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INDOOR AIR QUALITY SOLUTIONS

*New!*

# MiracleAir™

## State Of The Art Air Filtration System!



*High efficiency particulate (HEPA) filter combined with optimized sorbent media and UV lamps provides the ultimate solution for indoor air pollution capturing both particulate and gaseous contaminants. Removes pollen, odors, tobacco smoke, dust, vapors, germs and viruses.*

Manufacturer and Worldwide Distributor of Air Cleaning Systems for Over 30 Years

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# SPECIFICATIONS

## - IMPORTANT -

THE SPECIFICATIONS GIVEN IN THIS PUBLICATION DO NOT INCLUDE NORMAL MANUFACTURING TOLERANCES; THEREFORE, THIS UNIT MAY NOT MATCH THE LISTED SPECIFICATIONS EXACTLY. ALSO, THIS PRODUCT IS TESTED AND CALIBRATED UNDER CLOSELY CONTROLLED CONDITIONS AND SOME MINOR DIFFERENCES IN PERFORMANCE CAN BE EXPECTED IF THOSE CONDITIONS ARE CHANGED.

**DIMENSIONS:** Cabinet – 15 5/8”L x 15 5/8”W x 22 1/2”H. See Fig. 1.  
**CABINET:** All metal cabinet with a durable powder coat finish.

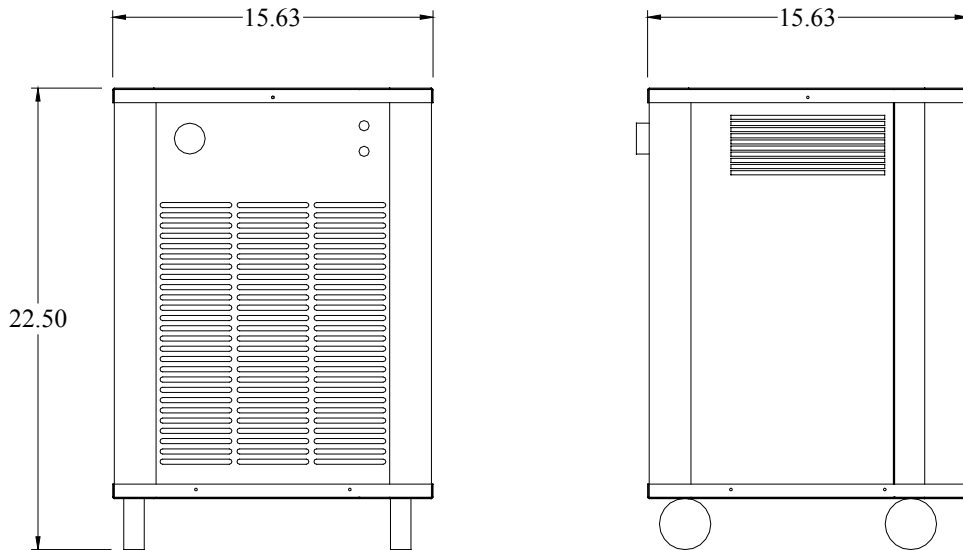


FIG. 1

**WEIGHT:** Shipping, 57 Lbs.; Installed, 49 Lbs.  
**AIRFLOW:** 50-400 CFM @ 0.9" WG  
**MOTORIZED IMPELLER:** Backward curved, vibration free, direct drive rated at 710 CFM @ 0" WG  
**POWER:** 115 V, 60 Hz, 223 Watts  
**TWO UV LAMPS:** The lamps produce 254 nanometers UV rays.  
The intensity of each lamp is 194  $\mu$ W/in<sup>2</sup>.

**SOUND LEVELS:** High - 65 dBA @ 3 meters  
Low - 35 dBA @ 3 meters

# INTRODUCTION

The new Miracle Air is a comprehensive, state-of-the-art HEPA filtration system that addresses odor, vapor, particulate and bacteria for ensured indoor air quality. You can expect noticeable improvements in your atmosphere as your air cleaner removes dirt, grime, smoke, germs and viruses from the air in your home or office.

## **POLLEN**

Many pollens and other airborne particles are so small they can't be seen. Your Miracle Air Cleaner removes these pollens and other airborne particles using a 99.97% efficient at .3 micron, hospital-grade, HEPA filter. The Miracle Air has more filter media than any other unit in its class.

normally settles on your walls, windows, mirrors, draperies and furniture is being removed. You should notice a reduction in the soiling effect of these pollution particles on your furnishings. The Miracle Air's inlet airflow system effectively cleans the entire area.

## **SMOKE**

Smoke is composed of tiny submicroscopic particles. Collectively, these particles make up that annoying haze. In dense concentrations, the particles form layers and can stay suspended in the air for hours. These particles eventually settle out as a dulling film that is often visible on windows or mirrors. Your Miracle Air will remove virtually all of these particles before they have a chance to be inhaled or before they have a chance to settle on your furnishings.

Because most of the staining particles are removed from the air before having a chance to settle on walls, ceilings and draperies, you don't have to redecorate as often. Painted surfaces last longer, draperies stay cleaner and wallpaper stays brighter.

## **GERMS AND VIRUSES**

Ultraviolet germicidal lamps have been used for more than 40 years in hospitals. As the air passes the lamps, the UV lights silently destroy or inhibit colony formation of the airborne germs and viruses.

## **ODOR**

Your Miracle Air will remove odors and vapor contaminants with 15 lbs. of an optimized sorbent media mixture of activated carbon, alumina potassium permanganate and zeolite. This is more sorbent media than any other unit in its class.

UV light destroys microbes by being absorbed by the proteins within the microorganism. After absorption, the UV light destroys the microbe or inactivates the DNA, which prevents the microbe from reproducing. A microbe is considered destroyed when it can no longer reproduce.

## **REDUCED HOUSEKEEPING AND REDECORATING**

With the Miracle Air, your home or office should stay cleaner longer. The dirt and grime that

# PRINCIPLES OF OPERATION

## **HOW YOUR MIRACLE AIR WORKS**

Your dirt, dust, smoke and pollen contaminated air is forced through a three-stage filtering process.

**The First Stage** – The prefilter traps large particles like dust and pet hairs, protecting your HEPA filter and extending its life.

**The Second Stage** – The HEPA filter will remove virtually all of the remaining particles in the air including pollens and smoke particles.

**The Third Stage** – The odor/VOC carbon filter removes odors and other gaseous pollutants.

**The Fourth Stage** – The UV germicidal lamps destroy bacteria and viruses.

# SETUP AND OPERATION

## WHEN USING THIS PRODUCT...

read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.

## UNPACKING THE PM-400 AIR CLEANER

Remove your PM-400 Air Cleaner carefully from the box. Remove the plastic bag and check that all components are included. The PM-400 Air Cleaner is shipped assembled and includes everything shown in Fig. 1.

## SETUP / LOCATING THE PM-400

Position the PM-400 so:

- The airflow in and out of the air cleaner is not blocked or partially obstructed.
- The discharge air does not cause uncomfortable drafts for any occupant.
- The power cord does not interfere with normal occupant traffic.

The PM-400 comes ready for operation. Simply plug the power cord into any standard grounded outlet.

## OPERATING THE PM-400

The controls are located on the front side of your PM-400 Air Cleaner. It is equipped with a variable motor speed controller.

Generally, the high fan speed is used in extreme conditions for rapid cleaning or for large areas where the high fan speed is required to circulate the air. Medium and low settings are usually adequate to maintain a clean air environment and to offer a quieter operation.

It is recommended that you operate your PM-400 24 hours a day because indoor air becomes quickly contaminated by activity in a room.

# MAINTENANCE

## CLEANING

The black prefilter of the PM-400 may be cleaned with a vacuum hose. This will extend the life of your prefilter and maintain maximum performance.

Vacuuming can not clean the media filter and carbon filters.

# FILTER AND UV LAMP REPLACEMENT

## FREQUENCY FOR REPLACEMENT

The Miracle Air PM-400 is designed to have a very long filter replacement interval. This is accomplished because of the large volume of media used in both the HEPA filter and the odor/VOC filter. See the Specifications section for details.

Prefilter – The prefilter captures large particles and extends the life of the HEPA filter. The prefilter should be cleaned every 1-3 months and replaced every 6-12 months.

HEPA Filter – The HEPA filter removes the smaller submicron particles that pass through the prefilter. The HEPA filter could last up to five years.

Odor/VOC Filter – This filter removes odors and other gaseous pollutants. The odor/VOC filter could last from one year up to five years.

The specific environment that the PM-400 is installed in determines the exact maintenance interval. If there are sources that generate large quantities of particles or gaseous contaminants, the useful life of the filters will be used up in a shorter period of time.

**IT IS TIME TO REPLACE YOUR FILTERS WHEN . . .**

- The air volume is decreased dramatically with a cleaned prefilter. This means the useful life of the HEPA filter is used up.
- The odor/VOC filter no longer removes odors.

**IT IS TIME TO REPLACE UV LIGHTS WHEN . . .**

- The red light on the front of the cabinet is off.

**FILTER AND UV LAMPS REPLACEMENT**

To replace your prefilter, media filter, carbon filter or UV lamps, gently flip your PM-400 upside down onto a soft surface. Be sure the power cord to the unit is unplugged. Refer to Fig. 2 if you are uncertain which filters are being referred to. Remove the eight screws located at the unit's base and remove the bottom cover. Each of the three filters may be removed by simply lifting them from the air cleaner. They are not fastened down in any way.

UV lamps are just simply snapped inside of lamp holders.

Replace the new filters back or UV lamps inside your PM-400 and replace the bottom cover. To order new filters, see the following section.

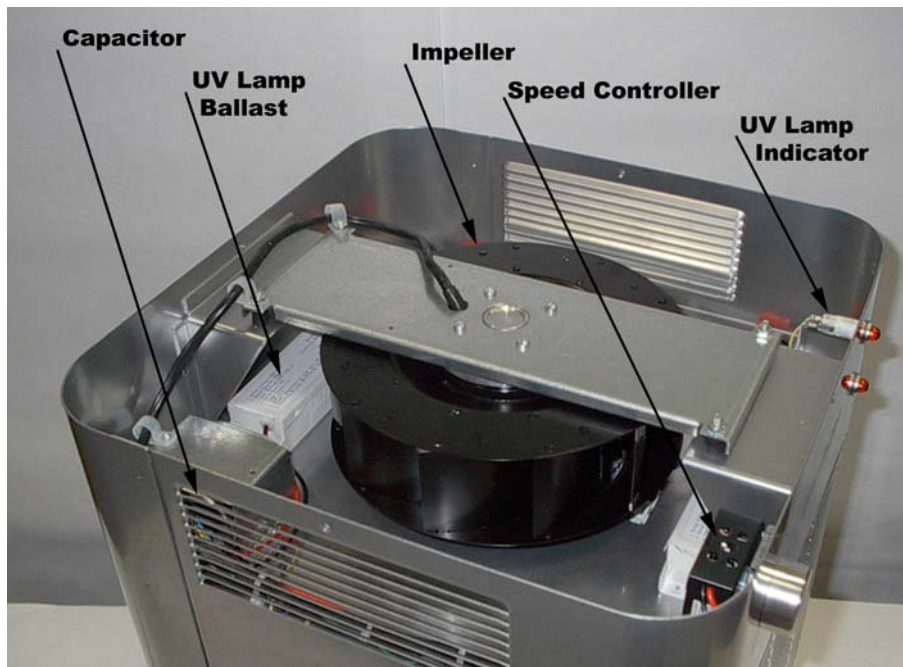


**FIG. 2**

**REPLACEMENT FILTERS**

Replacement filters may be purchased from your local dealer or you may call our toll free number (800) 328-0787. Select the appropriate filter from the chart below:

**PARTS LIST**



**FIG. 3 – PM-400 PARTS LIST**

<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>PART NUMBER</b>
1	Prefilter	41174
2	HEPA Filter	41164
3	Activated Carbon Filter	41163
4	Motorized Impeller	40067
6	Capacitor	40104
5	Speed Controller	10277
6	UV Lamp*	10280
7	UV Lamp Holder*	10281
8	UV Lamp Ballast*	10282
9	UV Lamp Indicator	10198
10	Knob	30769

\* - UV lamps, ballasts and holders are to be bought from AQE for a proper functioning.

To order, call **Toll Free (800) 328-0787**.