

Range Check the Radio

- 1** Turn on the transmitter. Wait until the RF signal becomes stable.(LED is solid green or blink)
- 2** Press and hold the function switch on the TM-7 then the RF power is reduced so the range test can be performed. While RF power is being reduced, the red LED on the TM-7 becomes blinking.

Note:Please be careful that if press and hold the switch before turn on the transmitter then the F/S status is changed. To avoid this situation, please wait for while after turn on the transmitter then start ground range check.

- 3** Walk away from the model while simultaneously operating the controls. Have an assistant stand by the model and signal what the controls are doing to confirm that they operate correctly. You should be able to walk approximately 30 - 50 paces from the model without losing control.

- 4** If everything operates correctly, return to the model. Set the transmitter in a safe, yet accessible location so it will be within reach after starting the engine. Be certain the throttle stick is all the way down, then start the

engine. Perform another range check with your assistant holding the plane and the engine running at various speeds. If the servos jitter or move inadvertently, there may be a problem. Do not fly the plane! Look for loose servo connections or binding pushrods. Also be certain that the battery has been fully charged.

- 5 NEVER** press and hold the function switch when flying as it cause loss of total control!

Other precautions

- 1** When utilizing the trainer function of the transmitter as a instructor, please do not switch to the student's control until the RF starts output after turn on the power. Otherwise it may cause malfunction.

Futaba



TM-7 RF Module
and
R607FS Receiver

INSTRUCTION MANUAL

**Applicable system;
T7U, T8U, T9C, T9Z, FC-18 Plus
or FC-28 Transmitter**

IMPORTANT: Since the 2.4GHz have different characteristics than that of the conventional 27MHz and 72MHz frequencies, please read this manual carefully to enjoy safe flight with the 2.4GHz system.

Thank you for purchasing the TM-7 2.4G FASST RF-module and R607FS FASST 7ch-receiver. The system can be utilized with Futaba transmitters of listed below. In order to use the TM-7, just replace it with the conventional RF- module. The receiver R607FS can output up to 7ch of servo control signal. Installation of the receiver needs special attention and please follow our guideline to enjoy safe flight with TM-7 and R607FS with your transmitter!

Features

- 2.4GHz Spread Spectrum radio communication system
- Exclusive ID code for avoiding a jamming from other FASST system.
- Fail Safe(F/S) function(for throttle Ch.)---F/S, Battery F/S
- Diversity antenna(R607FS)

USAGE PRECAUTIONS

1. If there is a special regulation for using 2.4GHz radio systems at your flying site, please obey all regulations to enjoy safe flying with your 2.4GHz system.
2. 2.4GHz is very different than the frequencies we currently use. Please keep the model in sight at all times as large objects can block the RF signal. Please keep in mind that objects such as wire fences and wire mesh will also cause loss of signal.
3. NEVER grip the transmitter antenna when flying as this degrades RF quality and cause loss of control.

• No part of this manual may be reproduced in any form without prior permission.

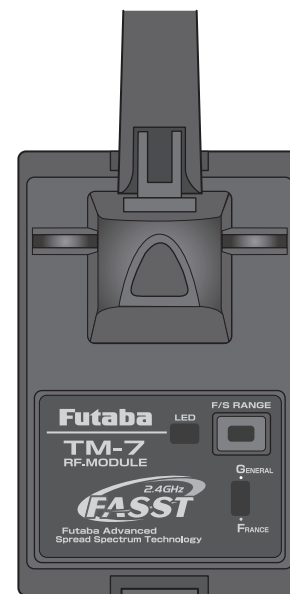
• The contents of this manual are subject to change without prior notice.

• This manual has been carefully written. Please write to Futaba if you feel that any corrections or clarifications should be made.

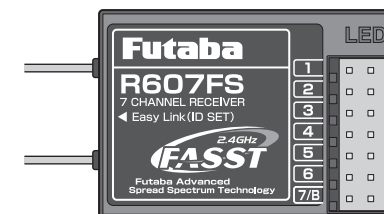
Contents and Technical Specifications

Your 2.4GHz system includes the following components;

• TM-7 RF Module



• R607FS Receiver



• Mini screwdriver



[Specification]

TM-7 RF Module:

- Communication system: One-way communication
- Antenna: 1/2 wavelength di-pole.
- Current consumption: 150mA max.
- Setting switch for F/S setting and range check
- Monitor LED for indication of operation status

R607FS Receiver:

- Diversity antenna
- Power requirement: 4.8V or 6.0V battery or regulated out put from ESC, etc.
- When using NiCd or NiMH, the 4-cell is recommended as it makes effective use of the battery f/s function. (Never use Dry batteries as it cause malfunctions)
- F/S and Battery F/S function for throttle CH. (3rd Ch.)
- Size: 1.64x1.08x0.36 in. (41.6x27.5x9.2 mm)
- Weight: 0.34 oz. (9.8 g)

Repair Service

Before requesting repair, read this instruction manual again and recheck your system. Should the problem continue, request repair service as follows:

Describe the problem in as much detail as possible and send it with a detailed packing list together with the parts that require service.

- Symptom (Including when the problem occurred)
- System(Transmitter, Receiver, Servo's and model numbers)
- Model (Model name)
- Model Numbers and Quantity
- Your Name, Address, and Telephone Number.

If you have any questions regarding this product, please consult your local hobby dealer or contact the Futaba Service Center.

Special Markings;

Pay special attention to the safety at the parts of this manual that are indicated by the following marks.

[Symbol] ; Prohibited ; Mandatory

Mark	Meaning
DANGER	Procedures which may lead to a dangerous condition and cause death or serious injury to the user if not carried out properly.
WARNING	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.
CAUTION	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.

Installing the TM-7/R607FS

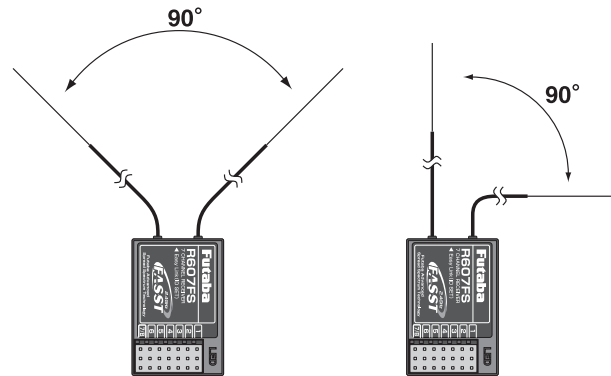
Install and adjust the TM-7 module and R607FS receiver as described below.

Attachment of the Module

⚠ CAUTION

❗ Be sure to turn off the power of the transmitter before you install or replace the module.

1 Install the module with care so that the connector pins of the transmitter won't be damaged.



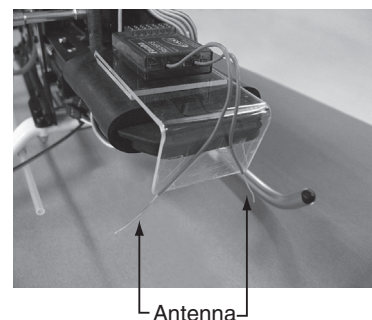
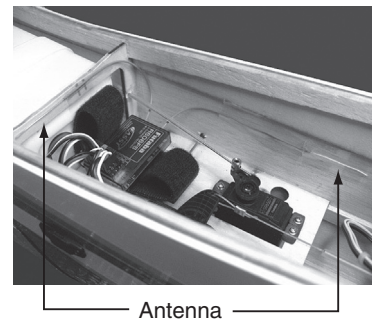
Note: This is not a critical figure, but the most important thing is to keep the antennas away from each other as much as possible.

Note: Larger models can have large metal objects that can attenuate the RF signal. In this case the antennas should be placed at both sides of the model. Then the best RF signal condition is obtained at any flying attitude.

❗ The antennas must be kept away from conductive materials, such as metal and carbon by at least a half inch.

* The coaxial part of the antennas does not need to follow these guidelines, but do not bend it in a small radius.

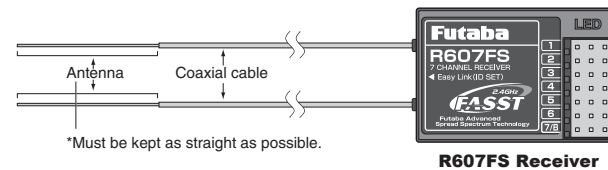
❗ Keep the antennas away from the motor, ESC, and other noise sources as much as possible.



Receiver's Antenna Installation

The R607FS has two antennas. These antennas have a diversity function to decrease the chance of a receiving error.

Since the wavelength of the 2.4GHz is much shorter than that of the conventional frequencies 27MHz and 72MHz, it is very susceptible to loss of signal which results in a receiving error. In order to avoid this phenomenon, the R607FS adopted a diversity antenna system.



To obtain the best results of the diversity function, please refer to the following instructions:

⚠ WARNING

❗ The two antennas must be kept as straight as possible.

* Otherwise it will reduce the effective range.

❗ The two antennas should be placed at 90 degrees to each other.

*The main purpose of the photo demonstrates how the antenna should be placed. For actual installation the receiver must be wrapped with a sponge or placed with floating material to protect it from vibration.

* The receiver contains precision electronic parts. It is the most delicate radio component on-board the model and should be protected from vibration, shock and temperature extremes.

* If moisture enters the receiver, intermittent operation or a failure may result. Wrapping the receiver in a plastic bag also protects it from fuel and exhaust residue which, in some models, can work its way into the fuselage.

Area select

Normally please set at "GENERAL". In case of in France, please set at "FRANCE"

⚠ WARNING

❗ If using this system in France, always use it to set the switch to "FRANCE".

* In other countries, both "GENERAL" and "FRANCE" are available.

Operation of the TM7

1 Set the transmitter's modulation as "PPM"

Note: When changing from "PCM", the power must be cycled in order the change to be effective.

LED indication

Green	Red	Status	F/S
solid	solid	Initializing(When power-up)	---
alternate blink		Check RF condition nearby	---
solid	off	RF power on	off
solid	blink	RF power on(Power downed for ground range check)	off
blink	off	RF power on	on
blink	blink	RF power on(Power downed for ground range check)	on

F/S operation

Normally using the F/S function is recommended for safety reason. In case of, however, not using the F/S, TM-7 can cancel the F/S operation. In order to change the operation status, please follow the procedure shown below;

1 Press and hold the function switch on the TM-7 while turning on the power.

*The F/S status is changed from previous status. Unless performing this procedure, the TM-7 keep same status of the F/S operation.

Battery F/S function

The F/S function also provide the Battery F/S function. When the voltage of the airborne battery down to approximately 3.8V, the throttle servo move to a predetermined position. If this happens, you should immediately land! If you need to increase throttle for your landing approach, you may temporarily reset the failsafe function by moving the throttle

stick to the predetermined position, after which you'll have about 30 seconds of throttle control before the battery function reactivates.

Link and F/S position setting Procedure

Each TM-7 has an individually assigned unique ID code. In order to start operation, the receiver must bind with the TM-7's ID code. Once the bind is done, the ID code is stored in the receiver and the re-bind is not necessary unless the receiver is to be used with another TM-7. (For flight set of TM-7 and R607FS, the bind is already done at factory. For the reason of F/S setting that is mentioned below, however, please perform the linking again to confirm if the F/S operation is OK.) When you purchased another R607FS, this procedure is necessary; otherwise the receiver will not work.

As to F/S position, the throttle position of the transmitter is stored in the receiver while linking as a F/S position. So please set the throttle stick at desired F/S position.

- 1 Place the transmitter and the receiver close to each other within one (1) meter
- 2 Turn on the transmitter. (The throttle stick must be set at desired F/S position)
- 3 Check the LED that is placed on the TM-7 to see if the RF signal is active. When the green LED is ON solid, the RF signal is being sent.
- 4 Turn on the receiver.
- 5 Press down the "Easy Link" switch for more than one second, and release the switch. The receiver starts the linking operation.
- 6 When the linking is complete, the LED in the receiver will change to solid green. Please confirm that the servos will now operate by your transmitter.
- 7 Turn off the transmitter and check if the throttle servo move to the predetermined F/S position.

*Provided that the TM-7's F/S operation status is ON.

8 If the F/S position need to be changed, please perform the linking procedure again.

Please refer to the table below for the LED status of the receiver's condition.

Green	Red	Status
off	solid	No signal reception
solid	off	Receiving signals
blink	off	Receiving signals, but ID is unmatched.
alternate blink		Unrecoverable failure (EEPROM, etc.)

Antenna of TM-7

- 1 The antenna is adjustable so please make sure that the antenna is never pointed directly at the model when flying as this creates a weak signal for the receiver.
- 2 NEVER grip the antenna when flying as this degrades RF quality.

INSTRUCTIONS MANUAL

FEDERAL COMMUNICATIONS COMMISSION

INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used according to the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which it found by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet other than the receiver's
- Consult the dealer or an experienced radio/TV technician for assistance.

CAUTION:

To assure continued FCC compliance:

- (1) Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

FCC Label Compliance Statement:

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.

Exposure to Radio Frequency Radiation

To comply with FCC RF exposure compliance requirements, a separation distance of at least 20cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operating in conjunction with any other antenna or transmitter.