

# AirQ 880





Original Instructions

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## IMPORTANT SAFETY INSTRUCTIONS

The most up-to-date version of this manual is available for download at <u>airqmanuals.com</u>

#### IMPORTANT SAFETY INSTRUCTIONS – SAVE THESE INSTRUCTIONS

# **Appliance Precautions**

- 1. WARNING When using electric products, basic precautions should always be followed, including the following:
- Read all the instructions before using the product.
- Children should be supervised not to play with the appliance.
- Do not put fingers or hands into the product.
- The appliance must be operated in an upright or vertical position.
- The appliance should not be used with the door in the open position. The door is opened only to perform a cartridge or program change.
- Never put your nose to the output of the AQ880. Within 12 inches of the output, the fragrance is highly concentrated. The improper inhalation of high concentrations of fragrance may cause irritation including watery eyes, headache, cough and upper respiratory discomfort.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- 2. INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS
- The appliance is built to be plugged into an 110VAC or 220VAC power outlet. Must be used only
  with the approved and included power supply. The UL and CE compliant power supply converts
  power to 15VDC to power the appliance. The appliance must only be supplied at Safety Extra
  Low Voltage (SELV), corresponding to the marking on the appliance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a hazard.
- Unplug before cleaning.
- To reduce the risk of electric shock, the appliance should only be plugged into a properly grounded outlet box. If there is any doubt as to whether an outlet box is properly grounded, a qualified electrician should be consulted.
- It is recommended that the user remove the appliance from the wall to test and reset the GFCI outlet on a regular basis.

#### Fragrance Cartridge Precautions

- Use only AirQ by Prolitec fragrance cartridges.
- Read the Consumer Product Safety Information Sheet and the Material Safety Data Sheet provided with each shipment of Cartridges. Insure that these information sheets are available for review by employees.
- Use latex gloves to handle a Cartridge to avoid the liquid getting on hands. The AirQ fragrances are formulated so as to not be harmful in contact with the skin, but the concentrated nature of the fragrances may make the scent difficult to remove from hands and skin.
- Wash your hands after all contact with Cartridges or fragrance.
- While AirQ Air Treatment Agents do not contain ingredients deemed harmful to the skin, if there is skin contact, wash with soap and water. If there is contact with the eyes, irrigate the eye with fresh water for 5 minutes. If there is any eye irritation, consult a physician immediately.

#### FCC Statement - Class B Digital Device

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, this equipment may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

## About AirQ 880

Welcome to a whole new world of air treatment from Prolitec, the technology leader in air care with scent. The AQ880 is the most advanced commercial air-treatment system on the market today. It is the world's first fully adjustable commercial air-treatment system engineered to serve indoor spaces.

AQ880 is a patented, computer-controlled, always-on system capable of maintaining a constant, uniform and controlled level of scent or odor neutralizer.

The AQ880 converts fragrances and odor control formulations ("Agents") into ultra-fine droplets for controlled distribution as an aerosol or vapor directly into a room. It is designed for permanent installation on a wall in the area to be treated.

The AQ880 is managed by an on-board computer that is fully adjustable, enabling intensity settings to match space sizes from 200 to 30,000 cubic feet (10-850 cubic meters). The AQ880 is programmable, capable of executing 21 distinct start and stop times, repeatable daily or weekly. Utilizing up to 21 programs and the full range of 50 intensity settings allows you to optimize the fragrance levels depending on peak and non-peak occupancy in the space. This new feature can save you money on fragrance AND service visits.

Typical AQ880 applications include air treatment to enhance or improve indoor air quality including odor cancelling, and ambient scenting in public spaces such as casinos, malls, hotels, theaters, ballrooms, convention centers, hospitals, retirement and assisted living facilities, schools and restrooms. A single AQ880 can do both odor control and ambient scenting at the same time.

The AQ880 with Prolitec odor control formulations and fragrances will cancel a wide range of offensive odors and replace them with pleasant scents available from the Prolitec fragrance catalog or custom developed to meet client requirements.

The AQ880 works by generating ultra fine, ultra-light droplets approximately 1 micrometer ( $\mu$ m) in diameter. By comparison, a droplet from a typical pressurized aerosol spray can is 50 microns (50000 nanometers) in diameter or 50 times larger than an AQ880 droplet. In terms of weight and volume of liquid, the comparison is even more dramatic. A 50-micron aerosol droplet is 125,000 times heavier than a 1  $\mu$ m AirQ droplet.1 (See also Table 1 below.) This tiny AirQ droplet offers many performance benefits over a conventional aerosol including: completely uniform distribution of the treatment agent; 50 times more exposed surface area; and the absence of any liquid deposits on surfaces.

AQ880 is simple to install and program for specific room size, airflow conditions, and desired scent intensity. Minimal maintenance is required beyond the periodic change of the disposable fragrance cartridge, bi-annual replacement of one battery, and a simple wipe down or dusting of exterior surfaces. Once installed in the right location, AQ880 will outperform any other system, providing completely uniform scent distribution.

The AQ880 advanced technology creates a scent effect with a smaller quantity of fragrance ingredients than any other method. The chemicals employed in making AQ880 fragrances are fully compliant with the most restrictive air-quality and inhalation standards. AQ880 generates no harmful VOCs and uses no ethanol or propellants. Quite simply, used as directed, AQ880 is the greenest, most eco-friendly way to introduce scent into an interior space with no negative impact on indoor air quality. This is not an accident. The scientists and engineers at Prolitec are committed to the highest ecological and human safety standards.

This user guide is easy to read. It is also important to read. AQ880 is a high-performance appliance that, installed and used correctly, will meet the most demanding requirements.

Table 1.	Prolitec AirQ	Technology vs.	Aerosol Spray	Can Tech	nology

Parameter	Prolitec AirQ Technology	Aerosol Spray Can	
Droplet Diameter, µm	1	50	
Volume per Droplet, μm³	0.52	65,450	
Surface Area per Droplet, µm²	3	7,854	
Relative Volume per Droplet	1	125,000	
Relative Weight per Droplet	1	125,000	
Number of Droplets per Equivalent Volume	125,000	1	
Surface Area/Volume, μm¹	6.00	0.12	
Relative Surface Area per Volume	50	1	

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# Unpacking

Remove the appliance from the container. The following items should be included:

- 1. AQ880 Appliance
- 2. Power Supply
- 3. Key



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- 1. Remove the cartridge.
- 2. Unplug the appliance.
- 3. Store at -4°F (-20°C) to 158°F (70°C), 5% to 95% humidity

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### General

#### Location

The AQ880 is designed for freestanding operation on floor surfaces near a 110 to 240V outlet.

#### Service Area

The service area range of AQ880 is from 200 to 30,000 cubic (10 to 850 cubic meters). Of course this can vary significantly depending on airflow, number of fresh air changes per hour, temperature, humidity and desired service interval. The AQ880 can be adjusted from 1 to 50 to accommodate these variations.

# **Estimating Cartridge Life**

Estimating how long a cartridge will last and the number of days between services is critical to performing an installation that can be serviced efficiently. This includes determining the number of AQ880s needed for a space. Please refer to AirQ's 'S4 (Sizing, Service & Success) Tool,' available at AirQTools. The chart below can be used as a rough guideline for sizing.

### AQ880 Room-Size Table

	Normal Off-Cycle (NOC)		Short Off-Cycle (SOC)		Very Short Off-Cycle (VSOC)	
Output Level Range	Room Volume Range		Room Volume Range		Room Volume Range	
	CFT	СМ	CFT	СМ	CFT	СМ
1-5	400 - 1600	11 - 45	1200 - 5000	34 - 142	4300 - 13300	122 - 376
6-10	2000 - 3500	57 - 99	6000 - 9400	170 - 266	15000 - 19400	425 - 549
11-15	3900 - 5500	110 - 156	10200 - 13300	289 - 376	20200 - 22800	572 - 645
16-20	6000 - 7900	170 - 224	14000 - 16700	396 - 473	23300 - 25000	659 - 708
21-25	8500 - 10700	241 - 303	17400 - 19800	492 - 560	25400 - 26600	719 - 753
26-30	11300 - 13700	320 - 388	20300 - 22400	574 - 634	26800 - 27700	758 - 784
31-35	14400 - 17100	408 - 484	22900 - 24700	648 - 699	27800 - 28500	787 - 807
36-40	17900 - 21000	507 - 594	25100 - 26700	710 - 756	28600 - 29100	809 - 824
41-45	21800 - 25200	617 - 713	27100 - 28500	767 - 807	29200 - 29600	826 - 838
46-50	26100 - 30000	739 - 849	28800 - 30000	815 - 849	29700 - 30000	841 - 849

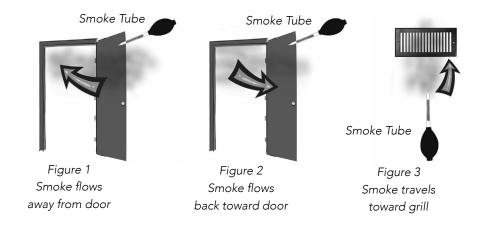
These settings are suggested as a starting point. Start on the lower end of the range and adjust after one hour. Fragrance type, room size, number of fresh air changes per hour, temperature, humidity and user preference will determine the final setting. Best practice is to use AirQ's 'S4 Tool' at AirQ Tools.

# **Appliance Location**

- 1. Placement of your appliance is the KEY TO OPTIMAL PERFORMANCE. It is important to identify a location where the output of the AQ880 can use, rather than fight, the natural air currents in a room.
- 2. Air currents in a room are determined by using a SMOKE TEST KIT available from Prolitec or any source of smoke or vapor, such as a candle or match.
- 3. To conduct a smoke test, stand at the entrance of the room in front of the door and observe the direction of the smoke or vapor. If the smoke drifts into the room your appliance should be installed somewhere near the door.

See Figure 1. If the smoke drifts out of the room, the AQ880 appliance should be placed furthest from the door. See Figure 2. If there is no clear direction that the smoke travels or it travels upward into the air-conditioning return grill, find a position near the air-conditioning supply grill. See Figure 3

NOTE: The location of the AQ880 MUST NOT be near an HVAC return grill, exhaust fan or vent, or an open door or window through which air is leaving the space. Remember, you want to work with the natural air flow, not against it.



# ScenXus Installation

# Connecting the System

- 1. Unpack the appliance as normal, but do not plug it in yet.
- 2. Remove the extra labels from the Scenxus module.



3. Adhere the remaining ScenXus label inside the appliance door, adjacent to the serial number, and take a photograph.





4. Unscrew (2) Phillips head screws on handle cover and remove the cover. Attach the ScenXus module to the appliance by pressing the connector into place.





5. While remaining in the approximate installation location of the appliance, open "settings" on your smart phone and locate "Wi-Fi settings."



6. Under "Wi-Fi settings," make sure you see the network that will provide ScenXus internet access.



7. Install the appliance normally, with ScenXus still attached.





9. The network icon will blink

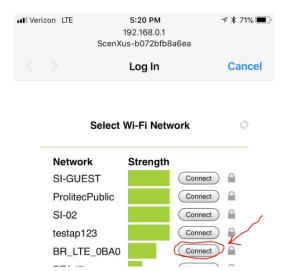


10. Refresh the list of Wi-Fi networks on the phone until you see a network titled "ScenXus..."



On most iPhones, you will be redirected to a list of other networks. On most Android phones, you will either need to select "manage router" or open a web browser and enter the IP address 192.168.0.1 to see the list of networks.

12. Connect to the network that will provide ScenXus with internet access.



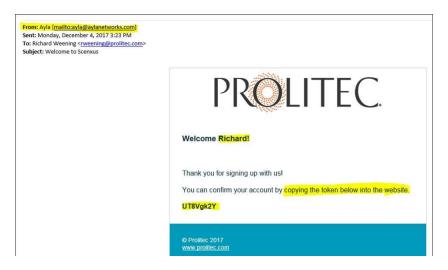
13. Type in the password for your wireless router.



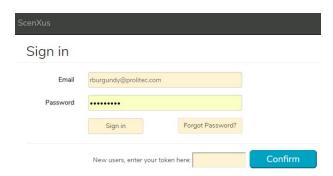
- 14. Wait as your smart phone disconnects from ScenXus, ScenXus connects to the router, and the router connects to the internet. When ScenXus is connected to the cloud, you'll see the message: "connection complete."
- 15. The network icon should stop flashing and Wi-Fi signal strength should appear.

# Controlling the Appliance Remotely

1. Check your email for an email from Ayla (ayla@aylanetworks.com) that gives you a token to confirm your account. Be sure to check your junk and spam folders.



2. On your iPad or Laptop, go to scenxus.com and sign in using your email address and the aforementioned token.



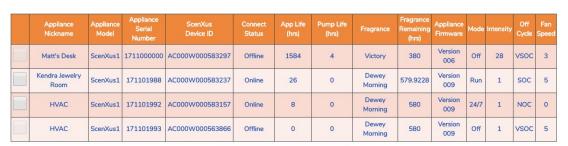
3. Depending on your account, you will see a slightly different version of this homepage.



4. Click on the "Install" tab and enter the ScenXus DSN, appliance serial number, and other information about the appliance, cartridge, and install location.



5. Go to the "Monitor/Control" page and adjust the appliance options and settings as needed.

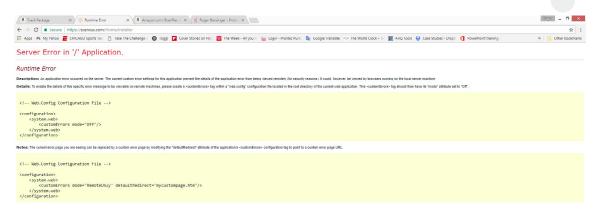


Edit Selected

- 6. For complex programming, navigate to the SD card programming tool on airqtools.com and download the schedule.txt file to your laptop.
- 7. Upload the schedule.txt file to the appliance via the "Monitor/Control" page at scenxus.com.



8. The web application is designed to "time out" for security purposes. If you see a runtime error page, simply close down your browser (not just the tab), re-launch the browser, and log in again.

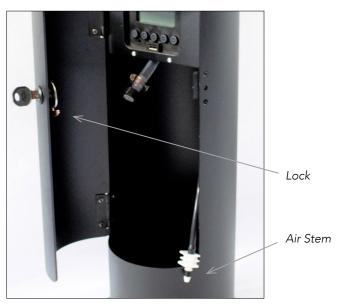


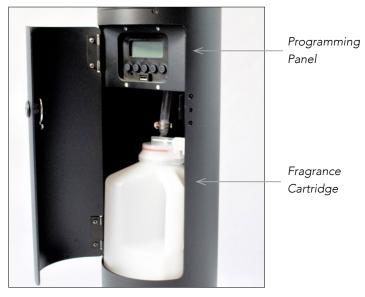
Internet Explorer relies heavily on cached data, meaning that changes may have been sent to the cloud, but your browser may still show old values. There are settings to prevent this behavior, and other browsers (Chrome, Firefox, Safari, Edge, etc.) do not have this issue.

# **OPERATING INSTRUCTIONS**

# Features and Controls







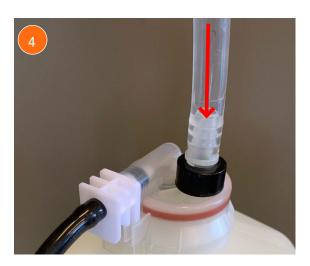
# Setting Up the Cartridge

- 1. Use the key to unlock and open the door of the cartridge housing.
- 2. Prepare the cartridge.
  - Remove the big plug from the air-stem port (A) on the back side of the cartridge.
  - Remove the black screw cap from the top outlet port (B) of the cartridge.
- Insert the airstem into the air-stem port in the cartridge head. Rotate air stem to locked position.





- 4. Place cartridge in the enclosure.
- 5. Place and tighten the plume kit tightly on the cartridge outlet port.
- 6. If the appliance has been previously programmed, activate preferred setting. If not (see <u>Programming the Appliance</u>), press  $\bullet$  so the backlight turns on, close and lock the door.



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# Programming the Appliance

- 1. Unlock and open the door.
- 2. Turn on the power by pressing  $\phi$  on the control panel.
- 3. Set the Clock.
  - ullet Press ullet to cycle through the modes to the options mode. The day of the week will blink.
  - Adjust the day forward or backward using  $\oplus$  or  $\Theta$ .

  - Adjust the hour forward or backward using  $\oplus$  or  $\Theta$ .

  - Adjust the minute forward or backward using  $\oplus$  or  $\Theta$ .
  - Press ② to set the minute and the hour and minute will both blink.
  - Change between 24-hour and 12-hour modes using  $\oplus$  or  $\Theta$ .
  - Press  $\Theta$  to set the time mode and the off-cycle will blink.
  - Change between normal (NOC, 7 minutes), short (SOC, 2 minutes), and very short (VSOC, 30 seconds) modes using  $\oplus$  or  $\Theta$ .
  - $\bullet\,$  Press  $\ensuremath{\mbox{$\mathcal{O}$}}$  to set the off-cycle and the fan setting will blink.
  - Adjust the fan speed up or down using  $\oplus$  or  $\Theta$ .
  - $\bullet\,$  Press  $\ensuremath{\mbox{$\Theta$}}$  to set the fan speed and the day of the week will blink.
- 4. **24/7** Mode.
  - If you want the appliance to run continuously 7 days a week, 24 hours a day press →
    until 24/7 is displayed above the time. If not, skip to Step 5.
- 5. SET PROGRAM Mode.
  - ullet Press ullet until SET PROGRAM is displayed above the time. The program number will blink in the lower right corner of the display
  - Adjust the program number forward or backward using igoplus or igoplus.
  - $\bullet\,$  Press  $\Theta$  to set the program number and the status will blink.
  - Adjust the status between on ("on") and "off" ("oF") using  $\oplus$  or  $\Theta$ .
  - $\bullet\,$  Press  $\ensuremath{\mbox{$\mathcal{O}$}}$  to set the status and the intensity will blink.
  - Adjust the intensity up or down using  $\oplus$  or  $\Theta$ .

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- ullet Press  $oldsymbol{arOmega}$  to set the intensity and the day of the week will blink.
- Adjust the day of the week forward or backward using  $\oplus$  or  $\Theta$ .

HINT: In addition to individual days, you can also set "all days," "week days," or "weekend days."

- Press  $\Theta$  to set the day of the week. **Start** will display on the far right side and the hour will blink.
- Adjust the start hour forward or backward using  $\oplus$  or  $\Theta$ .
- Press  $\Theta$  to set the start hour and the minute will blink.
- Adjust the start minute forward or backward using  $\oplus$  or  $\Theta$ .
- ullet Press  $oldsymbol{arOmega}$  to set the start minute. **Stop** will display on the far right side and the hour will blink.
- Adjust the stop hour forward or backward using  $\oplus$  or  $\Theta$ .
- ullet Press  $oldsymbol{oldsymbol{arOmega}}$  to set the stop hour and the minute will blink.
- Adjust the stop minute forward or backward using  $\oplus$  or  $\Theta$ .
- Press  $\bigcirc$  to set the step minute.

The appliance will automatically switch from set program to run program after 30 seconds of inactivity, or you can press  $\bigcirc$  until SET PROGRAM is displayed above the time. You may review the programs by pressing  $\bigcirc$  while the appliance is in run program mode.

# Using the online USB programming tool

The online programming tool can be found at <u>ProlitecCSPTools.com</u> (login required). Multiple programs sets can be created, which are unique to the user, and stored in a list. If you don't wish to log in, you can create program sets that won't be stored for later use at <u>airqsd.com</u>.

- 1. Create a program set using the CREATE PROGRAM button.
  - Each program set will require a name.
  - Each program set can contain 21 unique programs, which can be turned on or off within the set.
  - Programs, identified by number 1-21, include a day or days, on/off times, and intensity settings.
  - The tool will warn the user of overlapping programs.
  - Programs sets need to be saved.

- 2. Edit an existing program set using the EDIT button to the right of the program name.
- 3. Copy an existing program set using the COPY button to the right of the program name. This can be especially useful for quickly duplicating a very similar set of programs.
- 4. Delete an existing program set using the DELETE button to the right of the program name.
- 5. Export an existing program set using the EXPORT button to the right of the program name.
  - A .zip file containing your program set (schedule.txt), the latest firmware (firmware.bin), and the final instruction for use (readme.txt) will download to your computer.
  - Insert a USB stick.
  - Copy the files needed (schedule.txt for programs, firmware.bin for firmware) to the top level directory of the card (not in a folder or .zip file).
- 6. Insert the USB stick into the appliance, with the label side down.

#### Loading new firmware from a USB stick

- 1. Copy firmware.bin to a USB stick.
- 2. Insert the USB stick.
- 3. Press the reset button, and the five buttons will light in sequence from left to right.
- 4. The  $\bullet$  and  $\bullet$  buttons will light alternately.
- 5. Press and hold  $\circ$  for one second, and the display will show LOAD for about ten seconds.
- 6. The five buttons will light in sequence from left to right.
- 7. Remove the USB stick; the display will show the currently loaded firmware version and the pump will run for one second.
- 8. Press  $\bullet$  to turn on the power.
- 9. Be sure that the power is on and the appliance is in RUN PROGRAM mode prior to closing and locking the door.

#### Programming the appliance from a USB stick

- 1. Copy schedule.txt to a USB stick.
- 2. Insert the USB stick.
- 3. Press the reset button, and the five buttons will light in sequence from left to right.
- 4. The  $\circlearrowleft$  and  $\bigoplus$  buttons will light alternately for about 15 seconds. Do not press any buttons yet.

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- 5. The lights will shut off and the display will show the currently loaded firmware version.
- 6. The five buttons will light in sequence from left to right.
- 7. The  $\bullet$  and  $\bullet$  buttons will light alternately.
- 8. Press and hold  $\circ$  for one second, and the display will show LOAD
- 9. When the display reverts to showing the time, remove the USB stick.
- 10. Be sure the power is on and the appliance is in RUN PROGRAM mode prior to closing and locking the door.

### Copying programs to a USB stick

- 1. Insert a USB stick.
- 2. Press the reset button, and the five buttons will light in sequence from left to right.
- 3. The  $\bullet$  and  $\bullet$  buttons will light alternately.
- 4. Press and hold  $\oplus$  for one second, and the display will show SAVE for about ten seconds.
- 5. The five buttons will light in sequence from left to right.
- 6. Remove the USB stick; the display will show the currently loaded firmware version and the pump will run for one second.
- 7. Press  $\bullet$  to turn on the power.
- 8. Be sure that the power is on and the appliance is in RUN PROGRAM mode prior to closing and locking the door.
- 9. The new file created on the USB stick will be called "outsche.txt." Changing it to "schedule.txt" allows the programs to be loaded on another appliance.

# **Setting Scent Intensity**

- 1. Determine the approximate size of the room in cubic feet or cubic meters by multiplying length x width x ceiling height.
- 2. Consult the Room-Size Table to give you a level (1 to 50) to set. THIS IS ONLY A STARTING POINT.

Hint: There are many variables to finding the scent level that works: size, airflow, number of fresh air changes per hour, number of people in the space and, most of all, user preferences. Experiment with different levels until you are satisfied. Utilize the S4 Tool.

#### Scent Control

If you followed the Room-Size Chart or S4 Tool, you have set the AQ880 to the low end of the range for your room size. If after one hour you feel the scent is not detectable, increase the setting by about 10%. For example, if your start setting was 20, increase it by 10%, or to setting 22. Keep increasing until you and others in the space can detect a slight scent throughout the space.

## The Last Step

- 1. Set the appliance to either 24/7 or RUN PROGRAM.
- 2. Make sure the power is on.
- 3. Close and lock the door, storing the key in a known place.

# 8

# Cartridge Change

When the reservoir is empty the cartridge needs to be changed. The change process is simple. Best practice is to wear gloves when manipulating the cartridge.

- 1. Unlock and open the door of the cartridge housing.
- 2. Turn off the power by pressing the power button.
- 3. Grab the cartridge and disconnect air stem and plume kit.
- 4. Inspect the air stem seal for damage. Replace if damaged.
- 5. Remove plugs from new cartridge and use them to plug empty cartridge.
- 6. Deliver empty cartridge to recycling center at a later date.
- 7. Connect new cartridge to air stem and plume kit, and seat in appliance.

# Cartridge Change Maintenance Checklist Items

Cartridge plume: Use a high-intensity flashlight or your headlamp to confirm that a plume is streaming from the output port. If there is no plume:

- Check that the power is on and the appliance is running.
- Check that the wipers on the air stem are in place and not cracked or broken. Replace if necessary.
- If the appliance is set to **Run Program**, switch it to **24/7** and check for a plume.
- If no plume, set it back to **Run Program** and change the cartridge.
- If still no plume, try another cartridge just to make sure. If no plume, replace the appliance.
- Wipe the unit clean inside and out.

# Changing an Appliance

Appliance malfunctions are not intended to be serviced in the field. If there is no plume after following the procedure outlined above or there is any excessive noise level, then the appliance must be replaced with a new one.

#### General Care

- AQ880 is an electronic appliance. Treat it like a laptop.
- Do not place or store AQ880 or its cartridges in extreme heat (more than 130° F) or in freezing temperatures.
- Do not drop AQ880 on the floor. Do not drop it in or position it near water.
- Do not paint or otherwise try to alter the color of the outer cover.
- When shipping, pack in the original box and place it in an outer cardboard box.
- Always keep the plugs in cartridges when not in use.

Always remove the cartridge from the appliance before moving it anywhere. Otherwise leakage can occur, destroy the unit and the warranty is voided.

# **Applications**

AQ880 is used to enhance indoor air quality by neutralizing odors or introducing and maintaining a scent in the air or both at the same time. This is accomplished by blending ultra-low concentrations of odor neutralizers and fragrance ingredients ("Air-Treatment Agents") into the air. In fact, AQ880 is fully effective with air concentrations of Air-Treatment Agents less than 1 part per million (ppm). This means that for every 1,000,000 molecules of air there is only one molecule of Air-Treatment Agent.

There are four basic applications for AQ880: ambient scenting, product marketing, odor control and aromatherapy. These applications are different in terms of their objectives, but they all employ the same combination of Prolitec's proprietary air-treatment chemistry and AQ880 computer-controlled delivery system.

#### **Ambient Scenting**

Ambient Scenting is the use of a scent alongside other design elements in a space to help create or enhance its ambience. In this application, scent is comparable to visual elements such as graphics, colors, materials, textures and shapes as well as auditory elements like music. With ambient scenting, a carefully selected fragrance is used to enhance themes, animate visuals, make a tree or a flower smell like a tree or a flower, and many other uses. Major brands are using scent to extend and animate their brand by associating a scent experience with a brand, like a hotel chain using ambient scenting to make all their lobbies smell like the same scent.

Indoor air quality and the overall ambience of a space can be substantially improved with the introduction of a pleasant scent. Scent can cause humans to recall a brand with positive feelings and communicate brand values. Scent can create inviting environments that attract retail customers and cause them to stay longer and shop more, improve employee productivity, and make all the occupants feel positive about their experience in the space.

Of all the senses, the sense of smell is the most powerful trigger of memory. Hotels, casinos, retail establishments and other businesses seeking to provide a positive experience that clients will recall and repeat should use scents to enhance indoor air quality. The use of a signature scent to extend the brand image is a powerful tool for the sophisticated marketer.

Typical areas where Ambient Scenting is used:

- Retail Stores
- Hotel Lobbies
- Malls
- Showrooms
- Clubs and Bars

## **Product Marketing**

Product Marketing is the use of scent as a medium of communication in advertising and promotion of certain products for which scent is a primary element or feature. Presenting the scent of a scented product to customers at the point of sale is the most powerful way to sell any product with a scent including fine fragrances; soaps, detergents and fabric softeners; lotions and potions; scented health and beauty aids; food products like coffee, fruits, and baked goods; and other fresh and aromatic products.

AQ880 is used as an automated presentation and product-sampling system to deliver the exact aroma of a scented product throughout a store or at the point of sale. For example, enabling the client to experience a fine fragrance, personal care or home fragrance is the most effective way to sell it. Scent is the main feature of these products. Using AQ880 to present that scent to a customer is the best way to present and sell the product. In this way, AQ880 delivers a true and complete experience of the scent to clients and passersby without intrusion or sales associate intervention.

Billboards and advertising panels can be equipped with AQ880 to treat the surrounding air space with the scent that is being advertised on the billboard. This is particularly effective in high-traffic areas such as malls, airports and train and subway stations. This is a multi-sensorial approach that draws customers to the display while simultaneously enhancing the visuals and allowing the prospective customer to experience or "sample" the scent of the product.

#### Odor Control

One of the most challenging problems in indoor air quality is bad odors. Bad-smelling places have a negative emotional impact on all the occupants of the space. This means both employees and customers.

AQ880 and Prolitec's proprietary odor-remediation chemistry are capable of blocking the human ability to detect most malodors and replacing these odors with pleasant scents. Prolitec's proprietary air-treatment chemistry and the accompanying computer-controlled delivery system are rapidly becoming the standard solution for difficult odor issues in several industry sectors.

Typical problem areas that can be addressed by AQ880 include:

- Restrooms
- Garbage-compaction areas
- Areas adjacent to cooking and food preparation
- Swimming pools and adjacent areas
- Workout facilities
- Elevator shafts
- Hotel hallways

The Prolitec approach to odor remediation uses a proprietary and patented neutralizer that inhibits the human olfactory system from detecting the odor and then injecting a small amount of scent to create an ultra-low concentration in the air of less than 1 ppm. This approach is unique and much more effective than traditional approaches that simply douse the odor with a high concentration of scent.

# Aromatherapy and Performance Scenting

It is well known that scent has a powerful impact on human emotion and behavior. The use of scent to influence human emotion is just like Ambient Scenting but with a specific objective for the occupants of the treated space. The use of scent and the essential oils of flowers, herbs and trees to promote health and well being is the well-established branch of alternative medicine known as aromatherapy. It is also recognized that scent can be used to optimize performance in the workplace. The benefits include reduced errors in routine functions, increased employee sense of well being, higher morale, improved customer service and overall improved productivity.

AQ880 and Prolitec aromatherapy chemistry can help make a workspace a more comfortable and appealing place to be. As examples of the positive effect of aromatherapy on the workplace, below are results of several relevant studies:

- A 1991 study demonstrated that "sustained attention tasks" were performed with greater accuracy by the participants in scented rooms compared to those in the non-scented control rooms.,
- Another study found that fragrance had a dramatic and positive effect on a proofreader's efficiency.
- It is commonly known that the Tokyo Stock Exchange diffuses peppermint into the air in the afternoons to make the brokers feel invigorated.

<sup>&</sup>lt;sup>1</sup> Dr. Joel Warm and Dr. William Dembar. "Olfactory Stimulation and Sustained Attention." *Compendium of Olfactory Research*, (Dubuque, Iowa: Kendall/Hunt Publishing Co., 1995) p. 47.

<sup>&</sup>lt;sup>2</sup> Mark Kilauga et al. "Consumer Panel Study on the Effect of Peppermint and Lavender Fragrances on Proofreading." *Compendium of Olfactory Research*, (Dubuque, Iowa: Kendall/Hunt Publishing Co., 1995) p. 131

# Frequently Asked Questions (FAQs)

#### How does AQ880 work?

AQ880 uses a patented technology to convert liquid fragrance compounds into tiny droplets less than 1/100th the diameter of a human hair. By comparison, an aerosol droplet is 100 times bigger and 1,000,000 times heavier. AirQ droplets present 100 times more surface area to the air being treated, which means much less fragrance is used to create the scent effect. AirQ's tiny droplets are extremely light so they float easily into the air and disperse throughout a space to create an even scent effect.

#### What size room will AQ880 handle?

AQ880 is fully adjustable for different size rooms. AQ880 is effective in spaces from 200 to 30,000 cubic feet (10 to 850 cubic meters). The cubic measure is width x length x ceiling height.

#### Where can I place AQ880?

AQ880 should be placed in a room where it can take full advantage of the natural air currents in the space as determined by a smoke test or as known by you.

## Do I need to adjust AQ880?

Yes! AQ880 is a powerful machine. AQ880 can handle small and very large rooms. If it is set too high for the room size, it can cause discomfort for some people. Adjusting is simple. Take the time to do it right.

## How do I adjust AQ880?

With the power cord plugged in you can adjust AQ880 up and down using the  $\oplus$  and  $\Theta$  buttons just to the right of the LCD screen. You can see the setting levels (1 to 50) on the right side of the LCD. ALWAYS START WITH THE RECOMMENDED SETTING and adjust upward in small steps.

# How strong should I make the scent?

Less is more. AQ880 allows you to erase odors and use only a small amount of scent. Unlike most other air fresheners, AQ880 is adjustable. Use this important feature. Always start on the lowest settings for the size of the space then adjust upward in small steps.

#### **IMPORTANT**

ALLOW ONE HOUR TO ASSESS the scent strength after starting or adjusting. It is best to assess strength when you first enter the room from another room.

# How about safety? Is AQ880 safe to use with children and pets?

When used as directed, AQ880 is the safest air freshener available. Of course, it is important to read the Material Safety Data Sheets enclosed with each cartridge, which should be stored in a secure, visible location.

#### How does AQ880 differ from aerosol room fresheners?

The more expensive aerosols can produce a very pleasant scent, but only for a few minutes and in very high concentrations just in the area they were sprayed. AQ880 is what is known as a "continuous action" air freshener. AQ880 is programmed to deliver an evenly distributed scent throughout the room.

## Is AQ880 eco-friendly?

Yes, AQ880 is the most eco-friendly air freshener on the market. Unlike aerosols, AQ880 uses no propellants and produces no harmful volatile organic compounds, or VOCs. Unlike many air fresheners, AQ880 uses no ethanol or similar solvents to enhance the evaporation of fragrance chemicals.

# I only want to scent the room at certain times. Do I have to turn it on and off every time?

AQ880 has a tiny on-board computer for fully automatic operations. You can set set up to 21 separate start and stop times. (See <u>Programming the Appliance</u>)

# If I want a different scent, can I switch cartridges?

Yes, simply remove the cartridge and replace it with another.

#### **IMPORTANT**

Always keep plugs in cartridges when not in use. If you have misplaced the plugs from the cartridge being removed from AQ880, you can use the plugs from the new cartridge being inserted.

# Will AQ880 leave deposits on furniture or carpeting?

No, provided you do not direct the output at a surface closer than 12 inches away.

# Will AQ880 fragrances stain surfaces or fabric?

Yes, all air-care fragrances will stain wood and stone and all fabrics if spilled. The best solution is avoidance by replacing the plugs on cartridges after removing them and keeping the plugs on all cartridges when not in use.

# How do I clean up a drip?

If there is a drip, blot it as quickly as possible and then clean with soap and water.

# **Specifications**

#### **Dimensions**

AQ880 Appliance 25¼" x 6¾" x 7¼" (64.1cm x 17.1cm x 18.4cm)

#### Weight

9.6 lbs. (4.4kg) without cartridge 11.3 lbs. (5.1kg) with full 1250mL cartridge 13 lbs (5.9kg) with full 2500mL cartridge

#### **Power Supply**

Input — 100 – 240V AC at 0.6A Frequency — 50/60 Hz Protection — Switching power supply Internal Power — 15V DC at 1.2 A

#### **Approvals**

FCC part 15, CE, RoHS Compliant, UL Power Supply

#### Working Temperature

0° to 40° C

#### **Working Humidity**

85% or less

#### **Liquid Capacity**

1250 mL cartridges 2500 mL cartridges

#### Service Area

Up to 30,000 cu. ft. (850 m3) served

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