PW-LAN Operation
www.poolwardentraining.com
PoolWarden, MiniWarden & SmarterPool Data Service

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Manual date 03/03/2016

A New Era In Pool & Spa Chemical Automation!

Contents

Installation

If the controller was purchased with the PW-LAN option it will already be installed. The PW-LAN includes the Ethernet module and a 10 foot Ethernet cable with a water tight cable grip already on the cable.

- Turn the controller off.

- Open the controller lid. Locate the Communication connector with the 4 mounting standoffs.

- If there isn't a hole in the enclosure bottom for the Ethernet cable, drill a 13/16" hole is a suitable location. Remove the nut from the cable grip and route the cable through the hole and attach the cable grip.

- Carefully install the Ethernet module into the connector. MAKE SURE TO LINE UP THE PINS TO THE CONNECTOR. If the pins are not properly placed damage may occur to the Ethernet module.

- Attach the cable to the Ethernet module.

- Attach the other end to the Internet connection: router, WIFI, Ethernet over powerline, …

- Turn the controller on.

- Observe on the readings screen a "N" or a "c" in the lower right corner. If these letters do not appear, the Ethernet module wasn't detected.

- "N" = Not connected. Not able to locate the Internet.

- "C" = Connected, was able to find the data server.
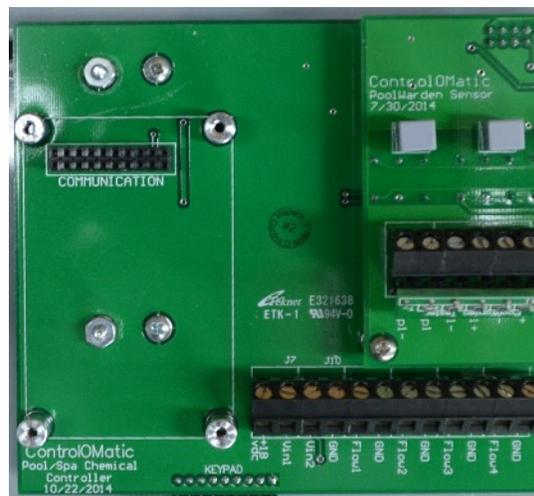
Getting Connected

Getting a connection to the Internet in a pool pump room can be a challenge and there are fortunately many options available. The following list is the most common.

- **Direct Ethernet connection:** If it is possible to run an Ethernet cable from the router to the pump room this method is the easiest to setup.

- **Ethernet over Powerline:** Includes two modules, one plugs into an 110 VAC outlet near the controller and one plugs into an 110 VAC outlet near the router. Follow the instruction that comes with the modules to get them setup. Make sure they are not plugged into a power strip as the power strips usually have filtering and the modules will not work.

- **WIFI:** This method works well but can be a challenge to setup. Follow the instructions that come with the WIFI module. Plug the Ethernet cable from the controller into the WIFI module. The WIFI module may need to be given to the IT department to get connected.

- **Cellular**: This method works well but does require a cellular (Verizon) connection, has a one time equipment charge and a yearly data usage fee.

Once connected, the controller should automatically detect the Internet and display a "c" in the lower right corner of the readings screen. To connect directly from outside the locations firewall the IT department will need to setup an IP address for the controller and route it to the controller in the router. The controllers LAN menu has support for disabling DHCP and using static values provided by the IT department.

DATA SERVER ACCESS

Contact ControlOMatic to have a login account created when adding the communication option. The login is created at https://www.poolwarden.com. A login and password will be provided that gives access to each controller purchased. There are three levels of access to the data server and each has access to different areas. The Dealer has full responsibility to setup manager and service user accounts as identified below.

- **Dealer Account:** Full administrative access and complete responsibility to create logins for Manager and Service Accounts. The Dealer Account also has access all areas.
- **Manager Account:** Access to Config and Unit Data.
- **Service Account:** Access to Unit Data.

Window	Sub Window	Dealer	Manager	Service
Home		Yes	Yes	Yes
	Pin Code Setup	Yes	No	No
	Groups	Yes	No	No
	Locations	Yes	No	No
	Routes	Yes	No	No
	Login Accounts	Yes	No	No
	Downloads	Yes	No	No
Config		Yes	Yes	No
Unit Data		Yes	Yes	Yes

Login and Demo Accounts

- Data Website: https://www.poolwarden.com
- Dealer Demo Account: login: demoadmin, password: PoolWarden
- Manager Demo Account: login: demo, password: PoolWarden
- Service Demo Account: login: adam, password: PoolWarden

Controller Data Summary - Logging In

Login using your Username and Password. If you forgot your password there is a Forgot Your Password link on the login page. For additional help visit www.poolwardentraining.com or contact ControlOMatic. The data summary screen listing all enabled controllers with the last readings will display.

HOME - My Information & Dealer Information

Select the Home link for a summary of your information. Click on your name or in this case "John Doe" which will open a screen to update or correct any information associated with the main contact. Click "Update" to save any changes. To update or change any of the Company Information on the right - Please contact ControlOMatic at 530-205-4520.

Pin Code Setup

This is where pin codes are setup and assigned to personnel including managers, clients, service technicians, etc. To assign a pin code, simply click "New Pincode", enter a name and up to a 5-Digit number (and less than 65535) and click "Create Pin code" to save. Pin code entries at the controller will

PoolWarden Service Pincodes

Name(edit)	Pin	Access	Made By
Adam Johnson	4422	view	Jane Smith
Jane Smith	4321	view	
John Doe	1236	view	

provide a time stamp on the data server of when a specific technician serviced the account. The technician would need to be trained to enter the pin code each time. The technician would need to access the Handy Menu by pressing the DOWN Arrow Key, then scroll down to "Enter service PIN" and enter the assigned pin code.

View All Pin Code Entries: Click "View All Pincode Entries" to access all entries for all units. Or go to "Unit Data" and click the "Location" then "Unit Pin Codes" to see entries just for a specific unit.

Select "view" in the access column to see the time stamps for that pincode and the controllers visited. Select "View All Pincode Entries" to see a complete list that will also show entries that don't match a name.

A-1 Pool & Spa Services (Demo Company) - Groups

Name	Comment	Created at	Count
Real Pool and Spa	Home Office	01/26/16	1
10 gallon Aquarium	Home Office	01/26/16	2
Office	Home Office	01/26/16	2

New

Groups: Dealer Access Only. Groups allow you to group multiple controllers together. When a facility has many pools and therefore many controllers this feature allows you to keep controllers located together in the Config and Unit Data views. The groups view also includes the quantity of controllers in the group. Press New to add a group or the Name to edit a group.

Add Account

Location Name	Type	Contact	Login	City	Phone
A-1 Pool & Spa Services	A	- John Doe	demoadmin	Grass Valley	530-555-1212
Hotel ControlOMatic	M	- Jane Smith	demo	Roseville	555-555-5555
ControlOMatic Health Club	D	- Adam Johnson	adam	Auburn	916-555-5555

Locations: Allows for entering the name and address information of a facility where a controller is installed. If controllers are installed at a number Best Westerns, a group of Best Western would list them all together, then the location can be used for each individual Best Western.

Routes: Allows for assigning specific controllers to those that have been given a login account. This can be used to track service routes for specific employees.

Login Accounts: List of the accounts that have been created that can have access to specific controllers.

Add Account: Select Add Account to add a new login account, select the Contact name to edit an existing account. Check Allow Logging In to grant access for logging in. Check Manager Account Access to allow access to all the data and configuration settings for the controllers that have been granted access. Enter a

login name and a password for the account. The login must be unique and if it is taken you will need to try a different name.

Add PoolWarden Access: This will bring a window that lists all controllers with the ability to grant and remove access to the controller.

Downloads: Location for software updates and directions for using the pocket programmer.

Member Account Information

Allow Logging In	☑
Manager Account Access	☑ Grant full access to selected PoolWardens
Location Name	Hotel ControlOMatic **Update**
First Name	Jane

Config - Controller Data Setup

This menu item allows Dealer Account Access to all units, and Manager Account Access to only the units specifically assigned to the Manager User Account by the Dealer. Click on "Config" at the top. This will list all controllers linked to the account.

				Home	Config	Unit Data	Sign Out

Controller Configurations

Controller Name	Alarm Settings	Data	IP	Model	SN
10 gallon Aquarium					
MW-Aquarium	create	8 minutes ago	173.195.186.62:1451	MiniWarden	790138
SP-Aquarium	create	8 minutes ago	173.195.186.62:1452	SmarterPool	760001
Office					
MW Test Strips	P1	8 minutes ago		MiniWarden	750003
PW Test Strips	disabled	8 minutes ago	192.168.88.25	PoolWarden DFC	700119
Real Pool and Spa					
Real Pool/Spa	P2 A1 A2	8 minutes ago	173.195.186.62:1453	PoolWarden DMTD	700100

- ■ Controller Name: Select the Controller Name to edit the information about the specific controller
- ■ Alarm Settings: Select to edit the data servers ability to take action on an alarm condition
- ■ Data: Shows how long ago a data packet was received, if in red it was within 24 hours
- ■ IP: If entered in the controller settings the IP will be listed as a link. Click on the link to directly connect to the controller and bring up the virtual display
- ■ Model: Either MiniWarden, PoolWarden or SmarterPool
- ■ SN: Serial number of the controller

Edit Controller Setup
In the Controller Name column, select the name of the controller to view/edit.

Group: If groups have been added in the Home area select the Group that this controller belongs to. This is used for sorting in the Config and Unit Data windows.
Location: If locations have been added in the Home area select the Location Name.
Route: If routes have been created in the Home area select the route for the controller.
Facility Name: Enter the name for the controller. This will be displayed on the Config and Unit Data windows.

Pool Name: This is the name that is setup in the controllers system menu and can't be changed in the server. The size of the pool in gallons can also be entered here.

Remote Connect: If the controller has been given an external IP address and port they can be entered here. This would be assigned by the IT department.

Local Connect: The IP address that can be used to connect to the controller when on the local network. In the controllers LAN/Information screen the local IP address is displayed.

Relay Operating Costs: Calculate that amount of chemical cost or energy cost for each relay for one hour of time and enter the value for each relay.

Time Zone: Choose the correct Time Zone to make sure the correct time appears when viewing the data.

Disable: If a unit will be out of service for a period of time and does not need to be displayed in any of the summary screens in Unit Data then check this box.

MiniWarden Setup 790138

Group - Location - Route

Group	10 gallon Aquarium ˅ If in a group for sorting
Location	ControlOMatic Pool/Spa - Scott Lenney ˅ Select the property loc
Route	Inside Route ˅ Select the property location
Facility Name	MW-Aquarium
Pool Name	Pool1 5 gallons

Network Configuration

Remote Connect	173.195.186.62 Port 1451
Local Connect	192.168.88.38

Relay Operating Costs

ORP1 Cost	

Other

Time Zone	Pacific ˅
Notes	

Disable	☐ Check to not display in the Unit Data screen

Alarm Settings

The Data Server has the ability to send emails and text messages separate from the controller. The controller can have wider limits than the data server, then the service company can be alerted to an alarm condition before the red alarm light turns on on the controller.

The Alarm Settings column has an abbreviation for how the alarm is setup in the data server. Click on the abbreviation to edit/create the alarm settings.

- Create: Alarms have never been setup for the controller
- Disabled: Alarms settings have been created, but currently not enabled
- P1/P2: Alarms are enabled for the appropriate pool. P1 = Pool 1, P2 = Pool 2.
- A1/A2: Use the alarms condition from the controller. If the alarm is on in the controller, then also turn the alarm on on the data srever. A1 = Pool 1, A2 = Pool 2.

Check the boxes for Pool1, Alarm1, Flow1 and Pool2, Alarm2, Flow2 to enable Data Server Alarms for this controller. Please enter a valid e-mail address and cell phone number for the recipient of the alarms. Also configure the alarm setting conditions to preference. It is useful setting up Alarm Conditions in the data server so the data server can send the Dealer a notice before the alarm triggers on the controller at the facility. This will give the Dealer notice that the pool needs servicing before the the client does. Simply enter the alarm conditions for pH, ORP, Temperature and Flow for each pool. Click "Update" to save the changes.

Unit Data - Summary of All Controllers

Select Unit Data to view a current snapshot of the enabled controllers.

- Select the Controller Name to access the data.
- Select the serial number in the Setup column to view the controllers configuration. This is view only and any changes made are not saved or sent to the controller.
- All of the displayed readings are from the last received data packet.
- The Info column shows how long ago the last data packet was received. If red it was within 24 hours.

Controller Data

Controller Name (Data Access)	Setup	Pool	PPM	Orp	pH	Temp	Alrm	Flow	info
10 gallon Aquarium									
MW-Aquarium1	MW: 790138		0.2	679	8.1	83	ON	ON	less than a minute ago
SP-Aquarium	SP: 760001		0.2		8.1	57	ON pHovr ORPovr	ON	less than a minute ago
Office									
MW Test Strips	MW: 750003	Test Strips	9.9	19	4.1	32	ON		less than a minute ago

Data Selector

Select the Controller Name to go to the data summary for a single controller. The window will show the following information.

- Day: The day of the month. Select to view the raw data for the day.
- Data: The number of data packets received on the day.
- Readings: The minimum - maximum readings for the day.
- Plot: Select to view the data graphically.
- CSV: Select to download the data for the day in the CSV spreadsheet format.
- L7: Select to view the last 7 readings that are around noontime.

Unit Data | Month Plot | On Times | Manual Measurements | Unit Pin Codes | Calibrations

PoolWarden Data

ControlOMatic Pool/Spa: PW Test Strips   Newest Data Date: 03/06/16 Total Data Records: 57200
Serial Number: 700119   Oldest Data Date: 09/25/13

<<< previous month **March 2016**

Day	Data	PPM1	Orp1	Ph1	Temp1	PPM2	ORP2	pH2	Temp2	Plot	CSV	L7
6	44	9.9 - 9.9	660 - 660	7.3 - 7.3	76 - 0	9.9 - 9.9	684 - 684	7.8 - 7.8	76 - 0	📉	📊	📊
5	53	9.9 - 9.9	660 - 660	7.3 - 7.3	76 - 76	9.9 - 9.9	684 - 684	7.8 - 7.8	76 - 76	📉	📊	📊

In addition to the data table there may be additional data links at the top depending of the controller. The PoolWarden will have all the choices and the MiniWarden and SmarterPool only include a few.

- Unit Data: Return to the data summary screen.
- Month Plot: Monthly plot of the data showing the maximum value in red and the minimum value in green.
- On Times: The total monthly on times for each relay for the specified units. If an hourly operating cost has been entered in the Config area for a controller the operating costs will also be listed.
- Manual Measurements: Provides a time stamp and the manual measurements that were taken. Manual Measurements can be entered by servicing the controller using the handy menu. Press the DOWN Arrow from the readings screen and scroll down to "Enter Measurements"
- Unit Pin Codes: Lists a time stamp, the pin code entered and a name if the code was assigned to an account in the Home area.
- Calibration: Lists a time stamp and the amount of calibration on each sensor. This data is updated when the controller is calibrated.