T16

16-Channel Digital Proportional R/C System

User Manual

ATTENTION

- **Please read this manual carefully before use.**
- **Please keep this manual in a safe place after reading.**

Warranty Card

- **A warranty card is included in the kit. Please stamp the model store signature and purchase date at the time of purchase.**

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Introduction

Thank you for purchasing the Jumper® JumperTX-2.4GHz System T16 Remote Control. The system is versatile and can be used by beginners and professionals. Please read this instruction manual carefully before use to ensure correct and safe use. Due to version upgrades, there have been changes. The information contained in this manual is subject to change without notice.

This T16 transmitter is suitable for all types of models of fixed wings, gliders, helicopters and multi-rotors. The model type can be selected according to the body used, and various mixing functions can be used.

Relevant precautions for use, export, etc.:

1. This product can be used in unmanned aerial vehicles. It does not apply to any application other than unmanned aerial vehicle control.

2. Precautions when exporting

A. This product is subject to regulations in to the country of manufacture. Users or companies importing This product must ensure the product meets regulatory requirements in their country.

B. This product may have restrictions on applications and use specific to y our region. Please ensure you comply with local regulations when operating.

C. This product is intended only for user with RC Models.

Flight Safety：

We recommend that you fly to a dedicated model airspace, paying special attention to the rules of the arena, as well as the location, wind direction and any obstacles on the field. Be very careful in areas flying around wires, high-rise buildings or communication facilities, as nearby may there is radio interference.

Precautions:

The contents of this manual are subject to change without notice. If there are any errors or omissions in this manual, please contact us, we will correct them as soon as possible, and indicate your corrections.

Precautions for ensuring safe use:

Please observe the following precautions to ensure that the product is always used safely. The meaning of special tags:

From a safety point of view, the parts marked with the following marks in this manual require special attention.

⚠ WARNING - Incorrect use can result in damage of the device

⚠ DANGER - Improper use of this device can result in personal injury or death to users or other people.

⚠ WARNING - Check the device is in correct working order before use.

⃠ = Prohibited ❗ = Pay Attention

Warning: Keep away from children at all times.

Flight considerations: caveat

⃠

Never hold the antenna of the transmitter during flight. Will cause the transmitter output signal to decay to a very low level

❗

For safety please keep the model flying within a visible range

⃠

Never fly in ranging mode

In Range Testing mode the transmission

Distance is very short. This mode is for testing only not for normal flight.

⃠

Do not place other transmitting devices such as mobile phones or wifi devices close to your radio transmitter while in use. Such devices may cause interference.

⃠

During flight keep the antenna pointed upright to ensure the best radio link with your model.

⃠

It is absolutely forbidden to fly on rainy days, windy days, and nights.

■ Water inside your device may cause to failure of the device and lose of control of the model.

Poor visibility can easily cause the loss of control of the model.

⃠

Do not turn of the power to the radio while a battery is connected or a engine is running

■ Falling to correctly shut down the model before turning off the radio may lead to damage or injury.

⃠

Take precaution when the using a lanyard with this device. When radios are hanging from the user neck it is possible to move the throttle stick causing motor to activate or engines to throttle up.

⃠

Do not operate a model if you feel tired, unwell, under the influence of legal or illicit drugs or alcohol or in poor health.

⃠

Do not operate remove control craft in the following situations.

■ If others a operating RC craft near by

■ In cities or populated areas.

■Near airports or hospitals or any take of and landing point or real aircraft.

■In places prohibited by law to operate RC craft.

⃠

Do not stand the radio upright when setting up your model

■ The radio may fall over causing unwanted switches

⃠

Do not touch engines or electric motors after use. These items may be hot and cause burns or injuries.

❗

Keep the model in sight while flying. Do not behind trees or buildings. Doing so may cause loss of signal and loss of model or damage to property or people.

❗

Ensure you have setup fail safe with your receiver. Set the throttle to lowest position in failsafe situation. Refer to the manual of your receiver for fail safe.

❗

Ensure to return the model screen to the main page.

■ Leaving the radio open in a menu screen while flying may cause unwanted changes of settings.

❗

Be sure to check the remaining battery power of the transmitter receiver before flying.

Too little remaining power can cause a crash.

Do not use old or damaged batteries

⃠

Do not allow the device to get wet or operate the device in wet conditions.

⃠

Do not dispose of batteries in fire

❗

Ensure to check all flight control surfaces working Correctly before flight.

■Any control surfaces jammed or not working Correctly may cause crash.

❗

Ensure the throttle is in the lowest position and all Control switches are in the correct position before Powering the models receiver.

❗

When making adjustments on the controller shut the models engine first. Ensure safety is taken not to start the throttle and cause unexpected rotation of engine or motor.

⃠

Do not leave device or batteries in hot locations such as cars or direct sunlight.

⃠

Do not cover batteries while charging. Do not leave the battery in direct sunlight, in a hot weather

■ Charging exceeding the specified value may cause the battery to heat up, rupture, leak, or catch fire. Waiting for danger. Do not charge more than 1C when charging quickly.

■ Do not charge in the car while the vehicle is in motion. Vibration, etc. will cause possible problems.

Make sure the power plug is fully inserted into the socket hole

Be sure to use the charger according to the specified power supply voltage.

⚠ WARNING

Batteries can get hot during charge, Be careful when charging batteries.

If batteries or charger becomes damaged do not continue to use.

The battery and charger should be kept in a place that is not accessible to infants and young children. .
It may cause injury such as electric shock.

⚠ WARNING

Do not use batteries that are not suitable for this device.

Follow manufacture guide lines for batteries and chargers When ever using a charging device.

Precautions when using an SD card

⚠ WARNING

⃠

Do not modify or damage the SD card
Do not use excessive force or bend SD Card

⃠

Do not allow the SD card to become wet or exposed to Sunlight.

⚠ WARNING

❗

■ SD cards are electronic products, so be careful to prevent static electricity. It may cause malfunction due to malfunction.

⃠

Do not use it on radios, TVs, stereos, etc.
Use near devices where interference occurs.

⃠

■ May cause an action error.

Do not store the SD card in the following locations.

High temperature and humidity.

A place with a large temperature difference.

A place with a lot of static electricity and dust.

Places subject to vibration and shock.

A place with magnetic properties around the speaker.

⃠

Keep the remote-control SD card slot clean to prevent foreign matter from entering。

■ A dirty slot may cause malfunction

⃠

Do not drop or shock the device during reading or writing process.

■ It may cause damage or loss of data

● About SD card
The data recorded on the SD card, regardless of the cause of the damage

Precautions

WARNING

⃠

Do not store the remote control in the following locations.

・ Extremely hot (40°C [104 °F] or higher) or extremely cold (-10°C [14 °F] or less local.

・The place where the sun shines directly.

・A place with heavy moisture.

・A place where there is a lot of vibration.

・A place with a lot of dust.

・Places with steam or heat.

When not in use for a long time, remove the battery from the remote control at 0 °C.

Store in a dry environment at 30 ° C [32 °F to 86 °F].

■ If it is not taken out, it may cause the battery to age and leak.

Other considerations

⚠ WARNING

⃠

Do not touch the plastic part of the equipment directly with fuel, waste oil, exhaust, etc.

❗

Clean the device regularly to ensure good operation.

Before use

Features:

2.4G multi-function 16 channel transmitter (T16)
The T16 uses a 2.4 GHz two-way communication system. The data transmitted from the receiver can be received and confirmed by the remote controller.

Color LCD screen
With a 4.3-inch large color LCD screen, the operation at the time of setting is greatly improved.

S.BUS system
The receiver supports the S.BUS interface and can be used with the T16 up to 16 channels. Also suitable for the output interface of the conventional system。

Select model type function
The T16 remote control is suitable for four types of fixed-wing aircraft, gliders, helicopters and multi-rotors. The wing type of the main wing/tail can be selected from the model types of fixed-wing aircraft and gliders, and various swashplate types can be selected from helicopter model types.

Optional lithium battery
The T16 remote uses two 18650 lithium batteries, or 2S lipo.

SD card can be used (default factory standard)
Model data can be saved via SD card.

Edit button
With 6 editing buttons, you can return to the main interface with one button during the operation. Make setting up easier.

Vibration function
Various alarms and timer reminders, in addition to the optional auxiliary tone, you can also select the remote-control vibration function to notify.

Voice function
Allows the system to provide the data returned by the receiver in an audible manner.

Package content

Your T16 includes the following components:

(Depending on the package, the accompanying content will vary.)

- T16 remote control
- Receiver
- 18650 lithium battery tray
- Orange lanyard
- User's manual
- Only Chinese formal sales channels are equipped with this Chinese manual.

T16 Remote Control

Remote control frequency: 2.4GHz

System: JumperTX mixed control + multi-protocol high frequency transmission

Power supply: 7.4VDC

Receiver

Protocol type: S-FHSS full range

Frsky full range

Flysky full range

DSM2/DSMX full range

WFLY full range

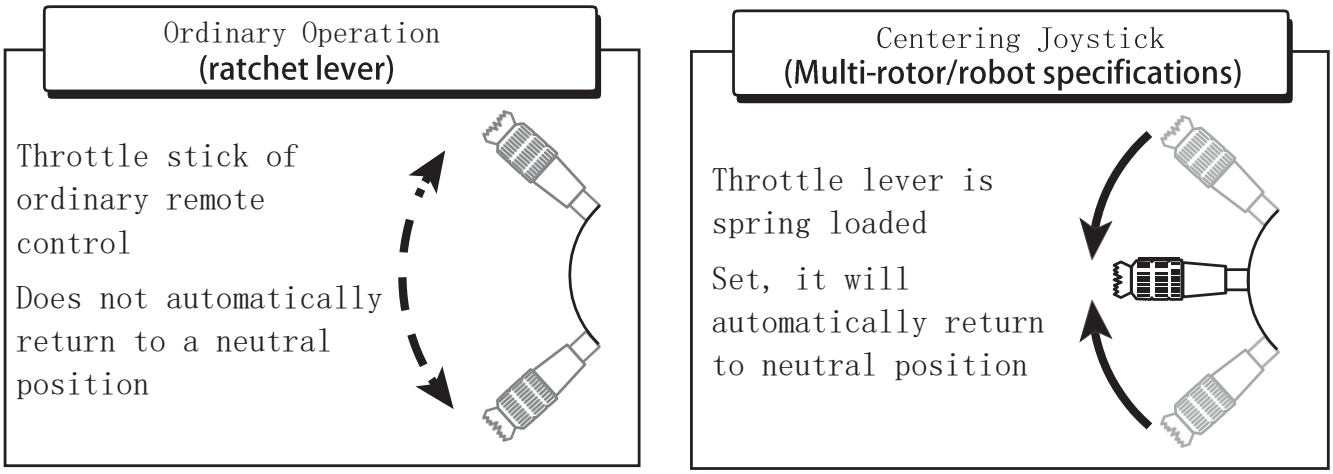
DEVO full range

Wei Li (XK), Hasuan, Sima (SYMA)

More protocols are constantly being updated, users can get the latest update software from the official website.。

Kit for multi-rotor/robot specifications

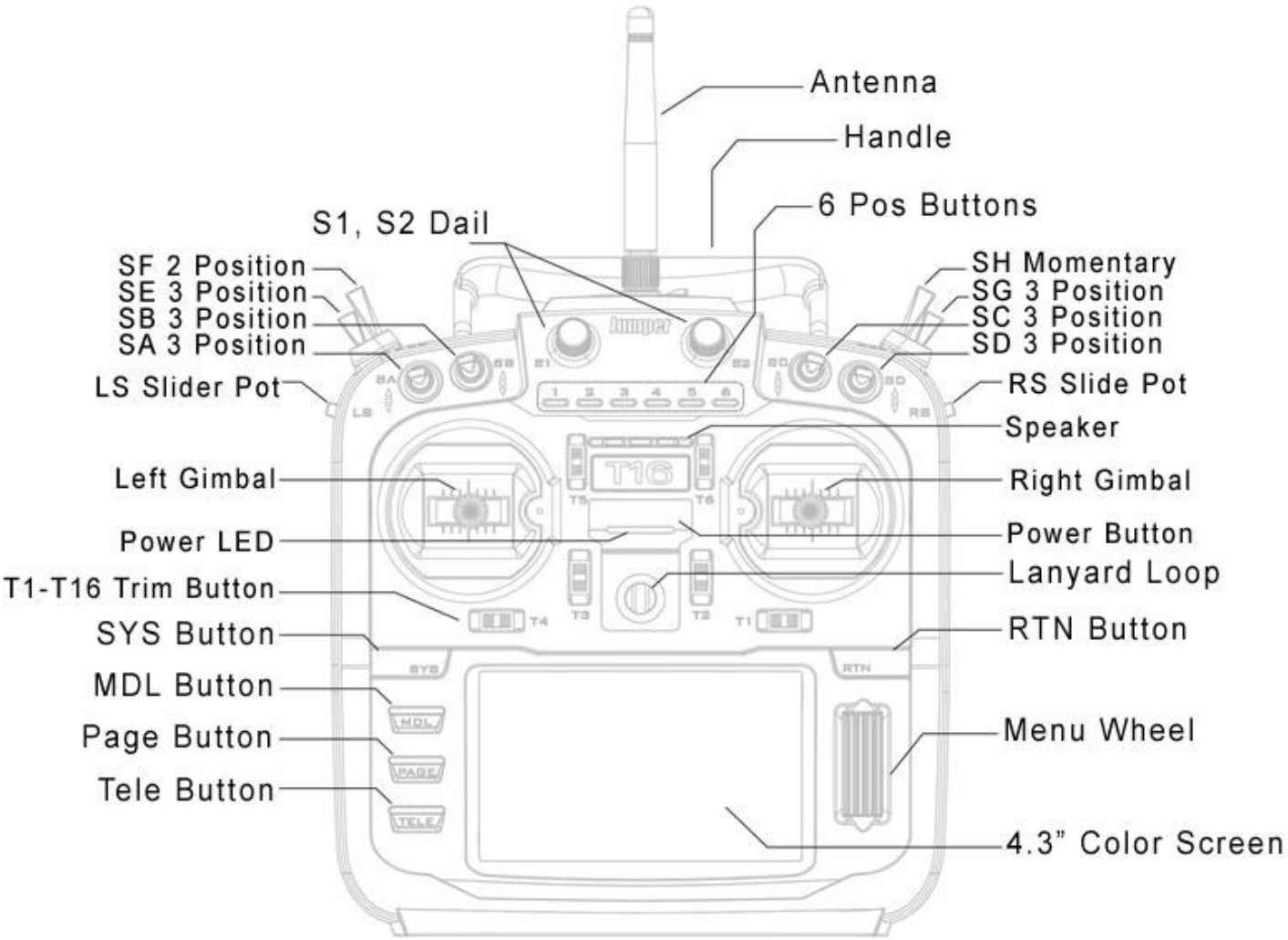
Throttle sticks operate differently



⚠ WARNING

RC fixed-wing aircraft and RC helicopters, as well as a part of multi-rotor aircraft, cannot use the throttle lever of the automatic return mode. When the finger is released, the engine and motor will enter the medium speed, so it is very dangerous.

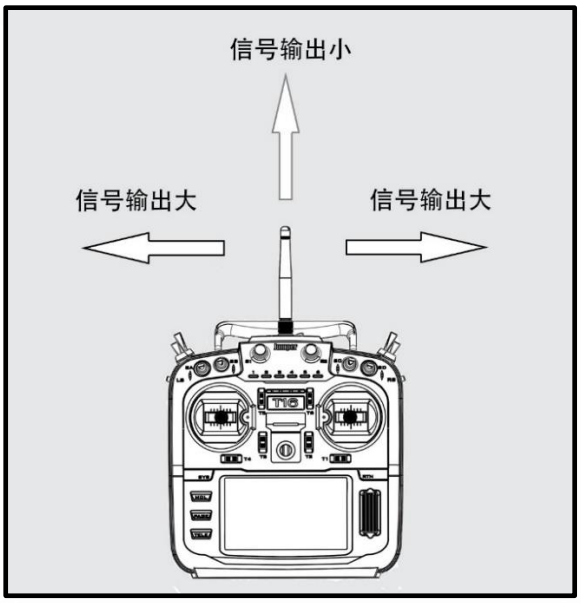
Components

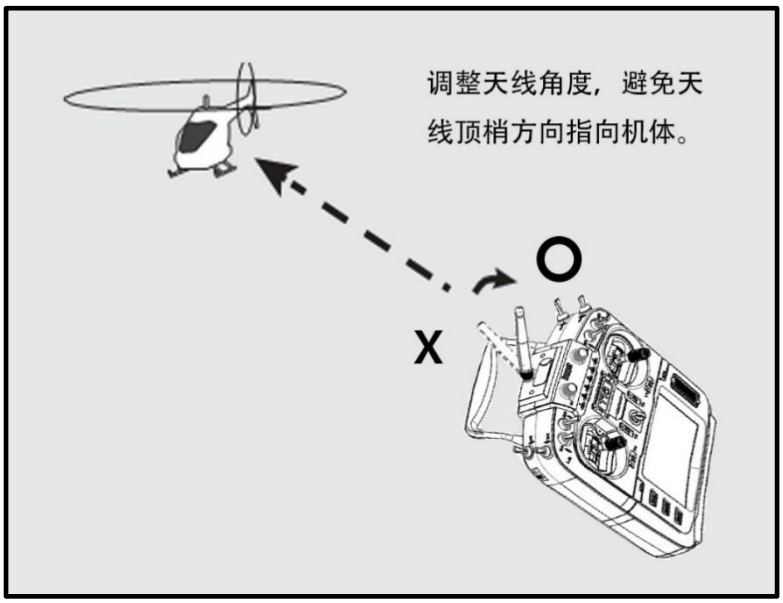


The LCD screen used in this manual may be upgraded according to the settings and version.

Direction of the antenna

The remote-control antenna has directivity. The signal strength is greatest in the horizontal direction. Therefore, please try not to let the antenna point in the direction of the body. The antenna can be rotated to adjust the angle. Please adjust the position of the antenna according to the operating habits.



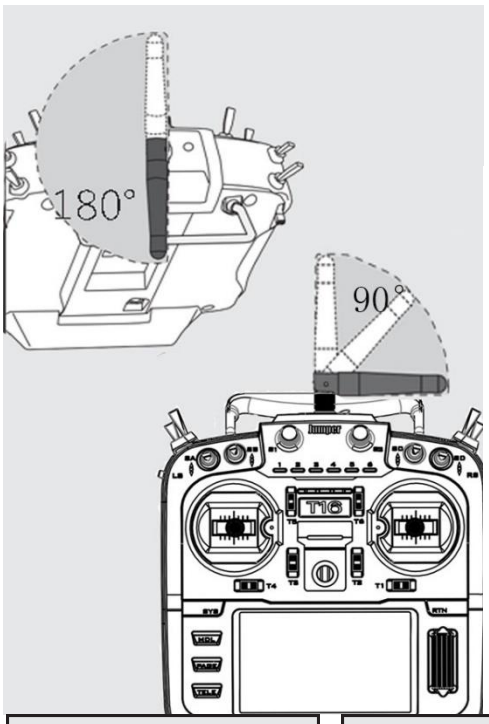


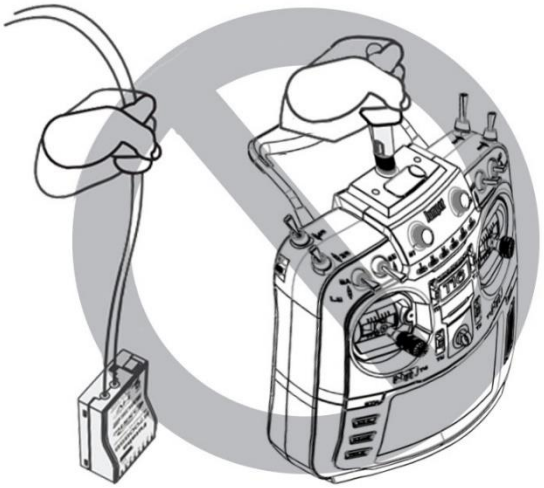
Antenna adjustment range

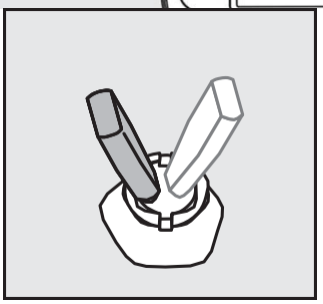
The horizontal rotation angle of the antenna is 360 degrees, vertical rotation. The angle range is 90 degrees. Please don't go beyond this range Turning, it will cause damage to the antenna.

Note
In flight, you must never hold the antenna or lead the metal. Electrical contact antenna ■ The signal output is lowered to make it unmanageable.
Please do not move the remote control or receiver with a portable antenna. Do not stretch the antenna. ■ The antenna may be broken, resulting in the danger of being unmanageable.

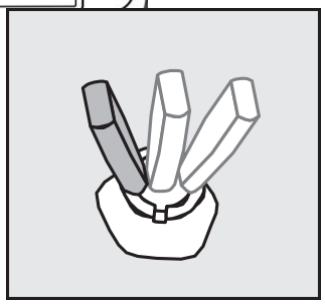
Switch configuration and type



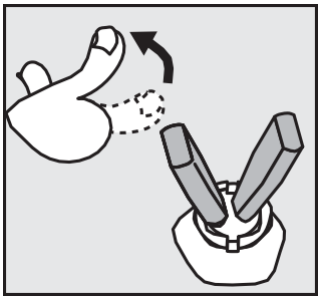




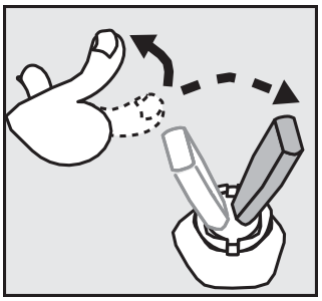
2 Position



3 Position



1 Position



Momentary

Knob operation

Digital fine-tuning operation

This transmitter is equipped with 6 trimmer switches.
Each time you touch the fine adjustment switch, the corresponding fine adjustment position will move according to the fixed span. However, if you keep pressing the fine adjustment switch, the movement speed of the fine adjustment position will increase, and a “beep” sound will be emitted to the boundary point.

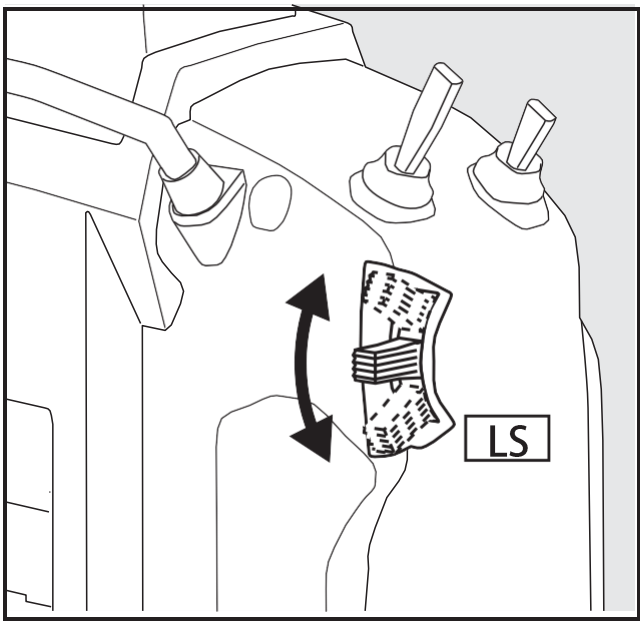
Knob operation

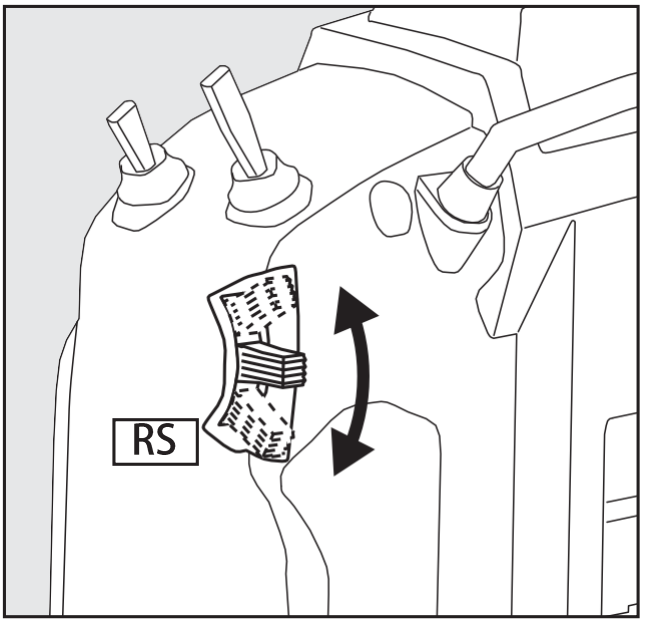
The volume S1and S2 knobs allow analog input.

*The T18SZ transmitter beeps when the volume knob reaches the center position.

*You can use each setting screen of the mixing functions to select volumes and define the direction of movement.

Slide Lever





S1 (Left), S2 (Right):

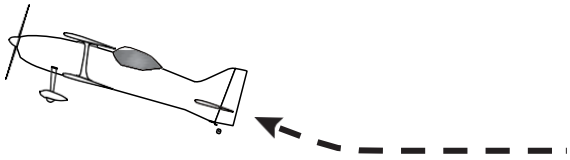
The Linear Slider S1and S2 offer analog input.

*The T18SZ transmitter beeps when the lever comes to the center.

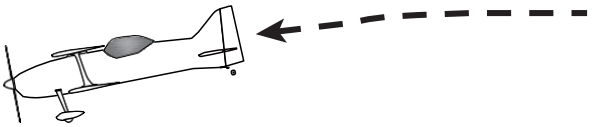
*You can select a slide lever and set the movement direction on the setting screen of mixing functions.

Example of operation of digital fine-tuning

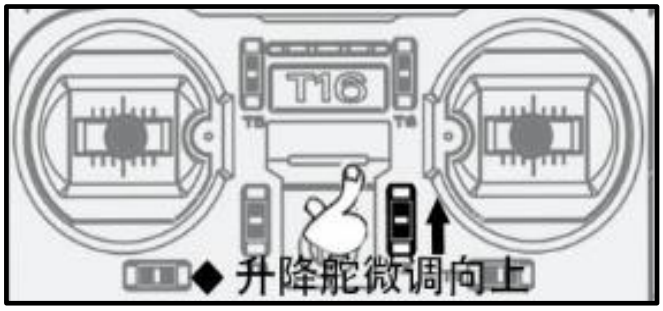
*Example using Mode2

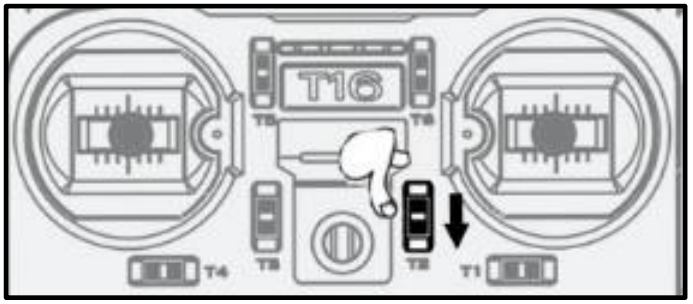


◆ Elevator and joystick in neutral position, aircraft out the situation of rising action.



◆ Elevator and joystick in neutral position, aircraft There is a decline.

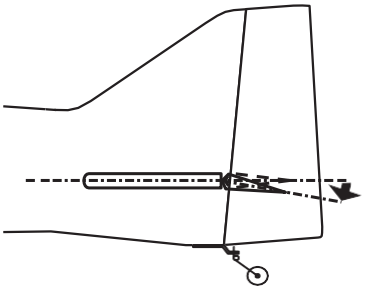




◆ Elevator fine-tuning down

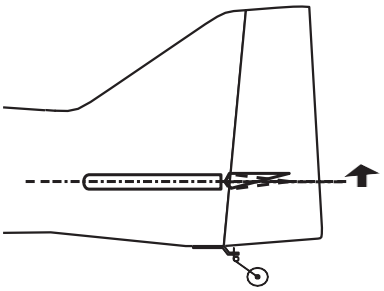
Elevator neutral position

Move slightly to the lower side



Elevator neutral position

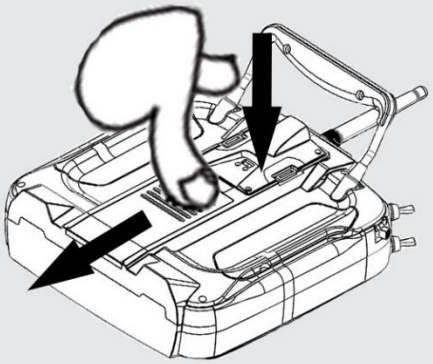
Move slightly to the upper side



◆ After several adjustments, the model will resume horizontal flight.

Battery installation and use

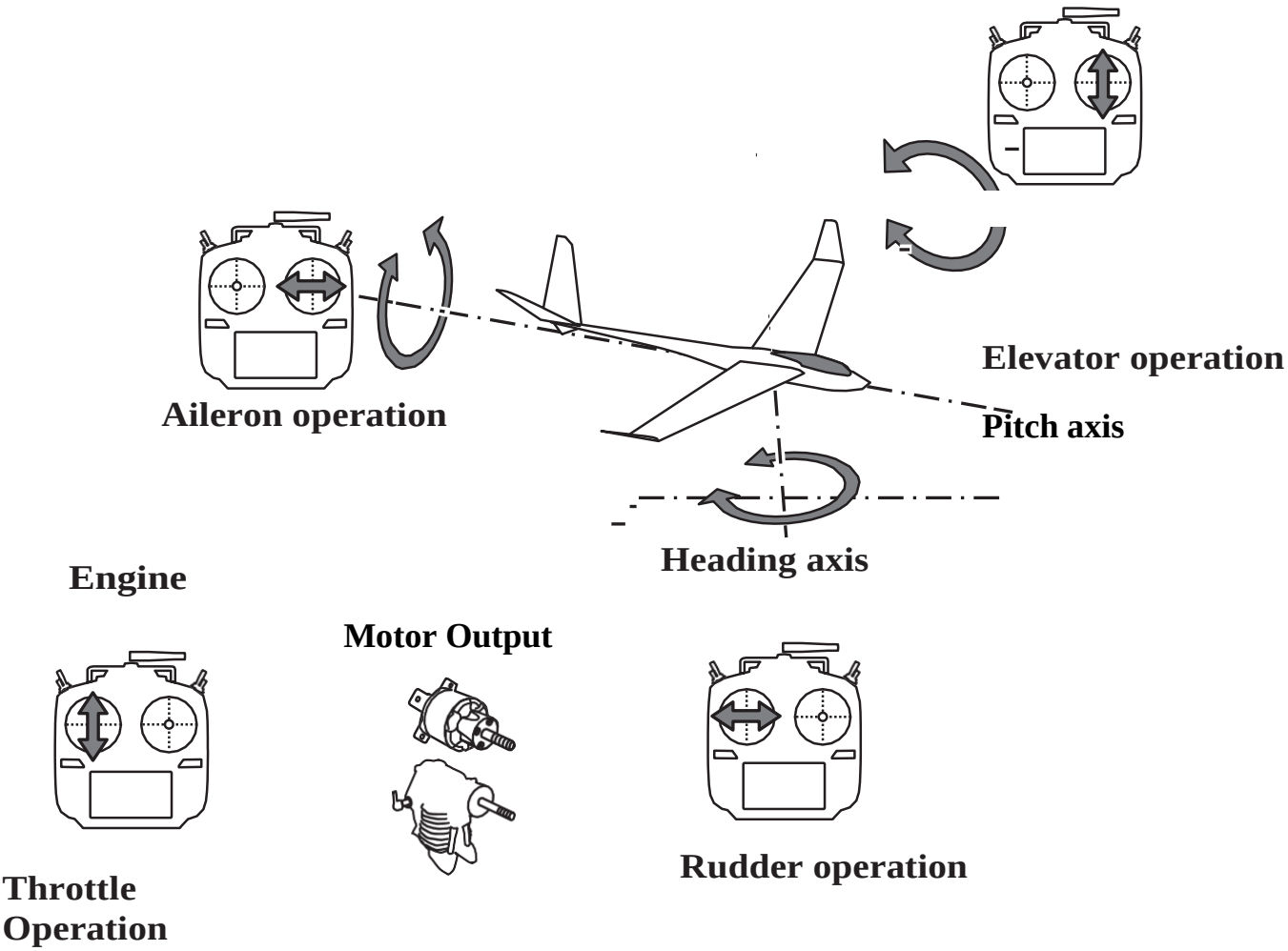
Installing/removing the FT2F2100B_V2



向下按并往外推

Joystick operation

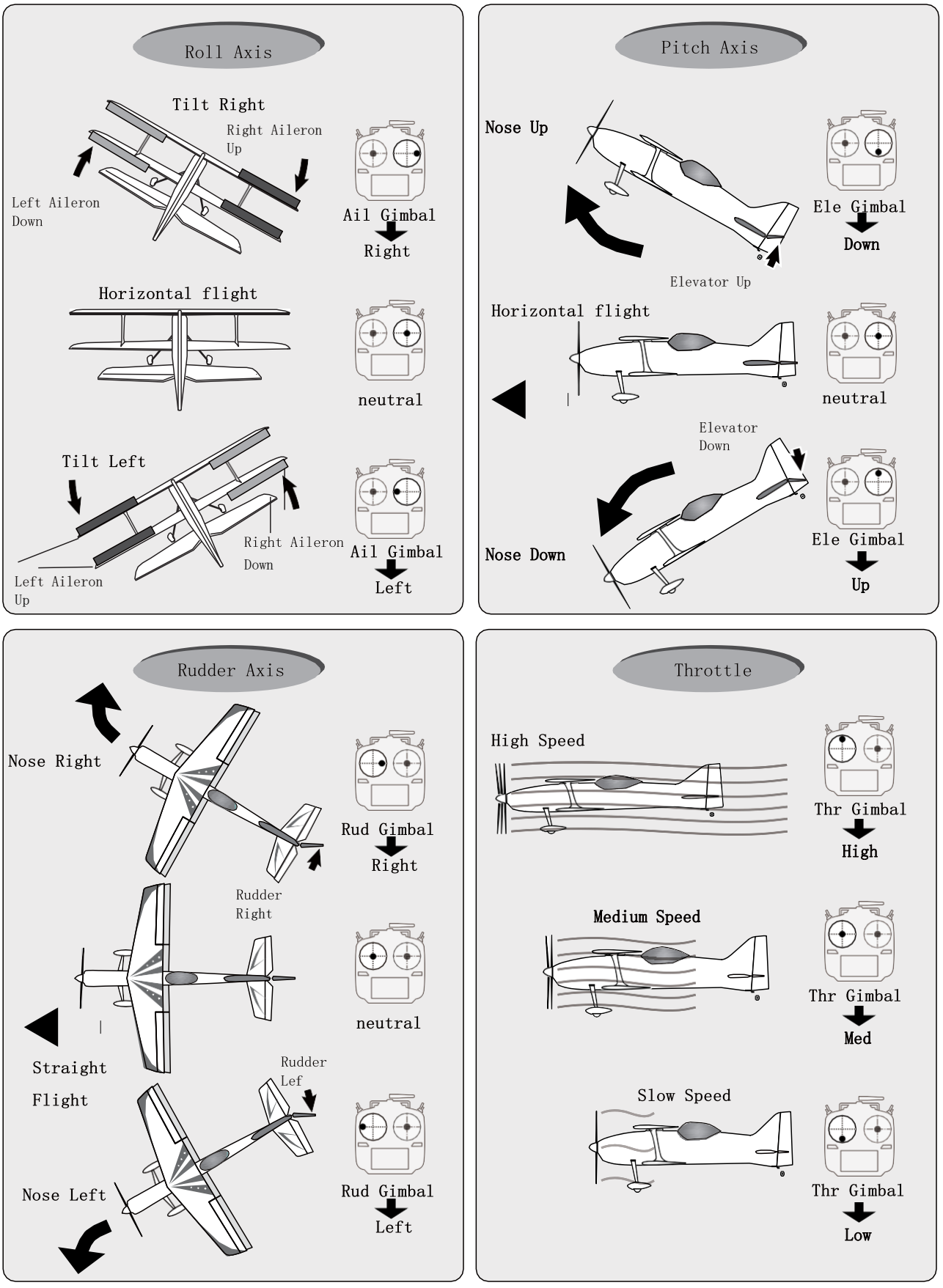
*Example using Mode2



Example of joystick operation: fixed wing example

* Example using Mode2

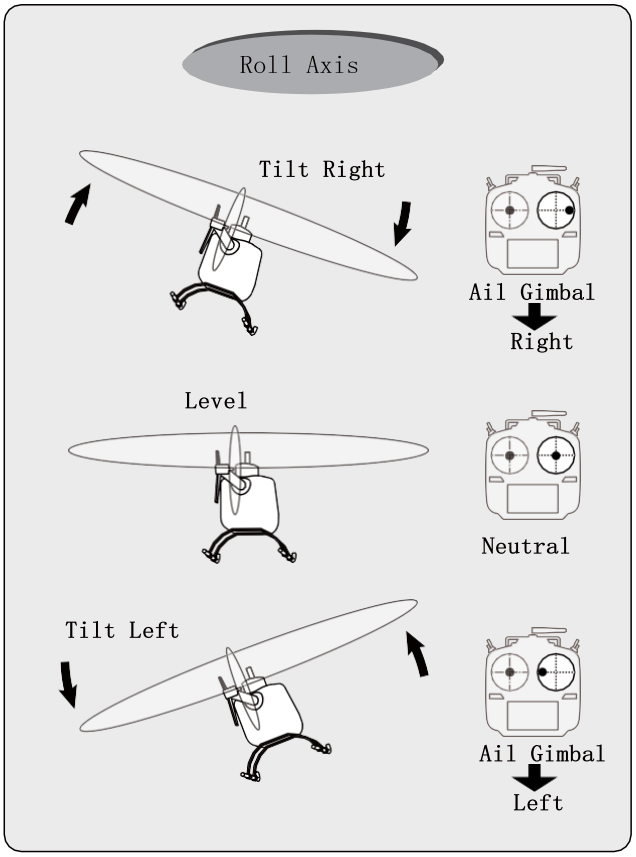
The method of operation may vary depending on the model.

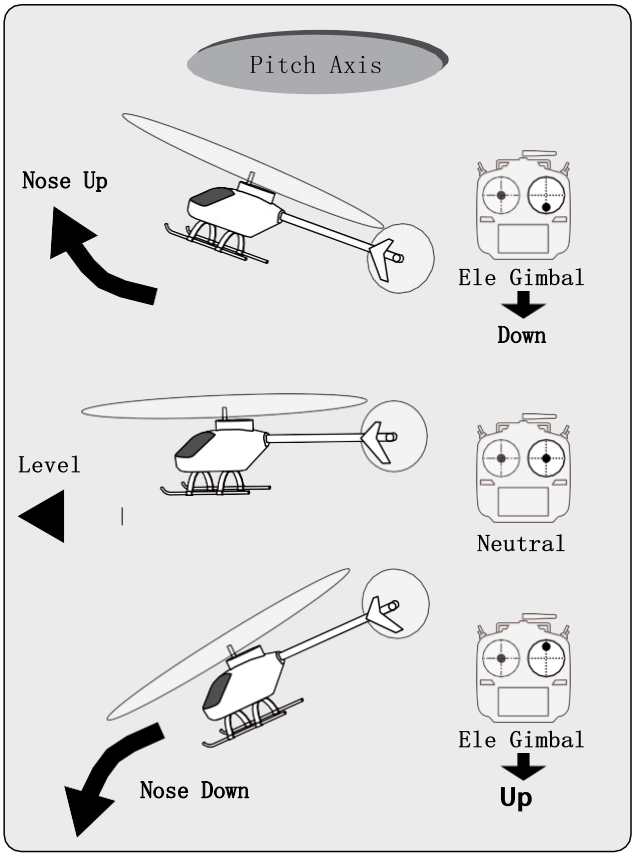


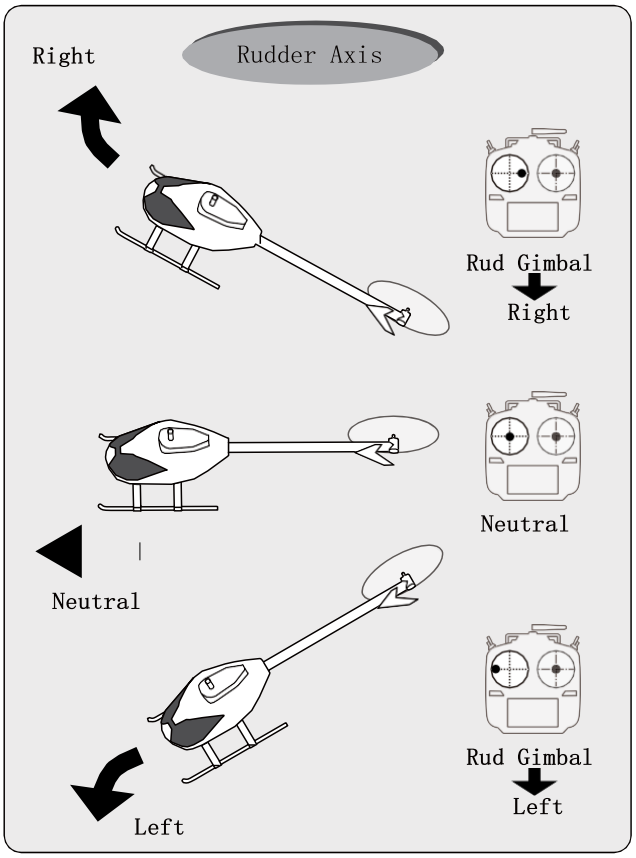
Example of joystick operation: helicopter example

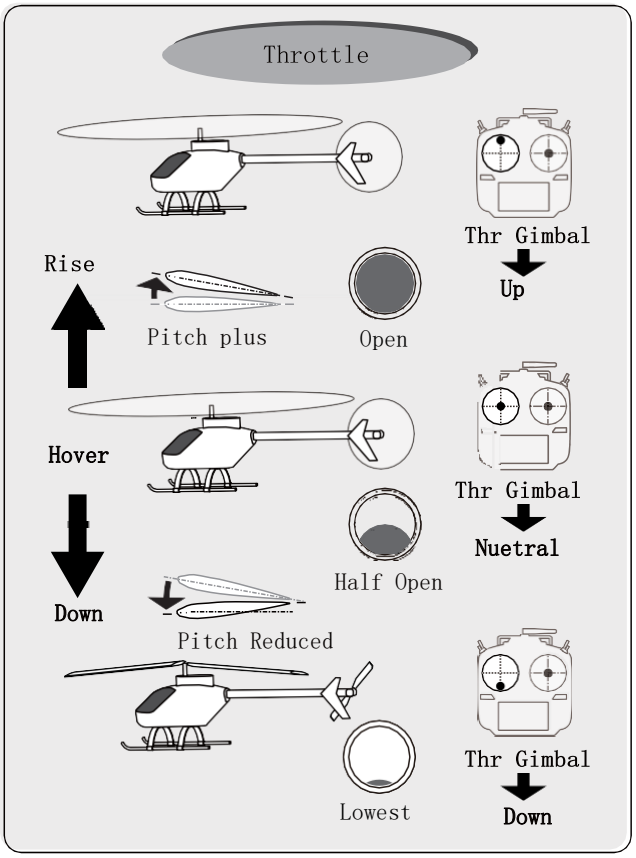
*Example using Mode2

The method of operation may vary depending on the model.





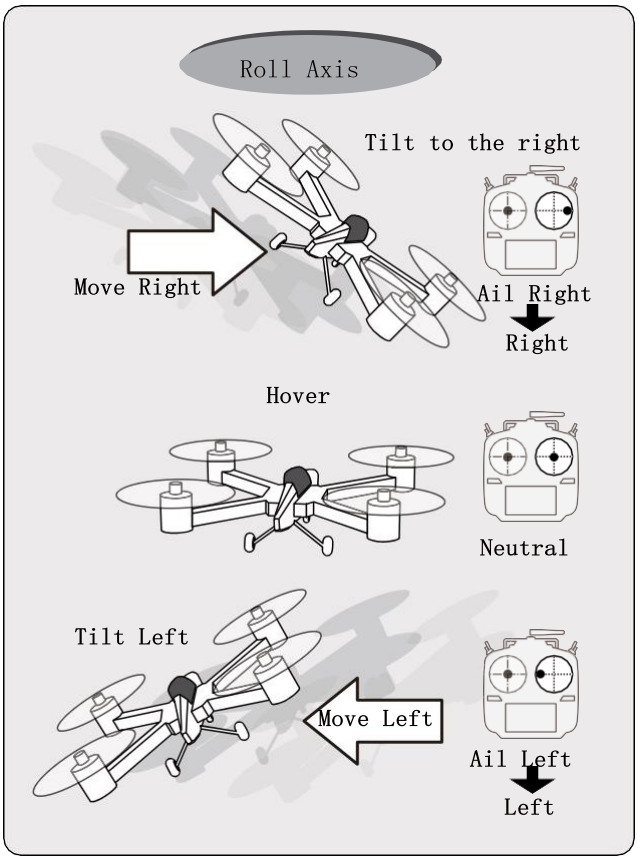


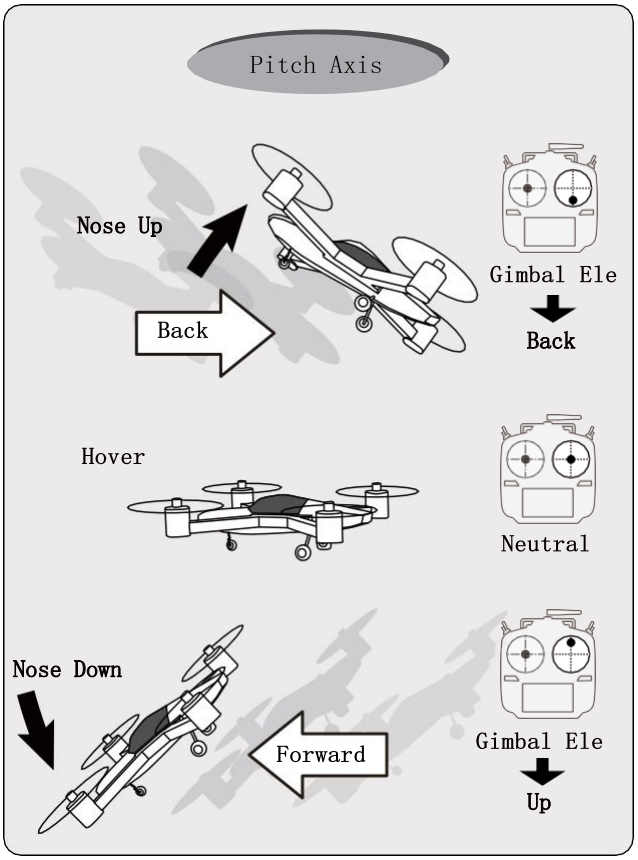


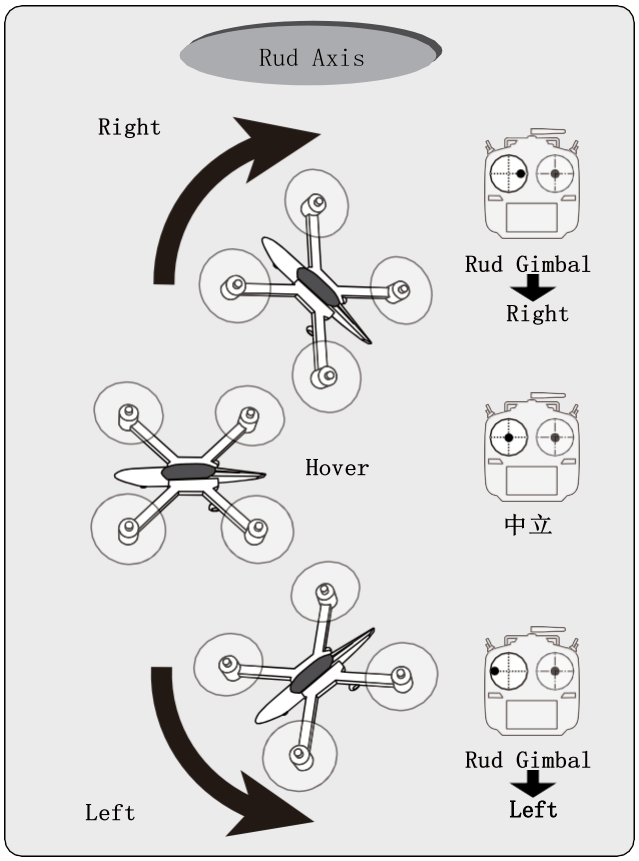
Example of joystick operation: multi-rotor example

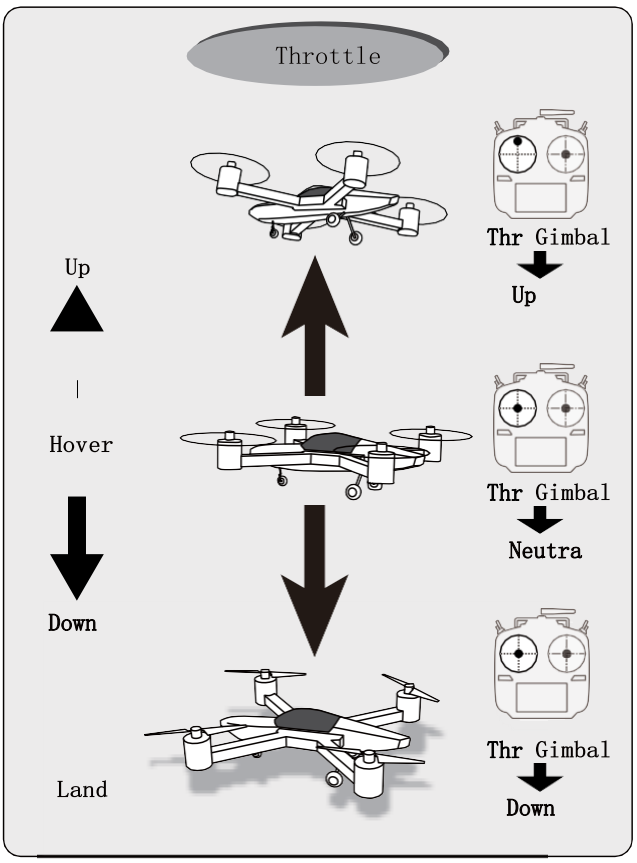
*Example of Mode2

The method of operation may vary depending on the model.



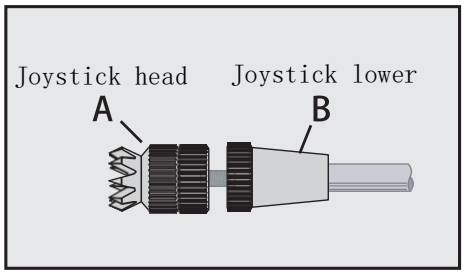






Joystick adjustment method

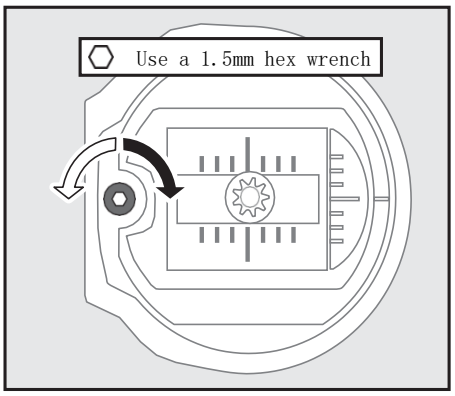
Length adjustment of the joystick head



The length of the joystick head can be adjusted

1. Fix the joystick head B and rotate the joystick head A counterclockwise to unlock
2. Move and hold the joystick head B in the direction you want to adjust, then rotate the joystick head A clockwise until it locks.

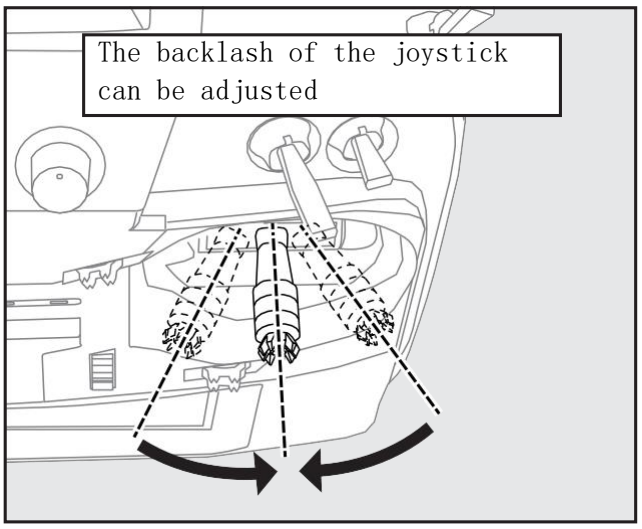
Angle adjustment of the joystick



The neutral angle of the joystick can be adjusted Slightly to the inside or outside.

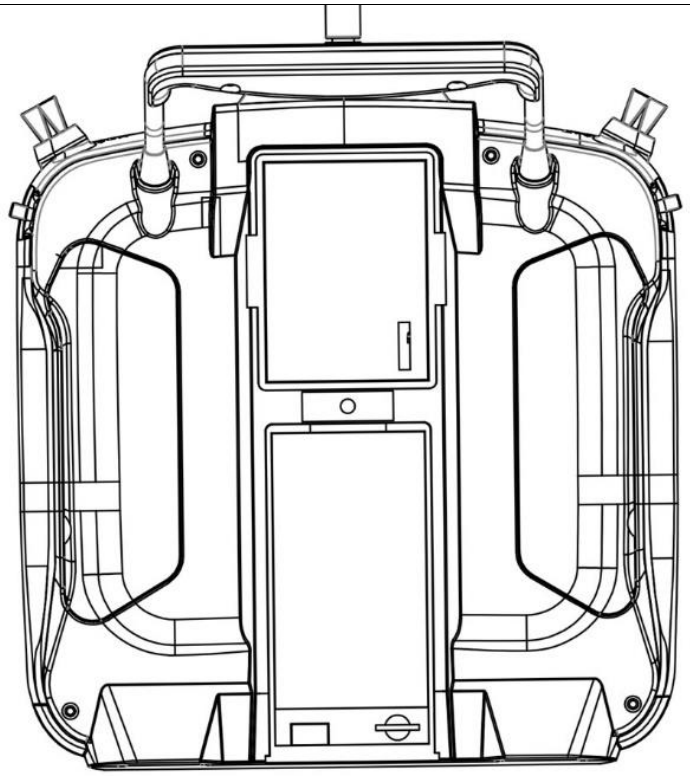
3.

Joy adjustment of the joystick



Adjustment of Throttle Stick (Ratchet System)

You can choose either airplane ratchet system or helicopter-touch.



1. Open the dust protection cap on the back of the transmitter that is covering the hole for throttle stick adjustment.
2. Use the attached 1.5mm hexagonal wrench (inside stylus) to turn the adjustment screw and set it as you prefer. Turning the screw clockwise increases the tension.

For airplanes: Adjust the screw on the left.

For helicopters: Adjust the screw on the right.

In changing the setting from airplane to helicopter (or heli to airplane);

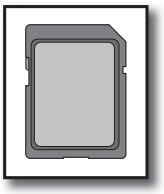
1. Turn the screw counter-clockwise until the throttle stick moves freely, and turn the screw clockwise to adjust it to the tension you prefer.

TF Card (secure digital memory card) (not included)

The T18SZ transmitter model data can be stored by using any commonly found SD card. When T18SZ transmitter update software is released, the software is updated using an SD card. The T18SZ is capable of using SD and SDHC cards (SD:32MB-2GB SDHC:4GB-32GB).

TF card reader/writer

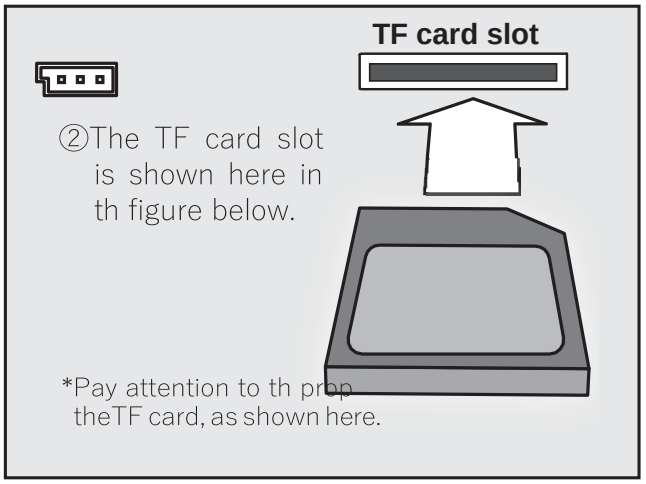
Saving model data and update files (released from Futaba) into the SD card, you can use those files on your T18SZ transmitter. Equipment for reading and writing SD cards is available at most electronics stores.



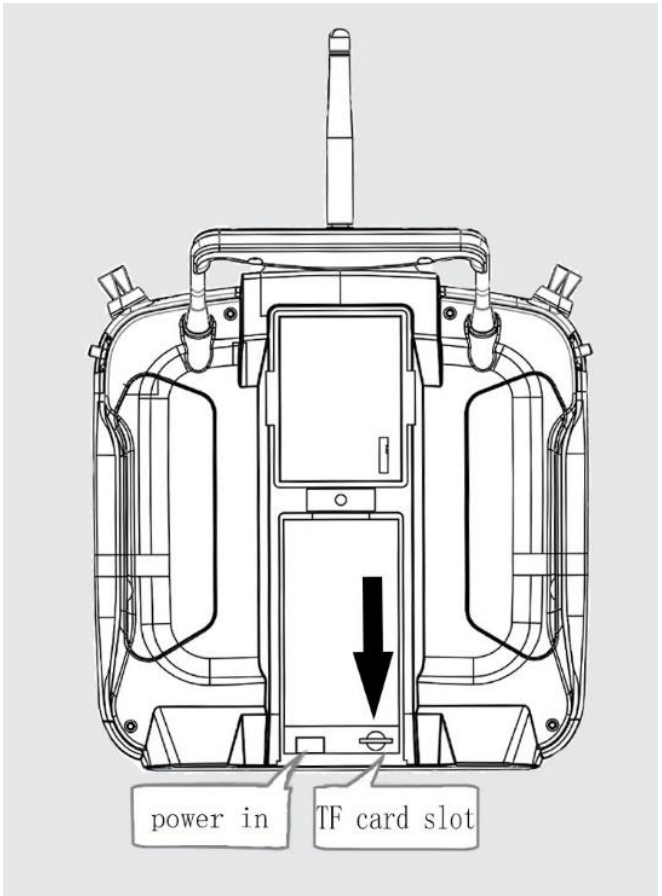
Stored data

When you have a problem of saving or reading data after a long period of use, please get a new SD card.

*We are not responsible for, and offer no compensation for, memory card data that fails or is damaged for any reason. Be sure to keep a backup of all important data stored in your SD card.



Inserting/removing the TF card



CAUTION

Be sure to turn off the power to the transmitter before inserting or removing the SD card.

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

-When an SD card is installed in the T18SZ transmitter, a folder called "Futaba" is created. Folders called "LOG" and "MODEL" are created in this folder. The "MODEL" folder stores the model data and the "LOG" folder stores the telemetry log data.

-The telemetry log data recorded on the SD card can be converted to CSV format by the telemeter log converter released on our home page. When copying or moving a log file, always select both .FLI and .FLD file.

< Before Use

Before Use

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. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Information

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.