

# Futaba

S.BUS Decoder  
**SBD-1**

**S.BUS**



## INSTRUCTION MANUAL

Before using your new 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<sup>1</sup> decoder. The SBD-1 is a converter for using conventional servos (other than S.BUS servo<sup>2</sup>) with the S.BUS system.

There are five types of SBD-1 available as follows.

Type	Total Length	
S.BUS Decoder SBD-1	200	200mm (8in.)
	400	400mm (16in.)
	600	600mm (24in.)
	1100	1,100mm (43in.)
	1600	1,600mm (63in.)

<sup>1</sup>S.BUS: Serial communication system for Futaba R/C system

<sup>2</sup>Use the S.BUS hub as the extension code used for the S.BUS servo. Also SBD-1 can be used.

## Usage Precautions

### CAUTION

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.

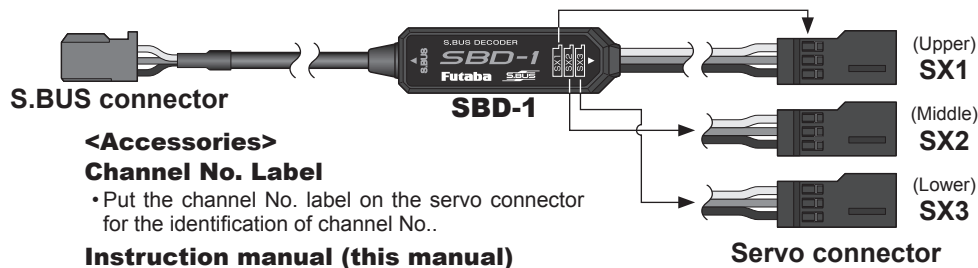
Do not connect an S.BUS connector of the SBD-1 to other than an S.BUS servo connection port. There is the danger of erroneous operation or damage.

### 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.

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). Use the SBC-1 S.BUS channel changer or CIU-2 USB adapter (PC-Link software for setting) to set the channel.

\*S.BUS decoder channel setting is impossible with the S.BUS receiver R6108SB.

\*PC-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.

\*Status display LED blinks slowly. (About 1 sec/time)

**3** Quickly press and release the SBC-1 setting switch and select the servo connection port at which the channel is to be set.

\*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.

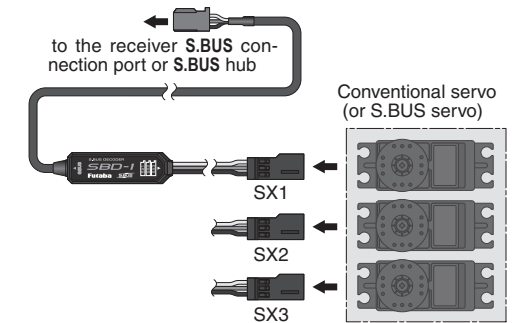
## Usage Method

### •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:

<b>DANGER</b>	Procedures which may lead to dangerous conditions and cause death/serious injury if not carried out properly.
<b>WARNING</b>	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.
<b>CAUTION</b>	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)
- Weight: 6.9/10.8/14.7/24.5/34.3g (0.24/0.38/0.52/0.86/1.21oz.)
- Power requirement: Ni-Cd, Ni-MH 4 to 5 cells equivalent battery (Futaba)
- Operating temperature range: -10 to +45°

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