



Manuals.plus /

› FANCYWING /

› FANCYWING TBS Tango 2 PRO FPV RC Radio Controller User Manual

FANCYWING Tango 2 PRO

FANCYWING TBS Tango 2 PRO FPV RC Radio Controller User Manual

Model: TBS Tango 2 PRO

1. INTRODUCTION

This manual provides essential instructions for the FANCYWING TBS Tango 2 PRO FPV RC Radio Controller. Designed for remote control enthusiasts, this compact radio features integrated TBS Crossfire technology, full-size hall gimbals, and an open-source operating system. Please read this manual thoroughly before operating your device to ensure proper setup and safe use.



Image 1.1: Front view of the FANCYWING TBS Tango 2 PRO FPV RC Radio Controller. This image displays the compact design, dual gimbals, and central display screen.

2. PRODUCT FEATURES

The TBS Tango 2 PRO is engineered with advanced features for precise control and reliability:

- **Full-size Hall Sensor Gimbals:** Equipped with ball-bearings for smooth operation.
- **Configurable Resistance and Tension:** Allows customization of gimbal feel.
- **Adjustable Throttle & Pitch Throw:** Range of +/- 10 degrees for fine-tuning control.
- **Foldable Gimbal Sticks:** (Pro version only) For enhanced portability.
- **Ergonomic and Compact Design:** Features comfortable rubber grips for extended use.
- **Robust, Streamlined Switches:** Includes two 2-position switches, two 3-position switches, and two momentary buttons.
- **Built-in TBS Crossfire:** Integrated for low latency and direct response, offering a range of up to 30km.

- **Swivel Antenna:** Doubles as a kick-stand for convenience.
- **Up to 12 Channels Supported:** Versatile control options.
- **Integrated 5000mAh 1S LiPo Battery:** With USB-C 2A charging, achieving a full charge in approximately 2.5 hours.
- **Speech Audio Output:** Via audio jack, complemented by haptic vibration alerts.
- **Open Source Operating System:** FreedomTX (a temporary fork of OpenTX) for flexibility.
- **User-Friendly Interface:** Rocker dial and 3-button menu for simple navigation.
- **High-Resolution OLED Screen:** 128x96 black & white display with backlight.

3. PACKAGE CONTENTS

Upon unboxing, verify that all the following items are included:

- TBS Tango 2 PRO FPV RC Radio Controller
- Integrated 5000mAh 1S LiPo Battery (pre-installed)
- Spare spring set for lower gimbal tension
- USB-C Cable (for charging and data transfer)



Image 3.1: Rear view of the FANCYWING TBS Tango 2 PRO, showing the ergonomic grips and product labeling.

4. SETUP

4.1 Initial Charging

Before first use, fully charge the internal 5000mAh 1S LiPo battery. Connect the radio controller to a USB-C power source using the provided USB-C cable. A full charge typically takes approximately 2.5 hours with a 2A charger.



Image 4.1: Top view of the FANCYWING TBS Tango 2 PRO, highlighting the USB-C charging port and audio jack.

4.2 Gimbal Adjustment

The Tango 2 PRO features adjustable gimbals. You can customize the resistance and tension to your preference. The throttle and pitch throw can also be adjusted by +/- 10 degrees. Refer to the on-screen menu for specific adjustment procedures. The gimbal sticks are foldable; gently pull them up and bend inward for storage.

4.3 Antenna Positioning

The integrated antenna can be swiveled for optimal signal transmission during operation. When not in use, it can be folded down or positioned to act as a kick-stand for the controller.

4.4 Binding with Receiver

The TBS Tango 2 PRO utilizes built-in TBS Crossfire for communication. The binding process with a compatible Crossfire receiver is generally straightforward. Access the binding option through the radio's menu system and follow the on-screen prompts and your receiver's instructions.

4.5 Firmware Updates

Regular firmware updates are recommended to ensure optimal performance and access to new features. While the process can sometimes be complex, detailed instructions are typically available on the official TBS website. Connect the radio to your computer via USB-C for firmware management.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

To power on the controller, press and hold the power button located on the front panel until the screen illuminates. To power off, press and hold the power button again until the shutdown sequence completes.

5.2 Menu Navigation

Navigate the operating system (FreedomTX) using the rocker dial and the three menu buttons (EXIT, MENU, PAGE)

located below the screen. The OLED screen displays menu options and telemetry data.



Image 5.1: Front view of the FANCYWING TBS Tango 2 PRO, showing the gimbals, OLED screen, and navigation buttons.

5.3 Gimbal and Switch Usage

The two main gimbals control primary flight functions. The various 2-position, 3-position, and momentary switches can be assigned to control auxiliary functions on your FPV drone or other RC models. Refer to your model's setup guide and the radio's software for channel assignment.

5.4 Audio and Haptic Feedback

The controller provides speech audio output through an integrated audio jack, allowing for audible alerts and telemetry readings. Haptic vibration alerts also provide tactile feedback for important notifications.

6. MAINTENANCE

6.1 Cleaning

Wipe the controller with a soft, dry cloth. Avoid using harsh chemicals or abrasive materials that could damage the surface or internal components.

6.2 Battery Care

To prolong battery life, avoid fully discharging the LiPo battery frequently. Store the controller in a cool, dry place when not in use for extended periods. Recharge the battery periodically if stored for a long time.

6.3 Gimbal Calibration

If you experience inconsistent control inputs, recalibrating the gimbals may resolve the issue. This procedure is typically found within the radio's system settings menu. Follow the on-screen instructions carefully during calibration.

7. TROUBLESHOOTING

- **Controller Not Powering On:** Ensure the battery is sufficiently charged. Connect to a USB-C power source and allow it to charge for at least 30 minutes before attempting to power on again.
- **No Control Response:** Verify that the radio is properly bound to your receiver. Check receiver power and connections. Perform a gimbal calibration if control inputs are erratic.
- **Firmware Update Issues:** If you encounter difficulties during a firmware update, consult the official TBS support resources or community forums for detailed guides and solutions. Ensure you are using the correct firmware version for your device.
- **Short Range/Signal Loss:** Ensure the antenna is correctly positioned and not obstructed. Check for local interference. Verify Crossfire module health through the radio's menu.

8. SPECIFICATIONS

Feature	Detail
Model	TBS Tango 2 PRO
Gimbals	Full-size Hall Sensor, Ball-bearing, Foldable sticks
Transmission System	Built-in TBS Crossfire
Channels	Up to 12
Battery	5000mAh 1S LiPo (integrated)
Charging	USB-C, 2A (approx. 2.5 hours for full charge)
Display	128x96 Black & White OLED with backlight
Operating System	FreedomTX (OpenTX fork)
Audio Output	Speech audio via audio jack
Haptic Feedback	Yes
Dimensions	8.11 x 6.26 x 3.31 inches (approximate package dimensions)
Weight	1.61 pounds (approximate item weight)

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official FANCYWING or TBS website. Keep your purchase receipt as proof of purchase. For specific product inquiries or advanced troubleshooting, contacting the manufacturer's support directly is recommended.

Manufacturer: FANCYWING

Date First Available: September 23, 2021