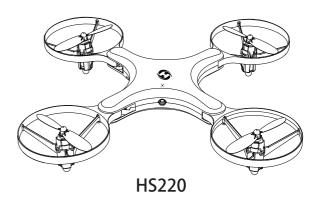


# Instructions For Use





eu@holystone.com (EU) jp@holystone.com (JP)



1(855) 888-6699

# **Contents**

1. Disclaimer&Warning	
2. Safety Guidelines	
3. Maintenance	
4. Package Contents	6
5. Drone's Details	7
6. Transmitter Functions	
Mode 2	
Mode 1	_
7. Mark Introduction	
8. Battery Removal/ Installation	
9. Charge the Battery1	0
10. Flight Mode Introduction	
Wing Flight Mode 1	
Folding Flight Mode 1	1
11. Flight	
Pair the Drone 1	
Start Folding Mode 1	
Calibrate the Gyro1	
One Key Start/ Landing1	4
Flight Control1	4
12. Trimmer 1	
13. Emergency Stop 1	6
14. Speed Switch 1	
15. Altitude-Hold Function 1	
16. 360 ° Flip	
17. Headless Mode 1	
18. FPV Real-Time Function 1	9
19. Specification	<u>?</u> 1
20. Trouble Shooting 2	23
21. Contact Us 2	
22. General Information 2	24

#### < DISCLAIMER & WARNING >

- 1. Please read this disclaimer carefully before using our product. This product is not recommended for people under the age of 14. By using this product, you hereby agree to this disclaimer and signify that you have read it fully. You agree that you are responsible for your own conduct and any damage caused while using this product, and its consequences. You agree to use this product only for purposes that are proper and in accordance with local regulations, terms and all applicable policies and guidelines Holy Stone may make available.
- 2. When using this product, please be sure to strictly abide by the specification requirements and safety guidelines stated in this document. Any personal injury property damage, legal disputes and all other adverse events caused by the violation of the safety instructions or due to any other factor, WILL NOT be Holy Stone's responsibility.

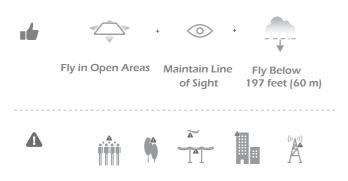
#### < SAFETY GUIDELINES >

#### 1. Check Before Use

- This product is not a toy, but it is a high precision drone that integrates various electronic stability and control mechanisms. Please be sure to setup this drone carefully and correctly to ensure safe, accident-free operation.
- Please be sure that the batteries of the drone and transmitter are clean, undamaged and have enough power.
- Please be sure that all the propellers are undamaged and are installed in the right orientation.

• Please do a thorough check of the product before each use. Check for firmness of the parts, any signs of cracks and wear of the propeller, battery power and effectiveness of the indicator, etc. If after doing a complete check any issues are found, please refrain from using the drone until the issue has been taken care of. Incorrect assembly or poor control by inexperienced pilots can result in damage to property or harm to people in an accident. Be fully aware of your surroundings when flying and always maintain complete control of the device at all times.

# 2. Flight Environment



Avoid flying over or near obstacles, crowds, high voltage power lines, trees, airport or bodies of water.

DO NOT fly near strong electromagnetic sources such as power lines and base stations as it may affect the onboard compass.













DO NOT use the drone in adverse weather conditions such as rain, snow, fog and strong wind.

### 3. Operations Requirements

- Please don't use this device to follow any moving vehicles.
- When flying, only turn off the motor in case of an emergency.
- Please flight the drone back to you as soon as possible when the battery is running low.
- This device should not be used while drinking alcohol if you are feeling fatigued, taking medicine, or feeling any physical discomfort.
- Stay away from the rotating propellers and motors.
- Beware of the noise volume the drone produces. Keep your distance to avoid ear damage.







Stay away from the rotating propellers and motors.

No Fly Zone

## 4. Use of Battery

- Please ensure batteries are fitted in the correct orientation as shown in the instructions manual.
- Avoid short circuits by fitting the batteries incorrectly, and do

-3-

not crush or squeeze the batteries as this could carry the risk of an explosion.

- Do not mix new and old batteries as this can lead to a poor performance of the product.
- Dispose of used batteries carefully, do not litter.
- Please keep dead batteries away from heat and fire.
- If the device is not going to be used for an extended period of time, remove batteries to prevent potential damage from battery leakage.
- It is recommended to only use the USB charging cable that comes with the drone to charge the battery.
- Don't attempt to disassemble or modify the battery in any way.
- Don't use the battery if it gives off an odor, generates heat, become discolored or deformed, or appears abnormal in any way. If the battery is in use or being charged, remove it from the device or charger immediately and discontinue use.
- Don't pierce the battery casing with a nail or other sharp object, break it open with a hammer, or step on it!
- Don't short-circuit the battery by connecting wires or other metal object to the positive(+) and negative(-) terminals.



#### Li-ion Battery Disposal & Recycling

Wasted Lithium-ion batteries must not be placed with household trash. Please contact local environmental or waste agency or the supplier of your model or your nearest Li-ion battery recycling center.



#### < MAINTENANCE >

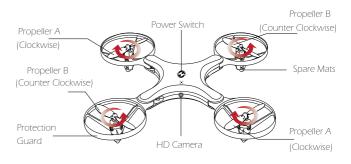
- 1. Clear the product after each use with a clean, soft cloth.
- 2. Avoid prolonged exposure to direct sunlight and avoid buildup of heat on the drone.
- 3. This device is not waterproof and must not be submerged in water under any circumstance. Failure to maintain the device completely dry will result in the failure of the unit.
- 4. Check the charging plug and other accessories for signs of damage frequently. If any part of the device is damaged, refrain from flying until maintenance can be carried out.

-4-

# < PACKAGE CONTENTS >

No.	Part Name	Picture	Oty.
1	Drone		1
2	Transmitter		1
3	USB Charging Cable		1
4	Propellers	0000	4
5	Screwdriver		1
6	Spare Mats	8888	4
7	Propeller Spanner		1
8	Instructions For Use	O mac transfer for the table of the table of tab	1

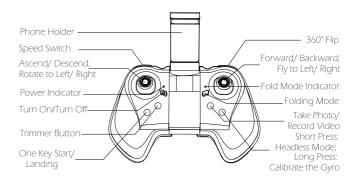
# < DRONE'S DETAILS >



# < TRANSMITTER FUNCTIONS >

# Mode 2:

Left hand throttle MODE 2 will be default setting.

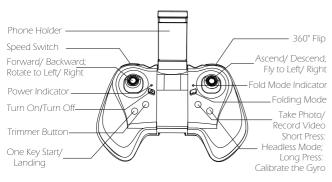


## < TRANSMITTER FUNCTIONS >

# Mode 1:

To enter MODE 1, turn on the transmitter while holding the "Speed Switch" button on the transmitter.

(Please do not release the "Speed Switch" button until the transmitter is powered on.)



#### < MARK INTRODUCTION >



The direction of " " mark is the head of the drone.



The direction of " " mark is the head of the drone.

# < BATTERY REMOVAL/ INSTALLATION >

# **Drone Battery**



Push the drone battery into the battery compartment to complete the installation; then push the drone battery back to remove the battery.

# **Transmitter Battery**



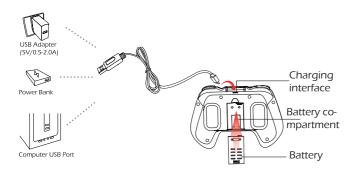
Push the transmitter battery into the battery compartment to complete the installation; then push the transmitter battery back to remove the battery.

Since the power consumption of the transmitter battery is lower than that of the drone, when the drone battery is low in flight, the battery on the drone and the transmitter can be swapped and continue to be used.

-8-

## < CHARGE THE BATTERY >

To ensure flight, please fully charge the batteries separately before each flight.



1.Insert the battery into the battery compartment.

- 2. Connect USB charging cable and transmitter charging interface.
- 3. Plug the USB charging cable in to a USB charging port on the computer, power bank or USB adapter.(5V @ 0.5 to 2.0A)
- 4. The red indicator light on the transmitter will turn on when the battery is under charging; and will turn off when the battery is fully charged.
- 5. When the drone/transmitter battery is low, the LED indicator lights on the drone or the power indicator of the transmitter will be blinking, and the transmitter will continue to send a "beep" alarm.

Before charging, please check the contents of the battery use section of the safety instructions carefully to avoid unnecessary losses!

#### < FLIGHT MODE INTRODUCTION >

This drone has a "Wing Flight" mode and a "Folding Flight" mode. The head orientation is not the same in both modes.

# "Wing Flight" Mode





After pairing, the LED indicator lights on the drone will be solid. The indicator light on both sides of the head is blue, and the indicator light on both sides of the tail is white.

# "Folding Flight" Mode





After folding the drone and pairing, press the Folding Mode button, and the fold mode indicator on the transmitter lights up. The two blue lights of the drone are reduced by one. At this time, the position of the blue light is the head. Press the same button again to exit the folding mode. The indicator lights is restored to two blue lights and two white lights.

-11-

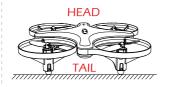
#### < FLIGHT >

All of the following operations on this manual takes MODE 2 and "Folding Flight" mode for example.

#### 1. Pair the Drone



① Touch the LOGO on the drone to turn it on.



② Place the drone on a flat and level surface with the head forward and the tail towards the pilot.



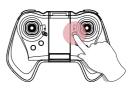
3 Power on the transmitter.



④ Push the left joystick up then down to pair the drone with the transmitter. The LED indicator lights on the drone will turn solid if the drone is paired successfully.

#### < FLIGHT >

# 2. Start "Folding Mode"



After pairing, press the Folding Mode button to start the "Folding Flight" mode, and the fold mode indicator on the transmitter lights up.

If the wing of the drone is in an unfolded state, it is not necessary to perform this step in the "Wing Flight" mode!

# 3. Calibrate the Gyro



Long press the Headless Mode button on the transmitter to calibrate the gyro. The LED lights on the drone will blink quickly and turn solid. When you hear a long beep from the transmitter that indicates the calibration is completed.

## < FLIGHT >

# 4. One Key Start/Landing



After pairing/calibration, press the One Key Start button, the propellers will start spinning, indicating this drone is ready to fly. Push the left joystick up and the drone will take off to a height of about 4.27 feet from the ground, and you can control this drone by using the joysticks. Press the One Key Landing button again, the drone will land by itself.

# 5. Flight Control



Throttle(Left) Joystick







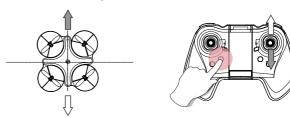
Turn Left

Turn Right

Direction(Right) Joystick

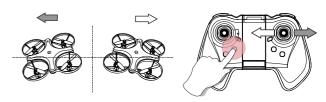
#### < TRIMMER >

# F/B Sideward Fly Trim



If the drone drifts forward, press the trimmer button and push the right joystick down at the same time to re-balance the drone; if the drone drifts backward, press the trimmer button and push the right joystick up at the same time to re-balance the drone.

# L/R Sideward Fly Trim



If the drone drifts left, press the trimmer button and push the right joystick right at the same time to re-balance the drone; if the drone drifts to right, press the trimmer button and push the right joystick left at the same time to re-balance the drone.

(When you hear one long beep from the transmitter that indicates the drone is adjusted to balance.)

## < EMERGENCY STOP >

The Emergency Stop function can be only used in case of emergency during the flight to avoid any of damage or injury.



Press the upper left and upper right button of the transmitter at the same time, the motors will stop immediately.

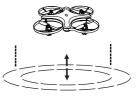
#### <SPEED SWITCH>



This drone comes with 4 speed modes (Low/ Medium/ High/ Expert). Press the Speed Switch button on the upper left of the transmitter to switch the speed. Increase or decrease one speed at a time. "Di" indicates Low speed; "DiDiDi" indicates Medium speed; "DiDiDiDi" indicates High speed; and "DiDiDiDi" indicates Expert speed.

(The Low Speed is default speed mode.)

#### < ALTITUDE-HOLD FUNCTION >



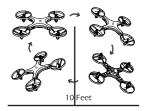
The drone is designed with altitude-hold function, so the drone can maintain its altitude after you release the left stick( the left stick will automatically spring back to the middle).

#### < 360° FLIP >



• This function can only be performed in "Wing Flight" model





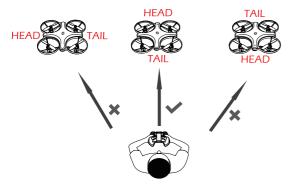
When you get familiar with all the functions of the drone, you can try this amazing flip mode. When you fly the drone at least 10 feet, press the 360° Flip button on the upper right of the transmitter, then push the right joystick Forward/ Backward or Left/ Right, and the drone will do a flip towards the corresponding direction. If you are in MODE 1, push the right joystick Left/ Right. or push the left joystick Forward/ Backward, and the drone will do a filp towards the corresponding direction.

#### Tips:

This function will perform better when the battery is fully charged.

#### < HEADLESS MODE >

- 1. After pairing/calibration, or during the flight of the drone, press the Headless Mode button on the transmitter. A beep will be heard from the transmitter, and the lights on the drone will keep blinking. The transmitter will beep constantly to indicate that drone is in Headless Mode.
- 2. Press the Headless Mode button again, and you will hear 2 beeps, the LED indicator lights on the drone will be solid which indicates the drone exits the Headless Mode.



Please make sure the pilot to stay in the same orientation as the drone head faces when the drone takes off.

Under Headless Mode, the forward direction is the direction that the head of drone faces when the drone takes off. In order to make sure the pilot can tell drone's direction, we recommend that pilots to stay in the same orientation as the drone head faces when the drone takes off. If so, when the pilot pushes the direction joystick forward, the drone will fly forward. If the pilot pushes the direction joystick backward, the drone will fly towards him/her. If the pilot move the right stick left/right, the drone will move left/right relative to you.

## < FPV REAL-TIME FUNCTIONS >



This function is limited to model number: HS220!!

#### 1. Download and Install APP

This drone is equipped with FPV real-time camera function as well as gravity sensor control function. Please scan the QR code below to download the "HS Cross "App to use these functions.





iOS

Android

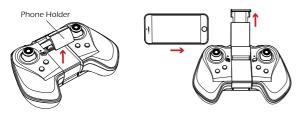
#### 2. Wi-Fi Connection

Power on your drone, then go into your phone settings, select Wi-Fi, and then connect to "HolyStoneFPV\_\*\*\*\*", which is the camera connection. Once you have successfully connected, exit the settings menu on your phone and open the "HS Cross "App to see real-time image from camera.

-18--19-

#### < FPV REAL-TIME FUNCTIONS >

#### 3. Use the Phone Holder



As shown above, open the phone holder and put the phone. Then you can use the FPV real-time transmission function.

## Tips:

Applicable Phone Models: iOS 8.0 or above / Android 4.3 or above.

# 4. Take Photo/ Video

# (Please expand the wings before taking the photo/video.)

- ① Take Photo: Short press the photo/ video button on the transmitter, or if you prefer, tap the photograph icon on the application to take pictures. When one beep is heard from the transmitter, this indicates the camera has successfully taken a picture!
- **②** Record Video: Long press the photo/ video button on the transmitter, or tap the video icon on the app. Two beeps from the transmitter will be heard. This tells you that the camera has started recording video. By pressing the video button or tapping the icon again, one long beep from the transmitter indicates the video and captured pictures will be automatically saved to be apps media library and mobile phone gallery at the same time.

#### < SPECIFICATION >

#### DRONE

Model: HS220

Weight: 80.8g/ 2.85oz (with battery)

Flight Time: 7~9minutes

Flying Speed: 3 M/S

Motor Model: 8620

Operating Temperature Range: 32° to 104°F (0° to 40°C)

Dimensions: 196 x 196 x 38mm (spread wing status)

#### FLIGHT BATTERY

Capacity: 750mAh

Voltage: 3.7 V

Battery Type: Li-Po Battery

Energy: 2.775Wh

Net Weight: 20.6g/0.72oz

Charging Temperature Range: 41° to 104°F (5° to 40°C)

Charging Time: 150 minutes (depends on charging power and remaining

battery power)

## < SPECIFICATION >

#### **TRANSMITTER**

Operating Frequency: 2.4 GHz

Transmission Distance: 40-60 m (outdoors and unobstructed)

Operating Temperature Range: 32° to 104°F (0° to 40°C)

Battery: Li-Po Battery 3.7V / 750mAh

Charging Method USB (5V): USB charging cable (Micro-USB)

#### CAMERA

Lens Angle: 60°

Video/Photo Resolution: HD1280x720p Image Return Distance: 35~50 meters

Transmission frame rate: 30 fps

Photo: JPEG

Video: AVI

Operating Temperature Range: 32° to 104°F (0° to 40°C)

#### **USB CHARGING CABLE**

Voltage: 5 V

Rated Power: ≤10 W

## < TROUBLE SHOOTING >

PROBLEM	REASON	SOLUTION	
The indication lights of the drone are flashing and does not respond to the transmitter.	1.Communication between the drone and transmitter is not correct. 2.Battery power is low.	Refer to the preparation for flight and pair again. Recharge the battery.	
The propellers spin but the drone is unable to take off.	The propellers are assembled in wrong orientation. The propellers are distorted.	Replace the propellers according to the motors. Replace the propellers	
The drone shakes hardly in flight.	The propellers are distorted.	Replace the propellers	
The drone becomes out of control after crashing.	Gyro sensor lose it's balanc- e after crashing.	Put the drone on a level surf- ace for 5-10 seconds, and re- calibrate the gyro.	

#### < CONTACT US >

Please do not hesitate to contact us if you need further support.



usa@holystone.com (USA) eu@holystone.com (EU) ca@holystone.com (CA) jp@holystone.com (JP)



1(855) 888-6699

#### < GENERAL INFORMATION >

#### ECC Notice:

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.

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 limitsare 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.

#### < GENERAL INFORMATION >

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

#### RF Exposure

The equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.

#### IC Notice:

This device complies with Canada Industry licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) this device may not cause interference; and
- (2) this device must accept any interference. Including interference that may cause undesired operation of the device.

#### CAN ICES-3 (B)

Avis d'Industrie Canada

Le présent appareil est conforme aux CNR d'industrie Canada applicables aux appareils radio exem pts de licence L'exploitation est autorisée aux deux conditions suivantes:

- 1) l'appareil ne doit pas produire de brouillage; et
- 2) l'utillsateur de l'appareil doit accepterbrouillage radioélectrique subi meme si le brouillage est susceptible d'encompromettre le fonctionnement. mauvais fonctionnement de l'appareil. Cet appareil

#### < GENERAL INFORMATION >

numériquie de la classe B est conforme à la norme NMB-003 du Canada.

#### CAN NMB-3 (B)

RF Exposure

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

#### Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre lasource de rayonnement et votre corps.

#### HOW TO RECYCLE THIS PRODUCT

This symbol on the product or its documentation indicates that it must not be disposed of with household waste.

Uncontrolled waste disposal may harm the environment or human health.

Please separate your device from other types of waste to recycle it responsibly.

This will help to foster the sustainable re-use of material resources.

#### < GENERAL INFORMATION >

We invite you to contact your retailer or inquire at your local town hallto find out where and how the drone can be recycled.

#### BATTERY WARNING:

- 1. Failure to follow all the instructions may result in serious injury, irreparable damage to the battery and may cause a fire, smoke or explosion.
- 2. Always check the battery's condition before charging or using it.
- 3. Replace the battery if it has been dropped, or in case of odour, overheating, discolouration, deformation or leakage.
- 4. Never use anything other than the approval LiPo charger the battery. Always use a balancing charger for LiPo cells or a LiPo cell balancer. It is recommended that you do not to use any other charger than the one provided with the product.
- 5. The battery temperature must never exceed  $60^{\circ}$ C(140°F) otherwise the battery could be damaged or ignite.
- 6. Never charger on a flammable surface, near flammable products or inside a vehicle(perferably place the battery in a non-flammable and nonconductive container).
- 7. Never leave the battery unattended during the charging process. Never disassemble or modify the housing's wiring, or puncture the cells. Always ensure that the charger output voltage corresponds to the voltage of the battery. Do not short circuit the batteries.
- 8. Never expose the LiPo battery to moisture or direct sunlight, or store it in a place where temperatures could exceed 60°C(car in the sun, for example).

-26-

## < GENERAL INFORMATION >

- 9. Always keep it out of reach of children.
- 10. Improper battery use may result in a fire, explosion or other hazard.
- 11. Non-rechargeable batteries are not to be recharged. Rechargeable batteries are only to be charged under adult supervision.
- 12. Different types of batteries or new and used batteries are not to be mixed
- 13. Batteries are to be inserted with the correct polarity.
- 14. The supply terminals are not to be short-circuited. Regular examination of transformer or battery charger for any damage to their cord, plug, enclosure and other parts and they must not be used until the damage has been repaired.
- 15. The packaging has to be kept since it contains important information.
- 16. The toy is only to be connected to Class II equipment bearing the symbol.

EU RF Power(EIRP): 22.75dBm (2404MHz ~ 2480 MHz)

#### Caution

- 1.The max operating of the EUT is 45°C, and shouldn't be lower than -1.0°C
- 2.The device complies with RF specifications when the device used at 0mm form your body.
- 3.Declaration of Conformity.

#### < GENERAL INFORMATION >

We, Xiamen Huoshiquan Import & Export CO., LTD

hereby, declare that the essential requirements compliance with the Directive 2014/53/EU, the RoHS Directive 2011/65/EU and Safety Directive 2009/48/EC have been fully fulfilled on our product with indication below:

Product Name: Remote control four axis series

Model/Mark: HS220/HOLYSTONE

The Statement of compliance is available at the following address: http://www.holystone.com/docs/HS220\_EU\_DOC.pdf

This product can be used across EU member states.

#### MANUFACTURER INFORMATION

Manufactured by

Xiamen Huoshiquan Import & Export CO., LTD Room 703,No. 813-2 Xiahe Road, Siming District, XIAMEN, China +1(855) 888-6699



-28-