
INTRODUCTION

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SERVICE INFORMATION

How to Use This Manual

1. General information

This manual includes all the necessary procedures for service operations.

These procedures can be divided into following three categories:

- Diagnosis
- Removal and installation, replacement, disassembly and assembly, inspection and adjustment
- Inspection

The following procedures are omitted from this manual. However, they must be performed.

- Use a transmission carrier or lifter to perform the operations.
- Clean all the removed parts.
- Perform a visual check.

This manual includes the following prompt information:

 WARNING	This indicates that injuries to you or other people may happen.
 CAUTION	This indicates that damage to repairing components may happen.
 ENVIRONMENTAL PROTECTION	Dispose of the waste materials according to local regulations.
HINT	Provide additional information to help you with the service operations.

2. Service procedure

Illustrations attached with the service procedure are used to identify components, show the assembling relevance of parts, and explain the visual check for parts. Removal and installation procedures are explained in words.

Service procedures include:

- Detailed removal and installation instruction
- Illustration
- Torque specifications
- Specifications

Sometimes, the illustrations of similar models are used. In this case, minor details may be different from the actual vehicle.

3. Diagnosis procedure

Diagnosis procedures are divided as below:

- Diagnostic Trouble Code (DTC)
DTC is an important hint when troubleshooting is difficult to simulate. The malfunction can be diagnosed quickly and accurately by performing the specified DTC diagnosis and check.
- Problem symptoms table
Malfunction locations can be determined quickly by troubleshooting in accordance with the symptom type.

4. Specifications

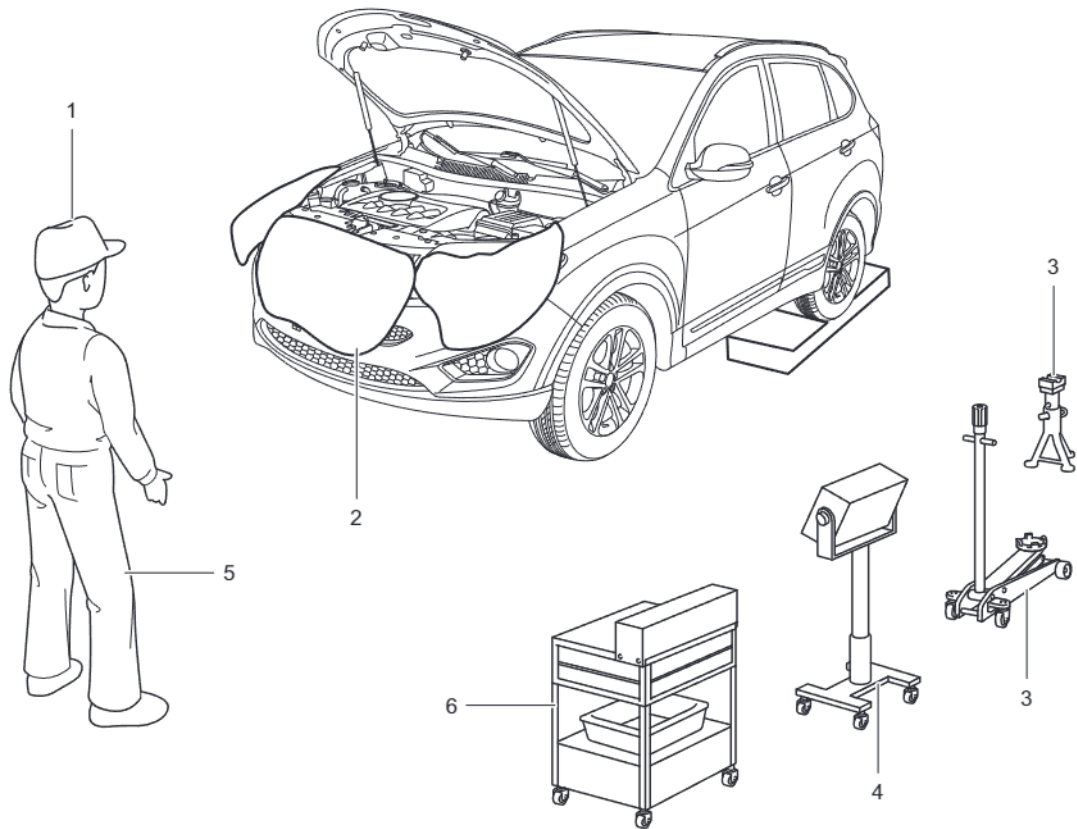
This manual categorizes specifications as below:

- Torque specifications
- Clearance specifications
- Capacity specifications

Preparation

1. Preparation for vehicle service

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1	Attire	• Always wear a clean uniform. • A hat and safety shoes must be worn.
2	Vehicle Protection	Before starting work, prepare radiator grille cover, fender cover, seat cover and floor mat.
3	Safety Operation	• When working with two or more persons, be sure to check safety each other. • When working with engine running, make sure to provide ventilation for exhaust gas in workshop. • If working on high temperature, high pressure, rotating, moving, or vibrating parts, be sure to wear appropriate safety equipment and take extra care not to injure yourself or others. • When jacking up vehicle, be sure to support the specified location with a safety stand. • Use appropriate safety equipment to lift vehicle.
4	Preparation for Tools and Measuring Gauge	Before starting work, prepare a tool stand, special tools, gauge, oil and replacement parts.
5	Removal and Installation, Disassembly and Assembly Operations	• Diagnose after thoroughly understanding the proper service procedures and reported problem. • Before removing parts, inspect the general condition of assembly to check for any deformation or damage. • Take notes for the complicated assembly. For example, note the total number of electrical connections, bolts, or hoses that are removed. • Add matchmarks to ensure that each component is assembled to its original position. Temporarily mark the hoses and their joints as necessary. • Clean and wash removed parts as necessary and assemble them after a thorough inspection.
6	Removed Parts	• Place the removed parts in a separate box to avoid mixing them up with new parts or contaminating new parts. • For non-reusable parts such as gaskets, O-rings, and self-locking nuts, replace them with new ones as instructed in this manual. • Retain removed parts for customer inspection, if requested.

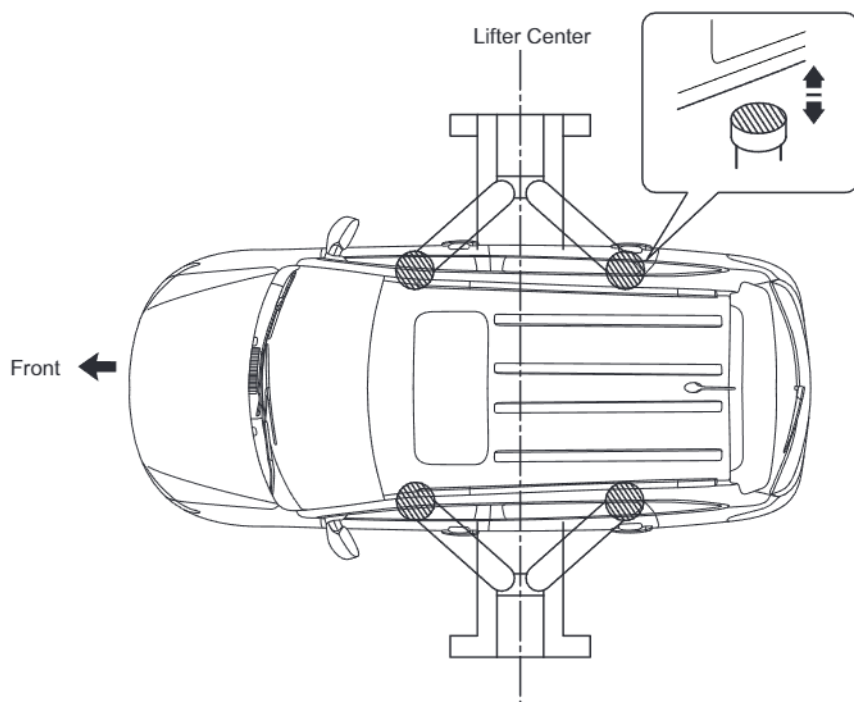
2. Jacking up and supporting vehicle

Care must be taken when jacking up and supporting vehicle. Be sure to jack up and support vehicle at proper locations.

a. Precautions for using a swing arm type lifter

- Follow the safety procedures described in the instruction manual.
- Keep vehicle stable when using a lifter to prevent vehicle from tilting during operation. Stabilize the vehicle by adjusting the length of lifter arm and vehicle position.

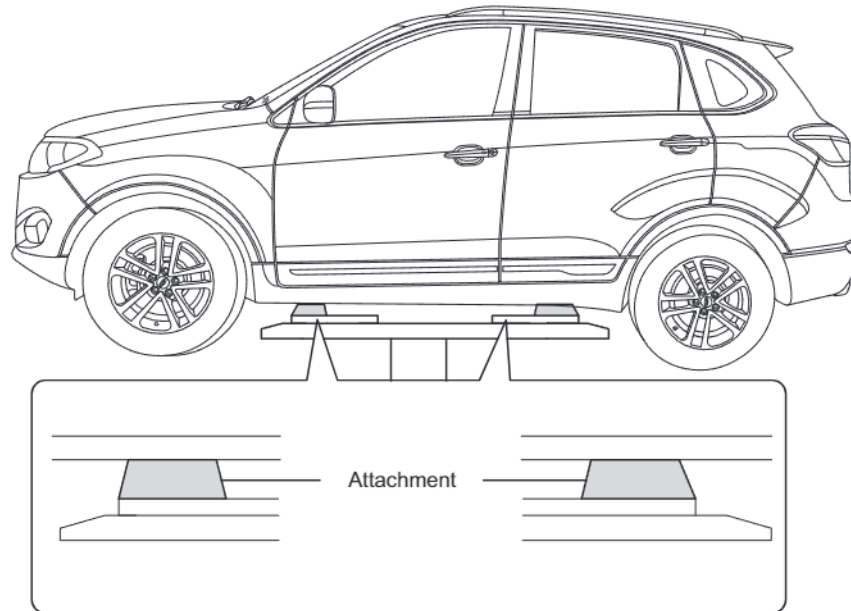
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b. Precautions for using a plate type lifter

- Follow the safety procedures described in the instruction manual.
- Use plate type lifter attachments (rubber lifting blocks) on the plate surface.



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Service Operation

1. How to use fasteners

⚠ WARNING

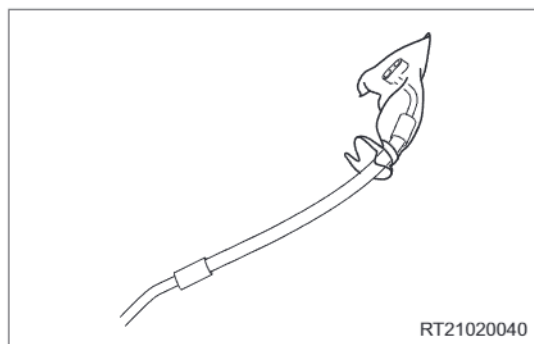
- Using incorrect fasteners may cause damage to components. Injury and death may occur without observing the instructions below.

- The reference values of fasteners and torque specifications in this service manual use metric unit.
- Recycling all the fasteners (nuts, bolts, etc.) during maintenance and service operation is important for assembly.

If it's impossible to recycle fasteners, be sure to use other fasteners with the same specifications.

2. Remove parts

When repairing malfunction, try to determine the cause. Before starting work, the parts or sub-assemblies that have to be removed and replaced should be confirmed first. After removing parts, block all holes and ports to prevent foreign objects from entering.



3. Disassemble components

If disassembly procedures are complicated and multiple parts need to be disassembled, make sure that disassembly methods won't affect the performance or appearance of parts. Identify each part for assembly.

4. Check parts

After removal, check each part for deformation, damage or other problems.

5. Arrange parts

Carefully arrange all the disassembled parts to make assembly easier.

Always separately arrange the replaced parts and reusable parts, and make marks on them.

6. Clean parts

Make a thorough and careful cleaning for reusable parts.

⚠ WARNING

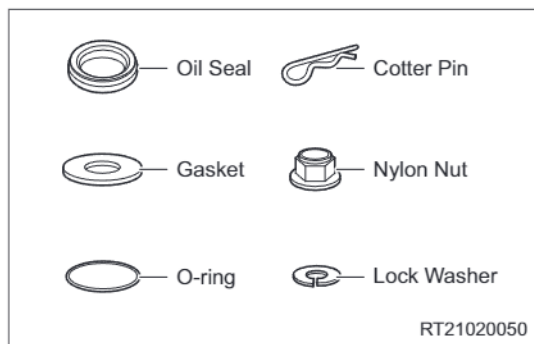
- Blowing out the dirt or other particles with compressed air may hurt your eyes. Be sure to wear goggles during operation.

7. Assemble components

When assembling parts, always strictly use the standard values (tightening torque and clearance value, etc.).

If following parts need to be replaced, replace them with new ones.

- Oil seal
- Gasket
- O-ring
- Lock washer
- Cotter pin
- Nylon nut



8. Lubrication and seal

Use seal gum and gasket based on the position.

If seal gum is applied, install components before the seal gum dries to prevent leakage.

Apply lubricant to the movable area and friction area of components.

During assembly, apply permitted lubricant or grease to the specified area (such as oil seal).

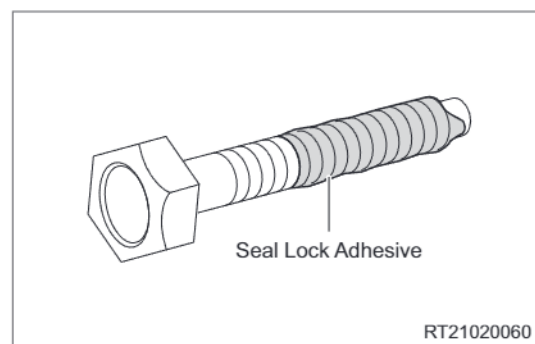
9. Adjustment

Use proper meter and tester for adjustment.

10. Pre-coated parts

Pre-coated parts are the bolts and nuts that are coated with seal lock adhesive in the factory.

If a pre-coated part is retightened, loosened, or moved in any way, be sure to reapply the specified adhesive.



11. Rubber parts and rubber hoses

Avoid gasoline or oil dripping on the rubber parts or rubber hoses.

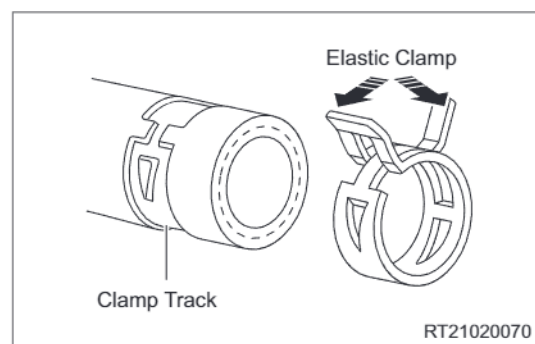
12. Hose clamp

Before removing hose, observe the position of clamp so as to reinstall it to the same position.

Replace the deformed or dented clamps with new ones.

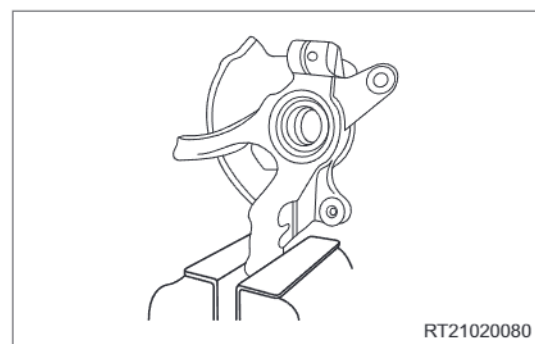
When reusing a hose, fix the clamp on the clamp track portion of hose.

For elastic clamp, push tabs in the direction of arrow as shown in the illustration after installation to widen the tabs slightly.



13. Vise

When using vise, install protective plates on the jaws of vise to prevent parts from being damaged.



14. Dynamometer

When testing vehicle on the dynamometer, pay attention to the followings:

- Place a fan in front of the vehicle. It's best to use a fan of which the power changes in proportion to the vehicle speed.
- Connect an exhaust gas ventilator.

WARNING

- Exhaust gas may cause injury and death. There is odorless, colorless Carbon Oxide (CO) in the exhaust gas. People will faint and get poisoned after inhaling it.

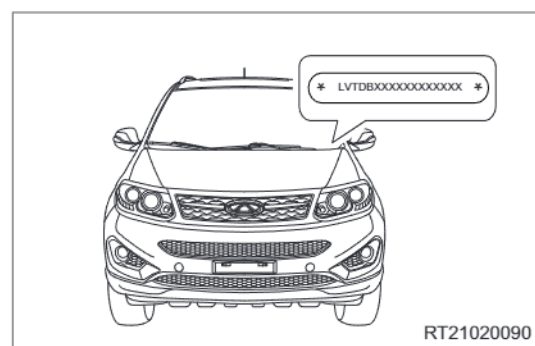
- Cool the exhaust pipe with a fan.
- Keep the area around vehicle clean and tidy.
- Monitor the engine coolant thermometer.

VEHICLE INFORMATION

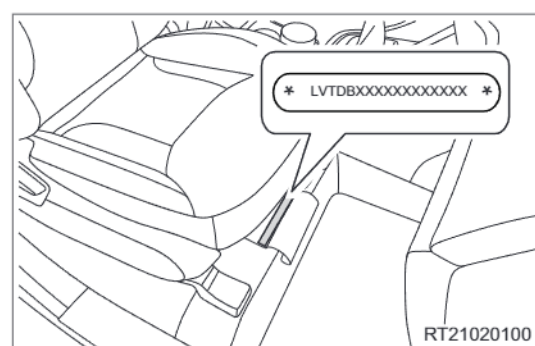
Vehicle Identification Information

1. Vehicle Identification Number (VIN)

VIN is located on the upper left part of instrument panel on driver side, and can be seen from the outside through windshield.

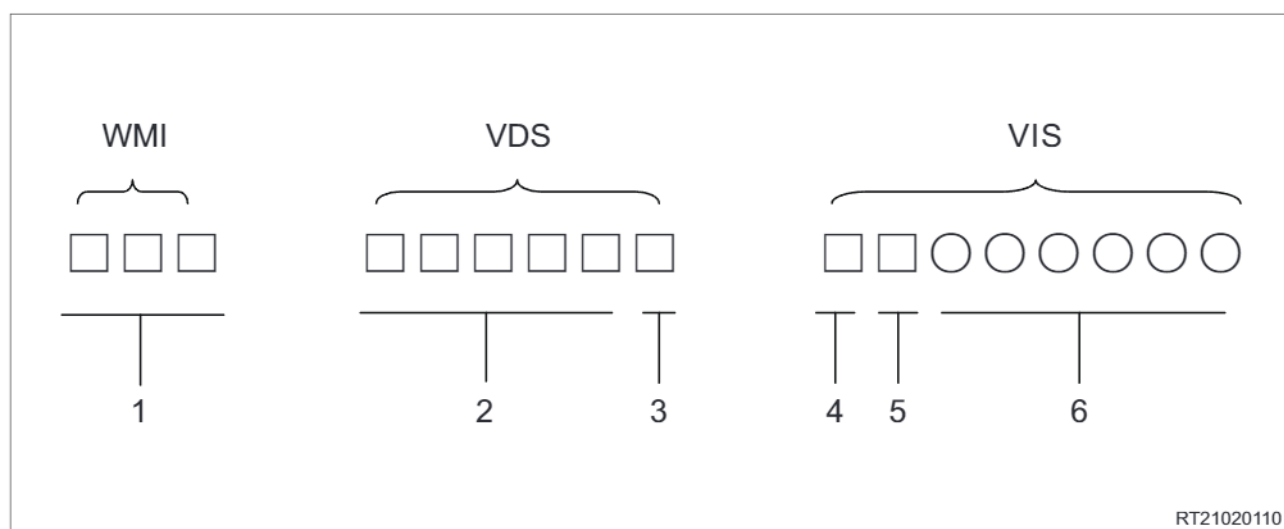


VIN is also stamped on deck board under the front passenger side seat.



Vehicle Identification Number (VIN)

The Vehicle Identification Number (VIN) consists of World Manufacturer Identifier (WMI), Vehicle Descriptor Section (VDS) and Vehicle Indicator Section (VIS), with a total of 17-digit characters. The detailed descriptions are as follows:



□: represents a letter or a number (letters I, O and Q cannot be used); ○: represents a number.

No.	Definition
1	World Manufacturer Identifier
2	Vehicle Features
3	Accuracy Check Digit
4	Model Year
5	Production Plant
6	Sequential Number

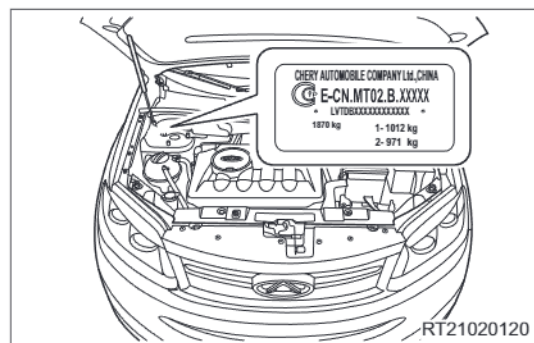
- The first three digits of VIN represent world manufacturer identifier.

No.	WMI Code	Vehicle Category
1	LVV	Category M1 (for vehicle type number started with 7)

- The fourth digit of VIN represents vehicle type.
 - Letter "D" means all vehicles in the category M1.
- The fifth digit of VIN represents vehicle body type and drive type.
 - Letter "B" means 5-door 2-box 4 × 2 type.
- The sixth digit of VIN represents transmission type.
 - "1" means manual transmission.
 - "2" means automatic transmission.
- The seventh digit of VIN represents dynamic characteristics.
 - "4" means the gasoline engine that is 2.0 L - 2.5 L (2.5 L excluded).
- The eighth digit of VIN represents restraints system.
 - "B" means seat belt and airbag.
- The ninth digit of VIN represents check digit.
 - It is used to check the accuracy of VIN record, and made out through computation after confirming the other sixteen digits of VIN.
- The tenth digit of VIN represents model year.
 - "E" represents 2014.
- The eleventh digit of VIN represents assembly plant code.
 - "C" represents Chery Automobile Co., Ltd Dalian Branch.
- The last six digits of VIN represent production sequence number.
 - The number means the real production serial number of this model.

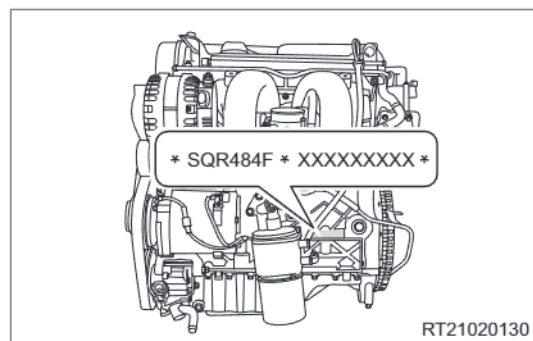
2. Vehicle name plate

The vehicle name plate is located on the right shock absorber holder in engine compartment.



3. Engine number

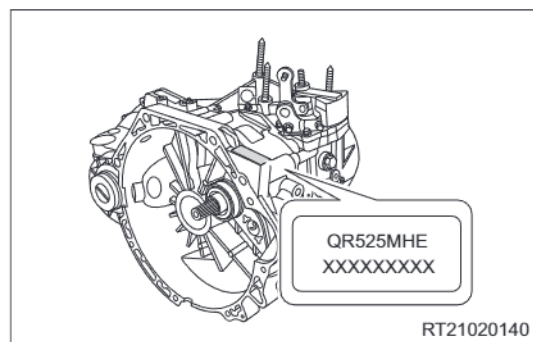
The engine number is stamped on the engine block under the exhaust manifold.



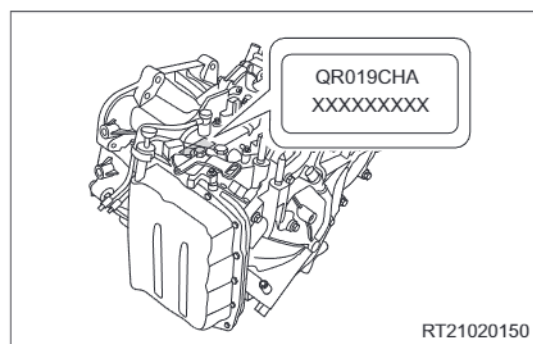
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4. Transmission number

The transmission number (for MT model) is stamped on the transmission case.



The transmission number (for CVT model) is stamped on the transmission case, close to the transmission oil dipstick.



Symbols

The symbols below are instrument cluster display symbols and some international standard symbols.

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1	2	3	4	5	6
			EPC		
7	8	9	10	11	12
					
13	14	15	16	17	18
					
19	20	21	22	23	24
					
25	26	27	28	29	30

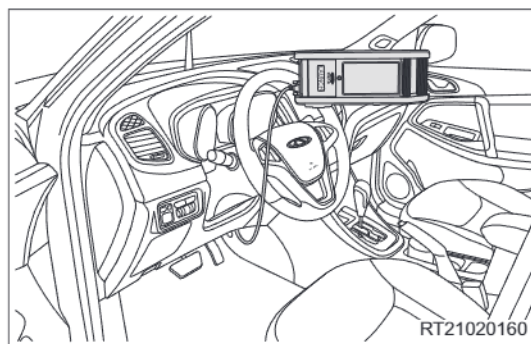
1 - Charging System Warning Light	2 - Daytime Running Light Indicator
3 - Front Fog Indicator	4 - Rear Fog Indicator
5 - High Beam Indicator	6 - Engine Immobilizer System Warning Light
7 - Maintenance Indicator	8 - High Coolant Temperature Indicator
9 - Position Indicator	10 - EPC Warning light
11 - Engine Malfunction Warning Light	12 - Low Engine Oil Pressure Warning Light
13 - Turn Signal Indicator	14 - SRS Warning Light
15 - Driver Seat Belt Reminder Light	16 - Brake System Warning Light
17 - ABS Warning Light	18 - Front Seat Belt Reminder Light
19 - ESP Warning Light	20 - ESP OFF Warning Light
21 - Low Fuel Level Warning Light	22 - Electronic Steering System Warning Light
23 - Cruise Indicator	24 - Transmission Malfunction Warning Light
25 - Parking Brake Indicator	26 - Hazard Flasher Warning light
27 - Horn	28 - Cigarette Lighter
29 - Hood Open	30 - Windshield Washer

CIRCUIT DIAGNOSIS INFORMATION

How to Use Tester

Connect tester cable to DLC, turn ignition switch ON and try to use the tester. If communication malfunction appears on the display, it indicates that the vehicle or tester is defective.

- If communication is normal when the tester is connected to another vehicle, inspect the DLC on the original vehicle.
- If communication is still not possible when the tester is connected to another vehicle, the tester itself is probably defective.



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ECM Control System Troubleshooting

This model uses ECM control system. Most malfunction inspection procedures only involve in checking the circuits of ECM control system one by one. An adequate understanding of the system and a basic knowledge of electricity are enough to perform effective troubleshooting, accurate diagnosis and necessary repairs.

Diagnosis and Troubleshooting

1. Diagnosis basis and troubleshooting methods

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Procedure Types	Details	Troubleshooting Methods
Diagnosis based on DTC	Diagnosis procedure is based on stored DTC.	Use eliminating methods to determine malfunctioning parts in accordance with DTC detection conditions. Inspect relevant parts with tester and eliminate possible malfunctions one by one.
Diagnosis based on symptoms (no DTCs stored)	Diagnosis procedure is based on problem symptoms.	Use eliminating methods to determine the malfunctioning parts in accordance with symptoms. Inspect relevant parts with tester and eliminate possible malfunctions one by one.

2. Detailed troubleshooting steps

Step	Description
1	Obtain detailed information when electrical malfunction occurs.
2	Operate affected system, and perform a road test as necessary. Confirm malfunction parameter. If it is impossible to duplicate malfunction, refer to "Electrical Malfunction Simulation Test".
3	Collect proper diagnosis materials, which includes: • Circuit Diagram • System Schematic Diagram • Relevant Chapter in Service Manual • Service Bulletin Perform diagnosis according to the mastered system operation knowledge and customer's feedback.
4	Check if there is any bonding, loose connector or damaged wire harness in the system. Determine related circuits and components, and diagnose according to the circuit diagram and wire harness layout diagram.
5	Repair circuit and replace component as necessary.
6	Operate system in all modes. Confirm that system can operate normally in all conditions. Confirm that you have not inadvertently created new malfunctions during your diagnosis or repair steps.

Circuit Simulation Test

The non-regular malfunctions and other malfunctions that cannot be detected through a road test can be detected by circuit simulation test. The possible vehicle malfunction can be determined efficiently by simulating condition/environment when the malfunction occurs.

Simulation test can be classified into the following 7 types:

- Vehicle vibration test
- Thermosensitive test
- Freezing test
- Leakage test
- Load test
- Cold/hot start test
- Voltage drop test

HINT:

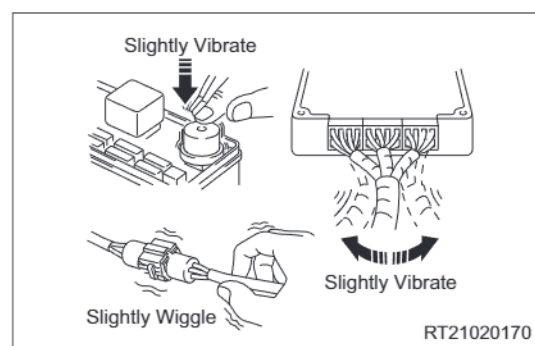
It is extremely important to listen carefully to customer's description about the malfunction for simulating the conditions when the symptoms occur.

1. Vehicle vibration test

When the vehicle is running on an uneven road or the engine is vibrating (A/C is on and engine is idling), malfunctions may occur. In this case, check the conditions related to vibration. Check the following areas on vehicle:

a. Connector and wire harness

Determine the connectors and wire harnesses that may affect the electrical system being inspected. When monitoring whether the system has malfunctions that are being simulated, vibrate or wiggle each connector and wire harness slightly. This test may show loose or poor electrical connections.



HINT:

When connector is exposed to humid environment, a layer of corrosive film may form on its terminals. With the connector connected, this condition may not be found by visual check. If an intermittent malfunction occurs, it may be caused by corrosion. It is recommended that the terminals of relevant connectors in the system should be checked and cleaned after disconnecting the connectors.

b. Sensors and relays.

Slightly vibrate the sensors and relays that you want to check in the system. The sensors or relays that are loose or poorly installed may be found through this test.

c. Engine compartment

- There are many reasons for the electrical malfunction that occurred due to vehicle vibration, and it is necessary to check the following conditions:
 - Connectors are not installed correctly.
 - Wire harness is not long enough, so it is extended when engine is vibrating or shaking.
 - Wire harness hangs over the bracket or movable components.
 - Ground wire is loose, dirty or corrosive.
 - Wire harness is too close to the high temperature components.
- To inspect the components under the engine hood, first confirm that the ground connection is in perfect condition (refer to the grounding inspection described below). First confirm that the system is correctly grounded. Then slightly vibrate the wire harness or components as previously instructed to check if the connection is loose. Refer to the circuit diagram to check the continuity of wire harness.

d. Backside of instrument panel

- Improper wire clamping will cause the wire harnesses to be entangled when installing accessories. The vibration of vehicle will cause the wire harnesses near the bracket or mounting screw to wind excessively.
- When vehicle vibrates, unclamped or loose wire harness will be stuck in the seat components (such as slide guide). When wire harness passes through the underside of mounting area, check if it is damaged or stuck.

2. Thermosensitive test

In hot weather or after the vehicle is parked for a short time, the user may worry about the vehicle condition. At this time, it is necessary to perform thermosensitive test.

Perform test by heating components with a heat gun or equivalent.

CAUTION

- DO NOT heat components to a temperature higher than 60°C (140°F).
- Perform test by heating components with a heat gun or equivalent.

3. Freezing test

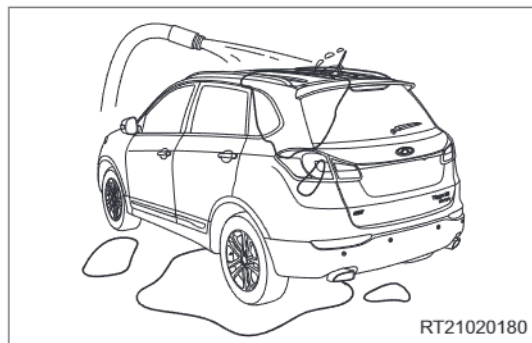
If malfunction disappears after warming up the vehicle in winter, it may be caused by freeze of some parts in the wire harness/electrical system. Use the following two methods to check this condition:

Method 1: Put vehicle outdoors overnight. Make sure that the temperature is low enough to duplicate the malfunction. Perform a quick and thorough diagnosis on the component that may be affected in the morning.

Method 2: Put suspected part in refrigerating room and wait until it is frozen. Reinstall the component to vehicle and check if malfunction reoccurs. If malfunction occurs, repair or replace the component.

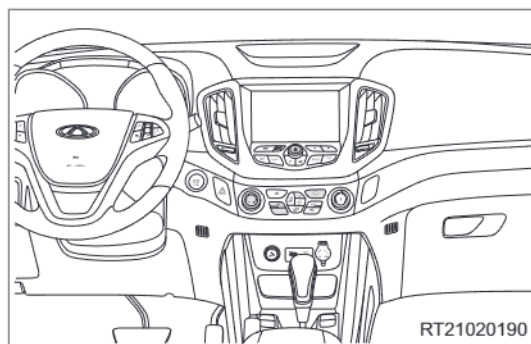
4. Leakage test

Malfunction may occur only during high humidity or in rainy or snowy weather. In this case, malfunction may occur due to water entering electrical parts. Leakage can be checked by spraying water to vehicle (similar to car wash).



5. Load test

Malfunction occurs only when electrical device is turned on. Turn on the electrical equipment (A/C, rear window defogger, radio, fog light, etc.) one by one and determine the relationship between electrical equipment and malfunction. Confirm the malfunction by a load test.



6. Cold/hot start test

Some malfunctions occur in cold start and disappear when engine warms up. In this case, park vehicle without operation for a whole night and restart it the next day. Perform test and determine the cause quickly.

7. Voltage drop test

Generally, the voltage drop test is used to find out the possible causes that affect the normal function of electrical components or circuits.

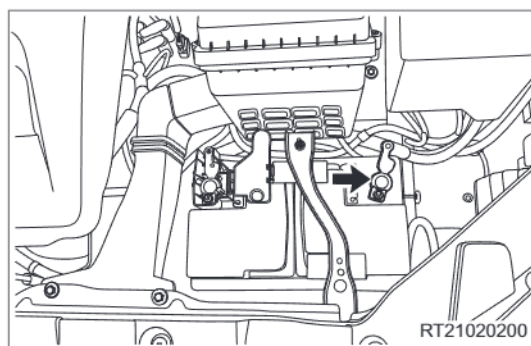
Check the circuit with a digital multimeter.

If resistance of single wire harness measured by a digital multimeter is very low ($0\ \Omega$ or close to $0\ \Omega$), the wire harness or circuit is normal.

The unnecessary resistance in circuit may be caused by poor, loose grounding, corrosive switch contact and loose wire connector or adapter.

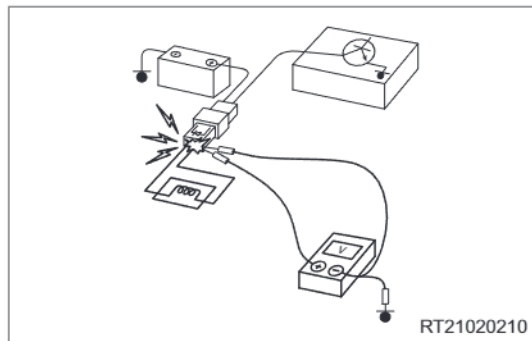
Precautions for Control Module and Electrical Components Inspection

- Before performing electrical operations, turn ignition switch to LOCK and disconnect the negative battery cable, then wait for 2 minutes until the backup power supply of airbag module is depleted (w/ airbag system).



- Disconnecting the battery cable will delete the clock, audio and DTC records. Therefore, it is necessary to confirm these records before disconnecting the cable.
 - Never connect the electrodes of battery terminals reversely.
 - Only install components that meet the vehicle specifications.
1. Inspect input and output conditions of components and their functions before replacing control module.
 - When disconnecting components:
 - Do not use excessive force when disconnecting connector.
 - If connector is installed by tightening bolt, loosen mounting bolt and then disconnect the connector by hand.
 - When connecting components:
 - Make sure that terminals are not bent or damaged, and then connect it correctly before installing connector.

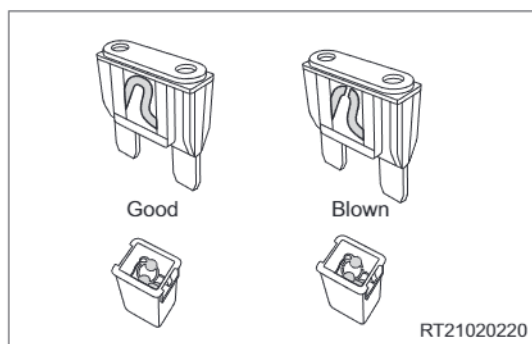
- Tighten the mounting bolt until the painted area of connector is flush with the surface when installing connector by tightening bolt.
- Never drop or hit the control module to prevent excessive impact.
- Note that the condensation is not formed on control module due to extreme change of temperature and keep it free from water drop or rain. If water is found on the control module, dry it thoroughly and then install it to vehicle.
- Be careful not to allow fluid to adhere to the control module connector.
- Avoid cleaning the control module with volatile fluid.
- When using digital multimeter, be careful not to get the testing probes to contact with each other to result in a short circuit. Avoid damaging the battery due to short circuit in power transistor inside the control module.



- Use specified test adapter to check the input and output signals of control module.

2. Check fuse

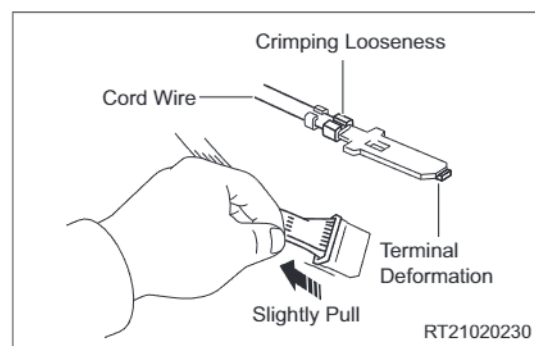
- Check that fuse wire is connected.



- If fuse wire is blown, confirm that there is no short in the circuit.
- A fuse with the same rated amperage must be used for replacing.

How to Check Connector

Many electrical malfunctions are caused by electrical connections or wire malfunctions, and also may be caused by the bonding of components or relays. Before determining if malfunction is caused by components or wire harness assembly, check if connection of connectors is good.



1. Check connector with a digital multimeter

- Damaged connectors and poor connections are caused by incorrect connector detection during the circuit inspection.
- The probe of digital multimeter may be connected incorrectly with the socket of connector. To detect the connector correctly, use a "T" shaped pin and follow the procedures below. To obtain optimal connection, clamp the "T" shaped needle with a spring clamp.
 - a. Detect from wire harness side
 - If there is a back cover for connector, remove the back cover before detecting terminal.
 - Do not detect the water-proof connector from the wire harness side. Failure to do this may damage the seal between wire harness and connector.
 - b. Detect from terminal side
 - Female terminal:
Do not insert any object that is bigger than male terminal into the female connector.
 - Male terminal:
Carefully detect the contact surfaces of each terminal with a "T" shaped needle. Do not bend the terminal.

2. Check terminal contact spring for proper tension

- The contact spring on terminal may produce intermittent signals in the circuit.
- If intermittent open circuit occurs, follow the procedures below to check open wire harness and contact spring on the female terminal.
 - Use a male terminal matched with female terminal.
 - Disconnect the suspected defective connector and secure the terminal side upward.
 - When securing the wire harness of male terminal, try to insert the male terminal into female terminal.
 - Move connector and check if male terminal can be inserted easily.

HINT:

If male terminal can be inserted into female terminal easily, replace the female terminal.

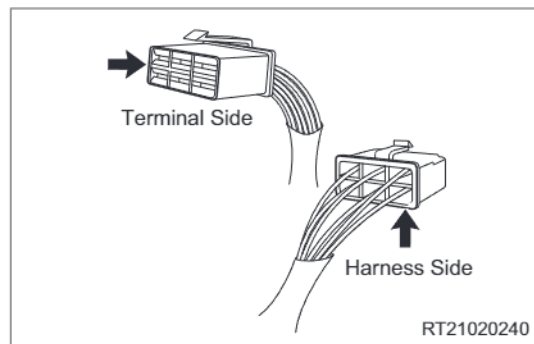
CIRCUIT INFORMATION

How to Read Circuit Diagram

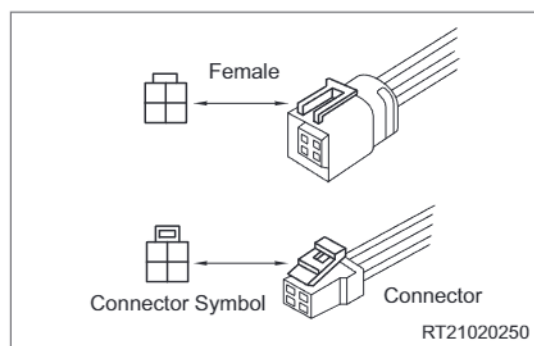
1. Connector symbols

- Most of the connector symbols in circuit diagrams indicate the terminal side.

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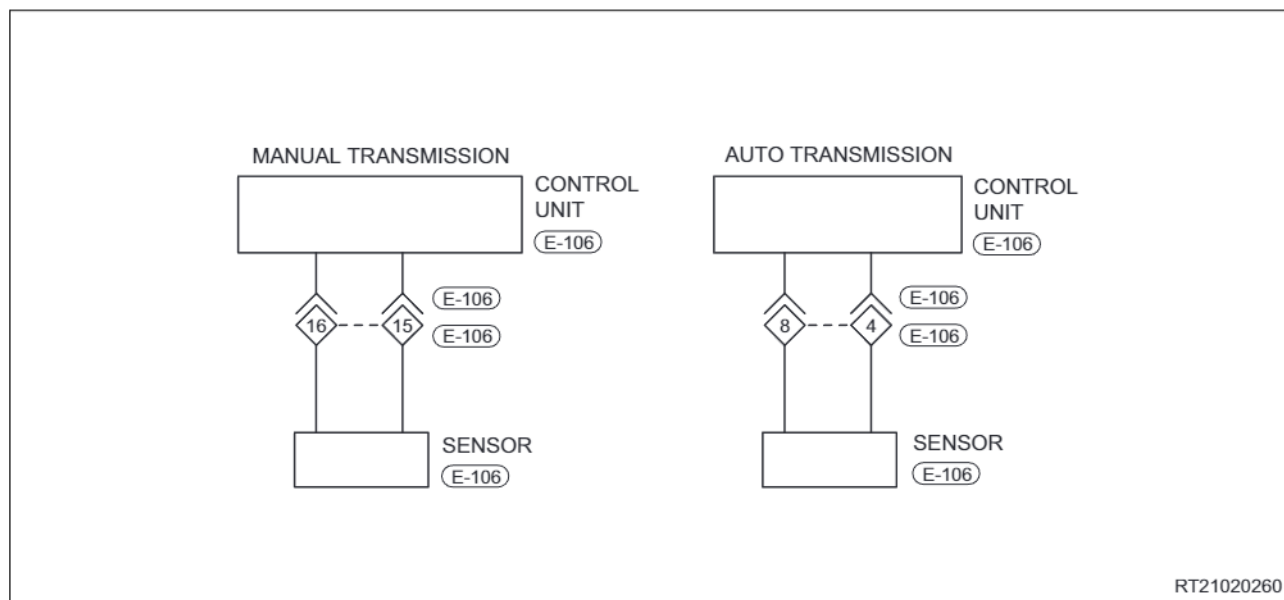


- The terminal side view in circuit diagram is shown at the bottom of circuit diagram.



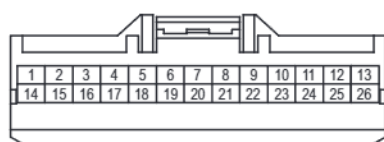
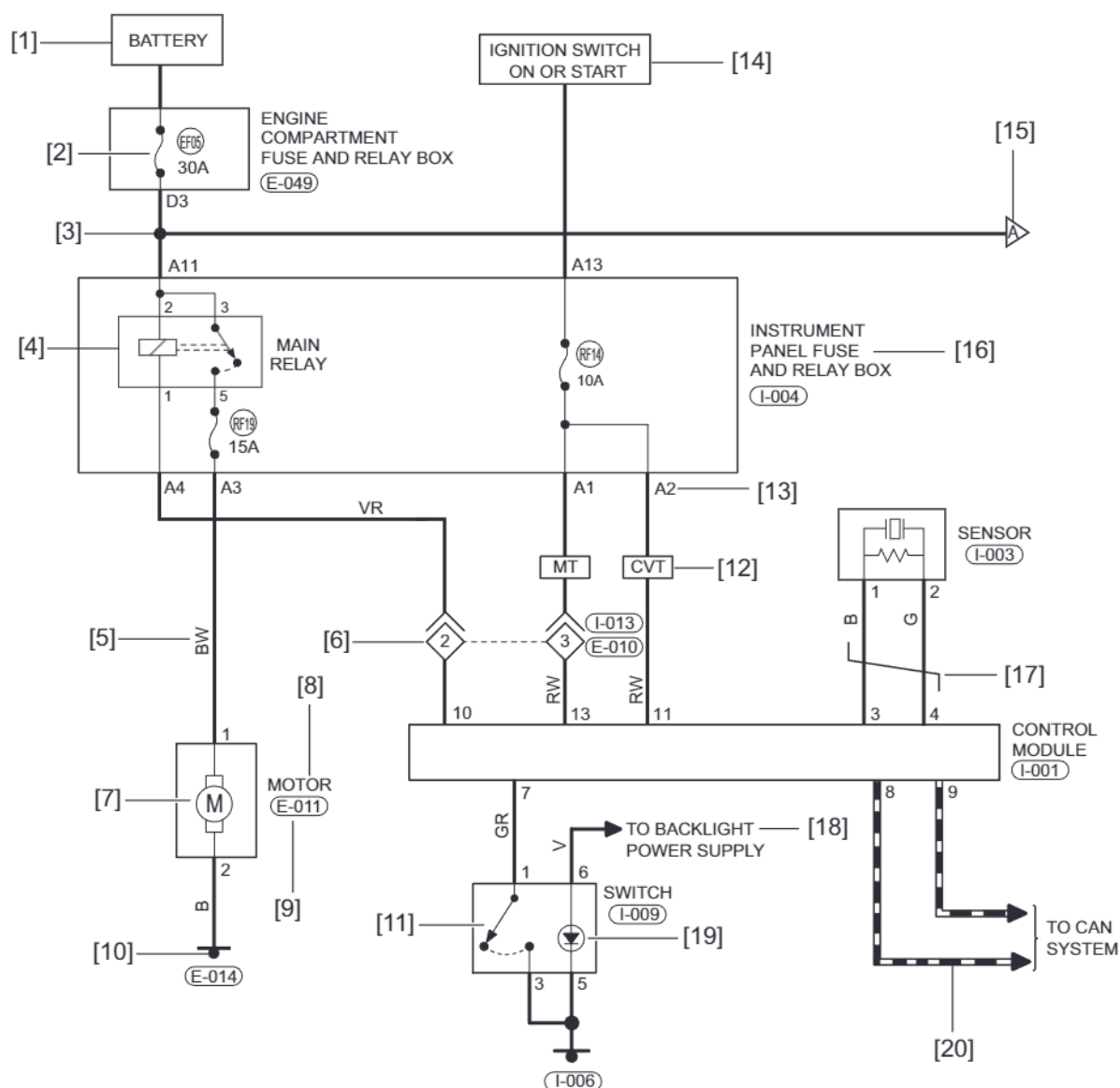
2. Option splices

Option splice is indicated by diamonds (solid line), and marked with pin number inside.

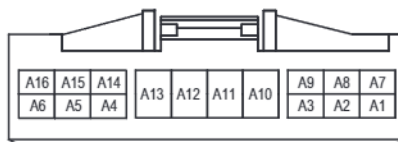


3. Circuit diagram example

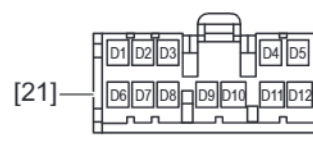
EXAMPLE



(I-001)
W



(I-004)
W



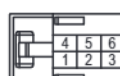
(E-049)
W



(I-013)
W



(E-011)
Gr



(I-009)
W



(I-003)
W

ET21020000

The following is a list of symbols defined in circuit diagram.

02

No.	Definition	Description
[1]	Battery	It indicates the power supply from battery positive to electrical equipment.
[2]	Fuse	This symbol indicates a fuse; "EF05" indicates the fuse number; "30A" indicates the rated amperage of fuse.
[3]	Splice Point	The solid circle indicates that each intersecting wire is interconnected.
[4]	Relay	This symbol indicates a relay; "MAIN RELAY" indicates the relay name; "1", "2", "3" and "5" indicate the terminal numbers of relay.
[5]	Color	It indicates the color of this wire. The color codes are as follows: B = Black; W = White; R = Red; G = Green; L = Blue; Y = Yellow; Br = Brown; O = Orange; Gr = Gray; P = Pink; V = Violet; Lg = Light Green. For example: "BrR" indicates that the main color is brown in the wire color, and the second color is red.
[6]	Connector	It indicates the junction connectors. "Λ" is the female connector, and "I-013" is the applicable number; "◇" is the male connector, and "E-010" is the applicable number. The number "2" and "3" inside male connector indicates the terminal number. "----" indicates different terminals come from the same junction connectors.
[7]	Motor	This symbol indicates a motor.
[8]	Component Name	It indicates the name of component.

No.	Definition	Description
[9]	Connector No.	"E-011" indicates the connector number of this component, and the letter "E" indicates the wire harness code in which the connector is located. The connector codes are as follows: E = Engine Compartment Wire Harness; E = Engine Wire Harness; I = Instrument Panel Wire Harness; B = Body Wire Harness; F = Front Left Door Wire Harness; H = Front Right Door Wire Harness; L = Rear Left Door Wire Harness; R = Rear Right Door Wire Harness; T = Back Door Wire Harness; P = Battery Wire Harness; U = Automatic Transmission Wire Harness (For CVT); N = Ground Wire Harness. K = A/C
[10]	Ground Point	It indicates the ground connection.
[11]	Switch	This symbol indicates a switch.
[12]	Vehicle Model	"CVT" indicates it is for CVT model; "MT" indicates it is for MT model.
[13]	Terminal No.	It indicates the terminal number in the connector of this component.
[14]	Ignition Switch	It indicates the power supply from ignition switch to electrical equipment.
[15]	Connected to ...	It indicates that the wire harness is connected to the circuit diagram on next page. The letter "A" is connected with "A" in circuit diagram on the next page.
[16]	Fuse and Relay Box Name	It indicates the name of fuse and relay box.
[17]	Twisted-pair	It indicates that the two wires are twisted.
[18]	Backlight Power Supply	It indicates the illumination power supply output from backlight adjustment dial.
[19]	LED	It is used for indicators, warning lights or illuminations in the switches or instrument cluster.
[20]	CAN	It indicates CAN wire in the electrical schematics. It is connected to CAN system.
[21]	Connector View	It indicates the cross section of connector and description of the terminal number.
[22]	Connector Color	The letter "W" indicates the color of connector. The color codes are the same as above.

Circuit Diagram Index

Use the table below to find the location of components or vehicle systems in the circuit diagram. It is easy to find the circuit diagrams throughout the service manual based on components or vehicle systems.

It has been marked under "If There Is Any Circuit Diagram" column to tell you that if there is any circuit diagram in the components or vehicle systems.

02

Service Manual Chapter	If There Is Any Circuit Diagram
Foreword	-
Introduction	-
Preparation	-
Service Specifications	-
Maintenance	-
SQR484F Engine Management System	Yes
SQR484F Engine Mechanical	-
SQR484F Fuel Supply System	Yes
SQR484F Emission Control System	Yes
SQR484F Intake System	Yes
SQR484F Exhaust System	-
SQR484F Cooling System	Yes
SQR484F Lubrication System	-
SQR484F Ignition System	Yes
SQR484F Starting System	Yes
SQR484F Charging System	Yes
QR525MHE Transmission	-
QR019CHA Transmission	Yes
Clutch	-
Drive Shaft	-
Differential	-
Axle	-
Suspension	-
Tire and Wheel	-
Brake Control System	Yes
Brake	Yes
Parking Brake	Yes
Steering Column	Yes
Hydraulic Assist Steering	-
Electronic Assist Steering	Yes
Air Conditioning	Yes
Supplemental Restraints System	Yes
Seat Belt	Yes

Service Manual Chapter	If There Is Any Circuit Diagram
Engine Immobilizer	Yes
Lighting System	Yes
Wiper and Washer	Yes
Door Lock	Yes
Instrument Cluster	Yes
Audio System	Yes
Reversing Radar System	Yes
Horn	Yes
Other System	Yes
Windshield/Window Glass	Yes
Rear View Mirror	Yes
Instrument Panel	-
Seat	Yes
Engine Hood/Door	-
Exterior	-
Interior	-
Body Dimensions	-
Wire Harness	Yes

ABBREVIATION TABLE

Abbreviation Table

02

Term	Abbreviation
Anti-lock Brake System	ABS
Acceleration Sensor	AES
Accelerator Pedal Position Sensor	APS
Automatic Temperature Control	ATC
Automatic Transmission Fluid	ATF
Body Control Module	BCM
Brake Pressure Sensor	BPS
Camshaft Position Sensor	CMPS
Clutch Pedal Position Switch	CPP Switch
Crankshaft Position Sensor	CKPS
Data Link Connector	DLC
Diagnostic Trouble Code	DTC
Engine Control Module	ECM
Engine Coolant Temperature	ECT
Engine Speed	RPM
Evaporative Emission	EVAP
Evaporative Emission Canister	EVAP Canister
Evaporative Emission System	EVAP System
Exhaust Gas Recirculation Valve	EGR Valve
Front Left Wheel Speed Sensor	FLS
Front Right Wheel Speed Sensor	FRS
Rear Left Wheel Speed Sensor	RLS
Rear Right Wheel Speed Sensor	RRS
Ground	GND
Heated Oxygen Sensor	O ₂ S
Idle Air Control	IAC
Intake Temperature	IAT
Ignition	IGN
Ignition Control	IC
Immobilizer Control Module	ICM
Injector	INJ
Input Shaft Speed Sensor	ISS Sensor
Knock Sensor	KS
Manifold Absolute Pressure	MAP

Term	Abbreviation
Mass Air Flow	MAF
Malfunction Indicator Light	MIL
Oil Pressure Switch	OPS
Output Shaft Speed Sensor	OSS Sensor
Positive Crankcase Ventilation Valve	PCV Valve
Power Supply	PWR
Supplemental Restraints System	SRS
Throttle Position Sensor	TPS
Transmission Control Module	TCM
Turbine Speed Sensor	TSS
Vehicle Identification Number	VIN
Vehicle Speed Sensor	VSS

