



 **Prolitec**

AQ/PS/RZ 550/550-SOC

Original Instructions

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About AQ/PS/RZ 550

Welcome to a whole new world of air treatment from Prolitec, the technology leader in air care with scent. The AQ550 appliance 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 ranging in size from 200 to 30,000 cubic feet (10 to 850 cubic meters).

AQ550 is a patented, computer-controlled, always-on system capable of maintaining a constant, uniform and controlled level of scent or odor neutralizer. The basic technology of AQ550 has been tested and proven in demanding commercial environments such as retail stores, malls, hotel lobbies and other public spaces where scent is used to enhance the environment, market a product, or erase an odor.

The AQ550 is managed by an on-board computer that is fully programmable for intensity to match space sizes from 200 to 30,000 cubic feet (10-850 cubic meters) per appliance as well as multiple duty cycles (programs) with start and stop times for each day of the week. Utilizing up to 3 duty cycles per day 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. Multiple appliances can work together in the same space.

The classic design blends well into any environment. AQ550 comes standard in Textured True Black or Eggshell White. At sufficient order quantities, AQ550 can be supplied in a custom color. AQ550 can also be concealed in a fixture, cabinet or behind a wall-mounted shroud to match any interior design.

AQ550 can use 100V to 240V AC power sources and comes complete with plugs for local power receptacles. AQ550 is designed to be mounted on a wall with a flush-mounted power source behind it or it can be configured for attachment to ceiling track-lighting systems, which act as both a source of power and a method of attachment. With our tabletop kit added, it can be configured to stand alone on a flat surface, and with our cable tie kit, it can be strapped to a support pillar.

AQ550 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, inspection and annual replacement of two o-rings, and a simple wipe down or dusting of exterior surfaces. Once installed in the right location, AQ550 will outperform any other system, providing completely uniform scent distribution.

The AQ550's advanced technology creates a scent effect with a smaller quantity of fragrance ingredients than any other method. The chemicals employed in making AQ550 fragrances are fully compliant with the most restrictive air-quality and inhalation standards. AQ550 generates no harmful VOCs and uses no ethanol or propellants. Quite simply, used as directed, AQ550 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. AQ550 is a high-performance appliance that, installed and used correctly, will meet the most demanding requirements.

Unpacking

Remove AQ550 from the container. The following items should be included:

1. AQ550 Appliance
2. Power Supply
3. Two Keys
4. Mounting Hardware
5. Cartridge Removal Tool
6. One plastic output-extension tube (to be used out of the top port only, if needed) – white or black, to match the appliance



MOVING AND STORAGE INSTRUCTIONS

1. Remove the cartridge.
2. Unscrew and remove the long round-head screws in the lower corners.
3. Lift the appliance upward, off the mounting posts.
4. Unplug the appliance.
5. Unscrew the mounting plate.
6. Store at -4°F (-20°C) to 158°F (70°C), 5% to 95% humidity

Installation

General

Location

AQ550 is designed for permanent installation on wall surfaces over a 110 to 240V outlet (Fig. 1), mounted to a ceiling track-lighting system (Fig. 2), used as a table- or shelf-top unit (Fig. 3) or strapped to a column or pillar (Fig. 4).

Service Area

The service area range of AQ550 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. AQ550 can be adjusted from 1 to 50 to accommodate these variations.

Configurations

AQ550 is available in three configurations: wall-mount, track-mount, or table-top. Wall-mount (see Fig. 1) has a 110-240V power source and plug in the back of the appliance, and must be placed over the power source. Special adapters and plugs are provided. Track-mount (AQ550TL) is designed for attachment to a ceiling track-light system (see Fig. 2). Table- or shelf-top requires the addition of a Table Top Kit. (see Fig. 3) and attaching to a pillar requires a Cable Tie Kit (see Fig 4.)

Colors

AQ550 comes standard in black or white, and can be special ordered in any color.



Fig. 1

Fig. 2

Fig. 3

Fig. 4

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 AQ550s needed for a space. Please refer to AirQ's 'S3 (Sizing, Service & Success) Tool,' available at [AirQ Tools](#). The chart below can be used as a rough guideline for sizing.

Room-Size Table

	Normal Off-Cycle (AQ550)		Short Off-Cycle (AQ550-SOC)	
Output Level Range	Room Volume Range		Room Volume Range	
	CFT	CM	CFT	CM
1-5	400-1600	11-45	1200-5000	34-142
6-10	2000-3500	57-99	6000-9400	170-266
11-15	3900-5500	110-156	10200-13300	289-376
16-20	6000-7900	170-224	14000-16700	396-473
21-25	8500-10700	241-303	17400-19800	492-560
26-30	11300-13700	320-388	20300-22400	574-634
31-35	14400-17100	408-484	22900-24700	648-699
36-40	17900-21000	507-594	25100-26700	710-756
41-45	21800-25200	617-713	27100-28500	767-807
46-50	26100-30000	739-849	28800-30000	815-849

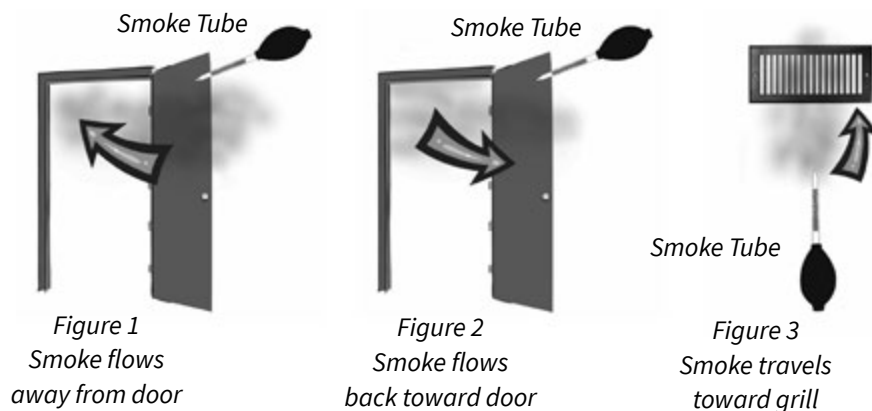
These settings are suggested as a starting point. Start on the lower end of the range and adjust after one hour. Fragrance type, room size, number of fresh air changes per hour, temperature, humidity and user preference will determine the final setting. Best practice is to use AirQ's 'S3 Tool' at [AirQ Tools](#).

Appliance Location

1. Placement of AQ550 appliance is the KEY TO OPTIMAL PERFORMANCE. It is important to identify a wall or track-light location where the output of AQ550 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 AQ550 appliance should be installed somewhere near the door.

See Figure 1. If the smoke drifts out of the room, the AQ550 appliance should be placed on the wall 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 AQ550 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.



Wall-Mounting AQ550

Step 1 – The Electrical Source

Before the AQ550 appliance can be mounted, a qualified electrician must install an electrical outlet at the position you have decided to place AQ550. The appliance is then mounted over the outlet and plugged in.

In some locations local codes or rules require that the main power source be located beside the appliance. This will require an AQ550 hardwiring kit. If the appliance is PERMANENTLY CONNECTED in this way, a readily accessible disconnect device must be used. Consult with your electrician.

If it makes sense to plug the appliance into an outlet that is near, but not behind the appliance, a rectangular, plastic wire-concealment conduit should be used (PN 10619).

Step 2 – Mounting Kit, Parts and Tools

The [mounting kit provided with AQ550](#) includes a mounting plate, which holds the appliance to the wall, and 4 screws and wall anchors suitable for plastered drywall – 2 short flat-head screws and 2 longer round-head screws. If you have another surface you will need to get anchors suitable for the wall material and screws that work with these anchors. The screws need to be the same length as the ones provided – 2 long round-head screws and 2 short flat-head screws. You will need the following tools:

1. A good level to help you make the mounting plate exactly horizontal.
2. A hammer.
3. A Phillips screwdriver to match the screws provided or whatever screwdriver matches the screws needed to attach to the anchors you have chosen.
4. A pointed tool like a small screwdriver to insert through the holes on the appliance to mark the right spot for the anchors.
5. A Drill.



Step 3 – Position the Mounting Bracket

Place the mounting bracket directly over the power outlet (if hardwired or plugged elsewhere, position the mounting bracket to the side of the power source). Use the level to make sure the mounting bracket is horizontal. While holding the bracket level, use a pointy tool, screw or screwdriver to mark the location of the top two wall anchors. Check again with the level to ensure the bracket is horizontal.



Step 4 – Installing the Top Anchors

Set the mounting bracket aside. Use an electric drill to make a 1/8” hole at the exact location you marked. This will serve as a guide for the anchors. Use a hammer to tap the anchors in far enough so they stay well in position. Then screw them straight into the drywall. Avoid screwing them in at an angle.



HINT: If you use an electric drill with a Phillips driver head, make sure the head fits the anchor perfectly, as the anchor or screw can strip easily. Set the drill to a slow rotation.

Step 5 – Marking the Bottom Anchor Holes

Now you can mark the holes for the bottom anchors using the mounting bracket as a template. Hold the mounting bracket in place and screw the flat-head screws half way into the top anchors. This will prevent the bracket from moving. Now use the pointy tool to mark the location for the two bottom anchors. Unscrew the top screws and set the bracket aside.

Step 6 – Drilling the Bottom Anchor Holes

Drill a 1/8” hole as the guide for the anchors at the exact spot you have marked. Hammer the anchors in just enough to set them in place, then screw them in straight.

Step 7 – Hanging the Mounting Bracket

Hang the mounting bracket by holding the bracket so the top holes match up with the anchors, then screw the 2 flat-head screws through the hole in the bracket into the anchors. Tighten the screws firmly, but do not crack the bracket.



Step 8 – Positioning the Appliance

Now take the appliance and pull out the yellow tab at the bottom.

Take the power supply and plug the round plug into the hole that is located in the recess on the back of the appliance.

The power-supply block can accommodate several different plugs for every county. Install the correct one and plug it into the wall receptacle.

Some installations do not accommodate mounting of the appliance over a power outlet. In this case, untie the power cord and extend it to a nearby outlet using a conduit (not included - PN 10619) to conceal and keep it out of reach. An outlet cover may also be used over the adapter.

NOTE: Remember that the standard installation is to position the appliance right over the power source, storing the power-supply block and the power cord in the recess in the back of the appliance. To make this easy, do not untie the power cord and take just enough wire to make the connection.



Step 9 – Fitting the Appliance in Place

Place the appliance so that the big holes in the top of the back cover fit over the rounded locking posts. In doing this, make sure the appliance is flush with the wall and the posts are in the holes of the appliance. Slide the appliance downward to lock on the posts. Sometimes this slide requires a slight tap on the top of the appliance with your hand.



Step 10 – Mounting the Appliance in Place

Now unlock and open the door and insert the long round-head screws into the holes in the lower corners and into the anchors. Tighten the screws firmly.



Scenting via HVAC System

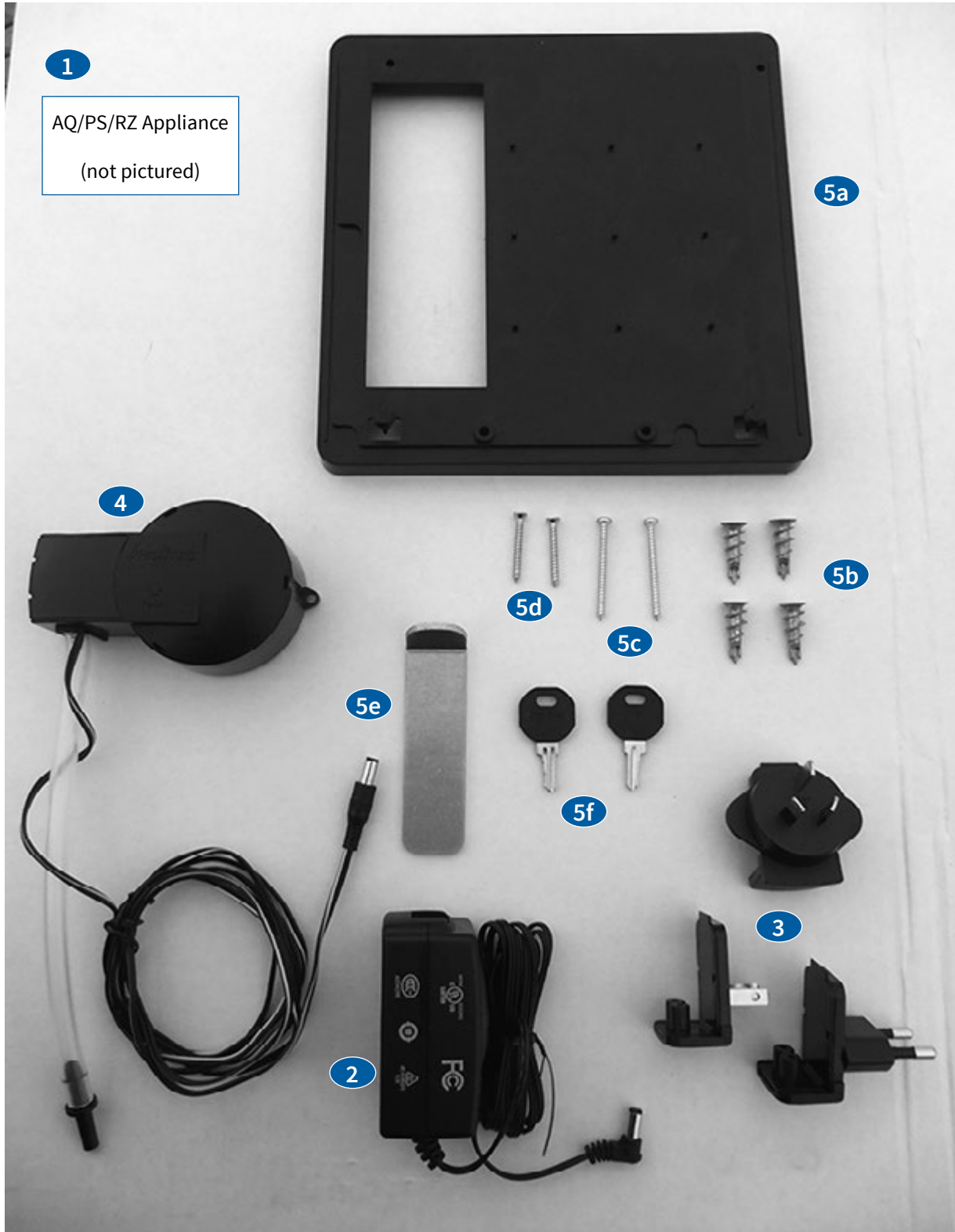
Unpacking

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

1. The AQ/PS/RZ Appliance
2. 110/220V to 12V power adapter
3. Universal Adapter Kit
4. Sensor Housing comprising:
 - a. Airflow Switch cable
 - b. Three (3) Airflow Switch mounting screws
 - c. Fragrance supply tube
 - d. Integrated sensor tube, injection tube
 - e. Mounting gasket
5. Mounting kit comprising:
 - a. Mounting bracket
 - b. Four (4) dry-wall anchors
 - c. Two (2) long mounting screws
 - d. Two (2) short mounting screws
 - e. Cartridge Removal Tool
 - f. Two (2) Keys for the appliance

(See photo on the following page)

Unpacking



1

AQ/PS/RZ Appliance
(not pictured)

5a

4

5d

5c

5b

5e

5f

2

3

Installation for HVAC System Scenting

Operation

The AirQ generates micro-droplets 1/100th the diameter of a human hair from a reservoir of liquid in a disposable cartridge. These micro-droplets behave like a vapor. They are passed through a silicon tube and injected into the airflow of the air handler using an injector tube that is installed in a hole in the ductwork. The micro-droplets blend with the air in the ducting to deliver a uniform effect throughout the area served.

The AQ550 device with HVAC kit incorporates an Airflow switch, a sensor tube, an injector tube, a fragrance supply tube and duct-mounting detailing within a unitary molded housing.

Airflow Switching

The AirQ 550 with HVAC kit is operated only when the fan or blower is operating to ensure uniform, even distribution. To make this possible a 12V airflow switch is provided.

Determining the Location of Airflow Switch

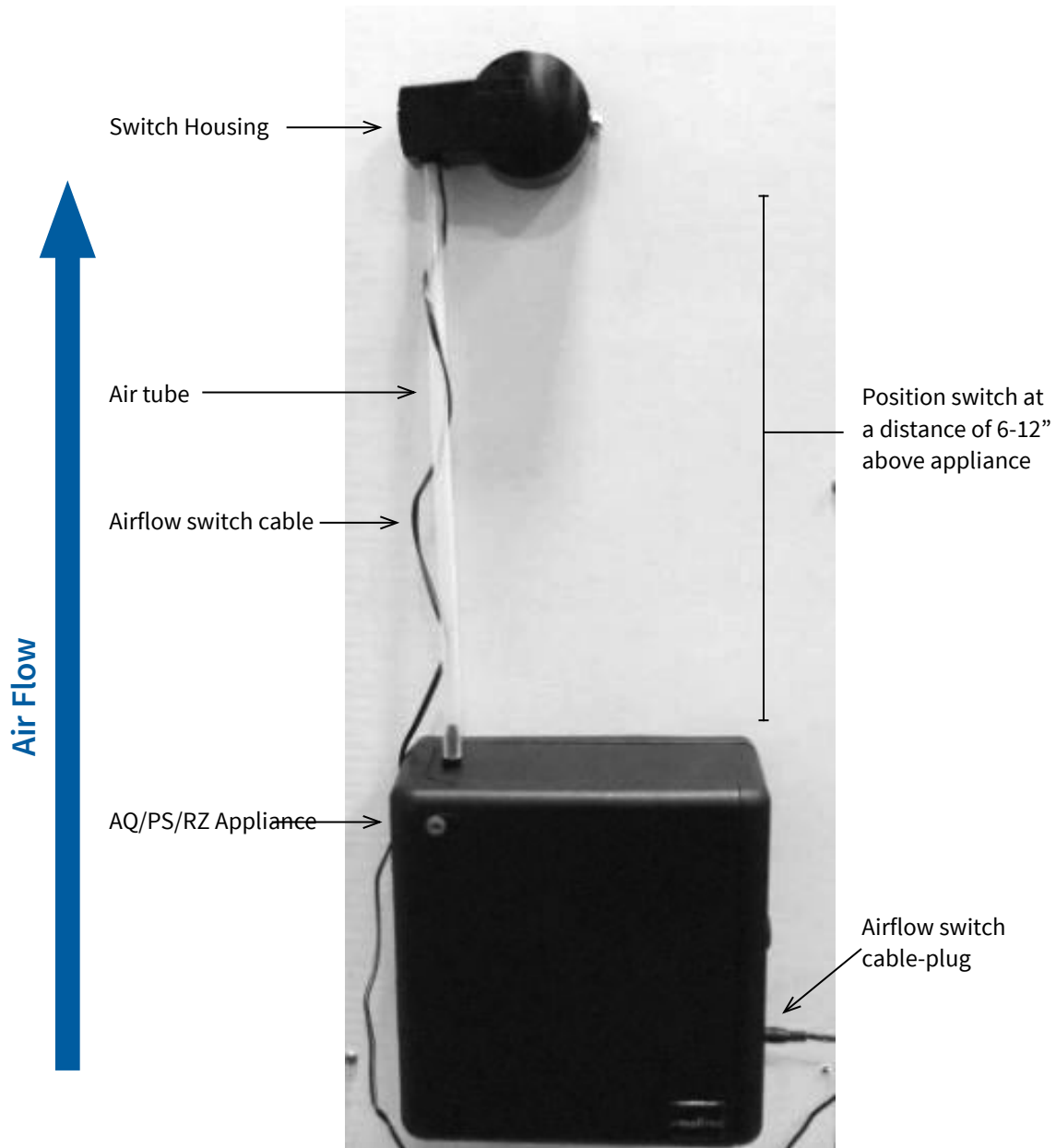
The airflow switch should be mounted vertically on the side of the air duct at a convenient location and downstream from the furnace. Caution: Do not mount airflow switch on return side. The airflow switch and the female connector on the lower right side of the AirQ appliance should be less than 5 feet apart. The hose run to the Sensor Tube should be as short as possible and less than 1 foot.



Airflow Switch

Positioning the Machine

The AirQ 550 machine is mounted on a flat vertical surface — either a wall or on an air duct. The maximum run of the silicon injector hose between the Cartridge and the Injector Tube is 18". The shortest possible run length is better. Be sure the hose is kept on a vertical incline, is not crimped and does not sag. Therefore, the AirQ machine should be positioned so the top left surface is no more than 1 foot from the injection point. It should be easily accessible for servicing, and in proximity of an electrical power outlet.



Wall Mounting or Duct Mounting the Machine

Step 1: Mounting Kit, Parts and Tools

The mounting kit provided with the AQ550 (with HVAC kit) includes a mounting plate, which holds the appliance to the wall or duct surface; 4 screws and wall anchors suitable for attaching the mounting plate to drywall and 4 sheet-metal screws suitable for attaching the mounting plate to ductwork; 2 short flat-head screws to attach the bracket to the wall; and 2 long, round-head screws to secure the machine after it has been attached to the mounting plate. Use appropriate fasteners when mounting on another surface.

You will need the following tools:

1. A level
2. A hammer (if drywall installation)
3. A Phillips screwdriver
4. A pointed tool (pen, pencil or small screwdriver)
5. A 1/8" drill bit
6. A 3/4" step drill bit
7. A drill
8. A cutting device to complete step 11.1.
(not pictured)



Step 2: Marking the Top Anchor Holes

Place the mounting bracket at the desired position. Use the level to make sure the mounting bracket is horizontal. While holding the bracket level, use a pointed tool such as a screwdriver or pen to mark the location of the top two holes. Check again with the level to ensure the bracket is horizontal.



Step 3: Installing the Top Anchors or Screws

Set the mounting bracket aside. Use an electric drill to make a 1/8" pilot hole at the exact location you marked. This will serve as a guide for the anchors or sheet metal screws. If the appliance is being mounted on drywall, use a hammer to gently tap the tip of the anchors into the wall. Then screw them straight into the drywall.

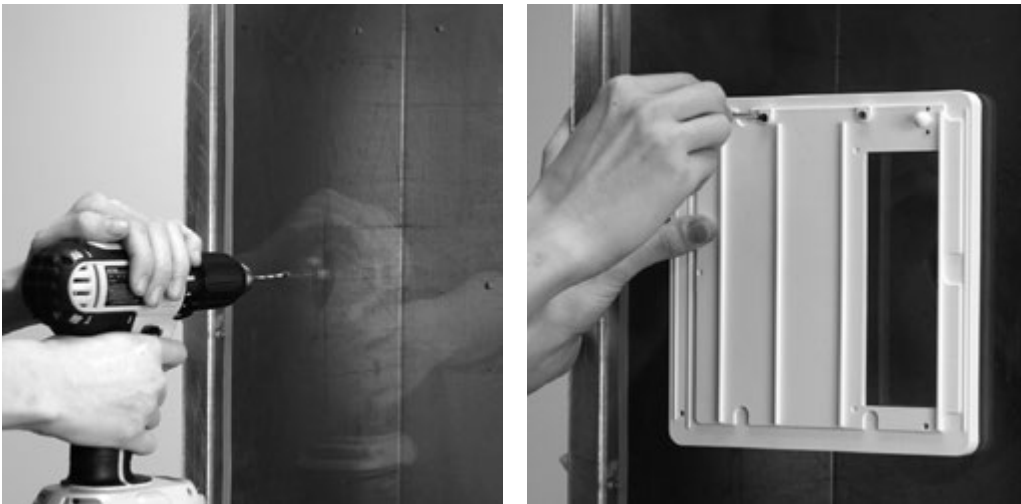
HINT: If you use an electric drill with a Phillips driver head, make sure the head fits the anchor perfectly, as the anchor or screw can strip easily. Set the drill to a slow rotation.

Step 4: Marking the Bottom Anchor Holes

Now you can mark the bottom holes using the mounting bracket as a template. Hold the mounting bracket in place and screw the flat-head screws half way into the top anchors. This will prevent the bracket from moving. Now use the pen or pointed tool to mark the location for the two bottom holes. Unscrew the top screws and set the bracket aside.

Step 5: Installing the Bottom Anchors or Screws

Drill a 1/8" pilot hole at the exact spot you marked. For drywall mounting, gently hammer the tip of the anchors, then screw them in straight.



Step 6: Hanging the Mounting Bracket

Hang the mounting bracket by holding the bracket so the top holes match up with the anchors or wall holes, then screw the 2 short, flat-head screws through the holes in the bracket. Tighten the screws firmly, but do not crack the bracket.

Step 7: Power Supply

Plug the power adapter into the back of the machine.

Step 8: Fitting the Appliance in Place

Place the appliance so that the big holes in the top of the back cover fit over the rounded locking posts. In doing this, make sure the appliance is flush with the wall and the posts are in the holes of the appliance. Slide the appliance downward to lock on the posts. Make sure the power cord is directed through the slot at the bottom center of the appliance.



Step 9: Securing the Appliance

Open the door and insert the 2 long, round-head screws through the holes in the lower corners of the appliance. Tighten the screws firmly.

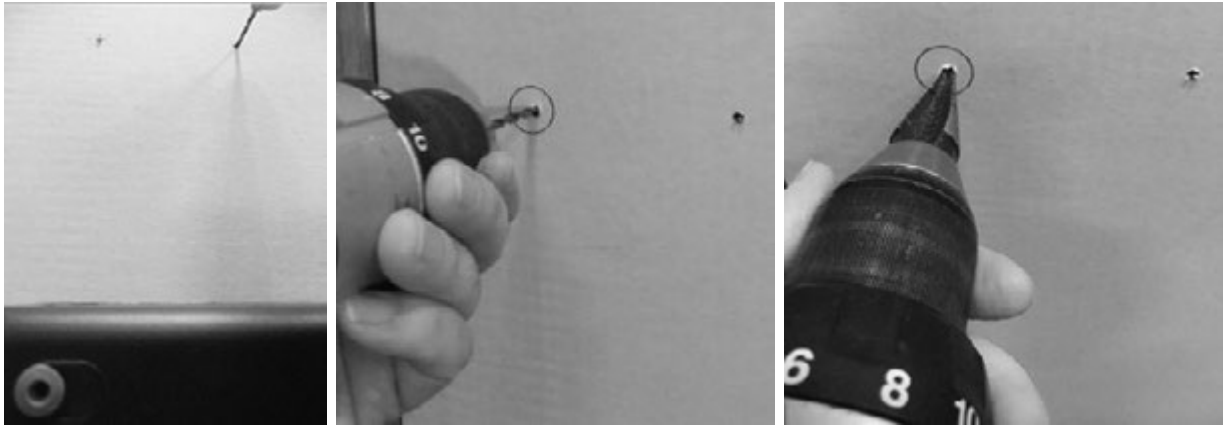
Step 10: Removing the Yellow Tab

Now take the appliance and pull out the yellow tab at the bottom.

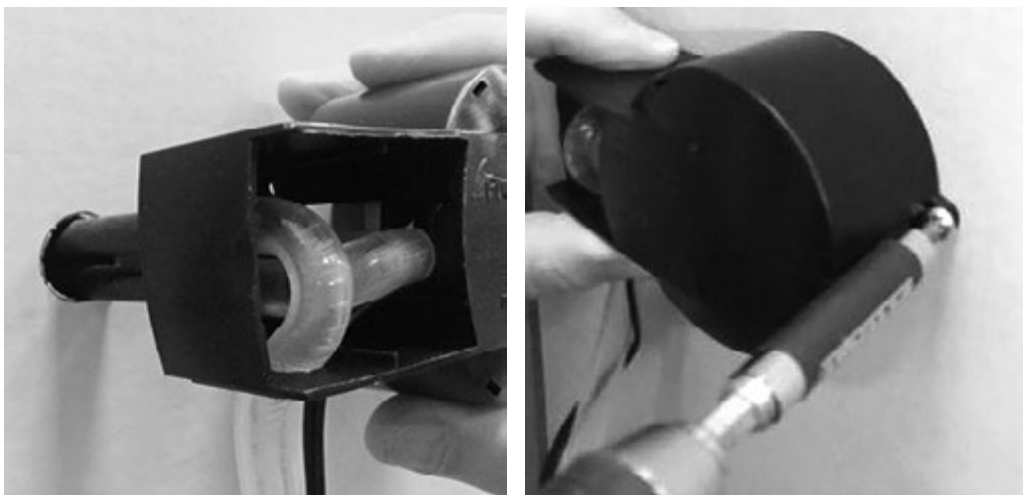


Step 11: Installing the Airflow Switch

1. The air-flow switch must be installed on a vertical plane at a distance of between 6-12" above the appliance.
2. Using installation template mark 2# location holes.
3. Drill 2# 1/8" dia. pilot holes.
4. Locate step drill within left-hand pilot hole. Drill 1# 11/16" dia. mounting hole therein.



5. Holding the device in one hand as illustrated, insert dual tubular feature at its rear into the 13/16" dia. hole. Applying constant pressure, press device toward ductwork until incorporated snap features firmly engage the duct wall.
6. With device snap-assembled to ductwork, insert mounting screw through positioning loop at right hand of device into pre-drilled pilot hole and secure.



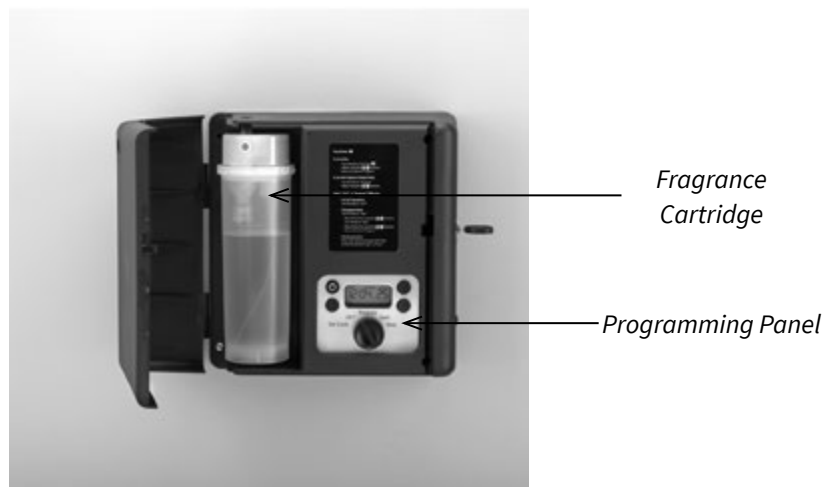
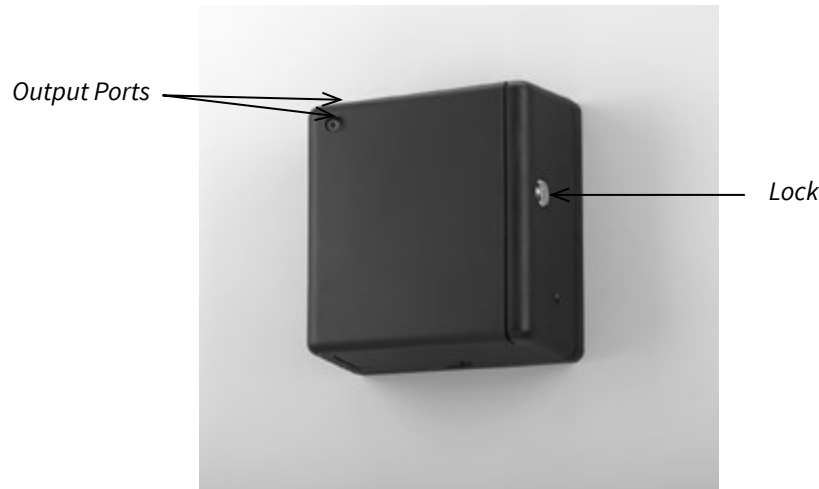
Step 12: Installing the Supply tube...Device-to-switch

1. Cut supply tube to appropriate length, re: distance, switch-to-appliance.
2. Insert barbed end of Connector into supply tube lumen.
3. Insert connectorized supply tube into appliance.
4. Insert air switch plug into corresponding receptacle in appliance.



OPERATING INSTRUCTIONS

Features and Controls



Setting Up the Cartridge

1. Use the key to unlock and open the door.
2. Prepare the cartridge.
 - Remove the plug from the TOP port (b) of the cartridge
 - Remove the big plug from the air-intake port (a) on the flat surface (back side) of the top of the cartridge.



NOTE for Wall-mounted and table-top installations:

FRONT Output Port MUST REMAIN PLUGGED for the cartridge to operate in wall-mounted installations. Use the Top Output Port with the plastic extension tube that comes with the unit, to deliver the fragrance. You must use this tube when plumbing out of the top.

NOTE for Track Light mounted installations:


Use the Front Output Port WITHOUT ANY TUBING. The TOP Output Port MUST REMAIN PLUGGED for the cartridge to operate in track light-mounted installations. If use of the front output port creates condensation on the door, then switch to the Top Output Port. See the section about Track Light-Mounted cartridge concerns.

3. Insert the cartridge into the recess so that the air-intake port fits over the air stem.




4. After inserting the cartridge, insert the plastic tube into the cartridge through the port on the top of the appliance. Remove tube when changing cartridge.



5. If the appliance has been previously programmed (see [Programming the Appliance](#)), press  so the backlight turns on, close and lock the door.

Programming the Appliance

1. **Unlock and open the door.**
2. **Turn on the power by pressing  on the control panel.**
3. **Set the Clock.**
 - Turn the dial to **Set Clock**. The day-of-the-week icon will blink.
 - Adjust the day forward or backward using \oplus or \ominus on the right side of the control panel.
 - Press the **Set** button on the lower left corner of the LCD display. The time will blink.
 - Adjust the time forward or backward using \oplus or \ominus on the right side of the control panel. AM or PM is indicated on the lower right side of the time digits.
4. **24/7 Mode.**
 - If you want AQ550 to run continuously — 7 days a week, 24 hours a day — turn the dial to **Run 24/7**. If not, skip to Step 5.
 - You can adjust the fragrance intensity level (1 to 50) using the \oplus or \ominus buttons. Refer to Selecting Scent Intensity for the intensity level to set.
5. **Set Multi-Program Timer.**
 - Turn the dial to **Set Program**. The Program icon comes on.
 - The day-of-week icons will all blink, indicating you are selecting all days with the same program. If you want to program a specific day, use the \oplus or \ominus buttons to select the day. You can set maximum of 3 on/off programs same for every day or individually for each day. After selecting the day, press the **Set** button to advance.
 - Now the “1” icon is turned on to indicate you are setting program 1. The Rate digits blink to prompt you to set the rate. You may set to any value between 1 and 50, or set to 0 to disable the program. Press the **Set** button to advance.
 - If you set the rate to 0, then the current and subsequent programs are all disabled. For example, if the rate for program 2 is 0, then program 2 and 3 are disabled.
 - If you set a non-zero rate, then the rate digit changes to “S” to indicate start time. The hour digit should blink to prompt you to set the start hour. Use the \oplus or \ominus buttons to set the hour. Then press the **Set** button to advance and set the minute. Press the **Set** button to advance.
 - The rate digit now changes to “E” to indicate you are setting the end time. Use the +/- buttons to set the end time. Press the Set button to advance to the next program.
 - Program icon 2 should now turn on. Use the \oplus or \ominus and **Set** buttons to set the start and end times for program 2 and then for program 3. Note that if you need only 1 or 2 programs for the day, you simply disable the subsequent programs by setting their rates to 0.
 - After setting the programs, turn the dial to **Run Program**.

HINT: To set the same programs for Monday to Friday, you may set the programs for everyday first and then disable Saturday and Sunday.

You may review the programs by doing the same as in programming. Just beware not to accidentally set the everyday programs as this will also set and change the programs of all the days.

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 S3 Tool.

Scent Control

If you followed the Room-Size Chart or S3 Tool, you have set AQ550 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. The blue light will show through the button.
3. Close and lock the door, storing the key in a known place.

Plume Dispersion Accessory

The Plume Dispersion accessory adds a fan to the appliance. This fan reduces visibility of the plume and helps disperse fragrance within a room. The top port of the cartridge must be used for output with this accessory. NOTE: the included plume tube must be used, otherwise condensation may develop. Remember to keep the Front OUTPUT Port plugged.

The Plume Dispersion Kit accessory can be added to existing appliances by ordering and installing the KIT550PDWM (for wall mounted units), the KIT550PDTM (for tracklight mounted units), or to configure the AQ550 as a table-top unit with plume dispersion, you must order both KIT550TTBLK and KIT550PDTM. Or, the Plume Dispersion accessory can be delivered already integrated into the appliance by ordering AQ550NOCWM-PD (for wall-mounted units), AQ550NOCWM-TM (for tracklight-mounted units) or AQ550NOCTT-PD (for table-top units).



Special Concerns for Track Light-Mounted Appliances

Track Light-Mounted installations (AQ550TL) occasionally encounter a problem with fragrance deposits on the door of the appliance. Left uncorrected for several days the condensation can begin to drip, creating the appearance of a leak in the machine and damaging the floor.

Cause

This is caused by fragrance droplets from the output of the AQ550TL being blown back onto the surface of the machine by the ambient air flow. This is due to improper directional orientation of the output port of the machine and cartridge.

Solution

At installation AND AT EACH SERVICE/CARTRIDGE CHANGE make sure the output port of the machine is pointing in the same direction as the ambient air flow at the location of the machine. The simple test is to observe the plume as it leaves the machine. The machine can be adjusted on a 360-degree axis. Change the direction of the output so the plume is leaving the machine straight out or perpendicular to the face of the door. If the plume is not readily visible, use a high intensity flashlight.

Option

If there is so much turbulence at the output that there is no position at which the plume can be oriented in the correct direction (same direction as the airflow), then use the top output port of the cartridge. This is done by closing the front port, opening the top port, inserting the cartridge in the machine and inserting the 2" plastic extension tube into the top port of the cartridge. REMEMBER THE TUBE HAS TO BE REMOVED BEFORE REMOVING THE CARTRIDGE FOR REFILL.

Service

At each service, check the door for any evidence of fragrance condensation. If there is condensation, clean it thoroughly with alcohol. Adjust the machine orientation according to the solution above.

USER MAINTENANCE

Cartridge Change

When the reservoir is empty the cartridge needs to be changed. The change process is simple.

Best practice to wear gloves when manipulating the cartridge.

1. Unlock and open the door.
2. Turn off the power by pressing the power button.
3. Remove the plastic tubing from the Top Output Port.



4. Slip the short section of the removal tool (provided) in behind the top section of the cartridge. Hold the cartridge with the right hand. Push the long end backward, snapping out the cartridge. **DO NOT TRY TO REMOVE CARTRIDGE WITHOUT THIS TOOL.** There is a removal tool packed with each appliance.



5. Inspect the o-rings on the air stem for breakage or deterioration. Replace as needed.



6. Remove the plug from the Top Output Port first, then remove the large plug from the Air Intake port. Insert the new cartridge and replace the plastic tubing.



7. Remove the empty cartridge from the property and deliver to a recycling center at a later date.

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 other output port is plugged. It should be.
- Check that the power is on and the appliance is running.
- Check that the o-rings on the air stem are in place and not cracked or broken. Replace if necessary.
- If the appliance is set to **Program**, switch it to **24/7** and check for a plume.
- If no plume, set it back to **Program** and change the cartridge.
- If still no plume, try another cartridge just to make sure. If no plume, replace the appliance. (See [Changing an 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.

1. Open the door.
2. Using a Phillips screwdriver, unscrew the two bottom screws on the lower left and right corners.



3. Keeping the appliance flush with the wall, slide it up to unlock the top holders and remove the appliance. Leave the mounting bracket in place.



4. Install a new appliance by reversing Step 3.

General Care

- AQ550 is an electronic appliance. Treat it like a laptop.
- Do not place or store AQ550 or its cartridges in extreme heat (more than 130° F) or in freezing temperatures.
- Do not drop AQ550 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. AQ550 is available in any color.
- 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

AQ550 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, AQ550 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 AQ550: 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 AQ550 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.

AQ550 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 AQ550 to present that scent to a customer is the best way to present and sell the product. In this way, AQ550 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 AQ550 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.

AQ550 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 AQ550 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.

AQ550 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.¹
- Another study found that fragrance had a dramatic and positive effect on a proofreader’s efficiency.²
- It is commonly known that the Tokyo Stock Exchange diffuses peppermint into the air in the afternoons to make the brokers feel invigorated.

¹ 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.

² 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

IMPORTANT SAFETY INSTRUCTIONS

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 AQ550. 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 12V DC to power the appliance. The appliance must only be supplied at Safety Extra Low Voltage (SELV).
 - 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.

Frequently Asked Questions (FAQs)

How does AQ550 work?

AQ550 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. AQ550 droplets present 100 times more surface area to the air being treated, which means much less fragrance is used to create the scent effect. AQ550'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 AQ550 handle?

AQ550 is fully adjustable for different size rooms. AQ550 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 AQ550?

AQ550 should be placed on a wall 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. Accessory kits can be ordered for placing the unit on a ceiling (track light) or table top.

Do I need to adjust AQ550?

Yes! AQ550 is a powerful machine. AQ550 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 AQ550?

With the power cord plugged in you can adjust AQ550 up and down using the ⊕ and ⊖ 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. AQ550 allows you to erase odors and use only a small amount of scent. Unlike most other air fresheners, AQ550 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 AQ550 safe to use with children and pets?

When used as directed, AQ550 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 AQ550 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. AQ550 is what is known as a “continuous action” air freshener. AQ550 is programmed to deliver an evenly distributed scent throughout the room.

Is AQ550 eco-friendly?

Yes, AQ550 is the most eco-friendly air freshener on the market. Unlike aerosols, AQ550 uses no propellants and produces no harmful volatile organic compounds, or VOCs. Unlike many air fresheners, AQ550 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?

AQ550 has a tiny on-board computer for fully automatic operations. You can set set up to 21 separate start and stop times. (See [Programming the Appliance](#))

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 AQ550, you can use the plugs from the new cartridge being inserted.

Will AQ550 leave deposits on furniture or carpeting?

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

Will AQ550 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.

Are there special concerns for Track Light-mounted appliances?

Yes. See the section in this manual

IMPORTANT

Never situate an AQ550 on a horizontal surface without the proper Table Top accessory kit, otherwise spills may occur.

Specifications

Dimensions

AQ550 Appliance 8 1/2" x 8 3/4" x 4" (21.9 cm x 22.2 cm x 9.8 cm)

Weight

4.1 lbs (1.9 kg) without cartridge, 4.7-5.3 lbs (2.2-2.4 kg) with full 265-500mL 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

Battery — Lithium 3V, #CR2032

Approvals

FCC part 15, CE, RoHS UL Power Supply

Working Temperature

0° to 40° C

Working Humidity

85% or less

Liquid Capacity

265 mL & 500 mL cartridges

Service Area

Up to 30,000 cu. ft. (850 m³) served

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