

Dancing Wings Hobby S19

Dancing Wings Hobby S19 Mini Tiger Moth RC Balsawood Airplane Instruction Manual

Model: S19 | Brand: Dancing Wings Hobby

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1. INTRODUCTION

This manual provides detailed instructions for the assembly, setup, operation, and maintenance of your Dancing Wings Hobby S19 Mini Tiger Moth RC Balsawood Airplane kit. This model is designed for adult enthusiasts and requires assembly. Please read this manual thoroughly before beginning assembly or operation to ensure safe and correct usage.

2. SAFETY INFORMATION

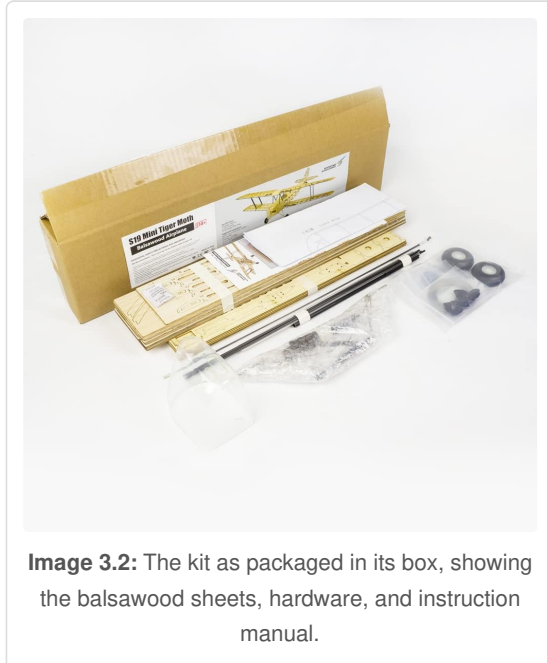
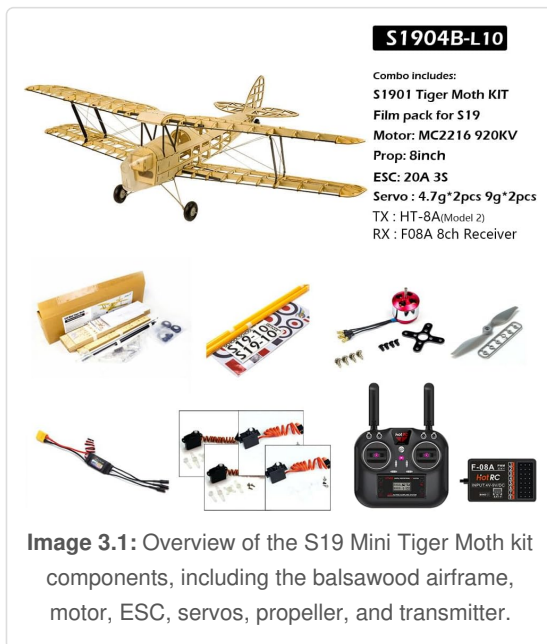
WARNING: Failure to follow these safety guidelines may result in injury or property damage.

- Always operate the RC airplane in open areas, away from people, buildings, and obstacles.
- Ensure all electronic components are correctly installed and secured before flight.
- Verify battery charge levels for both the aircraft and transmitter before each use.
- Never fly near airports or restricted airspace.
- Keep hands and loose clothing away from the propeller when the motor is powered.
- This product is not a toy. It is intended for adults aged 18 years and older.
- Always disconnect the battery from the aircraft after use.
- Store the model and components in a dry, safe place.

3. PACKAGE CONTENTS

Your S19 Mini Tiger Moth kit includes the following components. Please inspect all parts upon receipt to

ensure nothing is missing or damaged.



- S19 EP Mini Tiger Moth (1.0M) Balsawood KIT
- MM2216 920KV Brushless Motor
- 8-inch Propeller
- 20A Electronic Speed Controller (ESC)
- 9g Servos (2 pieces)
- 4.3g Thin Servos (2 pieces)
- Covering Film Pack
- HOT RC HT-8A Transmitter (Left Throttle)
- HOT RC F08A 8CH Receiver
- Assembly Manual and 1:1 Wing Plan
- Molded Plastic Cowl and Windscreen
- Functional Landing Gear
- Comprehensive Hardware Pack

4. ASSEMBLY INSTRUCTIONS

The S19 Mini Tiger Moth is an unassembled kit, requiring careful construction. This process involves building the airframe from balsa and plywood, installing electronics, and applying the covering film. Refer to the included detailed assembly manual and the 1:1 wing plan for precise steps.

4.1 Airframe Construction

Follow the provided 1:1 plan to accurately cut and glue the balsa and plywood components. Pay close attention to the alignment of ribs, spars, and fuselage sections to ensure structural integrity and correct flight characteristics. The kit is designed for a solid and lightweight structure.



4.2 Covering Film Application

Once the airframe is complete and all structural glues have cured, apply the covering film according to the film manufacturer's instructions. Ensure the film is taut and wrinkle-free for optimal aerodynamic performance and appearance.

5. ELECTRONIC SETUP

Proper installation and connection of electronic components are crucial for the safe operation of your RC airplane.

5.1 Motor and ESC Installation

1. Mount the MM2216 920KV motor securely to the firewall using the provided hardware.
2. Connect the 20A ESC to the motor's three phase wires. Ensure correct rotation direction; if incorrect,

swap any two motor wires.

3. Route the ESC's signal wire to the throttle channel of your receiver.

5.2 Servo Installation and Linkage

1. Install the 9g servos for ailerons and the 4.3g servos for elevator and rudder into their designated locations within the wings and fuselage.
2. Connect the servos to the appropriate channels on the HOT RC F08A 8CH receiver.
3. Attach the control horns to the control surfaces (ailerons, elevator, rudder) and connect them to the servo arms using the provided pushrods. Ensure free movement and correct throw.

5.3 Receiver and Transmitter Binding

Refer to the HOT RC HT-8A transmitter and F08A 8CH receiver manuals for detailed binding procedures. Ensure the transmitter is set to the correct model type (airplane) and control mode (left throttle for S1904B-L10).



Image 5.1: Front view of the HOT RC HT-8A digital proportional RC system transmitter.



Image 5.2: Rear view of the HOT RC HT-8A

transmitter, showing the battery compartment and warning labels.

5.4 Battery Connection

Connect a fully charged 3S LiPo battery (1800-2200mAh, not included) to the ESC. Secure the battery within the fuselage to achieve the correct center of gravity (CG). Refer to the assembly manual for recommended CG location.

6. OPERATING INSTRUCTIONS

The S19 Mini Tiger Moth is designed for stable flight, making it suitable for improving flying skills. Always perform pre-flight checks before each flight.

6.1 Pre-Flight Checks

- Ensure all control surfaces (ailerons, elevator, rudder) move freely and in the correct direction in response to transmitter inputs.
- Check that the propeller is securely attached and free from damage.
- Verify the battery is fully charged and securely installed.
- Confirm the transmitter battery level is sufficient.
- Perform a range check of your radio system.

6.2 Flight Characteristics

With an 1180mm upper wingspan, the S19 Mini Tiger Moth offers a very stable flight experience. It is an electric-powered model. Adjust control throws as needed for your flying style.

6.3 Post-Flight Procedures

- Disconnect the flight battery immediately after landing.
- Inspect the aircraft for any damage or loose components.
- Clean any dirt or debris from the airframe and propeller.
- Store the aircraft and batteries safely.

7. MAINTENANCE

Regular maintenance will prolong the life and performance of your S19 Mini Tiger Moth.

- **Airframe:** Periodically inspect the balsawood structure for cracks or damage. Repair with appropriate wood glue. Ensure covering film remains taut.
- **Electronics:** Check all wiring for fraying or loose connections. Ensure servos operate smoothly and linkages are free from binding.
- **Motor/Propeller:** Inspect the motor for any obstructions. Check the propeller for nicks or cracks; replace if damaged to prevent vibration.
- **Landing Gear:** Ensure landing gear is securely attached and functional.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Motor not spinning	Disconnected battery, faulty ESC, motor wires incorrect, transmitter throttle trim too low.	Check battery connection, verify ESC functionality, ensure motor wires are correctly connected, adjust throttle trim.
Loss of control	Low transmitter/receiver battery, radio interference, loose receiver connection, damaged servo.	Check battery levels, fly in an open area, secure receiver connections, inspect servos.
Aircraft flies erratically	Incorrect control surface trim, unbalanced propeller, incorrect center of gravity (CG).	Adjust trims on transmitter, check propeller balance, verify CG according to manual.

9. SPECIFICATIONS

980mm
 812mm
 FLY ≈0.9kg

MM2212-2216 1000-1400KV
 ESC 20A
 9g*2 5g*2 (Ultrathin)

3S 1800-2200mah
 8-9inch
 RX 4CH

Assembly: Normal Little Challenge
Flying: Easy Enjoy flying



Image 9.1: Visual representation of the S19 Mini Tiger Moth's key dimensions and electronic recommendations.

- **Brand:** Dancing Wings Hobby
- **Model Name:** S19 Mini Tiger Moth
- **Wingspan:** 1180mm (Upper Wing)
- **Length:** 812mm
- **Flying Weight:** Approximately 0.9 kg
- **Motor:** MM2216 920KV Brushless Motor
- **ESC:** 20A
- **Propeller:** 8-9 inch
- **Servos:** 2x 9g, 2x 4.3g
- **Recommended Battery:** 3S LiPo 1800-2200mAh (*Not Included*)
- **Transmitter:** HOT RC HT-8A (Left Throttle)
- **Receiver:** HOT RC F08A 8CH
- **Material:** Balsawood and Plywood
- **Assembly Required:** Yes
- **Power Source:** Electric
- **Age Range:** Adult (216 months - 960 months)
- **UPC:** 768713953173

10. WARRANTY AND SUPPORT

For technical assistance, missing parts, or warranty inquiries, please contact Dancing Wings Hobby customer support through the retailer where the product was purchased. Please have your model number (S19) and purchase details ready.

This product is designed for hobby use and requires careful assembly and operation. Damage resulting from improper assembly, modification, or operation is not covered under warranty.