

Welcome

Congratulations! You are now the proud owner of one of the most advanced and effective medical recirculating air cleaners available. Your new FilterQueen® Defender® helps reduce the many problem-causing pollutants and allergens that can linger in indoor air.

The FilterQueen® Defender® Room Air Cleaner, working along with the FilterQueen® Majestic® Surface Cleaner, provides you and your family with the cleanest possible indoor air.

Health-Mor is dedicated to our customers and we pride ourselves on the quality and performance of our products. If you ever have any questions, comments, or need service or parts, please call your local authorized FilterQueen® Distributor, or call 1-440-846-7800 for the Distributor nearest you.

Please take a few moments to read all of the sections in this manual and familiarize yourself with your new Defender®. We hope you enjoy all the benefits that years of fresh, clean air can provide.

Note: All export Defender® models are manufactured of materials equivalent to the U.S. model which is recognized as a Class II Medical Device by the FDA. The export unit's performance is similar to the U.S. model.

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING YOUR FILTERQUEEN® DEFENDER®

WARNING – To reduce the risk of fire, electric shock, or injury:

- Do not use outdoors or on wet surfaces.
- Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center. If the supply cord is damaged, it must be replaced by the manufacturer or an Authorized FilterQueen® Distributor.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Do not handle plug or appliance with wet hands.
- Turn off all controls before unplugging.
- Do not use near presence of oxygen or other flammable gases.

WARNING – To reduce the risk of electric shock, this appliance has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way. This product is to be serviced by an Authorized FilterQueen® Distributor only.

RATINGS – 120V • 60Hz • 0.9A • 90W

READ AND SAVE THESE INSTRUCTIONS

TECHNICAL SPECIFICATIONS:

Motor 120V

- Brushless motor designed for long life
- 1/20 HP, 120V 60Hz 90W
- 0.9A (high), 0.43A (medium), 0.27A (low)

Medi-Filter® Cartridge

- Single-layer, non-woven, wet laid fiberglass media
- 250 1.6 in. (4.13cm) pleats, combine to provide 43.9 sq. ft. (4.08m²) of surface area

Enviropure® Charcoal Filter

- Activated charcoal filter, designed to help reduce gases & odors
- High efficiency gas absorption media (HEGA)

Construction

- Body: High impact ABS plastic
- Screen: High impact ABS plastic

Warranty

- See warranty for details

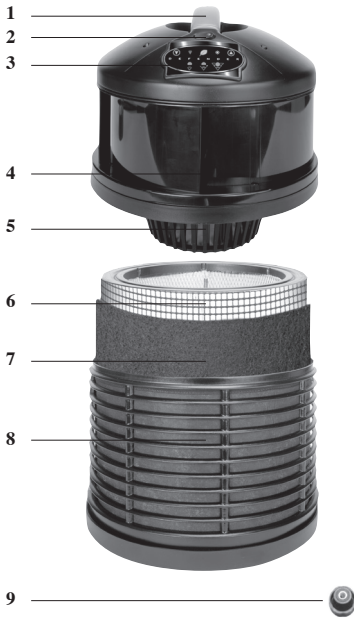


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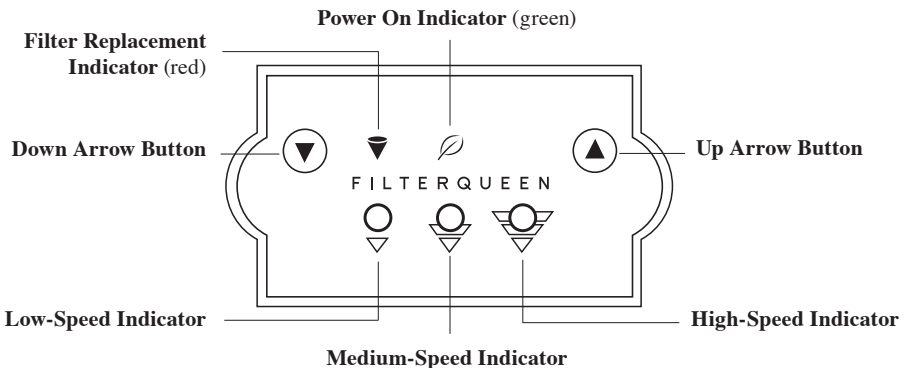
Parts Description

The Defender® is a medical recirculating air cleaner intended to filter indoor air to reduce micro-particles as small as 0.1 micron in size, including dust, pollen, smoke, dust mites, dust mite allergens, cockroach allergens, bacteria, mold, and pet allergens that may lead to allergic reactions. The Defender® is also intended to reduce tobacco smoke and other household odors. Recommended usage is in a room with a maximum size of 15' x 20' with 8' ceilings. Opening doors and windows may affect this medical device's performance.



1. **Carrying Handle** – Conveniently move the Defender® to any room in your home
2. **On/Off Power Switch** – Contains the international symbols “O” for off, and “I” for on
3. **Control Panel** – Allows the user to tailor the unit’s functions to his or her environment
4. **Clean Air Exhaust** – The exhaust is raised up off the carpet to minimize recontamination of your indoor air
5. **Motor** – Brushless motor designed for long life
6. **Medi-Filter® Cartridge** – Reduces particulates like pollen and mold spores from the air in your home
7. **Enviropure® Charcoal Filter** – Made of activated charcoal, it helps to reduce odors
8. **Air Intake** – Air enters the unit from 360 degrees for optimal air circulation
9. **Retaining Nut** – Remove for quick and easy filter replacement

Control Panel



Operation

Operating Instructions:

1. Plug unit into outlet. (Green indicator located on the power **On/Off** switch will illuminate, indicating that the unit has power and not that the unit is turned On.)
 2. Press power **On/Off** switch to the **On** ("I") position. When the unit is turned on initially, all indicators located on the front panel will illuminate for two seconds. The green **Power On Indicator** (leaf) will illuminate and remain lit as long as the unit's power switch is in the On ("I") position.
 3. The unit will start running at low speed. (Low-Speed Indicator will illuminate.)
 4. The **Up and Down Arrow Buttons** located on the front panel can now be utilized for speed control as follows:
 - Down Arrow Button:** Press to decrease motor speed selection (motor speed will not change if unit is already operating at low speed).
 - Up Arrow Button:** Press to increase motor speed selection (motor speed will not change if unit is already operating at high speed).
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CAUTION:

- Liquid or spray scents, aroma therapy oils or other aromatic hydrocarbons with the Defender® could cause damage to the plastic housing. Damage to the plastic housing could expose moving parts.
 - To reduce the risk of injury from moving parts. Do not use with liquid or spray scents, aroma therapy oils or other aromatic hydrocarbons.
 - Use of these substances will void your warranty.
-

Programming Instructions:

Program mode allows you to set and activate a 24 hour continuous operation program loop.

To Initiate Program Mode:

1. Turn off unit.
2. Press and hold the **Down Arrow Button** while turning on unit.
3. Once the green **High-Speed Indicator** starts flashing, release the **Down Arrow Button**. The unit is now in program mode. Follow the instructions below to set your desired program sequence.

To Set a Program Sequence:

The motor speed must be set in twelve consecutive two-hour increments totaling 24 hours of operation.

Program Sequence Start Time: *The sequence will begin its cycle with the first two-hour increment immediately after the twelfth two-hour increment is programmed. Please be sure to consider the program sequence start time when planning your desired program sequence. (If it is now 2 PM, the first increment will start here.)*

1. Plan your desired program sequence using the table on page 5.
2. Select the desired motor speed for the first two hours of operation by pressing the **Down Arrow Button**. (High speed is currently selected. Press the **Down Arrow Button** once to select medium speed, twice to select low speed, and three times to select motor off.)
3. Once you've selected the motor speed for the first two-hour time increment, press the **Up Arrow Button** to lock in the speed. (After each two-hour speed selection has been locked in, the red **Filter Replacement Indicator** will flash.)
4. Continue to set each consecutive two-hour increment by selecting the speed with the **Down Arrow Button** and then locking in each selection with the **Up Arrow Button**.

Operation

Program Sequence Table:

H = high M = medium L = low O = off

2-hour Increment	1	2	3	4	5	6	7	8	9	10	11	12
Selected Motor Speed (circle your setting)	H	H	H	H	H	H	H	H	H	H	H	H
	M	M	M	M	M	M	M	M	M	M	M	M
	L	L	L	L	L	L	L	L	L	L	L	L
	O	O	O	O	O	O	O	O	O	O	O	O
Time												

To complete setting the 24 hour program, the **Up Arrow Button** must be pressed 12 times. When the last two-hour increment is entered, the unit will automatically begin the programmed sequence. Whenever the unit is running in program mode, the selected speed indicator for the current two-hour period will flash. If the unit is programmed to be off, all speed indicators will flash.

To Run the Program:

- The program will automatically begin to run after the twelfth two-hour time increment is locked in.
- The 24 hour program sequence will run continually until terminated.

To Override the Program:

- You may temporarily interrupt the programmed operation of your unit by pressing the **Up or Down Arrow Buttons** while the unit is operating in program mode.
- The unit will operate at the newly selected speed for the time remaining in the current two-hour time increment plus for the following two-hour time increment. (A maximum of four hours before returning to the program mode.)

To Terminate the Program:

- Turn off the unit. The program will be permanently terminated.

Note: The Defender® design allows for 360 degrees of air circulation, therefore, placement of at least three feet away from walls or furniture is recommended.

Filter Replacement Schedule

Remember, to receive the full benefit from your Defender®, replace your filters regularly.

- Every **6 months**, replace your **Enviropure® Charcoal Filter**.
- **Once a year (for Perpetual Warranty*)**, replace your **Medi-Filter® Cartridge**.
*Refer to the warranty for information on warranty extension (Perpetual Warranty).

Caution: Disconnect from power supply before servicing. Do not wash or try to clean filters in any way. Regular replacement is recommended.

Filter Replacement

Filter Replacement Indicator:

Your Defender® is equipped with a **Filter Replacement Indicator** located on the front panel. Anytime this red indicator flashes, it is recommended that you call your Authorized FilterQueen® Distributor to order a replacement filter. Anytime this red indicator stops flashing and remains solidly illuminated, it is recommended that you change your filter. To receive the full benefit from your Defender® and to extend your warranty, it is strongly recommended that you follow the filter replacement schedule suggested above. Under higher pollution levels, your filters will need to be replaced more frequently.

The **Filter Replacement Indicator** is operated by filter time in use and is controlled by an onboard timer. After 11 months of time in use of your Medi-Filter® Cartridge, the **Filter Replacement Indicator** will begin to flash. It will continue to flash until the you reach 12 months of time in use, at which time the **Filter Replacement Indicator** will stop flashing and remain solidly illuminated.

After replacement of your Medi-Filter® Cartridge, you must reset the **Filter Replacement Indicator** timer. When the timer has been properly reset, the **Filter Replacement Indicator** will turn off.

Resetting the Filter Replacement Indicator Timer:

After replacement of your Medi-Filter® Cartridge per the instructions found on page 7, the **Filter Replacement Indicator timer** can be reset by performing the following sequence of steps:

1. Plug unit into outlet.
2. Press power **On/Off** switch to the **On** ("I") position.
3. Allow unit to start running at low speed.
4. **PRESS** and **HOLD** both the **Up** and **Down Arrow Buttons** until the **Filter Replacement Indicator** starts to blink.
5. Release both the **Up** and **Down Arrow Buttons**.
6. While the **Filter Replacement Indicator** is still flashing, again **PRESS** and **HOLD** both the **Up** and **Down Arrow Buttons** until the **Filter Replacement Indicator** turns off.

If the steps above have been performed properly, the **Filter Replacement Indicator** will turn off and not flash again for 11 months. If the **Filter Replacement Indicator** remains on, repeat the steps again.

Note that in step 6 above, the **Filter Replacement Indicator** **MUST** still be flashing when the buttons are pressed the second time. The **Filter Replacement Indicator** will continue to flash for approximately 3 seconds after the buttons are released as required in step 5 above.

Note: Under higher pollution levels, your filters will need to be replaced more frequently.

Note: To order replacement filters, call your Authorized FilterQueen® Distributor, or call 1-440-846-7800 for the Distributor nearest you.

Filter Replacement

Prompt filter replacement will prevent any potential damage to your Defender® that may result from its continued operation with a clogged filter condition. Inspect your filter for darkening of color which may cause noise or rattling due to filter being clogged.

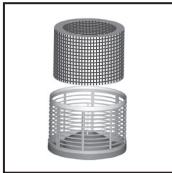
To Replace your Filter(s):



1. After unplugging the Defender®, place the unit on its side and remove the retaining nut on the bottom of the unit by turning counterclockwise.



2. Return the unit to its upright position and lift off the top motor assembly.



3. Remove the Medi-Filter® Cartridge and Enviropure® Charcoal Filter. If only replacing the Enviropure® Charcoal Filter, remove the old charcoal filter from the Medi-Filter® Cartridge and discard it.
Note: The charcoal filter is fastened with velcro.



4. Place the new Enviropure® Charcoal Filter around the outside of the Medi-Filter® Cartridge and fasten with the velcro. If also replacing the Medi-Filter® Cartridge, fasten the new Enviropure® Charcoal Filter to the new Medi-Filter® Cartridge. Return the filters to the unit.



5. Replace the top motor assembly.



6. Place the unit on its side to secure the retaining nut on the bottom of the unit. Return the unit to its upright position to resume use.

Troubleshooting Guide

Condition	Possible Cause	Corrective Action
Green indicator on ON/OFF power switch will not illuminate.	Unit is not supplied with power.	<ul style="list-style-type: none">• Make sure unit is plugged into outlet.• Check outlet for power.• Check unit for damaged power cord.• Unit requires service.
Green Power On Indicator (leaf) on front panel will not illuminate.	Control panel is not supplied with power, or control panel is defective.	<ul style="list-style-type: none">• Make sure power switch is in the ON position.• Make sure green indicator on power switch is illuminated.• Unit requires service.
Red Filter Replacement Indicator is flashing.	Time to order replacement filter.	<ul style="list-style-type: none">• See Filter Replacement Instructions on page 6.
Red Filter Replacement Indicator is illuminated.	Time to replace filter and reset timer.	<ul style="list-style-type: none">• This is a normal operating condition, see Filter Replacement Instructions on pages 5 & 6.
All motor speed indicators flashing, unit will not run.	Unit is operating in program mode and is currently programmed to be off.	<ul style="list-style-type: none">• This is a normal operating condition, see programming instructions on page 4.
No motor speed indicators are flashing, unit will not run.	Unit is operating in program setup mode.	<ul style="list-style-type: none">• This is a normal operating condition, see Programming Instructions on page 4.• Press the Down Arrow Button once to select high speed.
One motor speed indicator is flashing, unit is running.	Unit is operating in program mode and is currently programmed to operate at the speed shown by the indicator.	<ul style="list-style-type: none">• This is a normal operating condition, see Programming Instructions on page 4.
One motor speed indicator is flashing, unit will not run.	Unit is operating in program setup mode.	<ul style="list-style-type: none">• This is a normal operating condition, see Programming Instructions on page 4.

Warranty

Health-Mor warrants the Defender® room air cleaner to be free of defects in materials and workmanship for two years from the date of purchase. The original purchaser of the Defender® room air cleaner may extend this warranty for successive additional one year periods by purchasing and using during each year the Medi-Filter® Cartridge. In order to extend the Defender® warranty for an additional year, the purchaser must complete and return the warranty extension card enclosed in the Medi-Filter® Cartridge.

This warranty does not cover: (1) use of the Defender® for commercial, institutional, professional, rental or other non-household purposes; (2) damage occurring through misuse or negligence; (3) damage caused by the use of a current or voltage other than stamped on the name plate; (4) damage resulting from service work performed by parties other than Health-Mor or its Authorized Distributors; (5) cost of transportation, pick-up, delivery, house or service calls; and (6) filters.

Health-Mor will repair or replace any defect or defective part under this warranty provided the Defender® or the defective part is returned, transportation prepaid, with proof of purchase date, to the Authorized Distributor from whom it was purchased or the Quality Assurance Department, Health-Mor, 1 American Road, Suite 1250, Brooklyn, Ohio, 44144 USA, or, with written authorization from Health-Mor, to any person authorized to perform warranty service. Information regarding other persons authorized to perform warranty service can be obtained by writing to the Consumer Relations Department, Health-Mor, at the address listed above or by calling 440-846-7800 (1-800-344-1840 in North America). If the Defender® or part is found on inspection to be defective in material or workmanship, it will be repaired or replaced at the option of Health-Mor and returned to the sender, freight or postage collect. No reimbursement will be made for replacement of defective parts or service performed during the warranty period if done by anyone other than the Authorized Distributor from whom the Defender® was purchased or by Health-Mor, without having obtained written authorization from Health-Mor.

This warranty is null and void and of no effect unless the Defender® was purchased from an Authorized Distributor; and the manufacturer's serial number for the Defender® has not been changed, defaced or removed.

Any repair or replacement of a defect or a defective part under this warranty will be warranted for one year or until the end of the original warranty period, whichever is longer.

There is no other express warranty applicable to the Defender®. Implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the period of time during which the express warranty given herein is in effect. All consequential or other damages resulting from a breach of this warranty are excluded from coverage under this warranty.

Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

Health-Mor does not assume any additional liability.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.