

Motio**New**

Drone Winch

User Manual V1.0



Please read this book carefully before using this product and keep it properly. If you have any questions,
please contact the salesperson

Precautions

1. This device needs to be powered by a DC 20-26V voltage. Voltages below this range will affect the winding speed, and voltages above this range may cause the device to burn out.
2. The remote control requires 4 AA batteries. Please pay attention to the positive and negative polarity when installing them and install them according to the instruction icons, otherwise it will not turn on.
3. Please fully tighten the mounting connector when using it to avoid it from loosening and falling, which may cause flight accidents.
4. This device is designed with a quick-disassembly structure for quick replacement. Please pay attention to the installation direction before use.
5. When using, please pay attention to whether there are any obstacles below the working position to avoid entanglement and causing flight accidents!
6. Pay attention to check whether the release hook is moving normally and whether the spring returns normally. If there is any abnormality, please do not fly.
7. Please do not bump or bump it during transportation or handling to avoid structural deformation that affects normal operation.
8. Since some poorly maintained aircraft may vibrate violently, please check the drone and equipment frequently for loose screws or damaged accessories. If you find any problems, please do not fly.
9. Please keep the lead wire under gravity during use, otherwise it will easily cause the lead wire to get tangled and cause the wire to get stuck and damage the device.
10. When using this device, the drone should fly smoothly and avoid sudden acceleration, sudden stop, sudden rise and fall, which may affect flight safety in serious cases.
11. When using, pay attention to avoid the lead being too long or without gravity traction during takeoff or landing, so as to avoid the lead being sucked into the propeller and entangled due to strong winds or propeller wind effect, resulting in a flight accident!
12. After using the device, apply a little resistance to the lead wire, control the wire wheel to retract the excessive lead wire, and stop when gravity hooks the device about 10 cm long, wipe the dust on the surface of the device and put it in the transport box.

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Introduction

This is an airborne drop rope suitable for emergency rescue and material airdrop transportation. It has the characteristics of high strength, reasonable structural design, small size, light weight, and good toughness. It is suitable for UAVs such as M600 and M300RTK (different mounting frames are required) and can be used in public security, fire fighting, power line laying, material round-trip transportation, disaster relief, and the delivery of rescue materials in isolated areas.

Components

1. Quick release bracket
2. Cable organizer
3. Power supply interface
4. Image connector (Spare)
5. Gravity mount hook



Installation

Preparation

Before installation and use, you need to prepare the following items:

M600 drone, release rope, power cable, and six-channel remote control.



Mounting and installation

First, loosen the fastening screws of the M600 mount, open the cover of the mount, install the quick-release mount to the drone, and then align the device's quick-release seat with the mount. Push it in and hear a "click" sound, then push and pull the device to ensure a reliable connection. (The standard version does not include the M600 quick-release mount, which needs to be purchased separately)

M600 Hanging rack



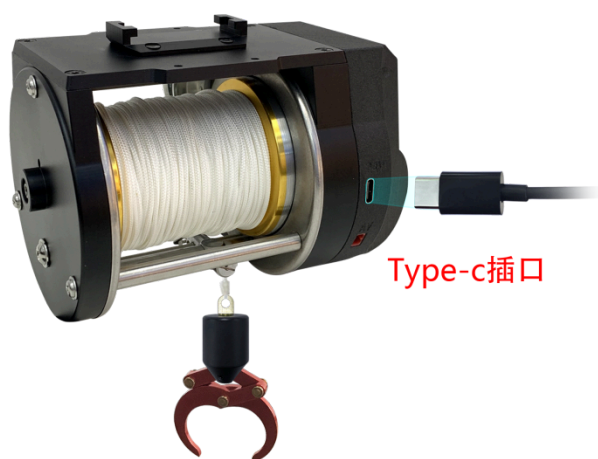
Front View



Back view
(module push-in port)



Connect the input end of the power cable to the drone, and insert the output end of the cable into the Type-C socket on the back of the device, regardless of the front or back, to ensure that it is plugged in tightly to avoid sparks. Open the battery cover on the back of the remote control, insert the battery, and close the battery cover to complete the installation.



Control and operation

Power on and use matters

Pick up the remote control of the release rope module, do not touch the joystick, reset all the toggle switches on the top before turning on the machine, press the button of the power icon with both thumbs for about 3 seconds at the same time, and the remote control will turn on. The shutdown method is the same as the startup method.

After the screen displays a normal picture without error prompts, turn on the drone with the equipment installed. At this time, the sky end voltage should be displayed in the upper right corner of the remote control screen, indicating that it has been successfully connected.

Push the left joystick up: to pull up the lead. After triggering the travel switch, it cannot continue to pull up.

Push the left joystick down: to lower the lead. Please slowly or stop lowering after about 25 meters.

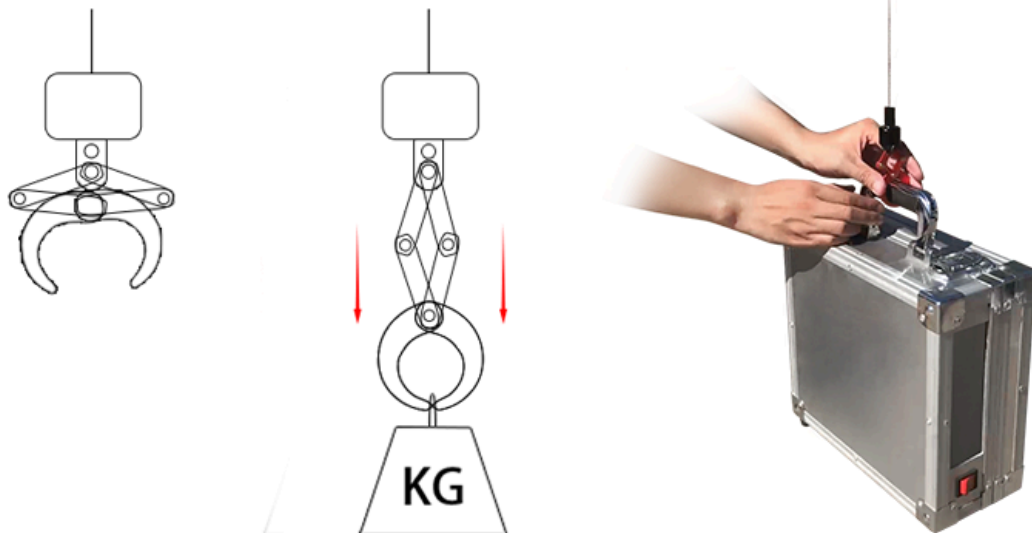
Note: Lowering more than 30 meters will cause the reel to rewind and damage the equipment!



Mounting operation

First, take off the drone to a certain height, lower the mounting hook, put the item into the mounting hook, gently squeeze the mounting hook, reel in the item (the gravity mounting hook requires the mounting object to have a certain weight to press down), use gravity to press the inside of the gravity hook, slowly release the hand holding the gravity hook and let the lead bear the gravity. If the gravity hook is not pressed by gravity during the process, it may be actively opened, please practice more.

When releasing, put down the cable, and the mounting hook will automatically open when the item touches the ground. When reeling in the line, the release rope must be in a vertical state to prevent the reel from being too loose.



Note: You need to be familiar with the usage and precautions of this device. Do not apply sudden pulling force to the device. The device should be used with the safety of the drone as the main purpose and the dropping of objects as the secondary purpose.

Specification

| Winch | |
|-----------------------|--|
| Dimensions | 200mm*105mm*145mm |
| Outer packing box | 305mm*269mm*195mm |
| Equipment weight | 1.05KG |
| Installation | Quick release |
| Power supply | Panel Mount |
| Operating voltage | 12V or 24V (depending on the version) |
| Motor Type | Brushed DC Motor |
| Motor power | 22W |
| Motor speed | 6000 RPM |
| Output speed | 120RPM |
| Reduction ratio | 1 : 50 |
| Pay-off speed | 10m/minute |
| Length of Rope | 30M |
| Maximum load capacity | 5KG / 10KG |
| Control method | Independent remote control |
| Signal Mode | PWM Signal |
| Control distance | 800M (No obstruction) |
| Expand channel | Supports M600 channel expansion function (if you need this function, please contact sales first) |
| Applicable models | M600 Pro and Rufeng series (for other self-hosted models, please contact sales first) |

| Remote Control | |
|-------------------|---|
| Dimensions | 180mm*82mm*161mm |
| weight | 392g |
| Input Power | 1.5AA*4 |
| Data Output | PS2 Interface, PPM |
| Frequency range | 2.408 - 2.475GHZ |
| Band width | 500KHZ |
| Transmitter power | No more than 20dBm |
| Low voltage alarm | Below 4.2V |
| Charging port | None |
| Antenna length | 26mm*2 (built-in dual antenna) |
| Display Mode | STN semi-transparent positive display, 128x64 dot matrix; VA73*39 mm LED white backlight |