

How Does QT Thunder-24 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 sun's ultraviolet rays. It is best known for its benefit in the stratosphere for protecting us from the sun's 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 Thunder-24 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 Thunder-24 Maintenance Instructions

The life expectancy of your QT Thunder-24 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 6 months. 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.

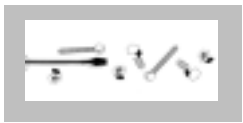
Step 5.) Reattach the top cover to the unit and put screws back in place.

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 125mA 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 125mA 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 the fuse. Your unit should now be ready to go back to work.

Trouble Shooting 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 .125 milliamp fuse in the back of the unit. If the green indicator light is still out contact your distributor.
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 with spare if blown. If the unit still does

not operate contact your distributor.

3. There is no display on the face of the timer. The 1.5 VOLT battery should operate your timer for 3 years or more under typical conditions. High or low temperature or frequent use of the manual pushbutton will reduce the battery life. Replace the battery when the digital display is dim, the message "lobAt" (Meaning LOW BATTERY) is displayed, or if the timer fails to operate. Press any button to clear the "lobAt" message. The timer has built-in memory protection providing at least 15 seconds to change a week battery without losing your settings.

4. 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 Thunder-24

Operating QT Thunder-24

Following are basic instructions for programming your unit to eliminate odors in an area up to 10,000 cubic feet when the treated area is unoccupied.

This unit features a programmable timer with up to 6 On/Off setting pairs (12 automatic switch settings). Each setting time can be once a week, every day, every weekday, or only on weekends. The timed settings combined with a fixed ozone output of 300 mg/hr, allows the user the ability to effectively deodorize a given area up to 10,000 cu/ft on a scheduled basis when the area is vacant. A manual override option gives you ozone on demand for a quick clean up.

Determine your Programmed Settings

The time needed to effectively eliminate odors in a given area depends greatly on the size of the room, the level of odor in the room, temperature and humidity. Our recommendation is that you run the unit for 30 minutes for every 2400 cu/ft of space being treated. You should adjust the unit for shorter run times if you detect an ozone odor after the unit has been off for a time equal to the time it was in operation. If the odor is still present after the unit has run you should adjust the unit to run for longer periods. After the first week of treatment you may have to adjust the unit to shorter run times as the odor factor should be significantly lower. In the summer months, you may have to adjust the unit to run for longer intervals, as the humidity levels will decrease ozone output. You should always allow ample time for ozone levels to dissipate before occupying a treated area. Usually an amount of time equal to the time the unit was in operation is sufficient. If you need help in determining your programmed settings, please contact Customer Service at 1-877-64 OZONE.

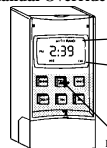
While smell is not an accurate guide to ozone levels, in levels above .03 ppm ozone has a very strong unpleasant odor. If you are experiencing a strong odor, headache, dry nose and/or dry throat, you should adjust the run time for shorter periods or allow a longer period of time before occupying the area to allow the levels to dissipate.

Programming The Timer

The timer used in this unit is basically a programmable switch. At any time you can push the clear cover/switch to manually turn the unit ON or OFF, unless selected mode is CLK or PGM. You can program up to 12 ON/OFF events; times when the timer automatically switches the unit ON or OFF (up to 6 ON events and 6 OFF events). An event can be set to switch at:

- ✦ any specific time, and day of the week
- ✦ a specific time every day
- ✦ a specific time on weekends, or
- ✦ a specific time on weekends

Manual Override



Works like a light switch. Push and release the clear cover/switch to switch ON and OFF.

- Works in AUTO, AUTO RAND, or MAN modes.
- You hear a motor clicking sound.
- ON/OFF display changes.
- The program in AUTO or AUTO RAND remains: it automatically switches ON or OFF at next programmed time.

Push On/Off

Controls & Displays

Cover/Switch

The clear cover/switch is the manual ON/OFF control.

1. Pull at notch at top edge to remove cover so you can use the programming buttons.

To replace cover /switch:

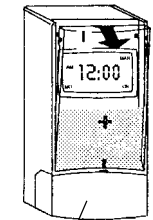
2. Set bottom in first
3. Click in the top

To remove battery:

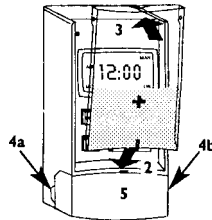
4. Grasp holder at side bumps (4a, 4b) and pull straight out.

To re-install battery:

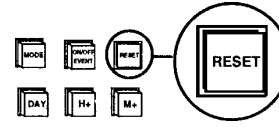
5. Replace battery in holder with "+" end towards front of timer. Insert battery and holder into timer. Push at (5) so it clicks into place



Battery Holder



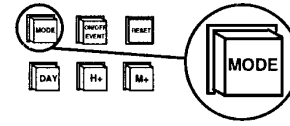
Push Buttons:



RESET Button

Recessed so you don't push it accidentally. Push and release to reset. When you press RESET:

- The mode switched to MAN.
- The switch is set to on.
- The clock is set to MO 12:00 AM and flashes
- All programmed ON or OFF times are set to null (at null, no switching occurs, clock displays --:--). (after pushing RESET, you must see the clock then set the ON/OFF times.)
- If NoOp appears in display, push battery cover in until you hear a click. Push reset button to clear display. Proceed with programming.



MODE Button

Push and release to change the mode (upper line of the display).

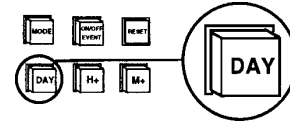
CLK mode - To set or change the time.

PGM mode - To set, review or change programmed ON/OFF times.

AUTO mode - Programmed ON/OFF times work. Manual switching works.

AUTO RAND mode - Programmed ON/OFF times work and are randomly offset up to 15 minutes. Manual switching works.

MAN mode - Only manual switching works. Programmed ON/OFF times remain in memory. The **Mode button** skips the **AUTO modes** if the time of day and or the ON/OFF times have not been set.



DAY Button

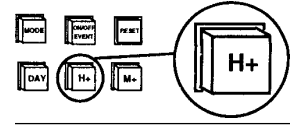
Function depends on the mode.

CLK mode - Push and release to cycle through the days of the Week: MO,TU,WE,TH,FR,SA,SU. Push to hold and cycle quickly.

PGM mode - Push and release to cycle through all week, weekdays, weekend, individual days of the week and null: MO TU WE TH FR SA SU (all displayed at once is all week) MO TU WE TH FR (all displayed at once is weekdays) SA SU (displayed is weekend) MO TU WE TH FR SA and SU (are individual days)

--:-- (on clock display is the null setting)

Use null to cancel an unwanted ON or OFF setting. The Day button does nothing in AUTO, AUTO RAND or MAN modes.



H+ (hour) Button

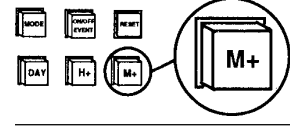
Works in CLK and PGM modes

Push and release to cycle forward through the hours of the day.

Push and hold to cycle quickly.

AM and PM automatically switch at 12.

If you pass the correct hour, push and hold to cycle around again.



M+ (minute) Button

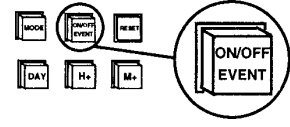
Works in CLK and PGM modes

Push and release to cycle forward through the minutes.

Push and hold to cycle quickly.

AM and PM automatically switch at 12.

If you pass the correct minute, push and hold to cycle around again.



ON/OFF/EVENT Button

Function depends on the mode.

CLK mode - ON/OFF EVENT button does nothing.

PGM mode - Switches in order through the 12 programmable Events 1 ON, 1 OFF, 2 ON, 2 OFF, 3 ON, 3 OFF, 4 ON, 4 OFF, 5 ON, 5 OFF, 6 ON, 6 OFF.

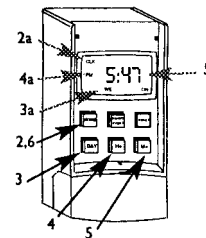
AUTO mode - Manually turns switch on or off.

AUTO RAND mode - Manually turns switch on or off.

MAN mode - Manually turns switch on or off.

How to set or change the clock

1. Remove the clear cover/switch.
2. Push and release MODE button until CLK is displayed (2a).
3. Push and release DAY button until correct day of week is displayed (3a.)
4. Push and release H+ button until hour and AM/PM are correct (4a).
5. Push and release M+ button until minutes are correct (5a)
6. Push and release MODE button to chose AUTO, AUTO RAND or MAN
7. Replace cover/switch.
8. Push and release clear cover/switch to switch load ON or OFF if necessary.



How to set, change, or review ON/OFF times

1. Remove the clear cover/switch.
2. Push and release MODE button until PGM is displayed (2a) at event (1 on)
3. If necessary, push and release ON/OFF/EVENT button until event to set/change is displayed (3a), or push the ON/OFF/Event pushbutton repeatedly to review all the ON/OFF times.
4. Push and release DAY button until desired day or group of days is displayed (4a), or push and release the DAY button until --:-- is displayed, if you would like to cancel this ON or OFF time.
5. Push and release H+ button until desired event hour and AM/PM are displayed (5a).
6. Push and release M+ button until desired minutes are displayed (6a)
7. Push and release ON/OFF/EVENT button to choose the next event to set or change (7a)
8. Push and release MODE button to choose AUTO, AUTO RAND, or MAN.
9. Replace cover/switch.
10. Push and release clear cover/switch to switch load ON or OFF if necessary.

