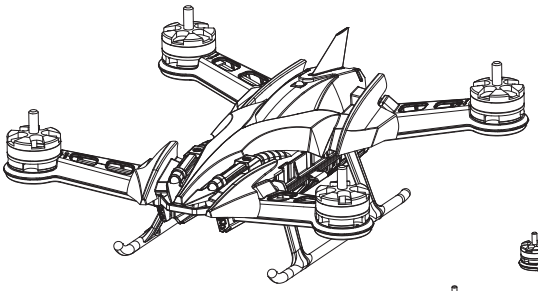
LY-250

Radio Control Quadcopter

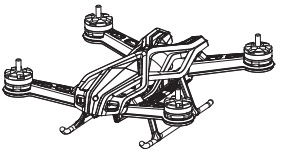
Thanking for choosing Longing's series of drones. Before proceeding with the remote-controlled flight, you need to know certain relevant information and take note of some things in order for you to become adept in the course of flying the drone. Please read these instructions carefully before flying the drone.These instructions will help you to operate the drone system to its fullest so that you will achieve desired results and enjoy the flying experience. Keep the instruction manual for future use.

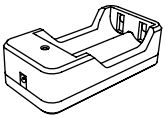
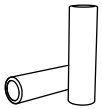
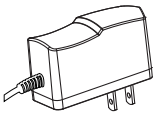
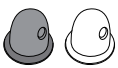
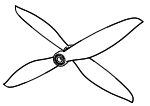
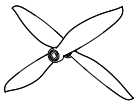
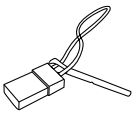
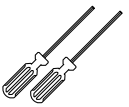
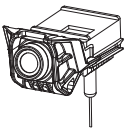
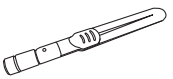
The detailed structural composition of this product is subject to the actual product. The final right of interpretation of this product and instruction manual belongs to Shenzhen Longing Innovative Aviation Technology Co., Ltd.

Parts In the Box



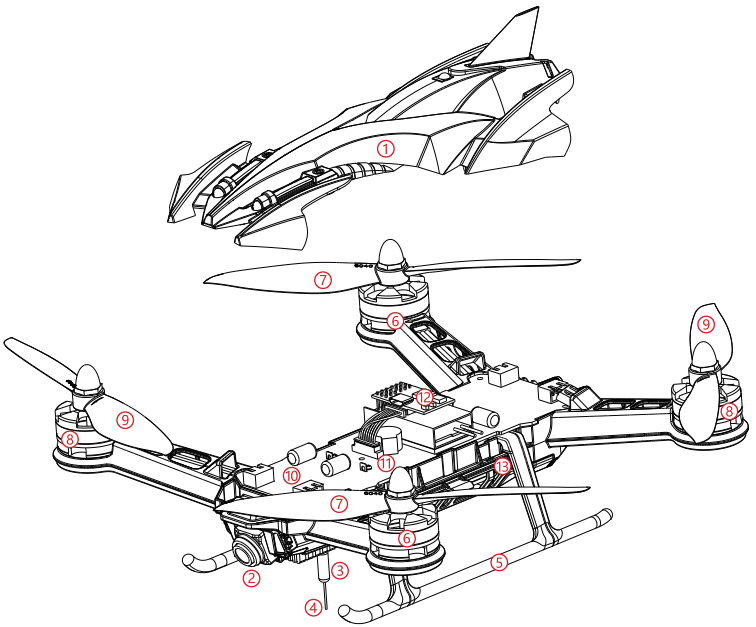
Main Drone x 1



 Remote-Controller x 1	 Battery Charger x 1	 Battery x 4 pieces	 Power Adapter x 1
 Instruction Manual x 1	 Motor Nut x 2 pairs	 CCW Propeller x 1 pair	 CW Propeller x 1 pair
 Sticker Sheet x 1 (for Dark Knight)	 Joystick Head Nut x 2 pairs	 Tool for Frequency Bind x 1	 Screw Driver x 2
 FPV LCD Display x 1 RTF FPV	 Camera and Image Transmitter x 1 RTF FPV	 LCD Display Bracket x 1 RTF FPV	 Antenna x 1 RTF FPV

1. LY-250 INTRODUCTION

- The structure of the main platform uses ultra-high tensile PC materials, which are highly pliable and durable as well as ultra-high impact resistance.
- The new integrated design increases the structural strength of the product. At the same time, the system is expandable for upgrades, maintenance and part replacements.
- A real-time image transmission system for a unique FPV visual effect can be installed.
- The drone moves in a great force and is able to perform various explosive stunts easily.



① Chassis

② Camera (optional)

③ Image Transmitter (optional)

④ Image Transmission antenna (optional)

⑤ Landing Gear

⑥ CCW Motor (forward-turning screw thread)

⑦ CCW Propeller

⑧ CW Motor (reverse-turning screw thread)

⑨ CW Propeller

⑩ Mainboard

⑪ Flight Controller

⑫ Receiver

⑬ 2 x 3.6V/2500mAh Lithium-ion batteries

2. PRODUCT PARAMETERS

- Drone Parameters

Propeller: 6040

Body (L x W x H): 202 x 214 x 82mm

Weight: 398g (with battery and propellers)

Remote Controller: LY-i6

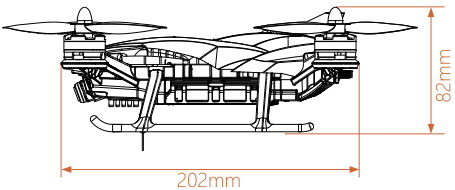
Receiver: LY-iA6

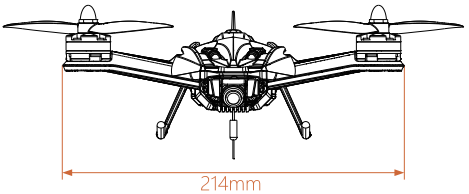
Flight Controller: LY-CC3D

Mainboard: LY-250 mainboard (with 4 Electronic Speed Controllers and BEC)

Battery: 2 x 3.6V/2500mAh Li-ion

Flight Duration: MAX 15 min





- Camera Parameters

Resolution: 420TVL

System Mode: PAL/NTSC

Output Channel: 1.0Vp-p/75Ω

3. THINGS TO NOTE

- This product is intended for users over 15 years old and with knowledge and experience in flying a drone.
- Do not fly the drone under severe weather conditions such as strong winds, fog, rain, or snow.
- Fly the drone legally in a safe and open area.
- Fly the drone away from people to avoid possible injury.
- Do not fly the drone in the area with high-frequency electric waves to avoid their interference with the remote controller.
- Please do not fly the drone at no-fly zones restrict by the relevant rules or regulations.

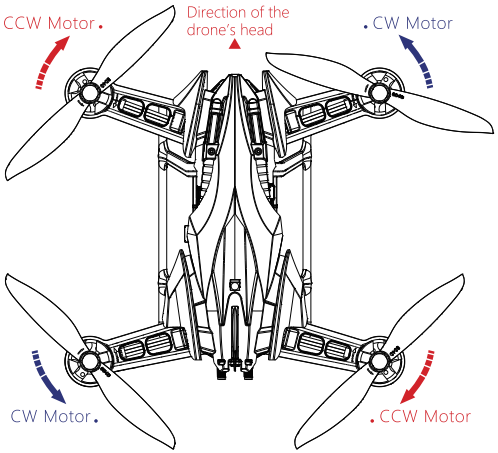
4. CHARGING THE BATTERIES

- Plug the power adapter into the power supply outlet (100-240V 50/60Hz) and its output terminal connected to the charger. The charger's LED light will be red at this time.
- Place two batteries into the charger's compartment according to their positive and negative poles.
- The charger's LED light will be red during charging and will turn green when batteries are fully charged.

5. SYSTEM ASSEMBLY

- Installing the Propeller

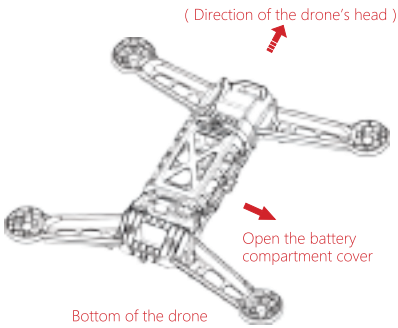
Install the propeller in the direction of rotation towards the motor as indicated by the arrow on the side of the drone's motor as well as in the direction of the arrow on the propeller (the arrow indicated on the propeller represents the direction for tightening the screw, which is opposite of the propeller's correct direction). Install the propeller with its indicated direction that is opposite of the motor's direction of rotation onto the motor.

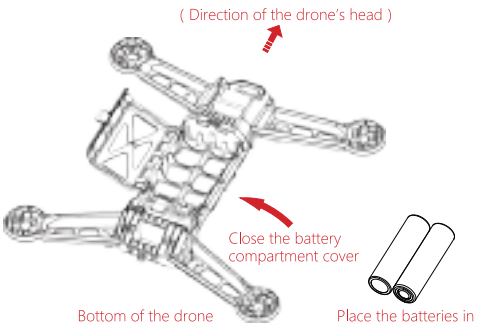


- Installing the Battery

Press down the protruding end that is not covered by the battery compartment with one hand, and pull the protruding end of the battery cover outwards with the other hand. Push down to open the battery cover to install the battery.

Please note the positive and negative poles of the battery when placing the battery in. Install the battery according to the poles indicated on the drone body.





- Installing the Chassis

Clip the protruding part at the front of the chassis to the drone's body and press the chassis lightly. Lock the chassis tightly to the body using the locking components.

6. PREPARATION FOR FLYING

- Drone Current-Passing Sequence

First, turn on the remote controller. Take note to place all controlling rods and switches at their initial positions (at position 1, otherwise, the remote controller would trigger an alarm and an alert would appear on the controller's interface). Once the controller is turned on and set up, turn on the power switch on the drone (you can flick the switch at the bottom of the drone on or off).

The order of powering the system off is the reverse of powering it on. Turn off the switch on the drone first before shutting down the remote controller.

• Unlocking and Locking the Motor

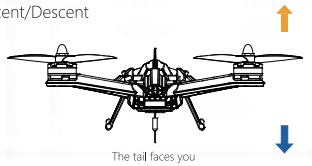
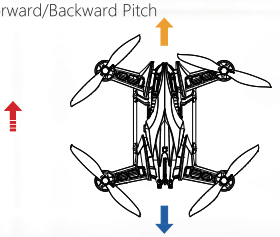
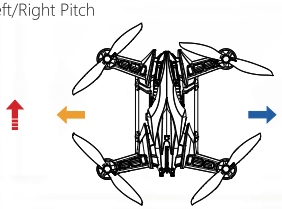
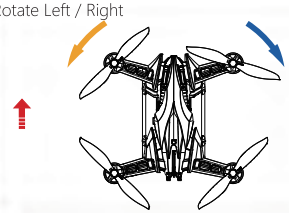
(1) Unlocking the Motor

Push the throttle stick on the remote controller to the bottom inner position (farthest right corner), and wait a few seconds to unlock the motor.

(2) Locking the Motor

Push the throttle stick to the lowest position and wait 10 seconds to lock the motor The motor will not run if you push the throttle stick upwards.

7. OPERATION

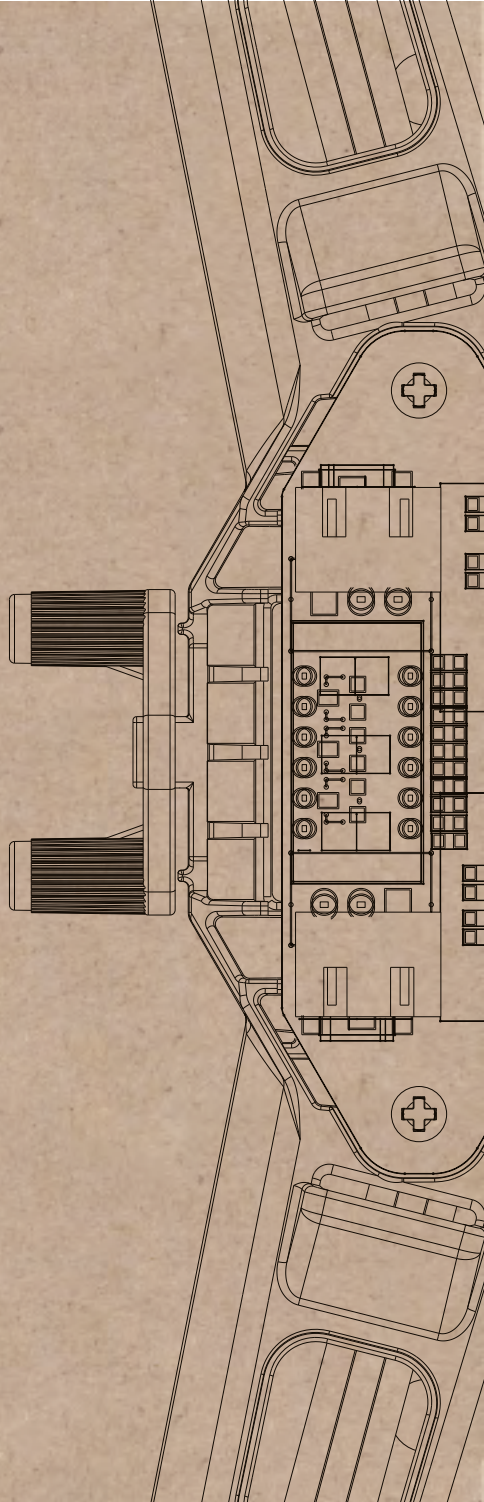
Model (← the direction of the drone's head)	Remote Controller (Model 2)	Remote Controller (Model 1)
Ascent/Descent 		
Forward/Backward Pitch 		
Left/Right Pitch 		
Rotate Left / Right 		

Information to the user.
Notice:
Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Information to the user.
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.

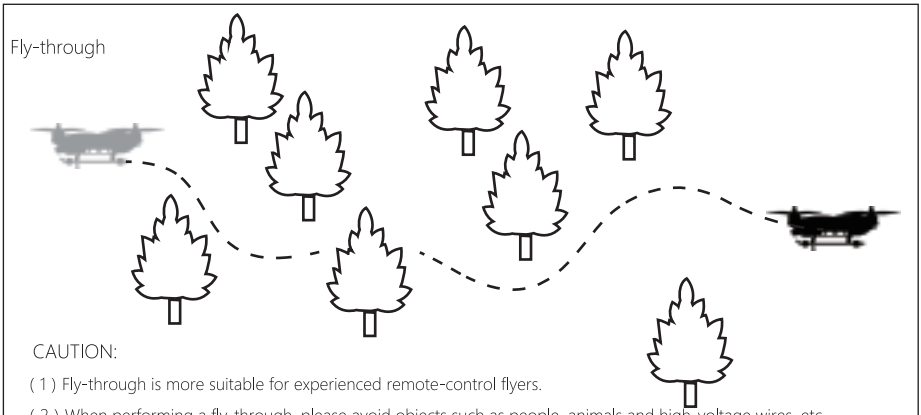
FCC RF Radiation Exposure Statement:
1. This Transmitter must not be co - located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.



CE0700 RoHS

FCC ID: 2AIWS1601250

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.



CAUTION:

(1) Fly-through is more suitable for experienced remote-control flyers.

(2) When performing a fly-through, please avoid objects such as people, animals and high-voltage wires, etc.

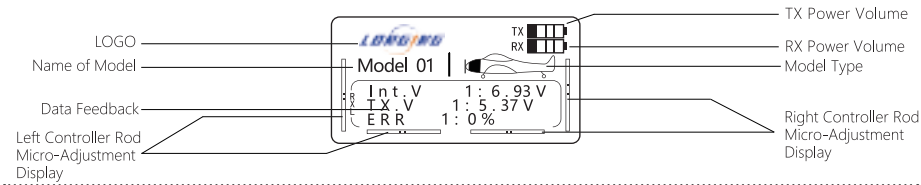
(3) When performing a fly-through, please perform the flight within 50m of your line of sight or within 300m of the video frequency range (the range depends on the flight environment and weather conditions).

8. END OF FLIGHT

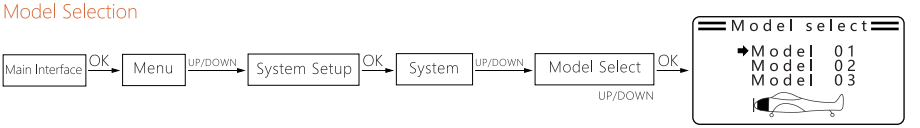
- Descend manually.
- Power off the drone first before shutting down the remote controller.
- Take the batteries out from the drone.

9. LY-iA6 REMOTE CONTROLLER SETTINGS

- Power on Display (Main Interface)



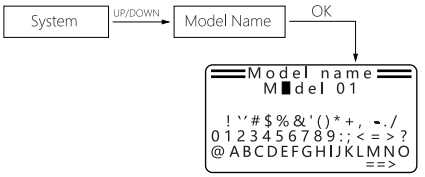
- Model Selection



Press UP or DOWN to point the -> cursor to the model serial number stored, e.g. “Model 1”.

Press and hold CANCEL key to confirm and return to the system menu SYSTEM.

- Naming the Model

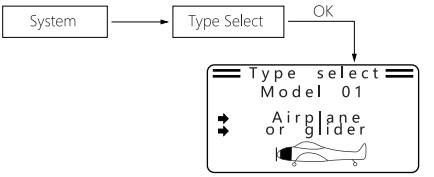


System –UP/DOWN-> Model name –Ok->Press UP or DOWN to change the letter.

Press OK to confirm and move to the next letter.

Press and hold CANCEL key to confirm and return to the system menu SYSTEM.

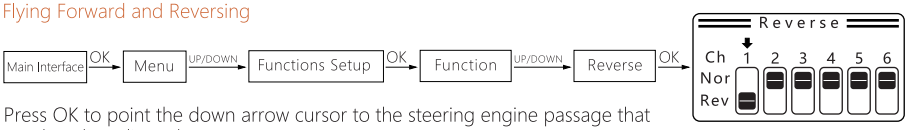
- Type Selection



System –UP/DOWN-> Type select –Ok->Press UP or DOWN to point the -> cursor to Airplane.

Press and hold CANCEL key to confirm and return to the system menu SYSTEM.

- Flying Forward and Reversing



Press OK to point the down arrow cursor to the steering engine passage that needs to be adjusted.

Press UP or DOWN to change the steering engine's direction.

Press and hold CANCEL key to confirm and return to the menu Functions.

10. INSTRUCTIONS FOR USING LYC-250 CHARGER

- SPECIFICATIONS of the LYC-250 Charger

Input Voltage	Input Current	Output Current	Dimensions	Weight
DC4.2V	2000mA	≤1000mA	101.2 × 50× 29.3mm	42g

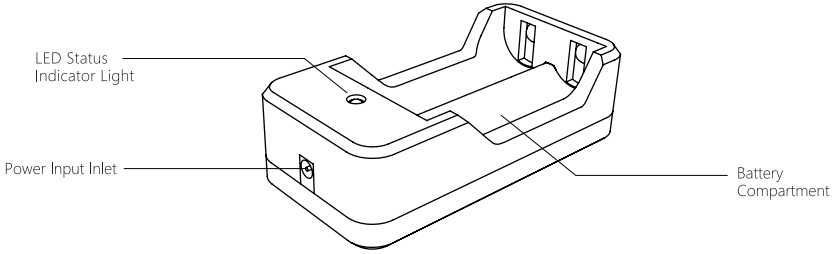
- Characteristics of the LYC-250 Charger

(1) It uses a microcomputer core chip to control the entire charging process and has a LED indicator light to display the charging status in real time.

(2) It comes with its own DC 42.V 2000mA adapter.

(3) It can be used for 4.2V Lithium-ion batteries.

- Introduction of LYC-250 Charger Functions



- Note for the LYC-250 Charger

(1) The charger can only be used to charge Lithium-ion batteries, otherwise the charger or the batteries might be damaged.

(2) When charging, the charger must be placed at a dry and well-ventilated location and away from sources of heat as well as flammable and explosive items.

(3) The charging process must be supervised to prevent any accidents.

(4) At the end of a flight, the battery's surface has yet to cool down. Do not charge the battery immediately.

(5) Please make sure that the poles are correct before connecting the battery to the charger.

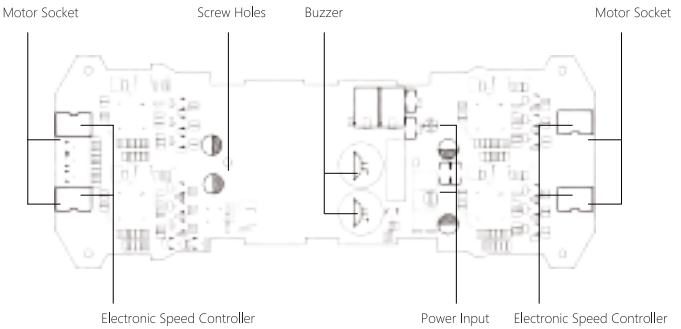
(6) During the charging, avoid dropping the battery or subjecting it to external impact. Otherwise, it could cause an internal short-circuit of the battery, which is hazardous.

(7) For your own safety, please use the original factory-made charging equipment (power adapter + charger) and batteries.

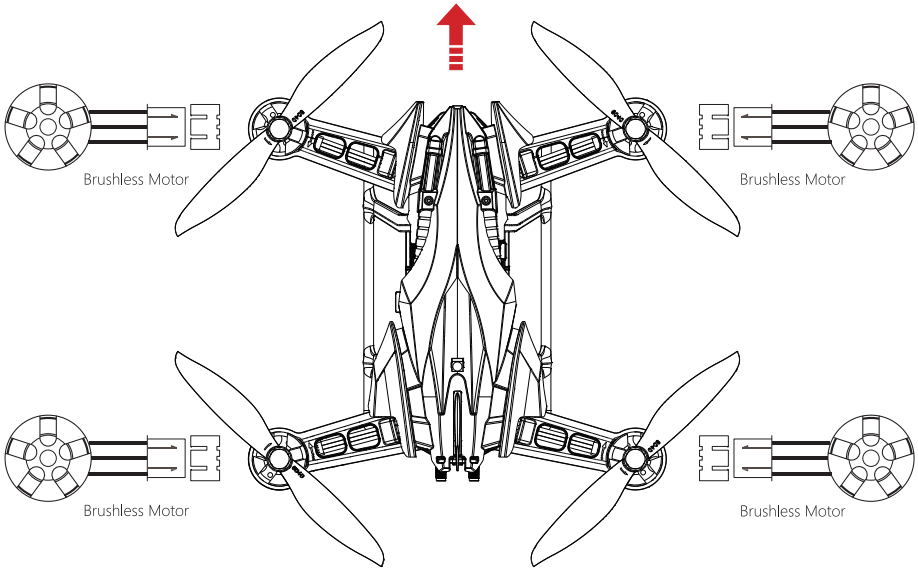
(8) After the battery is fully charged, the battery would discharge itself, if it were left on the charger for a long period of time, which would deplete its power. When the charger detects that the battery voltage is lower than the designated voltage, the charger would start charging the battery until it is fully charged again. The repeated charging and discharging process will shorten the battery's lifespan.

11. ADDITIONAL INFORMATION

- Introduction of Mainboard



• Brushless Motor Schematic Diagram(⟸ indicates the direction of the drone's head)



• Flight Mode

Push the manual switch (SWC) to Position 1, which is the self-stabilizing flight mode.

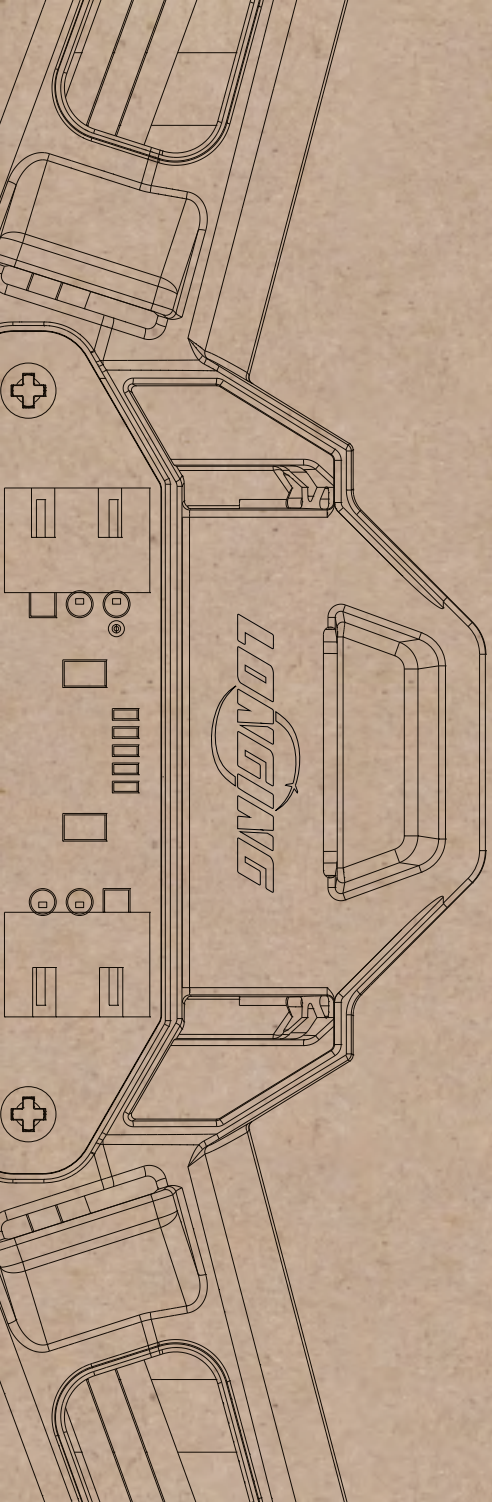
Push the manual switch (SWC) to Position 2, which is the stunt flight mode.

Push the manual switch (SWC) to Position 3, which is the manual flight mode.

Disclaimer

Please read this disclaimer carefully before using the product. Once you use the product, you shall be deemed to have agreed to and accept the disclaimer. The product is not suitable to be used by users under 15 years old. In the course of using this product, the user undertakes to bear the responsibilities for his/her own actions and the consequences that arise from such use. The user undertakes to use the product only with proper intentions and agrees to obey this provision as well as the relevant policies or rules that Longing Innovations may stipulate.

Longing Innovation retains the right to update this disclaimer. The latest version of the disclaimer on our official website (www.longingi.com) shall prevail.



INSTRUCTION MANUAL