



SPARROW

Foldable 4K Selfie Drone



Thank you for purchasing this Merlin Product. Please read the instruction manual carefully before using the product.

The documentation provided will allow you to fully enjoy all the features this unit has to offer.

Please save this manual for future reference.

Precautions:

This device is a sophisticated product and should be handled and operated with care. Please be aware of the laws in your country regarding owning and operating UAV's. This device is suitable for people older than 14 years. Please note that some experience may be required to effectively operated this device.

Mobile Application:

The Merlin Sparrow 4K can be used with a mobile application available for iOS and Android.

[iOS App store link](#) - "Moment Drone"

[Google Play Store link](#) - "Sparrow 4K"

App instructions:

- After downloading the app please make sure the drone is switched on.
- Go to your mobile phone's Wi-Fi settings and look for the "XT200_xxxx" and connect to it.
- The password of Wi-Fi is "1234567890"
- After connecting to the Wi-Fi, open the application on you mobile device.
- The drone can be controlled by the application in real time.

Instructions:

Charging Battery:

Before using the drone please check the battery for sufficient charge.

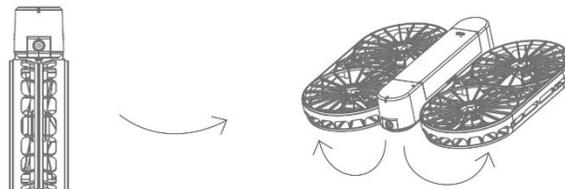
- To do this take the battery, without it being connected to anything.
- Press the power button briefly.
- If the battery is charged more that 75% the light will light up with a solid blue. If the light flashes the battery needs to be charged.



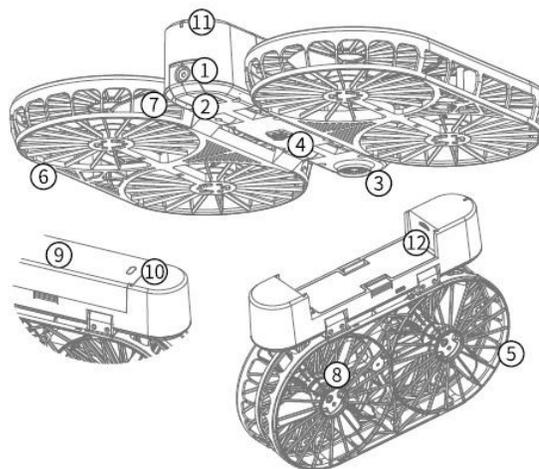
- To charge the battery slot it into the charging cradle.
- Connect the charging cable to the power supply and mains supply.
- A red led will light up on the power supply while the battery is charging. When its fully charged the red light will switch off.

Operating the drone:

- To start using the drone slide the battery firmly into the drone.
- Gently fold open the wings of the drone.



- Put the drone on a flat surface and press the "Power" button for longer than 3 seconds.
- Once ready for operation a "beep" will be heard.
- Use your mobile device and connect to the Sparrow's Wi-Fi SSID and launch the application.

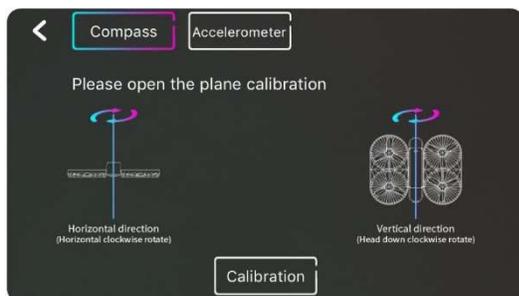


- | | |
|--------------------------|-------------------------|
| ① Camera | ⑦ Propeller |
| ② Camera Controller | ⑧ Motor |
| ③ Ultrasonic System | ⑨ Battery |
| ④ Optical System | ⑩ Battery On/Off Switch |
| ⑤ Upper Protective Cover | ⑪ Camera Indicator |
| ⑥ Lower Protective Cover | ⑫ TF Card Slot |



Compass and accelerometer calibration:

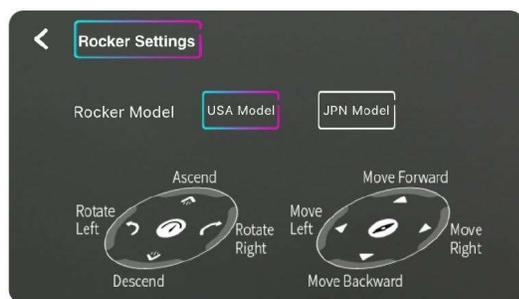
- Before using the Sparrow for the first time please perform the compass calibration.
- The compass is very susceptible to interference from other electronic devices which can affect the flight of the drone and even cause accidents. Because of this please keep the drone away from electronic devices and big steel objects during calibration.
- Calibration should be done under the following conditions.
 - Before the first flight and again before first outdoor flight.
 - If the location of the flight is different from the last one.
 - If the drone drifted during the last flight.
- To perform the calibration open the application and select the settings icon. Under the settings menu select the compass icon to start the calibration.
- The calibration instructions is displayed in the app and occurs as follows.
 - Horizontal direction calibration: Rotate the drone very slowly 360 degrees on the horizontal plain in a clockwise direction until the confirmation message is shown from the app.
 - Vertical direction calibration: Rotate the drone clockwise with the camera facing downwards until the confirmation message appears.
- Once the compass calibration is complete select the accelerometer icon to start that calibration.



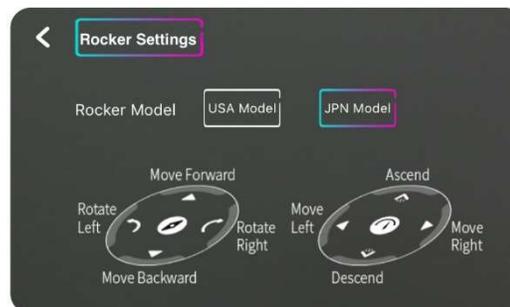
Joystick modes:

When setting up the unit the joystick mode can be set to American (Left-hand mode) or Japan (Right-hand mode) modes.

American mode (Left-hand mode): With this mode the left joystick controls the altitude and rotation. The right joystick controls the forward, backward, left and right movement.



Japan mode (Right-hand mode): With this mode the right joystick controls the altitude and rotation. The left joystick controls the forward, backward, left and right movement.



Sensitivity settings:

The sensitivity of the drone can be set to the users preferences. There are 3 sensitivity settings:

- Primary, for standard flight. Least sensitive.
- Intermediate, recommended for outdoor use, medium sensitivity.
- Advanced, for advanced users for outdoor use, most sensitive.

Pointing Mode:

In this mode the joystick is hidden and the user can select an object on the screen. The drone will then automatically make flight adjustments and point to the drone to center of the screen.

Application Icons:

- User Manual:** Instructions on the usage of the drone
- Local media library:** This is to download the media from the drone to your mobile device.
- Home:** Return to the main page.
- Settings:** To change the settings of the device.
- Take off:** Once pressed a confirmation box will appear. Click ok. The drone will take off and flight to a height on 1.5m
- Landing:** Once pressed a confirmation box will appear. Click ok. The drone will start landing from the current position.
- One Button Home Key:** Click the button to make the drome return to the starting point. It will land once it reaches the starting point.
- Visual follow:** Select a target to follow on the screen and the drone will start following it. Press icon again for the drone to stop following and entre into hover mode.
- Photo mode:** During the process of photo taking the camera light will flash fast. Once done the light will stay steady.
- Video mode:** During the process of video taking the camera light will flash fast. Once done the light will stay steady.
- Camera adjustment:** The camera angle can be changed. Once activated the joystick will be disable while adjustments are made. Exit this operation to resume normal flight.



-  **Camera Shutter:** This is used to take pictures and start recording videos.
-  **Media Library:** Here the media library can be accessed.
-  **Timer shooting:** This will activate the 10 second timer shooting mode.
-  **Burst mode:** This mode will take 3 pictures in burst mode. The number of shots can be changed in the settings menu.
-  **10 second video mode:** This function takes short videos of 10 second duration.
-  **Switch operation mode:** Click to switch to pointing mode.
-  **Point mode:** Click this icon to go back to joystick mode.
-  **Joystick settings:** Here you can change the settings for the joystick and switch between left and right hand modes.
-  **Sensitivity settings:** Here you can switch between the sensitivity modes.
-  **Calibration:** This is used to perform all the calibrations.
-  **Camera settings:** Photo and video settings can be changed here.
-  **Video library:** Goes to your video library of recorded videos
-  **Multi select:** This mode is for multi select mode
-  **Download:** Press and hold the photo's or videos you would like to download. Click the download icon and the selected items will be copied to the mobile device.
-  **Delete:** This is used to delete the photo's and videos.
-  **Share:** Here you can share your photo's and video's with your selected platform.
-  **Beauty:** Beauty photo function.
-  **Photo Editing:** This function can be used to edit your photos
-  **Video Editing:** This function can be used to edit your photos

One Button Home Key function: The Sparrow 4K is fitted with a GPS and can return to the starting position. It needs to be connected to the satellites (up to 8) to achieve this. Once the button has been pressed the colour of the key will change. If you want to cancel the Home function press the button again. The Sparrow 4K will return to the location it first locked to the GPS signal. This position might not be the take-off position so please ensure the GPS is locked before flying the drone.

FAQ

Q) How long can I fly with the Sparrow?

A) The battery will last for about 15 min.

Q) Drone is not responding to commands from my phone.

A) The mobile device has to be connected and within range of the drone's onboard Wi-Fi.

Q) During calibration I get an error message.

A) When doing the rotation hold the unit in your hands and turn very very slowly.

Q) The drone is flying very slowly.

A) Land the drone and recharge the battery as it is drained.

Q) The drone is not flying in the direction of the commands.

A) Strong winds can blow the drone in other directions. Please land the drone and wait for the wind to settle.

Q) My drone deviated from the flight path during flight. How can I fix it?

A) Please perform a accelerometer calibration.

Q) How far can the Sparrow fly?

A) The drone has a control range of 100m and 20m altitude, depending on the signal strength of the mobile device. If the connection is lost between the mobile device and the unit it will automatically land.

Maintenance:

1. Retain these instructions for future use.
2. Clean the product with a damp cloth and mild soap.
3. Do not expose this product to rain or moisture.
4. Be careful not to turn or twist the cables used in this product too much as it can lead to malfunction and failure.
5. This product is not designed to be submerged in water and will malfunction if this occurs.
6. This product has no user serviceable items inside. Do not open this product as the user risk injury and would void the warranty.
7. Keep unit away from strong magnetic fields to avoid interference with the product.
8. When the battery goes lower than 25% the app will show the low battery message. Please start returning the drone to your position and recharge the battery.



LIMITED WARRANTY

Merlin Products are covered by a limited one-year warranty policy. If the product suffers from a manufacturing defect, the customer will receive a replacement if claimed within 15 days of the purchase date. Otherwise, the product will be inspected for possible repair options. The product will either be repaired and returned free of charge, or replaced. All repair services past the one-year warranty period will be charged for any repairs that need to be made.

If the client is located outside the UAE, or is otherwise unable to personally deliver the defective product to our service center or retail outlets, he/she may send it via post at his/her own cost. The repaired/replaced product will then be returned to the client via courier mail at Merlin's cost, as long as the warranty period is still active.

Important: This limited warranty DOES NOT COVER normal wear and tear, accidents, damage during transit, misuse, abuse or neglect. Attempting to disassemble the unit will render the warranty null and void.

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