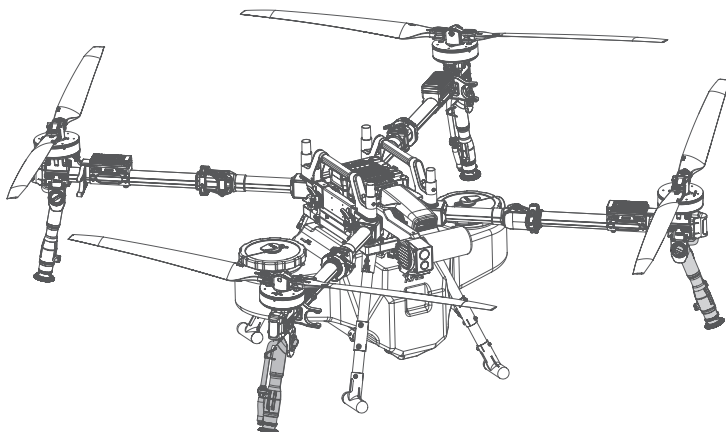


XAG P150 4-Nozzle Upgrade Kit

User Manual

Version 1.0



To User

Dear user, thank you for choosing XAG's products.

For safety purposes and better user experience, it is highly recommended that you read this manual carefully and strictly follow the instructions hereof.

Contact Us

Manufacturer: Guangzhou Xaircraft Technology CO., LTD.

Add: XSpace, No.115, Gaopu Road, Guangzhou, Guangdong Province, China

Technical Support Team: support@xa.com

Contents

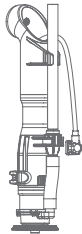
Introduction	04
List of Items	04
Installation	05
Install Liquid Tube (RevoSpray)	05
Install Liquid Tube (Arm)	06
Preparation for Spray Rod Installation	07
Install Spray Rod	08
Maintenance	10
Disclaimer	12
Warning	13

Introduction

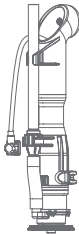
XAG P150 4-Nozzle Upgrade Kit (the "upgrade kit") is designed for the centrifugal spraying system of the XAG P150 2024 Agricultural Drone. By upgrading from two to four nozzles, the enhancement meets the demands for high-flow-rate applications, providing smart, precise, efficient, and flexible production solutions for every user.

List of Items

Please see that all of the following items are present when unpacking the boxes. Should there be any item missing, please contact your seller immediately.



Right Spray Rod
×1



Left Spray Rod
×1



Left L-shaped Connector
×1



Right L-shaped Connector
×1



L-shaped Tubing Connector
×2



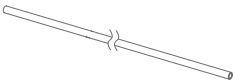
Clamp
×2



Left Tubing Connector
×1



Right Tubing Connector
×1



Tube (Arm)
×2



Cross Tube
×2



Vertical Tube
×2

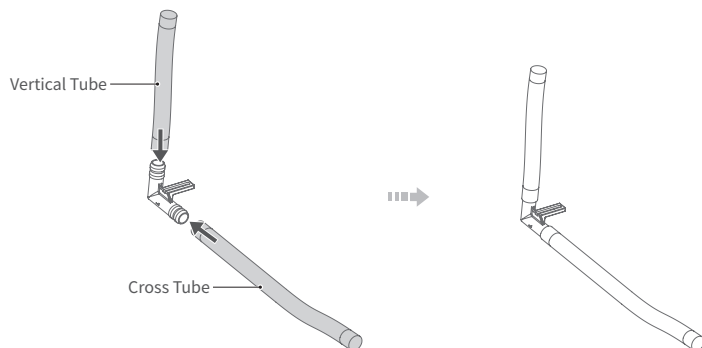


Screw Kit and Cable Tie
×1

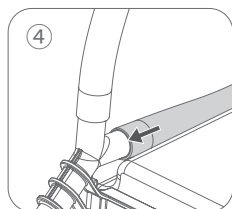
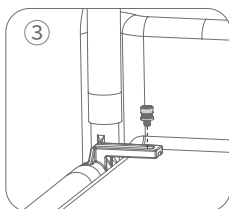
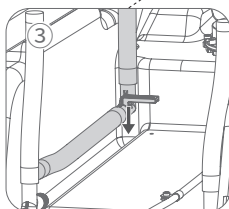
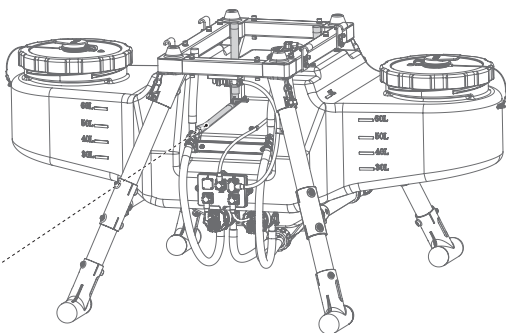
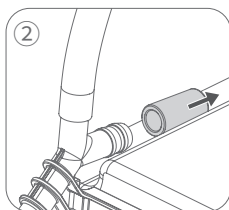
Installation

Install Liquid Tube (RevoSpray)

- ① Connect the cross tube and vertical tube to the left L-shaped connector, and secure them with cable ties to complete a left L-shaped connector component (see below).

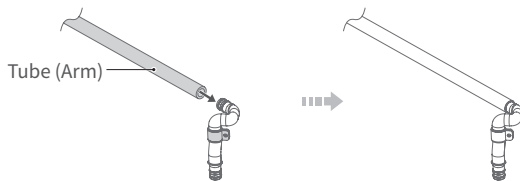


- ② Remove the end cap from the three-way connector on the liquid tank.
- ③ Secure the left L-shaped connector component to the liquid tank with an M3*8 screw.
- ④ Connect the cross tube to the three-way connector to complete the installation of the left L-shaped connector component.
- ⑤ Repeat the above steps to complete the installation of the right L-shaped connector component.

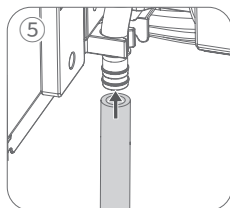
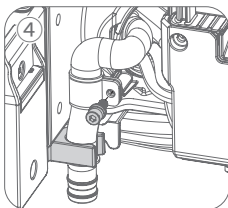
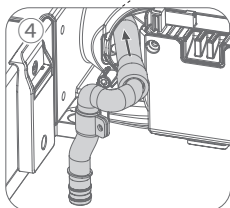
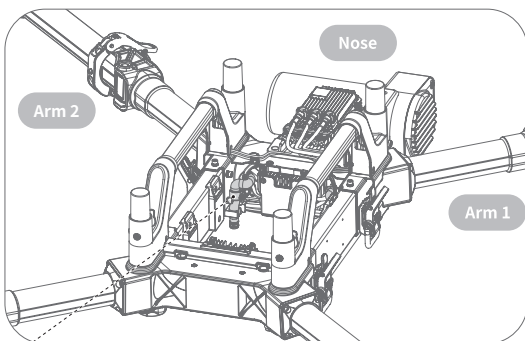
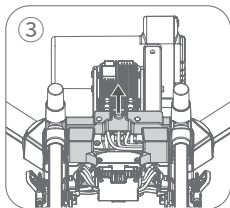
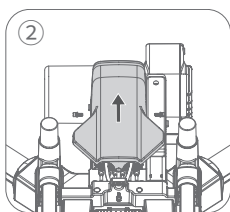


Install Liquid Tube (Arm)

- ① After installing the clamp on the left tubing connector, install the tube (arm) in the left tubing connector, and then secure the tube (arm) with a cable tie to form the left tubing connector assembly. (illustrated with the left tubing connector installation as an example).

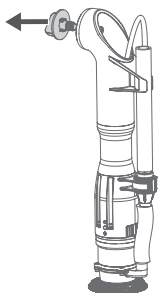


- ② Unscrew the two screws on the sides of the hood and the one screw on the rear, then remove the hood.
- ③ Unscrew the two screws securing the front cable cover, then remove the front cable cover.
- ④ Thread the tube (arm) of the left tubing connector assembly into arm 2. Then secure the left tubing connector assembly onto the airframe mount, and use one M4*10 screw to fix the clamp.
- ⑤ Connect the cross tube of the left L-shaped connector on the RevoSpray to the left tubing connector of the airframe, and use a cable tie to tighten the cross tube to complete the installation of the left tubing connector assembly.
- ⑥ Repeat the above steps to complete the installation of the right tubing connector assembly.

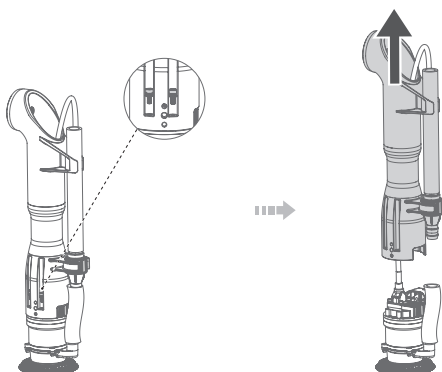


Preparation for Spray Rod Installation

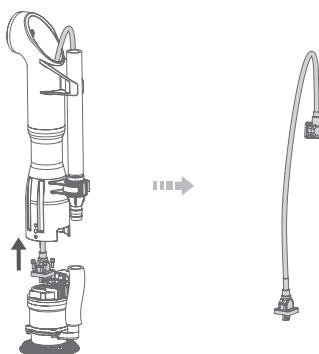
- ① Turn the knob counterclockwise to remove it from the left spray rod (illustrated with the left spray rod as an example).



- ② Unscrew the four screws on the sides of the spray rod and separate the spray rod from the nozzle.

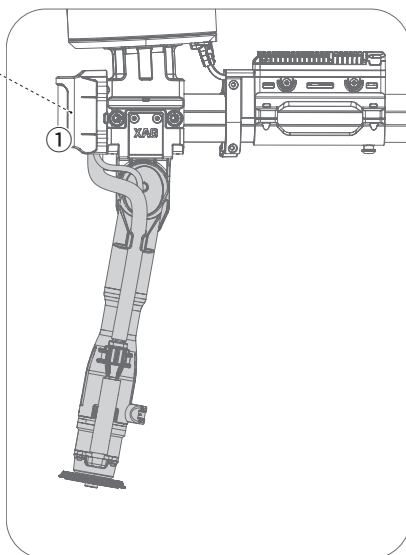
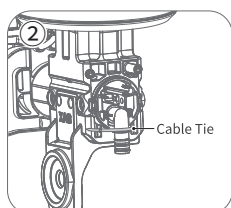
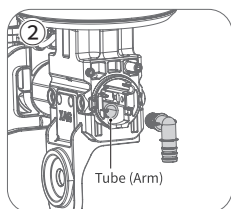
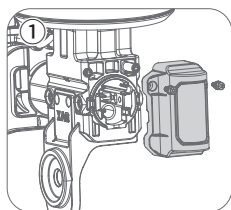


- ③ Unscrew the four screws securing the nozzle signal cable plug, then pull out the nozzle signal cable from the spray rod.

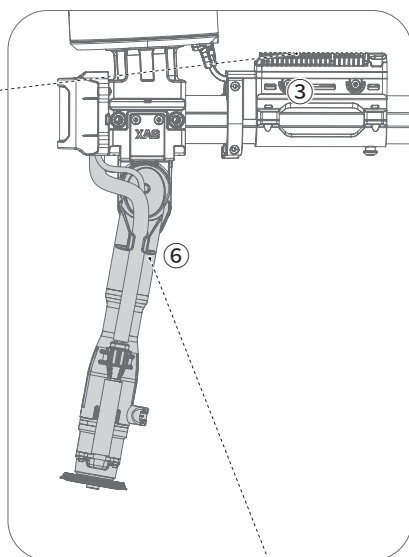
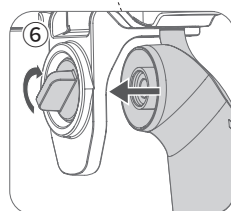
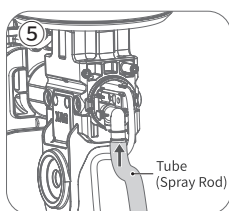
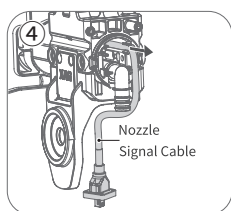
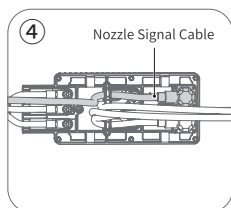
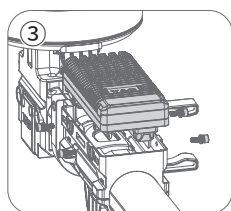


Install Spray Rod

- ① Unscrew the two screws on the motor cover of Arm 2, then remove the motor cover (illustrated with the left spray rod installation on Arm 2 as an example).
- ② Install the L-shaped tubing connector into the tube (arm), and then secure it on the arm mount with a cable tie.



- ③ Unscrew the four screws on the ESC of Arm 2, then open the ESC cover.
- ④ Connect the ESC end of nozzle signal cable to the ESC, then pass the rod end through the arm hole near the ESC. Secure the nozzle signal cable to the cable holder inside the arm, then reinstall the nozzle signal cable back into the spray rod (refer to "Separating the Nozzle Signal Cable" on page 5).
- ⑤ Connect the tube of the left spray rod to the L-shaped tubing connector and secure it with a cable tie.
- ⑥ Install the knob into the spray rod base of Arm 2, align the spray rod with the knob, and turn the knob clockwise until the spray rod assembly is fully secured to the arm's spray rod base. After adjusting it to the proper position, reinstall the ESC cover and motor cover.
- ⑦ Repeat the above steps to complete the installation of the right spray rod on Arm 1.



Spraying Calibration

After completing the assembly of the 4-nozzle upgrade kit, spraying calibration is required. Users can follow these steps for spraying calibration:

1. Open "XAG One" and tap "Me" and then "Device" to select the drone and enter Device Details.
2. Tap "☰" to enter Spraying System screen, select "Liquid Tank Capacity" and then select the corresponding liquid tank capacity.
3. Return to the Spraying System screen, select "Manual Calibration". Follow the instructions on the screen to add an appropriate amount of clean water to the tank.
4. Prepare an empty container and place it under the nozzles S1 and S3. Check "An empty container has been placed under nozzles S1 and S3", and tap "P1 Start Calibration".
5. After the calibration of P1 spraying unit is completed, follow the instructions on the screen to add an appropriate amount of clean water to the tank.
6. Place the container under the nozzles S2 and S4, check "An empty container has been placed under nozzles S2 and S4", and tap "P2 Start Calibration".
7. After the calibration of P2 spraying unit is completed, tap "Finish" to complete spraying calibration.

Manual Spraying Test

Before spraying, please start "Manual Spraying Test" to make sure that the nozzles work properly.

1. Open "XAG One" and tap "Me" and then "Device" to select the drone and enter Device Details.
2. Tap "☰" to enter Spraying System screen and select "Manual Spraying Test".
3. Tap "Single Pump Flowrate" and "Nozzle Rotational Speed" to set single pump flowrate and nozzle rotational speed during the test. Tap "P1" and "P2" to turn on/off the corresponding pumps. Tap "All On" to start manual spraying test on nozzles S1, S2, S3, and S4 nozzles.

Note

- △ You can also tap "Spraying Calibration" or "Manual Spraying Test" in the "Shortcuts" of the operation screen to jump to the corresponding screen.
- △ For first-time use, after a long period of inactivity, or after the previous flight when the tank is emptied, it is recommended to flush the tube with maximum flowrate to avoid spraying without liquid or uneven flowrate.
- △ After installing four nozzles, if the water amount of pump is less than 8 L per minute, it is recommended to use only two nozzles. Avoid operating in 4-nozzle mode with low flowrate, as it may result in uneven flowrate.
- △ When the flight speed exceeds 4 meters per second, it is NOT recommended to operate in 4-nozzle mode, as the droplets may be carried onto the airframe by the airflow, causing corrosion and poisoning from contact.

Maintenance

Clean RevoSpray System

After the operation is completed, the RevoSpray System must be cleaned to avoid potential hazards from contact with pesticide residue during maintenance. The cleaning steps are as follows:

Detergent: soapy water or laundry powder/water mixture

- ① Fill the tank with soapy water or laundry powder/water mixture. Manually start spraying to clean pesticide residues in the spraying system.
- ② Fill the tank with clean water and manually start spraying to wash off residual soapy water or the laundry powder/water mixture in the spraying system.
- ③ Manually start spraying until all tubes are drained.
- ④ Wring out a cloth with soapy water or laundry powder/water mixture, and wipe the surface of tank, spray rod assembly and tubes to remove pesticide stains and mud.
- ⑤ Use a clean, dry cloth to wipe the tank, spray rod assembly and tubes.

Note

- ⚠ After rinsing the RevoSpray System's level sensor, the RevoSpray must be left to dry for at least 12 hours to ensure that any residual water on the intake valve is dried before it can be used again. Do not use a high-pressure water gun directly on the intake valve during cleaning, as it may cause damage to the valve.

Safety Guidelines

- XAG P150 4-Nozzle Upgrade Kit is only compatible with the XAG P150 2024 Agricultural Drone. Do NOT use it on other products or for purposes other than crop protection.
- Please install and use the product in strict accordance with this User Manual.
- Do NOT install/remove any module or insert/extract any circuit while the power is on.
- Do NOT alter or modify the nozzle and associated parts or combine them with other parts as this may damage the device or cause personal injury
- Ensure all parts are properly and securely seated after installation to avoid performance issues of the drone.
- After installation, perform spray calibration and manual spray test of the nozzles in the XAG One app. Ensure everything functions properly before use.
- With the upgrade kit installed, spray droplets may affect the FPV camera lens during operation. Clean the lens before and after each use.
- To prevent impurities from clogging the tubes, please mix pesticide with clean and purified water and filter it before adding it to the tank.
- Exercise caution when preparing and applying pesticides. It is advisable to wear personal protective equipment and avoid direct contact with the chemicals. Prevent splashes to protect both the drone and yourself.

Disclaimer

1. Please read this Disclaimer carefully before using this product, as it has much to do with both operational safety and your legitimate rights and interests. You shall be deemed to have read, known, understood, agreed to and accepted all the terms and conditions as well as information stated herein upon the use of this product.
2. Not being a toy and with certain safety risks, this product is not suitable for those who are under 16 years old, those who have limited or no capacity for civil conduct, those with mobility impairments, or those who have not legally obtained a conventional agricultural drone operator certificate under existing laws and regulations of the location where the product is used. Individuals who have not obtained the conventional agricultural drone operator certificate as required by law are not allowed to come into contact with or use this product. Please be particularly cautious when operating this product with children, crowds, or animals present.
3. This product is the upgrade kit of the XAG P150 2024 Agricultural Drone's RevoSpray solely designed for agricultural use. Be sure to read the User Manual carefully before using this product to understand your legitimate rights and interests, responsibilities as well as safety guidelines. Otherwise, property damage and accidents could be caused; personal safety could be at risk.
4. You undertake to use the product within the bounds of the law for legitimate purposes only and agree to the terms and conditions stated herein as well as potential related policies and norms formulated by XAG. You understand and accept that flight records and data created during use will be automatically uploaded and saved to XAG's server. XAG shall resume no responsibility for the failure to analyze such flight records and data caused by the unsuccessful upload and saving for any reason attributable to the user.
5. To the maximum extent permitted by law, under no circumstances shall XAG offer an implicit or explicit guarantee for this product, including but not limited to implicit guarantees pertaining to vendibility, fitness for a particular use, or non-infringement.
6. Please install, use, transport, and maintain the product under the instructions in this User Manual. Do NOT modify or disassemble this product on your own as any malfunction or damage arising therefrom or resulting from your improper use will not be covered by the warranty, and you shall solely assume the liability arising therefrom, both financially and legally.
7. To the maximum extent permitted by law, XAG shall not be liable for any loss caused by your use of this product outside the instructions in this User Manual. Furthermore, XAG shall not be liable for any indirect, consequential, punitive, accidental, special or exemplary damage, including any loss incurred as a result of your purchase, use, or inability to use the product, even if you have been advised of the possibility of such loss.
8. To the maximum extent permitted by law, under any circumstances, the liability or compensation amount from XAG to you for all damage, losses and litigation arising therefrom will not exceed the amount that you paid to XAG for purchasing the product.
9. You understand that in the use of any products, accidents may occur as a result of a single or combined factors, including but not limited to improper operation, surroundings and communication networks. You understand that the aforesaid accidents are reasonable and acceptable in the use of the product, and that XAG shall not be held accountable for such accidents.

10. On any account, purchasers or users shall comply with the laws and regulations of the country and region where the product is used. XAG shall assume no liability arising from the violation of relevant laws and regulations by the purchaser or user.
11. Please note that the services provided by this product and its accessories might involve the collection, storage as well as processing of the geographic information and data of farmland. Before using this product, be sure to comply with local laws and regulations related to the collection, storage and processing of such geographic information and data. Make sure that you use this product in accordance with the law. Any financial and legal liability arising from user's violations of the laws and regulations shall be borne solely by the user.
12. As exclusion clauses may be prohibited by the laws of certain countries, your rights may vary in different countries. However, this does not imply that certain or all terms contained in this Disclaimer are necessarily invalid. For any reason that partial terms stated herein are deemed void, other terms shall remain in effect.
13. To the extent permitted by law, XAG reserves the right for final explanation and revision of the terms and conditions stated hereinabove. XAG also has the right to update, modify or terminate these terms and conditions via its official website, User Manual, online App, etc., without prior notice.

Warning

Before using a drone and its peripherals, user is required to read through the User Manual and obtain a UAS operator certificate accredited by XAG or the laws, regulations, and policies of the country/region where the product is used. Otherwise, improper operation of the drone and its peripherals may cause serious injury to user or others, or cause damage to the product and property loss. Safety awareness is of great importance during operation. Meanwhile, this product is not suitable for children or those who are under 16 years old, those who have no or limited capacity for civil conduct, or those with mobility impairments as prescribed by law. Please install and use the product by strictly following XAG's instructions in the User Manual. Do NOT use any components that are not provided or suggested by XAG for the repair of the product.



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XAG ADVANCING
AGRICULTURE

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