2.4 GHz Radio Control System

Version: V3.1
Update: V3.1
Thank you for purchasing our Fly-Dream 2.4GHz V3 Radio Control System. We are sure you will enjoy it. The following notes will guide you through the simple set up procedures. Model is not toy, we give you a strong reminder that you should reading the contents of this article carefully before using it, which is the interests of public safety considerations.

Attention:
1. Please use this in the provided venues, juveniles are asked to be accompanied by a guardian to use.
2. Any electronic may lose control, please set up failsafe correctly to avoid or reduce losses.
3. Range is affected by the environment. Please test range in the open away from any obstacles.
4. As a result of receiver sensitivity's enhancement, will cause certain jamming situation between some receivers and the transmitters (on usual, the distance between receiver and transmitter is 3cm). This does not affect the normal use.
5. Because IS-4R0 is a ultra light receiver, the bind is not the same as others, please read the manual of "Bind receivers".
6. Once bind success, use for ever and never bind again!
7. Please note the positive and negative charges on the voltage protector, don’t make mistake.
8. Do not fly unless it is safe to do so. Consider the safety of others at all times when flying.

FD 2.4GHz V3 radio control system

FD 2.4GHz works with the standard of Frequency-Hopping Spread Spectrum (FHSS), it changes frequency quickly throughout the 2.4 GHz band, utilizing 19 separate frequencies in order to reduce interference from other unwanted signals. This ensures safe, stable operation over a wide range of conditions likely to be encountered at any flying field.

FD 2.4GHz V3 radio control system’s features

◆ Long range and more Stability
◆ More small and more ultra light
◆ Failsafe. You can set the receiver to default to a pre-set position on all channels in the unlikely event of signal loss.
◆ Automatic frequency scan when turning on the transmitter and receiver ensures no frequency clash and maximum safety.
◆ Bind once, use forever!
◆ Range test. Convenient method to check the performance of the system which means you won’t need to walk kilometers away.
◆ Ultra-low-power design. Low power consumption by Transmitter modules and Receivers.
FD 2.4GHz V3 radio control system’s details

1. FD 2.4GHz V3 radio control system consists of:
   Transmitter module (IS-8F/IS-8J) ×1
   Receiver (IS-8R /IS-6R /IS-4R/IS-4R0) ×1
   Transmitter antenna (IS-TA) ×1
   Voltage protector ×1

2. Transmitter module compatibility
   Futaba module (IS-8F):
   Futaba: 3PM/3PK/7U/8U/8J/9C/9Z/10C and FN series.
   WFLY: WFT08/WFT 09.
   JR module (IS-8J):

3. Transmitter module specifications
   Dimensions:58.5×37.5×22.1mm（IS-8F）
   63.9×48.5×36.5mm（IS-8J）
   40.2×20.1×7.2mm （IS-8D） (DIY kit)
   Operating Voltage:6V～18V
   Operating Current: 40mA
   Output Power :< 19mW
   Resolution: 1μs

4. Receiver specifications:

<table>
<thead>
<tr>
<th>Type</th>
<th>IS-4R0 (4CH)</th>
<th>IS-4R (4CH)</th>
<th>IS-6R (6CH)</th>
<th>IS-8R (8CH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size(mm)</td>
<td>17×13.7×4.5</td>
<td>24×15.1×5.6</td>
<td>34.2×18.4×8.7</td>
<td>36.2×20.1×8.1</td>
</tr>
<tr>
<td>Weight</td>
<td>1g</td>
<td>2.2g</td>
<td>6.5g</td>
<td>7.3g</td>
</tr>
<tr>
<td>Distance</td>
<td>300m (on ground)</td>
<td>450m (on ground)</td>
<td>1200m</td>
<td>1200m</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>3.7V～6.0V</td>
<td>3.7V～6.0V</td>
<td>4.8V～6.0V</td>
<td>4.8V～6.0V</td>
</tr>
</tbody>
</table>
Follow these easy steps to set up your transmitter and receiver.

Install the transmitter module and receiver
1. Remove the original transmitter module.
2. Put the FD 2.4GHz transmitter module into the module port and screw on the transmitter antenna.
3. When you do install the receiver in the model try to place the tip of the antenna (the silver bit(s) approx 33mm long) away from objects with high conductivity, such as metal parts, servos, ESC's, battery packs, wires, and carbon fiber structures. For receivers with 2 antennas position the tips of the antennas so they are approximately 90 deg to each other. If possible put the tip of the antennas (the 33mm long silver bit) outside of the fuselage for maximum reception.

Bind and set Failsafe on the receiver(s)
Before installing the receiver(s) in your model(s) follow the instructions below to bind the receiver to the transmitter.

Bind receivers
1. Turn the transmitter on. Make sure that your transmitter is set to PPM mode, and then turn the transmitter off. Note: Receivers will not bind if the transmitter is set to PCM mode.
2. Press the “BIND” button on the TX module and turn on the transmitter. The LED on the module will light red and green for 0.5s then go off for 1s. Release the button within this 1s. The LED on the module will flash between red and green when it gets into bind mode.
3. The binding procedure is different for IS-4R0 (see 3A) and IS-4R, IS-6R and IS-8R (see 3B)

<table>
<thead>
<tr>
<th>3A: IS-4R0</th>
<th>3B:IS-4R&amp;IS-6R&amp;IS-8R</th>
</tr>
</thead>
<tbody>
<tr>
<td>After the module gets into bind mode, then connect the receiver to battery, the Led on receiver will light once, then flash quickly and then put off, this shows the module and receiver bind successful, now turn off the power of receiver and turn off the transmitter.</td>
<td>Press and hold the button on the receiver. Connect the receiver to the battery. The LED on the receiver will light Immediately (while the LED is on) release the receiver button. The LED will flash quickly several times and go out. Turn off the power to the receiver. If you do not want to bind more receivers at this time, turn off the transmitter.</td>
</tr>
</tbody>
</table>
4. Check system operation.
   Turn the transmitter on. The module LED should be green. Connect the receiver to the battery. The red LED on the receiver will flash three times (now it is searching for the frequency) and light red, indicating the receiver is operating properly. The LED on the receiver will not light when there is no signal.
   Once the successful binding of Tx module and Receiver, no binding again in the following use.
Set Failsafe

IS-4R0
IS-4R0 can set failsafe automatically, when it lose control, all channels with no output.

IS-4R & IS-6R & IS-8R
1. After initial binding, turn on the transmitter.
2. Press and hold the button on the receiver. Connect the receiver to the battery. The LED on the receiver will light (about 1s) and then go out (for about 1s). At this time (when the LED off) remove your hand from the receiver button. The LED on the receiver will then go on.
3. Move the joystick on your transmitter to where you want the surfaces / motor etc to be in the event of lost signal. Press the button on the receiver. The LED will flash several times; this shows the receiver has remembered the position which you have set. In the rare event that your system losses signal, all channels will return to the position which you have set.
4. Turn off the power to the receiver. Failsafe is now set.
5. Check that failsafe works, by turning on the transmitter then the receiver / model. Turn off the transmitter. The controls should go to their preset position. They will return to those on the transmitter when power is restored.
Range checking

For safety, we suggest you conduct a range test before each flying session.

1). Have a friend hold the model for you. Position the model at least two feet (60cm) above non-metal contaminated ground. If you don’t have anyone to help you, use something like a wooden bench. Make sure the model cannot move under its own power.

2). Press and hold on the “RANGE” button on the module and turn on the transmitter. (please don’t release the button for the whole process). The read LED will light for 0.5s then the yellow LED light, this shows the module is now in “RANGE” mode.

3). Move joysticks in the transmitter and verify that the model is responding normally. Move away the transmitter from the model up to 10m (IS6R, IS8R) or 8m (IS4R) or 4m(IS-4R0). If the control surfaces move as expected it shows the Tx module and receiver are working as expected and can be used. If control is lost, or the model behaves abnormally, please check and resolve any problems before conducting another range test. Do not fly if the range test fails and cannot be fixed.

4). When range testing is completed, release the button. The LED on the Tx module will light green, indicating that the Tx module has returned to its normal power state. You can now fly.

During the range test the Transmitter module will have a range of approx 10m (IS6R, IS8R) and 8m (IS4R). In normal power mode, range is greater than 1,200 meters (IS6R and IS8R) and 1000 meters (IS4R) in the sky.

Note:
1. Once the Transmitter module and Receiver are successfully bound, there is no need to bind again if you add extra receivers.
2. Not fly when you at Range Test Mode.
3. In the extremely rare event (1 in approximately 13 million) that another Fly-Dream system uses the same ID it is possible to reset the ID by pressing both “BIND” and “RANGE” buttons together. (NOT do this unless you want to reset the ID. There is absolutely no need to do this in normal operations.)
**Attach: Instruction of LED on the TX module**

<table>
<thead>
<tr>
<th>LED Color</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Normal working</td>
</tr>
<tr>
<td>Yellow</td>
<td>Short range testing</td>
</tr>
<tr>
<td>LED flash</td>
<td>Bind code</td>
</tr>
<tr>
<td>Flash red</td>
<td>Change TX module ID condition</td>
</tr>
</tbody>
</table>

**Enjoy your Fly-Dream 2.4GHz Radio Control System.**

If you have any questions please do not hesitate to contact us or visit our website: www.fd-rc.com
Or contact with your local supplier: