

Skylark AAT Suite

Skylark AAT Suite is aimed for FPV enthusiasts. It includes a Auto Antenna Tracker(AAT) unit and a Trace OSD unit. The AAT set up a simple , powerful, stable performance. Supported by the Trace OSD, it can track the plane automatically and quickly.

Basic principle

When the Trace OSD powers on, if GPS get over 4 satellite signals, OSD will save the position as HOME point. The Trace OSD calculates the angles that the AAT should rotate, according to the current position and HOME point. The Trace OSD send the angle information to Skylark AAT via Audio channel of TX.

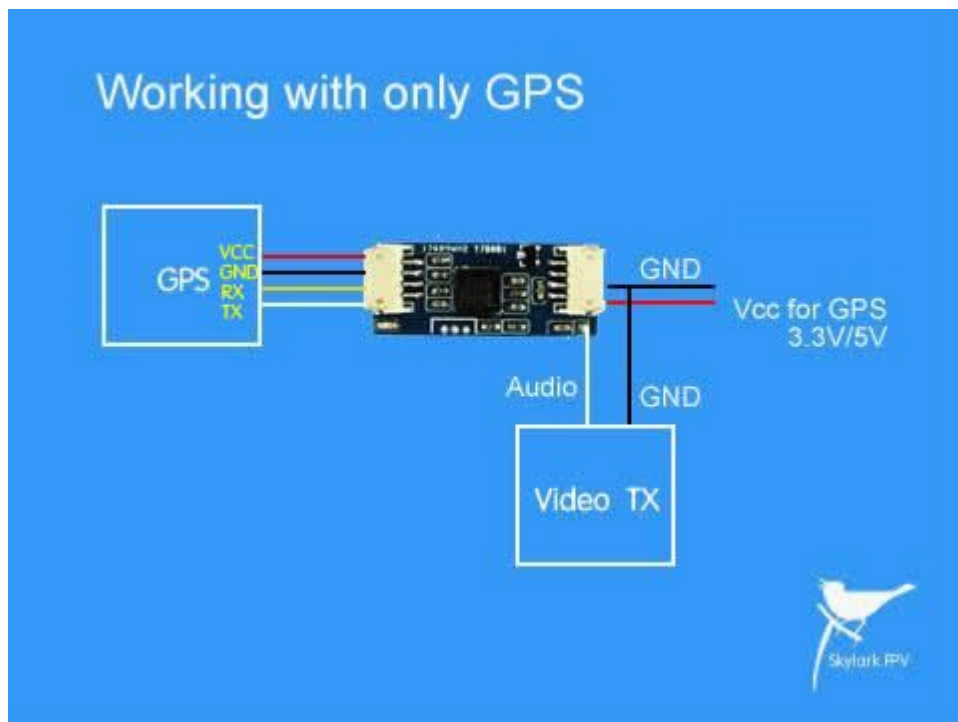
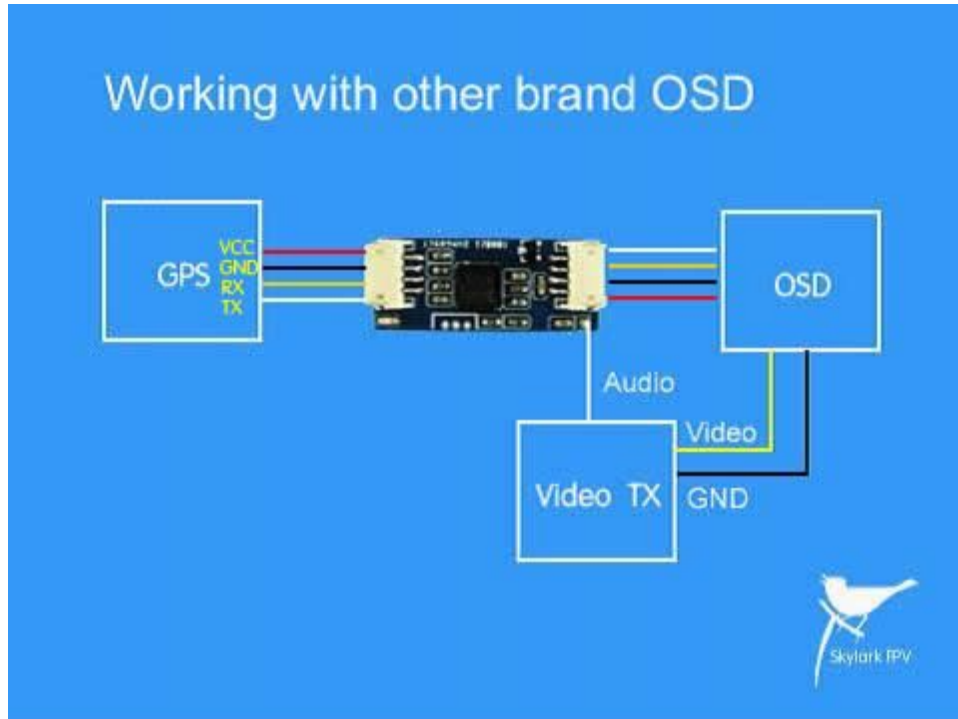


Features

- Easy to install and easy to use
- PAL/NTSC compatible
- 80A current sensor
- RSSI Auto detected | Auto "Setting Home"
- With barometer
- Free firmware upgrade
- Tracks 360° horizontally and 90° vertically
- Auto Antenna Tracker includes compass
- Open API | Support secondary development

Skylark AAT Suite

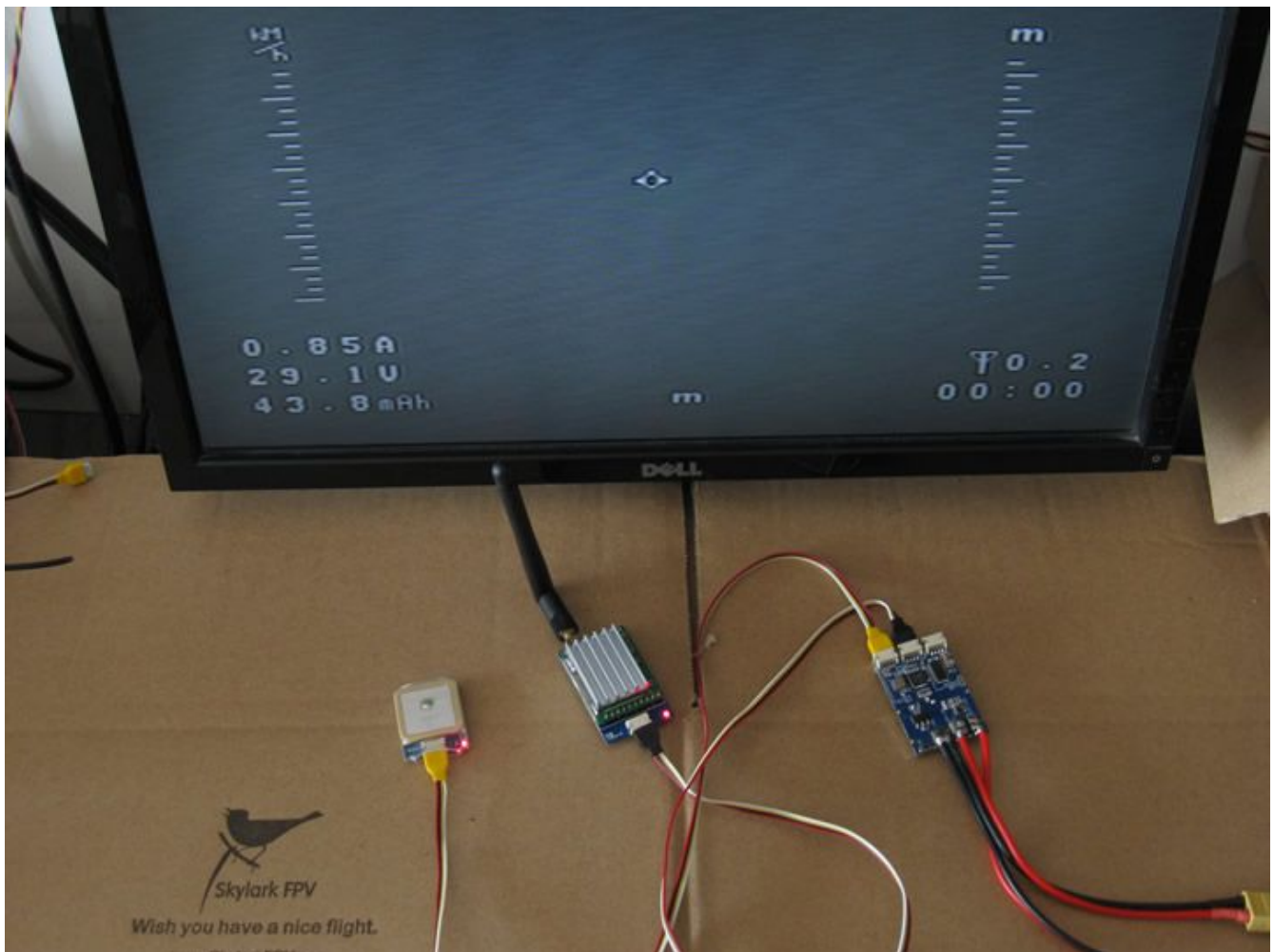
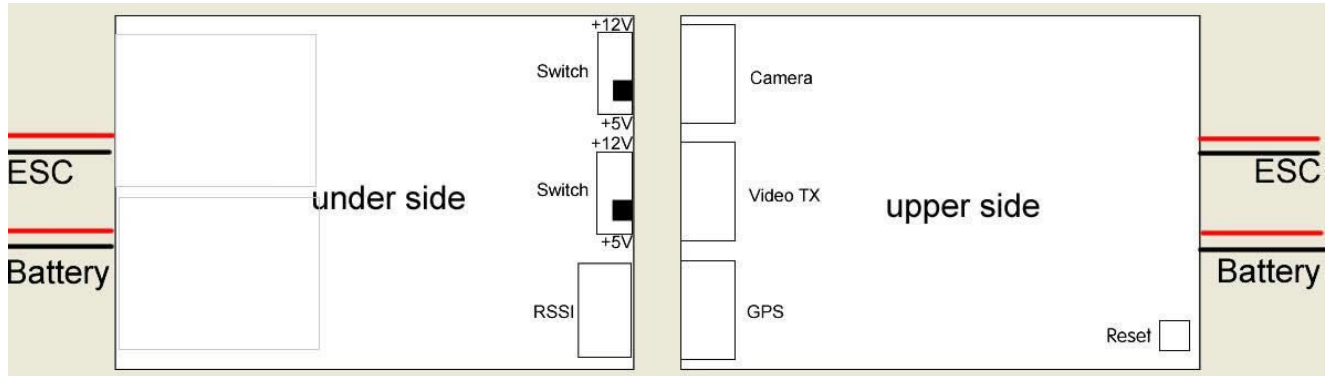
AAT convert module for other brand OSD



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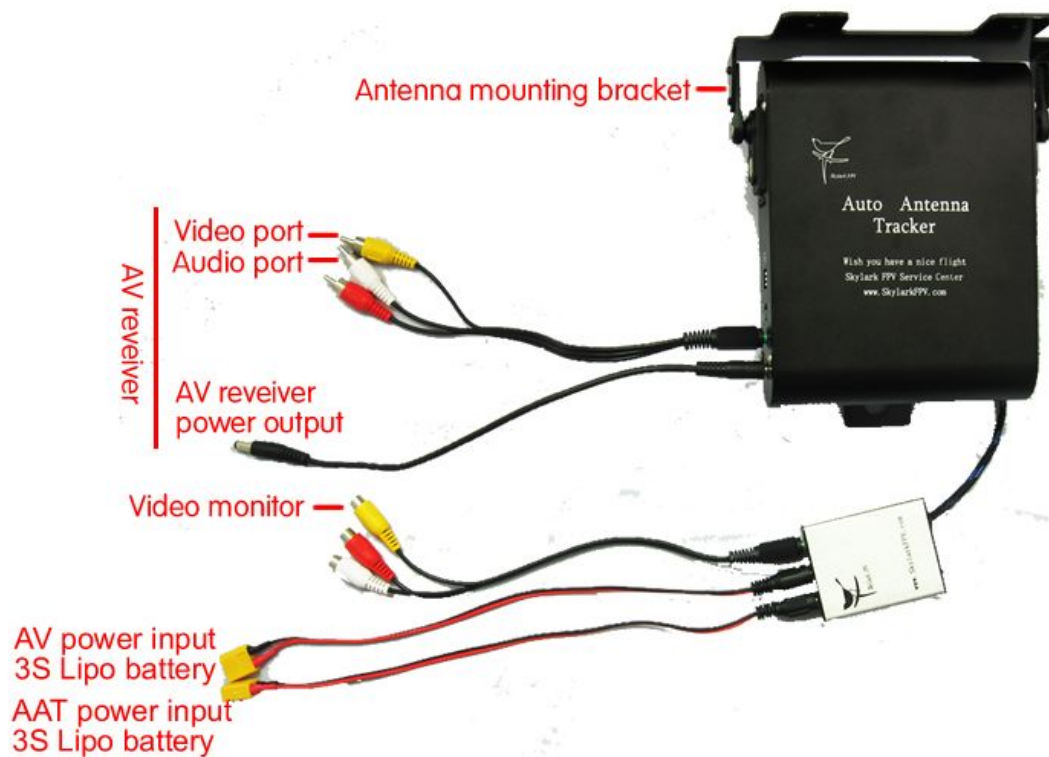
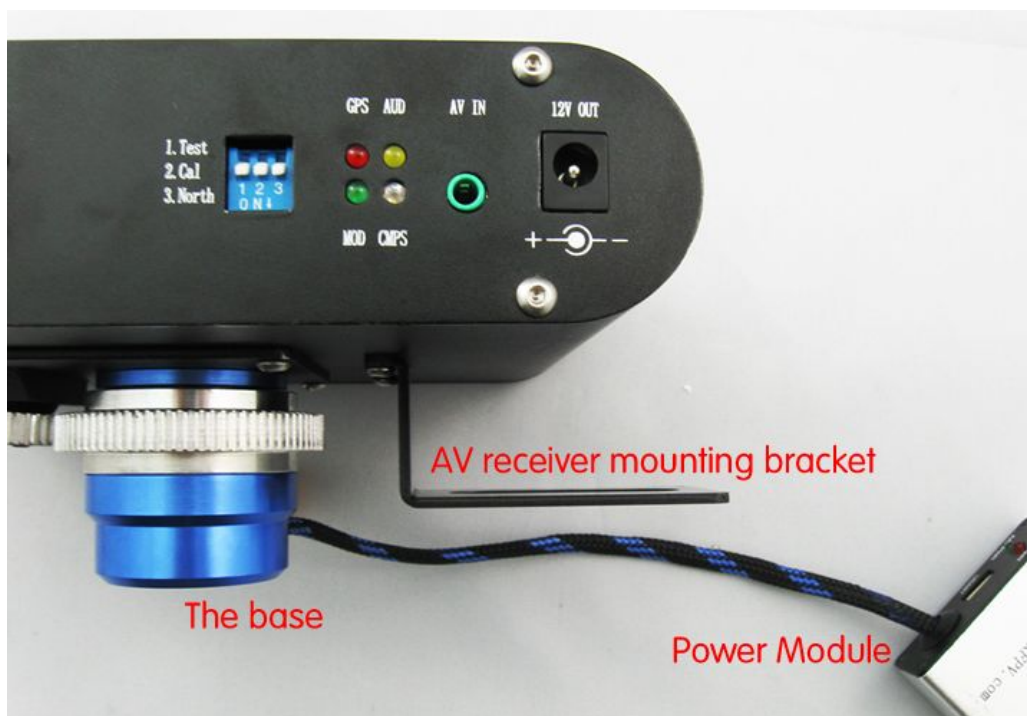
Trace OSD Connection diagram

If you use Skylark Trace OSD or Dianmu OSD, AAT conver module will not be needed.



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AAT Connection diagram



Skylark AAT Suite

Start Flying

1. Keep the OSD closing your AAT
2. Power on Trace OSD or Reset Trace OSD, and get the HOME point.
3. Check the AAT orange light is blinking.
4. Start Flying

Relevant specifications

1. When the AAT powers on, it will point the due north.
2. If the distance from the OSD to the AAT is less than 20 meters, the AAT will point the due north.
3. If the AAT cannot get the correct angle information, it will point the due north.
4. The AAT Switch1 is test mode switch, keeping it in down is OK. When the AAT powers on, if you toggle Switch1 from [ON] to [OFF], the AAT will auto rotate.
5. Skylark AAT light Status

Light	Status	
	Solid	Blink
GPS	Reserved for extension	
AUD	No Data or Data exception	4Hz Blink. Get the correct angle data
MOD		1Hz Blink. Normal work mode 5Hz Blink. Test mode/Calibration mode
CMPS	The AAT compass has a problem	5Hz Blink. The AAT compass work well

6. Track OSD LED Status

Red slow blink = OSD Power On

Blue slow blink = Detected GPS

Blue fast blink = GPS Locked Home

Bluetooth communication

Download Skylark AAT APP for Android (support Android 2.2 and higher)

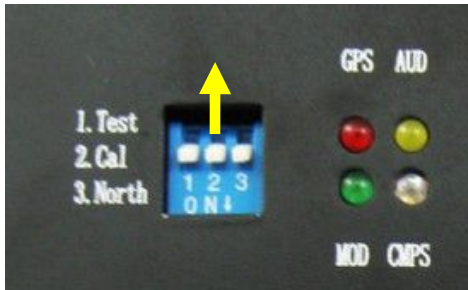
http://www.skylarkfpv.com/download/skylark_app_android.zip

1. Enable bluetooth function in your device
2. Run "Skylark AAT"
3. Click "Search" button to search other bluetooth device
4. Select your AAT bluetooth device(Default password: 1234).
5. Waiting the prompt "Bluetooth device connected"
6. Return main view
7. Click "Home" button to tracking your current position.

Skylark AAT Compass Calibration

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1. Connect 3S battery with AAT [PWR] port
2. Toggle **Switch2** from [ON] to [OFF]



3. Wait 3 second, the AAT will start rotating
4. Wait about 30 sencond, the AAT will stop rotating
5. Toggle **Switch2** forn [OFF] to [ON]
6. The calibration end

Skylark AAT Advanced Calibration

1. Fix AAT to a tripod
2. Connect all FPV equipment(AAT/OSD/TX/RX)
3. Power on all FPV equipment
4. Wait Trace OSD locking [Home] position.
5. Move your airplane to >50meters from the AAT.
6. Toggle **Switch3** from [ON] to [OFF]



7. Rotate the AAT to aim your airplane with hand
8. Toggle **Switch3** from [OFF] to [ON]



9. The calibration end.

Note: Step 6/7/8 must be finished within 2 minutes, otherwise, the calibration request will expire.

Skylark Trace OSD Upgrade

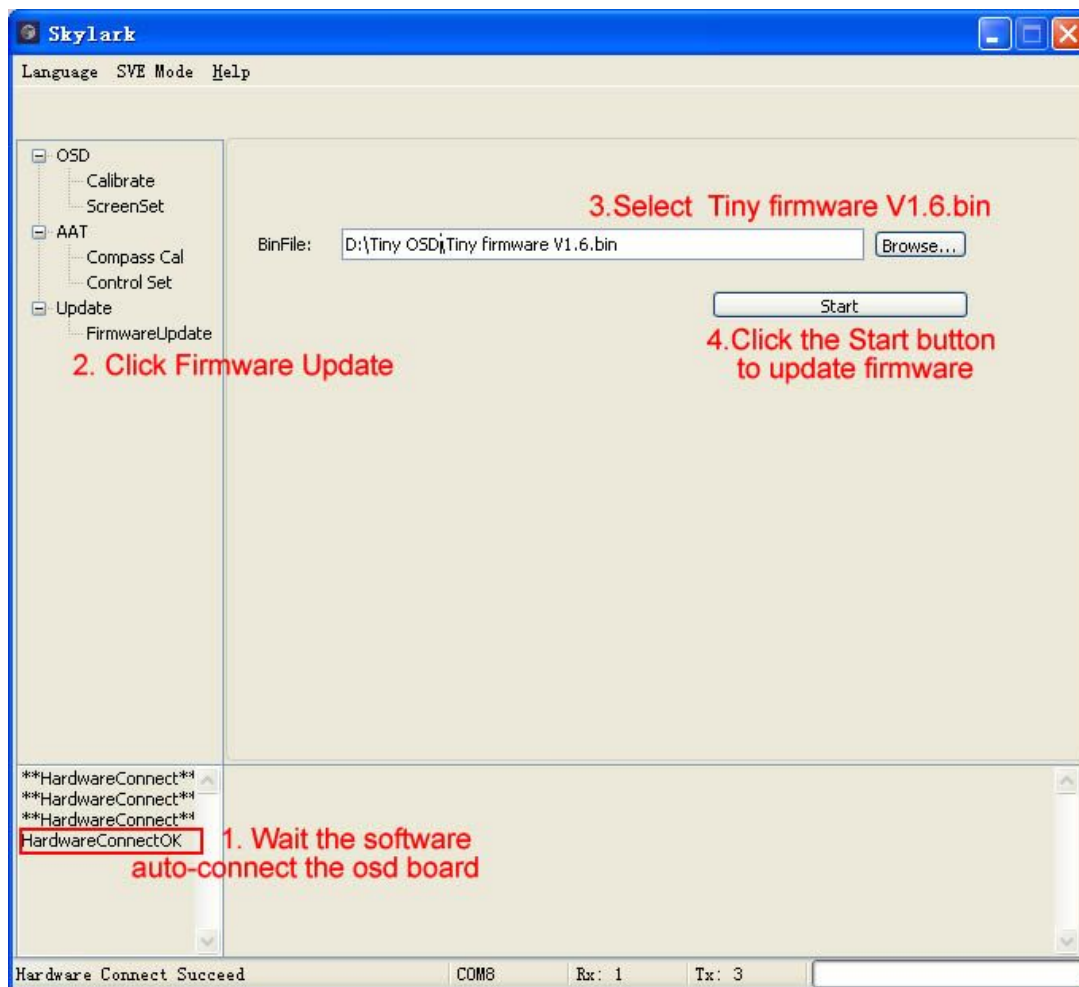
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Download

Skylark Configuration Software
Trace OSD Firmware

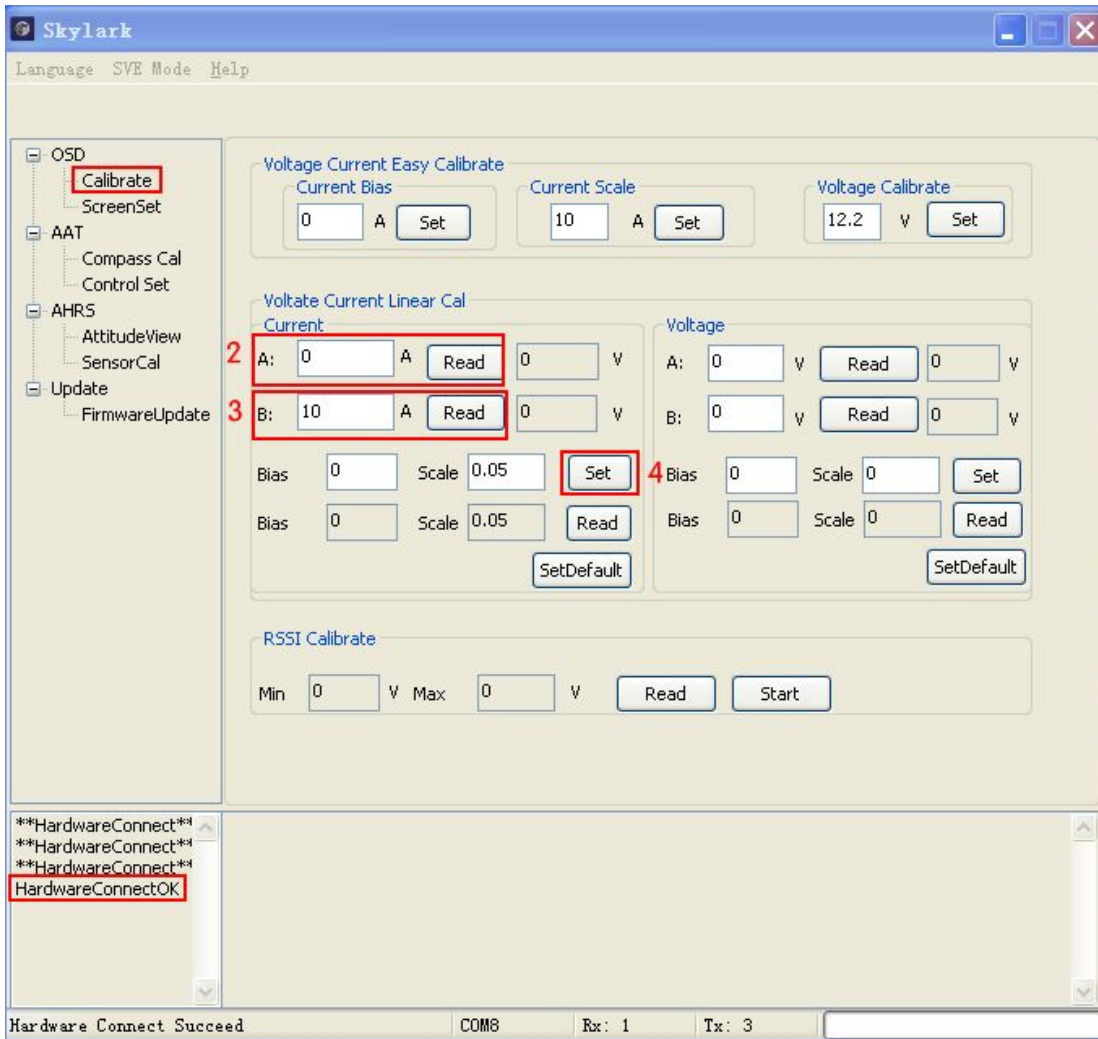
Upgrade

1. Download the Skylark Configuration Software and the Trace OSD Firmware
2. Unzip the SkylarkSetup V3.5.zip
3. Double click the SkylarkSetup.exe and install the software to your computer
4. Use the Skylark USB Cable connect your computer and the GPS port of the Tiny OSD board
5. Unzip Trace firmware.zip
6. Double click SkylarkFPV icon on your computer desktop



Skylark Current Sensor Calibration

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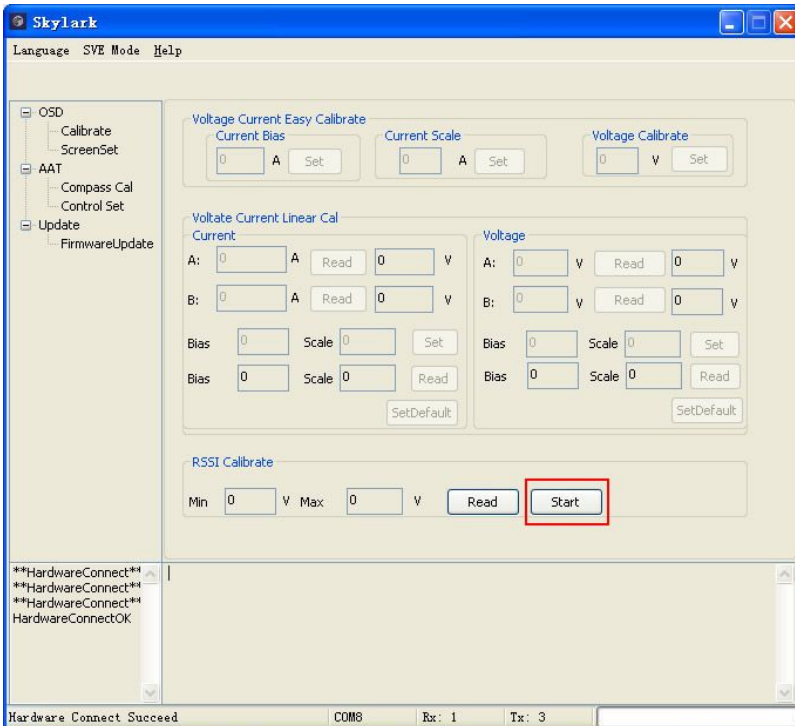


- Step 1. Connect your OSD[GPS Port] to PC by Skylark USB cable, and run Skylark configuration software
- Step 2. Keep throttle the lowest, and take note if the current reading in amps on your multimeter. Enter this into box A, then Click [Read]
- Step 3. Push and hold the throttle, keep the reading of your multimeter is 10A , enter this reading into box B, then Click [Read]
- Step 4. Click [Set] to write the new Bias and Scale values to your OSD.

Skylark Trace OSD RSSI Calibration

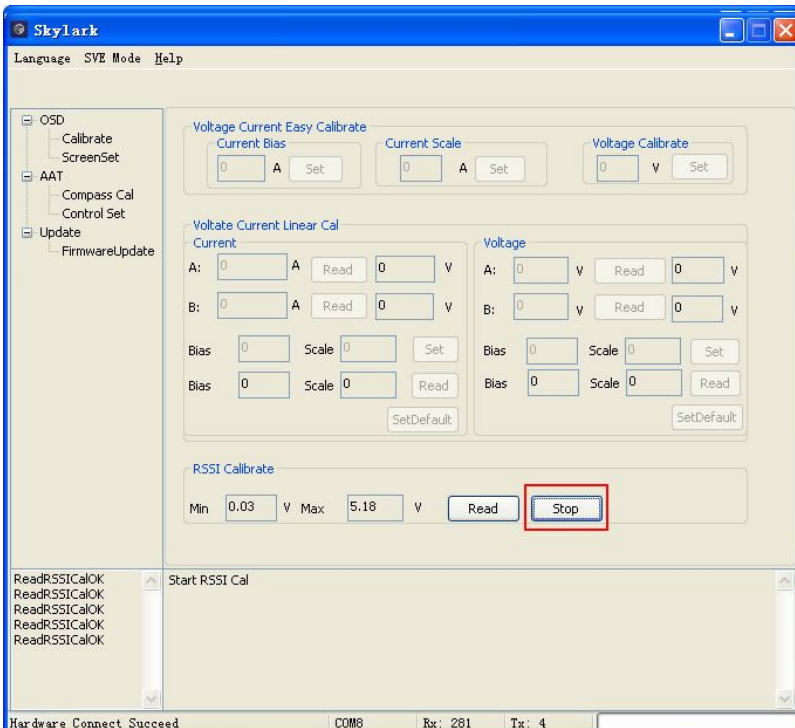
1. Make sure the RC receiver RSSI is connected to the OSD board.
2. Use the Skylark USB Cable connect your computer and the GPS port of the Trace OSD board
3. Remote Control power on
4. RC receiver power on
5. Run Configuration Software
6. Click OSD->Calibrate
7. Click "Start" button

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8. Remote Control power off

9. Click "Stop" button

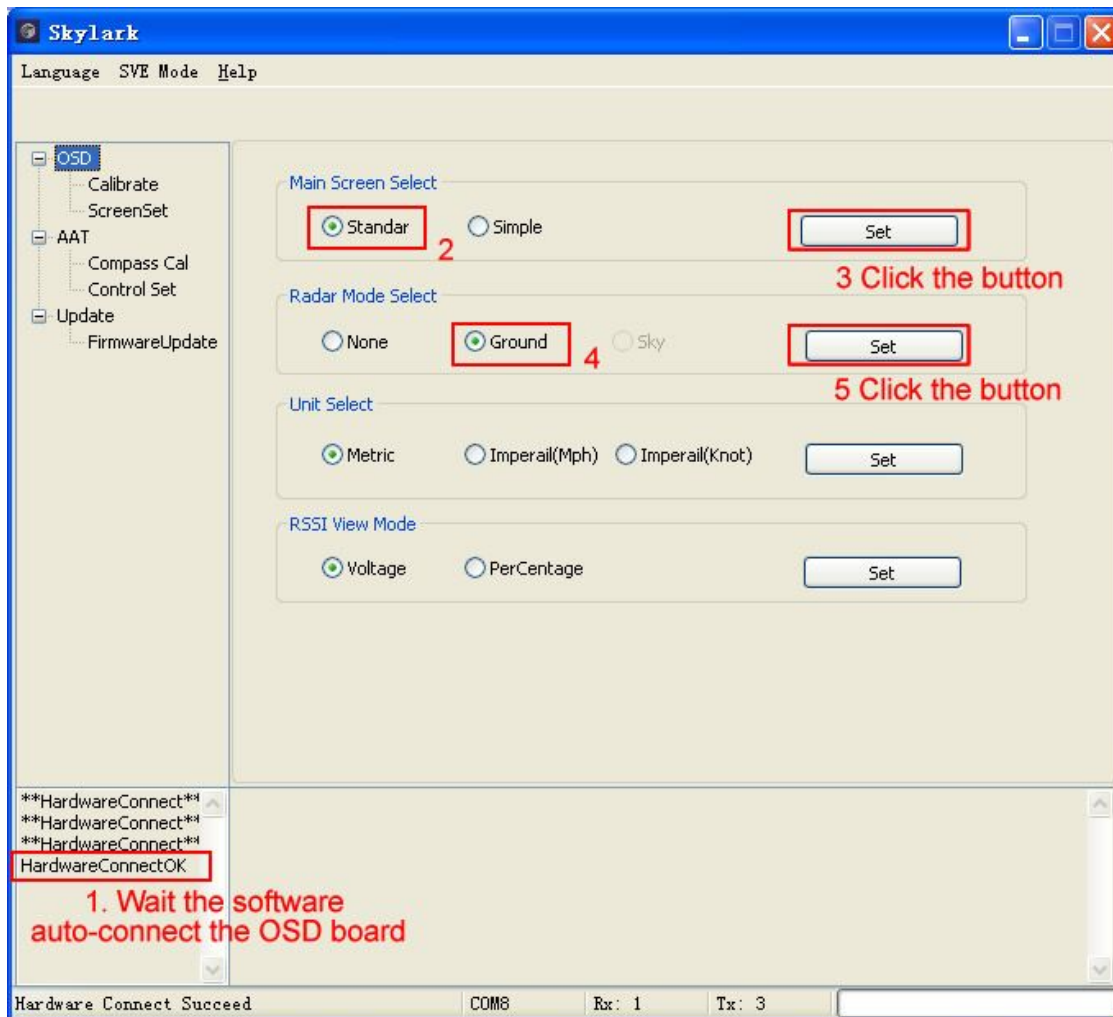


10. Remote Control power on

How to switch Trace OSD to F16 HUD

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1. Click OSD->ScreenSet



Skylark AAT Suite

Standard OSD screen(F16 HUD)



Simple OSD screen



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Wish you have a nice flight.

www.SkylarkFPV.com

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