2016-2024 Mazda CX-9 | Advanced | 2-4 hours | $220 DIY

TOOLS

Metric/SAE socket set and ratchet Long extensions and universal joint Torque wrench Floor jack and jack stands if underside access is required Multimeter or test light Safety glasses and gloves

PARTS

Replacement starter motor $220.00
Starter terminal hardware or heat shield fasteners (if needed) $20.00

STEPS

1. **Confirm the no-crank diagnosis - Park safely, set the parking brake, ignition off. Verify** battery charge, then test battery voltage, cable/ground voltage drop, fuses, relay, and the start signal. Clicking or no-crank can also mean a weak battery or bad connection.
2. **Disconnect the battery and gain access - Disconnect the negative () battery cable and** isolate it. Locate the starter at the bellhousing and clear access - intake duct, splash shield, skid plate, or heat shield. If below, raise and support the vehicle on rated jack stands.
3. **Photograph and disconnect starter wiring - Photograph the starter connections before** removal. Remove the nut and main B+ cable, then unplug or remove the solenoid trigger wire. Keep the energized cable insulated from ground and inspect the terminals for heat damage, corrosion, or l...
4. **Remove and compare the old starter - Support the starter while removing its mounting** bolts, then lower it out without stressing wiring. Compare the replacement against the old unit: mounting ears, nose length, gear, solenoid clocking, connector locations, and any heat shield...
5. **Install and torque the replacement starter - Fit the replacement starter to the** bellhousing, hand-start mounting bolts, and tighten evenly to manufacturer spec. Reinstall any alignment dowel, bracket, or heat shield. Reconnect the solenoid trigger wire and B+ cable on clean, tight te...
6. **Reconnect the battery and verify cranking - Reconnect the negative battery cable,** reinstall shields and intake parts, and check wiring is clear of moving or hot components. Crank from a safe position; it should turn over smoothly without grinding. If the symptom remains, recheck dia...

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