

# FD 2.4 GHz Radio Systems

Thank you for purchasing our FD 2.4GHz RF transmitter module and receiver. In order to fully utilize the performance potential of this system, we suggest you first read the manual.

| 2.4G TX Model     | IS-8T   |
|-------------------|---|
| Weight            | 30g   |
| Size              | 58.5x37.5x22mm (Futaba)<br>63.9x48.5x36.5mm (JR)  |
| Operating Voltage | 6V-13V  |
| Current           | 100mA   |
| Output power      | <80mW   |
| Resolution        | 1024  |
| Compatible with   | FUTABA: 3PM/3PK/7U/8U/8J/9C/9Z, and FN series.<br>HITEC: Optic 6/Eclipse 7.<br>WFLY: WFT09 /WFT08<br>JR:347,388,783,U8,PCM10,PCM10S,PCM10SX,PCM10HS,8103,J9303,MX-22,MX-24S,PX,9XII Graupner:MC16 |

## Receiver :

### 1. IS-4R0 4ch Receiver (Economic)

|                   |                  |
|-------------------|------------------|
| Size              | 24x15.1x5.6mm    |
| Weight            | 1.9g             |
| Operating Voltage | 4.8V~6.0VDC      |
| channels          | 1-4              |
| Distance          | 240m (on ground) |

### 2. IS-4R 4ch Receiver (Final)

|                   |                  |
|-------------------|------------------|
| Size              | 24x15.1x5.6mm    |
| Weight            | 2.2g             |
| Operating Voltage | 4.8V~6.0VDC      |
| channels          | 1-4              |
| Distance          | 450m (on ground) |

### 3. IS-6R 6ch Receiver

|                   |                 |
|-------------------|-----------------|
| Size              | 34.2x18.4x8.7mm |
| Weight            | 5.5g            |
| Operating Voltage | 4.8V~6.0VDC     |
| channels          | 1-6             |
| Distance          | 1200m           |

### 4. IS-8R 8ch Receiver

|                   |                 |
|-------------------|-----------------|
| Size              | 36.2x20.1x8.1mm |
| Weight            | 6.5g            |
| Operating Voltage | 4.8V~6.0VDC     |
| channels          | 1-8             |
| Distance          | 1200m           |

## 2.4GHz Radio System's Features

1. Extended operating rang, which has been tested in a real flying environment.

2. A 3dbi gain transmitting antenna ensures the wave lengths are evenly distributed throughout the transmitting horizon ensuring the stable signal.

3. The user friendly setup model.

4. The unique receiver design makes the FD module easy to install and ensures its reliability.

5. FD's advanced design ensures the lightest receiver.

6. Add failsafe, you can set any channels' position.

7. It can scan automatically when turning on the transmitter



Figure 1

## Instructions of Setup and Operation

### 1. Installation of the transmitting module

1). Remove the original transmitting module.

2). Put the FD 2.4GHz transmitting module into the module port and screw on the transmitting antenna

### 2. Installation of receivers

The tip of the antenna cable is the receiving portion (the thinner part). (See Figure 2)



Figure 2

As the wave length of 2.4GHz is shorter than older RC systems, therefore, when you locate the antennas you must avoid objects as much as practical with high conductivity, such as metal parts, servos, ESC's, battery packs, wires, and carbon fiber structures. If possible put the tip of the antennas outside of the fuselage for maximum reception.

### 3. Receiver and Transmitter Setup Instructions

By following these steps you will ensure your transmitter and receiver is properly setup and ready to fly.

**Notice: IS-4R0 and IS-4R reference to 3a,**

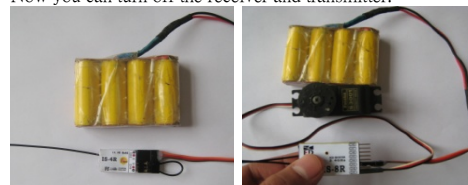
**IS-6R and IS -8R reference to 3b,**

1). Turn the transmitter on and adjust your transmitter to PPM mode (not PCM), and then turn the transmitter off.

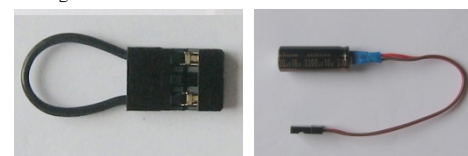
2). Turn the RF model switch to "CODE", and then turn the transmitter on. The LED on the module will flash between red and green indicating, the transmitter is prepared.

**3a).** Plug the FD code ring to the 4th channel, then connect the receiver with the battery, the LED on the receiver will light on, at this time pull out the FD code ring (The LED lights 2 seconds, **make sure** to pull out the code ring within 2 seconds).Until the LED flash quickly and crush out, it shows the module and receivers binding successfully, now please cut the power from the receiver, and also turn off the transmitter

**3b).**Remember to press and hold the button on the receiver (under the sign of Vthumb) and then connect the receiver to the battery, The LED on the receiver will light red (about 2S), at this time (the LED light red) please **remember** to remove your hand from the receiver button. The LED will flash slowly 2 times and then flash quickly several times and crush out. Now you can turn off the receiver and transmitter.



4). Check the normal system operation. Turn the Module Switch to "USE" and turn the transmitter on, when the module LED is yellow then connect the receiver to the battery. The red LED on the receiver will light red, indicating the receiver is operating properly. Receiver LED will be OFF when there is no signal (**Now please operate above steps again**). The receiver will not initialize. This is also a best practice for RC model safety. After following these steps to program your transmitter and receiver, both modules will continue to operate together each time you use the modules without further binding.



FD code ring

Voltage Protector

## Failsafe set

Any electronic product will be disturbed, so must be to set up failsafe after making binding.

### IS-4R0 and IS-4R

1.After the receiver and the transmitter have set up together, turn the transmitter to "USE", and then turn on the transmitter.

2.Plug into FD code ring to the 4th channel, then connect the receiver with the battery, the LED on the receiver will light on,when the LED crush out, get off the FD code ring (The LED crush out 2 seconds, **make sure** to get off the code ring

within 2 seconds.) The LED on the receiver turns always bright.

3. Move the channel to any position you satisfied, and then **turn off your transmitter**, at this time the receiver will flash several times; it shows the receiver has remembered the position which you have set. When our system lost control, all channels will return to the position which you have set.

### IS-6R and IS-8R

1. After the receiver and the transmitter have been set up together, turn the transmitter to "USE", and then turn on the transmitter.

2.**Press and hold** the button on the receive (under the sign of Vthumb) r and then connect the receiver to the battery, wait a moment, the LED on the receiver will light (about 2s),2s later, the LED on the receiver will be off (about 2s), At this time (when the LED off) please **remember to remove** your hand from the receiver button, then the LED on the receiver always bright.

3. Then you can set failsafe in any position. After you have set it, please press the receiver button again. At this time the receiver will flash several times; it shows the receiver has remembered the position which you have set. Now please cut the power from the receiver, and also turn off the transmitter. When our system lost control, all channels will return to the position which you have set.

## Range checking

**For safety, we suggest you test the distance before using.**

1. Place the model at least two feet (60cm) above non-metal contaminated ground; for example a wooden bench. Make sure the model cannot move under its own power.

2. Turn on the transmitter first, and then connect the receiver to battery.

3. Move control sticks on the transmitter and verify that the model is responding normally.

4. Move away from the model with the transmitter and move the sticks and observe the model.

5. Model should respond normally at long visible distance, if not then there is a problem and model should not be flown till rectified.

### Attention :

1. Controlling distance is related to the transmitter power. Please use freshly charged battery packs when you conduct the range test. Controlling distance is affected by the environment too. Please test it in the open away from any obstacles. The controlling distance in the air is normally greater than that on the ground. Our controlling range is based on a conservative ground test.

2. Because the receiver is yare, so when the transmitter is too close to the receiver (about 10cm) the receiver cannot work and control is lost.

3. After powering to the receiver and make sure the receiver works normally, then plug the servo into the 4th channel.

If you have any questions please do not hesitate to contact us or visit our website: [www.fd-rc.com](http://www.fd-rc.com)