

WRO 300 H RO V4.3 SOFTWARE RELEASE AND CUSTOM PRESETS FOR GXP

This is an update to what was previously TAA.TU.10100.

This Tech Note discusses the release of version 4.3 software for the WRO 300 H RO. In this document the features of the new software, reasoning for the new components, and important preset values will be discussed.

Version 4.3 software was implemented due to the advent of new CPU and display boards. The previous components are no longer being manufactured and will be discontinued when inventory is gone.

Unlike the WRO 300 RO, the WRO 300 H RO had not been sold into the U.S. with previous versions of software so replacement part numbers and the ease of replacing parts is much simpler. All WRO 300 H RO models in the U.S. have been built and supplied with the current software.

The new 4.3 software version has custom preset values as did the earlier versions. Accordingly, a custom preset file has been developed and is installed at the factory to allow the technician to setup the WRO 300 H RO quickly and correctly.

Software (GXP) for changing the preset values can be obtained from Technical Support. Instructions for using these programs are in Tech Note 258 (P/N W3T575397) (using GWD & GXP).

Note:

- Other presets may need to be changed onsite.
- Conductivity Alarm limits should be adjusted according to local conditions.
- See the Preset table included at the end of this document for clinic adjustable settings and verify the values with the nurse administrator or facility director.

Important: Please be familiar with the procedures for downloading and implementing custom presets as described in Tech Note 258 (P/N W3T575397), Tech Note 259 (P/N W3T575396), and Technical Update 10081 before performing this installation.

Summary of Changes with Version 4.3 Software

Note: For part numbers, refer to Tech Note 234 (P/N W3T572826).

- The new CPU board, Display unit, and Display cable are being introduced into the WRO 300 RO starting with Gambro serial number 5997. All units made by Evoqua Water Technologies have the new parts.
- Presets for water temperature (Product and Reject) can be controlled between 0 and 95° C using presets S30 (Product) and S31 (Reject).
 - Default for S30 is 9200 (92° C) with a maximum of 95° C.
 - Default for S31 is 8500 (85° C). This is the maximum temperature that should be applied to reject side as higher can cause element problems.

- Supply voltage preset S32 controls the operational supply voltage for the heater elements. Default value = 2 for 115VAC.
- Time Channel Settings have been added to help maintain RO cleanliness with minimal operator usage. Heat modes can be set to start at predefined times using presets S159-S165 and S209-S222.
- A new Preset to allow voltage selection (AC vs. DC) has been created for future alternate Chemical pumps.
 - New preset; S235, CCP_CHEM_PUMP_MOTOR_TYPE (0 = AC, 1 = DC; default = 0)

Important: Note the following:

- The new version 4.3 software is not compatible with the old CPU board.
- Version 4.2 (and lower) SW is not compatible with the new CPU board.
- The new USB GXP communication cable is compatible with all versions of software.
- The old GWD version 1.0 program is not compatible with the new CPU board.
- The new GWD version 2.0 program is not compatible with the old CPU board.
- The new CPU board, Display, and Cable are incompatible with previous version parts; changing any of these components means changing all three of these components.

How to easily determine which parts are installed.

1. At startup, check which software version is display.
2. Check the backlight color; yellow/green for the old display, blue for the new display.

References

Document	Device	Description
WATER,PR,10064-11/2007	WRO 300	4.1 Software Features and Benefits
WATER,PR,10065-11/2007	WRO 300	Using GWD/GXP – Using Custom Preset Files
WATER,PR,10081-9/2008	WRO 300	4.2 Software Release and Custom Presets for GXP
W3T572826	WRO 300	WRO 300 / 300 H New 4.3 CPU and Display
W3T575397	WRO 300	3.2 Software Using GXP and GWD
W3T575396	WRO 300	WRO 300 4.3 Software Release

I. The Gambro Service Tools*

Gambro Service Tools for WRO RO consist of the GXP, GWD, and GXL programs.

GWD Used to upgrade the WRO software to another version. For 4.3 version software and CPU board, only GWD 2.0 can be used.

GXP Used to change the operational preset values within the current software.

GXL Used to log WRO RO operations.

Note: There is also a GXL program for the CWP RO. It is a separate application unrelated to the WRO 300 H RO.

*Gambro has provided the software for use by Evoqua Water Technologies. The programs all will install under the Gambro name. Evoqua, however, will provide all support for WRO RO units.

II. Acquire the current version of the Gambro Service Tools

Contact Technical Support for software.

III. Install the current Gambro Service Tools for WRO RO

Contact Technical Support for installation help.

IV. Configuration Settings for WRO 300 H RO

There are more than 150 presets (operating parameters) used in the WRO 300 H RO. Most of these parameters are high level control functions and should not be changed unless stated in a Technical Update. However, some can be, and these items are very useful for customizing your WRO 300 H RO.

The presets listed on the following pages are a few of those that can be custom configured using the GXP program. Those highlighted represent the total list contained in the pre-configured preset.xp files. These parameters should always be modified to the US settings by your Service Representative upon installation of the WRO 300 H RO or when replacing the CPU board. The other presets (not highlighted in the table) are noted as useful items and are listed for your convenience.

It is generally recommended that all WRO 300 H RO units at a specific site be synchronized with the same version of software. This just makes it easier for users operating the machine. Consult with Technical Support for more information on managing the Preset values.

Preset	Description	Group	Default	Factory Default	Clinic
S29	Water Save Valve % Recovery	Water Save	5%	5	
S30	Product Temperature	Heating	9200	9200 (92°C)	
S31	Reject Temperature	Heating	9200	8500 (85°C)	
S32	Supply Voltage (2=115 VAC)	Heating	0	2	
S33	Conductivity Notification Limit	Cond	60 µS	20 µS	
S34	Conductivity Alarm Limit	Cond	60 µS	30 µS	
S35	Conductivity Stop Limit	Cond	60 µS	60 µS	
S37	Protocol 1 Visibility	DisProtManager	1	0	
S39	Protocol 1 Title	DisProtManager	DIALOX	-----	
S47	Protocol 2 Visibility (ACIDCLEAN)	DisProtManager	1	1	
S57	Protocol 3 Visibility (Preserv+Freeze)	DisProtManager	0	0	
S67	Protocol 4 Visibility	DisProtManager	0	1	
S69	Protocol 4 Title (Phoenix)	DisProtManager	CENTR_CH_95	CENTR_CH_PHX	
S71	Protocol 4 Intake Volume (minutes)	DisProtManager	12	10	
S77	Protocol 5 Visibility (Central Chem 200)	DisProtManager	0	0	
S87	Protocol 6 Visibility	DisProtManager	0	0	
S88	Protocol 6 Type (3=Acid)	DisProtManager	1	3	
S89	Protocol 6 Title	DisProtManager	CENTR_CH_200U	VINEGAR CLEAN	
S91	Protocol 6 Intake Volume (mL's)	DisProtManager	18	1100	
S92	Protocol 6 Rinse Time (minutes)	DisProtManager	60	30	
S93	Protocol 6 Intermittent Run Mode	DisProtManager	0	1	

Preset	Description	Group	Default	Factory Default	Clinic
S94	Protocol 6 Intermittent Run Time (min.)	DisProtManager	0	5	
S95	Protocol 6 Intermittent Stop Time (min.)	DisProtManager	0	5	
S97	Protocol 7 Visibility	DisProtManager	1	1	
S99	Protocol 7 Title	DisProtManager	PRESERVATION	MEMSTOR	
S107	Protocol 8 Visibility (Minncare)	DisProtManager	0	1	
S117	Protocol 9 Visibility (Minnclean)	DisProtManager	0	1	
S127	Protocol 10 Visibility (AlkaliClean)	DisProtManager	0	0	
S138	Chem Protocol Displayed (8=Minncare)	DisProtManager	1	8	
S139	Autoflush Standby Time	Time Manager	240	240	
S140	Autoflush Run Time	Time Manager	5	5	
S141	Heat Standby Time (minutes)	Time Manager	240	240	
S142	Active Cool Down	Heating	1	1	
S149	Rejection Rate Alarm	Cond	90	90	
S153	Time Since Last Heat Visibility	Time Manager	0	1	
S154	Time Since Last Chemical Visibility	Time Manager	1	1	
S155	Time Since Last AcidClean Visibility	Time Manager	1	1	
S156	Time Since Last AlkaliClean Visibility	Time Manager	1	0	
S157	Central Chem Upper Limit	Chem	500	250	
S158	Central Chem Lower Limit	Chem	500	250	
S159-S165	Time Channels 1-7 (HH:MMWT) W=day of week T=Type (0=Inactive, 1=Heat, 2=Run, 3=Standby)	Time Channel	00:0010	00:0010	
S171-S180	5 Reminders: Each has 2 text lines (part 1 & 2) With up to 14 characters per line	Reminders	Reminder 1	Replace Carbon Filter	
			Reminder 2	Disinfection Required	
			Reminder 3	AcidClean Membranes	
S184	Water Save Function (1=Enabled)	Water Save	1	1	
S185	Standby Flush (1=Enabled)	Time Manager	0	1	
S186	Conductivity Peak Test (1=Enabled)	Cond	1	1	
S207	CHC Flow Kit Installed	Heating	0	0	
S209-S222	Time Channels 8-21 (HH:MMWT) W=day of week T=Type (0=Inactive, 1=Heat, 2=Run, 3=Standby)	Time Channel	00:0010	00:0010	
S223	Manual Flush Time (minutes)	DisProtManager	5	5	
S225	Return Temperature Limit	Heating	8000	8000 (80°C)	
S227	Tank High Sensor Test Active (0=Mech)	Tank Control	1	0	
S233	Inlet Valve Max Open Time (seconds)	Tank Control	45	60	

Note: To avoid damage to the WRO software configuration, GXP should only be used by qualified technicians, trained by Evoqua Water Technologies.

Note: Highlighted items show the differences between Gambro defaults and defaults input by Evoqua. If factory defaults get loaded, contact Technical Support for preset file P/N W3T575874 for WRO 300 H RO to properly configure the RO to defaults.

Note: Protocol 6 (S87-S96) has been modified from a Central Chemical function to allow for the use of vinegar as a cleaning agent. To activate protocol 6 and make Vinegar Clean available to the operator change S87 (visibility) from 0 to 1.