

User Handbook



Specifications:

Main Rotor Dia. A : 480 mm

Tail Rotor Dia. B : 480 mm

Overall Length: 600 mm

All-up Weight: 460g (Battery included)

Transmitter: CUK-2401

Drive Motor: 2 × 380SH

Battery: 11.1V 1500mAh Li-Po

Gyro: Built-in

Servo: weight: 8.4g

speed: 0.12sec/60° (4.8V)

torque: 1.4kgf.cm(4.8V)

dimension: 22.5X11.5X24mm

Features:

- 1) CNC-Metal full option rotor head with super stable coaxial design. Highly efficient and easier to fly than a traditional model helicopter.
- 2) Utilizing the new 2.4GHZ technology which uses precise code pairing allowing multiple models to be flown at the same time.
- 3) Fitted with the high spec 4-in-1 receiver with built in ESC, Rate adjustment and stabilizing Gyro.
- 4) Two high performance 380SH motors powered by a 11.1v high capacity Li-po battery giving up to 10 minutes flight time.
- 5) Construction is both light and strong utilising state of the art materials giving a prompt response and accurate control.

Contents

01. Forewords	1	6.3 Sketch map of channel connection of receiver	8
02. Matters needing attention	1	6.4 Function of ESC	9
2.1 Statement	1	6.5 Connection method of ESC	9
2.2 Safety needing attention	1	6.6 Matters needing attention	9
(1) Far away from obstacle and people	1	07. Instruction and attention of servo	9
(2) Away from humidity environment	1	7.1 Specification and function of Servo's	9
(3) Proper operation	1	7.1.1 Specification	9
(4) Avoid flying alone	1	7.1.2 Basic function of servo	9
(5) Safety operation	2	7.2 Connection and adjustment of servo	10
(6) Away from highly spinning parts	2	7.2.1 Connection of servo	10
(7) Away from heat source	2	7.2.2 Adjustment of servo	10
2.3 Attention before flight	2	7.2.3 Matters needing attention	10
03. Definition of Helicopter Orientation	3	08. Instruction and attention of CUK005 balance charger	10
04. Standard equipments	3	8.1 Parameters of CUK005 balance charger	10
05. Instruction and attention of CUK-2401 transmitter	4	8.2 Features of CUK005 balance charger	10
5.1 Features of transmitter	4	8.3 Instruction of CUK005 balance charger	11
5.2 Function of CUK-2401	4	8.4 Operation steps	11
5.2.1 Identification and function of functional Keys	4	8.5 Charging statuses corresponding to LED	11
5.2.2 Identification of DIP switches	6	8.6 Matters needing attention	11
5.2.3 Function status of DIP switches	6	8.7 Maintenance of battery pack	12
5.2.4 Default settings of DIP switches	6	09. Steps of flight	12
5.3 Instruction and attention of transmitter	7	9.1 Flybar set assembly	12
5.3.1 Battery mounting	7	9.2 Installation of battery pack	12
5.3.2 Matters needing attention	7		
5.3.3 Code pairing and its attention	7		
06. Instruction and attention of Receiver	8		
6.1 Features of receiver	8		
6.2 Function of receiver	8		

9.3 CG balance	13
9.43 Turn on the power	13
9.4.1 Turn on the power	13
9.4.2 Matters needing attention	13
9.4.3 Troubleshoot of receiver LED keeping on flashing after power cable connected	13
9.5 Adjustment before flight	14
9.5.1 Adjustment of swashplate	15
9.6 Adjustment of Main Rotor Blade	15
9.6.1 Inspection of Main Rotor Blade	15
9.6.2 Adjustment of Main Rotor Blade	15
11. Flight over	15
Appendix 1 – flight control.....	16
Appendix 2 – trimming the flight..... actions	17
Appendix 3 – flight practice	18
1 Flight practice for the beginner	18
1.1 Matters needing attention	18
1.2 Steps	18
2 Advanced practice	19
2.1 practice of takeoff and landing	19
2.2 practice of square flight	19
2.3 Practice of circular flight	19
2.4 Figure eight practice	19

Dear customer:

Thank you for purchasing this Century UK CX 2.4G. In order to promptly and safely master the operations of this helicopter, please carefully read the user handbook, and then save it in a safe place for future consultation and reference.

Razor CX 2.4G takes advantage of reinforced main frame and 2.4G spread spectrum technology of 3-in-1 combination of receiving circuit, gyro and CCPM mixing. It features vigorous power, stable flight, prompt response, and strong anti-jamming capacity.



01

Forewords



02

Matters needing attention

2.1 Statement

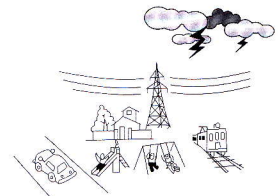
- (1) This product is not a toy. It is a piece of complicated equipment which harmoniously integrates together engineering materials, mechanics, electronics, aerodynamic and high frequency radio. Correct installation and adjustment are a must in order to avoid accidents taking place. The owner should operate in a safe manner. Improper operation may result in serious property damage or bodily injury, even death.
- (2) We accept no liability for damage and consequent damage arising from the use of products, as we have no control over the way they are installed, used and operated.
- (3) This product is suitable for RC-helicopter-experienced people aged not less than 14 years old.
- (4) The flight field should be legally approved by the local government. We accept no liability for any safety duties arising from operations, uses, or controls as soon as the products are sold.
- (5) We consign our distributors to offer technical support and service after sale. Please contact the local distributors for problem solutions caused by usage, operation, maintenance, etc.

2.2 Safety needing attention

RC helicopter is a high risk hobby, whose flight should be kept far away from other people. Misassembled or broken main frame, defective electronic equipment, and/ or strangeness to radio system will lead to unforeseen accidents such as bodily injury or property damage. The pilot **MUST** pay attention to the flight safety and **UNDERSTAND** his responsibility for accidents caused by his carelessness.

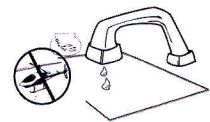
(1) Far away from obstacle and people

RC helicopter in flight is uncertain of flight speed and status, which potential risk exists in. when flying, please keep your RC helicopter far away from people, high buildings, high-tension line, etc, and avoid operating in rain, storms, thunder and lightning.



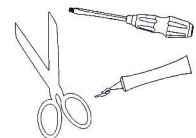
(2) Away from humidity environment

RC helicopter should be kept away from humidity and vapor because it is composed of complicated precise electronic elements and mechanic parts.



(3) Proper operation

Please use original spare parts to upgrade, modify or maintain your helicopter in order to assure its safety. Please operate your helicopter within the range of functions permitted. It is forbidden to use out of the safety laws or regulations.



(4) Avoid flying alone

At the beginning of studying radio-control flight skills, there exist some difficulties. Please avoid your flying alone, and should invite experienced pilots to guide you (it is one of the effective manners to practice via PC simulator and/ or skilled pilots' guidance).



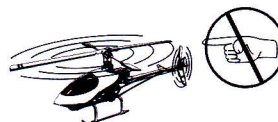
(5) Safety operation

Please fly your helicopter according to your body status and flight skills. Fatigue, listlessness and miss-operation will increase the possibilities of accidental hazard.



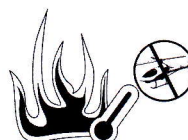
(6) Away from highly spinning parts

Please keep pilot, people and object away from the spinning blades of both main rotor and tail rotor.



(7) Away from heat source

RC helicopter is made from metal, fiber, plastic and electronic elements, etc. Please keep away from heat, sunshine in order to avoid distortion, even damage, caused by high temperature.



02

**Matters
needing
attention**

2.3 Attention before flight

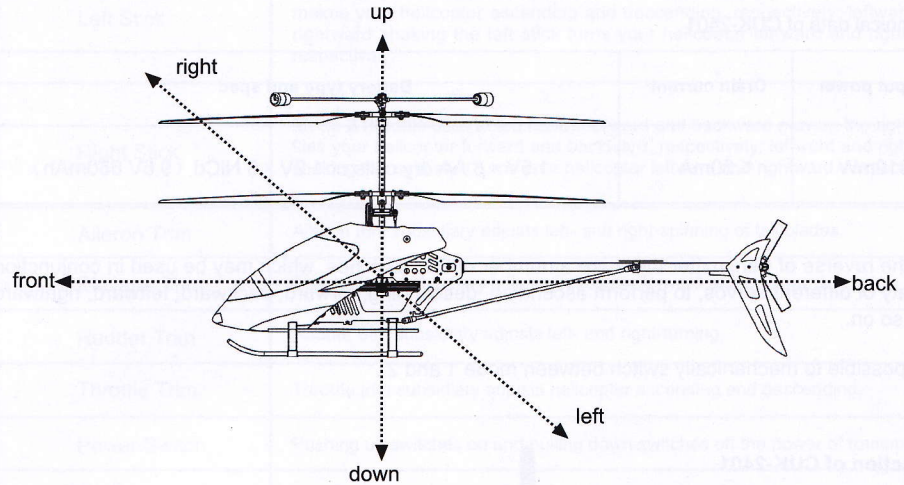
- (1) Connect the power cable of the flight battery within 10 seconds of the transmitter being switched on, during this period the transmitter battery indicator will be flashing indicating that it is trying to pair up with the model.
- (2) If you fail to connect the flight battery within 10 seconds after the transmitter is switched on then make sure that it is disconnected and then turn of the transmitter and repeat step one.
- (3) Ensure both the throttle stick and the throttle trim of your transmitter stay at the lowest positions before operation.
- (4) Please strictly obey the order of turn-on and turn-off before operation. When starting your flight, please turn on your transmitter first, and connect the power cable of your helicopter last.
When finishing your flight, please disconnect the power cable of your helicopter first, and turn off your transmitter last.
- (5) An upset in the order of connection may cause your helicopter to loose control. Please cultivate a correct habit of turn-on and turn-off.
- (6) Ensure the directions and actions which servos execute transmitter commands are correct and smooth, respectively. Using a broken servo will result in unforeseen dangers.
- (7) Check there are no missing or loose screws and nuts, no unassembled or damaged parts. Carefully check the main blades have no defects, especially the position close to the main blade connector. Broken or unassembled parts will have an effect on the flight performance, and will cause unforeseen potential dangers.
- (8) Check all the connections between ball linkage and ball. Loose linkages and balls should be changed. Loose connection between linkage and ball will have an effect on the flight performance, even lose control.
- (9) Assure there are solid connections between the power cables of battery pack and motors. Continuous vibrations in flight may loosen the battery tie-ins.
- (10) Check the model over for loose screws etc. before every flight.



03

Definition of Helicopter Orientation

We define the orientation of helicopter in order not to cause confusion in the following descriptions. That is to say, the tail boom of helicopter is facing the pilot (tail in), and its head facing forward (front of pilot). The left hand of pilot is the left side of helicopter, the right hand of pilot is the right side of helicopter. Its head is to the front and its tail boom is to the back. The direction in which main body of helicopter is facing is up, and its skids are facing down.



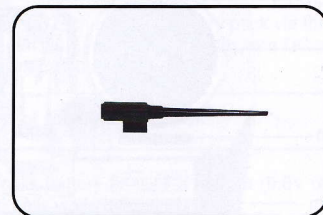
▲ Helicopter



▲ CUK-2401 transmitter



▲ Li-polymer battery pack



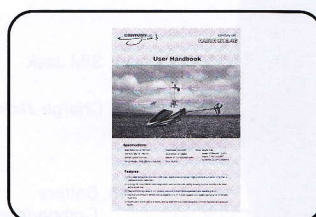
▲ Tool kit



▲ Wall adapter /Power supply



▲ CUK005 balance charger



▲ User handbook



04

Standard equipments

5.1 Features of transmitter

(1) CUK-2401 transmitter encoder applies 4-channel micro computer system and 2.4G spread spectrum technology, which features automatic code pairing and ID assignment with prompter response, higher sensitivity and stronger anti-jamming capacity.

(2) Technical data of CUK-2401

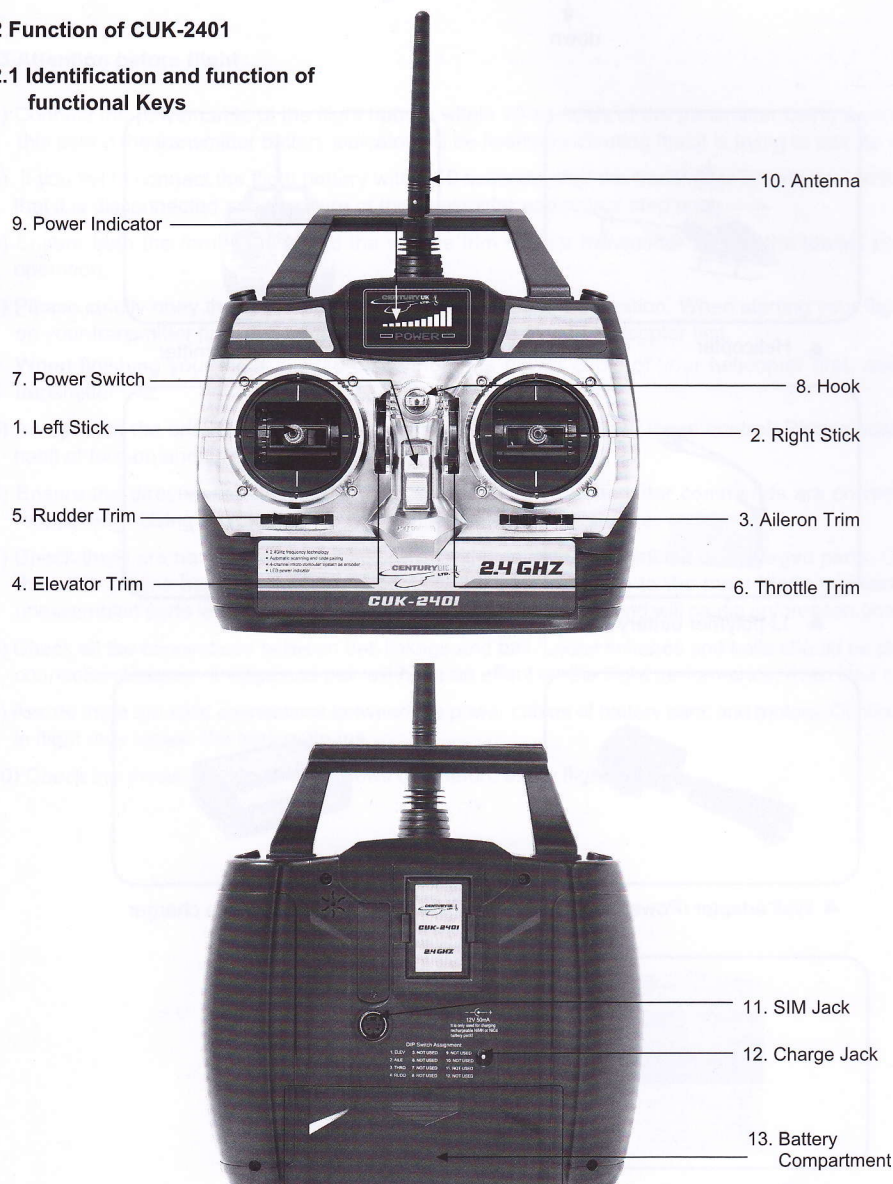
Output power	Drain current	Battery type and spec
≤10mW	≤50mA	1.5V × 8 AA dry cells or 1.2V × 8 NiCd (9.6V 650mAh)

(3) On the reverse of transmitter there are a number of DIP switches, which may be used in conjunction with a variety of different servos, to perform ascending, descending, forward, backward, leftward, rightward flights and so on.

(4) It is possible to mechanically switch between mode 1 and 2 .

5.2 Function of CUK-2401

5.2.1 Identification and function of functional Keys



05

**Instruction
and attention
of CUK-2401
transmitter**

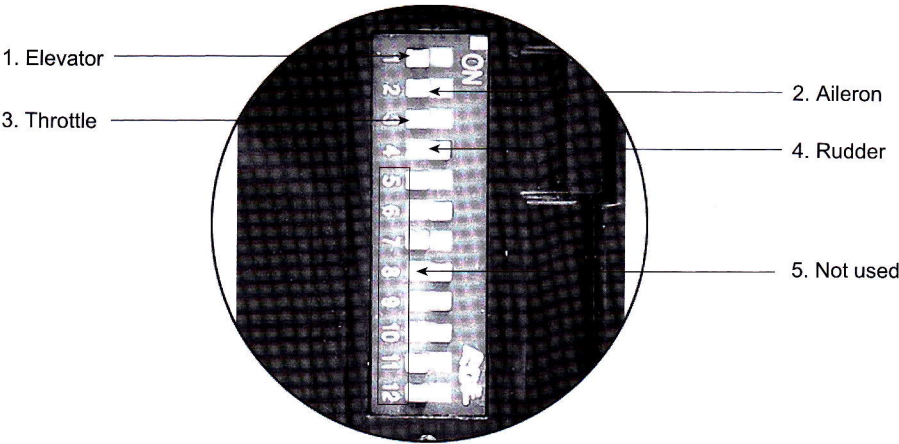


05

**Instruction
and attention
of CUK-2401
transmitter**

S/N	Identification	Function
1	Left Stick	Mode 2 (throttle stick at left hand): forward and backward moving the left stick makes your helicopter ascending and descending, respectively; leftward and rightward shaking the left stick turns your helicopter leftward and rightward, respectively.
2	Right Stick	Mode 2 (throttle stick at left hand): forward and backward moving the right stick flies your helicopter forward and backward, respectively; leftward and rightward shaking the right stick turns your helicopter leftward and rightward, respectively.
3	Aileron Trim	Aileron trim subsidiary adjusts left- and right-spinning of tail blades.
4	Elevator Trim	Elevator trim subsidiary adjusts helicopter forward and backward.
5	Rudder Trim	Rudder trim subsidiary adjusts left- and right-turning.
6	Throttle Trim	Throttle trim subsidiary adjusts helicopter ascending and descending.
7	Power Switch	Pushing up switches on and pulling down switches off the power of transmitter.
8	Hook	Neck strap releases the tension of your hands from holding transmitter.
9	Power Indicator	Indicates the current battery volume status of transmitter: 1) Green LED on: battery is saturated and normal flight is permitted; 2) Green LED off but yellow LED on: battery is short of power. Please stop flying as soon as possible; 3) Yellow LED off but red LED on: battery is seriously short of power. Please stop flying immediately.
10	Antenna	Transmits wireless signal.
11	Charge Jack	Can be used to charge the transmitter battery pack at charge current 50mA, voltage $\leq 12V$. Notice: 1) It is forbidden to charge non rechargeable battery pack via this charge jack; 2) It is forbidden to use the accompanied wall adapter as a DC power supply please see section 4 – "standard equipment".
12	SIM Jack	Connects to the data cable of computer simulator.
13	Battery Compartment	Mounts 1.5V X 8AA dry cells battery or 1.2V X 8 NiCd (9.6V 650mAh). Please notice the polarities of the cells while mounting.
14	Battery Cover	When changing cells, please lightly press down the center of battery cover and then pull down the cover to open.

5.2.2 Identification of DIP switches



Note: OFF ← → ON

5.2.3 Function status of DIP switches

S/N	Function	ON	OFF
1	Elevator	Reverse	Normal
2	Aileron	Reverse	Normal
3	Throttle	Reverse	Normal
4	Rudder	Reverse	Normal
5	NOT USED		

5.2. 4 Default settings of DIP switches

Note: ON position is marked “ON”, and the reverse position of ON is default “OFF”.

DIP S/N	1	2	3	4	5-12
Status	OFF	OFF	OFF	OFF	NOT USED



05

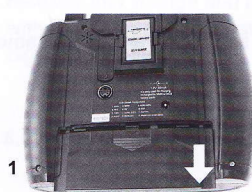
Instruction
and attention
of CUK-2401
transmitter



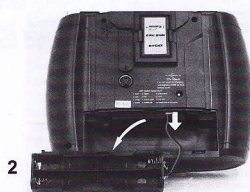
05 Instruction and attention of CUK-2401 transmitter

5.3 Instruction and attention of transmitter

5.3.1 Battery mounting



1
Lightly press down the center of battery cover, and remove along the arrow direction.



2
Take out the battery holder and pull out the JST jack.

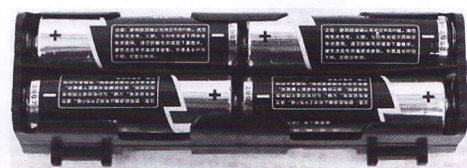


3

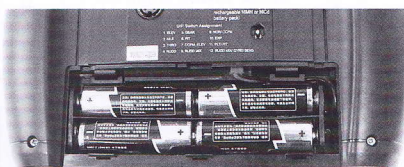
According to the correct polarities, mount 1.5V X 8AA dry cells or 1.2V X 8 NiCd (9.6V 650mAh)



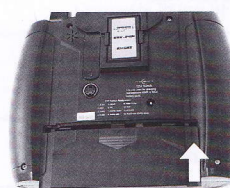
5
Insert the JST jack shown as the picture. Notice: the flat plain of the JST should be upward and the concave downward.



4



6
Mount the battery holder according to the correct direction.



7
Mount the battery cover according to the arrow direction.



8

Mounting is finished.

5.3.2 Matters needing attention

Ensure saturated power and correct polarity of transmitter battery pack and solid buckle connection to avoid shortage of battery power or sudden power off.

5.3.3 Code pairing and its attention

- (1) Put the flight mode switch in "N" position.
- (2) Keep both the throttle stick and throttle trim at the lowest position. Turn on the transmitter. The power indicator in transmitter quickly flashes (it is in the process of code pairing. DON'T move any sticks or trims).
- (3) And then connect the power cable of your helicopter. The receiver LED becomes solid lighting after 1-3 seconds, simultaneously move once the right stick of transmitter leftward or rightward (note: DON'T move the throttle stick forward or backward in order to avoid blades sudden spinning at high speed), the power indicator of transmitter stops flashing and resumes the status of power indication. It means the code pairing is successfully finished and you can operate your helicopter. in general, the code pairing time is less than 10 seconds.

- (4) Automatic scanning method is utilized. During the process of code pairing, occasionally failure of code pairing will happen because ID matching fails during scanning. Please disconnect power cable of your helicopter and turn off transmitter in sequence. Then turn on transmitter and connect the power cable in order within 10 seconds and re-enter the status of code pairing.

(5) It is forbidden to allow many pilots to make code pairing at the same time.

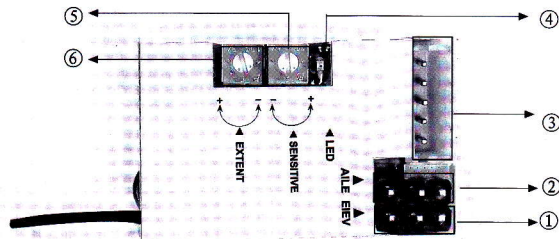
(6) After the code pairing is successfully finished, many pilots are allowed to fly at the same time and in the same field.

6.1 Features of receiver

- (1) Receiver adopts 2.4G spread spectrum technology with the functions of automatic scanning, code pairing and LED receiving indication.

(2) 4-channel signal output makes fine actions and powerful functions available.

(3) Servo extent and gyro sensitivity offer fine and customized adjustments to relevantly meet the habits of your operation.



6.2 Function of receiver

S/N	Name for short	Full name	Function
1	ELEV	Elevator servo	Connects to the elevator servo and receives the control signal of elevator servo.
2	AILE	Aileron servo	Connects to the aileron servo and receives the control signal of aileron servo.
3	ESC	ESC signal wire	Connects to the ESC and receives the signal of ESC (Electronic Speed Controller).
4	LED	LED	Displays the status of receiving signal.
5	SENSITIVE	Gyro sensitivity adjustment knob	Adjusts the gyro sensitivity and changes the flight status.
6	EXTENT	Servo extent knob	Servo extent knob is used to set up the servo travel.

6.3 Adjustment of receiver

- (1) Status of LED indicator of receiver: quick flash means the signal is being received; solid lighting means the signal has been received; slow flash means no signal has been received.

(2) Servo extent knob (EXTENT): CW rotating toward (+) increases the servo travel and CCW rotating toward (-) decreases the travel.

(3) Gyro tuning knob: CW rotating toward (+) increases the servo travel and CCW rotating toward (-) decreases the travel.



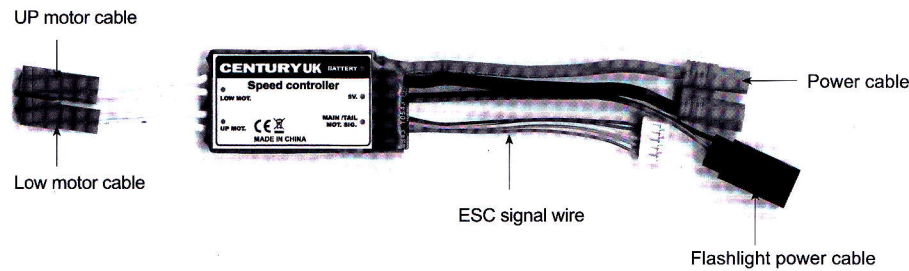
06

Instruction
and attention
of Receiver

6.4 Function of ESC

Electronic Speed Controller (ESC), mainly used in EP helicopter as a drive output device, is an electronic control circuit for the revolution speed and CW- and CCW-rotation of the motor. It will magnify the proportional signal it receives into voltage and current that can be directly exploited by the motor, the advantages of which, compared with the traditional mechanical speed controller, include compact dimension, long longevity, high efficiency and high output power.

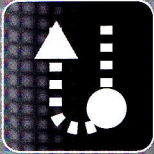
6.5 Connection method of ESC



S/N	Name for short	Full name	Function
1	LOW MOT.	Front motor	Connects to the front motor.
2	UP MOT.	Back motor	Connects to the back motor.
3	BATT.	Power cable	Connects to the battery.
4	Flashlight power cable		Connects to the bFlashlight power cable.
5	ESC signal wire		Connects to the ESC and receives the signal of ESC (Electronic Speed Controller).

6.6 Matters needing attention

- (1) All the signal wires should be connected in a correct way. Misconnection will result in failure to receive signal, even damage to receiver and motor.
- (2) Please use the special adjustment pen to adjust all the knobs in order to avoid damage.



07
Instruction and attention of servo

7.1 Specification and function of servo

7.1.1 Specification of servo

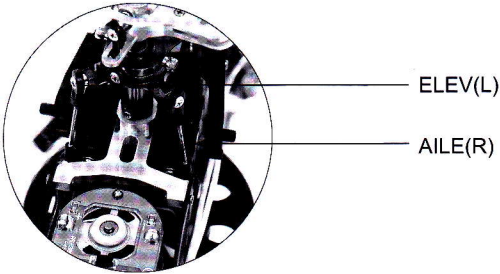
Weight	Voltage	Torque	Speed	Dimension
8.4g	4.8~6V	1.4kgf.cm	0.12sec/60°	22.5×11.5×24mm

7.1.2 Basic function of servo

Servo is a kind of electromechanical device that converts the signal from the receiver into mechanical movement, the function of which mainly aims at transforming the electronic signal into relevant mechanical movement, by means of which the control for its direction and speed can be achieved.

7.2 Connection and adjustment of servo

7.2.1 Connection of servo



S/N	Receiver terminal	Connection method	Wire direction
4	AILE	Connects to the plug of aileron servo signal wire	The white wire is facing front
5	ELEV	Connects to the plug of elevator servo signal wire	The white wire is facing front

7.2.2 Adjustment of servo

Before departure from Factory, all the servos have been given correct adjustment and are locked at the initiation status. In general, we don't need make any adjustment.

7.2.3 Matters needing attention

- (1) All the plugs should be correctly connected. Otherwise wrong connection will make servos not function or lead to the direction which is different from the pre-set.
- (2) Before departure from Factory, all the servos have been given correct adjustment and are locked at the initiation status. Please ensure that the travels of servo bell cranks should be within the range of its fixed extent during replacement, installation, and adjustment of servo linkages.

8.1 Parameters of CUK005 balance charger:

Input voltage	Input current	Output current	Dimension	Weight
DC15-18V	1000mA	≤800mA	62.5×47×20.8mm	46g

8.2 Features of GA005 balance charger

- (1) CUK005 utilizes microcomputer chips to monitor and control over the whole charging process in a balanced way with LED indicating light to display the charging status at real time.
- (2) Connects to an input power supply (DC 15-18V 1000 mA).
- (3) It is suitable for 2-3S (7.4V/ 11.1V) Li-ion or Li-polymer battery pack.
- (4) Automatically detects 2-3S Lithium battery pack. CUK005 will automatically charge when it finds the voltage of anyone cell among the LiPo pack is excessively low. At the same time LED displays as charging status (flash in red). The voltage of anyone cell LiPo is controlled at the level of 4.2 ± 0.05V to ensure the maximum voltage difference of single cell in the battery pack is less than 50 mV.



08

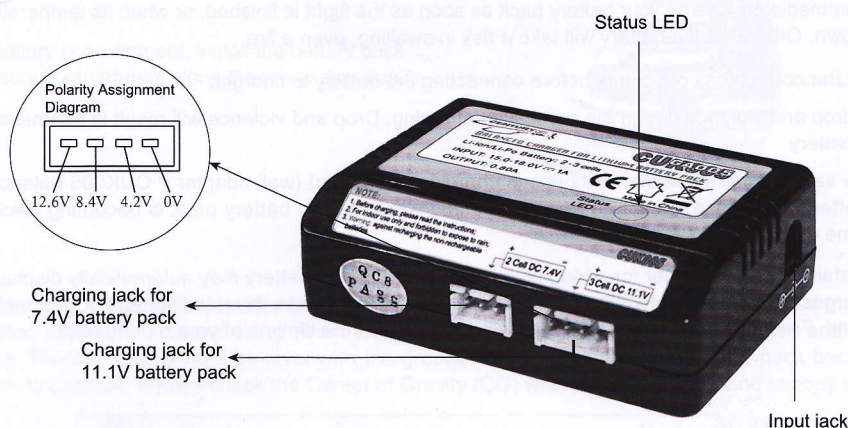
Instruction and attention of CUK005 balance charger

8.3 Instruction of CUK005 balance charger



08

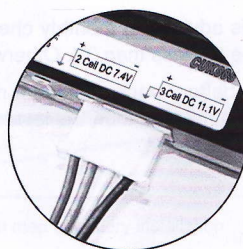
Instruction and attention of CUK005 balance charger



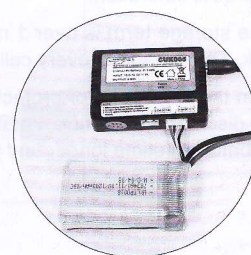
8.4 Operation steps



Plug the wall adapter into the mains power supply. Its output end connects to CUK005. Then its LED is lighting in solid red.



Insert the balanced pin of LiPo battery pack into CUK005.



During charging, Red LED is continuously flashing. If saturated, Red LED becomes solid green lighting.

8.5 Charging statuses corresponding to LED

steps	Operation	LED Status	Charging status
1	Insert the wall adapter into the mains power supply, and then its output is connecting to CUK005.	LED is in red solid lighting	Power on
2	Step 1 + connect the battery pack to CUK005	LED is flashing in red	Charging
		LED becomes from red to solid green.	Saturated

8.6 Matters needing attention

- (1) During charging, CUK005 should be put in dry and ventilated place and be far away from heat sources and inflammable and explosive substances.
- (2) CUK005 is only used to charging a 2S or 3S Li-ion or Li-polymer battery pack. It is forbidden to simultaneously charge two or more sets of battery packs. Either the charger or battery may be damaged.

- (3) When charging, the battery pack should be removed from your helicopter. Never leave the charger unsupervised during the process of charging in order to avoid risk of accidents.
- (4) Never immediately charge your battery pack as soon as the flight is finished, or when its temperature doesn't cool down. Otherwise the battery will take a risk in swelling, even a fire.
- (5) Ensure the correctness of polarity before connecting the battery to charger.
- (6) Avoid drop and violence during the process of charging. Drop and violence will result in internal short circuit of the battery.
- (7) For the sake of safety, please use original charging equipment (wall adapter + CUK005 balance charger) and battery pack. Please change new one in time when the old battery pack is becoming swollen due to long time usage.
- (8) If it is retained in the charger for a long time after saturated, the battery may automatically discharge. When the charger detects that the voltage of individual cells is lower than the rated voltage, it will re-charge until saturated. Frequently charging and discharging will shorten the lifetime of your battery pack.

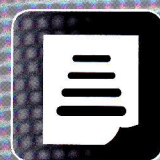
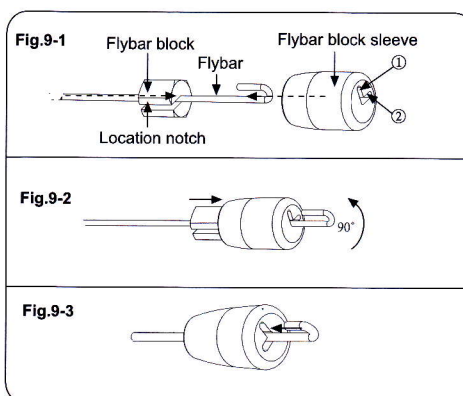
8.7 Maintenance of battery pack

- (1) The battery pack should be put in dry and ventilated place. The storage temperature of the environment is ranged from 18° C to 25° C.
- (2) Please avoid frequent charging and excessive discharging the battery pack in order to prolong its life cycle.
- (3) It is a must to maintain the battery pack before long-term storage. That is to charge the battery to the level of 50-60% saturation.
- (4) If the storage term is over 1 month, it is advised to monthly check the voltage of every cell of the battery pack. The voltage of every cell should be not less than 3V. Otherwise, please refer to the above article (3).
- (5) From the view point of protection, new battery pack should be motivated before usage. That is to charge and discharge 3-5 times, but discharge is not less than the level of 70% saturation. This process will make the battery lifetime longer and voltage more stable.

9.1 Flybar set assembly

1. Let the location notch of flybar block aim at the flybar, and press the flybar block till the flybar reaches the end of notch; Insert one end of the flybar through hole 1 (Fig. 9-1);
2. Let the location notch of flybar block aim at the inner location mast of flybar block sleeve, and press the flybar block along the inner location mast into the sleeve (Fig. 9-2);
3. Counterclockwise rotate 90° the flybar block sleeve (Fig. 9-2), let the hole 1 of flybar block sleeve aim at the hook of flybar, and then push the flybar block set outside and make the hook completely insert into the hole 2 (Fig. 9-3).

Note: the flybar set will be thrown off at high speed in flying when it is mounted improperly. A serious damage to people or property may be taken place.



09

Steps of flight

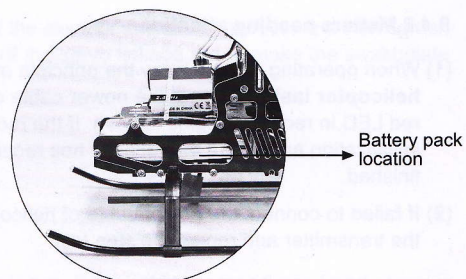


09

Steps of flight

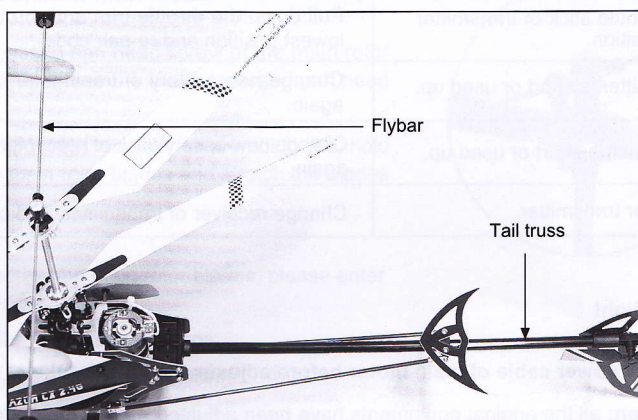
9.2 Installation of battery pack

Open the battery compartment, Install the battery pack into the battery compartment along the arrow direction.



Sketch map of battery installation

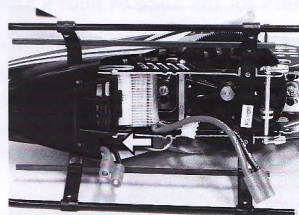
9.3 CG balance. Put your helicopter in a horizontal ground and make the flybar vertical to the tail truss of your helicopter. Lift your helicopter using your index fingers to support the two sides of flybar, and check the balance. The tail truss should be level with the ground. If it is not, move the battery pack backwards or forwards to balance. Always check the Center of Gravity (CG) with the battery pack and canopy installed.



Sketch map of battery installation

9.4 Turn on the power

9.4.1 Turn on the power



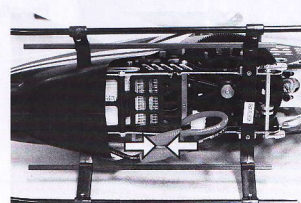
1. Take off the canopy, and install the battery pack in the battery compartment.



2. Pull down the throttle stick and throttle trim of transmitter to the lowest position, and then move the elevator trim, aileron trim, and rudder trim at the neutral positions, respectively.



3. Turn on the power of transmitter.



4. Connect the power cable of helicopter to receive signal from transmitter.

9.4.2 Matters needing attention

- (1) When operating, please obey the principle of "turn on transmitter first, and connect the power cable of helicopter last". Connect the power cable of helicopter in 10 seconds after the transmitter turned on. The red LED in receiver begins to flash. If the red LED becomes solid lighting and the mechanic beeps of servos initialization are heard, the receiver has received the signal from transmitter. The code pairing is successfully finished.
- (2) If failed to connect the power cable of helicopter in 10 seconds after transmitter is turned on, please turn off the transmitter and repeat the step (1).

9.4.3 Troubleshoot of receiver LED keeping on flashing after power cable connected

Possible causes	Solutions
Failure to code pairing.	Re-turn on transmitter and re-connect the power cable of helicopter.
The throttle trim and throttle stick of transmitter are not at the lowest position.	Pull down the throttle trim and throttle stick to the lowest position and re-pair code.
The electricity of transmitter is short or used up.	Change new battery of transmitter, and pair code again.
The electricity of helicopter is short or used up.	Change new battery pack of helicopter, and pair code again.
No function in receiver or transmitter.	Change receiver or transmitter, and pair code again.

9.5 Adjustment before flight

Warning: Disconnect the power cable of main motor before adjustment for the sake of pilot's safety.

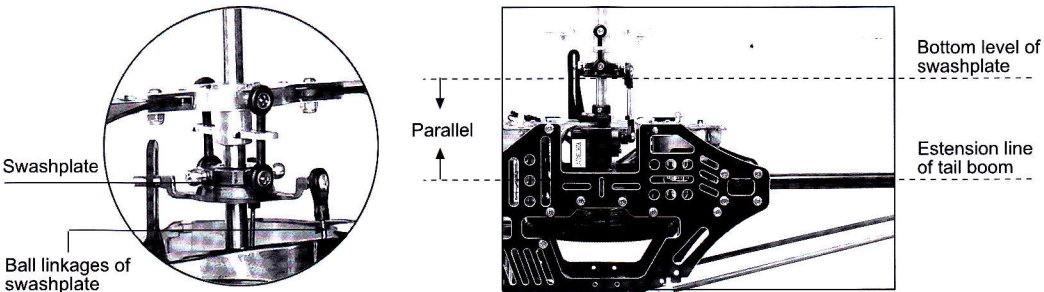
Matters needing attention: all the original equipments have been adjusted well before departure from factory. In general, it is unnecessary to make adjustment. Due to bump caused in long-distance transportation, some joint parts may be loose, even broken off. For the sake of safety, please strictly refer to the section 2.3 – "attention before flight" and check throughout your helicopter.

9.5.1 Adjustment of swashplate

Inspection of swashplate

Warning: Disconnect the power cable of main motor before adjustment for the sake of pilot's safety.

Put your helicopter in a spacious horizontal ground. Move the throttle stick and throttle trim of transmitter to the lowest position, and move the elevator trim, aileron trim and rudder trim at the neutral position, respectively. Turn on the transmitter first and then connect the power cable of helicopter. After the LED in the receiver stops flashing while mechanic beeps of servos initiation heard, the signal has been received. Then check whether the bottom level of swashplate is parallel to the longitudinal axis of the helicopter – the extension line of tail boom. Check also that the bottom level of swashplate is parallel to the lateral axis of the helicopter.



Swashplate adjustment.

If the swashplate is not horizontal, you can adjust through the following two steps: ① servo and servo bellcrank adjustment. Loosen the servo bellcrank screws and the servo bellcrank and then reconnect the power of the helicopter.



09

Steps of flight

Adjust the servo bellcrank to horizontal level after the reposition of the elevator and aileron servos, and then tighten the screws. ② Servo linkage rod adjustment. Adjust the length of the servo linkage rod to make the swashplate horizontal.

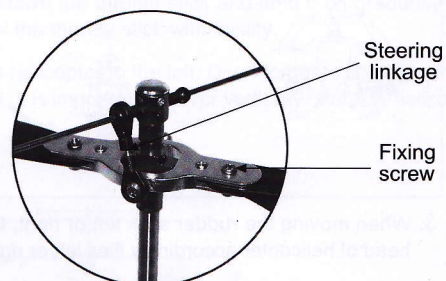
9.6 Adjustment of Main rotor blade

9.6.1 Inspection of Main rotor blade

- (1) Inspect whether the cross recessed pan head screw is too loose. 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.

9.6.2 Adjustment of Main rotor blade

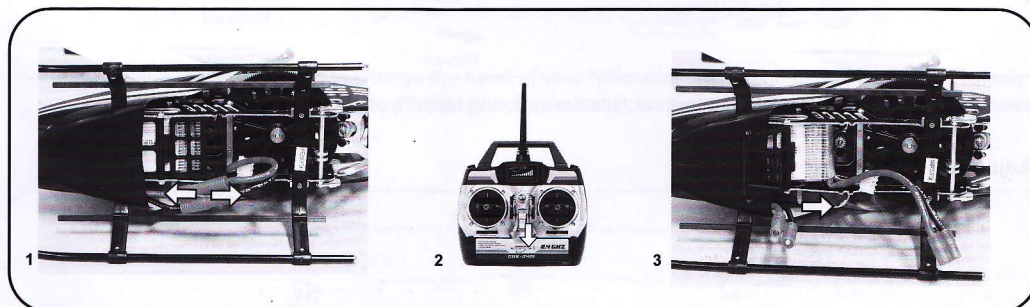
- (1) If the cross recessed pan head screw of the main rotor blade is too loose, tighten the cross recessed pan head screw.
- (2) If the left and right main rotor blades are not in line, hold the ends of the main rotor blades and stretch the blades in line.



Note: when inspecting the main rotor blades, please enter the Adjustment Mode.

Below are the detailed adjustment steps:

1. Put the Throttle Stick at the top position.
2. Turn on the transmitter power, plug in your helicopter power, and begin to automatically match the pair code.
3. Enter the Adjustment Mode as well as the pairing code is finished. After the adjustment is finished in the Adjustment Mode, please turn off the power of your transmitter and helicopter, and then re-pair code (it is unnecessary to put the Throttle Stick at the top position at this step). Your helicopter is ready to fly now.



Step 1: disconnect the power cable of helicopter.

Step 2: turn off the transmitter.

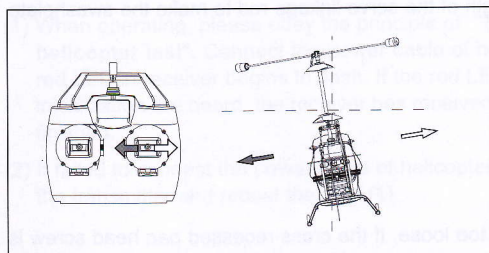
Step 3: take off the battery pack.



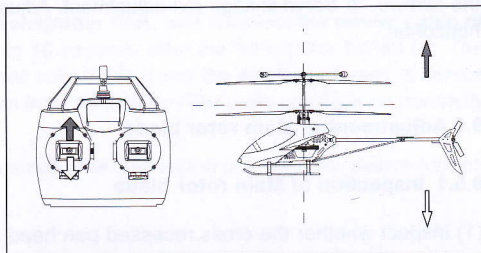
10

Flight over

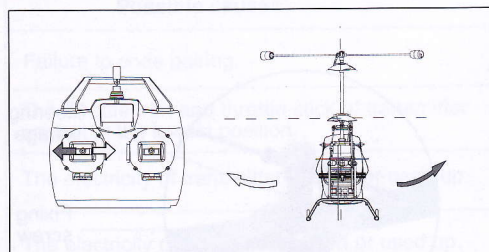
Mode 2 (throttle stick at left hand)



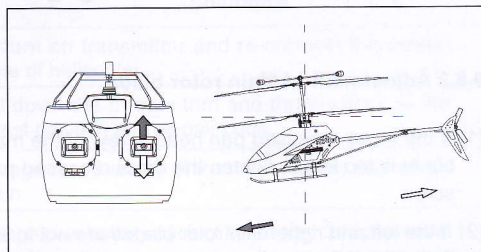
1. When moving the aileron stick left or right, the helicopter accordingly flies left or right.



2. When moving the throttle stick up or down, the helicopter accordingly flies up or down.

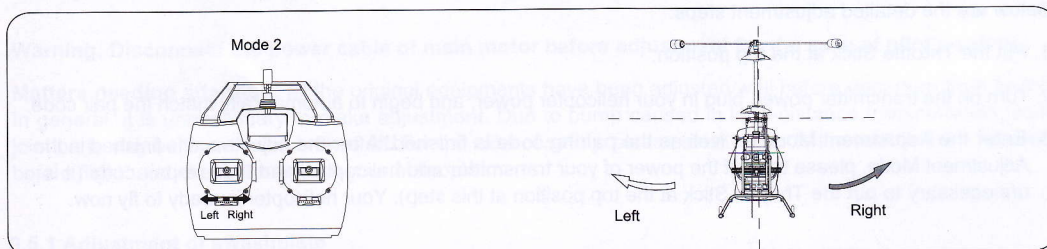


3. When moving the rudder stick left or right, the head of helicopter accordingly flies left or right.



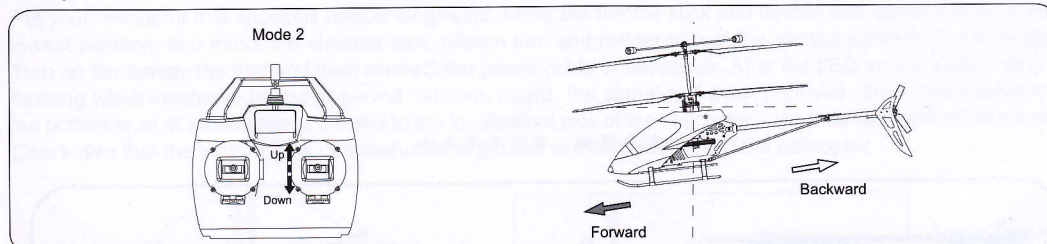
4. When moving elevator stick up or down, the helicopter accordingly flies forward or backward.

1. Adjust the rudder trim



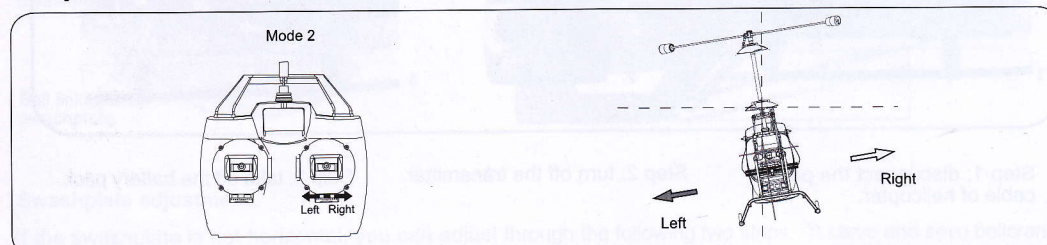
Move the rudder trim left if the head of helicopter flies right during take off; otherwise move the rudder trim left.

2. Adjust the elevator trim



Move the elevator trim down if the helicopter flies down during takeoff; otherwise move it up.

3. Adjust the aileron trim



Move the aileron trim right if the helicopter flies left during takeoff; otherwise move it left.



Appendix 1 - flight control



Appendix 2 - trimming the flight actions

1 flight practice for the beginner

1.1 Matters needing attention

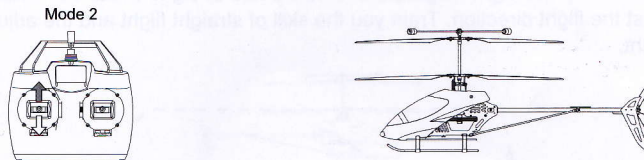
- (1) The beginners should be supervised and guided by skilled pilots when practicing.
- (2) For the sake of safety, people should keep at least 5 meters away from the helicopter during practicing.
- (3) Choose a spacious ground without people and obstacles as the flight practice field.

1.2 Steps

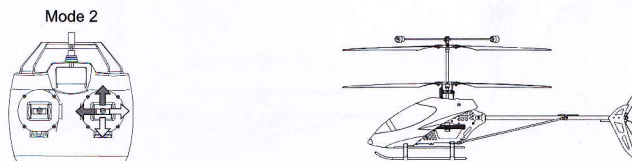
(1) Practice of throttle control - stationary flight

When helicopter taking off from the ground, slowly pull down the throttle stick and land it on gradually and stably. Repeatedly practice this step until controlling over the throttle stick with facility.

When hovering, tail rotor counteracts torque but also pushes helicopter to the left. Don't forget to counteract this effect using cyclic stick to the right and take off slightly inclined. It is important to hover vertically, stabilize helicopter at 1.5m height and then land it.

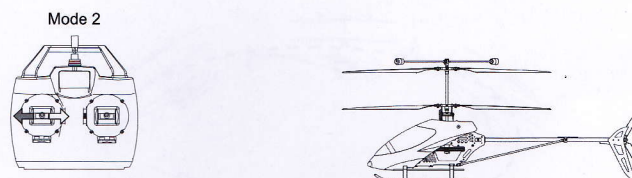


(2) Practice of aileron and elevator control



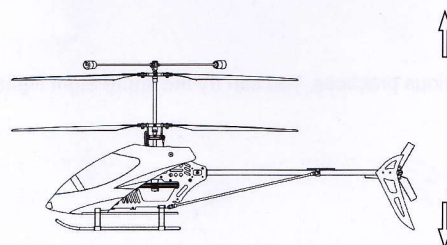
Slowly push up the throttle stick to purposely fly your helicopter forward, backward, left and right; then reversely control over the aileron stick and elevator stick to fly your helicopter back to the takeoff point. Repeatedly practice this step until controlling with facility.

(3) Practice of rudder control



Slowly move the throttle stick to change the head of your helicopter left and right, respectively; reversely control over the relative sticks to restore your helicopter. Repeatedly practice this step until controlling with facility.

(4) Frog-hopping practice

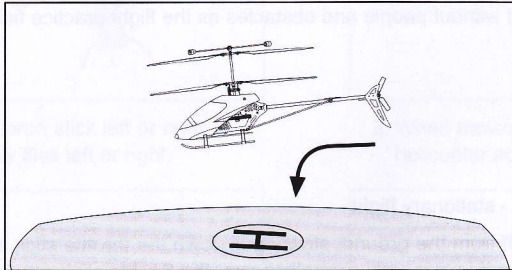


Repeatedly push up and pull down the throttle stick of transmitter to vertically take off and land your helicopter. It is called "frog-hopping practice" because the whole practice process is like a frog jumping

2 Advanced practice

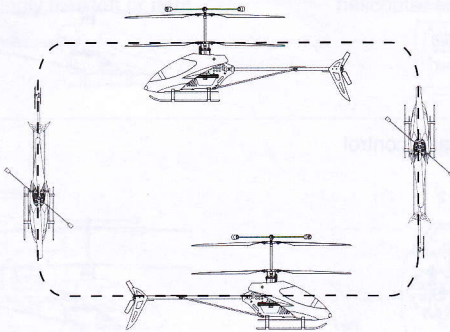
2.1 practice of takeoff and landing

Select a patch of fixing ground as the flight platform to purposely take off and land your helicopter in a set range. The process of takeoff and landing should be kept stable and vertical as best as possible.



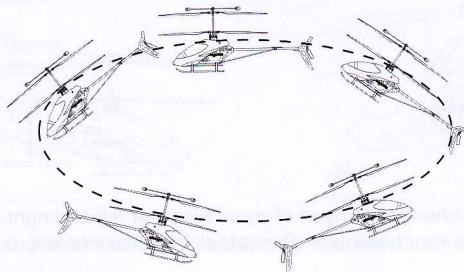
2.2 practice of square flight

Take the takeoff point as the center to draw a square whose side length is about 2 meters. Fly your helicopter along the 4 sides and keep the flight height parallel to the line of sight. Make 90° rotate at each corner of the quadrangle to adjust the flight direction. Train you the skill of straight flight and the adjustment of flight courses at right angle in flight.



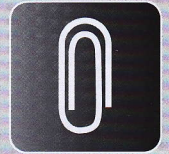
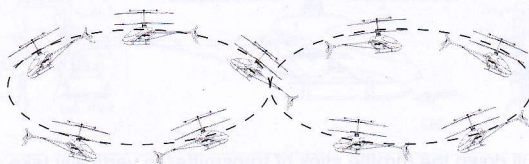
2.3 Practice of circular flight

After you master the operations with facility from step 2.1 to 2.2, please draw a proper size of circle in the ground. Then fly your helicopter along the circle track until you are skillful. This maneuver is more complex than first impressions may suggest because you have to use all orientations.







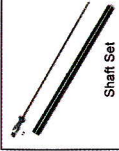


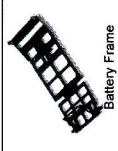

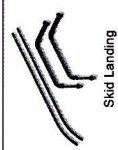

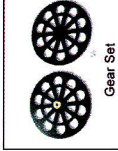
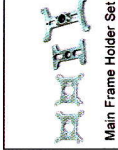
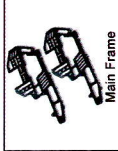

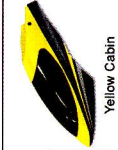

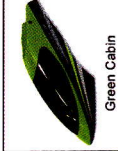

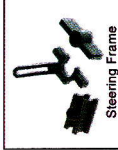

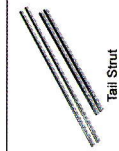
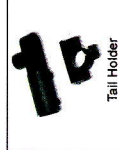
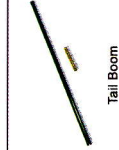
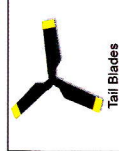




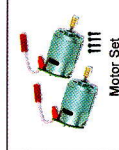


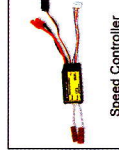




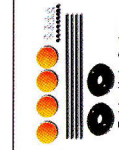
2.4 Figure eight practice

If you are skillful in the previous practices, you can try the figure eight flights shown as below.

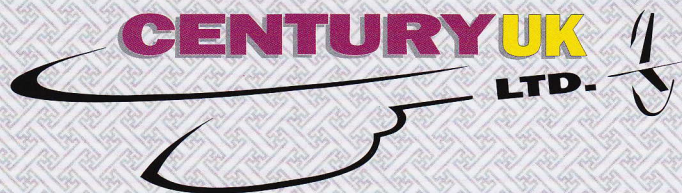


Appendix 3 – flight practice

RAZOR CX 2.4G SPARE PART

						
P-RCX-01	P-RCX-02	P-RCX-03	P-RCX-04	P-RCX-05	P-RCX-06	P-RCX-07
						
P-RCX-08	P-RCX-09	P-RCX-10	P-RCX-11	P-RCX-12	P-RCX-13	P-RCX-14
						
P-RCX-15	P-RCX-16Y	P-RCX-16R	P-RCX-16G	P-RCX-16O	P-RCX-17	P-RCX-18
						
P-RCX-19	P-RCX-20	P-RCX-21	P-RCX-22	P-RCX-23	P-RCX-24	P-RCX-25
						
P-DOL-17	P-RCX-26	P-RCX-27	CUK-2402	P-RCX-28	P-RCX-29	P-BLE-38
						
P-RCX-30	P-RCX-31	P-RAZ-28				

Spare parts are available from your local hobby store or if you have difficulty please contact www.centuryuk.com.



Century UK Ltd, 7 Anchor Business Park ,
Castle Road, Sittingbourne, Kent, ME10 3AE.

Web www.centuryuk.com email info@centuryuk.com
The specifications of the R/C Product may be altered without notice.