## Introduction

The Archer line of receivers has been enhanced further with the addition of the new Archer Plus Series.
The Archer Plus Series receivers include some new features. Firstly an enhanced anti-RF-Interference capability can offer a more solid RF performance, and this is in addition to existing anti-interfere performance in the spark ignition process. These Plus series receivers are also with both ACCESS and ACCST D16 modes, where the RF protocol is smart matched during the binding process on the radio. With the Black-Box function, some basic flight data (like Power & Signal related) can be well preserved.

The R10+ receivers have 10 configurable channel ports, each channel port can be assigned as PWM, SBUS, FBUS, or S.Port. The R10+ can be used as a Primary receiver in a redundant solution by setting a port as SBUS In and connecting to any other FrSky receiver equipped with an SBUS Out port. With the FBUS protocol, the Archer Plus series receivers can open up the possibility of seamlessly pairing with multiple telemetry devices (XACT servos, ADV Sensors, etc.) as well as simplifying the builds setup. This receiver also supports full-range signal strength with dual detachable antennas and guarantees optimal antenna reception and range.

## Overview
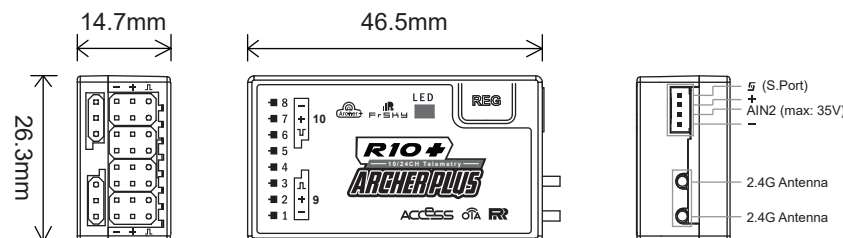


## Working State

| Green LED | Red LED | Status |
|---|---|---|
| On | On | Register |
| Flash | Flash | Register successfully |
| On | Off | Bind |
| Flash | Off | Work Normally |
| Off | On | Failsafe |

## Specifications

- Dimension: 46.5*26.3*14.7mm (L*W*H)
- Weight: 13g
- 10 Configurable Channel Ports
  CP1: PWM / SBUS Out / FBUS / S.Port / SBUS In
  CP2-10: PWM / SBUS Out / FBUS / S.Port
- SBUS Out (Supports 16CH / 24CH mode)
- Operating Voltage Range: 3.5 -10V
- Operating Current: <100mA@5V
- Control Range: Full range* with telemetry
  (*Full Range: >2km, range may vary based on local conditions.)

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- Voltage Measurement Range via AIN2 (External device): 0-35V
  (Battery Voltage Divider Ratio: 1:10)
- Compatibility: FrSky 2.4GHz ACCESS / ACCST D16 capable transmitters

## Features

- Enhanced Anti RF-Interference capability with more solid RF performance
- Smart-matched ACCESS & ACCST D16 modes
- Supports basic Black-Box function
- 10 configurable channel ports (PWM, SBUS, FBUS, or S.Port)
  (Note: In ACCST mode, SBUS Out is assigned on Pin9 & S.Port is on Pin10.)
- Supports signal redundancy (SBUS In)
- Full control range with telemetry (S.Port or FBUS)
- Anti-interference capability in the spark-ignition process
- Over-The-Air (OTA) FW update
- External battery/device voltage detection

## Registration & Automatic Binding

Follow the step below to finish the registration & binding procedure:
1. For TANDEM X20 as an example, enter into the Model, select RF System, turn on the internal module, select status [ON] and ACCESS, Then determine the antennas (internal or external) and choose the RF power according to the actual usage, the ACCESS receiver can be registered to the radio at the moment. (Notice: the "Registration" process is not required while binding the receiver in ACCST D16 mode.)
2. Connect the battery to the receiver while holding the button on the receiver. The RED LED and GREEN LED on the receiver will be on, indicating into the [Reg] status.
3. When it shows the Register ID, RX name and UID, click [Register]. The RED LED and GREEN LED on the receiver will flash, and the transmitter displays [Registration OK ].
4. Power off the receiver.
5. Move the cursor to select any one of the 3 receivers and press [Bind].
6. Connect the battery to the receiver.
7. Select the RX, the GREEN will keep lit, then the transmitter displays [Bind successful].

Note: Once the receiver is registered, the button is not needed anymore in the binding process (ACCESS mode).

## How to switch the S.Port/SBUS OUT/SBUS IN/FBUS
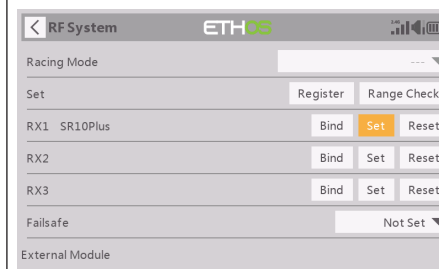


Enter into the [Set] of receiver.
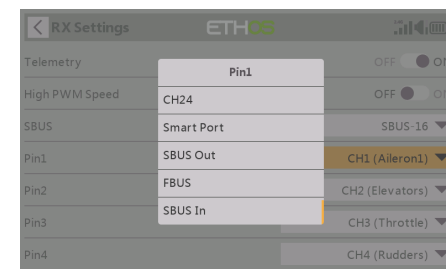


Select the FBUS/S.Port/SBUS Out/SBUS In for the channel ports.

## How to switch SBUS channel mode

Enter into RX Settings, click [SBUS], then select SBUS-16 mode or SBUS-24 mode.

## About OTA function (ACCESS mode)

Go to the [File manager], and select the FW, press the enter button, select [Flash RX by int.OTA]. Power on the receiver, select the RX, go to the [ENTER], complete the flash process, the transmitter will display [Success]. Wait for 3 seconds, the receiver works properly at the moment.

**Note: Please do not do the binding operation in the near range while the firmware upgrading in progress.**

**Note: Update the firmware after the receiver getting registered (OTA).**

## Range Check

A pre-flight range check should be done before every flight, in case the signal loss is caused by the reflection of the signal by the nearby metal fence or concrete, and the shading of the signal by buildings or trees during the actual flight. Under normal circumstances, in Range Check mode, the RSSI at 150m is about 45-50.
1. Place the model at least 60 cm (2 feet) above the non-metal contaminated ground (such as on a wooden bench). The receiving antenna should be in a vertical position.
2. Ener the ETHOS system, move to the "RF System", scroll the Encoder to select "RANGE" mode and press Encoder. In range check mode, the effective distance will be decreased to 1/30.
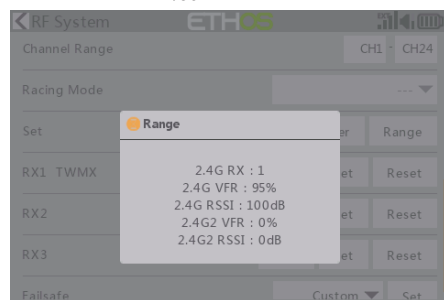
## How to set Failsafe

There are 3 failsafe modes when the setting is enabled: No Pulse, Hold, and Custom mode.
- No Pulses Mode: On loss of signal, the receiver produces no pulses on any channel. To use this mode, select it in the menu and wait 9 seconds for the failsafe to take effect.

- Hold Mode: The receiver continues to output the last positions before the signal was lost. To use this mode, select it in the menu and wait 9 seconds for the failsafe to take effect.

- Custom Mode: Pre-set to required positions on the lost signal. Move the cursor to the failsafe mode of the channel and press Encoder, then choose the Custom mode. Move the cursor to the channel you want to set failsafe On and press Encoder. Then rotate the Encoder to set your failsafe for each channel and short-press the Encoder to finish the setting. Wait 9 seconds for the failsafe to take effect.

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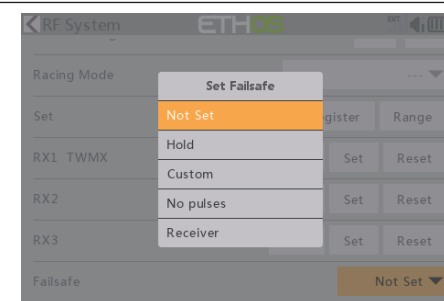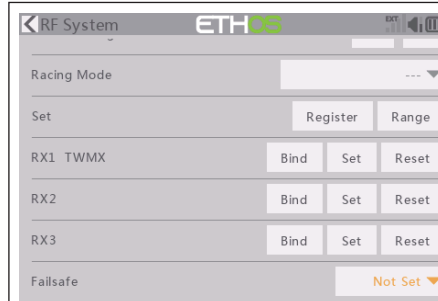
**Note:**
- **If the failsafe is not set, the model will always work with the last working status before the signal is lost. That could cause potential damage.**
- **When the failsafe is disabled on the RF module side, the failsafe set on the receiver side will be applied.**
- **SBUS port does not support the failsafe setting in No Pulses mode and always outputs signal. Please set "Hold" or "Custom" mode for the SBUS port.**

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