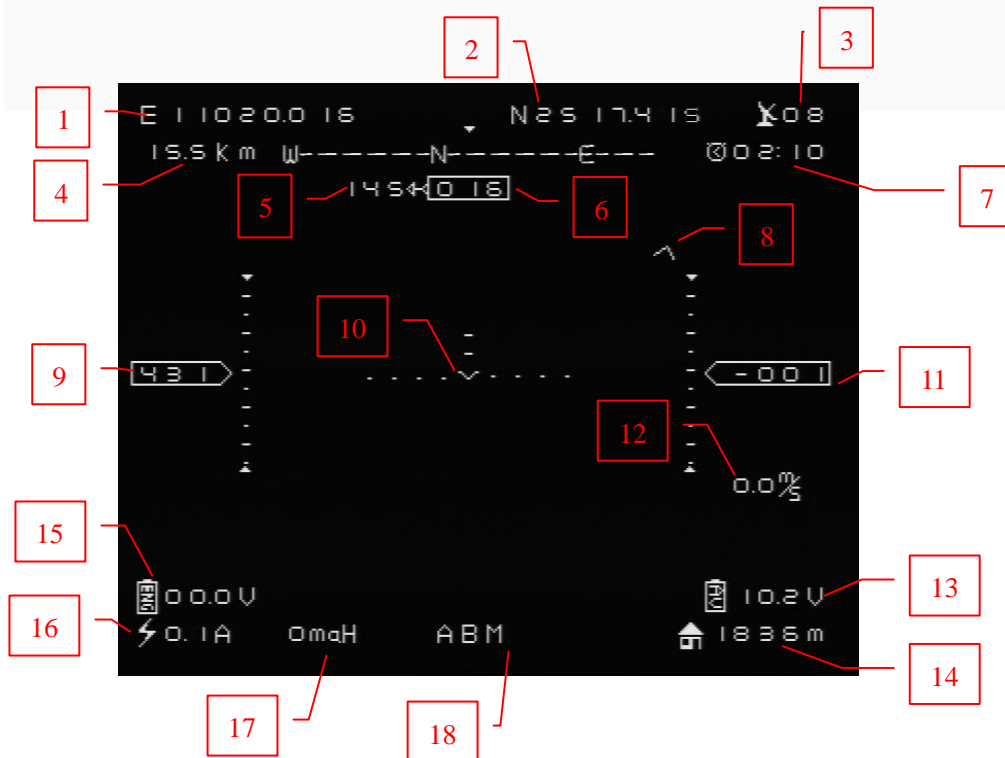


## Hornet - OSD v1.6 Firmware Instruction

### Hornet - OSDV1.6 :

1. Optimize the display digital fonts, looks more compact and concise. Optimize the characters font display.
2. Changed part of the interface layout,make more reasonable standard.
3. Improve the radar display function, can be in stack complete interface, support attitude indicator and radar shows at the same time.
4. Increase the flight total mileage display.
5. Improve the vibration alarm prompt.
6. Increase support DoS module function, can be connected to the DoS high-speed data outlet
7. Improve the attitude refresh display rate, and display mode. Attitude table dotted line represents the plane or the horizon,you can choose to use different firmware.
8. Shorten the startup initialization time.

Part of the interface description:

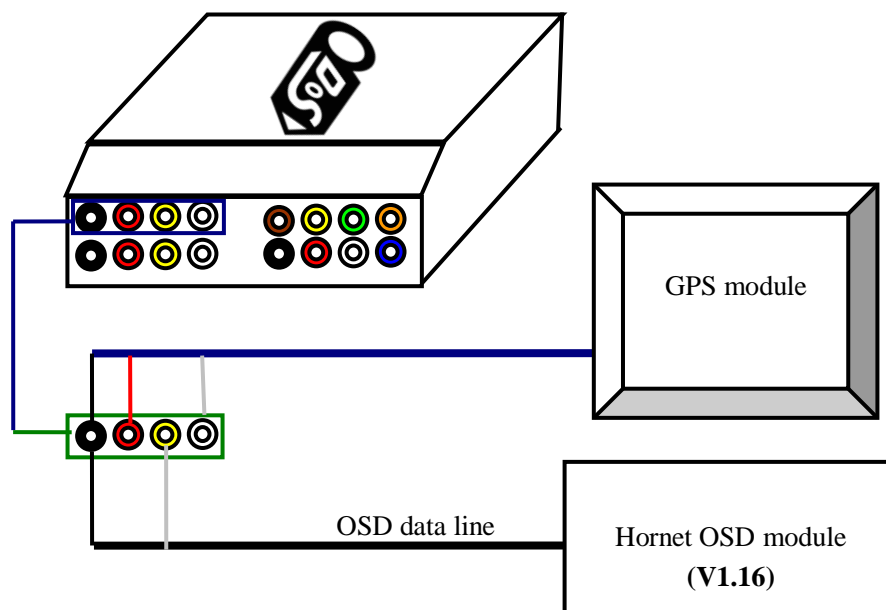


No.	Instruction
1	Current latitude of the plane (Format: "dddmm.mmm" )
2	Current longitude of the plane (Format: "ddmm.mmm" )
3	The quantity of satellite used for positioning
4	Flight total mileage(Unit: km)
5	The angle of turning to the Home Point (Unit: deg)

6	Current course of flight (Unit: deg)
7	Total flight time (Format: "mm.ss" )
8	Radar , bearing from station and Current curese of flight
9	GPS speed (Unit: km/h)
10	Attitude table
11	Relative altitude (Unit : m)
12	Climb rate (Unit: m/s)
13	The battery voltage of the videotransmitter (Unit: V) and Operating temperature(Unit: °C), alternate display
14	Distance to Home Point (Unit : m)
15	Power battery voltage (Unit: V)
16	Power battery current (Unit: A)
17	The battery power consumed(Unit: mA / h)
18	Flight mode,FY31APPANDA remain the same. DOS Flight mode : RC – Deactivated Mode , ABM – Stabilized Mode , 3D - 3D Mode , ADH - Fixed altitude and Heading lock flight mode , RTL - Return To Launch , ACM - Auto Circling

Hornet - OSD (V1.6) and DoS connection graph:

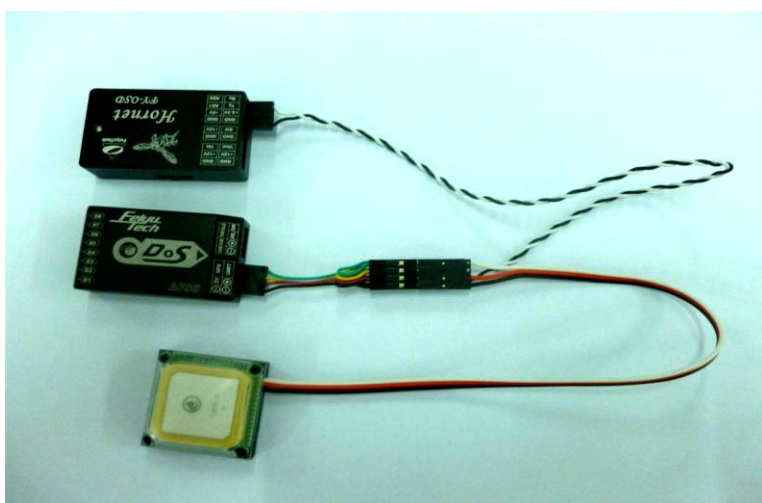
You need a 4p Y line, the Hornet - OSD data line and GPS module connected to the DoS' s GPS interface. Connection diagram is as follows:



Physical connection diagram:



Put the 4P Y line inserted into DoS' s GPS port



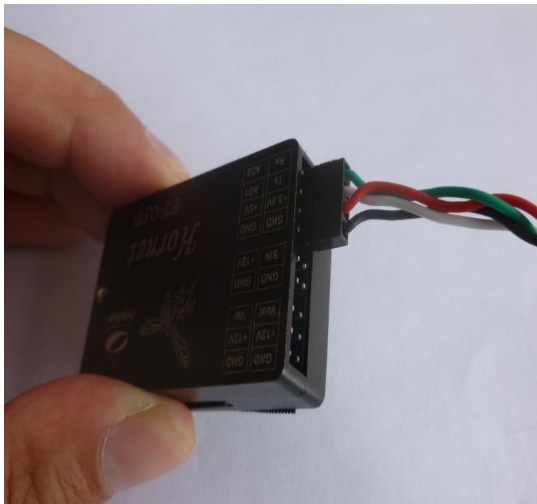
GPS and Hornet - OSD data line parallel to a Y line(if have common ground connection, only need to put the OSD white line connected to the third stitch of GPS port which not used)

Hornet-OSD Firmware Upgrade Procedure :

1. Download the software onto your desktop. Download both the firmware upgrade program and the require firmware (.bin file) :
2. If you have not done so, please install the USB TTL Cable driver from FY websites. The computer will not recognize the USB TTL Cable if the proper driver is not installed.
3. Connect the USB-TTL cable to the computer. **Note** – **do not connect the controller module yet**. Open the FY Firmware program , Select the right Com port number, and select 19200 as the baud rate. Click "Open port" button.



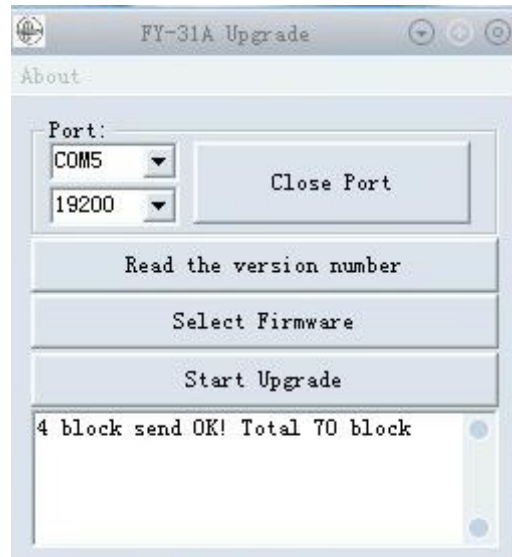
4. Plug the Serial connector to the OSD module [GND,+3.3V, TX, RX] port. Please ensure the polarity of your wires is correct. **The RED wire is "+"** . **Wrongly connecting the polarity will damage your controller module.**
5. After plugging, you will see **"Connect success!"** . If connection is not successful, go back to **STEP 1** (repeat):



6. Select the firmware to be uploaded: ( You Can choose the firmware which attitude table shows the horizon or plane attitude )



7.Press the Start Upgrade button:



8.After the upgrade is complete,please closed the program, Start anew power , the first start time may last longer.

The meaning of blue indicator light: The start blue light stay on solid meaning testing SD card 。 Every time Hornet-OSD received data, the blue light flash onetime。

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**Note: We reserve the right to change this manual at any time! And the newest edition will be shown on our website.**

[www.feiyudz.cn](http://www.feiyudz.cn)