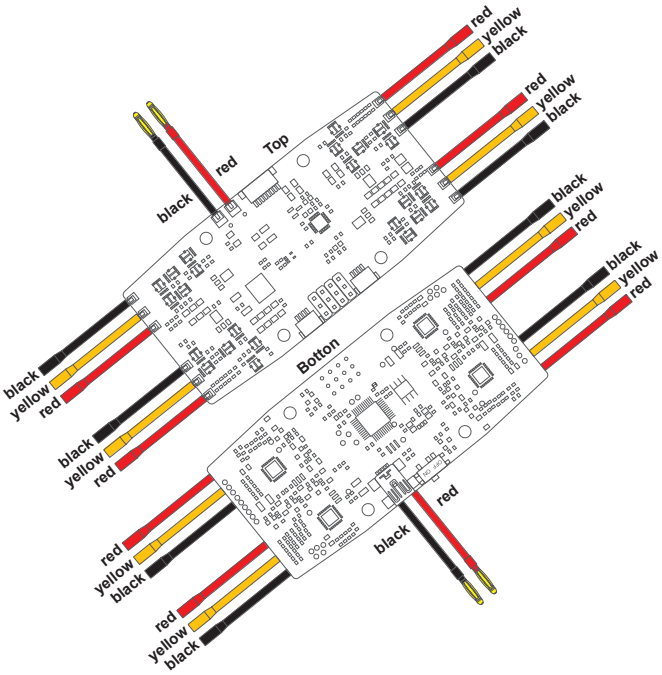
20A

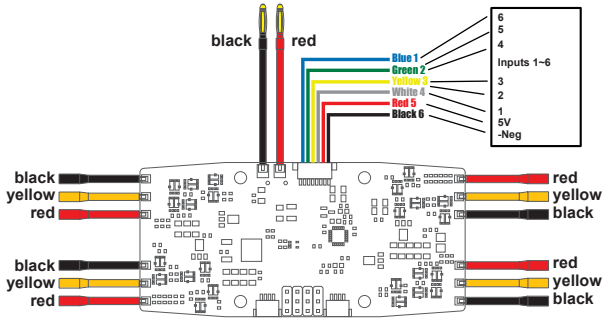
4 in 1 + CC3D FC

illustration Manual

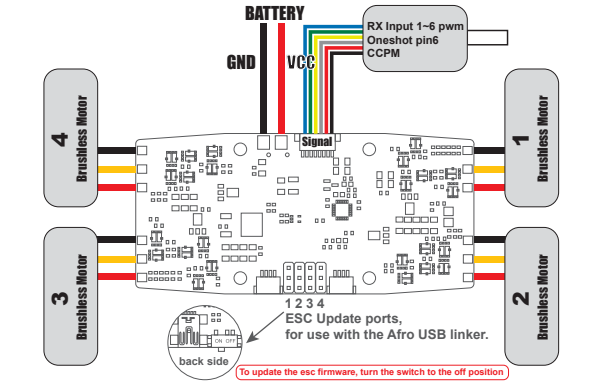
20A 4 in 1 + CC3D FC



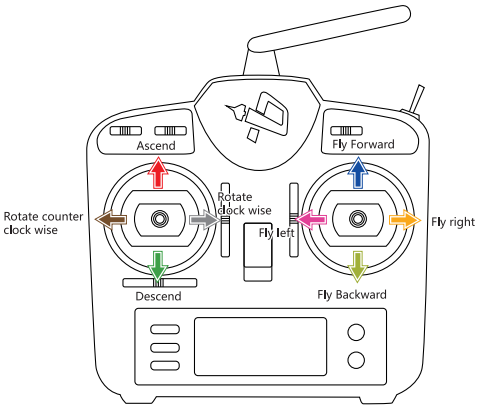
Connection diagram (To flight controller)

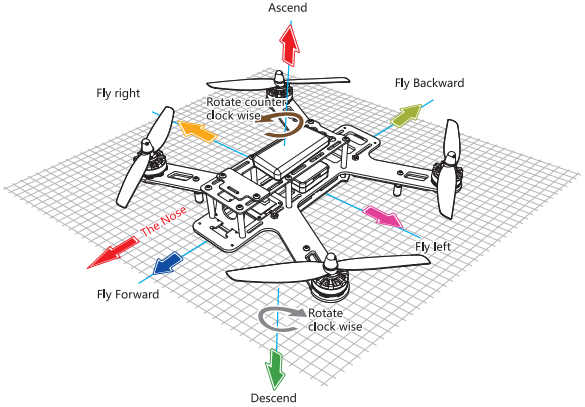


Connection diagram 2



OPENPILOT GCS - OPERATION DWG





OPENPILOT GCS - FIRMWARE UPDATE

Step 1 : Double click the icon, tuen on " " PC software.

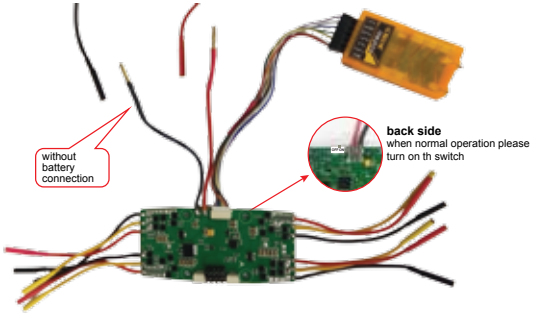
(you can download software website : http://www.openpilot.org/new-release-15-02-02-bugfix-release/)

Step 2 : Please click below Green 3D icon (Red Square)

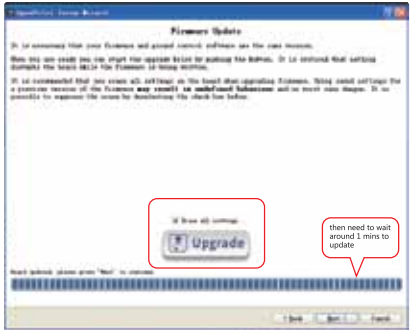
Step 3 : Please read below instruction carefully, and then click the "next" button to start firware update procedure.

OPENPILOT GCS - FIRMWARE UPDATE

Step 4 : Please connect the mini USB cable to CC3D USD socket for firmware update during without battery connection status.



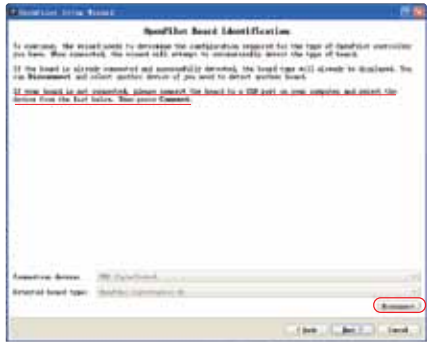
Step 5 : Follow below instruction ; click “Erase all settings” box. And click the Upgrade Icon, click the “Next” button, then need to wait around 1 min to update. Please waiting the progress bar to the End of right side.



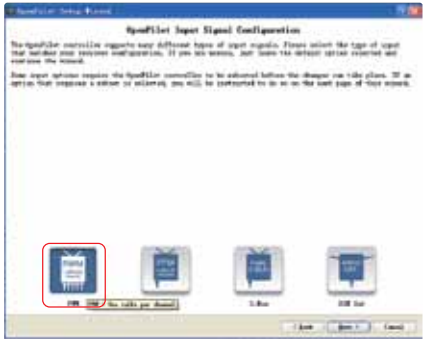
OPENPILOT GCS - FPV SETTING

Step 1 : Click Disconnect and select connection device and detected board type, then click “Next” button.

⚠ The board should auto detect, if not please connect the board to a USB port on your computer and select the device from the list below, then press Connect.



Step 2 : Like below instruction, click “select your RX input type” Icon, and then click the “Next” button.

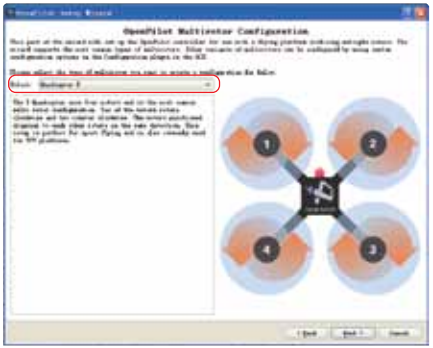


OPENPILOT GCS - FPV SETTING

Step 3 : Select the Multirotor icon, then click the “Next” button.

⚠ The board should auto detect, if not please connect the board to a USB port on your computer and select the device from the list below, then press Connect.

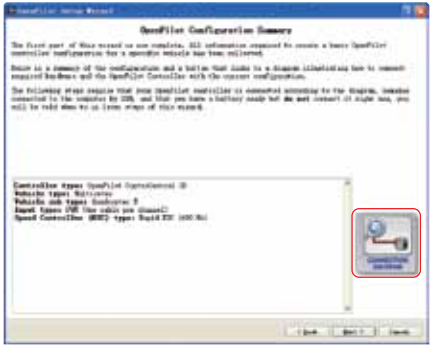
Step 4 : One click next step and select the “Select x or + for your type of quad” in the window. And the “Next” button.



OPENPILOT GCS - OUTPUT SIGNAL SETTING

Step 1 : Select rapid esc or oneshot. Note to use oneshot you must use Sbus or Cppm RX input on ch6/pin8.

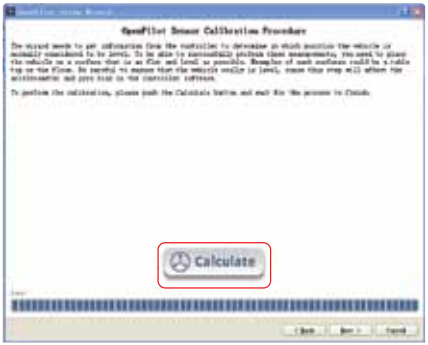
Step 2 : Like below picture, Open pilot setup preview click the “Connection diagram” icon to check the connection. Verify your settings please click “Next” button.



OPENPILOT GCS - SENSOR CALIBERATION

Step 1 : Level the quad and click calibrate, make sure to not move the quad during this process.

⚠ P.S. This procedure for calibrate the horizontal level. Freight controller need to place on flat surface to calibrate. If not sure your surface is balance or not. Please put it on the ground to run this procedure.

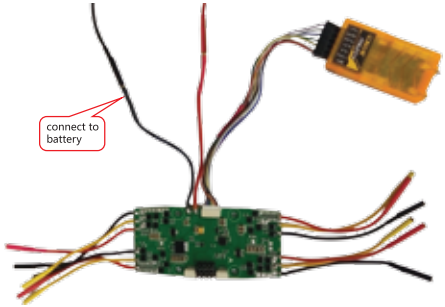


OPENPILOT GCS - ESC CALIBERATION

Step 1 : Follow the on-screen instructions to calibrate the ESC, make sure your props are not installed.

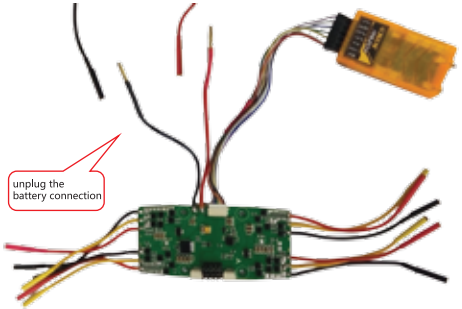
⚠ If your open pilot controller been connected, please connect PC and then click the correct selection box after you read the content.

Step 2 : Then please follow below picture to plug the battery to the 270 FPV battery socket.



OPENPILOT GCS - ESC CALIBERATION

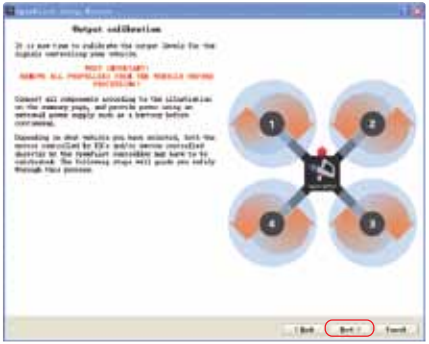
Step 3 : Click the “Stop” button. And then will hear confirm music. Please plug off the 270FPV battery socket. And then click “Next” button.



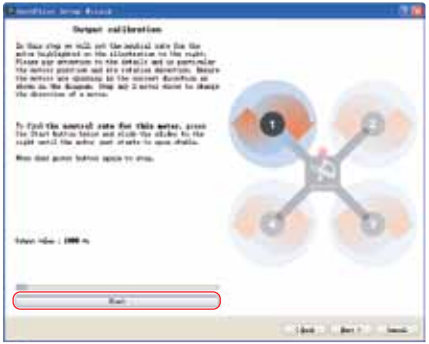
(pic-2)

OPENPILOT GCS - MOTOR CALIBERATION

Step 1 : Plug the battery into and click “Next” button once again.



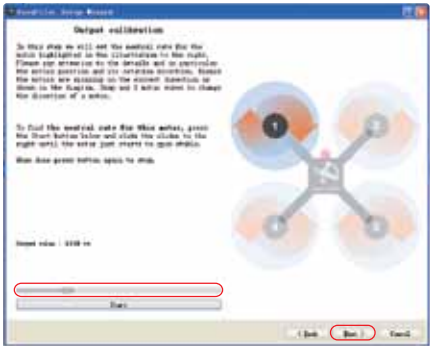
Step 2 : Start to calibrate the ESC output. Please click the “start” button.



OPENPILOT GCS - MOTOR CALIBERATION

Step 3 : Adjust the output to 1116us. In ESC 1 it is clockwise operation. Repeat the “step 3” to ESC 2, ESC 3, ESC 4 for output calibration.

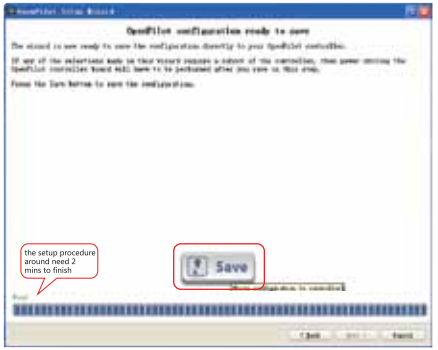
⚠ Please pay attention : ESC 1 clockwise. ESC 2 anti clockwise. ESC 3 clockwise. ESC 4 anti clockwise.



Step 4 : Select a quad that best matches yours from the list or use the defalt configuration, the QAV330 is a good tune for most quad 250~400mm, click “Next” button.

OPENPILOT GCS - MOTOR CALIBERATION

Step 5 : Like below picture that please click “Save” button and save all above setting parameter, the setup procedure around need 2mins to finish. When it show OK then please click “Next” button.

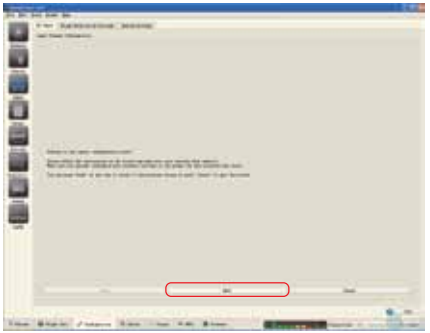


OPENPILOT GCS - REMOTE CONTROL SETUP

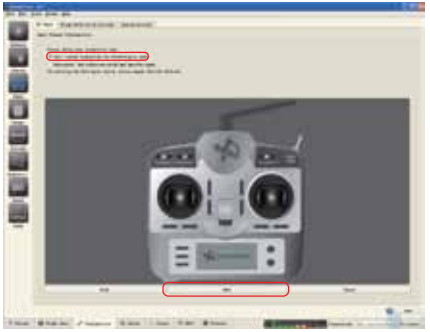
Step 1 : Like below picture, click “Transmitter Setup Wizard” button. Then switch on the remote control.

OPENPILOT GCS - REMOTE CONTROL SETUP

Step 2 : Like below picture, click “Next” step button.



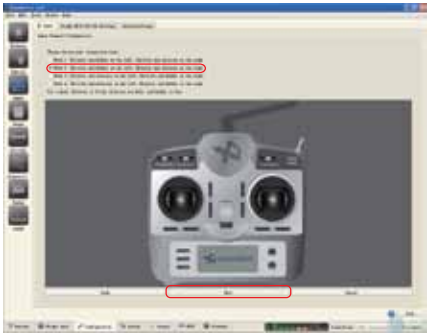
Step 3 : Like below picture. Select “Acro” icon to select the Quad. Then click “Next” button.



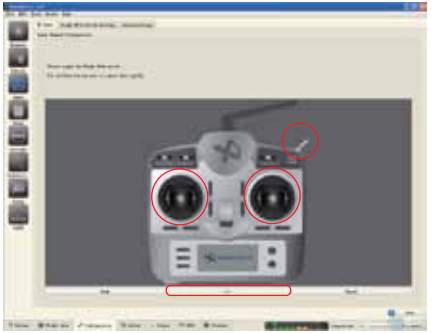
OPENPILOT GCS - REMOTE CONTROL SETUP

Step 4 : Like below picture, select mode 2: Throttle in left and Ailerous in right, then click “Next” button.

⚠ If your open pilot controller not been connected, please connect to PC and then click the correct selection box after you read the content.



Step 5 : Like below picture, setup below 3 remote control key button, then click “Next” button.



OPENPILOT GCS - REMOTE CONTROL SETUP

Step 6 : Like below picture, center the Joystick and click next step.

Step 7 : Like below picture, move all the joystick and push all button then click “Next” button.

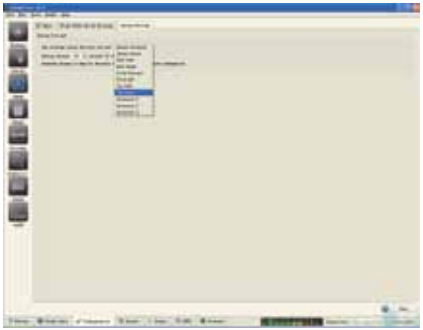
OPENPILOT GCS - REMOTE CONTROL SETUP

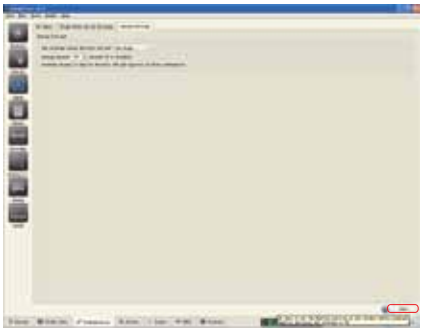
Step 8 : Like below picture, operate all the joystick and push all the control button. Then click the direct then click next step button.

OPENPILOT GCS - REMOTE CONTROL SETUP

OPENPILOT GCS - REMOTE CONTROL SETUP

Step 9 : Like below picture, select the unlock mode “Yaw Right”, click save button and save all the remote controller setting then unplug all the USB connection and battery connection. Now you are finish all the set up procedure.





Afro 20A DIY 4in 1 + CC3D Specification

No.	Items	Parameter	Discription
1	Model number	Afro 20A 4IN1+CC3D	Flight speed controller
2	ESC Current	20A x 4 channel	1. power on 2. when detect signal Green light turn on 3. can drive 4 motor in same time
3	Voltage range	8.4V-16.8V 2~4S	
4	Battery section	LiPo:2-4S	
5	Input signal	PWM, CPPM, Sbus, SAT	
6	BEC type	Linear mode	With short circuit
7	BEC output voltage 、 Current	5V /1A	
8	Shunt down voltage	NA	
9	Program box setting	USB programmer	
10	ESC output terminal waveform	Square wave with no distortion	
11	Weight	35.8g	
12	Length x Width x Thickness	80 x 38 x 1.6mm	

MADE IN CHINA