

ARRIS M900 User Manual V1.0



Disclaimer Declaration

The ARRIS M900 industrial drone is not suitable for minors under 18 years of age. The ARRIS M900 is a semi-assembled quad-copter with DIY use for the customers, we do not recommend it to beginners without any flying experience. The ARRIS M900 is great for is great for power inspection, fire search and rescue, traffic patrols, airdrops of supplier and lifesaving equipment, aerial photography and etc.

Before using this product, any user should carefully read the relevant operating instructions and this statement. Once the product is used, it shall be deemed to have recognized and accepted the entire content of this statement. In the process of using this product, the user promises to be responsible for his actions and all consequences arising therefrom. The user promises to use this product only for legitimate purposes, and agrees to abide by these terms and any related policies or guidelines that ARRIS may formulate.

Know About ARRIS M900

What is in the package?

When you receive the package for the M900, you will find the following items into it:

M900 Arms x 4

Center plate with flight controller and GPS installed x 1

Hand bar with battery plate x 1

Landing skid x 1

H12 Radio x 1 (Generally in another shipment)

Parts you need to prepare to fly the ARRIS M900:

6S 10000mah to 25000mah Lipo Battery x 1 (not included)

6S battery charger x 1 (not included)

1. Assembly the Drone

Tools needed: 2.0mm Long Hexagon Screwdriver x 1

2.5mm Long Hexagon Screwdriver x 1

For the ARRIS M900, it is fully assembled, tuned and tested before shipping. Each drone with test video recorded here. We took it into several parts before packing (center plates with the flight controller and GPS, arms, landing skid), when you receive it, please install it according to the assembling video here.

https://www.youtube.com/watch?v=ev_JSUNnk0&t=8s

*** After assembling, please recheck the GPS direction, arm sequence and the screws on the ARRIS M900. Also make sure the antenna for the receiver installed well.**

2. Check Motor Rotation

After you assembling it, please check whether the rotation of each motor is right. Here is a video for reference.

<https://youtu.be/Uea32xxf-sw>

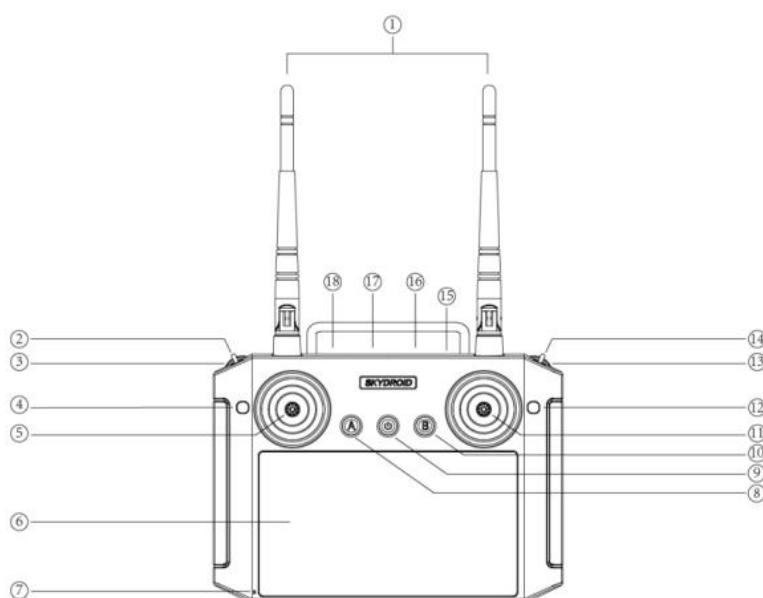
Know about the Skydroid H12 Radio

3. Connect Wifi on the Radio

The H12 Radio is also regarded as the ground station for the M900 drone, and it need to connect with the internet. The most convenient way is to use the hotpots on your phones.

Below videos shows to to operate on your phone and the radio.

<https://youtube.com/shorts/Yrt2rsGKkmQ?feature=share>



Number	Annotation	Number	Annotation
1	2.4G Antenna	10	Button B
2	Flight Mode Switch	11	Stick X2, Y2
3	Thumbwheel switch G	12	Button D
4	Button C	13	2 Axis gimbal Angle Adjustment
5	Stick X1、Y1	14	Drop System Control
6	5.5inch screen	15	Speaker
7	MIC port	16	SIM card slot
8	Button A	17	Charging port
9	Power switcher	18	PPM output

Flight Mode Switch: 1. Altitude Hold Mode
2. GPS Mode
3. Return to Home Mode

2 Axis gimbals angle adjustment: Control the pitch angle of the camera with 2 axis gimbal

Drop system control: Control to dropping the parcels from the drone

Button 5--Throttle (Mode 2): Push the stick up, the drone will rise;
Pull down the stick, the drone will descend

Button 11--Forward/backward/side fly control lever:

- Push the stick up and the drone flies forward
- Pull down the control stick and the drone flies backward
- Toggle the control stick to the left, and the drone flies to the left side

Remote Control Antenna

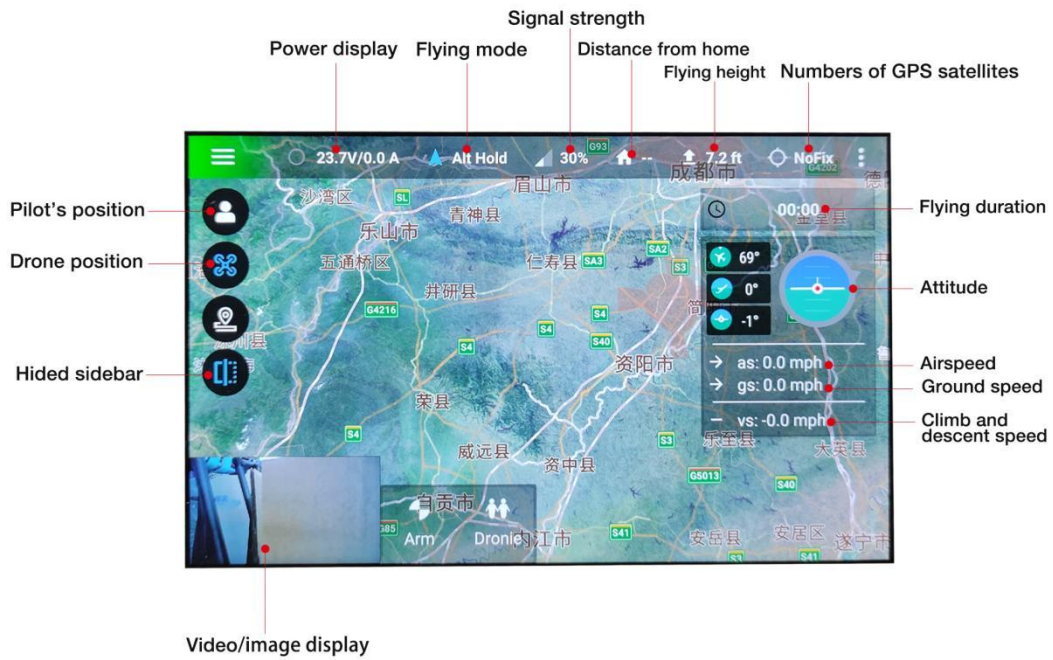
Make sure the antenna of the remote control is placed correctly.
The antenna should be unfolded and 45° upward.



Introduce the main interface of the Ground Station

The H12 comes with the ARRIS M900 drone all pre-installed the “Skydroid GCS” APP, in this APP, this is a simplified QGC, easy to operate here.

Here we will introduce the interface of it



Important:

1. Please check the low voltage settings, if there is no settings there, you need to set one . Enter the Menu--Drone Settings--Battery Set, you will see the following interface



RTL Volt: When the voltage of the battery reach the voltage you set, the drone will return to home. Remember to remain enough battery for the drone to return.

Land Volt: When the voltage of the battery reach the voltage you set, the drone will land.

2. Please check the stick mode in the radio. Enter the “H12 Tool”--Stick Mode--Choose the one you use. The default mode is Mode 2 (Left Hand Throttle)
USA--Mode 2 (Left Hand Throttle)
JPN--Mode 1 (Right Hand Throttle)

Attention Before Flight

1. DO Not fly in adverse weather conditions, such as rain, snowy, foggy and wind speeds exceeding 33.5mph etc..
2. Select an open areas with no tall buildings to fly the drone
3. DO NOT flying over or near obstacles, crowds, high-voltage lines, trees and etc.
4. DO NOT fly in places with strong electromagnetic environment (such as base stations or transmission towers) to avoid interference of the signal.
5. DO NOT fly in places restricted by relevant laws or regulations
6. Stay away from the rotating motors and propeller

Procedure to Fly

1. Preparation

- 1.1 Turn on the radio
- 1.2 Plug the battery to the drone
- 1.3 The radio will bind with the drone successfully

2. Compass Calibration

- 2.1 Enter the “Skydroid GSC” APP on the radio. The image from the camera will appear on the left bottom side of the screen.
- 2.2 Enter Menu--Drone Settings (enter the password 999)--Compass Cal.--Begin Calibration
- 2.3 Rotate the drone to every directions for multiple times
- 2.4 When you hear “Compass calibration is running”, this indicates you finish the calibration.

<https://www.youtube.com/watch?v=pqubHzTSzMM>

3. Re-plug the battery to the drone again
4. Radio will bind with the drone, then please check whether there is satellites in the Skydroid GSC, flight mode is right or not...
If everything is right, then we can begin to fly.
5. Long press the safety button on the GPS
6. Put the throttle stick to the lowest position, click the “Arm” on the radio, when all the propellers rotate, you can release the throttle stick and control it.
* We do not suggest use auto-take off.
7. The default flight mode is Altitude hold mode, you can manual control it.
8. In GPS mode, if you do not do any operation on the throttle and rudder sticks, the

drone will hold at that position.

9. Switch to Return to home, the drone will fly to the take off point and land automatically.

*** If the take off place is not plain, we suggest you land manually.**

Other Reference Videos:

1. Take Off and Return to Home

<https://www.youtube.com/watch?v=vku5UIN8cc&list=PLznJrCGq3g5Nc2BZpV56ndKoUwyAj7Os3&index=2>

2. Mission Plan/ Route Plan

2.1 <https://www.youtube.com/watch?v=QHND7-lj8-4&list=PLznJrCGq3g5Nc2BZpV56ndKoUwyAj7Os3&index=4>

2.2 <https://www.youtube.com/watch?v=pnw99cyqu1I&list=PLznJrCGq3g5Nc2BZpV56ndKoUwyAj7Os3&index=5>

2.3 <https://www.youtube.com/watch?v=39St2uMjx7Q&list=PLznJrCGq3g5Nc2BZpV56ndKoUwyAj7Os3&index=6>

3. Drop System Control

<https://www.youtube.com/watch?v=kCRcKUfHvew&list=PLznJrCGq3g5Nc2BZpV56ndKoUwyAj7Os3&index=>

4. Camera Angle Control

<https://www.youtube.com/watch?v=SV6N1GV3nXo&list=PLznJrCGq3g5Nc2BZpV56ndKoUwyAj7Os3&index=13>

FAQS

1. Does the ARRIS M900 has None fly zones?

We did not set any “none fly zones” in the flight controller. But we do not suggest you to fly it in restricted areas.

2. Does the ARRIS M900 has GEO Fencing

We did not enable the GEO Fencing function on the ARRIS M900. If needed, customer can set it according to your own needs.

3. How to turn on the LED on the 3in1 Camera?

Click the “Image/Video display” window, You could see a light icon on the right side, click it, the LED will be on/off.

4. Radio could not bind with the drone

If you did not upgrade/downgrade the firmware of the radio and receiver, you can short-circuit the Key mode and GND channel on the receiver, and then click the

matching to rebind it again.

5. What is the password for the radio?

The password is "999".

6. Error "Pre-arm: Hardware safety switch"

This means you did not turn on the safety switch on the GPS. Long press it will turn on it.

7. How to set the flight height of the drone for return?

Enter Menu--"General Settings"--"RTL--ALT"--Input the height--Save.