

NICHE 519-CSM2237O

NICHE Starter Motor Assembly Instruction Manual

Model: 519-CSM2237O

Brand: NICHE

1. INTRODUCTION

This instruction manual provides essential information for the proper installation, operation, and maintenance of your NICHE High Torque Starter Motor Assembly. Please read this manual thoroughly before attempting any installation or service to ensure safe and effective use of the product. Retain this manual for future reference.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions may result in serious injury, death, or property damage.

- Always disconnect the vehicle's battery (negative terminal first) before working on any electrical components to prevent accidental starting or electrical shock.
- Wear appropriate personal protective equipment (PPE), including safety glasses, gloves, and protective clothing, during installation and maintenance.
- Ensure the vehicle is securely supported on a level surface using jack stands before working underneath it. Do not rely solely on a jack.
- Allow the engine and exhaust system to cool down completely before beginning work to avoid burns.
- Keep all tools and loose clothing away from moving parts.
- If you are unsure about any part of the installation process, consult a qualified mechanic.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

3. WHAT'S IN THE BOX

Your NICHE Starter Motor Assembly package should contain the following item:

- (1) NICHE Starter Motor

4. PRODUCT SPECIFICATIONS

Specification	Value
Brand	NICHE
Model Number	519-CSM2237O
Material	Metal
Item Weight	0.3 Pounds
Product Dimensions (L x W x H)	10.5 x 5 x 4.8 inches
Voltage	12 Volts
Brush Type	Carbon
Torque	1.83 Nm
Cycle Rating	10000
Teeth	9
Rotational Direction	Counter Clockwise

Compatible with OEM Part Numbers for Yamaha:1UY-81800-51-00, 1UY-81890-00-00, 1YW-81800-50-00, 1YW-81800-51-00, 2HR-81800-51-00, 2HR-81800-52-00

Compatible with Yamaha Models:

- 1987-1998 Big Bear 350
- 1987-1995 Moto 4 YFM350ER
- 1987-2004 Warrior 350
- 2004-2013 Raptor 350
- 1993-1998 Kodiak 400

5. SETUP AND INSTALLATION

This section outlines the general steps for replacing your vehicle's starter motor. Specific procedures may vary by vehicle model. Always refer to your vehicle's service manual for detailed instructions.

1. **Prepare the Vehicle:** Ensure the vehicle is turned off and the ignition key is removed. Disconnect the negative (-) battery terminal first, followed by the positive (+) terminal.
2. **Locate the Starter Motor:** Identify the location of the existing starter motor on your vehicle. It is typically mounted to the engine block or transmission housing.
3. **Disconnect Wiring:** Carefully disconnect all electrical connections from the old starter motor. This usually includes a main battery cable and a smaller solenoid wire. Note their positions for reinstallation.

4. **Remove Mounting Bolts:** Remove the bolts that secure the starter motor to the engine or transmission. Support the starter motor as you remove the last bolt to prevent it from falling.
5. **Remove Old Starter:** Carefully maneuver and remove the old starter motor from its mounting position.
6. **Install New Starter:** Position the new NICHE Starter Motor Assembly into place. Ensure it aligns correctly with the mounting holes.
7. **Secure Mounting Bolts:** Install and tighten the mounting bolts to the manufacturer's specified torque.
8. **Reconnect Wiring:** Reconnect the electrical wires to the new starter motor. Ensure all connections are clean, tight, and secure. Connect the solenoid wire first, then the main battery cable.
9. **Reconnect Battery:** Reconnect the positive (+) battery terminal first, then the negative (-) terminal.
10. **Test Operation:** Attempt to start the vehicle to confirm proper operation of the new starter motor.



Figure 5.1: The NICHE Starter Motor Assembly, shown with its retail packaging, highlighting the product's overall appearance.



Figure 5.2: Side view of the starter motor, showing the main cylindrical body and mounting points.



Figure 5.3: Front view of the starter

motor, clearly showing the drive gear (bendix) that engages with the engine's flywheel.



Figure 5.4: Detailed view of the electrical terminal, where the main battery cable connects, secured with a nut and washer.



Figure 5.5: Underside view of the starter motor, illustrating the robust mounting brackets designed for secure attachment to the vehicle's engine or transmission.

6. OPERATING THE STARTER MOTOR

The NICHE Starter Motor Assembly is an integral component of your vehicle's starting system. Its operation is automatic upon ignition activation.

- Ensure your vehicle's battery is fully charged and in good condition.
- Turn the ignition key to the "START" position. The starter motor will engage the engine's flywheel, rotating the crankshaft to initiate the combustion process.
- Once the engine starts, release the ignition key. The starter motor will disengage from the flywheel.
- Avoid prolonged cranking (more than 10-15 seconds at a time) to prevent overheating the starter motor. Allow a brief cool-down period between attempts if the engine does not start immediately.

7. MAINTENANCE

The NICHE Starter Motor Assembly is designed for durability and requires minimal routine maintenance. However, periodic checks can help ensure its longevity and reliable performance.

- **Electrical Connections:** Periodically inspect all electrical connections to the starter motor for cleanliness,

tightness, and signs of corrosion. Loose or corroded connections can impede current flow and affect starter performance.

- **Battery Health:** Ensure your vehicle's battery is regularly tested and maintained. A weak battery is a common cause of starter issues.
- **Mounting Security:** Check that the starter motor's mounting bolts remain tight and secure. Vibrations can sometimes loosen fasteners over time.

No internal servicing of the starter motor is required or recommended. If the unit is faulty, it should be replaced.

8. TROUBLESHOOTING

If you experience issues with your vehicle's starting system, consider the following common problems and potential solutions before replacing the starter motor.

Problem	Possible Cause	Solution
Engine does not crank or cranks slowly	Weak or dead battery	Test and charge/replace battery.
	Corroded or loose battery/starter connections	Clean and tighten all connections.
	Faulty ignition switch or starter relay	Inspect and test ignition switch/relay. Consult a professional.
	Faulty starter motor	If other causes are ruled out, the starter motor may need replacement.
Grinding noise during cranking	Starter drive gear not engaging properly with flywheel	Check starter alignment and mounting. May indicate a worn starter or flywheel.
Starter spins but engine does not crank	Faulty starter drive (bendix)	The starter motor needs to be replaced.

If troubleshooting steps do not resolve the issue, it is recommended to seek assistance from a certified automotive technician.

9. WARRANTY AND SUPPORT

NICHE stands behind the quality of its products. Your NICHE Starter Motor Assembly is backed by a **2-Year Warranty**, ensuring peace of mind regarding its performance and durability. For specific warranty terms and conditions, please refer to the official NICHE website or contact customer support.



Figure 9.1: NICHE 2-Year Warranty Badge, symbolizing product reliability.

For technical support, product inquiries, or warranty claims, please visit the official NICHE Industries store or contact their customer service department:

- **NICHE Industries Store:** [Visit Store](#)
- **Manufacturer:** Mishon Inc

You can also find more information about NICHE and their range of powersports replacement parts by watching the official brand video:

Your browser does not support the video tag.

Video 9.1: "NICHE Your Aftermarket Powersports Replacement Parts Brand" - An overview of NICHE Industries and their commitment to quality powersports parts.

