

XC90 2007 Voltage Regulator In-situ Replacement

Caveats:

- Usual caveats about if you do not know what you are doing – don't start – take it to a garage.
- "Your mileage may vary" – just because it worked for me, does not mean it will be the same for you.
- This was a 2007-on D5 engine with an alternator part of 30667787 (Bosch OEM Part 0-124-525-060) your configuration may not be the same.
- This is quite cramped to do in-situ and required the right basic tools, particular a ratchet cross-head screwdriver.

Before you start:

You MUST remove the negative connection to the battery – you will be using metal tools in a confined space on the +ve battery line!

The battery is at the rear of the vehicle.

If you did not already know this, then you should not be attempting this!



Dismantling the Alternator:



This is what your XC90 should look like before starting.



Step One:

Disconnect the cables; there are two cables, the main 12V lead and the control cable. To remove the control cable; simply pull gently. To remove the 12V line, first remove the plastic cap, then using a 13mm socket (I needed to use a universal joint on the socket set) undo the nut. Remove the 12v cable from the alternator.

Then using the same 13mm socket remove the second nut on the bolt that held the 12v cable

Then using the same 13mm socket remove the stand-alone nut.



12V Lead removed



Control Cable Removed

Step 2:

Remove the bolt holding the cover in place using a cross-head screwdriver bit, using a right-angle screwdriver and/or a ratchet screwdriver (or both).

The cover can then be removed. And looks like this;



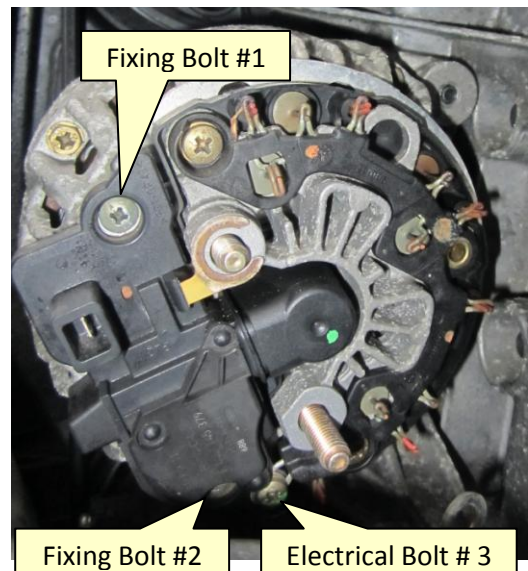
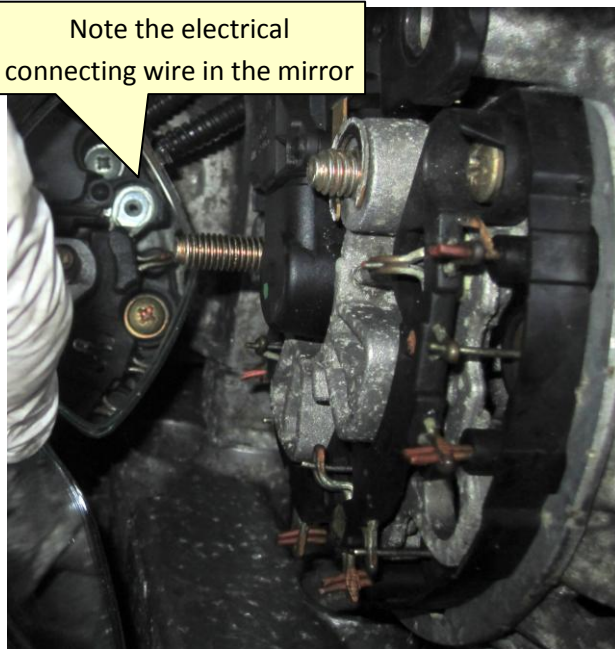
Step 3:

Now with the voltage regulator exposed remove the three cross-head bolts, noting that two hold the regulator in place and one provides the electrical connection between the rectifier and the regulator.

In particular note the connection wire and its position over the regulator.

Remove the regulator.

Note the electrical connecting wire in the mirror



Final:

This is what the alternator now looks like.



Note the voltage regulator goes under the electrical connecting wire when refitting



Replacement:

It's obvious, but replacement is the reverse of removal!