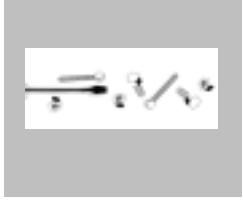


Troubleshooting Guide

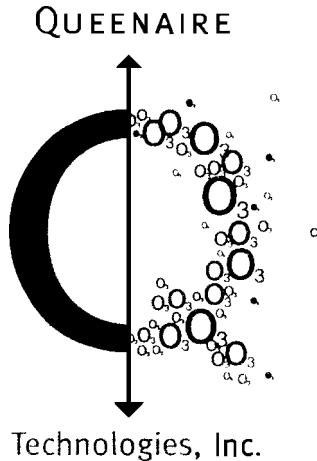
If you are having problems with your ozone machine please refer to the following instructions:



1. The fan comes on, but the green light does not. Remove the top cabinet from the unit and check the condition of the ceramic plate. Replace if broken. Replace top cabinet. Remove and replace the .200 milliamp fuse in the back of the unit. If the green indicator light is still out contact Queenaire Technologies Customer Service at 1-877-64 OZONE.

2. When you turn the unit on nothing happens. First check your power source to ensure there is power to the outlet. Plug the unit in. Check the fuse marked 2 amp on the back of the unit. Replace if blown. If the unit still does not operate contact Queenaire Technologies Customer Service department at the number above.

3. If for any reason you are not happy with the performance of this unit contact customer service at 1-877-64 OZONE.



Queenaire Technologies, Inc.
P.O. Box 133
Ashburn, VA 20146
Toll Free: 1-877-64 OZONE
Tel: 1-703-654-0385 Fax: 1-703-654-0386

Volume

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QUEENAIRE TECHNOLOGIES, INC.

“The Ozone Specialists”

Owners Manual
QT Tornado

Operating QT Tornado

Following are basic guidelines for eliminating odors continuously in rooms up to 10,000 cubic feet.

This unit is designed to be used either continuously in areas that have ongoing odor problems or as a maintenance tool to quickly eliminate odors on a portable basis in areas up to 40,000 cubic feet. You can maximize the results if you expose fabrics fully, open interior doors and turn on your air handling system. Keep in mind that ozone is a surface agent and must make contact with the source of the odors to insure complete deodorization. While this unit is designed to run continuously it should be monitored to insure that ozone levels do not exceed OSHA safety levels of .04 ppm. Following is a formula and chart to help you determine the best setting for your ozone unit when dealing with specific odors. This is a general guideline only as the output will vary substantially depending on the odor factor, temperature and humidity.

AREA x ODOR FACTOR = MG/HR REQUIRED

1. Measure the Cubic Footage (L x W x H) of the room to be treated = A (area)
2. Estimate the Odor Factor (B) as follows:
 - * Light Odors = 0.005
 - * Medium Odors = 0.018
 - * Strong Odors = 0.036
3. Multiply A x B to determine MG/HR needed to eliminate the odor.
4. Use the chart to the Right to determine the setting for your unit.
5. Adjust the settings as needed for complete odor control.

Ozone Setting	MG/HR
1	51 mg/hr
2	110 mg/hr
3	160 mg/hr
4	230mg/hr
5	280 mg/hr
6	360 mg/hr
7	429 mg/hr
8	501 mg/hr
9	541 mg/hr
10	600 mg/hr

Example: A room 50' x 50' x 8' = 20,000 cu/ft x .018 Medium Odor = 360 mg/hr. Set ozone knob to 6. While smell is not an accurate guide to ozone levels, in levels above .03 ppm ozone has a very strong unpleasant odor. If you are experiencing a strong odor, headache, dry nose and/or dry throat, you should either turn the unit down or off to allow the levels to dissipate.

Now that you have determined the approximate MG/HR necessary to eliminate the odor, operating instructions are as follows:

1. Turn ozone-setting knob to appropriate setting.
2. Set the timer as follows: 1 = 15 min., 2 = 30 min., 3 = 45 min., 4 = 1.5 hr., 5 = 3.5 hr., 6 = continuous.
3. Plug the unit into a standard outlet.
4. Place the unit on a table or counter off the ground. Ozone is heavier than air, so the higher the better.
5. Turn the unit on.
6. Be sure to monitor the unit and adjust ozone setting as required for complete odor control.
7. Perform maintenance on your QT Tornado on a monthly basis. Maintenance instructions can be found on the last page of this manual.

How Does QT Tornado Eliminate Odors?

All Queenaire Technologies, Inc. units eliminate odors by producing a controlled level of ozone. Ozone is created naturally in our environment by lightning and the suns ultraviolet rays. It is best known for its benefit in the stratosphere for protecting us from the suns rays. What you may not know is that it is also that fresh smell you experience after a lightning storm. Ozone is Mother Nature's solution to outdoor odor problems. QT Tornado incorporates a technology that duplicates the effect of lightning and creates ozone indoors. The end result is the same, a fresh, odor free environment.



QT Tornado Maintenance Instructions

The life expectancy of your QT Tornado unit is 10 - 15 years, provided it is serviced and maintained on a regular basis. It is recommended that you perform a simple cleaning and maintenance of your unit every six months. The filter should be changed monthly. High contaminate areas such as smoking and garbage rooms may require monthly cleaning. Maintenance kits are available through your distributor. Before you begin performing any work to your ozone unit, be sure to unplug the electrical cord. Step 1.) Remove two screws on the top of the unit as well as the top two screws on each side of the unit. Remove the top cover from the unit.

Step 2.) Carefully remove the white ceramic generator plate from its frame. The plate should lift easily by pulling from the top straight up and out of the frame. Use an alcohol wipe to gently wipe the plate free of any dirt or stains. Inspect the plate carefully for cracks, breaks or irremovable stains. The plate can be reused provided there are no breaks or stains.

Step 3.) Use the same alcohol wipe to wipe out the exposed areas inside the unit. Spread the generator frame apart to wipe the inside of the metal plates that make contact with the generator plate. Be sure to also wipe the base of the frame completely.

Step 4.) Once the ceramic plate is completely dry, reinsert the plate into the generator frame or replace the existing plate.

Step 5.) Reattach the top cover to the unit and put screws back in place.

Step 6.) Remove and discard the green filter on the back of the machine and replace with new filter.

Step 7.) You may at this point have to change your 200mA fuse. To test your fuse, simply turn the unit on. If the green ozone light comes on you have completed maintenance of the unit and are ready to put it back in service. If the light does not come on, locate the 200mA fuse holder on the back of the unit and remove the holder with a flat head screwdriver by turning the holder 1/4 turn. Remove the blown fuse and replace with the fuse enclosed in your maintenance kit. Your unit should now be ready to go back to work.