3.6.2 Manual mode

Under special circumstances, the ARK compass may be abnormal. Yet the rescue can still be carried out by remote control for emergency rescue. Click the remote control button on [9] to exit the intelligent auxiliary mode and switch to manual mode, and the ARK status indicator is steady blue. Course correction, automatic return and lost contact return are not working under this mode.



Figure 15

3.7 Automatic return

Press and hold (about 3 second) the button [7] of the remote control to initiate the automatic return. After the initiation, the ARK status indicator light turns steady yellow, and icon[17] appears on the remote control screen, and the ARK automatically returns to the position where the user has unlocked. The ARK cannot be manipulated by the user during the automatic return operation. If you want to regain control, you will need to exit the automatic return by pressing and holding the automatic return button [7] for a short while (about 3 second), or wait for the automatic return operation to finish by itself.

3.8 Lost contact return (start working immediately when contact is lost)

When there is no signal between the ARK and the remote control for over 15 seconds, it will trigger the lost-contact return. The indicator will flash in yellow and the ARK will return to the location where the user unlocked it initially. During the lost-cotact return process, the user cannot control the ARK. When the ARK regains contact with the remote control, the user can press and hold (about 3 second) the button [7] to cancel the lost contact return, or simply wait until the ARK returns to the position where it was unlocked before.

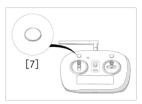


Figure 17

3.9 Shutting down the ARK

Turn the ARK switch on [7] to turn off the ARK, and double-click the remote control [8] to cut off the power supply of the remote control power. ▲ Warning: After the use of the ARK, please turn off the ARK before turning off the

remote control to prevent the motor from spinning in vain.





Figure 18

Figure 19

3.10 Restart After Failure

If there is a control failure where the remote control cannot control the host, you can try to restart the machine or the remote control. Toggle the ARK [7] to restart the main unit. Use the equipped reset pin to turn off the remote control on the remote control rear cover reset hole [12] to restart the hardware.



Note: When the ARK is unlocked and the status indicator is green, after the remote control is turned off for over 15 seconds, the system may misjudge it as lost contact return. In this case, turn off the ARK power, or turn on the remote control and hold the one-button return button to exit the disconnect mode.

4. Key Specifications

4.1 Key Specifications of the Ark and Accessories

ARK	
Body Weight	13.8kg
Max Speed (no load)	18m/h
Runtime	45min
Effective Payload	200kg
Working Voltage	DC 23-29.4V
Working Temperature	0℃-50℃
Charger	
Charging Voltage	29.6V
Charging Current	7A
Charging Time	3h
Battery	
Capacity	10000mAH x 2
Voltage	25.2V
Battery Category	Lithium Battery
Battery Power	259Wh x 2
Battery Weight	2.6kg x 2
Working Temperature	0°C-50°C
Working Frequency	2.4G Hz

4.2 Basic Specifications of the Remote Control

Remote Control	
433M Hz	
800m	
0℃-50℃	
5000mAH Lithium Battery	
DC3.7V	

4.3 Status Indicator

Indicator	Normal Status
Steady White	System Locked
Steady Purple	System Starting Calibration
Flashing Purple	Compass Calibration
Steady Blue	Manual Control Mode
Setady Green	Intelligent Assistant Mode
Steady Yellow	Automatic Return Mode
Indicator	Warning/Abnormal Status
Flashing Orange	Calibration Failure
Flashing Yellow	System Lost Contact
Flashing Red (slow)	Low Battery Warning
Flashing Red	Serious Low Battery Warning



HOVER ARK



User Manual

SHENZHEN HOVERSTAR FLIGHT TECHNOLOGY CO., LTD

1. Handling Precausions

For your safety and efficient use of this product, please read the following information carefully.

- 1. Ensure that the battery is fully charged prior to each use.
- 2. To push the speed throttle to minimum before unlocking the ARK.
- 3. DO NOT Put fingers or debris in the propeller areas of the ARK as sudden and severe injury or damage may occur.
- 4. If the Ark is indicating low battery (red light indicator is blinking), it must be stopped and recharged as soon as possible.
- 5. When the ARK is remotely controlled to the vicinity of the victim, it is recommended to slow down to prevent the victim from being hit by the ARK.
- 6. The ARK is an auxiliary rescue device, which cannot guarantee the success of rescue, it is suggested that trained water rescue professionals are present at all times in the event of an ARK

deployment.

- 7. ARK is prohibited from idling for more than one minute in a waterless environment.
- 8. Wash the whole machine with clean fresh water after each use.
- 9. The ARK battery is a high-rate lithium ion battery, which must be charged every 3 months

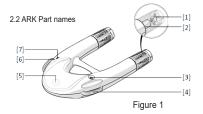
when it is standing idle to protect the battery.

- 10. The users should be responsible for personal casualties or property losses caused by human factors such as improper use.
- 11. Service and maintenance specific to the ARK must be conducted by a qualified professional
- 12. Be sure to tighten the charging water joint after filling the electricity.
- 13. PLEASE it is highly advised that users try the ARK out and become proficient in it's use before deploying in a rescue situation. Practice makes perfect.
- 14. Please read the user manual carefully before use and strictly follow the operation rules.

2. Nomenclature

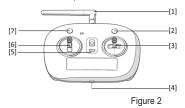
2.1 Know your ARK

This product is a wireless remote-control water intelligent rescue device. Chinese named as airfoil(English named as ARK), Chinese, model no. as H3

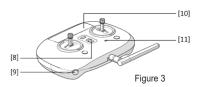


- [1] Propeller
- [2] Motor
- [3] Waterproof charging interface
- [4] Hand grab
- [5] GPS
- [6] Status indicators
- [7] Power switch

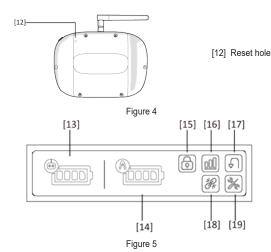
2.3 Remote control part names



- [1] Antenna
- [2] Unlock/lock motor button
- [3] Course control rocker
- [4] USB charging port
- [5] Compass calibration button
- [6] Speed control rocker
- [7] Automatic return button



- [8] Power switch
- [9] Mode switch button
- [10] Display screen
- [11] Remote control running indicator



[13] Remote control power

[14] Host power

[15] Unlock/lockedout status

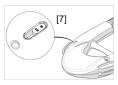
[16] GPS signal strength

[17] Automatic return status [18] Connection status

3. How to use

3.1 Check before use

1. Toggle switch the ARK [7] to turn on the ARK, and hold the switch [8] to turn on the remote control.



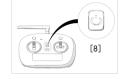


Figure 6

Figure 7

- 2. Check whether the ARK and the remote are fully charged and has sufficient power.
- 3. Check whether the ARK indicator is normal (the white light is always on), and make sure there is no warning signals. If the indicator light is flashing red to indicate low power, please recharge it as soon as possible.

3.2 Compass calibration

Calibration steps. Please select an open field and calibrate the compass according to the steps below:



Note: Please conduct the calibration under the locked status, otherwise the ARK

1. Click the button of the remote control [5] for calibration (about 1 second), and the ARK status indicator [6] shows steady purple for a short period of time. Don't move the machine for now.



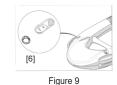


Figure 8

2. When the purple light begins to blink, the compass calibration procedure starts. At this moment, rotate the ARK body horizontally for more than two circles. When the indicator resumes steady white, then stop rotating the ARK, as it means the calibration has been completed



3. If the ARK status indicator shows flashing orange insteady of steady white, it means the calibration is unsuccessful. In this case, repeat step 1 and 2.

3.3 Unlock the ARK

Hold the [2] button of the remote control for a few seconds. When the ARK status indicator changes into steady green, and also the lockedout status indicator [15] disappeared, it means the current status is unlocked, and the motor can start working normally.

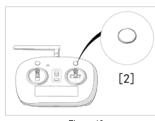
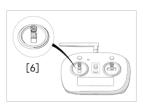


Figure 10

3.4 Use the ARK

The remote control on [6] is the throttle rocker. Before unlocking the motor, the remote control rocker [6] must be pushed to the bottom and the accelerator is 0 for now. Gradually push the rocker up to increase the throttle while ARK goes forward. Gradually push the rocker down, and ARK goes backwards (push the control rocker gently in the process of reversing). The remote control on [3] is the directional control rocker. Center means the ARK goes forward. Pull it to the left and the ARK turns left, while pull it to the right and the ARK turns right.



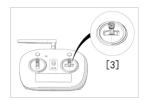


Figure 11

Figure 12

3.5 Lock the ARK

When the motor is under the unlocking status, hold the "[2]" button of the remote control for a few seconds until the ARK turns steady white to lock the ARK.





Figure 13

Figure 14

3.6 Mode switch (optional steps)

3.6.1 Intelligent Asistant mode

This mode is the default mode of the system (The ARK status indicator is steady green). The intelligent Asistant mode only controls the ARK to go forward. Under this mode, the main control system makes real-time adjustment of the direction of ARK, making it easier to control. Click the button [9] to switch the mode between intelligent Asisitant mode (forward going) and reverse gear control mode.