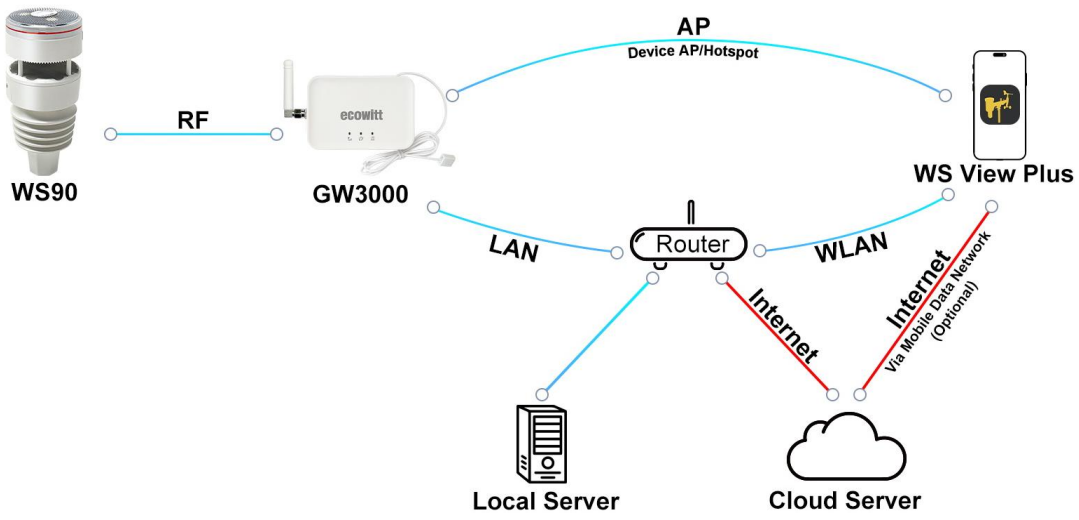
WS View Plus (WSV+) and Web UI
Local Network Manual



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1. The Difference between WSV+ and the Ecowitt app

The main difference between WS View Plus and Ecowitt app lies in their management focus. WSV+ acts locally and has some optional internet features. The Ecowitt app acts via the internet and has also local options (but always needs to be logged in to your ecowitt.net account). One can also say that WS View Plus manages devices connected to the local router by connecting to the local router. In contrast, the Ecowitt app manages devices linked to the Ecowitt cloud account (so you must log in to an account to use it). These two different starting points led to the development of two separate apps.

2. The Difference between WSV+ and the Web UI

WS View Plus is a mobile app with a similar view and organization as the Web UI. Historically the predecessor app WS View (without Plus) existed already early before the consoles starting with the GW1100 were able to house an integrated web page. While the WebUI only exists for one device, WSV+ can manage all devices inside the same local network and will show them in a list (device list). Both WSV+ and the WebUI of each console work on the same device and will therefore synchronize settings the other one has changed.Users can access the WebUI via the device's IP address through a browser to view the user interface. At present, the GW3000 and WS6210 SD card settings are in the Web UI only. Also network configuration is in the WebUI only.

3. Setup of a New Device in the Local Network Configuration (LAN/WLAN)

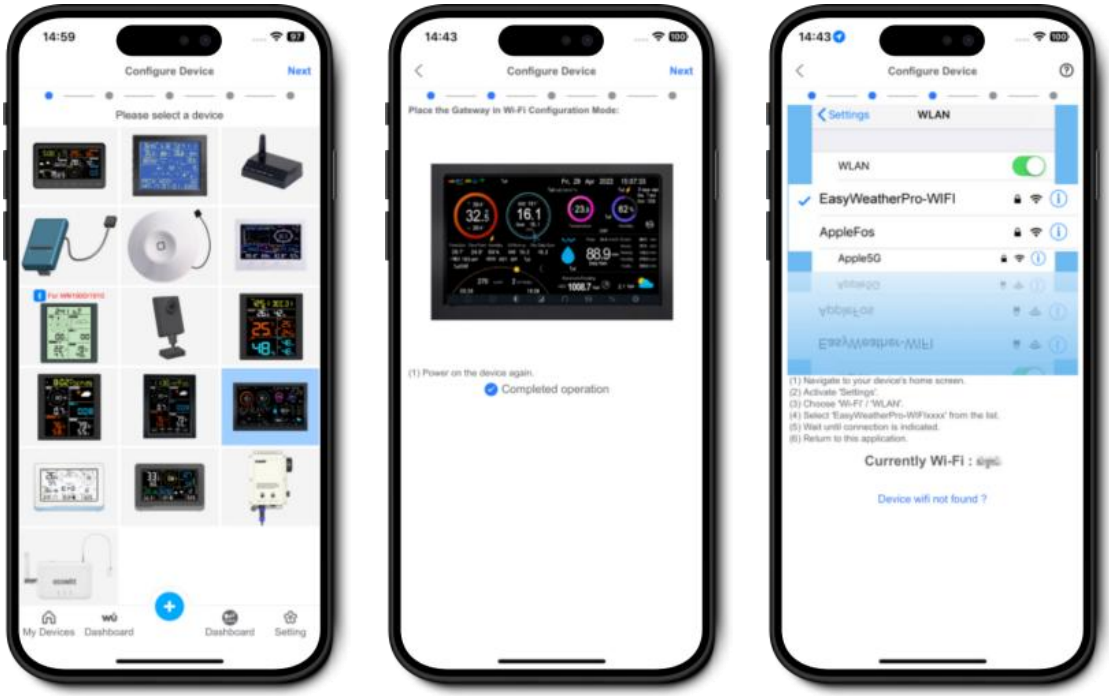
3.1. Adding a Device (console, gateway, camera) to your local network.

Example: HP2560

1. Press the ”+” button on the bottom task bar, on the next page choose the console and press the “next” at the top right corner.
2. Follow the guided instructions to activate the console’s own WLAN, tick the “Completed operation” and press “Next” at the top right corner.
3. Switch your phone’s WiFi to the the WLAN of the console.

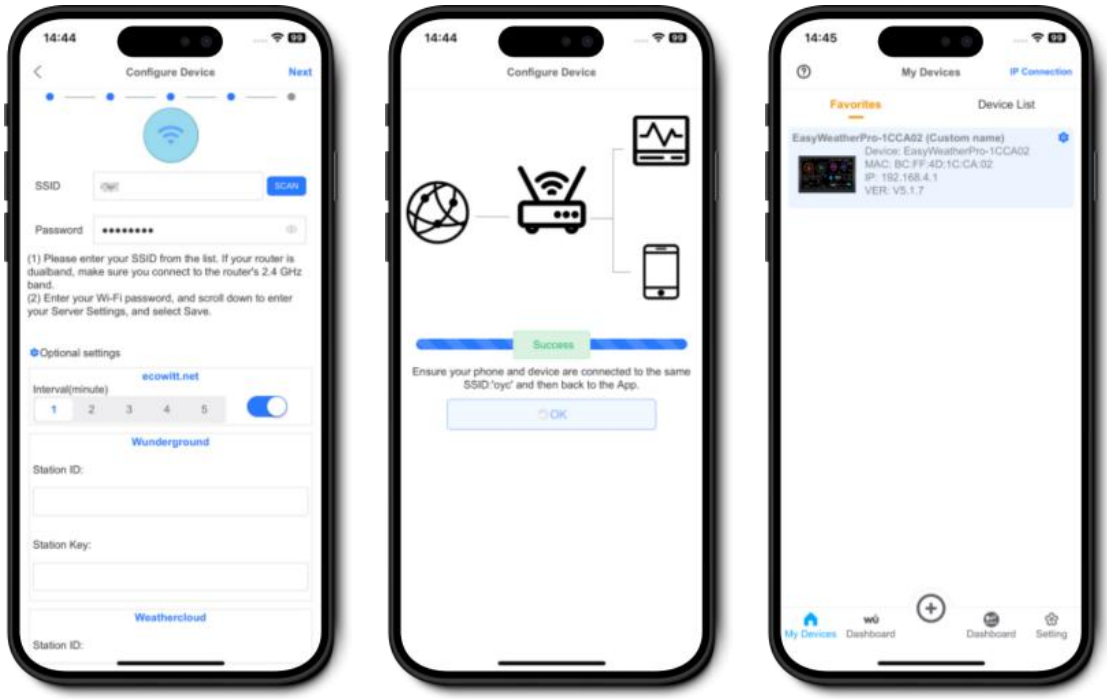
In case of the HP2560 console, a console without an API (application programming interface), the name of this WLAN will be: EasyWeatherPro-xxxxx.

Note:
Other consoles like the WS2320, WS2910, HP3500 and HP2550 may show two different SSID names: EasyWeather-WFIxxxx or EasyWeatherPro-xxxxx. The devices without the Pro name extension still have an early version of the Wi-Fi firmware and cannot be upgraded to the Pro version (the-device firmware can) and therefore do not have a WebUI.
The Weather Service only firmware (“WiFi firmware”) does not support adding sensors or devices via the WSV+ app or, if they have one, via the WebUI. They do not show live data either.The older HP2550 consoles also offer the use the device itself for network configuration.



4. Press the “Scan” to choose the SSID(Service Set Identifier, wireless network name) of your (WLAN/WiFi) router
5. Enter the router password and press “Next”. (You can skip the upload weather server option and setting it later.)
6. Once your device has connected with the router of your local network, you will be asked to connect your smartphone/tablet again to the same local network.
7. When you do this, you will see your device as an entry in the WSV+ device list showing the following information:

EasyWeatherPro-xxxxx
MAC xx:xx:xx:xx:xx
IP: xxx.xxx.xxx.xxx
VER: 5.x.x



Note:
With devices with EasyWeather or EasyWeatherPro entries (WIFI firmware name) only the Weather Services (posting data to the Ecowitt Cloud, Weather Underground, WeatherCloud and WOW be configured. Also the posting to a customer defined address can be configured (Customized Server).

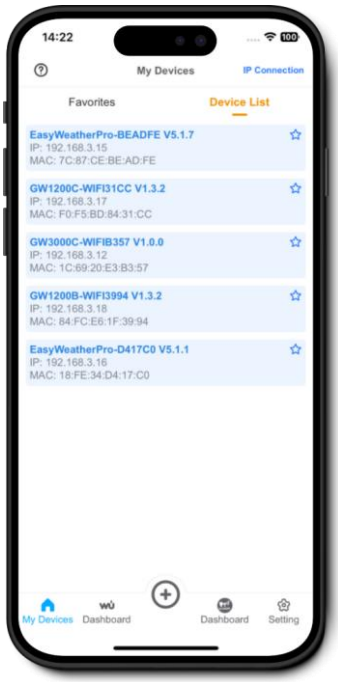
When you do the network provisioning with devices which have the local Ecowitt API, the SSID of the access point (hotspot, device WLAN) will be:
DEVICE-name-WIFIxxxx
e.g. GW3000B-WIFIxxxx, WH1820A-WIFIxxxx
This will also be the device name entry in the WSV+ device list when this (or more) device(s) are registered to the same local network. Devices who are connected to your network through their LAN interface (GW2000, GW3000) do not need the above provisioning procedure. Your router will directly recognize it and provide it with a network address (IP address). them at WSV+ will recognize them at startup directly and add them to its device list.

Devices with their full name in the device list like GW3000A-WIFIxxxx have the local Ecowitt API and can be fully configured, calibrated and upgraded and their live data (realtime sensor data) can be displayed in WSV+. Only the network settings and the SD card management for devices who have a SD card cannot be done via WSV+. This is only possible via the WebUI of these devices in the respective sections (menu): http://IP-address-of-your device

4. Devices Management

4.1. My Devices and Device List

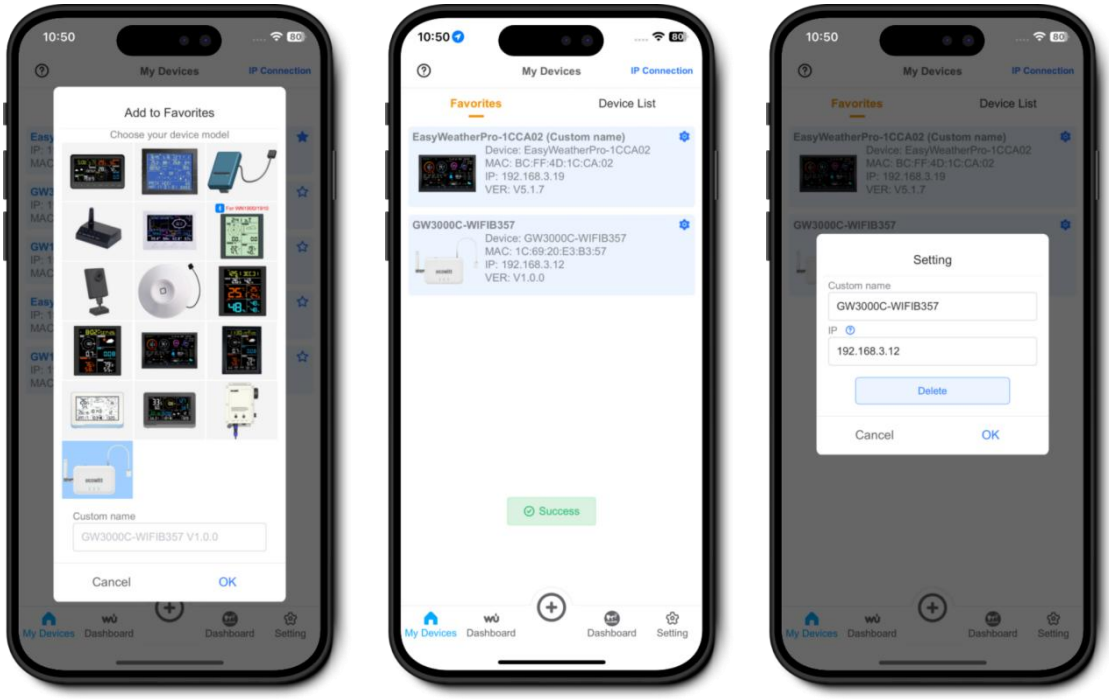
This page shows all of the router- connected devices in a sample network. This list cannot be edited. If you want to delete an entry, you have to reset the device in its hardware. Powering it off will still show the device but the entry will be grayed-out and inactive.



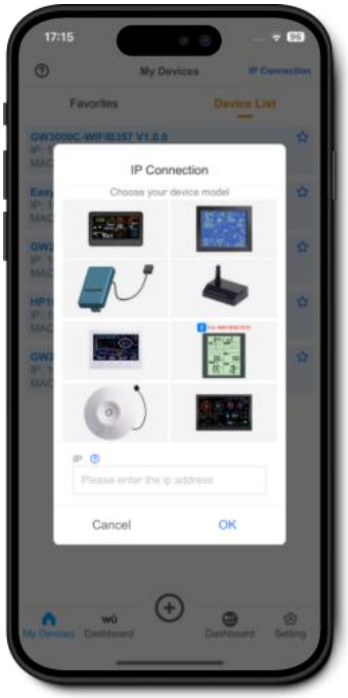
4.2. My Devices and Favorites

If you want this entry to look more pleasant, you can create an entry in the Favorites view of the device list by tapping on the star icon at the very right of the device list entry, Then you can choose the icon of your device and acknowledge. As a result you will see the icon in front of the device list data. The Favorites list will become the default view when you start WSV+ in future.
The Device name in the Favorites list can be edited during creation and later. If you want to change it later, press the settings icon (gear wheel) at the right end of the list entry.

Example: see below



4.3. IP Connection for add device you know the IP address



In case the device is not showing up in device list page after the router registration is done, you may enter the lP address (to be found in your router under the MAC address of the device -) manually and continue for weather service setup, view live data etc.

5. Cloud and Local Weather Server Setup

Devices with a device list entry EasyWeather(Pro) are described below.

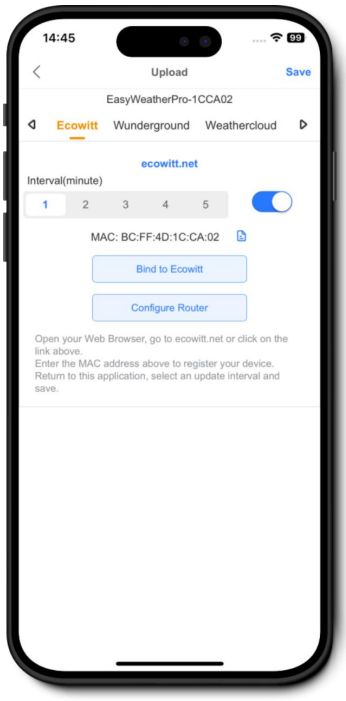
For devices with their own device name (e.g. GW3000A-WIFIxxxx), the Weather Server setup and customized server configuration as shown below will be only one of many options.

Posting to a customer chosen server/IP address is another option here.
You decide where this post will go. The receiving server can be in in the internet or inside your local network at your choice.

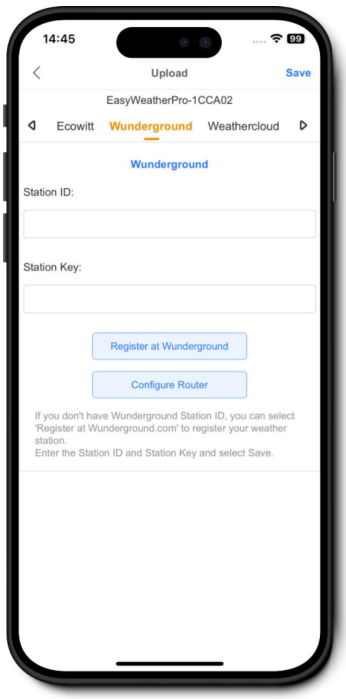
Press the desired device list entry of your console to go on

5.1. Cloud Weather Server (Optional)

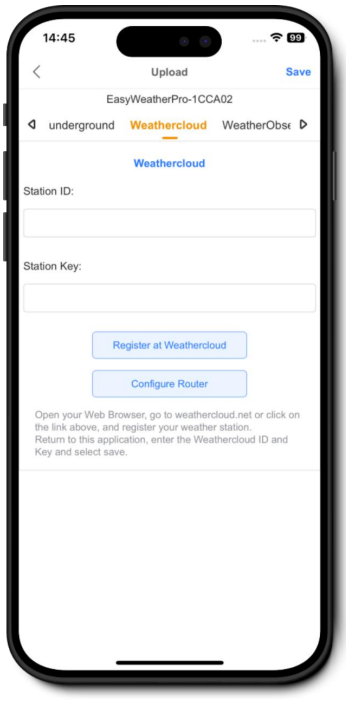
Configuring the weather servers means that you are sending your weather data to these public weather services. If you don't want to do that, skip this section.



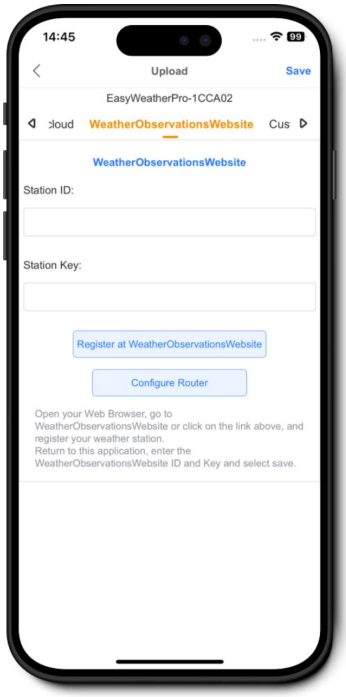
Ecowitt Weather



Wunderground

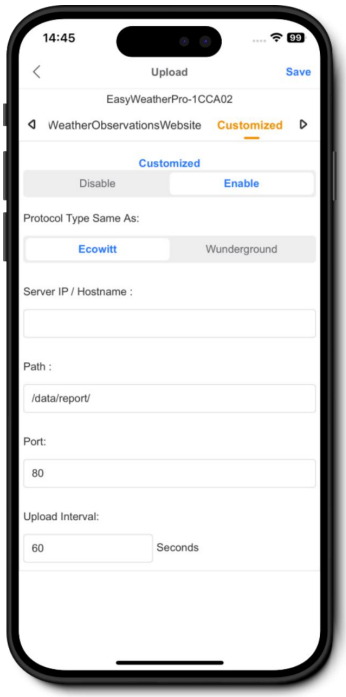


Weather Cloud



WOW

5.2. Customer chosen upload/posting target (Customized Server option)



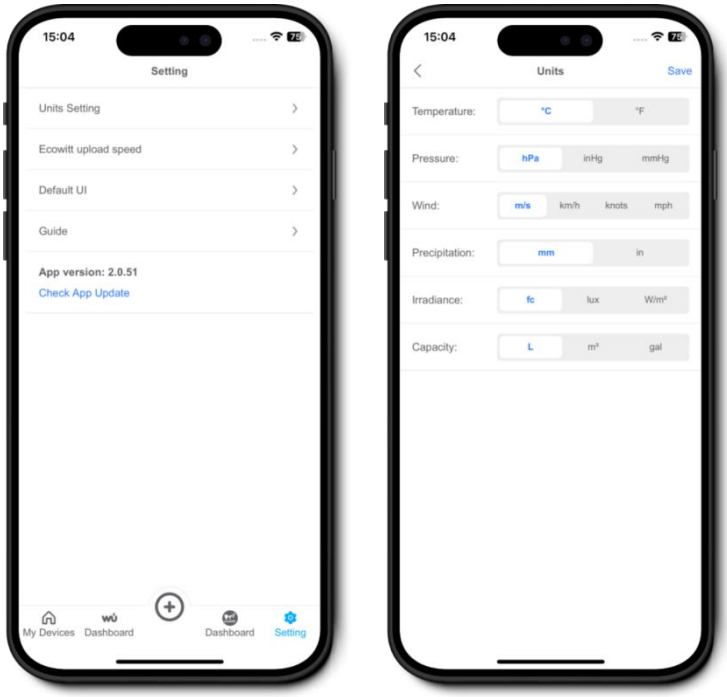
Examples:

1. you are running the Home Automation software HomeAssistant on a server in your local network and want to send your weather station data there.
   Then the HomeAssistant software will ask you to make entries in this customized server dialogue:
   Protocol: Ecowitt
   ServerIP/Hostname: the IP address of your server where HA runs
   path: /api/webhook/xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
   Port:8123
   upload interval: 8 seconds

2. you have your own internet website and want to process your weather data there
   your software on your webhost expects the data in Wunderground protocol format to be sent to a directory with the name ../report/data
   then the entries on this page would be:
   Protocol: Wunderground
   ServerIP/Hostname: my-weather-website-domain.compath: /report/data
   Port: 8080
   upload interval: 8 seconds

5.3. WSV+ Dashboard Units Setting

Your WSV+ Dashboard unit settings can be made on this page via the Setting button in the bottom task bar. These settings will apply for your view inside WSV+ only. Other view with other tools (e.g. Ecowitt.net dashboard, WebUI) can and have to be done in the respective tool.



5.4. Connecting to your console without having a local network available

If you run your weather station in an environment without a local network, you can still connect to your console with WSV+ to configure the Weather Network options as described before, or, if the console is equipped with the local Ecowitt API, do the whole configuration (except SD card and network) and view live data of your weather station and the connected sensors via the console's own access point or hotspot (which needs to be activated).

This is possible because each WLAN enabled Ecowitt console has its own WLAN access point or hotspot. Then connect with your mobile device to the WLAN with the SSID EasyWeather-WIFIxxxx, EasyWeathrPro-xxxxx or Device-WIFIxxxx, open WSV+ and select "IP connection". Here you enter the hotspot IP address 192.168.4.1 and you will be taken to either the Weather Network page (EasyWeather(Pro) or to the Live Data page.

5.5. configuring the Weather services and your local network access with the WebUI

Access to your console via the WebUI is needed for network and SD card configuration. No other tool can do this.
(Exception: the HP25x0 consoles where you can do this inside the console)

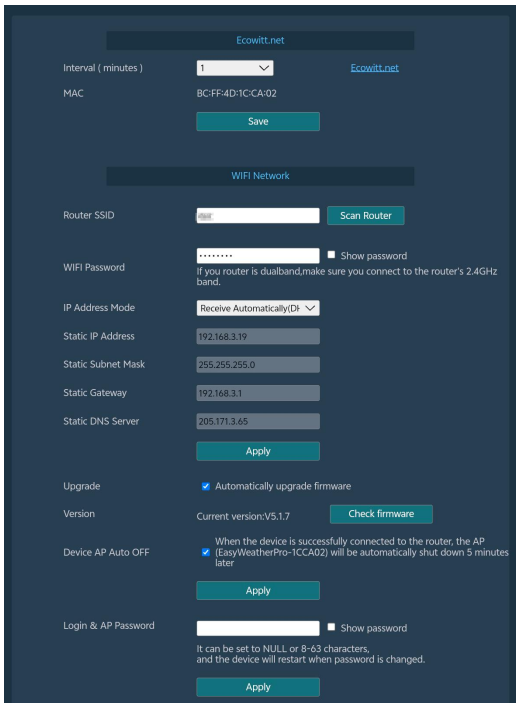
There can be two situations:
1. Your console is not yet connected to your local network router
If you still have to register the console to the local network, you can also do this via the WebUI. Then you will have to connect your mobile device to the WLAN each WLAN enabled Ecowitt console comes with.
SSID EasyWeather(Pro)…. Or DeviceX-WIFIxxxx (e.g. GW3000A-WIFI4711)

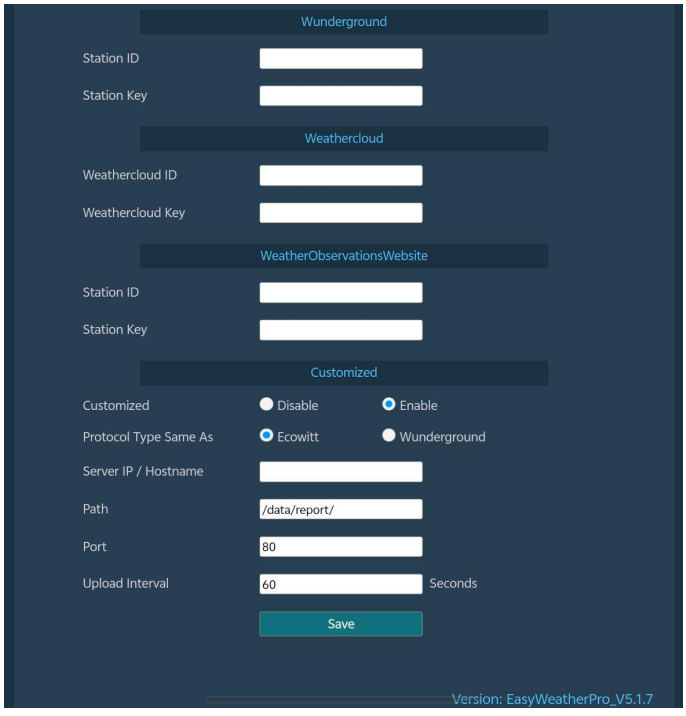
2. Your console is already connected to your local network router

Access to the Web is possible (a) via the console's hotspot IP in your Browser or (b) via the local network once the console has been added to your local network.

(a) Switch on the local WLAN of your console (see manual)
Open your browser and enter the default IP address 192.168.4.1 of the console hotspot.

(b) Open your browser in the same LAN your console is connected to and enter its IP address (you can find the IP in your router via its MAC address, or on the Factory → About [Display] page in the HP25x0 consoles or in the device list of WSV+).

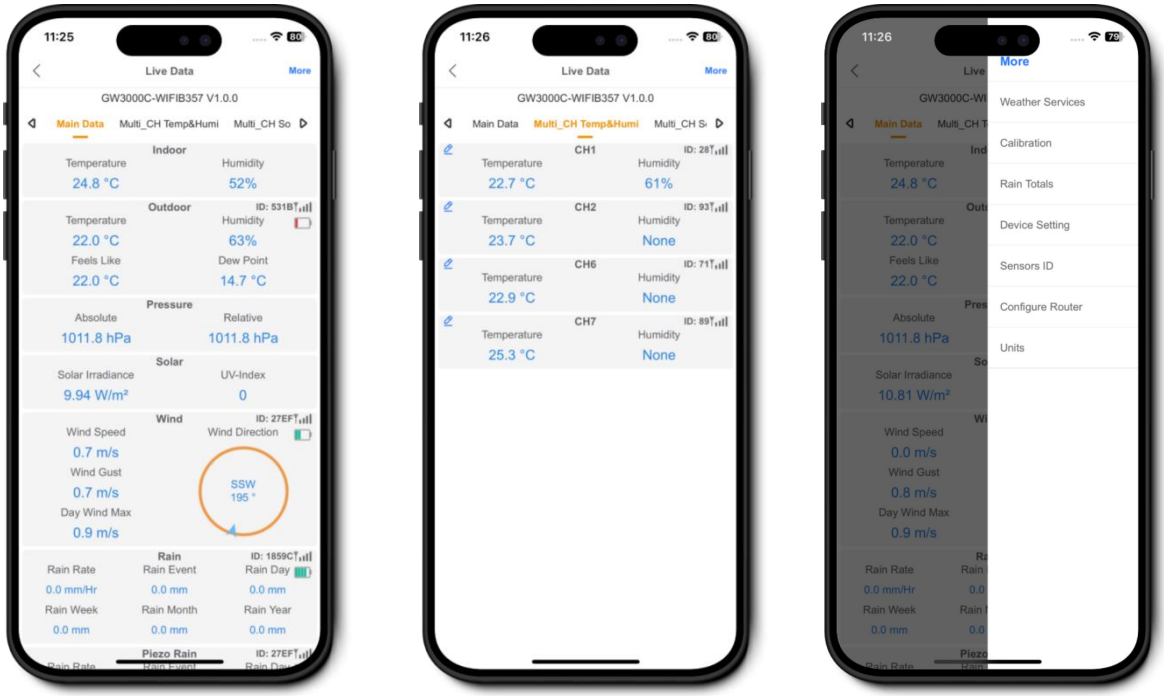




6. Device Settings in the WS View Plus and Web UI

6.1. Open Live Data

Select/tap on a device entry in the WSV+ device list

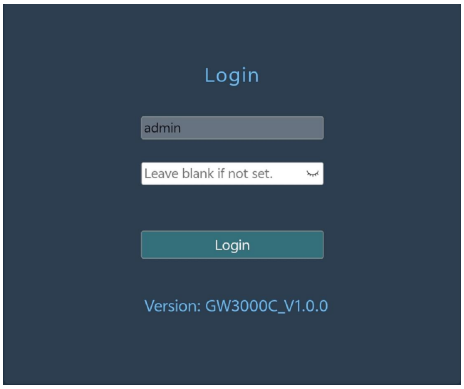


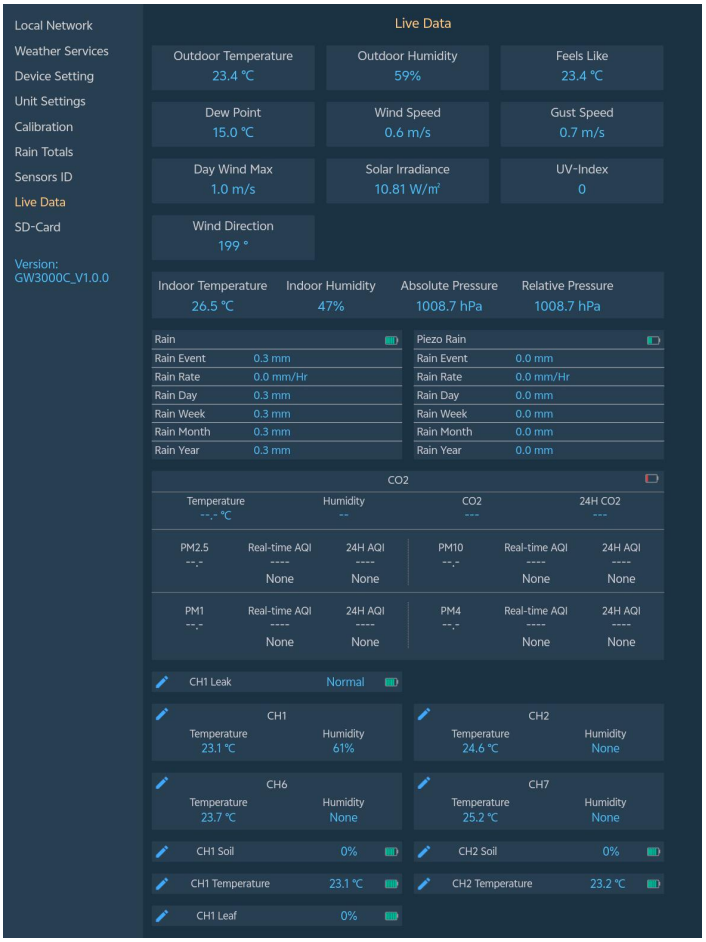
the main page shows the real-time data of the basic sensors: indoor/outdoor temperature and humidity, air pressure, solar, wind, rain and air quality
for each sensor you will find signal quality bars, the sensor ID and the battery status
there are more tabs for displaying the extra sensors grouped in T&H (WH31), Temp (WN34), Leaf Wetness (WN35) and Water Leak (WH55) – a pencil icon allow to change the display name of the extra sensors

To access the menu, click/tap on the “More” button in the top right corner

Access the Web UI via device’s hotspot

① Re-power up your device. Or activate the device’s hotspot via its button.
② Switch your phone or laptop’s wifi connector to your device
③ Access the device’s default IP address, 192.168.4.1, on the browser
④ Click Login to open the user interface



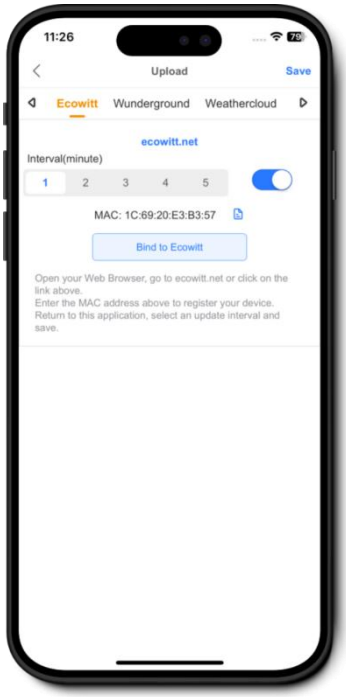


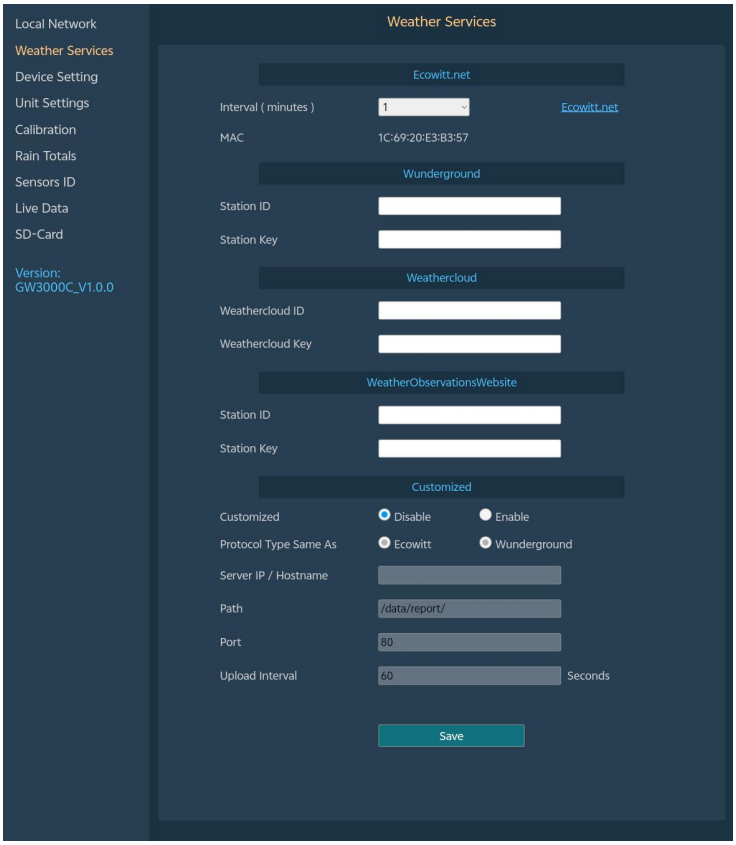
In the WebUI there are no tabs – the live data are displayed grouped on one page

6.2. Weather Services

You can also change weather services after adding a device. Refers to Section 5.1
After the Network configuration is successful, data can be uploaded to the following weather station servers:

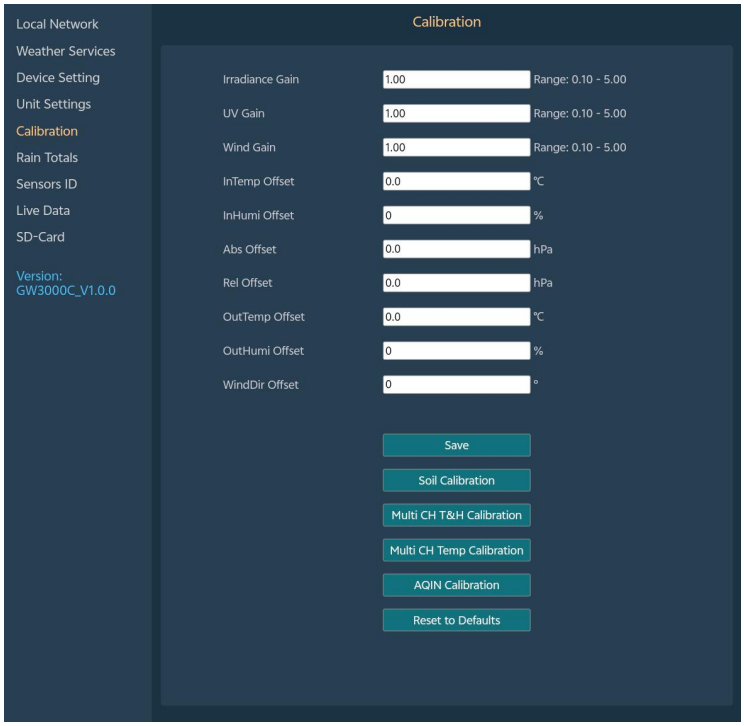
- ecowitt.net (Default upload to this server)
- wunderground.com
- weathercloud.net
- wow.metoffice.gov.uk
- Customized server





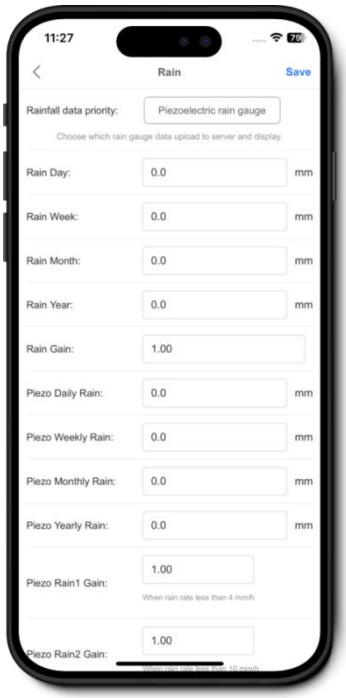
6.3. Calibration

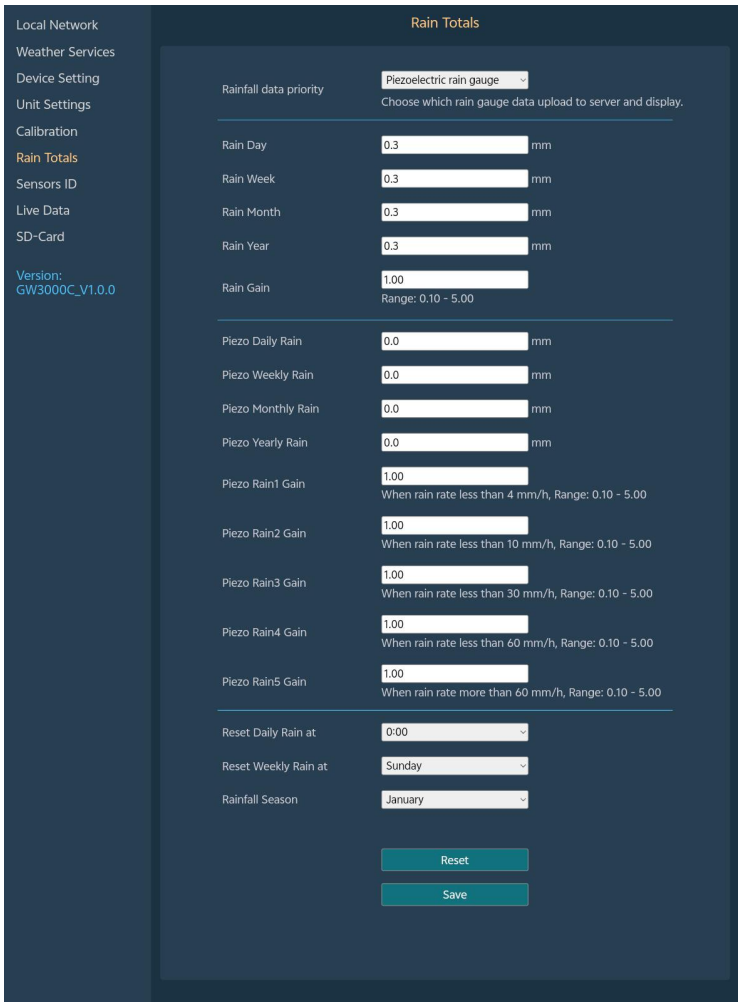
This page supports the data calibration:



6.4. Rain totals

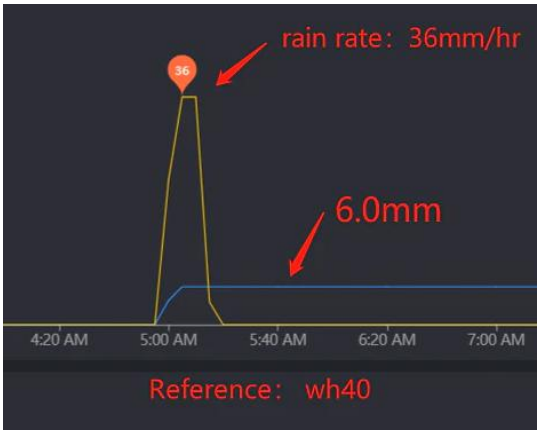
This page supports settings such as:

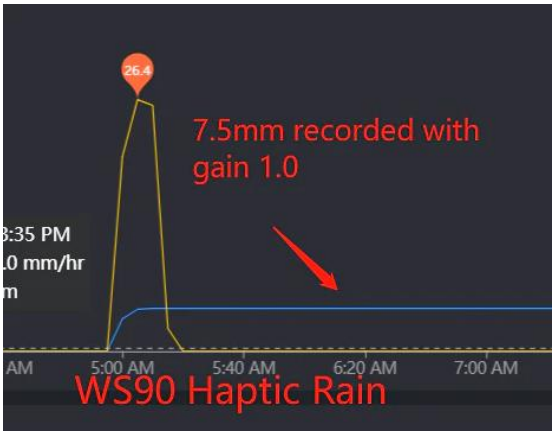




(1) Choose traditional or piezoelectric rain gauge data to be uploaded to the WU server, as only one rain gauge data can be accepted when you have both our haptic rain gauge and tipping bucket type rain gauge.
(2) Rainfall calibration
(3) Rain reset time for Daily Rain/Weekly Rain/Rainfall Season
(4) For Piezo Rain1~5 Gain calibration
The Piezoelectric rain gauge working principle: raindrops fall on the sensor's surface so that the monitoring panel produces small mechanical vibration, the vibration of the mechanical stress, and the sensor produces a voltage difference corresponding to the amount of rainfall. In practice, the measurement of precipitation by piezoelectric rain gauges is influenced by environmental factors such as wind, terrain, and debris. In the case of large rainfall intensity, rainfall intensity can be measured by the piezoelectric rain gauge, but the raindrops landing may have two impacts on the monitoring panel so that the measured rainfall value is larger; for minimal rainfall intensity, due to the vertical momentum is too small, so that the measured rainfall value is small. Therefore, it is necessary to calibrate the piezoelectric sensors for

different rainfall intensities depending on the environment in which they are located.
As a sanity check the sensor also verifies if there is water present along with the vibration to exclude effects produced by other vibrations.



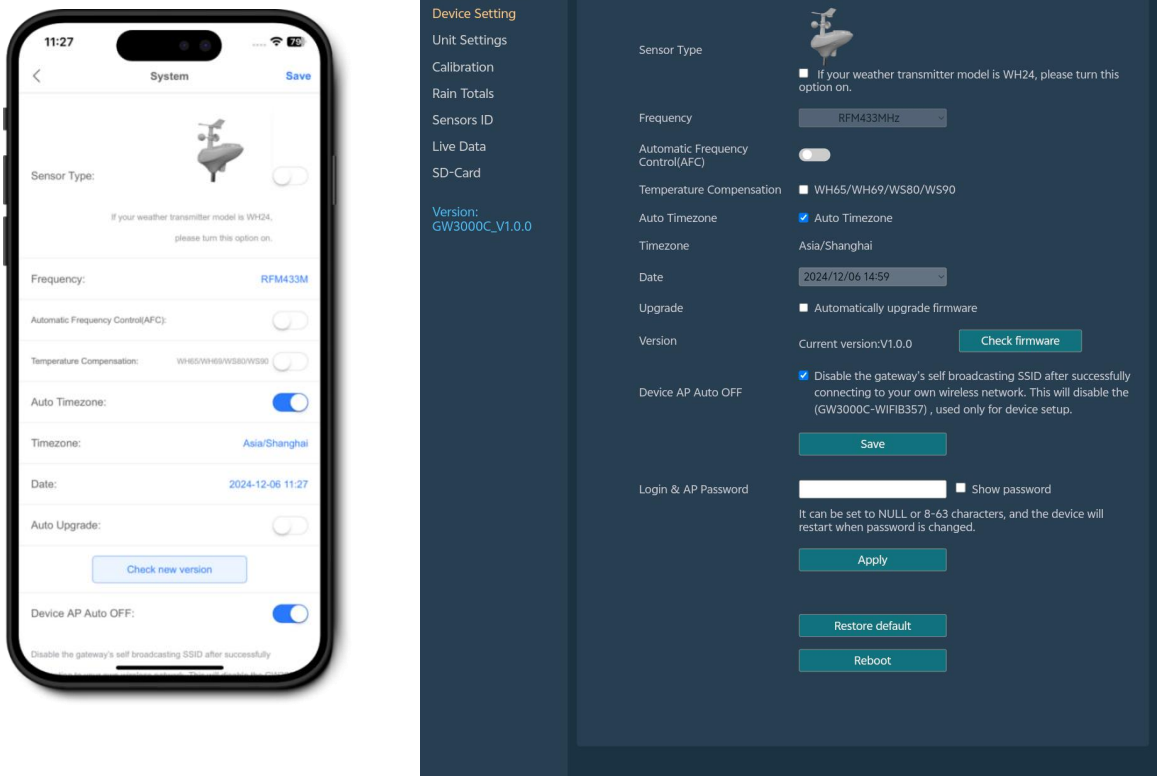


WS90 and WS85 are weather sensor arrays equipped with piezoelectric rain gauges. To make your rain data more accurate, you can calibrate the rain sensor accuracy by yourself:
1. A reference is needed to record the rainfall value, and it is also important to be able to record the rain rate. Our WH40 rain sensor can be used for this purpose.
2. You can set five rain gain parameters: Piezo Rain1: Rain5. We usually leave Rain1 as it is unless you can confirm it consistently produces the same result, and then you can adjust this.
3. Please ensure that you record rain data as follows: set rain4 gain to 6/7.5, which equals 0.8. For easier management, set rain2, rain3, and rain5 all to 0.8 for now.

Only when different rain rates are recorded, divide the ws90 rain by 0.8 to get 1.0 rain, and then recalculate (reference/ws90/0.8) to precisely adjust the corresponding rain gain setting.

6.5. Device Setting

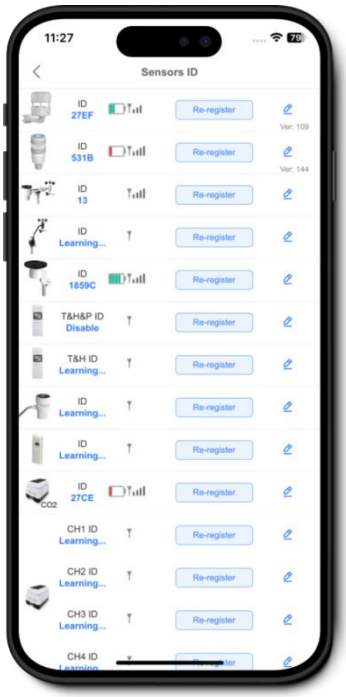
This page supports settings for device itself:

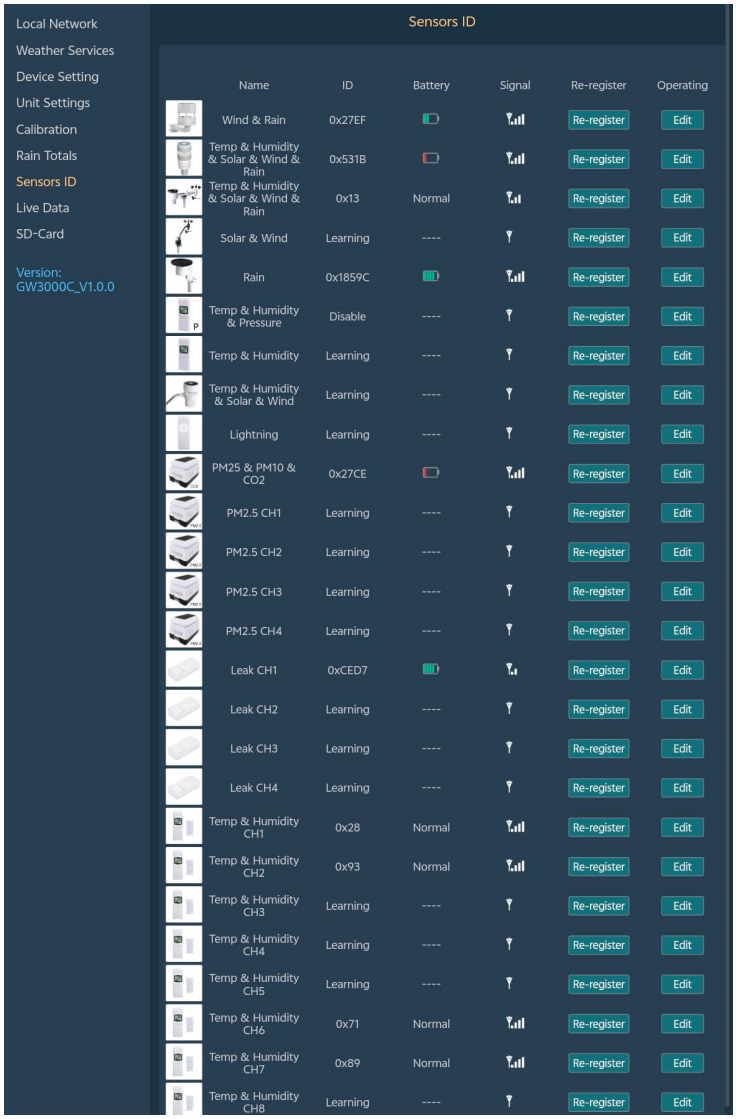


Network management and SD card configuration can only be handled in the WebUI

6.6. Sensor ID

This page is for sensor management – view, re-registering and active sensorID assignment

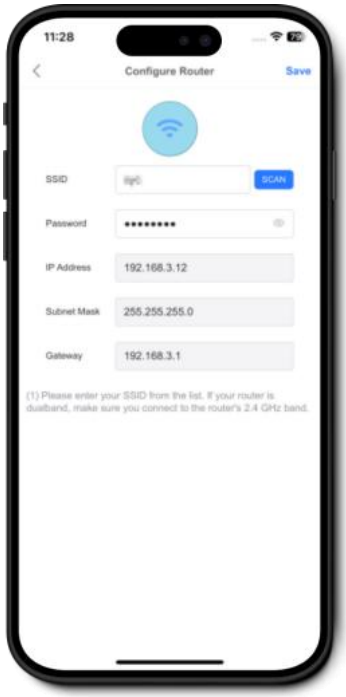


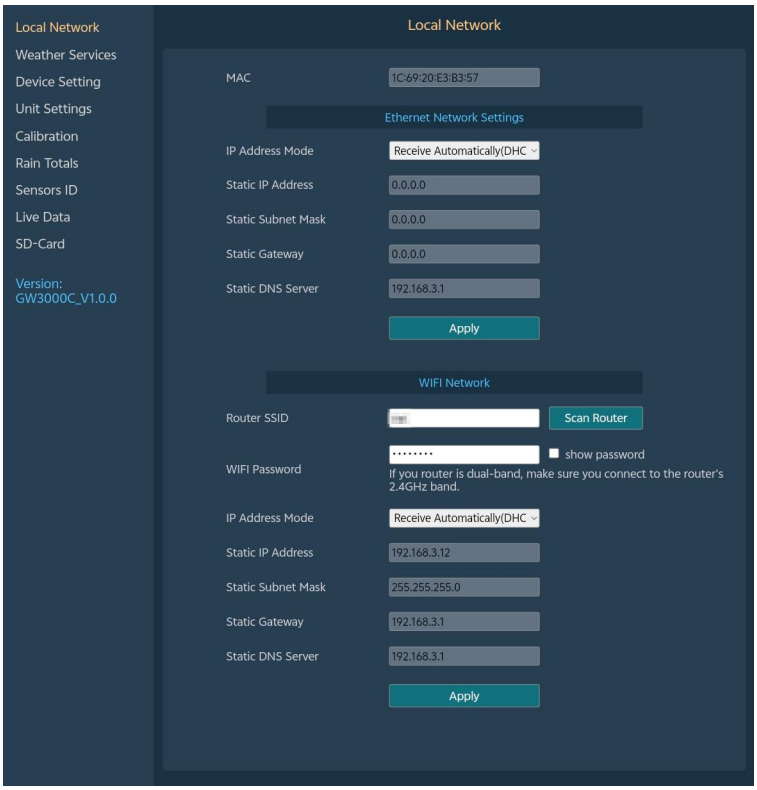


In the newer firmware editions there will be two sensor ID pages with 31 entries each for a better overview on the WebUI – in WSV+ everything is displayed on one large page

6.7. Configure Router in Local network

This page supports setup for local network:

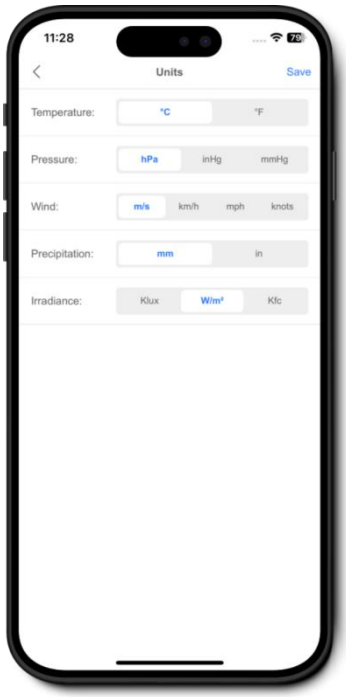


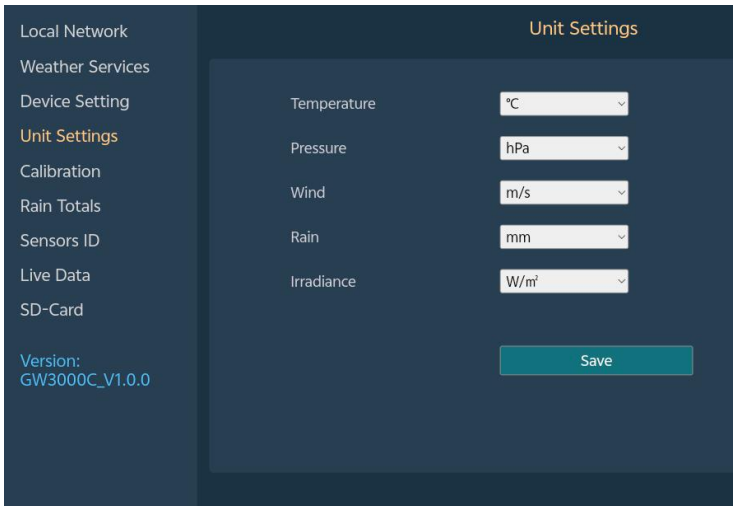


In WSV+ you can only manage the WLAN portion. If your gateway has an Ethernet (LAN cable) connection, this can only be managed via the WebUI. Enabling or disabling WLAN for dual network devices can also only be managed from the WebUI

6.8. Live data units

This page supports settings for live data:





6.9. SD Card

SD card management can only be done in the WebUI at present (for GW3000 and WS6210), not on the other apps.
1.SD card file system format: Only FAT32 is supported. For cards larger than 32GB, use the Rufus tool to format the SD card to FAT32. Download the tool from https://rufus.ie/en/. Tip: When replacing it with a higher-capacity card, please be mindful of the memory card's maximum read/write cycles and lifespan.
2.Real-time status display and hot-swap support: The system monitors the SD card's status in real time and allows for its insertion or removal without restarting the device.
3.SD card information display: The interface shows detailed SD card information, including storage capacity and read/write frequency.
4.Multi-level directory management: The system adopts a multi-level directory structure for easy file categorization and management by users.
5.Sensor data storage: Data collected by sensors is saved in .csv format in the root directory of the SD card, facilitating direct access and analysis of data.
6. the capital letter (A, B, C …) in the file name will be increased and a new file created when you change one or more of your unit settings.


Local Network
Weather Services
Device Setting
Unit Settings
Calibration
Rain Totals
Sensors ID
Live Data
SD-Card
Version:
GW3000C_V1.0.0
SD Card
Name : SD16G
Type : SDHC/SDXC
Speed : 20 MHz
Size : 15238 MB
Interval : 5 minutes
Edit
Path: /
File Name
Size (Bytes)
Operation
202411A.CSV
998
Download
Delete
202411Allsensors_A.CSV
2984
Download
Delete
202411B.CSV
714
Download
Delete
202411Allsensors_B.CSV
2104
Download
Delete
.TXT
217
Download
Delete
.TXT
192
Download
Delete
.txt
191
Download
Delete