FrSky X9 Lite

FrSky Taranis X9 Lite User Manual

24 Channels ACCESS Radio Transmitter for RC Drone FPV Racing

1. Introduction

The FrSky Taranis X9 Lite is a compact and ergonomic 24-channel radio transmitter designed for RC drone FPV racing and other remote-controlled applications. It integrates the latest ACCESS communication protocol, offering enhanced speed, lower latency, and improved security. This manual provides essential information for setting up, operating, and maintaining your Taranis X9 Lite.

2. Key Features

- Ergonomic and compact design, inheriting the classic grip comfort of the Taranis X9D series.
- Equipped with the advanced ACCESS protocol for 24 channels, faster baud rate, and lower latency.
- Supports spectrum analyzer function for signal monitoring.
- Features a high-speed module digital interface.
- Utilizes G7 Noble potentiometer gimbals for precise control.
- Includes a wired training function, ideal for beginners.
- Provides haptic vibration alerts and voice speech outputs for user feedback.
- Easily accessible battery compartment for replaceable 18650 button top Li-ion batteries (batteries not included).
- Operates on ErskyTX / OpenTX open source operating system.
- Compatibility with ACCST D16 and ACCESS receivers.

3. Package Contents

Upon opening the package, please verify that all components are present and in good condition. The standard package for the FrSky Taranis X9 Lite typically includes:

- FrSky Taranis X9 Lite Transmitter
- User Manual (this document)
- USB Cable (for connection to PC and charging)

- Neck Strap (may vary by package)

Note: Batteries are not included and must be purchased separately. The device is compatible with replaceable 18650 button top Li-ion batteries.

4. Product Overview

Familiarize yourself with the various components and controls of your Taranis X9 Lite transmitter.



Figure 4.1: Front view of the FrSky Taranis X9 Lite, showing the gimbals, switches, LCD screen, and navigation buttons. The screen displays "OpenTX" and "Digital Telemetry Radio System".



Figure 4.2: Angled view of the FrSky Taranis X9 Lite, highlighting the ergonomic grip and side switches.



Figure 4.3: Top view of the FrSky Taranis X9 Lite, showing the antenna, carry handle, and various switches.



Figure 4.4: Rear view of the FrSky Taranis X9 Lite, displaying the battery compartment and external module bay cover.

4.1. Controls and Ports

- **Gimbals:** Precision control sticks for pitch, roll, yaw, and throttle.
- **Switches:** Multiple 2-position and 3-position switches for various functions (e.g., flight modes, arming).
- **LCD Screen:** Displays telemetry data, menu navigation, and system status.
- **Navigation Buttons:** Menu, Page, Exit, and scroll wheel for navigating the OpenTX operating system.
- **USB Port:** For connecting to a computer for firmware updates, simulator use, and battery charging.
- **Smart Port (S.Port):** For connecting external modules and sensors.
- **Micro SD Card Slot:** For expanding model memories and storing sound files.
- **DSC Port:** For wired training function.

5. Setup

5.1. Battery Installation

1. Locate the battery compartment on the rear of the transmitter.
2. Open the battery cover.
3. Insert two 18650 button top Li-ion batteries, ensuring correct polarity.
4. Close the battery cover securely.

Caution: Always ensure correct battery polarity to prevent damage to the transmitter. Use only recommended battery types.

5.2. Initial Power On and Calibration

1. Press and hold the power button until the LCD screen illuminates.
2. Upon first power-on, the system may prompt for gimbal calibration. Follow the on-screen instructions carefully.
3. Move both gimbals through their full range of motion (up, down, left, right, and diagonally) several times.

4. Confirm calibration when prompted.

Note: Regular calibration ensures accurate control input. Recalibrate if you notice any erratic behavior from the gimbals.

5.3. Firmware Update (Optional but Recommended)

It is recommended to update your transmitter's firmware to the latest version for optimal performance and access to new features. The Taranis X9 Lite uses OpenTX/ErskyTX firmware.

1. Download the latest OpenTX Companion software from the official OpenTX website (www.open-tx.org).
2. Connect the transmitter to your computer using the supplied USB cable.
3. Launch OpenTX Companion and follow the instructions to download and flash the latest firmware to your X9 Lite.

Important: Ensure you select the correct firmware version for your Taranis X9 Lite (e.g., ACCESS protocol). Incorrect firmware can render the device inoperable.

6. Operating Instructions

6.1. Model Creation and Binding

To control an RC model, you must first create a model profile on your transmitter and bind it to your receiver.

1. **Create New Model:** From the main screen, press the MENU button, navigate to "MODEL SELECT", and choose "CREATE NEW MODEL". Follow the wizard to set basic parameters like model type (airplane, helicopter, multirotor) and channel order.
2. **Internal RF Module Setup:** In the model settings, navigate to the "SETUP" page. For the internal RF module, select "Mode" as "ACCESS" or "ACCST D16" depending on your receiver.
3. **Binding Process:**
    - On the transmitter, select the "BIND" option in the model setup.
    - Put your receiver into binding mode (refer to your receiver's manual for specific instructions, usually involves holding a bind button while powering on).
    - The transmitter will emit a series of beeps, indicating successful binding. The receiver's LED will typically change to a solid green.

Note: Ensure your receiver's firmware is compatible with the ACCESS protocol if you are using it. Older ACCST D16 receivers may require firmware updates to work with ACCESS transmitters.

6.2. Wired Training Function

The wired training function allows a student transmitter to be connected to a master transmitter, enabling an instructor to take over control at any time. This is an excellent feature for learning to fly RC models.

1. Connect the DSC port of the Taranis X9 Lite (master) to the DSC port of the student transmitter using a compatible trainer cable.
2. Configure the trainer settings in the OpenTX menu on the master transmitter.
3. The instructor can then enable/disable control transfer via a designated switch.

7. Maintenance

7.1. Cleaning

- Wipe the transmitter's exterior with a soft, dry cloth.
- Avoid using harsh chemicals or abrasive cleaners.
- Keep the screen clean using a microfiber cloth.

7.2. Storage

- Store the transmitter in a cool, dry place away from direct sunlight and extreme temperatures.
- If storing for extended periods, remove the batteries to prevent leakage.
- Use a protective case to prevent physical damage.

7.3. Battery Care

- Charge batteries using the integrated USB port or an external compatible charger.
- Do not overcharge or deep discharge Li-ion batteries.
- Replace batteries when they no longer hold a sufficient charge.

8. Troubleshooting

Problem	Possible Cause	Solution
Transmitter does not power on.	Low or dead batteries; incorrect battery installation.	Charge or replace batteries; check battery polarity.
No response from model after binding.	Incorrect binding procedure; incompatible receiver firmware; receiver not powered.	Re-bind the transmitter and receiver; update receiver firmware to match transmitter protocol (ACCESS/ACCST D16); ensure receiver is powered correctly.
Erratic control inputs / Gimbals not centered.	Gimbals require calibration.	Perform gimbal calibration via the OpenTX menu.
USB port not recognized by computer.	Driver issue; faulty USB cable; transmitter not in bootloader mode.	Install necessary drivers; try a different USB cable; power on transmitter while holding the two horizontal trim buttons inwards to enter bootloader mode.

9. Specifications

Feature	Detail
Dimensions	184*170*101mm (L*W*H)
Weight	505g (without battery)
Operating System	ErskyTX / OpenTX
Number of Channels	24 channels
Internal RF Module	ISRM-N

Feature	Detail
Operating Voltage Range	6.0~8.4V
-20℃ ~ 60℃ (-4℉ ~ 140℉)	Backlit LCD Resolution
128*64	Model Memories
60 models (expandable by Micro SD card)	Ports
Smart Port, Micro SD card slot, Micro USB Port, DSC Port	Compatibility
ACCST D16 and ACCESS receivers	

10. Warranty and Support

FrSky products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please contact FrSky customer service or visit their official website.

- **Official Website:** www.frsky-rc.com
- **Support Email:** Refer to the official website for the most current support contact information.

Please retain your proof of purchase for warranty claims.

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Example: How do I reset this device or fix this error?

Details

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