

Troubleshooting Basic Starting System Problems

Problem	Cause	Solution
Starter motor rotates engine slowly	<ul style="list-style-type: none">• Battery charge low or battery defective• Defective circuit between battery and starter motor• Low load current• High load current	<ul style="list-style-type: none">• Charge or replace battery• Clean and tighten, or replace cables• Bench-test starter motor. Inspect for worn brushes and weak brush springs.• Bench-test starter motor. Check engine for friction, drag or coolant in cylinders. Check ring gear-to-pinion gear clearance.
Starter motor will not rotate engine	<ul style="list-style-type: none">• Battery charge low or battery defective• Faulty solenoid• Damaged drive pinion gear or ring gear• Starter motor engagement weak• Starter motor rotates slowly with high load current• Engine seized	<ul style="list-style-type: none">• Charge or replace battery• Check solenoid ground. Repair or replace as necessary.• Replace damaged gear(s)• Bench-test starter motor• Inspect drive yoke pull-down and point gap, check for worn end bushings, check ring gear clearance• Repair engine
Starter motor drive will not engage (solenoid known to be good)	<ul style="list-style-type: none">• Defective contact point assembly• Inadequate contact point assembly ground• Defective hold-in coil	<ul style="list-style-type: none">• Repair or replace contact point assembly• Repair connection at ground screw• Replace field winding assembly
Starter motor drive will not disengage	<ul style="list-style-type: none">• Starter motor loose on flywheel housing• Worn drive end busing• Damaged ring gear teeth• Drive yoke return spring broken or missing	<ul style="list-style-type: none">• Tighten mounting bolts• Replace bushing• Replace ring gear or driveplate• Replace spring
Starter motor drive disengages prematurely	<ul style="list-style-type: none">• Weak drive assembly thrust spring• Hold-in coil defective	<ul style="list-style-type: none">• Replace drive mechanism• Replace field winding assembly
Low load current	<ul style="list-style-type: none">• Worn brushes• Weak brush springs	<ul style="list-style-type: none">• Replace brushes• Replace springs