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195 Carter Drive
Edison, NJ 08817
Support: 800 592 9541
www.vivitar.com

# SKYVIEW

## FPV real-time video transmission DRONE

DRCSC42
USER'S MANUAL



## PRE-FLIGHT CHECKLIST

Before attempting to fly your drone, make sure that you have done all of the following:

- [ ] **Read and Follow All Safety Precautions**
  See page 3 of this manual for more information.
- [ ] **Charge Your Remote, Drone Battery, and Display**
  See pages 7-8 of this manual for more information.
- [ ] **Checked That the Propellers are Firmly Attached**
  See page 16 of this manual for more information.
- [ ] **Connected Your Drone with the Remote Control**
  See page 8 of this manual for more information.
- [ ] **Calibrated Your Drone's GPS**
  See pages 9-10 of this manual for more information.
- [ ] **Calibrated Your Drone's Gyroscope**
  See page 10 of this manual for more information.
- [ ] **Prepare Your Drone For Take-off**
  See page 13 of this manual for more information.

**WARNING!**
Failure to calibrate your drone before flight can lead to severe flight malfunctions and potential damage to your drone. Always fly carefully!



## FCC Compliance Statement

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

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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.

FCC Radiation Exposure Statement:
The equipment complies with FCC Radiation exposure limit set forth for uncontrolled environment. The device shall be operated and installed without restriction.

FCC Radiation Exposure Statement: (only for the Drone FCC ID:2AWZK-24115)
The equipment complies with FCC Radiation exposure limits set forth for uncontrolled environment. This equipment should be installed and operatedwith minimum distance 20cm between the radiator and your body.



## Vivitar One Year Warranty

This warranty covers the original consumer purchaser only and is not transferable.

This warranty covers products that fail to function properly UNDER NORMAL USAGE, due to defects in material or workmanship. Your product will be repaired or replaced at no charge for parts or labor for a period of one year.

**What Is Not Covered by Warranty**
Damages or malfunctions not resulting from defects in material or workmanship and damages or malfunctions from other than normal use, including but limited to, repair by unauthorized parties, tampering, modification or accident.

**To Obtain Warranty Service and Troubleshooting Information:**
Call 1-800-592-9541 in the U.S. or visit our website at www.vivitar.com.

To receive Warranty service along with the name and address of an authorized product service center, the original consumer purchaser must contact us for problem determination and service procedures. Proof of purchase in the form of a bill of sale or receipted invoice, evidencing that the product is within the applicable Warranty period, will be required. Customers will obtain the shipping service. It is approximately to properly package and send any defective products along with a dated copy of proof of purchase, a complete description of the problem, and a valid return address to the authorized service center at your expense. Do not include any other items or accessories with the defective product. Any products received by the authorized service center that are not covered by warranty will be returned unrepaired.

## 1. Introduction

Thank you for purchasing the Skyview FPV real-time video transmission drone, item DRCSC42. The included remote controlled aircraft is designed specifically for outdoor flying. In order to get the best possible results, please read this user's manual carefully before using. In addition, be sure to keep this manual in a safe place for future reference.

## IMPORTANT NOTE: FAA REGISTRATION

Owners of a drone that weighs more than 0.55 lbs. (250 g) and less than 55 lbs. (25 kg) must register their UAS online at the FAA website. https://www.faa.gov/uas/registration.

After receiving the certificate of registration, a unique FAA registration number will be provided and it must be marked on the Drone by any means, such as permanent marker, label, engraving, or other means, as long as the number is readily accessible and maintained in a condition that is readable and legible upon close visual inspection.

## 2. Features

-Photograph Resolution 4K
-Video Resolution 1080P
-17 Minutes Flight Time
-Navigates Outdoors With Built-In GPS
-Flight Range Up To 500 Feet
-Versatile Return Home
-Smart Follow Mode Via APP
-Operated by 3.7V 1500MAH Lithium Polymer Battery
-Charging Time: 150 Minutes

## 3. Package Contents

- **Sky View Drone**
- **Sky View Remote**
- **Monitor Screen**
- **Portable Drone Case**
- **3.7V 1500MAH Lipo Battery For Skyview Drone**
- **3.7V 500MAH Lipo Battery For Monitor Screen**
- **4 Propellers**
- **Type-C USB Cable**
- **Spare Screws**
- **User's Manual With Warranty Information**
- **16GB Memory Card**



## 4. Important Safety Precautions

When using your Sky View Drone, basic safety precautions should always be followed, including the following:

1. Do not allow children or the infirm to operate your drone without adult supervision. For safety purposes, only allow experienced pilots aged 14 and up fly your drone.
2. To avoid choking hazards, keep all small parts and pieces away from children.
3. Do not fly your drone in bad weather, such as in precipitation, strong winds, and operated safely.
4. Keep your drone away from obstacles, crowds, power lines, trees, and bodies of water while it is in flight. Always fly your drone in a wide-open spacious environment. Avoid flying your drone directly above people or animals. Maintain a 7ft (2m) distance from the aircraft when taking off and landing.
5. Only use your drone in a dry environment. Your drone is composed of sophisticated electronic components and parts. To avoid damage to your drone, please keep your drone away from water and moisture. Use a soft dry cloth to wipe the surface of your drone and keep it clean.
6. Beginner and novice level pilots should practice flying with experienced pilots until suitably experienced in flight.
7. Do not attempt to only use the included parts when using your drones.
8. Make sure to keep your ears and eyes protected when using your drone. When your drone's blades are spinning, make sure to keep people and objects at a distance from rotating parts.
9. Keep your drone away from excessive heat or flames, especially while charging the battery.
10. Please recycle or dispose of your drone properly based on the laws and rules of your municipality. Contact local recycling facilities and/or the manufacturer of your drone for further information.
**11. Your drone is specifically designed for outdoor flying. Do not attempt to fly your drone or calibrate it indoors.**

**BATTERY SAFETY WARNING**
-When handled incorrectly, lithium polymer batteries can be dangerous and can potentially harm and do damage to persons or property. The manufacturer of your drone does not accept any liability for damage to persons or property if the battery is not correctly charged, stored or protected:
--Always unwind all cables before charging.
--Do not over charge the battery. Once the charging process is completed, remove the battery from the charger as soon as possible.
--Only use the included or replacement Sky Tracker charging cable and batteries.
--You must charge the lithium polymer battery in a safe area away from flammable materials. --Do not charge the battery in a car or near a combustible material. Never leave charging batteries unattended. You should always remain in constant observation to monitor the charging process and react immediately to any potential problems that may occur.
--Do not charge the battery in temperatures hotter than 40°C or colder than 0°C.
--Do not cover the batteries when charging. Do not leave batteries in direct sunlight.
--After each flight and/or crash, please check the battery for any damage or swelling. If the battery is damaged, leaking, making noise, punctured or malformed in any way DO NOT attempt to use it. Please dispose of the battery immediately and safely.
--Do not bend, puncture, crush or scratch the drone's battery. Do not store batteries in your pocket, near metal objects or in a moist environment.
--After flying/discharging the battery you must allow it to cool to ambient room temperature before recharging.
--If at any time during the charge or discharge process the battery begins to balloon or swell, discontinue charging or discharging immediately. Quickly and safely disconnect the battery, then place it in a safe, open area away from flammable materials to observe it for at least 15 minutes. Continuing to charge or discharge a battery that has begun to balloon or swell can result in a fire. Any battery that has ballooned or swollen even a small amount must be removed from service completely.
--Never plug in a battery and leave it to charge unattended overnight.
--Non-compliance with the above warnings may result in the failure of the battery.



## 23. Using the LW Pro APP (CONT.)

**Change the Resolution**

On the starting menu press the icon to open up the resolution menu. In this menu you can change the resolution of videos and photos stored on the app.

NOTE: Videos and photos stored on the local memory card can not be changed.

## 23. Using the LW Pro APP (CONT.)

The Left Directional Control moves the drone up and down and turns it left and right.

The Right Directional Control moves the drone forward, backward, left and right.

**Gesture Control**

Facing the front lens of the phones camera, you can command the drone to either take pictures or record through gestures.

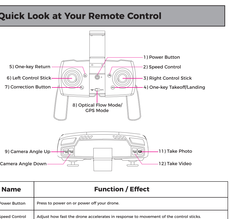
Take Photo: Make the scissors gesture as shown on the left. Make sure to do so horizontally. After the drone successfully recognizes the gesture there will be a three second countdown before a picture is taken.

Record Video: Show your palm as shown on the left. The drone will start recording. After at least three seconds repeat the gesture to stop recording. If you attempt to repeat the gesture to stop recording.

Note: The drone can not recognize gestures that occur within three seconds of another. Make sure to give at least three seconds of delay before using Gesture Control.

**MV INTERFACE MENU**

## 5. A Quick Look at Your Remote Control




| # | Name | Function / Effect |
|---|---|---|
| 1 | Power Button | Press to power on or power off your drone. |
| 2 | Speed Control | Adjust how fast the drone accelerates in response to movement of the control sticks. |
| 3 | Right Control Stick | Moves your drone forward & backward, or shifts your drone to the left and right. |
| 4 | One Key Takeoff/Landing | Press to automatically takeoff and land your drone. |
| 5 | One Key Return | Press to start the one key return function. |
| 6 | Left Control Stick | Moves your drone up and down, or turn your drone left and right. |
| 7 | Correction Button | Press to start Gyro Correction. Press and hold for Geomagnetic Correction. |
| 8 | Flight Mode Switch | Set the drone's flight mode between Optical Flow and GPS. |
| 9 | Camera Angle Up | Tilt the camera angle of the drone up. |
| 10 | Camera Angle Down | Tilt the camera angle on the drone down. |
| 11 | Photo | Press to take a photo. |
| 12 | Video | Press to start recording a video, press again to stop recording. |



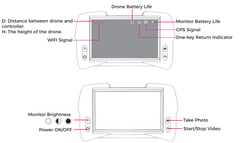
## 5. A Quick Look at Your Remote Control (Cont.)

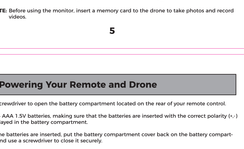
To view a direct video feed from the drone you can do one of the following two options:

Method 1:
Insert the FPV monitor onto the remote control.
See below for operation instructions.

Method 2:
Insert a smartphone onto the remote control.
See Pages 17 20 for operation instructions.

## Monitor Controls




**NOTE:** Before using the monitor, insert a memory card to the drone to take photos and record videos.



## 23. Using the LW Pro APP

**Control Interface Functions**

1) Transmission Strength
2) Optical Status
3) Satellite Indicator
4) Drone Battery Status
5) Flight Status
6)Resolution Settings Menu
7) Switch Camera
8) VR split Screen
9) Image Inversion
10) Album Menu
11) Return to Home Page
12) Optical Flow/Gps Mode Indication and Switching

14) Take a Photo
15) Record Video
16) Swap Between App and Remote Control
17) Display and Alternate Between Gear Speed
18) One Key Take Off and Landing
19) Lock One Key Functions
20) MV Interface Menu
21) Adjust Zoom Factor
22) Adjust the Drone's Cimbal Up and Down Angle

23) GPS Mode Waypoint Flight
24) GPS Mode Rotate
25) GPS Mode Smart Follow **
26) GPS Mode, One Key Return

** NOTE: When activated, the Smart Follow function will make the drone follow your smart phone's GPS location.

To activate Smart Follow Mode, press the follow button the control interface app.

NOTE: It is important that the GPS and smart phone are correctly connected to the drone.



## 21. Wi-Fi Connection

**Using Wi-Fi to Connect the Drone to Your Phone**

Press the power button on your drone to power it on.

When the drone is powered on (without the remote control powered on), the lights on the arms of the drone will flash. While these lights are flashing the WiFi signal will become available for connection.

In your Smartphone's Wi-Fi settings menu, make sure that Wi-Fi is turned on, and find and select the network named **WiFi-GPS-XXXXXX.**

## 22. LW Pro APP

**Download the LW Pro App**

Use the LW Pro app to fly your Drone.
Scan the QR Code below to download the app.

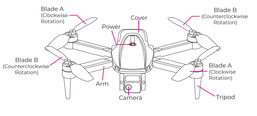
You can also download the LW Pro App app from the Apple App Store or Google Play Store.
The Android version is compatible with 8.0 and later.
The iOS version is compatible with iOS 12.0 or later.

**Note:** Your phone's WiFi needs to support IEEE 802.11 a/b/g/n/ac (5G band WLAN)



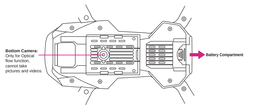
## 6. A Quick Look at Your Drone

### Top View




**Note:** When replacing the rotor blades, the A/B labels should correspond to the diagram above.

### Battery Compartment





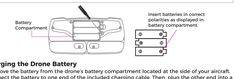

## 7. Powering Your Remote and Drone

Use a screwdriver to open the battery compartment located on the rear of your remote control.

Insert 5 AAA 1.5V batteries, making sure that the batteries are inserted with the correct polarity (+,-) as displayed in the battery compartment.

Once the batteries are inserted, put the battery compartment cover back on the battery compartment and use a screwdriver to close it securely.

-Do not mix rechargeable and non-rechargeable batteries.
-Do not mix old and new batteries or different types of batteries.
-Remove exhausted batteries and dispose of them based on the rules of your local municipality.
-Remove the batteries from your remote control if it will not be in use for an extended period of time.




**Charging the Drone Battery**
-Remove the battery from the drone's battery compartment located at the side of your aircraft.
-Connect the battery to one end of the included charging cable. Then, plug the other end into a USB charging adapter (not included).
-The battery will light up red while charging. When fully charged, the battery will light up green.
-Insert the battery into the drone's battery socket. Close the battery compartment.

The charging time for the drone battery is approximately 150 minutes.

**WARNING:**
1. The charging plug can overheat if overcharged. If this occurs unplug the charger immediately to avoid damaging the battery.
2. Do not leave the battery unattended when charging.
3. Do not use other chargers other than the one supplied.
4. Wait at least 30 minutes after using your drone before charging the battery. The battery's temperature can become elevated during use and charging it immediately could damage the battery.
5. Remove the drone's battery when the drone is not in use. Store it in a cool dry place.
6. Do not leave the battery exposed to excessive heat, flame or fire.
7. Do not short circuit the battery. Do not leave the battery in contact with any metal parts.



## 20. Propeller Blade Installation

If your rotor blades become damaged or the drone is no longer flying straight the rotor-blades may need to be replaced. To replace the rotor blades please follow the directions below.

1. Remove the motor cap and the screw securing the rotor blade, and lift the blade off taking note whether the blade that is being replaced is an 'A' blade or a 'B' blade.

2. Push the replacement blade onto the stem making sure that the screw holes align and the replacement rotor blade is the same ('A' or 'B') as the original rotor blade.

3. Once the rotor blade is in position replace the securing screw.



## 18. Emergency Landing

When the drone battery is low, its LED lights will slowly flash. Meanwhile, beep-beep sound will be issued from the remote control. You should immediately fly the drone back to your location when the battery is low. Otherwise, the drone will begin flying automatically towards the take-off point and slowly lower itself to the ground.

The drone may not respond to commands from remote controller when drone battery is extremely low.

**CONTROLLER ALERTS**
When the remote control battery is low, it will emit a slow series of beeps, signaling that the batteries need to be replaced.

**PLEASE NOTE:** Do not ignore low-power warnings. Doing so may result in unplanned landings.

## 19. Environmental Caution

When operating your drone in certain environments, certain features, such as hovering mode, may be limited or unstable, making it difficult for the aircraft to fly smoothly.

Avoid operating your aircraft in the following environments:






## 8. Charging Your Remote's Monitor

Connect the FPV monitor to the included USB charging cable. Plug the other end of the charging cable into a USB charging adapter (not included).

While charging, a red light will shine on the monitor. When charging is complete, the light will turn off.

The charging time for the monitor is approximately 60 minutes.

## 9. Connecting Your Drone & Remote

To connect your drone to the remote controller, press the Power ON/OFF button located at the top of the drone. The lights on the drone will flash quickly, indicating that the drone is powered on.

-Press the Power ON/OFF button located at the front of the remote control. Once the light emitting from the light indicator on your remote control is steady, the lights at the front of the drone will stabilize while the rear lights will continue to flash to indicate a successful connection.

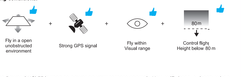




## 10. Calibrating Your Drone (Preparing for Flight)

Before preparing your drone for flight, first make sure that you have a suitable environment for flight. Avoid flying in rain or snow, or in windy conditions. Stay away from people, trees, power lines, tall buildings, airports and signal towers. **Your drone is specifically designed for outdoor flying. Do not attempt to fly your drone or calibrate it indoors.**

**Ideal flying conditions:**




Press the Power ON/OFF button to power on your remote control. You will hear a beep when it powers on. To power on your drone, press and hold the power button. The LED light on the drone flashes rapidly. Once your drone and remote control are powered on, follow the calibration steps on the next page to prepare your drone for flight.

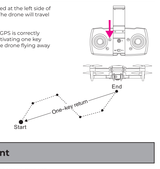
Distance to use is more than 20 cm.



## 15. One Key Return

Press the One-key Return button located at the left side of your controller to start a return flight. The drone will travel back and land on the take-off point.

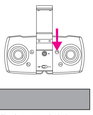
PLEASE NOTE: It is important that the GPS is correctly calibrated before launch and before activating one key return. Failing to do so may result in the drone flying away when one key return is attempted.




## 16. Speed Adjustment

Your drone has three speed modes: high speed, medium speed and low speed.
To switch between speed modes, press the speed button.
Each mode will be identifiable by a series of beeps.

Low Speed Mode: One Beep
Medium Speed Mode: Two Beeps
High Speed Mode: Three Beeps



## 17. Motor Lockdown

When the rotor-blades are stopped by an obstacle the motors will go into a protective lock down mode.

To unlock the motors make sure the rotor-blades are clear from debris and put the drone back on the ground. Once you are ready to fly again please unlock the drone and the motors will release.



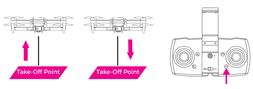
## 14. Take-off & Landing

**Manual Take-Off**
Once the remote is paired and your drone is calibrated, the drone will automatically search for a GPS signal. Once sufficient GPS connection is achieved, the lights on the aircraft will flash. Push the left throttle stick to the bottom left and push the right direction stick to the bottom right simultaneously (. . . ). The blades will start to rotate. Push the throttle up, the aircraft will begin to take off.

**One Key Take-off and Landing**

For easy take-off, press the One Key Take-off button on the controller. The drone will automatically hover above the ground. Move your left control stick up, and the drone will fly up.

By pressing the One Key Landing button, your drone will automatically land on the ground.




**NOTE:** Make sure your drone is properly calibrated before attempting to fly.



## 11. Geomagnetic Calibration

The drone's geomagnetic calibration allows it to be tracked over GPS. Before starting, ensure your drone is placed on a flat, stable surface.

-To begin the geomagnetic calibration process, press and hold the correction button at the bottom left of your controller. Your drone's front and rear lights will start to flash.

**Note:** When in GPS mode, please make sure to go through the geomagnetic calibration process each time you fly your drone (once the drone is turned on)

-Rotate your drone horizontally, spinning it in a clockwise direction continuously until you hear a beep from the remote control.

-Turn the head of your drone downwards and rotate it clockwise vertically, spinning it continuously until you hear beep beep from the remote control. Calibration is complete. After several seconds, once the drone locates a GPS signal, the rear lights will stop flashing and shine steadily.

**WARNING**
-When flying your drone in GPS mode, make sure you are in a wide-open space.
-Do not calibrate your drone in areas with strong magnetic fields.
-Do not carry ferromagnetic materials such as keys or cell phones when calibrating.
-Do not calibrate near large sheets of metal.

**Calibrating Your Drone's Internal Gyroscope**

Calibrate your drone's internal gyroscope to ensure smooth and balanced flight. Before starting, ensure your drone is placed on a flat, stable surface.

-Press the Correction button. Calibration is successful when lights from the drone persistently flash.

Note: If your drone takes off and flies without a corresponding remote control command, you may need to retry calibrating the gyroscope.





## 12. Flight Modes

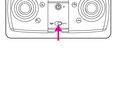
**Outdoor Flight: GPS Mode**
After successfully connecting to the remote controller and taking your drone to an open outdoor field, switch the flight mode to GPS mode. Your drone's rear lights will slowly flash while it searches for GPS signal. Establishing a connection can take a few minutes. When a GPS signal is obtained, the rear lights will stabilize.

If the drone lights slowly flash, there is a GPS signal interference due to obstructing objects in the current flying environment. To remedy this, relocate your drone to an environment where it can fly unobstructed.

**Indoor and Closed Spaces Flight: Optical Flow Mode**
When flying your drone indoors or in closed spaces, set the flight mode switch to optical flow mode. When you hear two beeps from the remote controller, the aircraft has entered indoor optical flow mode.

To re-enter GPS mode for outdoor flight, set the flight mode switch to GPS Mode. The remote controller will emit a single beep to indicate that the aircraft has entered outdoor GPS mode.

**Flight Mode Switch**
Left Side: Optical Flow Mode
Right Side: GPS Mode



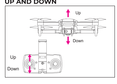


## 13. Flying Your Drone

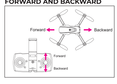
**Pre-Flight Preparation**
If you have never used a drone before and you are not an experienced pilot, make sure to read these instructions carefully before flying and get familiar with all of the controls. If necessary, read through these instructions many times and practice handling the remote control until you feel completely comfortable and ready.

1. Place your drone in a clear, open field. Make sure that it is resting on a secure, flat surface.
2. Practice using the throttle stick and the directional control stick (see below).
3. By simulating the use of the remote and both sticks, you will grow more comfortable with the natural motions required during flight and you will learn to react more rapidly to unexpected circumstances.

**UP AND DOWN**




**FORWARD AND BACKWARD**




**LEFT AND RIGHT TURN**

**LEFT AND RIGHT SHIFT**

**ALTITUDE HOLD**
Altitude hold works while you are flying your drone. It helps the drone hover and maintain a constant height, making aerial photography easy.

To implement altitude hold, allow the left control stick to fall back to its default middle position while flying, and the drone will balance itself to hold its altitude.