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TOUCAN RC HOBBY Metal Smoke Generator Unit Gearbox

TOUCAN RC HOBBY Metal Smoke Generator Unit Gearbox Instruction Manual

For 1/16 Scale Henglong RC Tank Models (Tk6.0, Tk6.1, Tk6.0S, Tk6.1S, Tk7.0)

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your TOUCAN RC HOBBY Metal Smoke Generator Unit Gearbox. This unit is designed to enhance the realism of 1/16 scale Henglong RC Tank Models, specifically compatible with Tk6.0, Tk6.1, Tk6.0S, Tk6.1S, and Tk7.0 series tanks, by producing realistic exhaust smoke effects. Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. SAFETY INFORMATION

- Always operate RC models in open, well-ventilated areas.
- Keep smoke fluid away from children and pets. Do not ingest.
- Avoid direct contact with smoke fluid. In case of contact, wash thoroughly with soap and water.
- Ensure all electrical connections are secure and correctly polarized to prevent short circuits or damage.
- Do not operate the smoke generator without smoke fluid, as this may damage the heating element or pump.
- Disconnect power to the RC tank before performing any maintenance or installation.
- This product is intended for users aged 14 and up. Adult supervision is recommended for younger users.

3. PACKAGE CONTENTS

Verify that all components are present and undamaged upon opening the package:

- 1x Metal Smoke Generator Unit Gearbox (includes motor and pump)
- Silicone Tubing (various lengths for intake and exhaust)
- Connection Wires (pre-attached to the unit)



Image 3.1: Contents of the TOUCAN RC HOBBY Metal Smoke Generator Unit Gearbox package, showing the main unit and silicone tubing.

4. PRODUCT OVERVIEW

The TOUCAN RC HOBBY Metal Smoke Generator Unit Gearbox is a compact and robust system designed to produce realistic smoke effects for your RC tank. It features a durable metal construction for longevity and a precise pump mechanism to deliver consistent smoke output. The unit integrates a motor and pump, connected to a small reservoir (not included, typically part of the tank's existing smoke system or a separate addition) via silicone tubing. It is specifically engineered for compatibility with 1/16 scale Henglong RC Tank models, ensuring a seamless upgrade or replacement.



Image 4.1: A detailed view of the smoke generator unit, highlighting the pump mechanism and electrical connections.

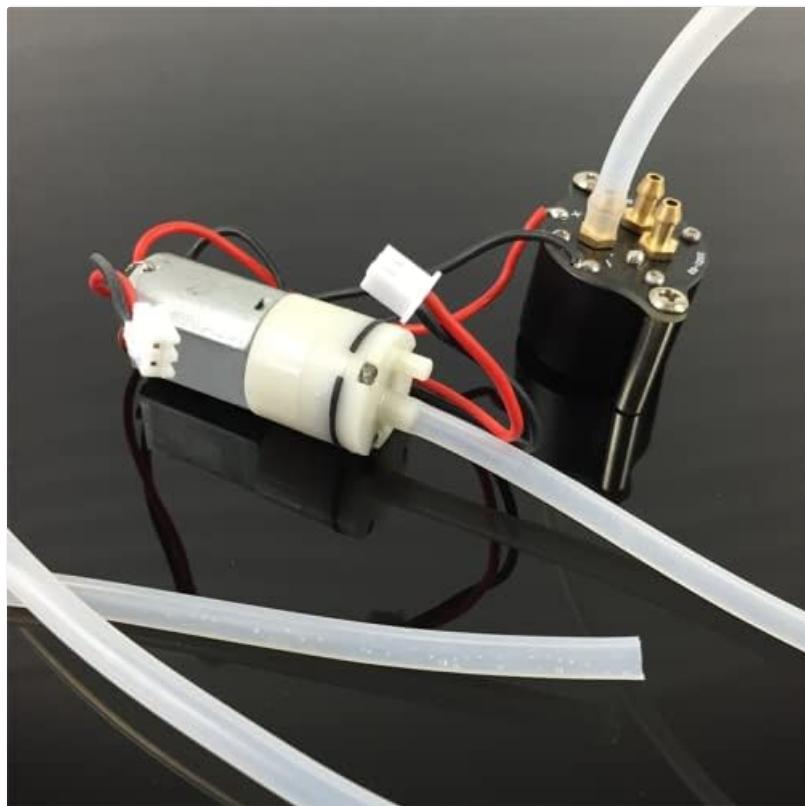


Image 4.2: Side profile of the smoke generator, illustrating the integrated motor and pump components.

5. SETUP AND INSTALLATION

Installation typically involves replacing an existing smoke unit or integrating this unit into a tank that supports a smoke system. Refer to your specific Henglong tank model's manual for detailed instructions on accessing the smoke unit compartment.

1. **Prepare the Tank:** Disconnect the main battery from your RC tank. Carefully open the tank's hull to

access the internal electronics and the smoke unit compartment.

2. **Mount the Unit:** Securely mount the TOUCAN RC HOBBY smoke generator unit in the designated compartment. Ensure it is stable and does not interfere with other components. Use appropriate screws or adhesive if necessary (not included).
3. **Connect Tubing:**
 - Connect one end of a silicone tube to the intake port of the smoke generator pump. The intake port is typically marked or can be identified as the port drawing fluid from the reservoir.
 - Connect the other end of this tube to the smoke fluid reservoir within your tank.
 - Connect a second silicone tube to the exhaust port of the smoke generator. This tube will direct the smoke vapor to the tank's exhaust outlet.
4. **Electrical Connections:**
 - Connect the power wires (red for positive, black for negative) from the smoke generator unit to the corresponding power output on your tank's main board or a dedicated smoke unit power port. Ensure correct polarity.
 - If your tank's smoke system requires a signal wire for activation, connect it accordingly. Refer to your tank's main board diagram.
5. **Fill Smoke Fluid:** Fill the tank's smoke fluid reservoir with appropriate RC smoke fluid (not included). Do not overfill.
6. **Test Connections:** Before closing the hull, briefly connect the tank's battery and perform a quick test to ensure the unit powers on and the pump operates.
7. **Secure Hull:** Once satisfied with the installation, carefully reassemble and secure the tank's hull.

6. OPERATING INSTRUCTIONS

The smoke generator unit is typically controlled via your RC tank's transmitter. The exact method may vary depending on your tank's electronics and transmitter configuration.

1. **Power On:** Turn on your RC transmitter, then connect the main battery to your RC tank.
2. **Activate Smoke:** Locate the designated button or switch on your RC transmitter that controls the smoke function. Activate it to start the smoke generator.
3. **Warm-up Time:** Allow a short warm-up period (typically 10-30 seconds) for the heating element to reach operating temperature and for the pump to prime the system. Smoke production should begin shortly after.
4. **Monitor Fluid Level:** Regularly check the smoke fluid level in the reservoir. Operating the unit without fluid can cause damage.
5. **Deactivate:** Turn off the smoke function via your transmitter when not in use or when the fluid runs low.

7. MAINTENANCE

- **Fluid Management:** Always use high-quality RC smoke fluid. Avoid using alternative liquids, as they may damage the unit or produce harmful fumes.
- **Cleaning:** Periodically inspect the tubing and ports for blockages or residue. If smoke output decreases, a small amount of isopropyl alcohol can be run through the system (without heat) to clean the pump and lines, followed by fresh smoke fluid.
- **Storage:** When storing the tank for extended periods, it is recommended to drain the smoke fluid

reservoir to prevent clogging or degradation of the fluid.

- **Inspection:** Regularly check electrical connections and tubing for wear, kinks, or damage. Replace any compromised parts immediately.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No smoke production	No smoke fluid in reservoir Loose or incorrect electrical connection Smoke function not activated on transmitter Clogged tubing or pump Faulty heating element or pump	Fill reservoir with smoke fluid Check and secure all wiring; ensure correct polarity Activate smoke function on transmitter Clean tubing and pump (refer to Maintenance) Contact support for replacement if unit is faulty
Weak or inconsistent smoke	Low smoke fluid level Partial clog in tubing or pump Air bubbles in the system Insufficient power supply	Refill smoke fluid Clean tubing and pump Run unit for a short period to clear air Verify power supply voltage and current capacity
Fluid leaks	Loose tubing connections Damaged tubing Cracked reservoir	Secure tubing connections with clamps if necessary Replace damaged tubing Inspect and replace reservoir if cracked

9. SPECIFICATIONS

- **Product Type:** Metal Smoke Generator Unit Gearbox
- **Brand:** TOUCAN RC HOBBY
- **Material:** Metal components, silicone tubing
- **Compatibility:** 1/16 Scale Henglong RC Tank Models (Tk6.0, Tk6.1, Tk6.0S, Tk6.1S, Tk7.0)
- **Dimensions (Pump/Gearbox Unit):** Approximately 25mm x 20mm (excluding ports)
- **Dimensions (Motor):** Approximately 25mm length, 12mm diameter
- **Power Input:** Typically 7.4V - 12V DC (refer to your tank's main board specifications for exact voltage)

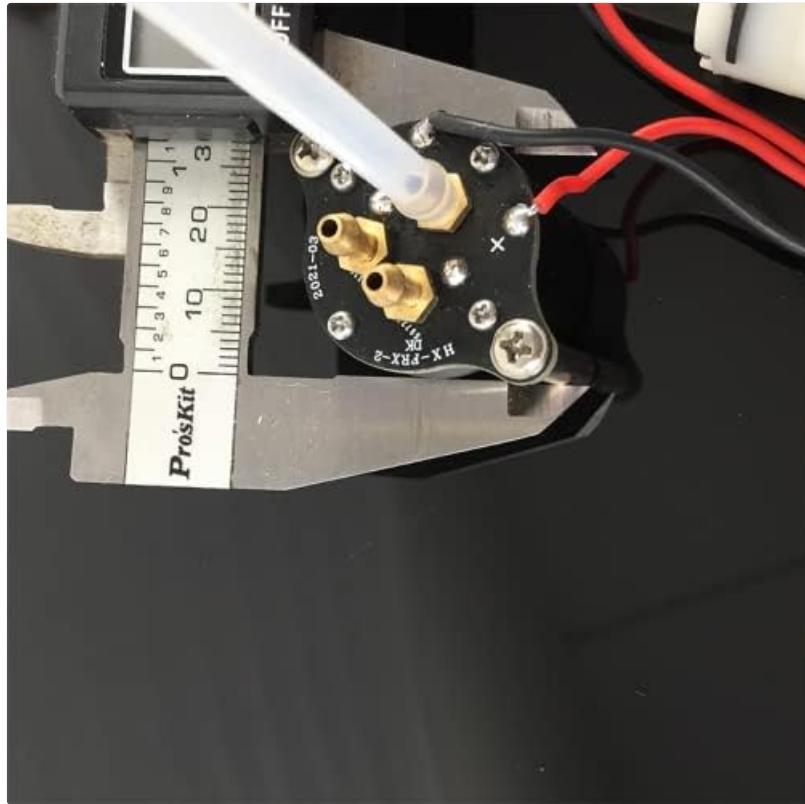


Image 9.1: Caliper measurement showing the width of the smoke generator pump unit.

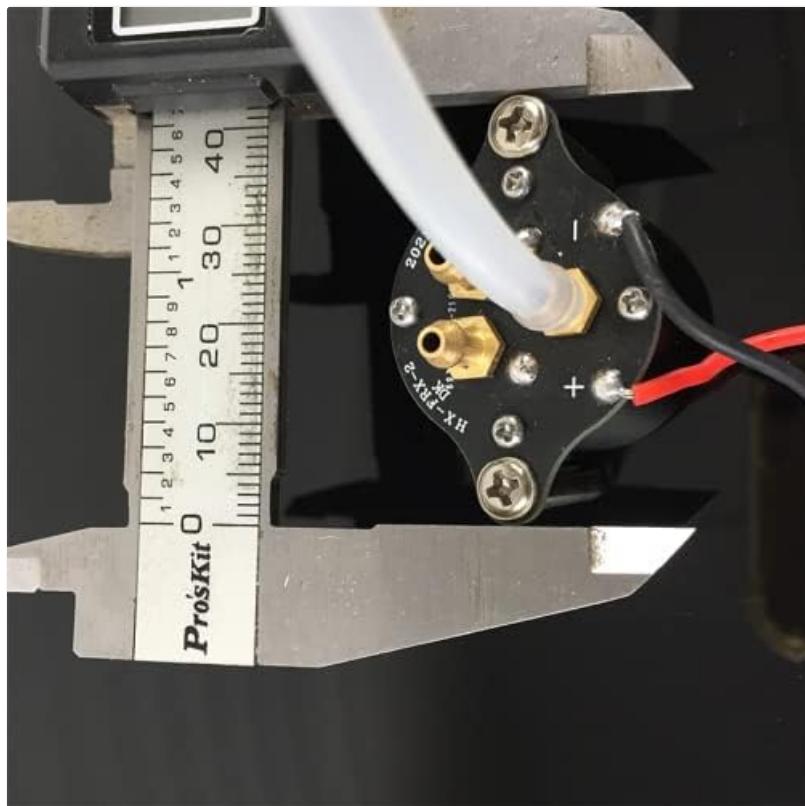


Image 9.2: Caliper measurement showing the length of the smoke generator pump unit.

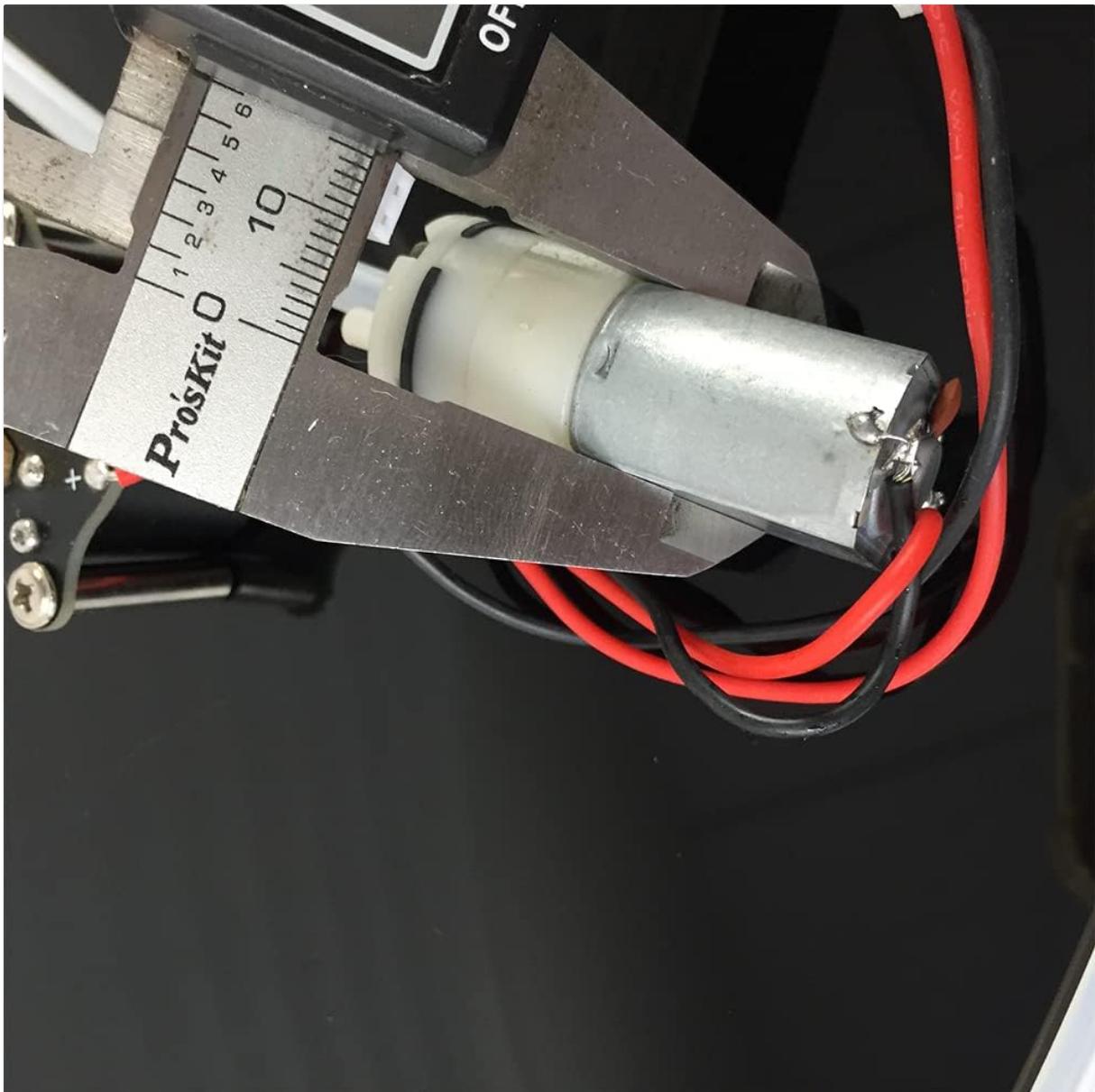


Image 9.3: Caliper measurement showing the length of the smoke generator motor.

10. WARRANTY AND SUPPORT

TOUCAN RC HOBBY products are manufactured to high standards. For any issues, questions, or technical support regarding your Metal Smoke Generator Unit Gearbox, please contact the seller or TOUCAN RC HOBBY customer service. Please retain your proof of purchase for warranty claims. For further assistance, visit the official [TOUCAN RC HOBBY Store on Amazon](#).