



14+

## S-SERIES

Transmission Quad-copter



S20W [GPS]



S30W [GPS]

In order to make sure that it meets the requirement of the electromagnetic environment of the aviation radio station, flying within the scope of 10 kilometers on each side by taking the airport runway center line as the middle line is HIGHLY FORBIDDEN or flying within the scope of 20 kilometers by taking both ends of the runway as the center) is HIGHLY FORBIDDEN. Flying on the route of the airline is also PROHIBITED. Stop using all kinds of flying models or unmanned Quad-rotors in the AREA that prohibited by related authority or department of our country.

### INTRODUCTION

Thank you for purchasing the SJ-Series GPS Drone. Please read all instructions and warnings carefully before operating. Please also keep this instruction manual for future reference and maintenance.

#### IMPORTANT:

- This product is not a toy. It is a precision device; integrating machinery and electronics with air mechanics and high frequency transmission. It requires correct assembly and debugging to avoid any accident. The user should operate and control this product in a safe manner. In case of incorrect operation, it may cause serious injury or damage property. It can also be lost due to incorrect operation.
- This product is suitable for experienced UAV pilots no less than 14 years of age.
- In the event of a problem during using, operating, or maintenance, please contact the local sales agent or retailer or keep in touch with the responsible staff of our company.

#### SAFETY PRECAUTIONS:

This R/C flying model can be dangerous when in use, please make sure you keep it far away from any persons or spectators when flying. In-correct installation, poor conditions, or users not familiar with operation may cause damage to the aircraft or injure people or may cause an unexpected accident. Please pay close attention to flying safety and learn to recognize more dangerous conditions which may cause an accident due to your own negligence.

- Keep it far away from any structures or crowds. This R/C aircraft may vary slightly in speed or sensitivity while flying and can cause potential danger. Therefore, please keep it far away from crowds, buildings, trees, structures, high-voltage wire, etc. Please also avoid flying in adverse weather conditions such as rain, electrical storms, and high winds to ensure safety of the user, any spectators, and surrounding property.
- Keep it away from any moist environment. The inside of the aircraft is composed of many precision electronic and mechanical parts. Therefore, please try to avoid any moisture or water content from entering the main body of the aircraft as it may cause a breakdown of the mechanical and electronic parts and thus cause an accident.
- Only operate with included parts for intended use. Please use the original parts made by SJ-Series for any re-equipping or maintenance to ensure flying safety. Please operate and use only under the scope of the product function permitted. Using un-approved parts will void warranty.

DO NOT use for any illegal purpose or use beyond the scope of which your local laws and regulations have stipulated.

### WARNING

- There is important information contained in this package and instruction manual, please keep it for future reference.
- You have the responsibility to make sure that this model of aircraft won't cause injury to others' body or cause any damage to property.
- Please operate strictly as shown on the instruction manual when debugging or assembling this aircraft. During the process of flying or landing, please pay more attention to keep 1-2 meters between the user and the aircraft to avoid colliding to the head or face or body, which may cause injury.
- Our company and distributors won't be responsible for any incorrect operation, which may cause loss or damage or injury to the body.
- Children ages 14 and up should use this product under the guidance of an adult. This product is FORBIDDEN to be used by children under 14 years old.
- Please correctly assemble and use this product as shown on the instruction manual or packing instruction. Some parts should be assembled by an adult.
- Small parts are included with this product. Please place it beyond the reach of the children to avoid a CHOKING HAZARD or parts being mistakenly swallowed.
- Playing on the road or near high traffic areas is strictly FORBIDDEN so as not to cause an accident.
- Please dispose of the packing material timely so as not to cause injury to children.
- Please DO NOT disassemble or re-equip the aircraft as it may cause a breakdown of the aircraft during flying.
- Batteries in the battery compartment of the charger should be inserted into the designated power source which has the same logo as the product.
- Built-in rechargeable 3.7V lithium polymer battery included in the transmitter.
- Only the original charger made from our factory can be used.
- Charger is not a toy.
- When charging the battery, please conduct it under the surveillance of an adult. Please also keep it far away from any combustible object when charging. Please keep this aircraft within eyesight when charging.
- Please DO NOT make it short-circuited or squeeze the battery so as not to cause an explosion.
- DO NOT mix the Li-ion battery with a different type of battery.
- Intelligent lithium battery is loaded in the Quad-rotor. Both built-in or external can be used for charging.
- Please DO NOT make the battery short-circuited or decompose the battery or throw the battery into the fire. DO NOT place the batteries near the high temperature or heated area (such as near the fire or near the electric heating device).

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.
- Please note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

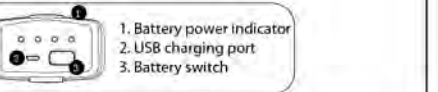
### MAINTENANCE

- Use a clean soft cloth to clean this product frequently.
- Avoid heating or prolonged exposure to the sun.
- Don't put the product in water. It will damage electronic parts.
- Please check the plug and other accessories at regular intervals. If there is any damage, please stop using it immediately until it is repaired completely.

### DRONE PARTS



- HD Camera
- Landing Rack
- Blade
- Motor
- LED indicator



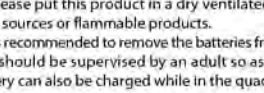
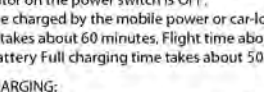
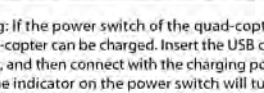
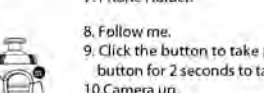
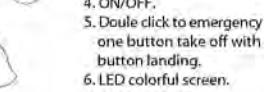
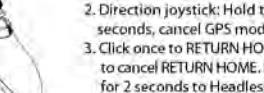
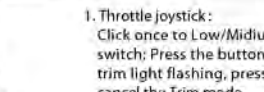
- Battery power indicator
- USB charging port
- Battery switch

### QUADROTOR LI-POLYMER



Press the battery shortly to switch on, hold for 2 seconds to switch it off.

### REMOTE CONTROL



- Throttle joystick: Click once to Low/Medium/High speed switch; Press the button to Trim mode, trim light flashing, press the button to cancel the Trim mode.
- Direction joystick: Hold the button for 2 seconds, cancel GPS mode.
- Click once to RETURN HOME; Click again to cancel RETURN HOME. Hold the button for 2 seconds to Headless mode.
- ON/OFF.
- Double click to emergency stop/Click once one button take off with auto hover, one button landing.
- LED colorful screen.
- Phone Holder.
- Follow me.
- Click the button to take photo/Hold the button for 2 seconds to take video.
- Camera up.
- Camera down.
- USB charging port.

### LITHIUM BATTERY CHARGING INSTRUCTIONS

- Balanced charging: If the power switch of the quad-copter is on the state ON/OFF, The Quad-copter can be charged. Insert the USB cable into the USB port of a computer, and then connect with the charging port of the drone. When charging, the indicator on the power switch will turn red; when fully charged, the indicator on the power switch is OFF.
- Quad-copter can be charged by the mobile power or car-loaded power.
- Full charging time takes about 60 minutes. Flight time about 8 minutes.
- Remote lithium battery full charging time takes about 50 minutes.

#### CAUTIONS WHEN CHARGING:

- When charging, please put this product in a dry ventilated area and keep it far away from heat sources or flammable products.
- When charging, it is recommended to remove the batteries from the quadcopter. Charging process should be supervised by an adult so as not to cause an accident. The battery can also be charged while in the quadcopter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

### KEY FEATURES OF QUADCOPTER

- Dual GPS positioning system
- Follow-me with camera facing you automatically
- Stable positioning hovering
- GPS one-key return
- With 9-Axis GYRO
- With Headless Mode
- With blade protector
- Control Distance: Up to 400 meters
- Video Transmission Distance: Up to 200 meters
- Flight time: about 8 mins
- Quadcopter Battery: 3.7V 1000mAh Lithium-ion battery
- Remote Battery: 3.7V mAh Lithium-ion battery

### GPS CALIBRATION (CONTINUED)

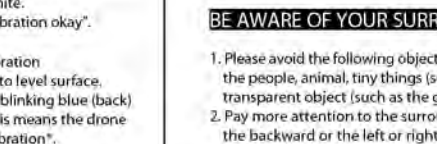
- Step 3: Reset to Factory Setting / Calibrate Gyroscope
  - Press the Joysticks into the 11 & 1 o'clock positions.
  - Lights rapid-blinking blue (back) and white (front).
  - App Drone Status: "Gyroscope is being calibrated"
  - "Gyroscope okay".
- Step 4: Initiate GPS Compass Calibration
  - Joysticks at the 1 & 11 o'clock positions.
  - Lights rapid-alternate between blue/red (back) and white/red (front).
  - App Drone Status: "Compass calibration".
- Step 5: GPS Compass Calibration Part 1
  - Keeping the drone level, pick up the drone from the back and rotate your body in one full circle (360°).
  - Back lights will turn to a solid blue.
- Step 6: GPS Compass Calibration Part 2
  - From the bottom, hold the drone face-down and rotate the your body in one full circle (360°).
  - Front lights will turn to a solid white.
  - App Drone Status: "Compass calibration okay".
- Step 7: Finalize GPS Calibration
  - Set drone back down to level surface.
  - Lights return to rapid-blinking blue (back) and white (front) — This means the drone is finalizing its GPS calibration.
  - This process can take a few minutes.
  - App Drone Status: "Waiting for GPS signal".

### PREPARATION FOR FLIGHT/GPS CALIBRATION



Please choose the spacious indoor or outside environment for flying, also it requires that it should be filed under the weather of non-snow or non-storm with wind force less than Level 4. When flying, please DO keep it far away from the crowd, tree, electric wire, skyscraper, airport or signal transmitting tower, etc.

- Step 1: Turn on drone and set down on a level surface
  - The drone will auto-trim to this level surface.
  - All lights blinking red.



Once the lights have switched to all solid, you are ready to fly!

- Blue (back) and white (front) lights are all solid (no blinking).
- App Drone Status: "Ready to fly".

### INSUFFICIENT POWER

CAUTION: When there is insufficient power, the Quadcopter will start Auto-Return. When safe return is confirmed, please DO NOT operate the transmitter any more. If it is not safe, you can push the throttle lever to raise the flying height and control the steering direction of the Quadcopter so as to fly it to the appropriate area for landing.

Please make sure the Quadcopter can return and make landing in order to prevent the Quadcopter from causing danger to other Quadcopter, people or animal after losing power.

### BE AWARE OF YOUR SURROUNDINGS

- Please avoid the following objects on the track of the Quadcopter for example, the people, animal, tiny things (such as the branch or electric wire etc.) or the transparent object (such as the glass or water).
- Pay more attention to the surrounding object of the Quadcopter (especially the backward or the left or right direction) and avoid any accident (such as colliding accident) through manual operation.
- Be ready any time for manual control the Quadcopter or click the "STOP" on the screen in case of any Emergency Condition.
- When initiating the Return Home or Follow Me functions, surrounding the Quadcopter, Be aware of your surroundings.

\* WARNING: This drone is NOT equipped with obstacle avoidance.

### PRECISION HOLD

After syncing your quadcopter, press the One-key Take-off to begin your flight. The quadcopter will liftoff and stay steadily at the current height. Push the throttle lever up and down, to increase or decrease the height accordingly. Release the throttle to set the new drone height.

### FOLLOW ME

When the Follow Me function is enabled, the drone will sync to the GPS in your smartphone to follow you wherever you go (smartphone and SJ-GPS app required, not included).

To enable Follow Me mode:

- Set drone to desired height and position. Note: make sure camera is pointed in desired direction and angle.
- Click the "Follow Me" button on the remote control or app interface.
- Wait for the SJ-GPS app Drone Status to read "Follow Me ready" — the drone will now follow the phone's coordinates.
- To disable Follow Me mode, simply click the "Follow Me" button on the remote control or app interface.

### APP INTRODUCTION

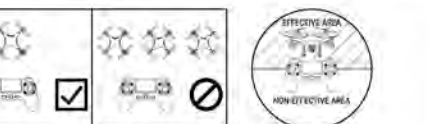
Wait until the Drone Status says "Ready to Fly" before initiating flight. This will ensure that your GPS is synced and your drone is ready to fly.

Common problems:

- "Phone signal too weak": This means that the phone's GPS signal is too weak to connect to the drone. This could be due to the signal loss from surrounding buildings, trees, or congestion from too many mobile phones in the area.
- "Use in open area and be mindful of your surroundings. Drone is NOT equipped with obstacle avoidance. SJ-Series is not responsible for damage to persons or property due to operator error, or when drone is in Follow Me mode."

### HEADLESS MODE

Please put the quadcopter in a forward-facing position. After syncing, but before take-off, press the Headless Mode button on the remote control and to enter Head-less Mode. Press it once again to exit Headless Mode.



### SOFTWARE DOWNLOAD AND INSTALLATION



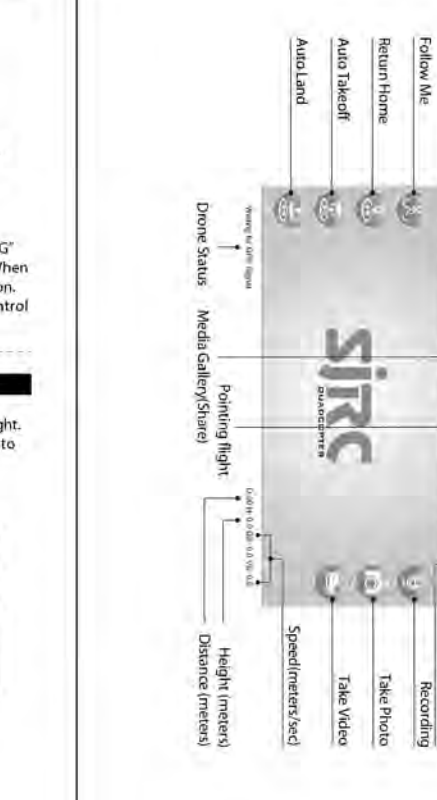
QR code of "SJ-GPS" software for Apple iOS system (Please scan this QR code to install this software).

QR code of "SJ-GPS" software for Android system (Please scan this QR code to install this software).

- Connect the power of this model, and then access into "SETTING" in the mobile phone, open the "WIFI" and find the "SJ-GPS". When the link is successfully connected, please exit the "Setting" option.
- Open "SJ-GPS" software in the mobile to access into the control interface.

### APP INTRODUCTION

Wait until the Drone Status says "Ready to Fly" before initiating flight. This will ensure that your GPS is synced and your drone is ready to fly.



### CAMERA CONFIGURATION



Insert the optional memory card (not included) into the webcam module's card channel which is on the bottom of the quad-copter, connect the quad-copter's power, and sync quadcopter and remote control. The blue indication light on the webcam module will constantly be on, and the camera is ready for photos and videos. (Memory card available separately)

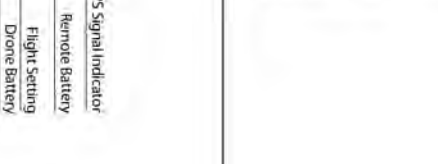
### PICTURE & VIDEO-RECORDING



When you press the power button on the remote control, the red light will flash once, that means the quad-copter is taking photo. When you press the video button, the red light turns into constant on, that means the quad-copter is taking video. Press the video button again to stop video.

NOTE: When using the SJ-GPS app, photos and videos will automatically be saved to your smartphone.

If you are using an memory card, photos and videos will automatically be saved directly to the card.



### COMMON PROBLEMS AND SOLUTIONS

| THE PROBLEM                                                          | REASON                                                                  | COUNTERMEASURES                                                                  |
|----------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Drone lights flashing and no response from the drone when operating. | 1. Remote is not synced to the drone.<br>2. Insufficient battery power. | 1. Refer to the Quick Start guide to sync the drone.<br>2. Recharge the battery. |
| The blades spin, but the drone cannot takeoff.                       | 1. Insufficient battery power.<br>2. The blades distorted.              | 1. Recharge the battery.<br>2. Replace the blades.                               |
| The quadcopter shakes heavily.                                       | The blades distorted.                                                   | Replace the blades.                                                              |
| Drone cannot stay balanced in flight.                                | 1. The blades distorted.<br>2. The motor doesn't work properly.         | 1. Replace the blades.<br>2. Replace the motor.                                  |
| Drone is unstable after crashing.                                    | Three-axis acceleration sensor loses its balance after crashing.        | Restart and re-calibrate the drone.                                              |

### PARTS LIST (Included)

