Futaba

1M23N26733

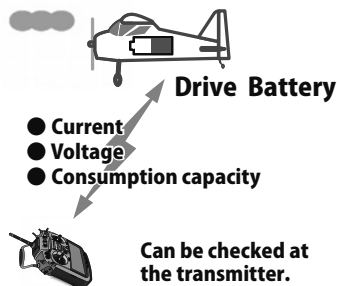## Telemetry current sensor
SBS-01C
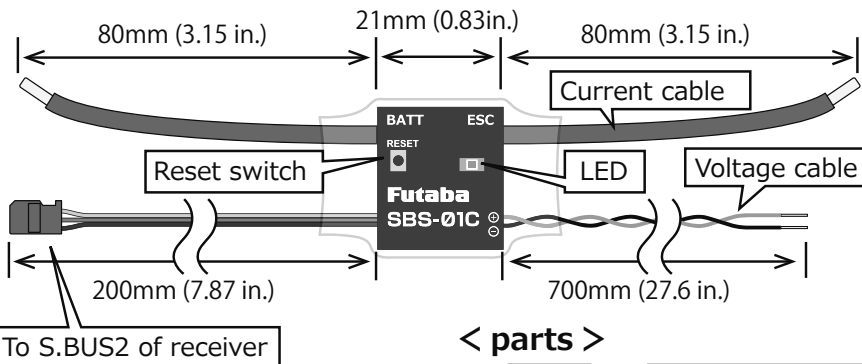
Instruction Manual

● **Applicable systems**
Futaba T18MZ -WC
Futaba T18MZ V2.6 ～
Futaba T18SZ V1.4 ～
Futaba T4PX V1.4 ～ (May, 2016)

Thank you for purchasing Futaba's SBS-01C Current Sensor. Please read this manual thoroughly to ensure proper current sensor performance. We also encourage you to retain the manual for future reference.

Drive Battery

● **Current**
● **Voltage**
● **Consumption capacity**

Can be checked at the transmitter.

*Solder welding is required for instruction.

80mm (3.15 in.) 21mm (0.83in.) 80mm (3.15 in.)

Current cable

BATT ESC
RESET

Reset switch — LED — Voltage cable

Futaba SBS-01C

200mm (7.87 in.) 700mm (27.6 in.)

To S.BUS2 of receiver

< parts >

Fuse | Heat Shrink Tube

Specification

Use : Current sensor
Detection item：
Current (0A ～ 150A)
Voltage (0V ～ 70V)
Consumption capacity (0mAh ～ 32767mAh)
*Measurement is impossible less than 1A (Current).
Weight：23g （0.81 oz.）
Voltage : DC 3.7V ～ 7.4V
Current : 0A ～ 70A
　　　　　70A ～ 150A (within 10 seconds)

Function

● **Telemetry data：**

The SBS-01C can monitor and display the in-flight current, voltage, and current consumption of the drive battery.
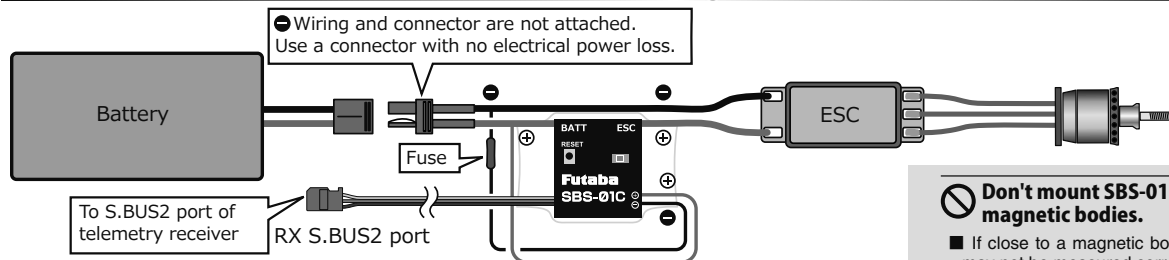
Slot Number Setup

Please note that the proper default slot for this accessory is number 24. This sensor uses 3 slots, starting at 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29. Information on how to change the slot assignment is included in the transmitter's manual.
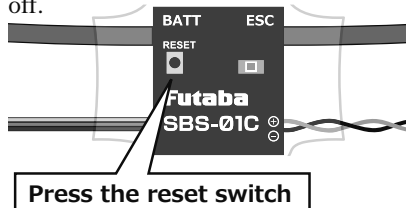
LED Indication

Green	Normal operation
Red	No signal reception
Green/Red	When setting up the slot
Green/Red Alternate blink	Unrecoverable error

Wiring

Battery

● Wiring and connector are not attached.
Use a connector with no electrical power loss.

BATT ESC
RESET

Futaba SBS-01C

Fuse

ESC

To S.BUS2 port of telemetry receiver | RX S.BUS2 port

Reset

Every time it's used, current consumption is added to SBS-01C.

SBS-01C does not reset even if a connection is removed or it is turned off.

BATT ESC
RESET

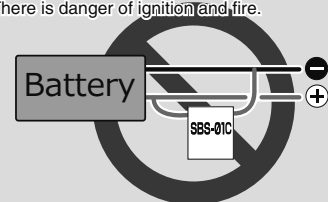Futaba SBS-01C

Press the reset switch

The consumption capacity returns to 0. When you'd like to know the consumption capacity of 1 flight, please reset before a flight.

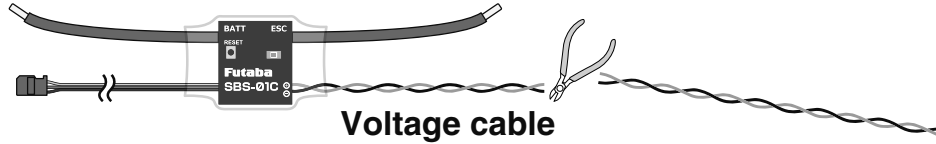*Power supply off isn't done for 5 seconds after a reset. Because data isn't preserved.

⚠WARNING

❶ **To utilize the SBS-01C, connect it to the S.BUS2 port of the Futaba telemetry enabled receivers.**

■ The SBS-01C will not function properly if connected to an S.BUS port or other channel ports.

❶ **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 SBS-01C.

❶ **Allow a slight amount of slack in the SBS-01C cables and fasten them at a suitable location to prevent any damage from vibration.**

❶ **Connect the connector polarity properly.**

■ If connected in reverse, explosions or fire could occur.

❶ **Insert the connector securely.**

■ If the connector works loose during model operation, control will be lost and cause the potential for extreme danger.

🚫 **Don't mount SBS-01C away from magnetic bodies.**

■ If close to a magnetic body, the DC current may not be measured correctly.

🚫 **Don't install the SBS-01C in a flammable location.**

■ There is danger of ignition and fire.

❶ **To ensure that the SBS-01C is functioning as desired, please test accordingly.**

■ Do not use until inspection is complete.

❶ **Be careful the battery Lost.**

■ The consumption capacity is indicated. (It isn't the present battery capacity.)

🚫 **Don't apply current higher than rated current to SBS-01C.**

■ SBS-01C may break down and fall.

🚫 **Don't use the SBS-01C with anything other than R/C models.**

🚫 **Never connect current cable during ＋ － of a battery.**
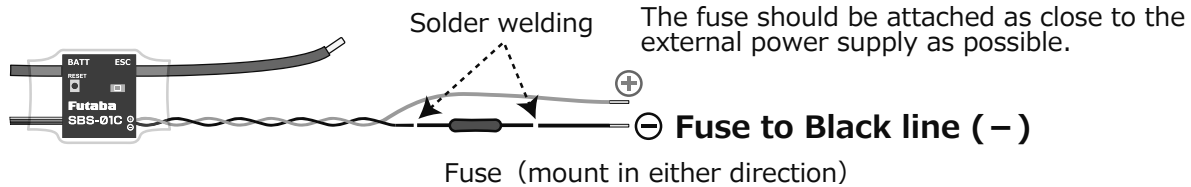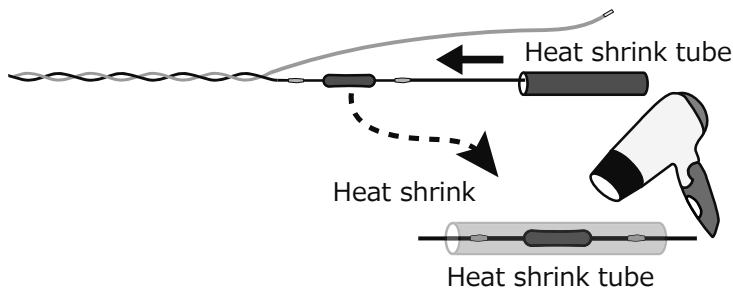
■ There is danger of ignition and fire.

Battery SBS-01C

① **Measure the cable and then cut it to the desired length.**

Voltage cable

② **Cut approximately 30mm of the black (–) line from the cable.
Solder the fuse inline on the black (–) wire and then reattach the section of wire that was previously removed. The fuse should be attached as close to the external power supply as possible.**

Solder welding

The fuse should be attached as close to the external power supply as possible.

⊕

⊖ **Fuse to Black line (–)**

Fuse（mount in either direction）

③ **Place a piece of heat shrink tubing over the fuse, ensuring that it covers the soldered areas. Shrink the tubing snug to the fuse and the wire using a heat gun.**
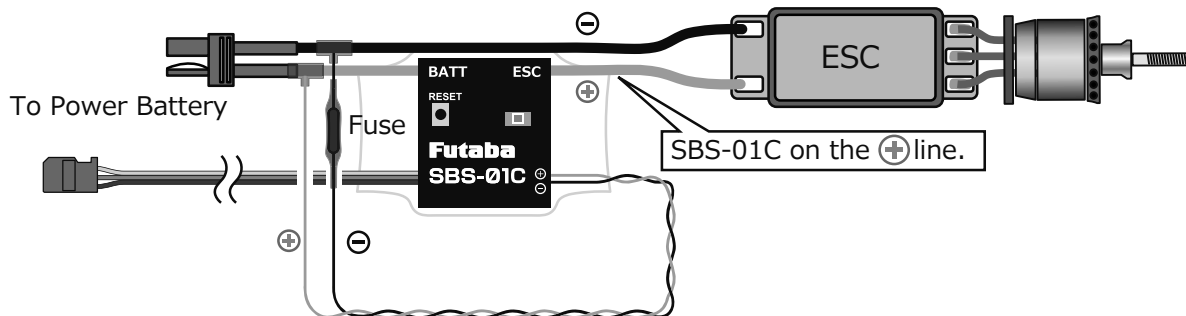
Heat shrink tube

Heat shrink

WARNING

! **Be careful to avoid burns from high-temperature work.**

Heat shrink tube

④ **The cable should be connected as shown in the diagram below.**

The connection is affixed to the ESC on the wires that are connected to the battery by soldering them and then protecting them with heat shrink.

⊖

ESC

⊕

To Power Battery

Fuse

Futaba SBS-01C

SBS-01C on the ⊕ line.

⊕ ⊖

⑤ **The manual for the Telemetry system should be referred to after the setup is complete. Check to make sure it functions as desired and that it provides the correct data on the display.**