

Futaba®

R6203SBE

FASST-2.4GHz (7ch/8ch/10ch/Multi-ch) System
S.BUS Port and 3 Channels for Conventional System
High-speed Receiver
For parkflight or indoor use airplanes.
For small size electric helicopters



1M23N17443

Thank you for purchasing a Futaba R6203SBE FASST-2.4GHz compatible receiver.

The R6203SBE has an S.BUS system output port and a conventional system channel outputs. It can also be used with conventional system servos, etc. in addition to S.BUS system compatible servos and gyros, etc.

When the linking procedure is performed, R6203SB recognizes the signal mode (FASST-2.4GHz 7ch mode or 8ch/10ch/Multi-ch mode) automatically.

In addition, the operating mode (high-speed mode/normal mode) can be selected.

Usage condition for conventional system output (Ch1-3) on "High Speed mode"

⚠ CAUTION

- ❗ The "High Speed mode" accept the digital servos only or most type of peripherals.
- If any analog servos connected to these output as it will cause malfunction. Please check the peripherals if there's any malfunction with whole stick lever throw. If any malfunction occur please change the operation mode to "Normal mode."

Applicable systems: FASST-2.4GHz 7ch or 8ch/10ch/Multi-ch system

⚠ WARNING

❗ **If a part of the fuselage is made of conductive materials such as metal and carbon, install the receiver so that it is never covered with these materials and the antenna never touch them.**

- It becomes impossible to receive, it causes erratic operation or loss of control.

❗ **Do not use it for a middle or large scale model.**

- R6203SBE for parkflight or indoor use airplanes and small size electric helicopters up to 1000mm of main rotor diameter.

There is a possibility of crashing when using it for the middle or large scale model.

Usage precautions about the power source

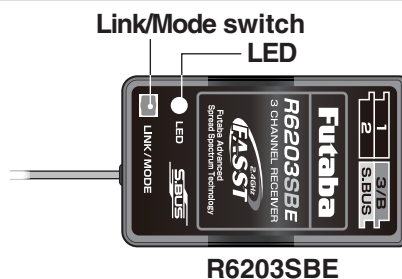
We do not recommend to use the power source of less than 4.0V but if to use the lower voltage source please keep in mind the condition shown below.

- Fail Safe function MUST be in "off" since the battery f/s will disturb the normal operation.
- Please make sure that the full loaded condition of the ESC and the servos won't disturb the receiver operation before start flight.

This is very important since the receiver will stop operation when the supply voltage drops to less than 3.5V.

- Please be sure that the ESC or servos can keep flawless operation till such a lower voltage.

The power source voltage must not exceed the servo's rating.



(Connectors)

- Channel 2 output for conventional system (2)
- Channel 1 output for conventional system (1)
- Channel 3 output for conventional system (3)/Battery terminal (B)
- S.BUS Port (S.BUS)

Compliance Information Statement (for U.S.A.)

This device, trade name Futaba Corporation of America, model number R6203SB, complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

The responsible party of this device compliance is:

Futaba Service Center

3002 N Apollo Drive Suite 1, Champaign, IL 61822 U.S.A.

TEL (217)398-8970 or E-mail: support@futaba-rc.com (Support)

R6203SBE Specifications

FASST-2.4GHz (7ch/8ch/10ch/Multi-ch) system/S.BUS port and 3 channels for conventional system/high-speed receiver

- Size: 0.89 x 1.47 x 0.37 in. (22.5 x 37.4 x 9.3 mm)
- Weight: 0.22 oz. (6.3g)
- Power requirement: 3.7V to 7.4V (Voltage range: 3.5 to 8.4V)

*Be sure that when using ESC's regulated output the capacity of the ESC must meet your usage condition.

*The Battery F/S voltage is set for 4-cell NiCd/NiMH battery. Battery F/S function doesn't work properly when other type battery is used.

*The fail safe function can be set for each channel when on "Multi-ch" mode, however, it differs according to the transmitter. When on "7ch" mode, the fail safe function can be set for 3-channel only.

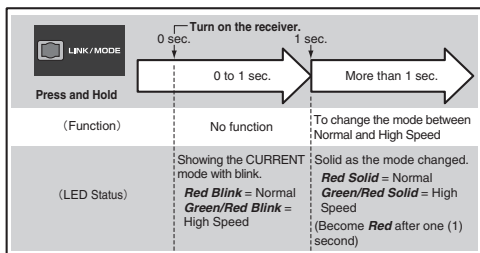
*S.BUS port: R6203SB can be used up to 7 channels or less on the "7ch" mode and 16 channels + DG1/2 or less on the "8ch/10ch/Multi-ch" mode, however, it differs according to the transmitter.

Operation Mode Select

The operation mode is on "Normal mode" from factory shipping. When to change the mode, please follow the steps shown below.

- 1 Turn off the receiver.
- 2 Press and hold the **Link/Mode** switch and turn on the receiver. Keep the switch hold more than one(1) second. The **LED** starts flashing with the current status.
- 3 Release the switch.
- 4 Turn off the receiver.

By doing this step, the mode can switch over between two(2) modes.



Please check the operation mode by observing the **LED** when turning on the receiver. If possible there's no **FASST** transmitter turned on around you in order to make firmer check.

When turn on the receiver, the **LED** will be;

- Red when on "Normal mode"
- Green and Red (makes Orange) when on "High Speed mode". (After two(2) seconds, change to Red.)

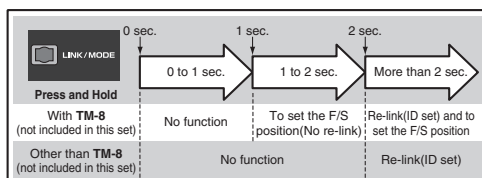
If there are some **FASST** transmitter turned on around the receiver, the **LED** may show the above status for a brief moment then changed to the status indication as shown in the "**LED** indication" table.

Link to the transmitter

- 1 Press and hold the **Link/Mode** switch more than two(2) seconds.

Re-adjust the F/S position (only for TM-8)

- 1 Press and hold the **Link/Mode** switch between one(1) and two(2) seconds.



WARNING

Do not perform the linking procedure with motor's main wire is connected as it may result in serious injury.

While the linking is done, please cycle receiver power and check if the receiver to be linked is really under the control by the transmitter to be linked.

LED Indication

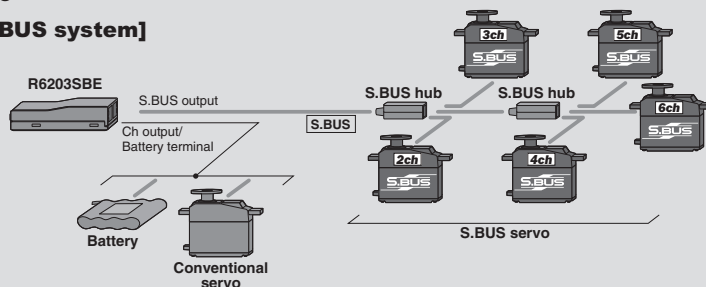
Green	Red	Status
Solid	Solid	Initializing when on "High Speed mode"
Off	Solid	No signal reception
Solid	Off	Receiving signals
Blink	Off	Receiving signals but ID is unmatched
Alternate blink		Unrecoverable error (EEPROM, etc.)

What is S.BUS?

Different from conventional radio control systems the **S.BUS** system uses data communication to transmit control signals from a receiver to a servo, gyro, or other **S.BUS** compatible device. This data includes commands such as "move the channel 3 servo to 15 degrees, move the channel 5 servo to

30 degrees" to multiple devices. The **S.BUS** devices execute only those commands for their own set channel. For this reason, it can be used by connecting multiple servos to the same signal line.

[Connection by S.BUS system]



- * Set the channel at the **S.BUS** servos by using an **SBC-1** channel changer or a **CIU-2** USB serial interface.
- * Can also be used together with conventional servos. However, conventional servos cannot be used by the **S.BUS** output.
- * When using servos with a remote battery pack, use **S.BUS** Hub with Cable (2-way/remote battery pack use). Please refer to the instruction manual of **S.BUS** Hub with Cable (2-way/remote battery pack use) for the connection method.