

# FIREFLY ?

Small size, big power





U46W Operation Guide

# **Catalog**

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# **Important Statement**

Thank you for buying UDIRC's product. This product is not ordinary toy and not suitable for people under the age of 14. To better use this product and ensure your safety and other people's security, please read this brochure carefully before using the product. You are regarded as accepting all content in this user manual when using this drone.

This product is a piece of complicated equipment which is integrated with professional knowledge by mechanic, electronic, air mechanics, etc. User should fly the drone legally in safe range of outdoors or indoors. The users promise to be responsible for their behavior when using this product and relevant APP. The users promise to use the drone and relevant APP for legal purpose, and agree to obey above rules and local laws and regulations.

We undertake no liability for human indirect or direct injury and property damage caused by environment, illegal behavior, improper operation, refitting of the drone and personal reason after sale of the product.

- \* Please only use attached spare parts or purchase the UDIRC's original spare parts to replace the damaged parts. Or we undertake no liability for those accidents caused by replacement.
- \* Keep the packing and user manual so as to refer to the important information whenever.

# **Safety Precautions**

This drone is suitable for experienced RC drone user aged 14 years or above. This product contains small parts with the risk of choking, please keep it out of child's reach.

### (1) Flying Area

The flying field must be legally approved by your local government. Do not fly the drone near in the airport. Keep far away from the airport more than 5km when flying a RC drone. Flying field must spacious enough and we suggest at least 8M (length)\*8M (width)\*5M (height).

### (2) Use correctly

Improper assembly, broken main frame, defective electronic equipment or unskilled operation all may cause unpredictable accidents such as drone damage or human injury. We suggest beginner learning the operation skill from experienced people in first flight. Please pay special attention to safety operation and have good knowledge of accident responsibility that the user may cause.

### (3) Keep away from obstacles and crowds

The speed and status of RC drone is uncertain and it may cause potential danger. So the user shall keep the drone away from crowd, tall building, power lines etc. Meanwhile, do not fly a RC drone in rainy, storm, thunder and lighting weather for the safety of user, around people and their property.

### (4) Keep away from humid environment

The drone inside is consisted of precise electronic components and mechanic components. Humidity or water vapor may damage electronic components or mechanic components and cause accident.

### (5) Safe operation

Please operate the RC drone in accordance with your physical status and flying skill. Fatigue, listlessness and improper operation may increase the rate of accident.

### (6) Keep away from high-speed rotating parts

Please keep the drone in your sight when flying. Rotating parts like propellers or motors may cause serious injury and damage. Keep this rotating parts away from people, obstacle and ground, etc.

### (7) Keep away from heat

The RC drone and the transmitter are made of metal, fiber, plastic, electronic components, etc. Keep away from heat and sunshine to avoid distortion and damage.

### (8) Control range

The drone should be controlled within max control distance. Do not fly the drone near tall building, high voltage cable or other place with signal interference. Or may cause signal interruption and the drone will be out of control, which may result in unpredictable accident.

### (9) Do not touch the hot motor to avoid being burnt.

(10) Only use the recommended charger. Power off the drone before cleaning the RC drone. Check the USB cable, charging plug, charger housing and other parts regularly to ensure they can work well. If there is any damage, stop using it immediately till it's fixed well

# **Lipo Battery Care Instructions**

- \* Keep the battery away from children and animals.
- \* Discontinue charging if the battery is swollen.
- \* Do not charge the battery once it crashes or damages.
- \* After the crash, check the battery to ensure it can work well.
- \* Do not overcharge the battery.
- \* Keep the battery away from flammable material or liquid.
- \* Do not put the battery on high temperature place, store it in a proper container to avoid fire or explode.
- \* Do not put the battery into your pocket or bag to avoid short circuit and not be scratched by sharp objects or metal.
- \* Do not disassemble, refit and repair the battery.
- \* Do not use the battery to crash or hit hard surface.
- \* Do not put the battery in water and keep it in dry place at ambient temperature.
- \* Do not leave the battery without supervision when charging.
- \* Make sure that there is no short circuit of the power wire.
- \* Only use the recommended charger.
- \* Check the charger's wire, plug, surface regularly. Do not use any broken charger.
- \* If the battery is not used more than one week, maintain the drone battery with about 50% power to keep its performance and working life.

# **Charging Instruction for Drone Battery**

- Connect the drone battery with USB cable first and then choose one of the method as below picture shown to connect with USB plug.
- The red USB indicator light keeps bright when charging and the light turns green when fully charged. The drone should power off before charging.
- \* For faster charging, it is recommended to use an adapter with 5V 2A output current (not included) to charge the battery.









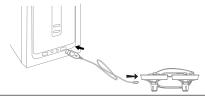


Phone Charger

Power Ba

Computer Charging

ai oliaig





### Li-Po Battery Disposal & Recycling

Wasted Lithium-Polymer batteries should not be placed with household trash. Please contact local environmental or waste agency or the supplier of

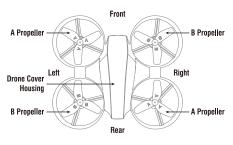


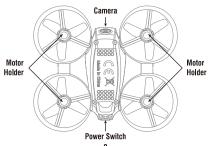
vour model or vour nearest Lithium-Polymer batteries recycling center.

# **Check List Before Flight**

- Make sure the drone battery and transmitter battery are fully charged.
- Make sure the Left Stick of the transmitter are in the middle position.
- 3. Please strictly obey the order of turn on and turn off before operation. Turn on the transmitter power first and then turn on the drone power before flying; turn off the drone power first and then turn off the transmitter power when finish flying. Improper turn on and turn off order may cause the drone out of control and threaten people's safety. Please cultivate a correct habit of turn on and turn off.
- Make sure the connection is solid between battery, motor, etc. The ongoing vibration may cause bad connection of power terminal and make the drone out of control.
- 5. Improper operation may cause drone crash, which may arouse motor defective and noise, and then effect the flying status or even stop flying. Please go to the local distributor to buy new parts for replacement so that the drone will return to its best status.

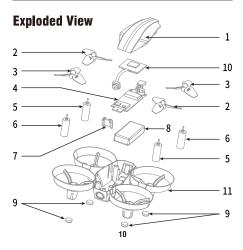
# **Drone and Transmitter Overview Drone**



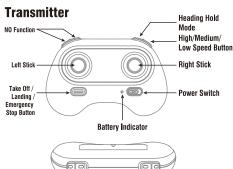


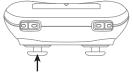
# **Specification**

Drone Size	91x80x31,8mm	Flying Time	5~6 mins
Drone Weight	24g	Main Motor	0614x4
Propeller Diameter	Ø32mm	Camera Resolution	640x480P
Drone Battery	3.7Vx180mAh	Frequency	2.4Ghz
Charging Time for Drone Battery	25~30 mins	Flying Distance	10∼15 m



No.	Name	No.	Name
1	Drone Housing	7	Camera Holder
2	A Propeller (clockwise)	8	Battery
3	B Propeller (counterclockwise)	9	Cushion
4	Receiver Board	10	Camera Board
5	Clockwise Motor (Red and Blue wire)	11	Main Body
6	Counterclockwise Motor (Black and White w	ire)	





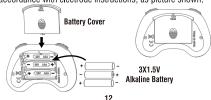
Trimmer Mode Button (Press down the left stick)

### **Brief Introduction for Button Functions**

Left Stick	Move the Stick forward / backward / left / right to fly the drone to up / down / turn left / turn right.
Right Stick	Move the Stick forward / backward / left / right to fly the drone to forward / backward / left / right.
Power Switch	Push right the power switch to turn on the transmitter, and pull left to turn off.
Heading Hold Mode	Press the button to enter Heading Hold Mode, and press again to exit from heading hold mode.
High / Medium/ Low Speed Button	Press down this button to switch to High /Medium/ Low Speed.
Take Off / Landing / Emergency Stop Button	Press the button and the drone will fly up automatically. Press the button again and the drone will land on the ground automatically. Long press down the button, the drone propellers will stop and fall down immediately.
Trimmer Mode Button	Press down this button, move the left or right stick to the required trimmer direction, then it will adjust the direction accordingly, when loose the stick, then ESC from the trimmer mode.

### **Battery installation**

Open the battery cover on the back side of the transmitter and put 3 alkaline batteries (AAA, not included) into the box in accordance with electrode instructions, as picture shown.



- Make sure the electrodes are correct.
- 2. Do not mix new with old batteries.
  - 3 Do not mix different kinds of batteries
  - Do not charge the non rechargeable battery.

# **Pre-flight Operation Instruction** Frequency Pairing

1. Turn on the transmitter switch (Picture 1) and the power indicator light flashes rapidly. Pull the left stick all the way down to the lowest position and then release (Picture 2/3). The power indicator light flashes slowly, which indicates the transmitter is ready for frequency pairing.



Notice:





Picture 2

- 2. Turn on the power switch of the drone (Picture 4).
- Place the drone on the flat surface, the drone body lights turn from flashing to solid bright, which indicates frequency pairing is successful.



Important Notice: Please make sure the drone is placed on the horizontal position after powering on the drone. so that the drone can work well

### Checklist before Flight

- The camera is in front of the drone. Keep the drone front away from operator.
- Check the direction of the rotating propellers. The left front and right rear A propellers rotate clockwise while the right front and left rear B propellers rotate counterclockwise.



Picture 5

- Activate(unlock) motors: Move the Left Stick and Right Stick at the same time (45 degree inward) to start the motors and repeat previous step again to lock the motors (Picture 5).
- 4. After activate the motors, push up the left stick slowly to fly up the drone, and pull down the left stick slowly to the lowest end, then the drone will land on the ground slowly.
- 5. It's recommended to repeat above step 4 to practice.
- 6. Adjust relative transmitter trimmer button to adjust the rudder if the drone tilts to one side when flying.

### **Calibration Instruction**

Please follow below steps to calibrate the drone if the drone becomes imbalance after crashing during the flight, and can not be adjusted by trimmer button and cause difficult operation.

- 1. Power off the drone, then turn off the transmitter switch.
- Turn on the transmitter switch, push the left stick all the way down to the lowest position and then release (Picture 6). The Left Stick will back to the middle position automatically (Picture 7). The transmitter is ready for frequency pairing mode.

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Picture 6

Picture 7

- 3. Power on the drone and put it on a flat surface in a horizontal position. The drone body lights change from flashing to solid bright, which indicates successful frequency pairing.
  - Do not move the left stick before successful calibration. Push the right stick (45 degree outward) as Picture 8 shown and then release

Picture 8

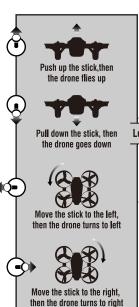
The drone body lights flash, which indicates that the drone is calibrating. When the drone body lights become solid, which indicates successful calibration.

Notice: When the drone is fiercely impacted or crashed, it may cause the gyro can not recover and cause difficult control, if so. then you need to power off and power on again to calibrate.

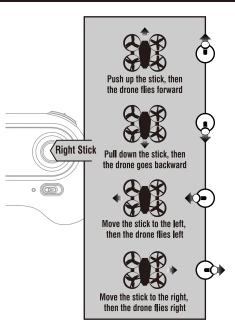
## Flying Control

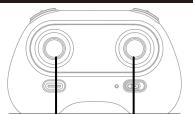
Notice: Every time before the drone take off, move the left stick and right stick at the same time (45 degree inward) as Picture 5 shown to start the motors. Push up the left stick slowly to fly up the drone or press down the one button take off.

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Forward and backward trimmer When take off, if the drone tilts forward, press down the left stick, and push the right stick backwards. Otherwise push forwards.

### Left and right turning trimmer

When take off, if the drone head rotates to left, press down the left stick and push the left stick to right. Otherwise push to left.

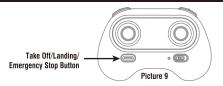
### Left and right side flying trimmer

When take off, if the drone tilts to left, press down the left stick and push the right stick to right to adjust. Otherwise push left.

### **Functions Introduction**

### Take off/ One button take off/Landing modes

- Take off: After frequency pairing successful, push the left stick and right stick (45 degree inward) as Picture 5 shown to start the motor. Then push up the left stick to fly up the drone to certain altitude and then release the stick.
- One Button Take Off: After frequency pairing successful or motors activated, press the Take Off / Landing / Emergency Stop Button (Picture 9), the drone will fly up automatically and keep hovering at an altitude of 1.2 meters approximately.
- Landing: When flying, push the left stick all the way down to the lowest position(Picture 2/6) and hold it till the motors stop and the drone will land on the ground slowly.
- 4. One Button Landing: When flying, press the Take Off / Landing / Emergency Stop Button once shortly (Picture 9), and the drone will land on the ground automatically. (When using this function, you can not touch the left stick, if not, then the function will fail)
- 5. Emergency Stop: When the drone in emergency situation and going to hit the walking people or obstacle, etc., press the Take Off / Landing / Emergency Stop Button immediately and hold it for more than 1s(Picture 9). The propellers will stop immediately.

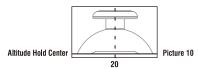


### Altitude Hold Mode

Altitude hold mode indicates that the drone maintains a consistent altitude while allowing roll, pitch, and yaw to be controlled normally. It makes easier to control the drone for beginner and more stable for aerial photography.

Push the left stick up (down) to fly the drone up (down) at certain altitude and then release the stick. The stick will back to the center position as Picture 10 shown. And the drone will keep flying at current altitude. Repeat above steps if you want to change the drone altitude (default mode).

Note: The Altitude Holding Mode can not be used when the blades are accidentally deformed or damaged.



### High / Medium/Low Speed Mode

#### 1. Low Speed Mode (Mode 1)

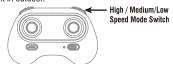
Low Speed Mode is suitable for beginner.

### 2.Medium Speed Mode (Mode 2)

Medium Speed Mode is suitable for skillful pilots to play in the gentle breeze.

### 3. High Speed Mode (Mode 3)

High Speed Mode is suitable for expert to experience aerial stunt in outdoor.



## **Heading Hold Mode**

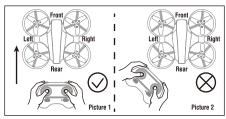
Drones generally have a front and rear indicated by LED lights or colored propellers. By default, the users are required to tell the front and the rear of the drone when flying. Under heading hold mode, the users can operate the drone without worrying about the orientation (left is left and right is right all the time, regardless of where your drone is pointing at). Heading Hold Mode is designed for beginners and the users who fly the drone in daylight or at a far distance or difficult to identify the drone orientation.

The default setting is NOT Heading hold Mode.

You are allowed to activate the heading hold mode function before taking off or in flight.

Fly under heading hold mode, you're required to ensure the drone front direction aligned with your front direction, DO NOT change your direction of your transmitter and keep it fly in front of you all the time. (Shown below picture)

WARNING: DO NOT USE HEADING HOLD MODE BEFORE YOU ARE SURE THAT THE DRONE'S FRONT IS YOUR FRONT. OTHERWISE, IT MIGHT BE OUT OF CONTROL OR FLY AWAY.



\* Press down heading hold mode button, the drone's left and right LED will start flashing alternately, it shows the drone enters Heading hold mode, press the button again, then the LED gets solid and the drone ESC from heading hold mode



### **Low Battery Alarm**

When the transmitter in low battery, the transmitter will beep "di-di" to remind the user to land the drone to replace the batteries as soon as possible. Or the drone may be out of control.

When the drone in low battery, the transmitter will beep "di.di..." constantly to remind the user to land the drone as soon as possible. The flip function will turn off automatically when the drone in low battery.

### **Out of Range Alarm**

When the drone is going to fly out of the max remote control distance, the transmitter will beep didi...didi...didi..." to alarm the user to fly back the drone immediately. Or the drone may be out of control and fly away.

# To know your APP

# Download and Install the APP: Flyingsee

The APP is suitable for mobile phone with iOS and Android system, please download from the mobile phone software store:

- 1. For mobile phone with iOS system, please search Flyingsee in APP Store.
- 2. For mobile phone with Android system, please search Flyingsee in Google Play.
- 3. Scan the QR code on the right or the QR code in the box to download Flyingsee.





# Frequency Pairing between Mobile Phone and Drone WiFi:

- 1. Install the Lipo battery into the drone and power on the drone. Put the drone on the flat surface in horizontal position.
- Enter "setup" of the mobile phone, turn on WiFi (WLAN) and choose udirc-\*\*\*, return to desktop after successful connection.
- 3. Click on the icon Flyingsee and click on to enter remote control interface to experience real time transmission.



4. Click on to enter Virtual Control Interface. At this time the drone LED lights change from flash to solid bright, which indicates successful frequency pairing and the drone is ready to be controlled via APP.



Virtual Control Interface

Important Tip: Ensure the drone is placed on a flat surface in horizontal position so that the drone can work well.

Or it may be failed to control.

# Introduction for APP Icons Home Page Icons



**Explore UDIRC Drone** 



Help



Learn the operation of Drone



Media



Remote control interface

### Remote Control Interface



### Home Page Icon

Click on the icon and back to home page.



### VIR Virtual Reality Mode Icon

Click on the icon to enter virtual reality mode to experience first person view (only available when using with a VR headset). Click on the icon again to exit from virtual reality mode.





### Flight Route Setting Mode

Click on this icon and it turns red. Draw a flight route in the right area. The drone will fly according to the flight route. Click on the icon again to exit from Flight Route Setting Mode. The icon turns white

### **EMERGENCY**

### **Emergency Stop**

The icon is red by default. Click this icon and the propellers will stop immediately. The drone will fall down to the ground straightly.



### **Remote Control Signal**

To show the drone's WiFi signal strength.



### **Setting Icon**

Click on this icon to set some parameters as below, and click again to exit.



Click on "Save" to save trimming setting. Choose "Reset" for factory reset.





### Remote Control Icon

### Virtual Control Stick

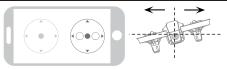
Activate or hide the virtual control stick. The virtual control stick is hidden by default. Click on the icon to show Menu, choose corresponding icon to turn on the virtual control stick.



### **Gravity Induction Mode**

Click on this icon to enter gravity induction control mode. Tilt the phone to fly left / right and forward / backward. Click on the icon again to exit from gravity induction control mode.

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If the mobile phone tilts to the left / right, the Right Ball will move accordingly causing the drone to fly left / right.



If the mobile phone tilts to forward / backward, the Right Ball will roll forward / backward. causing the drone to fly forward / backward.

### Video

Click on this icon to record video. The recording time will show at the bottom of the screen. Click on this icon again to finish recording.

# Photo

Click on this icon to take photo.



### Heading Hold Mode

Click on this icon and it turns red, which indicates that the drone enter Heading Hold Mode. Click again to exit from Heading Hold Mode. The icon turns white.



### Media

Click on this icon to view or delete the aerial video and photo. Click on the Home Page icon to exit.





### H (7) High / Low Speed Mode

By default, the drone is in Low Speed Mode "L". Click on "H" to enter High Speed Mode.



### One Button Take Off

Click on this icon and it turns red shortly. The drone will fly up automatically and stay flying at an altitude of 1.2 meters.



### **One Button Landing**

Click on this icon and the icon turns red, the drone will fly down slowly and land on the ground. All propellers also will stop running.

After record or photography, data will store in phone gallery and can display it in phone.

Also can display the video or photos via shortcut icon to enter into media interface.

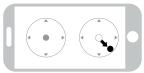


Notice: App must be authorized to access the phone gallery, if not, then may be unavailable to display the video and photos.

### **APP Calibration Instruction**

If the drone becomes difficult to operate and hover, you need to calibrate again.

- Please refer to the Frequency Pairing between Mobile
   Phone and Drone WiFi
- 2. Do not push the Left Ball before successful calibration. Move the Right Ball as the picture shown on the right. The drone body front light flashing, which indicates that the drone is calibrating. When the drone body front light gets solid, which indicates successful calibration and the drone is ready to be controlled.



### APP Flying Control



Click on loon and it turns red shortly. The drone will fly up automatically and stay flying at an altitude of 1.2 meters.



Left Ball

### To fly right side or left side:

**Right Ball** 

Move the Right Ball to the left to fly the drone to the left side, and move the Right Ball to the right to fly the drone to the right

To fly up or down:

Move the Left Ball up to fly the drone up and move the Left Ball down to fly the drone back down. The drone will stay flying at appointed altitude after release the ball

### To rotate left or right:

Move the Left Ball to the left to rotate the drone to the left Move the Left Ball to the right to rotate the drone to the riaht.



# To fly forward or backward:

Move the Right Ball up to fly the drone forward, and move the Right Ball down to fly the drone backwards.

side.

### Forward/Backward flying trimming

When take off, if the drone tilts forward, click the "-" of the Forward/
Backward Trimmer to adjust the drone till balance. If the drone tilts backward
click the "+" to adjust the drone till balance.



### Left/Right Rudder trimming

When take off, if the drone rotates to left, click the "+" of the Rotation Trimmer till balance. If the drone rotates right, click the "-" to adjust the drone till balance

### Left/Right side flying trimming

If the drone tilts to the left, click the "+" of the Left / Right Trimmer till balance. If the drone tilts to the right, click the "-" to adjust the drone till balance

- If you can not find the WiFi signal to connect, turn off WiFi and turn on again to search and connect.
- The available WiFi control radius/distance is 10m, please control the drone within this range.

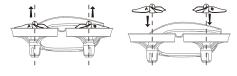
### Notice:

When alternating control from mobile phone to transmitter, the transmitter left stick must be in the center position, or exit from the APP. If not then you can not control the drone alternately.

# Spare Parts Installation Diagram Propeller Installation Diagram

When disassemble, hold the propeller and pull out of propeller in vertical direction.

When assembly, put the propeller hole aim at the motor shaft and press down as Picture 12 shown.

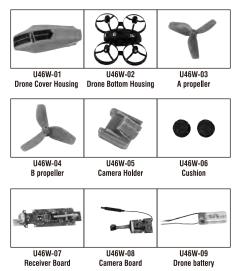


Picture 11

Picture 12

# **Spare Parts**

For convenience, the spare parts are listed for you to choose, which can be purchased from the local seller.



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U46W-10 USB Cable

U46W-11 Clockwise Motor (Red and Blue wire)

U46W-12 Counterclockwise Motor (Black and White wire)



U46W-13 Transmitter

### **Important Notice**

Our company's products are improving all the time, design and specifications are subject to change without notice. All the information in this manual has been carefully checked to ensure accuracy, if any printing errors, our company reserve the final interpretation right.

# **Troubleshooting Guide**

No.	Problem	Problem Cause	Solution
		1. Low battery.	1. Replace the transmitter battery.
-	The transmitter indicator	<ol><li>The battery positive pole and negative pole are in reverse order.</li></ol>	2. Install the battery in accordance with the user manual.
	light is off	3. Poor Contact.	3. Clean the dirt between the battery and the battery slice.
		1. Indicator light is off.	1. The same as above 1.2.3.
0.0	Fail to pair	2. There is interfering signal nearby.	2. Restart the drone and power on the transmitter.
2	ine arone with transmitter	3. Mis-operation.	3. Operate the drone step by step in accordance with the user manual.
		4. The electronic component is damaged for frequent crash.	4. To buy spare parts from local seller and replace damaged parts.
	The drone	1. The propeller deformed seriously.	1. Replace the propeller.
~	is under-	2. Low battery.	2. Recharge the drone battery.
•	powered or can not fly.	3. Incorrect installation of propeller.	3. Install the propeller in accordance with the user manual .

		1. The propeller deformed seriously.	1. Replace propeller.
	The drone	2. The motor holder deformed.	2. Replace the motor holder.
4	could not hover and tilts to one side.	3. The gyro did not reset after violent crash.	3. Put the drone on the flat ground for about 10s or restart the the drone to calibrate again.
		4. The motor is damaged.	4. Replace motor.
	The duese	1. Low battery.	1. Recharge the drone battery.
2	indicator light is off.	2. The battery is expired or over discharge protection.	2. Buy a new battery from local seller to replace the battery or charge the battery in accordance with the use manual.
9	Could not	1. There is interfering signal nearby.	1. Cut off the wire and re-connect.
•	picture.	2. Damaged camera,	2, Buy a new camera box from local seller to replace
7	Hard to control by cellphone.	1. Not experienced enough.	1. Practice and read the cellphone controlling instruction carefully.

### **FCC 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 a ntenna.
- 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.

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

### **FCC Notice**

The equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. Modifications not authorized by the manufacturer may void user's authority to operate this device.

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.



MADE IN CHINA

