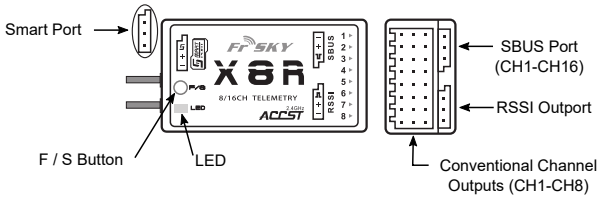
FrSky 2.4GHz ACCST X8R Manual

Introduction

Thank you for purchasing FrSky X8R 8/16ch full duplex telemetry receiver. In order to fully enjoy benefits of this system, please read the instruction manual carefully and set up the device as described below.

Généralités



Green LED	Red LED	Status
ON	Flashing	Binding
Flashing almost imperceptible	OFF	Normal
OFF	Flashing	Signal lost
Flash Twice	OFF	Failsafe Set

Spécifications

Dimension : 46.47 x 26.78 x 14.12mm (L x W x H)
Weight : 16.6g
Number of Channels : 16 CH (1~8ch available from conventionnal channel outputs, 1~16ch available from SBUS port, or combine two X8Rs to obtain a reception set with 16 channels on conventional outputs)
With RSSI PWM output (0~3.3V)
Operating Voltage Range : 4.0 ~ 10V
Operating Current : 100mA@5V
Operating Range : full range in open field >1,5km
Firmware Upgradeable
Compatibility : FrSky DFT/DJT/DHT/DHT-U in D8 mode
FrSky Taranis X9D Plus/XJT in D8 mode
FrSky Taranis X9D Plus/XJT in D16 mode
the X8R-EU version only works with the EU version of the FrSky Taranis X9D Plus or the EU version of the XJT module in the D16-EU-LBT mode.

What's new !

- More number of channels : 1~8ch available from conventionnal channel outputs, 1~16ch available from SBUS port, or combine two X8Rs to obtain a reception set with 16 channels on conventional outputs
- Parallel two X8R to become a 16 channel receiver
- With RSSI PWM output (0~3.3V)
- Smart Port enabled, realizing two-way full duplex transmission.

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, X8R 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 module.
A transmitter module can be bound to multiple receivers (in this case, each receiver will be bound one after the other, simultaneous binding is impossible). A receiver can only be bound to one transmitter module.

Follow the steps below to perform the binding procedure with the internal transmitter module of a FrSky radio of the **Taranis** or **Horus** series running on OPEN TX :

1. Turn on the transmitter and select the "*Model Setup*" menu of your current model. In the section "*Internal RF*" :
   a) Select D8 or D16 "*Mode*".
   b) Only for D16 mode, you can assign a number to the receiver to be bound. This allows you to link model programming with a specific receiver, and ensures that later only this receiver will work with the model selected on the radio.
   c) Select and confirm "*Bind*". The cursor blinks and the radio beeps indicating that the "bind" mode is in progress.
2. Set X8R receiver in "bind" mode **(see below chart for details)**. The RED LED on the receiver will flash, indicating the binding process is completed.
3. On the radio, quit the "*Bind*" mode by pressing the Exit or RTN key and leave the transmitter on. Turn off the receiver.
4. Plug the receiver battery to turn it on. On the receiver, the green LED on (flashing almost imperceptible) and the red LED off indicate that the receiver is receiving commands from the transmitter. The receiver / transmitter module binding will not have to be repeated unless one of the two elements is replaced **or** if you want to change the assignment of the receiver number.

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This is not the official product manual !
This document is an improved version, enriched with unofficial information and done by a volunteer for the site https://www.rcgroups.com/

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

Receiver mode and Binding Operation :

Please be attention that the Smart Port Protocol is only running in D16 mode.

Modes of X8R	Telemetry	Channel Output	Receiver Mode select & Bind Operation	
			Jumped before Bind (signal pins)	F / S Button
Mode 1(D8)	√	CH1~CH8	CH7 & CH8	Connect the battery to any available channel output (no need to hold F/S button on X8R)
Mode 2(D16)	x	CH1~CH8	CH3 & CH4	Connect the battery to any available channel output while holding the F/S button on X8R
Mode 3(D16)	x	CH9~CH16	CH1 & CH2	
Mode 4(D16)	√	CH9~CH16	CH1 & CH2, CH3 & CH4	
Mode 5(D16)	√	CH1~CH8	No Jumper	

When combining two X8Rs to obtain a reception set with 16 channels on conventional outputs, you must disable telemetry on at least one of the two X8Rs as shown in the table above.
The X8R-EU version only works with the EU version of the FrSky Taranis X9D Plus or the EU version of the XJT module in the D16-EU-LBT mode.

Range Check

For safety, 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 procedure with the internal transmitter module of a FrSky radio of the **Taranis** or **Horus** series running with OPEN TX :

1. Place the model at least 60cm (two feet) above non-metal contaminated ground (e.g. on a wooden bench).
2. Position the antennas of the receiver at an angle close to 90 °. Antennas must not be in contact with the ground.
3. Position the antenna of the transmitter vertically.
4. Turn on the transmitter and select the "*Model Setup*" menu of your current model. In the section "*Internal RF*", select "*Range*". The radio emits beeps indicating that the range check mode is enabled. The effective range is then decreased by a ratio 1/30 (1m in reduced range mode = 30m in normal range mode).
5. Walk away from the model while simultaneously operating the controls on the transmiitter to confirm all controls' normal operation. You should be able to move about 30m away from the receiver.
6. To exit the range check mode and return to normal range mode, press the Exit or RTN key. The radio is no longer beeping.

Failsafe

Failsafe is a security feature that takes control of the channels to assign them a predetermined position each time the command signal is lost for a period of time. The X8R supports failsafe function for all channels.
The Failsafe configuration remains in memory, even if the receiver has been turned off.
To disable the failsafe feature, re-bind the receiver.
It is recommended to configure the Failsafe when using the system for the first time, or when the receiver has been re-bound.
Follow the steps below to set Failsafe feature.

Option 1 - Configure Failsafe to assign a custom channel position when the signal is lost.
1) Bind the receiver with the transmitter module and turn on the transmitter and receiver;
2) Move the controls to desired failsafe position for all channels;
3) Press briefly the F/S button on the receiver (less than 1 second). The Green LED will flash twice, indicating the failsafe position ha been set in the receiver.

Option 2 - Configure Failsafe to get no signal (no pulses) on the channels when the signal is lost.
1) Turn off the transmitter module first, power on the receiver, and then press briefly the F/S button on the receiver.

Option 3 - Configure Failsafe using the internal transmitter module in **D16 mode** of a Frsky radio of the **Taranis** or **Horus** series running on OPEN TX :
1) Bind the receiver with the transmitter module and turn on the transmitter and receiver;
2) On the transmitter, select the "*Model Setup*" menu of your current model. In the section "*Internal RF*" choose your custom "*Failsafe Mode*" setting and possibly the corresponding parameters.
CAUTION: Option 3 overrides option 1 or option 2 except for the failsafe type "Receiver" !

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

For more details, please check the complete manual for X8R from www.frsky-rc.com - Download - Manual.
Should you have other questions, please send e-mails to FrSky technical support sales4tech@gmail.com.

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