2015-2019 Subaru Outback - Alternator

2015-2019 Subaru Outback | Advanced | 1-1.5 hours | $140 DIY

TOOLS

10 mm socket (battery terminal, B+ nut)
12 mm socket (mounting bolts) 14 mm socket (mounting bolts) 15 mm socket (belt tensioner) Ratchet with extensions Digital multimeter Phone or camera (belt routing photo)

PARTS

Alternator (amperage match) $140.00

STEPS

1. **Confirm the alternator is the problem, not the battery or belt - With the engine running,** expect roughly 13.5-14.5 volts at the battery terminals. Also inspect the serpentine belt and tensioner: the good news on the FB25 engine is that the alternator sits right at the top of the engine bay, making thi...
2. **Disconnect the battery negative terminal first - Open the hood and find the battery at** the front-left of the engine bay. Loosen the negative clamp with a 10 mm socket, lift the cable off the post, and tuck it aside so it can't fall back on.
3. **Photograph the belt routing from above - Note which pulleys are ribbed and which are** smooth. While you're looking, check the belt for cracks or glazing and give the tensioner pulley a spin - roughness now means a cheap part to replace while access is open.
4. **Release the belt tensioner and slip the belt off the alternator - Put a 15 mm socket on** the belt tensioner's hex and rotate it to relieve tension, keeping fingers clear of the belt path. While holding it back, slip the belt off the alternator pulley and tuck it aside - there's no need to remove the who...
5. **Unplug the regulator connector and remove the B+ cable - With the battery disconnected,** find the small regulator plug on the back of the alternator, press its locking tab, and slide it straight off - grip the connector body, not the wires. Then remove the 10 mm nut holding the heavy B+ cable t...
6. **Remove the mounting bolts and lift the alternator straight out - Back out the** alternator's mounting bolts with 12 mm and 14 mm sockets, supporting the unit with your free hand as the last one comes free. A bench comparison now is your cheapest chance to catch a wrong part before it's bolted in.
7. **Reinstall, re-belt, reconnect, and verify charging - Lower the new alternator into place,** start every mounting bolt by hand to avoid cross-threading, then tighten them snug per the service manual - do not overtighten. Reconnect the regulator plug until it clicks and refit the B+ cable with...

TORQUE

Alternator mounting bolts 45 Nm 33 ft-lbs
Main power stud nut 10 Nm 7.4 ft-lbs

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