指的是高级套件2的升级版本（Lite 1S飞控修改为Lite 1-2S飞控）

Components

1 × Meteor75 Micro FPV Quadcopter (LiteSilver Flight Controller V2)
1 × LiteRadio 2 Remote Control Radio Transmitter (Frsky D8 protocol)
1 × BETAFPV VR01 FPV Goggles

Box Contents
2 × 450mAh 1S Lipo Battery (BT2.0)
1 × BT2.0 Battery Charger and Voltage Tester
1 × USB Charging Cable
2 × Goggle Antennas
1 × Prop Removal Tool
4 × 40mm 3-Blade Prop（Replacement）
1 × Portable Storage Bag

Operation Manual

Preflight Checks

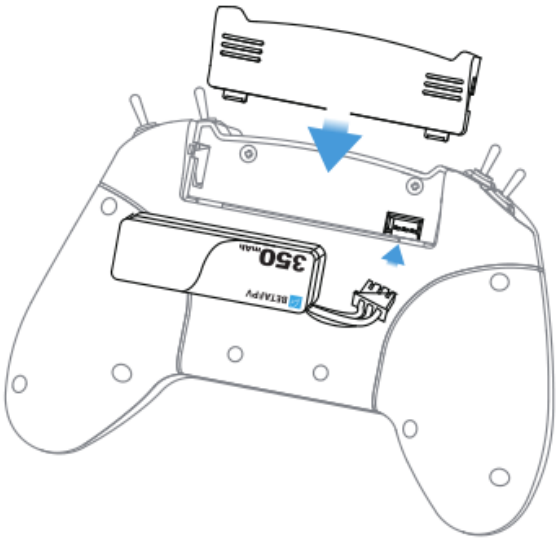
1. Verify that all components are included and without damage.
2. Verify that propellers and motors are installed correctly.
3. Ensure propellers do not scratch against frame ducts and motors spin smoothly.
4. Verify (batteries of quadcopter, remote control radio transmitter and FPV goggles) are fully charged.
5. Be sure you are familiar with all flight controls. (See “Remote Control Radio Transmitter”).
6. Always keep a safe distance in all directions around the quadcopter to avoid collisions. Operate the quadcopter in open space away from people and traffic.

Quick Start

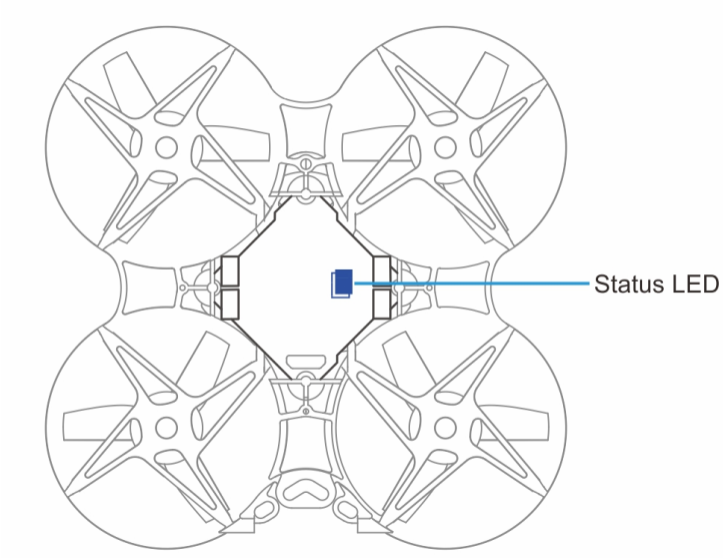
Before flying, verify that the transmitter successfully connects to the quadcopter, all basic controls are functional, and that the quadcopter can take off normally.

- Step 1: Take out the remote control radio transmitter, set the "throttle" joystick and four switches to the lowest setting. Open the back cover of transmitter and connect the battery to interface in battery slot

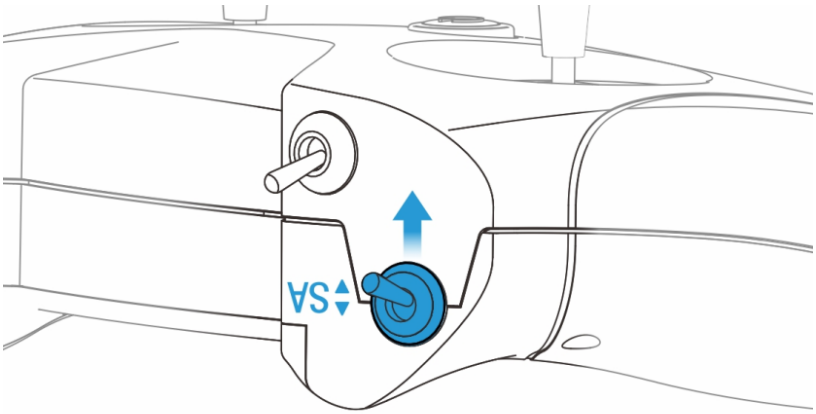
correctly. Thus, long press the power button on transmitter for 3 seconds until it vibrates twice then release. The Remote control radio transmitter power indicator will flash red, then remain blue, which means transmitter works successfully.



- Step 2: Install the battery into the battery mounting slot under the quadcopter, connect the battery cable between quadcopter and batter, then place the quadcopter on a level floor. Wait for 5-8 seconds until it beeps twice. The quadcopter's status LED light will remain blue.



- Step 3: Move switch SA up to arm the quadcopter. The throttle joystick must be at the lowest position or the quadcopter will not arm, the motors will spin slowly. Move switch SA down to disarm the quadcopter or before trying to arm again.



Push Up to Arm the Quadcopter

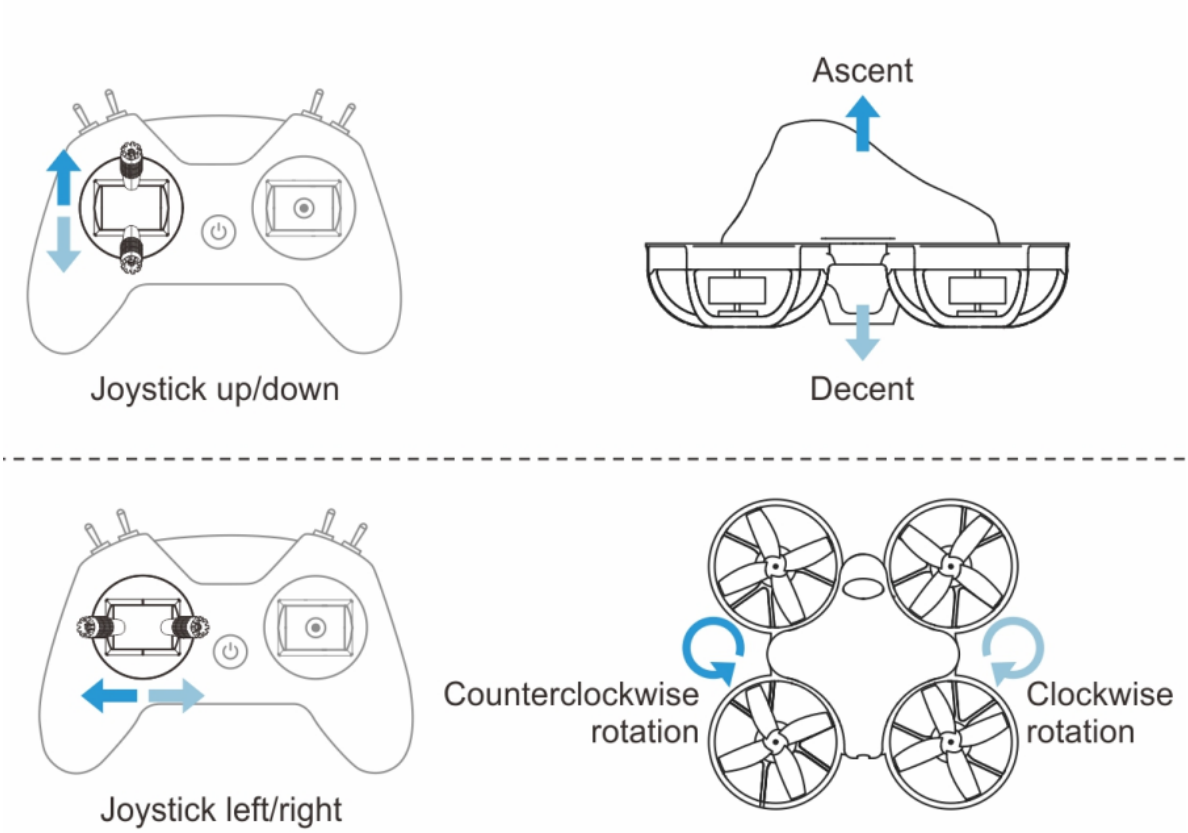
These steps verify that the quadcopter and remote control radio transmitter are working. Proceed with flight operation.

Flight Operation

- Step 4: Re-arm quadcopter as in step 3. Motors will spin at a low speed.

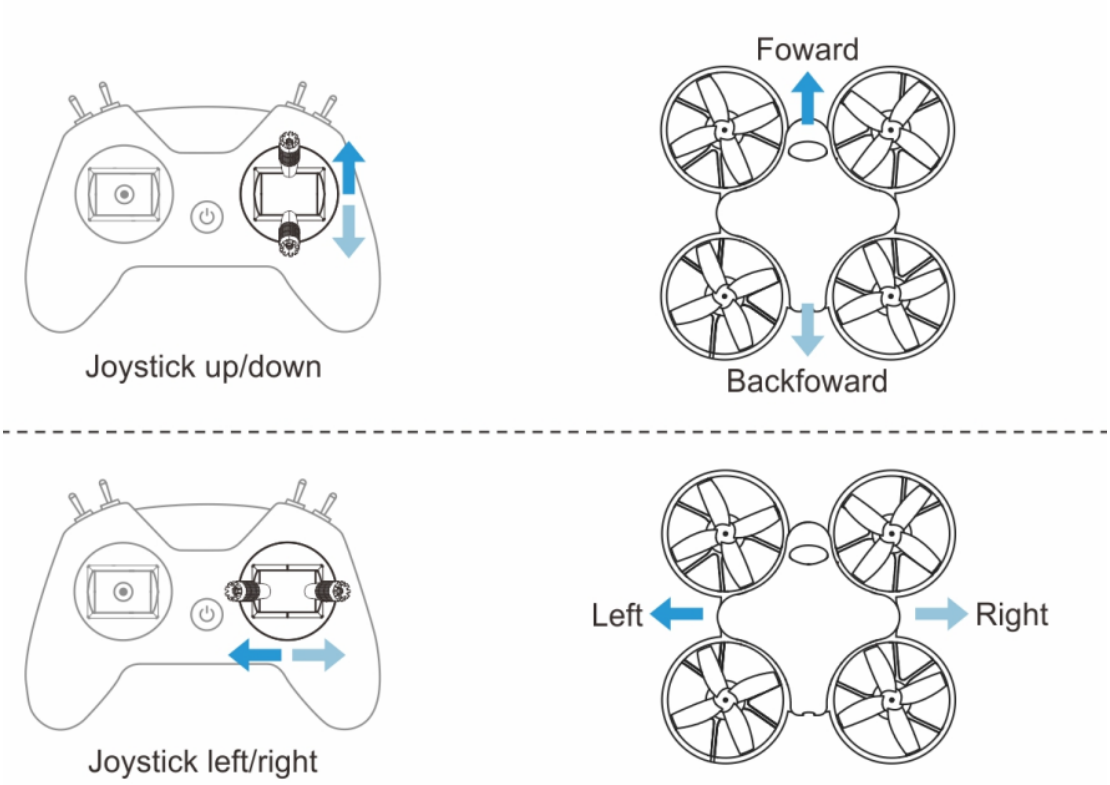
Throttle (left) Joystick:

- Up/down controls rate of ascent/ descent.
- Left/Right controls counterclockwise/ clockwise rotation.



Direction (right) Joystick:

- Up/down controls forward/ backward tilt angle
- Left/right controls left/ right tilt angle.

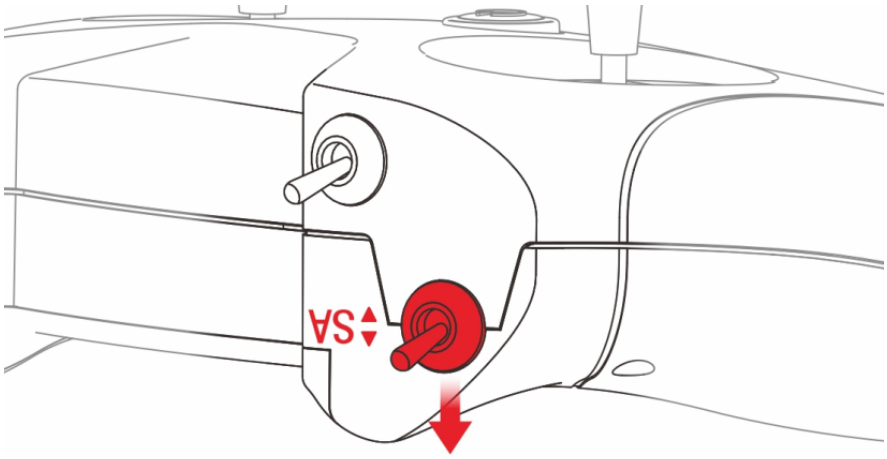


Before flying with goggles, it is recommended to practice and become familiar with the controls and sensitivity of the joysticks by standing behind the quadcopter and hovering in front of you.

Caution:

1. *Find a suitable area for flight.*
2. *Push the joysticks slowly, especially the throttle joystick.*
3. *Disarm the quadcopter (push switch SA down) quickly if the quadcopter becomes out of control or collides with objects.*

- Step 5: Land quadcopter steadily and keep it disarmed.



Push Down to Disarm the Quadcopter

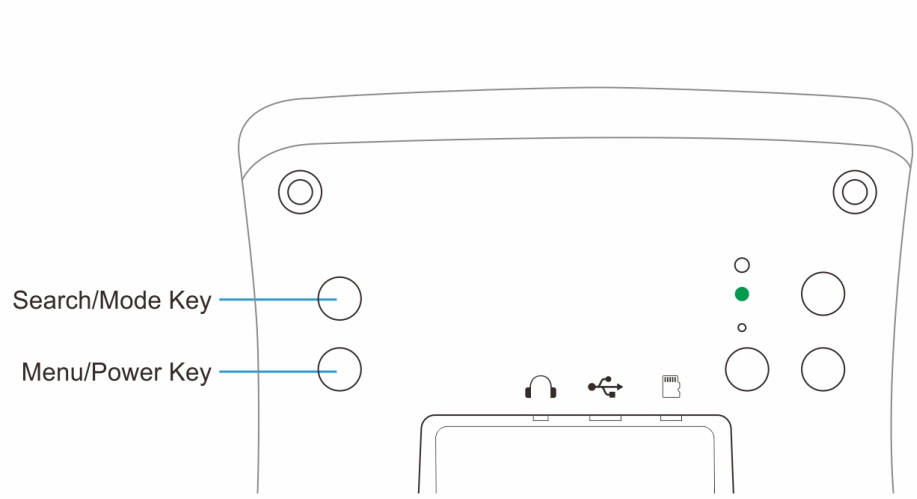
- Step 6: Disconnect and remove battery from quadcopter. A long press of the power button on the remote control radio transmitter will turn it off after one vibration.

First Person View (FPV)

First-person view (FPV) is the real-time transmission of the camera image to FPV goggles.

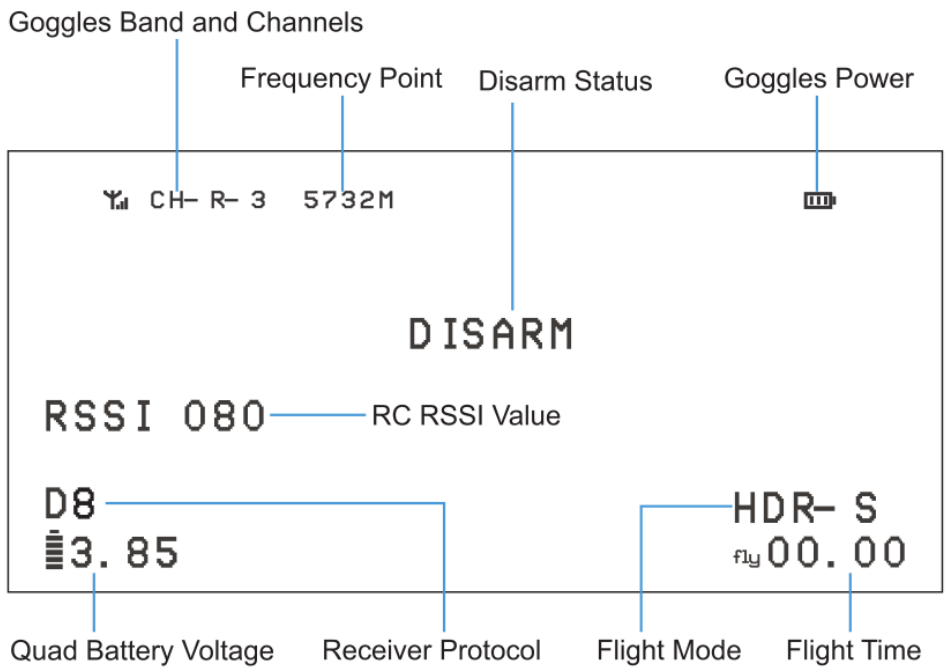
- Install antennas and headband on FPV goggles.
- A long press the Menu/Power button. The screen turns on.
- A short press of the Search/Mode button begins the channel search. This takes around 30s to automatically search for a signal if the quadcopter is already turned on. If it is successful, the image from the FPV camera can be seen on the display.

NOTE: Channel search is useful for quickly setting up your quadcopter. However, for best results in flight, manually select band and channel settings on your quadcopter and FPV goggles to ensure they match.



On-Screen Display (OSD) Menu

After band search, the images and flight information are shown on the display. This information is called the On-screen Display (OSD).



OSD Information:

- Goggle band and channel, frequency and goggle power are shown at the top of the screen.
- "Disarmed" is shown in the middle of screen if the quadcopter is disarmed.
- Receiver protocol and RSSI (signal strength), quadcopter battery voltage, flight mode and time are shown at the bottom of the screen.

Flight Modes

The flight mode is displayed at the bottom right of the display, corresponding to the current flight mode of the quadcopter. Choose from 4 different flight modes based on your current needs, environment and flight skill.

1. ACRO-S / Acro mode (Acrobatic mode) : The radio transmitter sticks control the speed of the quadcopter's rotation. When the stick is centered, the quadcopter will maintain its current angle.
2. LEVL-S / Level mode: The radio transmitter sticks control the quadcopter's current angle. When the stick is centered, the quadcopter will return the level flight. Recommended for beginners.
3. HOR-S / Horizon mode: The quadcopter flies like it is in Level mode while the sticks are close to the center. When the sticks are pushed further to the sides, the quadcopter flies like it is in Acro mode.
4. TURTLE / Turtle or "crash flip" mode: When quadcopter is overturned, Turtle mode can power motors in reverse in order to flip the quadcopter back upright. *Turtle mode will only activate or deactivate if the quadcopter is disarmed. To enter or exit Turtle mode, disarm the quadcopter, switch to or from Turtle mode, then re-arm*.

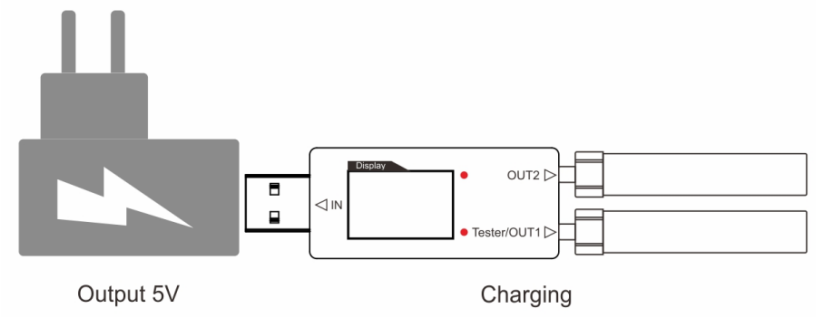
Flight modes can be changed by switches SB and SD. Ensure the switches are in the desired position before flight. See "Switch Functions".

Battery Charging

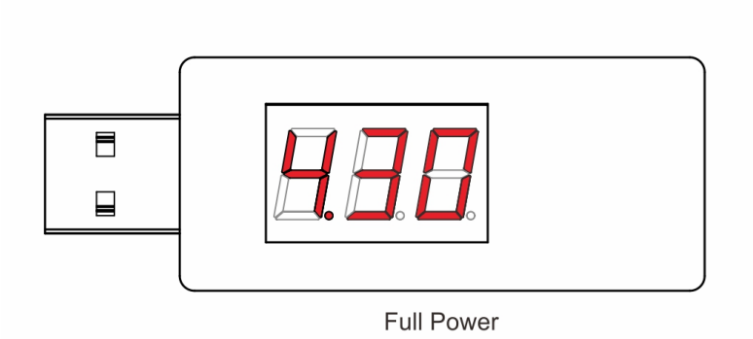
Each battery provides 3-4 minutes of smooth flight. When LED light is flashing red, the battery is low. Charge batteries as follows:

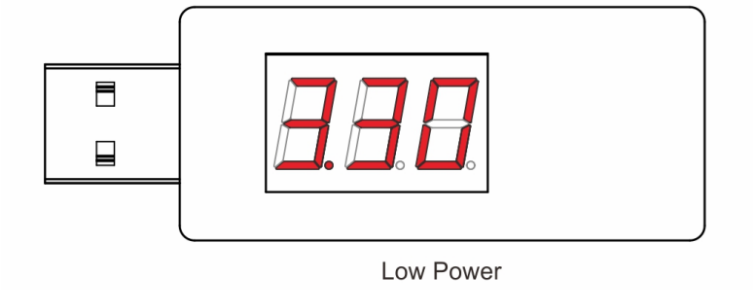
- Connect one or two batteries to the charge.
- Insert the charger into a USB port.
- The charger's LED turns solid red when charging.
- When charger's LED is solid green, battery is charged. Disconnect flight battery from charger.
- Charging a fully discharged (not over-discharged) battery takes approximately 20 minutes.

Caution: Only use the corresponding charger to charge the Li-Po batteries.



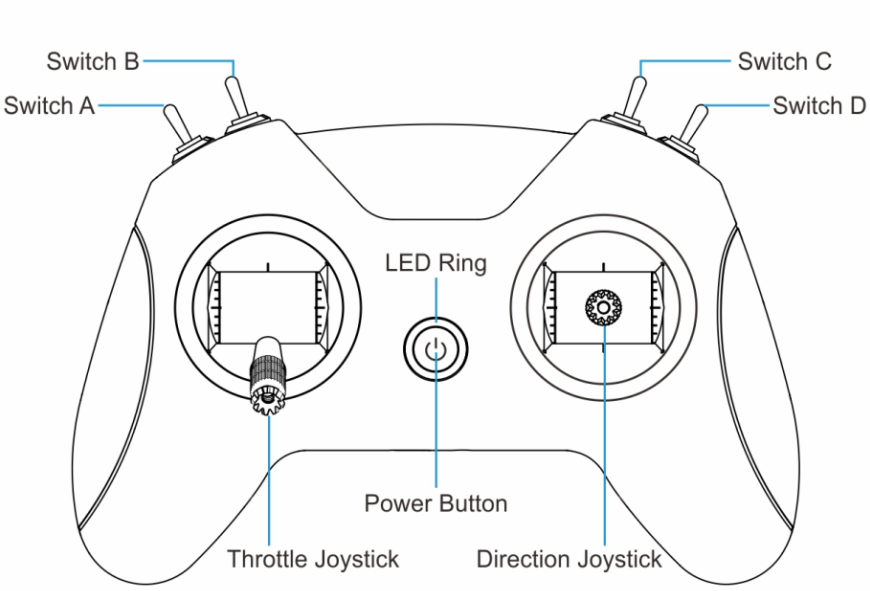
Use “tester” port to check battery status. 4.30 indicates a fully charged battery while 3.30 indicates the battery is low.

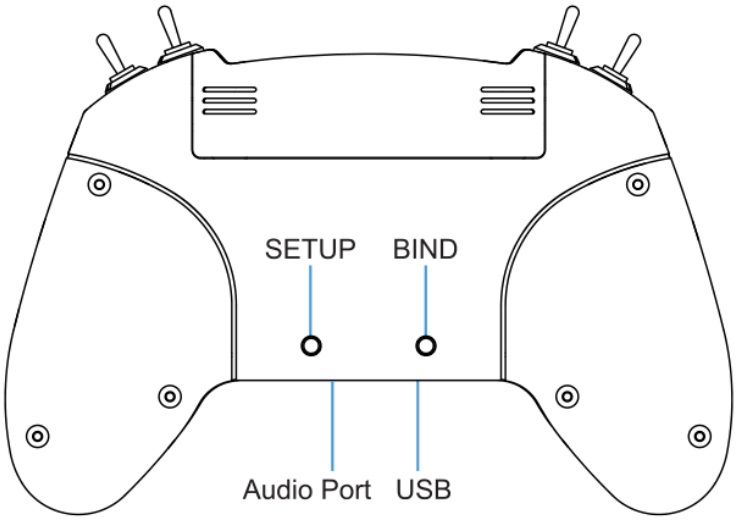




Remote Control Radio Transmitter

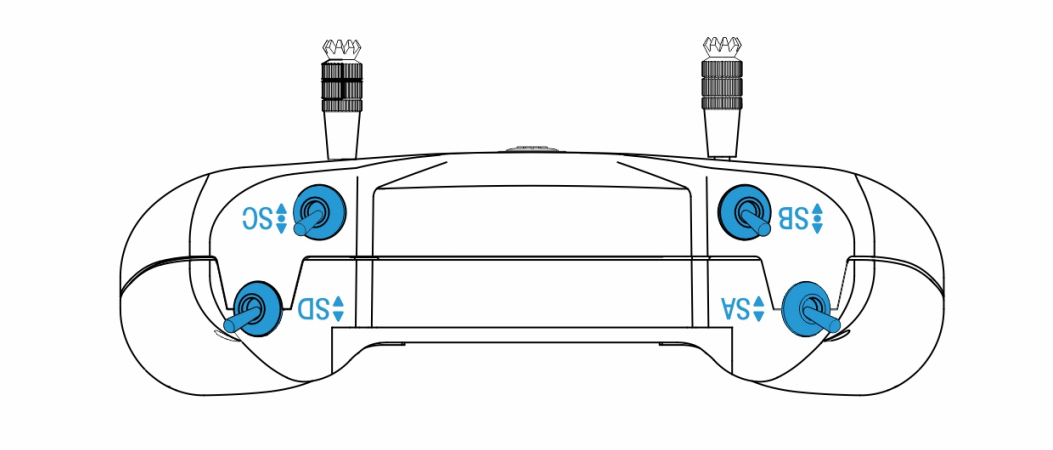
The remote control radio transmitter included in this kit is LiteRadio 2 model. The functions of buttons are shown below.





Switch Functions

Four switches are provided on the front of the remote control radio transmitter: switch SA, switch SB, switch SC, switch SD. The user can change the different modes and parameters of the quadcopter with these switches. Please note that switches do not function unless the remote control radio transmitter is connected successfully with the quadcopter.



Switch SA: Arm/ Disarm of Quadcopter

- Quadcopter will be disarmed if SA is down.
- Quadcopter attempts to arm if the user moves switch SA up. (Arming may fail if throttle is not at lowest position)

Switch SB: Flight Mode of Quadcopter

- The flight mode is "Level mode" if switch SB is down (LEVL-S).
- The flight mode is "Horizon mode" if switch SB is in the middle (HOR-S).
- The flight mode is "Acro mode" if switch SB is up (ACRO-S).

Switch SC: VTX Channels of Quadcopter

Change VTX frequency through switch SC. 8 frequency points available. When it goes to the last frequency point (5866), then it goes to the first frequency point (5733) and restarts again.

Available channels follow this sequence: 5733/5752/5771/5790/5809/5828/5847/5866 which corresponds to band B.

Switch SD: Turtle Mode

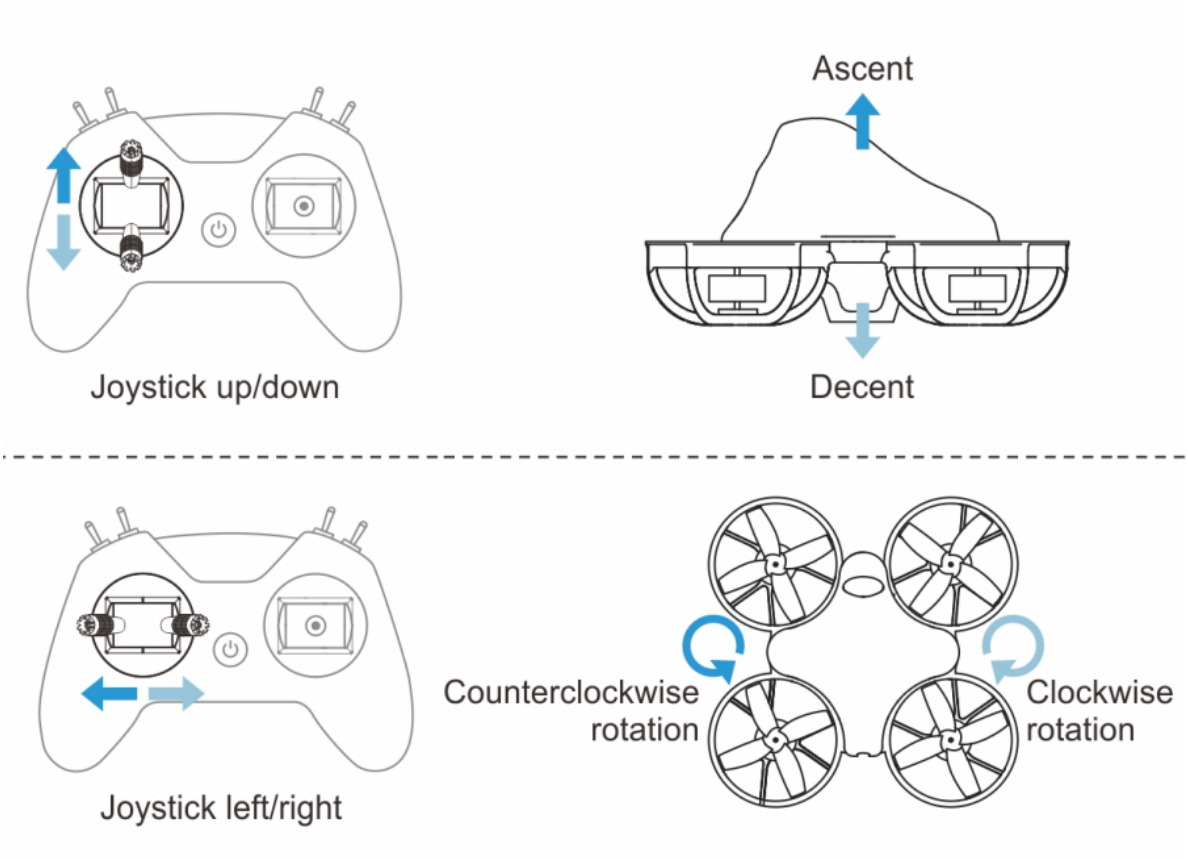
Turtle Mode is only switched on or off when the quadcopter is disarmed.

- Turtle mode is off when arming with switch SD down(normal flight).
- Turtle mode is on when arming with switch SD up.

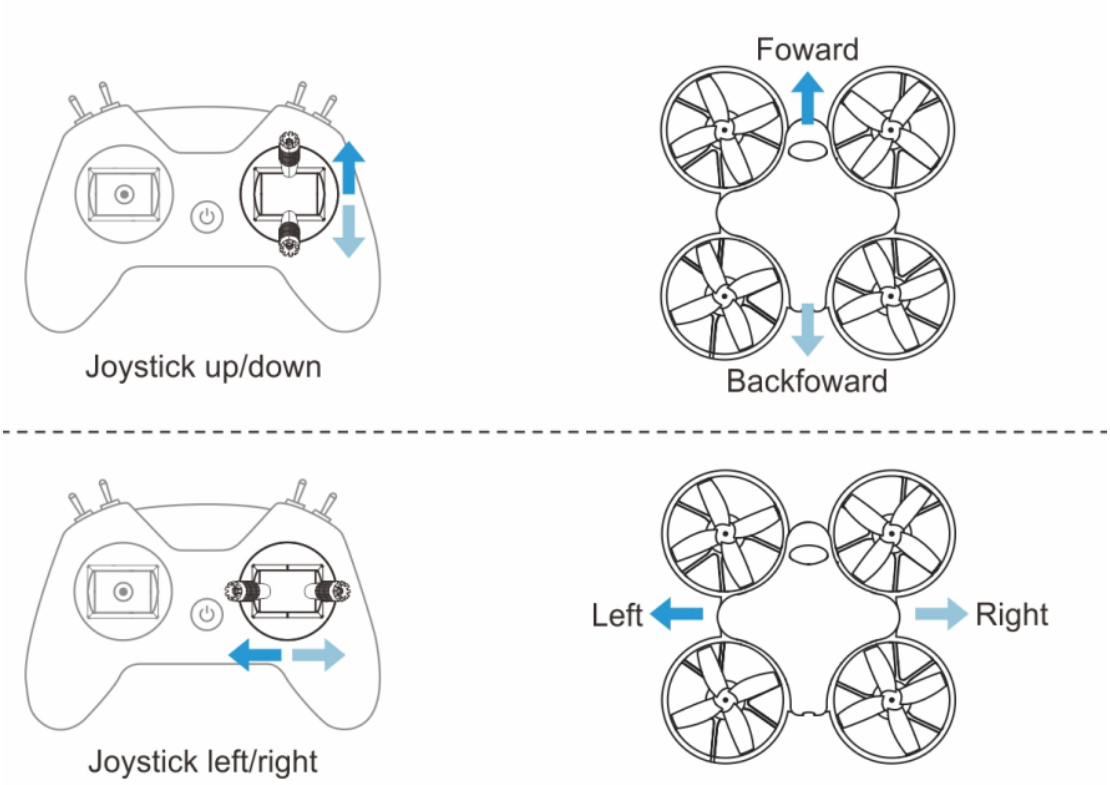
Joystick Functions

Two joysticks (throttle & direction joysticks) on the front of the remote control radio transmitter, control the quadcopter. (Ascent/ descent, forward/ backward, left/ right tilt, and rotation of flight direction)

Throttle (left) Joystick - Ascent/ descent and rotation.



Direction (right) Joystick - forward/ backward and left/ right tilt.



Button Functions

There are three buttons on remote control radio transmitter.

- Power button: Turns transmitter off/ on.
- BIND button: Enter binding mode after remote control radio transmitter is powered on.

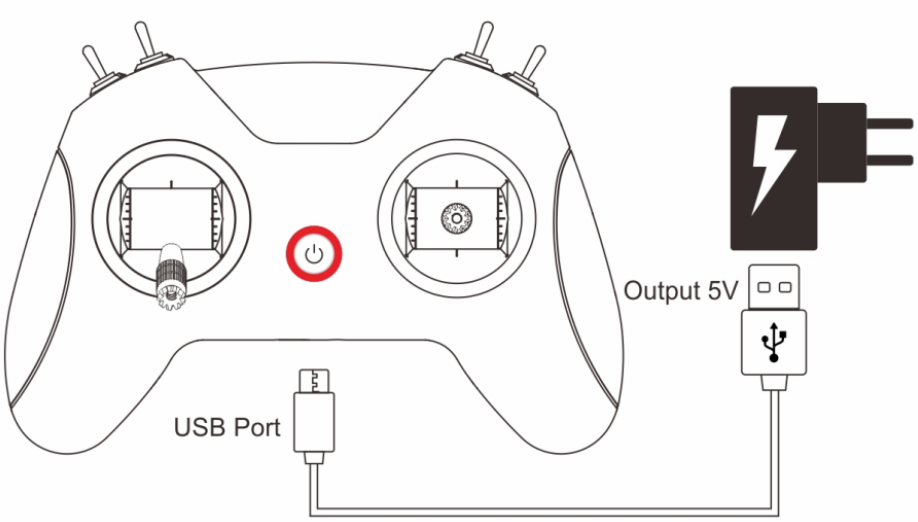
How to bind with quadcopter, please see the section "Advanced Settings".

Charging the Remote Control Radio Transmitter

The remote control radio transmitter has built-in charging module, and requested to 2S 350mAh battery power supply. It indicates a low battery and needs to be re-charged if the blue light flashes slowly. To charge the transmitter batteries.

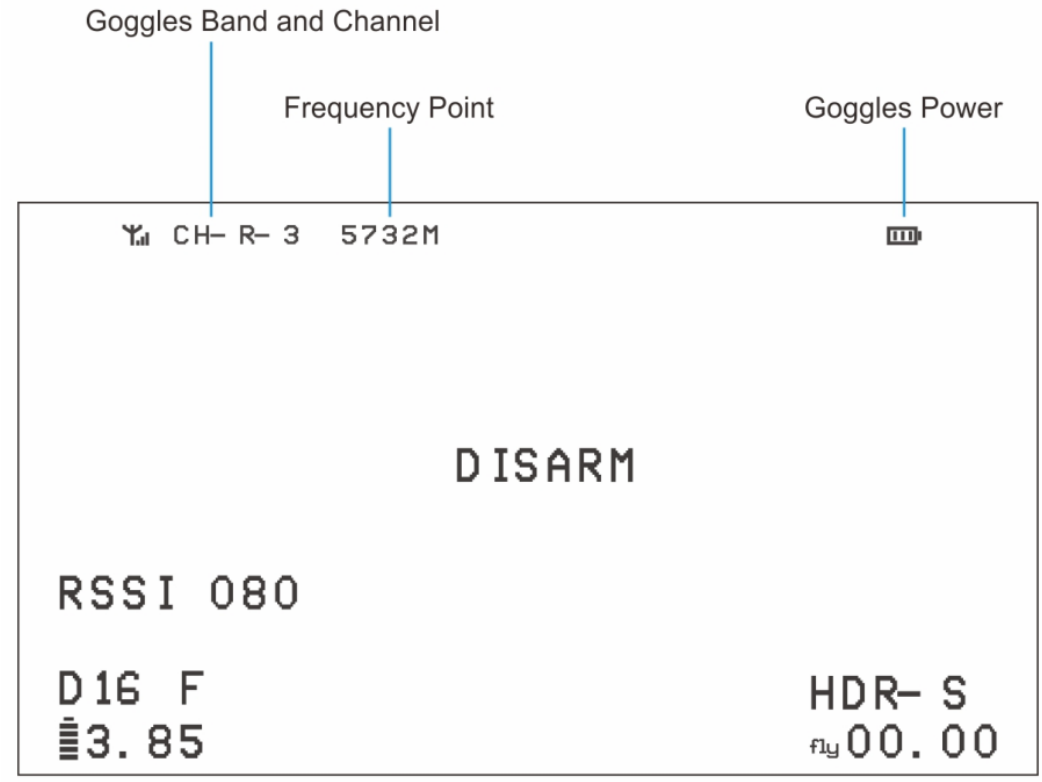
- Turn off the remote control radio transmitter.
- Plug in the remote control radio transmitter with an adapter by USB cable (5V output adapter is allowed).

- A red LED indicates charging, while off means fully charged.

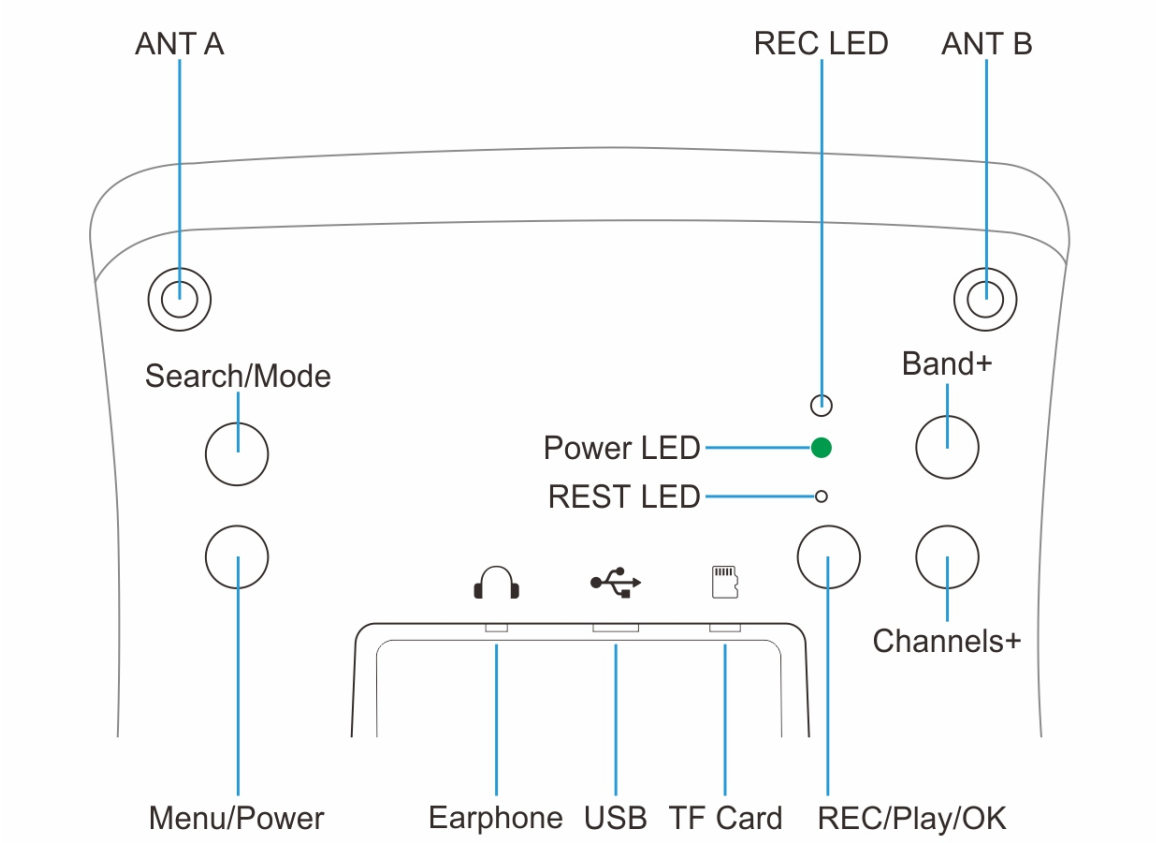


FPV Goggles

The FPV goggles in this kit is model VR01 model. It receives signals by dual antennas and supports FPV video recording. The status of the FPV goggles is displayed at the top of the screen.



Button Operation



- Search/Mode button

A short press of this button will search channels for the strongest video transmitter that's currently powered on. A long press will switch modes between AVMOD (playback) and RFMOD (FPV). In AV/playback mode, press jump volume to adjust OSD.

The goggles can receive a 5.8GHz video signal from the quadcopter in RF mode, which is used during FPV flight. The AV mode is used to play back the video recorded in the SD card and is rarely used.

- Menu/Power button

A long press (3s) will power to goggles off or on. A short press will enter the goggles' Menu OSD. While in the OSD, a short press will return or move the cursor down.

- REC/Play/OK button

While viewing an FPV image, short press to start/stop recording and use a long press for play back mode. While in the OSD menu, use to confirm menu selections.

- Band+ button

While viewing an FPV image, short press to change band (cycles through bands A, B, D, E, F, and R). While in the OSD menu, use to change options upward for the selected setting.

- Channel+ button

While viewing an FPV image, short press to cycle through channels 1-8 within the currently selected band. While in the OSD menu, use to change options upward for the selected setting.

Band and Channel Selection

The FPV goggles can receive 40 frequency points in the 5.8GHz spectrum, distributed
across 5 bands (A, B, E, F, and R) of 8 channels each.

The quadcopter included in this kit only uses 8 frequency points of band B, which is the second row in table below.

	CH 1 (MHZ)	CH 2 (MHZ)	CH 3 (MHZ)	CH 4 (MHZ)	CH 5 (MHZ)	CH 6 (MHZ)	CH 7 (MHZ)	CH 8 (MHZ)
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5828	5847	5866
E	5705	5685	5665	5645	5885	5905	5925	5945
F	5740	5760	5780	5800	5820	5840	5860	5880
R	5658	5695	5732	5769	5806	5843	5880	5917

REC/Play Function

The VR01 goggles have a DVR which records what the user saw in the goggles. The recording process is as follows.

- Plug in one SD card.
- Short press REC/Play/OK. REC light flashes and recording starts.
- Short press REC/Play/OK again. REC light stops flashing and recording ends.
- Copy video files from SD card to computer to play, or play directly within FPV goggles.

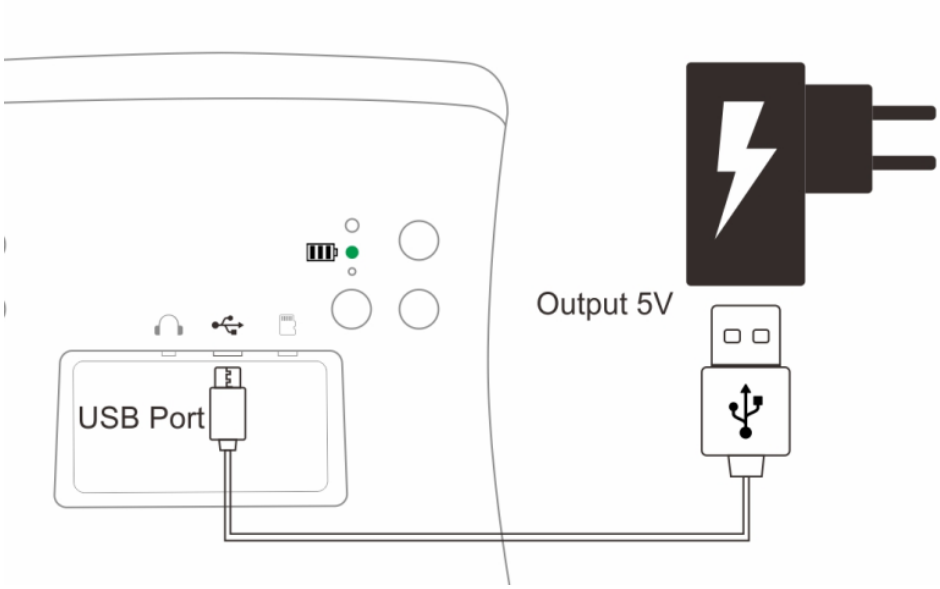
Playing videos from the SD card directly on the FPV goggles.

- Turn on FPV goggles. Short press Menu/Power button to enter Menu. Short press again and keep the cursor at DVR low.
- Short press Channels+ button, LOAD DVR appears on the screen while waiting for the video in the SD card to be loaded.
- After the video has loaded, the first recording video appears. Press Channels+ or Band + buttons to select another video.
- Short press REC/Play/OK to play current video.
- Short press Menu/Power to exit video play back interface.

Charge for FPV Goggles

The FPV goggles has a built-in 2000mAh battery. If the red Power LED flashes slowly, the battery is low and needs to be recharged. To charge goggle battery.

- Turn off FPV goggles.
- Plug in FPV goggles to an adapter via a USB cable (5V output adapter is allowed).
- The power light will be red when charging, while green means fully charged.



Quadcopter OSD Menu Operation

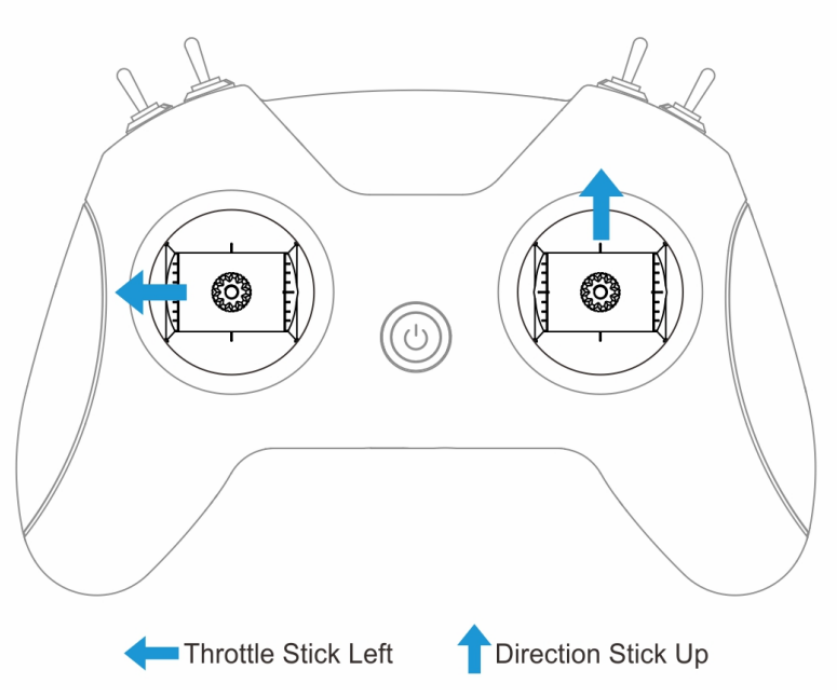
The quadcopter has a separate OSD menu which is used for quadcopter configuration.

- Turning on/off Quadcopter RGB LED Lights.
- Adding/Removing Information on OSD Flight Interface.

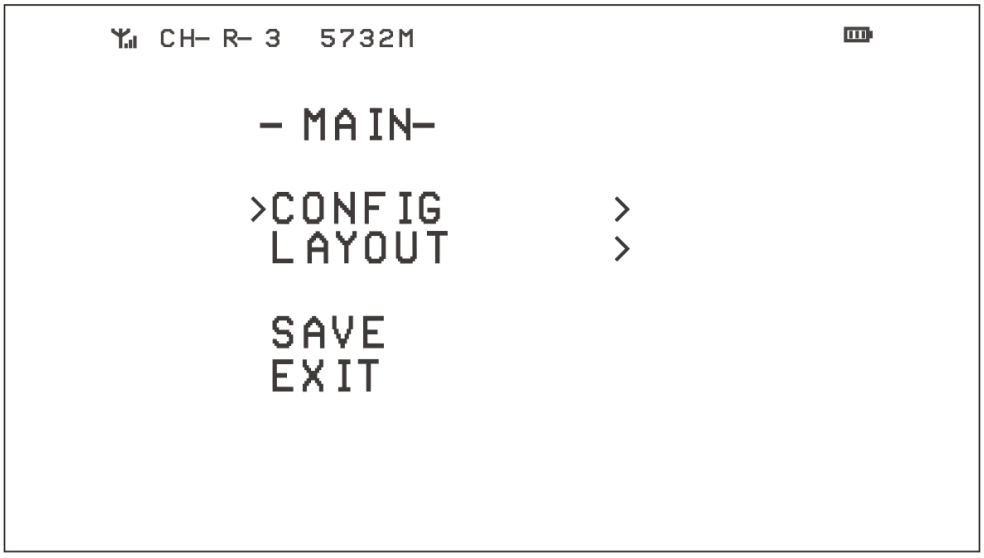
How to Access/Operate OSD Setting Menu

To access the OSD Setting Menu, disarm the quadcopter. Then place the joysticks in the positions as shown below. The throttle joystick is moved to left center and direction joystick towards the upward center.

Note: Make sure quadcopter is disarmed before entering OSD menu.

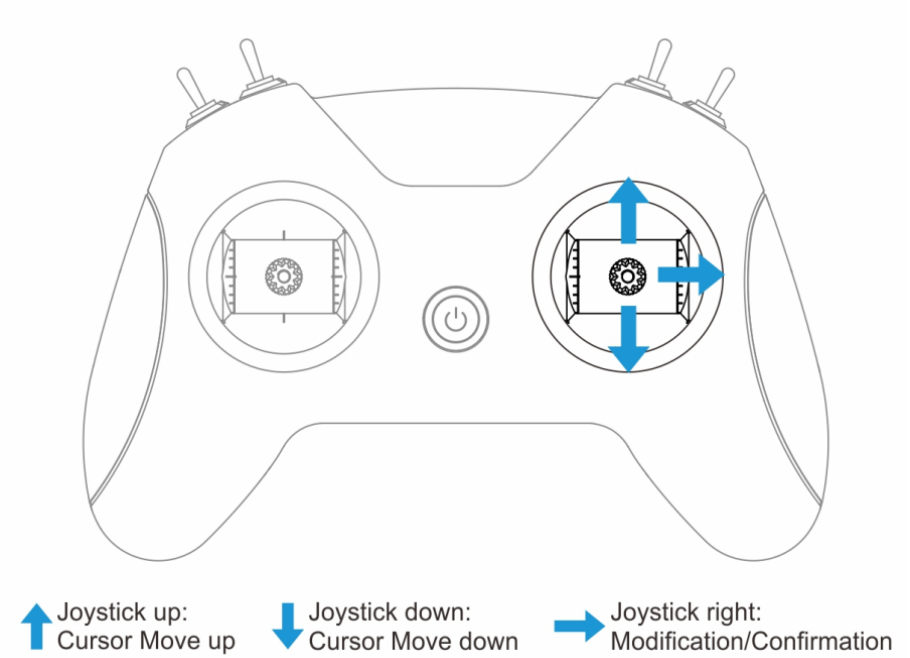


After accessing the OSD menu, the user will see the following menu interface on the FPV screen.



Control the OSD using the right joystick to adjust the cursor and confirm or modify settings.

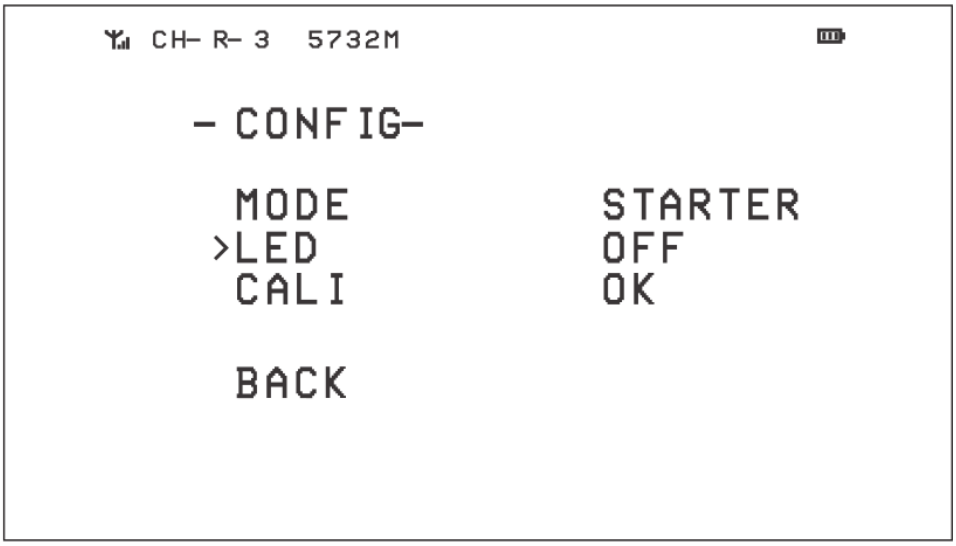
- Up: the cursor will move up
- Down: the cursor will move down
- Right: confirm/modify selection



Turn on/off Quadcopter RGB LED

The quadcopter Status LED light is normally solid blue when flying.
This can be changed to color cycling.

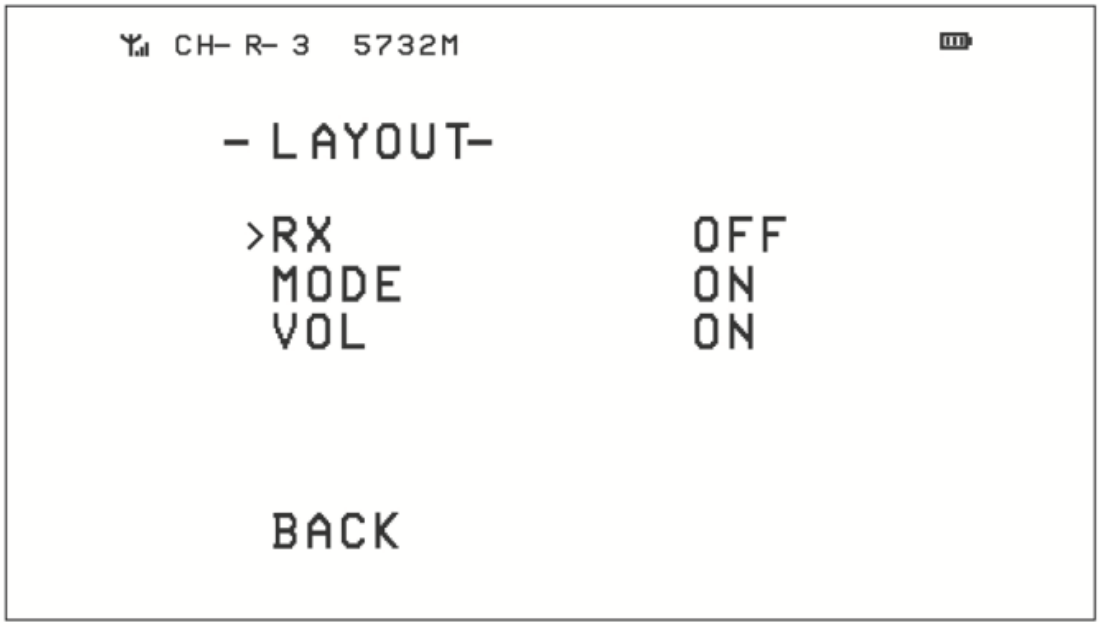
- In -MAIN- menu, select CONFIG and enter the -CONFIG- menu.
- Select LED, select OFF(for solid blue) or ON(for RGB color cycling effect).
- Select BACK to exit CONFIG sub-menu.
- Select SAVE in the MAIN menu to save changes and exit the OSD.



OSD Flight Interface Information

You can customize the information displayed on the in-flight OSD including
receiver mode, flight mode and battery voltage.

- In the -MAIN- menu, select LAYOUT and enter the -LAYOUT- menu.
- Select the desired item to change, OFF will make the item invisible and, ON will show the item on the OSD.
- Select SAVE in the MAIN menu to save changes and exit the OSD.

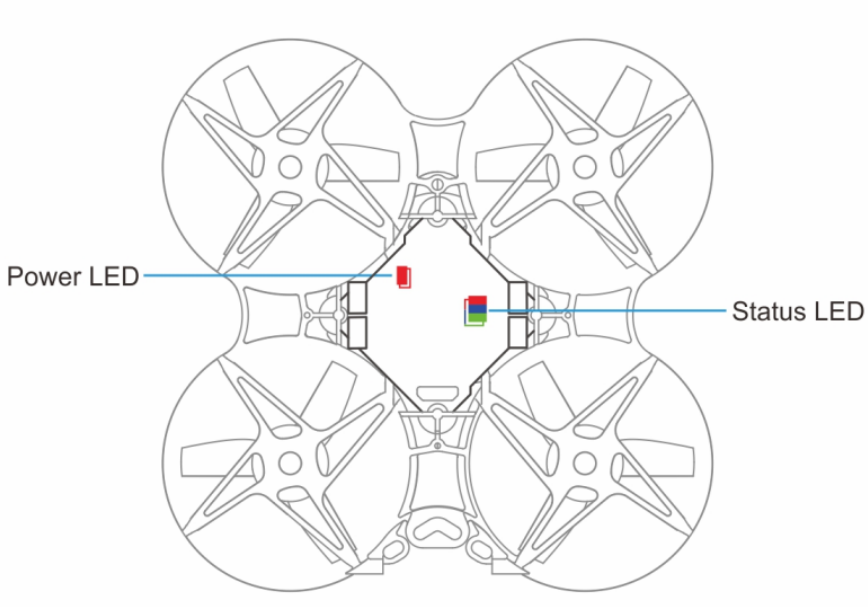


LED Light/Beep Status Codes

Quadcopter LED Light & Beep Status Codes

There are red Power LED and RGB Status LEDs on the bottom of the quadcopter.

- Red Power LED indicates whether quadcopter is normally powered on.
- RGB Status LED indicates the status of quadcopter according to the table below.



Power LED Color	Power LED Status	Status Explanation
RED	Keep on	Quad Power on
RED	off	Quad Power Abnormal

Status LED Color	Indicator LED Status	Status Explanation	Solution
RED	Intermittent Flashing Twice	Quad Battery Low	Need to Replace Battery
BLUE	Keep on	Quad & Remote control radio transmitter Connection-Successful	
GREEN	Intermittent Flashing Six Times	Quad Enter Frequency Matching Model（Binding）	
WHITE	Slowly Flashing	Throttle Joystick not at Lowest Position When Arming	Re-Disarming & Throttle Joystick Lowest Position

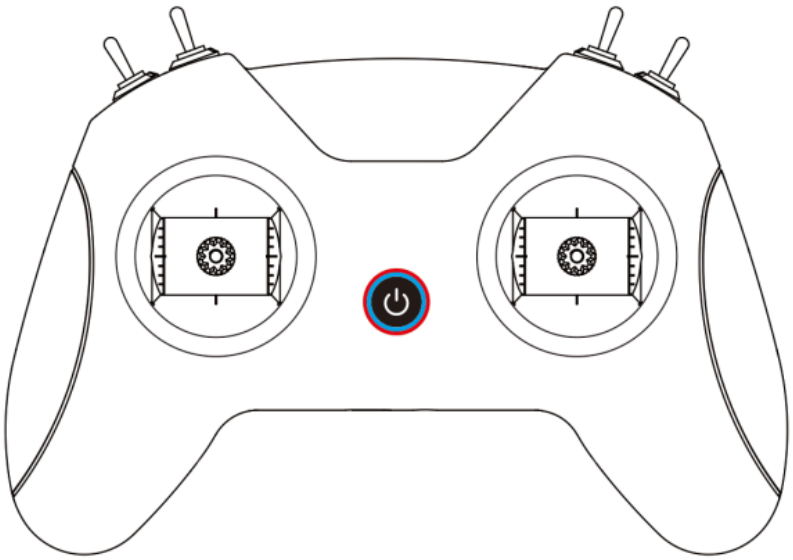
			Arming Again
AMBER	Slowly Flashing	Quad Lost Remote Control Radio Transmitter Signal	Re-Connect Qua Remote Control Radio Transmitt

When the quadcopter is powered on, there are beeping sounds that identifiy its status.

Tone sequence	Status
Three short tones	Quad power is on
Two short tones	Quad initialization has completed
Continuous beeping	Quad has not been operated for 10 minutes

Remote Control Radio Transmitter LED Light

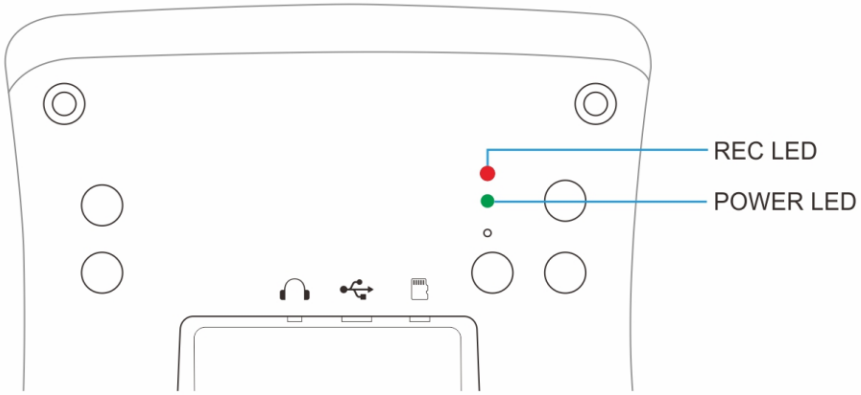
There is a blue & red LED indicator light around the power button which indicates the status of remote control radio transmitter.



Indicator LED Color	Status	Solution
Red LED stay on	Throttle joystick is not in the lowest position when starting up	Move throttle joystick to th lowest position
Red LED flashing quickly	Transmitter binding mode is in process	Wait for binding to complet
Blue LED flashing slowly	Battery voltage is too low	Charge remote control radi transmitter

FPV Goggles LED Light Status Codes

The FPV Goggles have two LED indicator lights which indicate battery power & recording status.



Power Indicator Light	Status Explanation
Red stay on	Charging
Green stay on	Fully Charged

Recording Indicator Light	Status Explanation

Red Flashing	Recording
Off	Not recording

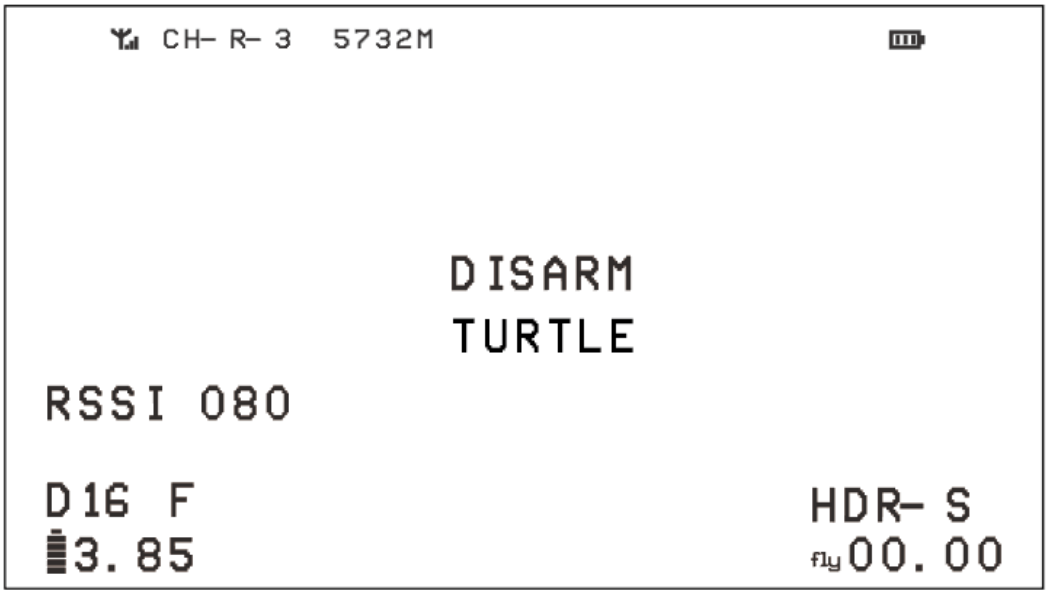
Advanced Settings

This RTF kit has most settings prepared by default. Additional advanced settings are available in case the user wants to change parts or connect with other equipment.

Turtle Mode

The quadcopter can flip itself over via turtle mode when it upside-down.

- Move switch SA down to disarm quadcopter.
- Move switch SD up to enable turtle mode"TURTLE" appears in the OSD display. As following picture shows.
- Move the direction joystick in any direction. Two motors turn on to flip the quadcopter over.
- Move switch SD down to close turtle mode.
- Disarm and re-arm the quadcopter for normal flying.



When the quadcopter is upside-down on grass, carpets, or other textiles, debris can

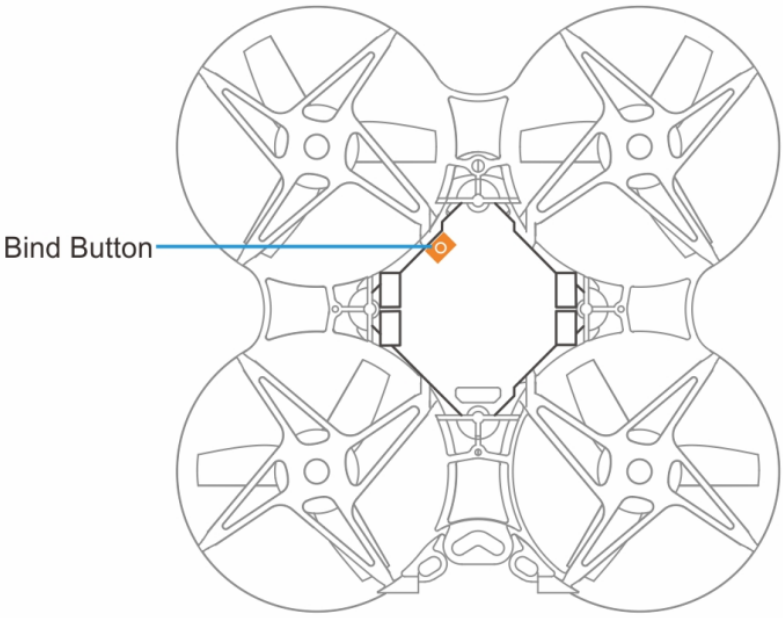
easily jam the motor. If Turtle Mode is used excessively while jammed, it will cause damage to the quadcopter. Turtle mode is recommended only on relatively flat ground.

Re-bind for Quadcopter

If the quadcopter and transmitter cannot be connected successfully, the user may need to re-bind them. This can happen when replacing new electronic parts of the quadcopter during maintenance or upgrading the remote control radio transmitter.

How to Re-bind

- Power on the quadcopter and wait for its system to load completely.
- Press the bind button on quadcopter with a screwdriver. The status light will turn green and flash 6 times in a cycle.
- Power on the remote control radio transmitter and wait for its system to load completely.
- Press the bind button on the back of the remote control radio transmitter with a screwdriver. The power indicator will flash red.
- If re-bind is successful, quadcopter status light will change to blue.

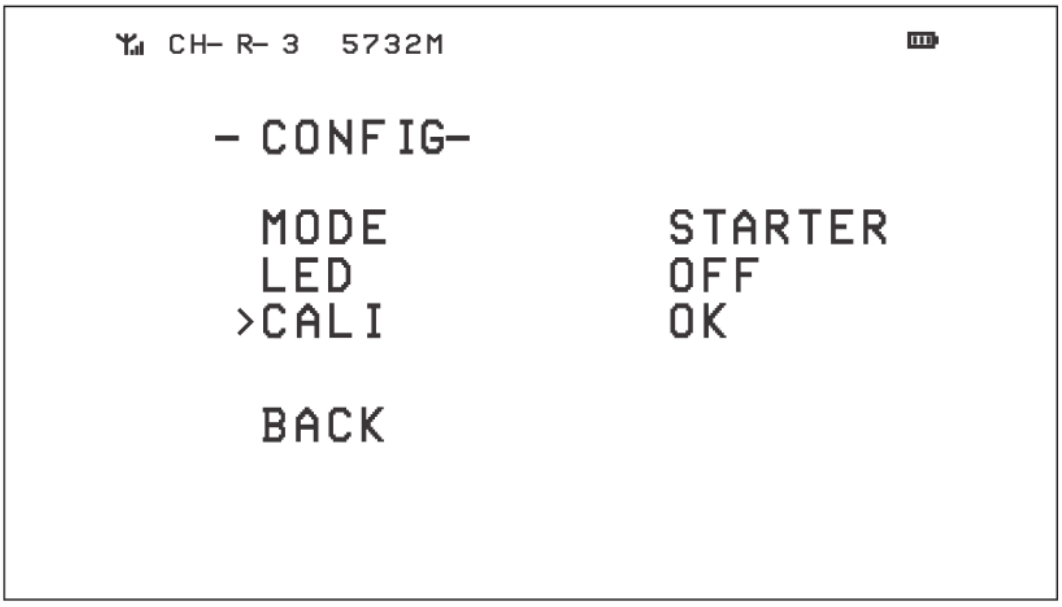


Quadcopter Level Calibration

After the quadcopter took off and landed repeatedly, there may be problems with quadcopter gyroscope data offset, which is manifested

as the quadcopter tilts in a single direction after flying. In this situation, the quadcopter can be calibrated with gyroscope data based on following steps.

- Turn on the quadcopter and transmitter, make sure the connection is successful.
- Hold the quadcopter on a horizontal level.
- Enter the OSD setting menu by controlling the transmitter.
- Select CONFIG and enter that interface on MAIN page, then move the cursor to the line where CALI is located, as shown in the figure below.
- Move the direction joystick to right position, and enter the quadcopter level calibration.
- It indicates the calibration works when “OK” appears on the interface, then exit the OSD menu.



How to enter and operate the OSD menu, please see the section "Quadcopter OSD Menu Operation".

Supplement

Warning&Security

- Move the throttle joystick as gently as possible to avoid the quadcopter ascending and descending too suddenly.

- Push switch SA down on remote control radio transmitter immediately if the quadcopter collides with any object.
- Please try to keep motors perpendicular to the body, otherwise, flight performance will be degraded.
- Learn to control the quadcopter proficiently, before flying in a larger area.
- Battery life can be significantly reduced if you continue to fly after the low voltage warning is shown.
- Do not fly in rain. Humidity may cause unstable flight or loss of control.
- Keep the battery away from water. If flight controller touches water, a short circuit may occur and flight controller may burn out.
- Do not fly in inclement weather or thunderstorm.
- Do not fly in areas that are not permitted by local law.

Precautions for Battery Use and Charging

- Do not immerse battery in water. Store in a dry area if not used for a long time.
- Keep away from children. If swallowed, seek medical attention immediately.
- Do not use or store battery near heat sources, microwave ovens, or open flame.
- Only use a battery charger that meets the specifications when charging.
- Do not throw the battery into fire or heat the battery.
- Do not use or store batteries in an extremely hot environment, such as in a car under direct sunlight or hot weather. Overheating affects the performance of battery, and shortens the service life of the battery. Overheated batteries can also catch fire.
- If battery has a peculiar smell, heat, deformation, discoloration, or any other abnormal phenomenon, stop using the battery. Recycle and replace the battery.
- If battery connector gets dirty, please wipe it with a dry cloth before use. Avoid getting battery contacts dirty, which can cause energy loss or failure to charge.
- Disposing of battery randomly may cause a fire. Please fully discharge the battery and use insulating tape to dispose of the battery output connector before disposing of the battery. Refer to local regulations before disposing or recycling a battery.

After-sale Service

- Warranty: All defective merchandise, unless otherwise indicated, may be

returned for a replacement within 30 days from the goods received to date. We cannot provide refunds or replacements beyond 30 days.

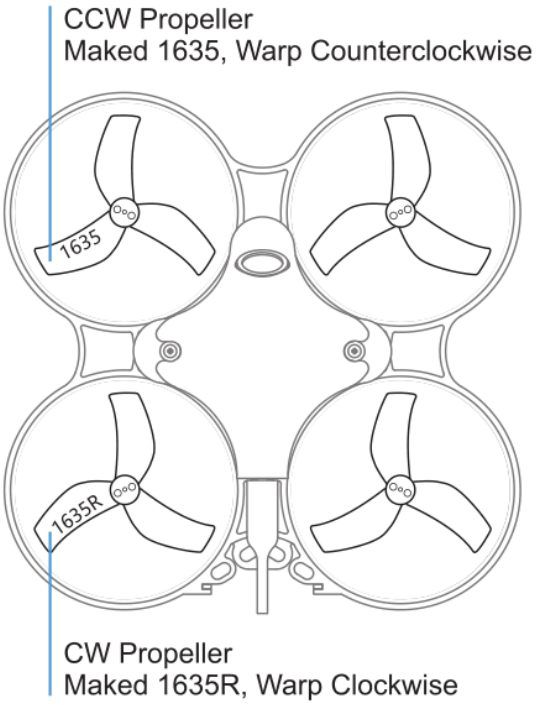
- If the product is confirmed to have a quality problem (product design or quality issues), we will replace it or provide a refund for free.
- All warranty replacements are required to have photos or videos and a detailed description. Warranty does not cover physically damaged merchandise. We are willing to figure out the best solutions, as always.
- For after-sale services, please reach out via e-mail: Support@betafpv.com

This clause only applies to the products manufactured by BETAFPV and sold by BETAFPV authorized dealers.
The specific interpretation rights of this clause belong to BETAFPV.

FAQ

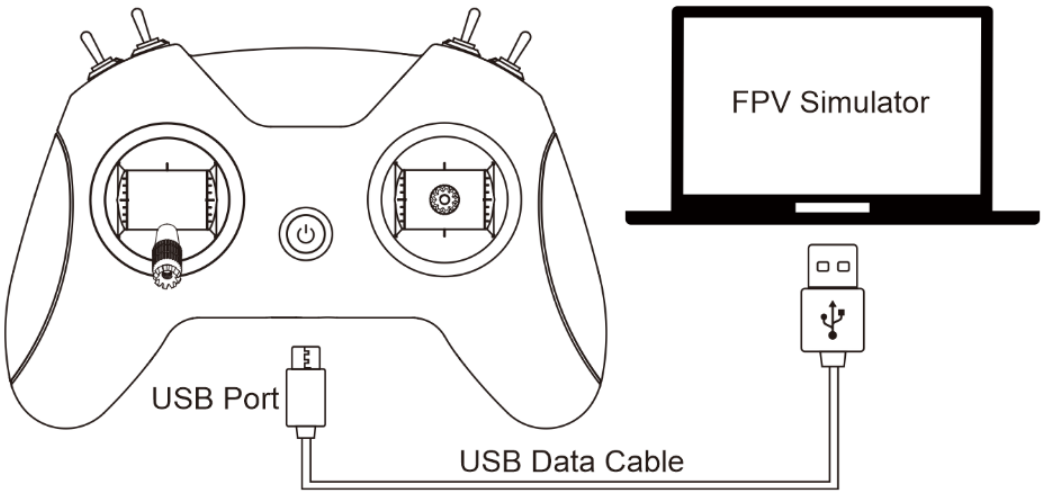
How to Replace Propellers

Propellers can be deformed or fall off when quadcopter collides with an object. Bent or missing propellers need to be replaced.
Use the included propeller removal tool to remove propellers from the motor. Please hold the motor instead of the frame duct with your hand when removing propellers to protect the frame from being deformed by overexertion.
4 spare propellers are included: two each clockwise (CW) and counterclockwise(CCW). CW propeller is marked 1635R and rotates clockwise. It is used on the front right or rear left motor. CCW propeller is marked 1635 and rotates counterclockwise. It is used on the front left or rear right motor. Install as in the diagram below.



How to Use FPV Simulator

It's the safest and quickest method for starters to get started, is to use an FPV simulator. The LiteRadio 2 remote control radio transmitter supports most FPV simulators on the market with a comprehensive configuration.



To connect your radio

- Turn on remote control radio transmitter and wait for the blue light to show.

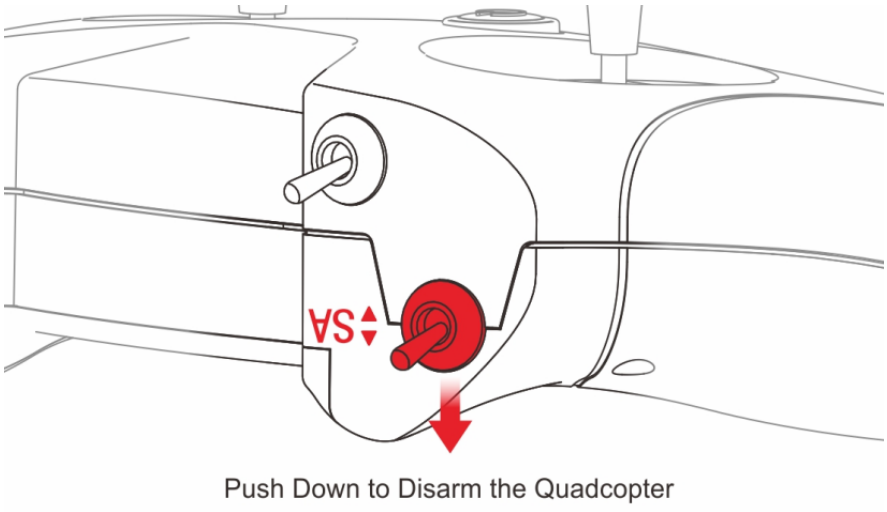
- Connect the remote control radio transmitter to PC by USB cable.
- The correct driver will install automatically. A box pops up to confirm the successful installation.

If the automatic install fails, you will need to install the driver manually.

How to Stop After a Collision

Push down on switch SA on the remote control radio transmitter immediately once the quadcopter collides with an object.

Caution: Push down switch SA immediately when the quadcopter is hit or the propellers scratch against the frame duct.



Push Down to Disarm the Quadcopter