For age 14+

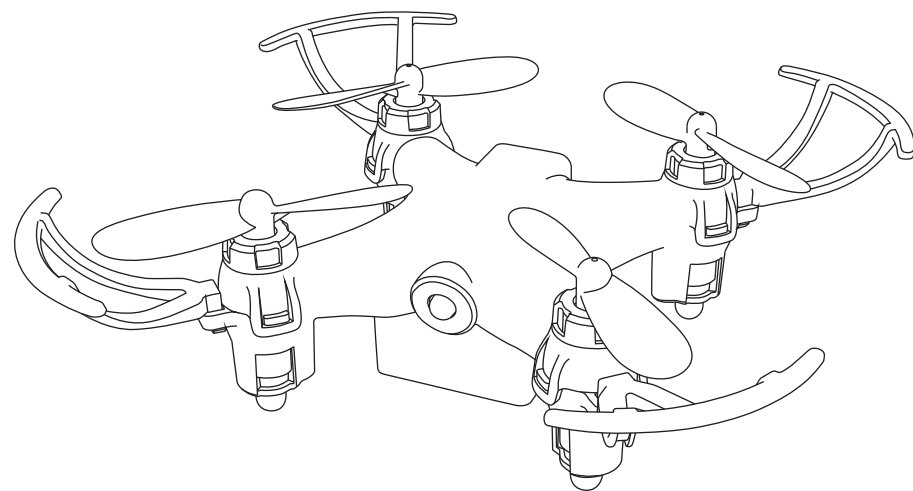# DENVER DRO-120

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Please read this instruction manual carefully before using the product

ENGLISH

Notice:

1 Instructions
Please read the user handbook carefully and then keep it in a safe place for future consultation and maintenance.

1.1 Important Notice
(1) This product is not a toy, it's a piece of complicated equipment which integrated with professional knowledge by mechanic, electric, air mechanics, high-frequency transmitter and so on, so it should be installed correctly and adjusted to avoid any accidents. The owner must always operate in a safe manner, if improper operation that caused human injured or property damage, then we DENVER ELECTRONICS A/S accept no liability for any safety duties from operation. As we have no control over the way they maintained, used and operated.
(2) This product is not suitable for users under 14 years of age.
(3) The use of the drone may be prohibited in some areas like train stations, airports, aircrafts, inhabited areas etc. You should check with the authorities whether the use of the drone is permitted in some public or private areas. Always use the drone bearing in mind not to breach people's privacy. We exclude liability for any wrong use of the drone.

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(4) We DENVER accept no liability for any safety duties or fines arising from operation, usage or mis-control after the sale of products. Warranty does not cover if drone crashes and get damaged.

1.2 Safety Precautions
Keep away from crowd when flying, since drone flight is a high-risk hobby. Misassembled or broken main frame or defective electronic equipment or unskilled operation may cause accidents of machine damaged or injured. Please pay special attention to safety operation.
(1) Keep away from people and obstacles
"The flying speed and status of the drone is uncertain, so it may cause potential danger." When choosing a flying site should stay clear of buildings, trees and power lines. AVOID flying in or near crowded areas. Meanwhile avoid flying in rain, storms, thunder and lightening to protect machinery and parts out of damage.
(2) Keep away from humid environments
Inside of drone is made up of precise electronic components. Stay away from humidity or water vapor to protect machinery and parts.
(3) Safety operation
Please fly your drone according to your physical status and flight skill. Fatigue, listlessness and mis-operation will increase possibilities of accidental hazard.
(4) Keep away from rotating blades
Keep your face and body as well as all spectators away from the rotating blades. The spinning blades of a model of this type can cause serious injury.
(5) We recommend flying the drone below 10 meters of height.
(6) Keep away from heat
A drone is made up of metal, fiber, plastic, electronic components, etc. Keep it away from heat and sunshine to avoid distortion, and damage.

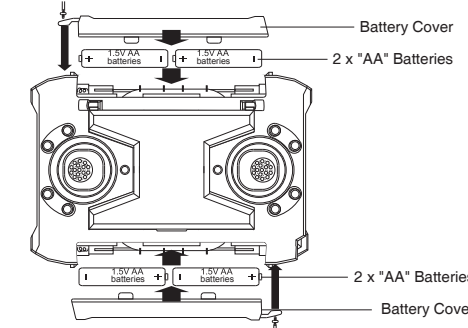**1.3 Check List Before First Flight**
(1) Flying field should be in an open space and we suggest at least 5M length *5M wide *3M height.
(2) Make sure the receiver and transmitter is fully charged.
(3) Please strictly obey the order of turn-on, turn-off before operation. When starting your flight, first turn-on the transmitter, and turn on the drone last; When finishing your flight, please turn off the drone first, and turn off transmitter last. An upset in the order of connection may cause your drone loose control to threaten yourself and others safely. Please follow a correct habit of turn-on and turn-off.
(4) Make sure the connection is solid between battery or motor. The ongoing vibration may cause bad connection of power terminal and make the drone uncontrollable.

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Battery Installation & Charging
Controller

To install batteries: Open the covers of battery case, then insert 4 x 1.5V AA batteries according to indicated polarity (batteries not included).
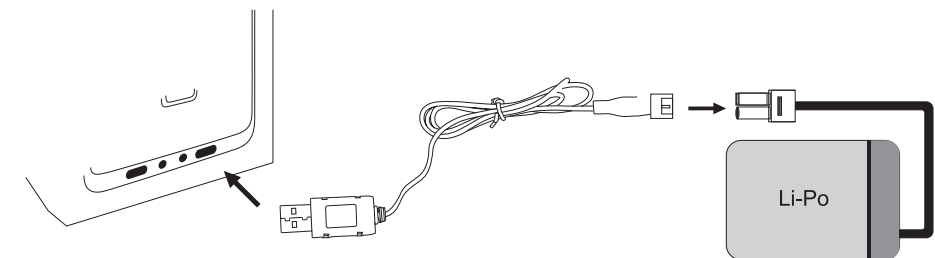**Battery installation should be done under adult supervision only!**
Do not mix old and new batteries.
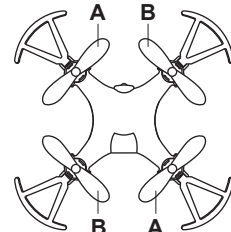**Do not mix different types of batteries.**

Charging
Remove the battery from the drone, then connect one side of the USB cable with the battery, and the other side into any a USB port of computer or a smart-phone charger (not included).
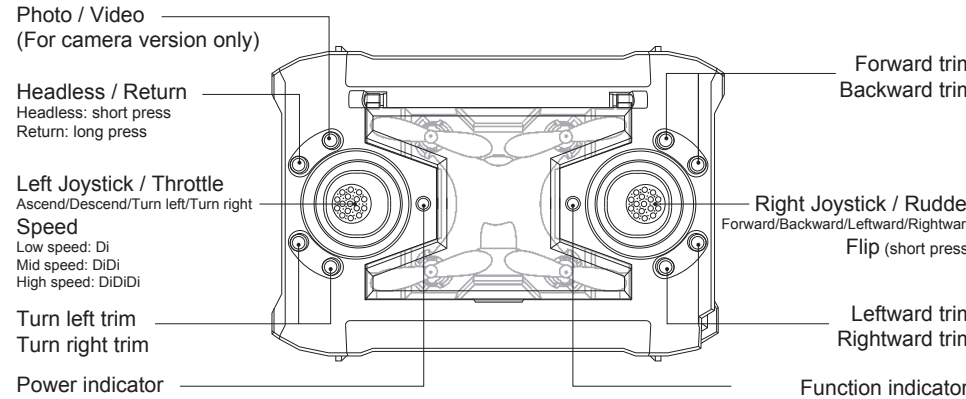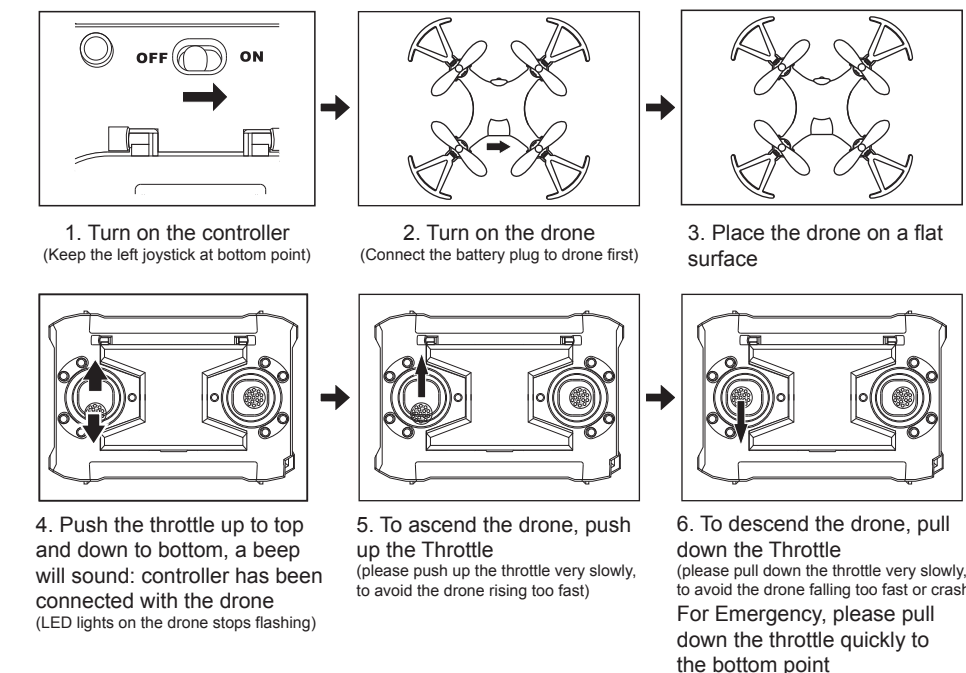

Drone
Replacing the damaged blades:
Your set will come with 4 spare rotors, two type A and two type B. You will see the "A" and "B" word on the canopy, then put the rotor on the motor accordingly
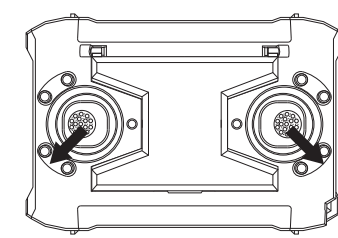

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Remote Controller

Photo / Video
(For camera version only)

Headless / Return
Headless: short press
Return: long press

Left Joystick / Throttle
Speed
Low speed: Di
Mid speed: DiDi
High speed: DiDiDi

Turn left trim
Turn right trim

Power indicator

Forward trim
Backward trim

Right Joystick / Rudder
Forward/Backward/Leftward/Rightward
Flip (short press)

Leftward trim
Rightward trim

Function indicator

Standard Operation steps

1. Turn on the controller
(Keep the left joystick at bottom point)

2. Turn on the drone
(Connect the battery plug to drone first)

3. Place the drone on a flat surface

4. Push the throttle up to top and down to bottom, a beep will sound: controller has been connected with the drone
(LED lights on the drone stops flashing)

5. To ascend the drone, push up the Throttle
(please push up the throttle very slowly, to avoid the drone rising too fast)

6. To descend the drone, pull down the Throttle
(please pull down the throttle very slowly, to avoid the drone falling too fast or crash)
For Emergency, please pull down the throttle quickly to the bottom point
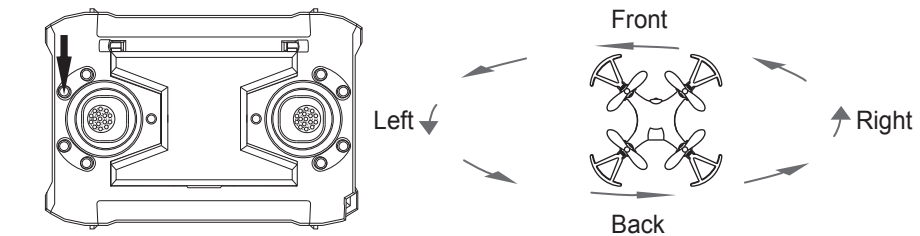
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Gyroscope Reset
Before first flying, pull the *Throttle* to bottom left and *Rudder* to bottom right corner at the same time for 2-3 seconds, the lights on the drone flashes quickly, then let go of the *Throttle* and *Rudder*.
When the lights stop flashing and remain on, then gyroscope reset complete.
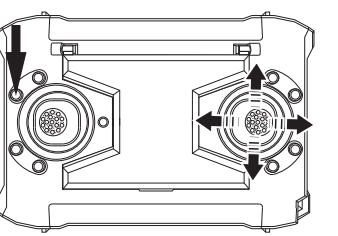
Headless Mode
Start / Quit Headless Mode
Press the button on controller (as picture) you will hear beep sounds and lights on the drone flashes, then you get into headless mode.
Press it again to quit, beep stops and lights keep on.
At the moment when you start headless mode, the direction that the drone is heading to will be fixed as the head of drone. No matter how you rotate the drone, the front direction won't change accordingly.
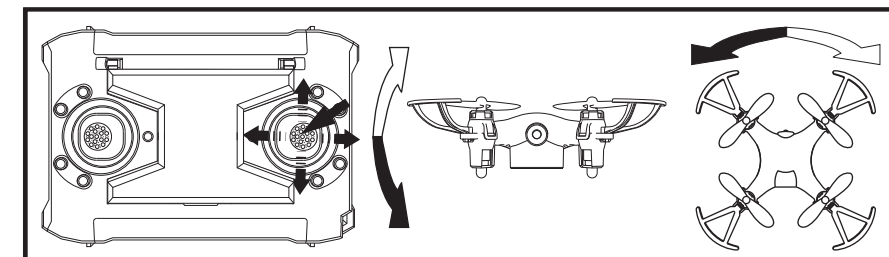

Front
Left
Right
Back

One Key Return
Press and hold the button (long press), you will activate One Key Return and the drone will now attempt to fly back towards its starting point.
If you want to deactivate this mode, then push the right joystick (Rudder) to any direction.
Note: The drone will not land automatically, you still need to control the height of the drone when using the one key return flying mode.
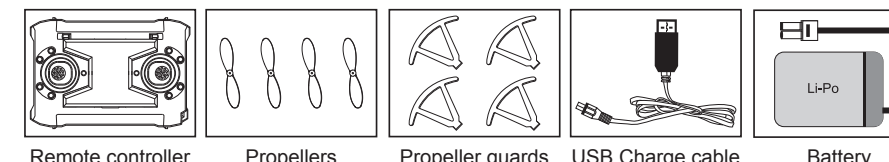

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Flips and rolls

After you have the basics of flying, you're ready to learn flip and roll your drone.
To perform a flip or roll, make sure the drone is at least 3 meters off the ground. Press the button *Flip*, then quickly push the Rudder in either direction to make the drone flip or roll. Once the manoeuvre is completed, steady the drone.

Main Accessories

Remote controller   Propellers   Propeller guards   USB Charge cable   Battery

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