

# MCI PureSynAIRg™

AIR & SURFACE PURIFICATION



## Owner's Manual

[www.MCIPureSynAIRg.com](http://www.MCIPureSynAIRg.com)

# Thanks

Welcome to a better, healthier environment!

The MCI PureSynAIRg™ is one of the most advanced air purification systems on the market today. Incorporating MCI™ Multi-Cluster Ionization\* technology, Photocatalytic Oxidation, Higher Levels of Clustered Negative/Positive Ionization, and Electrostatic Filtration, the MCI PureSynAIRg™ reduces particles and inactivates microbes providing a cleaner, healthier environment for you and your family.

The MCI PureSynAIRg™ is designed to provide years of trouble-free service when properly maintained. This manual will guide you through proper operation of the purifier as well as maintenance procedures. When properly cared for, some parts of the unit will need replaced. Replacement parts can be obtained directly from Best Living Systems, LLC ([www.BestLivingSystems.com](http://www.BestLivingSystems.com))

Thank you for purchasing the MCI PureSynAIRg™.

\*Fed. Reg. 4, 320, 186 04/2013

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# Product Contents

1 MCI PureSynAIRg™ Unit

1 Owner's Manual

1 Power Cord

1 DC Adapter

1 Remote Control

## Warnings



Do not operate this unit unless it is completely assembled.



Eye damage may result from directly viewing the light produced by the lamp inside this unit for a continuous and extended period of time.



Do not block the ventilation or filters.



Do not use Away Mode in an occupied space.



The unit should be powered OFF and the POWER CORD disconnected whenever cleaning or servicing.



There are no user-serviceable parts inside the unit.



This unit is not intended for outdoor use.

# Features/Benefits

The MCI PureSynAIRg™ is one of the most advanced and most versatile whole house air purification systems on the market today.

Using five advanced technologies, the MCI PureSynAIRg™ helps to eliminate odors, smoke, pollen, dust, bacteria, mold, pet dander, viruses, and much more. Noticeable pollution is eliminated in as little as 15 minutes, and the most difficult pollution in as few as 24 hours.

Unlike other air purifiers that have only one or two ways of eliminating pollution, the MCI PureSynAIRg™ has four advanced technologies to destroy pollution from the air, embedded in walls, ceilings, floors, carpets, furniture, clothing, on countertops and other surfaces. These technologies help to sanitize everything in the house and reduces or eliminates all odors, including cigarette smoke, mildew, cooking odors, and more.

The advanced variable frequency drive fan system of the MCI PureSynAIRg™ runs quietly. In addition, the MCI PureSynAIRg™ is very low maintenance and requires no filter replacement. You simply clean the electrostatic honeycomb and mesh filter with running water! The MCI PureSynAIRg™ is ideal for any room in your home where airborne and surface pollution may be present.

## Five Advanced Technologies

1. **Advanced Dielectric Barrier Ionization (DBI) Cell:** The patented DBI technology in the MCI PureSynAIRg™ not only destroys biological contaminants traveling through the cell, but it produces a purifying plasma which breaks down odors, mold, bacteria and viruses throughout the home or office. Dielectric Barrier Ionization reactors have been proven to reduce dangerous pathogens by over 99% in 24 hours or less.
2. **Needlepoint Ionization:** The MCI PureSynAIRg™ generates a continuous stream of millions of negative ions that circulate throughout the home. These ions charge particles of dust, dander, bacteria and viruses; causing them to attract other particles and clump together. As more and more particles come together, they become heavier, making them easier to pull into the home's furnace filter or just fall to the floor to be vacuumed up. Unlike HEPA filters that can filter out particles of .5 microns or larger, the ionizer in the MCI PureSynAIRg™ can reduce ultra-fine particles, even nanoparticles, that are much more dangerous than the larger particles you can see. This means your family breathes easier with fewer particles in the breathing space, less exposure to bacteria, mold and virus particles as well.
3. **Electrostatic Filtration:** An advanced electrostatic filter is included with the MCI PureSynAIRg™ to help keep the purifier clean while at the same time filter out particles which clump together thanks to the needlepoint ionization. Unlike expensive HEPA filters, the electrostatic filter is washable and can be used over and over again.
4. **Advanced Photo Catalytic Oxidation (PCO) Cell:** The PCO technology in the MCI PureSynAIRg™ not only destroys biological contaminants traveling through the cell, but it produces a purifying plasma which breaks down odors, mold, bacteria and viruses throughout the home or office. Photo Catalytic Oxidation reactors have been proven to reduce dangerous pathogens by over 99% in 24 hours or less. The process is molecular disassociation, which doesn't just cover up the source, it actually breaks the molecule down.
5. **Scalable Ozone:** MCI PureSynAIRg™'s Default Mode does not create Ozone. In High Mode, the purification plate generates ozone to assist in breaking down contaminants in the air and on surfaces. For faster cleanup, the machine can be set to Away Mode which has a programmable auto-shutoff timer feature. This allows the machine to generate maximum output when the room or home is unoccupied.

# Initial Setup

## Ideal Placement

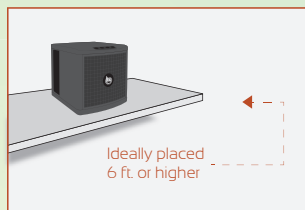
When selecting a place for the unit within the environment there are some things to keep in mind. Find a location in the room(s) as far away from the HVAC air return duct as possible, so that the purification produced by the unit is optimally circulated. Place the unit on top of a bookshelf, shelf, or mounting bracket as high as possible leaving twelve to twenty-four inches between the unit and the ceiling. Make sure that there is as much space as possible in front of the unit. Never place an operating unit on the floor.

## Setup Guide

1

Place the unit in the larger room of your environment on a shelf, entertainment center, bookcase or other piece of furniture above six (6) feet. (The higher the better)

REFER TO THIS DIAGRAM FOR STEP 1



2

Plug the unit in and turn the power "ON". **DONOT** make any initial adjustments. Allow the unit to run on the \*current mode for at least one week before making any adjustments

\*The air purifier is doing its job over a period of time based on the size of the environment and the contamination load.

3

If the air purifier is louder than you desire, lower the FAN SPEED only. This technology will work extremely well on the lowest setting. It may take a little longer to remove indoor environmental contaminants.

REFER TO THIS DIAGRAM FOR STEPS 2 & 3



Scan to Register

or Register online at:

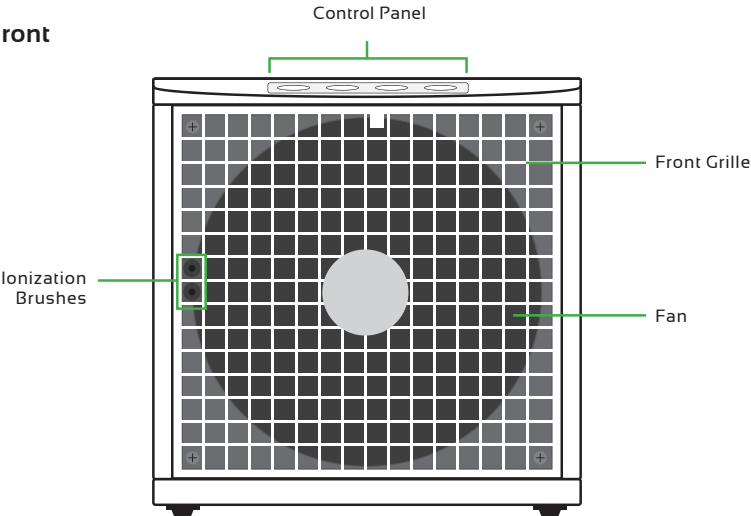
[www.BLSWarranty.com](http://www.BLSWarranty.com)



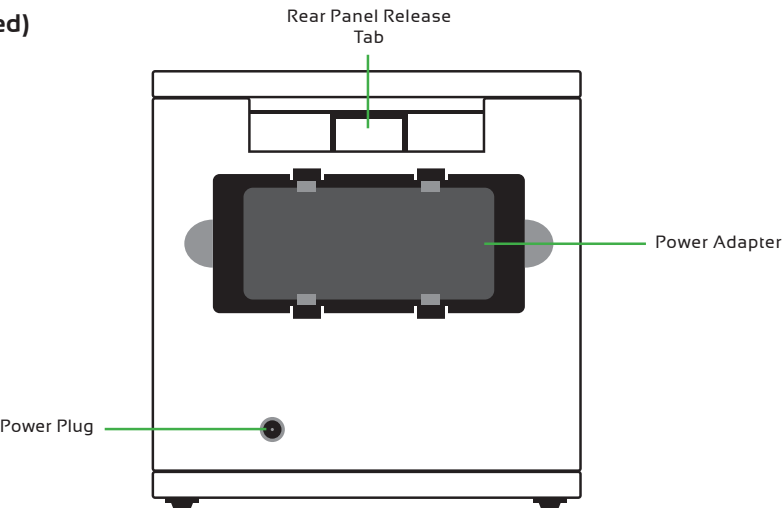
PROTECT YOUR UNIT  
EVEN LONGER WITH THE  
BLS ENHANCED WARRANTY

# Diagrams

Unit Front

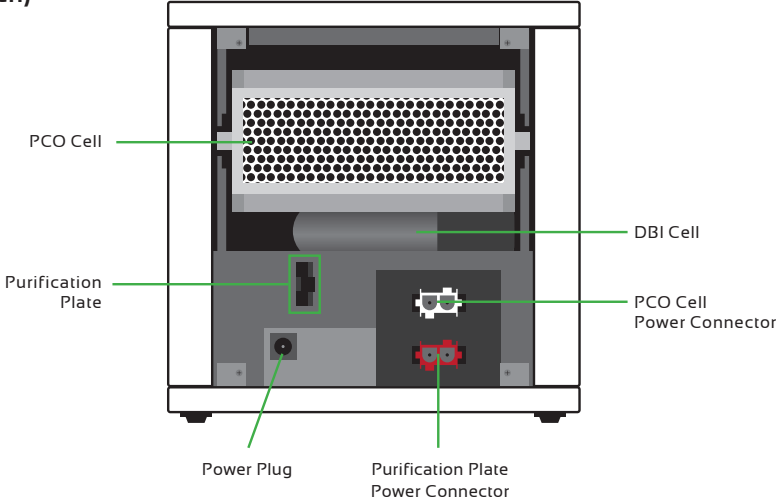


Unit Rear  
(Closed)

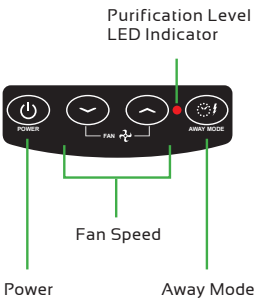


# Diagrams

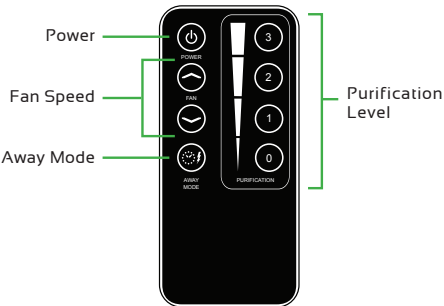
## Unit Rear (Open)



## Control Panel



## Remote



# Getting Started

1. Remove the UNIT and POWER ADAPTER from the packaging.
2. Find a suitable location to place your unit. (An ideal location is on a shelf, entertainment center, bookcase, or any piece of furniture over six (6) feet in height.)
3. Plug the POWER ADAPTER into a wall outlet and then plug the other end into the POWER PORT of your unit.
4. Place the POWER ADAPTER into the open space in the rear of the unit.
5. Press the POWER BUTTON to control to power of your unit.



**Your unit will start operating in PURIFICATION LEVEL 0/FAN SPEED HIGH. Allow the unit to run in this mode for at least one week before making adjustments.**



**If the air purifier is louder than you desire, lower the FAN SPEED only. This technology will work extremely well on the lowest setting, though it may take a little longer to remove indoor environmental contaminants.**



# Settings

There are multiple ways to change the output of your unit. If you need the unit to be quieter, change the Fan Speed, if you need a larger or smaller area covered, change the Purification Level, and if you need a tough odor removed, use Away Mode.

## Fan Speed

Three fan speeds are available (Low, Medium, High) and are adjusted with the FAN UP/DOWN buttons on both the machine's CONTROL PANEL as well as with the REMOTE.

## Purification Level

Purification level is controlled on the REMOTE and adjusts the output of Activated Oxygen ( $O_3$ ). Four levels are available and will be signified by varying colors on the CONTROL PANEL.

**LEVEL 0** (0 - 250ft<sup>2</sup>): LED is OFF.



(Level 0 uses only PCO and Ionization Technology.)

**LEVEL 1** (250 - 500ft<sup>2</sup>): LED is GREEN

**LEVEL 2** (500 - 1000ft<sup>2</sup>): LED is YELLOW

**LEVEL 3** (1000 - 2200ft<sup>2</sup>): LED is RED

## Away Mode

Away Mode is used to treat the toughest odors in your space with higher levels of Activated Oxygen and Ionization. To activate, press the AWAY MODE BUTTON on the CONTROL PANEL or REMOTE.



**DO NOT** use Away Mode in an occupied space. Prolonged exposure to Activated Oxygen may result in temporary respiratory or eye irritation.

Away Mode is active for 2 Hours before reverting back to previous settings.

# Disassembly



Turn the unit OFF and remove the POWER CORD before performing any cleaning or maintenance to prevent injury.



Refer to the Diagram Section (Pg. 4-5) for further illustrations of part names and locations.

## Rear Cover

After unplugging and removing the POWER CORD and POWER ADAPTER, press down on the tab above the POWER ADAPTER space and then pull back on the REAR COVER.

## Side Filters

After removing the REAR COVER, slide each of the FILTER ASSEMBLIES straight out. These separate and contain 3 different filter pieces.

## PCO Cell

**(a)** Locate the PCO CELL CONNECTOR (White Connector Piece) on the right side of the unit. Squeeze the tabs on the left and right and gently pull free.

**(b)** Grasp the PCO CELL, and gently pull back to remove it from the slot.

## DBI Cell

**(a)** Locate the DBI CELL inside the unit at the front right side of the unit's interior. **(b)** Gently push the DBI CELL into its POWER CONNECTOR and rotate until it slightly ejects, then remove.

## Purification Plate

**(a)** Locate the PURIFICATION PLATE CONNECTOR (Red Connector Piece) on the right side of the unit. Squeeze the tabs on the left and right and gently pull free. **(b)** Grasp the PURIFICATION PLATE, press the tabs towards the middle and slide it out of its slot.

## Front Grille

Locate and remove the four FRONT GRILLE SCREWS in the four corners of the FRONT GRILLE using a #1 Phillips Head Screwdriver. Remove the FRONT GRILLE carefully to ensure the IONIZATION BRUSH is not damaged.

# Assembly



All parts must be properly installed before operating the unit. Failure to do so may damage the unit.

## Front Grille

Replace the FRONT GRILLE and the four FRONT GRILLE SCREWS using a Phillips Head Screwdriver. Be careful to not over-tighten the screws or damage the IONIZATION BRUSH.

## PCO Cell

**(a)** Slide the PCO CELL back into the upper slot with the warning at the top, facing out. **(b)** Plug the PCO CELL CONNECTOR back into the WHITE CONNECTOR SLOT.

## DBI Cell

**(a)** Gently slide the DBI CELL into the POWER CONNECTOR, located on the right edge of the interior, then push and rotate until it locks into place.

## Purification Plate

**(a)** Slide the PURIFICATION PLATE back into the small slot with the larger silver side facing to the left. **(b)** Plug the PURIFICATION PLATE CONNECTOR back into the RED CONNECTOR SLOT.

## Side Filters

Ensure that the FILTER ASSEMBLIES are snapped together correctly, then replace the SIDE FILTERS in each of the side slots with the rounded edges facing outwards.

## Rear Cover

Place the REAR COVER bottom edge into the hinge slot then push forwards until the tab clicks.

## Power Cord

Insert the POWER ADAPTER into the rear slot and then replace the POWER CORD in the POWER PORT.

# Cleaning

For proper operation, the unit should be cleaned at least once per month.



Turn the unit OFF and remove the POWER CORD before performing any cleaning or maintenance to prevent injury.



Review the Disassembly and Assembly Section (Pg. 8-9) before performing and cleaning and maintenance to prevent damage to the unit.

## Unit Exterior

Wipe down the exterior with a damp cloth or use compressed air or a vacuum cleaner to remove dust. A non-abrasive cleaner may be used on the surfaces of the exterior.

## Filter Assembly

Clean water or compressed air may be passed through the entire filter assemblies or the individual parts when disassembled. To disassemble the FILTER ASSEMBLIES grasp the sides of the rim and carefully separate the back piece from the housing. The three filters [mesh, foam, honeycomb] can then be removed and cleaned separately. If using water you must allow the filters to fully dry before reassembly. When reassembling, the HONEYCOMB FILTER goes in first, then the FOAM FILTER, and finally the thin MESH FILTER. Then simply reattach the rear piece to the housing.

## Unit Interior

Using a damp cloth, a clear alcohol based cleaner, or compressed air/vacuum cleaner carefully clean the walls and components inside of the unit, after completing the DISASSEMBLY procedures.

# Cleaning

## DBI Cell

Using compressed air or a vacuum blow/suck the dust out of the DBI Cell. In some harsh environments, the DBI cell may accumulate a coating of toxins that will reduce the production of clusters ions. These can be cleaned by removing the cell from the unit, soaking the metal screen in an enzyme bath, wiping down the surface of the glass with an enzyme cleaner\* and then allowing it to dry. Once dry, reassemble and reinstall.

\*EnzyMagic20I is recommended for this process and available at:

**[www.BestLivingSystems.com](http://www.BestLivingSystems.com) or 800.728.7206.**

This all purpose, non-toxic, 100% biodegradable, water-based concentrate can also be used to clean the electrostatic filters.

## PCO Cell

Using compressed air or a vacuum blow/suck the dust out of the PCO Cell. Do not use any liquid to clean the PCO Cell.

## Purification Plate

The Purification Plate only needs cleaning every 3 months, unless it is used in a harsh environment (Smoking Area, Kitchen, Pet Area). Using a 50/50 mix of warm water and clear ammonia, soak the PURIFICATION PLATE from 1-8 hours. Using a soft-bristle brush, scrub the metal center. Rinse thoroughly and allow to dry completely before reinstalling.



**All parts must be properly installed before operating the unit. Failure to do so may damage the unit.**

# Maintenance



Turn the unit OFF and remove the POWER CORD before performing any cleaning or maintenance to prevent injury.



Review the Disassembly and Assembly Section (Pg. 8-9) before performing and cleaning and maintenance to prevent damage to the unit.

## General Maintenance

Your unit should need little to no maintenance, besides an occasional PCO Cell, DBI Cell or Purification Plate Replacement, but sometimes problems arise. If you can't find a resolution in the Troubleshooting Section (Pg. 13) contact Best Living Systems, LLC ([www.BestLivingSystems.com](http://www.BestLivingSystems.com)).

## PCO Cell Replacement

The PCO CELL does wear out and should be replaced yearly to ensure a high level of efficient cleaning. A replacement can be bought through Best Living Systems, LLC ([www.BestLivingSystems.com](http://www.BestLivingSystems.com)).

## Purification Plate Replacement

The PURIFICATION PLATE does not wear out as often and will only need to be replaced every 2-3 years of constant use; earlier if you have a harsh environment. A replacement can be bought Best Living Systems, LLC ([www.BestLivingSystems.com](http://www.BestLivingSystems.com)).

## DBI Cell Replacement

The DBI CELL does wear out and should be replaced once per year of constant use or when the blue LED lamp goes out, whichever occurs first. A replacement can be bought through Best Living Systems, LLC ([www.BestLivingSystems.com](http://www.BestLivingSystems.com)).



Purification Plate



PCO Cell



DBI Cell

# Troubleshooting

If further problems persist after following the instructions below, contact Best Living Systems, LLC ([www.BestLivingSystems.com](http://www.BestLivingSystems.com)) for further instructions or replacement.

## **Unit Fails to Turn On.**

1. Check to make sure that the POWER PLUG, POWER CORD, and POWER ADAPTER are all properly connected.
2. Verify that the POWER BUTTON has been activated on the CONTROL PANEL.

## **Unit is Operating in High or Away Mode, but no Noticeable Purification is Being Produced.**

1. Ensure that the PURIFICATION PLATE is clean and the CONNECTOR is fully inserted.
2. View the unit operating in a dark room through the FRONT GRILLE.  
The PURIFICATION PLATE should have a dim purple glow.

## **The Purification Plate Generates an Electrical Arc, Arcing Noise, or Burning Odor.**

The PURIFICATION PLATE is damaged and must be replaced. Contact Best Living Systems, LLC ([www.BestLivingSystems.com](http://www.BestLivingSystems.com)) for a replacement.

## **The PCO Cell is Not Lighting Up.**

1. Ensure the PCO CELL is properly seated in the PCO CELL POWER CONNECTOR.
2. If the PCO CELL still fails to properly operate, you will need to replace it. Contact Best Living Systems, LLC ([www.BestLivingSystems.com](http://www.BestLivingSystems.com)) for a replacement.

## **The DBI Cell is Not Lighting Up.**

1. Ensure the DBI CELL is properly seated in the DBI CELL POWER CONNECTOR.
2. If the DBI CELL still fails to properly operate, you will need to replace it. Contact Best Living Systems, LLC ([www.BestLivingSystems.com](http://www.BestLivingSystems.com)) for a replacement.

## **Ionization Needle Creates an Electrical Arc.**

The IONIZATION NEEDLE needs to be cleaned. Be sure to complete all of the cleaning procedures in the Cleaning Section (Pg. 10-11) every 30 days.

## **Fan Does Not Operate Properly.**

1. Try adjusting the FAN SPEED using the CONTROL PANEL or REMOTE CONTROL.
2. Remove the FRONT GRILLE and ensure there are no obstructions to the movement of the FAN. Clean it thoroughly and also clean the mount that it sits on.

# Specifications

Input Voltage .....	100 - 240VAC   50/60Hz   2.5A
Output Voltage .....	15V DC 3A
Power Consumption .....	30W
Unit Dimensions.....	6.75" H x 6.50" W x 7.00" D
Unit Weight.....	3 lb
Activated Oxygen (O <sub>3</sub> ) Output	
Purification Plate (Optional Usage).....	0 - 360 mg/hr
PCO Cell .....	< .02 ppm Ozone
DBI Cell .....	> .01 ppm
Ionization Output .....	
24 - 30 KV, 20 - 30 Khz Ion Generation Pulsator	
1.2m +/- Bi-Polar Clustered Ions/m <sup>3</sup> Dielectric Barrier Ionization (DBI)	
Effective Area .....	250 - 2,200 ft <sup>2</sup>
Warranty .....	1 Year Manufacturer's Warranty
Enhanced Warranty Available at: <a href="http://www.BLSWarranty.com">www.BLSWarranty.com</a>	

Scan to Register  
or Register online at:  
[www.BLSWarranty.com](http://www.BLSWarranty.com)





# Warranty Information

Your MCI PureSynAIRg™ Air Purifier is warranted to be free from all defects in material and workmanship in normal household use for a period of **(1) year** from date of purchase. The warranty is granted only to the original purchaser and members of his or her immediate household. The warranty is subject to the following provisions.

This warranty does not cover parts of the Air Purifier that require replacement under normal use. This includes the rear filter assemblies. Although the DBI cell requires periodic replacement, the cell is warranted for the same 1 year period as the purifier. Any damages or malfunctions caused by negligence, abuse, or use not in accordance with the Owner's Manual are not covered by this warranty. Likewise, any defects or damages caused by unauthorized service or the use of other than Genuine Best Living Systems parts are not covered.

Best Living Systems will, at its option, repair or replace a defective Air Purifier or part(s) for the Air Purifier that is covered by this warranty. As a matter of warranty policy, Best Living Systems will not refund the customer's purchase price.

To obtain warranty service you must return the defective Air Purifier or Air Purifier parts along with proof of purchase to the Best Living Systems Authorized Warranty Station. All transportation charges on parts, or units, submitted under this Warranty shall be borne by purchaser. Unless this Warranty is expressly renewed or extended by Best Living Systems, any repaired or replaced part of unit shall be warranted to the original purchaser only for the length of the unexpired portion of the original warranty.

## Further Limitations And Exclusions Are As Follows

Any warranty that may be implied in connection with your purchase or use of the Air Purifier, including any warranty of merchantability or any warranty for Fitness For A Particular Purpose is limited to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Your relief for the breach of this warranty is limited to the relief expressly provided above. In no event shall Best Living Systems be liable for any consequential or incidental damages you may incur in connection with your purchase or use of the Air Purifier. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

## Registration

Please register your new Best Living Systems Air Purification product within 10 days of purchase by visiting [www.BLSWarranty.com](http://www.BLSWarranty.com). Registering your new Best Living Systems product entitles you to the most up-to-date Best Living Systems product warranty and promotion information and discounts on replacements parts.

# What is MCI™ (Multi-Cluster Ionization) Surface Cleaning Technology?

Trademarked Multi-Cluster Ionization occurs when a combination of different components, including germicidal wavelength UV and ionization, produce a powerful enhanced ion cluster capable of oxidizing VOCs, particulates, and biologicals in the air and on surfaces. MCI (Multi-Cluster Ionization)™ surface cleaning technology was recognized with an HM Innovative Award at the 2014 ASHRAE International Conference for its unique synergistic approach to air & surface purification.

**ASHRAE** - In the winter of 2014, the trademarked MCI (multi-cluster ionization)™ technology was recognized by ASHRAE (American Society of Heating, Refrigeration and Air Conditioning Engineers) at its annual international convention as an Honorable Mention Innovative Award. This unique approach of utilizing multiple components in a synergistic way is the most effective way to clean both the air and surfaces of a variety of pollutants.

**NORMI** - In 2015, NORMI, the National Organization of Remediators and Mold Inspectors endorsed the use of the technology as an element in their NORMI Sanitization Protocol to improve living indoors. The effectiveness of this technology is now being produced in an array of equipment including stand-alone units and probes for both residential and commercial environments. For more information on the NORMI Sanitization Protocol to improve your indoor air quality, contact NORMI at **877.251.2296** or email through the website at **[www.NORMI.org](http://www.NORMI.org)**



# Notes

**MCI PureSynAIRg™**

[www.MCIPureSynAIRg.com](http://www.MCIPureSynAIRg.com)