Introduction
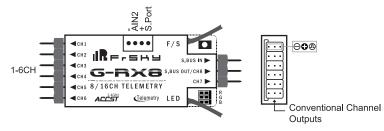
Thank you for purchasing FrSky G-RX8 8/16ch telemetry receiver. In order to fully enjoy the benefits of this system, please read the instruction manual carefully and set up the device as described below.

Overview
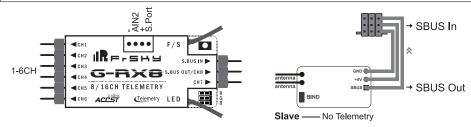

1-6CH

AIN2 +S.Port

Conventional Channel Outputs

Specifications

- Dimension: 55.26mm×17mm×8mm (L × W × H)
- Weight: 5.8g
- Number of Channels: 16CH (1~8ch/9~16ch from conventional channel outputs, 1~16ch from SBUS port).
- Operating Voltage Range: 3.6V~10V
- Operating Current: 100mA@5V
- Operating Range: full range
- Firmware Upgradable
- Compatibility: D16 mode

Features

1. Variometer sensor: the measures is -700m-10000m with 0.1m(high precision version), support altimeter (the rate formula is +-16.7m/s) .
2. G-RX8 supports the redundancy function for the master and slave receivers. The master receiver receives SBUS signal from the slave receiver. The master receiver can be G-RX8, and the slave receiver can be receiver with SBUS output (for example, FrSky X8R, X6R, X4RSB, XSR, XM, XM+, R-XSR, G-RX8, L9R, etc) .

> **Note: Make sure telemetry is disabled on the slave receiver when the slave receiver is a FrSky X series receiver. XM+ is recommended as the slave receiver.**

1-6CH

AIN2 +S.Port

SBUS In

SBUS Out

Slave —— No Telemetry

SMART PORT 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 FS button on the module, release the button

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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, cycle the power and check if the receiver is truly communicating with the transmitter.**

When combine two receivers to become a 16CH receiver, you need to disable telemetry on either one of the two receiver's.

How to switch SBUS / PWM mode

a) Turn on the receiver, if the BLUE LED on the receiver lights , the receiver is currently in SBUS mode, otherwise it is in PWM mode.
b) Connect CH1 and CH2 signal pins with the included jumper before Binding, the receiver will enter into PWM mode. The receiver will enter into SBUS mode without the jumper connected.

> **Note:**
> **1. SBUS Mode: CH1~CH6 output high precision PWM signal (Error < 0.5 us), SBUS IN is used for redundancy function &CH8 outputs SBUS signal &CH7 no outputs.**
> **2. PWM Mode: CH1~CH4 output high precision PWM signal (Error < 0.5 us), CH5~CH8 output ordinary precision, SBUS IN / SBUS OUT will be disabled.**

How to Disable/Enable altimeter function

a) The factory default setting is "enabled".
b) In case you want to disable altimeter functionality bring the receiver into normal operational mode, hold the F/S button > 3 s, the BLUE LED will flash 3 times, indicating the switch was successful and the function will be disabled. (If you want to enable the function, just repeat steps).

How to switch the output 1 ~ 8/9 ~ 16CH

a) The receiver comes default in the SBUS Mode. If the Horus X12S/X10 is used the channels 1-8/9-16 can be chosen on the transmitter during the binding process. If Taranis X9D/X9D Plus/X9E and Taranis Q X7 is used connect CH3 and CH4 by the jumper, and then perform binding process, after a successful bind, the channels should be switched. If outputs 9 ~ 16CH, wished to be switched to 1 ~ 8CH, follow the same operation.

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. Under Range Check Mode, the RF power would be decreased and Range distance to 1/30--1/10 that of Normal Model, about 30 meters.
1. Place the model at least 60cm (two feet) above non-metal contaminated ground (e.g on a wooden bench) . The receiver antenna should be in vertical position.
2. For Taranis X9D/X9D Plus/X9E and Taranis Q X7, turn on the radio and the receiver, go to: MODEL SETUP/Internal RF/Range.
3. For Horus X12S/X10, turn on the radio and the receiver, go to: MOL/RF SYSTEM/INTERNAL RF (ON) /STATE (Range) .
4. For transmitter RF module, please refer to its manual.

Failsafe

Failsafe is a useful feature which is for a preset channel output position whenever control signal is lost for a period.
Follow the steps to set Failsafe for channels necessary :
Failsafe for receiver supporting D16 RF mode setting can be set via radio interface, which support no pulse, hold and custom three modes for each channel.
1.For Taranis X9D/X9D Plus/X9E and Taranis Q X7, turn on the radio, go to: MODEL SETUP/Internal RF/Failsafe.

2.For Horus X12S/X10, turn on the radio, go to: MOL/FAIL SAFE.

3. Failsafe can be set on receiver via short press F/S button while moving channel position to a preset value after binding .

> **Note: Failsafe setting via transmitter for channel output position just for D16 RF mode, and Failsafe setting via transmitter has higher priority to setting via receiver. A reasonable Failsafe setting can decrease falling risk and damage.**

Much more operation and instruction please refer to radio manual.
For more details, please check the complete manual for G-RX8 from www.frsky-rc.com - Download -Manual.
Should you have other questions, please send e-mails to FrSky technical support sales4tech@gmail.com.

> FrSky is continuously adding features and improvements to our products. To get the most from your product, please check the download section of the FrSky website www.frsky-rc.com for the latest update firmware and manuals