



### Specifications:

Main Rotor Diameter: 180 mm

Tail Rotor Diameter: 50 mm

Overall Length: 185 mm

All-up Weight: 45.5g (Battery included)

Drive Motor: 1215 (Strong magnet)

Tail Motor: N51 (Strong magnet)

Battery: 3.7V 400mAh Li-Po battery

Servo: weight 3.5g / speed 0.11sec/60° (4.8V) / torque 0.30kg/cm(4.8V) / dimension 17.5X6.5X21.5mm

Receiver: RX-409

Transmitter: WK-0405

Gyro: Built-in

### Unique Features:

- 1) Super mini servo (3g) is prompt and accurate in reaction;
- 2) One cell Lipo at 3.7V 400mAh offers 8- to 10-minute flight after fully charged;
- 3) 4-channel transmitter with visible power indicator can avoid helicopter losing control due to the shortage of battery power, and support you to fly without any worry.

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## Introduction

Thank you for your purchase of our product. In order to enjoy all the benefits of your helicopter, we recommend you carefully read the entire manual before you begin working with this model. After you have read the manual please store it in a safe place for future reference.

## Warning

1. Walkera helicopters are not toys. They are a complex combination of electronics and mechanics which produce an aerodynamic rotorcraft. All models require proper setup and exacting adjustments to avoid accidents. We accept no liability for damage and/or consequent damage arising from the use or misuse of the products due to improper construction methods, use or operation, It is your responsibility to operate this highly advanced model in a safe manner.
  2. When charging the battery, do not overcharge. Overcharging may result in fire or explosion. When the battery is hot during charging, please stop charging at once. Use specified charger only. Never short circuit! Proper disposal of the battery is your responsibility.
  3. Children under 14 years old are strictly forbidden from flying the helicopter. Please do not allow children or adults in the designated flying area.
  4. Any situations that occur during flight, that cause the rotor blades to stop spinning or that result in a serious ground strike and cause damage to the helicopter could initiate a fire or explosion. If this type of situation occurs, IMMEDIATELY move the throttle stick to it's lowest position.
- Notice:** please let the motors cool 10 minutes after your helicopter flies every one of fully charged battery packs, and then continue your next flight; otherwise, the motors of your helicopter will take a high risk of burning or damage!

## Cautions

1. Because the helicopter is operated by radio control, it is important to make sure you are always using fresh and/or fully charged batteries. Never allow the batteries to run low or you could lose control of the helicopter.
2. Do not allow any of the electrical components to get wet. Otherwise electrical damage may occur.
3. You should complete a successful range check of your radio equipment prior to each new day of flying, or prior to the first flight of a new or repaired model.
4. If the helicopter gets dirty, don't use any solvents to clean it. Solvents will damage the plastic and composite parts.
5. Always turn on the transmitter before plugging in the flight battery and always unplug the flight battery before turning off the transmitter.
6. Never cut the receiver antenna shorter or you could lose control of the helicopter during flight.
7. When flying the helicopter, please make sure that the transmitter antenna is completely extended and is pointed up toward the sky, not down toward the ground.

### Don't fly your helicopter at the places with these signs



## Transmitter Features

### 4-CH Transmitter features:

1. The panel is easy to operate with multistage electricity indication.
2. The shape design accords with the ergonomics.
3. The DIP switches are available for various servos. It can perform the flight actions such as ascending, descending, forward, backward, leftward, rightward and so on.
4. 4-channel micro-computer as the encoder, PPM modulation, output power:  $\leq 200\text{MW}$ , current drain: 150mA; power source: 1.2V X 8 Ni-Cd battery ( 9.6V 600mAh) or 1.5VX8AA dry cell battery.
5. Free to switch between left-hand and right-hand throttles.

### Control Identification and Function(Fig. 1/Fig. 2):

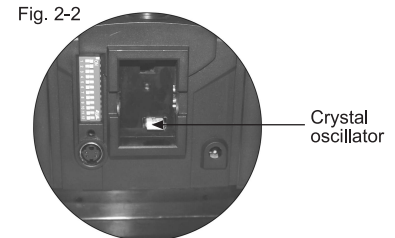
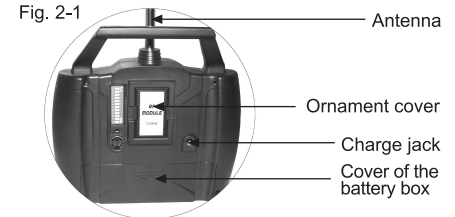
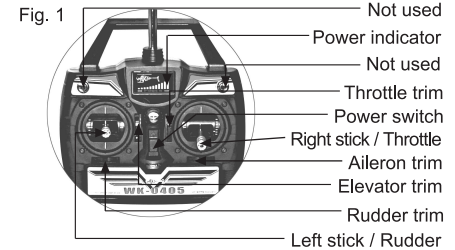
#### MODE I - EUROPE & AUSTRALIA

1. **Left stick / Rudder.** It controls your helicopter forward, backward, left, and right. Push up to fly your helicopter forward, pull down to fly backward, push leftward to fly left, and push rightward to fly right.
2. **Right stick / Throttle.** It controls your helicopter ascending, descending, left moving and right moving. Push up to ascend your helicopter; pull down to descend, push leftward to move your helicopter left, and push rightward to move right.

#### MODE II - NORTH AMERICA

1. **Left stick / Throttle.** It controls your helicopter ascending, descending, left, and right. Push up to ascend your helicopter, pull down to descend, push leftward to fly left, and push rightward to fly right.
2. **Right stick / Rudder.** It controls your helicopter forward, backward, left moving and right moving. Push up to fly your helicopter forward, pull down to fly backward, push leftward to move your helicopter left, and push rightward to move right.

(MODE I - EUROPE & AUSTRALIA)

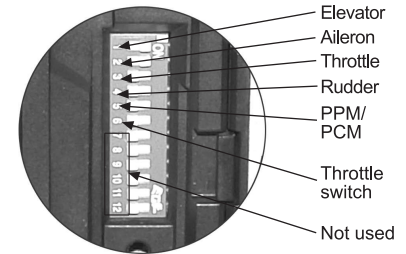


3. **Power indicator.** The indicator is consisted of three colors: red, yellow, and green. Green LED on means the electricity is enough to fly; Green LED off and yellow LED on indicate the power is not enough and stop flying; Yellow LED off and red LED on show the power is in extreme shortage, and please stop flying at once.
4. **Elevator trim.** It controls and modifies your helicopter forward and backward. Push up to fly forward, and pull down to fly backward.
5. **Rudder trim.** The trim controls and modifies your helicopter leftward and rightward. Move the trim left to fly leftward, and move right to fly rightward.
6. **Throttle trim.** The throttle trim controls your helicopter to ascend and descend. Push up the trim to ascend, and pull down to descend.
7. **Aileron trim.** The aileron trim controls your helicopter leftward and rightward. Push the trim left to fly left, and push the trim rightward to fly right.
8. **Power switch.** Turn on or off the power of the transmitter. Push up the switch to turn on the power, and push down to turn off.
9. **Antenna.** Transmit the signals.
10. **Charge jack.** Charge the battery back.
11. **Battery box.** Please note the polarities while inserting the batteries.

**DIP Switch Identification (Fig. 3):**

1. **Elevator.** Reverse the swing direction of elevator servo.
2. **Aileron.** Reverse the swing direction of aileron servo.
3. **Throttle.** Reverse the throttle stick direction. **Note:** ascertain the throttle stick to be worked in a correct way before flight.
4. **Rudder.** Reverse the rudder stick direction.
5. **PPM / PCM.** Switch between PPM and PCM modulation.
6. **Throttle switch.** Switch between left-hand and right-hand throttles.

Fig. 3 **DIP Switch**



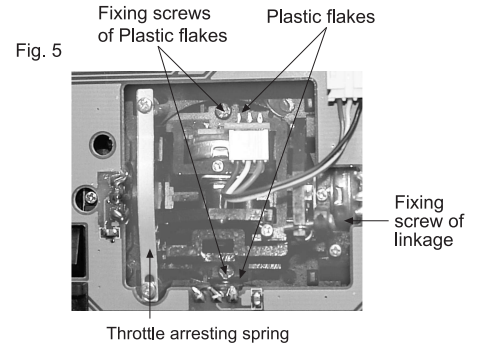
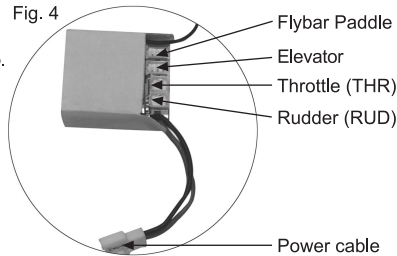
The Factory Default Setting:

CHANNEL	ON/OFF
1	OFF
2	ON
3	OFF
4	OFF
5	OFF
6	OFF
7-12	NOT USED

## Receiver Identification

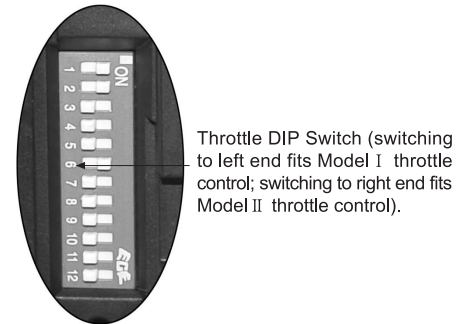
### Receiver Identification (Fig. 4):

1. **Channel 1. (Flybar paddle).** Connect to the aileron servo.
2. **Channel 2. (Elevator).** Connect to the elevator servo.
3. **Throttle (THR).** Connect to the main motor.
4. **Rudder (RUD).** Connect to the tail motor.
5. **Power (power).** Connect the battery pack.



## Switch Between Model I and Model II Throttles

Remove the battery pack, RF module and the 4 fixing screws in the back cover of your WK-0405, and take off the back cover (**Note:** don't break cables inside). Unscrew the fixing screw of linkage using cross screwdriver and fix the linkage of another side using the screw. And then remove the throttle arresting spring to fix in your expecting side. Unscrew the fixing screws of plastic flakes to remove the plastic flakes, and then fix them in your expecting side using the screws. In this way physical refit has been finished (Fig. 5).



## Battery Mounting and Adjustment

- 1. Battery pack mounting.** Place the battery pack in the correct position of your helicopter (Fig. 6).
- 2. CG balance.** Put your helicopter on a horizontal ground and make the flybar perpendicular to the tail truss of your helicopter. Lift your helicopter using your index fingers to support the two sides of flybar, and check the balance. The tail boom should be level with the ground. If it is not, move the battery pack backwards or forwards to balance. Always check the Center of Gravity (CG) with the battery pack and canopy installed (Fig. 7). **Note:** If you can not obtain a level condition a very small amount of weight may be added the tail. It is possible with the battery upgrade to a LiPo of 1250 mAh that a nose heavy condition may occur.

## Swashplate Adjustment

- 1. Swashplate check.** Pull down the throttle stick and throttle trim to the lowest position, and put the elevator trim and aileron trim in the neutral position. Check whether the swashplate is in a horizontal level.
- 2. Swashplate adjustment.** If the swashplate is not in a horizontal level, adjust via the following steps:
  - ① Elevator servo and aileron servo adjustment. Firstly unscrew the screw of servo bellcrank to take the bellcrank off, and then re-connect to the helicopter battery pack and await the servos reposition. After the reposition is ready, adjust the bellcrank to be in horizontal state and then tighten the screw of bellcrank.
  - ② Servo linkage rod adjustment. Adjust the servo linkage rod to parallel to swashplate bottom level (Fig. 8).

Fig. 6

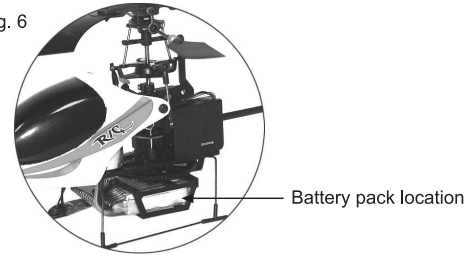


Fig. 7

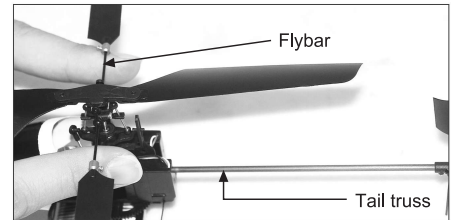
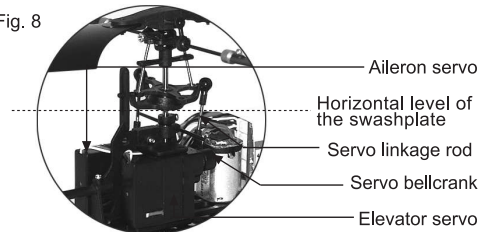


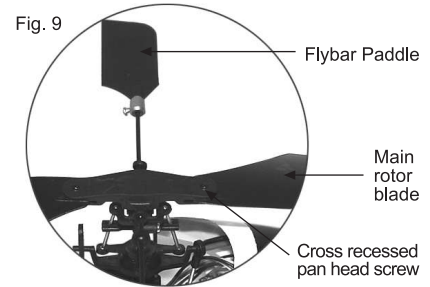
Fig. 8





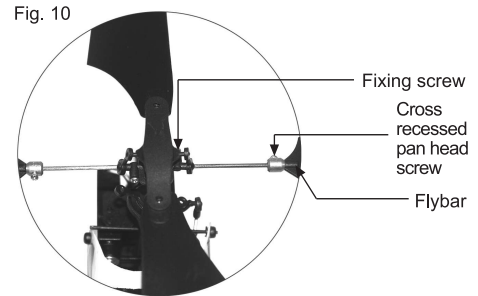
## Main Rotor Blade Adjustment

- 1. Main rotor blade inspection.** ① inspect whether the Cross recessed pan head screw is too loose (Fig. 9). If the Cross recessed pan head screw is loose, the helicopter may vibrate during flight. ② inspect whether the left and right main rotor blades are in line. If the left and right main rotor blades are not in line, the helicopter will vibrate during flight.
- 2. Main rotor blade adjustment.** ① If the Cross recessed pan head screw of the main rotor blade is too loose, tighten the Cross recessed pan head screw (Fig. 9). ② If the left and right main rotor blades are not in line, hold the ends of the main rotor blades and stretch the blades in line (Fig. 9).

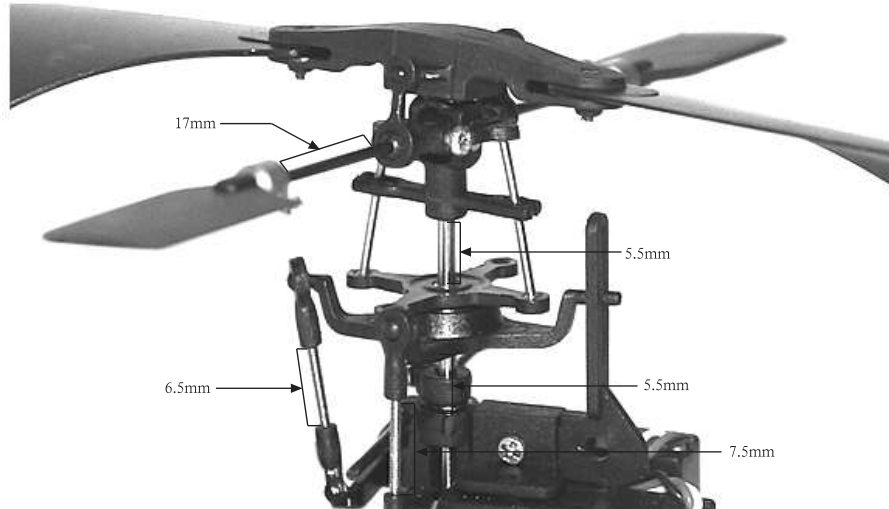


## Flybar Paddle Adjustment

- 1. Flybar paddle inspection.** ① inspect whether the left and right flybars are symmetrical in length. If the length of the left and right flybars are not exactly same, it is hard to control the flight of the helicopter. ② inspect whether the left and right flybar paddles are horizontal to the same level. If they are not in horizontal level, the flight will be unstable.
- 2. Flybar paddle adjustment.** ① if the length of the left and right flybars is not same, loosen the Fixing screw to adjust the length (Fig. 10) and then tighten the screw. ② if the left and right flybar paddles are not at the same horizontal level, loosen the Cross recessed pan head screws and adjust the paddles to the same level and tighten the screw (Fig.10).




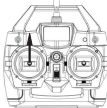


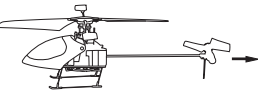

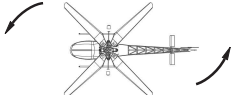
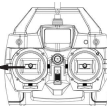

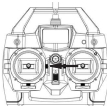
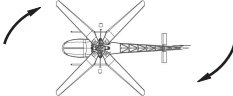
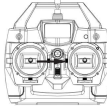

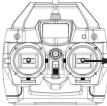


## Technical Data for Adjustment



# Flight Mode

## Normal Mode

ascending			throttle pushing up	head forward			elevator stick pushing up
descending			throttle pulling down	head backward			elevator stick pulling down
head turning left			rudder stick moving left	helicopter moving left			aileron stick moving left
head turning right			rudder stick moving right	helicopter moving right			aileron stick moving right



The specifications of the R/C Product may be altered without notice.