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GENERAL TROUBLESHOOTING INFORMATION

Before Troubleshooting

1. Check applicable fuses in the appropriate fuse/relay box.
2. Check the battery for damage, state of charge, cleanliness and tight connections.

D 2.2 R VGT (Refer to Engine Electrical System - "Charging System")

G 2.0 T-GDI THETA II (Refer to Engine Electrical System - "Charging System")

G 3.3 T-GDI LAMBDA II (Refer to Engine Electrical System - "Charging System")

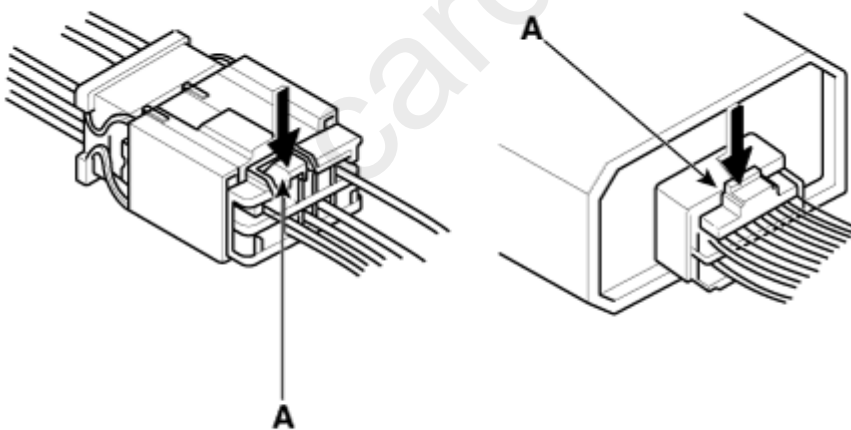
NOTICE

- Do not quick-charge a battery unless the battery ground cable has been disconnected, otherwise you will damage the alternator diodes.
- Do not attempt to crank the engine with the battery ground cable loosely connected or you will severely damage the wiring.

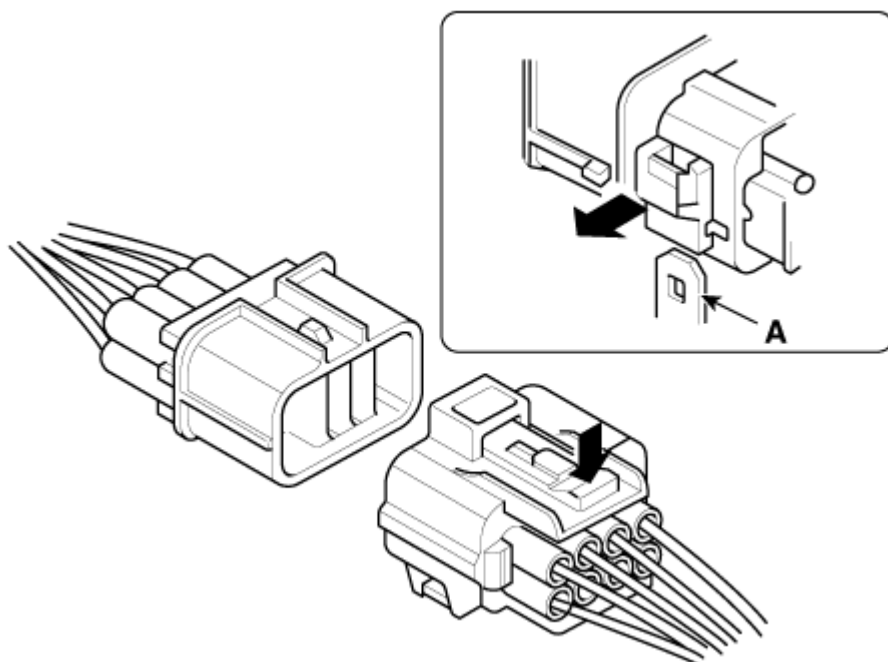
3. Check the alternator belt tension (D).

Handling Connectors

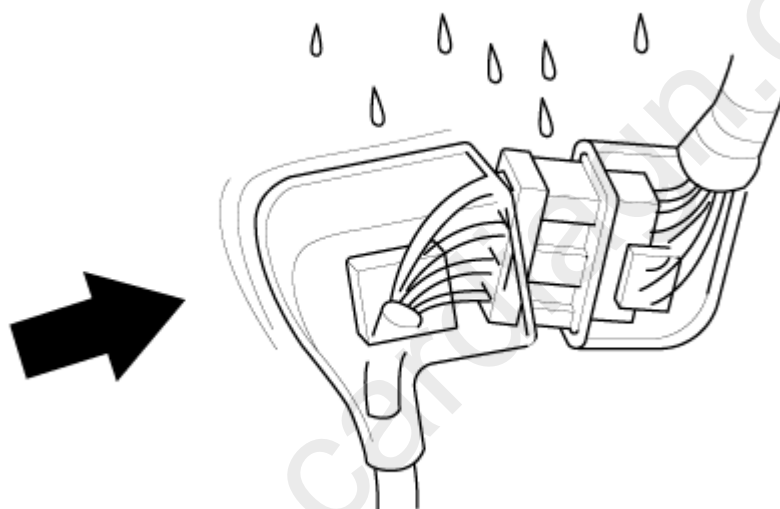
1. Make sure the connectors are clean and have no loose wire terminals.
2. Make sure multiple cavity connectors are packed with grease (except watertight connectors).
3. All connectors have push-down release type locks (A).



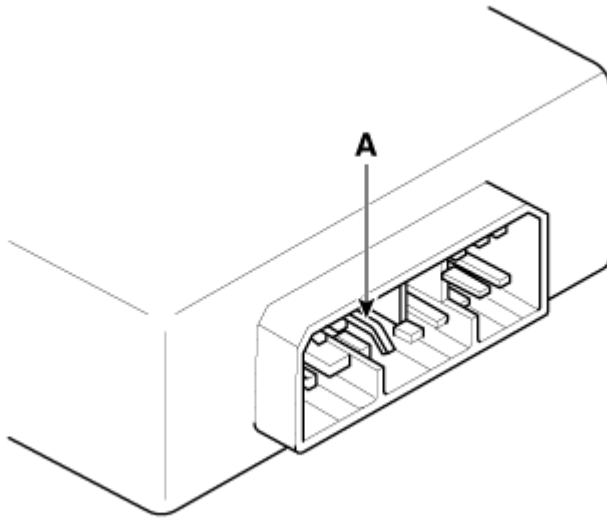
4. Some connectors have a clip on their side used to attach them to a mount bracket on the body or on another component. This clip has a pull type lock.
5. Some mounted connectors cannot be disconnected unless you first release the lock and remove the connector from its mounting bracket (A).



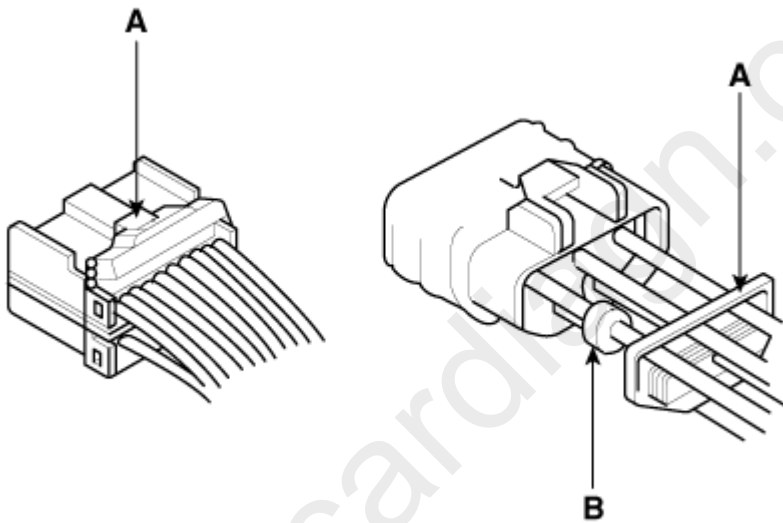
6. Never try to disconnect connectors by pulling on their wires; pull on the connector halves instead.
7. Always reinstall plastic covers.



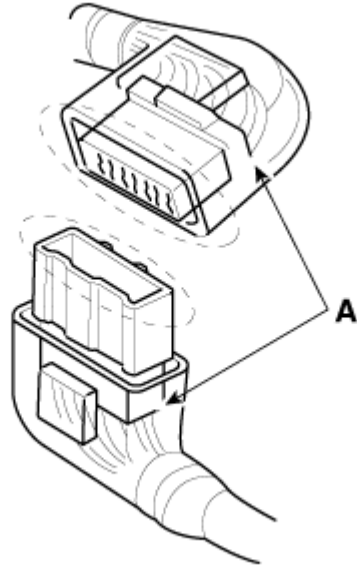
8. Before connecting connectors, make sure the terminals (A) are in place and not bent.



9. Check for loose retainer (A) and rubber seals (B).

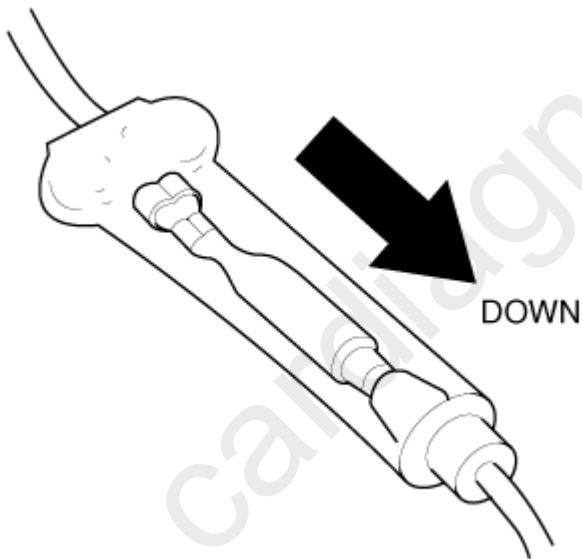


10. The backs of some connectors are packed with grease. Add grease if necessary. If the grease (A) is contaminated, replace it.



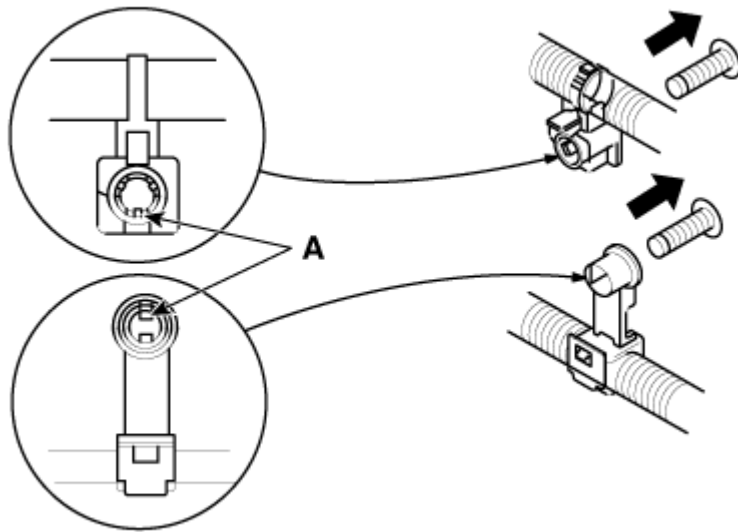
11. Insert the connector all the way and make sure it is securely locked.

12. Position wires so that the open end of the cover faces down.

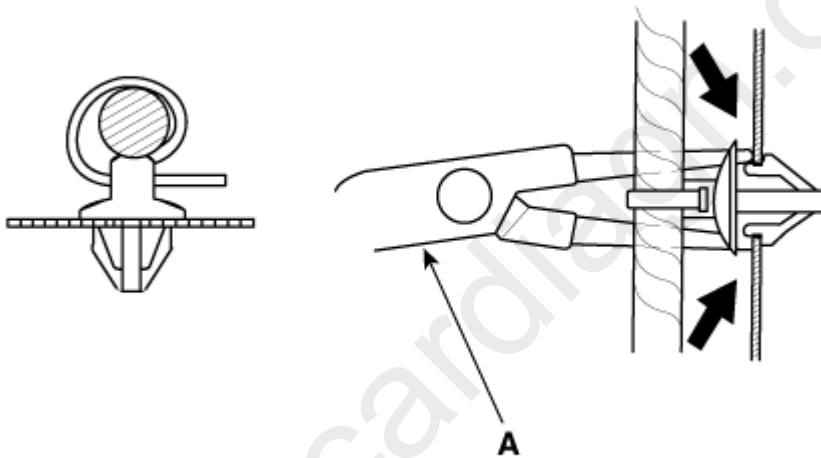


Handling Wires And Harnesses

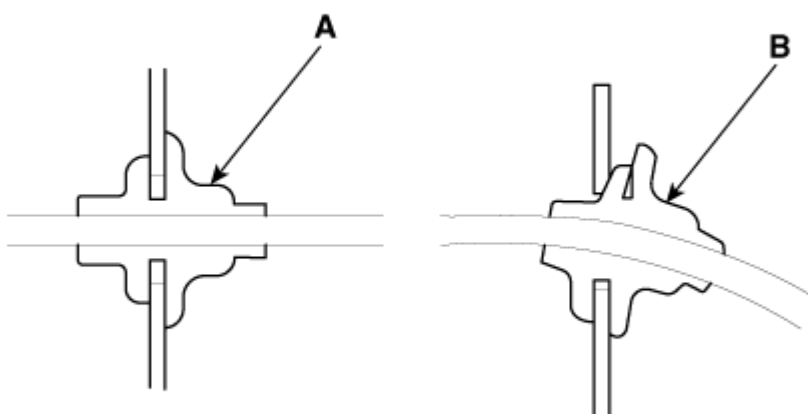
1. Secure wires and wire harnesses to the frame with their respective wire ties at the designated locations.
2. Remove clips carefully; don't damage their locks (A).



3. Slip pliers (A) under the clip base and through the hole at an angle, and then squeeze the expansion tabs to release the clip.

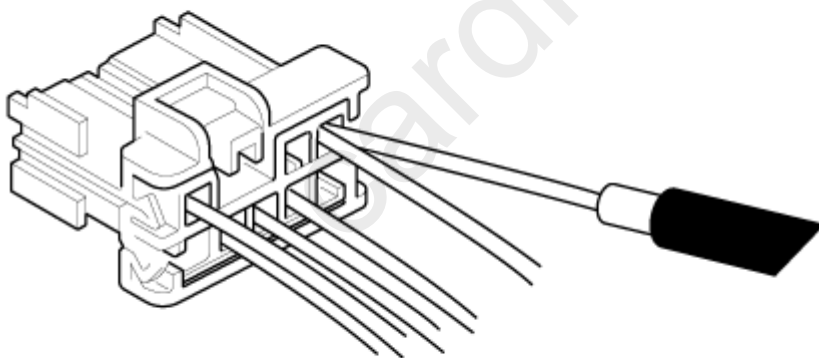


4. After installing harness clips, make sure the harness doesn't interfere with any moving parts.
5. Keep wire harnesses away from exhaust pipes and other hot parts, from sharp edges of brackets and holes, and from exposed screws and bolts.
6. Seat grommets in their grooves properly (A). Do not leave grommets distorted (B).

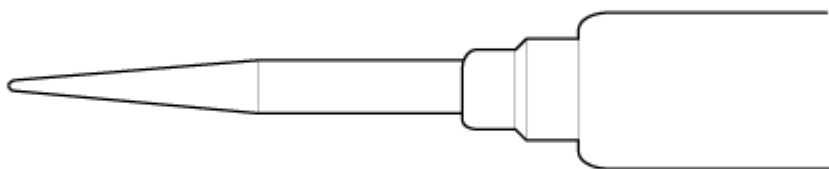


Testing and Repairing

1. Do not use wires or harnesses with broken insulation.
Replace them or repair them by wrapping the break with electrical tape.
2. After installing parts, make sure that no wires are pinched under them.
3. When using electrical test equipment, follow the manufacturer's instructions and those described in this manual.
4. If possible, insert the remover tool from the wire side (except waterproof connector).



5. Use a probe with a tapered tip.
Refer to the user's guide in the wiring repair kit (Pub No. : TRK 015.)



Five-step Troubleshooting

1. Verify the complaint

Turn on all the components in the problem circuit to verify the customer complaint. Note the symptoms. Do not begin disassembling or testing until you have narrowed down the problem area.

2. Analyze the schematic

Look up the schematic for the problem circuit.

Determine how the circuit is supposed to work by tracing the current paths from the power feed through the circuit components to ground. If several circuits fail at the same time, the fuse or ground is a likely cause.

Based on the symptoms and your understanding of the circuit operation, identify one or more possible causes of the problem.

3. Isolate the problem by testing the circuit.

Make circuit tests to check the diagnosis you made in step 2. Keep in mind that a logical, simple procedure is the key to efficient troubleshooting.

Test for the most likely cause of failure first. Try to make tests at points that are easily accessible.

4. Fix the problem

Once the specific problem is identified, make the repair. Be sure to use proper tools and safe procedures.

5. Make sure the circuit works

Turn on all components in the repaired circuit in all modes to make sure you've fixed the entire problem. If the problem was a blown fuse, be sure to test all of the circuits on the fuse. Make sure no new problems turn up and the original problem does not recur.

Installation of the transmitting device.

Electronically controlled computers are designed not to be interrupted by other radio signals, but it can be affected by a remote control of even less than 25 W output if the antenna or cable of a remote control is wired near the computer. To prevent this, follow the below directions.




1. Install the antenna on the roof or rear bumper.
2. Keep the antenna cables at least 200 mm away from the computer or wiring as they transmit radio signals.
3. Decrease the standing-wave ratio by using proper antennas and cables.
4. Do not install remote control with high output.
5. After installing the remote control, check the engine by generating radio signals while idling the engine.

NOTICE

- The standing-wave ratio : When connected to cables and antennas of different impedance, the input impedance Z_i changes based on the length of cable and frequency of remote control, and the voltage range also changes based on position.
- This rate of the maximum and the minimum voltage is called the standing-wave ratio, and also refers to the rate of the antenna impedance and cable impedance.
- The volume of radio signals from cables is proportional to the standing-wave ratio volume, hence the influence to electronic parts increases.

Power Window and Sunroof Reset

If negative (-) battery cable was removed or fuse was replaced while opening/closing the power window or sunroof, perform initialization again as the default value of motor is erased.

System	Resetting
Auto up/down window	<div>  Information </div> <p>Reset the window motor to its default settings in the following cases:</p> <ul style="list-style-type: none"> • In case battery power connected to power window is not supplied due to battery replacement, discharged battery or fuse replacement while opening/closing the power window <p>Whenever the battery is disconnected or discharged, or the related fuse is replaced or reinstalled, reset the Auto up/down window system according to the procedure below.</p> <ol style="list-style-type: none"> 1) Turn the ignition switch "ON". 2) Pull up the power window switch until the window is fully closed and keep pulling it up for about 1 second.
Wide sunroof	<p>Perform initialization when the battery power supply has been disconnected from the wide sunroof motor due to battery replacement, discharged battery, fuse replacement or using emergency handle to operate wide sunroof while the function of opening/closing the wide sunroof.</p> <div>  Information </div> <p>In the following cases, perform initialization as the initial value of wide sunroof motor has been erased.</p> <ul style="list-style-type: none"> • If battery power supply is disconnected from the wide sunroof motor due to battery replacement, discharged battery or fuse replacement while opening/closing the wide sunroof. • If the automatic opening/closing of the wide sunroof, a one-touch feature, does not function properly. • If the wide sunroof reverses during automatic closing even though there is no object caught in the wide sunroof (safety feature). <ol style="list-style-type: none"> 1. Close the glass and the roller blind completely by using Glass close switch after IG is on. <div>  Information </div> <p>Initializing Glass motor</p> <p>Initialize in following order below when the glass can not be closed completely cause of motor problem.</p> <ol style="list-style-type: none"> 1) Detatch the Glass Motor. 2) Push the Glass backward manually. (Maximum opened Glass condition) 3) Connect the Glass motor connector. 4) Press the Glass open switch until the Glass motor is stopped after IG is on.

5) Install the Glass motor.

English

2. Release the Glass close switch after the Glass and the Roller blind are completely closed. And then be hold to press the Glass close switch again (about 10 seconds) until moving roller blind shoe 4~5 times and ticking sound.
3. Wide sunroof initializing would be completed after opening/closing the Glass and Roller blind in order below by releasing and holding to press the Glass close switch again.
(Roller blind open → Glass open → Glass close → Roller blind close)

NOTICE

Initialization would not be done and you would have to restart the initialization from the first step if the operation is stopped while initializing cause of the Glass close switch has released.

Trip computer, Clock and Audio Reset

When reconnecting the battery cable after disconnecting, recharging battery after discharged or installing the memory fuse located on the driver's side panel after removing, be sure to reset systems mentioned on the below table.

In addition, when replacing or reinstalling the fuses after removing, reset according to the below table.

System	Resetting
Trip computer	If the battery is reconnected after being disconnected, the configuration on trip computer will be initialized. Explain this to the customer.
Clock	If the battery terminals or related fuses have been disconnected, you must reset the time in the audio head unit. (Refer to "Audio" in owner's manual.)
Audio	If the battery has been reconnected after being disconnected, the customer's preset radio stations will be initialized. Record the customer's preset radio stations prior to servicing, and set the customer's preset radio stations into the audio after service.

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