

World Tech Toys ZX-33220

World Tech Toys Eclipse 2.4Ghz 4.5CH DIY RC Racing Drone  
Instruction Manual

Model: ZX-33220

[Introduction](#)   [Safety](#)   [Contents](#)   [Assembly](#)   [Battery](#)   [Operation](#)   [Maintenance](#)   [Troubleshooting](#)   [Specifications](#)   [Warranty](#)

1. INTRODUCTION

Thank you for purchasing the World Tech Toys Eclipse 2.4Ghz 4.5CH DIY RC Racing Drone. This manual provides essential information for assembling, operating, and maintaining your drone. Please read it thoroughly before use to ensure safe and optimal performance.



Image 1.1: The Eclipse DIY RC Racing Drone and its 2.4Ghz transmitter. The drone features a sleek design with a yellow canopy, and the transmitter has dual joysticks and control buttons.

2. SAFETY INFORMATION

Operating an RC drone requires caution. Failure to follow these safety guidelines may result in injury or damage to the product or property.

- **Age Recommendation:** This product is recommended for users aged 14 and above. Adult supervision is advised for younger users.
- **Flight Environment:** Fly in open, clear areas away from people, animals, buildings, and power lines. Avoid flying in strong winds or adverse weather conditions.
- **Propeller Safety:** Keep hands, face, and loose clothing away from rotating propellers. Propellers can cause serious injury.
- **Battery Safety:** Use only the specified battery and charger. Do not overcharge or short-circuit batteries. Dispose of batteries properly.
- **Visual Line of Sight:** Always maintain visual line of sight with your drone during flight.
- **Pre-Flight Check:** Before each flight, ensure all parts are securely attached, batteries are charged, and the drone is functioning correctly.

3. PACKAGE CONTENTS

Verify that all components are present in your package:

- Eclipse DIY RC Racing Drone (unassembled)
- 2.4Ghz Transmitter
- Motors (pre-installed or separate, depending on kit variation)
- Propellers
- Rotor Guards (removable)
- USB Charging Cable
- Instruction Manual

## 4. ASSEMBLY INSTRUCTIONS

---

The Eclipse DIY RC Racing Drone requires assembly. Follow these steps carefully.



Image 4.1: Exploded view showing the main frame, motors, propellers, drone body, and canopy, illustrating how the Eclipse drone components fit together for assembly.

1. **Frame Assembly:** Connect the main frame components if they are not already pre-assembled. Ensure all connections are secure.
2. **Motor Installation:** If motors are separate, carefully insert them into the designated slots on the drone arms. Ensure wires are routed correctly and do not interfere with moving parts.
3. **Propeller Attachment:** Attach the propellers to the motor shafts. Note that propellers are typically marked (e.g., A or B) and must be installed on the correct motor to ensure proper flight direction. Press them firmly onto the shafts.
4. **Rotor Guard Installation:** For added protection, attach the removable rotor guards to the drone arms. Align the guards with the mounting points and secure them.
5. **Drone Body/Canopy:** Place the main drone body or canopy over the internal components, ensuring it snaps into place or is secured with screws if provided.



## 5. BATTERY INSTALLATION AND CHARGING

---

### 5.1 Drone Battery

The Eclipse drone uses a 350 Milliamp Hours Lithium Ion battery. Always handle Li-Ion batteries with care.

1. **Charging:** Connect the drone battery to the provided USB charging cable. Plug the USB cable into a compatible USB power source (e.g., computer USB port, USB wall adapter). The charging indicator will show the charging status (refer to charger for specific light patterns). Do not leave batteries charging unattended.
2. **Installation:** Once fully charged, disconnect the battery from the charger. Open the battery compartment on the drone (usually on the underside). Insert the battery, ensuring the polarity is correct, and connect it to the drone's power connector. Securely close the battery compartment.

### 5.2 Transmitter Batteries

The 2.4Ghz transmitter requires 4 'AA' batteries (not included).

1. Open the battery compartment on the back of the transmitter.
2. Insert 4 'AA' batteries, matching the positive (+) and negative (-) terminals as indicated inside the compartment.
3. Close the battery compartment securely.

## 6. OPERATING INSTRUCTIONS

---

### 6.1 Pairing the Drone and Transmitter

1. Ensure both the drone and transmitter batteries are fully charged.
2. Turn on the transmitter first. The indicator light will typically flash.
3. Connect the drone's battery to power it on. Place the drone on a flat, level surface. The drone's lights will flash.
4. On the transmitter, push the left joystick (throttle) all the way up, then all the way down. The lights on both the drone and transmitter should become solid, indicating successful pairing.

### 6.2 Basic Flight Controls

The Eclipse drone features 4.5 channels, providing precise control.

- **Left Joystick (Throttle/Yaw):**
  - Push up/down: Increases/decreases throttle (ascend/descend).
  - Push left/right: Yaw (rotates the drone left/right on its vertical axis).
- **Right Joystick (Pitch/Roll):**
  - Push up/down: Pitch (moves the drone forward/backward).
  - Push left/right: Roll (moves the drone left/right sideways).
- **Trim Buttons:** Use the trim buttons (usually located near the joysticks) to fine-tune the drone's stability if it drifts in any direction during hover.

### 6.3 Special Features

- **Flip Stunt Modes:** The drone is capable of performing aerial flips. Consult the transmitter diagram for the specific button or joystick combination to activate this feature. Typically, you press a stunt button and then push the right joystick in the desired flip direction.
- **Laser Battle Mode:** This drone features a laser battle mode. Refer to the transmitter controls for activating and engaging in laser battles with other compatible Eclipse drones.

## 7. MAINTENANCE

---

Regular maintenance ensures the longevity and performance of your Eclipse drone.

- **Cleaning:** Use a soft, dry cloth to clean the drone. Avoid water or harsh chemicals.
- **Propeller Inspection:** Regularly check propellers for damage (cracks, bends). Replace any damaged propellers immediately to ensure

stable flight.

- **Motor Care:** Keep motors free from dust and debris. Avoid forcing the propellers if they are obstructed.
- **Storage:** When not in use, store the drone and transmitter in a cool, dry place, away from direct sunlight. Remove batteries from the transmitter if storing for extended periods.



Image 7.1: An underside view of the Eclipse DIY RC Racing Drone, showing the landing gear, battery compartment access, and the arrangement of the four propellers.

## 8. TROUBLESHOOTING

If you encounter issues with your drone, refer to the following common problems and solutions:

| Problem                              | Possible Cause                                           | Solution                                                                                                                       |
|--------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Drone does not power on.             | Drone battery not charged or connected.                  | Charge drone battery fully and ensure it is securely connected.                                                                |
| Transmitter does not power on.       | Transmitter batteries are dead or incorrectly installed. | Replace 'AA' batteries in the transmitter, ensuring correct polarity.                                                          |
| Drone and transmitter do not pair.   | Incorrect pairing sequence or interference.              | Ensure transmitter is turned on first, then drone. Perform the throttle up/down sequence. Move away from other 2.4Ghz devices. |
| Drone drifts during flight.          | Needs calibration or trim adjustment.                    | Perform a flight calibration (refer to transmitter instructions) and use trim buttons to correct drift.                        |
| Short flight time.                   | Battery not fully charged or aging battery.              | Ensure battery is fully charged before each flight. Consider replacing the battery if it's old.                                |
| Drone is unstable or crashes easily. | Damaged propellers or motors.                            | Inspect propellers for damage and replace if necessary. Check motors for obstructions.                                         |

## 9. SPECIFICATIONS

- **Brand:** World Tech Toys
- **Model Name:** Eclipse
- **Model Number:** ZX-33220
- **Control Type:** 2.4Ghz, 4.5 Channel RC
- **Drone Battery:** 350 Milliamp Hours Lithium Ion (Rechargeable)
- **Transmitter Batteries:** 4 x 'AA' (not included)
- **Included Components:** Transmitter, Drone, Motors
- **Item Dimensions (L x W x H):** 4.75" x 4.75" x 2"
- **Age Range:** Adult (14+)

- **Features:** Assembly Required, Removable Rotor Guards, 4.5 Channel Built-in Gyro, Laser Battle Mode, Flip Stunt Modes

## 10. WARRANTY AND SUPPORT

### 10.1 Warranty Information

This World Tech Toys Eclipse DIY RC Racing Drone comes with a **30 Day Warranty Against Manufacturer Defects** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by misuse, accidents, unauthorized modifications, or normal wear and tear.

### 10.2 Customer Support

For technical assistance, warranty claims, or replacement parts, please contact World Tech Toys customer service. Refer to the product packaging or the official World Tech Toys website for the most current contact information.

© 2023 World Tech Toys. All rights reserved.

#### 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/B078T3TT3V>

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