Voltage 500 3D Manual Addendum

The Voltage 500 3D has a new flight control board that can accept PWM inputs directly from the receiver without the use of an adapter.

PWM Cable Color Codes

PWM Cable 1 Red – Aileron Orange – Elevator Yellow - Throttle



Receiver Connections					
	Futaba / Tactic		JR Spektrum		
Aileron	Ch. 1	Normal	Ch. 2	Reverse	
Elevator	Ch. 2	Normal	Ch. 3	Reverse	
Throttle	Ch. 3	Reverse	Ch. 1	Normal	
Rudder	Ch. 4	Normal	Ch. 4	Reverse	
Flight Mode	Ch. 5	Normal	Ch. 5	Reverse	

PWM Cable 2 Green – Rudder Blue – Flight Mode Purple – Not Used





Flight Controller Connections





The S-Bus cable must be connected to the receiver so it can power the flight controller. On a 6 channel receiver, connect the S-Bus cable to channel 6. If a 5 channel receiver is used, a "y" adapter will be needed to connect the RX Power and the S-Bus cable.

Download the latest version of the Voltage 500 3D app from <u>http://www.helimaxrc.com/quadcopters/hmxe0864-voltage500/index.html</u> and click on the Software Download link. Please follow the directions in the manual for installing the driver and using the app. After the flight controller is connected to the app, select the "Conventional" receiver type in the drop down window if the PWM cables are being used. Please refer to the manual for recommended settings for the controls and the Flight Mode switch/switches,

Connected		
Receiver Conventional	T	
Aileron	Elevator	Mode
-150% 0% 1	50% -150% 0% 15	Idle 3D Attitude
Rudder	Throttle ight Negative Pos	itive
-150% 0% 1	50% -150% - <mark>122%</mark> 15	0%
Aileron/Elevator Gain	Aileron/Elevator Damper Ga	in Rudder Gain
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Note: The default gains have proven to work well with both 3S and 4S batteries. Higher ail/ele gains can be problematic in creating constant hunting of the throttle.

Spektrum Satellite Setup

- 1. Reverse channels 2, 3, 4 and 5 in transmitter
- 2. Connect the satellite(s) to the ports on the top of the flight controller
- 3. If the RX cable is already connected to the Flight Controller, unplug it
- 4. Connect the USB cable and open the Voltage 500 3D app.
- 5. Select the proper receiver type
- 6. Click on the "Binding" button
- 7. Unplug USB cable to power down the flight controller. Wait a few seconds then plug it back in. The satellites will flash when ready for binding
- 8. Turn on the transmitter while holding bind button/switch
- 9. Release the bind button/switch when the LEDs on the satellites are steady
- 10. Check all controls and switches for proper direction with the app
- 11. Remove the USB cable and connect RX cable to the bottom input pins on flight controller with black wire on the left.