

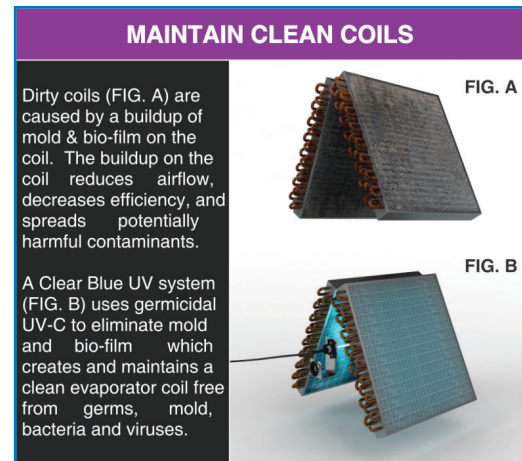
GERMICIDAL ULTRAVIOLET LIGHT SYSTEM



Clear Blue® UV Light Systems are designed to keep the air quality in a home free from harmful microorganisms and pathogens. UV light has the precise amount of energy to break apart harmful organic molecular bonds. With a unique, long life ballast, Clear Blue® UV Light Systems can withstand the continuous rigors necessary for the most effective elimination of these harmful microorganisms and pathogens. Each of the three models provides indication for under and over voltage as well as ballast and lamp status.

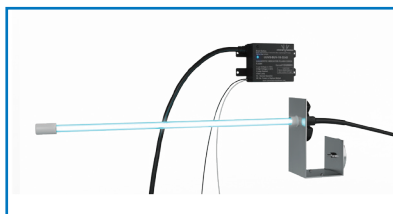
Benefits of Ultraviolet Light

- Reduction of mold, bacteria and viruses
- Allergy relief
- Control microbial growth
- Improved IAQ
- Reduced HVAC maintenance
- Odor reduction
- Natural, generates no pollution and does not use potentially harmful chemicals
- Pathogens cannot build up a resistance to UV light
- Maintains clean air conditioning coils



3 Models Available

ADVANCED
UUV-CBA



MASTER
UUV-CBM



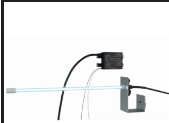

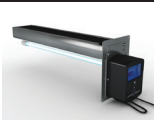
PCO
UUV-CBM-PCO



LIFETIME BALLAST WARRANTY

1 YEAR LAMP WARRANTY

Product Features

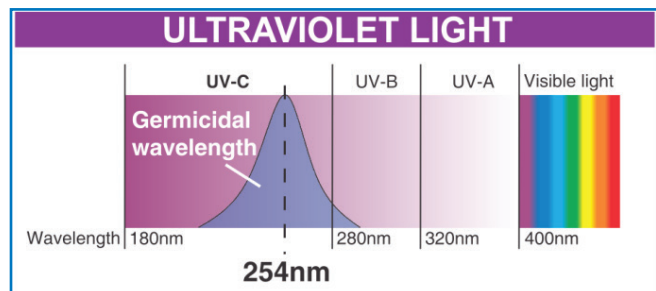
Feature	  		
	Advanced	Master	PCO
18-32 VAC operating voltage	•	•	•
16" UV germicidal coil cleaner (lamp)	•	•	•
Improve energy efficiency	•	•	•
Destroy mold and their associated odors	•	•	•
Various mounting scenarios	•	•	•
Lifetime ballast warranty	•	•	•
1 year UV lamp warranty	•	•	•
Fully potted, anodized, aluminum ballast	•	•	•
Over and under voltage indication	•	•	•
Ballast and lamp status indication	•	•	•
US Patent pending	•	•	•
Supplied with 4 ft. Gaynor terminated wire	•		
18-32 VAC or 110 VAC operating voltage		•	•
Supplied with two lamps		•	•
LCD display indicates real-time system status		•	•
LCD display indicates days left until next lamp replacement		•	•
LCD display indicates countdown purifier animation		•	•
LCD display indicates lamp out & ballast out visual alarm		•	•
LCD display indicates call-back indicator		•	•
Advanced Photocatalytic Oxidation technology (PCO)			•
Captures volatile organic compounds			•
UV activated TiO ₂ destroys odors			•

Features Included with Kits:

Feature	Advanced	Master	PCO
24V Advanced ballast	•		
110/220VAC w/ step down transformer		•	•
16" UVC lamp	•	•	•
Magnetic mounting bracket	•		
Mounting hardware	•	•	•
Protective gloves	•	•	•
Installation instructions	•	•	•
Lamp mounting rings	•	•	•
3" Back-lit LCD		•	•
FREE second lamp		•	•
Mounting base		•	•
PCO mounting frame			•
TiO ₂ Substrate			•
Installation template			•

UV Light

- UV light has the precise amount of energy needed to break apart organic molecular bonds
- Creates a destructive effect on microorganisms and harmful pathogens such as viruses, yeast, fungi and bacteria
- UV disinfection is effective at wavelengths between 200-300nm
- Low and medium pressure lamps operate in this range
 - Low pressure lamps emit at 254nm
 - Medium pressure lamps emit at a range of 200-300nm
- UVGI sanitation has been an accepted practice since the mid-20'th century

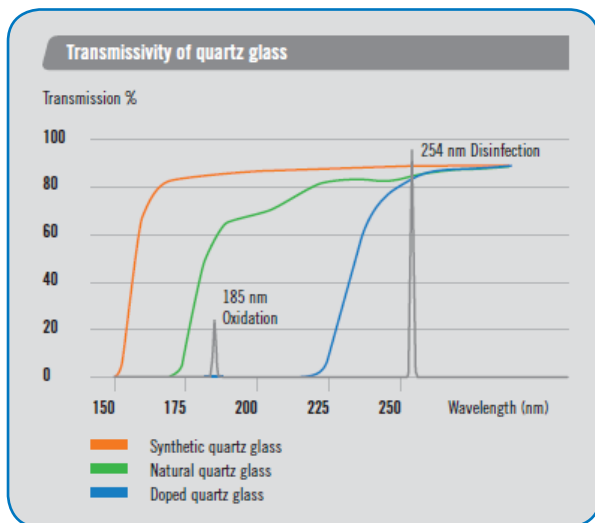


What About Ozone?

- UV radiation of the wavelength 185nm decomposes long-chain molecules by direct photolysis and will generate ozone in the air when combined with oxygen
- Normally used for removal of grease and odor control in places like kitchen hoods and industrial exhaust

How is ozone controlled in UV lamp applications?

- Regular glass fully stops UV-C emission
- Quartz glass allows UV to be emitted
- 3 types of quartz: natural, synthetic and doped
- Doped quartz completely stops ozone
- Natural quartz allows approximately 6% ozone emission
- Synthetic quartz allows approximately 10% ozone emission
- Most residential UV lamps are low pressure
- Typical low pressure UV lamps convert 40% of electrical power into UV-C emitted power
- FDA does not allow ozone levels in excess of 0.05 part per million by volume of air circulating through the device or that cause an accumulation of ozone in excess of 0.05 part per million by volume of air
- Alternative is TiO₂ photo-catalytic conversion



	Ozone Free	Ozone Generating
Spectrum Wavelength	254nm	185nm, 254nm
Illuminated Length	10 - 150cm	10 - 150cm
Electrical Power	5 - 80W	5 - 80W
Typical UV Efficiency at 254nm	40%	40%
Typical Efficiency at 185nm, natural quartz glass	-	Approximately 6%
Typical Efficiency at 185nm Synthetic Quartz Glass	-	Approximately 9%
Specific UVC Flux	0,1 - 0,4W/cm	0,1 - 0,4W/cm
Ambient Application Temperature	Max. 40°C	Max. 40°C
Operating Life	Up to 9,000 hours with a maximum fall-off of 30% in UVC intensity	Up to 9,000 hours with a maximum fall-off of 30% in UVC intensity