

PROLITEC

PERFECTLY SCENTED ENVIRONMENTS

AirQ 390/590



AIRQ
BY PROLITEC

Original Instructions

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IMPORTANT SAFETY INSTRUCTIONS

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

IMPORTANT SAFETY INSTRUCTIONS – SAVE THESE INSTRUCTIONS

Appliance Precautions

- 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 AQ390/590. 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.
- INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS**
 - The appliance is built to be plugged into a 110VAC or 220VAC power outlet. It 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).
 - 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 390/590

Welcome to a whole new world of air treatment from Prolitec, the technology leader in air care with scent. The AQ390 and AQ590 appliances are the most advanced commercial air-treatment systems on the market today. It is the world's first fully adjustable commercial air-treatment system engineered to serve indoor spaces.

AQ390/590 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 the AQ390/590 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 AQ390/590 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) per appliance. The AQ390, meanwhile, is fully adjustable to match space sizes from 200 to 15,000 cubic feet (10 to 425 cubic meters). Both appliances are 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. Multiple appliances can work together in the same space.

The classic design blends well into any environment. AQ390 and AQ590 come standard in Textured True Black or Eggshell White. At sufficient order quantities, AQ390 and AQ590 can be supplied in a custom color. AQ390 and AQ590 can also be concealed in a fixture, cabinet or behind a wall-mounted shroud to match any interior design.

AQ390 and AQ590 can use 100V to 240V AC power sources and come complete with plugs for local power receptacles. AQ390 and AQ590 are designed to be mounted on a wall with a flush-mounted power source behind it or 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, your appliance can be configured to stand alone on a flat surface, and with our cable tie kit, it can be strapped to a support pillar.

AQ390 and AQ590 are 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 a wiper seal, and a simple wipe down or dusting of exterior surfaces. Once installed in the right location, AQ390 and AQ590 will outperform any other system, providing completely uniform scent distribution.

Prolitec's AirQ advanced technology creates a scent effect with a smaller quantity of fragrance ingredients than any other method. The chemicals employed in making AQ390 and AQ590 fragrances are fully compliant with the most restrictive air-quality and inhalation standards. AQ390 and AQ590 generate no harmful VOCs and use no ethanol or propellants. Quite simply, used as directed, this appliance 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. AQ390/590 is a high-performance appliance that, installed and used correctly, will meet the most demanding requirements.

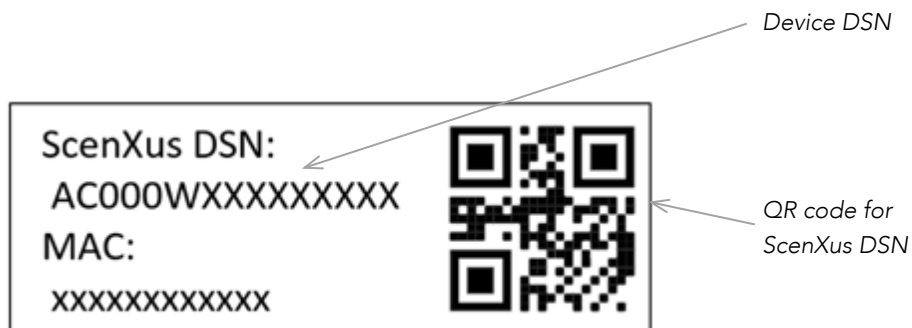
Unpacking

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

1. AQ590 or AQ390 Appliance
2. Power Supply
3. Key
4. Mounting Hardware
5. Upward plume tube (to be used out of the top port only, if needed)



Labels



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

AQ390 and AQ590 are 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). See Accessories Catalogue for mounting kits.

Service Area

The service area range of AQ590 is from 200 to 30,000 cubic (10 to 850 cubic meters). The service area range of AQ390 is from 200 to 15,000 cubic feet (10 to 425 cubic meters). Of course this can vary significantly depending on airflow, number of fresh air changes per hour, temperature, humidity and desired service interval. AQ390 and AQ590 can be adjusted from 1 to 50 to accommodate these variations.

Colors

AQ390 and AQ590 come 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 AQ390 and AQ590s needed for a space. Please refer to AirQ's 'S4 (Sizing, Service & Success) Tool,' available at Prolitec CSP Tools. The chart below can be used as a rough guideline for sizing.

AQ590 Room-Size Table

Output Level Range	Room Volume Range (all off cycles)	
	CFT	CM
1-5	1200 - 5000	34 - 142
6-10	6000 - 9400	170 - 266
11-15	10200 - 13300	289 - 376
16-20	14000 - 16700	396 - 473
21-25	17400 - 19800	492 - 560
26-30	20300 - 22400	574 - 634
31-35	22900 - 24700	648 - 699
36-40	25100 - 26700	710 - 756
41-45	27100 - 28500	767 - 807
46-50	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 'S4 Tool' at [Prolitec CSP Tools](#).

AQ390 Room-Size Table

Output Level Range	Room Volume Range (all off cycles)	
	CFT	CM
1-5	600 - 2500	17 - 71
6-10	3000 - 4700	85 - 133
11-15	5100 - 6600	144 - 187
16-20	7000 - 8400	198 - 238
21-25	8700 - 9900	246 - 280
26-30	10200 - 11200	289 - 317
31-35	11400 - 12400	323 - 351
36-40	12600 - 13400	357 - 379
41-45	13500 - 14200	382 - 402
46-50	14400 - 15000	408 - 425

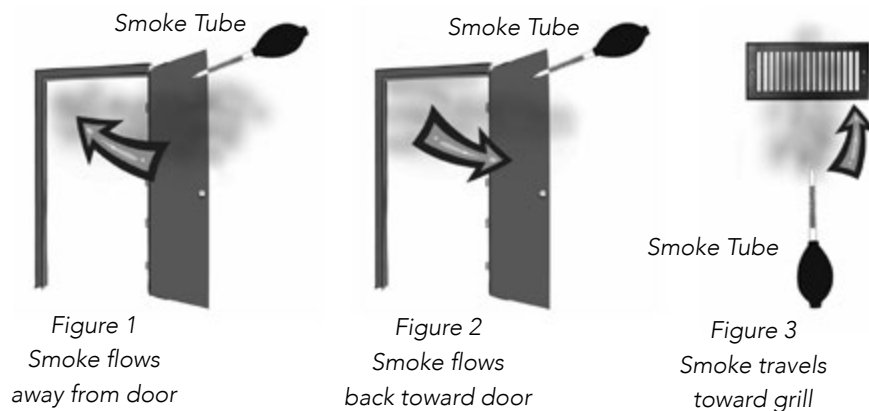
These settings are suggested as a starting point. Start on the lower end of the range and adjust after one hour. Fragrance type, room size, number of fresh air changes per hour, temperature, humidity and user preference will determine the final setting. Best practice is to use AirQ's 'S4 Tool' at [Prolitec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

Appliance Location

1. Placement of your appliance is the KEY TO OPTIMAL PERFORMANCE. It is important to identify a wall or track-light location where the output of AQ390 or AQ590 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 AQ390 or AQ590 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 AQ390 or AQ590 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 AQ390/AQ590

Step 1 – The Electrical Source

Before the AQ390 or AQ590 appliance can be mounted, a qualified electrician must install an electrical outlet at the position you have decided to place the appliance. 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 a 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

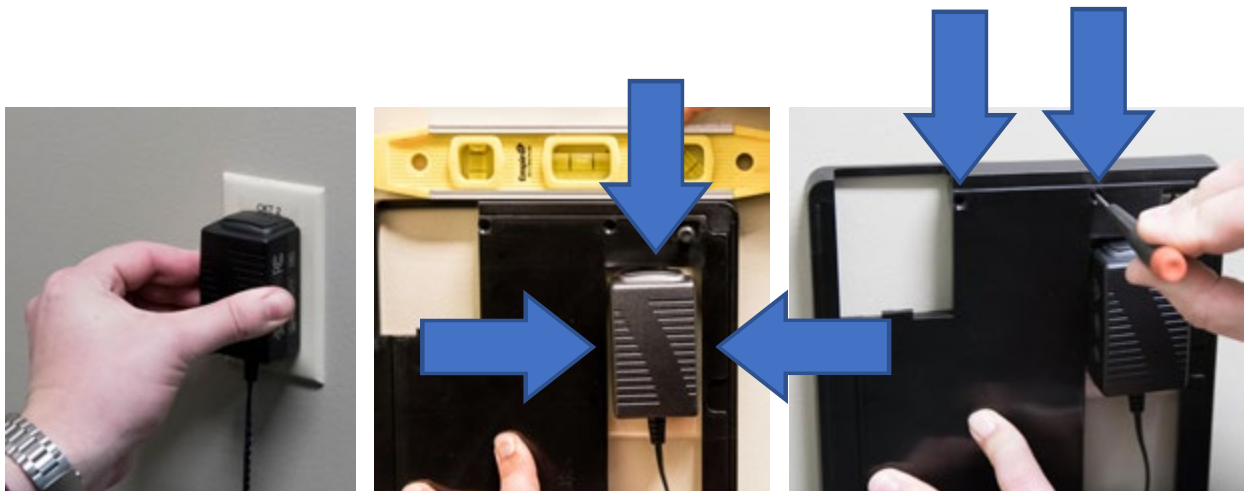
The [mounting kit provided](#) includes a mounting plate, which holds the appliance to the wall, and 4 screws and wall anchors suitable for plastered drywall — 2 short flat-head screws and 2 longer round-head screws. If you have another surface you will need to get anchors suitable for the wall material 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 pointy 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

Plug in the power adapter to the top outlet. Place mounting bracket over the power adapter, allowing for equal spacing between the top and both sides of the power adapter. (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

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 various countries. 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.

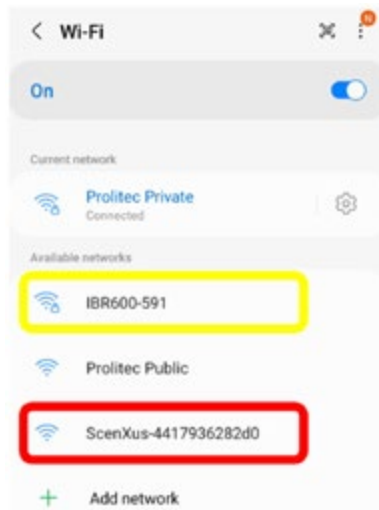


To use AQ390/590 with an HVAC System, refer to the Universal HVAC Kit instructions on AirQManuals.com

ScenXus Installation

Connecting the Device to WiFi

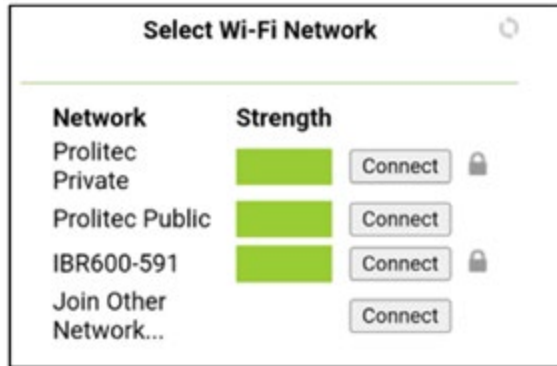
1. Unpack and install the appliance as normal, connecting the device to power.
2. On the appliance LCD screen, the network icon  will blink and the access-point icon  will turn solid.
3. Locate the serial number label and the ScenXus label inside the appliance. Take a photograph for future reference
4. While remaining in the approximate installation location of the appliance, navigate on your smartphone to "settings" and "WiFi settings".
5. Make sure you see both a "ScenXus..." network and the network that will provide internet access to your ScenXus device.



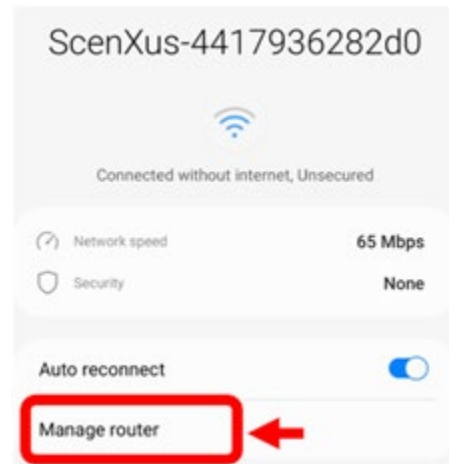
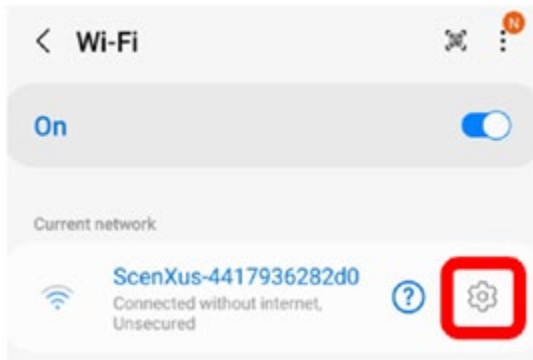
6. Select the network named "ScenXus..." Note: on Android phones, you may need to select "Stay connected," since the ScenXus device doesn't have internet access yet.



7. Networks available for ScenXus will then be displayed.



Note: This is automatic for most iPhones. On most Android phones, you may need to select the settings icon and "manage router" or open a web browser and enter the IP address 10.231.227.81 to see the list of networks.



8. Connect to the network that will provide your ScenXus device with internet access.



- Enter the password for that WiFi network and select "connect".

Connect to network

Network IBR600-591



Security WPA2 Personal

Password

Cancel Connect

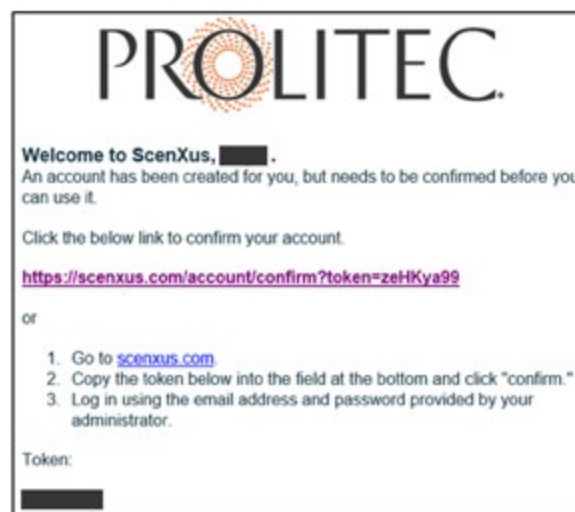
- Wait as your smart phone disconnects from the ScenXus device, the ScenXus device connects to the local WiFi, and the local WiFi connects to the ScenXus cloud via the internet. When complete, you'll see the message, "connection complete".



- The network icon  should turn solid and the WiFi signal strength indicator  should appear.

Accessing the ScenXus Portal

- Request an account from your admin.
- Check your email for a confirmation code from admin@scenxus.com. Be sure to check your junk and spam folders.



3. Navigate to scenexus.com.



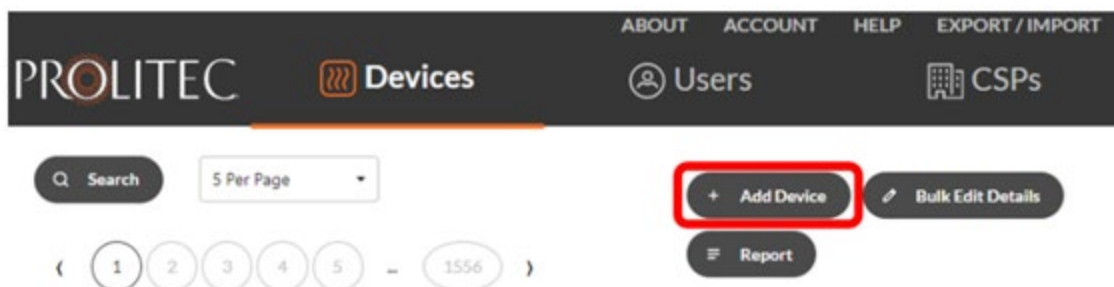
4. Click the "confirm account" link and use the code from the email.



5. Reset the temporary password you received from your admin using the "forgot password" link.

Adding Device to ScenXus Portal

1. Sign in using your email and password.
2. From the "devices" page, click the "add device" button in the upper right.



3. Enter the appropriate device information. ScenXus DSN, as well as the appliance model number and serial number, can be found on appliance labels. Fragrance type can be found on the cartridge label.

Enter location and time zone details of the device. *Note: do not use "Detect Location" unless the computer you are using is near the device being added.*

4. Click "Add Device" and confirm it was added successfully.

Add Device

NAME

Customer * Service Area (Device Name) *

Customer ID Store Number

ID

Serial # * DSN *

System Configuration * Fragrance *

LOCATION

Latitude Longitude Time Zone *

City * State/Province Country *

Adjusting Settings & Schedules

1. From the "devices" page, search for the appliance.
2. Click anywhere on the row to bring up the device details page.

Device Details

Back Copy Device Details Reset Fragrance Level

NAME	ID	LOCATION	PRODUCT
CSP Test	Serial # 2206000001	Country United States	Mode 24/7
Customer Prolitec R&D	DSN AC000W028675867	City Milwaukee	Intensity 1
Service Area MFC3	Network IBR600-591	State	Off-Cycle Short (2 Min)
	System Configuration AQ580 / 500 ml	Time Zone America/Chicago	Fan Speed 1
	Fragrance Fresh Clean	Latitude 43.031184	Status Online
		Longitude -88.002049	Fragrance Remaining 100%

SCHEDULE

Schedule # Intensity Edit Schedule

Day	Intensity
M	2
T	2
W	2
T	2
F	2
S	1
S	2

NOTIFICATIONS

Add Notification

Method	Recipient	Connected	Disconnected	Low Product Level	Edit	Remove
email	████████@scenxus.com	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	<input type="button" value="Edit"/>	<input type="button" value="Remove"/>

3. Adjust the settings and options by clicking the edit icon.

Mode: 24/7

Off-Cycle: Short (2 Min)

Intensity: [-] [1] [+]

Fan Speed: 1



Cancel Confirm

4. Add schedules using the “edit schedules” icon. Edit each desired schedule individually. Be sure to select “enable” to turn on each schedule.

5. Add connectivity and fragrance alerts using the “add notification” icon.


Resetting Fragrance Level

ScenXus calculates remaining fragrance using the strength setting and the time the appliance has run since a new cartridge was inserted. It is important, therefore, to reset the fragrance level when a cartridge is replaced. This can be done in two ways.

Manual Reset – Physically hold the  &  buttons for 5 seconds. The screen will flash to verify reset. Using the manual reset is the recommended practice, since it is performed on site at the time of cartridge replacement.

Reset via ScenXus.com – In the Device Details page, select the “Reset Fragrance Level” button. Fragrance Remaining should return to 100%.

Changing Wi-Fi Networks

If a previously connected Wi-Fi network is no longer available, the appliance will return to access-point mode. This allows the connection process to be completed with a new network. To change networks while still connected to a previous network, a Wi-Fi reset must be performed. By holding  and pressing the reset button, the appliance will forget the previous network and re-enter access point mode.

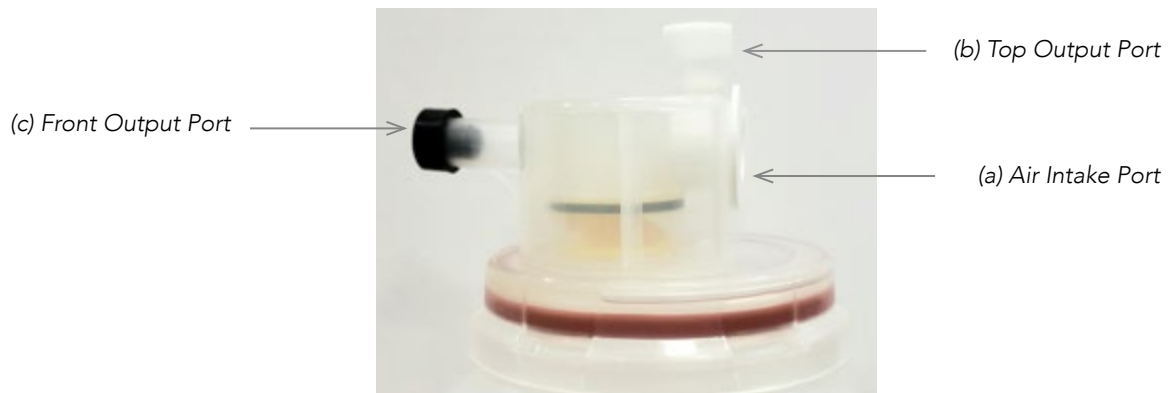
OPERATING INSTRUCTIONS

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 metal plume tube that comes with the unit, to deliver the fragrance. You must use this tube when pluming 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 metal 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.
 - Press  to cycle through the modes to the options mode. The day of the week will blink.
 - Adjust the day forward or backward using  or .
 - Press  to set the day of the week and the hour will blink.
 - Adjust the hour forward or backward using  or .
 - Press  to set the hour and the minute will blink.
 - Adjust the minute forward or backward using  or .
 - Press  to set the minute and the hour and minute will both blink.
 - Change between 24-hour and 12-hour modes using  or .
 - Press  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  or .
 - Press  to set the off-cycle and the fan setting will blink.
 - Adjust the fan speed up or down using  or .
 - Press  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.
 - Press  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  or .
 - Press  to set the program number and the status will blink.
 - Adjust the status between on ("ON") and "off" ("OF") using  or .
 - Press  to set the status and the intensity will blink.
 - Adjust the intensity up or down using  or .

- Press \checkmark to set the intensity and the day of the week will blink.
- Adjust the day of the week forward or backward using \oplus or \ominus .

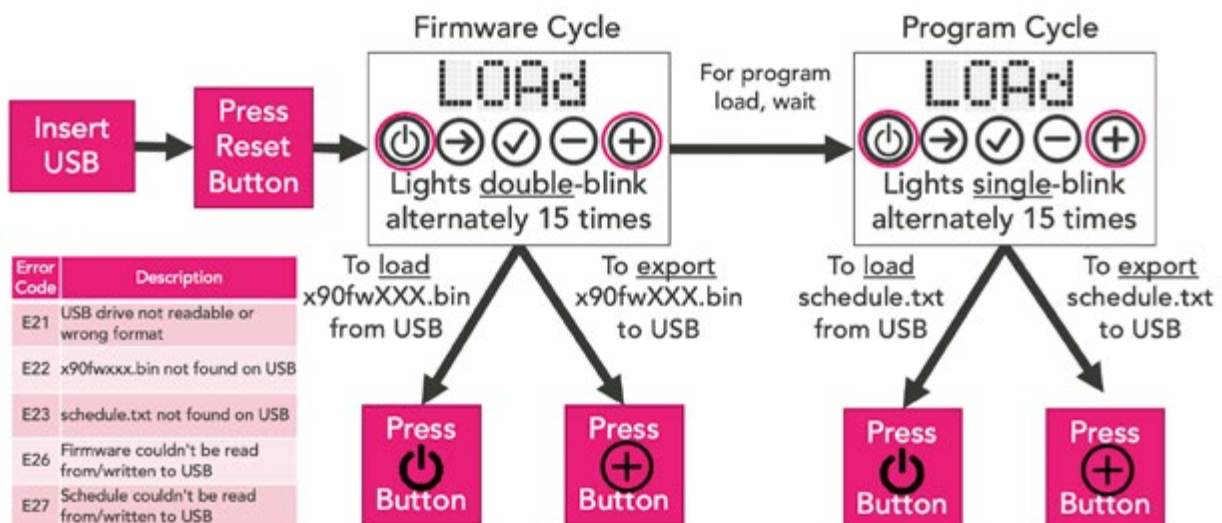
HINT: In addition to individual days, you can also set "all days," "week days," or "weekend days."

- Press \checkmark 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 \ominus .
- Press \checkmark to set the start hour and the minute will blink.
- Adjust the start minute forward or backward using \oplus or \ominus .
- Press \checkmark 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 \ominus .
- Press \checkmark to set the stop hour and the minute will blink.
- Adjust the stop minute forward or backward using \oplus or \ominus .
- Press \checkmark 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 \ominus until **SET PROGRAM** is displayed above the time. You may review the programs by pressing \checkmark while the appliance is in run program mode.

Loading or exporting firmware or schedules with a USB stick

To load or export firmware or schedules, follow the flow chart below. Note: if there are multiple firmware files, the newest version will be loaded. Exported schedules will overwrite existing schedules on USB.



USB Programming & Firmware Update

The online programming tool can be found at ProlitecCSPTools.com (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 airqsd.com.

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 (x90fwxxx.bin), and the final instruction for use (readme.txt) will download to your computer.
 - Insert a USB stick. USB drive must be FAT formatted and no larger than 4GB.
 - Copy the files needed (schedule.txt for programs, x90fwxxx.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.

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 AQ390 or AQ590 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.

Plume Dispersion Fan

The Plume Dispersion 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 the fan running. NOTE: the included plume tube must be used, otherwise condensation may develop. Remember to keep the Front OUTPUT Port plugged.

The Plume Dispersion Fan speed can be adjusted through the options mode. There are five settings, and the fan can be turned off.



Special Concerns for Track Light-Mounted Appliances

Track Light-Mounted installations 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 AQ590TM 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 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.

It is 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 tubing from the Top Output Port.





4. Inspect the wiper seal on the air stem for breakage or deterioration. Replace as needed.



- 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.



- Remove the empty cartridge from the property and deliver to a recycling center at a later date.
- If using ScenXus, reset the fragrance level by holding  &  for 4 seconds, or by using the ScenXus portal.

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 wiper seal on the air stem is 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. (See Changing an Appliance below).
- 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

- AQ390 and AQ590 are electronic appliances. Treat your appliance like a laptop.
- Do not place or store AQ390, AQ590, or their cartridges in extreme heat (more than 130° F) or in freezing temperatures.
- Do not drop this appliance 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

AQ390 and AQ590 are 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, AQ390 and AQ590 are 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 AQ390 and AQ590: 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 AQ390/590 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.

AQ390 and AQ590 are 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 AQ390/590 to present that scent to a customer is the best way to present and sell the product. In this way, AQ390/590 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 AQ390/590 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, including employees and customers.

AQ390/590 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 AQ390 or AQ590 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.

AQ390/590 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

Frequently Asked Questions (FAQs)

How does AQ390/590 work?

AQ390/590 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 AQ390/590 handle?

AQ390/590 is fully adjustable for different size rooms. AQ390/590 is effective in spaces from 200 to 30,000 cubic feet (10 to 850 cubic meters). The cubic measurement is width x length x ceiling height.

Where can I place AQ390/590?

AQ390/590 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 AQ390/590?

Yes! AQ390/590 is a powerful machine. AQ390/590 can handle small and very large rooms. If it is set too high for the room size, it can cause discomfort for some people. Making adjustments is simple. Take the time to do it right.

How do I adjust AQ390/590?

With the power cord plugged in you can adjust AQ390/590 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. AQ390/590 allows you to erase odors and use only a small amount of scent. Unlike most other air fresheners, AQ390/590 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 AQ390/590 safe to use with children and pets?

When used as directed, AQ390/590 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 AQ390/590 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. AQ390/590 is what is known as a "continuous action" air freshener. AQ390/590 is programmed to deliver an evenly distributed scent throughout the room.

Is AQ390/590 eco-friendly?

Yes, AQ390/590 is the most eco-friendly air freshener on the market. Unlike aerosols, AQ390/590 uses no propellants and produces no harmful volatile organic compounds, or VOCs. Unlike many air fresheners, AQ390/590 does not use 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?

AQ390/590 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 AQ390/590, you can use the plugs from the new cartridge being inserted.

Will AQ390/590 leave deposits on furniture or carpeting?

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

Will AQ390/590 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 AQ390/590 on a horizontal surface without the proper Table Top accessory kit, otherwise spills may occur.

Specifications

Dimensions

AQ390/590 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, 5.3 lbs (2.4 kg) with full 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

500 mL cartridges

Service Area

AQ590 - Up to 30,000 cu. ft. (850 m3) served

AQ390 - Up to 15,000 cu. ft. (425 m3) served

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