



wahaso™

WATER HARVESTING SOLUTIONS



## Custom Water Harvesting System Controls from Wahaso

Wahaso engineers, builds and programs custom control packages that monitor, control, track and report every operation in our rainwater and greywater harvesting systems. Our panels are customized for each project to match the unique system requirements. Proprietary software optimizes the user interface and reporting to keep customers informed of system status and statistics.

### System Features

Wahaso offers two series of controllers:

**Series 100** is Wahaso's Premier Control Package and features the Allen-Bradley MicroLogix™ family of PLCs with a 6" full color touch screen. Optional 8" and 10" touch screens are also available.

**Series 200** is designed for lower demand Input/Output systems such as rainwater for irrigation, and features Unitronics combination PLC's with 3.5" color touch screen. The Series 200 control package offers many of the same features as the Series 100.

- All control panels are U.L. Listed and built into NEMA 3R or 4X rated enclosures for reliable operation indoors or exposed to weather.
- Wahaso uses rugged industrial-standard electrical components from major manufacturers including Allen-Bradley, Square D, ABB and others to deliver high quality and dependable control systems.
- Custom programming and client interface to Building Automation Systems via Modbus™ or BACNET™ is standard. Remote access is also easily added to the Wahaso Control Package.
- Quick Connection Cables allow fast and simplified installation between the main panel and pre-wired junction boxes on remote skids.



**Isolation Relays** protect the PLC from damage on device power up surges and faults.



**Optional Back Up Power Supply** allows default positioning and controlled switching on power failure.



**Variable Frequency Drives** enhance pump performance and save energy. Output pump pressure (PSI) is set on touch screen -- pump motor speed will then vary to maintain the set point pump pressure in relation to the flow demand.

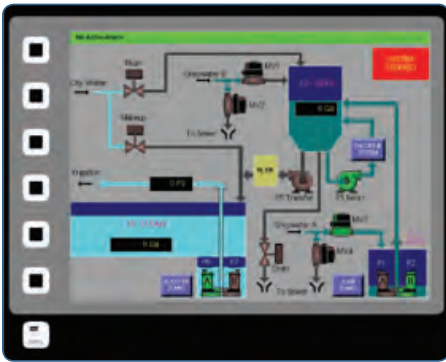


## Custom Software Manages All System Activity

Wahaso's proprietary software is customized for each client application to ensure safe, efficient and reliable operation of the water harvesting system.

- Designed to deliver fully automatic operation of the entire system.
- User-friendly access to key information via the included touch screen or other interfaces.

- System alarms and alerts prominently displayed on the top of each screen.
- Operations data-logged to record and report system statistics on water savings, rain events, municipal water usage and more.
- Optional educational package offers data displays for students or the public to explain system operation and report water savings.



### Main Screen

Allows users to view in real time all key parameters of the system including tank levels, pump pressures, valve positions, pump activity, chlorine levels and many other key operational conditions.

All pages show Alarm Status; an Alarm Viewer page shows a history of alarm states.



### Manual Mode Screen

Manual Mode allows the operator to cycle all pumps and valves for testing purposes to verify proper operation.



### Set Up Screen

Set Up Screens allows authorized service technician to set all key parameters of the system including pump on/off points, alarm points, and all other system specific settings.



### Multiple Ways to Access Key Data

Wahaso's Control System allows authorized users to manage the system locally or remotely. Change settings, view alarms, retrieve harvesting data and view operational conditions in real time from the panel mounted touch screen or remotely via a secure internal network, a secure website, even by smart phone.

Wahaso control systems will interface with most Building Automation System protocols - BACNET™ and MODBUS™ are standard on Series 100. MODBUS™ is standard on Series 200.

|                             | SERIES 100               | SERIES 200    |
|-----------------------------|--------------------------|---------------|
| <b>Screen Size Standard</b> | 6" Standard              | 3.5" Standard |
| <b>Optional Screen</b>      | 8", 10", 15"             | 5.7"          |
| <b>Web Server</b>           | Yes                      | Yes           |
| <b>Remote Access</b>        | Yes                      | Yes           |
| <b>MODBUS™</b>              | Yes                      | Yes           |
| <b>BACKNET™</b>             | Yes                      | Yes           |
| <b>Ethernet</b>             | Yes                      | Yes           |
| <b>Datalogging</b>          | Yes                      | Optional      |
| <b>Panel Power</b>          | 208/230/460 VAC, 3-Phase |               |