AQUARINO
DISPLAY

USER MANUAL



The panel that shows your aquarium parameters in real time

Contents

Preface
How to use this manual

PART I Getting to know your Aquarino Display
1 What the Aquarino Display is
2 In the box, and the parts
3 The models

PART II Installation and pairing
4 Installation
5 Connecting to your Wi-Fi network
6 Choosing the data source

PART III Day to day
7 Reading the screen
8 Sensors and rotation
9 Brightness, theme and night mode
10 Command shortcuts

PART IV Configuration and maintenance
11 The configuration portal
12 Software updates

PART V Maintenance and support
13 Troubleshooting
14 Frequently asked questions
15 Specifications
16 Support and warranty

Preface

Like every aquarist, I looked for what was best for my fauna and flora; it took a lot of equipment, products and study.

After buying several devices to monitor, control and help me care for my aquarium, I realised that none of them met my needs perfectly. There was difficult setup, high cost and plenty of limitations.

So I decided to use my knowledge of technology, and my own resources, to offer our hobby a new option. That is the moment Aquarino was born.

I am very proud of what we have built. Many aquarists took an active part, sending suggestions. We only reached this result because you believed in the project.

What we want to keep as the essence of Aquarino is direct contact with aquarists, close support and service, and speed in delivering new features and products.

Join our channels to ask questions, send suggestions and talk about the hobby:

- WhatsApp: https://chat.whatsapp.com/Hp9GjAmptpUEzbykjlUCMC
- Facebook: https://www.facebook.com/AquarinoController
- YouTube: https://www.youtube.com/c/aquarino

Aquarino depends on all of us to move forward and become a reference in usability, features and service for aquarists worldwide.

Thank you! We will repay your trust, and take our hobby to a new level.

Laercio M F Junior

Founder and Director of Innovation, Aquarino

How to use this manual

This manual is meant to be read in order the first time, and consulted by topic afterwards. If your Aquarino Display has just arrived, follow Part II in sequence — in a few minutes it will be showing your aquarium's parameters.

Four kinds of highlight appear throughout the text:

> BACKGROUND
> Explains the reasoning behind a recommendation. Reading it is optional, but it helps you make better day-to-day decisions.

> TIP
> A practical suggestion that saves time or improves the result.

> CAUTION
> A situation that can get in the way of normal operation. Worth reading.

> EXAMPLE
> A concrete case, to make the concept stick.

> BACKGROUND
> **The screens in this manual**
> The Aquarino Display is updated frequently, and the manual follows every update. Small visual differences between the images and your screen are expected and do not indicate a problem.

PART I

Getting to know your Aquarino Display

What the panel does, what is in the box and how the models differ.

1 What the Aquarino Display is

2 In the box, and the parts

3 The models

CHAPTER 1

What the Aquarino Display is

The **Aquarino Display** is the panel that keeps your aquarium's parameters in plain sight, in real time — no app to open, no phone to pick up. It connects to your **Aquarino KH** or **Aquarino Controller** over the network and shows, one by one, the sensors you chose to follow.



The Aquarino Display on the bench: your aquarium's parameters always in sight.

1.1 What it does

- **Shows** the parameters of your Aquarino equipment: current value, unit, minimum and maximum — one sensor at a time, in automatic rotation.
- **Signals** when a value is out of range: the colour changes and the panel tells you what is going on.
- **Shows the health of the data**: a stamp in the footer says how long ago the reading arrived — you know whether you are looking at the present or the past.
- **Works over the local network or the cloud**: at home, it reads the equipment directly; pairing by UUID works from any network.
- On the touch models, it **sends commands**: up to 4 configurable shortcut buttons — feed, dose, whatever you define.

1.2 What it does not do

- It **does not measure anything**. The Display is a mirror: the Aquarino KH or the Controller does the measuring. Without a source device, there is nothing to show.
- It **does not control** outlets or dosing pumps on its own — the shortcuts merely send commands to the source device, which decides what to do.
- It **does not sound alerts**. The warning is visual; it is the source device that beeps and sends e-mail.

CHAPTER 2

In the box, and the parts

2.1 What comes in the box

- Aquarino Display;
- Dual-voltage 5 V / 1 A power supply with USB-C output.

2.2 The parts



The Aquarino Display: PLA case, LCD screen and USB-C connector.

Part	Role
Case	PLA structure, printed for each screen model
LCD screen	Where everything happens — full colour, with the parameters in rotation
Physical button	Restarts the device
USB-C input	Power, from the supply that comes with the product

> BACKGROUND
> There is no sensor connector, data cable or memory card: all of the Display's communication is over Wi-Fi. Installing it means plugging it in and setting up the network.

CHAPTER 3

The models

The Aquarino Display comes in three sizes. They all work the same way; what changes is the screen and whether it has touch:

Model	Screen	Touch	On-screen settings
Display 1.47"	1.47 inch	No	No — configured through the portal, in the browser
Display 3.5"	3.5 inches	Yes	Yes — the gear on the screen opens the settings
Display 4.0"	4.0 inches	Yes	Yes — the gear on the screen opens the settings



The 3.5" model, with a touch screen.

On the **touch** models, you swipe to change sensors, open the settings through the gear and get the shortcut buttons (Chapter 10). On the compact, touchless **1.47"** model, everything is configured through the **portal** in the browser (Chapter 11) — and the top bar shows the device's IP to make access easier.

> TIP
> A single Aquarino device can feed **up to 5 Displays** at the same time — one in the living room, one in the office, one on the sump bench.

PART II

Installation and pairing

Power it up, join your network and point it at the right device.

4 Installation

5 Connecting to your Wi-Fi network

6 Choosing the data source

CHAPTER 4

Installation

The physical installation is the easy part: the Display has no sensors, data cables or tubing — just the power supply.

1. Choose a flat, dry surface with good visibility — the whole point of the Display is to sit where your eyes pass by.
2. Connect the 5 V supply to the **USB-C** connector on the side and to the outlet.
3. The screen lights up and shows the start-up sequence, step by step.

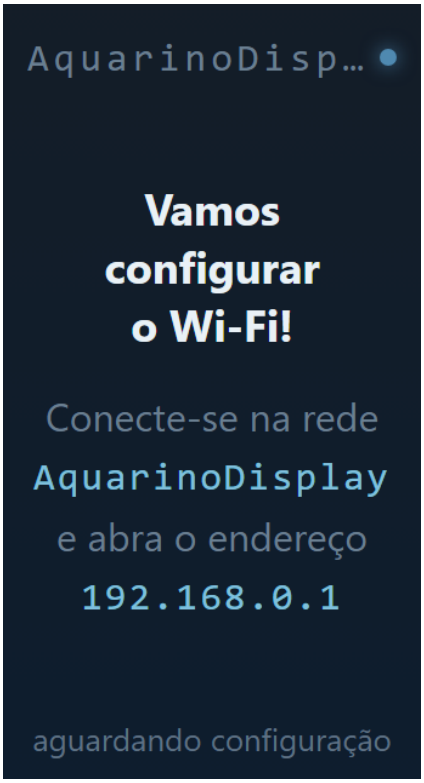
> BACKGROUND
>
> **The opening screen tells you what is happening**
>
> The opening screen shows each step: **starting the screen**, **reading settings**, **joining the network**, **checking registration**, **looking for the device**, **asking the tank** and **ready**. If something prevents normal operation, the bar **stops exactly at the step with the problem** — the opening screen itself is your first diagnostic tool.

The first time, with no network configured, the Display creates its own setup network — the subject of the next chapter.

CHAPTER 5

Connecting to your Wi-Fi network

If it cannot join a known network for about a minute, the Display opens its own Wi-Fi network and the screen guides you: **"Set up over Wi-Fi — join the network and open 192.168.0.1"**.



The Wi-Fi setup screen: the Display shows the network to use and the portal address.

4. On your phone, open the Wi-Fi settings and connect to the network named on the screen — **AquarinoDisplay** from the factory. It is open, with no password and no internet; if the phone warns you, choose to stay connected.
5. Open the browser and type **http://192.168.0.1** — on many phones the portal opens by itself.
6. On the portal's **Wi-Fi** tab, pick your network from the list, enter the password (at least 8 characters) and save.
7. The Display restarts and joins your network. Done: the screen's bar now shows the Wi-Fi signal.

Network requirement	Detail
2.4 GHz only	Like the other Aquarino devices, the Display does not connect to 5 GHz networks

Network requirement	Detail
Reasonable signal	Networks with a very weak signal (below −75 dBm) do not appear in the portal's list
Password of 8+ characters	The portal does not accept shorter passwords — it is the WPA standard minimum

BACKGROUND

Registration happens on its own

On its first connection with internet access, the Display registers itself with the Aquarino servers using the e-mail entered in the portal. If the screen shows **"Device not registered"** with a code, that step has not completed yet — check the internet connection and wait; the screen returns to normal on its own as soon as the registration is accepted. The code shown is the UUID, which support may ask for.

TIP

If the Display used to belong to someone else and the setup network does not appear, use the **factory reset** in the portal (System tab) — it erases the network, data source and preferences, but **keeps the registration**, so the device is back up and running with no red tape.

CHAPTER 6

Choosing the data source

With the Display on your network, all that is left is telling it **where the data comes from**: which Aquarino KH or Controller it should mirror. You do that on the portal's **Data source** tab — or, on the touch models, right on the screen.

6.1 The three ways to point

Method	How it works
List of devices on the network	The Display searches for Aquarinos on your network and lists what it finds — just pick one. This is the normal path when everything is on the same network
Device IP	You type in the IP address of the KH or the Controller. Useful when automatic discovery does not find the device
Device UUID	You paste the unique identifier (from the label or from the device's System screen). **Works from any network**, because the link then goes through the cloud

6.2 Local network or cloud?

The Display picks the best path on its own, always in this order: **local network first** — faster and independent of the internet — and **cloud** when it cannot reach the device directly. The **LAN / CLOUD** pill in the screen's bar shows which path is in use, and the portal shows the same state.

Badge	Meaning
LAN	Reading the device directly, over your network — works even without internet
CLOUD	Reading through the Aquarino cloud — the path taken when the Display is on another network
No source	No device configured yet

BACKGROUND

What each device delivers

Aquarino Controller: the Display shows the sensors marked as **favourites** on the Sensors screen — the same set as the Home screen carousel. Want to change what the Display shows? Change the favourite stars on the Controller.

Aquarino KH: on the local network, the Display follows alkalinity, pH and the other indicators; over the cloud, the tracking is focused on **alkalinity**, the equipment's central measurement.

6.3 How many sensors, how often

- The Display follows up to **24 sensors** from the source.
- The device is read every **1 minute** from the factory — adjustable to 5, 15, 30 or 60 minutes in the portal.
- A sensor that goes **20 minutes without new data** is considered stale: the value fades and the footer stamp warns you; if it stays silent, it leaves the rotation until it speaks again.

EXAMPLE

An Aquarino Controller with Temp, pH and Salinity as favourites: the Display cycles through the three, every 5 seconds, reading the device every minute over the local network. The internet went down? Nothing changes — the badge stays **LAN** and the panel keeps updating.

PART III

Day to day

Read the screen at a glance and make it your own.

7 Reading the screen

8 Sensors and rotation

9 Brightness, theme and night mode

10 Command shortcuts

CHAPTER 7

Reading the screen

The Display's screen was designed to be read at a glance: what matters is big, and everything else tells the story of the data — where it came from, when it arrived and whether it deserves your trust.



A sensor on show: name, value, unit, minimum and maximum.

7.1 The top bar

Element	What it shows
Identification	The name of the source device — on the 1.47" model, the Display's IP, to make reaching the portal easier
LAN / CLOUD pill	Which path the data is arriving through (Chapter 6)
Signal bars	The quality of the Display's Wi-Fi
Pulsing dot	The panel's heartbeat: pulsing means the Display is alive and reading
Clock	The current time
Gear	On the touch models, opens the settings right on the screen

7.2 The featured sensor

- **Name** of the sensor, as it is on the source device;
- **Current value**, with its unit;
- **MIN and MAX**, the recorded extremes — sensors without a range (level, leak) show `--`;
- The value changes colour when the source device flags the condition: **blue** below the range, **amber** above.



Out of range: the colour of the value gives the deviation away from across the room.

7.3 The footer stamp

The footer answers a panel's most important question: **when is this data from?**

Stamp	Meaning
UPDATED X MIN AGO	Fresh data, arriving at the expected pace
NO READING YET	The sensor exists but has not delivered its first value yet
LAST UPDATE …	The data has gone stale — the value also fades, so it never passes for current
OFFLINE	The data source is not responding

BACKGROUND

This visual honesty is deliberate: a panel that shows an old number dressed up as new is worse than no panel at all. If the value is faded, trust the stamp — and check the network or the source device.

CHAPTER 8

Sensors and rotation

The Display shows **one sensor at a time** and cycles through the source's sensors on its own — the rotation. From the factory, each change happens every **5 seconds**.

- The rotation interval is adjustable: **3, 5, 8 or 10 seconds** through the on-screen settings (touch models), or from **2 to 600 seconds** through the portal.
- On the touch models, **swiping** changes sensors instantly — and the automatic rotation pauses for a minute, so you can look at your leisure.
- In the portal, the **Sensor rotation** tab lets you **hide** sensors you do not want on the panel — they still exist on the device, they just leave the showcase.

> TIP
>
> **The source device chooses what appears**
>
> With an Aquarino Controller, the rotation shows the **favourite** sensors (the star on the Controller's Sensors screen). A cluttered panel is a panel nobody reads: favourite the half-dozen parameters that really matter and hide the rest.



Alkalinity in the spotlight — straight from the Aquarino KH.

CHAPTER 9

Brightness, theme and night mode

A panel that is on 24 hours a day needs to know when to shine and when to disappear. All of this lives on the portal's **Display** tab — or behind the gear, on the touch models.

Setting	Options
Brightness	From 30 to 100% — the 30% floor guarantees the screen never "goes dark" by mistake
Theme	Dark (default), light or neon
Language	Portuguese or English
Rotation	0°, 90°, 180° or 270° — the Display works upright or on its side, either way around
Night mode	A window of visual silence: from 10 pm to 7 am (adjustable), brightness drops to the night level — or the screen turns off completely, if you prefer
Seconds per sensor	The rotation interval (Chapter 8)

> TIP
> Display in the bedroom? Night mode with **screen off** enabled: the panel goes to sleep with you and wakes up on its own at 7 am. The data keeps being read normally through the night.

CHAPTER 10

Command shortcuts

On the **touch** models (3.5" and 4.0"), the Display also acts: up to **4 shortcut buttons** on the home screen, each firing a command at the source device.

8. In the portal, open the **Shortcuts** tab.
9. Give the button a **name** — for example, `Feed`.
10. Enter the **command** — for example, `FeederStart()` to trigger the Controller's feeder.
11. Enable the shortcut and save. The button appears on the Display's home screen.

> **EXAMPLE**
> A Display 4.0" beside the aquarium with two shortcuts: **Feed** (`FeederStart()`) and **Extra dose** (`DoserRun(1,50)`). A house guest wants to feed the fish? One tap on the panel, no phone to unlock.

> **CAUTION**
> The shortcut sends the command exactly as written — over the local network or the cloud. Check the command against the source device's manual before creating the button, and remember that the touchless 1.47" model does not have this feature.

PART IV

Configuration and maintenance

The full portal and software updates.

11 The configuration portal

12 Software updates

CHAPTER 11

The configuration portal

The portal is the Display's configuration hub, reachable from any browser on your network through the **device's IP** — the same address used during the first setup. It works at any time, not just during installation.

Tab	What it configures
Wi-Fi	The Display's network (Chapter 5)
Data source	The mirrored device: network list, IP or UUID (Chapter 6)
Sensor rotation	Which sensors appear and how long each one stays (Chapter 8)
Display	Brightness, theme, language, rotation and night mode (Chapter 9)
Shortcuts	The command buttons — touch models only (Chapter 10)
System	Device name, e-mail, updates, restart and factory reset

11.1 Device name

On the System tab you give the Display a **name** — up to 31 characters, no spaces. It is the name that appears in the Aquarino app and also the name of the setup network the device creates when it loses Wi-Fi. Name it with care: `LivingRoomDisplay`, `SumpPanel`.

11.2 Factory reset

The reset button, on the System tab, asks for confirmation and erases the **Wi-Fi, data source and preferences** — the UUID and the registration are preserved, so the device does not need to be registered again. On the touch models, the same reset is available in the on-screen settings.

CHAPTER 12

Software updates

The Display checks for a new version on its own — at start-up and periodically afterwards — and installs the update for the correct screen model.

- During installation, the screen warns you: **"Installing update. The screen goes dark for about a minute. Do not unplug."** — and it means it: do not pull the plug.
- The update **preserves all settings**: network, data source, shortcuts and preferences stay exactly as they were.
- The update status appears on the portal's About card: up to date, version available, downloading, and so on.

> **CAUTION**
> Power interrupted in the middle of a firmware write can render the device unusable. If the screen asks you not to unplug it, do not unplug it — the whole process takes about a minute.

PART V

Maintenance and support

Solutions to the most common problems, and how to reach us.

13 Troubleshooting

14 Frequently asked questions

15 Specifications

16 Support and warranty

CHAPTER 13

Troubleshooting

The Display's screen always tells you where it stands — start by reading the message, and the table below does the rest.

What the screen shows	What to do
"Set up over Wi-Fi" with the name of a network	The Display is in setup mode. Connect to the named network and open 192.168.0.1 (Chapter 5)
"No Wi-Fi" with "connecting to..." or a retry countdown	The saved network is out of reach or the password changed. Wait out the retries or redo the setup
"Device not registered" with a code	Registration has not completed yet — check that the network has internet access. The code is the UUID, which support may ask for
"Data source" with the portal's IP	No device configured yet. Open the portal and point to the source (Chapter 6)
"Waiting for data" with "retrying LAN/CLOUD"	The source is configured but has not answered yet. Check that the source device is powered on and on the network
"OFFLINE" in the footer	The source stopped responding. Check the source device and the network
Faded value with "last update"	The data has gone stale (20 minutes with nothing new). Usually an unstable network or a busy source device
The opening bar stopped at a step	The step where it stopped is the diagnosis: network, registration or device. Fix the named item and restart
Screen dark in the middle of the night	It is night mode with "screen off" enabled (Chapter 9) — not a defect
A sensor vanished from the rotation	Either it stopped being a favourite on the source device, or it is hidden in the portal, or it went silent for more than 20 minutes

If the problem persists, restart the device with the physical button — no settings are lost — and, if needed, contact support with the UUID at hand.

CHAPTER 14

Frequently asked questions

Does the Display work without internet?

Yes, as long as it is on the same network as the source device — that is exactly what the **LAN** badge indicates. The internet is only needed for the initial registration, for UUID pairing across different networks and for updates.

Can I use the Display in another house, far from the aquarium?

Yes. Pair it using the **UUID** option (Chapter 6): the Display fetches the data through the cloud, from any network with internet access. A Display at the office showing the aquarium at home is a perfectly normal use.

How many Displays can I have?

Up to **5 Displays** following the same device, and you can own as many units as you like — each pointing at whichever source you prefer.

How do I choose what appears on the panel?

On the source device: with the Controller, mark the sensors as **favourites**; the Display follows the stars. And in the Display's portal you can also hide sensors from the rotation (Chapter 8).

Does the Display measure anything?

No — it is a mirror. All measuring, calibration and alerting happens on the Aquarino KH or the Controller; the Display shows.

Why is the value faded?

Because the data has gone stale: more than 20 minutes without a new reading. The footer stamp shows when the last one was. It is the Display's way of never letting an old number pass for current.

Is the screen touch-enabled? Can I configure the Display itself?

On the **3.5" and 4.0"** models, yes — swiping changes sensors and the gear opens the settings. The **1.47"** model has no touch: everything is configured through the portal, in the browser.

Does updating erase my settings?

No. Updates preserve everything. Only the **factory reset** erases the settings — and even that preserves the device's registration.

CHAPTER 15

Specifications

Item	Specification
Function	Real-time display panel for Aquarino equipment
Models	1.47" (no touch) · 3.5" and 4.0" (touch)
Data sources	Aquarino KH and Aquarino Controller — over the local network or the cloud
Pairing	Automatic network discovery, IP or UUID (works from any network)
Sensors followed	Up to 24 per unit; up to 5 Displays per device
Source polling	Every 1 minute (adjustable: 5, 15, 30 or 60 min)
Rotation	5 s per sensor from the factory (adjustable from 2 to 600 s)
Screen settings	Brightness 30–100%, dark/light/neon themes, rotation 0/90/180/270°, programmable night mode
Languages	Portuguese and English
Shortcuts	Up to 4 command buttons (touch models)
Connectivity	2.4 GHz Wi-Fi
Configuration	Browser portal (all models) and on-screen settings (touch models)
Updates	Automatic over the internet, preserving the settings
Power	Dual-voltage 5 V / 1 A supply, USB-C connector (included)
Structure	PLA printed case

CHAPTER 16

Support and warranty

16.1 Support channels

Whenever you need guidance or assistance, talk to us. We are here to help.

Channel	Address
E-mail	aquarinocontroller@gmail.com
WhatsApp — user group	https://chat.whatsapp.com/Hp9GjAmptpUEzbykjlUCMC
Website	https://www.aquarino.com.br/
YouTube	https://www.youtube.com/c/aquarino
Facebook	https://www.facebook.com/AquarinoController

> TIP
>
> **How to speed up your support case**
>
> Have the device's **UUID** at hand — it appears on the registration screen and in the portal;
>
> Say at which step the opening bar stopped, or which message the panel shows;
>
> State the model (1.47", 3.5" or 4.0") and the firmware version, visible in the portal.

16.2 Warranty

Aquarino guarantees that the Aquarino Display product has undergone rigorous quality testing and carries a **1-year** warranty from the date of purchase, covering manufacturing defects and technical problems that compromise its proper operation.

Conditions

12 The warranty follows the product: if you sell it before the period ends, the new owner is entitled to the same conditions.

13 The product must be used according to the instructions in this manual and for its intended purposes.

14 The warranty does not cover damage from misuse, drops, accidents, improper installation, unauthorised modifications, use of non-recommended parts or accessories, or problems arising from inadequate electrical supply or voltage variations.

15 To make a warranty claim, present the purchase invoice and describe the problem found.

16 The deadline for repair or replacement is up to 30 days, counted from delivery of the product to the authorised service centre.

17 If the product is under warranty and cannot be repaired, Aquarino reserves the right to replace it with a new product.

How to make a warranty claim

Get in touch through any of the channels above, with the invoice at hand and a description of the problem. Our team will guide you through the next steps.

Thank you for choosing the Aquarino Display. Happy reefing!