

Overview of all Software Versions

Analyt / PoolManager® / PoolManager® PRO
(5th generation „PoolManager® 5“ / „PM5“)



Valid for

Analyt
PoolManager®
PoolManager® PRO

1 Overview of all PoolManager® 5 software releases up till version v260404 (9.2.0)

Advice: The current installed software version on an Analyt or PoolManager® controller can be displayed by pressing the „Help“ hotkey while in the „Home“ view

Version	Release Date	
v260404-M1 (9.2.0)	04.04.2026	<p>Verbesserungen</p> <p>Alarm hysteresis to prevent repeated e-mails</p> <ul style="list-style-type: none"> All threshold-based alarms (pH, chlorine, redox, temperature) now use a fixed hysteresis. For measured values close to an alarm limit, this reliably prevents repeated alarm and all-clear e-mails. <p>Backwash at high tank level: hysteresis for re-triggering</p> <ul style="list-style-type: none"> New parameter "Allow new backwash if level drops by" (1–50 cm, default 10 cm): The trigger is only re-armed once the level has dropped by at least this value below the trigger level. This prevents multiple backwashes when the tank level stays close to the threshold. The default BTC sensitivity has been adjusted to 40.00 µA/cm (improved sensor version). <p>Mode menu: Auto/Off buttons for balance tank control and backwash</p> <ul style="list-style-type: none"> Both functions now have their own Auto/Off button in the mode menu. When set to "Off" on the balance tank control, all functions are stopped (refill, dry-run protection, overflow). The visibility of both buttons in the mode and context menus can be configured individually. <p>MQTT: Intelligent reconnect behaviour</p> <ul style="list-style-type: none"> In case of an incorrect PIN, the connection attempt is repeated with an increasing delay. For temporary network issues, however, reconnection takes place without any delay. <p>Further improvements</p> <ul style="list-style-type: none"> Several help texts and translations have been revised and improved.

Version	Release Date	
v260404-M1 (9.2.0)	04.04.2026	<p>Behobene Probleme</p> <p>Correct monitoring of the maximum operating time of switching functions</p> <ul style="list-style-type: none"> In some cases, the internal timer was not reset correctly — in particular when the output was briefly inactive between two activation cycles. As a result, the monitoring could trigger too early and switch off the output although the actual operating time had not yet been reached. The timer is now reliably reset as soon as the output is inactive. <p>Correct display of dosing quantities</p> <ul style="list-style-type: none"> For O2/Bayrosoft and magnet dosing pumps (pH, Cl, Redox), the calculated dosing quantity shown in the measurement graph and the event log could be higher than the quantity actually dosed. The dosing itself was always correct — only the displayed value has been corrected. <p>Name for universal switching function 4</p> <ul style="list-style-type: none"> The name for universal switching function 4 in the switching programs has been corrected (previously, the name of switching function 3 was shown). <p>Canister remaining quantity and switching output blocking</p> <ul style="list-style-type: none"> Incorrect canister remaining quantities detected at system start (e.g. negative values) are now recognised and reset to the correct value. In addition, an inactive switching output no longer falsely blocks the dosing. <p>"Switch all outputs off" now covers all functions</p> <ul style="list-style-type: none"> Additionally covered: balance tank control, backwash, whirlpool, as well as all pump variants (Eco, Normal, High and their combinations). <p>Web portal and loading a system configuration</p> <ul style="list-style-type: none"> Status updates in the web portal are now faster; unnecessary system load with the web portal deactivated has been eliminated. When a saved configuration is loaded from a USB stick, the web portal is now automatically deactivated before the process and restored afterwards.

Version	Release Date	
v240729-M1 (9.1.1)	29.07.2024	<p>Improvements</p> <p>Deactivation of the Web portal in the menu is now immediately effective, not only after a restart of the device The following events of the backwash function are now stored in the Eventlog:</p> <ul style="list-style-type: none"> • Backwash started by clock timer • Backwash started by high level in buffer tank • Backwash started by input • Backwash started manually • Backwash stopped manually • Backwash successfully completed • Backwash aborted (filter pump speed could not be set) • Backwash aborted (overflow mode could not be activated) • Backwash aborted (floor drain could not be activated) • Backwash aborted (buffer tank could not be filled) • Backwash cancelled (min. interval not passed) <p>Solved problems</p> <p>In previous versions, sometimes when navigating in the event log in remote access, the message „This function is not available in remote access“ appeared and the event log was closed. This issue has been fixed.</p> <p>Fixed some typos (French translations, “>” instead of “≥” in temperature switching programs)</p> <p>Backwash: Correct range 0..7 days for min. interval between 2 backwashes.</p> <p>In previous version, only “0 days” could be set.</p> <p>In previous versions, a dosing pump test could be blocked depending on the status and configuration of the filter pump. This has been fixed. A dosing pump test is now not blocked anymore.</p> <p>The following issue has been fixed:</p> <ul style="list-style-type: none"> • After a failed backwash, e.g. if the filter pump could not be set to the desired speed, the backwash was tried again immediately. This only happened as long as there was never a successful backwash. • Now in all situations, failed backwashes will not be retried immediately. The failed backwash will be stored in the Eventlog and the backwash date will be set to the next date according to the selected backwash period.

Version	Release Date	
v240404 (9.0.1)	04.04.2024	<p>Solved problems</p> <p>In version 9.0.0, the new setting „Clock timer active“ was set to “inactive” by default for some switching functions. This could result in clock timers becoming inactive after the software update to v9.0.0. Now the standard setting for all clock timers is „active“.</p> <p>The software update from very old software versions before v6.0.0 of 25.09.2015 failed with error messages. This has been fixed and the update from very old versions to v9.0.1 is now possible.</p>
v240219 (9.0.0)	19.02.2024	<p>New Features (page 1 of 2)</p> <p>Data communication for the new Pool Connect App (MQTT data protocol in addition to the Web portal connection via VPN)</p> <p>New "Automatic backwash" function</p> <ul style="list-style-type: none"> • New icon menu • Scheduled backwashing every 1/2/3 weeks on one or more days of the week • Manual backwash (button in the menu) • Trigger backwash via input IN 1/2/3/4 (e.g. via pressure switch) • Only in combination with the balance tank control: Trigger backwash when the tank level is high • Rinsing, water lowering in the filter and compressor control optionally possible • Control of the filter pump during the backwash program • Optional filling of the balance tank before backwashing (only in combination with the splash water tank control) <ul style="list-style-type: none"> • Extensions for universal switching functions 1 - 10 <ul style="list-style-type: none"> • 3 switching programs for each switching function (previously only one) • New, additional switching program types: <ul style="list-style-type: none"> • Link with "Other switching function" • Temperature limit • Overflow protection • Dry-run protection • Backwash

Version	Release Date	
v240219 (9.0.0)	19.02.2024	<p data-bbox="607 276 887 304">New Features (page 2 of 2)</p> <ul style="list-style-type: none"> <li data-bbox="607 319 1411 347">• Overflow / floor drain switchover with the universal switching function 10 <li data-bbox="607 354 1048 383">• New functions for the IN 1/2/3/4 inputs <ul style="list-style-type: none"> <li data-bbox="651 389 976 418">• Individual names for the inputs <li data-bbox="651 424 1211 453">• Message on status change at the input (also via e-mail) <li data-bbox="651 459 1205 488">• Blocking of dosing depending on the status of an input <li data-bbox="607 494 1104 523">• Frost protection function for the filter pump <ul style="list-style-type: none"> <li data-bbox="651 529 1240 558">• Automatic activation of the filter pump at low temperatures <li data-bbox="651 564 1122 593">• Continuous operation or intermittent operation <li data-bbox="607 600 1440 628">• Display of the names entered by the user for inputs and switching functions <ul style="list-style-type: none"> <li data-bbox="651 635 1738 663">• E.g. "IN 2: Cover closed" instead of the previous "IN 2 [7]" or "T2: Air (outside)" instead of the previous "T2 [4]" <li data-bbox="607 670 1200 699">• Blocking of dosing depending on inputs and outputs <li data-bbox="607 705 1834 734">• Activation / deactivation of each individual clock timer for the filter pump and the 10 universal switching functions <p data-bbox="607 740 824 769">Other improvements</p> <ul style="list-style-type: none"> <li data-bbox="607 783 1357 812">• Addition of some missing translations of menu texts (especially for Italian) <li data-bbox="607 818 1677 847">• Switching functions can also be used without assigning a relay output (for logical links with other functions) <li data-bbox="607 853 2000 882">• Support for USB sticks without partition tables for data import and export functions (previously such USB sticks were not always recognized) <li data-bbox="607 888 1518 946">• Extended and improved display of the connection status for the web portal connection and the new MQTT connection for data communication with the Pool Connect App <li data-bbox="607 952 1137 981">• Adjustment of some menu texts that were too long <li data-bbox="607 987 1536 1045">• Max. possible sensitivity of BTC (Balance Tank Control) level sensor increased to 50µA/cm. This means that sensors up to 400mbar can also be used, which have a greater slope. <li data-bbox="607 1051 1682 1080">• Heating and solar: "Blocking at low temperatures", setting range extended: Limit: -10 ... +30°C, default 5°C <li data-bbox="607 1086 1227 1115">• Correct display of the device MAC address on Home > Help <li data-bbox="607 1121 1738 1150">• Automatic backwash: filter pump is not stopped if the pause times are set to 0s (previously it was stopped briefly) <li data-bbox="607 1157 1850 1185">• Automatic backwash: display of icons in the home view improved (in certain situations, "Auto" was displayed instead of "Off")

Version	Release Date	
v221216-M1 (7.8.3)	16.12.2022	New Features
		<ul style="list-style-type: none">• New language Lithuanian
		Other improvements
		Updated Italian translation The URL for initial connection to the Web portal has been changed to www.bayrol-poolaccess.de . This avoids the necessity of forwarding on the server side.
		Solved problems
		<ul style="list-style-type: none">• Due to changes in the server infrastructure, the counters for the number of remote accesses of different categories (LAN, web, Web portal) no longer functioned correctly. This has been fixed so that the counters now provide correct values again.

Version	Release Date	
v221201-M1 (7.8.2)	01.12.2022	<p data-bbox="607 276 752 300">New Features</p> <p data-bbox="607 316 931 339">Send e-mails via the Web portal</p> <ul data-bbox="651 352 1715 448" style="list-style-type: none"> • New option to send e-mails via the Web portal without the need to configure an own e-mail account (SMTP) • “Send e-mails via the Web portal” is activated by default • If an own account has already been configured, this will still be used after the software update <p data-bbox="607 456 987 480">Selection pH Domestic / Professional</p> <ul data-bbox="651 493 1861 839" style="list-style-type: none"> • The selection of pH Domestic / Professional is available in the commissioning sequence, in the “Advanced Settings” for pH and in the “Configuration Wizard pH” • After selection of pH Domestic / Professional in the commissioning sequence, p-range and minimum dosing rate are automatically adjusted according to the selection • Default for the pH product is set depending on the controller type and on the used default set • If pH-Plus is used in combination with pH-Minus Domestic, the dosing parameters are set for pH-Minus Domestic. pH-Plus is more effective compared to pH-Minus Domestic by approx. factor 3. To compensate this, the calculated dosing rate is reduced by factor 3 for pH-Plus. Also the minimum dosing rate is reduced by factor 3 for pH-Plus. • There is no compensation for pH-Plus, if used in combination with pH-Minus Professional, because the effectiveness of these two products is close to each other. <p data-bbox="607 847 1059 871">Extended temperature measurement ranges</p> <ul data-bbox="651 884 954 943" style="list-style-type: none"> • -20°C to 50°C for T1 and T2 • -20°C to 99°C for T3

<p>v221201-M1 (7.8.2)</p>	<p>01.12.2022</p>	<p>Other improvements</p> <p>Intelligent dosing monitoring</p> <ul style="list-style-type: none"> • Intelligent dosing monitoring activated by default • Updated to latest improved concepts (exact dosed amounts are better taken into account to calculate the monitoring intervals) • Optimized default settings for intervals and approximation <p>Default reset</p> <ul style="list-style-type: none"> • The configuration parameters for the dosing pumps will not be reset by a default reset. There are several different pump configurations and there is no “default” pump configuration. This removes the risk that a valid pump configuration may be overwritten by a default reset. • In the commissioning sequence, the default set is now preset depending on the language selection. E.g. if you select French language, the default set will also be set to “France”. However, there will be no automatic default reset. The default reset must be executed manually. An automatic default reset cannot be done, because a valid configuration may be overwritten unintentionally. <p>Basic dosing has been completely removed for all modules, because it was hardly used and overdosing could occur.</p> <p>Accuracy of the calibration of the water level in the balance tank control has been improved (sometimes there was a difference of 1 cm compared to the calibration value)</p> <p>Web portal URL has been updated for the new server infrastructure</p> <p>Some default settings have been optimized</p> <ul style="list-style-type: none"> • For the intelligent dosing monitoring for redox • For the p-range and minimum dosing rate settings <hr/> <p>Solved problems</p> <p>Non-functional deactivation of the individual functions of the Balance Tank Control</p> <ul style="list-style-type: none"> • In previous software versions, the parameters “Use replenishment function” “Use dry-run protection” “Use overflow protection” were always active, even if they were set to “inactive” • This has been fixed • The global setting “Use Balance Tank Control” was not concerned by this bug. This already worked as expected in previous versions. <p>Configuration Wizard mV in commissioning sequence</p> <ul style="list-style-type: none"> • The Configuration Wizard pH was called in the commissioning sequence instead of the Configuration Wizard mV • This has been fixed <p>Entry of negative values for the calibration parameters “Offset pH” and “Offset Cl”</p> <ul style="list-style-type: none"> • Due to a bug in the numeric keyboard, it was not possible to enter negative values for parameters with 2 decimals • There are only two parameters with two decimals, which can have negative values: Calibration offset pH and calibration offset Cl • This has been fixed
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v220131-M1 (7.8.1)	31.01.2022	Solved problems
		<ul style="list-style-type: none"> For devices with the previous software version 7.8.0, an incorrect software version (7.6.0) was displayed in the Web portal. This has now been solved and the Web portal displays the correct new version 7.8.1.
v211212-M1 (7.8.0)	12.12.2021	New Features
		<ul style="list-style-type: none"> Software-support for the Balance Tank Control (Ref. 127130) <ul style="list-style-type: none"> New Icon menu „Balance Tank Control
		Other improvements
		<ul style="list-style-type: none"> After successful login, the login is valid for at least 5 minutes. The login gets invalid only after 5 minutes without touch operation. A red alarm icon is now displayed in the Web portal, if the “Max. ON time” of a universal switch output has been exceeded and the corresponding alarm is active. In previous software versions, this type of alarm has not been indicated by a red alarm icon in the Web portal.
		Solved problems
<ul style="list-style-type: none"> The deactivation of the dosing time alarm for Redox by setting the time to 0 minutes did not work correctly in previous software versions. When set to 0, an alarm was displayed immediately. This issue has now been fixed. In the Web portal status display in the Home view of the device, sometimes Web portal sessions were wrongly displayed as LAN sessions. This issue has been caused by changes on the Web portal. It has now been fixed by adaptations in the device software. 		
v200228-M1 (7.6.0)	17.06.2020	New Features
		<ul style="list-style-type: none"> Software support for the conductivity measurement kit <ul style="list-style-type: none"> - This is available for the following controller types: <ul style="list-style-type: none"> - PoolManager CI, PoolManager PRO, Analyt 2 - Analyt 3, Analyt 3 Hotel (reduced display in the Home view, because the four main boxes are in use already)
		Other improvements
		<ul style="list-style-type: none"> Continuous monitoring of the Web portal VPN connection and automatic reconnect in case of a lost connection Added and corrected some Spanish text
		Solved problems
<ul style="list-style-type: none"> Removed Eventlog export function from the menu, because this function is not implemented 		

v190508-M1 (7.5.0)	08.05.2019	<p>New Features</p> <ul style="list-style-type: none"> • New switching programs for universal switch outputs „Universal 1“...“Universal 10“ <ul style="list-style-type: none"> - The previous function „External switch or push button“ has been significantly extended and is now called „Switching program“ - In addition to the previously existing functions „On/off switch“ and „Push button“, you can now also select the following functions: <ul style="list-style-type: none"> - „Other output“: The universal switch output is switched on or off depending on the current state of another switch output - „Combined Cl (UV system)“: The universal switch output is activated, if the combined chlorine level exceeds a certain limit. This function can be used to control a UV system. It is only available, if the option „Total chlorine measurement“ has been installed in the controller. - „Free chlorine (extra pump)“: The universal switch output is activated, if the free chlorine level falls below a certain limit. This function can be used to control an extra chlorine pump. • The different blocking options for the universal switch outputs „Universal 1“...“Universal 10“ have been combined in separate sub menus called „Blocking options“ • The universal switch outputs „Universal 1“...“Universal 10“ can now be configured to generate an approx. 1s switching pulse when they switch on (there is no switching pulse, when they switch off). Sub menu Basic configuration > Advanced settings > Type of contact = Switching pulse (1s) • The option has been added to output the total chlorine reading on a 4-20mA current output. This can be used to control a UV system. The configuration is done in the menu Communication & interfaces > 4-20 mA current loop outputs This function is only available, if the options „Total chlorine measurement and „Current outputs 4-20 mA“ are installed. • New background image “BAYROL Technik” • Adjustment of some default settings in the French default set: <ul style="list-style-type: none"> - Background image “BAYROL-Technik” - Icon style 3 - Transparent style - For PoolManager® PRO: Pump configuration chlorine and pH 3 l/h each • Adjustment of some default settings in the Spanish default set: <ul style="list-style-type: none"> - Background image “BAYROL-Technik” - Icon style 3 - Transparent style • Output of some additional readings via Modbus/TCP and XML data protocol: <ul style="list-style-type: none"> - Total chlorine (ID 4106) - Combined chlorine (ID 4108) - Active chlorine (ID 4109)
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		<p>Other improvements</p> <ul style="list-style-type: none"> • Additional help information for several menus and parameters <p>Solved problems</p> <ul style="list-style-type: none"> • Completion of some missing text for the Portuguese language, which could cause a system crash and repeated restarts in case of a default reset while the menu language was set to Portuguese. • In previous software versions, the colours of measurement graphs exported into pdf files were partly not correct. This has now been solved.
v180420-M1 (7.4.2)	20.04.2018	<p>Solved problems</p> <ul style="list-style-type: none"> • In previous software versions it was not possible to activate the temperature display after a default reset had been done with the default set "Switzerland". This has now been solved.
v170718-M1 (7.4.1)	18.07.2017	<p>Solved problems</p> <ul style="list-style-type: none"> • In the previous software release it could happen, that the relays on the optional plug-in module PM5-REL4 plus (R4 +) (No. 127016) were switched ON by default after system start. This has been solved.
v170630-M1 (7.4.0)	30.06.2017	<p>New Features</p> <ul style="list-style-type: none"> • Integration of the Croatian menu translation. • Optional long time filtering of the temperature readings (noise filter) <ul style="list-style-type: none"> - In case of long temperature sensor cables, the signal may be disturbed and an unstable temperature display may occur. - The best solution in this case is to use so-called „twisted pair“ cables, which eliminate noise and guarantee a stable temperature display. - The noise filter filters the temperature readings over a long time of 1 minute to eliminate noise. - The noise filter is inactive by default and can be activated in the following menu - Menu > Configuration Temperature > Noise filter • Minimum difference between solar temperature and pool temperature to switch off the solar function <ul style="list-style-type: none"> - The solar function is activated when the difference between solar temperature and pool temperature exceeds a certain limit - Now you can also define the minimum difference between solar temperature and pool temperature when the solar function shall switch off again. - Menu > Add-on functions > Solar heating > Min. difference solar → pool (OFF) - You find additional information in the online help function of the controller • Support of Bayrosoft® Light (PoolManager® O2) <ul style="list-style-type: none"> - Menu > Configuration O2 (Bayrosoft®) > Product used

V170608-M1 (7.2.0)	08.06.2017	Solved problems <ul style="list-style-type: none"> Optimization of an error detection mechanism, which did not work as expected in combination with the new faster CPU module which is used from March 2017. It could happen, that the controller switched to software loading mode and displayed „Searching for Firmware...“ permanently. This issue has been solved.
v170315-M1 (7.0.0)	15.03.2017	New Features <ul style="list-style-type: none"> Support of the new, faster processor module „PM5 CPU module 2.0“ from April 2017 The software is for universal use for the new PM5 CPU module 2.0 as well as for the previous CPU module Extension of the „External switches“ for the filter pump from max. 3 to now max. 6 switches The „External switches“ for the filter pump can now be combined with the inputs IN1/2/3/4 (as previously) or with any other switch output (new), e.g. with OUT1/2/3/4 It can now be configured, if the functions heating or solar shall be blocked in case of missing flow signal. In previous software versions this could not be configured and the functions were always blocked in this case. <ul style="list-style-type: none"> - Menu > Add-on functions > Heating or Solar > Basic Configuration > Blocking by input - Blocked if missing flow Yes / No It is now possible to pass a user name and password together with the URL in case of remote access from the local network to avoid manual login. For safety reasons, this option is not available for remote access from the internet. <ul style="list-style-type: none"> - Menu > User management > Individual users (menu & remote access) > User 1/2/3/4/5 configuration - Allow login with URL = Active - Enter password for login with URL, e.g. “xyz123” - Remote access without manual login: http://my_PM5_IP_address/cgi-bin/webgui.fcgi?user=my_username&pass=my_URL_password my_PM5_IP_address IP address of the PoolManager® in the local network my_username Valid user name for which login with URL is active and a password for login with URL has been entered my_URL_password Password for login with URL for the selected username - Example: http://192.168.1.123/cgi-bin/webgui.fcgi?user=Peter&pass=Peter310370
v160620-M1 (6.2.0)	20.06.2016	New Features <ul style="list-style-type: none"> Control of dosing devices via 4-20 mA current signal, e.g. for chlorine gas valves or salt electrolysis systems Control of variable speed filter pumps via 4-20 mA current signal Solved problems <ul style="list-style-type: none"> Menu entries were partly not displayed completely for the push button function of the universal switch outputs. This problem has now been fixed.

v160404-M1 (6.1.0)	04.04.2016	New Features
		<ul style="list-style-type: none"> • 10 Universal switch outputs („Universal 1..10“) in the Add-on functions menu (instead of only 4) • Push button function for the universal switch outputs <ul style="list-style-type: none"> - Menu > Add-on functions > Universal 1..10 > Basic Configuration > External switch or push button - Push button can alternatively switch on for a limited period of time (timer function) or toggle between “ON” and “OFF” • Time delay for the external switches of the filter pump control (typically used for dry run or overflow protection) <ul style="list-style-type: none"> - Menu > Add-on functions > Filter pump > Basic Configuration > External switch 1/2/3 - Time delay prevents permanent switching “ON” and “OFF” of the filter pump at the switching point, e.g. for dry run and overflow protection, when the water level is at the switching point of the level sensor and waves may cause permanent switching • Level alarm Flockmatic® <ul style="list-style-type: none"> - Menu > Add-on functions > Flockmatic pump > Basic Configuration > Level input Flockmatic - Flocculent dosing will not be blocked by a level alarm. There is no previous level warning as for pH and disinfection.
		Other improvements
		<ul style="list-style-type: none"> • During the delay time before a flow alarm is triggered no upper or lower measuring alarms will be triggered. This is mainly relevant, if long delay times are set for the flow alarm • Extended temperature alarm limits to prevent undesired upper or lower alarms.
v151005-M1 (6.0.2)	05.10.15	Solved problems
		<ul style="list-style-type: none"> • In version 6.0.1 and 6.0.2 it could happen under certain conditions that the dosing output was not continuously activated during a redox manual dosing or pump test. This problem has now been fixed.
V151001-M1 (6.0.1)	01.10.15	Solved problems
		<ul style="list-style-type: none"> • In version 6.0.0 (only in this version) dosing has been blocked, if filter pump control was inactive. This problem has now been fixed.

<p>V150925-M1 (6.0.0)</p>	<p>25.09.15</p>	<p>New Features</p>
		<ul style="list-style-type: none"> • Support for the new BAYROL Web portal (http://www.bayrol-poolaccess.net). Please refer to the Web portal documentation for more details. • Support for the new option „Total Chlorine Measurement“. Please refer to the documentation of the “Total Chlorine Measurement” option for more details. • Support for the new relay plug-in module PM5-REL4 plus (R4+), Item No. 127016. Up to three of these new relay plug-in modules can be installed in one controller, increasing the max. amount of additional relay outputs to 12. Please refer to the documentation of the new relay plug-in module for more details. • Intelligent Dosing Alarm for pH, chlorine and redox. The intelligent dosing alarm can be activated for each control module independently. Activation is done in the menu Configuration pH / Cl / Redox > Advanced Settings > Dosing monitoring pH / Cl / Redox • Now up to two relay outputs can be allocated to the „Heating“ function. Both relay outputs are switched on or off simultaneously. • If an external switch is configured to set the filter pump to a specific mode of operation (e.g. eco mode activated through the end switch of a pool cover), you can now configure, if the contact shall switch the pump on in case it is currently off due to the timer programming. In previous software versions, the filter pump was always switched on in this case, which is not wanted in some applications, e.g. for the end switch of a pool cover.
		<p>Other improvements</p>
		<ul style="list-style-type: none"> • At extremely high levels of chlorine (>10 mg/l) it could happen, that lower chlorine readings were displayed. Now the software makes sure that the reading stays at the upper limit of the measuring range (at a signal of about 325 µA) in case of extremely high chlorine levels in the pool. • Additional chlorine displays can be activated or deactivated in the „Service Functions“ menu: <p>Cl_{act} = Active chlorine, i.e. the part of the free chlorine which is available in the form of hypochlorous acid (HOCl) and therefore is active for disinfection. The proportion depends on the pH value according to the so-called dissociation curve. The value is internally calculated from the free chlorine and pH readings.</p> <p>Cl_{tot} = Total chlorine (available only, if the „Total chlorine measurement“ option is installed).</p> <p>Cl_{comb} = Combined chlorine. This is the difference between the total chlorine and free chlorine measurement readings (available only, if the „Total chlorine measurement“ option is installed).</p>
<p>Solved problems</p>		
<ul style="list-style-type: none"> • Due to technical modifications at a few e-mail providers (web.de, 1&1), sending e-mails via these providers did not work any longer. The software has now been adjusted and the concerned providers can be used again. • When the operating mode of a variable speed filter pump has been switched repeatedly with the buttons in the Mode menu or the filter pump context menu in a fast sequence, it could happen, that the buttons did not react anymore. This problem could be solved by temporarily switching to “Auto” mode. Now the problem has been fundamentally solved and the buttons cannot be blocked anymore. 		

<p>v141202-M1 (5.4.0)</p>	<p>02.12.2014</p>	<p>Other improvements</p> <ul style="list-style-type: none"> An automatic changeover to an extended chlorine measuring range has been implemented for very high chlorine measuring signals up to 300 µA (typically corresponds with at least ca. 10 mg/l of chlorine). <p>Solved problems</p> <ul style="list-style-type: none"> The display of the temperatures T2 and T3 in the Home screen has been rounded off to whole °C numbers. Now the display is correct with a resolution of 0,1 °C For the PoolManager® O2 it could happen under certain conditions that a dosing was not blocked when the filter pump stopped during the dosing. This could happen only when the integrated filter pump controller of the PoolManager® has been used and could result in an overdose. This problem has been solved.
<p>v140325-M1 (5.3.0)</p>	<p>25.03.14</p>	<p>New Features</p> <ul style="list-style-type: none"> From 2014, many e-mail providers made encrypted e-mail transmission mandatory. The PoolManager® e-mail functions have been extended to support the two common encryption standards SSL/TLS and StartTLS. By that, the PoolManager® e-mail functions are compatible with (almost) all important e-mail providers. The extended e-mail functions with encryption are described in detail in a separate document. <p>Other improvements</p> <ul style="list-style-type: none"> IP configuration wizard sets ??.??., in case no network connection is available (in earlier software versions, strange characters could appear in this case). Background images: Additional signatures added for jpg files, because a few jpg formats have not been identified correctly. Simplification of the data input for the e-mail (SMTP) account: The entered e-mail address is automatically copied to the SMTP user name (most providers use the e-mail address as user name) If the SMTP server port is set to :465, encryption (security) is automatically set to SSL/TLS If the SMTP server port is set to :587, encryption (security) is automatically set to StartTLS If a different (or no) SMTP port is set, encryption is automatically set to „none“ The general robustness of the e-mail functions in case of connection problems has been improved <p>Solved problems</p> <ul style="list-style-type: none"> USB memory stick is automatically connected at system start. In previous software versions it could happen, that a USB stick was not detected in case it has already been plugged in when the PoolManager® was powered on. Touch calibration data are no longer reset to default in case of a software update. This happened in earlier software versions, but usually had no recognizable effect, because most touch screens work very well with the standard calibration data.

<p>V140220-M1 (5.1.0)</p>	<p>20.02.14</p>	<p>New Features</p> <ul style="list-style-type: none"> • New context menus offer a quick access to many important and often used functions directly from the Home menu. • Quick access buttons in the context menus as well as in the Mode menu now allow to set the operating mode of the filter pump or of the switch outputs with just one click. • Add-on functions are now highlighted in different colours in the Home menu: <ul style="list-style-type: none"> • White: Automatic mode, „normal operation, everything ok“ • Grey: The function has either been switched off manually or is currently blocked (e.g. by a missing flow signal) • Yellow: The function has been switched on manually and is not in automatic mode. • Additional temperature displays in the Home menu, in case the optional temperature inputs T2 and T3 are active. • The Mode menu now includes the new quick access buttons to switch the operating mode with just one click. Furthermore, a new menu has been added to the User management, which allows to adjust the contents of the Mode menu to the individual requirements. • Filter pump control is now done with the new quick access buttons. The filter pump control must first be generally activated (new Parameter „Use filter pump control“). • Control of the switch outputs 1 / 2 / 3 / 4 is now done with the new quick access buttons. The switch outputs to be used must first be generally activated (new Parameter „Use switch output 1 / 2 / 3 / 4 “). • Wizard for the automatic network (IP) configuration: Automatic detection of a suitable network (IP) address in the local network. The detected address must then be activated with the button „Activate IP configuration “. • Data import and export • Export Measurement Graph (USB memory stick or remote access) • Load individual background images (USB memory stick or remote access) • Administration of system configurations (export and import, USB memory stick or remote access) • User Login: Allow web browser to save user name and password for login to the PoolManager®. The user login to the PoolManager® in remote access has been modified to allow the user to save user name and password in the web browser used to access the PoolManager®, if he likes to do so. This feature must be enabled in the configuration of the used web browser. <p>All new features of software release 5.1.0 are described in detail in a separate document (Software_Release_5.1.0_quick_manual).</p>
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v130820-M1 (4.7.0)	20.08.13	<p>Other improvements</p> <ul style="list-style-type: none"> • Reduced debug output • Optimization of the factory menus for a more efficient test process <p>Solved problems</p> <ul style="list-style-type: none"> • In case of temperature lower or upper alarms, the temperature display in the Home view was not displayed in red colour. This problem has now been solved. • In very rare cases, it could happen after in software versions 4.3.0 to 4.6.0 that the system hung for a few seconds after a calibration. This problem has now been solved. • The switch outputs OUT1...OUT4 could be activated by an external switch even if the operating mode was set to „Inactive“. This is not possible anymore.
v130801-M1 (4.6.0)	01.08.2013	<p>New Features</p> <ul style="list-style-type: none"> • Polish Menu Language <p>Other improvements</p> <ul style="list-style-type: none"> • Adjustable delay time when a switch output is controlled by a switch input (the output only switches on or off when the input is in one state for xxx seconds, in particular against waves, when a water supply valve is controlled by a floater switch in the skimmer) <ul style="list-style-type: none"> • Menu Basic Configuration -> External switch or push button • Select Input IN1/2/3/4 • External switch on => Output ON • External switch off => Output OFF • Switch delay = xxx s (adjust switch delay according to your requirements) • Order Remote access / Menu access exchanged for the definition of Individual users (first remote access, then local) • Delay for upper and lower alarms now 10s instead of 5s (to avoid alarms when the filter pump is switched off) • The operating modes of add-on functions can now be changed without code input in the Mode menu • Changed default setting: No blocking of the switch outputs through the mode of operation of the filter pump • Switch outputs: External switch OFF can now also switch ON and vice versa • Term „Use alarm relay“ in the menu „Alarm Settings“ has been modified to make it more unambiguous <p>Solved problems</p> <ul style="list-style-type: none"> • In previous software versions the Home screen always displayed “Solar” in case of a combined system with heating and solar, even if the heating was currently active (and not the solar system). This problem has now been solved and the Home screen will display either “Heating” or “Solar” depending on which system is currently active.
v130604-M1 (4.4.0)	04.06.2013	<p>Solved problems</p> <ul style="list-style-type: none"> • In software release v130520-M1 (4.3.0) (only in this version!) it could happen, that the filter pump was not switched on at the start of a programmed time interval. This problem has now been solved.

<p>v130520-M1 (4.3.0)</p>	<p>20.05.2013</p>	<p>New Features</p>
		<ul style="list-style-type: none"> • Modbus TCP data protocol to read measurement readings, parameter settings and alarms from the PoolManager® (the protocol specification is available for download on www.poolmanager.info) • XML data protocol to read measurement readings, parameter settings and alarms from the PoolManager® (the protocol specification is available for download on www.poolmanager.info)
		<p>Other improvements</p>
		<ul style="list-style-type: none"> • Optimized control of the filter pump by external switches to enable forced activation or deactivation of the filter pump by external switches. This can be used to combine the filter pump control of the PoolManager® with external automatic backwash systems or level control systems for the overflow tank. • Optimized software loading concept, that speeds up software updates significantly in most situations. • Minimum dosing rate can now be increased up to 99,9 % • The operation modes for pH and Disinf. (Auto / Off) have now also been included in the configuration menus for pH and Disinf., respectively (in addition to the Mode Menu, where they have already been before). • There have been two contradictory settings for the Level Input pH+, which have now been removed (in the menus Configuration pH and Level Alarm Settings). Now there is only one single setting (which is displayed in both menus).
<p>Solved problems</p>		
<ul style="list-style-type: none"> • After a software update from a previous version to version 4.2.0 (only to 4.2.0!) all active switch outputs had been assigned to OUT1 [terminal 26] by mistake. This problem has now been solved. • In previous software versions, shock chlorination did not work properly and always terminated after 1 minute already. This problem has now been solved. 		

v130318-M1 (4.2.0)	18.03.2013	New Features
		<ul style="list-style-type: none"> • Software support for the optional plug-in module PM5-SA4 4x Current Output 4-20mA (Order No. 127011) • Software support for the optional plug-in module PM5-REL4 Relay Module with 4 Relays (Order No.127016) • Switching the care method Cl / Br for PoolManager® PRO and Analyt is now effective (Menu Service Functions → Controller Model & Care Method)
		Other improvements
		<ul style="list-style-type: none"> • During the configuration of an „Individual User“ in the User Management, the username and user level entered in step 1 (Menu access configuration) are now automatically transferred to step 2 (Remote access configuration). However, they can still be modified in step 2, if desired. • The measurement database has been modified in a way that no data will be lost, if the system clock is put forward or backward. • In previous software versions, it was possible to assign a switch output to an add-on function, if this switch output had already been assigned to another add-on function, but this add-on function was set inactive. This is not possible anymore, which prevents the unintentional assignment of one switch output to multiple add-on functions. • The proportional range is now given in % (as for previous controller families). The corresponding physical value in pH, mV or mg/l is also displayed as an additional information. • At the end of the commissioning sequence, the operation modes for pH control and disinfection are now automatically set to „Auto“, if they have not been activated before. • The colon (:) has been added to the keyboard layouts. This is in particular useful in order to use an SMTP-Server with an additional port specification (e.g. smtp.web.de:587) during configuration of an e-mail account.
Solved problems		
		<ul style="list-style-type: none"> • In previous software versions problems could occur with the automatic changeover between summer and winter time. These problems have been solved. • In previous software versions remote access to the programmable timers of the filter pump control was not possible. This problem has been solved.
v121130-M1 (3.8.0)	30.11.2012	Other improvements
		<ul style="list-style-type: none"> • Display of the temperature setpoint of the heating or solar functions in the Home view, if one of these functions has been activated. • Optimized storage of parameter changes to improve the speed of menu navigation • Optimized default reset process to reduce waiting time
		Solved problems
		<ul style="list-style-type: none"> • Under certain conditions it could happen (very rarely) that the stored remaining amounts for the canisters could be corrupted. This problem has now been solved.

<p>v121120-M1 (3.6.0)</p>	<p>20.11.2012</p>	<p>New Features</p> <ul style="list-style-type: none"> • Desktop icons for remote access, e.g. for Apple iPhone or iPad. If you create a desktop (home screen) link for a PoolManager® 5 controller on one of these devices, an attractive icon will automatically be used. Remote access then looks like an app on the Apple devices. <p>Other improvements</p> <ul style="list-style-type: none"> • Storage of settings on the SD card has been made more robust and secure to prevent possible loss of settings even in case of an SD card failure. • Communication between the main system and the I/O controller has been made more robust in order to further increase system reliability. • The temperature setpoint for the heating function can now be decreased down to 3°C for hibernation. <p>Solved problems</p> <ul style="list-style-type: none"> • In case of very slow internet connections long reaction times could lead to problems when sending e-mails. E-mail function has now been made more robust and secure in order to prevent problems even in case of very slow connections. • Correction of some faulty default settings of different add-on functions.
<p>v121115-M1 (3.5.0)</p>	<p>15.11.2012</p>	<p>New Features</p> <ul style="list-style-type: none"> • Complete integration of French and Spanish languages • Additional display of active chlorine in the Home view for Analyt and PoolManager® PRO controllers. The active chlorine value is calculated from the measured free chlorine depending on the measured pH value according to the dissociation curve. <p>Other improvements</p> <ul style="list-style-type: none"> • Web browser implementations under Apple's latest iOS6 operating system on the iPhone or iPad have a fault that results in problems with the alarm overview and measurement graph screens during remote access to a PoolManager® or Analyt controller. A workaround now guarantees that all menus are displayed correctly also in iOS 6. <p>Solved problems</p> <ul style="list-style-type: none"> • In some previous software versions the button „Switch off ALL outputs“ caused a restart of the software due to a software failure. This problem has been solved. • In case of a „Level warning pH“ no alarm e-mail has been sent. This problem has been solved. • In the commissioning menu sequence for Analyt controllers the menu „Manual dosing mV“ wrongly appeared. This problem has been solved. • In the mode of operation „Always heat“ of the heating function, there was always the operating state „Blocked“ displayed in the Home menu, even when the heating was on and not blocked. Now the Home menu always displays the correct state of operation.

<p>v120912-M1 (3.1.0)</p>	<p>12.09.2012</p>	<p>New Features</p> <ul style="list-style-type: none"> • Separate level monitoring for pH- and pH+ for 2-sided pH control <ul style="list-style-type: none"> • Alarm Settings -> Level Alarm Settings -> Optional level input for pH-Plus Select the input (IN1..IN4), to which the pH-Plus level sensor is connected. We recommend not to use the input IN1 for this, because this input may also be used as an additional flow input. • To connect a level sensor with BNC connector, an adapter cable from connection terminals to BNC can be used (Part-No. 127010 PM5-BNC ADAPTER CABLE ANALYT). This is the same adapter cable as used for the connection of the glass electrode of the chlorine measuring cell. The BNC connector can be screwed at the housing replacing one of the small cable glands. • In case of 2-sided pH control and selection of an input (Optional level input for pH-Plus) separate level monitoring for pH- and pH+ is automatically started with specific warning and alarm messages. The „intelligent“ level monitoring with status display green / yellow / red and display of the remaining amounts is available for both dosing directions. Dosing is only blocked for the respective dosing direction in case of a level alarm. Dosing is continued for the other dosing direction. • Note: In case of single-sided pH+ dosing the level sensor must be connected to the input „Level pH“ (BNC connector). The setting „Optional level input for pH-Plus“ is not relevant in case of single-sided pH control.
		<p>Other improvements</p> <ul style="list-style-type: none"> • Now also the relays pH+[22] / pH-[21] / Alarm[25] can be assigned to one of the 4 universal switch outputs, in case they are not used as a dosing output or as an alarm relay, respectively. This allows for a more flexible usage of the relay outputs for the universal switch outputs and the other add-on functions. • The temperature setpoints of the heating and the solar heating functions are now also displayed in the „Configuration Temperature“ menu and can also be modified from there. Before, the setpoints were only displayed in the menus of the Heating and Solar Heating add-on functions, where they still can be found. • The display of the used resources (inputs and outputs) in the menu „Add-on functions“ has been improved. Some resources have not been correctly displayed in this menu in previous software versions. • In case of zooming, the measurement graph does not jump to the current date anymore, but stays at the date that has previously been displayed.
		<p>Solved problems</p> <ul style="list-style-type: none"> • The function „Go to date“ in the measurement graph did not yet work in previous software versions. This problem has been solved. • For the PoolManager® Bromine the duration of a manual dosage could effectively not be changed, because the corresponding setting for the PoolManager® Chlorine has been used by mistake. This problem has been solved.

v120905-M1 (3.0.0)	05.09.2012	New Features
		<ul style="list-style-type: none"> • Alarm e-mail functions (see additional document „Praxis-Information e-mail Funktionen“)
		Other improvements
		<ul style="list-style-type: none"> • Text corrections in the German and English menus • For all parameters that allow for the selection of one or multiple days of the week, now NO day of the week is activated after a default reset. This concerns all programmable timers as well as the add-on dosages for the PoolManager® Oxygen. In previous software versions, always Monday had been activated by default. • In powerdown mode the display is now a little less dimmed. With the previous settings, some (very few) displays were completely black in powerdown mode or showed a light flickering. • In case filter pump control is active, dosing is now blocked, if the current operating mode of the filter pump is „Filter pump off“. In previous software versions, dosing has only been blocked indirectly through the flow signal. • Pending temperature related alarms are automatically quit and deactivated if the concerned temperature input is deactivated.
		Solved problems
		<ul style="list-style-type: none"> • In previous software versions the PoolManager® care method has been reset to „chlorine“ during a default reset by mistake. This problem has been solved. The care method now remains unchanged during a default reset. • In previous software versions a calibration has also been executed by mistake, when the calibration menu has been left by pushing the „Cancel“ button. This problem has been solved. In previous software versions you can use the „Esc“ hotkey instead of the „Cancel“ button to leave the calibration menu in order to avoid the problem.
v120725-M1 (2.9.0)	24.07.2012	Other improvements
		<ul style="list-style-type: none"> • Further improved and extended watchdog system monitoring functions to improve detection and automatic repair of possible error conditions: <ul style="list-style-type: none"> • Monitoring of all important processes (web server, web browser, etc.) • Monitoring of all important system functions (measurement, control, alarms, etc.) • System load monitoring • Memory consumption monitoring • Possible problems are automatically detected and solved • Adaptation of some default settings for Switzerland • Automatic update of the planned dosings for O2 when the dosing day setting is changed

v120629-M1 (2.7.5)	29.06.2012	New Features
		<ul style="list-style-type: none"> • Full integration of the English menu language • The alarm relay (terminal [25]) can now alternatively be assigned to one of the add-on functions (to do so, the use of the alarm relay must be deactivated in the „Alarm Settings“ menu) • Resource management for the relay outputs. Only those relay outputs can be assigned to add-on functions, which are not yet assigned to another function. • Adaptation of some default settings for Switzerland
		Other improvements
		<ul style="list-style-type: none"> • Significantly extended watchdog monitoring functions to detect and resolve possible error conditions automatically. • Adaptation of the available hose configuration for the dosing pumps.
v120611-M1 (2.6.0)	11.06.2012	Solved problems
		<ul style="list-style-type: none"> • An error related to the blocking of the heating function through the solar function could lead to continuous blocking of the heating (display „Blocked“ in the Home view). This problem has been solved.
v120611-M1 (2.6.0)	11.06.2012	New Features
		<ul style="list-style-type: none"> • First production software release.