

Futaba**S.BUS Decoder
SBD-1****S.BUS**

INSTRUCTION MANUAL

Before using your SBD-1, please read this manual thoroughly and use the system properly and safely. After reading this manual, store it in a safe place.

Thank you for purchasing an **SBD-1, S.BUS^{*1}** decoder. The **SBD-1** is a converter for using conventional servos (other than **S.BUS** servo^{*2}) with the **S.BUS** system.

^{*1} **S.BUS**: Serial communication system for Futaba R/C system

^{*2} Use the **S.BUS** hub as the extension code used for the **S.BUS** servo. Also **SBD-1** can be used.

Applicable receiver: S.BUS system receiver only

SBD-1 is not compatible with S.BUS2



Usage Precautions

⚠ WARNING

Always use in the state in which the **SBD-1** is firmly attached to the fuselage of the airplane or helicopter. There is the danger of loss of control and crashing if the connector is disconnected by vibration and shock.

⚠ CAUTION

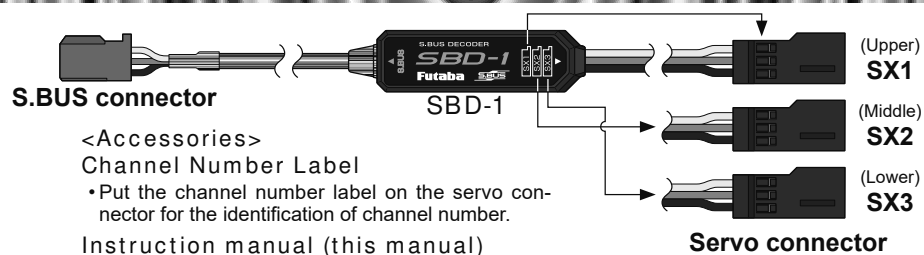
When using analog servos, always use in the state in which the receiver is normal mode. There is the danger of erroneous operation or damage on the high speed mode.

Do not connect any device (gyro, battery, etc.) other than servos to the servo connector of the **SBD-1**. There is the danger of erroneous operation or damage.

Do not connect an **S.BUS** connector of the **SBD-1** to other than an **S.BUS** connection port. There is the danger of erroneous operation or damage.

Futaba Corp. will not be responsible for damage caused by combination with other than Futaba Genuine parts.

Name of Each Part and Accessories



Channel Setting

Before installing the **SBD-1** to the fuselage, set each channel at each servo connector (**SX1~3**). The equipment by which a channel set is possible

- **SBC-1** S.BUS channel changer
- **CIU-2/3** USB adapter (**SBD-Link** software for setting)

- **T6K, T10J, T14SG (V4.0-), FX-22 (V4.0-)**

^{*} **S.BUS** decoder channel setting is impossible with the **S.BUS** receiver **R6108SB**.

^{*} **SBD-Link** software can be downloaded from the home page of your region's Futaba importer.

• Channel setting by SBC-1

- 1 Connect the **S.BUS** connector of the **SBD-1** to the **S.BUS** servo connection port of the **SBC-1**.
- 2 Connect the battery to the battery connection port of the **SBC-1**.
- 3 Quickly press and release the **SBC-1** setting switch and select the servo connection port at which the channel is to be set.

^{*} Status display LED blinks slowly. (About 1 sec/time)

^{*} Each time the switch is pressed, the set servo connection port and the number of times the LED blinks change.

SBC-1		SBD-1 servo connector selection
Setting switch operation	LED display	
When power turned on	1 short blink each second	Connector (SX1) selected.
Switch pressed and released quickly	2 short blinks each second	Connector (SX2) selected.
Switch pressed and released quickly	3 short blinks each second	Connector (SX3) selected.

^{*} (Channel confirmation)

When the operation position of the channel selector switch and the channel set at the connector during the **SBD-1** servo connector selection coincide, the LED changes to a steady light.

- 4 Set the **SBC-1** channel selector switch to the channel you want to set.
- 5 Hold down the setting switch (about 1 second).

^{*} During channel setting, the LED blinks quickly (about 5 times/sec). When the LED changes to a steady light, channel setting is complete.

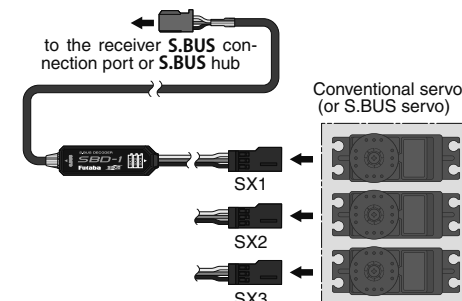
- 6 To set the channel of other servo connection ports, quickly press and release the setting switch and repeat steps 4 and 5.

Usage Method

• Connection

- 1 Connect the **S.BUS** connector of the **SBD-1** to the receiver **S.BUS** connection port or **S.BUS** hub.
- 2 Connect a conventional servo or an **S.BUS** servo to the servo connector of the **SBD-1**.

^{*} When an **S.BUS** servo was connected, that servo will operate as a conventional servo. However, it operates on the channel set at the servo connector of the **SBD-1** instead of the channel set at the servo itself.



Meaning of Special Markings

Pay special attention to safety where indicated by the following marks:

⚠ DANGER	Procedures which may lead to dangerous conditions and cause death/serious injury if not carried out properly.
⚠ WARNING	Procedures which may lead to a dangerous condition or cause death or serious injury to the user if not carried out properly, or procedures where the probability of superficial injury or physical damage is high.
⚠ CAUTION	Procedures where the possibility of serious injury to the user is small, but there is a danger of injury, or physical damage, if not carried out properly.

⊘ = Prohibited

ⓘ = Mandatory

[SBD-1 Ratings]

- Dimensions:
41.8x12.3x8.4mm
(1.65x0.48x0.33in.)
(excluding protruding)
- Power requirement:
NiCd, NiMH 4 to 5 cells
equivalent battery (Futaba)
- Operating temperature range: -10 to +45°C

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