

HANNA CLOUD APPLICATION



HANNA CLOUD

**Dear
Customer,**

Thank you for choosing a Hanna Instruments product.

Please read this instruction manual carefully before using [BL122](#) or [BL123](#) instruments with Cloud connectivity. This manual will provide you with the necessary information for the correct use of the Hanna Cloud web application, as well as a precise idea of its versatility.

If you need additional technical information, do not hesitate to e-mail us at tech@hannainst.com or view our contact list at www.hannainst.com.

HANNA CLOUD APPLICATION

The Hanna Cloud is a web based application that connects you to measurement devices such as the BL122 and BL123. Measurements and data storage are accessible from your PC, tablet or phone. Multiple registered devices may be connected.

As your instrument measures and controls your process, measurements, trends, history, device settings, alarms and messages are transmitted to your "Dashboard".

Multiple secondary users may also be added to your device account to monitor measurements and receive email or pop-up messages from your process device.

The Hanna Cloud incorporates security for your personal information. We protect your information using technical and administrative security measures to reduce risks of loss or misuse. These include (but are not limited to) a secured connection, device identity registration and password encryption.

The Hanna Cloud application is compatible with most modern web browsers.

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1. INSTRUMENT SETUP

1.1. INSTRUMENT INSTALLATION

Follow the **GENERAL INSTALLATION GUIDELINES** and **ETHERNET CABLE INSTALLATION** sections from the instrument's Instruction manual to install and connect.

1.2. INSTRUMENT NETWORK SETTINGS

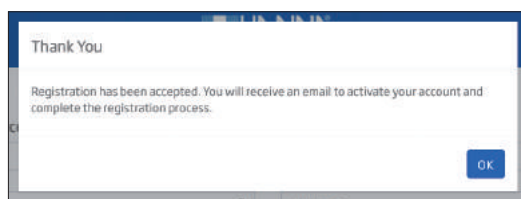
Access the **Hanna Cloud Options** to make the connection settings based on your local network configuration (see the **HANNA CLOUD SETUP** chart in your instrument's Instruction manual).

Enter in **Hanna Cloud Options, Status** menu to check the network connection status. The *"connected to Cloud"* message is displayed when the connection is done.

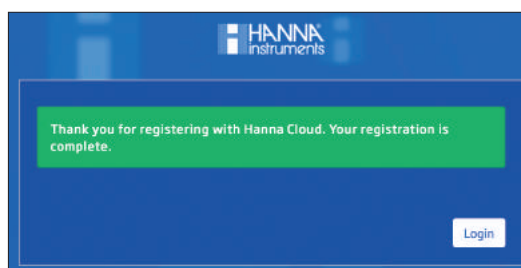
2. CONNECTING THE INSTRUMENT TO HANNA CLOUD

Go to www.hannacloud.com to register yourself. Choose the operation language from the list, click on **Create Account** and fill out registration information. Read the Hanna Instruments terms and data policy statement by clicking on the text. Check box to agree then click **Create an account** button.

An email will be sent to the registered address with a user account validation link. Follow the link to access your new account.



After the account is activated, a confirmation message will appear.



After login, add the devices you will be following on the Hanna Cloud.



2.1. ADD DEVICE

Click on **Add Device**. Follow the five-step procedure below.

1. Choose the device model from the drop-down list.
2. Enter the device ID (printed on the instrument certificate and engraved on the back of the casing, e.g. BL122_XXXXXX/XXXX).
3. Assign a name to your device by filling in the **Device Name** text field. The device name can be used to distinguish accounts.
4. Optionally, select a category for your device. Click **Next**.

 A screenshot of the 'Add New Device' form, Step 1: Add Device Info. The form has two tabs: '1. Add Device Info' (active) and '2. Device Plan'. The form contains the following fields:

- Device Model Number:** A dropdown menu with 'BL122' selected.
- Device ID *:** A text input field containing 'BL122_XXXXXX/XXXX'.
- Device Name *:** A text input field containing 'Device Name'.
- Select Device Category:** A dropdown menu with 'Default Category' selected.

 At the bottom right, there are 'Previous' and 'Next' buttons.

5. The available features are displayed. Click **Finish** to save.

 A screenshot of the 'Add New Device' form, Step 2: Device Plan. The form has two tabs: '1. Add Device Info' and '2. Device Plan' (active). The form displays a table of available features and their corresponding plans.

Available Features	Plan
Reading Measurement	15 Minutes
Alarms	Real Time
Status	15 Minutes
Settings	View Only
Data Storage	3 Months
Logging Interval	15 Minutes
Email Notifications	Yes
Push Notifications	Yes
Report	CSV/PDF

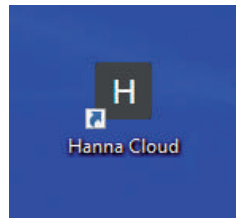
 At the bottom right, there are 'Previous' and 'Finish' buttons.

One of the following warning messages will be displayed if a wrong Device ID is added:

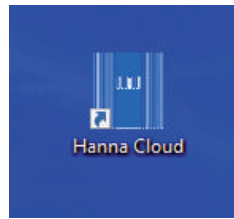
- *“Device Does Not Exist.”*
- *“The device has already been added to your account.”*
- *“Device Already Added To Other User Account, Please Contact Hanna Support.”*

3. HOMESCREEN / DESKTOP SHORTCUT TO HANNA CLOUD APPLICATION

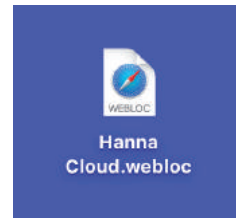
The application has the option to maintain the login session and to allow access to the required page in the application by assigning a shortcut and a desktop icon with Hanna logo. The link works even if the browser is closed.



Chrome



Firefox



Safari

For mobile devices, depending on browser, check the **Add to Home screen**.
For desktop follow the steps below.

Google Chrome:

1. Open the Hanna Cloud application in your browser.
2. Click the Chrome menu on the browser toolbar.
3. Select More Tools option.
4. Select Create application shortcut.
5. In the dialog that appears, choose where you'd like the shortcuts to be placed on your computer.
6. Click Create.

Mozilla Firefox:

1. Open the Hanna Cloud application in your browser.
2. Resize the Firefox window so you can see both your computer's desktop and the Firefox window on the same screen.
3. Click the icon on the left of the address bar (where the URL is shown).
4. While still holding the mouse button down, move the pointer to the desktop, then release the mouse button. The shortcut will be created.

Microsoft Edge:

1. Right-click on the desktop.
2. Click on New > Shortcut.
3. In the *Type the location of the item* field type the URL of the web page.
4. Click on Next, give the shortcut a name and complete the process.

Safari:

1. Open the Hanna Cloud application in your browser.
2. Resize the Safari window so you can see both your computer's desktop and the Safari window on the same screen.
3. Click the icon on the left of the address bar (where the URL is shown).
4. While still holding the mouse button down, move the pointer to the desktop, then release the mouse button. The shortcut will be created.

Opera:

1. Open the Hanna Cloud application in your browser.
2. Right-click on the web address located in the address bar of your web browser and choose Copy. (Make sure that the web address is highlighted / selected.)
3. Close or minimize the web browser window.
4. Right-click on the desktop, go to New and choose Shortcut.
5. Right-click on the location bar and choose Paste to copy the URL (web address) of your favorite site into the location bar.
6. Click on Next.
7. Type the name for the Internet shortcut and click on Finish.

4. ACCESS YOUR DEVICES

After signing in, connected devices can be viewed by accessing  **Dashboard** or  **Devices**. Click on the Navigation tray in the top left of your screen (). This will open the black column with dashboard and devices icons.

4.1. DASHBOARD

Click on **Dashboard** icon on the left column of the window. An overview with all user devices is displayed reflecting the last recorded activity.

Each device is identified by its device name in the first line of the heading. It will also indicate if it's offline. The model number and the time stamp of the last received message is also displayed in the heading.

Devices assigned to secondary users are labeled "Secondary User" in the header. A device can be assigned to up to 5 secondary users.




The measurement values are displayed in the middle part. The active events line displays status, error and alarm messages. The Status and Service LEDs reflect the device status. The Status LED is a multicolor red-yellow-green LED that indicates the controller status based on traffic light concept (green - "OK", yellow - "Need attention", red - "Something wrong"). The Service LED indicates that service is required or controller is in manual mode. For more information please see EVENTS MANAGEMENT section from the instrument's Instruction manual.

- If the device is offline, the device panel image is faded and "OFFLINE" label is displayed in the header. Otherwise the device panel image is vivid.
- If no probe is connected, the dashboard view will blink yellow and "NO PROBE" will be displayed. "No probe connected" is seen in message box.
- If remote hold is active, the dashboard view will have a stable red header and "REMOTE HOLD" is displayed.
- If an error occurs, the dashboard view will have a blinking red header and the error message is displayed.
- If the device is in alarm status, the dashboard view will have a blinking yellow header and the alarm message is displayed.

<p>Device Name: BL122_D00_01 Model No: BL122 Last Updated: 2020-02-20 13:20:23</p> <p>6.23 pH 106 mV 25.0 °C</p> <p>Remote Hold</p> <p>Status Service</p>	<p>Device Name: BL122_D00_02 Model No: BL122 Last Updated: 2020-02-20 09:33:51</p> <p>6.25 pH 104 mV 24.9 °C</p> <p>Status Service</p>	<p>Device Name: BL122_R_D00_09 Model No: BL122 Last Updated: 2020-02-20 13:25:33</p> <p>Secondary User</p> <p>7.15 pH 688 mV 25.0 °C</p> <p>C12 Overtime</p> <p>Status Service</p>	<p>Device Name: BL122_D00_D_19 Model No: BL122 Last Updated: 2020-02-20 13:15:33</p> <p>Secondary User</p> <p>6.71 pH 730 mV 25.0 °C</p> <p>Status Service</p>
<p>Device Name: BL122_RRND_09 OFFLINE Model No: BL122 Last Updated: 2020-02-12 11:12:53 8 Days Ago</p> <p>11.28 pH 1063 mV 25.0 °C</p> <p>ORP Control Startup Delay</p> <p>Status Service</p>	<p>Device Name: BL122_RRND_02 OFFLINE Model No: BL122 Last Updated: 2020-02-19 19:47:53 18 Hours Ago</p> <p>0.03 pH 700 mV 25.6 °C</p> <p>Status Service</p>	<p>Device Name: BL122_RRND_17 Model No: BL122 Last Updated: 2020-02-20 13:32:55</p> <p>7.59 pH 0 mV 25.1 °C</p> <p>Status Service</p>	<p>Device Name: US122_ZABF8B U4 NO PROBE Model No: BL122 Last Updated: 2020-02-27 12:33:26 F</p> <p>7.59 pH -1 mV 25.1 °C</p> <p>No probe connected</p> <p>Status Service</p>





Note: The displayed device order in the Dashboard view is set up in the Devices table view.

The three buttons available in the dashboard view are used to open detailed information regarding the installation.

-  View Device
-  Settings
-  Log History















4.2. DEVICES LIST

Click on **Devices** icon on the left column of the window. All registered devices are grouped into two sections in the table: devices where you are the primary user, and devices where you are the secondary user. The main information (model number, device ID, device allocated name, time stamp of the last update) is displayed for each registered device. The buttons from the **Action** column are used to open detailed information regarding the installation or to remove the device from your account.

-  View Device
-  Settings
-  Log History
-  Delete Device

Note: The Delete Device action is not available for secondary users (see the Secondary user section).

Table data can be ordered in ascending or descending order using **Model No**, **Device ID**, **Name** or **Status** as a criteria by pressing the icon (⇅) on the right of each column heading. This order is also applied to the dashboard view of the devices.

Device List							Add Device
My Devices							
Model No	Device ID	Name	Last Updated	Status	Action		
BL122	BL122_73A2	R0122_06D_01	2020-02-17 13:19:27	ONLINE	   		
BL122	BL122_3F4	R0122_06D_02	2020-02-17 13:30:02	ONLINE	   		
Secondary Devices							
Model No	Device ID	Name	Last Updated	Status	Action		
BL122	BL122_7AC0	BL12_RRND_19	2020-02-17 13:27:24	ONLINE	  		
BL122	BL122_7672	BL122_RRND_09	2020-02-13 07:36:39	OFFLINE	  		

The **Add Device** icon allows additional devices to be registered to your account. For details please see **CONNECTING THE INSTRUMENT TO HANNA CLOUD, ADD DEVICE** section.

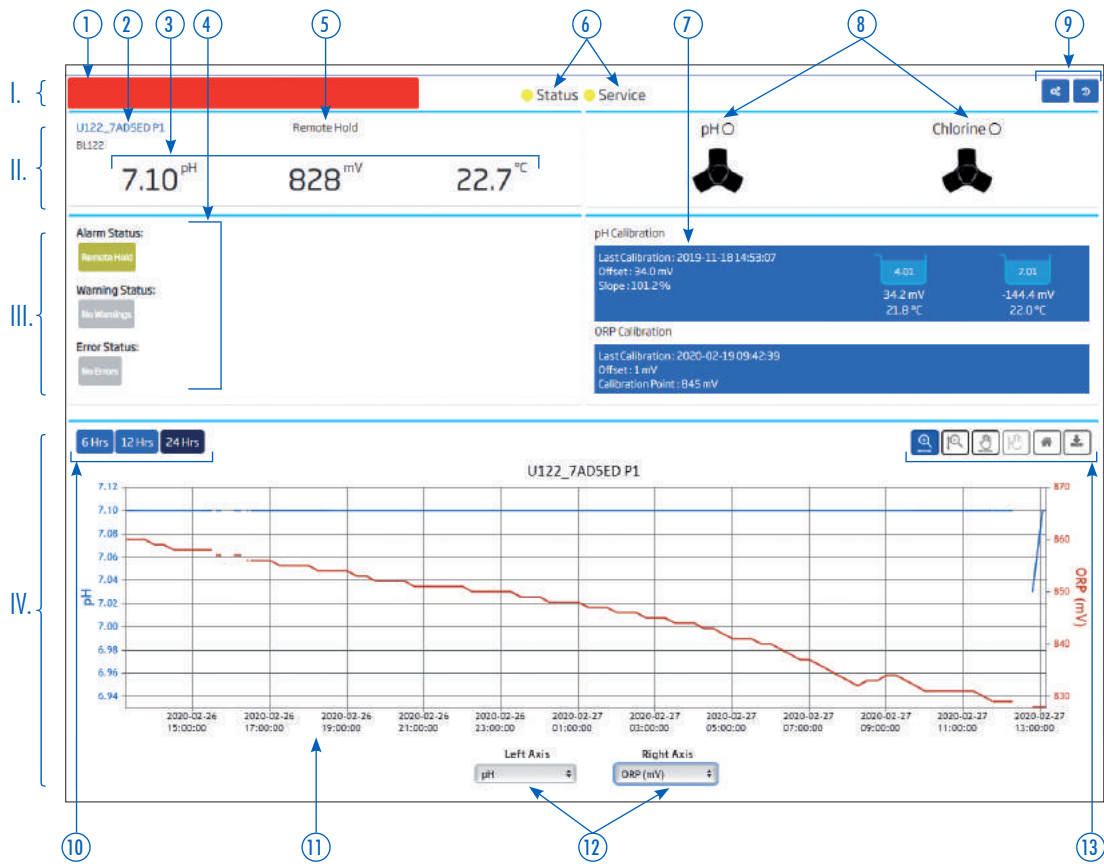
4.3. VIEW DEVICE



From the Dashboard view or the Device List, click on the **View Device** icon. The last recorded measurement and status information is displayed divided in four section.

- I.: The first section displays the Activity banner area / Offline status and the LEDs for Status and Service. The buttons on the right allow access the device's settings and log history.
- II.: The second section displays the device name and model number, the status line, the measured pH, ORP and temperature values. Pump status LED's are also visible.
- III.: The third area displays the active events group, GLP information (last pH, ORP calibration date, calibration points, offset and slope values).
- IV.: Fourth area displays a trend graph for the user-selected time interval. Selectable time options for viewing measurement trends are 6, 12, and 24 hours. Left and right axis parameters are user-selectable from pH, temperature, ORP, acid/base volume (mL), chlorine volume (mL) and "no data" options. The graph may be panned or zoomed using the set of icons located on the top right section of the graph. Zoom and Pan buttons allow the user to view more detailed measurements along the X (**X-axis zoom** icon active) or the Y (**Y-axis zoom** icon active) axis. Zooming enlarges the graph details either horizontally or vertically. Panning moves the graph left, right (**X-axis panning** icon active) up or

down (Y-axis panning icon active) to view different portions of it. **Reset** icon returns to the initial view of the graph, **Download** icon allows the user to print the graph or download as a picture (jpeg or png type file).



1. Activity banner area / Offline status
2. Device name and model number
3. Measurements
4. Active events group (alarm, warnings and error status)
5. Remote Hold status
6. LEDs for device status and service
7. GLP information, last calibration
8. Pump status
9. Icons for Settings and Log History actions
10. Time interval selection options
11. Plot of selected period for two selected parameters
12. Selection for plotted parameters
13. Icons for X-axis, Y-axis, zoom / pan options, reset and download

4.4. DEVICE SETTINGS



This icon permits the user to view the main device settings, and to modify limited device information. Notification preferences can be enabled in Notification settings. Device Setting may be connected by clicking on the Settings icon in Desktop view, in the Details view, or on the Device list. Remote Hold can be activated in General Settings tab. Settings categories are: **Device Information**, **Alarm Settings**, **Dosing Settings**, **General Settings**, **Notification Settings**, **Device Plan**.

Device Information

Device Information	Alarm Settings	Dosing Settings	General Settings	Notification Settings	Device Plan
Device Model Number	BL122	Probe Model Number	HI1037		
Device Serial Number	C01102B	Probe Serial Number	110605		
Device ID	BL122_73F4	Probe Firmware Version	1.00		
Device Firmware Version	1.02/4.1/0.08	Select Device Category	Default Category		
Controller ID	.1234	Device Name *	RD122_DDD_02		

The device name and category may be modified. Click on **Update Device** to save changes.

Alarm Settings View

Device Information	Alarm Settings	Dosing Settings	General Settings	Notification Settings	Device Plan
pH High Alarm	7.6 pH	pH Low Alarm	5.5 pH		
mV High Alarm	900 mV	mV Low Alarm	100 mV		
Temperature High Alarm	50.0 °C	Temperature Low Alarm	10.0 °C		

The pH, mV and temperature alarm values may be viewed here. For more information regarding modifying these settings, please see the instrument's Instruction manual.

Dosing Settings View

Device Information	Alarm Settings	Dosing Settings	General Settings	Notification Settings	Device Plan
Dosing Type	Acid	ORP Set Point	200 mV		
pH Set Point	6.20 pH	ORP Proportional Band	100 mV		
pH Proportional Band	0.5 pH	ORP OverTime	30 Min		
pH OverTime	30 Min	ORP FlowRate	2.2 L/h		
pH Flow Rate	2.0 L/h				

The pH and ORP dosing configuration may be viewed here. For more information regarding modifying these settings, please see the instrument's Instruction manual.

General Settings View

Device Information	Alarm Settings	Dosing Settings	General Settings	Notification Settings	Device Plan
pH Warnings & Errors	<input checked="" type="checkbox"/>	Hold Input	<input type="checkbox"/>		
ORP Warnings & Errors	<input type="checkbox"/>	Field Time Out	5 Min		
Temperature Warnings & Errors	<input type="checkbox"/>	Remote Hold (Deactivate Pumps)	<input type="checkbox"/>		

The pH, ORP and temperature warnings and errors that were enabled on the controller may be viewed here. For more information regarding modifying these settings, please see the Instrument's instruction manual.

In the case of an emergency, the pumps can be set to Hold by checking the Remote Hold checkbox and then clicking Save. After the setting has been applied, a message is displayed reflecting the Hold status. The status is also displayed on the controller's screen.

Note: The Remote Hold status can be canceled by unchecking the Remote Hold box and pressing Save and also directly from the instrument.

Notification Settings

Events Type	Notification Type		Maximum Notifications Per Day	Remaining Notifications Per Day
	Email	Push		
pH Alarms	<input type="checkbox"/>	<input type="checkbox"/>	10	10
ORP Alarms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10	10
Temperature Alarms	<input type="checkbox"/>	<input type="checkbox"/>	10	10
Remote Hold Notification	<input type="checkbox"/>	<input type="checkbox"/>	10	10
Main Power Restored	<input type="checkbox"/>	<input type="checkbox"/>	10	10
Controller Setup Changed	<input type="checkbox"/>	<input type="checkbox"/>	10	10
Service (Controller stopped)	<input type="checkbox"/>	<input type="checkbox"/>	10	10
Hardware error (Controller stopped)	<input type="checkbox"/>	<input type="checkbox"/>	10	10
Controller disconnected	<input type="checkbox"/>	<input type="checkbox"/>	10	10

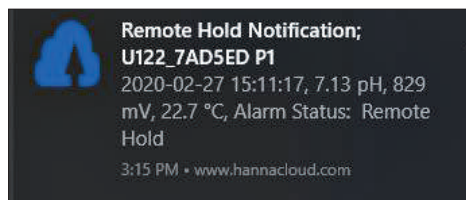
The **BL122 / BL123** events can be configured to trigger email and / or push notifications. Nine types of events may be set to send a message to the primary users and / or secondary users. The user can select the number of messages to send per day and what events to send a message for. The email and push notifications can be enabled or disabled independently for each event type. Press **Update Notification** to save your selection. The notification counter resets daily.

Email Notification

When marked, and one or more new events are triggered by the device, a detailed notification email will be sent to the primary user's account and/or to the secondary user's account. (For secondary user see Profile Settings, Secondary User tab.)

Push Notification

When marked, and one or more new events are triggered by the device, a pop-up message appears on the primary and / or secondary user's browser.



Note: For correct functionality check the notification settings of your internet browser and accept push notification when prompted.

Google Chrome: go to Settings > Advanced (Privacy & Security) > Content Settings > Notification

Mozilla Firefox: go to Settings > Preference > Permissions > Notification, or click on the Notification permission icon (🗨️) in the address bar of the website.

Microsoft Edge: click on More button in the top-right corner of the window then go to Settings > View advanced Settings > Click Manage (Website Permissions) > Manage Permissions (will display all website notifications)

Opera: click on Setting > Advanced > Privacy and Security > Content settings > Notifications

This function is currently not supported by Internet Explorer 11.

In case of iOS, the push notification is not supported.

Number of Notifications Per Day

For each event type, the primary user can define the maximum number of notifications (email and push) per day sent by Hanna Cloud. The defined number is independent from the number of users assigned to the device. The interval of a day is considered from midnight to midnight of device-time (24 hours at the device location). The number of remaining notifications is tabulated also.

If the maximum number of notifications per day is changed, the number of remaining notifications is reset. When the device-time is adjusted less than 1 hour, the new device-time reference is updated in the database and the counter is reset.

Note: *Secondary users can only check event types.*

Each message received by Hanna Cloud from a device will produce a single notification that will include the trigger and the controller status.

Event type	Event Messages
pH alarms	High or low pH
ORP alarms	High or low ORP
Temperature Alarms	High or low temperature
Remote Hold Notification	Remote hold status
Power Failed	Main power restored
Controller Setup Changed	No pH User Calibration No ORP User Calibration Controller manual mode Communication disabled pH buffer calibration pH process calibration ORP calibration Setup mode
Service (Controller Stopped)	pH or Cl ₂ overtime Hold Input Low level acid/base or Cl ₂ tank pH, ORP or temperature under range pH, ORP or temperature over range No probe connected Logging not available USB not working
Hardware Error (Controller Stopped)	HW-xxxxxxx
Controller Disconnected	--

Device Plan

Device Plan tab allows the user to view the data and information specifications available with Hanna Cloud.

Available Features	Plan
Reading Measurement	15 Minutes
Alarms	Real Time
Status	15 Minutes
Settings	View Only
Data Storage	9 Months
Logging Interval	15 Minutes
Email Notifications	Yes
Push Notifications	Yes
Report	CSV/PDF

4.5. LOG HISTORY



Instrument specific measurement data, status and GLP are logged with a time and date stamp on Hanna Cloud and can be viewed any time by accessing the Log History icon. Logged data can be filtered, downloaded and saved as a pdf or csv file.



Table View

All records are displayed in a table, starting with the most recent one. Click **Next/Previous** to scroll through records history. Click on the arrow icon to return to the top of the page. Click **Filter** to apply a time interval filter.

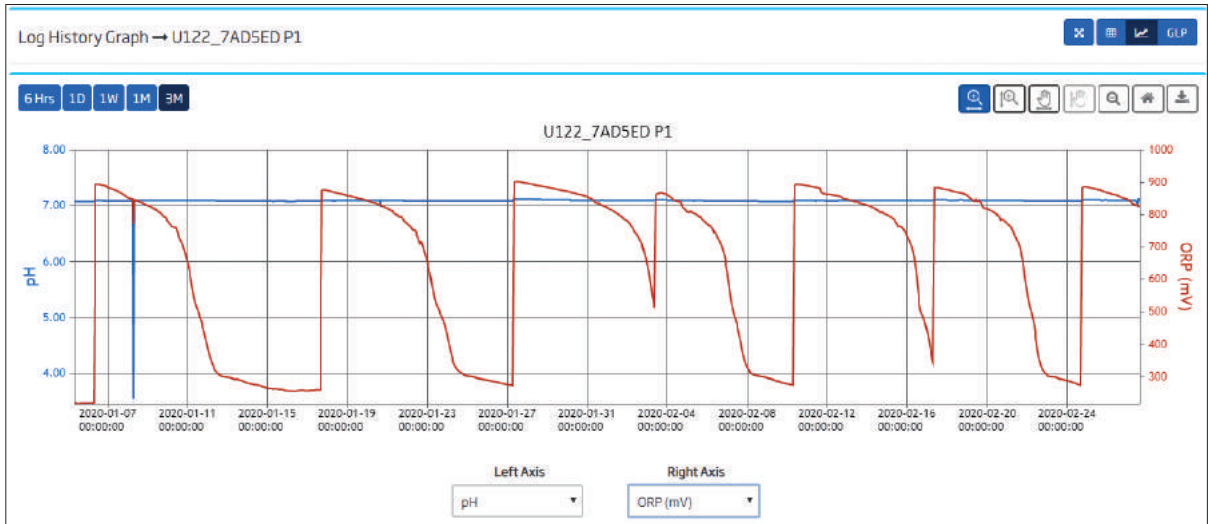
pH	ORP (mV)	Temp (°C)	Acid/Base (mL)	Cl ₂ (mL)	Device Date & Time	Status
7.32	746	25.0	269.6	0.0	2020-03-25 13:34:54	
7.32	746	25.0	0.0	0.0	2020-03-25 13:27:32	
7.32	746	25.0	13.6	0.4	2020-03-25 13:26:56	Remote Hold
6.01	743	25.0	0.0	0.0	2020-03-25 13:26:16	
1.09	743	25.0	0.0	0.0	2020-03-25 13:26:12	Low pH
0.00	743	25.0	0.0	0.0	2020-03-25 13:25:55	Low pH, pH Under Range
0.00	743	25.0	0.0	19.6	2020-03-25 13:25:53	pH Under Range
7.15	727	25.0	0.0	55.6	2020-03-25 13:19:46	
7.15	698	25.0	0.0	0.0	2020-03-25 13:14:30	
7.15	698	25.0	0.0	0.0	2020-03-25 13:04:44	Remote Hold
7.15	698	25.0	0.0	0.0	2020-03-25 12:49:43	Remote Hold
7.15	698	25.0	0.0	0.0	2020-03-25 12:34:43	Remote Hold
7.15	698	25.0	0.0	33.5	2020-03-25 12:19:43	Remote Hold
7.15	655	25.0	0.0	0.0	2020-03-25 12:13:21	
7.15	655	25.0	66.6	2.4	2020-03-25 12:13:15	pH buffer Calibration
7.33	602	25.0	13.8	0.4	2020-03-25 12:09:42	
7.22	702	25.0	0.4	0.0	2020-03-25 12:05:48	
7.22	702	25.0	0.0	0.0	2020-03-25 12:05:47	Controller Manual Mode
7.22	702	25.0	0.0	0.0	2020-03-25 12:05:42	pH Control Startup Delay, ORP Control Startup Delay, High ORP
7.22	702	25.0	0.0	0.0	2020-03-25 12:05:21	pH Control Startup Delay, ORP Control Startup Delay, High ORP
7.22	702	25.0	0.0	0.0	2020-03-25 12:05:07	Remote Hold, pH Control Startup Delay, ORP Control Startup Del...
7.22	702	25.0	0.0	0.0	2020-03-25 12:04:57	pH Control Startup Delay, ORP Control Startup Delay, High ORP



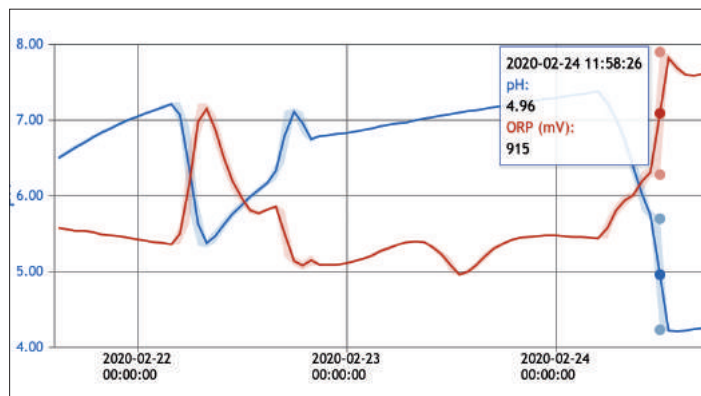
Graph View

Two out of five recorded parameters can be plotted together on a graph.

1. Select the parameters to be plotted on left axis and right axis.
2. Select the time scale 6 Hrs, 1D, 1W, 1M, 3M.
3. Zoom / pan icons are available on X or Y axis by selection.
4. **Zoom Out One Level** icon returns the graph to the previous scale (available after first zoom action).
5. **Reset** icon returns the graph to the initial scale.
6. The graph can be printed or downloaded (in jpeg or png format - **Download** icon).



Graph view uses the auto-scaling method for both X and Y axes and has different representation depending on the selected interval. When 6 hours or 1 day is selected, actual data is displayed. When a time interval equal to or greater than 1 week is selected, the measured values are displayed statistically. The shaded band represents the range of measurements, and the solid line the average value. When the cursor is moved inside the shaded area, the average values for the selected parameters are displayed.



Zoom & Panning the Graph

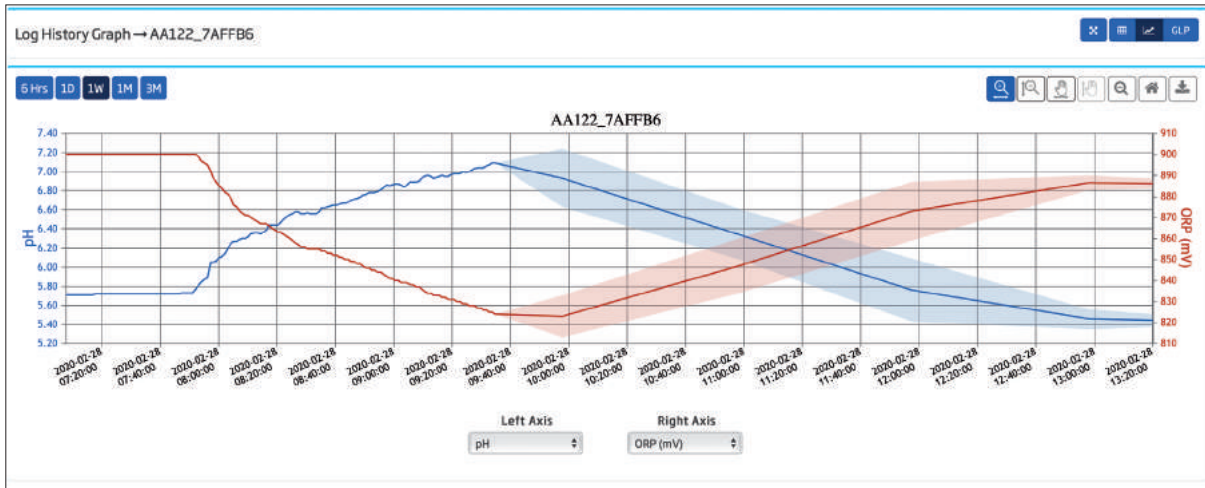
The **X-axis zoom** and **Y-axis zoom** icons allow actual values in the selected area to be viewed. You can zoom in on the graph by clicking one of them then dragging the graph. This will reset the scale on the appropriate axis thus permitting individual data points (not averages) to be examined.

After zooming a graph, the pan function can be applied to the graph. The **X-axis panning** and **Y-axis panning** icons allow the user to move the view of the graph (perhaps to center it to download an image). The **X-axis panning** icon permits the user to move it left or right. The **Y-axis panning** icon permits the user to move it up or down.

Individual data points are displayed in the zoom view period.

A single parameter may be panned (after zooming), by clicking on the pan icon then one of the vertical axes, which will turn green.

Note: The download function may be used with the graph. The graph may be printed or downloaded as a jpeg or png.



GLP GLP View

All instrument calibration history is logged on Hanna Cloud. The GLP information for each calibration can be accessed in the Log History panel, both table or graph view, by pressing the **GLP** button. pH and ORP calibration data are displayed in separate tabs.

Calibration → BL12_RRND_19

pH Calibration

Calibration Date	Offset (mV)	Slope (%)	Calibration Point 1	Calibration Point 2
2020-02-13 15:15:11	-6.8	86.6	6.33 pH	
2020-02-13 08:59:19	10.2	107.2	7.01 pH	
2020-02-13 08:59:02	10.3	107.2	4.01 pH 20.3 mV, 25.0 °C	7.01 pH, -170.0 mV, 25.0 °C
2020-02-12 17:18:03	1.6	97.3	7.15 pH	
2020-02-12 17:11:21	1.6	97.3	7.01 pH, -169.1 mV, 25.0 °C	10.01 pH, -341.9 mV, 25.0 °C
2020-01-16 07:27:58	-24.5	97.5	6.90 pH	

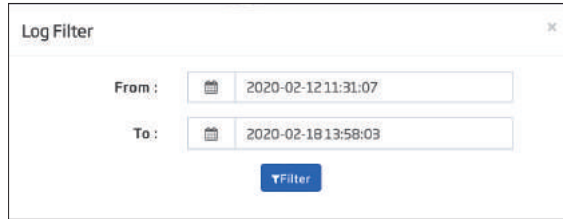
Calibration → BL12_RRND_19

ORP Calibration

Calibration Date	Set Point (mV)	Offset (mV)
2020-02-17 15:13:41	395	0
2020-03-16 00:00:06	0	0
2020-02-12 17:17:31	327	0
2020-01-16 07:28:22	720	-1

Download Log & Calibration History

To save and export desired records, select the time interval in Log history table view, click on **Filter** to filter data and click on the **Download** button.



Log Filter

From :

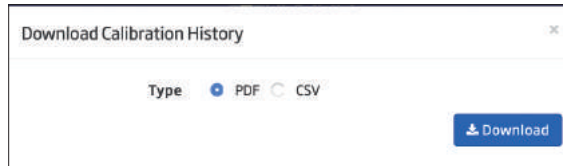
To :



Download Log History

Type PDF CSV

The procedure is similar when saving and exporting the calibration history; click on the **Download** button when in pH or ORP calibration tab.

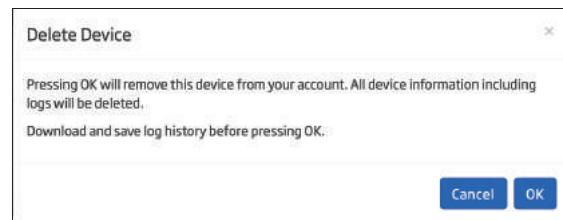


Download Calibration History

Type PDF CSV

4.6. DELETE DEVICE

Any registered device can be deleted from user device list. Click on the **Delete Device** button in the Action column. A warning message appears to inform the user that all device information, including logged data, will be deleted. Logged data can be saved, if needed. Press **OK** to confirm deleting.



Delete Device

Pressing OK will remove this device from your account. All device information including logs will be deleted.

Download and save log history before pressing OK.

Note: This option is not available for secondary users.

5. PROFILE

Profile information and settings can be accessed by clicking on the user's name and then on **Profile** button. Options: **Profile Info**, **Change Password**, **General Settings**, **Device Category**, **Secondary User**.

5.1. PROFILE INFO

The screenshot shows the 'Profile Settings' page with the 'Profile Info' tab selected. The form includes the following fields:

- Email: johndoe@kannanet.com
- Address 2: Address 2
- First Name: John
- City: City
- Last Name: Smith
- State: State
- Company Name: Company Name
- Zip Code: Zip Code
- Mobile Number: Mobile Number
- Country: Select country
- Address 1: Address 1

At the bottom, there are buttons for 'Privacy Policy', 'Delete Account', and 'Save'.

Press **Privacy Policy** to review.

Press **Save** button after updating to save modifications in Hanna Cloud database.

To delete the profile details, press **Delete Account** button. A notification email will be sent after confirmation. All user data will be deleted from Hanna Cloud database.

5.2. CHANGE PASSWORD

The screenshot shows the 'Profile Settings' page with the 'Change Password' tab selected. The form includes the following fields:

- Old Password *
- New Password * (Note: Use 8 or more characters with a mix of letters, numbers & special characters)
- Confirm Password *

At the bottom right, there is a 'Change Password' button.

A use of 8 or more characters with a mix of letters, numbers and special characters is required for a valid password. Click on **Change Password** after updating.

5.3. GENERAL SETTINGS

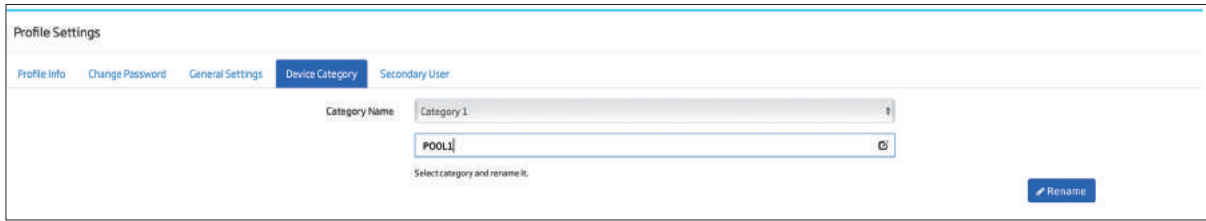
The screenshot shows the 'Profile Settings' page with the 'General Settings' tab selected. The form includes the following settings:

- Date Format: YYYY-MM-DD
- Time Format: 24 Hour
- Temperature Unit: °C (selected) / °F
- Dashboard View: Detailed
- Language: English

At the bottom right, there is a 'Save' button.

Date format, time format, temperature unit displayed on application screens, dashboard view and language can be set by selecting the desired one and clicking **Save** button.

5.4. DEVICE CATEGORY



Devices can be grouped in user-defined categories by renaming a predefined category and clicking on **Rename** button.

5.5. SECONDARY USERS

The Secondary User tab allows the primary user to request an individual to become a secondary user for the device.

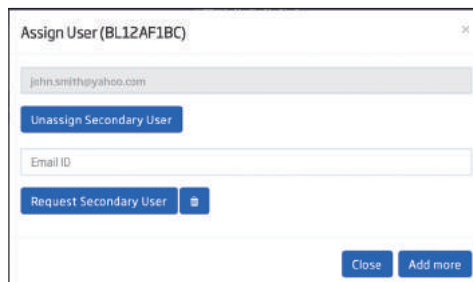
Note: *The secondary user must be registered on Hanna Cloud before assigning to a device.*



Request Device Assignment to a Secondary User

In **My Devices** tab select the device to be assigned and click **Assign User** button.

To register a person as a secondary user, write the user's email and click **Request Secondary User** button. **Add more** button allows to assign the device to more secondary users. A notification email will be sent to the inserted email address and "Secondary user request pending." message is displayed until confirmation.



Unassign Secondary User from Device

In **My Devices** tab select the allocated device and click **Assign User** button.

In the window appeared all assigned secondary users are listed. Click **Unassign Secondary User** button of the device to be unassigned. A notification email will be sent to the secondary user email account and "Device unassigned successfully." message is displayed.

Unassign Device as Secondary User

All devices allocated as a secondary user are displayed in the Secondary Devices tab with the owner's email address. To remove yourself as a secondary user, click **Unassign Device**. The owner will receive a notification email.



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