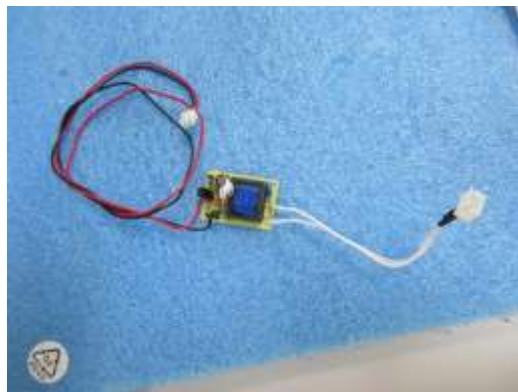


Particle Sensor : SLPD-D01



UV Light Board : UV-CCFL-150-REVB



UV Lamp : No Specification



HEPA (H12-GRADE 99.5%)

: 488 x 45 x 348 mm (LxDxW)



Carbon Filter

: 488 x 10 x 348 mm (LxDxW)



Aluminum Filter

: 488 x 10 x 348 mm (LxDxW)



Comparison to KAP-475BHCP:

Comparison:		
	KAP-500CHCPUV	KAP-475BHCP
Standby Power	0 watt	1 watt
On/Off Display (Standby)	On	Off
Low Fan Wattage	7 watts	90 watts
with ionizer	8 watts	91 watts
with UV	10.7 watts	n/a
Medium Fan Wattage (without ion and uv)	29 watts	124 watts
High Fan Wattage (without ion and uv)	64 watts	160 watts
Ionizer wattage usage	1 watt	1 watt
UV wattage usage	2.7 watts	n/a
Air Quality Indicator	Numerical Value (digital display)	Color Display
Ionizer	Dual Ion Discharge (brush) 20 millions ion/cm3	Single Ion Discharge (brush) 5 millions ion/cm3
UV Lamp	Quartz Germicidal UV Lamp - blueish color as per specs data UV Wavelength is 365 +/- 5 nanometers (UV-A Type)	n/a
Magnet on Front Case	None (no Hall Board)	Yes

Features:	KAP-500CHCPUV	KAP-475BHCP
Auto Mode	Yes	Yes
Child Lock	Yes	Yes
Sleep mode	Yes	Yes
Filter Reloaded	Yes	Yes
Timer	Yes	Yes
Ion	Yes	Yes
Fan Speed	Yes	Yes
UV	Yes	None

Recommendation:

- TVOC (Carbon Filter) Reminder LED no light (sample unit problem)



- Air Quality Indicator (Digital Display) should be also colored (blue: 0-75 / purple: 75-150 / red: 150 and above).



*Only Blue Color in Display

- Wiring Diagram must be provided
- **If UV-C is used here**, warning labels should be affixed on the product. Based on research UV-C lamp or light can be dangerous to people and pets.

See Picture (explanation) below:

UVC radiation has sanitizing properties, and has many uses in commercial, healthcare and consumer settings. UVC has germicidal benefits, killing bacteria and deactivating viruses depending on the exposure dose (based on source strength, proximity, and time). However, there are serious risks to UVC exposure, so proper safety precautions are essential.

What qualifies as UVC?

Electromagnetic wavelengths shorter than the visible spectrum of light are known as ultraviolet (UV) (180-400 nm). This reference guide is focused on UVC. Please note that UVA and UVB regions have certain benefits and pose some hazards of their own.

UVC (Short-wave)
180-280 nm

UVB (Middle-wave)
280-315 nm

UVA (Long-wave)
315-400 nm

What are the key risks of UVC?

There are serious risks to UVC exposure. UVC can be dangerous if improperly used. In only moments, UVC exposure can cause serious damage:

- **EYE:** pain, light sensitivity, and gritty sensation on eye can occur, since UVC does not trigger aversion response (blinking, squinting, looking away)
- **SKIN (erythema):** similar to a sunburn



What are the dangers of breathing emitted ozone from a UVC device?

Some UVC lamps emit ozone, which enhance germicidal effects but can be hazardous in enclosed spaces:

- **LUNG DAMAGE:** ozone may also worsen underlying respiratory conditions



What if the UVC is contained?

Containment is a set of design criteria that ensures that people are not exposed to excessive UVC. Consumer products that contain the UVC radiation inside the equipment may be safe and eligible for safety certification based on evaluation per the applicable safety Standards.



What if you are a trained professional in a controlled setting taking safety precautions?

Commercial and healthcare related UVC products may have uncontained UVC sources. They are intended for use by trained professionals based on product and site safeguards. Such equipment may be safe and eligible for safety certification based on evaluation per the applicable safety Standards.



Warning labels are not enough!

Some consumer products without UVC source containment have warning labels or timers - this is not enough! Children and pets cannot be expected to follow written warnings, and home environments have too many variables that could result in misuse. Remember that UVC disrupts DNA; in a home environment, devices without containment pose a hazard to the residents, pets, and plants.

What will UL Certify?

UL will certify eligible UVC devices for safety using UL Standards for the product type (see following page for examples). Where the Standard does not already include personal injury requirements for UVC, ANSI/IES RP-27 or IEC 62471 for photobiological assessments will apply. Safety certifications address risks of electric shock, fire and personal injury; safety certifications do not address efficacy claims.

Safety Testing

1. Consumer products with contained UVC sources
2. Commercial and healthcare related products with UVC sources
3. Components integrated inside UVC equipment (Ballasts, LED drivers, UVC sources, Controls & Sensors)
4. Commercial lighting products (Upper Room UVGI, Hybrid lighting systems, UVA & 405 nm systems)

Performance Assessments

Photobiologic, photometric testing to determine risk category, exposure dose, and UVC source characteristics. Performance can be assessed as an independent service with or without a safety certification. Performance evaluation will not result in a UL safety Mark.

Risk Categories for UVC

UVC lamps and lamp systems are classified into risk groups based on UVC exposure limits and the relative photobiological risk of the radiation source. The criteria for each risk group designation is based on the type of UVC source characteristics, the length of exposure under normal conditions, and other factors.

UL can help you understand what risk group your product/design falls into and the corresponding safety implications.

Learn more at [UL.com/uvlighting](https://www.ul.com/uvlighting)

For your reference;

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