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› ARRMA 17T HD Mod1 Safe-D5 Pinion Gear (ARA310964) Instruction Manual

## ARRMA ARA310964

# ARRMA 17T HD Mod1 Safe-D5 Pinion Gear (ARA310964) Instruction Manual

Model: ARA310964 | Brand: ARRMA

## INTRODUCTION

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This manual provides essential information for the safe and correct installation and use of your ARRMA 17T HD Mod1 Safe-D5 Pinion Gear. Please read this entire manual carefully before proceeding with installation or operation to ensure proper function and to prevent damage or injury.

The ARRMA 17T Mod1 Safe-D Pinion Gear is constructed from tough steel, designed for long-lasting performance in demanding RC conditions. It features a precision-manufactured wide tooth profile for smooth operation and a 'D' shaped hole to securely match the motor shaft profile, preventing loss of drive or braking if the set-screw loosens.

## WHAT'S INCLUDED

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The package for the ARRMA 17T HD Mod1 Safe-D5 Pinion Gear (ARA310964) includes the following components:

- 1 x 17T Mod1 Safe-D Pinion Gear
- 1 x Set Screw - M4 x 4mm
- 1 x E-Clip - 3.2mm



*Image: The ARRMA 17T HD Mod1 Safe-D5 Pinion Gear, a black metal gear with 17 teeth, is shown alongside a small black cylindrical set screw and a silver E-clip. These components are used to secure the gear to a motor shaft.*

## SAFETY INFORMATION

### Important Safety Instructions:

- 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.
- 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.

## SETUP & INSTALLATION

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Follow these steps for proper installation of the ARRMA 17T HD Mod1 Safe-D5 Pinion Gear:

- 1. Remove Old Pinion Gear:** Carefully remove the existing pinion gear from your motor shaft. Refer to your vehicle's specific manual for detailed instructions on accessing and removing the motor and gear.
- 2. Ensure Compatibility:** Verify that your motor shaft has a 5mm diameter and that the vehicle's drivetrain is compatible with a Mod1 pitch gear. This pinion gear is designed for 5mm motor shafts.
- 3. Insert New Pinion Gear:** Slide the new ARRMA 17T Mod1 Safe-D Pinion Gear onto the motor shaft. Align the 'D' shaped hole of the pinion gear with the flat spot on the motor shaft for a secure fit.
- 4. Secure with Set Screw and E-clip:** Once the gear is in the desired position (ensuring proper mesh with the spur gear), tighten the M4 x 4mm set screw into the threaded hole on the pinion gear. Additionally, use the supplied 3.2mm E-clip to further secure the pinion gear on the motor shaft, preventing it from sliding off during operation.

**Note:** Proper gear mesh is crucial for optimal performance and longevity. Ensure there is a small amount of play between the pinion and spur gear teeth. Consult your vehicle's manual for specific gear mesh adjustment procedures.

## OPERATING INSTRUCTIONS

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Once installed, the pinion gear functions as a critical component of your RC vehicle's drivetrain. Its operation is integrated with the motor and spur gear to transmit power to the wheels. No direct "operation" of the gear itself is required beyond proper installation and maintenance.

Ensure that the gear mesh is correctly set before operating your RC vehicle. Incorrect gear mesh can lead to excessive wear, noise, and potential damage to both the pinion and spur gears, as well as the motor.

## MAINTENANCE

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Regular maintenance of your pinion gear will extend its lifespan and ensure consistent performance:

- Inspection:** Periodically inspect the pinion gear for signs of wear, such as chipped teeth, excessive rounding of teeth, or any deformation. Check the set screw for tightness.
- Cleaning:** Remove any dirt, debris, or foreign objects that may accumulate between the gear teeth or around the motor shaft. A soft brush or compressed air can be used for cleaning.
- Lubrication:** While not always necessary for metal gears in RC applications, some users prefer a light application of dry lubricant or specific RC gear grease to reduce friction and wear. Consult your vehicle's manual or manufacturer recommendations.
- Replacement:** If significant wear or damage is observed, replace the pinion gear immediately to prevent damage to other drivetrain components.

## TROUBLESHOOTING

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Problem	Possible Cause	Solution
Excessive noise from drivetrain	Incorrect gear mesh (too tight or too loose); Worn or damaged gear teeth; Debris in gears.	Adjust gear mesh according to vehicle manual; Inspect and replace worn gears; Clean gears thoroughly.
Pinion gear slips on motor shaft	Loose set screw; Incorrectly aligned 'D' hole; Missing E-clip.	Tighten set screw securely; Ensure 'D' hole aligns with motor shaft flat spot; Install E-clip.
Premature wear of pinion or spur gear	Incorrect gear mesh; Overheating; Excessive power/load; Debris.	Adjust gear mesh; Monitor motor/ESC temperatures; Ensure appropriate gearing for power system; Keep gears clean.

## SPECIFICATIONS

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<b>Brand</b>	ARRMA
<b>Model Number</b>	ARA310964
<b>Manufacturer Part Number</b>	ARA310964
<b>Tooth Count</b>	17T
<b>Pitch</b>	Mod1
<b>Motor Shaft Diameter</b>	5mm
<b>Material</b>	Steel
<b>Key Feature</b>	Safe-D5 (D-shaped hole for secure fit)
<b>Included Components</b>	Pinion Gear, M4x4mm Set Screw, 3.2mm E-Clip

## WARRANTY & SUPPORT

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For warranty information, technical support, or replacement parts, please refer to the official ARRMA website or contact Horizon Hobby, LLC directly. Keep your proof of purchase for any warranty claims.

**Contact Information:** Please visit the [ARRMA RC website](#) or the [Horizon Hobby website](#) for the most up-to-date support resources and contact details.

