

[Manuals.plus](#) /

› [ARRMA](#) /

› ARRMA Mega 570 9T Brushed Motor (ARA390301) Instruction Manual

ARRMA ARA390301

ARRMA Mega 570 9T Brushed Motor (ARA390301) Instruction Manual

Model: ARA390301

1. SAFETY INFORMATION

Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property, and cause serious injury.

This is a sophisticated hobby product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property.

This product is not intended for use by children. Do not use with incompatible components or alter this product in any way outside of the instructions provided by Horizon Hobby, LLC.

This manual contains instructions for safety, operation, and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

2. PRODUCT OVERVIEW

The ARRMA Mega 570 9T Brushed Motor (ARA390301) is designed to provide consistent performance for your RC vehicle. This motor offers a balance of straight-line speed and low-speed torque, suitable for various driving conditions.



Image 1: The ARRMA Mega 570 9T Brushed Motor, showing its cylindrical body, output shaft, and electrical connectors.

Key Features:

- High-quality 9T 570 size brushed motor.
- Optimized balance of straight-line pace and low-speed torque.
- Compatible with 6-7 cell NiMh or 2S LiPo batteries.
- Supplied with 4mm male bullet connectors and 16AWG wire.
- Integrated internal fan for temperature reduction.
- Flux ring to enhance motor torque.
- Standard 2 x M3 mounting holes with 25mm pitch.
- 1/8" (3.175mm) diameter, 17mm length output shaft.

3. SPECIFICATIONS

Feature	Detail
Brand	ARRMA
Model Name	Mega 570 Brushed Motor
Model Number	ARA390301
Speed	3450 RPM
Voltage	12 Volts
Horsepower	2
Material	Plastic (referring to housing/components, not primary motor material)

Feature	Detail
Item Weight	9.3 ounces (263.65 grams)
Shaft Diameter	1/8" (3.175mm)
Product Dimensions	38.5mm diameter, 65.0mm length (motor body) / 4 x 4 x 1.6 inches (packaging/overall)
Recommended Age	14 years and up

4. WHAT'S IN THE BOX

The product package includes the following item:

- 1 x ARRMA Mega 570 9T Brushed Motor (ARA390301)

5. SETUP AND INSTALLATION

Proper installation of your ARRMA Mega 570 9T Brushed Motor is crucial for optimal performance and longevity. Always refer to your vehicle's specific instruction manual for detailed steps regarding motor removal and installation.

Required Tools (Not Included):

- Hex wrenches (appropriate sizes for motor mount screws and pinion gear grub screw)
- Pinion gear (compatible with 1/8" shaft)
- Thread-locking compound (optional, for pinion grub screw)

Installation Steps:

1. **Remove Old Motor (if applicable):** Disconnect the motor wires from the Electronic Speed Controller (ESC). Loosen the motor mount screws and remove the pinion gear from the motor shaft. Carefully remove the old motor from the vehicle.
2. **Install Pinion Gear:** Slide the desired pinion gear onto the new motor's 1/8" (3.175mm) output shaft. Align the grub screw of the pinion gear with the flat spot on the motor shaft (if present) and tighten it securely. A small amount of thread-locking compound can be applied to the grub screw for added security.
3. **Mount the Motor:** Insert the new motor into the vehicle's motor mount. Use the 2 x M3 mounting holes with 25mm pitch to secure the motor. Do not fully tighten the screws yet.
4. **Set Gear Mesh:** Adjust the motor position to achieve the correct gear mesh between the pinion gear and the vehicle's spur gear. The gear mesh should allow for a small amount of play (like a thin piece of paper) between the teeth. Too tight will cause excessive wear and heat; too loose can strip gears.
5. **Secure Motor:** Once the gear mesh is correctly set, fully tighten the motor mount screws.
6. **Connect Wires:** Connect the motor's 4mm male bullet connectors to the corresponding female connectors on your ESC. Ensure correct polarity (typically red to red, black to black, or as indicated by your ESC manual).
7. **Initial Test:** Before full operation, perform a low-power test to ensure all connections are secure and the motor spins freely without unusual noises.

6. OPERATING GUIDELINES

Operating your ARRMA Mega 570 9T Brushed Motor correctly will ensure its longevity and consistent performance.

- **Battery Compatibility:** This motor is designed to run on 6-7 cell NiMh or 2S LiPo batteries. Using

incompatible battery types or voltages can damage the motor and ESC.

- **Break-in Period:** Some brushed motors benefit from a gentle break-in period. Consult online resources or experienced RC enthusiasts for recommended break-in procedures for 570 size brushed motors.
- **Temperature Monitoring:** Regularly check the motor's temperature during operation. If the motor becomes excessively hot to the touch (too hot to hold for more than a few seconds), stop operation immediately. Overheating can lead to permanent damage. Adjust gearing or driving style to reduce heat.
- **Environmental Conditions:** Avoid operating the motor in excessively wet or dusty conditions unless the vehicle is specifically designed for such environments and the motor is adequately protected.
- **Gearing:** Proper gearing is essential. Incorrect gearing can lead to overheating and reduced performance. Experiment with different pinion/spur gear combinations to find the optimal setup for your vehicle and driving style.

7. MAINTENANCE

Regular maintenance will extend the life and performance of your brushed motor.

- **Cleaning:** After each use, especially in dirty environments, gently clean the exterior of the motor to remove dirt, dust, and debris. Use compressed air or a soft brush. Avoid using harsh chemicals.
- **Brush Inspection:** Periodically inspect the motor brushes for wear. Worn brushes can lead to reduced performance and increased heat. While this motor is not designed for user-replaceable brushes, excessive wear indicates the motor may need replacement.
- **Commutator Condition:** The commutator (the copper segments on the armature) should be clean and smooth. If it appears dirty or grooved, performance will be affected. For sealed motors like this, cleaning the commutator is generally not feasible without disassembly, which is not recommended.
- **Bearing Check:** Check the motor bearings for smooth operation. If they feel gritty or make unusual noises, they may need replacement (if serviceable) or the motor may need to be replaced.
- **Wire and Connector Inspection:** Ensure all wires are securely connected and free from damage. Inspect bullet connectors for corrosion or looseness.

8. TROUBLESHOOTING

This section addresses common issues you might encounter with your brushed motor.

Problem	Possible Cause	Solution
Motor not spinning or weak performance	◦ Loose or disconnected wires ◦ Low battery voltage ◦ Worn motor brushes ◦ Damaged ESC ◦ Motor locked up (debris, internal damage)	◦ Check all electrical connections. ◦ Charge or replace battery. ◦ Inspect brushes (if possible) or consider motor replacement. ◦ Test with a known good ESC. ◦ Inspect motor for obstructions; if internal, motor replacement may be necessary.

Problem	Possible Cause	Solution
Motor overheating	◦ Incorrect gearing (too high) ◦ Excessive load on motor ◦ Insufficient airflow/cooling ◦ Worn motor components ◦ Battery voltage too high	◦ Reduce pinion gear size or increase spur gear size. ◦ Check for drivetrain binding or excessive friction. ◦ Ensure vehicle body allows for adequate airflow; consider adding a motor fan. ◦ Inspect brushes/bearings. ◦ Ensure battery voltage is within specified limits (6-7 cell NiMh or 2S LiPo).
Excessive noise from motor	◦ Poor gear mesh ◦ Worn motor bearings ◦ Debris inside motor	◦ Adjust gear mesh. ◦ Inspect and replace bearings if necessary (if serviceable) or replace motor. ◦ Motor replacement may be necessary if debris is internal and inaccessible.

9. WARRANTY AND SUPPORT

For specific warranty information and support regarding your ARRMA Mega 570 9T Brushed Motor (ARA390301), please contact the retailer where you purchased the product or visit the official ARRMA website.

You can find more information and contact details on the [ARRMA Brand Store](#).

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/B09KSX48LC>

More documents and user manuals: <https://manuals.plus/>