

3 channel upgrades
built-in electronic gyroscope

DEFENDER

**INTELLIGENT R/C MODEL
HELICOPTER USING INSTRUCTION
YD-911 3 CHANNEL COAXIAL SCULLS**



**Auto matic positing system
Flying more stabilization**

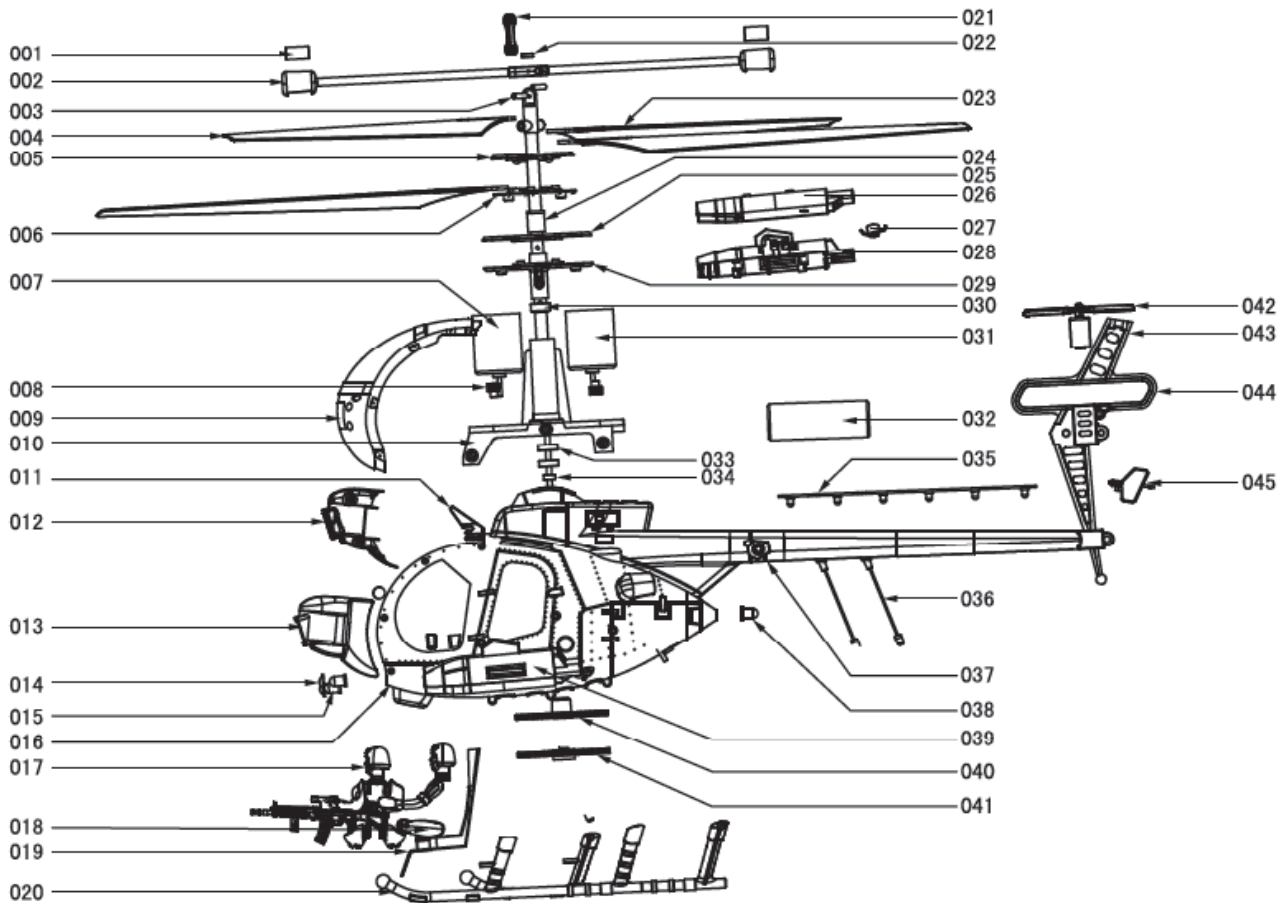
- 1.cooperate to speed gears,suit to fly outdoor or indoor.
- 2.faddish personality appearance,nicely flight experience.
- 3.easier to operation,stable to flight.
- 4.flowery light,highly presentability.
- 5.intelligentized control system, 360 degree directionalism exactly.
- 6.Automatic power-off protection system.
- 7.Battery power-saving mode,Lasting to flight.

1.Main technical index of the R/C helicopter

Main technical index
Fuselage length:450mm
Main rotor diameter:450mm
Weight:423g
Frequency: 40MHz/45MHz/49MHz(selection by custom)
Operational range:about 50m
Charge time:about 2 hours
Flying time:about 9 minutes
Use batteries/charger
1.Helicopter batteries(External):7.4V/1100 Li-po battery
2.Transmitter batterise:AA "1.5Vx8"(additional purchase)
3.Charger:AC:220-240V 50/60Hz
DC:8.5V 500MA

2.Parts of the names and accessories sales

THE PARTS PICTURES OF R/C HELICOPTER

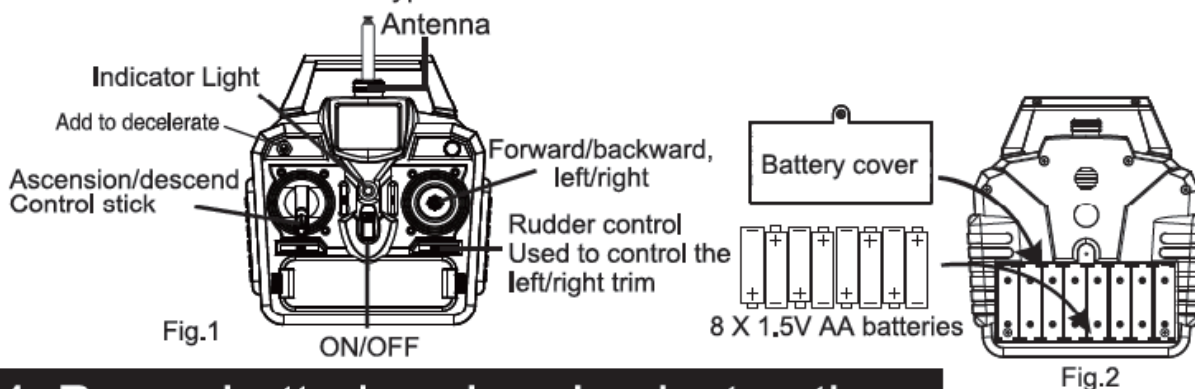


序号	用量	零件名称	序号	用量	零件名称	序号	用量	零件名称	序号	用量	零件名称
001	2	Balancing heavier steel shaft	013	1	Searchlight right shell	025	1	Underside blade block under clip	037	1	Aircraft shell(left cover)
002	1	Stabilizer bar	014	1	Artillery lampshade	026	1	Artillery under shell	038	2	#5LED
003	2	Iron shaft	015	4	LED light	027	1	Reflector lamp	039	1	Right artillery
004	2	Main rotor blade A	016	1	Aircraft shell(right cover)	028	1	Left artillery shell	040	1	Ascending gear
005	1	Upside blade over clip	017	1	Sniper	029	1	Underside blade block under clip	041	1	Underside gear
006	1	Upside blade under clip	018	1	Pilot	030	1	Upside copper sleeve	042	1	Tail rotor blade
007	1	Frontal motor	019	1	Aircraft seat	031	1	Back motor	043	1	Tail motor
008	2	Copper gear	020	2	Landing skid	032	1	Battery	044	1	Vertical fin
009	1	Window	021	2	Connect button	033	2	Outside bearing	045	1	Empennage
010	1	Main frame	022	1	Iron shaft#15X13	034	2	Inside bearing	046		
011	1	Searchlight left shell	023	2	Main rotor blade B	035	1	LED Light board	047		
012	1	Gamma ray source	024	1	Spindle sleeve	036	1	Spring	048		

3. Instruction of assembling the controller

1. Insert the antenna in the hole of transmitter press lightly and turn clockwise, until the antenna is connected to the controller well. Extend the antenna, the control distance will be further. (fig.1)
2. Install 8×“AA”batteries in the remote controller in right ways, plug adapters, (careful not to forcibly insert method, the method exactitude, plugs can be inserted into the slot smoothly, if not correctly will be inserted damage remote control, is very dangerous.) and then install the batteries into battery box. (fig.2)

Notice: 1. Install the battery must recognize the battery and battery box is precise plus or minus polarity, can't installation reverse. 2. Do not mix new and old batteries together when in use. 3. Please don't mix different types of batteries when in use.



4 .Power batteries charging instruction

1. Helicopters to close the power switch, Pull out to open from the PCB plank power supply plug the battery plug link the plug of the battery to the charger up of refresh plug, the rechargeable battery charger plugs connected to the charging slot, then insert the power charger socket. When charging, the LED light get dark red take flicker. When charging is completed About 3 hours. Chargers LED lights extinguished. if the recharging time is too long and could lead to battery damage, scald or fire.

NOTLCE:

1. Be sure the electric voltage in your living conditons suit the adapter, the plug insert correctly.
2. The battery is overheated when recharge time is too long, which can xause the damage, even make the battery failure. Please stop charge at once.
3. Take xare of the battery when it recharge.
4. Please appropriate increase charge time after Li-Polymer battery is several recharged.
5. Do not throw the batteries into fire or any disassemble to avoid explosion haxard.

5. ENVIRONMENT FOR FLIGHT

1. Fly on a sunny day, without wind.
 - ① Do not fly in extreme temperature.
Do not fly in temperature above 113 degrees Fahrenheit /45 degrees centigrade, or below 50 degrees Fahrenheit /10 degrees cen ti grade.
Flying in extreme heat and/of cold will affect performance and may damage the model.
 - ② Do not fly in strong wind.
Windy conditions will limit, or disturb the flying control.
In very windy conditions, your helicopter may become lost and/or damaged.
2. Select a large, wide-open area for flying, and make sure is no obstructions, animals or people nearby.

6 .Prepare for take off

- 1.Put the helicopter on th flat ground. Should insert th PCB plank power supply plug, Then open the receiver switch, the battery plug,Keep an airplane to be placed in Static appearance aout 3 awconds towards.
- 2.Recheck the area to make sure it is clear of people,animals, trees, buildings, High voltage wire, and other obstructions.
- 3.Make sure that the transmitter antenna is xompletely extended the Power/state indicator begin to flash. Thendial the throttle stick at The lowest position,the power/state indicator turns steady on.
- 4.Insert the battery,you xan see the indicator of the receiver start to flicker,and the control signal is received by the receiver,so you are ready to take off.(fig.4)
- 5.Push up the throttle stick,if the helicopter is still revolving in the sky,please according to the "8 special prompt" .
- 6.When the Slow、 quick switch pull out toward "SLOW" in order to go forward, retreat speed to become slowly(in keeping with raw recruit),be a switch to pull out toward "QUICK" in order to go forward,retreat speed to become quickl(in keeping with and well-trained)

7 .Control method

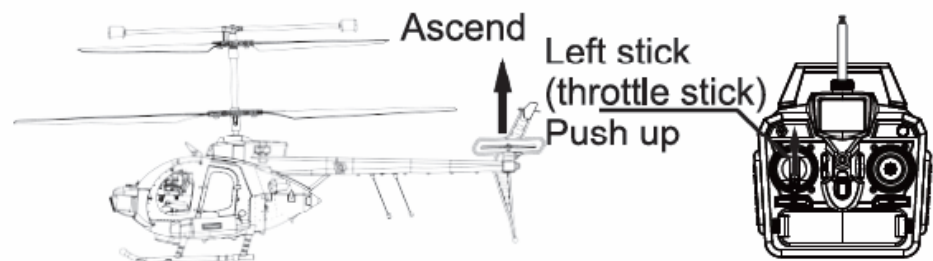
Control range. The control range of the R/C helicopter is about 30meters.

Warning:Do not fly in strong wind,wind may over power your helicopter and cause it to fly out of range.when the helicopter is out of range,you will not be able to control it.

Flying time:On a full charge.abd ub kiw wubd cibdutibs,the R/C heliopter will fly for about 9 minutes.

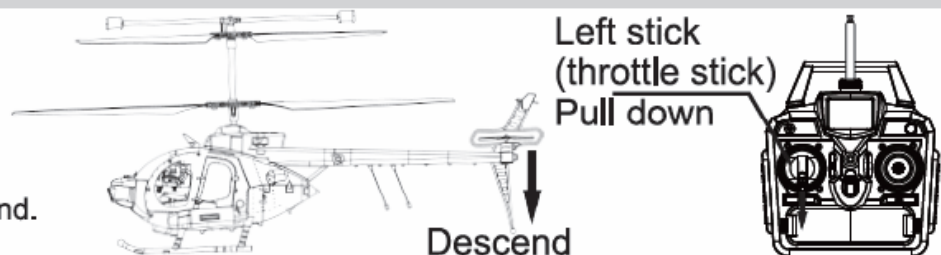
Ascend

When you push up the left stick (throttle stick), the spinning speed of the main rotor blade is increase and the helicopter begin to ascend.



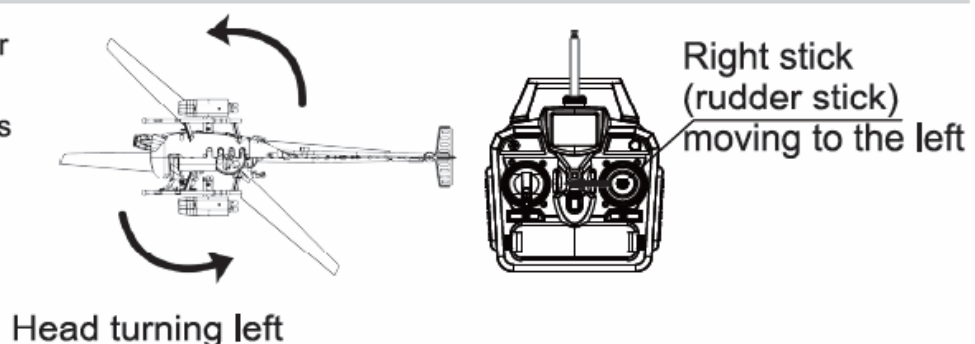
Descend

When you pull down the left stick(throttle stick),the spinning speed of the main rotor blade is decrease and the helicipter begin to descend.



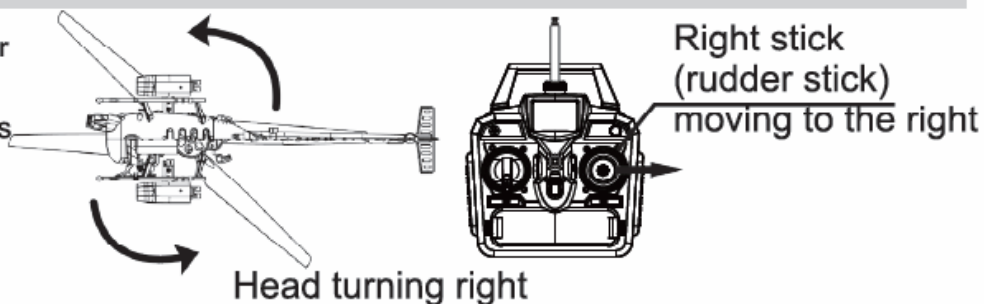
Head turning left

When the right stick(rudder stick)is moving to left,the head of the helicopter turns to left.



Head turning right

When the right stick(rudder stick)is moving to right the head of the helicopter turns to right.



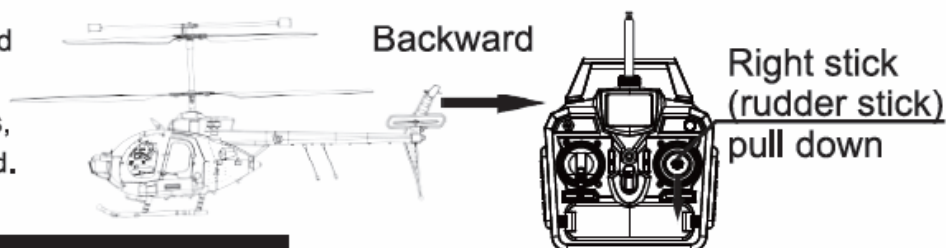
Forward(onward)

When the right stick(elevator)is pulled forward,the nose of helicopter will tilt downward and the helicopter moves forward.



Backward

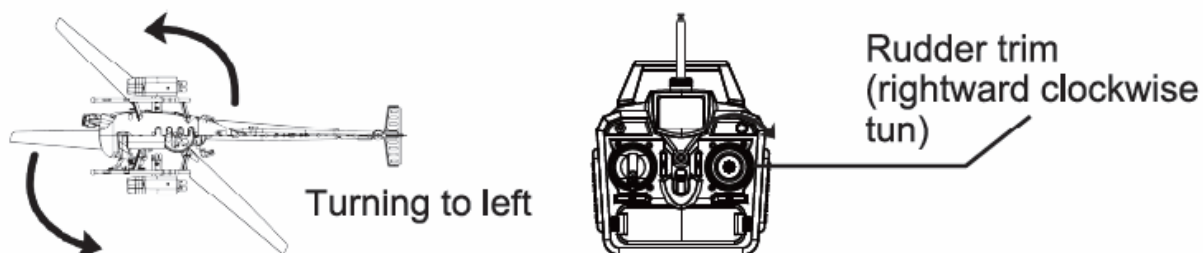
When the right stick (onward stick)the head of helicopter will incline towards upwards, the helicopter goes bakward.



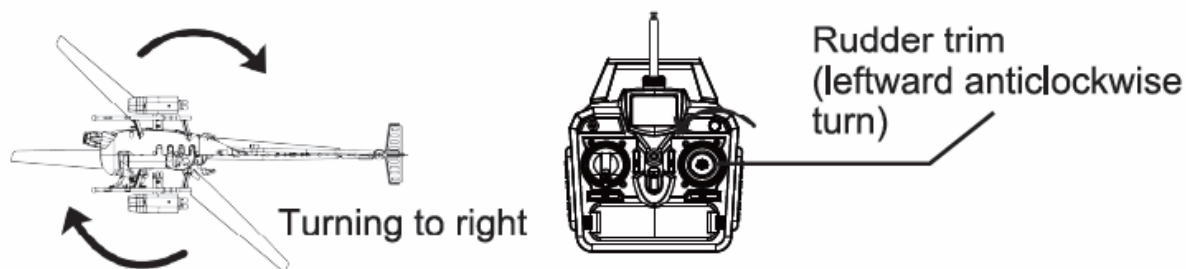
8 .Special prompt

1.If you don't move the rudder stick in flying,the helicopter is still revolving in the sky.So you can adjust the rudder trim.

When the helicopter is turning to left, please rightward clockwise turn slowly until the helicopter is still.



When the helicopter is turning to right, please leftward anticlockwise turn slowly until the helicopter is still.



9 .Safety keep away

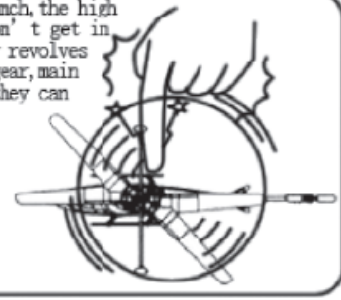
After the helicopter usage moderates to use, the electrical engineering will produce high temperature, please don't want a touch, until cool off down for a while.



Motor high temperature



After helicopter launch, the high speed that please don't get in touch with helicopter revolves part. (include wheel gear, main rotor blade... etc.) they can cause injury.



10 .Troubleshooting guide

Problem	Cause	Solution
The indicator of transmitter doesn't work	Install the batteries but doesn't follow the right polarity.	Check and make sure that the batteries are installed by the new batteries
	Batteries are drained.	Install new batteries
No control	Transmitter's antenna is not screwed in place and/or is not fully extended	Ensure that the antenna is screwed into the controller and fully extended
	It is a windy day.	Do not fly in wind For it will limit or disturb your flying control
Helicopter is not flying high enough	Rotor speed is too slow.	Pushing up the left stick (throttle stick)
	Helicopter is not fully charged.	Fully charge your helicopter

11.Caution

- 1.The control will shorter when the quantity of electricity is not full.
- 2.The operational range of the helicopter is 50m, please play it in the operational range. If the operational range between transmitter and helicopter is about 50m, the helicopter may lose control!
- 3.Following behaviors can avoid destroying the battery: When the helicopter difficulty or fly is not enough please stop Flying : When stop flying please turn off the power; When long time not use, please charge the batteries enough and remove from the helicopter, push the battery switch to the OFF.
- 4.If the helicopter become damaged, deformation, please repaired in time, If the rotor become damaged or broken do not fly, otherwise, it will lead to injury.
- 5.If you don't use the transmitter for a long time, Remove all batteries out, in order to avoid the battery leakage to damage this product.
- 6.Don't drop the helicopter from high position or shorten the using time.

12.Warning :

- 1.You are responsible for the using of the helicopter. Make sure that it will not do any person an injury or damage the property.
- 2.When you adjust, assemble and fly the helicopter, you must operate it according to the operation instruction strictly. Helicopter or do harm to yourself.
- 3.The user is responsible completely for the correct and using the product. We and the dealer accept no liability for damage and loss that due to incorrect using and operating.
- 4.Forbid children under 8 years to operate the product.
5. changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

13. FCC Statement

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ? Reorient or relocate the receiving antenna.
- ? Increase the separation between the equipment and receiver.
- ? Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ? Consult the dealer or an experienced radio/TV technician for help.