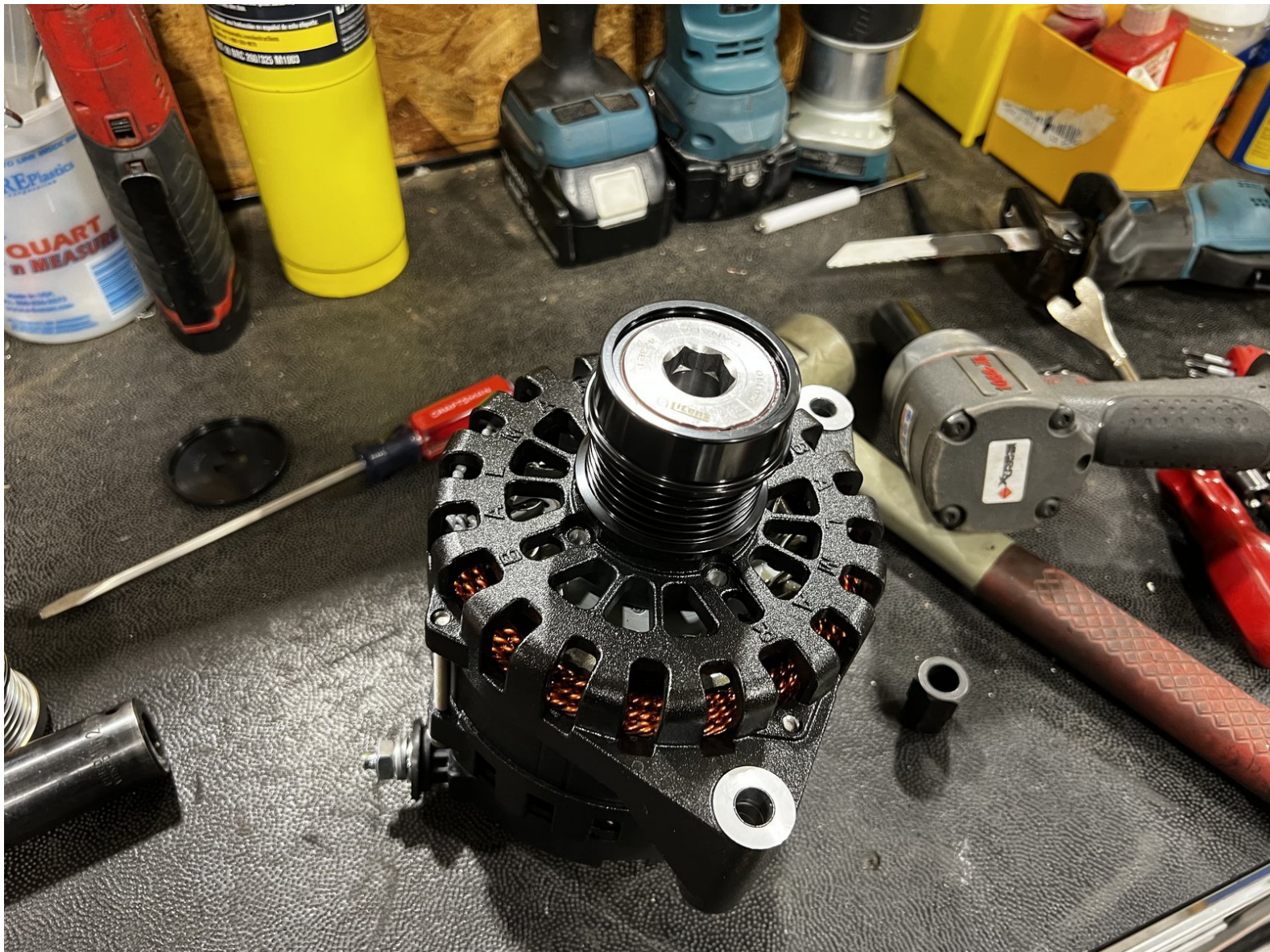




Litens Pulley Upgrade

How to perform the Litens pulley swap.

Written By: John Kronuch



INTRODUCTION

You do *not* need to find a specialized mechanic or RV dealership to do the swap. Any good independent mechanic can do the pulley replacement, so finding an option near you should be straightforward. Here are a few tips:

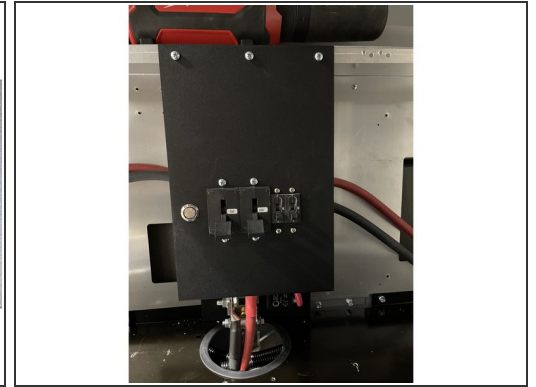
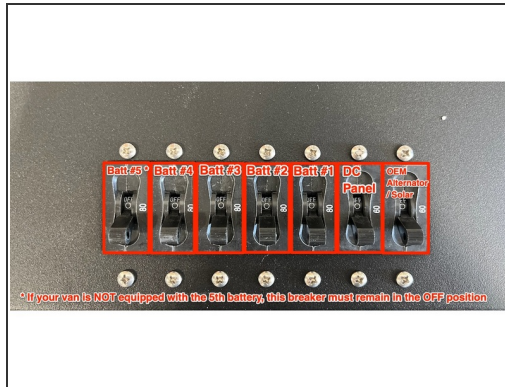
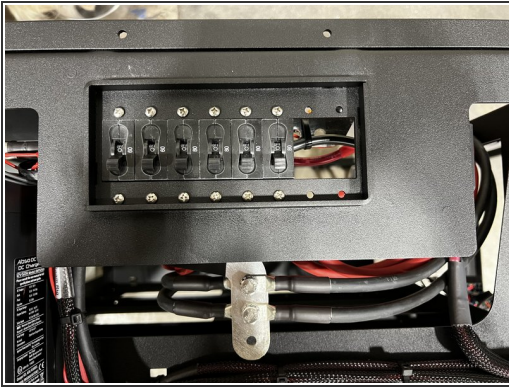
- It does NOT need to be a shop that specializes in Mercedes or RVs. In fact, it's best to find a local independent mechanic that is well regarded in your community. The smaller the better.
- The van does NOT to be on a lift for the replacement. The alternator is very accessible from underneath.
- It should not take more than an hour start to finish (it takes us about 15 minutes, though we've had a lot of practice).
- You can share this guide with the mechanic ahead of time. We also have [a video of the pulley replacement](#).

Questions? [Please contact us directly.](#)

TOOLS:

- OEM Alternator Decoupler Pulley Tool Kit p/n 27261 (1)
- Belt Tensioner Release Tool (1)
- 13mm Deep Socket (1)
- 15mm Deep Socket (1)
- Socket Wrench 3/8" Drive (1)
- 10mm Deep Socket (1)
- Impact Gun (1)
- 22mm Deep Socket (1)
- 19mm Deep Socket (1)
- 8mm Allen Head (1)
- Ball Peen Hammer (1)

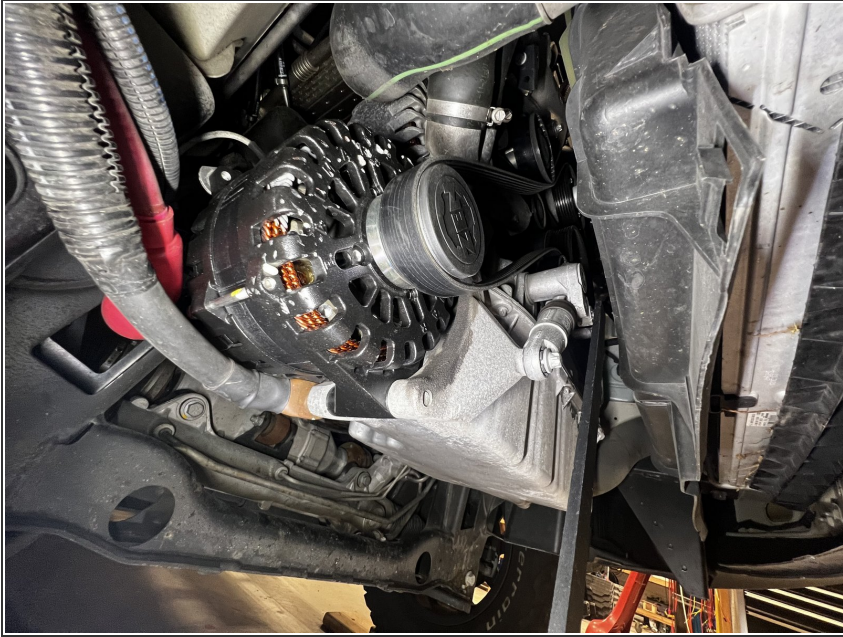
Step 1 — Shut Off House Power



- Shut off the house battery system.
- On RoamRig Systems you can shut the house power breakers. On 1st Gen systems (18-20) the breakers are on the front of the bench seat. 2nd/3rd Gen systems (21-23) the breakers are in the battery compartment on the driver's side rear of the cargo area.
- Use a multimeter to check the positive stud on the alternator and place the ground probe on the negative cable lug to verify house power is off.

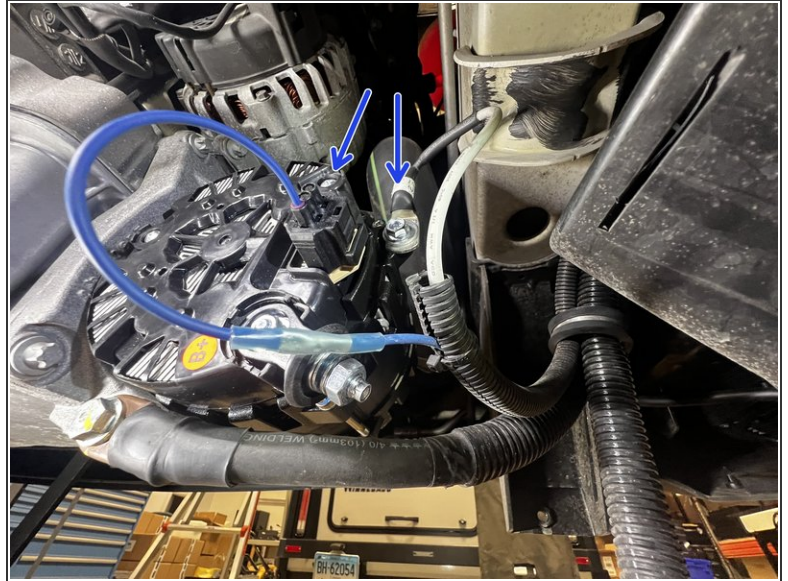
⚠ Ensure house power is off before continuing!

Step 2 — Belt Removal



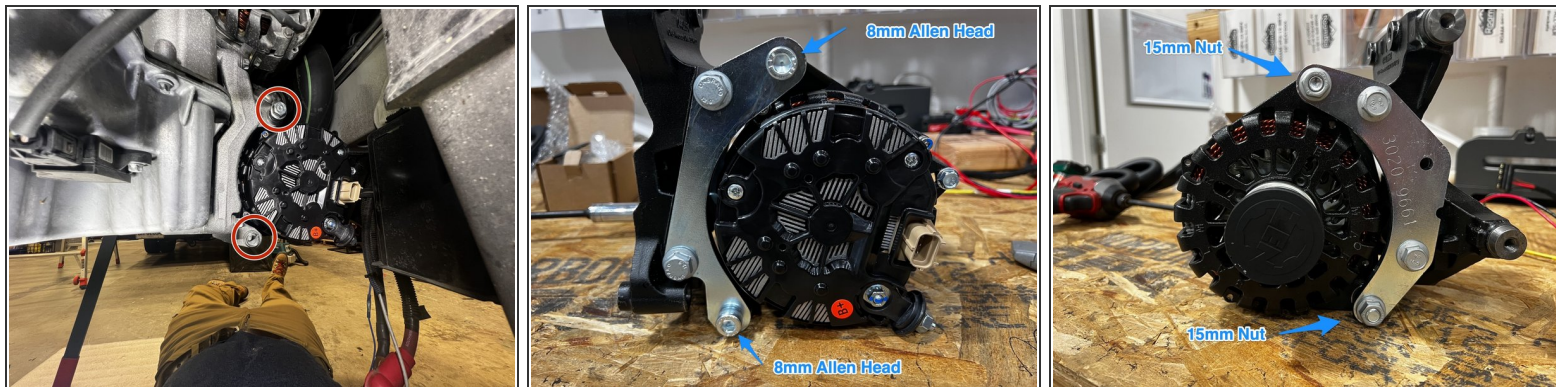
- Remove the belt from the alternator using the belt tensioner tool. Pull the tool towards the passenger side of the van to release the tensioner. Slip the belt off the front of the alternator.
- The tool uses a T55 torx bit for reference.
- ⚠ Take note on the belt routing before removing the belt, especially if the van is equipped with the Techni bracket ('18-'20 Revels, vans without the N62 option code)
- ⓘ The auxiliary alternator is located on the lower front passenger side of the engine, attached to the oil pan.

Step 3 — Alternator Removal - Positive Lug/Field Wire/Temp Sensor Removal



- Remove the positive lug using a 13mm socket.
- Remove the field wire connector by depressing the locking tab and pulling straight out. Remove the temp sensor using a 10mm socket.
- ⓘ There will be an alternator protection module that has red and black leads on it. The black lead goes with the temp sensor, the red lead goes on the positive stud.

Step 4 — Alternator Removal



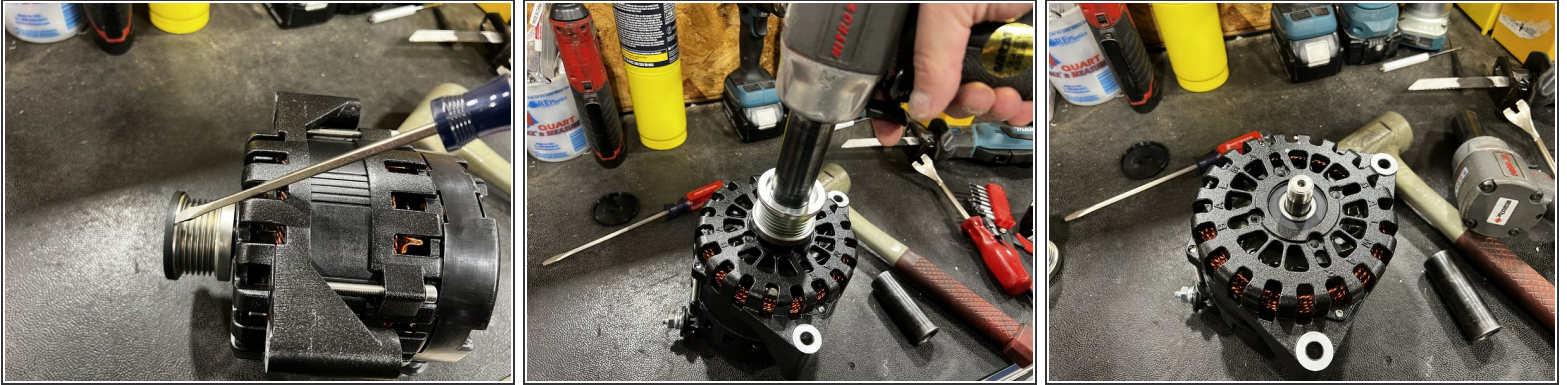
- Use a 15mm socket to remove the two alternator mounting bolts. (note the first image shows the OEM N62 bracket uses on the '21+ Revels)
- For '18-'20 Revels remove the two alternator mounting bolts using a 8mm allen head, and a 15mm socket for the nuts. Take note of the spacers for the alternator, and take care not to lose them when removing the alternator.
- ⓘ Take care not to drop the alternator.

Step 5 — Pulley Tool Removal Tool



- Old pulley removal tool
- Littens pulley install tool

Step 6 — Old Pulley Removal



- Use a screwdriver or pick to remove the cap on the front of the pulley
- Insert the appropriate pulley tool into the front of the pulley. Use a 22mm socket and an impact gun in reverse to remove the pulley. Blip the impact gun trigger, as we want the impact action to free the pulley.

Step 7 — Litens Pulley Install



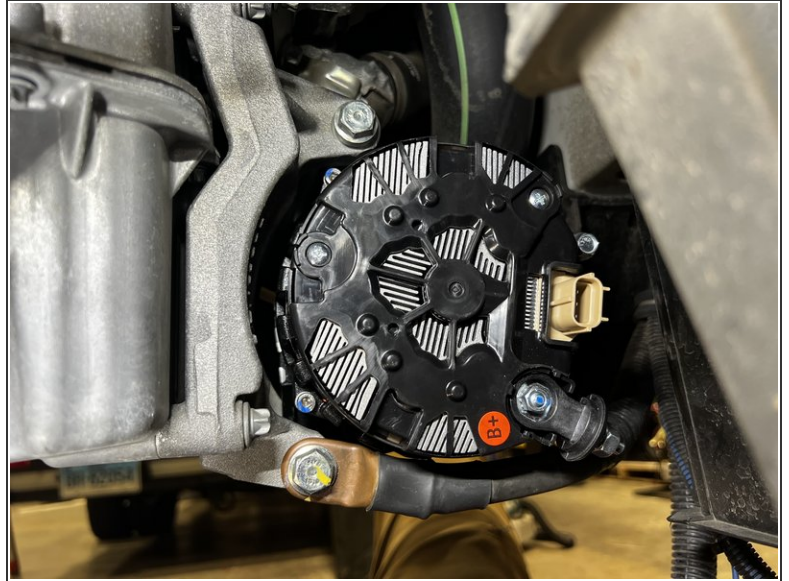
- Thread the new pulley onto the shaft of the alternator. The shaft is normal (right hand) thread.
- Use the pulley install tool and a 19mm socket on the impact gun. Grasp the exterior of the pulley, and give the impact gun 3-4 QUICK blips to tighten the pulley onto the shaft.
- ⚠ You do not need to go crazy with the impact gun. Just a few quick trigger pulls is all that is needed. We want the impact action to tighten the pulley. Make sure the pulley is fully seated onto the alternator.
- Once the pulley is installed, install the protective cap onto the front of the pulley. You can use a soft blow hammer to seat the cap.

Step 8 — Pulley Install/Removal - Video



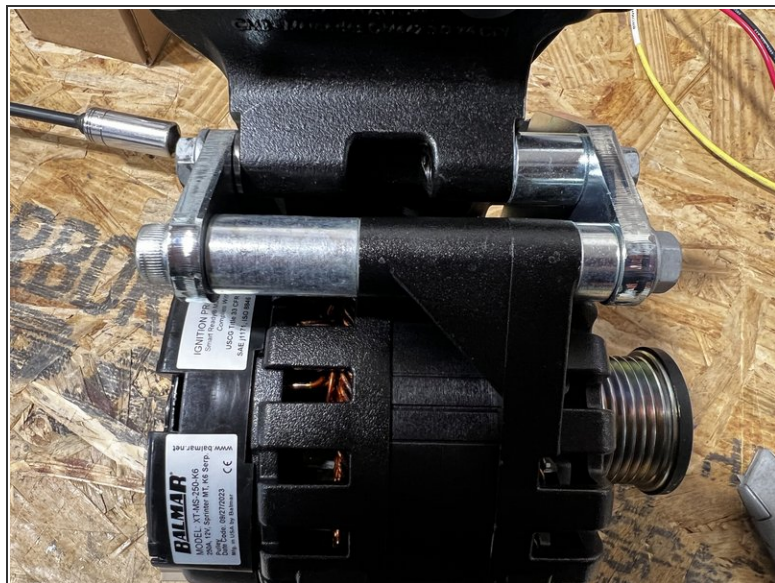
- Here is a link to a video showing the pulley removal and reinstall in video format if required.
- [Pulley Removal/Installation](#)

Step 9 — Alternator Reinstallation '21-'23 Revels



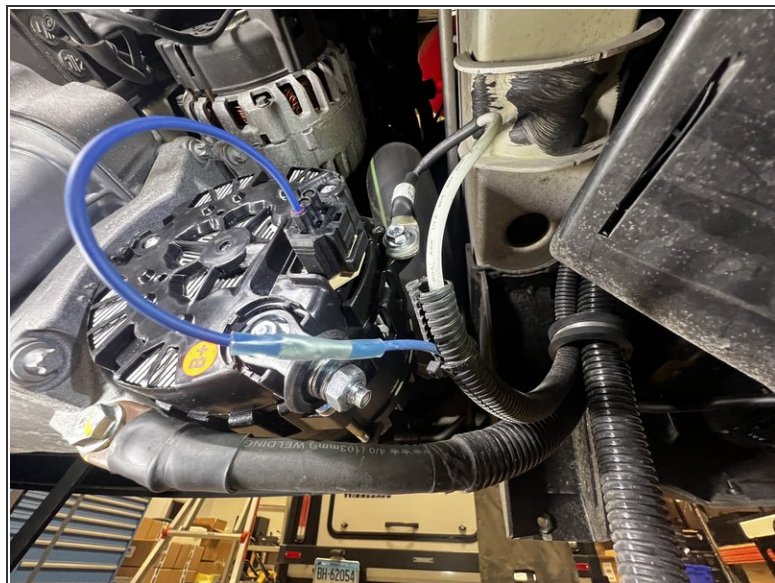
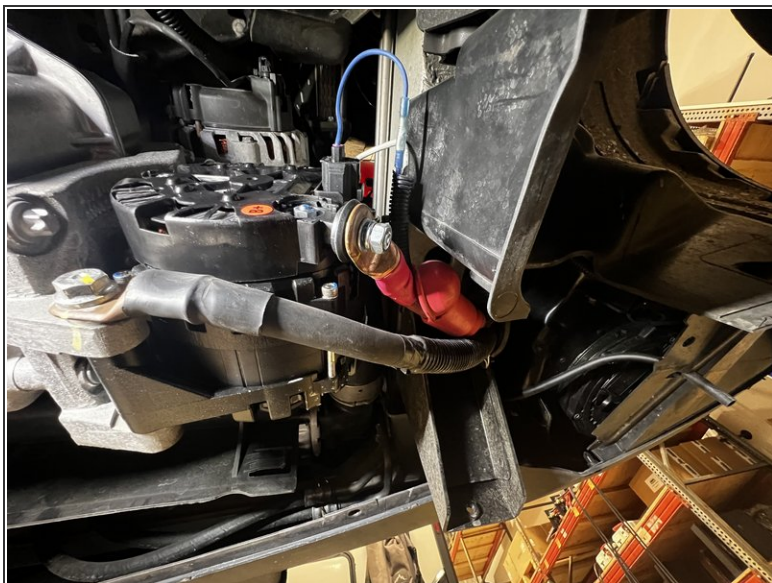
- Tap the spacers back into the bracket using a hammer to make the installation easier.
- Place the alternator into position, and reinstall the mounting bolts. Tighten the bolts snug.

Step 10 — Alternator Reinstallation '18-'20 Revels



- Loosen the two 15mm head bolts on the back side of the alternator mounting bracket. This will make it easier to install the alternator.
- Place the bolt in from the rear of the bracket, followed by the long spacer. Hold the alternator in position and slide the bolt through the mounting tab on the alternator. Place the smaller spacer into position, and continue sliding the bolt through the small spacer and through the front mounting flange on the bracket.
- Some patience is needed for the upper mounting bolt. If you look up from under the front of the alternator you can see the front spacer which will aid in positioning. You can also do the bottom bolt first since it is easier to hold help hold the alternator.
- Once you have alternator mounting bolts started, tighten the two 15mm head bolts that were loosened BEFORE tightening the alternator mounting bolts with the 8mm Allen head. This will ensure the bracket is square before locking the alternator into place.

Step 11 — Alternator Reinstallation '21-'23 Revels



- Connect the positive lug to the stud on the alternator. Place the lug, then the red wire for the alternator protect module. Install the flat washer, the lock washer, and then the nut,. Tighten until snug.
- Reinstall the field wire connector, temp. sensor, and alternator protection module.

Step 12 — Belt Reinstallation



- Release the tensioner and place the belt over the alternator pulley.
- Ensure the belt is fully seated on all pulleys, especially the upper fan pulley. Make sure the belt is properly seated on all the ribs of the pulleys.

Step 13 — House Power Turn On



- Turn the breakers previously turned off on to restore house power.