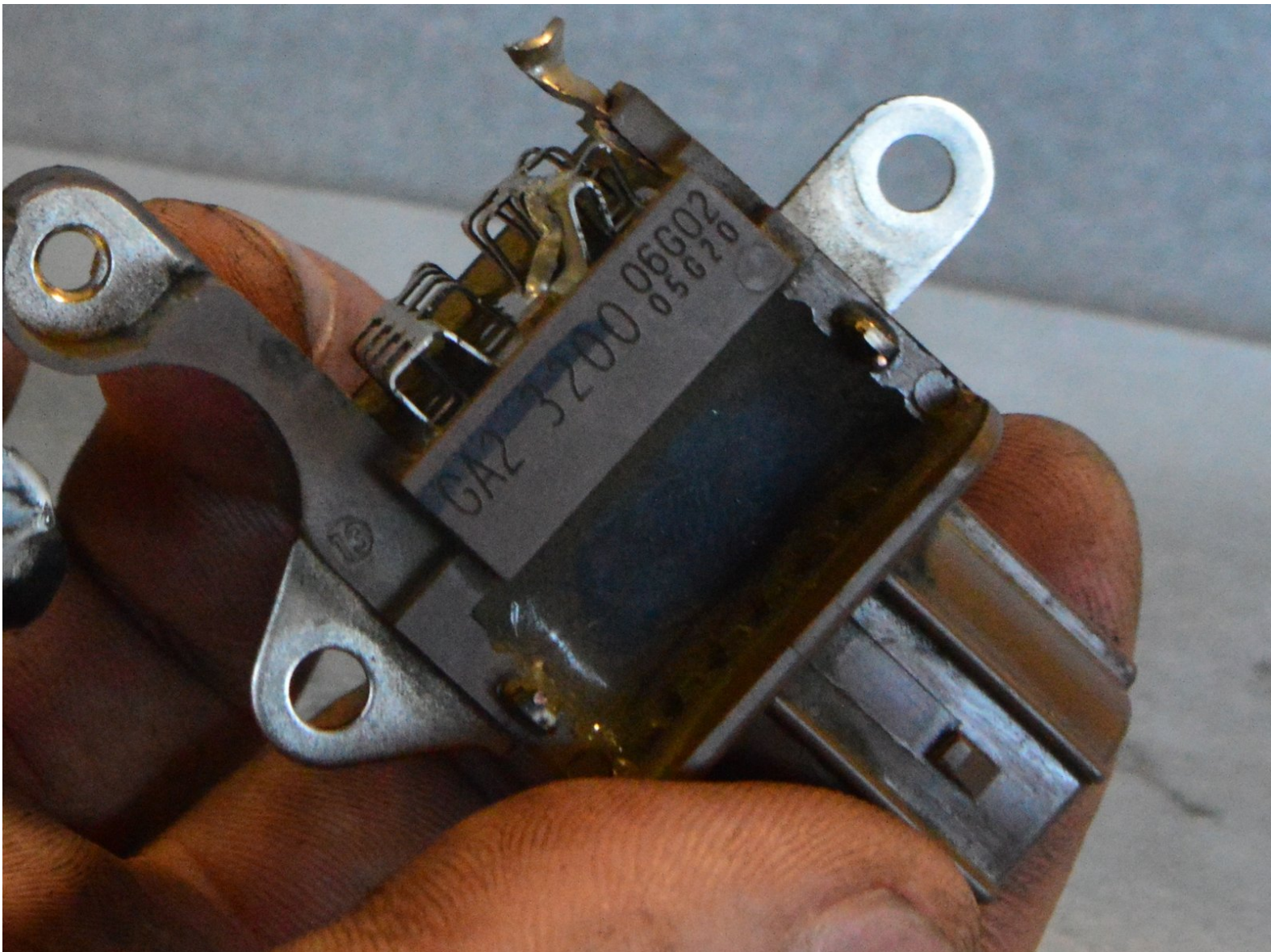




# Honda CSC29 Voltage Regulator Replacement

How to replace a Honda CSC29 alternator's voltage regulator.

Written By: Sterling Snow



## INTRODUCTION

The voltage regulator's purpose is to monitor the battery voltage, in which it will maintain a predetermined charging system voltage level. The regulator also controls the current flow to the rotor assembly.

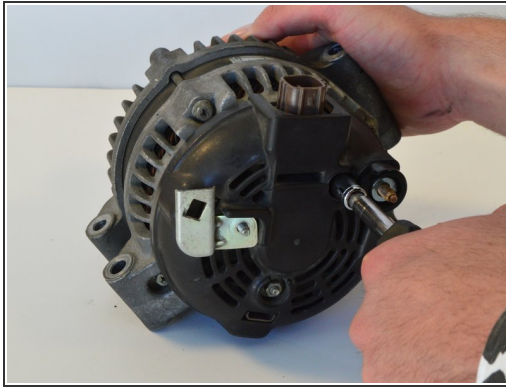
The regulator will increase the field current, (there by strengthening the magnetic field) when the charging system voltage falls below this point, which increases the alternator's output. However, when the charging system voltage rises above this point, the regulator will decrease field current , which weakens the magnetic field, and decreases the alternator's output.



### TOOLS:

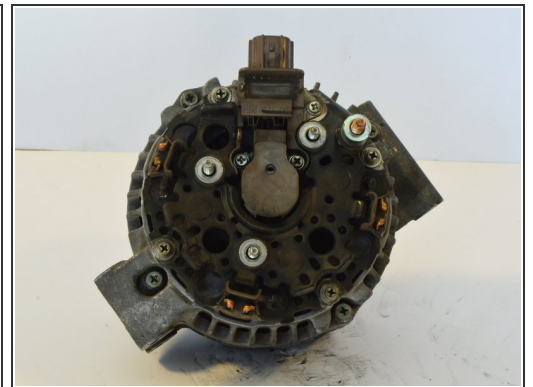
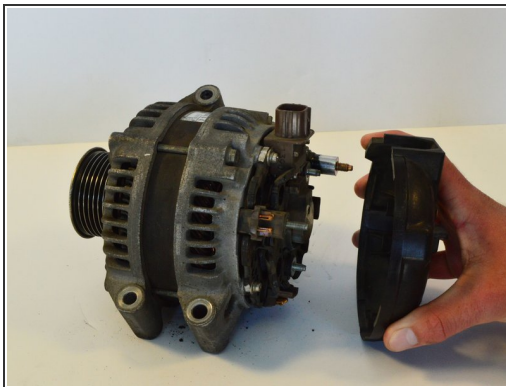
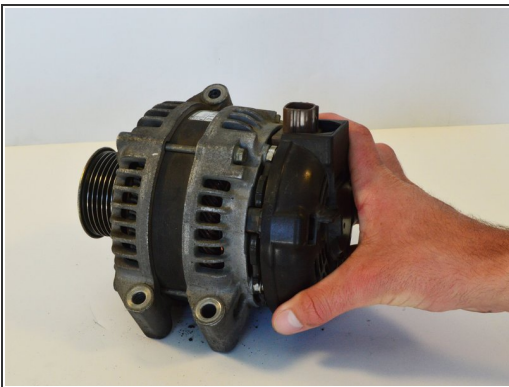
- [Socket Wrench](#) (1)
  - [8 mm socket](#) (1)
  - [Soldering Iron](#) (1)
  - [Pry Bar](#) (1)
  - [Flush Wire Cutters](#) (1)
  - [Phillips #2 Screwdriver](#) (1)
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## Step 1 — Alternator Front Cover



- Remove 4, 7.9mm nuts using a 7.9mm socket driver head
- ⓘ One of the nuts is placed underneath the L-Bracket. Remove the L-Bracket and the 3 circled nuts before attempting to remove the remaining nut
- ⓘ There are two covers that need to be removed from the alternator. This step describes how to remove the back cover.

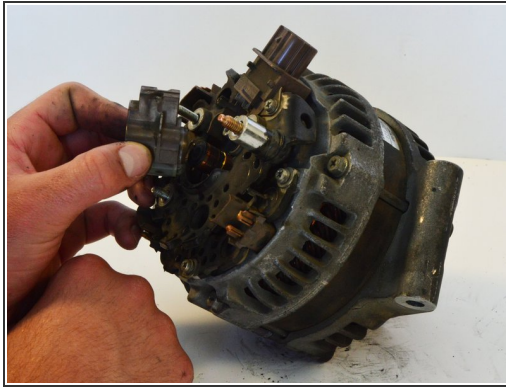
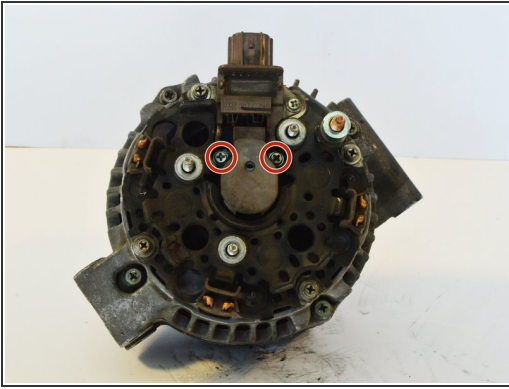
## Step 2



- Pull cover off the body of the alternator
- Once you have done this, you should be able to see the internal components of the alternator, particularly the bridge assembly that houses the rectifier, voltage regulator and brushes.



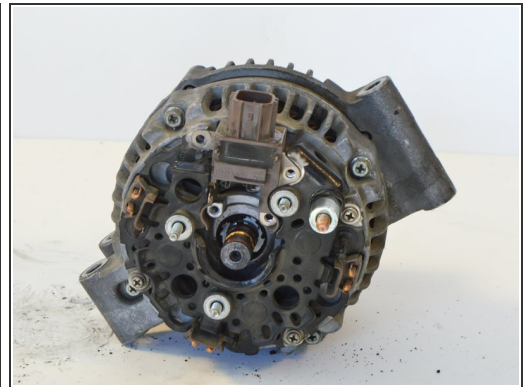
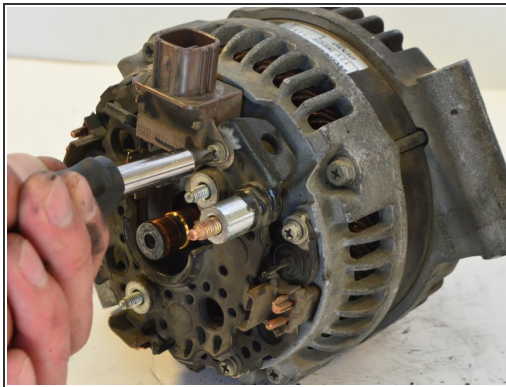
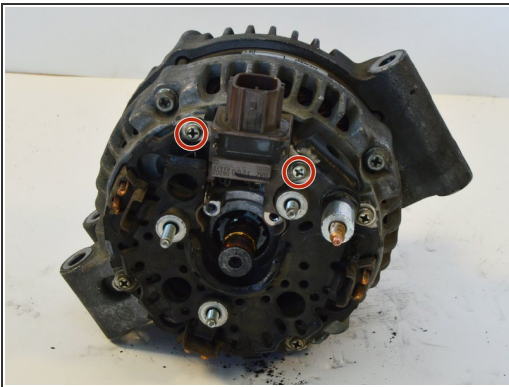
### Step 3 — Removing the brush assembly.



- With the alternator cover removed, use a #2 Phillips screwdriver to remove the two, 6 mm screws that hold the brush cover in place.
- Remove the brush cover assembly from the alternator. You might need to insert a needle in the small hole to separate the brushes from the rotor. Pull it out without using much force to avoid damage.

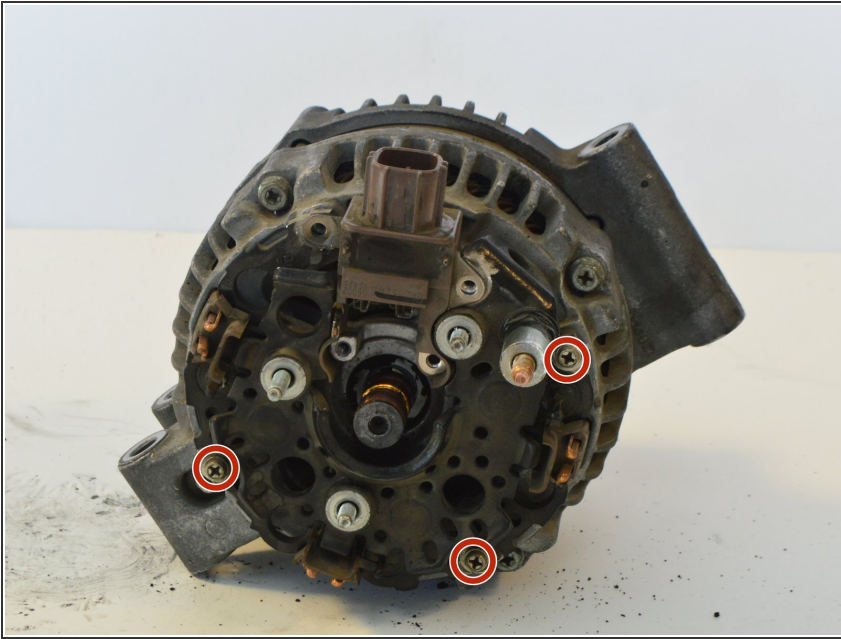
⚠ Avoid disconnecting wires unless otherwise specified!

### Step 4



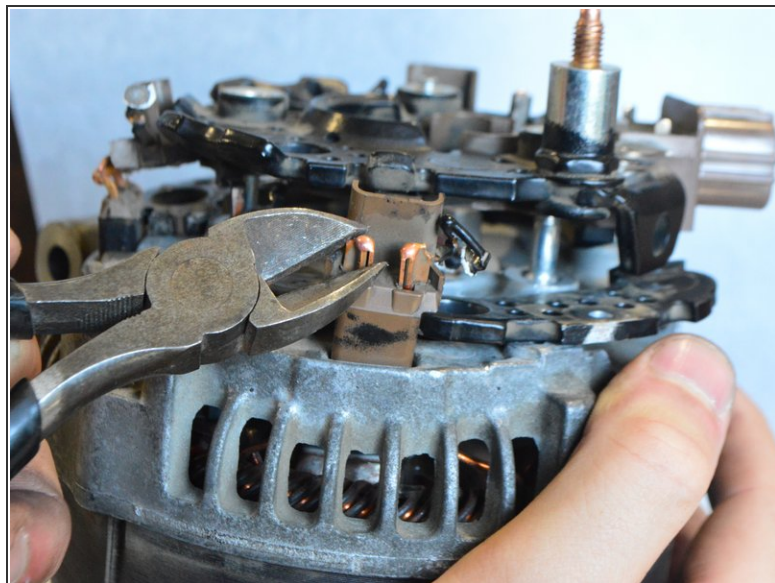
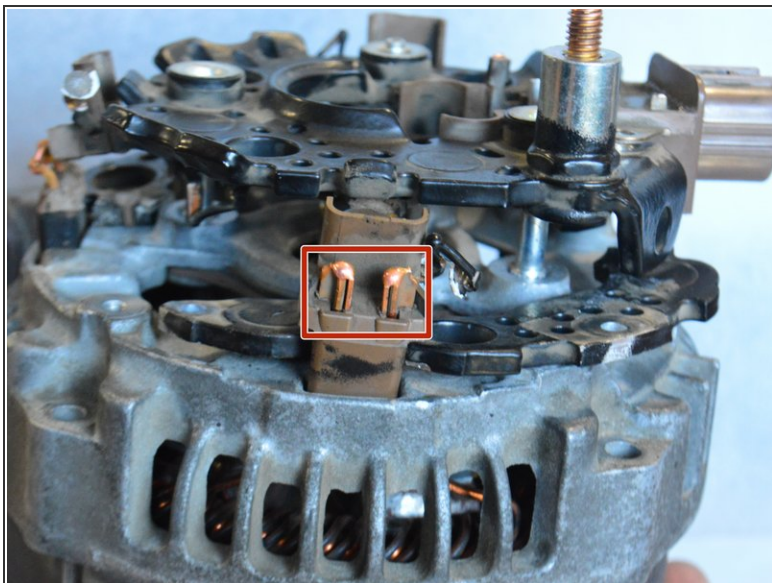
- Use a #2 Phillips screwdriver to remove the two 6mm screws holding down the voltage regulator
- ⓘ There are three screws that attach the voltage regulator to the bridge assembly. One of these screws was removed in the previous step.

## Step 5



- Locate and unscrew the 3, 6mm screws holding the bridge assembly in place
- ⓘ There are 4 screws attaching the bridge assembly to the alternator. One of these screws were removed in the previous step.

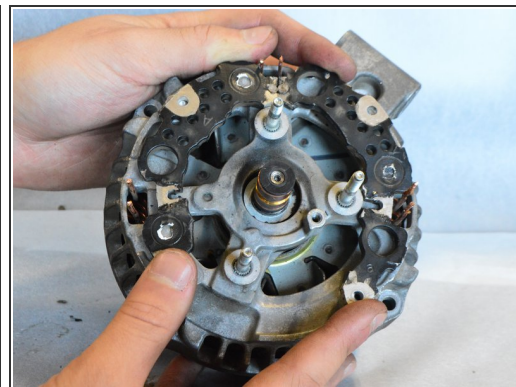
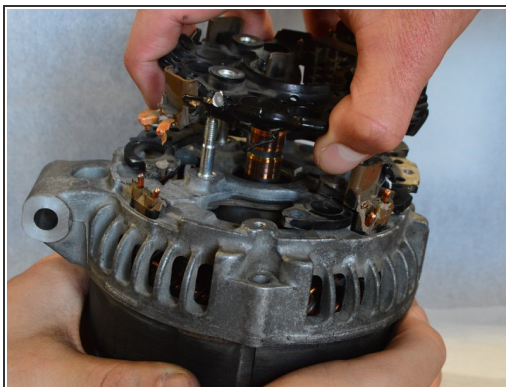
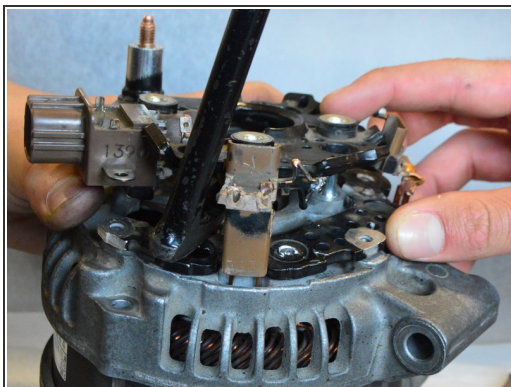
## Step 6



- Locate the copper leads connecting the stator to the bridge assembly. There are 3 sets of 2 leads on the perimeter of the bridge, making 6 leads total.
- ⚠ These leads must be cut in order to remove the bridge from the alternator. These leads will have to be soldered back together on reassembly. Keep the cut as clean as possible.
- Use wire cutters to cut all 6 of the leads on the perimeter of the bridge.

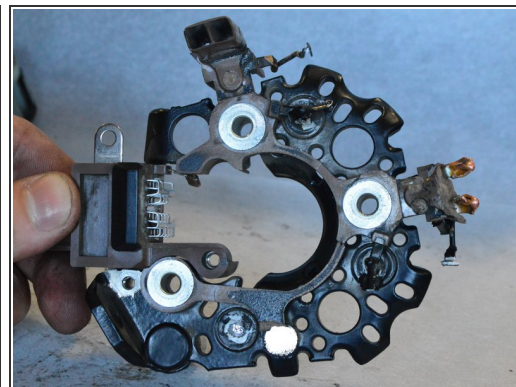
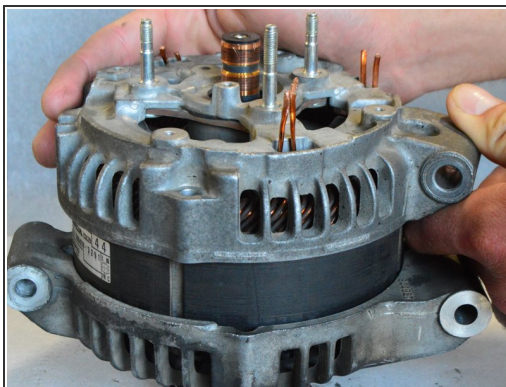
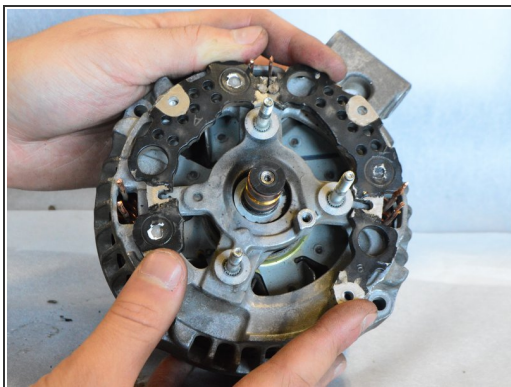


## Step 7



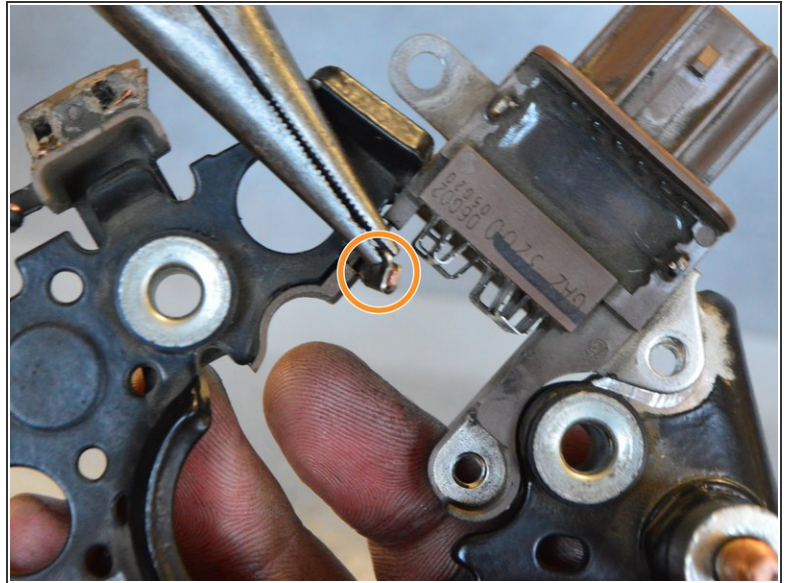
- If necessary, use a pry bar to gently raise the top of the bridge assembly off the alternator
- ⚠ Be extremely careful with the pry bar. Excessive force will damage the bridge assembly.
- ⓘ Make sure the cut ends of the copper leads are straight to make bridge assembly easier to pull off.

## Step 8



- Remove the lower section of the bridge assembly
- ⓘ Use of a pry bar may be necessary. Be gentle.

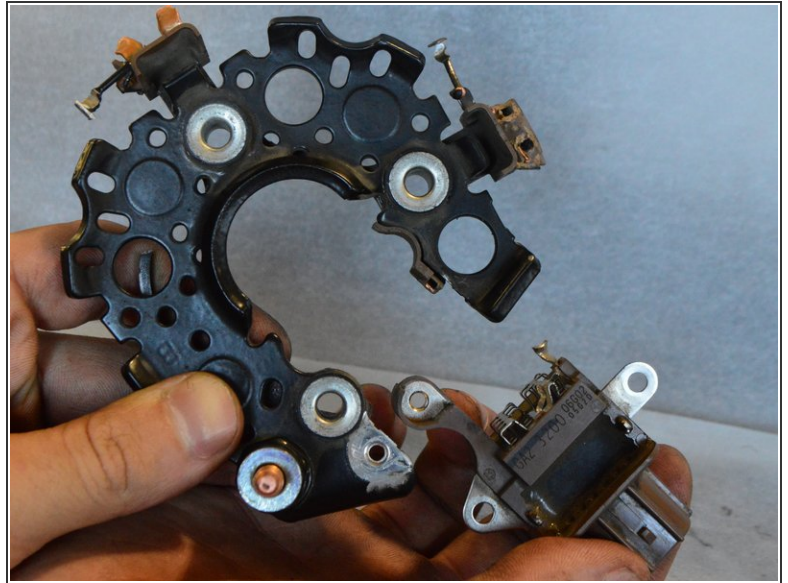
## Step 9 — Voltage Regulator



- Locate the small metal clasp attaching the voltage regulator to the the rectifier.
- Loosen the clasp using a pair of needle-nose pliers

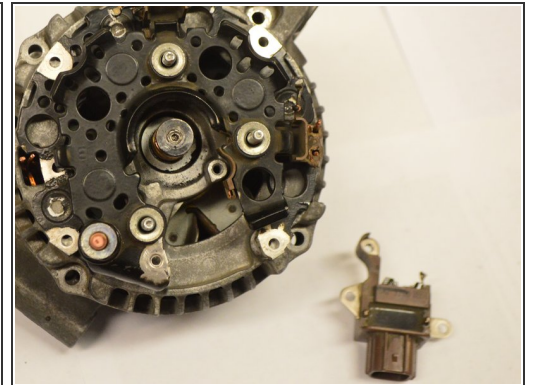
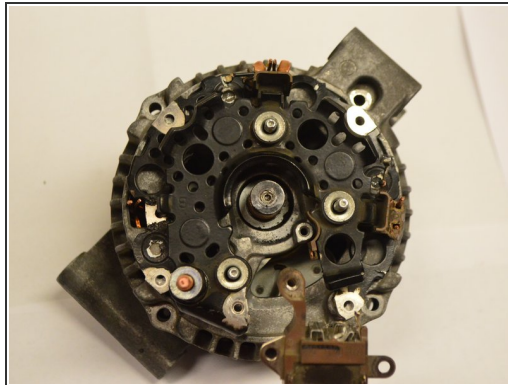
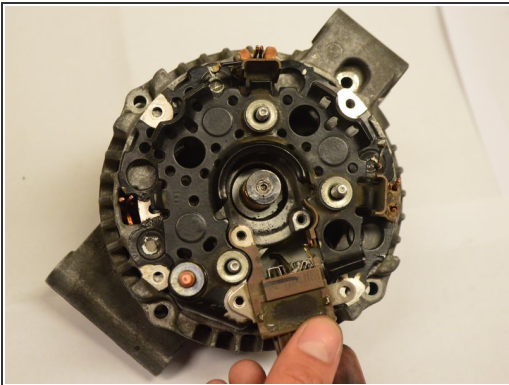


## Step 10



- Using a pair of wire cutters, cut the copper winding attaching the voltage regulator to the rectifier
- ⚠ Be very careful with any cuts. Keep them as clean as possible, as any severed connections will need to be soldered on reassembly.

## Step 11



- Remove the voltage regulator from the alternator
- ⓘ When connecting the new voltage regulator, carefully read the manufacturer's instructions on how to connect it to different types of alternators.

To reassemble your device, follow these instructions in reverse order.