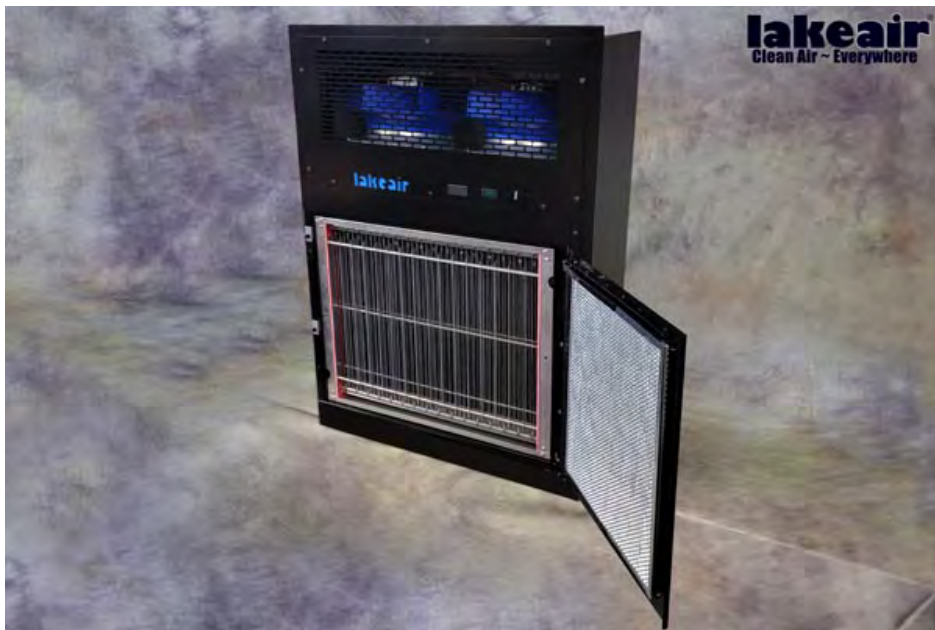


lakeair[®]

Clean Air ~ Everywhere

Operating and Service Manual WM-RC2 120 Volt



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ABOUT Your WM-RC2

The WM-RC2 air purifier was designed to provide long service. The unit was designed to be easily repairable. The product warranty is 7 years but you can expect 15 or more years of useful product life. The WM-RC2 is a heavy duty all air purifier. There are no circuit boards. We use simple switches that if necessary are easy to replace.

ON Board or Remote Wiring

The WM-RC2 can be ordered in two styles, "On Board" or "Remote Speed Control". If you ordered your wall mount unit with on board speed control you can mount it, plug it in and you are ready to operate. On Board speed control makes sense for private installations where room occupants can control the speed of the unit.

Remote speed control makes sense in a public setting where the room occupants should not be able to adjust the speed. If you ordered the WM-RC2 for remote speed control a potentiometer kit is included with the unit. The remote speed control is shipped in the box with the unit. Directions for wiring the remote speed control is covered later in the manual.

Unpacking

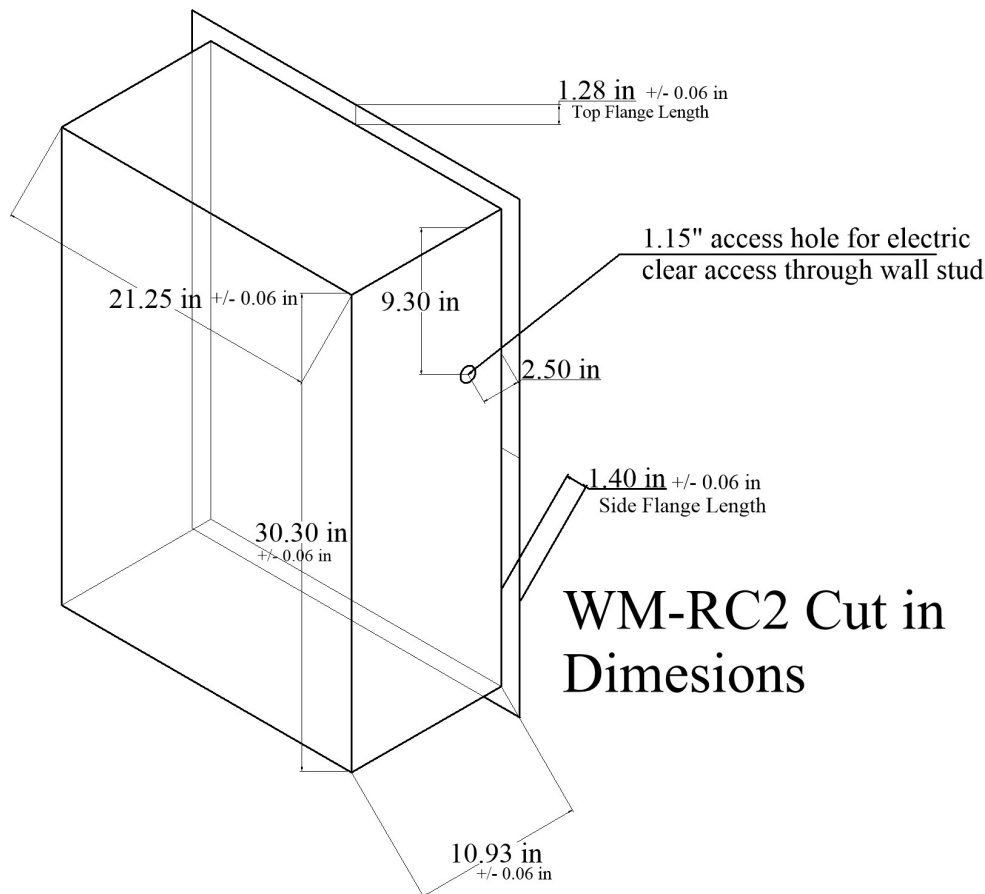
Your WM-RC2 air purifier is shipped on a 30" x 52" pallet. If you ever need to ship your air purifier back to the factory it MUST be shipped strapped to a pallet. The WM-RC2 was designed to be easily repaired so it is unlikely to need to ship your unit back. Care should be taken while unpacking the MAX Guard. The unit is quite heavy and the box should be placed in the upright position. It may be necessary to slice the corners of the box if you are unable to lift the unit out.

Installation (*install with the exhaust at least 6' 6" above the floor*)

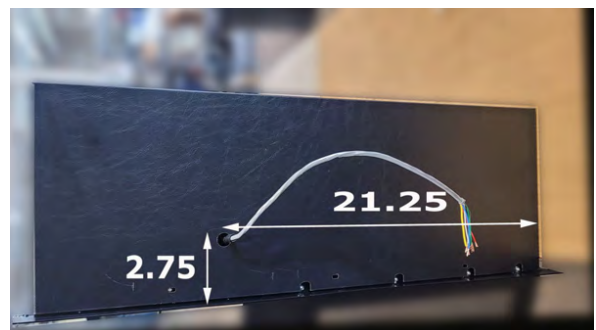
The WM-RC2 was designed to be mounted in a wall flush to it's surface. It was designed to fit into a commercially studded wall with wall studs set on a 24" center. Such a wall has an opening of 21.5 inches and the WM-RC2 will fit in this gap. The rough opening for the WM2-RC2 should be 30.75 x 21.75

The WM-RC2 was designed to be mounted in a wall flush to its surface. It was designed to fit into a commercially studded wall with wall studs set on a 24" center. Such a wall has an opening of 21.5 inches and the WM-RC2 will fit in this gap. The rough opening for the WM-RC2 should be 30.75 x 21.75

If the wall you are mounting the unit into does not have studs spaced at this commercial norm you will need to build a frame with a rough opening of 30.75 x 21.75 and secure it to the wall stud structure.

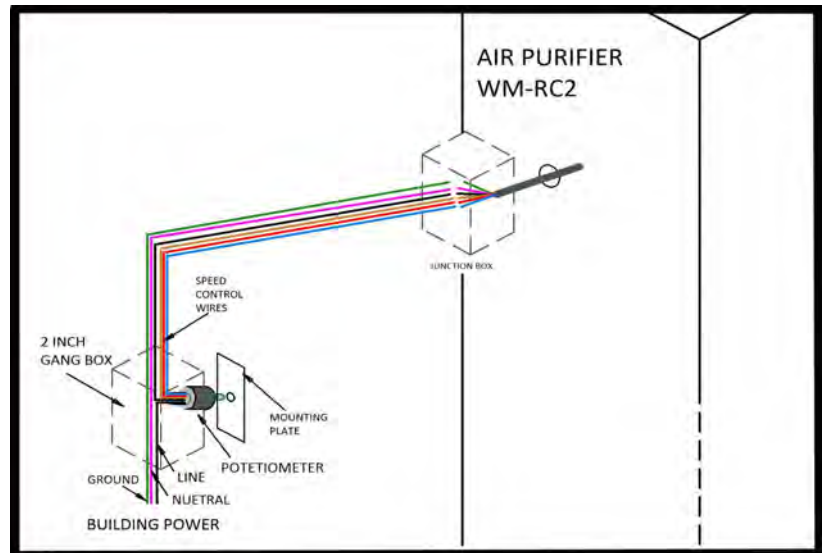


Wiring for your unit enters the unit through the side. When you purchased your unit you will have chose the left or right hand wiring option. The wire entrance is located 2.75 inches from the front and 21.25 inches from the bottom. The design intent is to have the power wire be fed through a piece of rigid conduit and then into a junction box.



The internal control box is fitted with a 1/2 inch threaded receptacle. Thread a piece of rigid conduit into the control box receptacle. Attach a junction box on the other side of the stud and connect it to the rigid conduit (see image A-1 below) Feed the power/control wire through the conduit and into the junction box.

6 conductor wire can now be run from the junction box to a standard gang box where the unit control is going to be located (see image A-2) below.



Wiring with on board Potentiometer

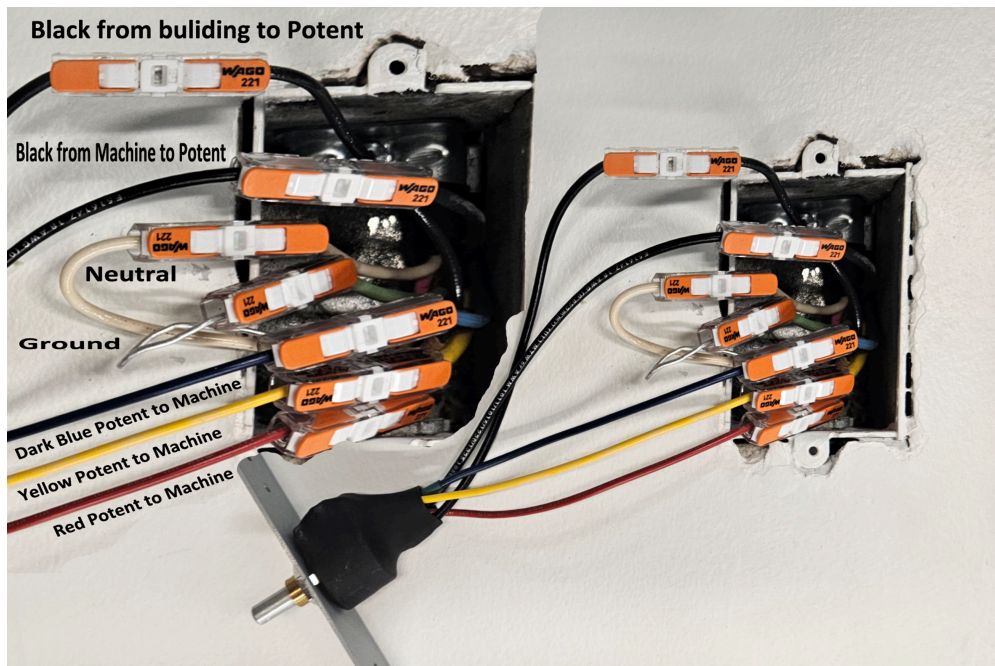
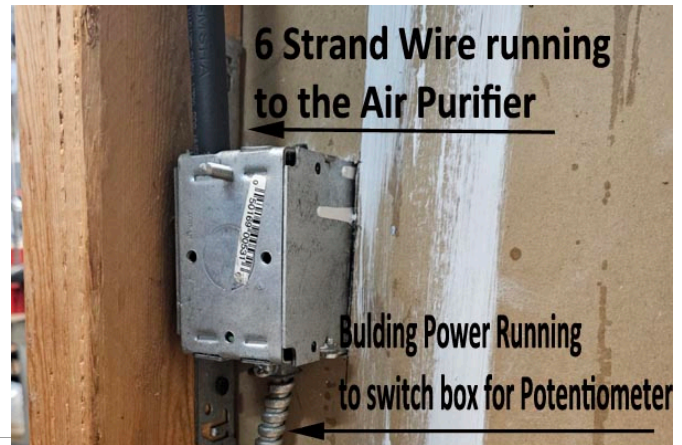
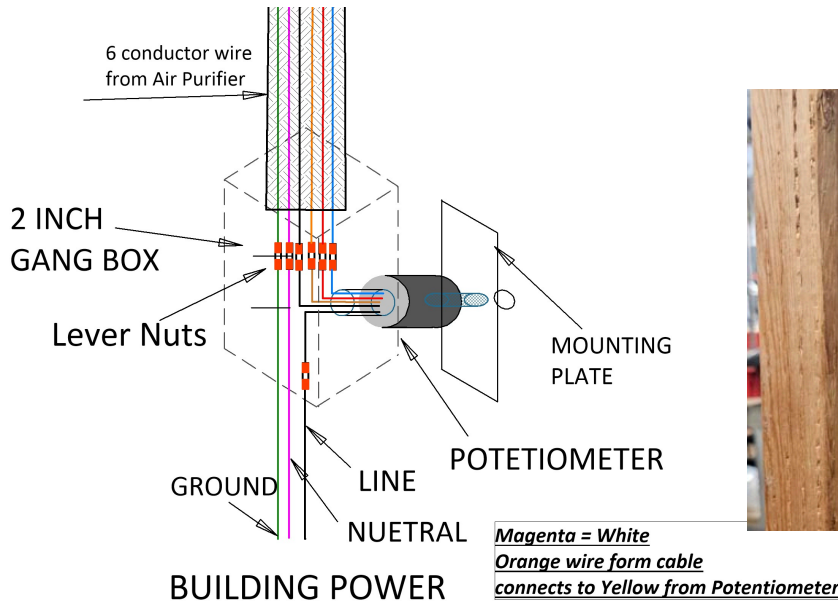
If you ordered your unit with the potentiometer mounted in the unit you need only hook up the building power to the unit. The wires coming from the unit will have 3 wires and they need to be connected to line, neutral and ground.

Optional Trim Boards

The WM-RC2 will blend into the surrounding environment much better if you install a trim package around the unit. There should be sufficient wall support on the edge of the frame you built or the building internal wall studs. If you ordered the optional trim kit the trim pieces are pre-cut and will fit well around the unit. Place the trim boards so the unit is centered within the frame created by the 4 trim boards.

Wiring at Wall

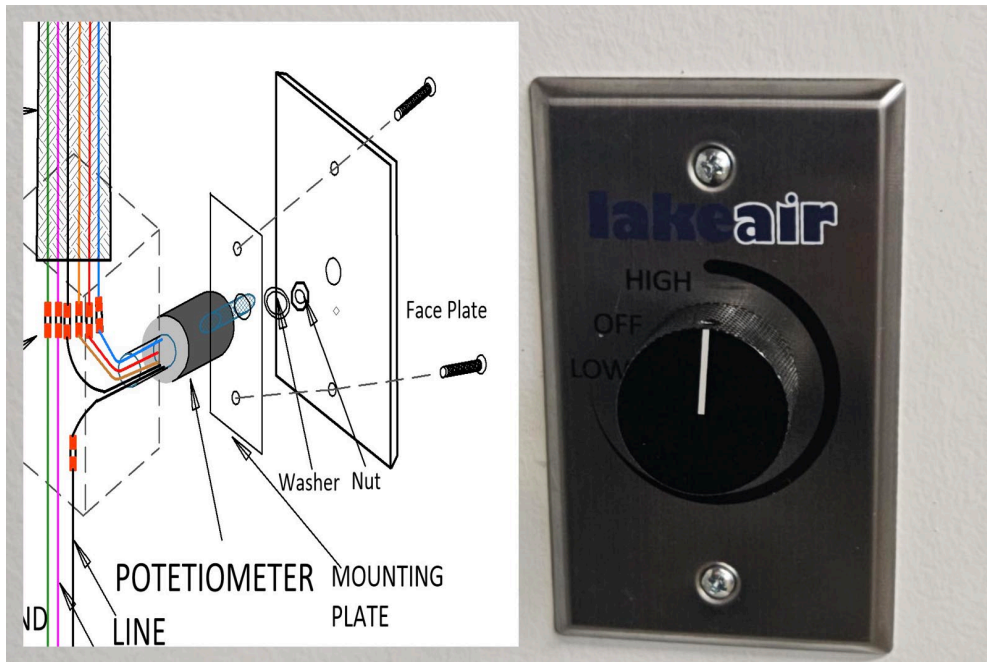
The power from the building should be run to a switch box . The LINE Runs through the potentiometer. The NEUTRAL and GROUND runs directly to the unit. The speed Control wires run from the potentiometer to the unit. See Images Below for clarification.



You do not have to use the LakeAir Wiring Kit, Low voltage speed control is often hooked up using thermostat wire. Be sure to use a heavy enough gauge wire for the air purifier (maximum 4.4 amps per unit)

Face Plate

The potentiometer should be attached to the mounting plate. There is an alignment hole in the mounting plate. Secure the potentiometer to the mounting plate using the lock washer and nut. The Face plate can then be attached with the screws included, through both the face plate to the switch bo



Wiring with on board Potentiometer

If you ordered your unit with the potentiometer mounted in the unit you need only hook up the building power to the unit. The wires coming from the unit will be power wires and they need to be connected to line, neutral and ground from the buildings power.

Getting to Know your WM-RC2

The WM-RC2 is sold with a number of different filter package options. Not all of the following information will apply to your product. The filter options available are:

1. Standard HEPA
2. MERV 15
3. Electrostatic
4. HEPA / UVGI

All WM-RC2 filter packages include a pre filter and carbon filter. In the UVGI model the UV bulbs are located behind the carbon filter incorporated into the UVC chamber. It is important to regularly inspect, clean and replace filters as needed. Failure to do so may lead to poor unit performance and voiding of the product warranty. The Blowers in this unit depend on air flow to keep the cool. Insufficient air flow may cause the motor bearings to over heat and fail. The Blowers are rated for 60,000 hours of normal use. Proper maintenance can greatly extend the blower life.

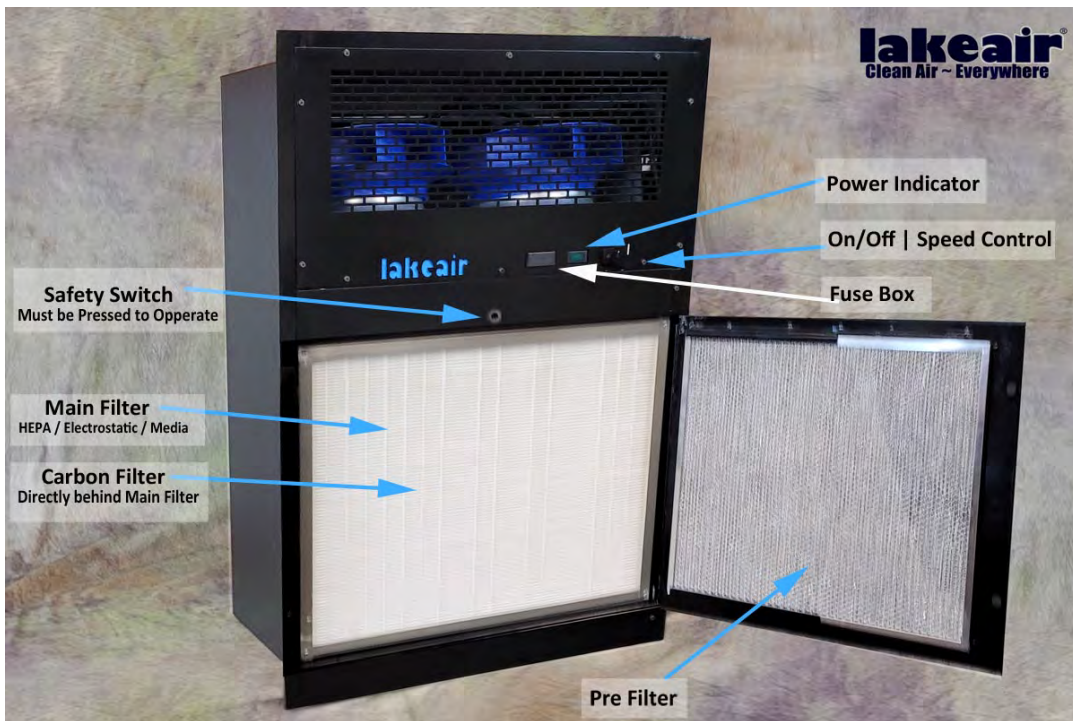
Operation

To operate your WM-RC2 make sure the door is fully closed. There is a safety switch that must be engaged before the unit will operate. Turn the speed control knob clockwise. You should be able to feel and or hear the click. This turns the unit on. The blowers have a 10-20 second delay before starting. As you rotate the speed control clockwise the blower speed decreases. The Highest speed is immediately after the on/off click. The lowest speed is achieved when the dial is turned all the way clockwise. The blowers in the WM-RC2 are rated form any thousands of hours. Do not be afraid to leave your air purification system running for long periods of time. 24 hour a day operation is seldom needed but this will not hurt your unit. To turn off the unit turn the speed control counter clockwise until you feel the click.

Maintenance

Your LakeAir Air Cleaner is a high quality, precision piece of equipment designed for many years of satisfactory performance. Adhere to a regular maintenance schedule and no problems should occur. This unit should be checked periodically for “dust load” and cleaned if found to have a large accumulation of dust and lint. Under regular conditions The HEPA filter should last 1 year and be replaced annually. The carbon filter should be changed every 3-6 months. When odors are no longer being removed, it is time to replace the carbon filter. The electrostatic filter cell should be washed every 3-6 months. The prefilter should be cleaned every 3 months. When used in a smoky environment the WM-RC2 filters should be serviced more often. The UVGI bulbs (UVGI units only) should be changed every 12 months.

WM-RC2 Major Parts



Fuse Box	497546	Thumb Screw	470122
LED Indicator	100139	Safety Switch	497567
Potentiometer	371922		

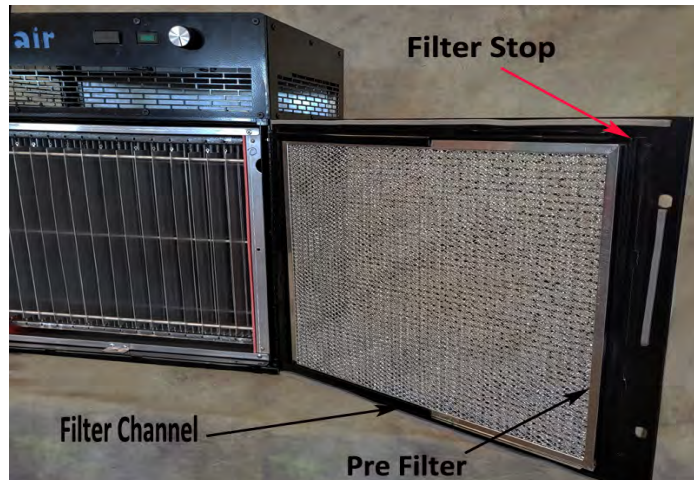
TOP View Of Motor Cabinet



Blower	300781
Motor Mount	200478
Universal Plug	497546

Filter Removal and Installation

The pre filter is the first of 3 filters used in the WM-RC2. The pre filter removes large particles from the air stream. It also extends the life of the main filter. The pre filters rating is MERV 2 and its Part# is 490052. The pre filter is mounted into the door of the WM-RC2



To remove or re-install lift the end of the prefilter over the filter stop and slide along filter channel



Main Filter

The main filter will be one of 4 different filters. Possible options are Standard HEPA (20 x 16 x 4.75), MERV 15 Media filter (20 x 16 x 4), Electrostatic filter (20 x 16 x 4.5) or UVGI HEPA (20 x 26 x 2.4) The main filters fit snugly into the filter box and can be removed easily. All 4 filters have a lip that allows you to get a good hold on the filters. The filter lip may be a bit sharp so take care not to cut yourself.



Move the filter back and forth with a side-to-side motion drawing it slowly to you. You can reinstall the filter in the same manner gently moving the filter back into place. The main filter should touch the carbon filter.

Carbon Filter

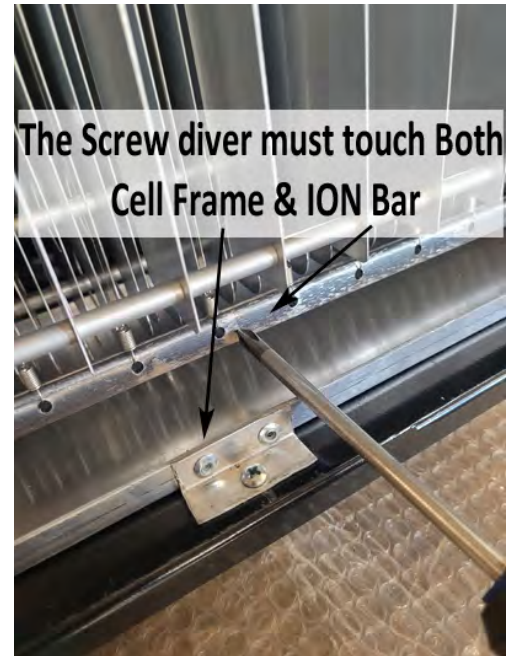
The carbon filter is located directly behind the main filter. To remove the carbon filter, put your fingers on the lip of the filter and gently remove the filter with a side-to-side motion. Note: The lip is metal and may be a bit sharp use caution not to cut yourself while removing. In an UVGI unit the carbon filter is incorporated into the UVGI chamber. You should never run the UVGI filter without a carbon filter both in front and back of the UVGI element.

Electrostatic Cell Removing and Re-installing

CAUTION

Always Ground the Cell before handling!

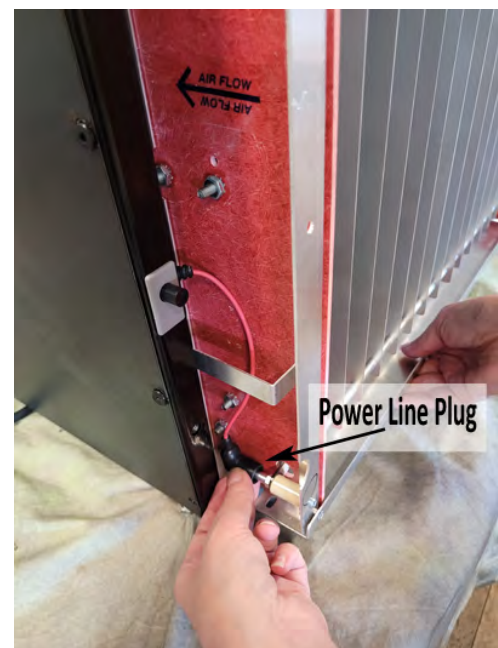
When you open the door to the Unit all power is cut off. It is possible however that some residual electricity is still residing in the Filter Cell. So, the **FIRST** thing to do is ground the voltage side of the cell. To do this take a Philips screw driver with an insulated handle and touch both the cell side and the ION Bar. This will dissipate any residual charge.



Remove the ground screw. The ground screw secures the filter cell and provides the ground needed to allow the filter cell to function properly

Slide the cell out slowly, The Cell Power Line is on the left hand side. With the Cell partially out remove the Power Line Plug. by disconnecting from the Cell Power Lug. Then remove the cell from the air purifier.

To re-install: reverse these steps, be sure that the power line is with the cell frame and avoid crimping the power. Line



Filter cleaning and replacement recommendations.

Filter and Bulbs listing

Filter / Kit	Part#	Replace/Clean
Standard HEPA filter	# 499180	Annually
UVGI HEPA Filter	# 499176	Annually
MERV 15 Media Filter	# 499097	Annually
Pre Filter	# 490052	Annually
Standard Carbon Filter	# 499075	3 months
Cannablend Filter	# 499146	3 months
Electrostatic Filter Cell	# 101213	3 months
UVGI Carbon Filter Kit	# 499115	6 months
UVGI Bulb Kit	# 400109	Annually

Note:

HEPA and Media filters should be replaced more often in smoking areas

Carbon filters should be replaced when odors re-appear

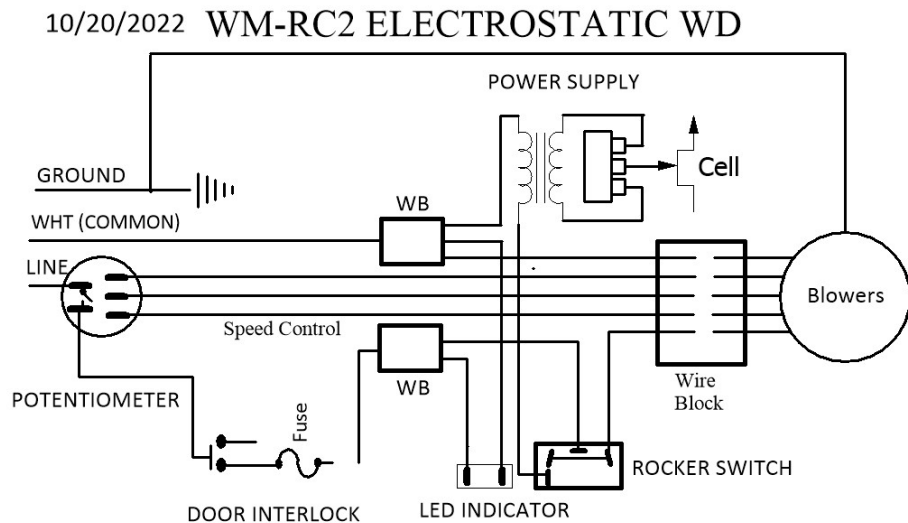
Electrostatic filter cell should be inspected to see when dirty

NEVER OPERATE UVGI WITHOUT CARBON FILTERS

Specifications

Capacity.....	300-1500 cfm
Standard HEPA Filter.	4.5 inch mini pleat
UVGI HEPA Filter.....	2.4 inch mini pleat
HEPA Efficiency.....	99.97% to 0.3 micron
Electrostatic Precipitator	4.5 inch / 5kv
Cell Collection Area.....	5000 sq. inches
Electrostatic Efficiency.....	97% to 0.1 micron
MERV 15 Media	High Capacity 4 inch Mini Pleat
MERV 15 Efficiency	95% to .3 micron
UVGI.....	+1000 μJcm^2 UVC dose
Lamp Life	9000 hours / 1 Year
Blower Life Expectancy.....	60,000 hours
Carbon Filter.....	2 chamber / 1050 gram
inches Unit size.....	26 x 22 x 14
Shipping size.....	24 x 16 x 40
Unit weight.....	60 lbs.
Shipping weight.....	75 lbs.
Power usage.....	200 - 400 watts
Sound level.....	38- 65dB(A)
Power.....	120v, AC/60Hz/ 3.5 amps
Variable speed control.....	Low to Turbo
Cabinet finishes.....	Black & White
Warranty.....	7 Year Limited

Wiring Diagram



LakeAir ELECTRONIC AIR CLEANERS 7 YEAR LIMITED WARRANTY

The LakeAir WM-RC2 Air Purifier is warranted by RK Ventures Inc. to the original purchaser to be free from defects in material and workmanship under normal use and service for a period of seven years from the date of purchase. The blowers of the LakeAir MAX Guard is warranted for (1) year from the date of purchase to the original purchaser. A extended blower warranty is available for purchase and extends the warranty to 7 years. LakeAir's liability is to be limited to repairing or replacing such products during the warranty period at its option, providing the product is sent prepaid to RK Ventures, Inc. or an Authorized Service Center and is deemed to be defective in part or portion to the satisfaction of RK Ventures, Inc.

This warranty is in lieu of any other warranty expressed or implied and of all other obligations or liabilities in connection with the sale of the described LakeAir Electronic Air Cleaner. In no case will any claim for consequential damages or labor expenses be allowed. This warranty does not apply to a LakeAir Electronic or any part thereof which has not been operated in accordance with the operating instructions herein contained; where components or other accessories not compatible with the LakeAir Electronic Air Cleaner have been used or attached to it; which has been subject to accident, unauthorized alteration, abuse, damage by flood, fire or acts of nature.

User's Responsibility:

1. To operate and maintain according to instructions.
2. Regularly replace filters and cleaning of the unit including electrostatic filters. Failure to replace filters or clean the unit will void the warranty.
3. Use product controls in accordance with owner manual and maintain them or warranty will be voided.
4. Provide adequate electrical service, within voltage ratings that are indicated on the unit rating plate. Provide electrical protection devices to protect unit from voltage surges. Failure to provide proper electrical service or safety devices will result in warranty being void.

Damage not covered by Warranty:

5. Damage occurring during transportation or resulting from improper handling is not covered by the warranty.
6. Damage due to accident, alteration or tampering is not covered by the warranty
7. Misapplication of the product or use for purposes other than cleaning ambient air will void all warranties.

Customer Service

It is very important that our customers receive good support for any issues related to our products. If you have questions or need support it can be found in many ways.

Email:

Email support can be obtained by sending an email to sales@lakeair.com. We try to answer all email support matters within 12 hours. If emails are sent during regular business hours 8:00 AM - 6:00 PM CST replies should be much sooner.

Phone:

Customer Service phone support can be reached at 800-558-9436. Phone support is normally available Monday - Saturday 8:00 AM - 6:00 PM CST.

Website Chat:

website chat support can be reached found on our website at the bottom right of any page. Chat support is normally available Monday - Saturday 8:00 AM - 6:00 PM CST and Sundays 12:00 noon to 6:00 PM CST.

Customer Text Support:

Customer Text Support can be reached at 862-319-1118. Textsupport is normally available Monday - Saturday 8:00 AM - 6:00 PM CST and Sundays 12:00 noon to 6:00 PM CST.