2012-2018 BMW 3 Series - Starter

2012-2018 BMW 3-Series | Advanced | 2-3 hours | $110 DIY

TOOLS

External Torx (E10, E12) socket set
Ratchet with 6-inch and 12-inch extensions
13mm socket for the B+ cable nut 10mm socket for terminal clamps and manifold bolts Torque wrench Work light and magnetic tray Jack and jack stands (if accessing from below)

PARTS

Starter motor $110.00
Intake manifold gasket set

STEPS

1. **Confirm the starter is the real problem - Turn the key or press start and listen** carefully. Test the battery with a proper load tester and confirm the positive and ground connections at both ends are clean before condemning the starter.
2. **Disconnect the battery (trunk-mounted) - Disconnect the negative battery terminal first,** always - on the F30 the battery lives in the trunk under the floor panel, and the starter's B+ cable carries full battery current at all times. Loosen the negative clamp, lift it off, and f...
3. **Reach the starter under the intake manifold - The factory route is from above: remove the** engine cover, disconnect the intake sensors and fuel lines, and unbolt the intake manifold to expose the starter. On rear-wheel-drive cars some techs prefer from below, but from above gives the c...
4. **Disconnect the starter wiring - With the intake manifold aside, photograph the cable** routing before touching anything. The starter has two connections: the large B+ cable held by a 13mm nut and a smaller signal wire. Remove the B+ nut first, lift the cable off, then disc...
5. **Remove the mounting bolts and extract the starter - The starter is held to the** bellhousing by two long mounting bolts with aluminum Torx-type heads - these use external Torx (E-type) sockets, not regular hex, so bring E10/E12 sizes. Support the starter with one hand while you remove the b...
6. **Install the new starter - Slide the new starter into place from the same angle you used** to remove the old one, taking care the pinion gear seats cleanly into the bellhousing bore without gouging it. Start both mounting bolts by hand to avoid cross-threading the alu...
7. **Reassemble, reconnect and test - Refit the intake manifold with a new gasket set,** reconnecting every sensor, vacuum line and fuel line you removed - a missed PCV hose will set a check-engine light immediately. Reconnect the negative battery terminal in the trunk and tig...

TORQUE

Starter mounting bolts 45 Nm 33 ft-lbs

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