VIQUA

Owner's Manual

COMMcenter™

Models:
270272-R

MEMBER

Water Quality ASSOCIATION

CE   TRC CERTIFIED   ISO 9001

520157-R_RevK

Section 1   Safety Information

Please read this entire manual before operating this equipment. Pay attention to all danger, warning, and caution statements in this manual. Failure to do so could result in serious personal injury or damage to the equipment.

Make sure that the protection provided by this equipment is not impaired. Do not use or install this equipment in any manner other than that specified in the installation manual.

1.1 Potential Hazards:

Read all labels and tags attached to the instrument. Personal injury or damage to the instrument could occur if not observed.

	Waste electrical and electronic equipment (WEEE). This symbol indicates that you should not discard wasted electrical or electronic equipment (WEEE) in the trash. For proper disposal, contact your local recycling/reuse or hazardous waste center.		This symbol indicates gloves must be worn.
	This is the safety alert symbol. Obey all safety messages that follow this symbol to avoid potential injury. When on the equipment, refer to the Operational and Maintenance manual for additional safety information.		This symbol indicates safety boots must be worn.
	This symbol indicates a risk of electrical shock and/or electrocution exists.		This symbol indicates the operator must read all available documentation to perform required procedures.
	This symbol indicates that the contents of the transport package are fragile and the package should be handled with care.		This symbol indicates that the system should only be connected to a properly grounded, grounding-type controller receptacle that is protected by a Ground Fault Circuit Interrupter (GFCI).
	This symbol indicates a safety glasses with side protection is required for protection against UV exposure.		

1.2 Safety Precautions:

	⚠ **DANGER**
	Failure to follow these instructions will result in serious injury or death.
	• **Electric Shock:** To avoid possible electric shock, special care should be taken since water is present near the electrical equipment. Unless a situation is encountered that is explicitly addressed by the provided maintenance and troubleshooting sections, do not attempt repairs yourself, refer to an authorized service facility.
	• **GROUNDING:** This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electrical shock. This system is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. Improper connection of the equipment-grounding conductor can result in a risk of electrocution. Check with a qualified electrician or service personnel if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with this system – if it does not fit in the outlet, have a proper outlet installed by a qualified electrician. Do not use any type of adapter with this system.
	• **GROUND FAULT CIRCUIT INTERRUPTER PROTECTION**: To comply with the National Electrical Code (NFPA 70) and to provide additional protection from the risk of electric shock, this system should only be connected to a properly grounded, grounding-type controller receptacle that is protected by a Ground Fault Circuit Interrupter (GFCI). Inspect operation of GFCI as per manufacturers suggested maintenance schedule.

	⚠ **WARNING**
	WARNING: This product can expose you to chemicals including Phthalates, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

	NOTICE
	Read and understand the Owner's Manual before operating and performing any maintenance on this equipment.

Section 2   General Information

Figure 1 System Components

Item	Description	Part Number
1	RJ45 (Ethernet) cable	602942
2	COMMcenter (includes parts #602942)	270272-R
3	SD Card Kit (sold separately, optional)	270302-R
4	Cable Assembly. Commcenter Dry Contact	260201-R

Additional Accessories Purchased Separately:

To connect multiple units:

• RJ45 cable(s). Available from VIQUA and retailers. One is provided with each COMMcenter.

To connect to a computer:

• Dry Contact cable. Available from VIQUA and various dealers. One is provided with each COMMcenter.

Section 3   Installation

3.1 Single Unit

Procedure:

1. Install water treatment unit(s) if required.

   Note: A "unit" is a complete system.

2. Power up the unit(s).

3. Mount the COMMcenter on wall, if so desired (it may also rest on a flat surface). If using RJ45 (Ethernet) cable, COMMcenter may be installed at any distance from unit(s).

   Note: Mounting holes are 2.5" (6.8 cm) apart.

4. If connecting to a single unit, connect the unit's controller (refer to Figure 2) to the COMMcenter using the cable provided with the COMMcenter.

5. To connect to multiple units, refer to Figure 2 then return to step 5.

6. Refer to Section 4 for basic operations of the COMMcenter.

7. Set the time and date on the COMMcenter. Refer to How do I set the time? and How do I set the date?.

3.2 Multiple Units

•   Up to 9 units may be linked to the COMMcenter.

•   Make the required connections in the sequence as shown in Figure 2.

•   The port closest to the front of each controller is for the line out and the port closest to the back is for the line in.

•   Only one Ethernet connection cable is provided with the COMMcenter.

•   The units are identified by an "address". Until they have been connected, all units are addressed as "0".

•   The COMMcenter assigns each unit an address when first connected.

•   Each unit then retains the address it is assigned, even when unplugged or connected to another COMMcenter.

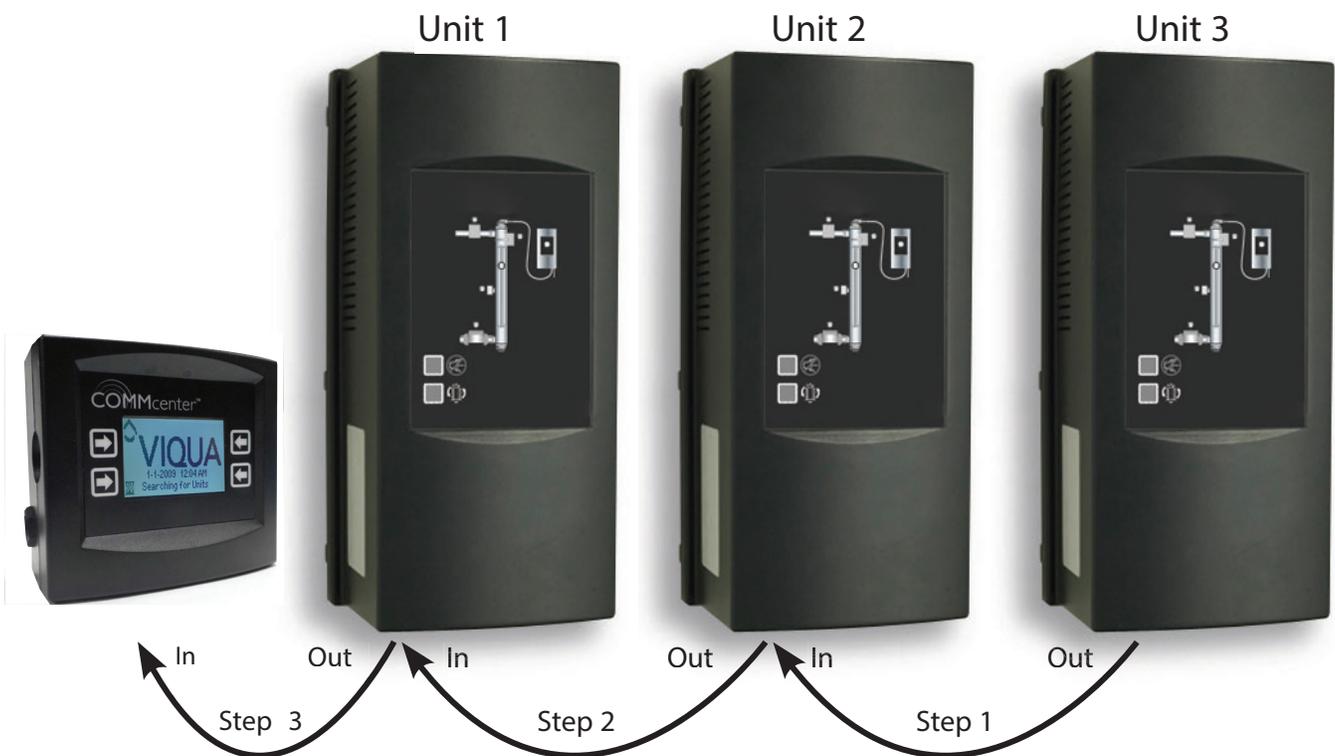•   Refer to How do I connect multiple units? for more information.

Figure 2 Multiple Unit Installation

Section 4   Operation

Navigation

There are four buttons on the COMMcenter. Their function corresponds to what is displayed on the screen next to each button, as illustrated below.

Figure 3 COMMcenter

1	Use this button to select "Settings".	**3**	Use this button to move up through options.
2	This button does not have an assigned function on this screen.	**4**	Use this button to move down through options.

Standard and Advanced Menu Settings

There are two menu settings: Standard and Advanced. For the features of each, refer to the Menu Structure on the next page. When the COMMcenter is connected to more than one unit, it defaults to Advanced Menus mode. Otherwise, this mode may be selected - refer to How do I change the menu mode?.

Welcome Page and Home Page

The Welcome page appears during start-up. Left unattended, the COMMcenter will alternate between the Welcome page and the Home page. The latter displays the most critical information about the performance of the unit(s). To view the menu options from the Welcome page or the Home page, press any button.
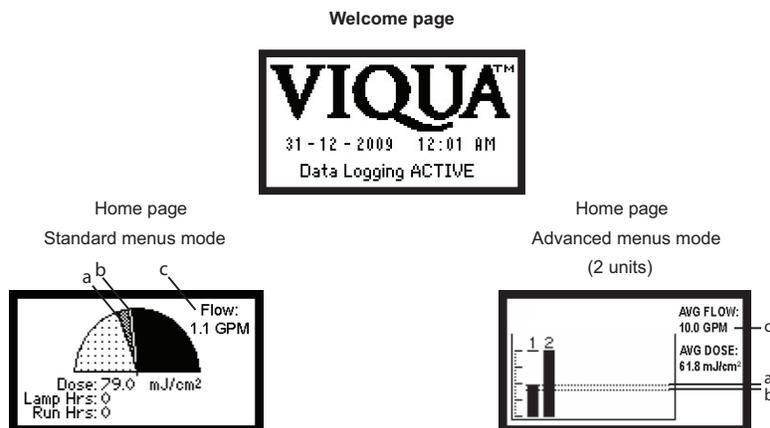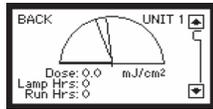

Figure 4 COMMcenter

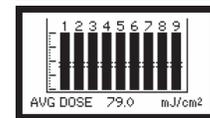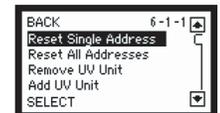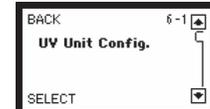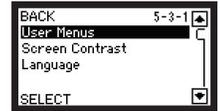|	
a) Dose 45, nearing alarm set point	c) GPM Flow rate (if so equipped with flow meter)
b) Dose 40, alarm set point. Unit will shut solenoid valve (if so equipped) below this level.	

Operation

Screens with a double outline are only visible when in Advanced Menus mode.

Units ¹

BACK — UNIT 1
Dose: 0.0 mJ/cm2
Lamp Hrs: 0
Run Hrs: 0

Tip:
Most screens are numbered.

BACK 2-1
Current Alarms
SELECT

BACK 2-2
Alarm History
SELECT
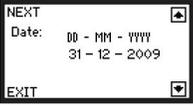
Tip:
Use the buttons on the right to navigate up and down the selections.

Alarms ²
SELECT

BACK 3-1
View Current Lamp Run Hours
SELECT

BACK 3-2
View Power Saving Lamp Hours
SELECT

BACK 3-3
Reset Current Lamp Run Hours
SELECT

Lamp Hrs ³
SELECT

BACK 4-1
Contact Information
SELECT

BACK 4-2
Firmware
SELECT

Info ⁴
SELECT

Settings ⁵
SELECT

BACK 5-1
Time Settings
SELECT

BACK 5-2
Date Settings
SELECT

BACK 5-3
Screen Settings
SELECT

BACK 5-3-1
User Menus
Screen Contrast
Language
SELECT

BACK 5-4
Volume Settings
SELECT

Maint. ⁶
SELECT

BACK 6-1
UV Unit Config.
SELECT

BACK 6-1-1
Reset Single Address
Reset All Addresses
Remove UV Unit
Add UV Unit
SELECT

BACK 6-2
UV Unit Service
SELECT

BACK 6-3
Flow Rate Selection
SELECT

Overview ⁹
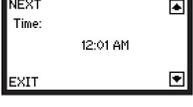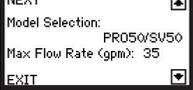SELECT

1 2 3 4 5 6 7 8 9
AVG DOSE 79.0 mJ/cm2

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Initial Setup - First-time On Sequence

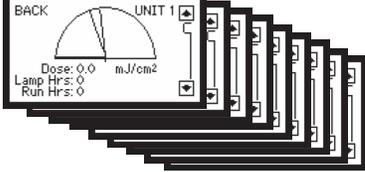*Use buttons on right to set language*

Use buttons on right to set date
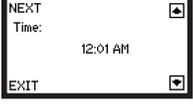
Use buttons on right to set time

Use buttons on right to set model

Use buttons on right to set max flow rate

What dose is being delivered?
How long has my lamp been running?
How long has my system been running?

One screen for each unit, up to a maximum of 9. Navigate between units using buttons on the right. If only one unit is present, this is the Home page.

Note: The Home page for multiple systems is also useful as it displays the dose being delivered by each unit. It may be viewed by selecting the following:

What alarms are currently present?

Alarms must first be acknowledged by pressing any button on the COMMcenter or by pressing the Mute button on the power supply. This does not remove the alarm condition.

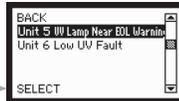*Note: The "Alarms" screens may only be viewed when in Advanced Menus mode.*

Use buttons on right to scroll through alarm

You can review helpful advice by simply pressing the bottom left button.

What alarms have occurred?
The COMMcenter stores the last 40 alarms that have occurred in memory. The "Alarms" screens may only be viewed when in Advanced Menus mode.
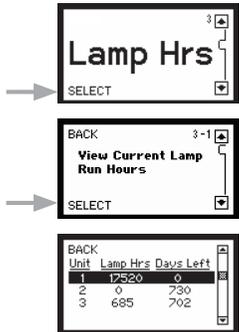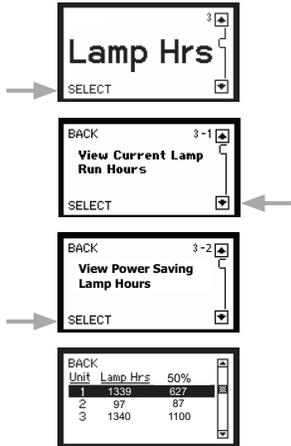

Use buttons on right to scroll through alarm
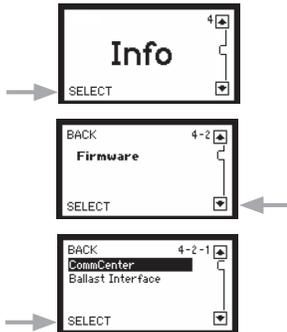
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How many more days should my lamp last?

Note: The "Lamp Hours" screens may only be viewed when in Advanced Menus mode.

How do I check my power savings hours?

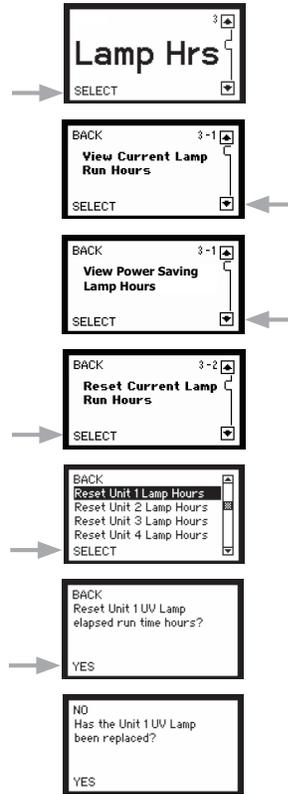

What firmware revision do I have?

Use buttons on right to choose COMMcenter or ballast interface (controller).

How can I reset the lamp run hours after installing a new lamp?
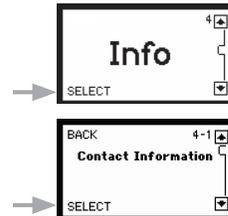
The lamp run hours can also be reset at the power supply. Refer to system Owner's Manual for details.

Note: the "Lamp Hours" screens may only be viewed when in Advanced Menus mode.
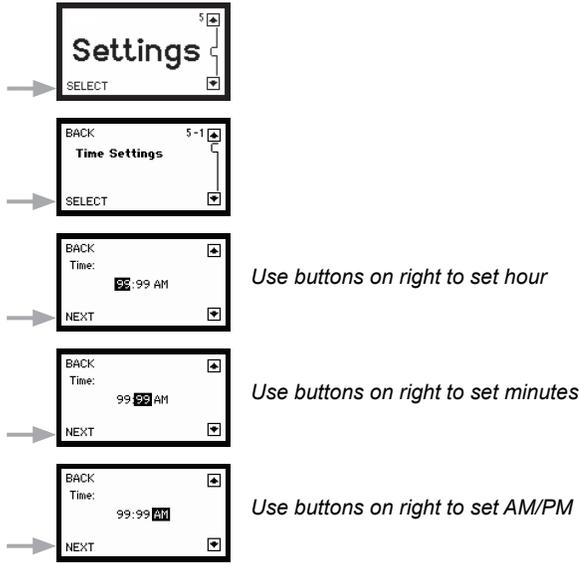

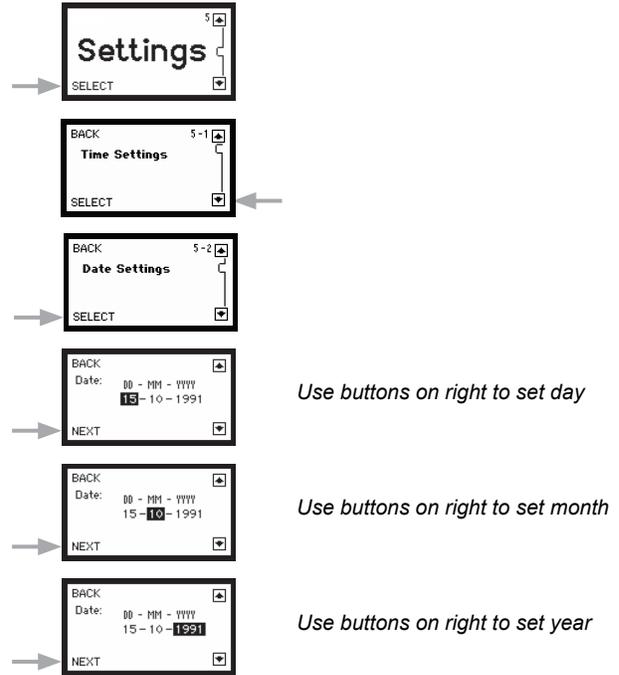*Use buttons on right to scroll through the unit.*

Who do I contact for help?

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How do I set the time?

The COMMcenter is equipped with a battery that will allow it to track the time for the life of the product.
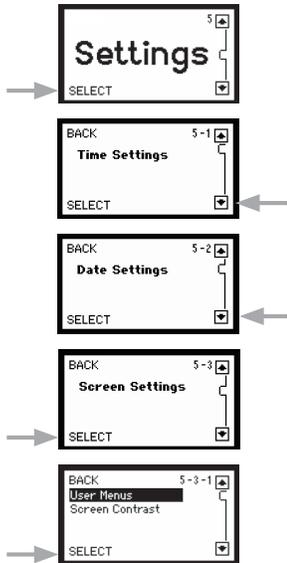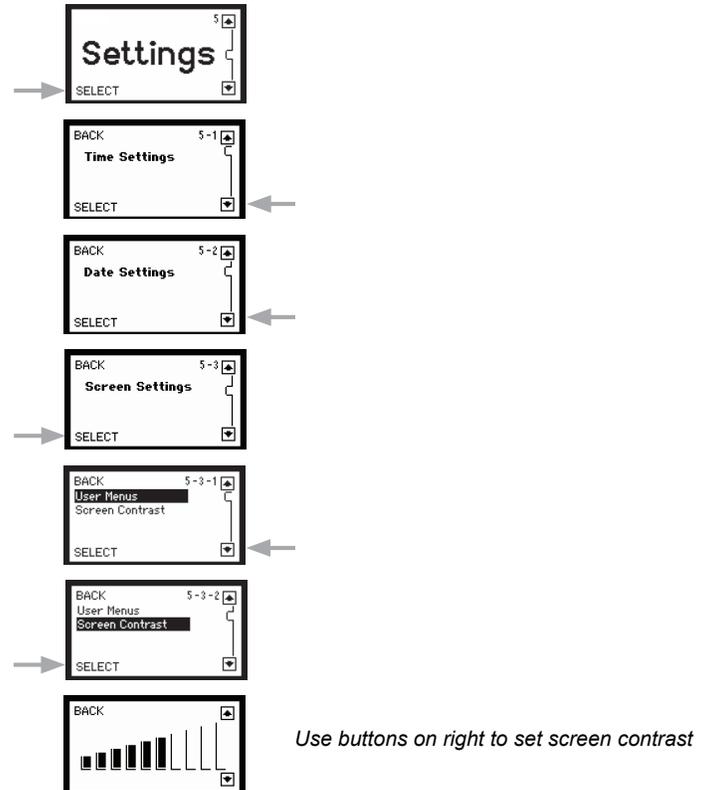
Settings — SELECT

BACK 5-1 Time Settings — SELECT

BACK Time: **99**:99 AM — NEXT *Use buttons on right to set hour*

BACK Time: 99:**99** AM — NEXT *Use buttons on right to set minutes*

BACK Time: 99:99 **AM** — NEXT *Use buttons on right to set AM/PM*

How do I set the date?

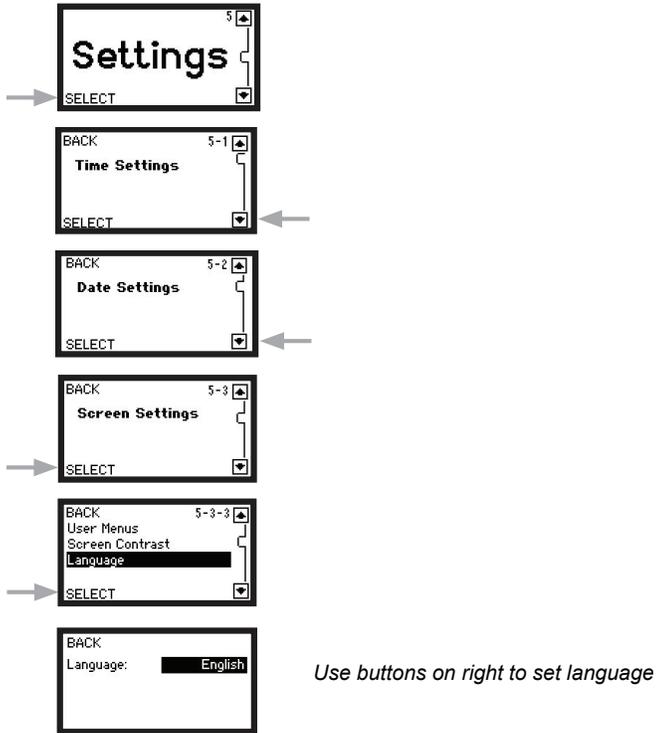The COMMcenter is equipped with a battery that will allow it to track the date for the life of the product.

Settings — SELECT

BACK 5-1 Time Settings — SELECT

BACK 5-2 Date Settings — SELECT

BACK Date: DD – MM – YYYY **15**–10–1991 — NEXT *Use buttons on right to set day*

BACK Date: DD – MM – YYYY 15–**10**–1991 — NEXT *Use buttons on right to set month*

BACK Date: DD – MM – YYYY 15–10–**1991** — NEXT *Use buttons on right to set year*

How do I change the menu mode?

Settings — SELECT

BACK 5-1 Time Settings — SELECT

BACK 5-2 Date Settings — SELECT

BACK 5-3 Screen Settings — SELECT

BACK 5-3-1 **User Menus** Screen Contrast — SELECT

How do I adjust the screen contrast?

Settings — SELECT

BACK 5-1 Time Settings — SELECT

BACK 5-2 Date Settings — SELECT

BACK 5-3 Screen Settings — SELECT

BACK 5-3-1 **User Menus** Screen Contrast — SELECT

BACK 5-3-2 User Menus **Screen Contrast** — SELECT

BACK — *Use buttons on right to set screen contrast*

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How do I change the language?

Use buttons on right to set language

How do I adjust the volume of the audible alarm?

Use buttons on right to set volume
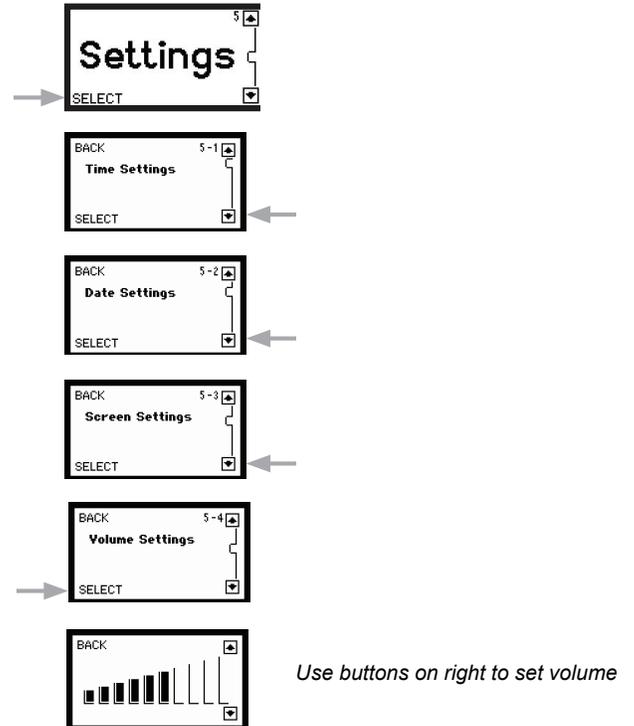
How do I permanently remove a unit?

This procedure resets the address for one unit to "zero", and the COMMcenter will no longer track this unit. Use this when permanently removing a unit. This way, if it is used again in another location, it will not have an assigned address.

Note: The "Maintenance" screens may only be viewed when in Advanced Menus mode.

Use buttons on right to scroll through the unit
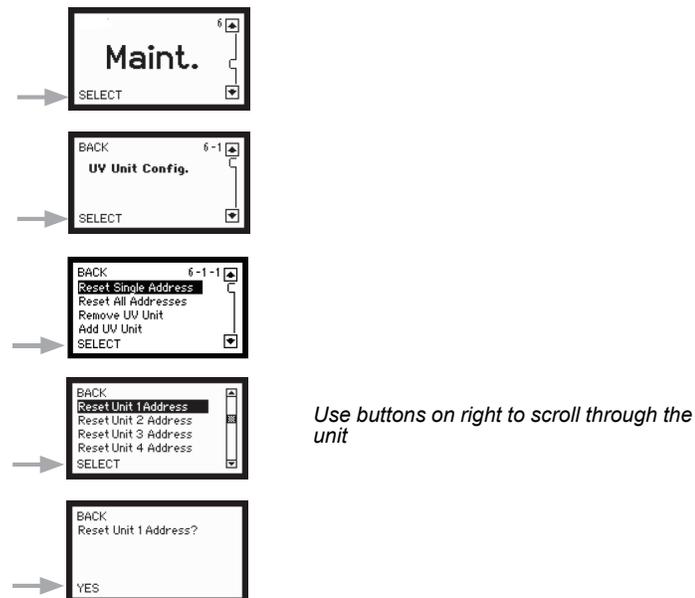
How do I reset all addresses?

This procedure resets the addresses of all units to "zero". Use this only after consulting with VIQUA Technical Support at 1-800-265-7246.
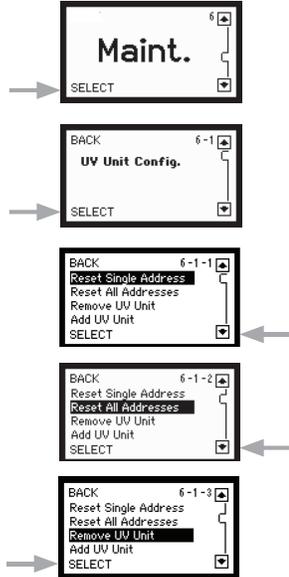
Note: The "Maintenance" screens may only be viewed when in Advanced Menus mode.

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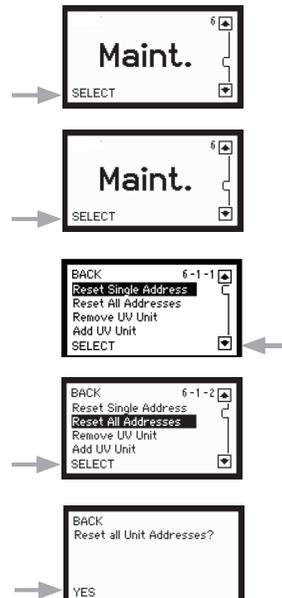
How do I remove a unit?

When this procedure is followed, the unit that is removed is no longer tracked by the COMMcenter. Use this procedure when removing a unit from service, such as when turning off a unit that is only used as a back-up. This avoids lost-communications alarms.

Note: The "Maintenance" screens may only be viewed when in Advanced Menus mode.

## How do I re-install a unit?

Use this procedure when a unit that was previously removed from service (ex: back-up system) needs to be returned to service. You must know the address of the system being returned to service.

Note: The "Maintenance" screens may only be viewed when in Advanced Menus mode.

Operation
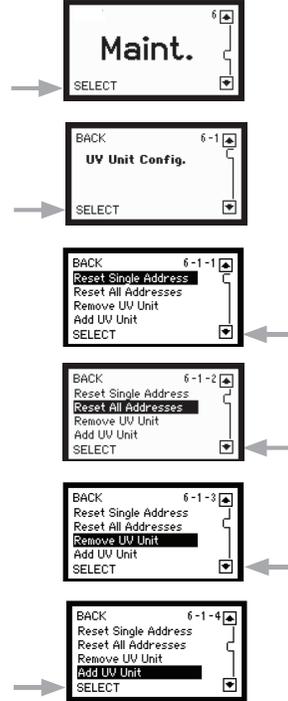
How do I connect multiple units?

Use this procedure when connecting multiple units to the COMMcenter (additional Ethernet cable(s) required, refer to Section 2). It is advised to connect and add one additional unit at a time, so that their addresses will match up with their location. Refer to the diagram on page 5 for directions on linking additional units to the COMMcenter. After selecting "Add UV Unit", follow the prompts to add units to increase the number of existing units.
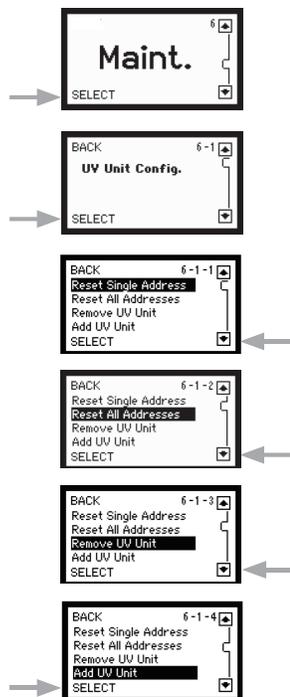
How do I reset the COMMcenter?

To reset a COMMcenter, hold down any two buttons diagonally opposite each other while connecting it to a unit. This will return the COMMcenter to its factory default settings.

What if I am replacing the COMMcenter?

First, it is important to reset the address on the primary unit using the original COMMcenter. This can be done by following the procedure to permanently remove a unit (page 14). The new COMMcenter should then automatically detect the primary unit. If additional units were connected to the original COMMcenter, they can be added using the procedure for connecting multiple units. In this case however, choose "No" when asked if units are being added to increase the number of additional units, and select "Yes" when asked if units have already been assigned a designated address. If the unit was not removed from service properly, it may be necessary to reset the unit before it can connect to the new COMMcenter (Refer to How do I reset the ballast unit?).

## How do I reset the ballast unit?

To reset the ballast unit, hold down both buttons on the front of the unit while connecting the power cord. This will reset the address and lamp life counter within the unit.

WARNING: Resetting the ballast unit will erase all information regarding lamp life and reset the lamp life counter. If you wish to reset the lamp hours, do so through the COMMcenter.

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How do I turn off a unit for servicing?

This procedure provides a two hour window during which the COMMcenter no longer tracks the specified unit. Use this procedure when a unit must undergo service so as to avoid alarms.
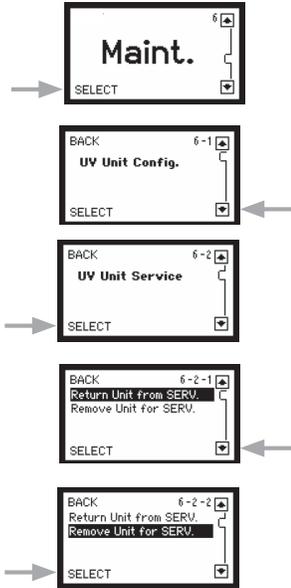
How do I turn a unit on after servicing?

This procedure triggers the COMMcenter to resume tracking the unit specified. Note that if this procedure is not followed the COMMcenter will try to resume tracking of the given unit automatically, two hours after it was first turned off for servicing.
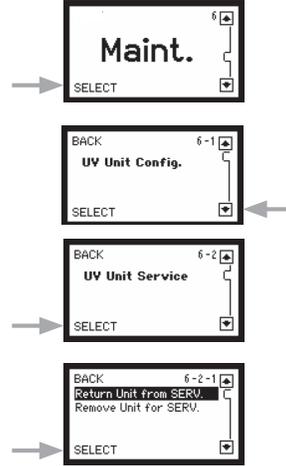
How do I change the flow rate?

Use buttons on right to set model

Use buttons on right to set max flow rate
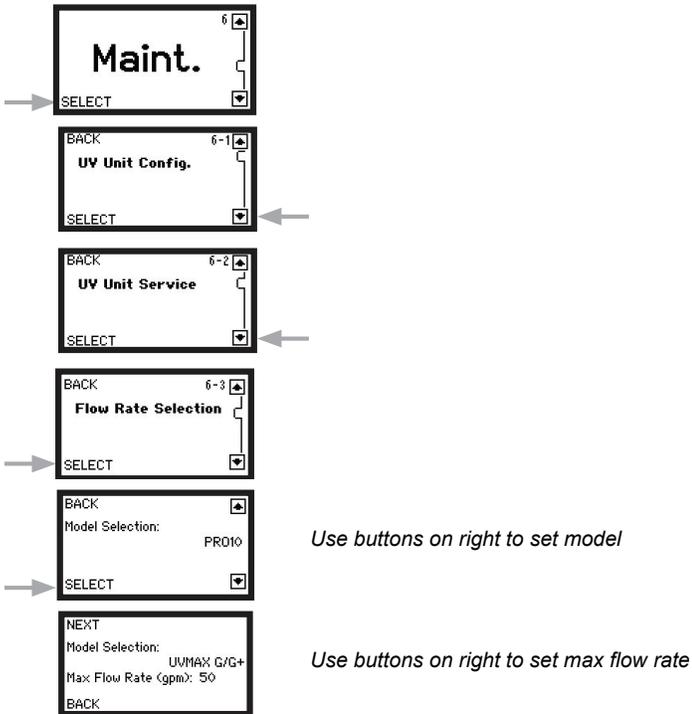
How do I change the Dose Alarm Level?
* For Pro10, 20 and 30 models only

Use buttons on right to set model

Use buttons on right to set dose alarm level 40, 80 or 120mJ/cm^2
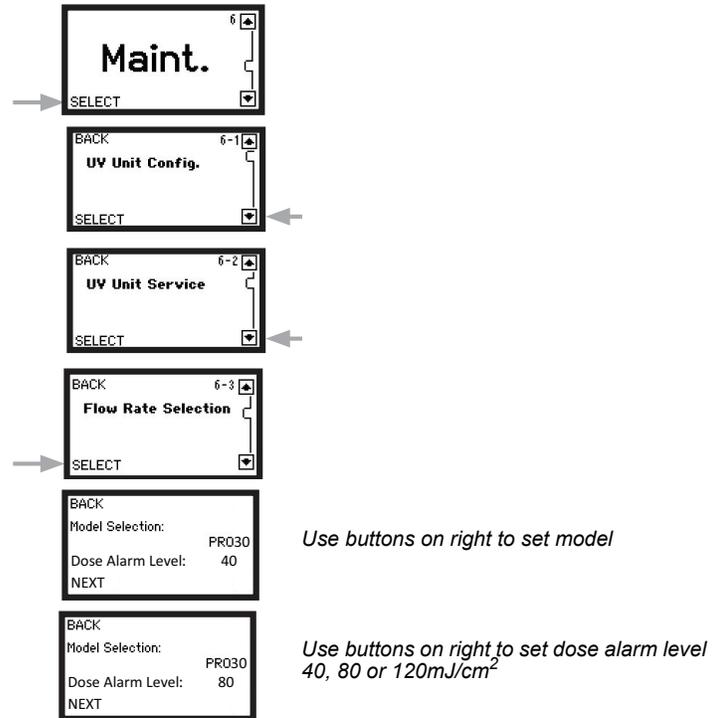
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Section 5 Data-Logging

5.1 Using a Micro-SD Card

The COMMcenter has the ability to store data on the performance of your system(s) to a Micro-SD card, refer to Figure 5. Micro-SD cards are available at Viqua or various Viqua dealers.

Information is recorded every minute and a 512MB card should store 18 years worth of information.

To use this data-logging feature, simply insert a Micro-SD card into the slot on the left side of the COMMcenter.

Figure 5 Micro-SD card

5.1.1 Extract Micro-SD Card

Procedure:

1. Push the card into the COMMcenter.

2. This will cause the card to spring out slightly for removal.

Figure 6 Extracting Micro-SD card

5.1.2 Download Information Stored on Micro-SD Card

Procedure:

1. Insert the card into a card reader that is attached to a computer.

   Note: Card readers are available from various retailers or at Viqua.

2. Use the computer's file management application to view the contents of the card.

3. A folder with name "dd_mm_yy" format contains the data-log files, with CSV extension.

4. These files may be opened in Micros oft Excel for easy viewing of the data.

5. You may wish to save the file to the computer's hard drive.

6. To re-use the Micro-SD Card, re-insert the card into the COMMcenter.

5.1.3 When Data-logging from Multiple Units

When using a standard Ethernet (RJ45) cable to connect the COMMcenter to the first controller, it is important to note that power is provided to the COMMcenter through this cable. Therefore, if power to this unit is interrupted the COMMcenter loses power and data-logging is temporarily stopped. This may not be desirable in situations where multiple units are installed. To avoid this situation, it is recommended that you reconnect and reconfigure the COMMcenter using another unit.

Section 6   COMMcenter Programming

6.1 SD Card Firmware Updating

COMMcenter firmware updates can be easily done via the SD Card. Power off the COMMcenter and remove SD card. Load the new firmware version onto the SD card via a computer device. Reinsert the SD card back into the COMMcenter. While holding down the top right button power up the COMMcenter until the screen displays Updating Firmware. Release the button and wait until the COMMcenter reboots.

Section 7   Dry Contact

7.1 Description

The COMMcenter has a Dry Contact output connector that can be used to signal a remote device such as a remote alarm of auto dialer when a major alarm occurs with the UV system.

7.2 Alarm Descriptions

The Dry Contact output will inform you of the following major Alarms

- Lamp Fault
- Ballast Fault
- UV Sensor Fault
- Low UV Fault

7.3 Connections

Connection to the Dry Contact output connector is done via the supplied Dry Contact Cable assembly PN 260201-R. Wiring connections are as follows:

- Normally Open (N.O.) - RED Wire
- Normally Closed (N.C.) - GREEN Wire
- Common (COM) - BLACK Wire

7.3.1 Connection Logic Chart

The following is the logic chart for the Dry Contact relay.

Wire	Output Terminal	UV System Running Normally (No Major Alarms)	UV System is in one of the Major Alarms or there is no power to the UV system
RED	N.O. (Normally Open Contact)	The Electrical path between these contacts are closed	The Electrical path between these contacts are open
BLACK	COM. (Common)		
	COM. (Common)	The Electrical path between these contacts are open	The Electrical path between these contacts are closed
GREEN	N.C. (Normally Closed Contact)		

Section 8   Manufacturer's Warranty

Our Commitment

During the applicable warranty period noted below, VIQUA will provide warranty coverage, described below, for your product. After the product's warranty expires, repairs and replacement parts can be provided to you for a reasonable charge.

How to Get Help

To obtain help under this warranty, contact the VIQUA Technical Support Center at 1-800-265-7246 (North America), 519-763-1032 (International) or by e-mail at technicalsupport@viqua.com. Please have available the serial number, date of purchase, the name of the dealer from whom you purchased your VIQUA product ("the source dealer"), as well as a description of the problem you are experiencing. A VIQUA technician will help you troubleshoot the problem and isolate the defective part.

To establish proof of purchase to make a warranty claim, you will need to retain your original invoice.

Specific Warranty Coverage

Warranty coverage is specific to the following VIQUA products: COMMcenter™

One-Year Limited Warranty for Original Parts

VIQUA warrants original parts be free from defects in material and workmanship for a period of one (1) year from the date of purchase. During this time, VIQUA will repair or replace, at its option, any defective parts covered by the warranty.

Please return the defective part to a VIQUA dealer, who will return it to VIQUA. VIQUA will either make the necessary repairs or, if VIQUA determines that a replacement is required, will provide a replacement part. VIQUA will then return the part to the dealer. This warranty does not include shipping and handling charges which will be collected from you by the dealer.

Parts repaired or replaced under this one (1) year warranty will be covered under warranty to the end of the original one (1) year warranty period. This warranty is also subject to the conditions and limitations outlined under the heading "General Conditions and Limitations" below.

Warranty for Replacement Parts

VIQUA warrants parts purchased to repair product components that are no longer covered by the original warranty to be free from defects in material and workmanship for a period of three (3) months from the date of purchase. During this time, VIQUA will repair or replace, at its option, a defective replacement lamp with part free of charge except for shipping and handling charges.

The warranty period on replacement parts will be verified using date codes and/or purchase receipts. VIQUA will advise you whether the defective item needs to be returned to a VIQUA dealer for failure analysis. Replacement lamps and parts provided under warranty will be sent to your VIQUA dealer.

General Conditions and Limitations

None of the above warranties cover damage caused by improper use or maintenance, accidents, acts of God or minor scratches or imperfections that do not materially impair the operation of the product. The warranties also do not cover products that are not installed as outlined in the applicable Owner's Manual.

The limited warranties described above are the only warranties applicable to the VIQUA products listed in the "Specific Warranty Coverage" section. These limited warranties outline the exclusive remedy for all claims based on a failure of or defect in any of these products, whether the claim is based on contract, tort (including negligence), strict liability or otherwise. These warranties are in lieu of all other warranties whether written, oral, implied or statutory. Without limitation, no warranty of merchantability or of fitness for a particular purpose shall apply to any of these products.

VIQUA does not assume any liability for personal injury or property damage caused by the use or misuse of any of the above products. VIQUA shall not in any event be liable for special, incidental, indirect or consequential damages. VIQUA's liability shall, in all instances, be limited to repair or replacement of the defective product or part and this liability will terminate upon expiration of the applicable warranty period.

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