

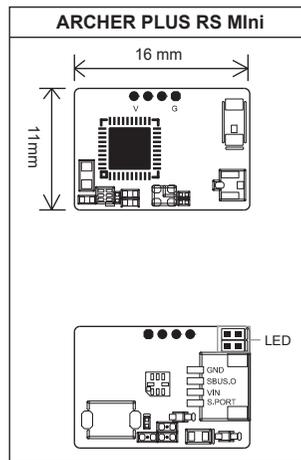
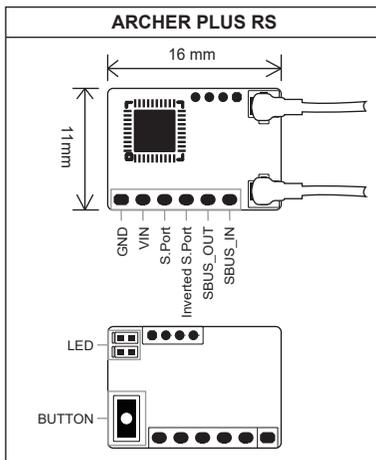
Introduction

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 smartly matched during the binding process on the radio. In ACCESS mode, these receivers not only feature OTA wireless firmware upgrades, increased range, and telemetry performance, they support even more functions like configurable telemetry power (RS), S.Port / F.Port / FBUS switching, and VFR indicators.

The **RS** supports full-range signal control with an equivalent telemetry range. Dual detachable/replaceable antennas assure optimal antenna reception and maximum range with their lightweight design thanks to the extremely tiny form factor. Features an inverted S.Port that allows for easily connecting flight controllers, in addition to all this, the RS can also be used as a redundancy receiver along with any other FrSky ACCESS capable receiver equipped with an SBUS port. The best available signal will be used to ensure superior connectivity.

The **RS Mini** version provides the optimal model-building solution that uses an onboard PCB-type antenna to reduce the building hassle of using the traditional ones and removes the soldering problems by adding a wire connector to lead the external device more easily.

Overview



Specifications

- Dimension: 16*11mm (L*W)
- Weight: 1.3g
- Operating Voltage: 3.5-10V
- Operating Current: 12mA@5V (AP RS Mini) / 60mA@5V (AP RS)
- Antenna Connector: IPEX4 (AP RS) / Onboard PCB-type antenna (AP RS Mini)
- Control Range: Full range* with telemetry (AP RS) / $\geq 600\text{m}$ (AP RS Mini)
- (* Full Range: $\geq 2\text{km}$, the control range may vary based on local conditions.)
- Compatibility: All FrSky ACCESS/ACCST D16 transmitters.

Features

- Tiny and super lightweight
- S.Port / F.Port / FBUS (Configurable via S.Port)
- Over-The-Air (OTA) FW update
- SBUS Out port (Supports 16CH / 24CH mode)
- SBUS In port (Supports Signal Redundancy) (AP RS)
- Inverted S.Port (AP RS)

LED State (ACCESS)

Green LED	Red LED	Status
On	On	Register
Flash	Flash	Register successfully
On	On	Bind
On	Off	Bind successfully
On	Off	Working normally
Off	On	Failsafe

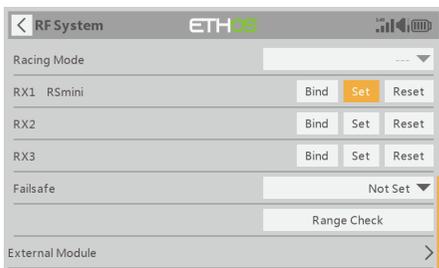
Registration & Automatic Binding

Follow the step below to finish the registration & binding procedure:

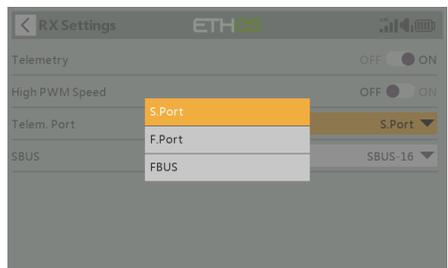
1. For TANDEM X20 as an example, enter into the Model, select RF System, turn on the internal module, select status [ON] and ACCESS, Then determine the antennas (internal or external) and choose the RF power according to the actual usage, the ACCESS receiver can be registered to the radio at the moment. (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/F.Port/FBUS



Enter into the [Set] of receiver.

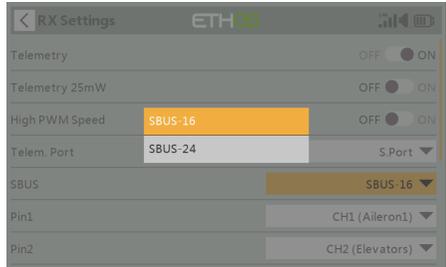


Click the Telem.Port, and select S.Port/F.Port/FBUS.

How to switch SBUS channel mode



Enter into RX Settings.



Click [SBUS], then select SBUS-16 mode or SBUS-24 mode.

About OTA function

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.

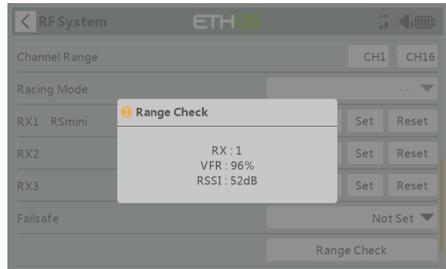
Note: Please do not do the binding operation in the near range while the firmware upgrading in progress.

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.

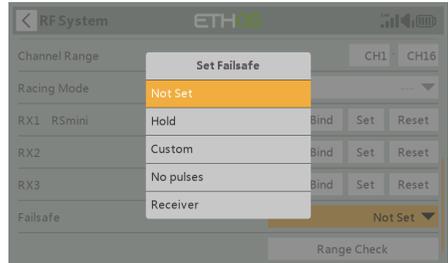
1. Place the model at least 60 cm (2 feet) above the non-metal contaminated ground (such as on a wooden bench). The receiving antenna should be in a vertical position.
2. Enter the ETHOS system, move to the "RF System", scroll the Encoder to select "RANGE" mode and press Encoder. In range check mode, 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 pwm 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.



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 receiver defaults to Hold mode.
- When in No Pulses Mode, do not set the Failsafe to No Pulses Mode for the SBUS port as it will keep the signal output continuously, Please set "Hold" or "Custom" mode for the SBUS port.

FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - 1) This device may not cause harmful interference.
 - 2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate transmitter frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to transmitter communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to transmitter or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced transmitter/TV technician for help.

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