Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

Triumilynn 31200HR0F01

Triumilynn Starter Motor User Manual

For Honda Rancher 420 TRX420, TRX420FE, TRX420FM, TRX420FA Models

Introduction Safety Information Specifications Installation Operation Maintenance Troubleshooting Support

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your Triumilynn Starter Motor. Please read these instructions carefully before beginning any work to ensure safe and effective use. This starter motor is designed as a replacement for specific Honda Rancher 420 ATV models.

1.1. Product Compatibility

- Honda Rancher 420 ATV TRX420 (FE / TE / TM / FA / FM)
- Compatible with Honda 420 models from years 2007-2016 (TRX420FPM 2009-2013 / TRX420TE TRX420TM TRX420FM 2007-2016)

1.2. Replaces Part Numbers

- 31200-HP5-601
- 31200HR0F01
- Mitsuba SM18
- Arrowhead SMU0418

2. Safety Information

Always observe the following safety precautions when working with vehicle electrical systems:

- **Disconnect Battery:** Before starting any installation or maintenance, always disconnect the negative (-) battery terminal first, followed by the positive (+) terminal. This prevents accidental short circuits.
- **Wear Protective Gear:** Use appropriate personal protective equipment, including safety glasses and gloves.
- **Work in a Well-Ventilated Area:** Ensure adequate ventilation, especially when working with batteries, as they can emit flammable gases.
- **Use Correct Tools:** Employ the proper tools for each task to avoid damage to components or personal injury.
- **Avoid Contact with Hot Surfaces:** Engine components can be hot. Allow the engine to cool before working on it.

- **Secure Vehicle:** Ensure the ATV is on a stable, level surface and properly secured to prevent movement during work.

3. Product Specifications

Brand	Triumilynn
Model Number	31200HR0F01 (Replaces 31200-HP5-601)
Material	Alloy Steel, Aluminum
Voltage	12 Volt
Wattage	1.4 KW
Rotation	CCW (Counterclockwise)
Tooth Count	9-Tooth Pinion
Type	PMDD

3.1. Product Dimensions



Figure 1: Starter Motor Dimensions. The image displays the starter motor with key measurements: overall length 5.1 inches, body diameter 2.3 inches, shaft length 1.1 inches, and shaft diameter 0.3 inches.

4. Installation (Setup)

This section outlines the general steps for replacing your ATV's starter motor. Specific procedures may vary slightly depending on your exact Honda Rancher 420 model. Refer to your ATV's service manual for detailed instructions.

4.1. Tools Required (Typical)

- Socket Wrench Set
- Screwdrivers (Phillips and Flathead)
- Battery Terminal Wrench
- Wire Brush (for cleaning terminals)
- Dielectric Grease (optional, for electrical connections)

4.2. Step-by-Step Installation

1. **Prepare the ATV:** Park the ATV on a level surface. Ensure the engine is cool.
2. **Disconnect Battery:** Following safety guidelines, disconnect the negative (-) battery terminal first, then the positive (+) terminal.
3. **Locate the Starter Motor:** Identify the existing starter motor on your ATV. It is typically located near the engine, often on the side or bottom. Access may require removing fairings, covers, or other components (e.g., air box).
4. **Disconnect Wiring:** Carefully disconnect the electrical wiring from the old starter motor. This usually includes a main power cable and a smaller solenoid wire. Note their positions for reinstallation.
5. **Remove Mounting Bolts:** Unscrew the bolts that secure the starter motor to the engine casing. There are typically two or three mounting bolts.
6. **Remove Old Starter:** Gently pull the old starter motor out from its mounting position. Be careful not to damage any surrounding components.
7. **Inspect Mounting Area:** Clean the mounting surface on the engine block to ensure a proper seal for the new starter.
8. **Install New Starter Motor:** Position the Triumilynn Starter Motor into the mounting hole. Ensure it seats correctly.
9. **Secure Mounting Bolts:** Reinstall the mounting bolts and tighten them to the manufacturer's specified torque (refer to your ATV service manual). Do not overtighten.
10. **Reconnect Wiring:** Reattach the electrical wiring to the new starter motor, ensuring all connections are secure and clean. Apply dielectric grease if desired.
11. **Reconnect Battery:** Reconnect the positive (+) battery terminal first, then the negative (-) terminal.
12. **Test Operation:** Attempt to start the ATV to confirm the new starter motor functions correctly. Listen for proper cranking and engine start.



Figure 2: Triumilynn Starter Motor. This image shows the complete starter motor unit, highlighting its main body and gear shaft.



Figure 3: Multiple Views of the Starter Motor. This composite image provides four distinct perspectives of the starter motor, illustrating its design from different angles.



Figure 4: Starter Motor Detail Views. This image highlights specific features of the starter motor, including the electrical terminal and the splined shaft.

5. Operation

The starter motor is an electrical device designed to rotate the engine's crankshaft to initiate the combustion process. When the ignition key is turned to the 'start' position, electrical current flows from the battery to the starter motor. The motor then engages with the engine's flywheel, turning the engine over until it starts. Once the engine begins running, the starter motor disengages automatically.
Ensure your ATV's battery is fully charged and in good condition for optimal starter motor performance.

6. Maintenance

Proper maintenance can extend the life of your starter motor and ensure reliable starting.

6.1. General Maintenance Tips

- **Battery Health:** Regularly check your ATV's battery for proper charge and condition. A weak battery can strain the starter motor.
- **Clean Connections:** Periodically inspect and clean the battery terminals and starter motor electrical connections. Corrosion can impede current flow.
- **Secure Mounting:** Ensure the starter motor mounting bolts remain tight to prevent vibration and potential damage.
- **Avoid Prolonged Cranking:** Do not crank the engine for more than 5-10 seconds at a time. Allow a brief pause between attempts to prevent overheating the starter motor.
- **Engine Tune-up:** A well-tuned engine starts more easily, reducing the load on the starter motor.

7. Troubleshooting

If you experience issues with your starter motor, consider the following common problems and solutions:

Problem	Possible Cause	Solution
Starter motor does not crank or clicks once.	Dead or weak battery, loose/corroded battery terminals, faulty starter solenoid, faulty ignition switch.	Check battery charge and terminals. Test battery. Inspect solenoid and ignition switch wiring.
Starter motor cranks slowly.	Weak battery, poor electrical connections, high resistance in starter circuit, engine issues (e.g., thick oil in cold weather).	Charge or replace battery. Clean and tighten all electrical connections. Check engine oil viscosity.
Starter motor spins but engine does not crank.	Bendix gear not engaging with flywheel, damaged flywheel teeth, internal starter motor issue.	Inspect Bendix gear and flywheel. If intact, the starter motor may require replacement or professional inspection.
Starter motor continues to run after engine starts.	Stuck starter solenoid, faulty ignition switch.	Immediately turn off the engine. Inspect and replace faulty solenoid or ignition switch.

If troubleshooting steps do not resolve the issue, it is recommended to consult a qualified mechanic or contact Triumilynn customer support.

8. Warranty and Support

Triumilynn products are manufactured to high-quality standards. For warranty information, technical assistance, or any questions regarding your starter motor, please contact Triumilynn customer support through the retailer where the product was purchased or visit the official Triumilynn website.
Please have your product model number (31200HR0F01) and purchase details available when contacting support.

© 2026 Triumilynn. All rights reserved.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B0HCNN8FXG

More documents and user manuals: **https://manuals.plus/**