_spitfire

HD Camera Drone with GPS & WiFi

DRONE USER MANUAL

ZERO-X®

Capture the skies.™

ZX-SFR

v1

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1.0 WELCOME

Thanks for purchasing a Zero-X Spitfire, get ready to have the time of your life! We're sure your Zero-X Spitfire will bring you a world of great experiences in the air. Please take the time to read the following safety warnings and operating instructions carefully.

1.1 BEFORE YOU GET UP IN THE AIR

Connect the Spitfire battery to the included USB charging cable and insert the USB charging cable into the supplied USB wall charger. While the battery is charging the LED on the charging cable will flash red. Once charging is complete the light will glow solid. While the battery is charging please take the time to read the instructions and familiarise yourself with the controls of your Zero-X Spitfire.

1.2 GENERAL SAFETY

Please familiarise yourself with your local legislation regarding drone usage before you begin using your Zero-X Spitfire. Included in the package contents of your Zero-X Spitfire are the Australian CASA guidelines, please read carefully and understand this information as operating a drone outside of these guidelines may result in legal issues. Zero-X takes no responsibility for operation of this product outside of what is legally permissible in your area.

- Do not fly your Spitfire any closer than 30 metres from people, animals or buildings. Check to make sure you are no closer than 5.5 kilometres from any airfields or airports.
- For more information on CASA's Australian legislation visit: http://www.casa.gov.au/ For information outside Australia please visit the website of your local aviation authority.
- Do not attempt to modify the Spitfire or any of its components in any way, doing so will void your warranty and may affect the operation of the drone.
- Do not use the Spitfire in any conditions that could affect, damage or impair your view of the Spitfire including rain, wind, snow, fog or low light. Avoid getting your Spitfire wet, dusty or sandy. These elements will damage the components of your Spitfire.
- Please do not attempt to touch the Spitfire when the Remote Control is powered on, or if the rotor blades are turning.
- When flying your Spitfire, please keep in mind the privacy of others.

1.3 BATTERY SAFETY

When handled incorrectly, Lithium polymer batteries can be dangerous and can potentially harm and do damage to persons or property. Zero-X 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 Zero-X Spitfire chargers and batteries.
- You must charge the Lithium polymer battery in a safe area away from flammable materials.
- The battery is only to be charged under adult supervision, do not 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 & or crash, please check 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 in the correct manner.
- Do not bend, puncture, crush or scratch the drone's battery. Do not store batteries in your pockets, on your person or in extreme temperatures.
- 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. A 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.

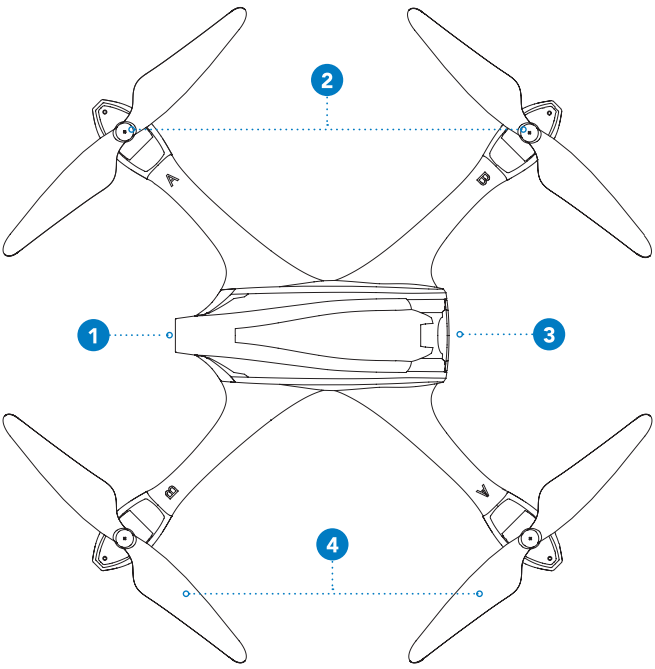
2.0 INTRODUCTION

2.1 PACKAGE CONTENTS

1. Spitfire Drone
2. Remote controller
3. Rotor Blades x 4
4. Rotor Guards x4
5. Drone Battery
6. Battery Charger
7. USB AC Adapter
8. Manual
9. Screws

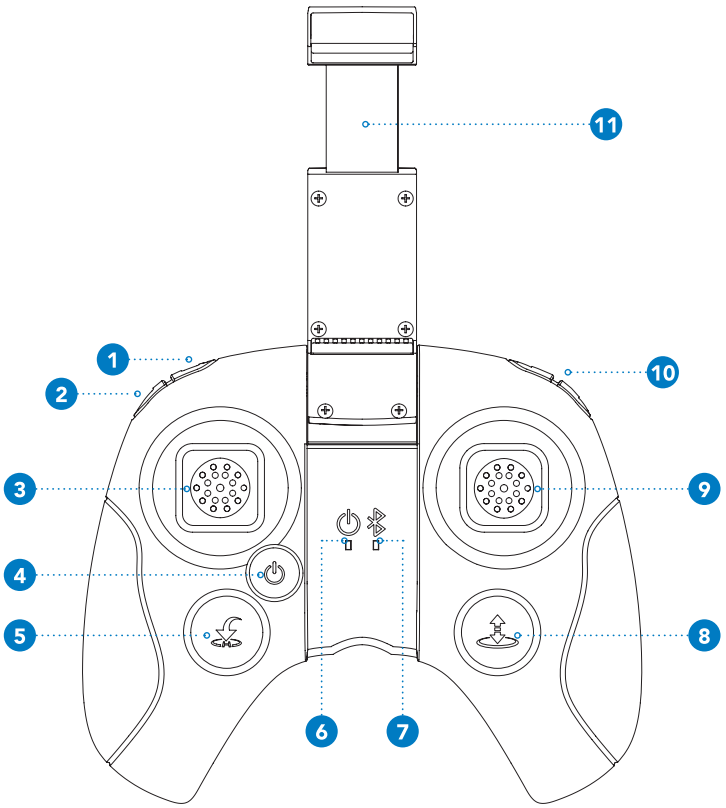
2.2 PRODUCT OVERVIEW

1. 720P Camera
2. Motors
3. Battery Compartment
4. Rotor Blades



2.3 CONTROLLER

1. Video button
2. Photo button
3. Left thumb stick (Yaw/ Elevation)
4. On/Off button
5. Return to home button
6. Power Light
7. Bluetooth Light
8. Take Off/Land Button
9. Right thumb stick (Pitch/Roll)
10. Camera adjust switch
11. Smartphone Holder



3.0 SETTING UP YOUR ZERO-X SPITFIRE

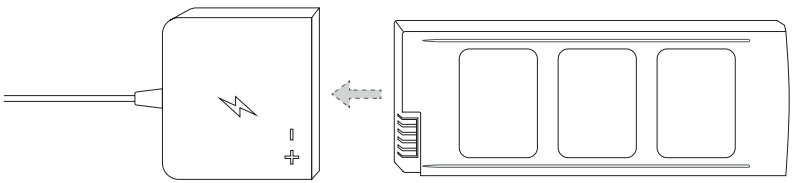
3.1 CHARGING THE BATTERY

PLEASE NOTE: YOUR ZERO-X DRONE COMES WITH A CERTIFIED ZERO-X USB AC CHARGING ADAPTER FOR 240v CHARGING OF YOUR DRONE BATTERY. USE OF A NON ZERO-X CERTIFIED USB AC CHARGING ADAPTER WILL VOID YOUR WARRANTY AND MAY DAMAGE BOTH YOUR BATTERY AND DRONE.

Fully unwind the included USB charging cable and plug the USB end into the included Zero-X Certified USB AC charging adapter.

Connect the drone battery to the charging cable and the light will blink red indicating charging is in process. The LED on the USB charging cable will glow solid once charging is complete. To keep the battery life as long as possible avoid removing the battery from the charging cable before charging is complete. If you have just finished flying your Spitfire drone, please allow the battery to cool down for at least 30 minutes before recharging.

- When the Spitfire battery has finished charging it is advised that the battery is removed from the charger as soon as possible. Overcharging will damage the battery and effect the flight time.
- The Spitfire battery can take up to 90 minutes to fully charge. If the battery has been on charge for any longer than 2 hours and the indicator on the charging cable is not showing that the battery is charged please remove the battery from the charger.
- When connecting the USB cable with the battery, make sure to follow the guides on the battery connector as these are designed to only be inserted in one direction. Forcing the connection in the incorrect direction, may cause damage to the battery and charging cable.



3.2 INSTALLING THE BATTERY

1. Check the pins inside the battery slot and the battery aligned
2. Slot the battery into the battery slot making sure that the battery is firmly secured.

3.3 REMOVING THE BATTERY

1. Lift the battery locking tab.
2. With the locking tab lifted slide the battery out of the battery slot.

3.4 INSTALLING A MICRO SD CARD

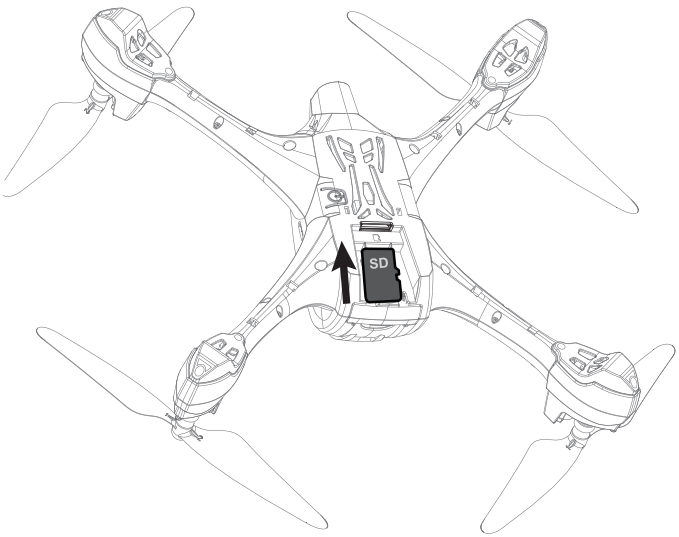
To record video or photos with the Spitfire it is required that you install a Micro SD Card (not included) to install a Micro SD Card please follow the instructions below.

1. Ensuring that the Spitfire drone is powered off and find the Micro SD Card slot on the underside of the drone.
2. Slot your Micro SD Card into the slot ensuring that the copper contacts are facing towards the body of the drone.
3. Use your thumb nail to press the Micro SD Card into position until a click is heard.

Note
Micro SD Card is not included.

It is recommended that a class 10 micro SD card with 32GB and below capacity is used.

Do not force the Micro SD Card. Forcing the Micro SD card can damage your Micro SD Card or your drone.

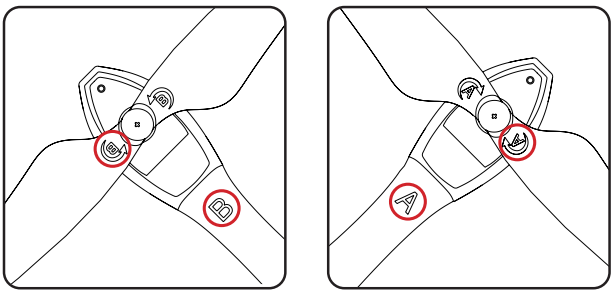


4.0 INSTALLING ROTOR BLADES

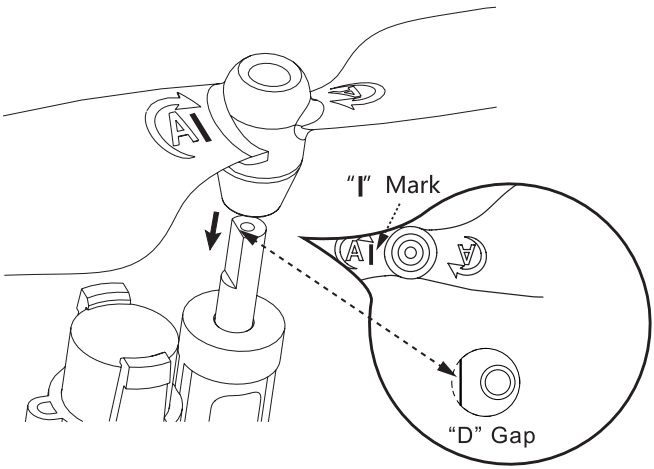
The rotor blades and motors for the Spitfire are clearly marked and need to be installed correctly for the Spitfire to fly correctly.

To install the rotor blades please follow the instructions below.

1. Match the A rotor blades with the A motors and the B rotor blades with the B motors. The blades are marked on the top sides and the motors are marked on the Spitfire's arms.

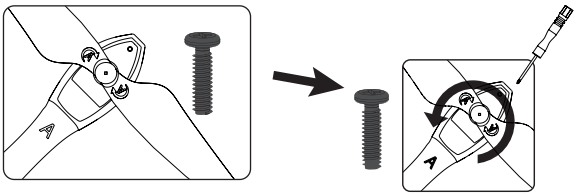


2. Slot the blades onto the motor stems being mindful that there is a notch inside the rotor blade slot that fits into the D shape of the motor stem. Align the rotor blades notch (marked on the rotor blade with an I) with the motor stems notch and press the rotor blades into place.

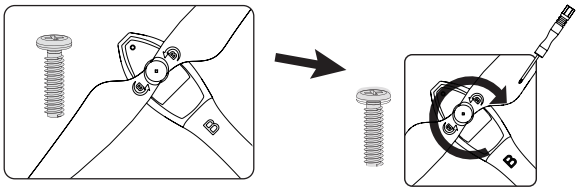


3. There are two different types of screw that are provided with the Spitfire. The black screws are fastened by turning counter clockwise and the metallic screws are fastened by turning clockwise. The metallic screws are used to secure the B rotor blades and the black screws are used to secure the A blades

PLEASE NOTE, WHEN REMOVING THESE SCREWS BE SURE TO TURN THEM THE OPPOSITE WAY TO WHAT IS NOTED ABOVE



Propeller A Counter Clockwise to Tighten



Propeller B Clockwise to Tighten

Note
Please be mindful of the directions specified above in regards to the directions that the fastening screws need to be turned.

Please do not force screws, forcing screws may cause damage to the screws and prevent the rotor blades from being removed.

Please ensure that the rotor blades are being installed in the correct positions as installing the rotor blades incorrectly will prevent the Spitfire from launching.

5.0 INSTALLING THE ROTOR GUARDS

The included rotor guards are optional and can be used to protect your drone against bumps.

To install your rotor guards please follow the instructions below.

1. Remove the rotor blades from the drone using the below guide to remove the fastening screws.

A	**ROTOR BLADES/BLACK SCREWS**	**CLOCKWISE**
B	**ROTOR BLADES/METALLIC SCREWS**	**COUNTER CLOCKWISE**

2. Slot the rotor guards over the Spitfire's motor stems and attach the rotor guard's pegs into the designated slots in the drone's arms.
3. Secure the rotor guards with the included screws.
4. Replace the rotor blades onto the Spitfire using the instructions laid out in the section of this manual marked INSTALLING THE ROTOR BLADES.

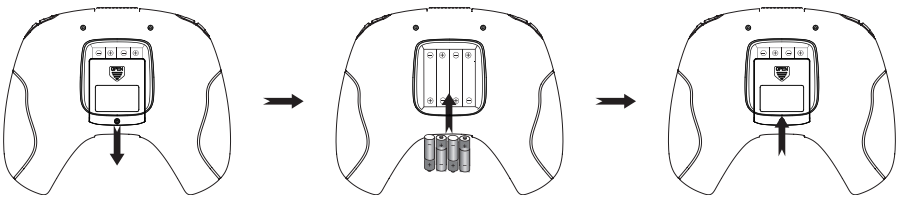
Note
Please be mindful of the directions specified above in regard to the directions that the fastening screws need to be turned.

Please do not force screws, forcing screws may cause damage to the screws and prevent the rotor blades from being removed.

6.0 REMOTE CONTROL

To install batteries in the remote control, please use the instructions below.

1. Slide the battery compartment lid downward opening the compartment.
2. Insert four new AAA batteries (make sure they are all the same brand) into the battery compartment making sure they are all facing the correct way.
3. Replace the battery compartment lid by sliding the lid back into the upward position.



7.0 LAUNCH SEQUENCE

To launch your Spitfire drone, it is important that the drone battery is fully charged and the controller batteries have a good amount of charge.

It is also important to check over the rotor blades to ensure that they are securely installed as per the instructions laid out in the SECURING THE ROTOR BLADES section of this manual.

If you intend to record your flight using the camera, it is important you have inserted suitable Micro SD Card into the drone.

Please calibrate your Spitfire drone using the below instructions each time before launching, this will assist in keeping the drone and it's GPS stable.

To Launch the Spitfire drone please read through all instructions before attempting to take off.

8.0 CALIBRATING THE SPITFIRE

It is important to calibrate the Spitfire each time that you take the drone out to fly. It is required that the Spitfire is connected to your smart phone to fly.

To calibrate the drone, please follow the instructions below.

1. Power on the Spitfire drone by holding the power button on the top of the drone until all of the lights on the drone's arms begin flashing.
2. Connect to your smartphone to the Spitfire using the instructions laid out in the section of this manual named CONNECTING TO THE Spitfire's WIFI.
3. Once the app is open and your smartphone is connected to your Spitfire, follow the on screen prompts to access your Spitfire and follow the calibration steps.
4. Power up the controller by holding the power button until it powers up. Once powered up follow the instructions in the CONNECTING THE CONTROLLER TO YOUR SMARTPHONE section of this manual.

8.1 CONNECTING TO THE SPITFIRE'S WIFI

Connecting your smartphone to the Spitfire's WiFi allows you to use your smartphone as a viewfinder, adjust the Spitfires settings and review and download your recorded footage.

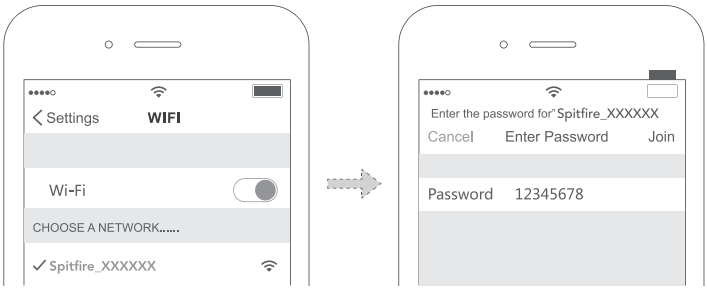
This is a two-stage process that involves connecting your smartphone to the Spitfire, and then connecting your smartphone to the controller.

To connect your smartphone to the Spitfire's WiFi please follow the instructions below.

1. Download the Zero-X Spitfire App from the Google Play or iOS app store depending on your smart device.
2. Once downloaded, power on the Spitfire drone by holding the power button on the top of the drone until all the lights on the drone's arms begin flashing.
3. On your smartphone open the WiFi settings and select the connection and enter the password below.

SSID: **Spitfire_XXXXXX**

PASSWORD: **12345678**

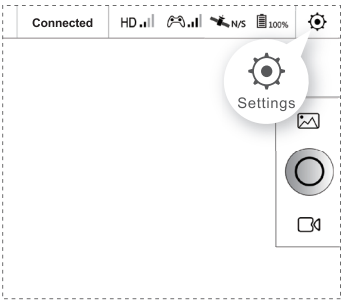


4. Once the connection is secure, open the Zero-X Spitfire App. You will now have access to the Spitfire from your smartphone.

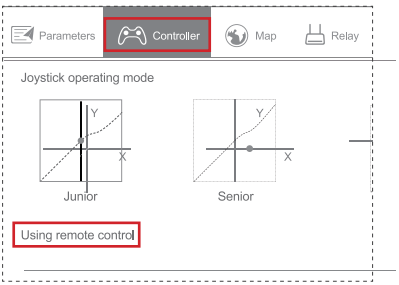
8.2 CONNECTING THE CONTROLLER TO YOUR SMARTPHONE

To connect your smartphone to the controller please follow the instructions below.

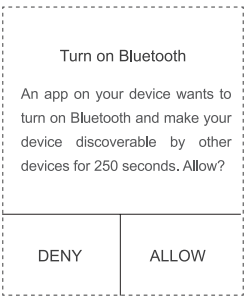
1. Power up the remote controller by holding the power button until the controller powers up
2. Open the Zero-X Spitfire app on your smartphone and go to the settings section



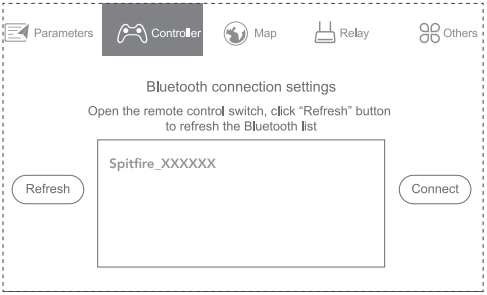
3. Select ‘Controller’ setting and then select ‘Using remote control’.



4. The app will then ask for permission to access your smartphones Bluetooth connection, press allow to continue.



5. When the Spitfire connection appears select it and then select connect to finalise the connection between your smartphone and the controller.



6. Once the controller is successfully connected the Bluetooth light will glow blue.

9.0 STARTING THE MOTORS AND TAKE OFF

Please ensure that the Spitfire is powered up, you have connected your smartphone to the Spitfire via the Spitfire App, and you have connected your smartphone to the bluetooth controller.

For details on any of these please be sure to read and follow the below sections of this manual.

CONNECTING TO THE SPITFIRE'S WIFI

CALIBRATING THE SPITFIRE

CONNECTING THE CONTROLLER TO YOUR SMARTPHONE

Once you are ready there are two ways to launch your Spitfire.

1. **Via the App**
   Press the on screen Auto take off button, and confirm on the following screen.
2. **Via the Controller**
   Press the Take off/Land button on the controller.

   When activated the drone will launch and fly up to approx 1.5m If you are to crash the motors will lock.

   To unlock the motors re launch the drone using the Apps on screen take of button.

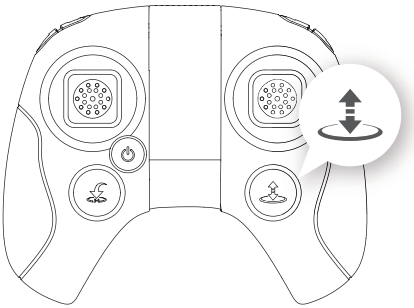
Hey, check it out. You're flying!

10.0 LANDING THE SPITFIRE

Bringing the Spitfire down is easy. To bring the Spitfire back down and land from its current position please follow one of the two options below

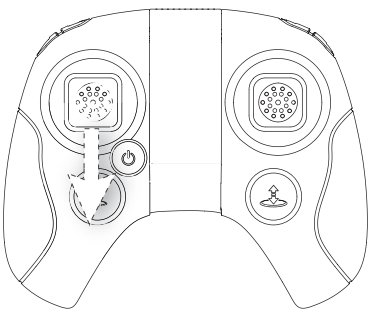
AUTOMATIC LANDING

1. Push the Take off/Landing button and the Spitfire will gently lower itself directly downward until the drone is back on the ground.



MANUAL LANDING

1. Move the left thumb stick downward to bring the drone back to earth. While bringing the drone down, do try to land as softly as possible in a safe area to avoid damaging your Spitfire.



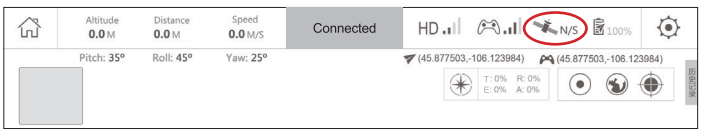
RETURN TO HOME

The return to home function is extremely helpful, bringing the drone back to the location it was launched from. For return to home to work it is important that the Spitfire drone has a connection to at least 6 GPS satellites. The number of satellites can be found on the top right of the app screen when you have connected your smartphone to the Spitfire.

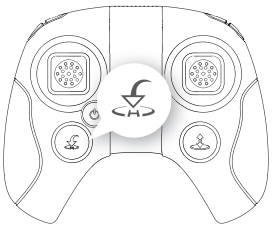
For instructions on connecting your smartphone to the Spitfire via WiFi please refer to the section of this manual titled 'CONNECTING TO THE Spitfire's WIFI'

To activate return to home, please follow the instructions below.

1. While the drone is flying ensure that the Spitfire has a connection to at least 6 GPS satellites by checking the GPS logger in the app.



2. Ensure that there are no obstacles between the launch location and the drones current position and press the return to home button.

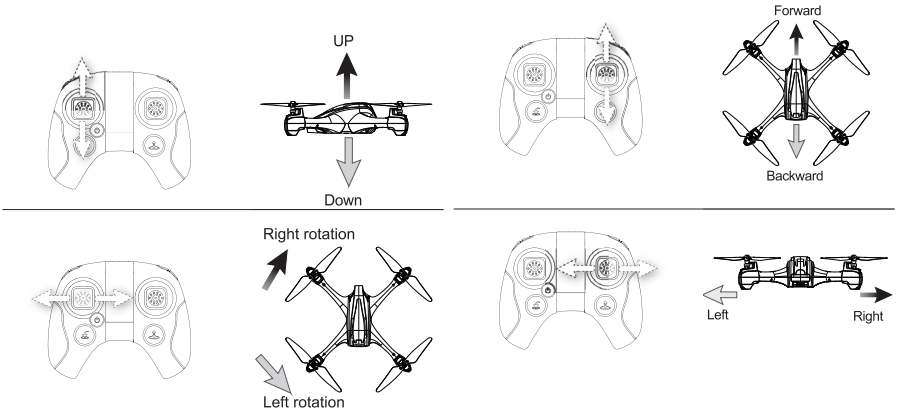


3. If you need to abort the return to home procedure use the thumb sticks to regain control of the Spitfire.

Note
The Spitfire's return to home function is accurate to 10M. Please ensure that your launch position has enough clearance before attempting to activate return to home.

Please ensure that the Spitfire has a connection with at least 6 GPS satellites before activating Return to home.

11.0 BASIC FLIGHT



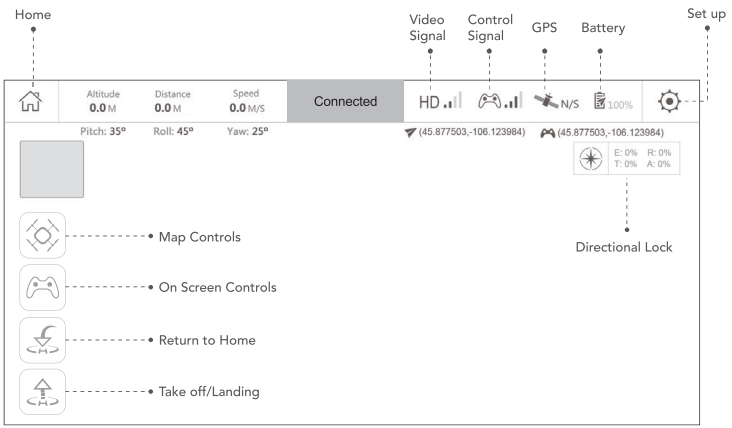
12.0 CAPTURING A PHOTO OR VIDEO.

Videos and Photos can be easily captured by using the Zero-X Spitfire Apps on screen controls, or the Video and Photo button on the remote control.

12.1 ZERO-X SPITFIRE APP

The Spitfire App is available from the Google Play and iOS App Store.

See the below guide for the overview on the app functionality.



13.0 DRONE MAINTENANCE

Avoid exposing your Spitfire and its accessories to dust, sand and moisture as these can damage the Spitfire. If the Spitfire is exposed to dust or sand, use a soft brush to remove any visible particles.

13.1 REPLACEMENT PARTS

We understand that it's not always easy learning how to fly a drone, and sometimes a close call can turn into a crash landing. To thank you for your support of Zero-X purchase and to help you build you confidence in learning how to fly your drone we want to offer you 50% off your first order of any spare parts by using the code below on www.zero-x.com.au. There you will be able to find and buy the spare parts listed below.

- Battery
- Clockwise Motor
- Counter Clockwise Motor
- Rotor guards

THANK YOU FOR YOUR SUPPORT!
PLEASE VISIT OUR WEBSITE &
USE PROMO CODE:
OOPSIBROKEIT
to receive
50% OFF
your spare parts purchase!

THANK YOU FOR YOUR SUPPORT!
PLEASE VISIT OUR WEBSITE &
USE PROMO CODE:
OOPSIBROKEITAGAIN
to receive
50% OFF
your spare parts purchase!

14.0 WARRANTY TERMS & CONDITIONS

Our goods come with guarantees that cannot be excluded under the Australian and New Zealand Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

This warranty is provided in addition to your rights under the Australian & New Zealand Consumer Law.

Zero-X warrants that this product is free from defects in material and workmanship for a period of 12 months from the date of purchase or for the period stated on the packaging. This warranty is only valid where you have used the product in accordance with any recommendations or instructions provided by Zero-X.

This warranty excludes defects resulting from alterations of the product, accident, misuse, abuse or neglect.

In order to claim the warranty, you must return the product to the retailer from which it was purchased or if that retailer is part of a National network, a store within that chain, along with satisfactory proof of purchase. The retailer will then return the goods to Zero-X. Zero-X will repair, replace or refurbish the product at its discretion. The retailer will contact you when the product is ready for collection. All costs involved in claiming this warranty, including the cost of the retailer sending the product to Zero-X, will be borne by you.

Zero-X Address: 33 Quinn Drive, Keilor Park ,Victoria 3042 Australia

Ph: +61 03 8331 4800 **Email:** service@zero-x.com.au

NOTES

_spitfire

Capture the skies.™

ZERO-X

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