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Instruction Manual for FrSky R9M (EU) Module

Introduction

Thank you for purchasing FrSky R9M telemetry module. 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

Operating Voltage Range : DC 4V~12V

- Telemetry Interface: Smart Port
- Upgrade Interface: Smart Port

about the output power and operating current :

| Category | EU Version | | Range Check |
|--|------------|-------|-------------|
| operating voltage \ power \ operating current | 25mW | 500mW | 0.01mW |
| 6V | 160mA | 430mA | 50mA |
| 10V | 105mA | 260mA | 30mA |
| Servo frame rate | 20ms | | / |
| Channel Number | 8CH | 16CH | / |
| Compatibility | R9 series | | / |

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.

Features

1. Long range, low latency and high precision RC system

2. Telemetry (25mW) /No Telemetry (500mW) mode

3. Smart Port enabled and support telemetry data transmission

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Binding Procedure

Binding is the process of uniquely associating receiver to a transmitter/transmitter RF module . A transmitter internal or external RF module can be bound to multiple receivers (not to be used simultaneously). A receiver can only be bound to one RF module.

Follow the steps below to finish the binding procedure.

1.Put the transmitter/transmitter RF module into binding mode

1.1 For Taranis X9D/X9D Plus/X9E and Taranis Q X7/X7S, turn on the radio, go to the MENU – MODEL SETUP – PAGE 2, External RF, and select BIND.



1.2 For Horus X12S/X10/X10S, turn on the radio, go to the RF SYSTEM, External RF, and select BIND under STATE.

| A-N D | RF SY | STEM | 2 5 0 | |
|-------------|---------|------------------------|---------|---------|
| INTERNAL RF | OFF | EXTERNAL RF | ON | |
| STATE N | итноит | TELE 1-8CH | BIND | ▼ |
| ANTENNA I | | TELE 9-16CH |)16 | ▼ |
| MODE [| - | ELE 1-8CH Le 9-16Ch | | |
| RX NO | | | 02 | |
| CH RANGE C | 01 - 16 | CH RANGE | 01 - 16 | |
| SYSTEM | MODEL | TELEMETRY | 1/1 11/ | 07/2017 |

2. Connect the battery to the receiver while holding the Bind 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.

Note: After binding procedure is completed, recycle the power and check if the receiver is truly communicating with the transmitter.

How to switch Telemetry (25mW) / No Telemetry (500mW) mode

- For Taranis X9D/X9D Plus and Taranis Q X7/X7S turn on the radio, go to the MENU-MODEL SETUP-PAGE2, choose External RF MODE R9M and select the RF Power mode.
- For Horus X12S/X10/ X10S, turn on the radio. go to the RF SYSTEM, choose the External RF and select the R9M, and select withTele or noTele.

| A-N BB | RF SY | RUEI STEM | <u>i</u> 50 D |
|-------------|----------|--------------|----------------------------|
| INTERNAL RF | OFF | EXTERNAL RF | ON |
| STATE | NORMAL | STATE | NORMAL 🖛 |
| ANTENNA | INSIDE 🛛 | S.P MODE | D16 🗐 |
| MODE | D16 🛛 | 🔽 R9N | withTele 🛛 |
| RX NO | 01 | RX NC | 01 |
| CH RANGE | 01 - 16 | CH RANGE | 17 – 32 |
| SYSTEM | MODEL | TELEMETRY | 1/1 11/09/2017 13:55:47 |

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Note:

1. These 2 modes are set in strict accordance with RC standard in EU areas.

2. After switching the modes between Telemetry (25mW) /No Telemetry (500mW) mode, user should rebind the receiver.

How to enable/disable the S.Port of R9M

- For Taranis X9D/X9D Plus and Taranis Q X7/X7S, go to the MENU-MODEL SETUP-PAGE2, choose External RF MODE R9M and select the S.Port or not.
- For Horus X12S/X10/ X10S, turn on the radio. go to the RF SYSTEM, choose the External RF and select the R9M, and select the S.Port or not.

Note: If user does not select the S.Port , the S.Port information transmission will be cut off between R9M and transmitter.

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.

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/X7S, turn on the radio and the receiver, go to: MODEL SETUP/ Internal RF/Range.

3. For Horus X12S/X10/X10S, turn on the radio and the receiver, go to: MOL/RF SYSTEM/INTERNAL RF(ON)/ STATE (Range).

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/X7S, turn on the radio, go to: MODEL SETUP/Internal RF/Failsafe.



2.For Horus X12S/X10/X10S, turn on the radio, go to: MOL/FAIL SAFE.

| A-NA | FAIL | SAFE | 6 | | |
|---------------|---------------------------|-------|----------|----------|---------------------|
| ENABLE | FAILSAFE se on D16 Mod | 4 | dio just | takes ef | fect |
| CH 1 Hold | ▼ 000 | CH 5 | Hold | | 000 |
| CH 2 Custom | ▼ 000 | CH 6 | Hold | | 000 |
| CH 3 No Pulse | ▼ 000 | CH 7 | Hold | | 000 |
| CH 4 Hold | ▼ 000 | CH 8 | Hold | | 000 |
| SYSTEM | MODEL | TELEM | ETRY | 1/4 | /04/2015 3:07:19 |

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Note: Failsafe setting via transmitter for channel output position just for D16 RF mode. A reasonable Failsafe setting can decrease falling risk and damage.

Much more operation and instruction please refer to radio manual.

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