

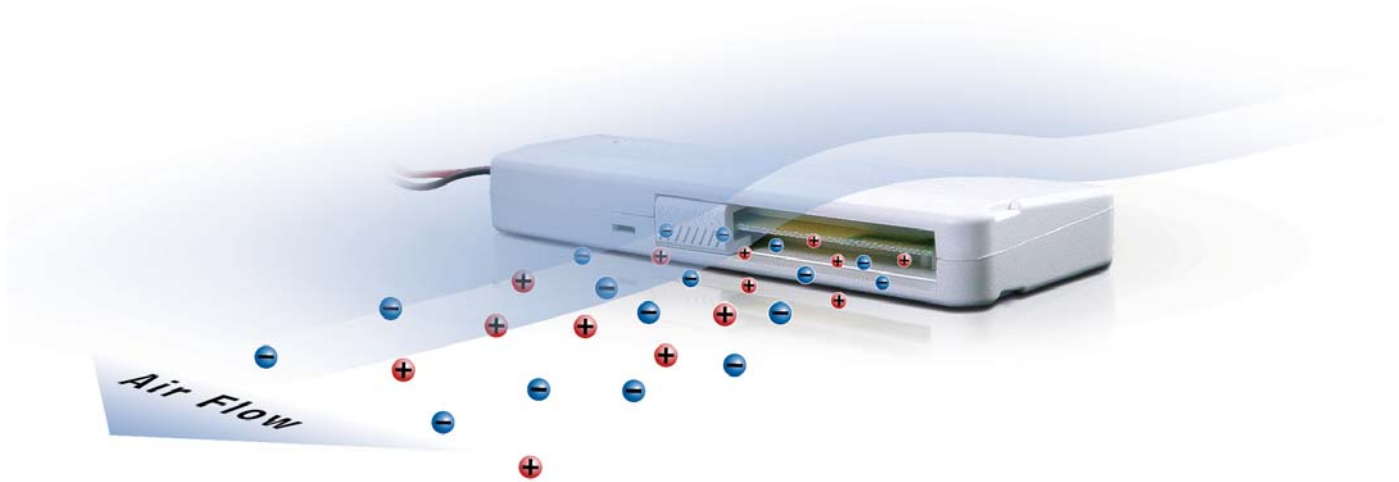


Healthy Indoor Air...  
The Way Nature Intended



**STERIONIZER™**

Integrate Sterionizer™ Window into Your A/C System



## Sterionizer™ - Bipolar Ion Technology

The Sterionizer™ is an **air purification device** based upon a patented bipolar ionization technology, specifically developed to bring the health and quality of nature's air to indoor environments.

In natural habitats, solar and earth-based thermal energies create positive and negative oxygen ions that clean and renew outdoor air by removing harmful pollutants, such as bacteria, viruses, fungi, and spores.

The Sterionizer™ generates these same positive and negative ions—just like those found in nature—that purify and freshen indoor air by eliminating the harmful pollutants mentioned above.

The **Sterionizer™ Window product family** is a line of compact electronic modules designed for efficient integration into air conditioning systems. Sterionizer Window's slim, 9mm chassis design easily fits in or near the louver.

# STERIONIZER™

## How Does the Sterionizer™ Work?



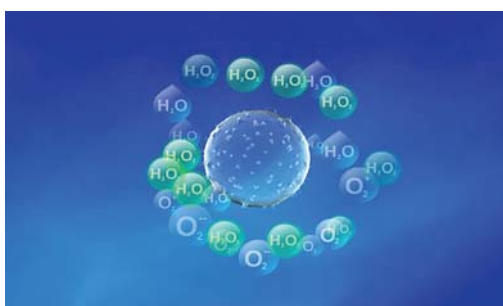
The Sterionizer™ uses a corona discharge system to generate oxygen molecules  $O_2^+$  and  $O_2^-$ .



These molecules have very high chemical activity and when reacting with water molecules  $H_2O$  in the air, OH radicals and  $H_2O_2$  are formed.



Hydrogen Peroxide  $H_2O_2$  together with OH radicals cluster around harmful particles.



A chemical reaction occurs and oxidants break down the protein structure of pollutants, rendering them harmless.





## Technology Highlights:

- The Sterionizer™ generates naturally occurring oxygen ions that purify the air we breathe in homes, cars, and office environments
- Inactivates airborne pollutants, such as viruses, bacteria, fungus, and mould spores
- Neutralizes odors
- Reduces the allergic effects of dust mite feces
- No harmful side effects such as chemicals or ultraviolet radiation
- Discharges static electricity and prevents electrostatic build-up
- Health benefits confirmed by leading international research institutions
- Compliant with the American standard for ozone generation
- Sterionizer™ – RoHS, CE, CB & UL certified

## What are the Benefits of Integrating the Sterionizer™?

- Provides pure, healthy air for indoor environments
- Be a 'green leader'—add air purification features to your product line
- Position your unit as being specially designed for allergy sufferers
- Enhance revenues, while you enhance the health of your customers

## Proven Technology

The Sterionizer™'s bi-polar ionization technology was tested and proven effective in the elimination of a wide variety of harmful substances. Testing was carried out in cooperation with world-renown research institutions.

Substance	Substance Name	Testing Organization	Removal	Year
Bacteria	Escherichia Coli	EMSL Analytical, USA	99%	2011
	Escherichia Coli ATCC	Istanbul University, Turkey	91%	2011
	Staphylococcus aureus	EMSL Analytical, USA	91%	2011
	Pseudomonas aeruginosa	Istanbul University, Turkey	99%	2011
	Staphylococcus aureus (MRSA)	EMSL Analytical, USA	99%	2013
Fungus	Aspergillus Niger	EMSL Analytical, USA	97%	2011
	Candida albicans	EMSL Analytical, USA	36%	2011
	Dichobotrys abundans	Prof. Joe F. Boatman, USA	90%	2006
	Penicillium	Prof. Joe F. Boatman, USA	95%	2006
Mold	Cladosporium cladosporioides	EMSL Analytical,	97%	2011
Spores	Bacillus subtilis var niger	Istanbul University, Turkey	89%	2011
Viruses	Influenza H1N1	Kitasato Research Center, Japan	99%	2011
	Influenza H5N1	Kasetsart University, Thailand	99%	2011



## Applications:

Sterionizer™ Window can be integrated into a variety of air conditioning systems in a wide range of applications—home, office, automotive, railcars and aviation systems.

Due to its slim design the Sterionizer™ Window can be easily integrated in a louver or any air supply grill.

With the integrated wiper it is also simple to clean the emitter for steady ion output.

The Sterionizer™ Window offers an **optional Over-Voltage Protection (OVP)** feature enabling smooth operation of the unit in unstable voltage conditions that are commonplace in cars and trucks. With Sterionizer™ Window, there's no need for external protection mechanisms.

## Sterionizer™ Window-Family Product Line:

Model	IWS-12D1-AE	IWS-12D2
Ion output	5 x 10 <sup>9</sup> ion/sec	5x10 <sup>9</sup> ion/sec
Ozone	0.5 ppb	0.5 ppb
Power supply	12VDC ±10% 20mA	12VDC ±10% 30mA <b>Over voltage protection</b>
Operating Temperature	-10°C (+14°F) to +70°C (+158°F)	-10°C (+14°F) to +70°C (+158°F)
Air flow	Turbulent or laminar , minimum 1 m/sec	Turbulent or laminar , minimum 1 m/sec
Dimensions	77 x 24 x 9.5 mm	77 x 24 x 9.5 mm