# Futaba.

S.BUS Decoder



#### **INSTRUCTION MANUAL**

5.BUS **2** 

Applicable receiver: S.BUS/S.BUS2 system receiver only

Before using your new SBD-2, 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-2, S.BUS decoder. The SBD-2 is a converter for using conventional servos (other than S.BUS servo) with the S.BUS/S.BUS2 system. The SBD-2 connects to the receiver output of a S.BUS/S.BUS2 system and eight servos can be used.

SBD-2 can change the output CH from 9 groups select by rotary switch. **SBD-2** can use EXT battery (for servos).

# **Usage Precautions**

#### **↑** WARNNG

- Always use in the state in which the SBD-2 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
- 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 FASST12ch / High-speed mode.
- Do not connect an S.BUS/S.BUS2 connector of the SBD-2 to other than an S.BUS/S.BUS2 connection port. ■ There is the danger of erroneous operation or
- Do not use the SBD-2 with anything other than an R/C model.
- To ensure that the SBD-2 is functioning as desired, please test accordingly.
  - Do not fly until inspection is complete.
- O Do not connect shorting pins, when using an Ext battery.
  - There is the danger of explosion and ignition.

#### O not connect either a switch or battery in this manner.

■ When a connector is inserted like the left, it short-circuits and there is danger of explosion and ignition.



- Ensure that the unit is mounted in an area that will eliminate exposure to fuel, water and vibration.
- As with any electronic components, proper precautions are urged to prolong the life and increase the performance of the SBD-2.
- Allow a slight amount of slack in the SBD-2 cables and fasten them Eat a suitable location to prevent any damage from vibration during flight.

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

## Connections and Name of Each Part of the SBD-2

# Servo output connectors (1~8) Connect the servos. SBD-2 **Monitor LED Rotary switch** Input connector • Connects to the S.BUS/ S.BUS2 port of the receiver.

#### **External battery** connector (EXT.BATT)

• Connect the shorting pins supplied when power is shared with the receiver power source.

Mini screwdriver

#### [SBD-2 Ratings]

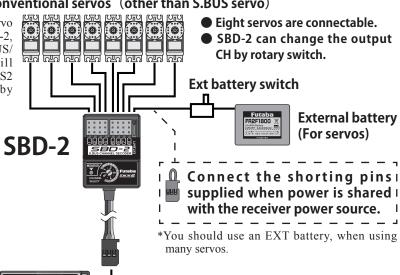
- Dimensions: 29.6mm x 39.3mm x 15.8mm (1.17in. x 1.55in. x 0.62in.) (excluding protruding)
- · Weight: 14.2g (0.5 oz.)
- Power requirement:  $4.8V \sim 7.4V$

	Monitor LED										
	SBD-2	LED state									
	OFF	OFF									
ON	S.BUS receive error	Blink									
ON	S. BUS reception	ON									

#### Connection

#### Conventional servos (other than S.BUS servo)

\*If S.BUS/S.BUS2 servo is connected to SBD-2. CH written in S.BUS/ S.BUS2 servo will ignore, S.BUS/S.BUS2 servo is operated by CH of SBD-2.





S.BUS / S.BUS2 Receiver

To S.BUS / S.BUS2

### **Channel selection**

port



Mini screwdriver used

# **Rotary switch position**

					-		_			
Servo output connectors		1	2	3	4	5	6	7	8	9
	1	CH1	CH9	CH8	CH4	CH9	CH9	CH8	CH4	CH1
	2	CH2	CH10	CH9	CH5	CH10	CH10	CH9	CH5	CH2
	3	CH3	CH11	CH10	CH6	CH11	CH11	CH10	CH6	CH3
	4	CH4	CH12	CH11	CH7	CH12	CH12	CH11	CH7	CH4
	5	CH5	CH13	CH12	CH8	CH13	CH13	CH12	CH8	CH5
	6	CH6	CH14	CH13	CH9	CH14	CH14	CH13	CH9	CH6
	7	CH7	CH15	CH14	CH10	CH15	DG1	DG1	DG1	DG1
	8	CH8	CH16	CH15	CH11	DG1	DG2	DG2	DG2	DG2
	3	* 110	- C 4	14 . 1.		* DC1	D.C.2	1 14 . 1.	. 1 1	. 4 4

\* #0 of rotary switch position does not \* DG1,DG2 : Switch channel output connector

©Copyright 2014. No part of this manual may be reproduced in any form without prior permission. The contents of this manual are subject to change without prior notice. While this manual has been carefully written, there may be inadvertent errors or omissions. Please contact our service center if you feel that any corrections or clarifications should be made.

> FUTABA CORPORATION Phone: +81 475 32 6982, Facsimile: +81 475 32 6983 1080 Yabutsuka, Chosei-mura, Chosei-gun, Chiba 299-4395, Japan