CONTIXO®

14+ for age

— F24/F24 Pro DRONE INSTRUCTION MANUAL —

PREFACE:

Thank you for Purchasing the Contixo F24 RC Drone

The Contixo F24 Drone is a quadcopter that's purposely built for drone application developers to enable you to get your applications airborne quickly.

This Development platform is intended to be modified by developers according to their professional judgment. Contixo has not established operation limitations for the kit or tested any configurations other than the base configuration that is shipped as configured default from the factory. Developers are responsible for testing and ensuring the safety of their own configuration, and establishing the operating limits of those configurations.

F24 Drone is designed and engineered by Contixo, Inc. in Southern California, USA. Made in China.

IMPORTANT:

Never allow children or young teenagers to operate the drone and keep them away while it is operating. Never allow adults to operate the drone without fully understanding the instructions.

SAFETY PRECAUTIONS:

Safety: F24 drone was designed and manufactured with safety in mind. Your safety also depends on proper training and thoughtful operation. Do not set up, operate, maintain, or repair the drone without reading and understanding this manual and the labels on the unit.

Owner Responsibility: In order to maintain your drone properly and to ensure operator safety, it is the responsibility of the drone owner to read and follow these instructions:

Follow all setup, operation, and maintenance instructions.

Read and follow all safety instructions. Keep them readily available for operators.

Make sure all operators are properly trained, know how to safely operate, and are properly supervised.

Do not operate the drone until you are certain that all parts are in place and operating correctly.

Carefully inspect the drone on a regular basis and perform all maintenance as required.

Service and maintain the drone only with approved replacement parts.

Keep all instructions permanently with the product.

Only use this product if it can be used safely!

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. If not installed and used in accordance with the instructions, the equipment may cause harmful interference to radio communications.

• However, there is no guarantee that interference will not occur in a particular installation. If your 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:

• Adjust or relocate the receiving antenna.
• Increase the distance 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.

WARNING: PRODUCT SHOULD ONLY BE USED BY ADULTS AND CHILDREN 14 YEARS AND OLDER. ADULT SUPERVISION REQUIRED FOR CHILDREN UNDER 14 YEARS OF AGE.

WARNING: CHARGING OF THE DRONE BATTERY MUST BE SUPERVISED AT ALL TIMES BY AN ADULT. UNPLUG THE BATTERY WHEN FULLY CHARGED. DO NOT OVER-CHARGE THE BATTERY.

Flight Safety

Fly in Open Areas	Strong GPS Signal	Maintain Line of Sight	Fly Below 400 feet (120 m)

Avoid flying over or near obstacles, crowds, high voltage power lines, trees, airports or 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 wind speeds exceeding 10 m/s or 22 mph.

Stay away from the rotating propellers and motors.

No Fly Zone

It's important to understand basic flight guidelines, for the safety of both you and those around you. Don't forget to read the safety guidelines before flight.

Remote Control Functions

1. Throttle Stick
2. Direction Stick
3. 1-Key Return-To-Home
4. Power Button:
   ON – Click Once, White Light Comes ON
   OFF – Click Once, Then Hold 2 Seconds Until White Light Turns Off
   When there is no operation in 10 minutes, the remote controller will be automatically powered off.

5. 1-Key Headless Mode
   (Hold the button for 3 seconds to turn off GPS mode)
6. 1-Key Takeoff with Auto-Hover; 1-Key Landing
   (Hold the button for 3 seconds for Emergency Stop)
7. 1-Key Photo Capture; Hold 3 Seconds to Enter Trim Mode
   (Note: No need to trim under the GPS mode)
8. 1-Key Video Recording; Click Again to Stop Video
9. Adjust the Speed –
   Scroll Right: + Speed
   Scroll Left:- Speed
10. Adjust the Camera Angle –
    Scroll Right: Camera Down
    Scroll Left: Camera Up
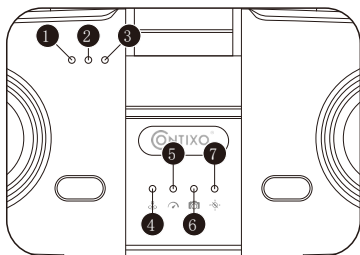
1. Full Charge: Green Light
2. Charging: Red Light
3. Power On: White Light
4. Indicates Returning To Home
5. Speed
6. Photo/Video
7. Headless Mode/Trim

Figure 1.
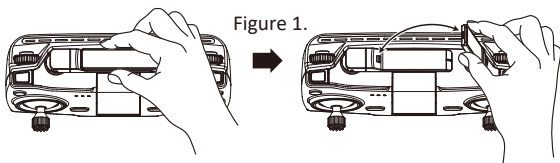
There is a snap lock on the antenna, please follow PIC.1 to open the antenna.

Drone Diagram

1. HD Camera
2. Propeller
3. Propeller Motor
4. LED Indicator
5. Intelligent Battery

①. Drone Unfold

    Unfold the front arm first, then unfold the back arm.
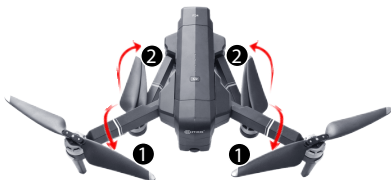
②. Drone Fold

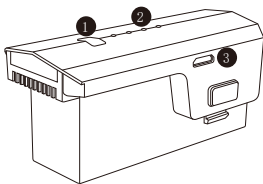   Fold the back arm first, then fold the front arm.
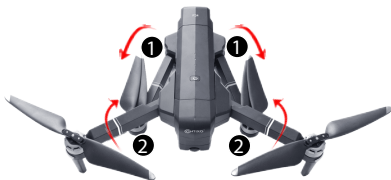
1. Install the Propellers

Tip! Both the propellers and motors are marked with A, B (propeller A with motor A and propeller B with motor B.

A   B

B   A
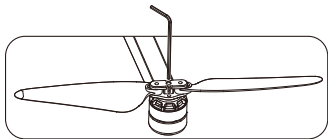
2. Intelligent Flight Battery

Low ← Electricity → High

1. Power Button
2. Battery Power Indicator
3. USB Charging Port

— To power ON, hold the button for 3 seconds. To power OFF, hold the button for 3 seconds.
— When the battery is at low power, the blue power indicator will start flashing. At this time, return the drone immediately and charge the battery to avoid unnecessary power failures.
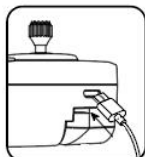
3. Charge the Battery

Push 2 Side Buttons In,
Pull the Battery from the Drone
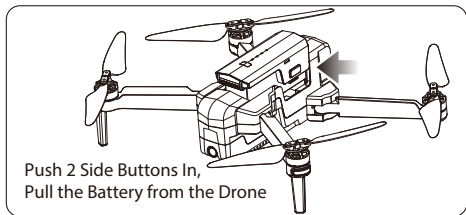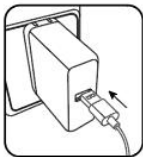
Phone Adapter:
5V/ 3A(Not include)

Charging Time:
About 5 hours

Remote Control
Charging Estimation
time: Around
60 minutes

Tip: When the remote control battery is low, the power indicator light on the remote control will keep flashing. Please charge the remote control.

4. Lithium Battery Charging Instructions

    a. Balanced Charging: Turn the battery OFF before charging. Insert the USB cable into the USB port of the charger and connect to the charging port of the battery to charge. The indicator on the drone will begin blinking blue when charging. When fully charged, the indicator on the drone will turn to a solid blue.

    b. The drone can be charged by a travel or car charger.

    c. The drone battery takes about 5 hours for a full charge. Flight time vary from 26 to 30 minutes depending how the drone is being used.

    d. The remote control lithium battery takes about 60 minutes for a full charge.

(While charging, the indicator on the remote control is Red. When fully charged, the indicator on the remote control will turn to solid Green).

Dual-Setting Remote Controller

— Press 🎦 (camera) then press ⏻ (power) at the same time. A beeping sound means the Right Joystick has switched to the throttle stick. When you turn off the remote control and turn it on again, the remote resets to default with the Left Joystick as the throttle stick.

Left Stick

Right Stick
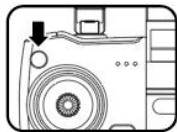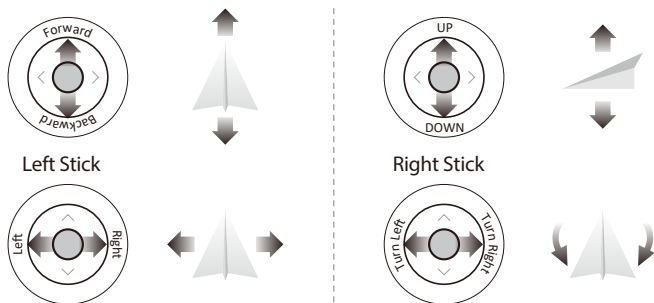
Note: When the drone is indoors with a weak GPS signal, (lights rapidly blinking Blue + White), holding 🧭 (compass) for 3 seconds to turn off GPS mode and the drone can be operated under the normal mode. All GPS functions will be disabled.

REMOTE CONTROL OPERATING METHOD

Throttle Joystick
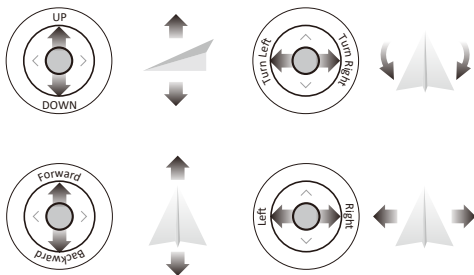
Direction Joystick

Install the Contixo F22 App

QR code for "Contixo F22" application for Apple IOS system (Please scan this QR code to install this software).

QR code for "Contixo F22" application for Android system (Please scan this QR code to install this software).

Scan the following code with your smart phone in order to download the flight control app.

Contixo F22

Flight

Step 1: Turn on the drone and set down on a level surface

— The drone will auto-trim to this level surface.
— All lights blinking red.

Throttle Joystick

Step 2: Turn On The Remote Control & Pair With Drone

— Power on the remote control and push the left joystick up then
  down to pair with the drone.
— When rear lights flash blue and front lights white, pairing is successful.

NOTE: You can connect to the drone WiFi signal at this time to view the
current drone on the Contixo F22 app, or wait until after GPS is calibrated.
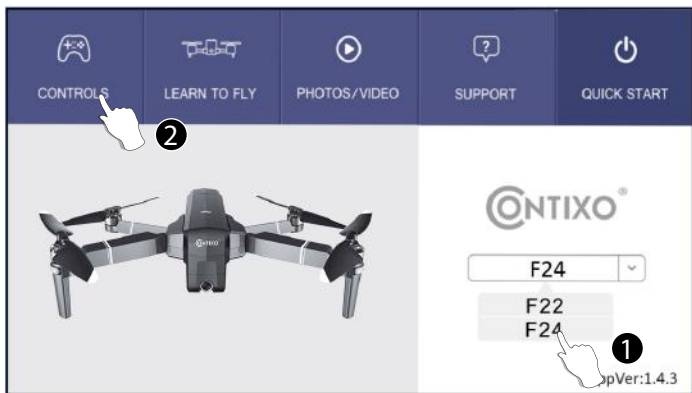
Step 3: Connect App

| F24	F24 Pro
✓ Contixo- F24- XXXX 🛜	✓ F24 Pro - XXXX 🛜

— Connect your smartphone to the WiFi of the drone and check the drone's
  status on the "Contixo F22" app.
— Open the "Contixo F22" application on your smartphone to access the
  control interface.

First select the drone model F24, then click the "CONTROLS" button to enter the APP interface.
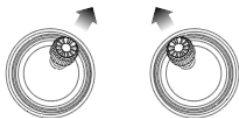

APP INTRODUCTION

Wait until the Drone Status at the bottom right of the screen reads "Ready to Fly" before initiating flight. This will ensure that your GPS is synced and your drone is ready to fly.
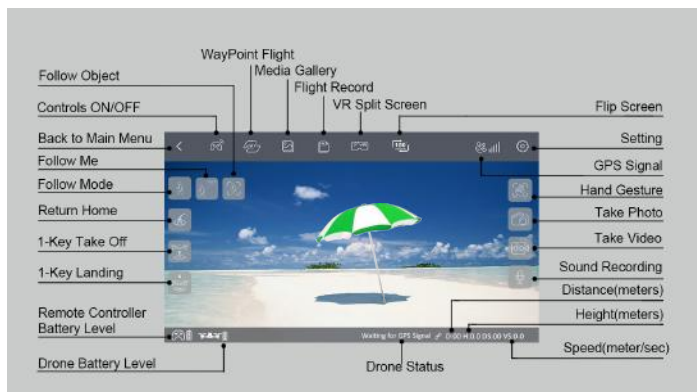
Step 4: Compass Calibration

Part 1: Compass Calibration
— Move and position left joysticks to 1 o'clock & right joystick to 11 o'clock.
— Rear lights will rapidly blink Blue/Red and White/Red in front.
— App Drone Status: "Compass Calibration".

Part 2: Compass Calibration

— Keeping the drone level and parallel to the ground, pick it up from the back
  and rotate your body in one full circle (360°).
— Back lights will turn to solid blue.

NOTE: If using the app, the on-screen instructions may guide you.

Part 3: Compass Calibration

— From the bottom, hold the drone vertically so the camera is facing toward the ground. Rotate your body in one full circle (360°).
— Front lights will turn to solid white.
— App Drone Status: "Compass Calibration Okay"

NOTE: If compass does not calibrate quickly, tap the screen on the Contixo F22 App and restart the calibration process.

Step 5: Reset to factory Setting/Calibrate Gyroscope

— Push the joysticks into the 11 o'clock (left joystick) & 1 o'clock (right joystick) position.
— Lights will rapidly blink Blue (rear) and White (front).
— App Drone Status: "Gyroscope is Being Calibrated" then "Gyroscope okay".

Step 6: GPS Searching (DO NOT use GPS Mode Indoors)

— Set the drone back down on a level surface.
— Lights will return to rapid-blinking Blue (rear) and White (front). This means the drone is searching for the GPS signal.
— This process can take a few minutes.
— App Drone status: "Waiting for GPS Signal"

NOTE: Wait for rear lights to be solid blue and front lights white before initiating takeoff.

Starting/Stopping motors
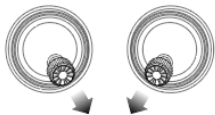
Starting Motors:

1. Push the joysticks into the 5 o'clock (left joystick) & 7 o'clock (right joystick) position.
2. Motors will start working. Push the left joystick up to takeoff or press the 1-Key Take off button.

NOTE: Start the motors before drone takeoff.

Stopping Motors:

1. Push the joysticks back into the 5 o'clock (left joystick) & 7 o'clock (right joystick) position and the motors will shut off.
2. The motors will go idle if they are not operated after 20 seconds.

Once the lights have switched to all solid, you are ready to fly!
— Blue (rear) and white (front) lights are all solid (no blinking).
— App Drone Status: "Ready to fly".

Take off/Landing/Emergency Stop
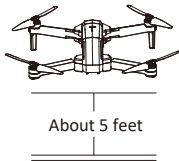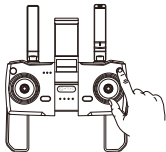
About 5 feet

⚠ Rotating propellers can be dangerous. DO NOT start the motors when there are people nearby.

1-Key Take Off: Press ⬆⬇ and the propellers will spin and the drone will lift to an altitude of about 5 feet. (Always keep the front of the drone facing forward).

1-Key Landing: Press ⬆⬇and the drone will slowly lower to the ground and land automatically. Remember to always keep your hands on the remote control as long as the motor is still spinning.)

Emergency Stop: Hold ⬆⬇ for 3 seconds and the drone will immediately shut off and stop flying. An air-born unit will drop from the sky.

Warning: When using the emergency stop feature during flying operation, it may cause the damage if the drone crashes or can injure people underneath the drone.

Follow Me Mode

When the Follow Me function is activated, the drone will follow the GPS in your smartphone wherever you go (Make sure your smartphone is connected with the drone successfully and using the Contixo F22 App).

1. Be sure to keep the drone about 9 feet away and 90 feet high.

2. Click 🏃 (running person) on the app interface.

3. Wait for Drone Status on the app to display "Follow Me Ready" bottom right corner of the screen. The drone will then follow the phone's GPS coordinates.

4. Click the 🏃 (running person) on the app interface again to exit the Follow Me mode. Common Issues: Follow Me mode may not work if your phone's GPS signal is too weak. This could be due to signal loss from surrounding buildings and trees or congestion from too many mobile phones in the area.

Always fly in open and clean area, the F24 drone does not have obstacle avoidance capability when the drone returns back to assigned area.
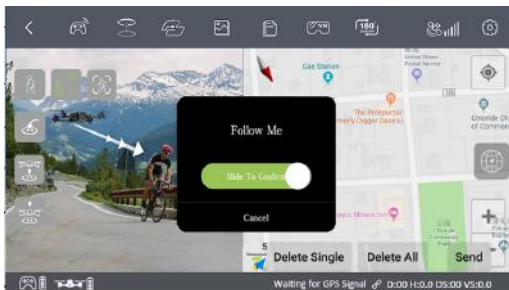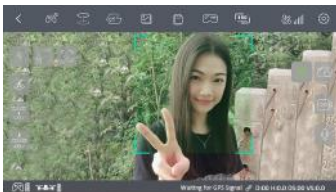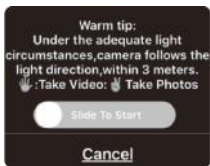
Follow Object

Click ![running person icon] (running person) then click ![box icon] (box around person or Object). Tap on the object or person you want to track, then tap again to confirm your selection.

NOTE: Make sure the size of the frame you mark is the same as the object or person you tap, the frame should not exceed the object or person in the capture frame.

Selfie Mode

Take Photo

Take Video

Click ![hand icon] (hand with two fingers) on the App, follow the "Warm Tip" on the App Screen. Hold up 2 fingers to take a picture. Wave your hand to begin recording video. There is a 3 second countdown before taking a video or picture.

NOTE: Hand gestures are based on your right hand.

This function can only be used when there is adequate light. Low light or dimly lit areas may prevent the camera from detecting your hand gestures.
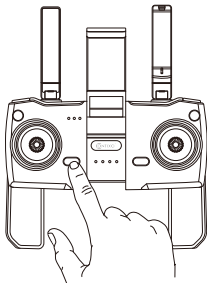
Return-to-Home (RTH)

The Return to Home (RTH) function brings the drone back to the Take Off Point. This function can only be achieved under GPS mode.

There are 3 types of RTH: Smart RTH/Low-battery RTH/Fail connection RTH.

Return-to-home GPS Feature Description

When the drone is doing The Return to Home feature, it will first fly straight up to the according to the return to home altitude setting. When you take the drone out of beginner mode, you must set the return altitude so that it will clear any objects (buildings or trees) in the area. After the drone reaches this height, it will then relocate to the home (take off) position and then descend and land to the starting point.

①. Smart Return To Home

RTH Button

RTH Button in App

②. Low-Battery Return-to-Home

Low-Battery RTH is triggered when the flight battery is depleted to a point that may affect the safe return of the drone. The drone flies back to about 100 feet from the last known home location.

③. Fail connection Return-to-Home (RTH)

The drone will enter Return-to-Home Mode if the signal to the remote control is lost. Re-sync the remote control to the drone if the drone flies back into your view. Pull the throttle down to land the drone in a safe area.

Headless Mode

1. The drone defaults to Normal Mode when the drone and remote control are matched successfully. Click ⊘ (compass) to enter into Headless mode. Click ⊘ (compass) again to exit Headless mode.
2. Normal Mode: Before takeoff, the white lights on the drone indicate the forward-facing direction.
3. Headless Mode: Before takeoff, the white lights on the drone indicate the forward-facing direction. When the drone rotates in flight, the flight direction is not changed.
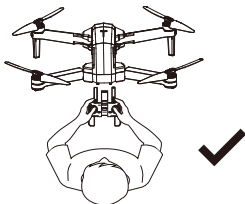
The direction of control when the drone is paired.

Don't change your direction.   Don't change your direction.

While in Headless Mode, the forward direction is the direction the pilot faces when the pilot pairs the drone with the remote control. If 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 moves the right stick left or right, then the drone will also move left or right, relative to the pilot. It is very important that the pilot does not change positions or the direction he or she is facing because this will cause misdirection of the drone flight control.

Adjusting Trim in No GPS Mode

If the drone flies in None GPS Mode, you can trim the drone to obtain more balanced flight. Press and hold 📷 (camera button) for 3 seconds, it will enter trim mode. Holding the button and pushing the direction joystick to the opposite side at the same time, the drone drifts to rebalance it. For example, if the drone drifts to the left, push the joystick to the right to make the drone balanced. Release 📷 (camera button) to exit trim mode.

WayPoint Flight

— To start a WayPoint Flight, first download and save your local map in your smartphone. (Connect your smartphone to network via WiFi or 4G LTE, open the F22 App and enable the Waypoint mode, you will see a map then zoom in to the maximum, when the map is fully displayed.)

— Successfully connect the drone WiFi with your smartphone, click (2 rectangles) on the App. Find the Red Circle (LIMITED FLIGHT RANGE) / TAKEOFF POSITION / DRONE CURRENT POSITION on the map. Mark the points (up to 16) you plan to fly within the Red Circle range on the map. If you would like to reset the points or flight path, click Delete single or Delete all Click Send and confirm to start the WayPoint Flight. Push the right joystick at anytime to cancel the WayPoint Flight function.
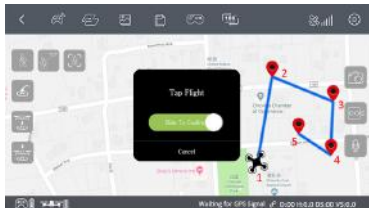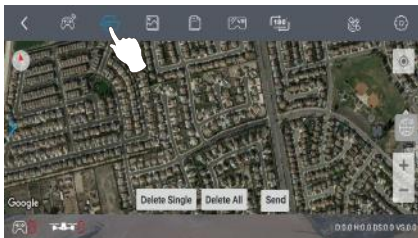
Orbit Mode

1. Hover the drone around the center point.

2. Press 📷 (camera) + 🎥 (video camera) on the remote control at the same time.

3. Move and set the drone in the radius range you prefer (within 6 feet – 30 feet) using the direction joystick.

4. Press 📷 (camera) + 🎥 (video camera) on the remote control at the same time again. The drone will begin to fly according to the radius range you set in STEP 2 (Note: If the radius range is less than 6 feet, the drone will fly to 6 feet automatically) . Move the direction joystick to cancel the Point of Interest mode.

NOTE: Press 📷 (camera) + 🎥 (video camera) on the remote control at the same time and the Point of Interest function can be activated if the drone and remote control successfully paired and the drone flies up.
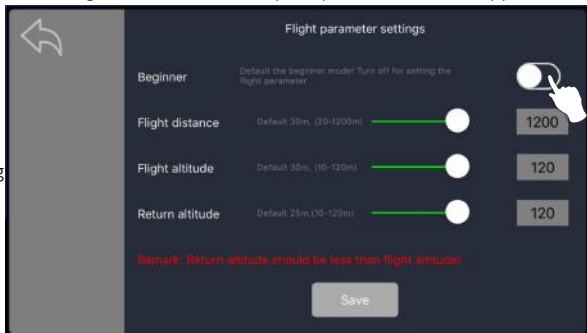
Flight

The Default GPS Mode is Beginner Mode. In Beginner Mode:
1. Flight Distance from remote control is limited to between 0 – 90 feet.
2. Flight Altitude from remote control is limited to between 0 – 90 feet.
3. Return-To-Home Altitude is below 75 feet.

You can turn off the Beginner Mode to modify the parameters in the App on your phone.

⚙️ ➡️

Flight Setting
On APP

CAMERA FUNCTIONS

App Icons

 Take Photo

 Take Video

Press 📷 (camera) on the remote control or tap 📷 (camera) on the App to take a picture. The red light above the camera on your remote control will flash once, indicating the camera took a photo.

Press 🎥 (video camera) on the remote control or tap 🎥 (video camera) on the App to record a video. The red indicator will continuously blink, indicating the camera is recording video.

Press 🎥 (video camera) again to save the video. DO NOT take photos while recording video.

NOTE: When using the "Contixo F22" App, the original photos and videos will be compressed and saved to your smartphone.

1. One-Button Media Sharing

Figure 1. One Button Media Sharing

Figure 2. Control Buttons

| Check all | Share | Save to the phone album | Delete |
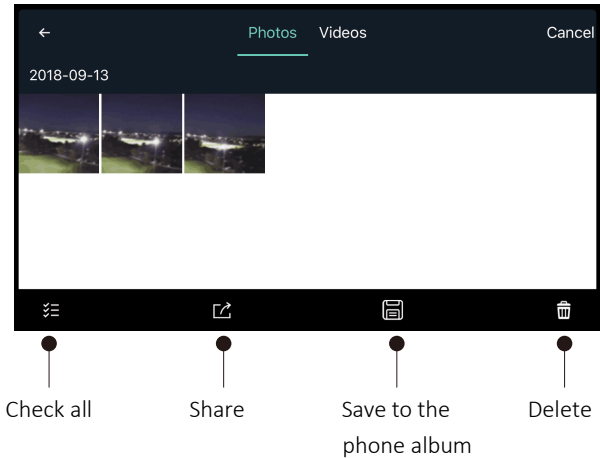
Figure 3. Viewing Photos
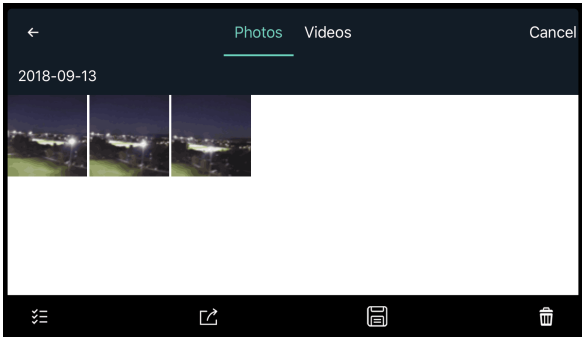
Figure 4. AirDrop Photo Sharing

1. Open the App, click 🖼 (gallery) to access your picture and video files (Pic 1.)

2. Click once or press ⬅≡(checkmark list) to choose the photos you want to share. Click ☑(box with arrow) to choose the platforms to share to (Pic 3).

Reminder: You can share up to 9 pictures at the same time, but you can only choose one video for sharing at a time.

2. How To Find a Lost Drone

①. Click the ☸ (satellite) 3 times to open the map to search for the drone.

②. The last position of the lost drone will appear on the map, and you can find the last position of the drone according to the label on the map (about 30 feet error). If you reach the last known point on the map, and are still unable to locate the drone, you can try to toggle the drone wifi connection off/on. Reconnecting to the drone wifi would establish a live feed connection and give you a further clue to locating the drone. The drone Wifi will broadcast as long as the battery still has power.

Note: The APP must remain open all the time. If the APP is closed, the last position of the drone will disappear on the map.

Micro SD Card (Sold separately)
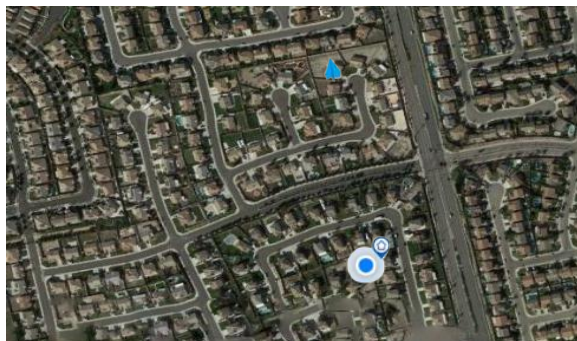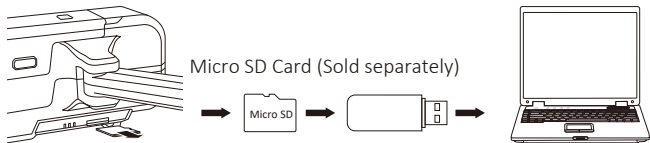
The original images and videos are saved on the Micro SD card. Push the Micro SD card slightly to release the memory card. Next, insert the card into the card reader. Insert the card reader into the USB outlet of a computer to retrieve the photos and videos from the Micro SD card. The images can be also viewed in the App.

Micro SD Card
You can use up to a 32GB memory card with your drone.

There are a few restrictions for recording over wi-fi. The best quality possible transmitting via Wi-Fi is 720p. Wi-Fi signal loss from interference will cause the jumps or delays in video recordings. The best solution is to add a micro SD card to capture uninterrupted video.

A micro SD card helps ensure best video quality is recorded. The largest size capacity is 32GB, which will hold a good amount of recording time. A high quality, brand name micro SD is recommended for optimal performance, some lower quality brands may not be compatible. If the card is larger than 32GB, you may format at 32GB fat32 or NTFS partition on the drive and that will resolve size compatibility.

If the micro SD card is new, first make sure the card is readable in your laptop or other device. Format the micro SD card on the first use if your unable to read the memory card.

SPECIFICATIONS

● Drone

MODEL: F24/F24 Pro
Weight (Including Battery): 520g/18.3 oz
Flight Time: About 26～30 minutes
WIFI Camera Distance: 300m～700m(980feet～2200 feet) (Outdoors and
unobstructed, depending on conditions and your
mobile device)
Motor Model: 1806
Auto-Hovering: Enabled
Operating Temperature Range: 32°to 104°F (0°to 40°C)
Satellite Systems: GPS / GLONASS
Dimensions: Open – 17.5" L x 15.9" W x 3.14" H
Folded – 6.92" L x 4.13" W x 3.14" H

● Camera

Controllable Range: Pitch:-90°to 0°
Lens: FOV 120°/2.0
Still Photography Mode: Single shot
Photo: JPEG
Video: MP4
Supported External Memory: Micro SD Card up to 32GB (not included)
Operating Temperature: 32°to 104°F (0°to 40°C)

- App / Live View

  Mobile App: "Contixo F22" in App Store & Google Play Store
  Frequency Range 2.4 Ghz (5.0 Ghz for Pro)

CAMERA		STORAGE		RESOLUTION	FRAME PER SECOND
F24	1080P	Phone	Photo	3840X2160P	
			Video	1280X720P	25 fps
		TF card	Photo	2048X1152P	
			Video	2048X1152P	25 fps
F24 PRO	2.7K	Phone	Photo	3840X2160P	
			Video	1280X720P	25 fps
		TF card	Photo	2976X1680P	
			Video	2976X1680P	25 fps

  Latency: Low Latency Video (depend on conditions and mobile device)
  Required Operating Systems: IOS 8.0 or later / Android 4.4.4 or later
  Recommended Devices: 4.7" to 6.5" Smartphones

- Micro USB Cable
  Voltage: 5V/3A
  Rated Power: ≤15 W

- Remote Control
  Operating Frequency: 2.4 GHz
  Battery Capacity: 300 mAh
  Operating Voltage: 3.7V
  Max Control Distance: 1200M (3600 feet) (Outdoor and unobstructed)
  Max Charging Time: About 60 minutes
  Battery life on control: 10 hours Max
  Mobile Device Holder: 4.7" to 6.5" Smartphones
  Operating Temperature: 32°to 104°F (0°to 40°C)

- Drone Battery
  Capacity: 2500 mAh
  Voltage: 11.1V
  Battery Type: Lipo Lithium-Ion Battery
  Energy: 27.75Wh
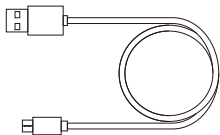 Net Weight: 195 g / 6.8 oz
  Max Charging Power: 15W
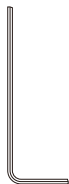 Max Charging Time: About 5 hours

PARTS LIST (Included)

Blade x 4

USB cable
Only for charging

Instructions x 1

Hexagon Allen wrench x 1

Screw x 12

COMMON PROBLEMS AND SOLUTIONS

THE PROBLEM	REASON	TROUBLESHOOT
Drone lights flashing and no response from the drone when operating.	1. Remote is not synced to the drone. 2. Insufficient battery power.	1. Refer to the App Quick Start and re-sync the drone. 2. Recharge the battery.
The blades spin, but the drone cannot takeoff.	1. Insufficient battery power. 2. The blades distorted. 3. The blades Side A and Side B are reversed.	1. Recharge the battery. 2. Replace the blades.
The drone shakes heavily.	The blades distorted.	Replace the blades.
Drone cannot stay balanced in flight.	1. The blades distorted. 2. Motor isn't working properly.	1. Replace the blades. 2. Replace the motor.
Drone is unstable in flight like in Follow Me mode	Three-axis acceleration sensor is unbalanced	Restart and re-calibrate the drone.
Drone will not auto hover in one place	Unstable magnetic field	Recalibrate compass / do factory reset

How to fix Android Not Connecting to Wi-Fi Problem

Tip 1. Restart Phone
Tip 2. Toggle WiFi Off and on
Tip 3. Turn Airplane Mode Off
Tip 4. Turn Bluetooth off while troubleshooting
Tip 5. Turn Power Saving Mode off
Tip 6. Turn off Smart Network Switch
Tip 7. Adjust Auto-Reconnect settings
Tip 8. Use a WiFi Connection Manager app if necessary
Tip 9. Make sure your phone supports 2.4 Ghz Wifi (5 Ghz for Pro edition.)

Technical Support

In order to make sure that your drone meets the requirements
of the electromagnetic environment of the aviation radio station,
flying within the scope of 7 miles on each side by taking the airport
runway center line as the middle line is HIGHLY FORBIDDEN.Flying
within the scope of 13 miles by taking both ends of the runway as
the center is HIGHLY FORBIDDEN. Flying on the route of the airline
is also PROHIBITED. Do not use drone or other flying drones in areas
that are forbidden or prohibited by your local laws and regulations.

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CONTACT INFORMATION
E-Mail: support@contixo.com
Website: www.contixo.com