



Specifications:

Main Rotor Dia.: 350 mm

Tail Rotor Dia.: 85 mm

Overall Length: 345 mm

Servo: weight 5.8g / speed 0.11sec/60° (4.8V) / torque 0.5kg/cm(4.8V) / dimension 20X8.5X22.5mm

Drive System: WK-WS-20-003

Battery: 7.4V 800mAh Li-Po battery

All-up Weight: 218g (Battery included)

Transmitter: WK-0703

Gyro: WK-G017

Receiver: RX-611

Features:

- 1) CCPM collective pitch structure makes perfect 3D maneuvers such as roll, inverted, and swoop flights.
- 2) Design of metal tail, metal swash plate and metal rotor head is of legerity, innovation, precise and stability.
- 3) Highly efficient bevel wheel design is used in mesh between main gear and motor gear.
- 4) Tail blades driven by belt provide easy adjustment, stable flight, and low noise.
- 5) 180 motor as the main power is powerful and makes the flight much stable.
- 6) 7-ch transmitter PCM702 with adjustable PIT parameter, throttle curve, and servo exponential function.

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Introduction

Thank you for your purchase of our product. In order to fly your helicopter more easily and conveniently, we kindly recommend you to read carefully the whole user handbook and keep it in a safe way as a reference book for maintenance and adjustment in the future.

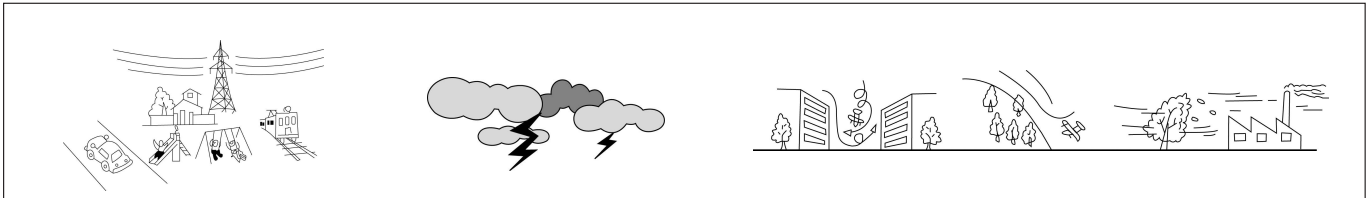
Warning

1. The HM 64#C-1 is not a toy. It is a complex combination of electronics, mechanics, and aerodynamics. It requires proper setup and fine adjustment to avoid accident. We accept no liability for damage and consequent damage arising from the use of the products, because we have no control over the way they are installed, used, and operated.
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! The battery must be properly disposed of.
3. Children under 14 years old are strictly forbidden from flying the helicopter.
4. When your helicopter is running, any causes which stop the rotor blades spinning or make collision will result in serious damage or burning. Please immediately turn down the throttle stick at the lowest position!

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

7- ch transmitter features:

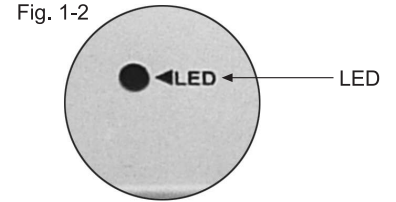
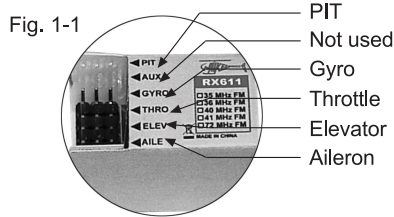
1. Function menu of the WK-0703 is simple to understand and easy to set.
2. The transmitter case is ergonomically designed and the large LCD display is of elegant blue backlight with easy-to-read graphics.
3. The WK-0703 offers 3 flight modes. Each flight mode is capable of free setting and adjusting parameter in order to suit the various requirements for F3C or 3D aerobatic flights.
4. The length or tight & loose can be adjustment using the rocker, and it convenient to change the left & right throttle each other.
5. Phase-Locked Loop technique used provides 6 frequency points to switch without any trouble of changing crystal oscillators.
6. Eight model memory storage.
7. Capable of gyro rate adjustment by transmitter, and convenient to hover and fly 3D maneuver.
8. Adjustable four hot keys facilitate the pilot to enter the set menu.
9. 7-channel micro-computer as the encoder; PPM or PCM modulation; output power: $\leq 750\text{mW}$; current drain: 200 mA; power source: 1.2V X 8 Ni-Cd battery (9.6V 600mAh) or 1.5V X 8AA dry cell battery; output pulse: 850 -2050μs (1450 neutral).



Receiver Identification

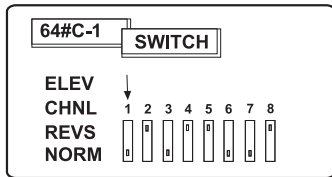
Receiver Identification (Fig. 1):

1. **AILE:** Aileron. Connect to aileron servo.
2. **ELEV:** Elevator. Connect to elevator servo.
3. **THRO:** Throttle. Connect to speed controller.
4. **GYRO:** Connect to gyro.
5. **AUX:** Not used.
6. **PIT:** Pitch. Connect to pitch servo.
7. **LED.** LED indicates the receiving status. Quick flash means the signal is being received; LED on means the signal has been received; slow flash means the signal fails to be received.

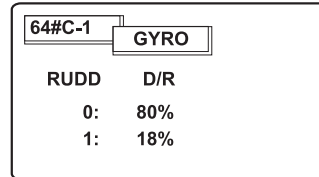


Transmitter Factory Default Settings Specification

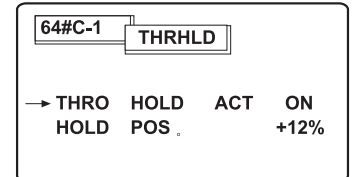
Reverse switches of servos display as:



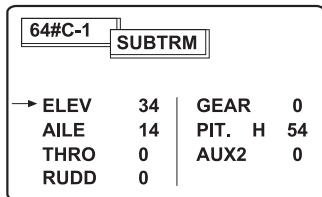
Manual gyro sensitivity adjustment displays as:



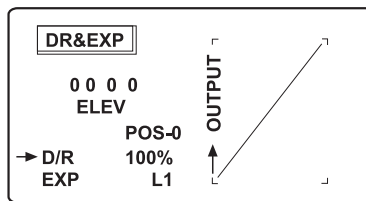
Throttle hold displays as:



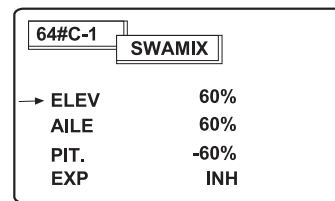
Sub-trim displays as:



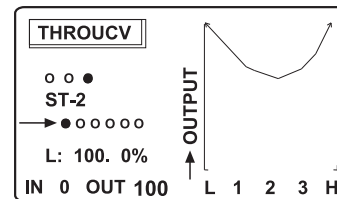
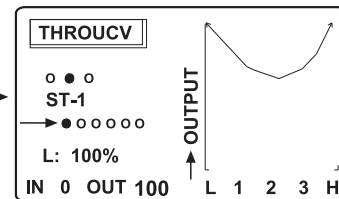
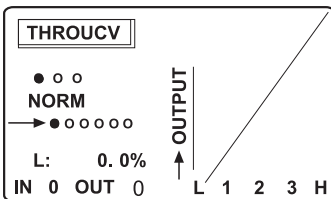
Dual rate and exponential function display as:



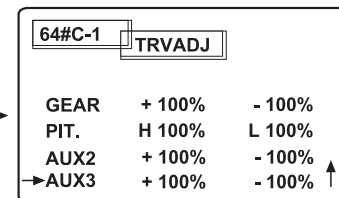
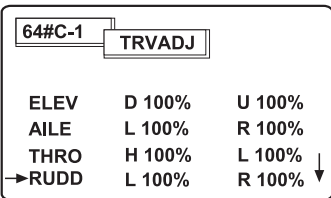
Swashplate mixing displays as:



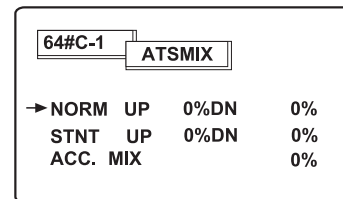
Throttle curves display as:



Servo travel displays as:



Revolution and acceleration mixing display as:

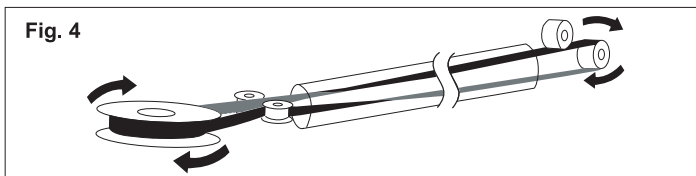


Battery Mounting and Adjustment

- 1. Battery pack mounting.** Place the battery pack in the correct position of your helicopter (Fig. 2).
- 2. CG balance.** Put your helicopter in a horizontal ground and make the flybar vertical to the tail boom 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. 3).

Belt Inspection

- 1. Belt direction inspection.** CW spin the rotor head of your helicopter and check the direction of tail rotor blade. If the tail rotor blades are spinning backwards, the direction is correct. Otherwise, the belt is wrongly distorted and needs to be re-mounted (Fig. 4).



- 2. Belt tension inspection.** Use your finger to lightly press the belt and check its tension. If the pressed belt just reaches the central line of the drive pulley,

Fig. 2

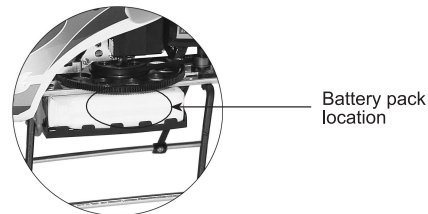


Fig. 3

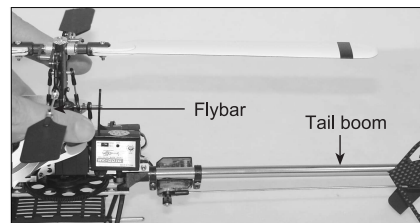


Fig. 5

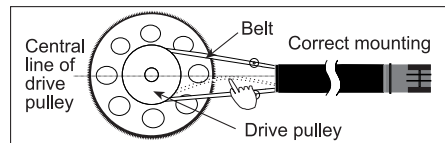
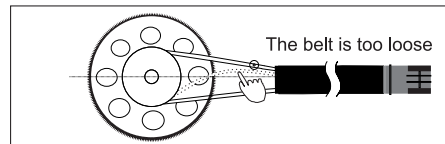


Fig. 6



the belt is in a proper tension (Fig. 5); if the pressed belt is beyond the central line, the belt is too loose (Fig. 6); if the pressed belt doesn't reach the central line, the belt is too tense (Fig. 7). Either looseness or tension of the belt needs to be re-adjusted.

Swashplate Adjustment

- 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. Reconnect the power supply and check whether the swashplate is in a horizontal level after the reposition of elevator, aileron and PIT servos.
- Swashplate adjustment.** If the swashplate is not in a horizontal level, adjust via the following two steps: ① elevator, aileron and PIT servos adjustment. Unscrew the servo bellcrank and take the servo bellcrank down. Reconnect to the battery pack and adjust the servo bellcrank to horizontal level after the reposition of elevator, aileron and PIT servos. And then tighten the servo bellcrank screw (Fig. 8). ② servo linkage rod adjustment. Adjust the servo linkage rod to parallel to swashplate bottom level.

Main Rotor Blade Adjustment

The purpose of adjusting the main rotor blade is to correctly set up the collective pitch and to assure the main rotor blades are spinning at the same horizontal level.

- Color decal.** Two different colored tracking decals should be stuck on each blade tip (Fig. 9, red and blue).
- Main rotor blade inspection.** The purpose of inspecting the two blades is to keep them symmetrical in weight and shape. Screw the two blades and keep them in line.
- Blade tracking adjustment.** Before checking the blade tracking, please properly install the battery pack, initiate the gyro, and place a red stick on one blade tip. Place your

Fig. 7

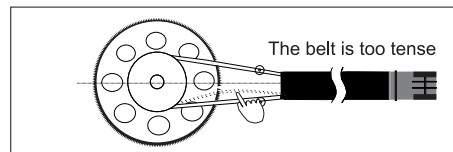


Fig. 8

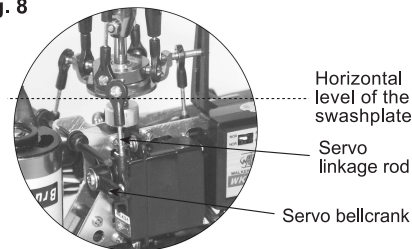
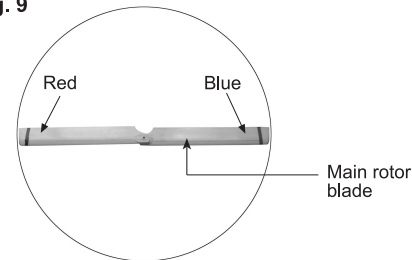


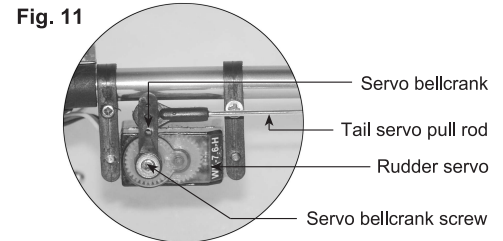
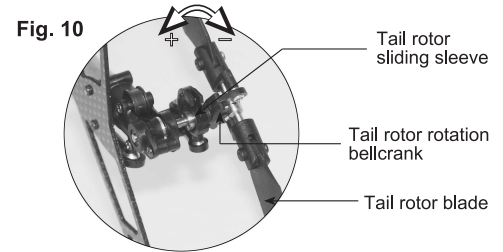
Fig. 9



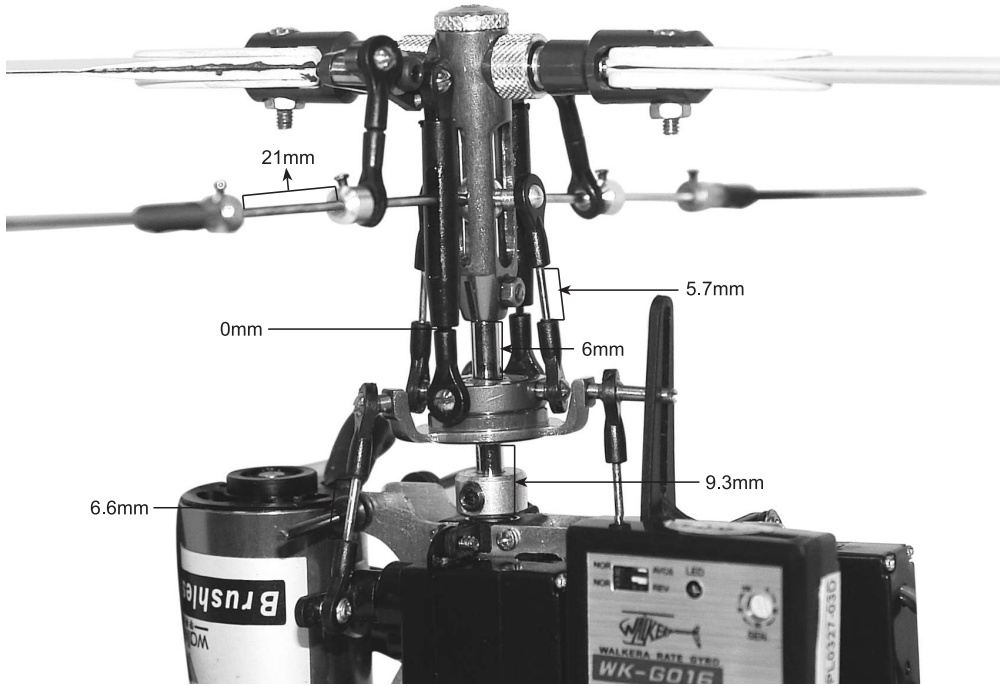
helicopter on the reasonable level so that you can view the blades at your eye level. Please make you are in a safe difference to the high spinning blades. If the red blade is higher than the other one, please lengthen the length of the ball linkage of the other blade in one or more turn increments; otherwise, please shorten its length. The blade tracking and vibration will arise from looseness and/ or distortion of the blade holder. If the blade holder is loose or distorted, please adjust or substitute new holder for the old one.

Rudder Servo Adjustment

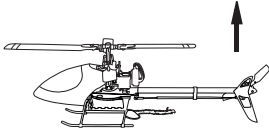
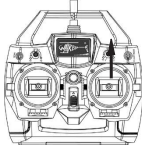

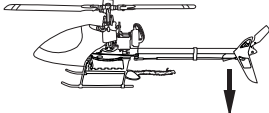
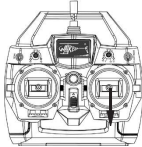

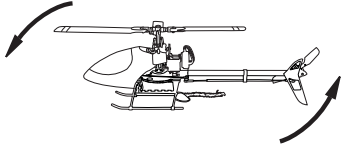
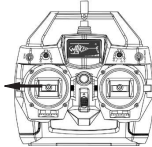
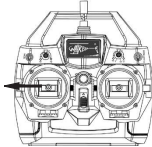
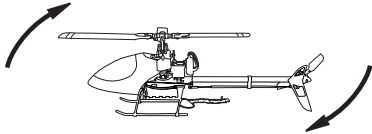
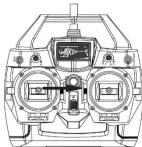

- 1. Tail servo direction adjustment.** Move the rudder stick in the transmitter left and right respectively, and inspect the tail servo direction. If the positive angle of the tail rotor blade increases by pushing up the Rudder Stick, the tail servo direction is correct (Fig. 10). Otherwise, please reverse the No. 4 DIP switch on the back of the transmitter.
- 2. Rudder servo adjustment.** Move leftwards and rightwards the rudder stick of your transmitter, and check the leftward and rightward movement range of the tail rotor sliding sleeve (Fig. 10), and check the angles between servo bellcrank and short rudder rod, between short rudder rod and rudder servo bellcrank, and between long rudder rod and rudder servo bellcrank. If the movements of tail rotor sliding sleeve keep left- and right-symmetrical, it is correct (Fig. 11); otherwise, please adjust the rudder servo and the lengths of short rudder rod and long rudder rod. The method for adjustment: unscrew the servo bellcrank screw and loosen the servo bellcrank (Fig. 11), and then re-connect the battery to your helicopter. After the rudder servo has been repositioned, adjust the angles above to 90 degrees, and then tighten the servo bellcrank screw.

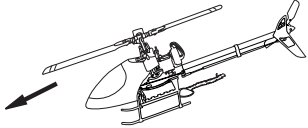
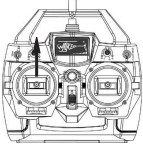
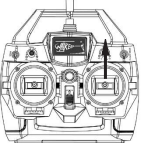
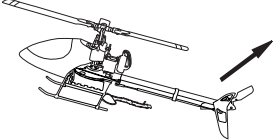




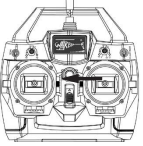

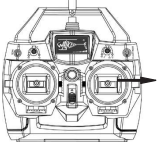
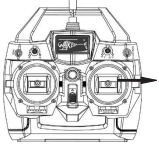


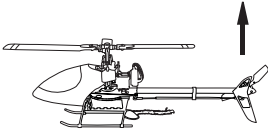
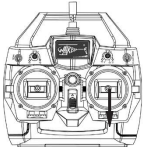
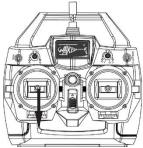
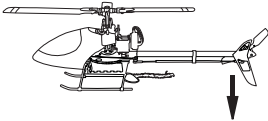
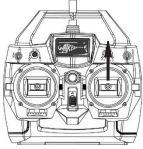
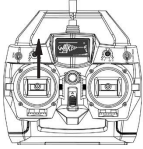
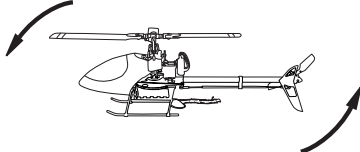
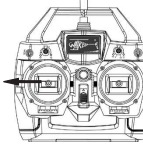
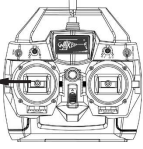
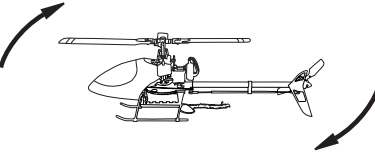
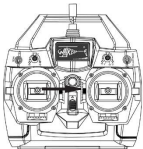
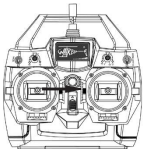
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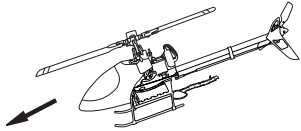

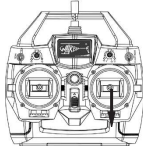
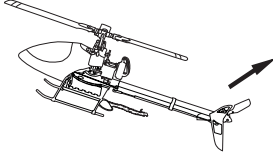
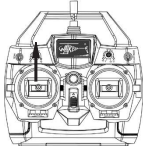
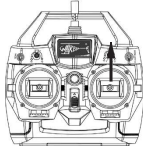




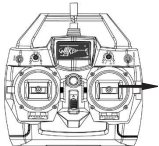
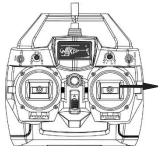


Flight Mode

Normal Mode		(MODE I - EUROPE & AUSTRALIA)	MODE II - NORTH AMERICA	
ascending				throttle pushing up
descending				throttle pulling down
head turning left				rudder stick moving left
head turning right				rudder stick moving right

<p>head forward</p>				<p>elevator stick pushing up</p>
<p>head backward</p>				<p>elevator stick pulling down</p>
<p>helicopter moving left</p>				<p>aileron stick moving left</p>
<p>helicopter moving right</p>				<p>aileron stick moving right</p>

Inverted Flight Mode		(MODE I - EUROPE & AUSTRALIA)	MODE II - NORTH AMERICA	
ascending				throttle pushing up
descending				throttle pulling down
head turning left				rudder stick moving left
head turning right				rudder stick moving right

<p>head forward</p>				<p>elevator stick pushing up</p>
<p>head backward</p>				<p>elevator stick pulling down</p>
<p>helicopter moving left</p>				<p>aileron stick moving left</p>
<p>helicopter moving right</p>				<p>aileron stick moving right</p>



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