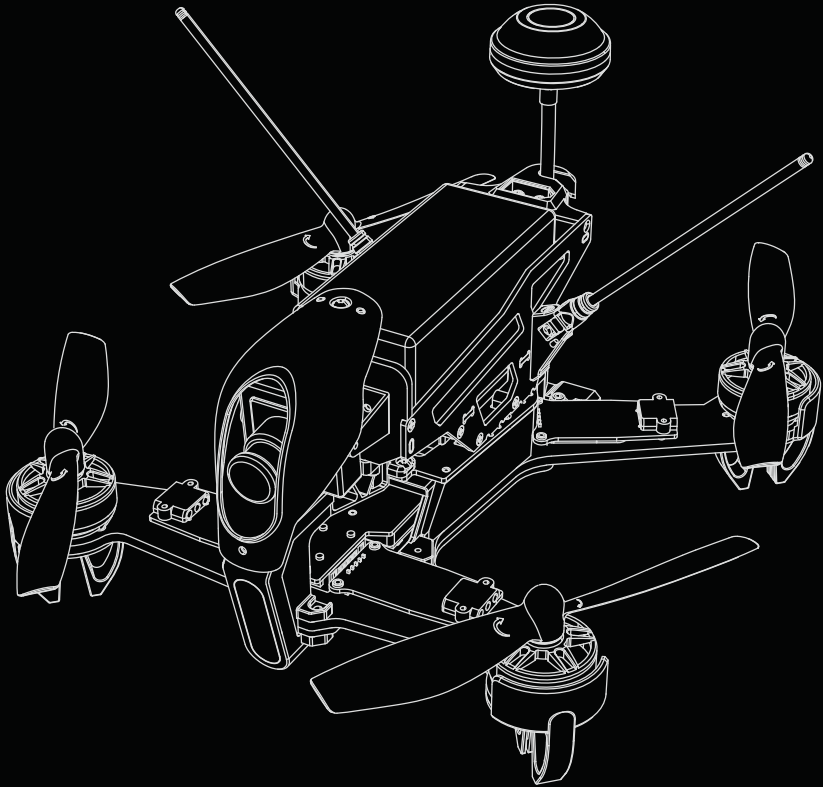


SWAGTRON®

SWAGDRONE™

210-UP

QUICK START GUIDE



SAVE THIS GUIDE FOR FUTURE USE

www.SWAGTRON.com

Thank you for your purchase of the SwagDrone™ 210-UP by SWAGTRON®!

If you want real swag, you're in the right place. The SwagDrone 210-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!

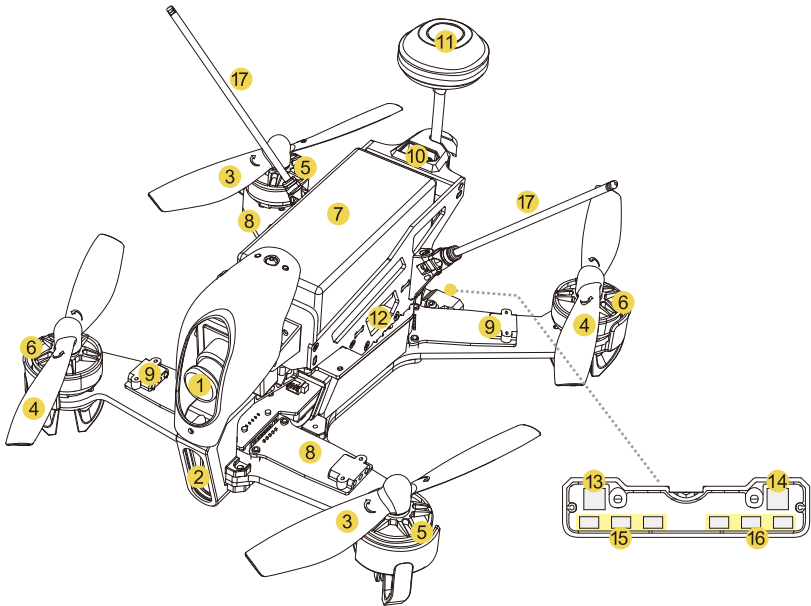
-The SWAGTRON™ Team

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1.0 SwagDrone Parts

- +The SwagDrone 210-UP body is created using CFP for outstanding crash survivability.
- +Modern industrial and modular design helps improve product performance.
- +Advanced 5.8ghz live video and OSD for an unforgettable, first-person visual (FPV) experience.
- +Modern flight control system for acrobatic flight routines such as rolls, flips, and race course moves.



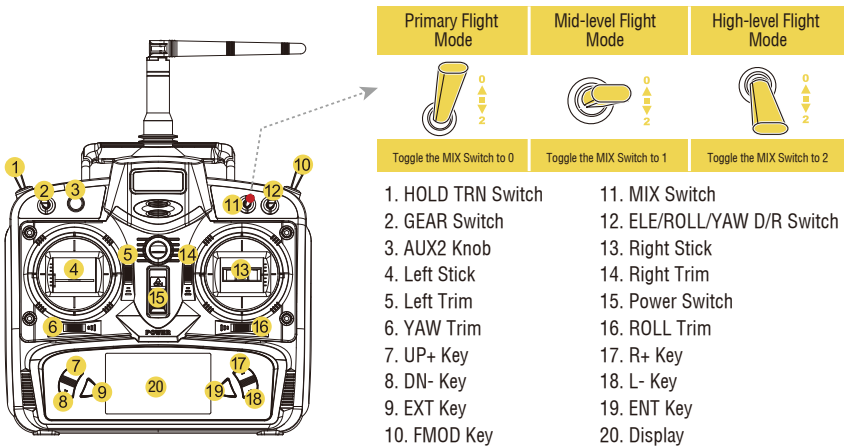
- | | |
|--|--------------------------------|
| 1. Camera | 9. Brushless ESC (CCW) |
| 2. Headlight | 10. Power Port (XT60) |
| 3. Propeller (CW) | 11. Mushroom Antenna |
| 4. Propeller (CCW) | 12. Main Flight Controller |
| 5. Clockwise Motor
(Levograte thread is counterclockwise) | 13. Left Red LED Light |
| 6. Counterclockwise Motor
(Dextrograte thread is clockwise) | 14. Right Red LED Light |
| 7. Li-Po Battery | 15. LEFT Turn Indicator Light |
| 8. Brushless ESC (CW) | 16. RIGHT Turn Indicator Light |
| | 17. Receiver Antennas |

2.0 Remote Control

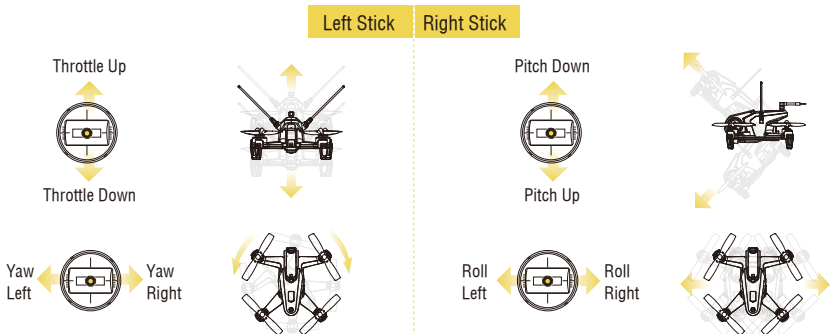
The included SwagDrone Remote Controller works with the SwagDrone 210-UP and can be used to switch modes so that the drone is easier to operate according to the user. Select the flight mode that corresponds to your skill level.

☰ 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.



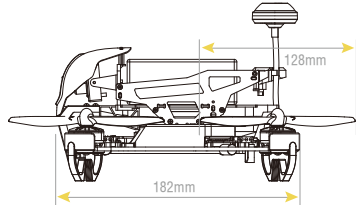
☰ The images and examples below show MODE 2 (Left-hand throttle). The controller is set to MODE 2 by default.



3.0 Specifications

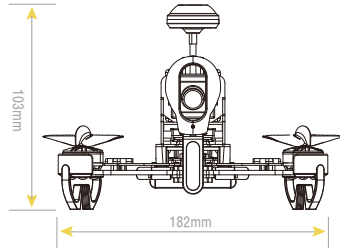
SwagDrone 210-UP

Main Rotor Diameter:	128mm
Dimensions:	182 (L) x 182 (W) x 103 (H) mm
Weight:	370g (Battery excluded)
Battery:	14.8V 1300mAh 40C 4S LiPo
Flight Time:	8~9mins
Working Temperature:	14°F ~ 104°F



Camera (700TVL)

Horizontal Resolution:	700TVL
System Committee:	PAL/NTSC
Video Out:	1.0Vp-p/75 Ω
Power Input:	DC 12V



TX5825 (FCC) / TX5824 (CE) Transmitter

5.8G Wireless Image Transmission
TX5825(FCC) Bind B Section: 4 Channels
TX5824(CE) B Section: 8 Channels
TX5825(FCC) Output Power \leq 200mW
TX5824(CE) Output Power \leq 25mW



• Read this guide in its entirety before attempting to use the SwagDrone 210-UP

4.0 Pre-Flight Check

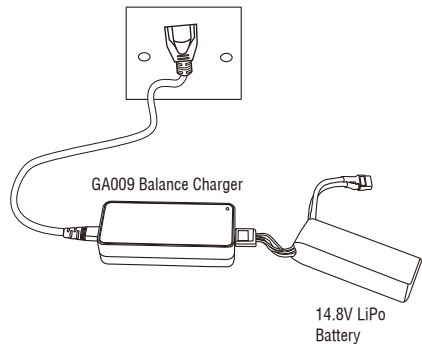
1. The SwagDrone 210-UP is recommended for pilots 14 and up who have piloted drones before.
2. Only fly the SwagDrone 210-UP in dry weather with low wind conditions. Please do not fly in rain, snow, or heavy fog.
3. Always choose large open fields for flying. Check local laws and ordinances for legal 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. Connect the power-cable to the wall-outlet. The GA009 charger accepts voltage from 100V to 240V. The LED will turn green.
- STEP2. Insert the LiPo battery plug into the GA009 charger. During the charging process, the LED will turn solid red.
- STEP3. When the battery is almost done charging, the LED will flash red and green. When charging is done, the LED will turn solid green.



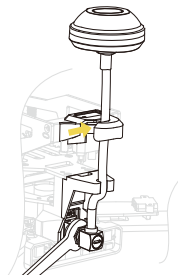
- *If the yellow light flashes, there may be a problem with the charger or battery. If you see a yellow light, immediately stop charging and call customer service.*
- *Refer to Section 11 for details for the GA009 Balance Charger.*



6.0 Preparing the SwagDrone 210-UP

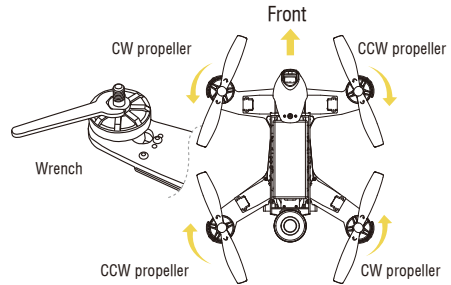
Mushroom Antenna Installation

Install the mushroom onto the mounting brackets as shown. Next, lock in the video transmitter, and tighten in the rotating collar 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 use the wrench to help remove broken props in the event of a crash.

Battery installation

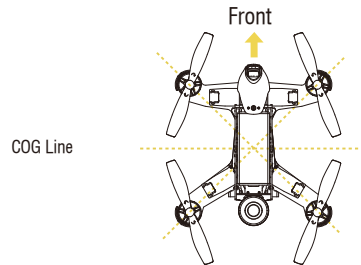
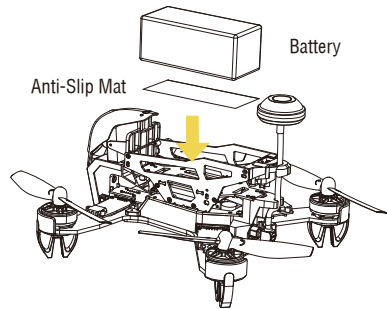


- DO NOT connect the battery at this stage.

STEP1. Place the anti-slip mat into the battery compartment. Place the battery on top and position it so that it is evenly balanced.

STEP2. Grab the drone by the COG (center of gravity) line and move the battery forwards and backwards until the drone balances.

STEP3. Once the battery is balanced inside its compartment, use the velcro strap to secure it in place.



7.0 Pre-Flight Setup



- Place the drone in a wide openspace 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. Refer to Sections 10.3 to 10.7.
- 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 you hear the alarm or the OSD shows 7 volts.
- The 210-UP is designed for FPV racing, as there is no automatic landing mode.

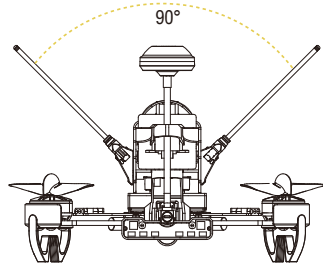
7.1 Binding Your SwagDrone



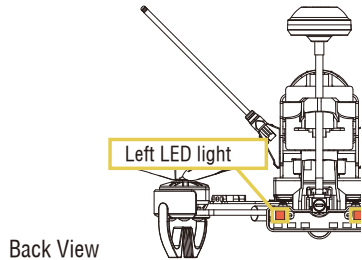
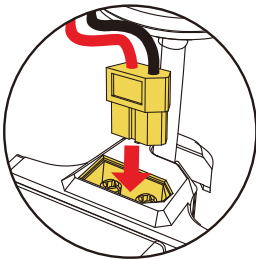
• **PROCEED WITH CAUTION.** The drone will immediately receive power to all parts including the propellers once the battery is connected. Do not allow loose clothing, hair, fingers or any other part of your body to come in contact with or near the propellers during battery installation.

STEP1. Set the drone on a flat, level surface and check that the battery is secured in its compartment and that the Mushroom Antenna is securely attached.

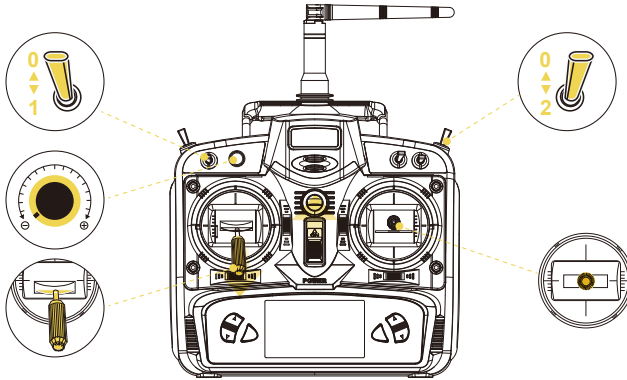
☰ For your safety, it is recommended to extend both the Receiver Antennas before the next step.



STEP2. Connect the battery to the drone using the matching connectors. Make sure that the red and black cables match the cables underneath the battery compartment. Once the battery is connected, the drone will make noise, the left red LED light should turn on, and the propellers may move slightly. Move at least 15 feet away for safe clearance.



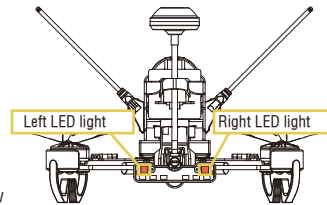
STEP3. Put the function switches to the 0 position and place the trims and dials to the middle positions. Doing this puts everything in neutral. Use the image on the next page to check that everything is in the correct position then turn on the remote control. The controller will automatically start to bind to the drone once it is on. 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 210-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.

STEP4. Once the drone successfully binds to the controller, the red LED will blink slowly and the drone should stop making noise.



Back View

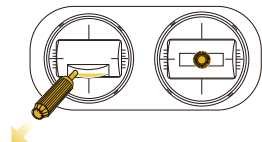
- ☰ In the event that everything has been done correctly but the buzzer keeps making noise, please try binding the drone again. For any further troubleshooting, contact customer service.

7.2 Locking & Unlocking the Motor

- ☰ After successfully binding, the motor is locked by default.

Motor Unlock

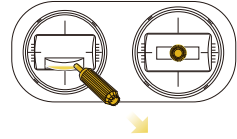
Check that everything is in neutral (see Section 7.1, STEP 3), then turn the remote on. Gently push the left stick down-left and hold it in this position for at least 2 seconds. When the motor unlocks, the right red LED light will turn on and the drone will beep. Be very careful at this point, as pushing the throttle up will start the motors.



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

Motor Lock

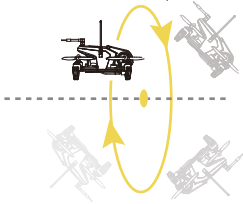
Check that everything is in neutral (see Section 7.1, STEP 3), then gently push the left stick down-right and hold it in this position for at least 2 seconds. When the motor locks, the right red LED light will turn off, and the drone will beep.



8.0 Flight Control

Loop

(Forward/Downward Rollover)



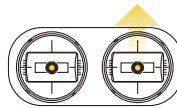
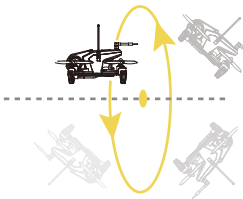
- *Unlock the motor before take off, then manually take off by slowly pushing the left stick upward.*

- *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.*

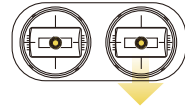
Ensure that the MIX switch is in position 1 or 2 for Mid-level or High-level Flight modes. Position 0 is for Primary level or beginner flight mode. Tricks are not possible in Primary mode.

Loop

(Backward/Upward Rollover)



Forward/Downward
Rollover



Backward/Upward
Rollover

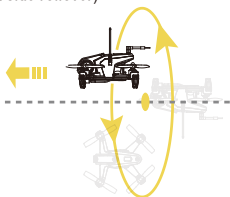


- *Always select large open spaces with soft ground for flying.*

- *Rolls and flips are best suited for experienced pilots.*

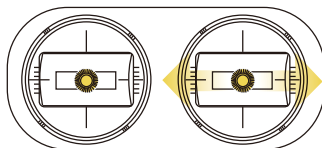
- *In the event that you do wish to perform rolls and flips, it is highly recommended that you gain an appropriate amount of altitude first.*

Aileron
(Left side rollover)

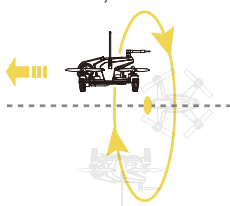


Ensure that the MIX switch is in position 1 or 2 for Mid-level or High-level Flight modes.

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



Aileron
(Right side rollover)

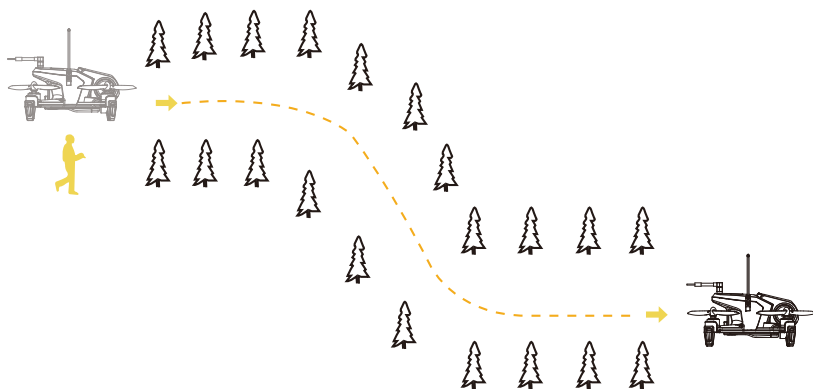


- Always select large open spaces with soft ground for flying.
- Rolls and flips are best suited for experienced pilots.
- In the event that you do wish to perform rolls and flips, it is highly recommended that you gain an appropriate amount of altitude first.

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.

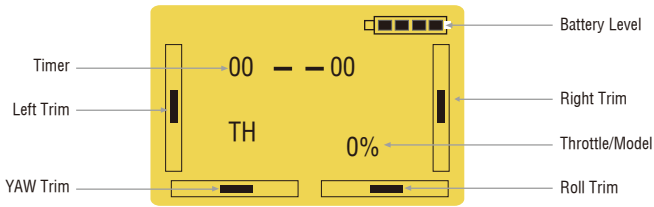
STEP2. Power off the drone by unplugging the battery and turning off the remote.

STEP3. Remove the battery from the drone.


10.0 Additional Instructions

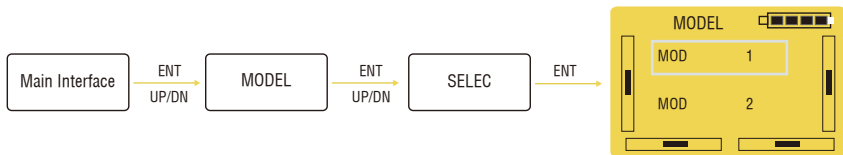
10.1 Remote Control Settings

Main Interface



Model Select (SELEC)

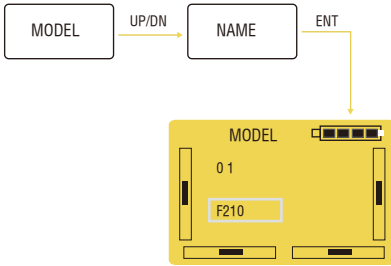
 This controller option can be used to save certain configurations if you decide to use it for different flying styles etc.



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

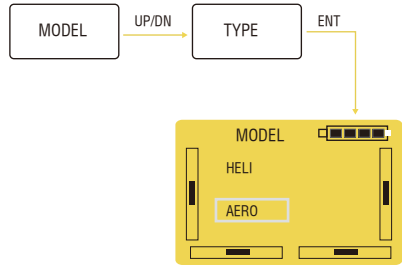
Press the EXT Key to return to the previous menu.

Model Name (NAME)



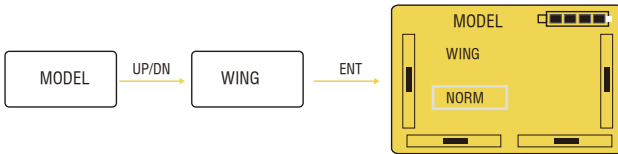
Press R or L button to change the character and figure, named model as F210. Press ENT to confirm. Press the EXT Key to return to the previous menu.

Model Type (TYPE)



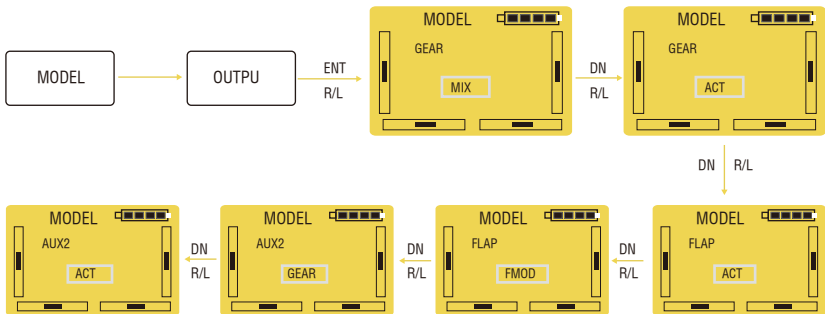
Press UP or DN to select AERO, Press ENT to confirm. Press the EXT Key to return to the previous menu.

Wing Type (WING)



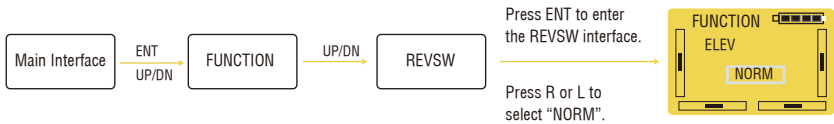
Press the L or R keys to select "NORM" and press the ENT key to confirm. Press the EXT Key to return to the previous menu.

Device Output (OUTPUT)



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

Reverse Settings (REVSW)

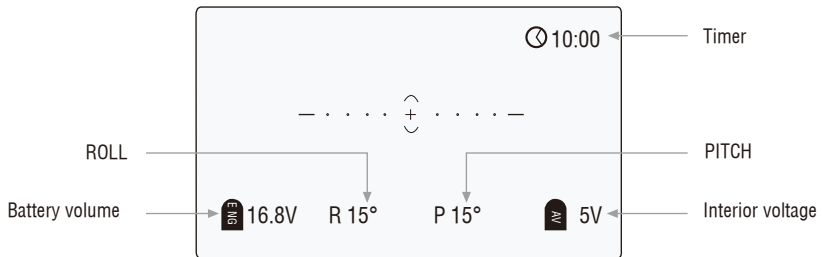


ELEV (PITCH)	AILE (ROLL)	THRO	RUDD	GEAR	FLAP	AUX2
NORM	NORM	NORM	NORM	NORM	NORM	NORM

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

10.3 OSD Overview

+The OSD information is visible on your video receiver.



☰ The video switch and OSD module code switch can be found on page 17 and 18.

10.4 Video Transmitter Channel Selection

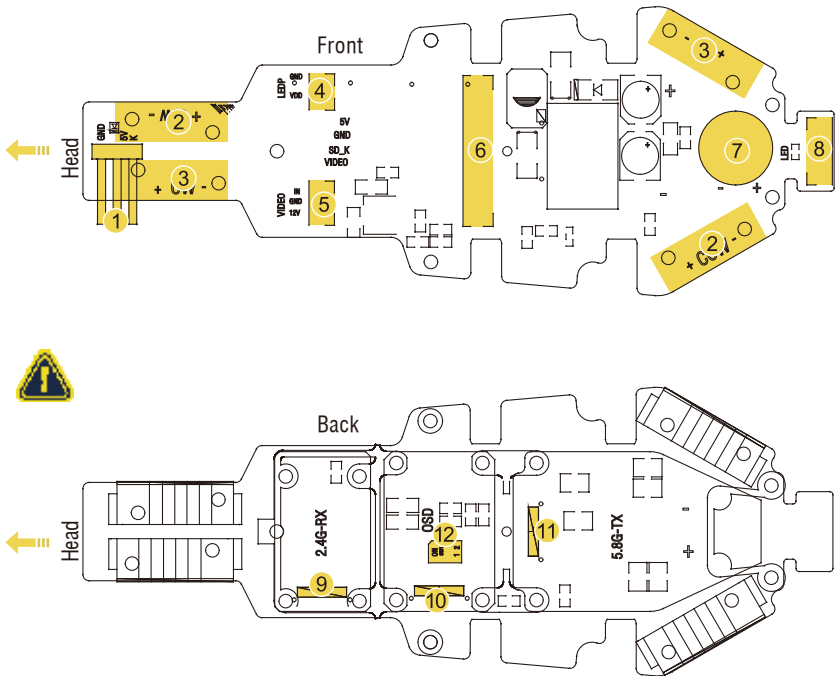
There are 8 channels available. Choose the best channel based on image quality for your screen. Select the channel by adjusting the dip-switches on your video transmitter according to the diagram.



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



- Only 2, 4, 6, 8 channels are available for the TX5825(FCC) transmitter.
- Video transmitter channel must match the receiver channel.

10.5 Power Board Overview

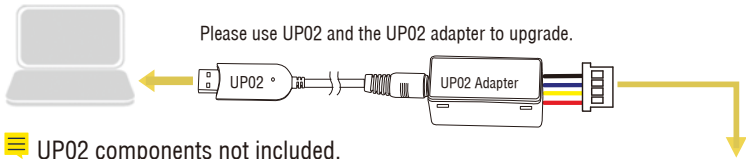


1. 5V power output
2. Brushless ECS connection position (CCW)
3. Brushless ECS connection position (CW)
4. Lighting Lamp Connection port
5. Camera Connection Port: (3 pins/11.1V)
6. Main controller Flexible flat cable Connection port
7. Buzzer:
(An alarm which sounds automatically when the signal between the drone and remote controllers are suddenly lost or the battery voltage dips below 14.0V)
8. Rear LED light connection port
9. Connection port for receiver or external receiver converter
10. OSD connection port
11. Transmitter connection port
12. Video switch:
Without OSD, Please turn the switch from "1" to "ON" position  to start the video.
With OSD, Please turn the switch to "1" position  to shut off the video.

10.6 OSD Information

Upgrade

For upgrades, please go to swagtron.com for details. Use the UP02 cable and connector to connect.

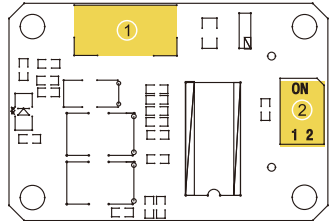


☰ UP02 components not included.

Port Introduction

1. Upgrade port: used for program upgrading

2. Code switch:  slide the code switch from "1" to "ON" to start the OSD



10.7 Receiver Introduction

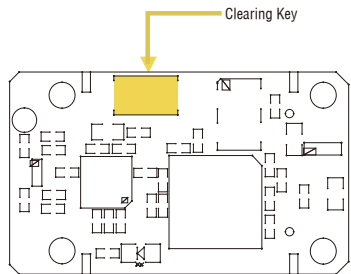
Fixed ID Code Removal

In the event that you want to clear the fixed ID from the remote controller, follow these steps.

STEP1. Press the Clearing Key button, and power on the 210-UP.

STEP2. The Receiver's RED LED will slowly blink to indicate that the fixed ID has been cleaned.

STEP3. Set the Remote Control's Fixed ID setting to OFF.



10.8 Introduction for Main Flight Controller

Flexible Flat Cable Connection

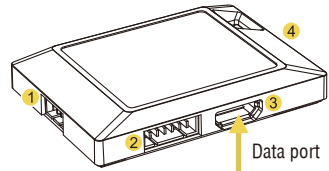
The metal surface of a flexible flat cable should be inserted upward to the main controller port properly.



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

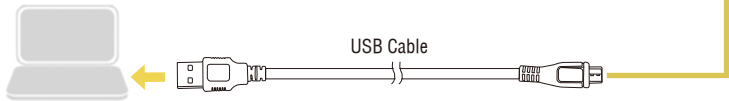
Port Introduction

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

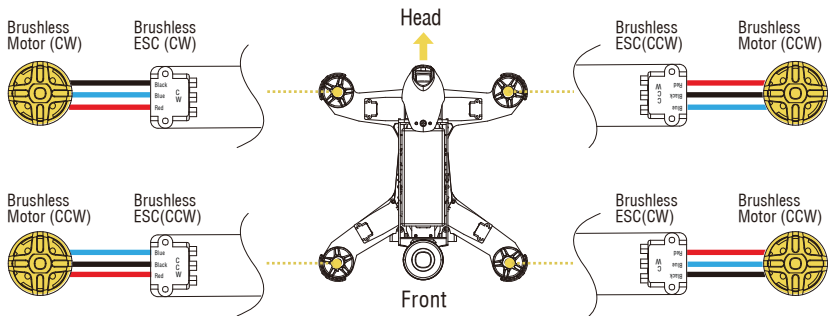


Upgrading

Please upgrade online via the SWAGTRON official site.



10.9 Connection Diagram of Brushless ESC & Brushless Motor



11.0 GA009 Balance Charger

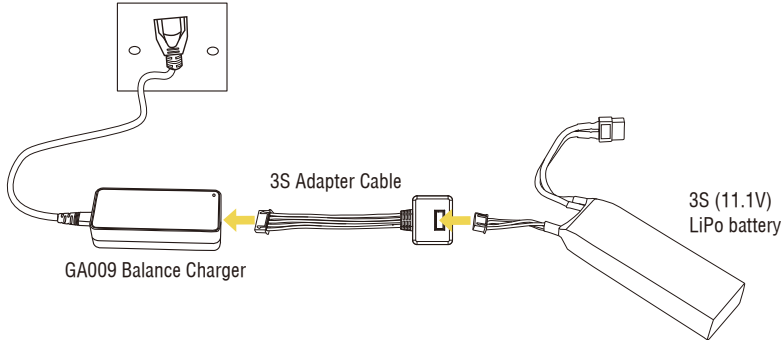
Parameters

Input Voltage	Output Current	Output Power	Dimensions
100-240V 50/60HZ	3.3A	60W	137 x 57 x 32mm

Features

- +The GA009 utilizes microcomputer chips to monitor and control the charging process. LED indicator lights that help display the charging status in real time.
- +GA009 can be used to charge 3S & 4S (11.1V & 14.8V) Li-ion and Li-Polymer battery packs.

Instructions



- *The GA009 can only be used to charge a 3S or 4S 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 GA009 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 unsupervised 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 GA009 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 SWAGTRON™ 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.

