ROCKET DRONES
STAGE 1 KIT

Instruction Manual

TABLE OF
CONTENTS

1. PRODUCT OVERVIEW:

Stage 1 Drone

Accessories

Goggles

Launch Controller

2. PACKAGE INCLUDE:

- 1 x Rocket Drone
- 1 x Launch Controller
- 1 x Fat Shark Scout Goggles

Box Contents:

- 10 x BT2.0 450 mAh 1S Lipo Battery
- 1 x BT2.0 Battery Charger and Voltage Tester
- 1 x USB Charging Cable (Type-C)
- 1 x Type-C to FC Adapter
- 1 x Prop Removal Tool
- 4 x 31mm 4-Blade Prop (Replacement)
- 1 x Portable Storage Card
- 1 x User Manual
- 1 x Six port battery charger

3. STAGE 1 ROCKET DRONE

3.1 Device Introduction:

The Stage 1 drone is a brushless quadcopter with a Lite 1-2S Pro Brushless Flight Controller* 1102-18000KV brushless motors, and 40mm 3-blade props, which is capable of performing diverse freestyle tricks.

3.2 Device Features:

• Self-protection
• Emergency Landing Function
• Turtle Mode
• 3 Flight modes
• Compatible with FPV Beginners
• Altitude hold Function
• Training-friendly

3.3 Device Overview:

Camera

Propellers

3.4 Device Description:

1. Quadcopter OSD Menu Operation:
The OSD menu is a set of operation interfaces designed to modify the configuration of the quadcopter.
• Turn on/off sensor.
• Add/Remove information from the flight OSD.

2. Operation Instructions:
Setting OSD Menu:
The position of joysticks to access the OSD setting menu is as shown below. The throttle joystick is moved to the left-center and the direction joystick towards the upward center.

Caution: Make sure the quadcopter is disarmed before accessing the OSD menu.

Throttle Stick Left   Direction Stick Up
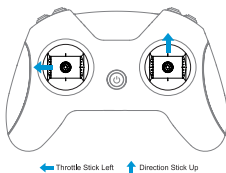
After accessing the OSD menu, the pilot will see the following menu interface on the FPV screen.

The OSD menu cursor can be controlled by the right joystick to operate the OSD interface:

• **Up:** move the cursor up

• **Down:** move the cursor down

• **Right:** confirm/modify selection

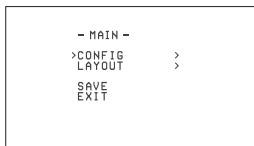Joystick up: Cursor Move up   Joystick down: Cursor Move down   Joystick right: Modification/Confirmation
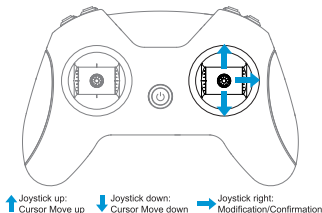
Customizing OSD Flight information:

The information displayed in the OSD flight interface can be customized. This information includes receiver protocol, flight mode, battery voltage, and speed threshold.

• In the **MAIN** menu, select **LAYOUT** and enter the **LAYOUT** menu, as shown below.

• Select the target information item, **OFF** means no display, **ON** means display.

• Select **SAVE** in the **MAIN** menu to save the settings and exit the OSD.


```
— LAYOUT —
>VOL          ON
 MODE         ON
 TIME         ON
 SPEED        ON

 BACK
```
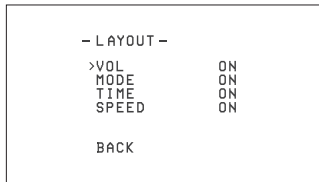
4. LAUNCH CONTROLLER:

4.1 Device Introduction:

The launch controller is a rcontroller designed primarily for RC models, including multi-copters and airplanes. It gives you more than you have ever thought possible from an entry-level 8-channel radio.

4.2 Device Features:

• 8 channels in total.
• USB Joystick supports most practice simulators.
• Nano module bay for external RF TX module.
• New designed joystick gimbal for longer usage life.
• Frsky protocol version for option.
• Built-in 2000mAh battery.
• USB charge supported.

4.3 Device Overview:

Front View:

Power Button LEDRing

ThrottleJoystick   DirectionJoystick

Upper View:

Switch C   Switch B

Switch D   Switch A

Back View:

NANO Bay

SETUP   BIND

Audio Port Type-C Port

NC   CRSF port   CRSF.port
      GND
      VCC
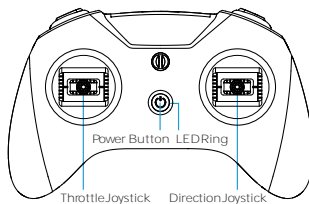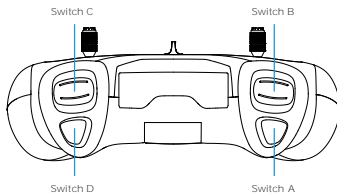
4.4 Device Description:

4.4.1 Button Functions:

There are three buttons on the Launch controller.

• **Power Button:** Turn the Launch controller on/off.

• **BIND Button:** Enter binding mode after the Launch controller is powered on.

• **SETUP Button:** Enter joystick calibration mode after the Launch controller is powered on.

4.4.2 Operation Instructions:

1. Power On/Off:

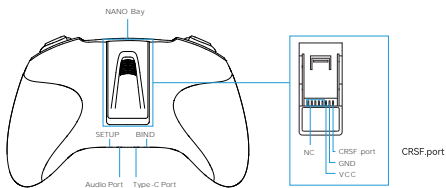• **Power On:** Long press the power button on the Launch controller for 3 seconds until it beeps three times (do re mi) then release. The Launch controller LED ring will flash red quickly, then remain blue.

• **Power Off:** A long press of the power button on the Launch controller will turn it off after three beeps (mi re do).

STATE OF THE LED RING	REASON	SOLUTION
Red light solid on	The throttle joystick or switches are not in the lowest	Lower throttle and switch to the lowest position. Turn to blue then.
Red light flashing quickly	The Launch controller is binding	Wait for completing the binding
Blue light flashing slowly	The battery reaches the low voltage limit	Charge the Launch controller
Red light breathes slowly	On charging	
Blue light flashing slowly	Charge complete	

2. LED Indicator and Buzzer:

The LED ring indicates the working status of the Launch controller.

The buzzer will alarm three times, which indicates a low battery and needs to be recharged.

3. Binding the Receiver:

There are the steps to make the launch controller enter binding status:

i.   Power on the Launch controller and wait for its system to load completely. The LED ring will be solid blue if done correctly.

ii. Press the "**Bind**" button on the back of the Launch controller to enter binding status. The LED ring will be red and flash quickly.

iii. The LED ring will change to solid blue 5 seconds later when the Launch controller exits binding status. If not bind successfully, repeat the process above.

4. Switching Protocol:

Note: Switching internal protocol is only available for the Frsky version Launch controller. Express LRS version can only switch to the external TX module.

The Frsky version could suppo 4 different internal protocols, including Frsky D16 FCC, Frsky D16 LBT, Frsky D8, and Futaba S-FHSS, it also supports. The protocol is indicated by the flashing times of the LED when power is on, before the buzzer alarms.

| Frsky Version	
LED Status	Protocol Version
Red Flash once	Internal Frsky D16 FCC (ACCST 1.X Version)
Red Flash twice	Internal Frsky D16 LBT (ACCST 1. X Version)
Red Flash Three Times	Internal Frsky D8
Red Flash Four Times	Internal Futaba S-FHSS
Purple Flash Three Times Quickly	Internal TX Module O and Run External TX Module

To change protocols and TX module, here are the steps:

i.   Power the Launch controller off.
ii. Press and hold the BIND button while powering the Launch controller back on.
iii. Then the flash colors and times of the LED before buzzer alarms will change, according to the tables above.

5. Charging:

The launch controller has a built-in 2000mAh battery. It indicates a low battery and needs to be re-charged if blue light ashes slowly the buzzer beeps continuously. Below charging method for reference:

- Turn off the Launch controller.
- Plug-in Launch controller with the adapter by USB cable (5V output adapter is allowed).
- The LED ring breathes in red means charging, while in green means fully charged.
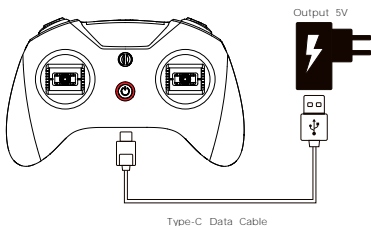
Type-C Data Cable

6. HD Joystick:

It is the safest and quickest method to get started by using a model practice simulator for starters. Launch controller supports most of the simulators on market with comprehensive configuration.
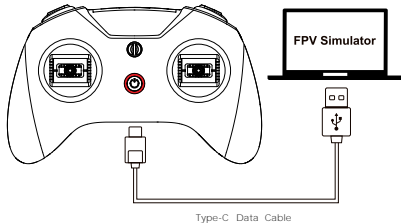
Type-C Data Cable

Operation steps below:
- Turn on the Launch controller.
- Connect the Launch controller to the computer via a USB data cable. Wait for the LED ring breathes in red or green.
- Install driver from PC automatically, prompt box pops up after successful installation. Then, the Launch controller works as a joystick human interface device (AKA HID device) normally.

Note: The user needs to manually install the driver if the PC doesn't install automatically or is installed incorrectly. DO NOT power on the Launch controller first and connect it to the PC. The USB port is invalid in this situation.

7. Joystick Calibration:
The joystick data may offset after it has been used for some time (if the joystick is hit by a physical). Users need to re-calibrate joysticks based on the following steps:

- After powering on, press the "SETUP" button on the back of the remote-control Launch controller, it hears two "Bee Bee" sounds, and a red LED flashes quickly (two flashes each time), which means remote control Launch controller entered calibration mode.

- Move throttle joystick and direction joystick to the middle position, press the "SETUP" button again, wait until the buzzer beep three "Bee Bee Bee" sounds, red LED light flashes quickly (two ashes each time), which indicates joystick data has been acquired and enter into the boundary value calibration mode.

- Slowly rotate the throttle and direction joystick twice around the boundary of the joysticks (counter-clockwise /clockwise), then press the SETUP button again, it hears a long ''Bee'' sound for about 3 seconds. And the red LED light stops.

5. GOGGLES:

5.1 Device Introduction:

The Scout is a goggle packed with the latest technology including a built-in diversity receiver, a 60 FPS DVR, and everything necessary for amazing flights. It has been designed and tested to work with a wide variety of currently available NTSC and PAL analog Launch controllers as well as display video directly from an audiovisual or auxiliary source.

5.2 Device Features:

• High fidelity
• OLED Displays and supports a new 1080p video transmission protocol
• IPD and focus adjustment
• Intuitive full-color graphic user interface
• HD Video Output via USB-C Connector
• Supports Beta Flight Canvas Mode
• Integrated HD DVR
• Adjustable Anti-Fog Ventilation
• Customizable Fit with Optional Faceplate Pad Accessories
• On/Off Power Button
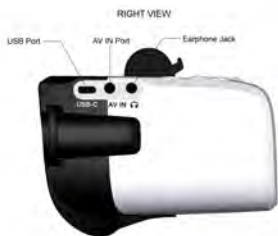
5.3 Device Overview:

Top View:

Left View:

Right View:

5.4 Device Description:

5.4.1 Button Functions:

There are several user inputs on the device, the power button, the band and channel buttons, and the rocker switch.

1. **Power Button:** It has two functions:
- The Short Press (less than 0.5 seconds), causes the LED to indicate the current battery life when the headset is turned off.
- The Long Press (hold for 2 seconds or more), causes the device to turn on when the unit is powered off and turn off when the unit is powered on.

2. **Band Button:** It is active when the headset is on and has two functions:
- The Short Press (less than 0.5 seconds), increases the current RX channel by 1 and switches back to channel 1 if it is currently on channel 8
- The Long Press (hold for 2 seconds or more) cycles through the RX Bands such as FS, Race, Band E, Band B, and Band A.

3. **Channel Button:** It is active when the headset is on and has two functions:
- The Short Press (less than 0.5 seconds), decreases the current RX channel by 1 and switches back to channel 8 if currently on channel 1.
- The Long Press (hold for 2 seconds or more), do an automatic channel scan in the current band, and will automatically select the channel with the strongest RX signal.

4. **5-Way Button:** It is used for performing different functions in flight mode, option menu, and DVR playback

Functions in Flight Mode:
- The short press on the center (Enter button) will start and stop the DVR recording when in manual DVR mode.
- The long press on the center will enter and exit the options menu.
- The Up/Down on the joystick will adjust the brightness of the display like up will increase and down will decrease the brightness by 10%.
- The Left/Right on the joystick will adjust the display contrast ratio like up will increase and down will decrease the brightness by 10%.

Functions in the Options Menu:
- The short press on the center will select the highlighted option.
- The long press on the Center will exit the options menu.
- The Up/Down will navigate the options in the sub-menus.
- The Left/Right will switch between the high-level menu options.

Functions in the DVR playback:
- The Long press of the center joystick will exit the file list interface or player interface.
- The short press of the enter key will play back the recorded video by the unit.
- The Up/Down on the joystick will select any file in turn.
- The Left/Right on the joystick will move to page down or page up directly.

5.4.2 Operation Instructions:

1. The OSD:

Band: The abbreviation for the radio frequency band that the headset is currently on.

Channel	FS	Race	Band E	Band B	Band A
CH1 (MHz)	5740	5658	5705	5733	5865
CH2 (MHz)	5760	5695	5685	5752	5845
CH3 (MHz)	5780	5732	5665	5771	5825
CH4 (MHz)	5800	5769	5645	5790	5805
CH5 (MHz)	5820	5806	5885	5809	5785
CH6 (MHz)	5840	5843	5905	5828	5765
CH7 (MHz)	5860	5880	5925	5847	5745
CH8 (MHz)	5880	5917	5945	5866	5725

We have set up a special set of "BAND L" that you can turn on in the menu if you want for experimental purposes.

CH1:5362 CH2:5399 CH3:5436 CH4:5473 CH5:5510 CH6:5474 CH7:5584 CH8:5621

Channel: The current channel the headset is on (both the number and the actual radio frequency).

Battery: The current battery life is shown by the icon and the percentage e.g. a %.

2. Changing Bands and RX Channels:

To performs the functions, like;
• To change the Band, the "CH+" button is used.
• To change the channel, the "CH-" button is used.
• To go through the different RX options for finding the desired wireless video channel for view.

i. A short press on the "CH+/CH-" buttons will cycle through the 8 channels of the current band that you are on. As you cycle through the channels, the OSD will show the new channel. (Has removed the type of video signal)

Additionally, the LED on top of the Scout will light up with a color that corresponds to your current channel if you are using Race Band.

This allows for a very quick indicator that can be used when trying to get your Launch controller and headset on the same channel.

RX Channel	LED Status	LED Color
Race Band CH1	Red	Always On
Race Band CH2	Orange	Always On
Race Band CH3	Yellow	Always On
Race Band CH4	Green	Always On
Race Band CH5	Light Blue (Cyan)	Always On
Race Band CH6	Dark Blue	Always On
Race Band CH7	Magenta (Pink)	Always On
Race Band CH8	White	Always On

ii. A long press on the Band button will cycle through the different RX bands in the following default order:
a. Fat Shark to Race Band
b. Race Band to Band E
c. Band E to Band B
d. Band B to Band A and then back to Fat Shark Band.
Note: The selectable bands can be adjusted by the user in the Options Menu.

iii. A long press on the "Channel" button will enter the "RF MAX" scan mode and the scout will automatically search for the strongest signal in the current band. The OSD will display RF MAX Scan in the center of the screen and the Scout will change to the channel with the highest RSSI value. This allows you to quickly tune into a Launch controller after you turn it on even if you don't know what channel it is broadcasting on.

3. Adjusting the Brightness and Contrast:
During the flight, the brightness and contrast of the displayed image can be adjusted by using the 5-way button.
• Pressing up will increase brightness in increments of 10% and pressing down with decrease brightness by 10%.

- As well as seeing the brightness or contrast change, the OSD will display the updated brightness (or contrast) level in the center of the image for 3 seconds.

4. Using an AV or AUX input:

The Scout supports both AV and AUX inputs.

- To use the AV or AUX input, plug the source into the appropriate port on the Scout headset.
- Use the 5-way button to enter the options menu, go to the source sub-menu, and select AV or AUX. The image on the screen should show the input from the source.
- To leave AV / AUX input, return to the options menu and select the new desired source.

NOTE: If you shut off the Scout while in AV or AUX mode it will restart in RX mode and you will need to change back to AV / AUX if you want to continue to use those inputs.

5. DVR Operation:

Preparations:

For operating DVR, the following preparations should be done:

1. SD card MUST be formatted with a FAT32 file system before use to ensure stable recording.
2. DVR is able to scan the selected input only and supports standard formats.

NOTE: Do not place alternative files that you want to keep into the DVR. The DVR may not recognize the file space and write over your files. Use a dedicated SD card.

3. Prior to being sure a properly formatted (FAT32) micro SD card is inserted into the SD card slot. The Scout supports SD cards up to 64 GB in size. Also, verify that there is a video source displaying inside the Scout headset. This source can either be an RX signal or an AUX/AV input.

Default mode of the DVR:

The default mode of the DVR is to manually start and stop recording with a short press of the center of the "**5-way**" button.

When you press the button to start recording, you should see a recording symbol in the upper right corner of the display as well as the duration of the recording on the OSD, support record DVR audio.

Video Format:

The DVR will create MOV files as it records.

The files will be named in the following format: MOVYYMMDD-HHMMSS-#F.MOV. For example:

File Name: MOV181213-221212-000005F.Mov		
YY	YEAR	18
MM	Month	12
DD	Day	13
HH	Hour	22
MM	Minute	12
SS	Second	12
#	File Number	00005 (fifth DVR file on the device)

Supported Formats:

The Scout DVR supports both NTSC and PAL and is designed to support the *.MOV video formats.
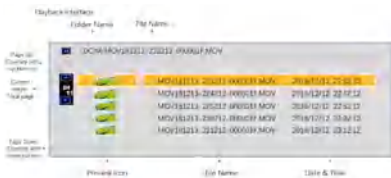
Playback:

The DVR playback is accessed by selecting the "**Playback**" option from the DVR in the options menu.

i.   Once playback mode is selected, the DVR playback submenu is opened. This submenu contains a list of all video files currently on the device.
ii. Pressing up/down on the "**5-way**" switch will navigate between files.
iii. Pressing the "**left/right**" buttons will turn fast the page when you have multiple pages.
iv. A short press on the "**Enter**" button will start the playback of the movie.

An overview of the file selection screen shows the different elements that are visible when selecting the file.

The files are listed with the most recent recording being the first file shown in the list.


v.   Once the desired file is selected, the screen will go into a video playback screen. The Playback OSD will indicate the playback status (playing, paused, fast forward, or fast rewind). It will also show the current file number, the name of the movie file, and the date/time stamp of the file.
vi. During playback, the "**5-way**" button can be used for greater control. A short press on the "**Enter**" button will pause/unpause playback.
vii. The "**Up**" button will enter into fast forward mode and the "**Down**" button will enter into fast reverse mode.

viii. Long press on the "Center" button will return to file selection, long press on the "Center" button again will return the user to RX mode.

6. LED LIGHT/BEEP STATUS CODES:

6.1 Quadcopter LED Light:

There are two RGB status LEDs on the bottom of the quadcopter.

Status LED ——————● ▮▮   ▮▮ ●—————— Status LED
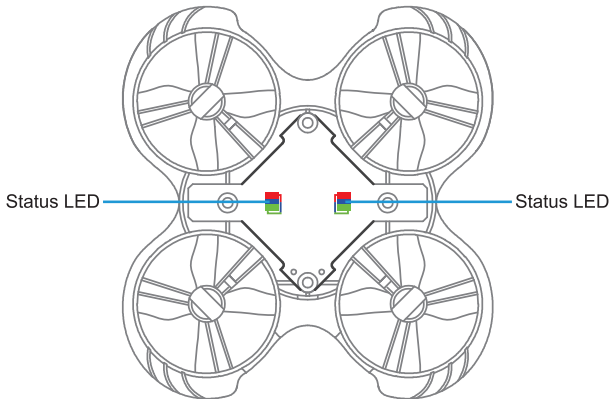
Status LED Color	Status	State Description	Solution
	Off	The power on the quadcopter is abnormal or off	Replace the battery and power on again
Red	Flashing slowly	Quadcopter battery is low	Replace the battery
Blue	Solid	The quadcopter is connected with the remote control Launch controller	Place the quadcopter on a horizontal surface and wait for awhile
Blue	Flashing fast	The quadcopter is horizontal calibrating	Disarm, and place the throttle joystick at the lowest position
Purple	Solid	Quadcopter accessed the OSD menu	
Green	Flashing fast	The quadcopter is in binding mode	
White	Flashing fast	Arming failed, because the throttle joystick was not at the lowest position when arming	
Brown	Flashing slowly	Loss of remote control Launch controller signal	Re-establish the connection with the remote control Launch controller

6.2 Launch Controller LED Light Status and Beep Codes:

There is a blue & red LED indicator light around the power button which indicates the status of the launch controller.
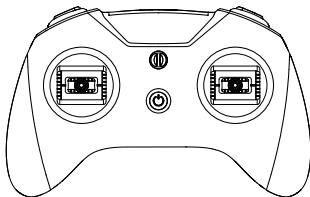
Indicator LED color	Status	State Description	Solution
Red	Solid	The throttle joystick is not at the lowest position when starting	Move throttle joystick to the lowest position
Red	Flashing fast	Remote control Launch controller is in binding mode	Wait for binding
Blue	Flashing slowly	The battery voltage is too low	Charge remote control Launch controller

There is a built-in beeper, the pilot can recognize the working status of the launch controller by its sound.

| Beep	State Description
Three consecutive beeps: beep-beep-beep	Low battery

7. ADVANCED SETTINGS:

Additional advanced settings are available in case of special operations.

7.1 Re-Bind for Quadcopter:

In case of failure of connection between quadcopter and launch controller, the pilot may need to re-bind.

To re-bind for Quadcopter follow the steps as follows;

i.   First, power on the quadcopter and wait until the loading of its system to complete.

ii. With the help of a screwdriver lightly press the button on the quadcopter. The status light on the quadcopter will turn green and start to flash.

iii. Then, power on the launch controller and wait for its system to complete.

iv. With the help of a screwdriver lightly press the "BIND" button on the back of the launch controller. The power indicator will flash red.

v.   Once the re-bind gets successful, the status light of the quadcopter will change to blue.

Status LED ——————   —————— Status LED
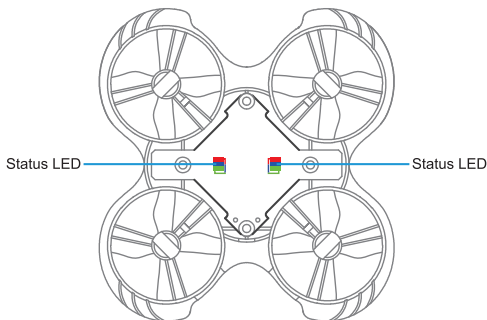
7.2 Quadcopter Level Calibration:

After the quadcopter has taken off and landed several times, the quadcopter gyroscope may become offset. This will cause the quadcopter to always tilt in the same direction during a flight.

To fix up the recalibration, follow the steps as follows:

i. Turn on the quadcopter and the launch controller, and ensure that the connection is successful.
ii. Place the quadcopter on a horizontal plane, and enter the quadcopter's OSD menu (Refer to "OSD Menu Operation").
iii. In the **MAIN** menu, select **CONFIG**, then **CALI**.
iv. Push the direction joystick to the rightto enter level calibration mode. The quadcopter LED will flash blue.
v. When the **OK** prompt appears and the LED returns to solid blue, the calibration is complete. Pilot can exit the OSD menu.

```
CONFIG

TOF            OFF
OPF            ON
LED            OFF
               OK


BACK
```
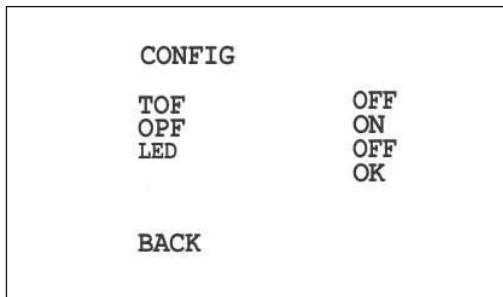
7.3 Launch Controller Calibration:

If the launch controller is subjected to physical impact, the joysticks may no longer read correctly and require recalibration. To re-calibrate the device, follow the instructions below:

i.   Power on the device, and press the "SETUP" button on the back of the launch controller which will beep twice, and LED will flash red twice quickly which shows the device has entered the calibration mode.

ii. Move throttle joystick and direction joystick to middle position and press the "SETUP" button again and wait until the launch controller beeps thrice, and the red LED will flash twice quickly which indicates the joysticks center data has been acquired.

iii. Then, slowly rotate the throttle and direction joystick twice around the boundary of the joysticks (once counter-clockwise and once clockwise) and press the "SETUP" button again. The launch controller will emit a beep for about 3 seconds and the LED will stop flashing indicating that the calibration has been completed successfully.

7.4 Turning On/Off the Optical Flow Positioning Function:

In Normal Mode, the optical flow positioning function of the quadcopter is turned on by default, which provides an auxiliary function for horizontal flight. It will bring a better flying experience in an environment with more obvious ground features and sufficient light.

To turn on/off the optical flow positioning function follow the steps below;

• Operate the launch controller to access the OSD setting menu.
• In the MAIN menu, select CONFIG and access the CONFIG menu, as shown below:
• Select OPF and change it to OFF for turning off the positioning and ON for turning on the positioning.
• Select BACK to exit the CONFIG sub-menu.
• Select the SAVE option in the MAIN menu to exit the OSD setting interface.

```
— CONFIG —
 TOF          OFF
>OPF          ON
 LED          OFF
 CALI         OK

 BACK
```

8. SUPPLEMENT:

8.1 Warning & Security:

- Move the throttle joystick as gently as possible to avoid the quadcopter ascending and descending too suddenly.
- Push switch SA down on the remote control Launch controller 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 large outdoor area or with the wind.
- Battery life can be significantly reduced if the pilot continues 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 the flight controller touches water, a short circuit may occur and the flight controller may burn out.
- Do not fly in inclement weather with thunderstorms or lightning.
- Do not fly in areas that are not permitted by local law.

8.2 Precautions for Battery Use and Charging:

- Do not immerse the 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 the battery near heat sources, microwave ovens, or open flames.
- 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 the battery in an extremely hot environment, such as in a car under direct sunlight or hot weather. Overheating affects the performance of the battery and shortens the service life of the battery. Overheated batteries can catch fire.

- If the battery has a peculiar smell, temperature, deformation, discoloration, or any other abnormal phenomenon, stop using the battery. Recycle and replace the battery.
- If the 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 the 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.

8.3 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 cover it with replacing or a refund.
- All warranty replacements are required to have photos or videos and a detailed description. The warranty does not cover physically damaged merchandise. We are willing to figure out the best solutions, as always. For after-sale service, please reach out via e-mail: support@rocketdrones.com

9. FAQS:

## Q: How to Replace Propellers and Motors?

A: Propellers can be deformed or fall off when a quadcopter collides with an object. Bent or missing propellers need to be replaced. Firstly, use the included propeller removal tool to remove propellers from the motor. The tool is placed between the motor and the propellers. Please hold the motor instead of the frame duct with your hand when removing propellers to protect the frame from being

deformed by overexertion. Secondly, the distance between the replaced propeller and the motor is kept at about 2mm. There is no need to press down forcefully. Pressing down forcefully will cause damage to the motor or the blades to rub against the frame when working.

Approximately 2 mm
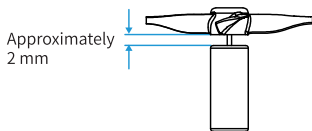
4 spare propellers are included: two each clockwise (CW) and counterclockwise (CCW). CW propeller warps clockwise. It is used on the front left or rear right motor. CCW propeller warps counterclockwise. It is used on the front right or rear left motor. Install as in the diagram below.

The CW propeller corresponds to the motor with red and blue wires, and the CCW propeller corresponds to the motor with black and white wires.

CW Propeller
Warp Clockwise

CCW Propeller
Warp Counterclockwise
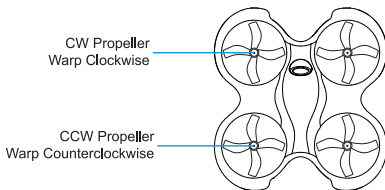
Q: How to Adjust When the Quadcopter Drifts or When It's Difficult to Control in Normal Mode?

A: In Normal Mode, the optical flow positioning function of the quadcopter is turned on by default. Try to avoid an unsatisfactory environment of ground features are difficult to identify. Otherwise, the quadcopter may drift or become difficult to control. The following are common unsatisfactory environments:

• Dark environment
• Above the water surface;
• Above smooth tiles or single-color smooth ground.

If the quadcopter needs to fly in an unsatisfactory environment, the optical flow positioning function can be turned off and the quadcopter will lose the auxiliary function of horizontal flight. This requires the pilot's better skills.

Similarly, when the laser altitude determination function is turned on, try to avoid the following unsatisfactory environments:

For the steps to turn off/on the positioning function or laser altitude determination function, please refer to the chapter of "Advanced Functions".

Please make sure that the bottom of the sensor is not blocked by foreign objects, and that the surface of the sensor is free of dirt and dust that will affect its accuracy. When the flight auxiliary function is abnormal, the sensor should be wiped clean before continuing to use.

Sensor   Sensor
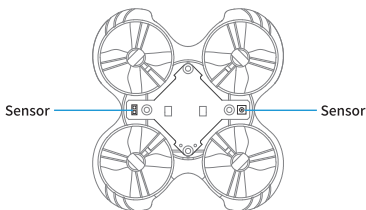
Q: How to Use FPV Simulator?

A: The safest and quickest method to get started is to use an FPV simulator. The launch controller supports most FPV simulators on the market with a comprehensive configuration.


FPV Simulator

Type-C Port

USB Data Cable
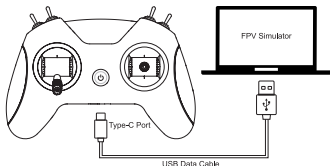
To connect your radio:
• Turn on the launch controller and wait for the blue light to show.
• Connect the launch controller with the PC by USB cable.
• The correct driver will install automatically. A box pops up to confirm successful installation.

Q: How to Stop After A Collision?

A: Push down switch A on the launch controller immediately once the quadcopter collides with an object. All motors will immediately stop

Switch C

Switch B

Switch D

Switch A
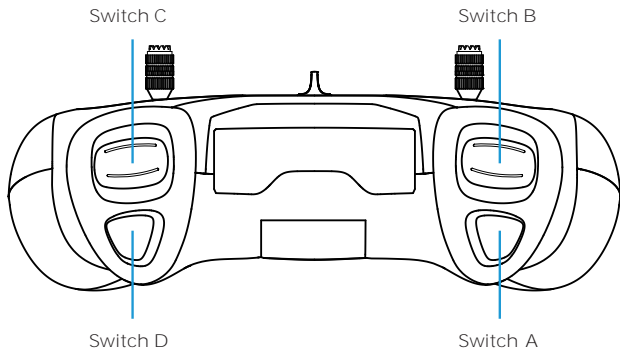
10. FCC STATEMENT :

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.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.

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

Specific Absorption Rate (SAR) information:
This LAUNCH CONTROLLER meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.
FCC RF Exposure Information and Statement

–This radio is designed for and classified as "General population/uncontrolled Use", the guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.The exposure standard for wireless radio employs a unit of measurement known as the Specific Absorption Rate, or SAR, the SAR limit set 1.6W/kg.
–Body-worn operation; this device was tested for typical body-worn operations with the back of the handset kept 0mm for body worn. To maintain compliance with RF exposure requirements, use accessories that maintain a 0mm for body worn. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with RF exposure requirements, and should be avoided.
–The highest reported SAR value for worn on the body is 0.973 W/kg.

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