Swiss Sailplane GmbH

AQUATOR

Compact automatic water meter for easy refueling.

User Guide

Safety

Please take the time to follow the instructions in this owner's guide carefully. It will help you set up and operate your system properly and enjoy its advanced features. Please save this guide for future reference.

Warnings
- Use the device only with clean water (H2O only).
- Never use the device in freezing conditions.
- Allways disconnect water lines after every use.
- Danger of electric shock while charging in the winsinity of water.
- Do not exceed the technical specifications.
- Keep away from hazardous chemicals, like gasoline, diesel etc.
- Always check manufacturer's specifications of any equipment the device is used with.
- Only quality chargers with USB type C standard should be used to charge the apparatus.
- Do not leave a battery on prolonged charge when not in use.
- The battery pack shall not be exposed to excessive heat such as sunshine, fire or the like.
- Do not charge the battery below 3°C.
- In the event of fluid from the battery leaks from the equipment, do not allow the liquid to come in contact with the skin or eyes. If contact has been made, wash the affected area with copious amounts of water and seek medical advice.
- Never operate or store the device outside of technical specifications.
- The water pump control is NOT protected against overcurrent, overvoltage, reverse voltage or short-circuit, external fuse required.
- For battery replacement, please contact Customer Service.
- Do not eat, cook, bake or put the device in to the microwave oven.
- Not suitable for children below the age of 8 years.
- Do not try to disassemble the apparatus.

CAUTION:
Make no modifications to the system or accessories. Unauthorized alterations may compromise safety and system performance.

Contents

Overview

Thank you for purchasing the Swiss Sailplane Aquator. Enjoy filling your glider accurately and convenient with a garden hose or a submersible water pump.

Features
- Compact
- Factory calibrated
- 1l to 999l filling volume
- 5 ml sensor accuracy
- Daylight readable display
- Acoustic notifications
- Flow rate indicator (liters/min)
- Progress bar for easy status check
- Long battery life (typically one year)
- Easy charging with USB Type-C cable
- Can be used directly with mains water
- Control for an external 12V submersible pump
- Auto-off when not in use
- Software updatable

Quick start guide

Application example:
1. Turn it on, press the black button for 2 sec.
2. Set the required quantity you want (white buttons)
3. Connect both sides of the water lines (bottom in, top out)
4. Open valve and remove all air from the hoses (black button, short)
5. Close the valve (black button, short)
6. Place end of water hose into wing tank
7. Start filling by pressing the black button for 2 sec. (black button, long) The display will show «Filling»
8. Once the required quantity is reached you have set, it will stop and beep

Control buttons

▶ II / ON (Left black button)

- Press and hold for 2 sec. to turn on

When the device is turned on:

- Press shortly to open/ close the valve
- If valve is closed, press and hold for 2 sec. to start the automatic filling

While filling:

- Press shortly to terminate the filling

+ (plus) (Right top white button)

- Press to decrease the amount incrementally
- Press and hold to decrease continuously

− (minus) (Right bottom white button)

- Press to decrease the amount incrementally
- Press and hold to decrease continuously
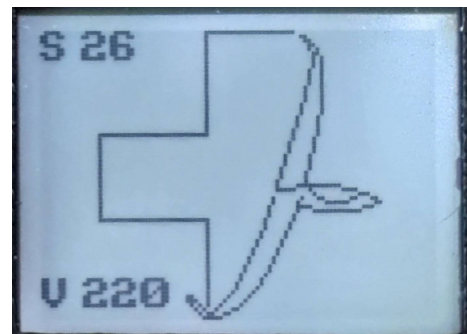
OFF (Both white button)

- Press and hold both white buttons for 2 sec. to turn off the device
- While filling is in progress the device can not be turned off
- The device will turn itself off automatically when not in use

Display overview

Boot up screen

- Top left: Serial number   «S26»
- Bottom left: Software version «V220»
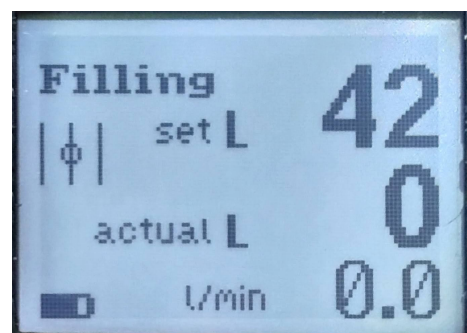
Main screen

- Top: Progress bar   «0%»
- Top left: Status   «(empty)»
- Middle left: Valve status   «closed»
- Bottom left: Battery status   «70%»
- Top right: Quantity set   «49L»
- Middle right: Quantity actual   «0L»
- Bottom right: Flow rate   «0.0L/min»

Status: Filling

The valve was opened with a long press
Water will be counted in «Quantity actual»
The Aquator will stop as soon as the set quantity
has been reached
Once finished the Aquator will notifiy you with a
loud beeping sound

Status: NonStop

The valve was opened with a short press
Water will be counted in «Quantity actual»
The Aquator will NOT stop at the set quantity!

Physical connections

← Water outlet

Serial number ➡

← Pump socket

← Water inlet

Water outlet ➡

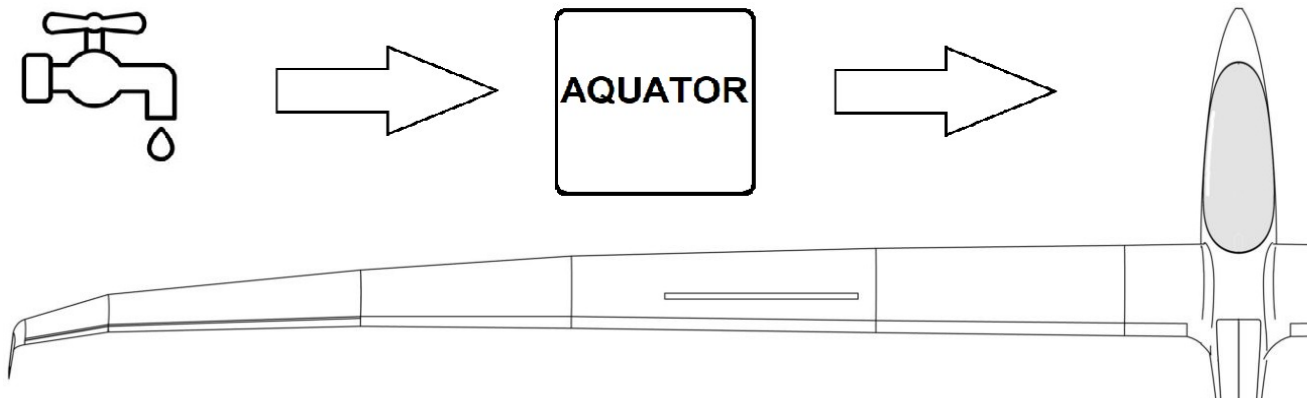← USB-C port
← Charging LED
← Speaker

Pump socket ➡

← Water inlet

Connecting water hose

The water lines are connected using standard quick-connect hose fittings, for example from "Gardena".
You can also directly connect to the G ½" threads, but this is less convenient.

The inlet is at the bottom and the outlet is at the top of the Aquator.
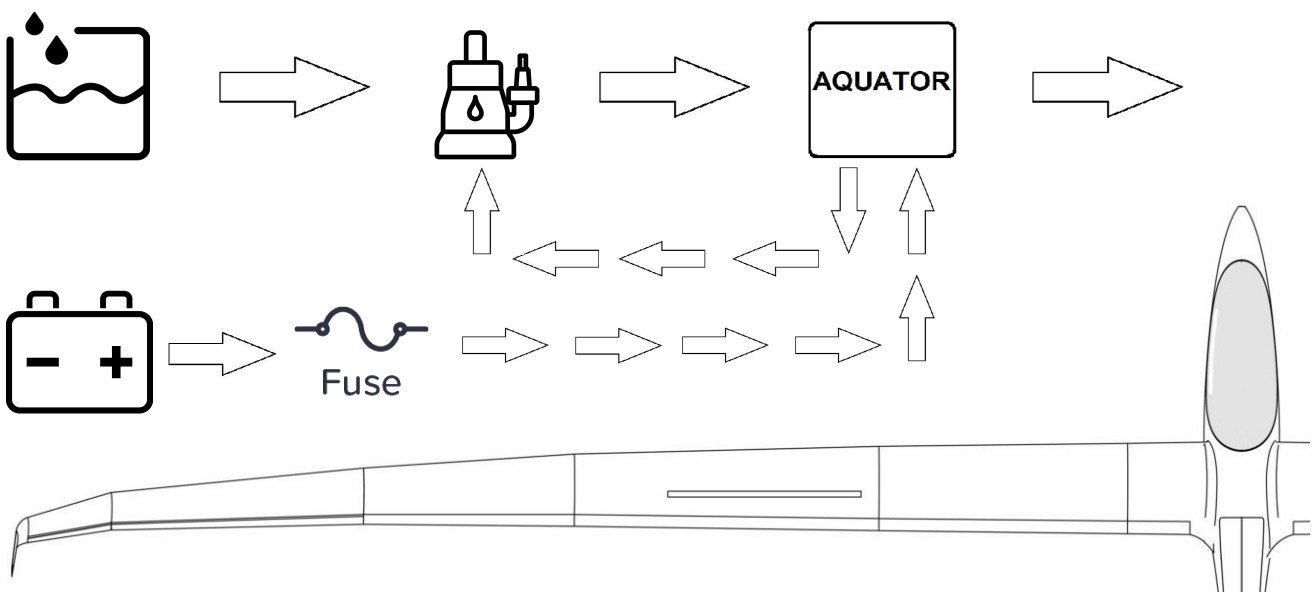**If connected the wrong way, the device will not work.**

Connecting an external water pump

A standard 12V submersible water pump can be used with the Aquator, to fill the glider with canisters or other non pressurized water supplies.
The pump is attached with a 3-pin waterproof connector (sold separately).
More details on page 9 "**Available accessory**".

Charging

For charging the device, simply connect it to a charger or power bank using a quality USB cable with a Type-C plug.
The LED, next to the USB port, will light up while charging and turn off once the battery is fully charged.
The power supply should be able to provide at least 5V @ 500mA.
Charging time is less than 2 hours, the device can be used while charging.

Tips on increasing accuracy

- Make sure there is no air in the water hoses.
- Keep the water flow rate constant.
- Do not move the Aquator unnecessary while filling.
- The measurement is most accurate with a water flow rate between 7 and 18 liters/minute.

Cleaning the filter

The Aquator has a water filter on the inlet side. To clean it, unscrew the quick hose connector.
The metal mesh filter should be cleaned carefully with a brush or blunt tool.

Software update

The Aquator has the ability to be updated and recalibrated by the manufacturer.
For feature requests, please contact customer service.

Available accessory

- Pump connector & wiring diagramm
- Connector pre wired for pump with 12v car plug
- Connector pre wired with submersible pump & 12v car plug

Please check the website for more details.

Once purchased a connector, the wiring diagram will be available as a PDF on checkout.

Customer service

For questions, please referre to our website:
www.swiss-sailplane.ch
Or contact us directly by e-mail to info@swiss-sailplane.ch
Always send a detailed description of the situation and the serial number of the device.

Technical specifications

Dimensions:	118 x 58 x 53 mm (174 mm with hose fittings)
Protection:	IP 54
Weight:	295 gr
Temperature:	+3º to +45ºC
Charging:	5V @ 500mA (USB Type-C)
Charging time:	< 3h
Battery:	3.7V 1000mAh Li-ion
Water Pump:	max 24V / 10A DC (not suitable in 24V car systems)
	12V / 8A DC recommended (use a 10A fuse)
Water pressure:	0.5 - 6 bar (will not work below 0.5 bar)
Flow rate:	1-30 liters/min
Sensor resolution:	5ml
Accuracy:	+/- 2%
Display:	Transflective LCD, LED Backlight (daylight readable)

Warranty

Swiss Sailpane GmbH warrants the Aquator to be free from defects in materials and workmanship for a period of one year from the date of purchase. If a defect arises during the warranty period, the manufacturer will, at its option, repair or replace the product. To obtain warranty service, the customer must contact the manufacturer to obtain a return authorization and then ship the product, freight prepaid, to the manufacturer. The manufacturer's liability under this warranty is limited to the repair or replacement of the product. This warranty does not cover any damages caused by misuse, abuse, or unauthorized modification of the product.

Disclaimer

This product is sold "as is" and without warranties of any kind, whether express or implied. The manufacturer and seller disclaim all warranties, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. The manufacturer and seller do not warrant that the product will meet your requirements or that the operation of the product will be uninterrupted or error-free.
The manufacturer and seller of this product make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or fitness for any purpose of the product or the information provided in any product manuals or instructions.
The manufacturer and seller shall not be held liable for any damages, direct or indirect, arising out of or in connection with the use or inability to use the product, including but not limited to damages for personal injury, property damage, or economic losses.
It is the responsibility of the user to comply with all local, state, and federal laws and regulations regarding the use of this product.
The manufacturer and seller reserve the right to make changes to the product and its components, at any time, without notice.