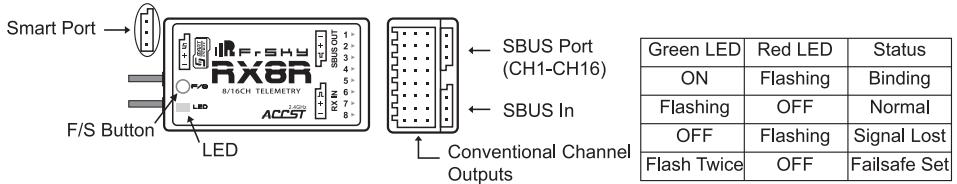


Introduction

Thank you for purchasing FrSky RX8R 8/16ch full duplex telemetry receiver. In order to fully enjoy the benefits of this system, please read the instruction manual carefully and set up the device as described below.

Overview



Specifications

Dimension: 46.25 x 26.6 x 14.2mm (L x W x H)

Weight: 12.1g

Number of Channels: 16CH (1-8CH PWM or 9-16CH PWM from conventional channel outputs, 1-16CH from SBUS port)

With RSSI Output on Board: Analog 0~3.3V

Operating Voltage Range: 4.0~10V

Operating Current: 100mA@5V

Operating Range: full range (>1.5km)

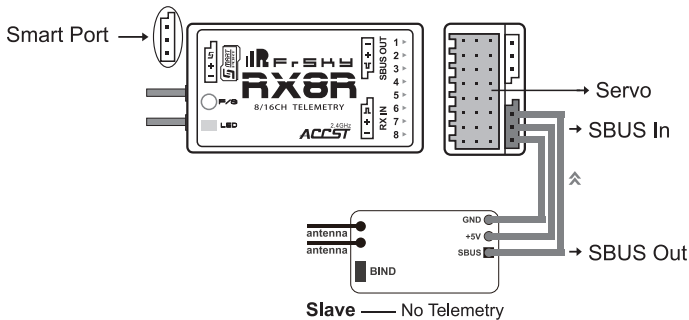
Firmware Upgradeable

Compatibility: FrSky transmitter/transmitter modules in D8/D16 mode

What's New!

RX8R supports the redundancy function for the master and slave receivers. The master receiver receives SBUS signal from the slave receiver. The master receiver must be RX8R, and the slave receiver can be any brand receiver with SBUS output (for example, FrSky X8R, X6R, X4RSB, XSR, XM, XM+, RX8R, L9R, etc)

Note: make sure telemetry is disabled on the slave receiver when the slave receiver is FrSky X series receiver. XM+ is recommended as the slave receiver.



Both the master and the slave receivers receive signal from transmitter/transmitter module. When the master receiver works properly, the PWM outputs come from the master receiver. When the master receiver goes into failsafe but the slave receiver works properly, the PWM outputs come from the slave receiver. When the master receiver receives signal and works properly, the PWM outputs switch back to the master receiver.



Smart Port (S. Port) is a signal wire full duplex digital transmission interface developed by FrSky Electronic Co., Ltd. All products enabled with Smart Port (including XJT module, RX8R receiver, new hub-less sensors, new Smart Dashboard, etc), serial port user data and other user input/output devices can be connected without limitations for numbers or sequences at a high transmission speed.

Binding Procedure

Binding is the process of uniquely associating a particular receiver to a transmitter/transmitter module. A transmitter/transmitter module can be bound to multiple receivers (not to be used simultaneously). A receiver can only be bound to one transmitter/transmitter module. Follow the steps below to finish the binding procedure.

1. Put the transmitter/transmitter module into binding mode

1.1 For Taranis X9D/X9D Plus/X9E and Taranis Q X7, turn on the transmitter, go to the MENU – MODEL SETUP – PAGE 2, choose Internal or External RF, and select BIND.

1.2 For Horus X12S, turn on the transmitter, go to the RF SYSTEM, choose Internal or External RF, and select BIND under STATE.

1.3 For transmitter module (XJT as an example), turn on the transmitter while holding the F/S button on the module, release the button and the RED LED on XJT module flash.

2. Connect the battery to the receiver while holding the F/S button on the receiver. The RED LED on the receiver will flash, indicating the binding process is completed.

3. Turn off both the transmitter and the receiver.

4. Turn on the transmitter and connect the battery. The GREEN LED on the receiver indicates the receiver is receiving commands from the transmitter. The receiver/transmitter module binding will not have to be repeated, unless one of the two is replaced.

Note: After binding procedure is completed, recycle the power and check if the receiver is really under control by linked transmitter.

When combine two RX8R's, one outputs 1-8CH PWM and the other outputs 9-16CH PWM, you need to disable telemetry on either one of the two RX8R's. Refer to the two charts below for details.

Mode of RX8R	Telemetry	Channel Output	Jumped before Bind (signal pins)	F/S Button
D8	√	CH1~CH8	CH7 & CH8	connect the battery to any available channel output (no need to hold the F/S button on RX8R)
D16	×	CH1~CH8	CH3 & CH4	Connect the battery to any available channel output while holding the F/S button on RX8R.
D16	×	CH9~CH16	CH1 & CH2	
D16	√	CH9~CH16	CH1 & CH2, CH3 & CH4	
D16	√	CH1~CH8	No Jumper	

Note: for Horus X12S, you can enable/disable telemetry and set Channel Output for RX8R in RF SYSTEM page (no need to jump the signal pins on RX8R before bind).

Range Check

A pre-flight range check should be done before each flying session. Reflections from nearby metal fences, concrete buildings or trees can cause loss of signal both during range check and during the flight. Follow the steps below to perform the range check.

- Place the model at least 60cm (two feet) above non-metal contaminated ground (e.g. on a wooden bench).
- The receiver antennas should be separated in the model, and do not touch the ground.
- The module antenna should be in a vertical position.
- Turn on the transmitter and the receiver, press the F/S button on the XJT module for 4 seconds to enter range check mode, the RED LED will be off, GREEN LED will flash rapidly. The effective distance will be decreased to 1/30 (at least 30m).
- Walk away from the model while simultaneously operating the controls on the transmitter to confirm all controls' normal operation.
- Press the F/S button on the XJT module for 1~2 seconds to exit range check mode, RED LED will be back on, indicating normal operation is back.

Failsafe

Failsafe is a useful feature in which all controls move to a preset position whenever the control signal is lost for a period of time. RX8R supports failsafe function for all channels. Follow the steps below to set failsafe positions for each channel:

- Bind the receiver first and turn on both the transmitter and the receiver;
- Move the controls to the desired failsafe position for all channels;
- Press briefly the F/S button on the receiver (less than 1 second). The Green LED will flash twice, indicating the failsafe position has been set in the receiver.

To disable the failsafe function, re-bind the receiver.

Note: the failsafe on the transmitter side will be used when failsafe is set on the transmitter.

Failsafe is recommended to set when system is firstly used, or receiver has been re-bound. Follow steps below to set failsafe.

Option-1. How to set failsafe to a user-determined state on lost signal:

- Bind the receiver to the transmitter module first and turn on both the transmitter and the receiver;
- Move the controls to desired failsafe position for all channels;
- Press briefly the F/S button on the receiver and you are done.

Option-2. How to set failsafe for no pulses on lost signal:

- Turn off the transmitter, power on the receiver, and then press briefly the F/S button on the receiver.

Note: If failsafe is not set, failsafe default will hold last position before signal is lost. In this case, there exists risk that your model will fly away or cause injury.

Should you have other questions, please send e-mails to FrSky technical support sales4tech@gmail.com.