# BAYROL Poolaccess Web portal

Version 1.1

GB

## User Manual

**BAYROL Poolaccess Web portal for PoolManager® and Analyt controllers**
**www.bayrol-poolaccess.net (.com / .eu / .de / .fr / .es / .ch / .at)**



**Compatible with**

**PoolManager®**
**PoolManager® PRO**
**Analyt**

## Table of Contents

# 1 Identification of safety information

Please refer to the information concerning the identification of safety information in your PoolManager® or Analyt user manual.

# 2 General safety information

**HAZARD!**

Please follow the general safety information in your PoolManager® or Analyt user manual carefully.

## 2.1 Security recommendations and remaining risks

The BAYROL Web portal enables remote access to PoolManager® and Analyt controllers from the internet.

**HAZARD!**

**Unauthorized access**

Despite the use of the latest and most-sophisticated security mechanisms, permission of remote access always implies a remaining risk of unauthorized access. Unauthorized access my cause dangerous settings.

**Potential consequence: Death or the gravest degree of injury, damage of property.**

- Do not use trivial user names and passwords.
- Treat user names and passwords strictly confidential.
- Limit the user access rights in remote access according to your personal security requirements.
- Do not set the access rights in remote access higher than necessary for your purposes.

The Web portal is protected according to the current state of the art against unauthorized access:

- Secure VPN connections from the devices to the Web portal
- SSL encryption of the connection from the user to the Web portal
- The registration for a device will only be accepted, if the secret and device-specific Web portal PIN is entered correctly on the device.

Thanks to all these precautions, the risk of unauthorized access is minimal. However, it can never be 100 % excluded.

With logging on to the Web portal, you acknowledge that you are aware of the general risks related with remote access, and that you accept them. BAYROL assumes no liability for any damage caused by improper or incorrect use of the Web portal.

For maximum security, please note the following recommendations:

- Keep your access data always confidential.
- Do not use the option to store the access data for your devices in the Web portal, but always enter them manually.
- Do not use the default codes for menu access on the device, but replace them with your own codes.

# 3 Notes on data protection

All personal data entered on the Web portal is used exclusively for the operation of the Web portal.

The data is explicitly not used for other purposes or disclosed to third parties.

No additional device data is stored in the Web portal except the data you enter and data necessary for the operation of the Web portal.

The Web portal is a gateway and forwards all communication between the user and the device transparently.

BAYROL expressly warrants there is no unauthorized access to devices, which are registered on the Web portal, by BAYROL or third parties.

BAYROL reserves the right to use the Web portal to collect statistical data, which is neither personal nor related to specific devices (e.g. "How many devices are registered?" or "How many accesses occur?").

# 4 User qualification

Please refer to the different user qualifications as defined in your PoolManager® or Analyt user manual.

# 5 Network Connection

**Required user qualification:**
**IT SPECIALIST**

The network connection should be done by an IT SPECIALIST as defined in the chapter *User qualification* in your PoolManager® or Analyt user manual.

The PoolManager® or Analyt controller must first be connected to a local network with a connection to the internet. The local network must allow the controller for internet access.

The PoolManager® or Analyt controller builds up a secure VPN connection to the Web portal over the Internet connection (VPN = "virtual private network").

The connection to a local network is described in detail in your PoolManager® or Analyt user manual (chapter 45 "Network connection"). Please proceed according to these instructions.

The VPN connection to the Web portal uses the TCP/IP port 1701. It must be ensured that connections from the local network to the Internet via this port are possible, and cannot be blocked by firewalls or other mechanisms.

If necessary, an IT specialist must adjust the configuration of the local network to meet all necessary requirements.

In most cases, the available standard network configuration should work without any modifications.

# 6 Overview

The PoolManager® (PM5) controller family supports a comfortable and fully transparent remote access from local networks and from the Internet.

For a much easier setup of the Internet connection for remote access, BAYROL has developed a central Web portal, which connects a user to one or more PoolManager® controllers in an easy and comfortable way.

## 6.1 Access to the Web portal

The Web portal is available at the following fixed address (URL) in the Internet:

**http://www.bayrol-poolaccess.net (.com / .eu)**

A user must first login to the Web portal with a user name and a password.

After successful login, a list will be displayed of all PoolManager® controllers, for which the user is registered.

By simply clicking on one of the controllers in the list, the Web portal establishes a direct connection to the selected controller, which provides full remote access to the user.

A user must register once for a new controller by entering the serial number of the device on the Web portal. The Web portal generates a security code, the so-called Web portal PIN, which is specific for the controller with the given serial No. The generated Web portal PIN must then be entered correctly in a menu on the controller. After that, the Web portal function can be enabled on the controller, and the controller automatically connects to the Web portal with a permanent secure VPN connection ("virtual private network").

Multiple users can register for the same controller, e.g. the service technician and the pool owner. In this case all registered users have access to the device via the Web portal independent of each other.

# 7 Advantages of the Web portal

The existing possibilities of comfortable transparent remote access to PoolManager® devices remain unchanged and can still fully be used. The Web portal is an extension and essential simplification of the existing concept for remote access.

It offers the following advantages:

- The Web portal eliminates the need to have a fixed IP address (the Internet address) or alternatively to set up a so-called "dynamic DNS service". Also the possible cost for a static IP address or for the use of a "dynamic DNS service" are eliminated.
- With the Web portal there is no need any more to set up a so-called "port forwarding" in the network router of the user to allow for remote access to the PoolManager® controller rom the Internet.
- Profound IT expertise is no longer needed.
- The Web Portal also enables an easy Internet connection of a PoolManager® controller via mobile data services (GSM, UMTS, LTE), if no wired Internet access is available on site.

# 8 Required PoolManager® software version

**ADVICE**

**Required PoolManager® software for the use of the BAYROL Poolaccess Web portal**

To register a controller at the Web portal, the following software version or a later one must be installed on the device:

**v150715-M1 (5.9.1)**

If necessary, please perform a software update via USB stick as described in the PoolManager® manual.

# 9 Overview - step by step

## 9.1 Preparation of the controller

1. Software update of the controller

   Perform a software update to the version v150715 (5.9.1) or a later version, if the installed version is too old.

   Download of the current software version from the Download Center:

2. Serial number of the device

   The serial number of the device is required to log into the Web portal. Make a note of the serial number. You can find the serial number of the device as follows:

   (Format e.g. ADDA01234F12, on the type plate on the left side of the controller housing or click 🏠 and then ⚠ in the menu).
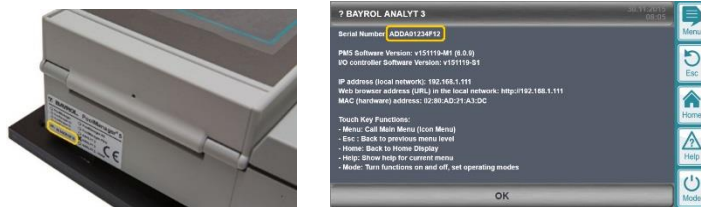
## 9.2 Set up a user account on the Web portal

3. Use the Web browser of your computer or another Internet-enabled device to connect to the BAYROL Poolaccess Web portal: **http://www.bayrol-poolaccess.net (.com / .eu)**

4. Create a user account on the Web portal (valid e-mail address required).

## 9.3 Register one or more devices on the Web portal

5. Register one or more devices on the Web portal (serial number(s) of the device(s) required to register).

6. For each registered device, the Web portal generates a 6-digit security code, the so-called Web portal PIN. Note the Web portal PINs for all registered devices (case sensitive!).
   The Web portal PIN must be entered absolutely error-free on the device to connect it to the Web portal.

## 9.4 Configuration and activation of the Web portal connection on the device

7. Go the menu "communication & interfaces" > "Web portal" on the device

8. Enter the Web portal PIN for the device correctly (case sensitive!)

9. Set "Use Web portal" to "Active"

10. Press the button "Initialize Web portal connection" to connect the device to the Web portal

11. If the "Connection status" "✓ Web portal connected" is displayed, the device is connected to the Web portal
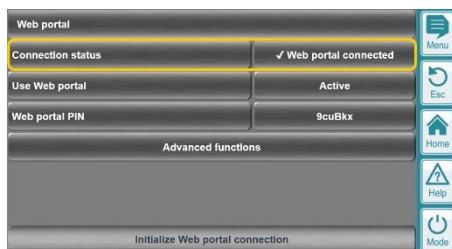
## 9.5 Check the connection on the Web portal

12. Login to the Web portal. Check whether the connected devices now correctly appear in your list of controllers.

# 10 Detailed step by step instructions

## 10.1 Create a user account on the Web portal

| | |
|---|---|
|  | (1) In the address bar of your Web browser, enter the address of the BAYROL Poolaccess Web portal: **http://www.bayrol-poolaccess.net (.com / .eu)** |
|  | (1) In the menu bar, click on "CREATE NEW ACCOUNT" |
|  | (1) Enter your name.<br>(2) Enter a valid e-mail address on which you can receive a confirmation e-mail from the Web portal<br>(3) Enter the desired password for your user account.<br>- Don't use trivial passwords<br>- The minimum password length is 6 characters<br>- Use a combination of uppercase and lowercase letters and digits<br>Note the selected password in a safe place.<br>(4) Enter the security code displayed right next to the input field correctly (case sensitive).<br>(5) Click on the link "Terms of use" and then confirm them by ticking the checkbox<br>(6) Press the button "Create new account" |
|  | (1) An e-mail to the specified e-mail address will be sent for verification. |
|  | (1) Open the received verification e-mail in your e-mail program and click on the link provided in the e-mail. |
|  | (1) Done! Now you can login to the Web portal at any time with your e-mail address and password. |

## 10.2    First registration of a controller at the Web portal

| | |
|---|---|
|  | (1)  Determine the serial number of the controller to be registered (format e.g. ADDA01234F12 - you find the serial No. on the type plate on the left side of the controller housing or by clicking [Home] and then [Help] in the menu).<br><br>Do not use the system serial number, which is attached to the system base plate! |
|  | (1)  After setting up a new user account, the device list is initially empty. Select "REGISTER CONTROLLER" in the menu. |
|  | (1)  Enter the controller's serial number correctly. The registration only works if the serial number is entered absolutely error-free.<br>  - All characters must follow directly after each other without any spaces.<br>  - Uppercase letters may also be entered in lowercase<br>(2)  Enter the security code displayed right next to the input field correctly (case sensitive).<br>(3)  Press the button "Register controller" |
|  | (1)  The Web portal generates a 6-digit security code, the so-called Web portal PIN. Note the Web portal PIN for later input on the controller. Do this very accurately, because the Web portal PIN must be entered completely error-free. Consider upper - and lowercase.<br>(2)  Confirm with "OK" |
|  | (1)  The device with the corresponding serial number will now appear in the device list. But still no data appears until the Web portal PIN is entered correctly on the controller<br>and the connection established. |

### 10.2.1 Second registration of a controller

If a user has already registered a controller in his account, and then another user wants to register for the same device, the procedure is as follows:

| | |
|---|---|
| **Determine the Web portal-PIN** | |
| For registration you need the Web portal PIN of the controller that was created during the initial registration by the first user. You get it from the user who carried out the initial registration. Alternatively you can look into the Web portal menu of the controller. The Web portal PIN is displayed there. | |
| **Registration of the controller at the Web portal** | |
| Perform the first steps of the registration according to the procedure described above. | |



(1)  In the dialog shown here, enter the existing Web portal PIN of the controller correctly. Registration only works if the serial number is entered absolutely error-free.
- All characters must follow directly after each other without any spaces.
- Uppercase letters may also be entered in lowercase

(2)  Press the button "Register controller

## 10.3 Configuration and activation of the Web portal function on the controller

**Software update**

Perform a software update of your PoolManager® or Analyt controller to the version v150715 (5.9.1) or a later version, if the installed version is too old. The current software release is available from the Download Center, which can be accessed directly via a link from the Web portal. Earlier in this document you find further information about the software update procedure.

**Connect to the local network**

**Note: Please follow the detailed description in your PoolManager® or Analyt user manual for network connection (chapter 45 "Network connection").**

Connect the controller to the local area network on site, as described in the user manual of the controller.
Nothing has changed in this procedure.

Then, verify that you can access the controller from the Web browser of a computer or another device connected to the same local network. In the address bar of your Web browser, enter the IP address which has been assigned to the PoolManager® controller during network configuration.

The local network, to which the PoolManager® controller is now connected, must have a connection to the Internet. If you can browse the Internet from your PC or other devices in the local network, an Internet connection is available. The PoolManager® controller can connect to the Web portal via the Internet connection of the local network.

A fixed IP address, the setup of a DynDNS service or of a port forwarding in the network router on site is *not needed* for the Web portal connection!

**„Web portal" menu**

Start the PoolManager® controller and navigate to the new Web portal menu:

Menu  >  Communication & Interfaces  >  Web portal



(1)  The connection status is "! Deactivated in menu" is displayed, because the Web portal function has not yet been activated,

(2)  "Use Web portal" is set to "inactive" in the delivery state

(3)  The display ****** indicates that no Web portal PIN has been entered yet

(4)  Submenu call for "Advanced functions"

| | |
|---|---|
|  | (1) Enter the Web portal-PIN for this controller correctly. Registration works only if the Web portal-PIN is entered absolutely error-free.<br>- Pay attention to upper and lower case letters!<br>- All characters must follow directly after each other without any spaces.<br><br>(2) Change the setting "Use Web portal" to "Active"<br><br>(3) Because the connection to the Web portal has not yet been initialized, the connection status "! Missing configuration" is displayed.<br><br>(4) Press the button "Initialize Web portal connection" to connect the controller to the Web portal. |
|  | (1) During the connection process, the current connection status is displayed:<br>- Config. successful<br>- Connecting…<br>- Verifying connection… |
|  | (1) After successful connection to the Web portal the connection status "✓ Web portal connected" is displayed. |
|  | (1) The successful connection is also indicated in the Home view: "Web portal ✓". |
|  | (1) After successful connection, the device data now appear in "List of controllers" in the Web portal. |

# 11    List of Controllers

The central view in the Web portal is the list of controllers.



(1)   Call the menu "SETTINGS"
(2)   Call the menu "REGISTER CONTROLLER"
(3)   Link to the "DOWNLOAD CENTER"
(4)   Select Web portal menu language
(5)   Device list with a row for each registered controller
(6)   Symbol for "Status green: OK, no alarms"
(7)   Symbol for "Status yellow: information" (for example, if the filter pump not running)
(8)   Symbol for "Status red: alarm!"
(9)   Symbol for "No connection"
(10)  Session status and logout button
(11)  Link to the imprint and terms of use
(12)  Search for a specific controller in the list



(1)   Display of controller data that you can freely define and edit at any time. The list of controllers is alphabetically sorted according to the first row of the controller data. You can enter a number here, for example, to achieve a specific display order in the list.
(2)   Status symbol green / yellow / red / no connection
(3)   Display of the current controller data
(4)   Display of the controller's serial number, device type and installed software version



(1)   Click in this box or directly on the link "Edit controller data" to edit the controller data
(2)   For direct remote access to a controller, click in this box or directly on the link "Direct access"



Direct access from the Web portal is identical to the known, fully transparent direct remote access.
(1)   Display of the first row of the controller data
(2)   Button "x" to close the direct access window. Alternatively, you can click on "LIST OF CONTROLLERS" in the menu bar to close the window.

## 12    Controller data

In the menu "Edit controller data", information about the controller is displayed and the user-specific controller data can be entered or edited.

| | |
|---|---|
|  | (1)   Display of the serial No., status and Web portal-PIN of the controller |
| | (2)   Here you can store a user name ("individual user") for the controller login in direct access. |
| | (3)   Here you can store the corresponding password for the entered user name. |
| | If a valid user name and the corresponding password are entered correctly, the login page of the controller will be skipped in direct access. |
| | Even if the Web portal is protected against unauthorized access according to the latest state of the art against, we recommend not to store user name and password in the Web portal, and to enter the login data manually instead. |
| | (4)   Line 1 of user-defined controller data that appears in the list of controllers (e.g. customer name) |
| | (5)   Line 2 of user-defined controller data that appears in the list of controllers (e.g. customer's address) |
| | (6)   Line 3 of user-defined controller data that appears in the list of controllers (e.g. customer's address) |
| | (7)   Option to initialize a new registration of the controller. This is required only in case of problems. |
| | (8)   "Apply changes" stores the entered new data or modified data |
| | (9)   "Cancel" discards the entered new data or modified data |
| | (10) This option can be used to correct the serial number of the controller, if it has been accidentally mistyped. |
| | (11) This option can be used to remove the device completely from the list of controllers and from your user account. |

# 13 Settings

In the "Settings" menu, you can find some settings related to your user account.

<table>
<tr><td>



</td><td>

(1) Display of your user name and your e-mail address

(2) Here you can enter a new user name for your Web portal account. The associated e-mail address cannot be changed, but only the displayed user name

(3) Here you must correctly enter your previous password, if you want to change the password for your Web portal account.

(4) Here you enter your desired new password for a password change for your Web portal account.

(5) Here you enter the desired new password a second time to prevent typing errors.

(6) "Apply changes" stores the entered new data or modified data

(7) "Cancel" discards the entered new data or modified data

(8) With this option you can delete your account completely and irrevocably.

</td></tr>
</table>

# 14 Displays and menus on the controller

<table>
<tr><td>



</td><td>

(1) The home view shows the status of the Web portal, as well as the numbers of all current remote accesses. A direct jump to the "Web portal" menu is carried out by clicking on this field.

**Status of the Web portal**

Web portal ✓     The controller is connected to the Web portal. Everything is alright.

Web portal **x**     No Web portal connection: Check connection.

Web portal off     The Web portal function has been deactivated in the „Web portal" menu

**Current number of remote accesses**

Example:

1 LAN / 1 Web / 2 Web portal ✓

Currently there is one remote access from the local network (LAN), another one directly from the Internet (Web) and two via the Web portal.

The tick behind 'Web portal' indicates that the connection to the Web portal is up and running.

</td></tr>
<tr><td>



</td><td>

(1) In the "Advanced functions" submenu, the controller can be deleted from the Web portal completely and irrevocably. This requires a connection to the Web portal.

</td></tr>
</table>

## 15 Error messages and troubleshooting

### 15.1 Error messages in the Web portal

The following error messages may occur in different situations on the Web Portal:

| | |
|---|---|
| Wrong user name or password! | The user name, the password, or both are wrong. Please check your input. Pay attention to uppercase and lowercase letters for the password. Use the option "Forgot password?" if necessary. |
| Wrong safety code! The entered safety code is not correct! | The security code (the so-called "CAPTCHA") is not correct. You will automatically receive a new security code and can repeat the input. |
| The format of the entered e-mail address (= user name) is not correct! | Please check the entered e-mail address, which shall be used as user name. |
| This e-mail address has already been registered! | A user account on the Web portal already exists for the specified e-mail address. Use the existing account or use a different e-mail address. |
| Invalid format of the controller serial No. The entered controller serial No. is not correct. Please check the serial No. and correct your input. | Please check the entered serial number. It is not in the correct format (e.g. ADDA01234F13). |
| The entered password is too weak. It must have at least 6 characters and contain uppercase and lowercase letters and digits! | Please enter a password that meets the specified criteria. |
| The passwords are not identical! | The two inputs "New password" and "New password (confirmation)" do not match. Please repeat your input. |
| The old password is wrong! | The "Old password" input is not correct. Please repeat your input. Pay attention to upper and lower case. |
| The entered Web portal PIN is not correct. Please check the Web portal PIN and correct your input. Please note upper and lower case. | Please check the entered Web portal PIN in the menu on the controller or ask the administrator for the correct Web portal PIN again. The administrator is the one who has first registered this controller on the Web portal. Pay attention to uppercase and lowercase letters in the Web portal PIN. |
| Please accept the terms of use! | Please place a tick to accept the terms of use of the Web portal. |
| Access is locked! Access denied for this controller Connection to the controller has been deactivated | The access to the account or to individual controllers has been blocked through automatic security mechanisms. Please contact the BAYROL service. |
| The controller has not been registered at the Web portal | The device has not been registered on the Web portal. Perform the necessary steps in the "Web portal" to initialize the connection and to register the device on the Web portal. Follow the description earlier in this document. |
| This controller has already been registered for your account | The device with this serial number has already been registered in your account. |
| An error occurred! | An unknown error has occurred. Please repeat the process. In case the error occurs repeatedly, please contact the BAYROL service. |
| Controller data record could not be created | An error occurred during registration of the controller. Please repeat the process. In case the error occurs repeatedly, please contact the BAYROL service. |
| No connection to the controller Controller cannot be connected | The controller is not connected to the Web portal. Please check the controller and its connection to the local network. Make sure that a connection to the Internet is possible via the local network. If you use WiFi or powerline connection, please make sure that they work properly. Use other devices (computers or mobile devices) to verify that access to the Internet is possible from the local area network. |
| Transmission error from the controller | A transmission error has occurred while communicating with the controller. Please repeat the process. In case the error occurs repeatedly, please contact the BAYROL service. |
| Web portal session expired | The Web portal session has expired and terminated automatically. Please login again. |

## 15.2 Error and status messages on the controller
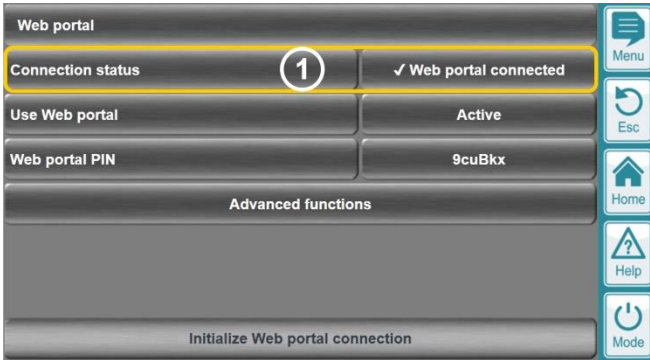


Error and status messages from the following table can be displayed as "connection status" in the Web portal menu.

| ✓ Web portal connected | The controller is connected to the Web portal and can be accessed via the Web portal. |
|---|---|
| ! Not connected | The device is currently not connected to Web portal.<br>It automatically and continuously attempts to establish the connection. |
| Connecting... | The automatic connection procedure to the Web portal is currently in progress. |
| Verifying connection... | It is verified whether the configuration of the VPN connection is correct and all encryption keys are valid. |
| Loading configuration... | The configuration for the VPN connection is currently downloaded from the Web portal. |
| ✓ Configuration done | The configuration for the VPN connection was successfully downloaded from the Web portal and has been verified. |
| ! Wrong Web portal PIN | The Web portal PIN entered on the controller does not match the Web portal PIN stored in the Web portal for this controller. Please check the Web portal PIN entered on the controller and the PIN in the Web portal (in the "Edit controller data" menu) and correct your input if necessary. |
| ✓ Configuration OK | The controller has already been successfully registered at Web portal before. |
| ! Serial No unknown. | The serial number of the controller is not known on the Web portal.<br>Please check the serial number entered on the Web portal and correct it if necessary (in the "Edit controller data" menu). |
| ! Can't connect server | The connection to the Web Portal could not be established.<br>It is not possible to build a VPN connection to the Web portal.<br>Possibly VPN connections are blocked by your network's firewall (used VPN port = 1701). |
| ! Internal server error | An internal error occurred on the Web portal Server.<br>Please contact the BAYROL service. |
| ! No internet connection | The connection to the Web Portal could not be established because the controller does not have a working Internet connection. An attempt was made to contact the Internet, but it failed.<br>Please connect the controller to your local network and make sure that a connection to the Internet is possible via the local network. If you use WiFi or powerline connections, please make sure that they work properly. Use other devices (computers or mobile devices) to verify that access to the Internet is possible from the local area network. |
| ! Invalid configuration<br>! Missing configuration | Missing or invalid VPN configuration!<br>The connection to the Web Portal could not be established.<br>The device does not have a valid VPN configuration.<br>Please select the option "Initiate new registration of the controller" in the menu "Edit controller data" on the Web portal. Then you can reinitialize the connection to the Web portal on the controller (button "Initialize Web portal connection" in the "Web portal" menu) and the missing VPN configuration will automatically be downloaded. |
| ! Can't read status | The Web portal connection status cannot be determined because of an unknown error.<br>Please contact the BAYROL service. |
| ! Deactivated in menu | The Web portal function is disabled in the menu.<br>Set "Use Web portal" to "Active", if you want to use the Web portal function. |