



F210 Racing RC Quadcopter User Manual

Shenzhen Idea-Fly Technology Co., Ltd

Warnings and Safety Notes

Thanks for purchasing F210 quadcopter. Please regularly visit F210 web page at www.idea-fly.com which is updated regularly. Product information, technical updates and manual corrections will be available on this web page. Due to unforeseen changes or product upgrades, the information contained in the manual is subject to change without notice.

Read this disclaimer carefully before using this product. By using this product, you hereby agree to this disclaimer and signify that you have read them fully. Please strictly follow the manual to assemble and use the product. The manufacturer and seller assume no liability for any resulting damage or injury arising from the operation or use of this product.

General Safety

This product is a multi-rotor aircraft which will provide a very good flight experience with the good condition of the power system and all the parts in good condition. Please contact customer service for the latest instructions and warnings. Idea-Fly will reserve the rights to update this disclaimer.

The quadcopter can be extremely dangerous and cause bodily injury. Exercise the utmost caution when flying and operating it. It can be dangerous if you do not fly it in a safe manner or do not pay close attention while flying it. You alone are responsible for its actions during flight.

Before flight, always do a quick motor test to verify that all four propellers are spinning the correct directions. If you're not careful, it's possible to accidentally install the outrigger arms and/or propellers incorrectly, which can result in the quadcopter not flying correctly and possibly crashing.



The propellers must be removed from the motors whenever you update the autopilot's firmware or whenever there's any question about safely operating the quadcopter.

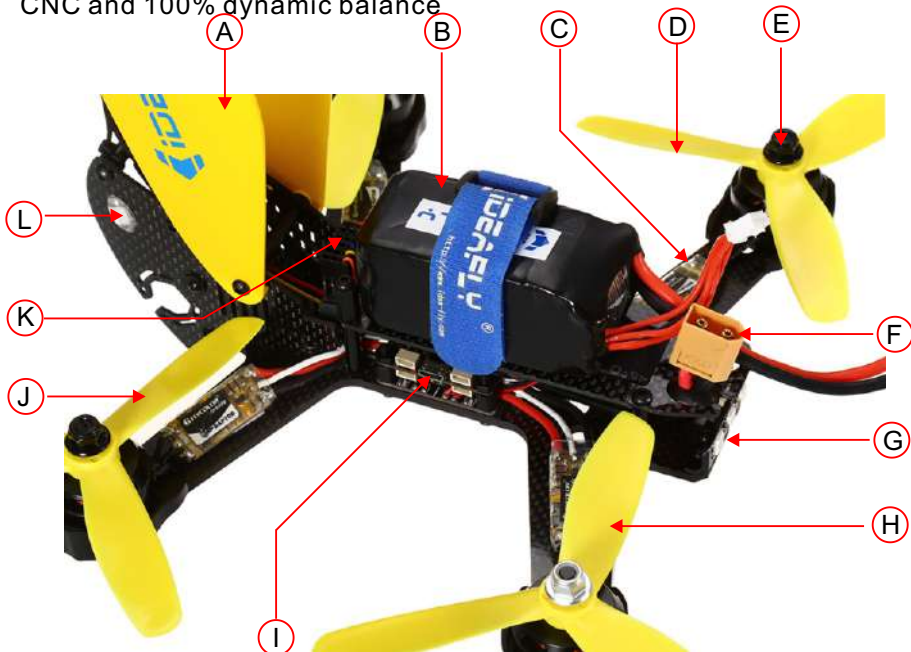
- Do not attempt to fly the quadcopter if one or more of the propellers are damaged. Flying with damaged propellers is not safe and can make the quadcopter fly uncontrollably.
- Always make sure the propellers are installed correctly and that the propeller hub washers and mounting screws are secured tightly. Never install the propellers without also installing the propeller hub washers!

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Get to know your aircraft

- Premium carbon fiber frame: Made of sturdy and durable carbon fiber, the upper board is 1.5mm thick, while the thickness of the arms and the board beneath them is 3.5mm
- F3 10DOF flight controller with barometer and compass, which delivers you fantastic flight experience
- Brilliant 2205 2300KV motors. With imported bearings processed through CNC and 100% dynamic balance



Ⓐ Battery Cover

Ⓑ LiPo Battery

Ⓒ ESC

Ⓓ Propeller(CW)

Ⓔ Screw For propeller

Ⓕ Power Connector

Ⓖ Rear Indicator LED

Ⓗ Propeller(CCW)

Ⓘ F3 Flight Controller

Ⓙ Propeller(CW)

Ⓚ Receiver

Ⓛ Throttle Value LED

Get to know your remote controller

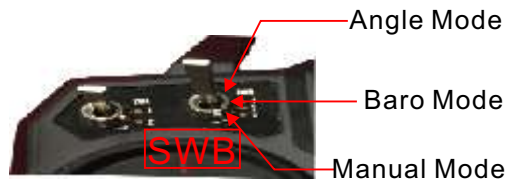
The F210 build-in 3 different flight modes, you can use the SWB of the remote controller to change the flight mode.



Stick Mode explain:

MODE 2 (Throttle stick on the left)	Left stick	THRO/RUDD stick
	Right stick	ELEV/AILE stick
	Left trim	THRO trim
	Right trim	ELEV trim
MODE 1 (Throttle stick on the right)	Left stick	ELEV/RUDD stick
	Right stick	THRO/AILE stick
	Left trim	ELEV trim
	Right trim	THRO trim

Flight Mode Switch explain:



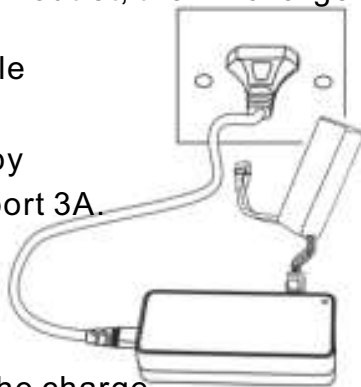
* Select the appropriate stick mode according your flight skills

Attention before flight

- The F210 mini-quad is recommended for pilots, 14 years or older, with RC hobby experience.
- Only fly the F210 in dry weather, with low wind, please do not fly in rain or heavy foggy conditions.
- Always choose large open fields for flying. Check local LAW and ordinances for legal flying areas.
- Always keep at least 10 feet distance to the aircraft when armed, to avoid injury from high-speed propellers on the ground or while flying. Always disarm before handling the aircraft.

Charge The Battery

1. Connect the power-cable to the wall-outlet, the E4 charger accept voltage from 110V to 240V.
2. Select the battery type LiPo by toggle the battery type switch.
3. Select the suitable charge current by toggle the current switch, max support 3A.
4. Insert the balance port and power port to the charger, then the charge process will start automatic.
5. When the battery is fully charged, the charge status LED glows constant green.



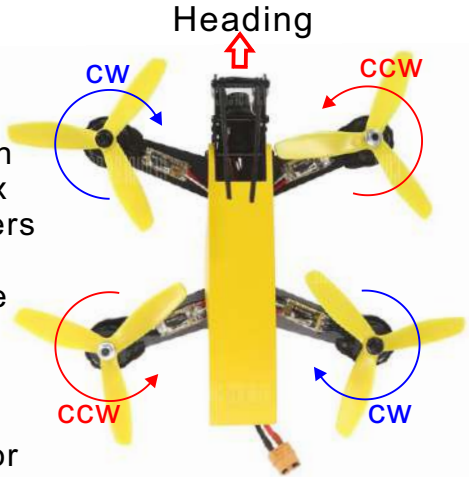
Explanation of charger led status

Charge Status LED	LED green blinking	The charges is ready to charge.
	LED glows constant red	The charger is charging in CC mode.
	LED glows constant orange	The charger is charging in CV mode.
	LED glows constant green	The charging process finishes.
Cell Status LED	LED glows constant red	The cell is charging.
	LED flashes red	The cell is discharging

Prepare Your Quadcopter

1. Install the propeller

Fix the clockwise propellers onto the clockwise motors based on the rotation direction marked on the motors, then fix the counterclockwise propellers as the same way. Tighten the propellers manually and make sure the propeller is installed in proper way and fastened.

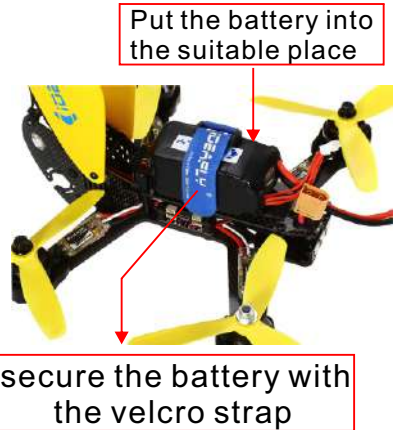


Install prop by hand and tighten by holding the motor with the included wrench.

You can also use the wrench to help remove broken props in case of crash.

2. Install the battery

First open the battery cover, then put the battery into the top of the body and move it forward-backwards as required for perfect balance, then firmly secure the battery with the velcro strap.



1. Make sure the battery installed in a suitable place so that the quadcopter has a best balance.
2. Please secure the battery with the velcro strap firmly to prevent battery moving during the flight.

Ready for flight

1. Place the aircraft in a wide open space, with the rear facing you.
2. Put all the switch in the remote controller to the UP position, release all the trim buttons and function buttons, move the throttle to the lowest position, then turn on the remote controller.
3. If you have a video receive equipment(such as a 7 inch screen, glass, etc) please turn on the equipment and set the receive channel to the correct channel, then turn it on.

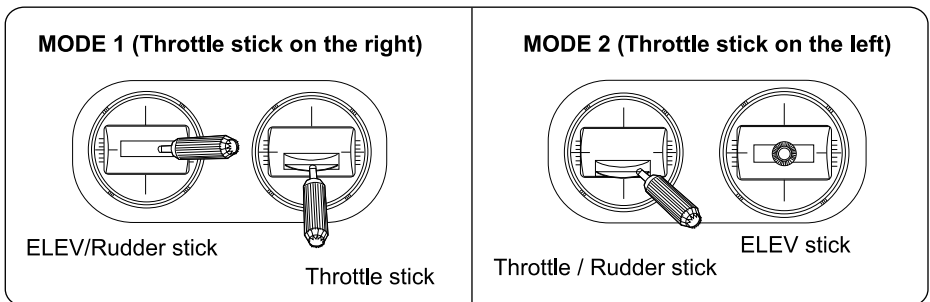
Motor Unlock/Lock

Motor Unlock

After power on the remote controller and aircraft, the rear indicator LED will be constant green, that means the flight controller initialization finished.

Gently push the throttle stick down and move the rudder(YAW) stick to the right side and hold for more than 2 seconds(On the mode 2 the throttle and YAW stick is the same stick), you will see the rear LED becomes constant blue, means the motors are unlocked. Be very careful at this point, as pushing the throttle stick will start the motors.

The unlock method shown as below

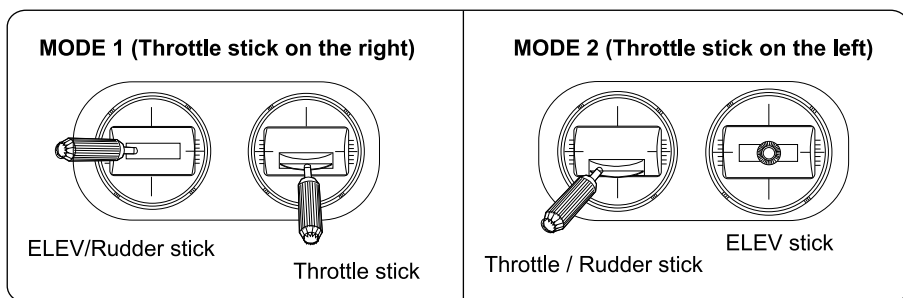


Motor Unlock/Lock

Motor Lock

Lock the motors by moving the throttle stick all the way down and the rudder(YAW) stick all the way to the left side and hold for about 2 seconds, the rear LED will become constant green means that the motors are locked.

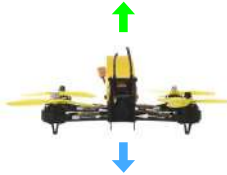
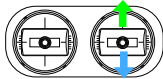
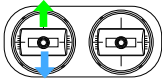

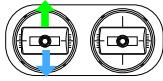
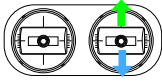

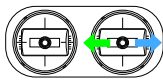
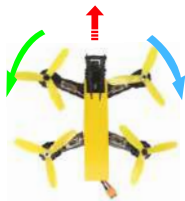
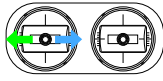
TEST: Push the throttle up a little, the motors will not start.



End of flight

1. Land the aircraft, disarm(lock) the aircraft.
2. First power off the aircraft by unplugging the battery, then turn off the remote controller.
3. Finally, remove the battery from the aircraft.


Operation Instruction

Aircraft posture(← the direction of head)	Remote Controller control instruction	
<p>THROTTLE Up/down The rear toward operator</p> 	 <p>MODE 1 (Throttle stick on the right)</p>	 <p>MODE 2 (Throttle stick on the left)</p>
<p>PITCH Forward/backward</p> 	 <p>MODE 1 (Throttle stick on the right)</p>	 <p>MODE 2 (Throttle stick on the left)</p>
<p>ROLL (lean) Left / right</p> 	 <p>MODE 1 / MODE 2</p>	
<p>YAW (turn) Left / right</p> 	 <p>MODE 1 / MODE 2</p>	

Specifications

<p>General</p>	<p>Type: Racing Quadcopter Brand: Ideafly Model: Grasshopper F210 Features: 5.8G FPV, Radio Control Motor Type: Brushless Motor Functions: 3D Inverted Flight, 3D rollover, Forward/backward, FPV, Left / Right Hand Throttle Switch, Turn left/right, Up/down Max Speed: more than 230km/h Built-in Gyro: Yes Material: Carbon Fiber</p>
<p>Connectivity</p>	<p>Remote Control: 2.4GHz Wireless Remote Control Channel: 10-Channels Mode: Mode 2 (Left Hand Throttle) Control Distance: Above 800m</p>
<p>Battery</p>	<p>Battery: 14.8V 1300mAh 45C 4S Flying Time: 10-13mins Charging Time (h): about 2.5 hours Battery Weight: 148g</p>
<p>Camera</p>	<p>Video Resolution: 700TVL (horizontal resolution) Video Standards: PAL</p>
<p>Dimension and Weight</p>	<p>Product weight: 0.328 kg Package weight: 0.865 kg Product size (L x W x H): 20.50 x 20.00 x 8.50 cm / 8.07 x 7.87 x 3.35 inches Package size (L x W x H): 41.00 x 27.00 x 11.00 cm / 16.14 x 10.63 x 4.33 inches</p>



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User manual is subject to change
without prior notice

Please go to Idea-Fly official website
to get the latest information

