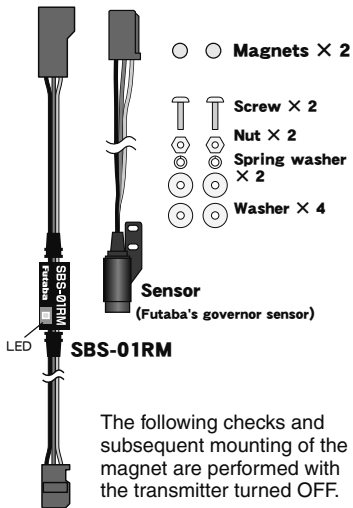


RPM sensor
(Magnet type)
SBS-01RM
Instruction Manual

Thank you for purchasing Futaba's SBS-01RM RPM sensor. This sensor, used in conjunction with a telemetry enabled transmitter/receiver, is used to indicate the number of rotations (engine, a motor, etc.) of the item to which it is attached. The number of rotations of a model in the sky is a system which can be checked with a transmitter etc. To maximize your enjoyment, and to ensure proper sensing, please read through this manual thoroughly. We also encourage you to retain the manual for future reference should the need arise.

● **The SBS-01RM is designed for use with Futaba telemetry systems.**

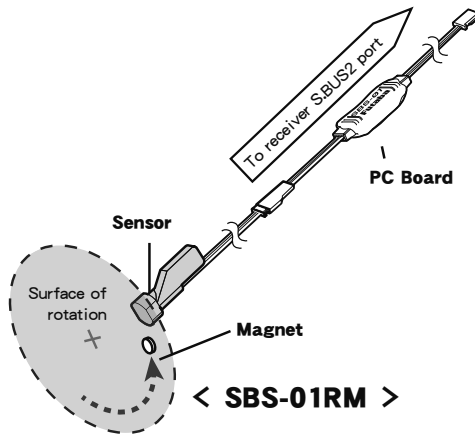
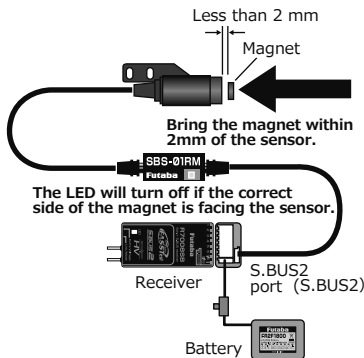
CONTENTS



The following checks and subsequent mounting of the magnet are performed with the transmitter turned OFF.

Magnet

There are two sides (poles) to the magnet, to properly install the magnet the correct side (pole) of the magnet must be facing the sensor. To determine the correct orientation, plug the SBS-01RM into the receiver and power the receiver up. The LED on the SBS-01RM will glow red. Next bring the magnet within 2mm of the sensor, if the correct side is facing the sensor the LED will turn off. It remains lit, turn the magnet over to assure it turns the LED off. Mark this side of the magnet with a permanent marker to use as reference during installation.



Use : RPM Sensor
Length : 255mm
Weight : 4.7g
Voltage : DC3.7 ~ 7.4V
Range : 360 ~ 100,000RPM

● **LED Indication**

Red : Sensor/magnet check
Green : S.BUS2 signal check

LED		Operation
Green	Red	
OFF	ON	No signal reception. Magnet not detected.
ON	OFF	Signal ON. Reading the magnet.
ON	ON	Signal ON. Magnet not detected. When setting up the slot. (1 second)
OFF	OFF	OFF
OFF	OFF	No signal reception. Reading the magnet.
Alternate blink		Unrecoverable error.

WARNING

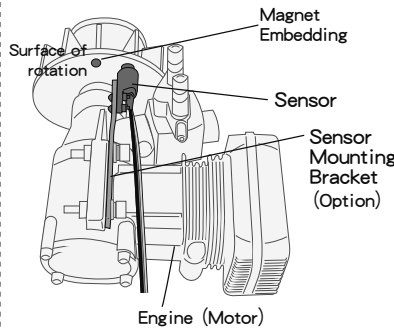
- ❗ To utilize the SBS-01RM sensor, connect it to the S.BUS2 port of the Futaba telemetry enabled receivers.
 - The SBS-01RM will not function properly if connected to an S.BUS port or other channel ports.
- ❗ Be careful of the connector polarity.
 - Because of the case construction, reversing the polarity may cause trouble or sparking from the wiring.
- ⊘ Don't touch a sensor during engine motor rotation.
 - When a rotation portion is touched, there is a possibility of carrying out a large injury.
- ❗ Mount the sensor in accordance with the installation method described below.
 - If the SBS-01RM drops out during flight, it causes erratic operation or loss of control.
- ❗ Vibration-proof the PC board and mount the SBS-01RM where it will not be exposed to fuel and water.
 - Electronic parts are used at the PC board. Take protective measures against vibration, shock, high temperature, and so forth.
- ❗ When mounting the SBS-01RM to the fuselage, be sure there is some slack in the wiring cable.
 - If the cable is too tight, vibration may cause the wire to break or the connector to be dislodged and cause a malfunction.
- ❗ Always perform an operation check after assembling.
 - Do not fly until inspection is complete.
- ⊘ Do not use the SBS-01RM with anything other than an R/C model.
- ⊘ Don't attach the magnet to a propeller.
 - A propeller is damaged and there is a possibility of carrying out a large injury by a scattering thing.
- ⊘ Don't make different connection from a manual.
 - It will break down, if different connection is made.

● **Receiver connection**

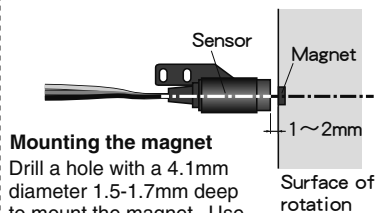
The SBS-01RM may only be used with telemetry enabled receivers that offer S.BUS 2 port(s). Please refer to the manual(s) that accompanied your transmitter and/or receiver for proper connection methodology.

INSTALLATION

● **Sensor/Magnet Mounting**



The distance between the sensor and the magnet must be 1-2mm.

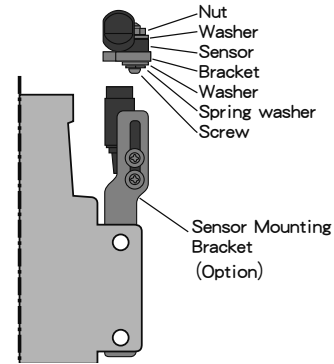


● **Mounting the magnet**

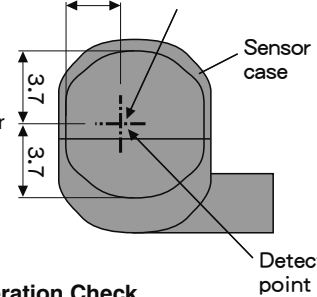
Drill a hole with a 4.1mm diameter 1.5-1.7mm deep to mount the magnet. Use a non-metal bearing epoxy adhesive to secure it in place.

● **Slot number setup**

Please note that the proper default slot for this accessory is number 2. Information on how to change the slot assignment is included in the transmitter's manual.



2.2 Center offset



● **Operation Check**

Power up the receiver (transmitter off) with the SBS-01RM connected to the S.BUS2 port of the receiver. Move the magnet so that it aligns with the sensor. If the LED on the SBS-01RM turns off the installation is correct.

