



# T4PK-2.4G/R604FS

## Radio Control

### Instruction Manual

#### **INTRODUCTION**

Thank you for purchasing Futaba digital proportional R/C system. In order for you to make the best use of your system and to use it safely, please read this manual carefully. If you have any difficulties while using your system, please consult the manual, our online Frequently Asked Questions (on the web pages referenced below), your hobby dealer, or the Futaba Service Center.

Owner's Manual and Additional Technical Help

This manual has been carefully written to be as helpful to you, the new owner, as possible. There are many pages of setup procedures and examples. However, it need not be your sole resource of setup guidelines. For example, the back cover includes a quick-start set of instructions and the Frequently Asked Questions web page referenced below includes this type of step-by-step setup instructions for a variety of other model types.

Due to potential unforeseen changes in production procedures, the information contained in this manual is subject to change without notice. No part of this manual may be reproduced in any form, at any time, without prior permission.

Support and Service: It is recommended to have your Futaba equipment serviced annually during your hobby's "off season" to ensure safe operation.

#### **IN NORTH AMERICA**

Please feel free to contact the Futaba Service Center for assistance in operation, use and programming. Please be sure to regularly visit the Frequently Asked Questions web site referenced below. This page includes extensive programming, use, set up and safety information on your radio system and is updated regularly. Any technical updates and US manual corrections will be available on this web page. If you do not find the answers to your questions there, please see the end of our F.A.Q. area for information on contacting us via email for the most rapid and convenient response.

**Don't have Internet access?** Internet access is available at no charge at most public libraries, schools, and other public resources. We find internet support to be a fabulous reference for many modelers as items can be printed and saved for future reference, and can be accessed at any hour of the day, night, weekend or holiday. If you do not wish to access the internet for information, however, don't worry. Our support teams are available Monday through Friday 8-5 Central time to assist you.

**FOR SERVICE ONLY:**

Futaba Service Center  
1610 Interstate Drive  
Champaign IL 61822  
[www.hobbyservices.com](http://www.hobbyservices.com)

**FOR SUPPORT:**

**(PROGRAMMING AND USER QUESTIONS)**

Please start here for answers to most questions:

[www.futaba-rc.com/faq/faq-3pk.html](http://www.futaba-rc.com/faq/faq-3pk.html)

FACSIMILE: 217-398-7721

PHONE: 217-398-8970 option 4

**HOW TO SEND FOR SERVICE:**

[www.hobbyservices.com/techsupport/service-form-futaba.pdf](http://www.hobbyservices.com/techsupport/service-form-futaba.pdf)

[www.hobbyservices.com/techsupport/service-form-futaba.html](http://www.hobbyservices.com/techsupport/service-form-futaba.html)

**OUTSIDE NORTH AMERICA**

Please contact your Futaba importer in your region of the world to assist you with any questions, problems or service needs.

Please recognize that all information in this manual, and all support availability, is based upon the systems sold in North America only. Products purchased elsewhere may vary. Always contact your region's support center for assistance.

**The product is subject to regulations of the FCC and is restricted under United States law to such purposes.**

1. Exportation precautions:

(a) When this product is exported from the country of manufacture, its use is to be approved by the laws governing the country of destination which govern devices that emit radio frequencies. If this product is then re-exported to other countries, it may be subject to restrictions on such export. Prior approval of the appropriate government authorities may be required. If you have purchased this product from an exporter outside your own country and not the authorized Futaba distributor in your country, please contact the seller immediately to determine if such export regulations have been met.

2. Modification, adjustment, and replacement of parts: Futaba is not responsible for unauthorized modification, adjustment, and replacement of parts on this product. Any such changes may void the warranty.

The Following Statement Applies to the Receiver (for U.S.A.)

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.

(2) This device must accept any interference received, including interference that may cause undesirable operation.

# Physical Description

Please review the following section and take a moment to familiarize yourself with the T4PK-2.4G/R604FS .

## T4PK-2.4G (Transmitter)

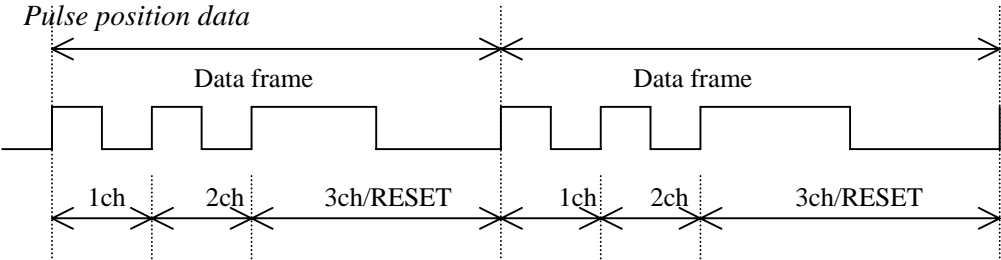


Table 2 Pulse position data

Item	minimum	center	maximum	Remarks
【1ch】	800us	1100us	1400us	1100±300us
【2ch】	800us	1100us	1400us	1100±300us
【3ch/RESET】	1500us	1800us	2100us	1800±300us

## Including Features

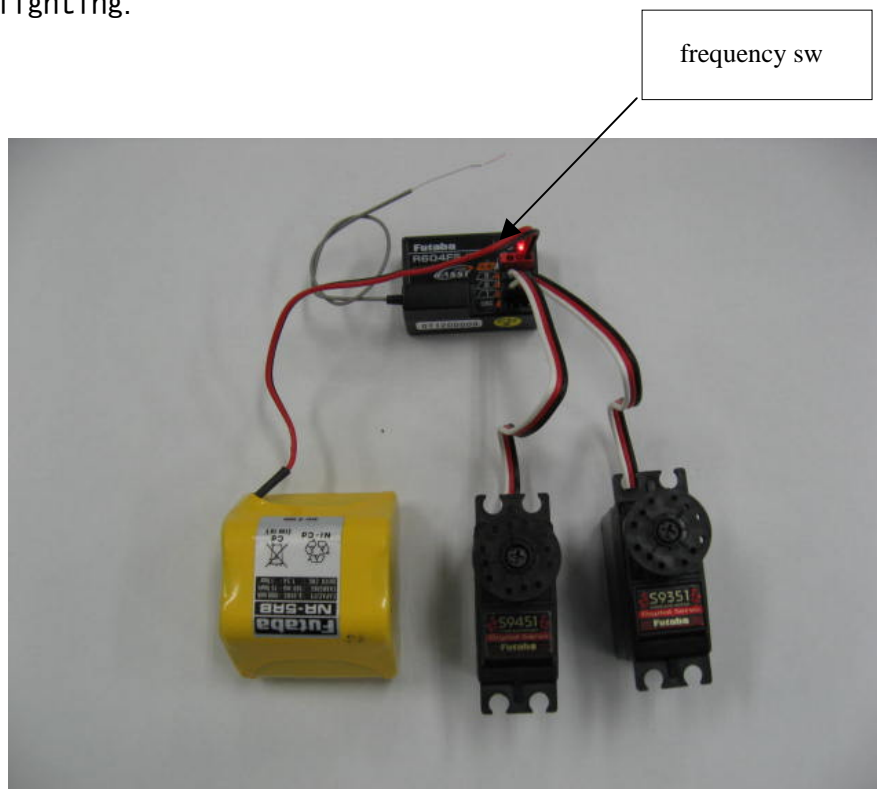
1. High response system (HRS)
2. Five-contact jog button used at the edit buttons
3. Model memory for 20 models
4. Two function selection modes: Menu selection and direct selection
5. Menu customizing
6. Brake mixing for large cars (BRAKE)
7. Anti-skid braking system (A. B. S)
8. Throttle acceleration (ACCEL)
9. Throttle speed (THSPD)
10. Start function (START)

etc

## R604FS (Receiver)

### Pairing method

1. Power on T4PK
2. Power on R604FS then green LED is blinking , push frequency SW 1sec.
3. The red LED is blinking and then pairing completed the LED turn to Green lighting.



### ***Frequency Allocation***

The T4PK-2.4G/R604FS can operate on 36(or22) available frequencies between 2405.376 MHz and 2477.056 MHz with 2.048 MHz separation between each frequency. See the table below for the exact frequency assignments.

Table 3 :Frequency Channel

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
02	2405. 376	38	2442. 240
04	2407. 424	40	2444. 288
06	2409. 472	42	2446. 336
08	2411. 520	44	2448. 384
10	2413. 568	46	2450. 432
12	2415. 616	48	2452. 480
14	2417. 664	50	2454. 528
16	2419. 712	52	2456. 576
18	2421. 760	54	2458. 624
20	2423. 808	56	2460. 672
22	2425. 856	58	2462. 720
24	2427. 904	60	2464. 768
26	2429. 952	62	2466. 816
28	2432. 000	64	2468. 864
30	2434. 048	66	2470. 912
32	2436. 096	68	2472. 960
34	2438. 144	70	2475. 008
36	2440. 192	72	2477. 056

## Specification

### T4PK-2.4G SPECIFICATIONS

1 Radio Characteristics	
Engineering standard	Part 15.247 FCC(U.S.) ETSI EN 300 328
RF power output	100mW EIRP
Modulation	Direct-Sequence Spread-Spectrum & Frequency Hopping
Communication scheme	Single communication
Frequency band	2405.376MHz - 2477.056MHz
Channel	36/22
Data barer rate	136 kbps
6 dB bandwidth	1.6MHz
Frequency control	Crystal controlled frequency synthesizer
Antenna	1/2 $\lambda$ Pencil type antenna 1.3dBi
Operating Distance	150m
2 Radio communication control	
Error checking	CRC-CCITT
3 Power Supplying	
Supply voltage	6.0V DC
Current consumption	200 mA
5 Environmental	
Operating temperature	-10 to +45 °C
Storage temperature	-20 to +60 °C
6 Miscellaneous	
Indicator	LCD display , 7 color LED
Frequency setting	programable
Memory register	Rewritable times: approx. 1 million times
Case	Plastic
Outer dimensions	166.5 (W) $\times$ 134.2(D) $\times$ 248.95(H)mm
Weight	Aprox. 650g

### R604FS SPECIFICATIONS

1 Radio Characteristics	
Engineering standard	Part 15.247 FCC(U.S.) ETSI EN 300 328
Frequency band	2405.376MHz - 2477.056MHz
Channel	36/22
Data barer rate	136 kbps
Frequency control	Crystal controlled frequency synthesizer
Antenna	1/4 $\lambda$ mono pole type antenna
Operating Distance	150m
2 Radio communication control	
Error checking	CRC-CCITT
3 Terminal interface	
Physical interface	15 pins
4 Power Supplying	
Supply voltage	6V DC
Current consumption	80 mA
5 Environmental	
Operating temperature	-10 to +45 °C
Storage temperature	-20 to +60 °C
6 Miscellaneous	
Indicator	2 color LED
Memory register	Rewritable times: approx. 1 million times
Case	Plastic
Outer dimensions	26(W) $\times$ 40(D) $\times$ 14.5(H)mm
Weight	Aprox. 14g

# 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.