

# ALR5 Automatic Liquid Refiller

Quick Start Guide

Version 1.1 **EN**



## **To Users**

Dear user, thank you for choosing XAG products.

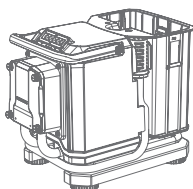
For safety reasons and the best experience possible, XAG recommends that you read through the Quick Start Guide and Disclaimer in this document before attempting to use the ALR5 Automatic Liquid Refiller.

## **Contact Us**

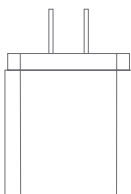
If you have any questions about this document, please contact our Technical Support via email:  
[info@xa.com](mailto:info@xa.com)

## List of Items

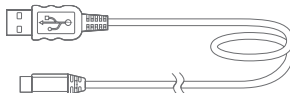
When unpacking the product, please carefully check if it contains all the items listed below. Please contact your dealer if there are any missing items.



Refiller  
x1



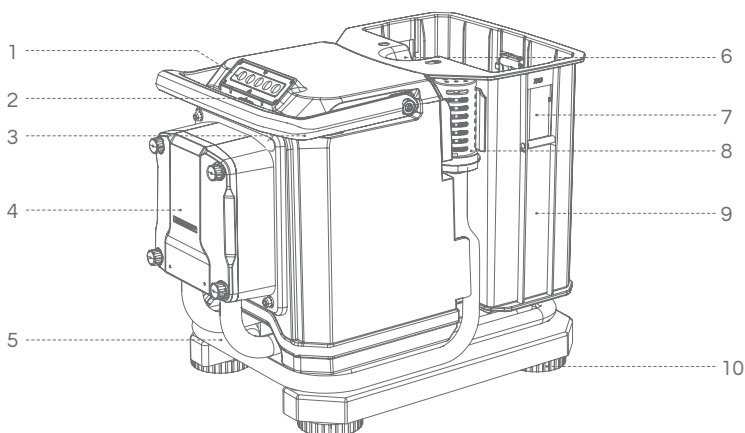
Power Adapter  
x 1



USB To Type-C Cable  
x 1

## ALR5 Automatic Liquid Refiller

The main structural components of the XALR5 Automatic Liquid Refiller are as follows:



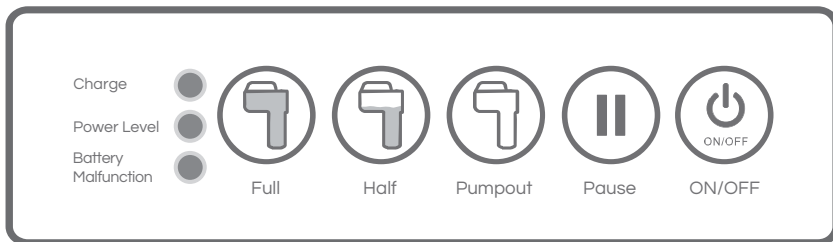
- ① Control Panel / Status Indicator
- ② USB Charging Port
- ③ Handle
- ④ Pump
- ⑤ Inlet Tube

- ⑥ Discharge Port
- ⑦ Compatible Buckles (Left, Right and Rear)
- ⑧ Inlet Tube Sieve
- ⑨ Container Slot
- ⑩ Base

## User Instructions

XALR5 XAG 5th Generation Automatic Liquid Refiller is compatible with XAG 2nd generation Liquid Container, communicated via Bluetooth automatically and accurately refills the required amount of liquid based on reducing the risks of chemical exposure by avoiding direct contact between operators and chemicals.

### Control Panel Overview:



#### ON/OFF:

ON: Press once to turn ON

OFF: Long Press for 2 sec to turn OFF

#### Remarks:

The device will automatically shutdown after 30 secs of the last task, the power indicator will flash for 8 secs and shutdown.

#### Pause:

PAUSE Button: Pause Refilling

#### Pumpout:

Pumpout Button: Empty the Container

#### Remarks:

If the Bluetooth connection between the Refiller and the liquid container is lost, the device will stop after 20sec.

#### Half:

HALF Button: Fill the container to HALF capacity

#### Remarks:

ALR5 will stop refilling If the Bluetooth connection between the Refiller and the liquid container is lost.

#### Full:

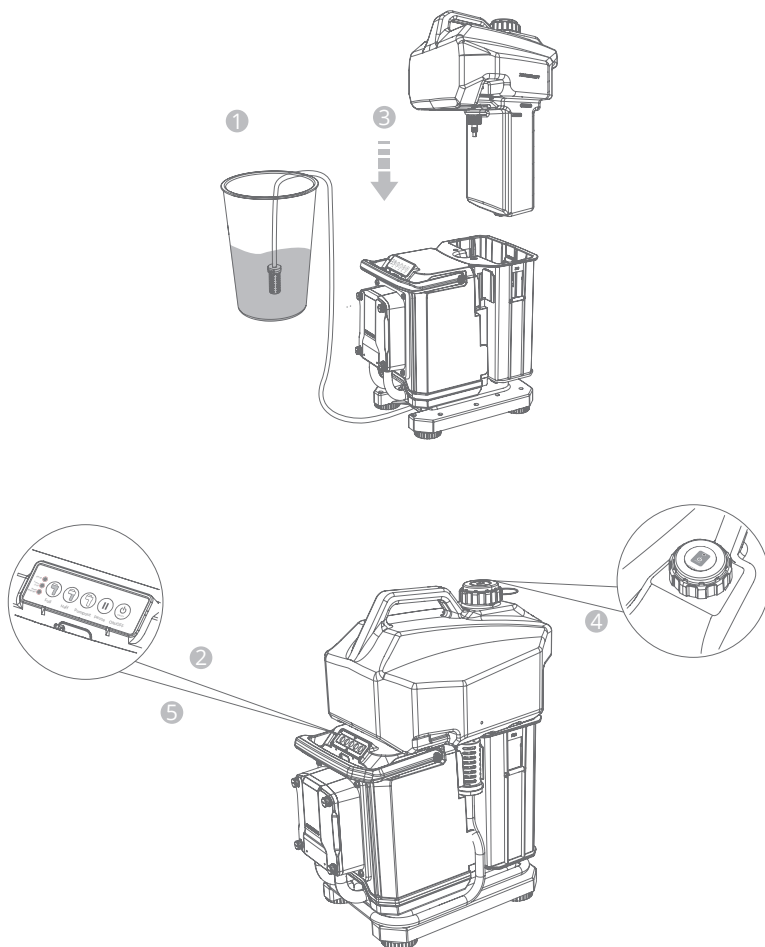
FULL Button: Fill the container until FULL capacity

#### Remarks:

ALR5 will stop refilling If the Bluetooth connection between the Refiller and the liquid container is lost.

## Filling Instruction:

1. Insert the Inlet tube into prepared container.
2. Turn ON the ALR5 Refiller.
3. Place the Liquid Container into the Container Slot, the device will issue a buzzer "DI" when the container is inserted correctly.
4. Turn ON the Liquid Container.
5. On the control panel, select the volume to refill.



\*See all-purpose buckles in the structure diagram of the Automatic Liquid Refiller on Page 4.

# XALR5 Status Indicator / Buzzer Description:

XALR5 consist of 3 Status Indicator, each indicating a status as follows:

Charge	Status LED	Status	
	RED LIGHT ON 	Charging	
	OFF 	Charging completed	
	RED LIGHT 	Charging circuit failure or battery over discharge	
	FLASHES	Battery Level	
Power Level Status LED	GREEN LIGHT ON 	50%-100%	
	YELLOW LIGHT ON 	25% -50%	
	RED LIGHT ON 	5%-25%	
	RED LIGHT FLASH 	Power level lower than 5%. Please recharge in a timely fashion.	
Battery Malfunction	Status LED	Warning/Alarm Status	
		Once	The refiller detects that the container has been accurately placed.
	RED 	Twice	The refiller fails to detect the placement of the container when it starts operation and thus an alert is sent.
	RED 	Three times	The refiller fails to connect to the container via Bluetooth when it starts operation and thus an alert is sent.
	RED 	Four times	The float of the container is stuck or the inlet tube of the refiller is blocked, and thus an alert is sent.
	RED 	Five times	The refiller detects irregular rotational speed and thus an alert is sent.
		Six times	The refiller has completed the operation.
	Eight times	The filler detects low power level. The operation is suspended. All indicators flash eight times and the buzzer beeps eight times before refiller turns off automatically.	

## Charging

Place the XALR5 near a power outlet, then connect the charging port to the power outlet. The Charging Status LED will indicate solid RED when charging, and switches off automatically when fully charged.

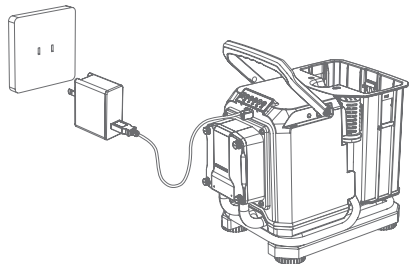
When charging, the Charging indicator is solid RED.

Full Charge: 6 Hours

Operation Time: 4 Hours

**Warning**

XALR5 must be charged with the specified charger, user is responsible for all consequences caused by the use of non-designated charging equipment.



## PRECAUTIONS:

1. When charging, beware of the surrounding environment and avoid charging in high temperature, high humidity, and near flammable materials.
2. After the charging is completed, reset the charging port with the rubber plug to avoid short circuit or damage caused by foreign objects.

## Upgrading Refiller

Please upgrade the refiller at the firmware center when connected via Bluetooth. The unified Bluetooth name of the refiller is XALR5.

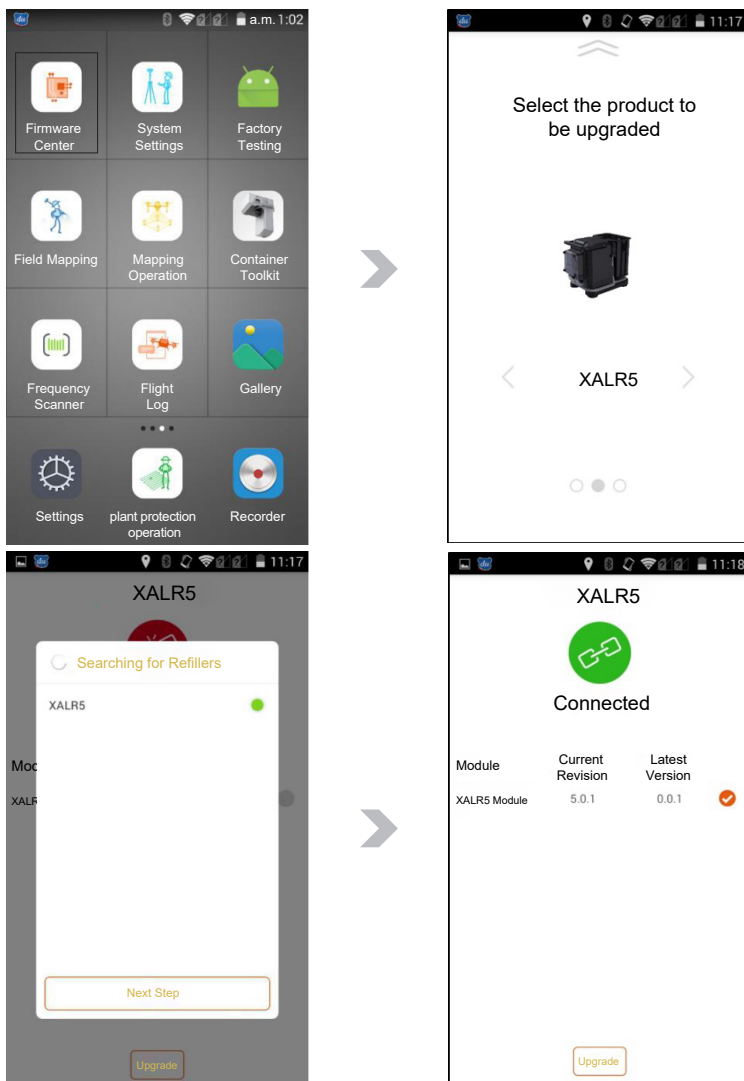
How to operate:

Step 1: Visit the Firmware Center in the app;

Step 2: Enter the refiller upgrade page and click the XALR5 icon;

Step 3: Select the Bluetooth name XALR5;

Step 4: Click Upgrade. It takes around 2 minutes to complete the upgrade;





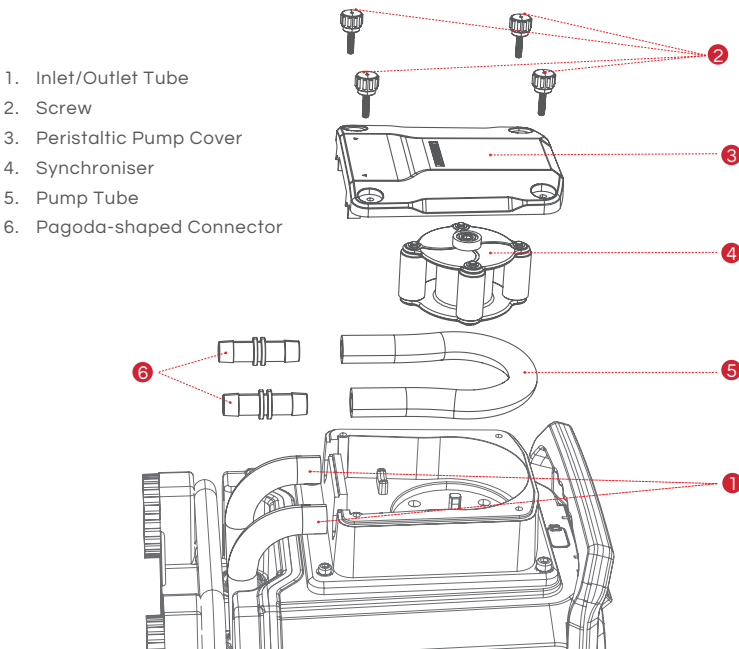
# XALR5 Liquid Tube Replacement:

## Disassemble

1. Drain the liquid in the tubes and unplug the inlet and outlet tubes of the peristaltic pump.
2. Remove the screws that secure the peristaltic pump cover.
3. Remove the peristaltic pump cover, synchronizer, damaged pump tube, and pagoda-shaped connectors, and separate the connectors from the damaged pump tube.

## Assemble

1. Connect the pagoda-shaped connectors to the pump tube. Apply grease to the inner wall of the pump head and the rotor of the synchronizer synchronizer.
2. Bend the silicone tube around the synchronizer and press it into the pump head. Press the silicone tube down to the center of the rotor.
3. Install the pagoda-shaped connectors, and put the peristaltic pump cover back in place and tighten the screws.



### Warning

- Make sure to apply grease and avoid foreign matters.
- Make sure the parts are in place and there is no obvious gap in between.

## Troubleshooting Guide:

1. The buzzer will beep once if the container is properly placed. Otherwise, it indicates the container magnet is broken or the container detection circuit on the motherboard of the refiller is faulty.
2. If the refiller is turned on when the container is not placed, the buzzer will beep twice and the fault indicator will turn red.
3. If the refiller is turned on when it is not connected to the container via Bluetooth, the buzzer will beep three times and the fault indicator will turn red.
4. If the float of the container is stuck or the flow rate of the refiller is too low, the buzzer will beep four times, and the fault indicator will turn red.
5. If the rotational speed of the refiller is irregular, the buzzer will beep five times, and the fault indicator will turn red.
6. When the liquid filling is completed, the buzzer will beep six times.
7. 30 seconds after the refiller stops working, all indicators will flash eight times and the buzzer will beep eight times before the refiller is automatically turned off.
8. When the power level is too low, the operation is suspended. All indicators flash eight times and the buzzer beeps eight times before refiller turns off automatically. Now, the refiller needs to be charged.

## Technical Specifications

### Automatic Liquid Refiller

Model: ALR5  
Dimensions: 405\*238\*315mm  
Weight: 5 kg  
Protection grade: IP65  
Operating temperature: 0 - 80 °  
Storage temperature: 5 - 60 °  
Filling speed: 5L/min  
Rated power: 36w  
Continuous operating hours: <=4 h  
Compatibility: 2019 Automatic Liquid Container (10/16L)

### Built-in Battery

Type: 18650 lithium battery  
Voltage: 24 V  
Capacity: 112wh

### Charger

Input: AC220V  
Output: DC5-12v  
Power: 18w

## Disclaimer

1. Please read this document carefully before using this product. This Disclaimer has an important impact on the safe use of the product and your legitimate rights and interests. The use of the product shall be deemed as you have known, understood, acknowledged, and accepted all terms and contents of this document.
2. This product is not a toy, and is not suitable for people under the age of 18. Please keep this product away from the reach of children, and be very careful when operating in the presence of children.
3. This product must be charged with the charging devices provided by XAG. For product malfunction or damage caused by the use of other devices for charging, XAG does not bear any corresponding legal responsibility.
4. Please install and use this product as guided by the "Product Manual/Operation Manual". Do not modify or disassemble the product without authorization. All losses caused by the user's modification or disassembly of this product shall be borne by the user, while XAG does not assume any corresponding legal responsibility.
5. To the maximum extent permitted by law, XAG shall not be liable for all losses caused by users' failure to use the product in accordance with this document and the "Product Manual/Operation Manual".
6. To the maximum extent permitted by law, XAG's liability or amount under any circumstances to you for all damages, losses, and litigation arising therefrom will not exceed the amount paid to XAG by you for the purchase of the product.
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## Warning

Users are required to read the complete "Product Manual" and be familiar with the product operations before using the product. Otherwise, it may cause serious injury to yourself or others, or cause product damage and property loss. Strong safety awareness is required to operate this product. Do not use the parts that are not provided or suggested by XAG. Please strictly follow the instructions of XAG to install and use the product.

P-Series UAV Systems include supporting modules such as Airframe, Remote Controller, Battery, Operation Box, Liquid Refiller, Charger, RTK Rover, RTK Base Station, etc. Users may also check the "User Manuals" of the modules for a better use experience of the system.

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Visit our website ([www.xa.com/en](http://www.xa.com/en)) for more information



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MAKE AGRICULTURE SMARTER

This Manual is subject to upgrade without prior notice.

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