

MinimumRC T-45

MinimumRC T-45 Goshawk Jet RC Plane

USER MANUAL

1. Introduction

This manual provides essential information for the safe operation, assembly, and maintenance of your MinimumRC T-45 Goshawk Jet RC Plane. This compact, 3-channel Ready-To-Fly (RTF) model is designed for enthusiasts seeking a jet-style remote control aircraft experience. Please read this manual thoroughly before operating the aircraft to ensure proper function and safety.

The T-45 Goshawk features an Electric Ducted Fan (EDF) propulsion system and comes equipped with an electronic remote control system. It supports three flight modes: Active Leveling, Assisted Stabilization, and Manual, offering versatility for different skill levels.

2. Safety Information

WARNING: Failure to follow these safety guidelines may result in injury or property damage.

- This product contains a battery. Always charge the battery safely using the provided charger or a compatible charger. Do not leave charging batteries unattended.
- The ducted fan propeller operates at high speeds and may cause injury if it comes into contact with fingers or other body parts. Keep hands and loose clothing clear of the fan during operation.
- The aircraft flies at high speed. Always operate the model in an open area, away from people, animals, buildings, and other obstacles. Do not fly it directly toward people.
- Recommended age for operation is 6 years and up. Adult supervision is recommended for younger operators.
- Do not operate the aircraft in strong winds, rain, or other adverse weather conditions.
- Ensure the aircraft's battery is fully charged and the remote control batteries are fresh before each flight.
- Always turn on the remote control first, then the aircraft. When finished, turn off the aircraft first, then the remote control.
- Inspect the aircraft for any damage before and after each flight. Do not fly if any components are damaged.

3. Package Contents

Upon opening the package, verify that all components are present and in good condition. The Ready-To-Fly (RTF) package typically includes:

- T-45 Goshawk RC Jet Fuselage
- Main Wing Set
- Horizontal Stabilizer (Tail Wing)
- Vertical Stabilizer (Tail Fin)
- Electronic Remote Control Transmitter
- 7.4V 180mAh LiPo Battery
- USB Charging Cable
- Landing Gear Set (if applicable)
- Instruction Manual



Figure 3.1: Contents of the T-45 Goshawk RTF package.

4. Setup and Assembly

The T-45 Goshawk is designed for quick assembly, allowing you to get airborne swiftly. Follow these steps to prepare your aircraft for flight:

1. **Attach the Main Wings:** Carefully slide the main wings into the designated slots on the fuselage. Ensure they are securely seated and aligned.
2. **Install the Horizontal Stabilizer:** Insert the horizontal tail wing into its slot at the rear of the fuselage.
3. **Install the Vertical Stabilizer:** Attach the vertical tail fin to the top of the horizontal stabilizer or fuselage, ensuring it is upright and secure.
4. **Attach Landing Gear (Optional):** If your model includes detachable landing gear, gently push the wheels into their respective slots on the underside of the fuselage and wings.
5. **Charge the Flight Battery:** Connect the 7.4V 180mAh LiPo battery to the USB charging cable. Plug the USB cable into a suitable USB power source (e.g., computer USB port, USB wall adapter). The charging indicator light will show the charging status (refer to charger instructions for specific light patterns). Charging typically takes 30-60 minutes. **Do not overcharge.**
6. **Install Flight Battery:** Once fully charged, carefully connect the flight battery to the aircraft's power connector. Secure the battery within the battery compartment to prevent shifting during flight.

7. **Install Remote Control Batteries:** Open the battery compartment on the back of the remote control and insert the required batteries (typically AA, not always included).



Figure 4.1: Assembled T-45 Goshawk RC Jet.

5. Operating Instructions

Before your first flight, familiarize yourself with the remote control functions and flight modes.

5.1. Remote Control Overview



Figure 5.1: T-45 Goshawk with Remote Control.

The remote control typically features two primary joysticks and various trim buttons and mode switches. The T-45 Goshawk supports 3-channel operation:

- **Throttle:** Controls the speed of the EDF motor (usually the left stick, vertical movement).
- **Aileron:** Controls the roll of the aircraft (usually the right stick, horizontal movement).
- **Elevator:** Controls the pitch (nose up/down) of the aircraft (usually the right stick, vertical movement).

Refer to the remote control's specific diagram for exact stick assignments and switch functions.

5.2. Flight Modes

The T-45 Goshawk offers three distinct flight modes, selectable via a switch on the remote control:

- **Active Leveling:** Provides maximum stabilization, automatically leveling the aircraft when control sticks are centered. Ideal for beginners.
- **Assisted Stabilization:** Offers moderate stabilization, allowing more control while still assisting with flight stability. Suitable for intermediate pilots.
- **Manual:** Disables all stabilization, providing full manual control. Recommended for experienced pilots.

5.3. Pre-Flight Checklist

1. Ensure the flight battery is fully charged and securely installed.
2. Verify that the remote control has fresh batteries.
3. Turn on the remote control first, then connect the aircraft's battery. Wait for the binding process to complete (indicator lights will confirm).

4. Check all control surfaces (ailerons, elevator) for proper movement in response to stick inputs.
5. Perform a range check to ensure reliable signal reception.
6. Select an open, clear flying area free from obstacles, people, and power lines.

5.4. Takeoff and Flight

For takeoff, place the aircraft on a flat surface or hand-launch it gently into the wind. Gradually increase throttle. Once airborne, use the aileron and elevator controls to steer the aircraft. Start in Active Leveling mode for easier control. Practice gentle turns and altitude changes before attempting more advanced maneuvers.



Figure 5.2: Detailed view of the T-45 Goshawk's front fuselage.



Figure 5.3: Underside of the T-45 Goshawk, showing the EDF unit.

5.5. Landing

Reduce throttle gradually as you approach your landing area. Maintain a slight nose-up attitude using the elevator to slow the aircraft. Aim for a gentle touchdown. Once on the ground, reduce throttle completely and turn off the aircraft's power, then the remote control.

6. Maintenance

Regular maintenance will extend the lifespan of your T-45 Goshawk RC Jet.

- **Cleaning:** Wipe down the aircraft with a soft, dry cloth after each flight to remove dirt or debris. Avoid using harsh chemicals.
- **EPS Foam Care:** The aircraft is made of EPS foam. While durable, it can be damaged by impacts. Minor imperfections may exist due to manufacturing processes. Handle with care. For small dents or tears, foam-safe glue can be used for repairs.
- **Propeller/EDF Inspection:** Regularly check the EDF unit for any obstructions or damage to the fan blades. A damaged fan can cause vibrations and reduce performance.
- **Battery Storage:** Store the LiPo battery in a cool, dry place, away from direct sunlight and extreme temperatures. For long-term storage, charge the battery to a "storage charge" level (typically around 3.8V per cell) rather than fully charged or fully discharged.
- **Control Surface Check:** Periodically check that all control surfaces move freely and are not obstructed.

7. Troubleshooting

Problem	Possible Cause	Solution
Aircraft does not respond to remote control.	<ul style="list-style-type: none">• Aircraft or remote control not powered on.• Battery low in aircraft or remote control.• Aircraft and remote control not bound.• Out of range.	<ul style="list-style-type: none">• Ensure both are powered on.• Charge/replace batteries.• Follow binding procedure (power on remote, then aircraft).• Fly within recommended range.
Aircraft flies erratically or not straight.	<ul style="list-style-type: none">• Control surfaces not trimmed.• Damage to control surfaces or airframe.• Strong wind conditions.	<ul style="list-style-type: none">• Adjust trim buttons on remote control.• Inspect and repair any damage.• Fly in calm conditions.
Short flight time.	<ul style="list-style-type: none">• Battery not fully charged.• Battery degradation.• Aggressive flying.	<ul style="list-style-type: none">• Ensure full charge before flight.• Consider replacing old batteries.• Fly more conservatively.

8. Specifications

Feature	Detail
Model Number	T-45
Scale	1:26 Scale
Dimensions (L x W x H)	43.99 x 16.99 x 15.01 cm
Weight	Approximately 50 g

Feature	Detail
Material	EPS Foam
Channels	3-Channel (Throttle, Aileron, Elevator)
Power System	30mm EDF (Electric Ducted Fan)
Battery	7.4V 180mAh Lithium (LiPo)
Flight Modes	Active Leveling, Assisted Stabilization, Manual
Manufacturer Recommended Age	6 years and up
Manufacturer	Guangzhou Senji Technology Co., Ltd.

9. Warranty and Support

For product support, technical assistance, or warranty inquiries, please contact the manufacturer directly. While specific warranty terms may vary, it is generally recommended to retain your proof of purchase.

Manufacturer Contact:
Guangzhou Senji Technology Co., Ltd.
Email: services@minimumrc.com

Please note that damage resulting from improper use, accidents, or unauthorized modifications may not be covered under warranty.