Thank you for purchasing a Futaba R7014SB FASSTest-2.4GHz compatible receiver. The R7014SB receiver features bi-directional communication with a FASST Test Futaba transmitter using the S.Bus2 port. Using the S.Bus2 port an impressive array of telemetry sensors may be utilized. It also includes both standard PWM output ports and S.Bus output ports. The R7014SB can also be switched to the FASST-Multi-ch System.

### Applicable systems: Futaba FASSTest-2.4GHz / FASST-Multi-ch system transmitter

#### Usage precaution
- Analog servos cannot be used with the R7014SB in the FASSTest 12CH mode.
- When the FASST Multi-ch High-speed Mode is used, analog servos cannot be used at the CH1 ~ 6 outputs for convention systems. However, in other than the FASSTest 12CH mode, analog servos can be used at CH7-12, DG1 and DG2 at any time.
- Don’t connect to Extra Voltage Telemetry Port before turning on a receiver.

#### Antenna installation precaution
- Do not cut or bundle the receiver antenna wire.
- Do not bend the coaxial cable. It causes damage.
- The antennas must be mounted in such a way to assure they are strain relieved.
- Keep the antenna as far away from the motor, ESC and other noise sources as you possibly can.
- Be sure that the two antennas are placed at 90 degrees to each other.

#### Warning
- Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.
- The R7014SB receiver should be protected from vibration by foam rubber, Velcro, or similar mounting methods. Protect from moisture.

### R7014SB Specifications
- **S.Bus2 and S.Bus port and Linear 12ch +Digital 2ch for conventional system receiver**
- **Dual antenna diversity**
- **Size:** 3.0 x 2.0 x 0.6 in. (76.2 x 50.8 x 15.2mm)
- **Weight:** 0.7 oz. (20.2g)
- **Power requirement:** 3.7V to 7.4V (Voltage range: 3.5 to 8.4V)
- **Battery F/S Voltage:** FASSTest. It sets up with a transmitter set at 3.8V. Battery F/S function doesn’t work properly when other type battery is used.
- **Extra Voltage port:** 0V-70V DC

### Compliance Information Statement (for U.S.A.)
This device complies with part 15 of the FCC Rules. Operation is subject to the following three conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.
3. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
   1. This device may not cause harmful interference, and
   2. This device must accept any interference received, including interference that may cause undesired operation.

- **SAR Information** (SAR)
  - This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power levels in different channels.
  - The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated and in compliance with the FCC RF exposure guidelines. SAR information on this device is not on file with the FCC and can be found under the Display Grant section of www.fcc.gov/ps/edocket under EID No: A2719414-24G.
  - The responsible party for the compliance of this device is: Futaba Service Center

#### Connection
- The direction of the connectors of the bottom 3 ports is different by 90°.

### LED Indication

<table>
<thead>
<tr>
<th>System</th>
<th>Mode LED</th>
<th>Status</th>
<th>Link LED</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASSTest</td>
<td>Green</td>
<td>No signal reception</td>
<td>Red Solid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Receiving signals</td>
<td>Green Solid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Waiting for link</td>
<td>Start → 2 seconds later → Red Blink (1second)</td>
</tr>
<tr>
<td>FASST</td>
<td>Off</td>
<td>No signal reception</td>
<td>Red Solid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Receiving signals</td>
<td>Green Solid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Waiting for link</td>
<td>Green Blink</td>
</tr>
<tr>
<td>FASSTest</td>
<td>FASST</td>
<td>Unrecoverable error (EEPROM, etc.)</td>
<td>Alternate blink</td>
</tr>
</tbody>
</table>

#### System Mode LED Status Link LED
- **Port Usage:** Input port and output port usage
- **Port Selection:** System Mode LED Link LED

- **System Mode LED:** Green Solid
- **Status:** No signal reception, Receiving signals, Waiting for link
- **Link LED:** Red Solid, Green Solid, Red Blink

- **System Mode LED:** Off
- **Status:** No signal reception, Receiving signals, Waiting for link
- **Link LED:** Red Solid, Green Solid, Red Blink

- **System Mode LED:** FASST test
- **Status:** Unrecoverable error (EEPROM, etc.)
- **Link LED:** Alternate blink
**FASST ⇔ FASST (Normal-Hi-speed) Change method**

1. Turn on the receiver. (Transmitter OFF)
2. Press and hold the Link/Mode button for at least 5 seconds.
3. When the link LED begins to blink green/red the button may be released.
4. The link LED should now be blinking red in one of the patterns described by the chart below. (Default: FASSTest)
5. Each press of the Mode/Link button advances the receiver to the next mode.
6. When you reach the mode that you wish to operate in, press and hold the Mode/Link button for more than 2 seconds.
7. Once locked into the correct mode the link LED will change to a solid color.
8. Please cycle the receiver(s) power off and back on again after changing the Channel Mode.

<table>
<thead>
<tr>
<th>Link LED Red blink</th>
<th>System</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 time</td>
<td>FASST</td>
</tr>
<tr>
<td>2 time</td>
<td>FASST Multi-ch Normal mode</td>
</tr>
<tr>
<td>3 time</td>
<td>FASST Multi-ch High-speed mode</td>
</tr>
</tbody>
</table>

*Fixed at neutral if a servo is connected to a port other than a usable transmitter channel.

*The telemetry and Extra Voltage ports cannot be used with the FASST system.

**FASST**

FASST is a bidirectional communication system between the R7014SB receiver and FASSTest capable transmitters. Multiple optional telemetry sensors may be connected to the S.BUS2 on the receiver and that data is in turn displayed on the transmitter.

*Please see your transmitter's operation manual to configure transmitter to operate with telemetry sensors.

**Link to the transmitter : FASSTest**

1. Bring the transmitter and the receiver close to each other, within 20 inches (half meter).
2. Turn on the transmitter. Place the transmitter into the receiver linking mode.
3. Turn on the receiver.
4. The receiver will wait for the linking process to begin for 2 seconds. Following that it will return to the normal operation mode.
5. When the link LED of the receiver changes from blinking red to solid green, linking is complete. (A link waiting state is ended in 1 second.)
   - Refer to the transmitter's operation manual for complete details on how to place the transmitter into the linking mode.
   - If there are many FASSTest systems turned on in close proximity, your receiver might have difficulty establishing a link to your transmitter. This is a rare occurrence. However, should another FASSTest transmitter/receiver be linking at the same time, your receiver could connect to the wrong transmitter. This is very dangerous if you do not notice this situation. In order to avoid the problem, we strongly recommend you to double check whether your receiver is really under control by your transmitter.
   - If the System Type of the transmitter is changed, the receiver will need to be re-linked to the transmitter.

**S.BUS2**

S.BUS2 extends S.BUS and supports bidirectional communication. Sensors are connected to the S.BUS2 port.

*Only S.BUS2 capable devices may be connected to the S.BUS2 port. Standard S.BUS servos and gyro's should not be connected to the S.BUS2 port.

**Extra Voltage Telemetry port**

It connects with the battery for power, etc.
An optional external voltage input cable (CA-RVIN-700) is used. The voltage of the battery can be displayed with a transmitter.

**When a telemetry adapter (TMA-1) is used : FASSTest only**

When using a TMA-1 (sold separately), change the settings by the following method.

The TMA-1 is a device for viewing the telemetry data on a smartphone or tablet.

**R7014SB and TMA-1 linking method**

1. Switch the receiver to FASSTest system.
2. Link the transmitter and receiver, and after confirming operation, turn off the power.
3. Turn on the receiver power. (Transmitter power off)
4. Press the Link/Mode switch for at least 10 seconds.
5. When the link LED begins to blink green the button may be released.
6. The receiver enters the linked with TMA-1 mode, and the LED simultaneously begins to rapidly blink red and green.
7. Press the TMA-1 link switch until the LED starts to blink and wait for the TMA-1 to link.
8. When TMA-1 linking is complete, the TMA-1 LED changes from red to green for a moment.
9. When linking is complete, turn on the receiver power and check the operation of all the devices.

**FASST**

When switched, the R7014SB can use the FASST-Multi-ch mode. When the FASST system is used, the telemetry and Extra Voltage ports cannot be used. The FASST system has a Normal mode and a High-speed mode.

In the High-speed mode, analog servos cannot be used at CH1-6.

1. Press and hold the Mode button for at least 5 seconds.
2. When the link LED begins to blink red the button may be released.
3. The link LED should now be blinking red in one of the patterns described by the chart below. (Default : S.BUS)
4. Each press of the Mode/Link button advances the receiver to the next mode.
5. When you reach the mode that you wish to operate in, press and hold the Mode/Link button for more than 2 seconds.
6. Once locked into the correct mode the link LED will change to a solid color.
7. Please cycle the receiver(s) power off and back on again after changing the Channel Mode.

**Multi prop mode Change method**

1. Switch the receiver to the FASST system (Normal or High-speed).
2. Turn on the receiver power. (Transmitter power off)
3. Press the Link/Mode switch for at least 10 seconds.
4. When the link LED begins to blink green the button may be released.
5. The receiver enters the multi prop mode and the LED of the current mode blinks. (Initial value: OFF)
6. Each time the switch is pressed, the mode changes.
7. When the receiver was switched to the desired mode, press the Link/Mode switch for at least 2 seconds.
8. When the link LED begins to rapidly blink red and green, mode switching is complete. Release the switch.
9. When switching is complete, turn on the power. When the power is turned on, the receiver switches to the new mode.

<table>
<thead>
<tr>
<th>Link LED Green blink</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 time</td>
<td>Multi prop mode OFF</td>
</tr>
<tr>
<td>2 time</td>
<td>Multi prop mode ON</td>
</tr>
</tbody>
</table>