

FrSky V8 2.4GHz Radio Control System

Instruction Manual for V8HT

Thank you for purchasing the FrSky 2.4GHz RF radio control system. In order to fully enjoy benefits of this system, please, carefully read the instruction manual and set up the devices as described below.

1. **Brief Introduction**

FrSky V8 2.4GHz radio control system is a new generation of radio control product developed by FrSky Electronic Co., Ltd that incorporates the most advanced 2.4GHz digital communication technology. Thanks to the high precision, minimum latency and interference resistant, the system makes the simultaneous use of multiple devices without the risk of interference. Combining our software with FHSS we have developed a system presenting the highest performance available.

We are glad to introduce the FrSky 2.4GHz Radio System.

ACCST (Advanced Continuous Channel Shifting Technology) is our advanced technology. The **ACCST** 2.4GHz system shifts the frequency hundreds of times per second. It means there are no signal conflicts and interruptions.

2. **Main features**

- ◆ Advanced Continuous Channel Shifting Technology (ACCST SYSTEM), robust frequency agility.
- ◆ Easy to bind and very fast link-up.
- ◆ Excellent reboot times.
- ◆ True antennas diversity.
- ◆ All channels are very effective and easy to set failsafe.
- ◆ Responsive and rock-solid in performance.
- ◆ Very Smooth servo movement.

3. **FrSky V8 2.4GHz radio control system**

Transmitter module specifications:

Operating Voltage Range: 6.0V-13.0V

Operating Current: 50mA

Output Power: 60mW

Resolution: 3072

Important!

The effective range of control refers to the distance between the transmitter and the receiver clear of obstruction. All data was tested and verified by FrSky.

However this is not guaranteed due to many factors such as the flying environment and the weather, which can greatly affect the effective range of control.

It is extremely important to range check your models prior to each flying session!

4. **Setup and Operation process**

4.1 Install process:

1. Open the transmitter, find out the Battery power supply line, PPM signal line, and the GND. You will find Battery power supply line just behind the power switch by using a voltmeter and find out the PPM signal line with an oscillograph.
2. Take the order, solder the PPM signal line, Battery power supply line, GND to the DIY transmitting module with 3 line. (XXX → PPM; --- → GND ;WHITE: +5V)
3. Drill five holes on the transmitter as the paper marker guided, two holes on both sides are designed for screw installation, others for green/red color LED and the button. Put the paper marker on the outside of transmitter where the internal space is free to fix the extend board and drill those holes.
4. Connect the antenna connector at the port showed in Figure 3 on transmitter board.

6. Fix the transmitter antenna on the connector .Turn the transmitter power on and check the power indicator LED of DIY extend board, the LED is normally light orange.

4.4 Range check:

For safe operation, it is necessary to perform pre-flight range check.

Caution must be paid when flying the unit in the neighborhood of metal fences, concrete buildings, or rows of trees. If doing so, you may experience unexpected interferences.

Perform a range check as follows (Note: this is done with the receiver installed in the model):

- a) Place the model at least two feet (60cm) above non-metal contaminated ground; for example a wooden bench.
- b) Place the receiver's antenna horizontally. Don't let the antenna touch the ground.
- c) Place the antenna of the transmitter in a vertical position.
- d) Turn on the transmitter and receiver, then press and hold the "F/S Range" button of the transmitter for 4 seconds the RED LED of the transmitter module will change into GREEN, the power of the transmitter module will be reduced to ab. **1/1000**th of the nominal value, and the effective distance will be shortened to ab. **1/30th** of the normal value, thus effective distance will be shortened to just above **30 meters**.
- e) Walk away from the model while simultaneously operating the controls on the transmitter. Have an assistant stand to confirm that all controls are completely and correctly operational. You should be able to walk ab. **30m** from the receiver without losing control.
- f) Press the "F/S Range" button again, the range check will be finished.

4.5 Safety range indicator

When the model controlled by V8 2.4GHz radio control system is close to the maximum distance of control, the response of the model will slow down. It is the safety feature designed by FrSky. It means, the user should fly the model closer to the transmitter as soon, as the reactions are getting slower.

4.6 Signal loss indicator

In some special circumstances, such as a strong interference, the signal can be lost.

When signal lost in a short period, the receiver continues to try to search for the transmitter, at the same time, keeps the last command from transmitter, until a new command is received.

Failsafe:

Our receivers support all the failsafe function for every channel. Just do it as bellow:

After the receiver has been bind, press briefly the "F/S Range" button of the receiver, the GREEN LED of the receiver will flash twice, the failsafe is set up successfully.

If you do not need the failsafe function any more, just re-bind the receiver.

Attention: Controlling distance is affected by the environment too. Please test it in an open field away from any obstacles. The controlling distance in the air is greater than that on the ground. Our controlling range is based on a conservative ground test.

We hope you enjoy our new 2.4GHz products. They have been designed and produced using the highest quality control measures available. If you have any questions please do not hesitate to contact us.