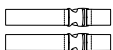
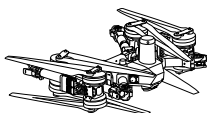
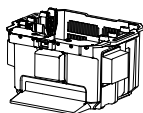
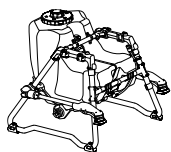
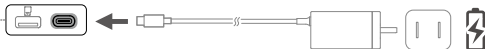
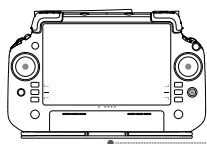
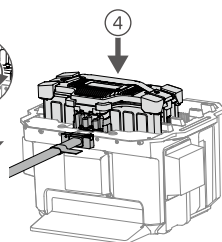
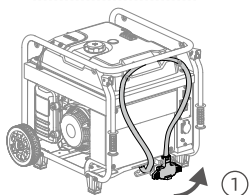
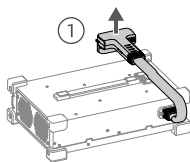


# Quick Start Guide



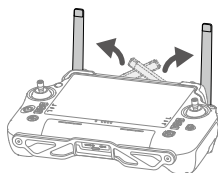
Tools and  
Accessories  
Package

1

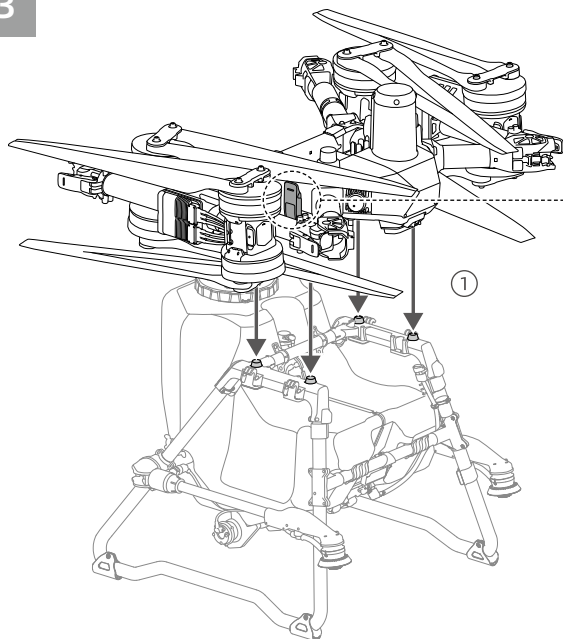


Charge to activate the internal battery of the remote controller before using for the first time.

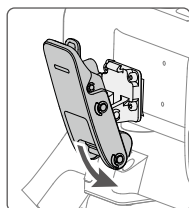
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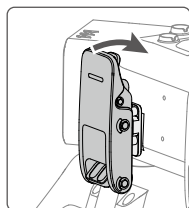
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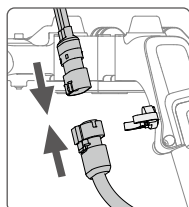
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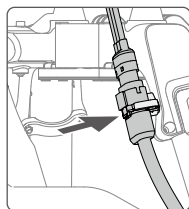
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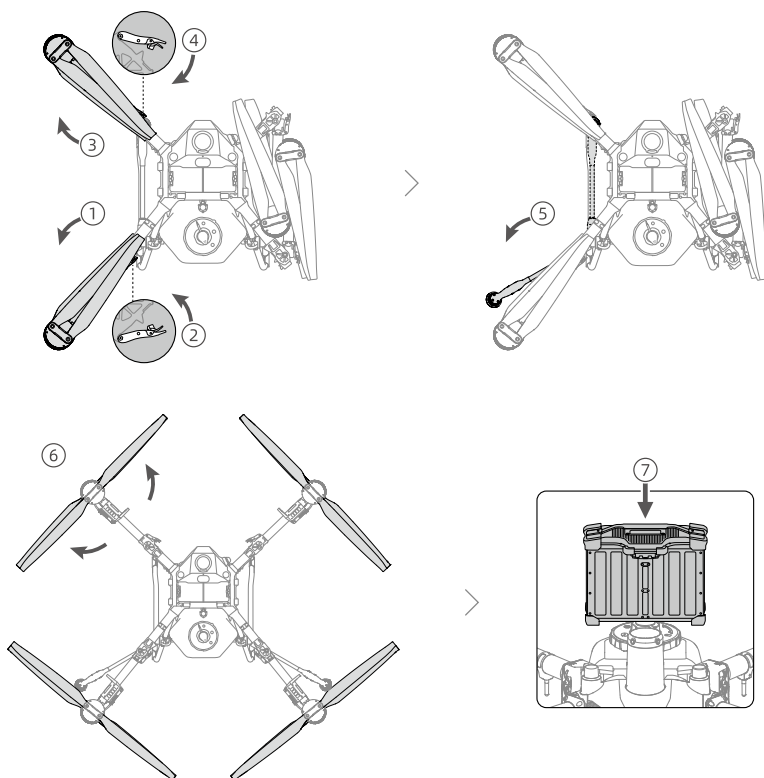
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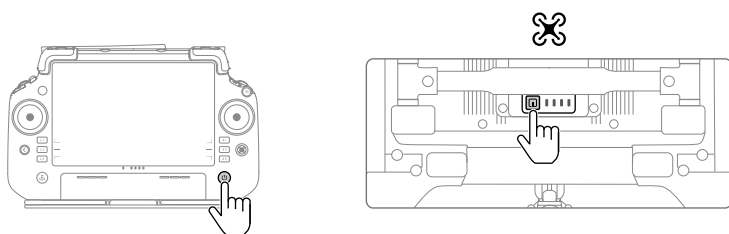
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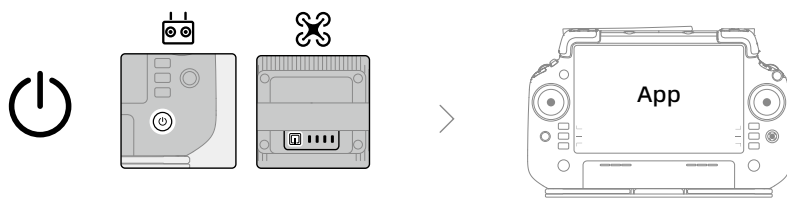
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5

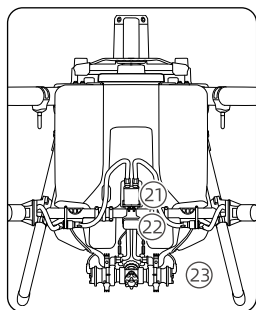
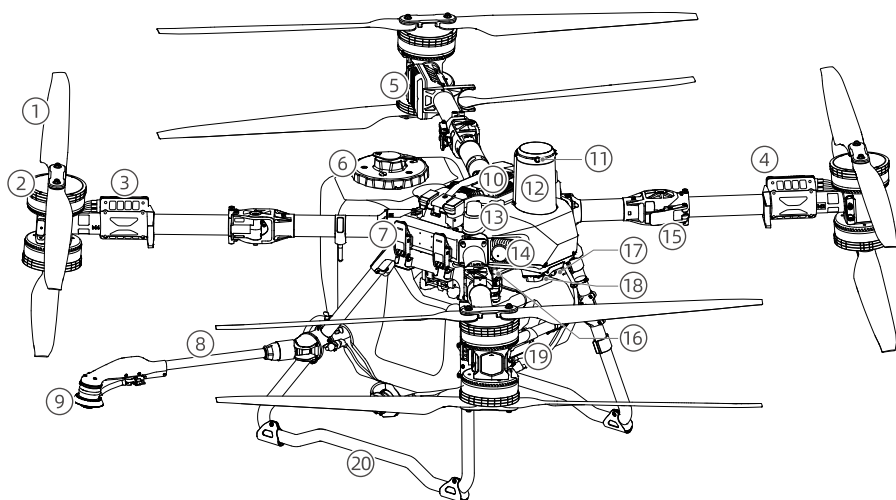


**Check battery level:** Press once.  
**Power on/off:** Press, then press and hold.



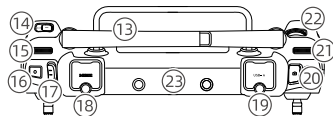
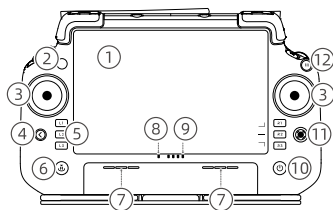
Power on the remote controller and aircraft and run the app. Follow the prompts to activate (internet connection is required).

## Aircraft

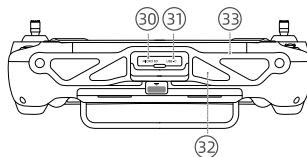
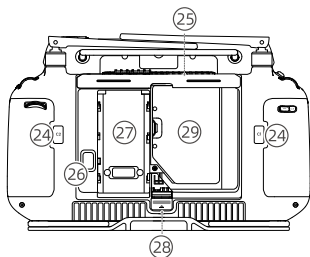


- |                     |                                          |
|---------------------|------------------------------------------|
| 1. Propellers       | 13. Onboard RTK Antennas                 |
| 2. Motors           | 14. LiDAR                                |
| 3. ESC              | 15. Arm Lock                             |
| 4. Front Indicators | 16. External Image Transmission Antennas |
| 5. Rear Indicators  | 17. FPV Camera                           |
| 6. Spray Tank       | 18. Downward Radar                       |
| 7. Payload Lock     | 19. Spotlight                            |
| 8. Spray Lance      | 20. Landing Gear                         |
| 9. Sprinklers       | 21. Electromagnetic Flow Meter           |
| 10. Flight Battery  | 22. Light                                |
| 11. Vision System   | 23. Delivery Pumps                       |
| 12. Forward Radar   |                                          |

# Remote Controller



- |                                |                            |                           |
|--------------------------------|----------------------------|---------------------------|
| 1. Touchscreen                 | 8. Status LED              | 15. Left Dial             |
| 2. Connection Status LED       | 9. Battery Level LEDs      | 16. Spray/Spread Button   |
| 3. Control Sticks              | 10. Power Button           | 17. Flight Mode Switch    |
| 4. Back Button                 | 11. 5D Button              | 18. HDMI Port             |
| 5. L1/L2/L3/R1/R2/R3 Buttons   | 12. Flight Pause Button    | 19. USB-A Port            |
| 6. Return to Home (RTH) Button | 13. External Antennas      | 20. FPV/Map Switch Button |
| 7. Microphone                  | 14. Customizable C3 Button | 21. Right Dial            |



- |                       |                               |                       |
|-----------------------|-------------------------------|-----------------------|
| 22. Scroll Wheel      | 26. Battery Release Button    | 30. microSD Card Slot |
| 23. Internal Antennas | 27. Battery Compartment       | 31. USB-C Port        |
| 24. C1/C2 Buttons     | 28. Rear Cover Release Button | 32. Air Intake        |
| 25. Rear Cover        | 29. Dongle Compartment        | 33. Bracket           |

## Getting Ready for Takeoff



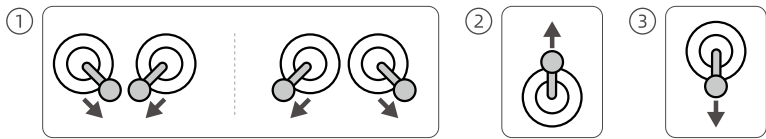
It is important to understand the basic flight guidelines, both for your protection and for the safety of those around you.  
Make sure to read the **disclaimer and safety guidelines**.

## Pre-Flight Checklist

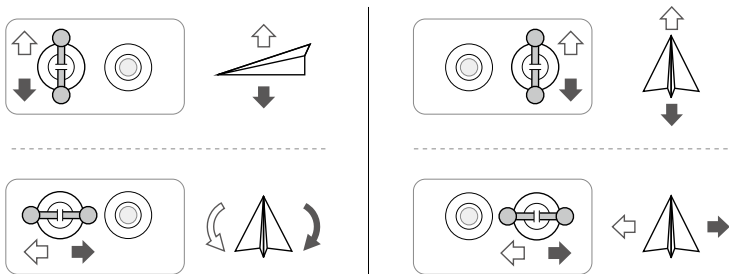
Power on the remote controller, make sure that the app is open, and then power on the aircraft. Make sure the remote controller and the aircraft are connected. Go to the home screen in the app and tap Start to enter Operation View. Make sure the status bar on the upper left screen is green. Otherwise, the aircraft cannot take off.

-  RTK positioning is recommended. In the app, go to Operation View, tap  and then RTK to select a method for receiving RTK signals.

# Manual Flight



- Press and hold the C1, C2, and flight pause button simultaneously until the motor stops if there is an emergency.



## Specifications

|                                                               |                                                                                                      |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Agricultural UAV</b>                                       |                                                                                                      |
| Operating Frequency <sup>[1]</sup> & Transmitter Power (EIRP) | 2.4000-2.4835 GHz: <33 dBm (FCC)<br>5.725-5.850 GHz: <33 dBm (FCC)                                   |
| Operating Temperature                                         | 0° to 40° C (32° to 104° F)                                                                          |
| <b>Radar</b>                                                  |                                                                                                      |
| Operating Frequency & Transmitter Power (EIRP)                | 24.05-24.25 GHz: <20 dBm (FCC)                                                                       |
| Operating Temperature                                         | 0° to 40° C (32° to 104° F)                                                                          |
| <b>LiDAR</b>                                                  |                                                                                                      |
| Wavelength                                                    | 905 nm                                                                                               |
| Laser Safety                                                  | Class 1                                                                                              |
| Accessible Emission Limit (AEL)                               | 128 nJ                                                                                               |
| Reference Aperture                                            | 4 mm                                                                                                 |
| Max Laser Pulse Emission Power Within 5 ns                    | 35 W                                                                                                 |
| <b>Remote Controller</b>                                      |                                                                                                      |
| Operating Temperature                                         | -20° to 50° C (-4° to 122° F)                                                                        |
| <b>Video Transmission</b>                                     |                                                                                                      |
| Operating Frequency <sup>[1]</sup> & Transmitter Power (EIRP) | 2.4000-2.4835 GHz: <33 dBm (FCC)<br>5.725-5.850 GHz: <33 dBm (FCC)                                   |
| <b>Wi-Fi (802.11 a/b/g/n/ac/ax)</b>                           |                                                                                                      |
| Operating Frequency <sup>[1]</sup> & Transmitter Power (EIRP) | 2.4000-2.4835 GHz: <26 dBm (FCC)<br>5.150-5.250 GHz: <26 dBm (FCC)<br>5.725-5.850 GHz: <26 dBm (FCC) |
| <b>Bluetooth 5.2</b>                                          |                                                                                                      |
| Operating Frequency & Transmitter Power (EIRP)                | 2.4000-2.4835 GHz: <10 dBm                                                                           |

[1] 5.8 and 5.1GHz frequencies are prohibited in some countries. In some countries, the 5.1GHz frequency is only allowed for use indoors.

## Disclaimer and Warnings

This product is a multi-rotor flying platform intended solely for agriculture, forestry, animal husbandry, and fisheries such as crop protection, seeding, and baiting. It is strictly prohibited for use with human occupants. By using this product, you signify that you have read, understand, and accept the terms and conditions of this guideline. The information in this document affects your safety and your legal rights and responsibilities. You agree to only use this product for proper purposes. You agree that you are solely responsible for your own conduct while using this product and for any consequences thereof. We accept no liability for damage, injury, or any legal responsibility incurred directly or indirectly from the use of this product. This product is not intended for children under the age of 18.

## Regulations

### ⚠ WARNING

- DO NOT use the aircraft to carry illegal or dangerous payloads.
- DO NOT operate in the vicinity of manned aircraft. DO NOT interfere with the operations of manned aircraft. Be alert and avoid other aircraft at all times. Land immediately if necessary.
- DO NOT fly the aircraft in areas where the large events are being held, including but not limited to sporting events and concerts.
- DO NOT fly the aircraft without authorization in areas prohibited by local laws. Prohibited areas include airports, national borders, major cities and densely populated areas, venues of major events, areas where emergencies have occurred (such as forest fires), and locations with sensitive structures (such as nuclear power plants, power stations, hydropower plants, correctional facilities, heavily traveled roads, government facilities, and military zones).

### NOTICE

- Make sure you understand the nature of your flight operation (such as for recreation, for public use, or for commercial use) and have obtained corresponding approval and clearance from the related government agencies before flight. Consult with your local regulators for comprehensive definitions and specific requirements. Note that remote-controlled aircraft may be banned from conducting commercial activities in certain countries and regions. Check and follow all local laws and ordinances before flying, as those rules may differ from those stated here.

## Flight Restrictions

- Avoid flying at altitudes above 100 m (328 ft). \* DO NOT fly the aircraft above the authorized altitude.
- Keep the flight distance within 2 km or less. Note that the battery level may not be enough for the aircraft to return to the Home Point if the aircraft is too far away. Make sure to fly with caution.
- \* The flying altitude limit varies in different countries or regions. Make sure to fly at the altitudes outlined by local laws and regulations.

## Pre-Flight Checklist

- Make sure all devices are fully charged.
- Only use genuine components. Unauthorized parts may cause system malfunctions and compromise flight safety.
- Make sure all components are in good condition and not blocked by foreign object, including but not limited to motors, propellers, vision system, radar module, and antennas. Replace aged or broken parts in time.
- Make sure all parts are mounted securely and cables are connected correctly and firmly, including but not limited to the aircraft battery, spray tank, and arm locks.
- Make sure the aircraft and its components are all in good working order, damage-free, and functioning well. Components include, but are not limited to, the remote controller, compass, propulsion system, radar module, and payload system.
- Make sure the spraying system is not blocked and has no leaks, and that the sprinklers work properly.
- Compass is calibrated after being prompted to do so in the app.
- Always wear a helmet during the operation and maintain a safe distance of more than 6 m from the aircraft. Make sure there are no other personnel, vehicles, or obstacles around the aircraft.
- Make sure to clear any debris in the task area that may affect flight, such as plastic bags, empty fertilizer bags, and plastic films that can be easily blown away.
- Make sure the app is functioning properly. Without the flight data recorded by the app and stored in your remote controller, in certain situations such as the loss of your aircraft, we may not be able to provide after-sales support or assume liability.
- Examine and check all warning messages on the aircraft status list displayed in the app prior to each flight to ensure there are no errors.
- The app will intelligently recommend the payload weight limit for the

tank according to the current status and surroundings of the aircraft. DO NOT exceed the recommended payload weight limit when adding material to the tank. Otherwise, the flight safety may be affected.

## Flight Environment Requirements

### ⚠ WARNING

- During takeoff, landing, and flight, keep away from roads, water surfaces, and obstacles such as utility poles, high-voltage lines, and trees. Maintain a safe distance of more than 10 m from crowds and animals.
- Only fly in moderate weather conditions with temperatures between 0° C to 40° C (32° to 104° F). DO NOT use the aircraft in severe weather conditions including wind speeds exceeding 6 m/s, heavy rain (precipitation rate exceeding 25 mm (0.98 in) in 12 hours), snow, ice, fog, and lightning.
- To prevent health hazards to nearby people and to ensure effective spray, operate the aircraft to spray in wind speeds below 6 m/s. It is recommended to operate the aircraft in wind speeds below 3 m/s when using herbicide, fungicides, or insecticides that are easy to drift and that pose phytotoxic risks.
- DO NOT fly over 4.5 km (14,763 ft) above sea level.
- DO NOT fly the aircraft in areas that severely affect GNSS signal, such as indoors or under bridges. Only operate the aircraft with a strong GNSS signal.
- Fly in open areas.
- Avoid flying in areas with high levels of electromagnetism, including mobile phone base stations and radio transmission towers.

### NOTICE

- The payload capacity will decrease with increasing altitude. Be careful when flying 2 km (6,560 ft) or more above sea level as battery and aircraft performance may be reduced.
- In low temperature environments, make sure that the flight battery is fully charged and be sure to reduce the payload of the aircraft. Otherwise, it will affect flight safety or a takeoff limit will occur.
- DO NOT use the aircraft near accidents, fire, explosions, floods, tsunamis, avalanches, landslides, earthquakes, dust, or sandstorms.

## Flight Safety Notice

### ⚠ WARNING

- Small parts of this product and its accessories are dangerous if swallowed. Keep all parts out of reach of children. DO NOT operate this product in the presence of children.
- DO NOT make any unauthorized modifications to the aircraft, as it may lead to unstable flight or even crashes.
- Make sure you are not under the influence of alcohol, drugs, or anesthesia or suffering from dizziness, fatigue, nausea, or any other physical or mental conditions that could impair your ability to operate the aircraft safely.
- Keep the aircraft within visual line of sight (VLOS).
- Make sure there are no unauthorized personnel in the operation area during flight.
- DO NOT completely rely on the safety system, information provided by the app, and other system functions. The safety system cannot work in certain environmental conditions, and the aircraft may not be able to sense and bypass an obstacle. Ensure good visibility and always pay full attention during flight, observe the surrounding environment, and maintain control of the aircraft and fly with caution.
- Stay away from rotating propellers and motors. Make sure to keep a safe distance of more than 6 m. Make sure to operate the propellers and motors when the aircraft is powered off.
- When the battery warnings are triggered, promptly bring the aircraft back to the Home Point. Auto landing will be triggered when the critical battery level warning is activated. Use the remote controller to control the aircraft horizontally. Fly the aircraft to a safe place and land as soon as possible. If the aircraft loses power and control during flight, it may cause serious damage to the aircraft, other property, people, and animals.
- If there are high-voltage power lines in the task area, carefully plan the route to maintain a safe distance to avoid collisions. If the aircraft collides with power lines, DO NOT touch the aircraft to avoid electric shocks.
- Be aware of the sharp edges of the propellers when mounting or removing the propellers.
- When operating at night, DO NOT look directly at the spotlight to avoid damaging your eyes.

### NOTICE

- After landing, stop the motors, power off the aircraft, and turn off the remote controller. Otherwise, the aircraft may enter Failsafe RTH

- automatically due to remote controller signal loss. To avoid burns, DO NOT directly touch the motor.
- Carefully read and understand all safety tips, warning messages, and disclaimers in the app. Operate the aircraft according to the prompts.
  - DO NOT attempt to repair the aircraft. Contact authorized dealer if any parts are damaged.
  - Use the ports on the aircraft body in strict accordance with their specifications. Make sure to attach the waterproof cover when the port is not in use. DO NOT short circuit the ports on the aircraft body.
  - The sprinklers are delicate parts. Clean them immediately after use. Make sure to securely tighten the hose nuts. DO NOT bend the hose in an arc tighter than its minimum bend radius.

## Pesticide Usage

- Avoid the use of powder pesticide as much as possible and clean the spraying system after use. Otherwise, the service life of the spraying system may be reduced.
- Pesticides are poisonous and pose serious risks to safety. Only use them in strict accordance with their specifications.
- Residue on the equipment caused by splashes or spills when pouring and mixing the pesticide can irritate your skin. Make sure to clean the equipment after mixing.
- Use clean water without minerals to mix the pesticide and filter the mixed liquid before pouring into the spray tank to avoid blocking the strainer. Clear any blockage before using the equipment.
- Make sure to stay in an upwind area when spraying pesticide to avoid bodily harm.
- Wear protective clothing to prevent direct body contact with the pesticide. Rinse your hands and skin after handling pesticides. Clean the aircraft and remote controller after applying the pesticide.
- Effective use of pesticides depends on pesticide density, spray rate, spray distance, aircraft speed, wind speed, wind direction, temperature, and humidity. Consider all factors when using pesticides, but DO NOT compromise the safety of people, animals, or the environment in doing so.
- DO NOT contaminate rivers and sources of drinking water.
- Disposal of surplus spray: Planning the spray operation helps to ensure only enough pesticide for the area to be treated is purchased and the amount of surplus spray solution is kept to a minimum. It is recommended that any surplus spray or washing liquid in the tank be applied to the crops. Users may also consider installing a pipeline to handle the disposal of the washing liquid in the tank.
- DO NOT use strong acids, strong bases, high-temperature liquids, or pesticides that are explicitly prohibited.

## Battery Safety Notice

- DO NOT allow liquid to come into contact with the battery. DO NOT leave the battery covered in moisture or out in the rain. DO NOT drop the battery into water. Otherwise, an explosion or fire may occur. If the battery comes into contact with liquid, immediately remove the battery, place it in a dry and open area away from flammable materials, and contact authorized dealer for instructions.
- DO NOT use non-official batteries. It is recommended to use the official chargers.
- The battery should be used at a temperature between -5° and 45° C (23° and 113° F). A high temperature can lead to a fire or explosion. A low temperature will reduce the performance of a battery.
- DO NOT use swollen, leaking, or damaged batteries. The electrolytes in the battery are highly corrosive. If any electrolytes come into contact with your skin or eyes, immediately wash the affected area with water and seek medical support.
- DO NOT disassemble or pierce batteries in any way.
- Keep the batteries out of the reach of children.
- DO NOT use a battery if it is involved in a crash or heavy impact.
- DO NOT leave the batteries near heat sources such as inside a vehicle on hot days.
- DO NOT store the battery for an extended period of time after fully discharging. Otherwise, the battery may over-discharge and cause irreparable damage.

## Compliance Information

### Compliance Notice

Supplier's Declaration of Conformity

Product name: Agricultural UAV / Remote Controller / Spray Tank  
Model Number: LD220 / LD220 RC / LD220 Spray Tank

Responsible Party: Lyno Dynamics LLC

Responsible Party Address: 2232 Dell Range Blvd., Suite 245 Cheyenne, WY 82009

Website: lynodynamics.com

We, Lyno Dynamics LLC, being the responsible party, declares that the above mentioned model was tested to demonstrate complying with all applicable FCC rules and regulations. 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. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class A 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.

### RF Exposure Information

The aircraft complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm during normal operation. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The portable device is designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA). These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body. These requirements set a SAR limit of 4 W/kg averaged over ten gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the limbs.

The product's SN follows this structured format:

XXXX-X-XXX-X-XX-X-X-XX-X-XXXX

[ICAO Code]-[Length Code]-[Product Code]-[Manufacturer Plant]-[Year]-[Month]-

[Date]-[Reserved Code]-[Revision Level]-[Sequential ID]

