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**www.bio-trap.com**

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**Technologically Advanced Flying Insect Trap,**

*Cyclone-X*  
*Cyclone-X*



# Technically Advanced Flying Insect Trap



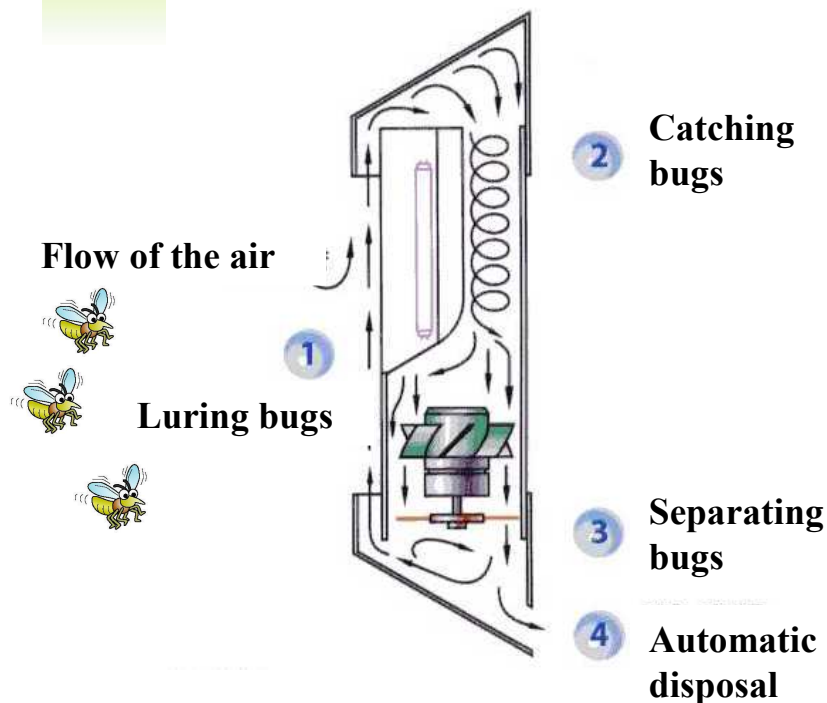
## Cyclone-X



- Ultra violet lamps and carbon dioxide generated by photo catalysis lure mosquitoes and flying bugs
- Sucking fan separates bugs by cyclone process and rotating blades kill them
- Catching mosquitoes and flying bugs in large quantity.
- No maintenance necessary due to automatic disposal of the bugs through the bottom outlet. Annual maintenance is enough.
- Rain-proof structure without short circuit risk.
- High quality design compatible with street lamps.



# How Cyclone works



**1. Luring bugs(mosquitoes and other flying bugs) by using special UV lamps along with CO<sub>2</sub> generated by photo-catalysis.**

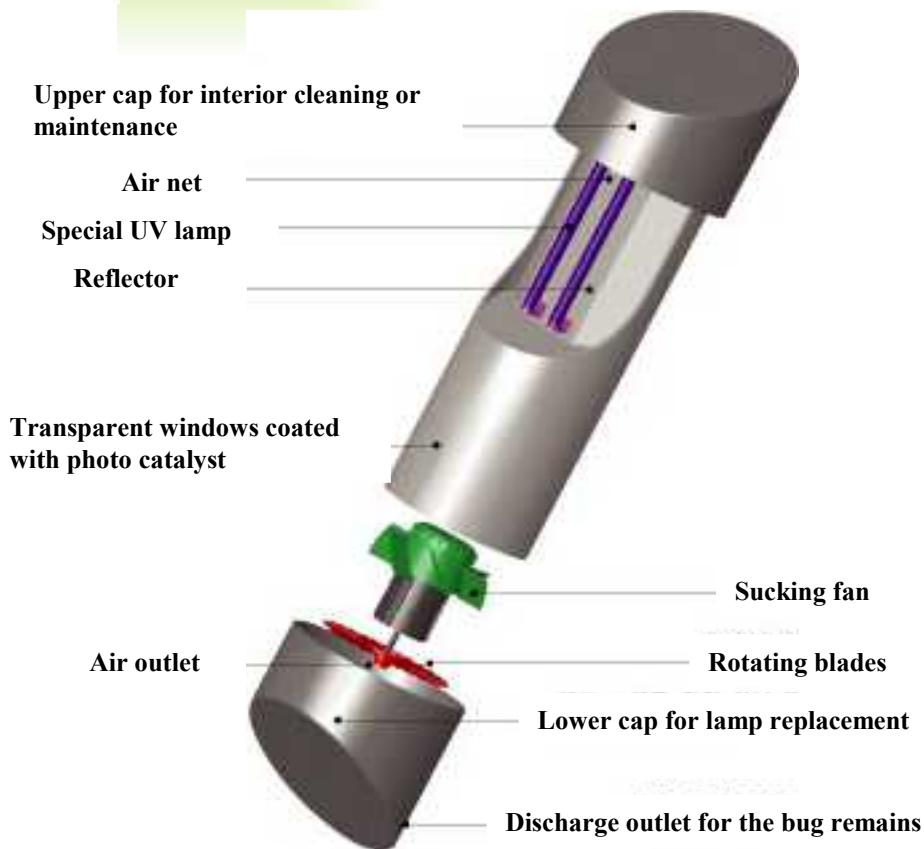
**2. Catching bugs with a sucking fan, then killing them with rotating blades.**

**3. Separating bugs and air by using 'cyclone' process , I.e., centrifugal force separates bugs from circling air.**

**4. Automatic disposal of the bug remains through the bottom outlet.**



# Structure and functionality of Cyclone



## ■ Photo-catalysis

CO<sub>2</sub> generation and air purification

## ■ Sucking fan and the Cyclone process

Air intake and circulation cause cyclone process thereby separating the bugs from air.

## ■ Rotating blades

No catching bin need as well as guaranteed killing of the bugs. No cleaning necessary and very hygienic.

## ■ Replacing the lamps

Remove the upper cap and replace lamp without difficulty.

## ■ Cleaning the interior

Open the lower cap and clean or perform any other regular maintenance.



# Comparison of Cyclone vs. Electric bug zapper



▲ Bug Zapper



▲ Cyclone

## ■ Safety

- No safety concern such as short circuit or rain damage due to its rain-proof design

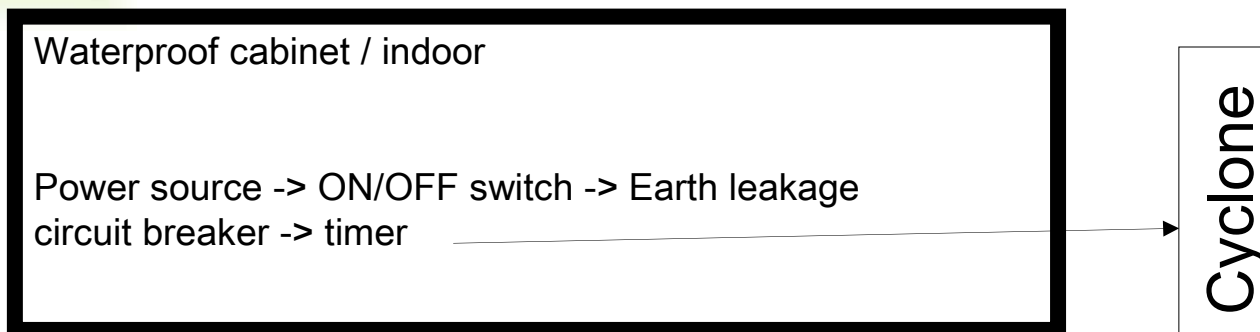
## ■ Size of the unit

- Pole size to attach the unit : 14~15cm in diameter
- Height : 93cm
- Diameter : 23cm
- Electricity : AC powered, 80W max.
- Area covered : 330~500m<sup>2</sup>



# Installation

Please follow the safety instruction for installing “Cyclone”



The best position for “Cyclone” is about 2-3 m above the ground.

The best operating time is from 5pm to 8am. During bright day time, most insects hide away from sunlight. And the protection circuit of the ballast may turn on for over-heat protection. If this should happened, just turn off the power source and let the cyclone cool down, the lamp can be turn on again.

\*\*\* You can replace one special UV lamp with a normal white lamp, this will help cyclone catching other insects as well; also you can treat the cyclone as a light source for you outdoor area.



# Maintenance

\*\*\*\*Before doing any maintenance, please cut off the power supply.\*\*\*\*

## Cleaning:

Semi-annual or annual clean up of the interior is enough. Only loosen the lower cap's two butterfly screw, then use a brush to brush away the insect bodies that attached on the interior of the main body and the lower cap. Put the lower cap back and secure the two butterfly screw.

## Replacing UV lamp:

Replacing the lamp by simply open the upper cap, then disconnect the power supply and the fan power cable. Then loosen the two hexagonal cap screws that hold the lamp ballast box. Replace the lamp with new one.

Put the lamp ballast box back, and tighten the two screw.

(!! Remember there is a nut inside for the two hexagonal cap screw)

Put the upper cap back and hand tighten the butterfly screw securely.

Now, you can reconnect the power.



# Frequent asked questions

- Q. I do not see any mosquito or insect body on the ground under the cyclone, is it not killing any mosquito?
- A. There are two possibilities: 1. mosquitoes are attached to the interior and the lower cap; 2. the mosquito/insect dead bodies on the ground are cleaned by ants.
- Q. What is the usage of the “octenol” that come with the cyclone?
- A. It mimics the human body smell. By putting it at the back side of the cyclone, it greatly increased the mosquito luring ability. Just twist open the cap, remove the aluminum foil that printed with “Open this tab only”, and loosely close the cap. Finally stick the octenol bottle on the cyclone frame.
- Q. Why is the sound from the cyclone is sometimes much louder than normal?
- A. The normal operating sound of the cyclone is a very low frequency wind sound similar to a blower. When there is mosquito/insect captured, the rotating blade will hit the mosquito/insect, the noise from one mosquito/insect is nearly not noticeable. However, if there are hundreds of mosquito/insects captured and hit by the rotating blade at the same time, there might be a noticeable noise.



# Examples



**JunaRang-Gu Public health center**



**AnSung-city Public health center**



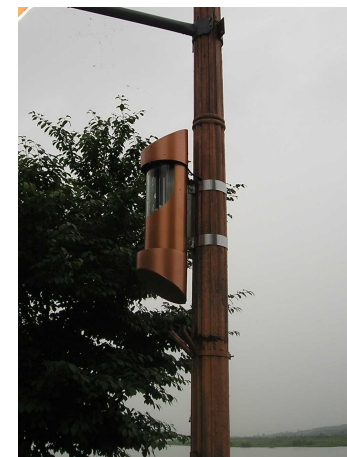
**Apartment Example**



**Children's playground**



**YeonSu-Gu Public health center**



**YeoJu-gun Public health center**



## Example II

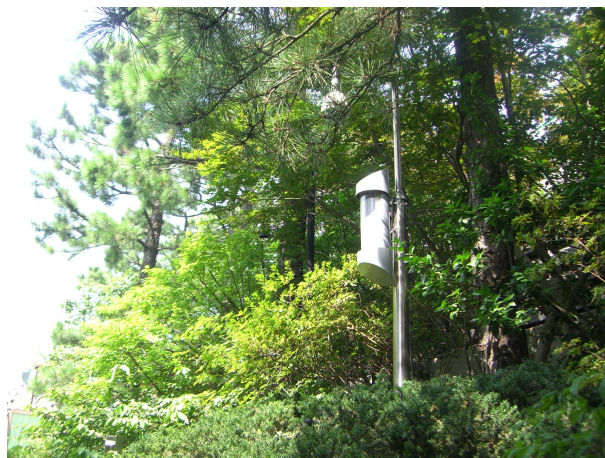


The house of Chairman of Congress





## Example III



The house of Chairman of SamSung, Lee Kun Hee

