

## DIY GUIDE: ALTERNATOR CHANGE F/ LEXUS IS250

**Disclaimer: Do it at your own risk. I am not responsible for any damage. If you are not sure, go to Lexus dealer or find a good mechanic.**

This is not a detailed guide. I might skip one or two steps in the guide. Do whatever you feel necessary / safe.

Tools and parts required:

1. New or rebuilt alternator (I bought a rebuilt one from Autozone, \$127 after you return the core)
2. Torque wrench
3. Any tools you feel necessary along the way.

First of all, always wear safety gloves. I am not talking about those latex or nitrile gloves. I am talking about a pair of good mechanic or polyurethane gloves.



Also a pair of safety goggles.



**YOUR SAFETY COMES FIRST!**

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First of all, I replaced my alternator at 65k because it started making noise (squeak) like a dying alternator during heavy load. I did not want to be stranded in the middle of nowhere. This issue was very apparent for IS250s with manual transmission. I could be wrong but at least that was true when I searched the forum for similar issues.

Second, according to Lexus repair manual, you must drain the coolant and remove the radiator hose for bigger access. I personally did not like this idea, since it is a hassle to re-fill the coolant with minimum trapped air inside the system. Therefore, I went ahead without draining the coolant and managed to finish the job safely. If you follow this way, you will need a ton of patience as access to the alternator is very limited.

Finally, this is a fairly straight forward job, meaning you disconnect or remove whatever you feel necessary.

Guides:

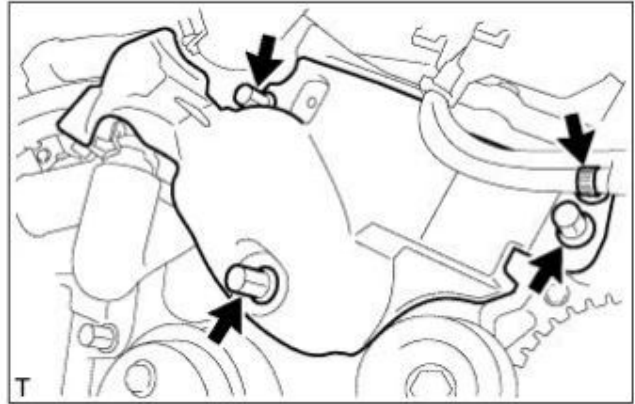
1. Disconnect the battery negative terminal. Wait for several minutes so the alternator has no electrical energy anymore.
2. Remove front, central and driver-side engine covers.
3. Remove the drive-belt by using 14mm socket to turn the tensioner pulley counter-clockwise. You should be able to pull away the belt without any resistance.
4. I attached pages from Lexus repair manual as I was lazy to take enough pictures.

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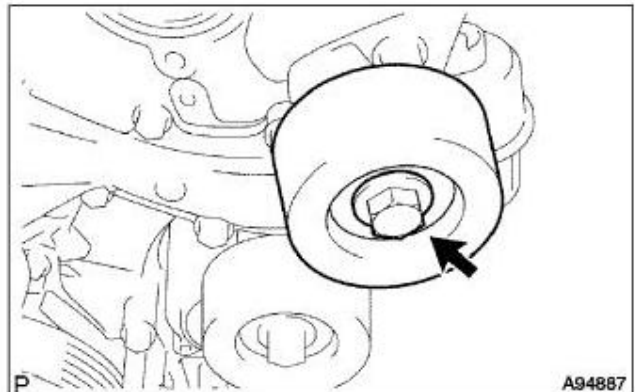
### 9. REMOVE NO. 2 ENGINE COVER

- a. Remove the 3 clips and clamp, then remove the No. 2 engine cover.



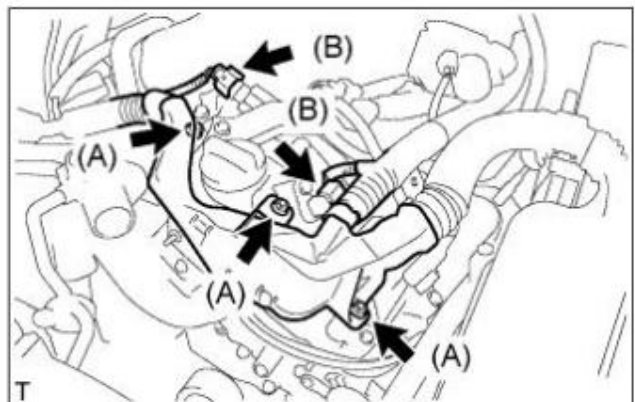
### 10. REMOVE NO. 2 IDLER PULLEY SUB-ASSEMBLY

- a. Remove the bolt, idler pulley cover plate No.2 and No.2 idler pulley sub-assembly.



### 11. DISCONNECT WIRE HARNESS

- a. Remove the 3 nuts (A) and disconnect wire harness.
- b. Disconnect the 2 connectors (B).



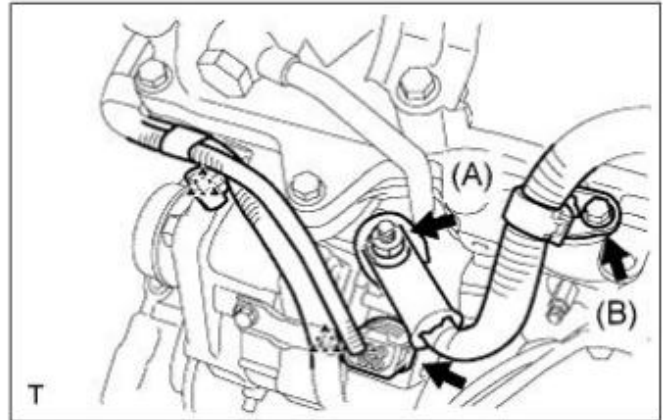
### 12. REMOVE GENERATOR ASSEMBLY

- a. Remove the terminal cap.

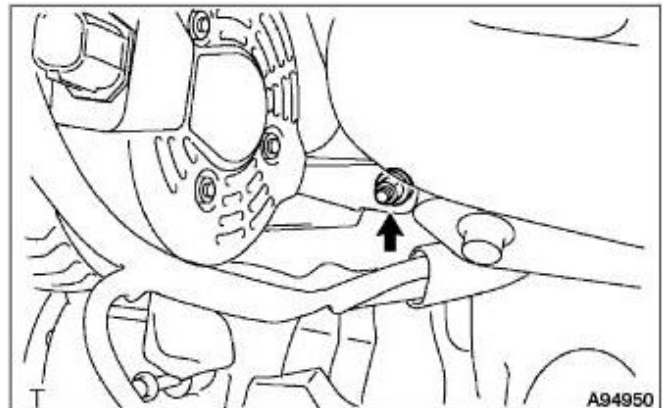
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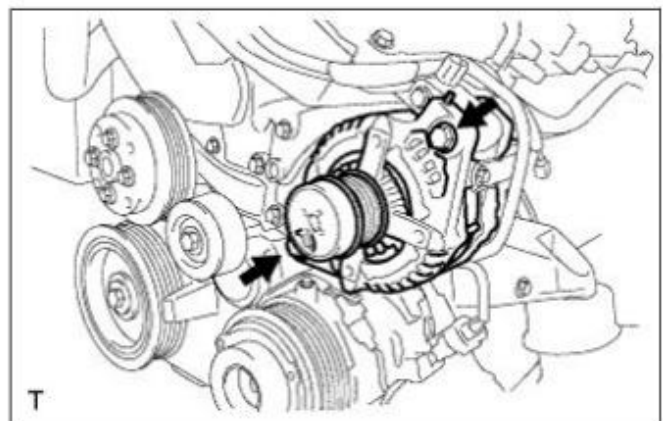
- b.** Remove the nut (A) and disconnect the wire harness from terminal B.
- c.** Remove the bolt (B) and clamp bracket.
- d.** Disconnect the generator connector, and detach the 2 clamps.



- e.** Remove the nut, and disconnect the generator bracket.



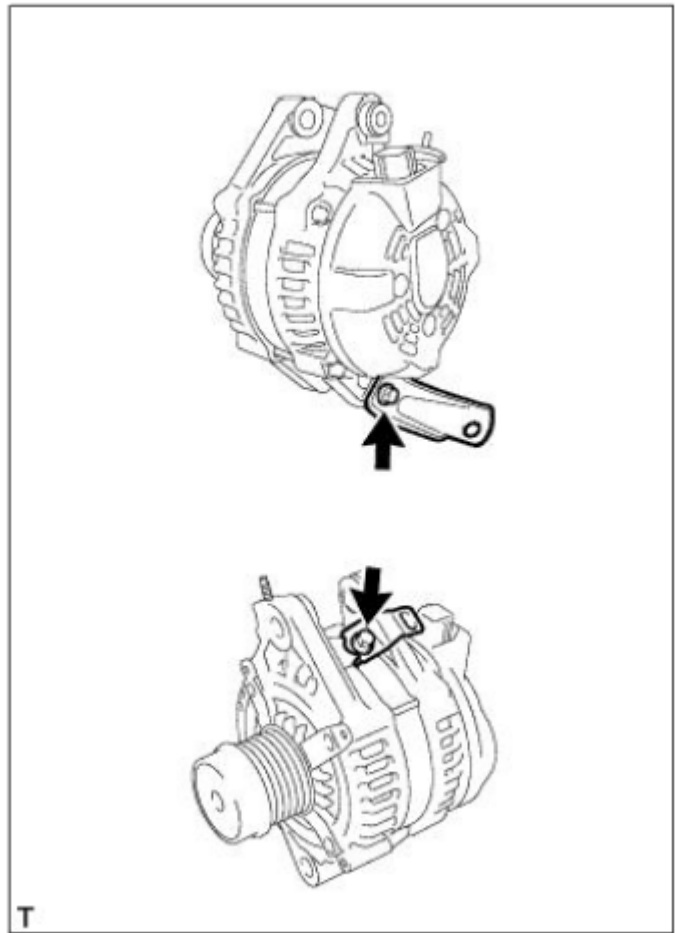
- f.** Remove the 2 bolts and generator.



- g.** Remove the 2 bolts and 2 generator brackets.

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They are fairly straight forward, except the part where you need to pull the alternator off. It was **ANNOYING**. Not hard, but the room to wiggle around is very limited. I would suggest observing the space around the alternator and making a plan how to maneuver the alternator towards its freedom.

In addition, you should **stretch** your back very often as you will be working with your body bending towards the engine bay the whole time.

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Now, these are the photos that I took from the job. I tried to provide some tips



Figure 1 – Looks more complicated than the repair manual's picture (step 12). Notice the limited space to work. /Fun!

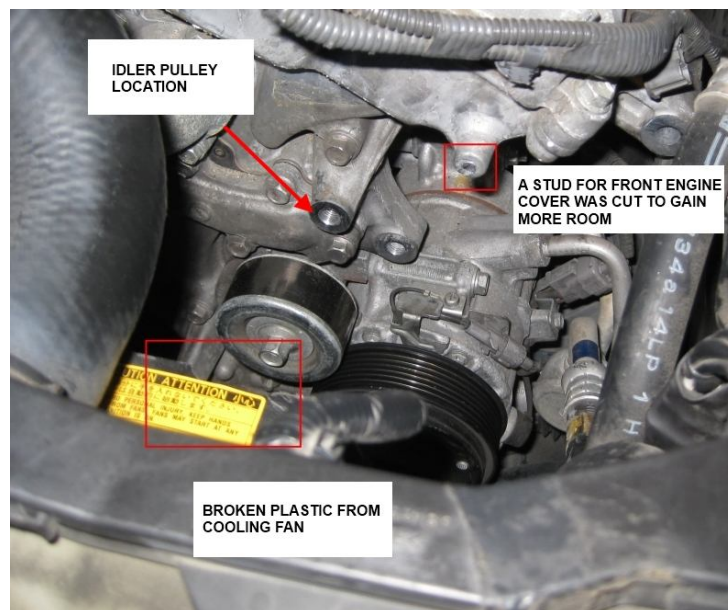


Figure 2 - Toward the end of the job, I lost patience when I was trying to install the replacement alternator. I cut a stud for an engine cover. It did not affect the functionality. It is possible to install the alternator back without cutting a stud like me. Be patience. I also broke small part of a cooling fan. Then again it did not affect anything.

GOOD LUCK!