Banish Pathogens From Indoors

Using

Air Purifier

MARK III, V

Continuous, Automatic Ambient Air Purifier Indispensable for

- Hospital Rooms/Wards
- ICUs/ICCUs
- Surgical Theatres
- Nursing Homes
- Consulting Rooms
- Rest Rooms
- BioTechnology Labs
- Microbiology Labs
- Office Cabins
- Waiting Rooms
- Flight Kitchens
- Hotel Rooms

HIMEDIA®

For life is precious

Air Purifier System

Pathogens are a health hazard in enclosed work spaces as well as in living areas. Air conditioners are also one of the vehicles trapping and transferring microorganisms. The Air Purifier System has been designed to absorb particulate matter, unpleasant smells, odours thus reducing bioburden. Further it sanitizes the air by ultra violet dosing, ionizing and filtering the air providing relief from stress and freshens the air in the room.

Causes of Stress

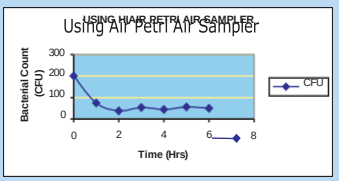
It has been observed that air in enclosed work spaces and living areas gets contaminated due to various factors like human load, pets, dust, stale foods, foul breath, sweat, sweat-soaked clothes and other unpleasant odours. Due to the unpleasant odours there is tendency towards irregular breathing, building up stress. This stress gets compounded due to positively charged atmosphere often as a result of electric fans and air conditioners or other electrical appliances and instruments. In such spaces where human inflow is large the bioburden is often high, and sometimes uncontrollable, persons already in stressed up conditions are still further affected. Overall result is exhaustion towards the end of the day. Air Purifier System

HiMedia addressed all these problems and many more in designing the Air Purifier System and recommends this system for sanitizing the environment.

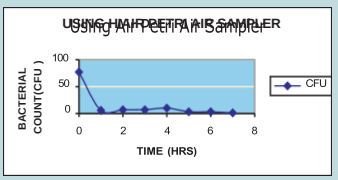
Use

- Particularly in hospitals where the diseased and the disease prone patients are brought together, and the possibility of contagion is greatly enhanced. For when body defenses of a person are at a low, even mild infections can take a foothold and grow to life threatening proportions.
- ICUs, ICCUs and surgical theatres, hospital rooms.
- Microbiology laboratories, Production units etc.

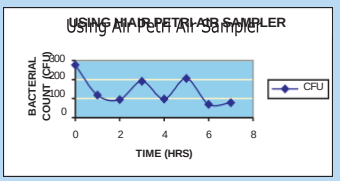
Trends plotted from readings of bacterial counts obtained on Plate Count Agar plates over a period of seven hours at various locations



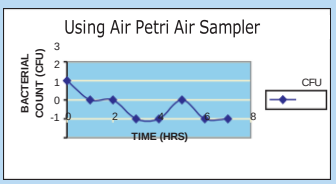
Location : 1st Class ward room
Area : 10 x 8 x 8 ft. Number of persons working : 01
In / Out movement / HR : 10



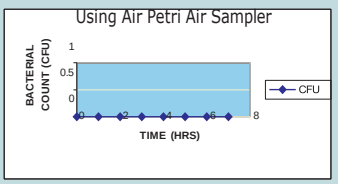
Location : ICU
Area : 8 x 8 x 8 ft. Number of persons working : 0
In / Out movement / HR : 01



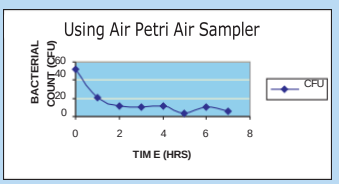
Location : General ward
Area : 40 x 15 x 10 ft. Number of persons working : 08
In / Out movement / HR : 15



Location : Laboratory
Area : 10 x 10 x 10 ft. Number of persons working : 03
In / Out movement / HR : 10



Location : Operation theatre
Area : 5 x 5 x 10 ft. Number of persons working : 02
In / Out movement / HR : 02



Location : OPD
Area : 10 x 10 x 10 ft. Number of persons working : 02
In / Out movement / HR : 50

COMPARATIVE SPECIFICATIONS OF AIR PURIFIER MARK III and V

Specifications	Factors	LA522 Mark III	LA636 Mark V
Technical Specifications	Capacity	1000ft^3	3500 ft^3
	Dimension	43x36.5x14.5cm	43x51x14.5cm
	Input voltage	220-230VAC; 50Hz	220-230VAC; 50Hz
	Power consumption	60W	60W
	Germicidal wave length(ë)	200nm - 280nm UV-C	200nm - 280nm UV-C
	U. V Type	G6T5	G8T5
	U. V Lamp Wattage (w)	6	8
	U. V Average useful life	6,000hr	9,000hr
	Air changes per hour (or ACH)	2	5-6
Physical Specifications	Total Weight Body	10 kg Powder coated	12.90 kg Powder coated

Air Purifier

MARK III, V

HiMedia has combined different air purifier systems in a single unit to achieve maximum purification of air even in a high bio-burden environment. Under controlled conditions it helps to drastically reduce the bioburden of the area which however need not be considered as a completely sterile area. Fumigation or any other similar mode of sterilization is desirable to achieve sterility of area along with use of Air Purifier.

The purifier has following components :

i. Pre filter

The prefilter mounted at the inlet side is a filtering cloth of 5 microns, traps the particles entering from the surrounding environment. Change the prefilter when it is too dusty.

ii. Ionizer (Ionic air purifier)

Ionizer is an electronic circuit producing high negative voltage, which produces negative ions. These ions magnetically draw together the pollutants and attract to form larger particles. As a result these settle out of air due to gravity (not small enough to be airborne) & are drawn out of the air due to magnetic attraction to the surrounding surfaces. Ionizer is an electronic circuit i.e. voltage multiplier circuit. The probability of failure of the circuit is very rare. But in case of failure trained technical person is needed to replace it.

iii. Carbon activated filter

The activated carbon is sandwiched between sponges. The sponge traps visual physical particles from air while activated carbon traps the minute particles, which carry microorganisms with them. It also absorbs unpleasant smells as well as odors, thereby reducing the bio-burden. Clean the filter with dry air blower once in a month to remove the dust.

iv. UV filtering system

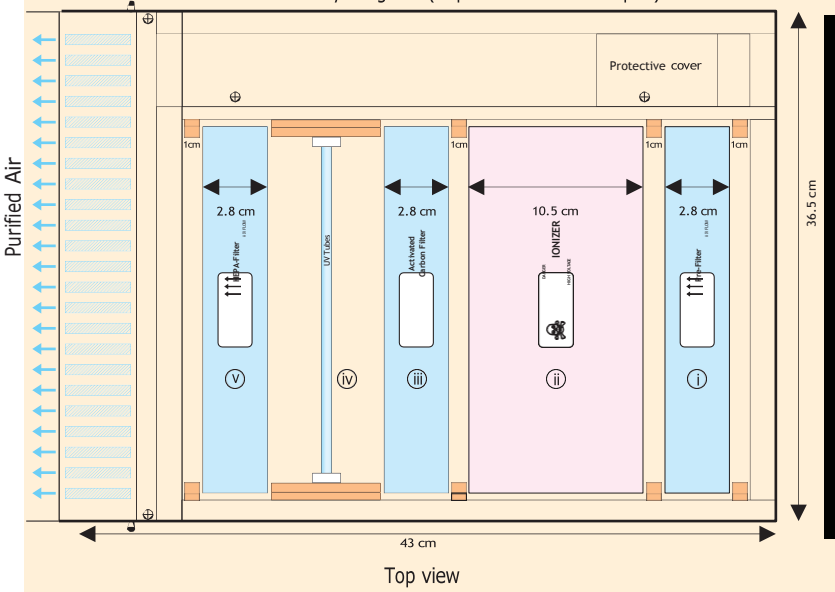
UV functions effectively in the CE range to destroy microorganisms / living matter.

v. HEPA filter

It collects significant amount (99.8%) of particulate, especially particles of 0.3 microns size and above. Clean the HEPA filter with dry air blower once in a month to remove the accumulated dust. HEPA filter needs to be replaced every 2 to 4 years depending on the usage.

Air purifier is kept in a closed room environment. The air is drawn in from the inlet side of the air purifier. It traverses through the prefilter allowing particles less than 5 microns only to pass. The air gets exposed to a very high negative voltage of the ionizer further passing through carbon activated filter. The pollutant free air obtained gets subjected to germicidal wavelength of UV light which kills microorganisms and impairs functionalities of other living materials. This air further passes through HEPA filters which retains particles equal to or greater than 0.3 microns in size whether living or dead. As a result the air which is thrown out is 100% pure air and gets circulated in the surrounding environment.

General Assembly Diagram (Top view with cover open)



Operational Information

In an area of 10 x 10 x 10ft (or less) one unit would suffice to purify the air. For larger rooms multiple units may be employed.

- Please make sure that the unit is wall mounted at a suitable place and that there is adequate air circulation in the room (with fan or AC) to ensure proper results. Switch on the unit 1 - 3 hrs, prior to use. The unit should be kept continuously ON to reduce the bioburden of the room.
- If window AC is used in the room the air filter in that AC has to be periodically sanitized and the 'Vent' closed to ensure pure air.
- The unit is designed to function continuously for every 12 hours without a break. A rest of 30 minutes can be given after every 12 hours.
- For continuous pure air requirement it may be desirable to install an additional unit for obtaining best results.
- For larger spaces like hospital wards multiple units can be installed, calculated as per the volume of the ward.
- Functioning of all electrical and electronic parts inside is indicated by individual LED lamps on the front panel. If a particular LED lamp does not light, the corresponding component may not be functioning. In this event the system should not be used.
- The life of UV tube is 5000 burning hours.
- Unit should be kept away from the reach of children.
- On continuous operation the unit may require servicing once every month.
- Precautions*: Switch OFF the unit completely before removing the functional blocks. Examine the filter once every week for soiling. Clean the inlet mesh regularly. Do not look at the UV rays or expose any part of the body to UV rays, as these are damaging to skin and eyes if directly exposed.

Basic fault finding

Possible fault : No illumination of mains switch lamp.
Cause : ● No power supply ● Fuse blown ● Switch faulty
Remedy : ● Check mains supply and mains cord. ● Replace with 2 A fuse. ● Replace the switch.

*HiMedia do not accept any liability or damages whatsoever on account of neglect of precautions or mishandling of equipment by customer or third party.

Air purifier kit content

i. Air purifier system ii. Wall mounting screws iii. Cord wire
iV. Literature V. Warranty certificate

AIR PURIFIER OPTIONAL ACCESSORIES

PRODUCT	LA522, III		LA636, V	
	Code	Qty	Code	Qty
Air Purifier Fan	LA522A	1	LA636A	1
Air Purifier UV-Tube	LA522B	1	LA636B	1
Air purifier Ionizer or E.S.P.	LA522G	1	LA636C	1
Air Purifier Prefilter	LA522F	1	LA636D	1
Air Purifier Activated Carbon filter	LA522I	1	LA636E	1
Air purifier HEPA Filter	LA522H	1	LA636F	1

Note: Air changes per hour (ACH) are the number of times in one hour the entire volume of room air passes through the Air Purifier.

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