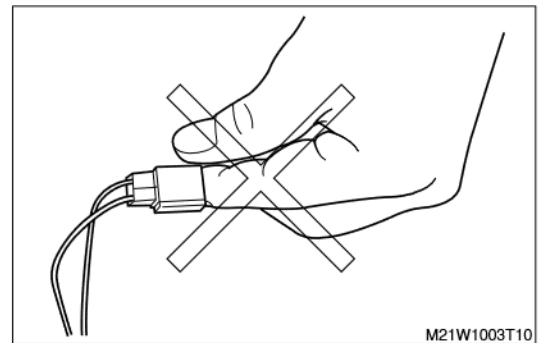
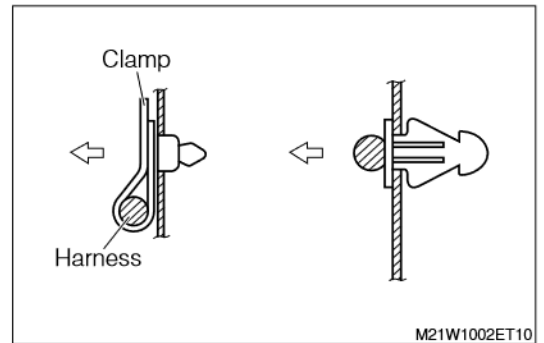
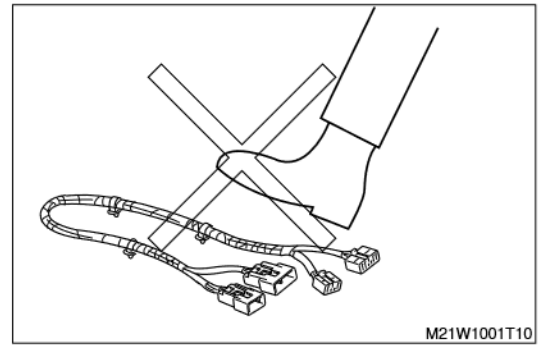
- Ensure that the clamp section cannot be pulled out by lightly pulling it.

4. Never touch the terminal of connector directly by hand.
5. Modification of wire harness. The wire diameter and capacity of each harness have been determined to assure the normal operation of the electrical system. Hence, do not take power for accessories carelessly through the original wiring harness. Failure to observe this caution may cause system malfunction or fire.
6. When a band type resin clamp is used, never use tools, such as pliers or radio pliers.
7. In the case of a locking connector, be sure to connect it firmly by pushing and inserting it. After connecting the connector, confirm that it has been locked by lightly pulling it.
8. Be careful not to pull out the connected connector by forcibly pulling the harness.

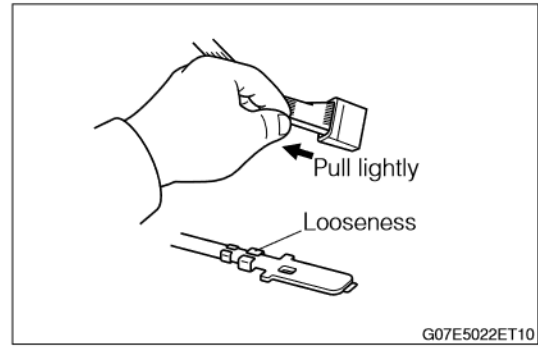
9. When disconnecting connectors, be sure to hold the connector itself with the connector unlocked.
10. Connection or disconnection of the connector and each terminal shall be performed basically after the removal of negative terminal of the battery.

CAUTION

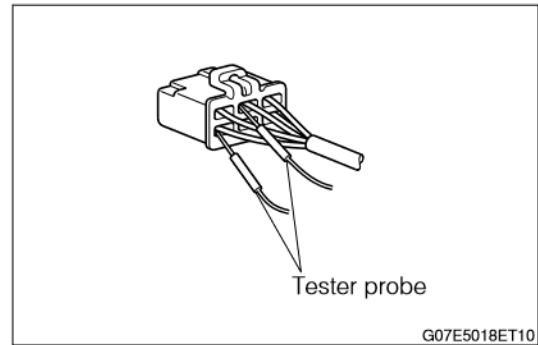
- However, there may be the case that diagnosis code is erased when remove the negative terminal of battery, so confirm the diagnosis code first before the removal of battery negative terminal when need to confirm.
11. Check visually the rust generation or mixing of the foreign material at connector terminal portion.



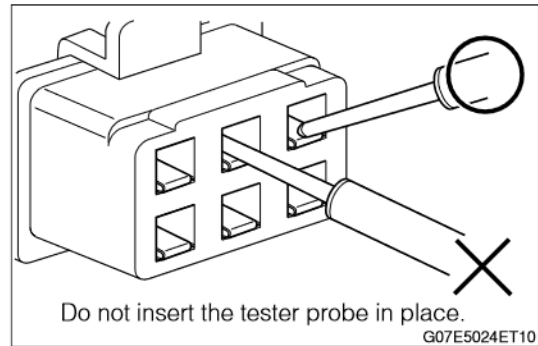
12. Check whether there are looseness, damage at the staking portion and check coming out from the coupler by pulling the wire harness lightly.



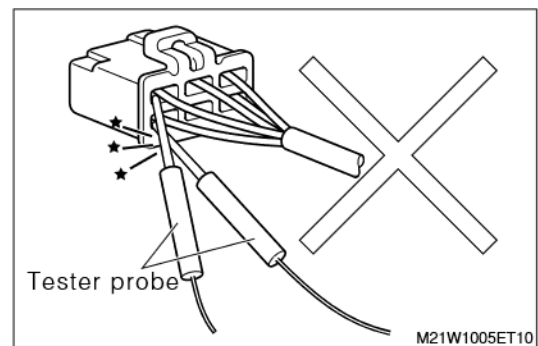
13. When inserting tester probes into a connector, insert them from the rear side of the connector.



14. For water-proof connectors which cannot be accessed from behind, take good care not to deform the connector terminals.



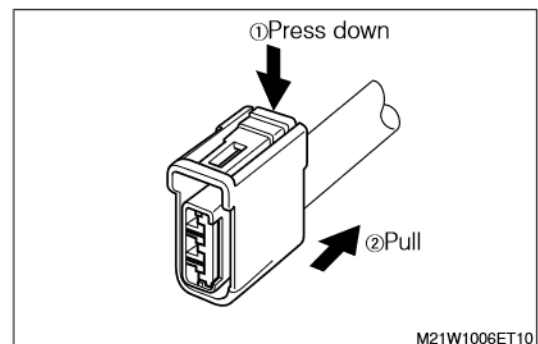
15. When a tester probe is applied to a terminal to which voltage is applied, care must be exercised so that two tester probes may not come in contact with each other so that short circuit may not take place.



3-2 RELEASE OF CONNECTOR LOCK

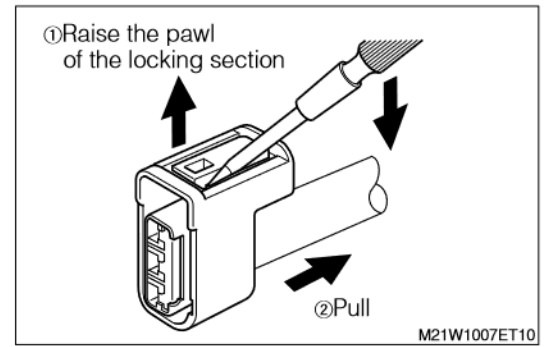
3-2-1 PUSH TYPE

1. To pull out the connector, unlock the connector by pushing down the pawl of the locking section in the arrow direction with your finger or a tool.



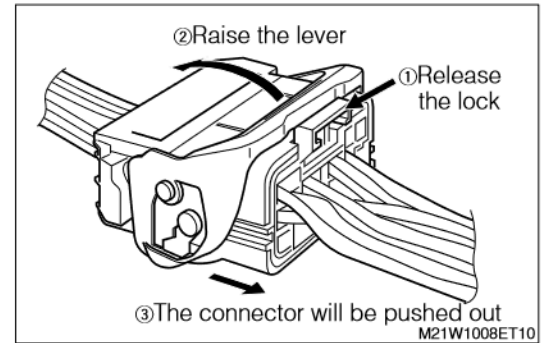
3-2-2 PULL-UP TYPE

1. To pull out the connector, unlock the connector by pushing up the pawl of the locking section in the arrow direction with your finger or a tool.



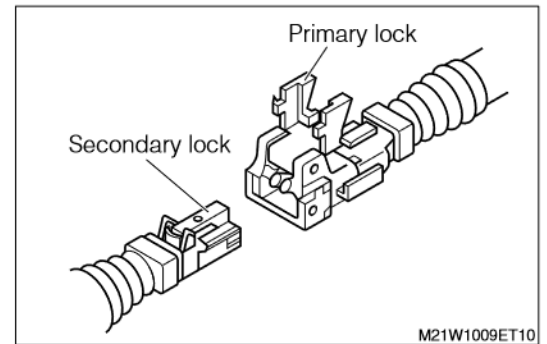
3-2-3 LEVER TYPE

1. Detach the pawl and raise the lock lever in the arrow direction. Then, the mating connector will be pushed out.



3-2-4 DOUBLE LOCK TYPE

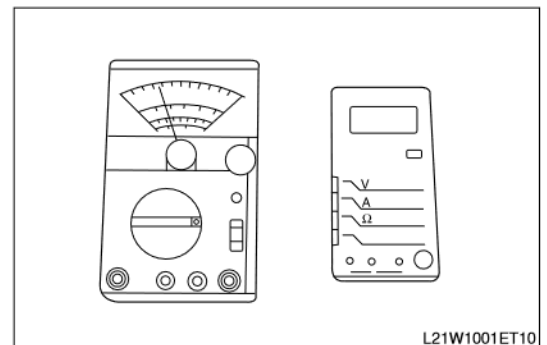
1. First unlock the primary locking. Then, disconnect the connector by unlocking the secondary locking in the same way as the aforesaid push type connector.



3-3 INSPECTION

3-3-1 TESTER (VOLT/OHM METER)

1. For the inspection, use a tester having an internal resistance of more than 10 kilo-ohms/V. Use of a tester with a low internal resistance may cause wrong measurement or secondary troubles.

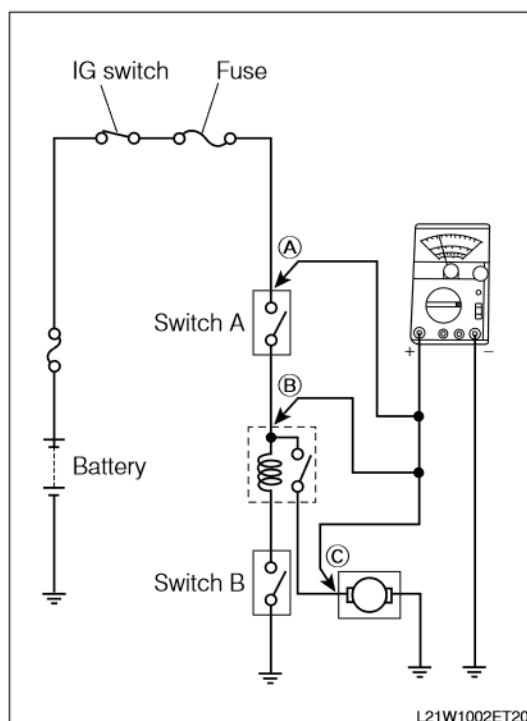


3-3-2 VOLTAGE CHECK

1. When conducting this check, let the voltage apply to the check point.
2. Connect the (–) line of the voltmeter to the ground or (–) terminal of the battery; the (+) line to the connector terminal. This check can be performed by using a test lamp instead of a voltmeter.

Example

Check point	Connecting condition
A	Ignition switch: ON
B	Ignition switch: ON, Switch A: ON
C	Ignition switch: ON, Switch A: ON, Switch B: ON, Relay: ON

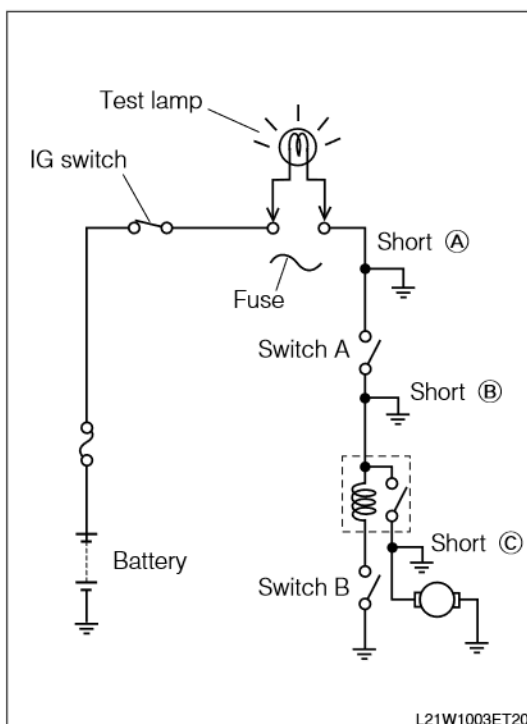


3-3-3 INSPECTION OF SHORT CIRCUIT

1. Remove a melt fuse or fusible link.
2. Disconnect all connectors for loads being applied to the melt fuse.
3. Connect a test lamp at the position where the melt fuse or fusible link was installed.
4. Search for the short circuit by providing the minimum conditions which make the test lamp glow.
5. Perform repairs or wiring harness replacement, as required.

Example

Short section	Connecting condition
A	Ignition switch: ON
B	Ignition switch: ON, Switch A: ON
C	Ignition switch: ON, Switch A: ON, Switch B: ON, Relay: ON

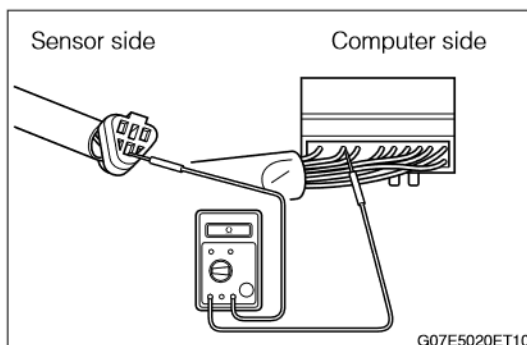


3-3-4 RESISTANCE AND CONTINUITY CHECK

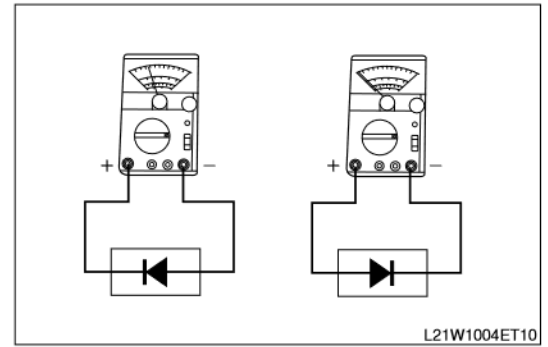
1. Remove the connector of corresponding harness on both ends.
2. Measure the electrical resistance between corresponding terminals of connector on both end.

CAUTION

- Measure the electrical resistance while shaking wire harness in top and down and right and left lightly.

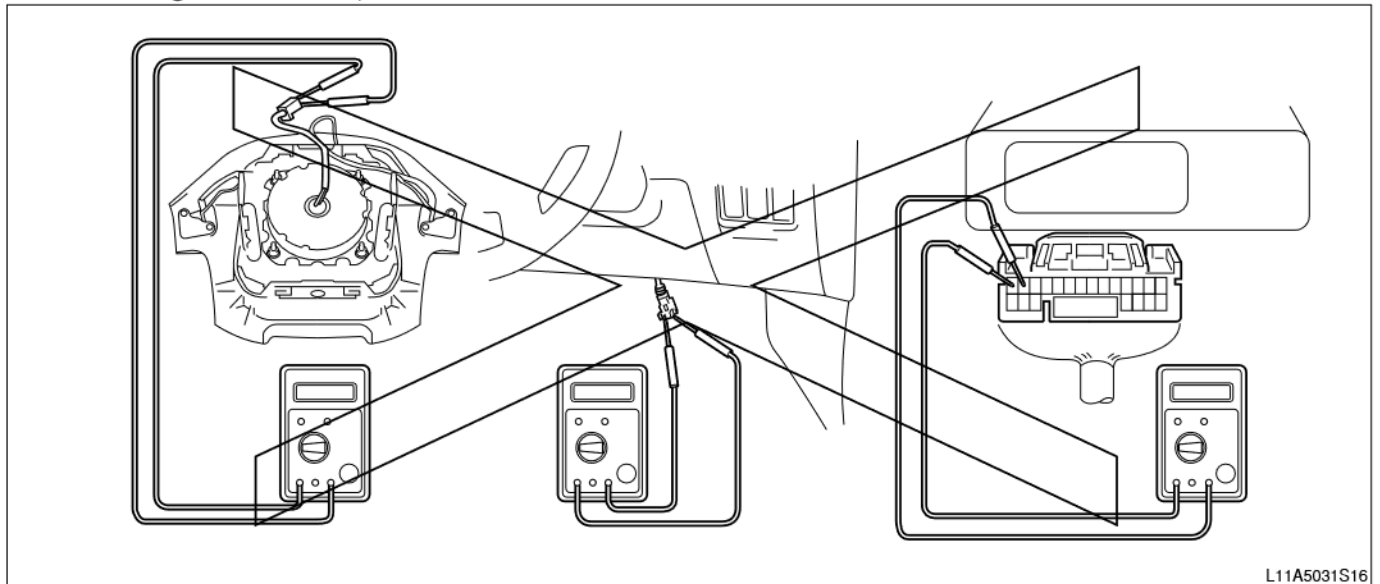


3.If a diode is built in the circuit, perform continuity test by changing the polarities of the measuring terminals. In case of a general type tester, ensure that continuity exists when the negative (–) lead of the tester is connected to the positive (+) side of the diode; the positive (+) lead of the tester to the negative (–) side of the diode. Also ensure that no continuity exists when the polarities are changed. Since some testers have different polarities, be sure to read the instruction manual of a tester to be used for the check before using it. The inspection procedure for light emitting diodes (LED) is the same as normal diodes. However, there may be cases where the LED emits no light, unless a tester with LED check mode is used. If an adequate tester is not available, apply the battery voltage to the LED and ensure that the LED emits light.



4 PRECAUTION FOR VEHICLES EQUIPPED WITH SRS AIRBAG AND SEAT BELT PRETENSIONER

If the correct procedures and methods for the airbag system are not observed during the operation, the airbag system may have a wrong operation during the operation, leading to serious accidents. Also, there is a possibility that the airbag may not function properly if wrong repairs are performed. Therefore, be sure to read well the repair manual to understand the servicing of the airbag system (removal/installation of the parts, checks and replacements) so that the correct procedures and methods are employed during the operation. Moreover, strictly observe the cautions and notes concerning the servicing of the airbag system that are given in the repair manual.



5 ITEMS OMITTED IN THIS MANUAL

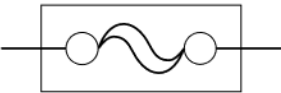
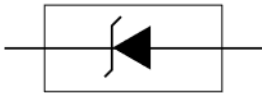
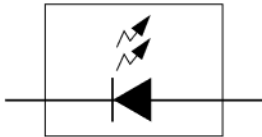
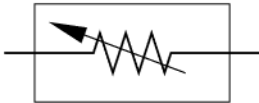
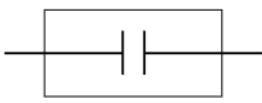
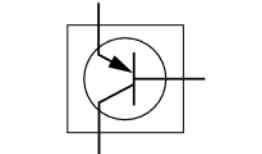
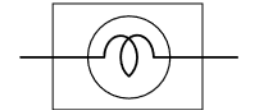
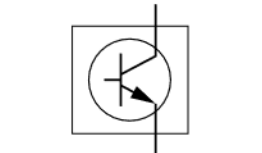
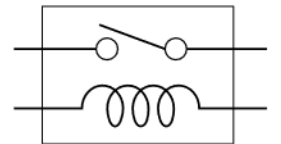
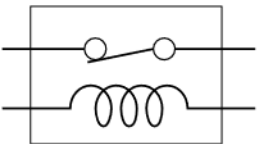
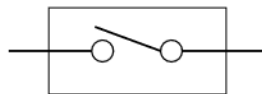
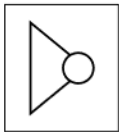
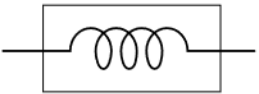
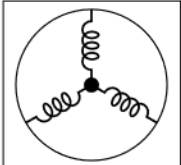
1. This manual does not cover the following item given below. When performing the electric system checks and service, please read the General section of this manual and related repair manuals. Moreover, before starting the check operations and service, be sure to be well versed in those operations by reading the General sections of the repair manuals.

- (1) GENERAL SERVICE INSTRUCTION
- (2) SUPPORTING POINTS FOR JACKS AND SAFETY STANDS
- (3) SUPPORTING POINTS OF LIFTS
- (4) TOWING INSTRUCTIONS
- (5) SERVICE INSTRUCTIONS FOR FOUR WHEEL DRIVE VEHICLES
- (6) DIAGNOSTICS INSTRUCTIONS
- (7) DATA LINK CONNECTOR
- (8) INSTRUCTIONS FOR SYSTEM INSPECTION
- (9) INSTRUCTIONS FOR RADIO INSTALLATION
- (10) HANDLING INSTRUCTIONS ON CATALYTIC CONVERTER-EQUIPPED VEHICLES

6 ABBREVIATION CODES

ABBREVIATION CODE	ORIGINAL WORD	ABBREVIATION CODE	ORIGINAL WORD
2WD	Two Wheel Drive	LSPV	Load Sensing Proportioning Valve
4WD	Four Wheel Drive	J/C	Junction connector
ABS	Anti-lock Brake System	MIL	Malfunction Indicator Lamp
A/C	Air Conditioner	MP	Multipurpose
ACC	Accessory	M/T	Manual Transmission
API	American Petroleum Institute	N/A	Natural Aspiration
A/T	Automatic Transmission	NOx	Nitrogen Oxides
ATDC	After Top Dead Center	OPT	Option
ATF	Automatic Transmission Fluid	O/S	Over Size
Ay	Assembly	PCV	Positive Crankcase Ventilation
BDC	Bottom Dead Center	PR	Ply Rating
BTDC	Before Top Dead Center	PTO	Power Take Off
BVSV	Bimetal Vacuum Switching Valve	R/B	Relay block
CD	Compact Disc	RH	Right Hand
CO	Carbon Monoxide	RHD	Right Hand Drive
DLC	Data Link Connector	RR	Rear
DLI	Distributor Less Ignition	S/A	Sub-Assembly
DTC	Diagnostic Trouble Code	SAE	Society of Automotive Engineers
DVVT	Dynamic Variable Valve Timing	SST	Special Service Tool
EBD	Electronic Brake force Distribution	STD	Standard
ECU	Electronic Control Unit	SW	Switch
EFI	Electronic Fuel Injection	T	Torque
EGR	Exhaust Gas Recirculation System	T/C	Turbocharger
EPS	Electronic controlled Power Steering	TDC	Top Dead Center
ESA	Electronic Spark Advance	U/S	Under Size
EX	Exhaust	VSV	Vacuum Switching Valve
F/L	Fusible Link	VTV	Vacuum Transmitting Valve
FR	Front	W/	With
GND	Ground	W to W	Wire to wire connector
HC	Hydro Carbon	WVTA	Whole Vehicle Type Approval
IG	Ignition	Ⓑ	Bolt
IN	Intake	Ⓢ	Screw
ISC	Idle Speed Control	Ⓝ	Nut
LED	Light Emitting Diode	Ⓦ	Washer
LH	Left Hand	©	Clip
LHD	Left Hand Drive		

7 SYMBOL MARK

Fuse	Fusible link	Diode	Zener diode
			
LED	Resistor	Variable resistor	Condenser
			
PNP transistor	Reed switch	Bulb	Motor
			
NPN transistor	Relay(Normally open)	Relay(Normally closed)	Shielding wire
			
Switch	Horn	Solenoid	Stator coil
			

8 MODEL VARIATION

8-1 GENERAL SPECIFICATIONS

Model code	Steering position	Engine	Drive	Transmission	Body type
J210RG – GMDF	RHD	3SZ – VE	4WD	5M/T	5 – door
J210RG – GQDF				Electronic control 4A/T	
J200LG – GMDF	LHD		2WD	5M/T	
J200LG – GQDF				Electronic control 4A/T	
J210LG – GMDF			4WD	5M/T	
J210LG – GQDF				Electronic control 4A/T	

8-2 EUROPEAN SPECIFICATIONS

Model code	Steering position	Engine	Drive	Transmission	Body type
J210RG – GMDFW	RHD	3SZ – VE	4WD	5M/T	5 – door
J210RG – GQDFW				Electronic control 4A/T	
J210RG – GMXFW				5M/T	
J210RG – GQXFW				Electronic control 4A/T	
J200LG – GMDFW	LHD		2WD	5M/T	
J200LG – GQDFW				Electronic control 4A/T	
J210LG – GMDFW			4WD	5M/T	
J210LG – GQDFW				Electronic control 4A/T	
J210LG – GMXFW				5M/T	
J210LG – GQXFW				Electronic control 4A/T	
J211LG – GMDFW			K3 – VE	5M/T	

9 WIRE HARNESS CODE TABLE

A	Wire, Engine room main	J	–	S	Wire, Roof
B	Wire, Engine	K	–	T	Wire, Backdoor, No.1 Wire, Brake lamp
C	Wire, Engine, No.2 Wire, Engine, No.3	L	Wire, Front door (RHD)	U	–
D	–	M	Wire, Front door (LHD)	V	–
E	Wire, Instrument panel (RHD)	N	Wire, Rear door	W	Wire, Front window defogger
F	Fuse·Relay	O	Wire, Floor	X	Earth
G	Wire, Instrument panel (LHD)	P	Wire, Floor, No.2	Y	–
H	–	Q	Wire, Floor, No.3	Z	–
I	–	R	–		

