GLINT User Manual V1.0

Hunan Keyshare Information Technology Co,.Ltd

Keyshare

CONTENTS

2015.04

When using GLINT, please carefully follow the instructions of User Manual.

Important Safety Information

Operation	Please operate this product cautiously. It contains sensitive electronic components which might be damaged when falling or being exposed in water. Do not operate damaged GLINT, such as with low speed motor stuck or propeller damage, to avoid possible injury or damage.
Maintenance	Do not disassemble or repair GLINT yourself to avoid injury or damage. If you have any question or concern about your product, please contact your GLINT authorized dealer or GLINT Customer Service.
Battery	Do not attempt to dismantle, crush, strike, burn, drop or step on your GLINT battery. It is essential to avoid short circuits. Do not expose the battery to high temperatures over 60 degrees Celsius. Keep it dry.

Precaution

Congratulations on purchasing your new GLINT. This product is a special control item. Mishandling can cause property damage and personal injury, even death, and you have to bear the corresponding responsibility. The GLINT drone is not suitable for children under 18. In order to make better use of this product and to ensure your safety, please read the User Manual carefully before use, or consult the local authorized dealer or the manufacturer if you have any questions or concerns.

Warning

Please put the aircraft components out of the reach of children.
We recommend that you fly the GLINT in open fields to stay away from the crowd and dangerous items.
Do not operate the GLINT under the condition of being drunk, fatigued or other poor mental state.
Please use the GLINT in strict accordance with the instructions in the user manual.
Make sure the power supply system and other functional modules are correctly connected before flight, otherwise it may cause the product burning.
Turn off the power and remove the propeller before firmware upgrading and parameter setting to prevent sudden high-speed rotation of the motors.
Do not fly in harsh environments.
Do not change the frame structure; otherwise you are at your peril.

Disclaimer

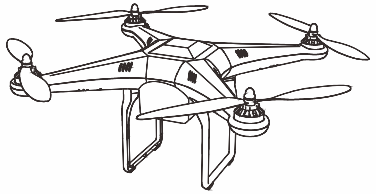
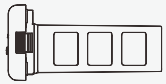
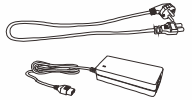
1. This product is a special controlled item. Users will be fully responsible for all their acts. The manufacturer bears no responsibility for any direct or indirect consequence of using this product.
2. Users bear legal liability for their use in violation of public order or public safety during flights.
3. We do not provide any technical support and security commitments for the product in the following situations:
   (1) Get the product through unauthorized dealers or informal channels;
   (2) Modify or adjust the product without following the instructions of this manual or replace spare parts with those unauthorized by Keyshare;
   (3) Lose the warranty card, serial number or flight data of the product;
   (4) Cause bodily injury and property damage due to operator error or irresistible natural disasters.

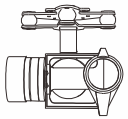
Overview

GLINT is a small 4-rotor aircraft ideal for aerial creativity whether photo or video. It features a high performance 2-axial stabilized gimbal with high performance camera (1200/1400 megapixel), and advanced intelligent flight control system, also adds to it an external 7-inch/3.5-inch built-in aerial monitor and in-flight content sharing. GLINT offers different types of accessories. You can choose the appropriate aircraft for easy shooting and enjoy other in-flight entertainment.

1、In the box

Check that all the following items have been included in your package before use.

NO.	Name	Picture	Qty.	Remarks
1	Aircraft		1	Integrated gimbal and camera
5	4S Smart Flight Battery		1	Inside aircraft
3	Propeller Pairs		1	2 with black nut, 2with grey
4	Remote Controller		1	Includes 4 AA Batteries /2S 800mAh Battery and Charger
5	Charger		1	Smart Balance Charger
6	Manual		1	GLINT User Manual

7	Camera		1	Spare parts
8	Gimbal		1	Spare parts
9	Dampers		1	Spare parts
10	Screws		1	Spare parts
11	Damper Packet		1	Spare parts
12	Micro-SD Card		1	Spare parts

Note: The Content Sharing System is optional. Once purchased, it will be integrated in the aircraft for testing before use.

2、Introduction

GLINT is the first drone product produced by Hunan Keyshare Information Technology Co., Ltd. The GLINT package includes: Aircraft, Gimbal, Camera, Propulsion System, Flight Control System, Remote Controller and Content Sharing System.

Remote Controller	Aircraft Outside	Aircraft Inside	Working Modes
2.4GHz	2-axial Gimbal	Electronic Speed Control (ESC)	Manual
2 sticks，7 channels	Content Sharing System	Flight Control System	GPS
	Camera	2.4GHz Receiver	Home Point Locked
	Motors and Props	4S Smart Battery	Fixed Point Circling
			Automatic Return to Home
			Failsafe

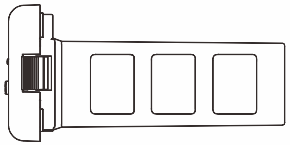
Prepare for Flight

Follow the below instructions to prepare for flight.

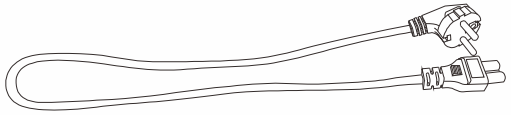
1、Preparing the Battery

Device	Power supply
Remote Controller	4 AA batteries /2S 800mAh Lithium-polymer battery
Aircraft	Smart Flight Battery
Image Receiver and Displayer	4S Smart Battery

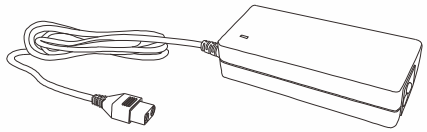
The Smart Flight Battery has been specially designed for the GLINT series. It has a capacity of 5300mAh, voltage of 14.8V and charge-discharge management functionality. It is best to be charged with a Keyshare charger.



4S Smart Battery



Power Cables



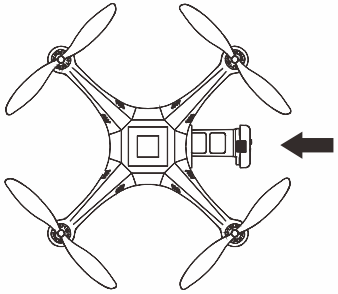
Charger

Battery Specifications			
Type	LiPo	Charging Environment Temperature	0 ℃~40 ℃
Capacity	14.8V，5300mAh	Discharging Environment Temperature	-20 ℃~50 ℃
Discharging Rate	30℃	Charging/discharging Environment Relative Humidity	<80%

Note: Please read the GLINT User Manual and Disclaimer before use. Users take full responsibility for all operations and usage.

Battery Installation

Push battery into battery compartment according to the diagram below. When you hear a click, the battery has been properly installed.



Note: An incorrectly installed battery may cause (1) bad contact, (2) inaccessible battery information, (3) unsafe flight, (4) inability to take off.

Correct Battery Usage Notes:

1. When the battery is turned on, do not connect it to or disconnect it from the GLINT.
2. Charge and discharge the battery completely once every 20 charge/discharge cycles. Discharge the battery until there is less than 8% power or until it can no longer be turned on, then recharge it to maximum capacity. This power cycling procedure will optimize the battery.
3. For long term storage, discharge the battery to voltage 15V and place it in a strong battery box. Charge the battery once every 3 months to keep it in good condition. Voltage in charge/discharge should be varied in these ranges: 15V---14.2V---16.8V---15V.
4. Purchase a new battery after your current battery has been discharged over 300 times. Completely discharge a battery prior to disposal. Please dispose of batteries properly.
5. Purchase a new battery if your current battery swells up or is damaged in any way.
6. Never charge or fly with a battery that is swollen or damaged in any way.
7. Never charge batteries unattended. Always charge batteries on a non-flammable surface such as concrete and never near any flammable materials.
8. Safety is extremely important. For more information, please see the Disclaimer.

Tips:

Discharging methods:

1)Slow

Place battery in GLINT and turn on. Leave on until the battery can no longer be turned on. Motors do not need to be turned on, to escape the extra wear.

2)Quick

Fly the GLINT outdoors until the power level is warning low or until the battery can no longer be turned on.

2、DIY Aircraft

GLINT supports some interesting modification for players. Users should be noted that we will not provide any free after-sales maintenance service if the user disassembles the aircraft themselves. Below are some considerations before modification:

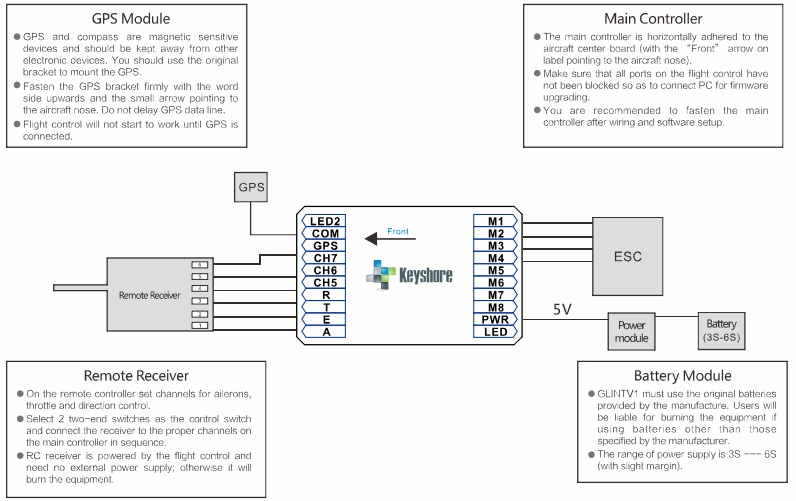
a. The GLINT flight control system should only use the power module authorized by Keyshare; otherwise the user shall take full liability for using power modules other than those specified by Keyshare.

b. RC receiver (support PPM receiver) shall be powered by the flight control system; otherwise it will burn the device with external power supply.

c. ESC and the motor will produce by strong magnetic interference when working, so the GPS magnetic sensor must be installed away from ESC and the motor through non-magnetic (non-ferrous) bracket (especially with multiple ESCs).

d. The white core wire is the signal line, the red core wire is the positive electrode, and the black core wire is ground.

e. Parameter setting and firmware upgrade of GLINT shall only be done through the USB port.



3、Attaching the Propellers

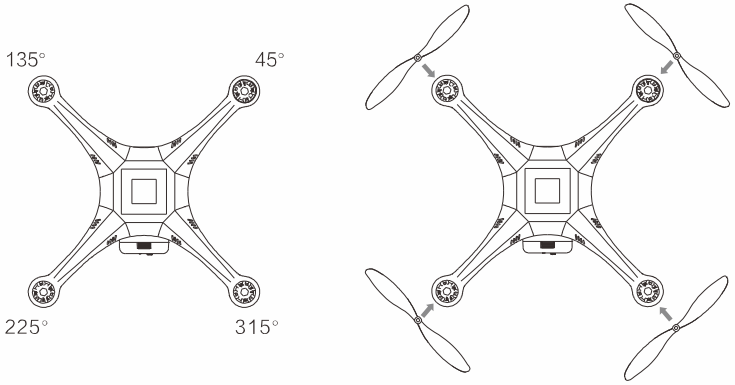
Always use original 10-inch propeller which are classified by the color of each central nut.

Assembly

(1)Please distinguish the marked propellers: propellers with black nuts spin clockwise to provide lifting force and propellers with grey nuts spin anti-clockwise .

(2)Following the Rotary logo to spin the motors with black nuts at 135° and 315° , and the motors with grey nuts at 45° and 225° .

(3)The propeller with black nuts marked "10×4.5 MRP", and the propeller with grey nuts marked "10×4.5 MR".

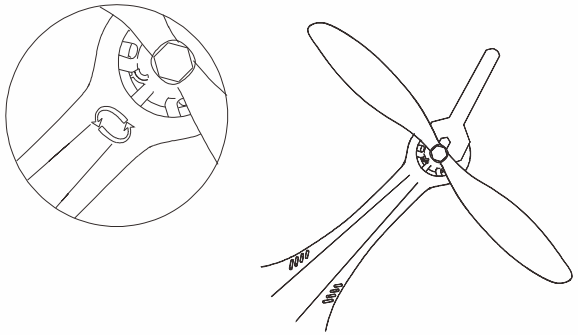


Note:
Propellers will self-tighten during flight. Do not use thread locker.

Warning:
a.Always match marked props with the corresponding motor.
b.Protective gloves are recommended during assembly and removal for propellers.

Removing the Propellers

In order to prevent motor rotation, please use the wrench or a hand, then remove propeller according to the un-fastening instructions, according to the graph below.

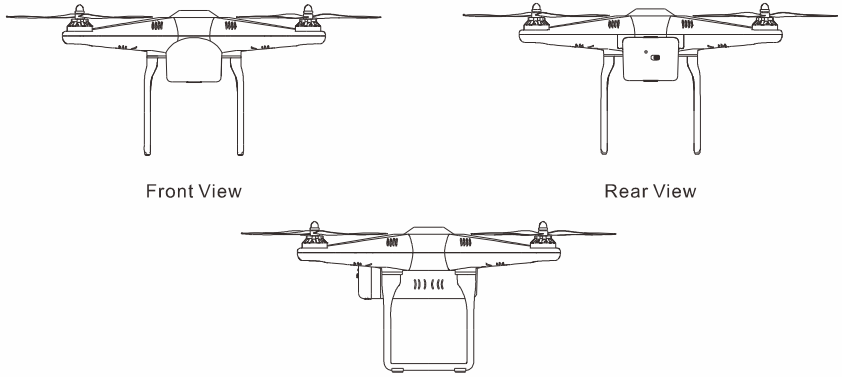


Note:
(1)Check that propellers and motors are installed correctly and firmly before each flight.
(2)Ensure that all propellers are in good condition before each flight. Do not use any ageing, chipped, or broken propellers.
(3)To avoid injury, STAND CLEAR of and DO NOT touch propellers or motors when they are spinning.
(4)ONLY use original Keyshare propellers for a better and safer flight experience.

4、Preparing the GLINT

GLINT is a quadrotor with a built-in Flight Control System, external gimbal and camera. All these features have been tested and configured before leaving the factory to make it user-friendly and safe.

4.1 Introduction



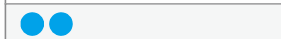
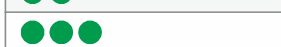
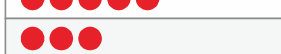
4.2 Built-in Flight Control System

The GLINT is equipped with a built-in Flight Control System. This provides incredible ease and stability of users. Pilots can control the GLINT's movements in many directions, including ascent and descent, pitch (forwards and backwards), roll (left and right) and yaw (turn left or right). The flight control system also can provide GPS, Failsafe, automatic return and battery level warnings.

Modules	Functions
Main Controller	Acts as the brains of the complete flight control system, responsible for connecting and controlling all the modules together.
IMU	Has a built-in inertial sensor and a barometric altimeter that measures both attitude and altitude
GPS & Compass	The compass reads geomagnetic information and assists the GPS to accurately calculate the position and height of the aircraft.
LED Flight Indicators	Indicates the status of flight control system.
Power	Supply stable power for the flight controller.

4.3 LED Flight Indicator Descriptions

LED flight indicators are found in the central position near the battery lid. Rear LED flight indicators light up when the aircraft is correctly connected to the battery. They light up Blue, Red and Green to show the aircraft's current flight status: Blue indicates the status of the Remote Controller, Red indicates the GPS signal strength and low voltage alarm, and Green shows the aircraft's working status. For details, please see the below table.

LED Flight Indicators	Status Description
	Altitude unlocked, throttle not in the mid point
	Position unlocked, yaw and roll sticks not in the mid point
	Throttle stick is not in the mid point
No Green Flash	Manual
	Manual Positioning
	GPS Positioning
	Home Point Locked/Fixed Point Circling
	Automatic Return to Home Point
	No GPS Signal
	GPS Signal is extremely bad (fewer than 5 GPS satellites found)
	GPS Signal is bad (6 GPS satellites found)
	GPS Signal is OK (7 GPS satellites found)
No Red Flash	GPS Signal is Good (more than 8 GPS satellites found)
	Low Battery Level Warning
	Battery fail safe (Emergency Landing)

Note:

(1)When the low battery level warning appears, pilot should try to land the aircraft.

(2)When the critical low battery level appears, the aircraft will land automatically though the pilot can adjust the landing position.

(3)Fly outdoors when there are more than 6 GPS satellites found.

(4)The flight controller will keep the taking off point as the landing point.

4.4 2/3-axial Stabilized Gimbal

The GLINT is equipped with a 2-axial or 3-axial stabilized gimbal for different series of product. Users can choose a 2-axial gimbal with 0.1 degree and 0.01 degree control accuracy or a 3-axial gimbal with 0.01 degree control accuracy. The gimbal functions to absorb vibration and control camera angle. It has two working modes: FPV mode and non-FPV mode. See the below table for detailed information.

Non-FPV Mode	The movement of the camera will be stabilized across 3-axial for aerial creativity.
FPV Mode	The gimbal will be locked for an authentic FPV experience.

4.5 Camera

The GLINT camera powers up when the flight battery has been installed and switched on. Photos and videos can be shot by pressing the onboard button. The GLINT also supports GoPro camera, which can be mounted according to the user's need.

Camera Specifications	
Lens	170 degree A+ high resolution wide-angle lens
Pixels	12 Megapixels
Resolution	1920 × 1080
HD Recoding	1080p30/720p60/720p30
Recording Format	AVI
Video Compression Format	H.264
Camera Mode	Burst shots/continuous capture/timed capture
Photo Resolution	14M/12M/8M/5M

Note:

(1)The loop video mode is set as a default. When there is not enough storage space, the previous video files will be overwritten.

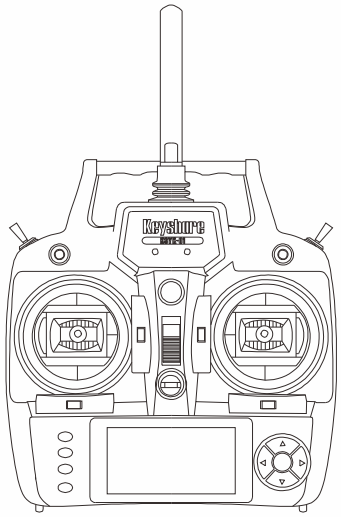
(2)Remove the Micro-SD card when the aircraft is power off and the power of camera is shut down, then reading the data on the card by using a card reader or other devices.

(3)The GLINT comes with a 16GB Micro-SD card and can support cards up to 32GB.

5、Preparing the Remote Controller

The GLINT remote controller, including both a high and a low version, is a wireless communication device using the 2.4GHz frequency band. Remote Controller and GLINT are paired before delivery. The Remote Controller is set to Mode 2 by default.

5.1 Introduction



5.2 Power on the Remote Controller

(1) Install four AA batteries or one 2S 800mAh LiPo battery into the battery compartment on the back of the Remote Controller. Pay attention to the positive and negative pole.

(2) Set K1 and K2 switches to the Zero position, the throttle stick to the lowest position, and the roll/pitch stick in the mid-point.

(3) Toggle power switch to the right and switch on.

(4) The power LED will blink red indicating normal power supply. It will blink Blue indicating that the Remote Controller and receiver are binding (only visible for the lower version, while there will be text prompts for the higher version). Once binding is completed, the power LED will change to a solid Blue.

Note:

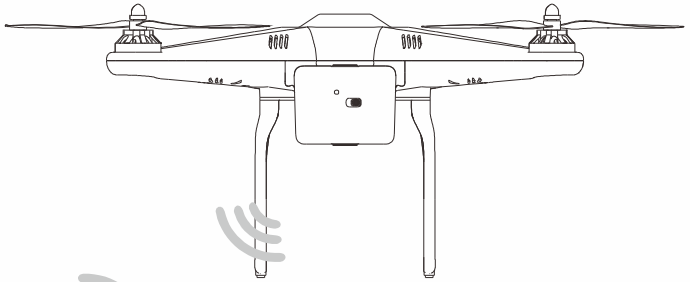
(1) If the low voltage warning alert sounds, replace batteries as soon as possible.

(2) For long term storage, be sure to remove the batteries form Remote Controller.

(3) Dispose of batteries properly.

5.3 Antenna Orientation

Keep the antennas pointing skyward, perpendicular to the ground for maximum communication range during flight.



For maximum range and reliability, Remote Controller should point skywards with no obstruction between it and the GLINT. Obstacles may trigger the Radio Fail Safe made which will force GLINT landing automatically.

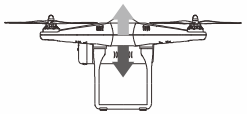
6、Remote Controller Operation

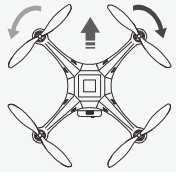
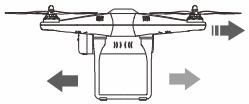
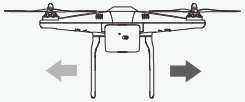
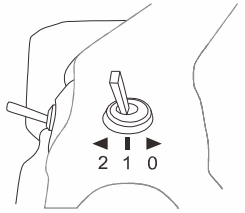
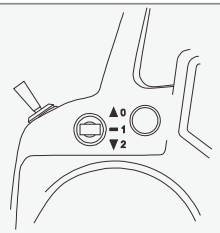
The Remote Controller is set to Mode 2 by default.

Note:

Stick Neutral/Mid point: Control sticks of the Remote controller are placed at the central position.

Move the Stick: The control stick is pushed away from the central position.

Remote Controller (Mode 2)	Aircraft (indicates nose direction)	Operation details
		Vertical movements on the left stick control elevation. Push the stick up to ascend and down to descend. When both sticks are centered, the GLINT will hover steadily. Push the throttle stick upward beyond the centered (neutral) position to take off. Push the throttle gently to prevent sudden and unexpected elevation.

		Horizontal movements on the left stick control the rudder. Push left to rotate counter clock-wise and right for clockwise. If the stick is centered, the GLINT will fly straight forward. The more the stick is moved, the faster the GLINT will rotate.
		Vertical movements on the right stick control forward and backward pitch. Push up to fly forward and down to fly backward. The GLINT will hover in place if the stick is centered. Push the stick further for a larger pitch angle (maximum 30°) and faster flight.
		Horizontal movements on the right stick control left and right pitch. Push left to fly left and right to fly right. The GLINT will hover in place if the stick is centered. Push the stick further for a larger pitch angle (maximum 30°) and faster flight.
		The K1 switch is used to switch between first controlling modes. At position 0,Normal flight (choose Manual/ GPS positioning by K2). At position 1,Home Set/POI At position 2,Automatic Return to Home Point
		The K2 switch is used to switch between second controlling modes and enter compass calibration. At position 0,Manual At position 1,ALT Hold At position 2,GPS positioning

Warning:

(1)In 'Ready to Fly' mode, the GLINT will hover when all sticks are released.

(2)In 'Ready to Fly (non-GPS)' mode, the GLINT will lock its altitude but will not have horizontal positioning.

Flight

Once pre-flight preparation is complete, it is recommended to carry out pilot training tasks to prepare for complex flight maneuvers and learn to fly safely. Beginners should use the GPS mode for training, and switch to the manual mode after skills are honed.

Environment requirement for flight

(1)Do not use the aircraft in severe weather conditions,including wind speed that exceed category 4, snow, rain and smog.

(2)Fly in open fields such as high buildings or steal structures may affect the accuracy of the onboard compass.

(3)Keep the GLINT away from obstacles, crowds, high voltage power lines, trees or bodies of water when in flight.

(4)Reduce the chance of electromagnetic interference by not flying in areas with high levels of electromagnetism, including base stations or radio transmission towers.

(5)The GLINT cannot be operated in the polar areas.

(6)Do not fly the aircraft in non-fly zones according to specified legislation and regulations.

Preflight Checklist

(1)Remote Controller and smart battery are fully charged.

(2)Propellers are mounted correctly.

(3)Gimbal clamp has been fixed correctly.

(4)Micro-SD card has been inserted if necessary.

(5)Camera and gimbal are functioning as normal.

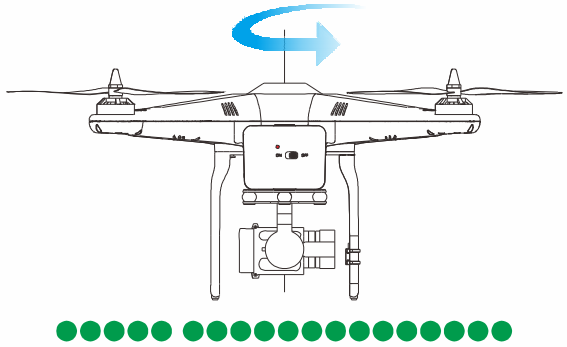
(6)Motors can start and function as normal.

1、Calibrating the Compass

Make sure to calibrate the compass in every new flight (or in other situations such as when the electronic components have been moved or the aircraft is circling). Choose an open space to carry out the calibration. Do not calibrate your compass where there is a chance of strong magnetic interference, such as parking structure and steel reinforcements underground.

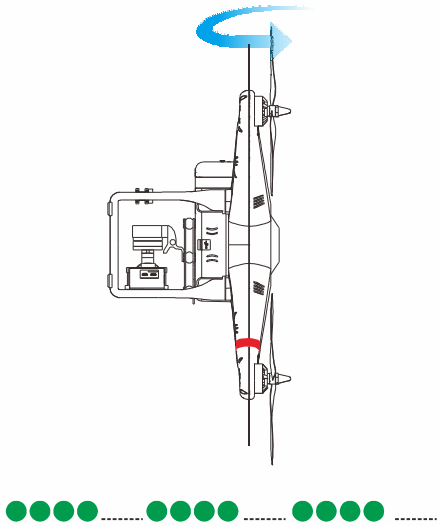
Calibrating Procedures:

Keep flipping CH5 switch from Position-0 to Position-1 to Position-0 until LED Flight Indicator will flash quick Green.



Start horizontal calibration

Keep rotating the aircraft horizontally, until LED Flight Indicator will blink Green intermittently.



Start vertical calibration

Keep rotating the aircraft vertically (Nose downward), until LED flight indicator flash Normal, which means that the compass calibration succeeds.

Note:

(1) When the distance between the last location and the latest location is less than 200Km , there is no need for recalibration.

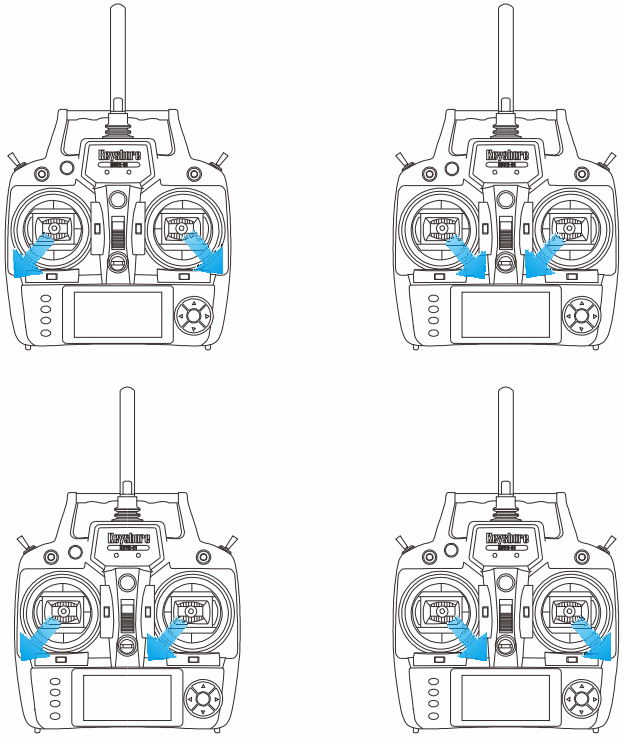
(2)When upgrading firmware without changing its position, there is no need to recalibrate.

(3)If the calibration cannot be completed in accordance with the instruction, check the environment if there is strong magnetic interference.

2、Starting/Stopping the Motors

Starting Motors

A Combination Stick Command (CSC) is used to start the motors instead of simply pushing the stick up. Push both sticks to their bottom corners to start the motors. Once the motors have spun up, release both sticks simultaneously.



Stopping Motors

When the GLINT has landed, push the throttle down and hold. Motors will stop after 5 seconds. Or push the throttle down then execute CSC. Motors will stop immediately.

Warning:

Do not execute CSC during normal flight. This will stop the motors and cause the aircraft to drop without control.

Tip:

Conduct the CSC as neatly as you can. Release the sticks once motors start/stop.

3、Flight Test

Take off/Landing Procedures

(1)Place the GLINT on an open field with the battery compartment facing towards you.

(2) Power on the Remote Controller, pull down the throttle then power on the Smart Flight Battery.

(3)Loiter the aircraft and wait until the Rear LED Flight Indicator blinks red once per second or even no blinks red. This means it has initialized and is Ready to Fly. Execute the CSC command to start motors.

(4) Push the throttle up slowly to take off.

(5) To land, hover over a level surface and pull down on the throttle gently to descend.

(6) After landing, execute the CSC command or hold the throttle at its lowest position for 5 seconds until the motor stops.

(7) Power off the aircraft, and then shut down Remote Controller and data transmitter.

Tips:

(1) A low battery level warning is indicated by the Rear LED Flight Indicator blinking red slowly or rapidly during flight. Refer to the GLINT Low Battery Level Warning Function (page) for details.

(2) View tutorials about flight for more information on Keyshare's official Website or WeChat platform.

Video Suggestions and Tips:

(1)Work through the check list before each flight.

(2)Check the gimbal working mode before each flight.

(3)Filming should always be performed under the safe mode.

(4)Always fly in good weather, such as sunny or windless days.

(5)Change camera settings which suit your needs. These include FOV, photo format and exposure compensation.

(6)Take flight tests to establish flight routes and scenes.

(7)Push the sticks gently to make aircraft movements of aircraft stable and smooth.

4、Failsafe Function

The GLINT will enter Failsafe mode when its connection to the Remote Controller is lost. The Flight Control System will automatically control the aircraft to return to home before landing injury or damage.

Home Point: When the GLINT first takes off, the GPS coordinates will be recorded and set as the home point.

(1)When Remote Controller signal is lost, the aircraft will return to the recorded home point and land automatically.

(2) Home point coordinates are used to calculate the horizontal distance of the aircraft.

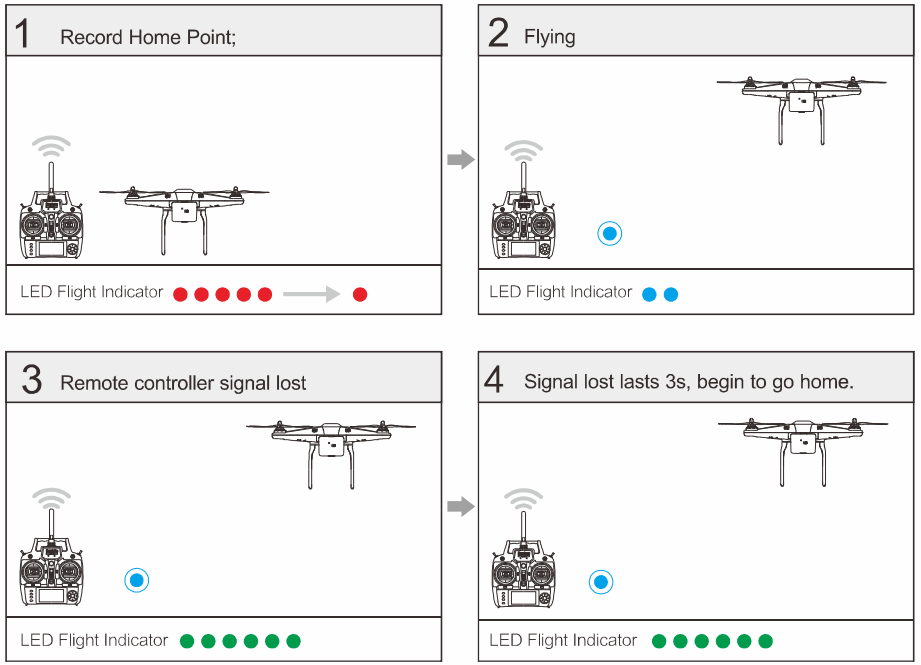
(3) When returning to Home Point, the green LED flight at the rear will blink fast green.

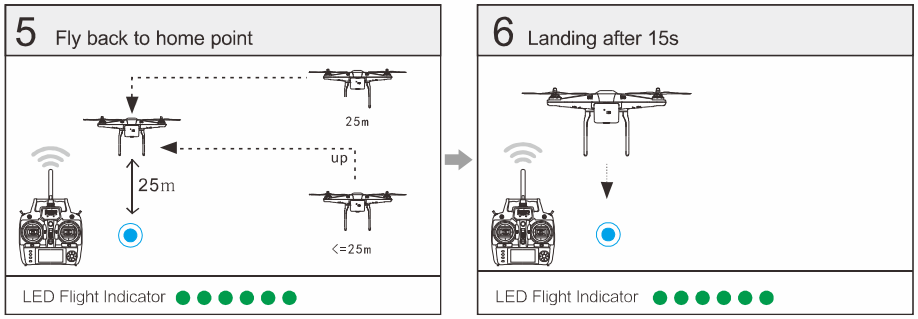
When will Failsafe Activate?

1)The Remote Controller is powered off.
2)The GLINT has flown out of effective communication range.
3)The signal between the Remote Controller and the GLINT has been blocked.
4)There is interference causing a signal problem with the Remote Controller.

Failsafe Procedure

The below demonstrates the complete Ready to Fly Failsafe landing process.





Warning:

(1) To ensure the aircraft successfully return to home after Failsafe activation, aim to only fly in Ready to Fly mode.

(2) The GLINT will automatically descending during the Failsafe process if there are less than 5 GPS satellites detected for more than 20 seconds.

(3) The aircraft cannot avoid obstacles during failsafe.

5、Low Battery Level Warning Function

The low battery level warning alerts users when the battery is below thresholds during flight. When it appears, users should promptly fly back and land to avoid accidental damage. The GLINT has two levels of low battery level warning. The default battery level warning thresholds are 35% (low battery level warning) and 20% (critical low battery level warning) respectively.

Battery level Warning	Rest Battery Level	Rear LED Flight Indicator	Flight Instructions
Low battery level warning	≤ threshold of low battery level warning	Quick red blinks on and off	Fly the GLINT back and land it as soon as possible.
Critical low battery level warning	≤ threshold of critical low battery level warning	Quick red blinks	The GLINT will begin to descend and land automatically.

Tip:

When the GLINT is descending and landing automatically, you are able to push the throttle upward to suspend the aircraft and navigate it to a more appropriate location for landing.

Warning:

When a low battery warning is triggered, you must bring the aircraft back to the home point to avoid losing power during flight.

6、Flight LimitsLimits

All unmanned aerial vehicle (UAV) operators should aide by all regulations from such organizations as the ICAO (International Civil Aviation Organization) and their own national airspace regulations. For safety reasons, the flight limits function is enabled by default to help users use this product safely and legally. The flight limits function includes height, distance limits and NO Fly Zone.

In Ready to Fly mode, height, distance limits and No Fly Zones work together to manage flight. In manual mode, only height limits work and flights cannot go higher than 100m.

Conditions of Flight Limits

In different working modes and flight modes, flight limits will differ according to number of GPS satellites found. The following table demonstrates all the cases (√: available; ×: unavailable).

All flights are restricted by height, distance and special areas simultaneously. The Failsafe and Ground Station operations are not restricted to flight limits.

Special areas refer to areas with large flow of people or of complex environment. Users should fly by following the restrictions of flight limits: in restricted zones, flight height must be under 30m and flight radius must be within 100m; in other cases, the default flight height is under 100m and flight radius within 300m.

Control Mode	Number of GPS found	Limits of special Areas	Max height	Max Radius
GPS	>6	√	√	√
	≤6	×	√	×
AOC	>6	√	√	√
	≤6	×	√	×
Manual	>6	×	×	×
	≤6	×	×	×

If flying in special areas with special flight requirements, under the permission of the regional airspace control, you can connect the aircraft with PC via USB and adjust parameters to modify flight restrictions. Flying in open areas with wind less than 3 degree, the GLINT's maximum flight height is 800m, and maximum flight distance is 1000m.

7、Firmware Upgrade and Remote Controller Configuration

Connect the aircraft with PC using the included USB or Micro USB cable to upgrade the GLINT's firmware or configure the Remote controller.

Firmware Upgrade

(1)(1)Download the upgrading software from Keyshare's official website www.key-share.com.

(2)Connect the GLINT to a PC using a USB cable. After power on the Aircraft.

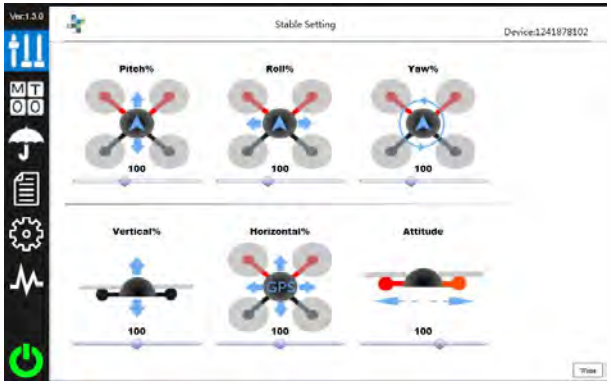
(3)Run the GLINT Assistant Software "GLINT-GCS-USB.exe" with administrator permissions. Select "firmware", click "Update" to upgrade your firmware.

Configure the Remote Controller

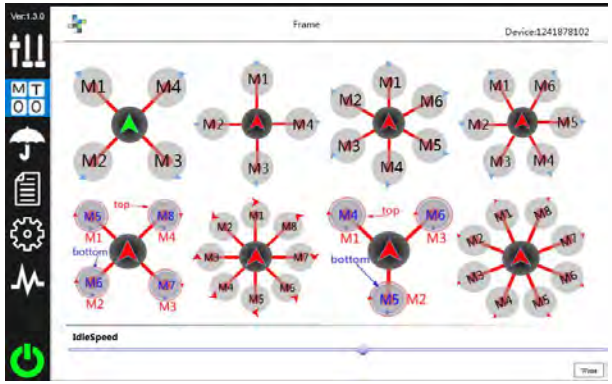
Parameter Setting Test

(1) Power on the Aircraft;
(2) Connect the Remote controller to a PC with a Micro USB cable;
(3) Run the GLINT Assistant Software “GLINT-GCS-USB.exe” on PC as Administrator ;

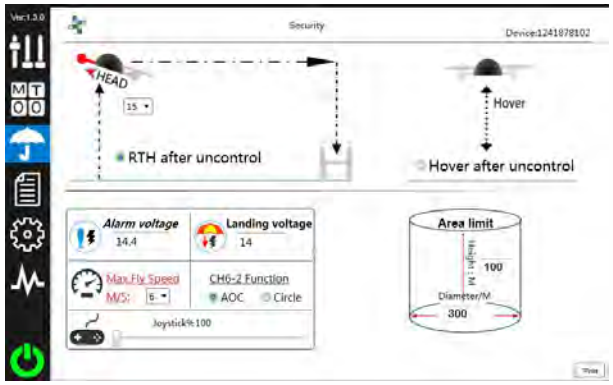
Check the stable setting and whether the installed firmware version is correct. If not, adjust settings as the below figure demonstrates.



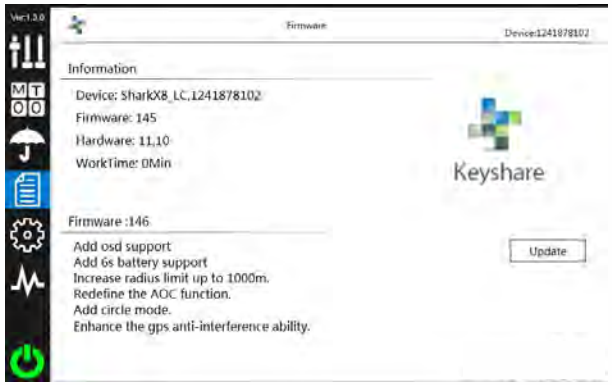
Check the multi-rotor control mode and whether the 4-axial mode is correct. Also check if Idle Speed is set as below. If not, adjust the configurations as the figure demonstrated below.



Check whether the stable setting is correct. If not, adjust as the figure demonstrated below.



Check log informationto make sure that the WorkTime is less than 30min. if the WorkTime is more than 30min, the Remote Controller is ineligible.



When the data is uncertain, users are recommended to select the default values. Refer to PC Assistant Software Instruction for more detailed information.

Appendices

1、Specifications

Aircraft	Material PC Symmetric Motor wheelbase 450mm Arm Length 150mm Arm Weight (including: motor, ESC, propellers) 185g
Motor	Stator Size 35×11mm KV value 850rpm/V Max. Power 236.8W Weight (including fan) 60g
ESC (Electronic Speed Control)	Working Current 20A，short-time current 30A（≥10 sec.） Working Voltage 4S LiPo
	Compatible Signal Frequency 50Hz—432Hz Built-in BEC Output Null Drive PWM Frequency 8KHz Weight (including fan) 14g
Propeller（1045MR/1045MRP）	Material High-strength Plastic Size 10×4.5inch Weight 9g
Flight Parameters	Take-off Weight 1.6 Kg ~ 3.0Kg Aircraft Weight 1.9Kg Flight Battery LiPo（4S、5300mAh、30C） Max. Power 950W

	Hover Power 370W(@ take-off weight 2Kg) Hover Time 18min（@5300mAh&Take-off weight 2Kg） Working Environment Temperature -10°C ~ +40°C
Flight Distance	Height/Radius 800M/1200M

2、LED Flight Indicator Status

LED Flight Indicators	Status Description
🔵	Altitude unlocked, throttle not in the mid point
🔵🔵	Position unlocked, yaw and roll sticks are not in the mid points
🔵🔵🔵🔵 🔵🔵🔵🔵	Throttle stick is not in the mid point
No Green Flash	Manual
🟢	Manual Positioning
🟢🟢	GPS Positioning
🟢🟢🟢	Home Point Locked/Fixed Point Circling
🟢🟢🟢🟢🟢🟢🟢	Automatic Return to Home Point
🔴🔴🔴🔴🔴	No GPS Signal
🔴🔴🔴	GPS Signal is extremely bad（fewer than 5 GPS satellites found）
🔴🔴	GPS Signal is bad（6 GPS satellites found）
🔴	GPS Signal is OK（7 GPS satellites found）
No Red Flash	GPS Signal is Good（more than 8 GPS satellites found）
🔴🔴🔴 🔴🔴🔴	Low Battery Level Warning
🔴🔴🔴🔴🔴🔴🔴	Critical Low Battery Level（Emergency Landing）

3、Troubleshooting（FAQ）

（1）Why cannot start the motor after the remote controller being unlocked?

Solution: Double check the remote controller setup and whether the ESC and Receiver are correctly paired.

（2）After the Remote Controller issues a command, the aircraft appears stiff or too nimble.

Solution: Adjust the aircraft's attitude sensitivity. The higher the attitude sensitivity, the stiffer the aircraft control, and vice versa.

（3）Aircraft shakes too much.

Double check whether the motor stand and propellers are set balanced, and whether the shaking coefficient is set too high.

（4）Aircraft fails to fly at certain height or fails to fly straight.

Solution: Calibrate compass and check whether the center of gravity is shifted. When the aircraft flies with nose towards one direction, shift GPS in the opposite direction.

（5）The LED flight Indicator suddenly flashes white.

Solution: Check the Remote Controller's adhesiveness and the flight magnitude and whether GPS satellites are lost.

（6）Aircraft fails to maintain certain altitude and keeps descending, or throttle responds slowly.

Solution: Double check whether the aircraft or the motor is overloaded, and if the battery power is adequate.

（7）Aircraft fails to calibrate compass vertically.

Solution: Vertical calibrating command fails to be sent, or the aircraft nose fails to turn downward, or the attitude is wrong.

（8）Why the aircraft fly towards one direction?

Solution: Double check the motor balance and whether there are more than 7 GPS satellites found.

（9）When the aircraft land on the groundthe message of height is changing all the time.

Solution: Check whether the barometer has a temperature shift. Unlock the flight controller and pull the throttle stick position to higher than 20%, barometer will be automatically cleared.

4、Disclaimer

You should read this statement carefully before using the product; once the product is used, you are regarded as recognizing and accepting the full content of this statement. This product is not suitable for use by children under 18 years of age. You should ensure that you always operate the GLINT in compliance with this User Manual and other safe use instructions of Keyshare. We also remind you that you should not use this product for any unauthorized or unlawful purposes, as you will otherwise be fully liable for any loss or damage caused as a result of such unauthorized use. Keyshare shall not be responsible for any consequences arising from the use of the product or the use of this manual.

（1）Product Description

1)GLINT is an excellent multi-rotor aircraft and can provide you with easy shooting and other in-flight entertainment in low-altitude outdoor or large indoor space.

2)The excellent performance of GLINT is ensured by Keyshare's original parts and accessories. Keyshare shall not be responsible for any loss or damage caused by not using our original parts.

3)Although this product is equipped with a smart control system which ensures safe working mode when power on, we still recommend you that you remove the propellers for calibration and setting up parameters.

4)Make sure the power supply system and other functional modules are correctly connected, and the aircraft should fly away from crowds as well as fragile and dangerous property.

(2)Using the Aircraft

5)Keep the GLINT away from high voltage power lines, Crowds, buildings and any other potentially dangerous or Hazardous areas.

6)Make sure to fly GLINT under the take-of weight to avoid danger.

7)Double check whether the propellers and motor are corrected installed and fixed. You should not touch the GLINT when propellers are rotating and should wait until the propellers have completely stopped before handling the GLINT.

8)Avoid the interference of other wireless devices with Remote Controller.

9)Make sure the Remote controller, battery and other components are fully charged.

10)Remember to turn on the Remote Controller before start the aircraft. After landing, wait until the aircraft stops before turn off the remote controller.

11)Check the parts of GLINT before flight. Do not fly if there is any part worn or damaged.

12)Do not use the GLINT in areas of complex electromagnetic sources, so as not to affect the aircraft's communication, leading to damage or injury.

13)Do not use the GLINT is unfavorable meteorological conditions including but not limited to rain, wind, storm, snow, etc.

14)Please carefully read the User Manual, watch tutorials and follow other safe use instructions from the Keyshare website before flight.

(3)Battery and Charging Precautions

15)Do not expose the battery to liquid. For long term storage, please keep the battery in cool and dry place.

16)Do not use non chargeable batteries or batteries of different capacity and type in combination.

17)Keep the battery out of the reach of children. If swallowed, consult a doctor immediately.

18)Do not use or store the battery near a heat source, such as fire or stove.

19)The GLINT battery shall only be used together with the GLINT charger.

20)Make sure the battery is properly installed in the aircraft.

21)Do not connect the battery directly to a wall socket or a car cigarette lighter socket.

22)Do not expose the battery to fire nor heat the battery.

23)It is essential to avoid short circuits.

24)Avoid transporting or storing the battery together with necklaces, hairpins and other metal objects.

25)Do not attempt to strike or throw the battery. Do not place any heavy objects on the battery.

26)Avoid directly welding the battery terminals.

27)Do not pierce or cut a battery. Avoid hitting or stepping on a battery.

28)Do not attempt to dismantle the battery.

29)Do not use or store the battery in high temperatures, such as under direct sunshine or inside a heated car. Otherwise, the battery will overheat and may catch fire, affecting battery performance and reducing battery life.

30)Do not use the battery in places with strong magnetic source; otherwise the electronic protection device may be damaged, causing dangerous accidents.

31)In the event of battery leakage, avoid the liquid coming into contact with skin and eyes. In case of contact with the skin, wash copiously with water and consult a doctor.

32)Never use a swollen battery or a one which is damaged or giving off an unusual odor. Do not insert or remove the battery while the power is on.

33)Clean the battery terminals with a dry cloth; otherwise it will affect the battery performance and the charging.

34)Discarding batteries in your general household waste can be harmful to the environment. Before disposing of the battery, discharge it completely and insulate the output terminal of the battery with insulating tapes.

35)Do not use batteries other than those specified by Kayhare.

(4)Camera Use Precautions

36)Do not expose the device to water or other liquid. In case of contact with liquid or humid air, please wipe dry with a soft, absorbent cloth.

37)Do not clean the device with a solvent, denatured alcohol or other inflammable solvents.

38)Do not keep the device in humid or dusty places.

39)Do not use or keep the device in strong sunlight or other high temperature conditions.

40)When you observe smoke or suspicious smell from the device, stop it immediately.

41)It is essential to carry out several test shootings for an important one, so as to ensure that the device is in normal working status.

(5)Liability Limitations

42)You should use the GLINT safely and responsibly at all times, so as to avoid any damage or harm being caused to any person, animal or property next to which you are flying the GLINT. Keyshare shall not be responsible for any bodily injury or property damage in the following situations:

43)You operate the GLINT under the influence of alcohol, drugs and narcotics, or in the condition of feeling dizzy, fatigue, nausea, and in other poor mental state;

44)You intentionally cause bodily injury or property damage;

45)Any compensation for mental damage due to accident;

46)You operate or modify the GLINT NOT in accordance with the instructions of this manual;

47)You modify GLINT or replace parts and accessories other than those specified by Keyshare, resulting in injury and damage;

48)You use non-authentic Keyshare products or imitation Keyshare products;

49)Damage compensation caused by operator's error or subjective judgment;

50)Malfunction of aircraft caused by natural wear (more than 100 hours of flight time), rust corrosion, aging, etc.

51)Fail to land the aircraft under low power level warning, causing aircraft crash

52)You still fly the aircraft which is penetrated by water, oil, sand and other unknown substance, or with obvious defects;

53)You use the GLINT near strong magnetic fields and radio waves, or in non-fly zones regulated by the government. You should also avoid using your GLINT if visual conditions are not sufficient.

54)You use the GLINT in unfavorable meteorological conditions (including but not limited to rain, wind, snow, storm, etc);

55)The aircraft suffers a collision, overturning, fire, explosion, lighting, storms, tornadoes, floods, avalanches, slides, earthquakes, etc.

56)The infringement of privacy caused by recording and circulating any image and video data obtained by the aircraft.

57)Damage result from improper use of batteries;

58)Indirect damage caused by defects of equipment or accessories (including memory cards);

59)You should fly the aircraft and shoot photos and videos in accordance with the instructions of User Manual.

60)You should comply with all the local laws and regulations.

61)You should be responsible for any other loss beyond the responsibility of Keyshare.

(6)Warning

62)This equipment complies with the outside environment and the radio limits pursuant to the FCC Rules.

63)This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1) this equipment may not cause harmful interference; 2) this equipment must accept any interference received, including interference that may cause undesired operation.

64)Modifications not authorized the manufacturer may result in wireless and video interference, for which the manufacturer bears no responsibility.

65)This equipment has been tested and found to comply with the limits for a Class B 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 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 distance between the equipment and receiver.

▲Consult the dealer or an experienced radio/TV technician for help.

66)The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

67)Connect the USB port of Remote Controller and the USB port of the aircraft to no less than USB V2.0 port. Do not connect with USB power port.

68)Do not use the batteries other than those specified by Keyshare; otherwise there will be danger of explosion. Also follow the instructions to properly dispose of used batteries.

69)This product is only for personal use. Do not use it for any violations of local to international laws and regulations.

70)Do not use this product for including but not limited to the following purposes: (a) Defaming, abusing, harassing, stalking, threatening and in any other way that could interfere with other person's privacy; (b) shooting photos of individuals and private areas without permission; (c) illegal or inappropriate use other than general business purposes (such as for espionage, or unauthorized surveillance and investigation); (d) in violation of regional laws, regulations and social conventions.

71)Using this equipment for shooting and videoing performance, exposition and commercial buildings may cause infringement on other person's intellectual property. For any problem in assembling the equipment, please contact your authorized dealers of Keyshare.

72)Keyshare owns the intellectual property rights for this equipment and this User Manual. Without Keyshare's permission, no institution or individual should in any form pirate, copy and distribute the content of this manual. Referencing and publishing any information should indicate the source of Keyshare ownership. Do not delete or modify this manual, nor reference the manual in contrary to the intent of Keyshare.

5、Warranty

Keyshare warrants that the GLINT Drone will be free from defects in material and workmanship for a period of 6-month from the initial date of purchase. During the contractual warranty period, customers do not need to pay for technical tests, labor cost, parts replacement cost, and courier fees upon return (freight borne by the customer when issued). Please contact Keyshare's authorized dealers or the nearest authorized after-sales service for product return and repair.

(1)Keyshare's warranty cover:

A. Within the contractual warranty period and without any human-induced defects.

B. No unauthorized disassemble, no modification or installation without following the instructions provided by Keyshare, and no other human-induced breakdowns.

C. Product serial number, delivery label, and other labels without being torn or altered.

D. Presentation of proof of purchase, receipt and receipt number.

(2)Keyshare's warranty does not cover:

A. defects due to damage caused by an accidental collision or burn;

B. defects due to unauthorized modification or if the product is disassembled or opened without following the instructions provided by Keyshare in this manual;

C. defects due to abnormal use of the product or if spare parts have been installed without following the instructions provided by Keyshare in this manual;

D. defects due to inappropriate use of batteries and charger or if the circuit is altered without following Keyshare's recommendations and instructions;

E. defects due to flight and shooting without following the instructions of this manual;

F. defects due to operation in harsh environments, such as wind, rain, dust, etc.

G. defects due to operation in complex magnetic fields or environments of strong interference source, such as mines, transmission towers, high voltage lines, substations, etc.

H. defects due to operation with the interference of other wireless equipments, such as transmitters, image transmission signal, Wifi signal interference, etc.

I. defects due to taking off on the condition of exceeding the safe take-off weight;

J. defects due to flight when spare parts are worn or damaged;

K. The use of spare parts not provided by Keyshare in the original packaging;

L. The gradual power loss of the Keyshare rechargeable battery over time, or the use of batteries not approved by Keyshare.

6、Return and Exchange Policy

Keyshare warrants that the GLINT Drone may be returned or exchanged within 7 working days from the initial date of purchase (the actual date of delivery). Please contact the Keyshare's authorized dealers or Keyshare's official sales website for return and exchange matters.

(1)Exchange covers one of the following conditions:

A. Defects due to transportation found upon checking in front of the deliveryman;

B. The delivered product does not match its description;

C.The product fails to be started normally in accordance with the instructions of the manual or under the guidance of technical staff, or if non-human induced defects are found.

(2)Return policy covers one of the following conditions:

A. Significant manufacturing defects are found for unused goods within 7 working days from the initial date of delivery;

B. Non-human induced defects still exist after replacement;

C. The product fails to be delivered after 5 working days of the committed arrival date.

(3) Return and exchange do not cover:

A. Defects found but without requirement for return or exchange upon delivery;

B. Exceeding the contractual period of 7 working days from the initial date of delivery;

C. Fail to return the defective product in its original packaging, including the accessories, gifts, manuals, etc.

D. Unable to present proof of purchase or receipt, or the receipt has been forged or altered;

E. No quality problems found upon technical tests being carried out by Keyshare IT support department;

F. Defects due to damage caused by accidental collision and burning, or if the product is penetrated by water, oil, sand, etc. Defects due to installation, use and modification without following the instructions provided by Keyshare in this manual.

G. The labels, product serial number, water mark and security mark have been torn or altered;

H. Defects due to damage caused by unavoidable factors, such as fires, floods, lighting, traffic accidents, etc.