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FM-PPM

4 CHANNELS

DIGITAL PROPORTIONAL RADIO CONTROL SYSTEM



INSTRUCTION MANUAL

9 6 4 0 1

FCC Regulatory Statement:

Changes or modifications to the device (including all controls, adjustments, switches, antenna and crystal/semiconductor module that's already permanently covered by protective cover) not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Any adjustment that could result in a violation of the rules or that is strongly recommended that the device be performed by or under the immediate supervision and responsibility of a person must be certified as technically qualified to perform transmitter maintenance and repair duties in the private land mobile services and fixed services by an organization or committee representative of users of those services.

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FOREWORD

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Thanks for your purchase this product 96401. Please read the instruction manual thoroughly to ensure your operation proper and safe before using, and always keep this manual ready at hand for quick reference, even after completing the assembly.

DECLARE

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This radio control model is not a toy. You have the responsibility assurance that it cannot cause serious injury to others. If you are a beginner, you should look for the help from the local model flying clubs or the model shops before flying. We guarantee this machine to be free from defects in material and workmanship at the time of purchase. The customer's right usage toward that product or operations takes all responsibilities. For the nursing and operations of this product, we do not make any assurance.

Note: please fly only in safe areas, away from other people. Do not operate R/C aircraft within the vicinity of homes or crowds of people. R/C aircraft are prone to accidents, failures, and crashes due to a variety of reasons including lack of maintenance, pilot error, and radio interference. Pilots are responsible for their actions and damage or injury occurring during operation or as of result of R/C aircraft models.

WARNING

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- ★ This helicopter is designed to construct and operated by adults. Young people of 16 years old or more may do so under the instruction and supervision of competent adults.
- ★ The contents of this kit can be assembled to produce a working model, but the model is by no means a harmless plaything. If it assembled incorrectly, incompletely, or carelessly, it can cause serious injury to persons and damage to property.
- ★ Do not operate near people, animals, buildings, high voltage cables, trees or the other stumbling block. The error of the operation will result in personal injury and property damage.
- ★ Do not fly simultaneously on the same frequency. Use of the same frequency will cause interference even if the modulation method (FM, PCM) is different. Interference may cause a crash.
- ★ Do not fly in rainy or windy days, or at night. Water will penetrate into the transmitter and cause faulty operation, or lose control, and cause a crash.
- ★ During the operation of the helicopter, the main rotor and tail rotor will be spinning at a high rate of speed. The blades are capable of inflicting serious bodily injury and damage to the environment. Be conscious of your actions, and careful to keep your face, eyes, hands, and loose clothing away from the blades. Always fly the model a safe distance from yourself and others, as well as surrounding objects.
- ★ In order not to the R/C helicopter lose control, turn on the power switch of the transmitter first, then connect with battery and helicopter. After flight, disconnect the battery first and then turn off the transmitter. If the above sequence reverse, may cause lose control of the helicopter, and cause serious accident.
- ★ While charging, the battery can't over-charging! During of charging, if you discover the battery becomes hot, please stop charging immediately, and take off the battery from the charger.

CAUTION

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- Before flying, check carefully whether or not the spare parts that loose, damaging or transformative. If have, must terminate the flight immediately, tighten the loose spare parts, and replace the damaging or transformative spare parts.
- Be sure of all the moving spare parts can motion smoothly.
- Always test the digital proportional R/C set before use. Any abnormality in the digital proportional R/C set, or model, may cause a crash. Before starting the engine, check that the direction of operation of each servo matches the operation of its control stick. If a servo does not move in the proper direction, or operation is abnormal, do not fly the plane.
- Extend the antenna of the transmitter to its full length. If the antenna is too short, the effective range of the Radio waves will become shorter and cause a crash.
- Keep the R/C model plane in the dry place. Because the model plane is composed of many precision electronic components. It must absolutely prevent from damp and vapour. Do not operate or expose to rain or damp, in order to prevent vapour enters the fuselage to cause the failure or cause a crash.
- R/C model plane are made up various forms of plastic. Plastic is very susceptible to damage or deformation due to heat. Make sure not to store the model near any source of heat such as oven, or heater. It is best to store the model indoors, in a climate-controlled, room temperature environment.

PRODUCT ELUCIDATION

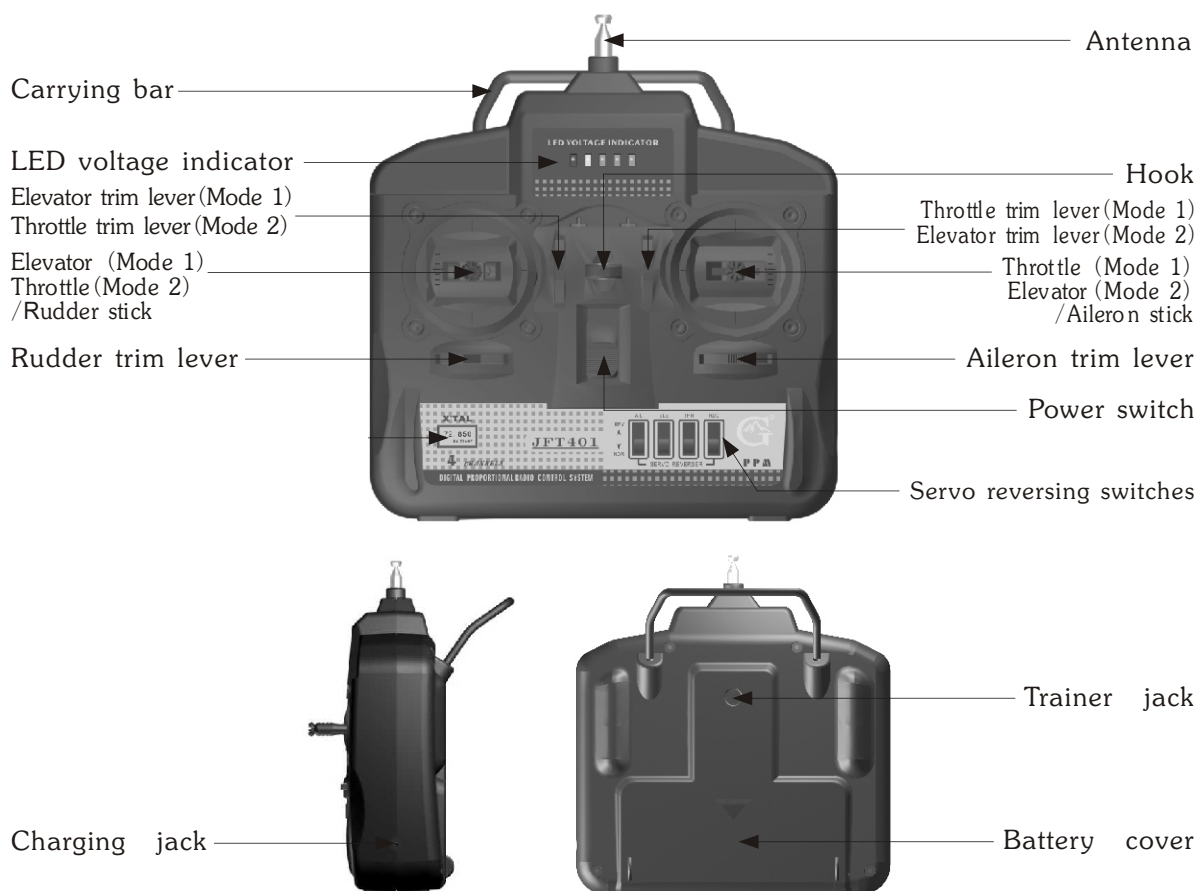
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The R/C helicopter is assembled at the factory virtually. Be careful when opening the package as not to lose any hardware. Check all parts in the package carefully. If you find any defective or missing parts, please contact your local dealer or us immediately.

Parts in the Package		Specification	
The R/C helicopter	1 pc	Fuselage length:	360mm
The R/C transmitter	1 pc	Fuselage height:	188mm
The controller	1 pc	Flying weight:	215g (include battery)
The servo	2 pcs	Motor:	180 x 2 pcs
The charger	1 pc	Transmitter:	4 channels
The balance charger	1 pc	Controller:	4 in 1
The Li-polymer battery	1 pc		(receiver, mixer, ESC, gyro)
		Servo:	8g x 2 pcs
		Battery:	7.4V-800mAh Li-polymer battery

Feature

1. The helicopter is designed with double-blade-sharing-one-axis that with stability and enables it to easy be operated, which is fit for beginner flight.
2. Two 180 motors, which make the helicopter with full of power, and flying-off is stable.
3. There are servo range adjustment and gyro sensitive degree adjustment in the 4 in 1 controller. You can adjust parameter by yourself's skill and fly more pleasing.
4. Fast mini servos, which make the dynamic response of the helicopter more exact and nimble.
5. The helicopter is designed with two swing-hammers that improve the ability to settle its axis and enable it to hang in the air more stable.
6. With power supply of Li-polymer battery enable it to use more safe and fly time longer.



LED voltage indicator: There are red, yellow and green three colors. The lamp lights green, meaning full of electricity; the lamp lights yellow, meaning low electricity and stop flying; the lamp lights red, meaning serious shortage of electricity and must stop flying immediately.

Power Switch: In the upper position, the power is turned on; in the downward position, the power is turned off.

Trainer jack: Connect the trainer cord when using the trainer function.

(The trainer cord is sold separately.)

Battery cover: Use when replacing the battery. Slide the cover downward while pressing the part marked "PUSH".

Charging jack: When the LED voltage indicator of the transmitter lights yellow, meaning shortage of electricity. Please recharge to the battery immediately.

Caution: Never charge when you use alkaline battery.

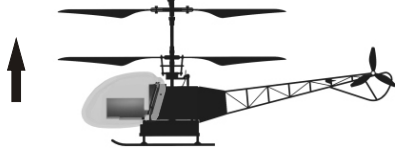

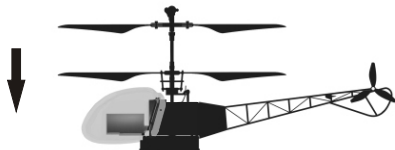









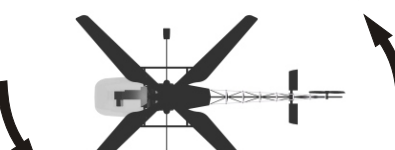

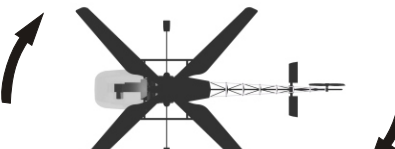

Servo reversing switches: Switches that reverse the direction of operation of the servos. The lower position is the normal side and the upper position is the reverse side.

Channel display

AIL: Aileron (CH1)
ELE: Elevator (CH2)
THR: Throttle (CH3)
RUD: Rudder (CH4)

Operating direction display

REV: Reverse side
NOR: Normal side

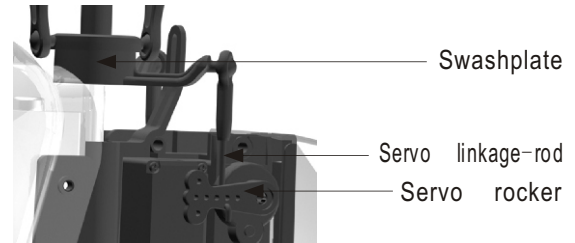
	Up	 (Mode 2) (Mode 1)	Push throttle stick up
	Down	 (Mode 2) (Mode 1)	Push throttle stick down
	Body turn left		Push aileron stick left
	Body turn right		Push aileron stick right
	Head under forward	 (Mode 1) (Mode 2)	Push elevator stick up
	Head up backward	 (Mode 1) (Mode 2)	Push elevator stick down
	Head turn left		Push rudder stick left
	Head turn right		Push rudder stick right

Adjustment of the Swashplate

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Set the throttle stick and throttle trim lever of the transmitter to the lower position. Set the elevator trim lever, aileron trim lever and rudder trim lever to the center position. Check whether the swashplate is level.

If the swashplate is not level, you must adjust it: 1. Adjustment of the servo and the servo rocker. First loosen the screw of the servo rocker, and switch on the power of the plane again. After the servo restored, adjust that the servo linkage-rod is at right-angles to the servo rocker. Then tighten the screw of the servo rocker. 2. Adjustment of the servo linkage-rod. Adjust the length of the servo linkage-rod to the horizontal swashplate.

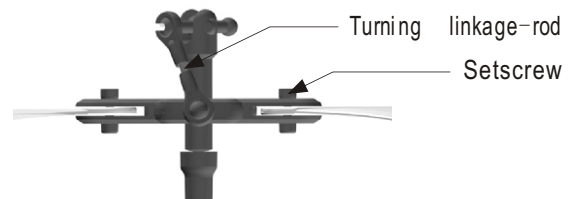


Adjustment of the Main Blades

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First check whether the setscrews of the main blades is very loose or tight. If they are very loose, please tighten the setscrews reasonably. If they are very tight, please loosen them reasonably.

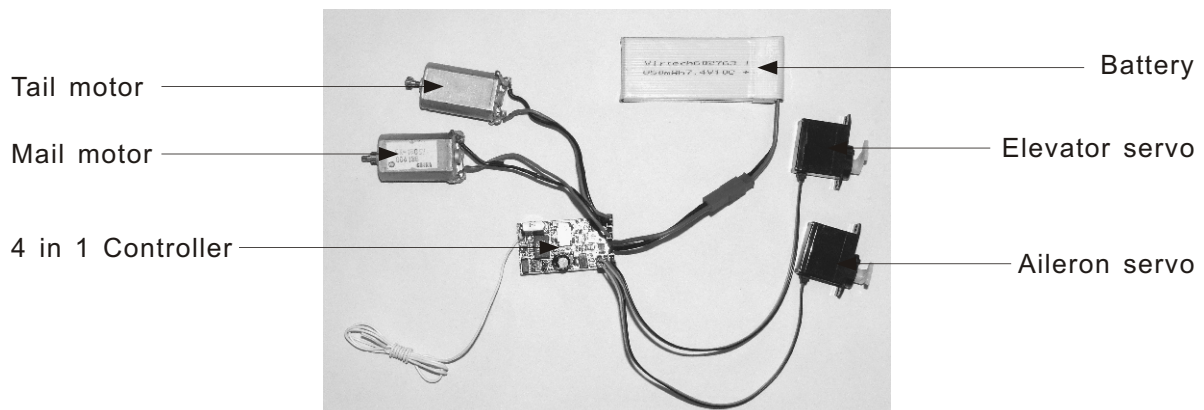
Then check whether the right-and-left main blades rotate in the same plane. If they don't rotate in the same plane, you must adjust them: 1. Adjustment of the angle of attack. You can twist the main blades to increase or decrease the angle of attack. 2. Adjustment of turning linkage-rod. Adjust the length of turning linkage-rod to longer or shorter.



Connection of the Controller

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Connect the main motor, tail motor, battery and two servos to the controller as shown in below:





R/C Helicopter

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