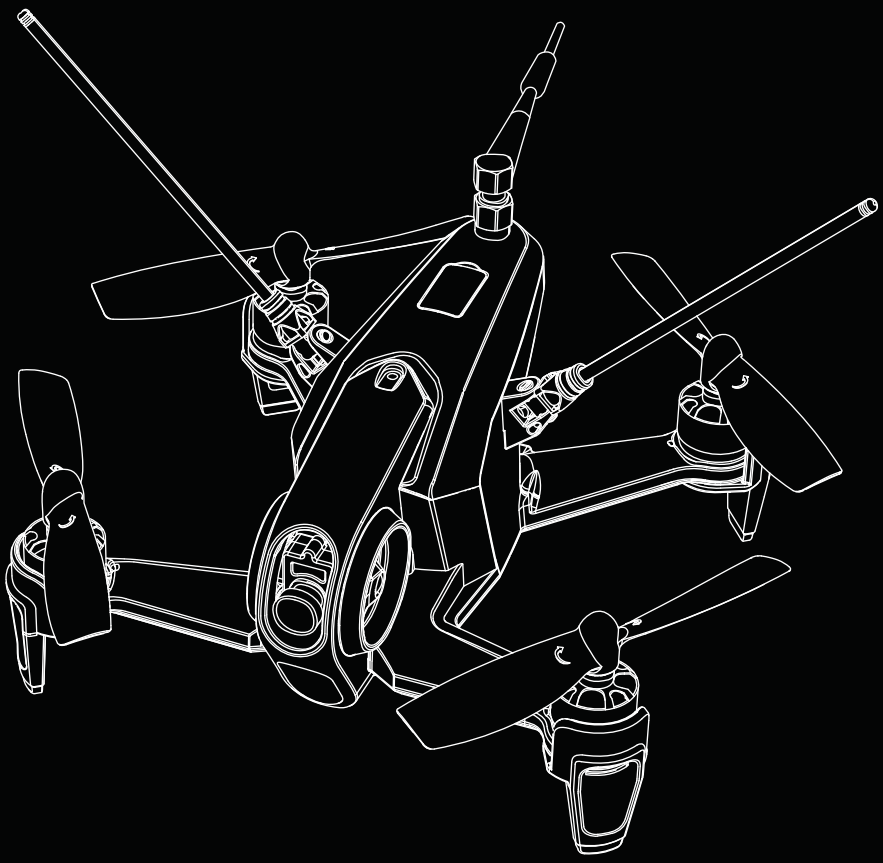
SWAGTRON®

SWAGDRONE™

150-UP

QUICK START GUIDE



SAVE THIS GUIDE FOR FUTURE USE

www.SWAGTRON.com

Thank you for your purchase of the SwagDrone™ 150-UP by SWAGTRON®!

If you want real swag, you're in the right place. The SwagDrone 150-UP boasts plenty of features and all new ways to take your swag to new heights.

To ensure your safety and the safety of others, please read and be sure to follow all instructions and safety recommendations in this User Manual prior to and when flying your SwagDrone.

If you have any questions regarding the SwagDrone™, contact us at 1-844-299-0625 for further assistance.

Happy Flying!

-The SWAGTRON™ Team

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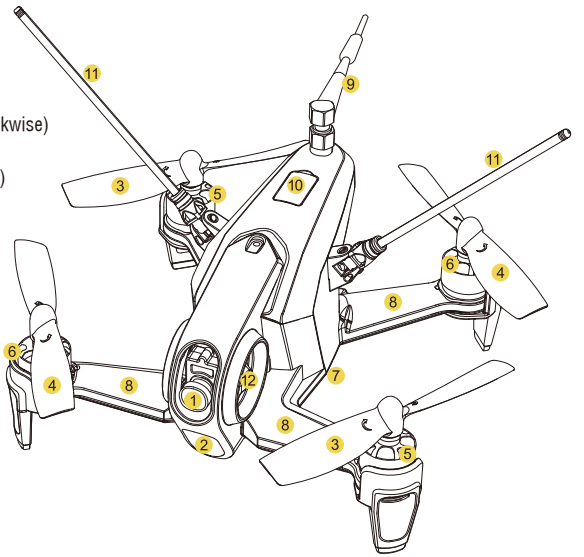
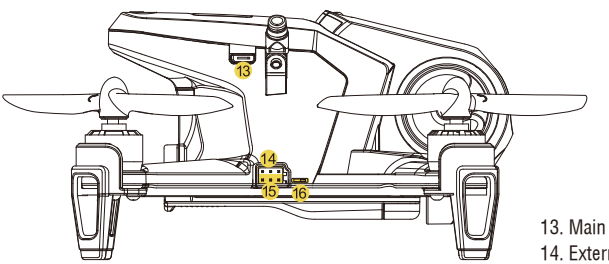
1.0 SwagDrone Parts

+Modern industrial and modular design helps improve product performance.
+Advanced 5.8ghz live video for an unforgettable, first-person visual (FPV) experience.
+Modern flight control system for acrobatic flight routines such as rolls, flips, and race course moves.

1. Camera
2. Headlight
3. Propeller (CW)
4. Propeller (CCW)
5. Clockwise Motor
   (Levogyrate thread is counterclockwise)
6. Counterclockwise Motor
   (Dextrogyrate thread is clockwise)
7. Li-Po Battery
8. Brushless ESC
9. 5.8G Transmitter Antenna
10. Code Switch
11. Receiver Antennas
12. Red LED Light





13. Main Flight Controller Upgrade Port
14. External Receiver Connection Port
15. 5V Power Output Port

- *Read this guide in its entirety before attempting to use the SwagDrone 150-UP*
- *Always extend the Receiver Antennas before flight.*

2.0 Remote Control

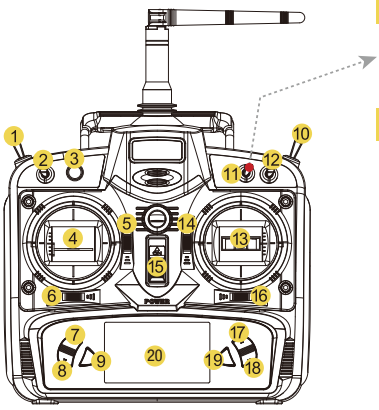
The included SwagDrone Remote Controller can be used to switch modes so that the drone is easier to operate according to the user. Select the flight mode that corresponds to your skill level.

For your first flight, start with the first mode listed below.

+Primary Flight: The flight control system uses automatic stabilization to achieve stability without rolling over. This mode is suitable for beginners.

+Mid-level Flight: The flight control system uses a partial stabilization to achieve a relatively flexible operation and allows rollover. This mode is for advanced users.

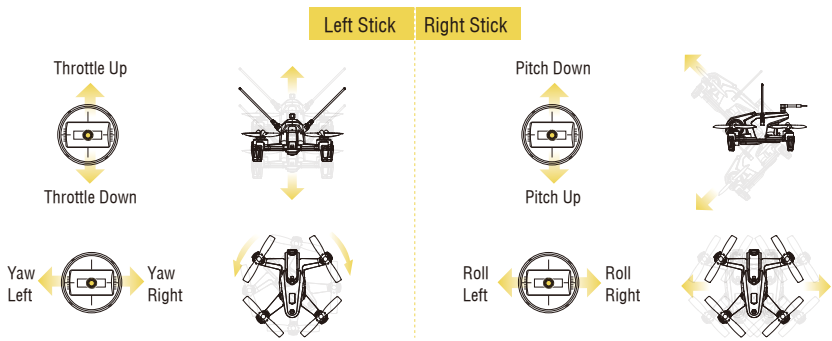
+High-Level Flight: The flight control system uses flexible stabilization for advanced operation and rollover. This mode is for advanced users.



Primary Flight Mode	Mid-level Flight Mode	High-level Flight Mode
Toggle the MIX Switch to 0	Toggle the MIX Switch to 1	Toggle the MIX Switch to 2

1. HOLD TRN Switch
2. GEAR Switch
3. AUX2 Knob
4. Left Stick
5. Left Trim
6. YAW Trim
7. UP+ Key
8. DN- Key
9. EXT Key
10. FMOD Key
11. MIX Switch
12. ELE/ROLL/YAW D/R Switch
13. Right Stick
14. Right Trim
15. Power Switch
16. ROLL Trim
17. R+ Key
18. L- Key
19. ENT Key
20. Display

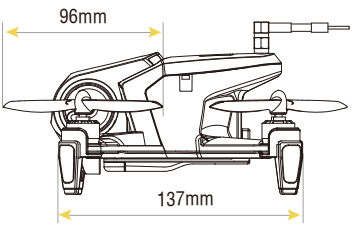
The images and examples below show MODE 2 (Left-hand throttle). The controller is set to MODE 2 by default.



3.0 Specifications

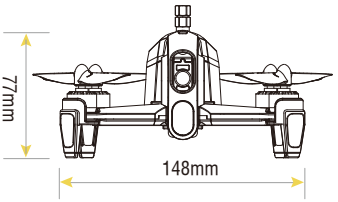
SwagDrone 150-UP

Main Rotor Diameter:	96mm
Dimensions:	137 (L) x 148 (W) x 77 (H) mm
Weight:	159g (Battery excluded)
Battery:	7.4V 850mAh 25C 2S LiPo
Flight Time:	7~8mins
Working Temperature:	14°F ~ 104°F



Camera(600TVL)

Horizontal Resolution:	600TVL
System Committee:	PAL/NTSC
Video Out:	1.0Vp-p/75Ω
Power Input:	DC 5-12V



TX5832(FCC) / TX5833(CE) Transmitter

5.8G Wireless Image Transmission
TX5832(FCC) Bind B Section: 8 Channels
TX5833(CE) B Section: 8 Channels
TX5832(FCC) Output Power ≤200mW
TX5833(CE) Output Power ≤25mW

4.0 Pre-Flight Check

1. The SwagDrone 150-UP is recommended for pilots 14 and up who have piloted drones before.
2. Only fly the SwagDrone 150-UP in dry weather with low wind conditions. Please do not fly in rain, snow, or heavy fog.
3. Always choose large open fields for flying. Check local laws and ordinances for legal flying areas.
4. To avoid injury from high-speed propellers, always keep a distance of 15 feet from the drone when the motor is unlocked. Always lock the motor before handling the drone.
5. Do not fly close to high-voltage power lines, cell, or radio towers as these may disrupt your control signal.
6. Always check local laws before flying. Never fly over crowds, near animals or children, or within sports stadiums.

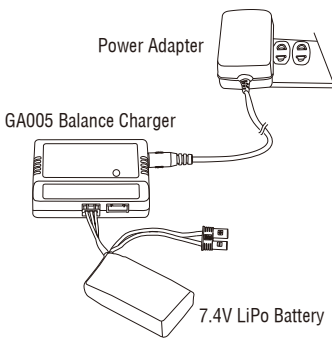
5.0 Battery Charging

STEP1. Insert the power adapter (100~240V 50/60Hz), connect the output end to the GA005 balance charger, the balance charger will show a solid red LED light.

STEP2. Insert the balanced LiPO battery pin into GA005.

STEP3. During charging, Red LED will continually flash. Once the battery has been fully charged, the Red LED light will flash solid green.

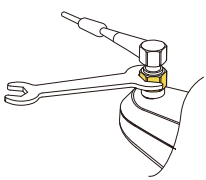
• Refer to Section 11 for details for the GA005 Balance Charger.



6.0 Preparing the SwagDrone 150-UP

5.8G Antenna Installation

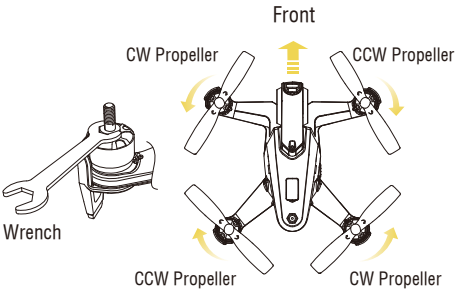
Install the 5.8 G antenna onto the transmitter and tighten with the included wrench.



Propeller Installation

Fix the CW Propellers onto the clockwise motor according to the direction of blue arrow, and fix the CCW Propellers onto the counterclockwise motor according to the direction of orange arrow. Tighten the propellers manually and make sure that all propellers have been properly fastened.

- *Install the propellers by hand and tighten the motor with the included wrench.*
- *You can also use the wrench to help remove broken props in the event of a crash.*



7.0 Pre-Flight Setup

- *Place the aircraft in a wide open space with the rear facing you. This position is known as "Tail In".*
- *Put the function switches to the 0 position and place the trims and dials to the middle position. Move the throttle to the lowest position.*
- *Video receiving equipment is needed to display image and OSD information.*
- *The SwagDrone 150-UP uses a low voltage alarm beeper. The OSD provides a visual reference for the remaining battery power.*
- *When the voltage reaches below 14 volts, the right LED will flash quickly and the beeper alarm will sound. Land the drone as soon as possible if the alarm is heard or the OSD is showing 14 volts.*
- *The 150-UP is designed for FPV racing, as there is no automatic landing mode.*

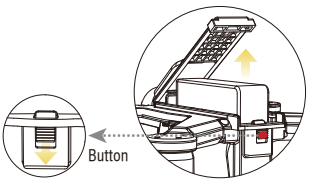
7.1 Binding Your SwagDrone

- *PROCEED WITH CAUTION. The drone will immediately receive power to all parts including the propellers once the battery is connected. Do not allow loose clothing, hair, fingers or any other part of your body to come in contact with or near the propellers during battery installation.*

STEP1. Turn the drone over. Pull the button down to unlock the cover and slide it open.

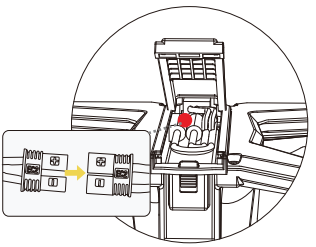
Check to make sure the 5.8G Transmitter Antenna is securely attached before connecting the battery.

STEP2. Connect the battery to the drone using the matching connectors. The drone will make noise and the propellers may move slightly as it receives power. Make sure the connectors are fully joined.



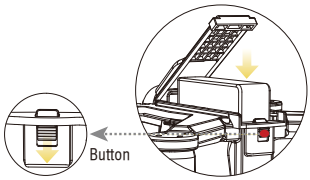
For your safety, it is recommended to extend both the Receiver Antennas before the next step.

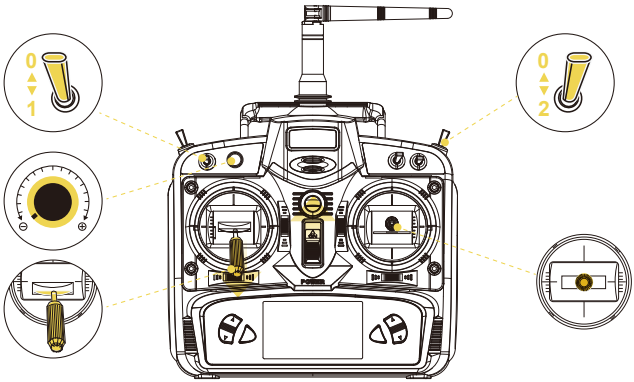
STEP3. Tuck the cords inside the compartment, fully seat the battery inside the drone, and slide the cover closed making sure it's locked in place. Turn the drone over, place it on a level surface, and move at least 15 feet away for safe clearance.



• *When turning the drone over, make sure not to touch the metal parts of the 5.8G Transmitter Antenna as these may be hot.*

STEP4. Put the function switches to the 0 position and place the trims and dials to the middle positions. Doing this puts everything in neutral. Use the image below to check that everything is in the correct position. With everything in the correct positions (neutral), turn on the remote. The controller will automatically start to bind to the drone once it is on.

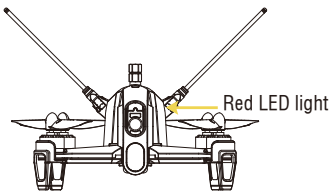




• *Do not move the SwagDrone 150-UP during binding.*

If the error reading THST K or any other combination appears on the remote's screen, at least one of the trims, dials, or sticks is not in the correct position. Turn the controller off, check the above image, make any needed adjustments, and turn it on again.

STEP5. Once the drone successfully binds to the controller, the red LED will blink slowly and the drone should stop making noise.



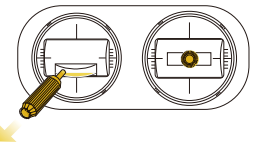
In the event that everything has been done correctly but the drone keeps making noise, please try binding it again. For any further troubleshooting, contact customer service.

7.2 Locking & Unlocking the Motor

The motors are locked by default after successful binding.

Motor Unlock

Check that everything is in neutral (see Section 7.1, STEP 4), then turn the remote on. Gently push the left stick down-left and hold it in this position for at least 2 seconds. When the motor unlocks, the red LED light will turn on, and the drone will beep. Be very careful at this point, as pusing the throttle will start the motors.

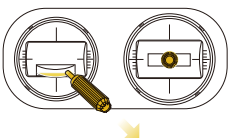


You can test this by pushing the left stick up a little; the motors should start.

Motor Lock

Check that everything is in neutral (see Section 7.1, STEP 4), then gently push the left stick down-right and hold it in this position for at least 2 seconds.

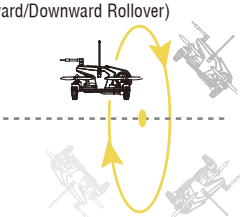
When the motor locks, the red LED light will turn off and the drone will beep.



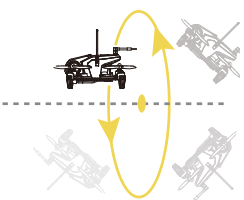
You can test this by pushing the left stick up a little; the motors should not start.

8.0 Flight Control

Loop
(Forward/Downward Rollover)

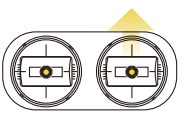


Loop
(Backward/Upward Rollover)

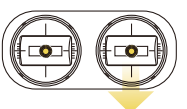


- *Unlock the motor before take off, then manually take off by slowly pushing the left stick upward.*
- *Tricks such as flips and rolls etc. should not be attempted unless you are able to pilot the drone in mid or high-level flight mode.*

Ensure that the MIX switch is in position 1 or 2 for Mid-level or High-level Flight modes. Postilion 0 is for Primary level or beginner flight mode. Tricks are not possible for in Primary mode.



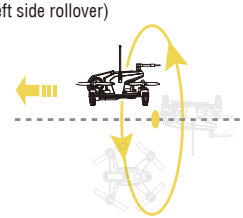
Forward/Downward Rollover



Backward/Upward Rollover

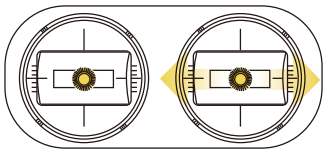
- *Always select large open spaces with soft ground for flying.*
- *Rolls and flips are best suited for experienced pilots.*
- *In the event that you do wish to perform rolls and flips, it is highly recommended that you gain an appropriate amount of altitude first.*

Aileron
(Left side rollover)

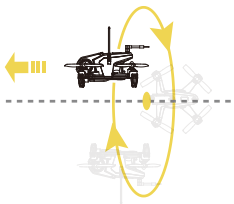


Ensure that the MIX switch is in position 1 or 2 for Mid-level or High-level Flight modes.

Aileron rolls may be more difficult to attempt while using Mid-level Flight Mode.



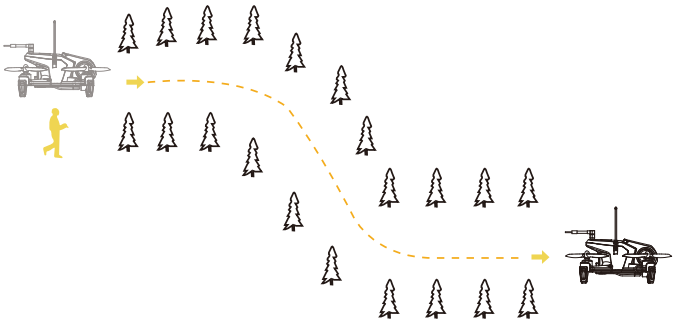
Aileron
(Right side rollover)



- *Always select large open spaces with soft ground for flying.*
- *Rolls and flips are best suited for experienced pilots.*
- *In the event that you do wish to perform rolls and flips, it is highly recommended that you gain an appropriate amount of altitude first.*

Racing Flight

- *Racing is suitable only for experienced pilots as obstacle avoidance requires advanced flight skills.*
- *During racing, flight must be controlled within 984 feet (300 meters) of signal receiving range (actual range depends on flying environment and weather conditions.)*
- *When racing, be sure to keep away from crowds, animals, and power lines. Be aware of your surroundings at all times.*



9.0 Landing

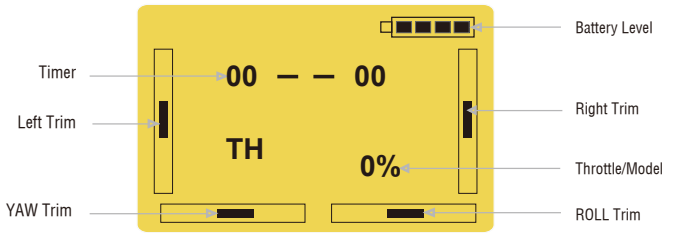
STEP1. For the SwagDrone, manual landing is required. Slowly pull down on the left stick until the drone lands and then lock the motor.

STEP2. Disconnect the power supply before switching off the power for your remote.

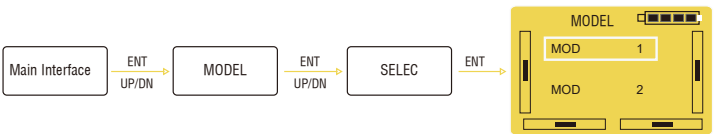
10.0 Additional Instructions

10.1 Remote Controller Settings

Main Interface



Model Select (SELEC)

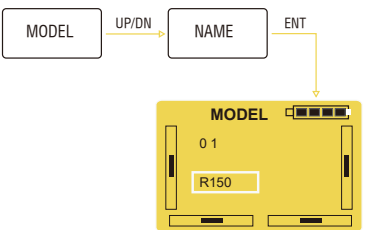


Press UP or DN key to select the desired number then press the key ENT to confirm.

Press the EXT Key to return to the previous menu.

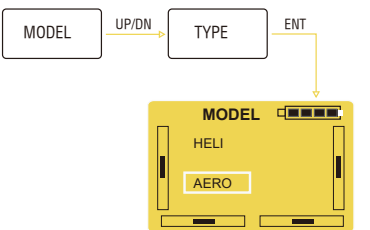
This controller option can be used to save certain configurations if you decide to use it for different flying styles etc.

Model Name (NAME)



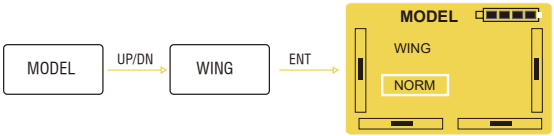
Press R or L to change characters and digits, name the model as “R150”, and press ENT to confirm. Press the EXT Key to return to the previous menu.

Model Type (TYPE)



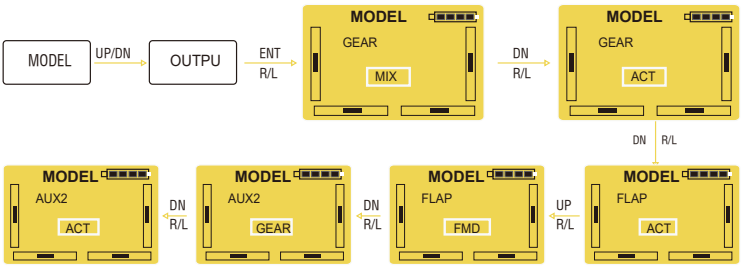
Press UP or DN to select “AERO”, and press the key ENT to confirm and press EXT to return back to Model Menu (MODEL).

Wing Type (WING)



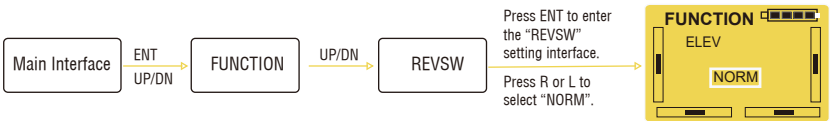
Press the L or R keys to select "NORM" and press the ENT key to confirm. Press the EXT Key to return to the previous menu.

Device Output (OUTPU)



After setting, press the ENT Key to confirm then press the EXT Key to return to the Main Interface.

Reverse Settings (REVSW)



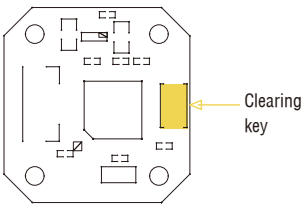
ELEV (PITCH)	AILE (ROLL)	THRO	RUDD	GEAR	FLAP	AUX2
NORM	NORM	NORM	NORM	NORM	NORM	NORM

After setting, press the ENT Key to confirm then press the EXT Key to return to the Main Interface.

10.2 Receiver Introduction

Fixed ID Code Removal

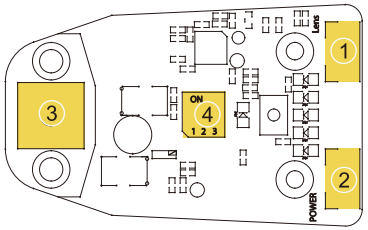
After the receiver has set a fixed ID code by using the remote controller, press the Clearing Key to clear the ID cache when necessary and switch on the drone's power. The receiver's red indicator light will slowly flash, indicating that the receiver's fixed ID memory has been cleared. The remote control's "fixed ID" also needs to be closed.



Refer to the remote controller instructions for more information about "fixed ID" settings.

10.3 Video Transmitter Channel Selection

Port Introduction



1. Camera Connection Port
2. Power Connection Port
3. Position of 5.8G Antenna
4. Code Switch

Video Transmitter Channel Selection

There are 8 channels available, chose the best channel based on the image quality on your screen.

Channel	1	2	3	4	5	6	7	8
Frequency	5866MHz(CE) 5847MHz(FCC)	5847MHz	5828MHz	5809MHz	5790MHz	5771MHz	5752MHz	5733MHz
Code Position (on/off)	ON 1 2 3	ON 1 2 3	ON 1 2 3	ON 1 2 3	ON 1 2 3	ON 1 2 3	ON 1 2 3	ON 1 2 3

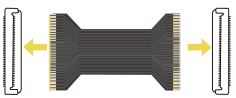
Select the channel by adjusting the dip-switches on the video-transmitter according to the diagram.

• Video transmitter channel must match the receiver channel.

10.4 Introduction for Main Flight Controller

Flexible Flat Cable Connection

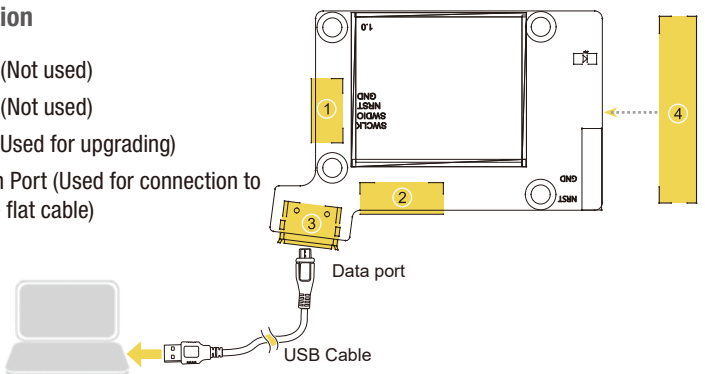
The metal surface of flexible flat cable plug should be inserted upward to the main controller port properly.



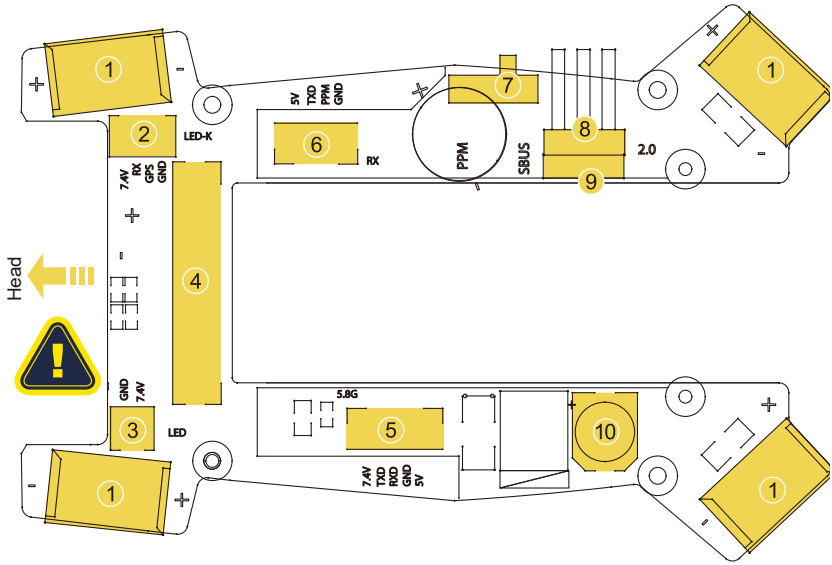
The metal surface of flexible flat cable plug should be inserted downward to the power board port properly.

Port Introduction

1. 4-Pin Port (Not used)
2. 6-Pin Port (Not used)
3. Data Port (Used for upgrading)
4. Connection Port (Used for connection to the flexible flat cable)

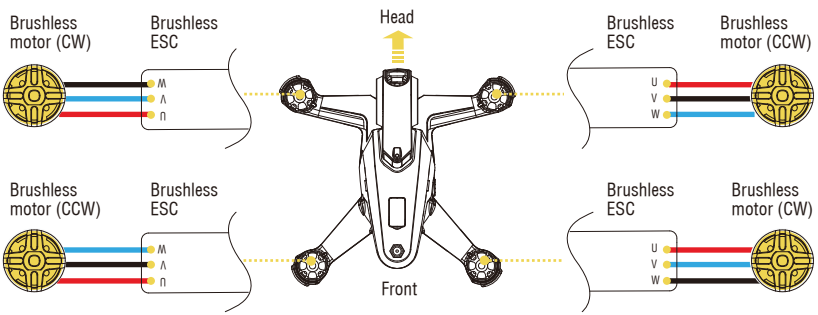


10.5 Power Board Overview



1. Brushless ESC Connection Position
2. Signal Light Connection Port
3. Headlight Connection Port
4. Main Controller Flexible Flat Cable Connection Port
5. 5.8G Transmitter Connection Port
6. Receiver Connection Port
7. Receiver Toggle Switch (PPM and SBUS)
8. 5V Power Output Port
9. External Receiver Connection Port
10. Buzzer (An alarm which sounds automatically when the signal between the drone and remote controllers are suddenly lost or the battery voltage dips below 7.0V)

10.6 Connection Diagram of Brushless ESC & Brushless Motor



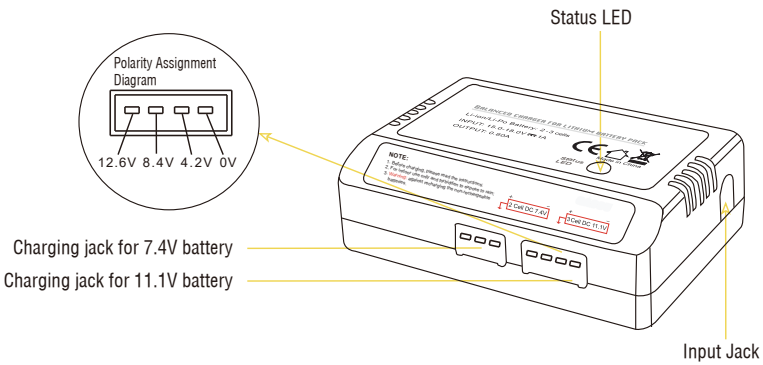
11.0 GA005 Balance Charger

Parameters

Input Voltage	Input Current	Output Current	Dimension	Weight
DC15-18V	1000mA	≤800mA	62.5 x 47 x 20.8mm	46g

Features

1. The GA005 utilizes microcomputer chips to monitor and control the charging process in a balanced way with LED indicators that display the charging status in real time.
2. Connects to an input power supply (DC 15-18V 1000 mA).
3. GA005 is suitable for 7.4V/ 11.1V Li-ion or Li-polymer battery pack.
4. The GA005 can detect the Li-Po battery automatically. The GA005 will automatically charge when it finds the voltage of a single cell battery is excessively low. At the same time, the LED displays the charging status by flashing red. Control the single cell battery voltage with a range of 4.2 +/- 0.5V to ensure the maximum voltage difference of a single celll is less than 50 mV.



Instructions

- *The GA005 can only be used to charge a 2S or 3S Li-On or LI-Polymer battery. It is forbidden for you to simultaneously charge two or more sets of batteries. Either the charger or battery may be damaged.*
- *While charging, the GA005 should be placed in a dry and well ventilated place and be placed far away from heat sources and flammable and explosive substances.*
- *The battery should be removed from the helicopter when charging. In order to avoid the risk of accidents, never leave the charger unattended during the charging process.*
- *DO NOT CHARGE YOUR BATTERY IMMEDIATELY AFTER ITS FLIGHT IS FINISHED, OR THE TEMPERATURE HAS NOT FINISHED FULLY COOLING. OTHERWISE THE BATTERY WILL RISK COMBUSTING.*
- *ENSURE THAT THE BATTERIES ARE AT THE CORRECT POLARITY BEFORE CHARGING.*

- *Avoid dropping or roughly handling the battery during the process of charging. Dropping and roughly handling the battery will result in short circuiting.*
- *Please use only the original charging equipment (wall adapter and GA005 Balance charger) and battery. Please change the batteries one at a time*
- *If the battery is kept in the charger for a long time after being fully charged, it will automatically begin to discharge. When the charger detects that the voltage of individual cells is lower than the rate voltage, it will recharge until it is full charged again. Frequently charging and discharging will shorten the lifetime of your battery.*

12.0 Warnings & Information

It is important that you follow all instructions and regard all notes that appear throughout this manual.

12.1 Safety Warnings

+Always remove the battery to turn the product off before transporting or storing.

+Store the product indoors at a dry and stable temperature. Do not store in an unheated garage, shed, or other location with extreme temperature fluctuations.

+Before using the product, remove all objects which may easily sustain or cause damage if bumped during flight.

+Clean the outside with a dry, non-abrasive cloth only. Do not spray water or liquids onto the product.

+Do not leave children or animals unsupervised around the product.

+Do not place the product near any source of significant heat or combustible materials.

+This product is for outdoor use only.

+Properly dispose of all packaging material. Some items may be packed in plastic bags or material and may cause suffocation or injury to pets or children.

+Do not place heavy weight on the product or any of its accessories.

+Do not place anything inside the product other than battery as described in this manual.

+Do not use the product for any purpose other than described in this user manual.

12.2 Disposal at End-of-Life

This product must not be disposed of by incineration, landfilling, or mixing with household trash. Improper disposal of the battery contained within this product may result in the battery heating up, rupturing, or igniting which may cause serious injury. The substances contained inside the battery present chemical risks to the environment. The recommended disposal for any SWAGDRONE™ product at its end-of-life is to dispose of the entire unit at or through an e-waste recycling center, program, or facility. Local regulations and laws pertaining to the recycling and disposal of lithium ion batteries and/or products containing them will vary according to country, state, and local governments. You must check laws and regulations corresponding to where you live in order to properly dispose of the battery and/or unit. It is the user's responsibility to dispose of their waste equipment properly with accordance with local regulations and laws.

For additional information about where you should drop off your batteries and electrical or electronic waste, please contact your local or regional waste-management office, your household waste disposal service, or your point-of-sale.

12.3 FCC Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Modification or changes to this equipment not expressly approved by Radio Systems Corporation may void the user's authority to operate the equipment.

NOTE: 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 radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a specific installation. If interference does occur 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 separation between the equipment and the receiver.
+Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
Consult customer care, the dealer, or an experienced radio/TV technician for help.

13.0 Warranty Information

1 Year Limited Warranty

Your SWAGTRON® SwagDrone ("Product") includes a One Year Limited Hardware Warranty ("Warranty"). The Warranty covers product defects in materials and workmanship under normal use. This Warranty is limited to residents of the United States and Canada only and is available only to original purchasers. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

This Warranty starts on the date of your purchase and lasts for one year (the "Warranty Period"). The Warranty Period is not extended if the Product is repaired or replaced. We may change the availability of this limited warranty at our discretion, but any changes will not be retroactive.

Warranty services are provided by SWAGTRON®. If a hardware defect arises and a valid claim is received within the Warranty Period, at its option and to the extent permitted by

law, SWAGTRON® will: (1) repair the hardware defect by using new or refurbished parts that are equivalent to new in performance and reliability; or (2) exchange the Product with a product that is new or refurbished which is substantially equivalent to the original product. This Warranty is for one replacement only of like-items and does not cover items out of production if the product is no longer made or stocked. This Warranty is not assignable or transferable. The original purchaser may call SWAGTRON® toll-free number at 1-844-299-0625 for service request.

When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes SWAGTRON®'s property. This warranty only covers technical hardware defectiveness during the warranty period and under normal use conditions. SWAGTRON® does not warrant uninterrupted or error-free operation of this Product.

This Warranty does not cover any damage due to: (a) transportation; (b) storage; (c) improper use; (d) failure to follow the product instructions or to perform any preventive maintenance; (e) modifications; (f) unauthorized repair; (g) normal wear and tear; or (h) external causes such as accidents, abuse, or other actions or events beyond our reasonable control.

Important: Do not disassemble the Product. Disassembling the Product will void this Warranty. Only SWAGTRON® or a party expressly authorized by SWAGTRON® should perform service on this Product.

DISCLAIMER OF WARRANTY: THE REMEDIES DESCRIBED ABOVE ARE YOUR SOLE AND EXCLUSIVE REMEDIES AND OUR ENTIRE LIABILITY FOR ANY BREACH OF THIS LIMITED WARRANTY. OUR LIABILITY SHALL UNDER NO CIRCUMSTANCES EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT, NOR SHALL WE UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THE DURATION AND REMEDIES OF ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY.