

Introduction

The Pro and S version combine all of the benefits of the preceding full-sized radio designs, along with the newly developed ACCESS (Advanced Communication Control, Elevated Spread Spectrum) protocol.

New for the Pro version is a high-quality, all-metal CNC hall sensor gimbal and accurate SWR and the power meter. Both versions feature the addition of a PARA wireless trainer function (which makes them compatible with the FrSky Free Link App and AirLink S) and spectrum analysis function. The best thing about the Pro and S models is that pilots can now expect even lower latency and enhanced performance due to our new ACCESS transmission protocol. With the integrated 6-axis sensor unit, pilots can use the radio as a motion-sensing controller to control the inputs of a model during flight or use it to point a camera in the desired direction. In order to make the most of our system and to fly safely, please read this manual carefully. If you have any difficulties while using your system, please consult the manual, your hobby dealer, or FrSky technical support.

Due to unforeseen changes in production, the information contained in this manual is subject to change without notice. Pay special attention to safety where indicated by the following marks:

Meanings of Special Markings

DANGER - procedures which may lead to dangerous conditions and cause death/serious injury if not carried out properly.

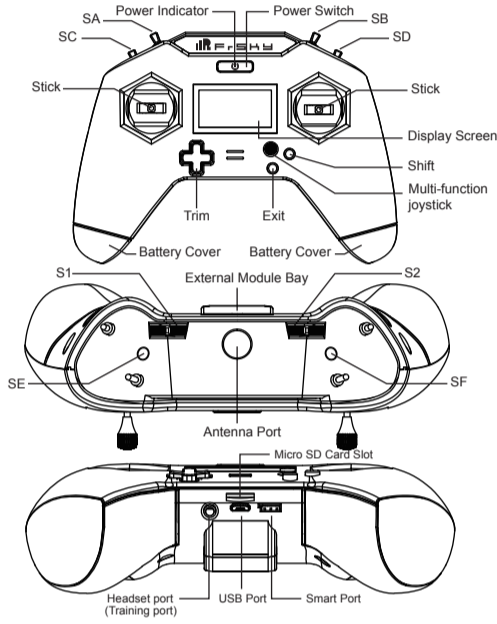
WARNING - Procedures which may lead to a dangerous condition or cause serious injury and even death to the user if not carried out properly or procedures where the probability of superficial injury or physical damage is high.

CAUTION - Procedures where the possibility of serious injury to the user is small, but there is a danger of injury or physical damage, if not carried out properly.

NOTE - Steps, Tips or information

WARNING - Always keep electrical components away from children.

Overview



Switch

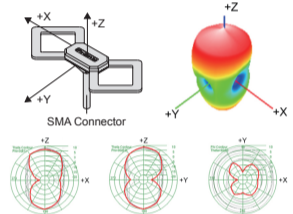
- SA: 3 positions; Long lever
- SB: 3 positions; Long lever
- SC: 2 positions; Short lever
- SD: 2 positions; Short lever
- SE: Tact switch, Momentary;
- SF: Tact switch, Momentary;

You can choose the Switch and define its position in the HARDWARE menu.

- Micro SD card is not provided with shipment.
- USB port is for upgrading, reading/writing Micro SD cards and internal memory of radio contents and charging.
- Smart Port is for firmware upgrade for all FrSky S.Port devices.

Infinity 24 Antenna

Recommended 2.4GHz optional high-gain antenna for achieving higher performance and further range.



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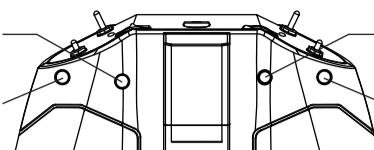
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Adjust sticks of Taranis X-Lite S/Pro

Please check how to change the stick mode and damping/controlling sense on FrSky website.

Adjust hole with **short** screw: adjusting the damping/controlling sense.

Adjust hole with **Long** screw: disable/enable the centered function of gimbal.



Adjust hole with **Long** screw: disable/enable the centered function of gimbal.

Adjust hole with **short** screw: adjusting the damping/controlling sense.

Warning: Please distinguish between long screws and short screws when switching the throttle mode. Makes sure the correct screw is used on the adjusting hole, otherwise the device will be damaged.

Battery Installation

- Hold the battery covers and rotate them to the left
 - Install the batteries with the positive side first into the transmitter.
 - Make sure the battery covers match with the battery compartments perfectly and rotate them to right until locked.
- Caution:** Ensure that the battery polarity is correct when connecting batteries into the battery compartment, otherwise Taranis X-Lite S/Pro will not be powered on.

Warnings for Battery

Do not remove the battery from the X-Lite S/Pro transmitter while the voltage warning is blinking as this could cause internal settings and memories to be destroyed.
Do not use the transmitter if a "Backup Error" warning occurs.

Specifications

- Model name: Taranis X-Lite S/Pro
- Taranis X-Lite S: 308g (without battery)
- Taranis X-Lite Pro: 328g (without battery)
- Operating Current: <220mA@7.4V
- Backlight LCD resolution: 128*64
- Model Memories: 60 models(extenable by Micro SD card)
- Number of channels: 24 channels
- Operating Voltage Range: 6.0~8.4V
- Operating Temperature: -20°C ~ 60°C (-4°F ~ 140°F)
- Smart Port, Micro SD card slot and Micro USB Port
- OpenTX system
- Support ACCST D16 Optional

Features

Features / Models	Taranis X-Lite	Taranis X-Lite S	Taranis X-Lite Pro
Haptic vibration alerts and voice speech outputs	√	√	√
Easily accessible battery compartment adaptive with (*Batteries Not included)replaceable 18500 Li-ion battery	√	√	√
Hall sensor gimbal (M12 Lite)	√	√	×
All-metal CNC machined digital higher accuracy hall sensor gimbal (MC12 Lite)	×	×	√
Wired training function (via 3.5mm audio port)	×	√	√
New PARA wireless training system <ul style="list-style-type: none"> High-speed training system with a lower latency Compatible with FrSky Free Link App and AirLink S via mobile devices 	×	√	√
Additional 2 momentary buttons	×	√	√
Battery Charging System (via Micro USB port) -2S Li-battery	×	√	√
Supports motion sensing control <ul style="list-style-type: none"> Integrated with 6-axis sensor unit 	×	√	√
Upgraded RF module with installed ACCESS protocol			
• Upgraded RF module	×	√	√
• Accurate SWR indicator	×	×	√
• Supports power meter function	×	×	√
• Supports spectrum analyzer function	×	√	√

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Navigate the Menu

To navigate the menus, Taranis X-Lite S/Pro has the following elements:

- Multi-function joystick
- Exit Button
- Shift Button

Multi-function Joystick

To navigate menus or widgets, move the Multi-function joystick to four directions as navigation.

To go to the [System] menu, move the multi-function joystick to the left and hold for one second.

To go to the [Model] menu, move the multi-function joystick to the right and hold for one second.

To go to the [Telemetry] menu, move the Multi-function down and hold for one second.

To check the information, move the Multi-function joystick up and hold for one second.

Shift Button

Shift button pressed with Trim buttons together, Trim for Ail & Ele will shift to Trim for Rud & Thr.

Exit Button

To exit current page or operation widgets.

Where am I in the menu tree

System item

Currently selected page

CHOOSE SETUP

Date

2000-02-15

Time

00:03:24

Battery range

6.7-8.3

Sound

NoKey

Mode

NoKey

Volume

NoKey

Beep volume

NoKey

1/7

2018-05-17

14:11:14

6.0-8.0

NoKey

NoKey

NoKey

To go to the next page, move the cursor to the item, then move the multi-function joystick to the left or right.

The cursor will firstly stay at the item which indicates the current page.

To change the data in other items, firstly move the multi-function joystick to four directions until the cursor stays at the needed item. Secondly, press the center of the multi-function joystick and move the joystick to the left or right.

Overview of the menu tree

MODEL01 free 30895

*01 MODEL01

02

03

04

05

06

07

CHOOSE SETUP

Date

2000-01-24

Time

03:01:03

Batt. range

6.7-8.3

Sound

NoKey

Mode

NoKey

Volume

NoKey

Beep volume

NoKey

Move the Multi-function Joystick to the right and hold for one second

MODEL01 7.80

No Telemetry Screens

NO DATA

Move the Multi-function Joystick down and hold for one second

Quick select options

MODEL01

Reset...

Statistics

About

MODEL01

Reset flight

Reset timer1

Reset timer2

Reset timer3

Reset telemetry

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Long press the center of Multi-function joystick: there will generate a pop-up where the user can reset timer, reset telemetry values, reset all above, jump to the tele setup page.

About new function:

- USB 2S Li-battery balance charging :

The Green Power indicator LED state:

Led on: charging

Led off: charge end

Led flash: charge fault

Note: Charge the battery with the 2A@5V adapter when you use the USB charge.

The lower the initial charging voltage, the better the charging effect is when the voltage difference between the two cells exceed 50 mV.

2.Power meter and Spectrum analyzer function

TOOLS

01 Spectrum (INT)

02 Power Meter (INT)

6/7

The step: go to the TOOLS 3/7,

Spectrum analyzer: Measure frequency range: 2400MHz~2485MHz

Power meter:

Input Signal Measurement Range (Frequency: 900MHz & 2.4GHz, Precision: within 1db)

Without attenuator: -50dbm ~ -10dbm

With added 40db attenuator: -10dbm ~ 30dbm (Optional Accessory)

Note: Please enter the Power Meter interface before connecting instrument for testing.

3. New PARA wireless training system

HARDWARE

ISF --- Toggle

Batt. calib 7.47U

RTC Batt 2.38U

Bluetooth Telemetry

PIN code 0000

Local addr 806FB01B61F5

Dist addr ---

6/7

299U

Trainer

806FB01B61F5

xlite-P

ADC filter

The step: go to the HARDWARE 6/7

4. FW Version Query

VERSION

FW : opentx-xlites

VERS : 2.3.0 (5d849ecc)

DATE : 2019-04-17 00:09:08

EEPROM : 219

7/7

[Modules / RX version]

[EEPROM backup]

[Factory reset]

The step: go to the VERSION 7/7

5. Smart Share™ function

You can share the bound receivers with other radio WITH ACCESS protocol.

The step: Go to the [RX6R], to select [share] in the radio A, then on radio B, select [bind] to finish the bind process.

Then the receiver of radio A will be shared to radio B. If you want to end the share, bind the receiver with radio A again.

SETUP

Module [Reg] [Rn9]

Options [Sat]

Receiver1 [RX6R]

Receiver2 [Bind]

Receiver3 [Bind]

External RF

Mode OFF

2/11

Bind

Options

Share

Delete

Reset

6. Supports motion sensing control

CHOOSE SETUP

Strength

30%

Gyro

0°

Max

0°

Offset

0°

Contrast

0°

Alarms

6.6V

4/64

CH1 100%Thr

CH2 100%ail

CH3 100%Ele

CH4 100%Rud

5/11

CH5

100%Cur

The step: go to the RADIO SETUP 1/7, you can adjust parameter.

The step: go to the MIXER 5/11, you can set the function.

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Model Setup for Taranis X-Lite S/Pro Internal RF Module

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ModeACCESS

Ch. RangeCH1-16

RxNum01

FailsafeNot set

Module[Reg][Rng]

Options[Set]

Receiver1[Bind]

Receiver2[Bind]

Receiver3[Bind]

External RF

2/12

ModeACCESS

Ch. RangeCH1-16

RxNum01

FailsafeNot set

Module[Reg][Rng]

Options[Set]

Receiver1[Bind]

Receiver2[Bind]

Receiver3[Bind]

External RF

2/12

ModeACCESS

Ch. RangeCH1-16

RxNum01

FailsafeNot set

Module[Reg][Rng]

Options[Set]

Receiver1[Bind]

Receiver2[Bind]

Receiver3[Bind]

External RF

Enter the MODEL SETUP menu.

① Note:

After the mode was set, Options [set] is required to select the external or internal antenna. Default is internal antenna.

Step 1: Set the Mode for Taranis X-Lite S/Pro Internal RF.

Go to the MODEL SETUP menu, and select the Internal RF, select [mode] [ACCESS].

Step 2: Set the Channel Range

The Internal RF module of X-Lite S/Pro supports up to 24 channels. The channel range is configurable, and needs to be confirmed before use.

Step 3: Set the Receiver Number

When you create a new model, the system will assign you a receiver number automatically, but this can be easily changed. The range of the receiver number is 00-63, with the default number being 01 (use 00 is not recommended). Once the receiver is set to desired number and is bound to the X-Lite S/Pro, the bind procedure will not need to be repeated unless the receiver number is changed. In this case, either set the receiver number to the previous one or repeat the bind procedure.

Step 4: Registration

In ACCESS, select the Module [Reg] into Registration status. Then Press the F/S button and power on your receiver, and select the "RX Name XX" and [ENTER] to complete the Registration process then power down the receiver.

2/11

FailsafeNot set

Module[Reg][Rng]

Options[Set]

Receiver1[Bind]

Receiver2[Bind]

Receiver3[Bind]

External RF

2/11

FailsafeNnt. set.

Reg. IDqZzzRz9D

UID2

Rx NameRX6R

[ENTER][EXIT]

External RF

2/11

Internal RF

Registration ok

[OK]

①Note:

If two or three receivers are used at the same time, the UID should be set to different values.

Step 5: Automatic binding (Smart Match™)

Move the cursor to Receiver1 [Bind], and select it , power your receiver, select the RX, and complete the process, the system will confirm "Bind successful". (You do not need to press the "F/S" button in ACCESS to Bind. Refer to the receivers manual for details)

2/11

FailsafeNot set

Module[Reg][Rng]

Options[Set]

Receiver1[Bind]

Receiver2[Bind]

Receiver3[Bind]

External RF

2/11

FailsafeNot set

Select RX...

RX6R

Receiver2[Bind]

Receiver3[Bind]

External RF

2/11

FailsafeNot set

Bind successful

[OK]

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Step 6: Set Failsafe mode

There are 4 failsafe modes: No pulse, Hold, Custom and receiver.
No Pulse: on loss of signal the receiver produces no pulses on any channel. To use this type, select it in the menu and wait 9 seconds for the failsafe to take effect.

Hold: the receiver continues to output the last positions before signal was lost. To use this type, select it in the menu and wait 9 seconds for the failsafe to take effect.

Custom: pre-set to required positions on lost signal. Move the cursor to "Set" and press the center of Multi-function joystick, and you can see FAILSAFE SETTING screen below.
Move the cursor to the channel you want to set failsafe on, and press the center of Multi-function joystick.
When moving the corresponding sticks or switches, you will see the channel bar moving. Move the channel bar to the place you want for failsafe and long press the center of Multi-function joystick to finish the setting. Wait 9 seconds before failsafe takes effect.

Receiver: set the failsafe on the receiver (see receiver instructions) in ACCESS mode, select it in the menu and wait 9 seconds for the failsafe to take effect.

Step 7: Range

Range refers to Taranis X-Lite S/Pro range check mode. A pre-flight range check should be done before each flying session. Move the cursor to [Rng] and press the center of Multi-function Joystick. In range check mode, the effective distance will be decreased to 1/30. Press the center of Multi-function joystick or EXIT to exit.

FCC

This equipment has been tested and found to comply with the limits for a Class B digital device,pursuant to part 15 of the FCC Rules

CE

The product may be used freely in these countries: Germany, UK, Italy, Spain, Belgium, Netherlands, Portugal, Greece, Ireland, Denmark, Luxembourg, Austria, Finland, Sweden, Norway, France and Iceland.

FLYING SAFETY

⚠ Warning:

To ensure the safety of yourself and others, please observe the following precautions.

① Have regular maintenance performed.

Although your X-Lite S/Pro protects the model memories with non-volatile EEPROM memory (which does not require periodic replacement) and of a battery, it still should have regular check-ups for wear and tear. We recommend sending your system to your FrSky Service Center annually during your non-flying-season for a complete check-up and service.

Battery

① Using a fully charged battery (DC 6.0~8.4V). A low battery will soon die, causing loss of control and a crash. When you begin your flying session, reset your transmitter's built-in timer, and during the session pay attention to the duration of usage. Also, if your model used a separate receiver battery, make sure it is fully charged before each flying session.

① Stop flying long before your batteries become over discharged. Do not rely on your radio's low battery warning systems, intended only as a precaution, to tell you when to recharge. Always check your transmitter and receiver batteries prior to each flight.

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Where to Fly

We recommend that you fly at a recognized model airplane flying field. You can find model clubs and fields by asking your nearest hobby dealer.

① Always pay particular attention to the flying field's rules,

as well as the presence and location of spectators, the wind direction, and any obstacles on the field. Be very careful flying in areas near power lines, tall buildings, or communication facilities as there may be radio interference in their vicinity.

At the flying field

① To prevent possible damage to your radio gear, turn the power switches on and off in the proper sequence:

1.Pull throttle stick to idle position, or otherwise disarm your motor/engine.

2.Turn on the transmitter power and allow your transmitter to reach its home screen.

3.Confirm the proper model memory has been selected.

4.Turn on your receiver power.

5.Test all controls. If a servo operates abnormally, don't attempt to fly until you determine the cause of the problem.

6.Start your engine.

7.Complete a full range check.

8.After flying, bring the throttle stick to idle position, engage any kill switches or otherwise disarm your motor/engine.

If you do not turn on your system on and off in this order, you may damage your servos or control surfaces, flood your engine, or in the case of electric-powered or gasoline-powered models, the engine may unexpectedly turn on and cause a severe injury.

① Make sure your transmitter can't tip it over.

If it is knocked over, the throttle stick may be accidentally moved, causing the engine to speed up. Also, damage to your transmitter may occur.

① In order to maintain complete control of your aircraft it is important that it remains visible at all times. Flying behind large objects such as buildings, grain bins, etc. must be avoided. Doing so may interrupt the radio frequency link to the model, resulting in loss of control.

⚠ Do not grasp the transmitter's antenna during flight. Doing so may degrade the quality of the radio frequency transmission and could result in loss of control.

⚠ As with all radio frequency transmissions, the strongest area of signal transmission is from the sides of the transmitter's antenna. As such, the antenna should not be pointed directly at the model. If your flying style creates this situation, easily move the antenna to correct this situation

① Before taxiing, be sure to extend the transmitter antenna to its full length.

A collapsed antenna will reduce your flying range and cause a loss of control. It is a good idea to avoid pointing the transmitter antenna directly at the model, since the signal is weakest in that direction.

① Don't fly in the rain!

Water or moisture may enter the transmitter through the antenna or stick openings and cause erratic operation or loss of control. If you must fly in wet weather during a contest, be sure to cover your transmitter with a plastic bag or waterproof barrier. Never fly if lightning is expected.

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Secure Digital (SD) Memory Card Handling Instructions

The Micro SD card (not provided with X-Lite S/Pro) can store various files, such as model data, sound files, pictures and text. The card is locked when it is pushed in all the way in. To remove the card, push in on the card again, it will pop out allowing you to remove it.

⚠ Warning

① Be sure to power off the transmitter before inserting or removing a Micro SD card.

⚠ As the Micro SD card is a precision device, do not use excessive force when inserting.

① If model data generated by a transmitter with a new software version is copied to one with the older software, the transmitter may not operate correctly. Before copying the model data, update the destination transmitter to the new software version.

① Do not expose the Micro SD card to dirt, moisture, water or fluids of any kind.

⚠ Never remove the Micro SD card or turn off power while entering data.

⚠ Never store the Micro SD card where it may be subject to strong static electricity or magnetic fields.

⚠ Do not expose the Micro SD card to direct sunlight, excessive humidity or corrosive environments.

⚠ Be certain to insert the Micro SD card in the correct direction.

Read data from a PC

Voice and image files edited by a PC can be transferred onto the Micro SD card and used on your X-Lite S/Pro transmitter. Equipment for reading and writing Micro SD card is available at most electronics stores.

Stored data

The life of the Micro SD card is limited due to the use of Flash memory. If you have a problem saving or reading data after a long period of use you may need to purchase a new Micro SD card.

• We are not responsible for, and can not compensate for any failure to the data stored in the memory card for any reason. Be sure to keep a backup of your models and data on your Micro SD card.

• Taranis X-Lite S/Pro and Micro SD cards use non-volatile memory devices so that the data stored is retained, even without a backup battery. Nevertheless, it is good practice to backup the data in the transmitter to the Micro SD card.

• The clock for the transmitter does depend on the internal battery, which may need to be replaced occasionally.

Updates

FrSky is continuously adding features and improvements to our radio systems. Updating (via USB Port or the Micro SD card) is easy and free. To get the most from your new transmitter, please check the download section of the FrSky website for the latest update firmware and guide for adjusting your sticks. (www.frsky-rc.com)

More information about OpenTX can be found on: http://www.open-tx.org.

FrSky is continuously adding features and improvements to our products. To get the most from your product, please check the download section of the FrSky website www.frsky-rc.com for the latest update firmware and manuals

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