

## Dragonfly<sup>®</sup> Mosquito Trap

- For outdoor use only.
- Attracts certain mosquitoes

**DOMESTIC  
KEEP OUT OF REACH OF CHILDREN  
READ THE LABEL AND ENCLOSED INSTRUCTIONS BEFORE USING**

REGISTRATION NO. 28447 PEST CONTROL PRODUCTS ACT

**Box Contents:**

1 - Dragonfly<sup>®</sup> Mosquito Trap  
1 – Biosensory Mosquito Lure  
GUARANTEE  
1-Octen-3-ol.....3.74 g/lure  
REG. NO. 28446 PCPA

See back panel for additional Precautions, First Aid, Directions for Use and Storage and Disposal instructions.

**CAUTION – SKIN IRRITANT  
WARNING – EYE IRRITANT  
DANGER POISON**

BioSensory, Inc.  
107 Providence Street  
Putnam, CT 06260  
U.S.A.  
1-860-928-1113

## **FIRST AID**

**If swallowed:** Administer water and call a physician or poison control centre immediately. Do not induce vomiting.

**If directly inhaled:** Move person to fresh air, away from dispenser. Get medical attention.

**If on skin or clothing:** Wash with plenty of soap and water. Seek medical attention if irritation persists.

**If in eyes:** Flush eyes with plenty of water. Seek medical attention if irritation persists

**Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.**

**TOXICOLOGICAL INFORMATION: Treat symptomatically**

## **PRECAUTIONS**

### **KEEP OUT OF REACH OF CHILDREN**

Fatal or poisonous if swallowed. May irritate the skin. Avoid contact with skin. Causes eye irritation. DO NOT get in eyes.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by disposal of wastes.

### **Hazardous to Humans and Domestic Animals**

Wash hands before eating, drinking, chewing gum, using tobacco or using bathroom facilities. Avoid contact of areas under foil wrapper with skin and eyes.

## **DIRECTIONS FOR USE**

See Enclosed Operating Instructions for complete instruction for unpacking the device, set up and operation of the unit. Please carefully read these instructions.

## **STORAGE AND DISPOSAL**

**Biosensory Mosquito Lure:** Store in original container in a cool, dry area and out of reach of children until ready to use.

**Biosensory Mosquito Lure:** DO NOT reuse the spent lures. Dispose in household garbage. Unused or partially used products should be disposed at provincially or municipally designated hazardous waste disposal sites.

**NOTICE TO USER:**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

**Optional Text:**

- For use anywhere outdoors – backyard, fishing, camping, campsite
- Patented design, long-lasting octenol lure attracts mosquitoes
- Patented design; lure provides consistent performance throughout the month because wax matrix is unaffected by humidity
- Attracts mosquitoes to the trap

## Operating Instructions



### Dragonfly Mosquito Trap

**DOMESTIC  
KEEP OUT OF REACH OF CHILDREN  
READ THE LABEL BEFORE USING**

**Read Before Unpacking and Operating  
the Dragonfly<sup>®</sup> Mosquito Trap**

Please retain these Operating Instructions for future reference  
REGISTRATION NO. 28447 PEST CONTROL PRODUCTS ACT

BioSensory, Inc.  
107 Providence Street  
Putnam, CT 06260  
USA  
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## Thank You for Your Purchase!

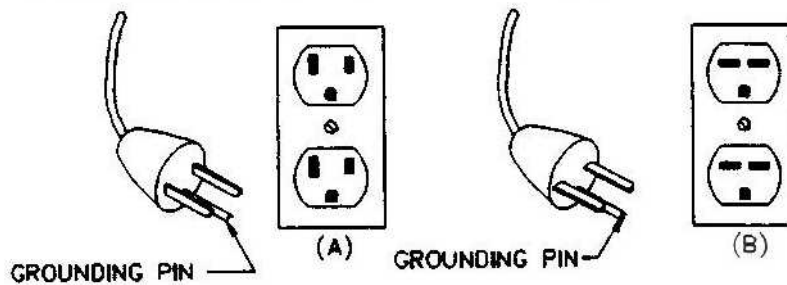
Your Dragonfly<sup>®</sup> Mosquito Trap is enclosed. Please carefully read these instructions. They tell you how to unpack, setup, and operate the unit.

### Safety

## Canadian Standards Association

Observe the following safety precautions at all times:

1. EXTENSION CORDS FOR THE DRAGONFLY MOSQUITO TRAP ARE AVAILABLE. ONCE CONNECTED THE EXTENSION CORD SHOULD BE MECHANICALLY SECURED.
2. DEVICES FOR RETAINING THE EXTENSION CORD CONNECTION TO THE DRAGONFLY MOSQUITO TRAP POWER-SUPPLY CORD ARE AVAILABLE.
3. OUTDOOR EXTENSION CORDS MUST BE USED WITH THE DRAGONFLY MOSQUITO TRAP. SUITABLE EXTENSION CORDS ARE SURFACE MARKED WITH SUFFIX LETTERS “W-A” AND HAVE A TAG STATING “SUITABLE FOR USE WITH OUTDOOR APPLIANCES”.
4. USE ONLY 3-WIRE EXTENSION CORDS, WHICH HAVE 3-PRONG GROUNDING TYPE PLUGS AND 3-POLE RECEPTACLES, WHICH ACCEPT THE DRAGONFLY MOSQUITO TRAP’S PLUG. REPLACE OR REPAIR DAMAGED CORDS.
5. THE ELECTRICAL RATING OF THE EXTENSION CORD MUST BE AS GREAT AS THE ELECTRICAL RATING OF THE DRAGONFLY MOSQUITO TRAP.
6. DO NOT ABUSE CORD - NEVER CARRY DRAGONFLY MOSQUITO TRAP BY CORD OR PULL CORD TO DISCONNECT IT FROM RECEPTACLE. KEEP CORD FROM HEAT, OIL AND SHARP EDGES.
7. DISCONNECT THE DRAGONFLY MOSQUITO TRAP FROM THE POWER SUPPLY WHEN NOT IN USE, BEFORE SERVICING, CLEANING, INSPECTING AND THE LIKE.
8. DO NOT INSERT FOREIGN OBJECTS INTO THIS DRAGONFLY MOSQUITO TRAP.



**Figure 1 Grounding Receptacle**

9. TO PROVIDE CONTINUED PROTECTION AGAINST THE RISK OF ELECTRIC SHOCK, CONNECT TO PROPERLY GROUNDED OUTLETS ONLY. PROPERLY GROUNDED RECEPTACLES ARE ILLUSTRATED IN **Figure 1** ABOVE. THE DRAGONFLY MOSQUITO TRAP IS EQUIPPED WITH AN APPROPRIATE 3-CONDUCTOR CORD AND 3-PRONG GROUNDING TYPE PLUG TO FIT THE PROPER GROUNDING-TYPE RECEPTACLE. TO REDUCE THE RISK OF ELECTRIC SHOCK, THE PLUG MUST BE PLUGGED INTO AN APPROPRIATE OUTLET THAT IS PROPERLY INSTALLED AND GROUNDED. CONSULT A SUITABLY QUALIFIED PERSON IF THE GROUNDING INSTRUCTIONS ARE NOT COMPLETELY UNDERSTOOD, OR IF YOU ARE IN DOUBT AS TO WHETHER PROPER GROUNDING EXISTS.
10. FOR SAFE OPERATION, IT IS RECOMMENDED THAT THE POWER OUTLET BE FUSED AT 15 AMPS.
11. CONNECTION TO THE DRAGONFLY MOSQUITO TRAP AND ANY EXTENSION CORD MUST BE KEPT DRY AND OFF THE GROUND.
12. STORE THE DRAGONFLY MOSQUITO TRAP INDOORS WHEN NOT IN USE-OUT OF REACH OF CHILDREN.
13. DO NOT CLEAN THIS DRAGONFLY MOSQUITO TRAP WITH WATER SPRAY OR THE LIKE.
14. THE DRAGONFLY MOSQUITO TRAP MUST NOT BE INSTALLED WHERE DANGEROUS CONCENTRATIONS OF FLAMMABLE OR EXPLOSIVE SUBSTANCES ARE LIKELY TO OCCUR IN THE AIR.
15. THE USER MAY REPLACE THE CO<sub>2</sub> CYLINDER AND MOSQUITO LURE. ALL OTHER REPAIRS AND MAINTENANCE MUST BE PERFORMED ONLY BY QUALIFIED SERVICE PERSONNEL.
16. ONLY QUALIFIED PERSONNEL MUST INSTALL THE UNIT.
17. OPERATING TEMPERATURE: 13° C TO 48° C (55° F TO 120° F).
18. DO NOT CONTINUOUSLY SHORT THE ELECTROSTATIC PANELS. DISCONNECT POWER IF PANELS ARC CONTINUOUSLY
19. READ AND FOLLOW ALL INSTRUCTIONS AFFIXED TO THE CO<sub>2</sub> CYLINDER
20. DO NOT EXPOSE THE CO<sub>2</sub> CYLINDER TO TEMPERATURES ABOVE 71° C (160° F).



21. NEVER ATTEMPT TO REMOVE VALVES OR BURST-DISKS FROM CO2 CYLINDER

## Unpacking the Dragonfly Mosquito Trap

Open the container and remove the contents. Store the container and inserts if you may need to ship the Dragonfly Mosquito Trap elsewhere.

### Remove the contents:

1. Dragonfly Mosquito Trap
2. Foil-sealed Octenol Mosquito Lure(s)

## Purchasing CO2

The Dragonfly Mosquito Trap requires a 9 kg (20-pound) CO2 bottle supplied by Praxair (visit [shop.praxair.com](http://shop.praxair.com) for more details), your local independent CO2 distributor, or Pest Control Company.

## Purchasing Available Pedestals

Pedestal accessories are also available for **separate** purchase. Please see [www.biosensory.com/products.shtml](http://www.biosensory.com/products.shtml) for more details.

## Warranty Information

BioSensory offers a one-year warranty on all products and their components.

A 30-day money-back guarantee is also provided for all products. 15% handling fee applies.

## Dragonfly Mosquito Trap Placement

**Keep the Dragonfly Mosquito Trap at least 10 m (30 ft.) away from the area you want to protect.**

The Dragonfly Mosquito Trap is a powerful mosquito attractant. The key to the Dragonfly Mosquito Trap's extraordinary power is the way it turns the mosquitoes' keen sense of smell and poor eyesight against them. Mosquitoes have an amazing sense of smell.

The visual range of mosquitoes is approximately 10 m (30 ft.), and they are attracted to the motion of people or animals within this radius. **Placing the Dragonfly Mosquito Trap too close to people or animals creates a situation in which some mosquitoes drawn by the Dragonfly Mosquito Trap's scent may be diverted by the motion of people or animals nearby, so keep it at least 10 m (30 ft.) away from the area you want to protect.**

That's all there is to it!

## How Dragonfly Mosquito Trap Works

1. With an audible clicking sound, CO<sub>2</sub> is released every 5 or 10 seconds simulating the “breath” of a small animal. CO<sub>2</sub> is the most powerful attractant for mosquitoes. The unit measures the amount of CO<sub>2</sub> released and lets you know when the bottle is getting low. Please note that this trap only functions when used with a 9 kg (20 pound) CO<sub>2</sub> bottle.
2. The thermal lure heats up, producing the infrared image of blood near the surface of the skin and the body temperature of a host animal, tricking a mosquito's body-heat sensors. Because their mouthparts cannot reach the blood supply except where it is close to the skin, and because these areas of the body are slightly warmer than other areas, mosquitoes use heat sensors to pick the best place to bite.
3. Activated by the heat of the thermal lure, Octenol inside the plastic lure casings evaporates out into the surrounding air. Octenol is a powerful attractant for mosquitoes.
4. When mosquitoes attempt to land on the Dragonfly Mosquito Trap's thermal lure, they pass through an electrostatic panel and are destroyed, falling into the collection tray below. Like a miniature lightning bolt, an arc strikes the nearby insect and destroys it instantly. Mosquitoes circling the thermal lure “sparkle” when they go near the electrostatic panels, but there is no unpleasant “zapping” sound.

**Amount of carcasses in collection tray will not be indicative of total destroyed mosquitoes.**

- Due to shock and flight path, 25% - 30% of insect bodies will not fall into the collection tray.
- Mosquito carcasses will be blown out by everyday breezes.

## Setup of Dragonfly Mosquito Trap

**The Dragonfly Mosquito Trap requires a 9 kg (20-pound) CO2 bottle supplied by Praxair (visit [shop.praxair.com](http://shop.praxair.com) for more details), your local independent CO2 distributor, or Pest Control Company. Pedestal accessories are also available for separate purchase. Please see [www.biosensory.com/products.shtml](http://www.biosensory.com/products.shtml) for more details.**

1. Place the Dragonfly Mosquito Trap on its side.
2. A bayonet latch secures the collection tray. Remove the collection tray by gently pushing on the cover, rotating it counter-clockwise a few degrees until it stops, and pulling it away from the Dragonfly Mosquito Trap.
3. To insert the Biosensory Biting Insect Lure first remove it from its foil wrapper. Insert the lure through one of the two slots in the bottom of the Dragonfly Mosquito Trap. When fully inserted, the lure can be secured with a screw. The lure is asymmetrical and will insert in only one direction so that it is always properly positioned. *Another lure can be inserted in the remaining slot for maximum effectiveness.*
4. Replace the collection tray by aligning bayonet latch cut outs with black housing pegs. Gently push tray into housing and rotate tray clockwise a few degrees until it stops and its edges are snug and flush with the rest of outside housing edges.
5. With wrench, tighten the CGA-320 connector (located at the end of the braided hose) to the valve on the CO2 bottle by turning clockwise. Take care that the Teflon® washer in the CGA-320 connector seats firmly against the mating surface on the valve. Apply soapy water around the connection to insure no leaks are occurring.
6. Open the valve on the CO2 bottle by turning counter-clockwise. Check to see if the soapy water bubbles up. If this happens, retighten CGA-320 connector.
7. Connect power cord.
8. Depress the MODE membrane switch and hold it for 3 seconds to reset the CO2 counter to zero. The STATUS indicator light will go off and then flash on, indicating that the CO2 counter has been reset.
9. Set mode (see next two pages).

The unit is now ready for use.

## Operating the Dragonfly Mosquito Trap

The Dragonfly Mosquito Trap control panel consists of a water resistant membrane switch to set the operating **MODE**, a **STATUS** indicator light, and a photocell **SENSOR**.

See **Figure 2**.



**Figure 2: Dragonfly Mosquito Trap Control Panel**

Connecting the power cord turns the Dragonfly Mosquito Trap on. A microprocessor constantly controls the operation of the Dragonfly Mosquito Trap.

Six operating modes are selected using the MODE membrane switch. Press the MODE membrane switch repeatedly to toggle between SENSOR control and CONSTANT ON settings. The STATUS light (see tables on next page) will indicate which setting is currently enabled. The 500-cc/min setting attracts the most mosquitoes and uses the most CO<sub>2</sub>, while the 125-cc/min setting lasts for a longer period of time but attracts fewer mosquitoes. *Experiment to find the best setting for the mosquito population in your location.* The 125-cc/min setting is adequate for most neighborhoods. Use the 250-cc/min setting for a moderate to severe mosquito presence. Only for extraordinary cases of infestation is the 500-cc/min setting needed.

## Operating Modes

MODE	Status Light Color	# of Status Light Flashes	CO2 cc/min	Description
Sensor	Green	1 2 3	125 250 500	<b>Automatic operation</b> - turns unit on one hour before sunset and turns unit off 5 hours later. This setting is effective against mosquitoes and conserves CO2. In this mode the unit discharges the selected amount of CO2, (125, 250, or 500 cc/min), activates thermal lure and emits octenol. Electrostatic panels will be on automatically.
Sensor	Dim Green	1 2 3	N/A	<b>Standby:</b> This feature of the SENSOR mode is when the Dragonfly Mosquito Trap is waiting for optimal mosquito conditions – nightfall, and a temperature above 13° C (55° F). The unit will remain in STANDBY during daylight hours, deactivating the thermal lure and octenol and CO2 emissions. Please note that the electrostatic panels will remain operative. Because mosquitoes are not active at temperatures below 13° C (55° F), the unit will remain in STANDBY when the temperature is too cold for mosquito activity.
Sensor	Alternating Green and Red	1 2 3	125 250 500	The CO2 bottle needs replacement.
Constant On	Yellow	1 2 3	125 250 500	Constant ON - Unit will remain on until reset to Sensor control. In this mode the unit discharges the selected amount of CO2, (125, 250, or 500 cc/min), activates thermal lure and emits octenol. Electrostatic panels will be on automatically.
Constant On	Alternating Yellow and Red	1 2 3	125 250 500	The CO2 bottle needs replacement.

# Replacing the Biosensory Biting Insect Lure

**Important: Always disconnect the power supply and close the CO2 bottle valve (turn clockwise) before proceeding.**

*The Biosensory Biting Insect Lure will last 30 to 60 days, depending on ambient temperature and operating mode.*

1. Remove the Dragonfly Mosquito Trap from its support.
2. Detach the CGA-320 connector (located at the end of the braided hose) from the CO2 bottle by turning counter-clockwise.
3. Place the Dragonfly Mosquito Trap on its side.
4. Remove the collection tray. A bayonet latch secures the collection tray. Remove the collection tray by gently pushing on the cover, rotating it counter-clockwise a few degrees until it stops, and pulling it away from the Dragonfly Mosquito Trap.
5. Remove the old Biosensory Biting Insect Lure by removing the retaining screw.
6. Remove the new lure from its foil wrapper. Insert the lure through one of the two slots in the bottom of the Dragonfly Mosquito Trap. When fully inserted, the lure can be secured with a screw. The lure is asymmetrical and will insert in only one direction so that it is always properly positioned. *Another lure can be inserted in the remaining slot for maximum effectiveness.*
7. Replace the collection tray by aligning bayonet latch cut outs with black housing pegs. Gently push tray into housing and rotate tray clockwise a few degrees until it stops and its edges are snug and flush with the rest of outside housing edges.
8. With wrench, tighten the CGA-320 connector to the valve on the CO2 bottle by turning clockwise. Take care that the Teflon® washer in the CGA-320 connector seats firmly against the mating surface on the valve. Apply soapy water around the connection to insure no leaks are occurring.
9. Open the valve on the CO2 bottle by turning counter-clockwise. Check to see if the soapy water bubbles up. If this happens, retighten CGA-320 connector.

The unit is now ready for use.

## Replacing CO2 Bottle

**Important: Always disconnect the power supply and close the CO2 bottle valve (turn clockwise) before proceeding.**

*Under SENSOR control, the CO2 bottle will last 30 to 120 days. When it is time to refill the CO2 bottle, the STATUS indicator will flash red.*

1. Detach the CGA-320 connector (located at the end of the braided hose) from the empty CO2 bottle by turning counter-clockwise.
2. Replace empty CO2 bottle with full one.
3. With wrench, tighten the CGA-320 connector to the valve on the CO2 bottle by turning clockwise. Take care that the Teflon® washer in the CGA-320 connector seats firmly against the mating surface on the valve. Apply soapy water around the connection to insure no leaks are occurring.
4. Open the valve on the CO2 bottle by turning counter-clockwise. Check to see if the soapy water bubbles up. If this happens, retighten CGA-320 connector.
5. Return the Dragonfly Mosquito Trap to its support.
6. Connect power cord.
7. Depress the MODE membrane switch and hold it for 3 seconds to reset the CO2 counter to zero. The STATUS indicator light will go off and then flash on, indicating that the CO2 counter has been reset.

The unit is now ready for use.

## Refilling or Exchanging CO2 Bottles

CO2 bottles may be refilled or exchanged at a number of locations. Contact Praxair ([shop.praxair.com](http://shop.praxair.com) for more details), or check the yellow pages for your local independent CO2 distributor or Pest Control Company.



# Emptying Collection Tray

**Important: Always disconnect the power supply and close the CO2 bottle valve (turn clockwise) before proceeding.**

*In normal use, the collection tray does not require emptying. Only empty if wet mosquito carcasses block drainage holes after rain.*

1. Detach the CGA-320 connector (located at the end of the braided hose) from CO2 bottle by turning counter-clockwise.
2. Remove the Dragonfly Mosquito Trap from its support.
3. Place the Dragonfly Mosquito Trap on its side.
4. A bayonet latch secures the collection tray. Remove the collection tray by gently pushing on the cover, rotating it counter-clockwise a few degrees until it stops, and pulling it away from the Dragonfly Mosquito Trap.
5. Empty mosquito carcasses.
6. Replace the collection tray by aligning bayonet latch cut outs with black housing pegs. Gently push tray into housing and rotate tray clockwise a few degrees until it stops and its edges are snug and flush with the rest of outside housing edges.
7. With wrench, tighten the CGA-320 connector to the valve on the CO2 bottle by turning clockwise. Take care that the Teflon® washer in the CGA-320 connector seats firmly against the mating surface on the valve. Apply soapy water around the connection to insure no leaks are occurring.
8. Open the valve on the CO2 bottle by turning counter-clockwise. Check to see if the soapy water bubbles up. If this happens, retighten CGA-320 connector.
9. Return the Dragonfly Mosquito Trap to its support.
10. Connect power cord.

The unit is now ready for use.

## Technical Support / Troubleshooting Questions

- For it to work effectively, this trap must be placed at least 10 m (30 ft) away from the area you want to protect. If it is too close, mosquitoes may be diverted to your presence as they are drawn to the trap.
- This trap needs to be placed in an exposed area in between the area you want to protect and the mosquito habitat where the mosquitoes originate. Ideally, mosquitoes emerging from breeding habitat such as water or emerging from resting habitat such as forest or meadow should encounter this trap *before* they get to you. A Dragonfly Mosquito Trap placed directly adjacent to a house, under a porch, or in a secluded courtyard will not function at optimal levels.
- The Dragonfly Mosquito Trap placed about 0.9 – 1.5 m (3 to 5 feet) off the ground will attract bugs much more effectively than a unit mounted at a lower or higher height. Log onto [www.biosensory.com/products.shtml](http://www.biosensory.com/products.shtml) for information on purchasing a pedestal accessory for a convenient, attractive solution.

### **Several times a minute, there is a distinct puffing/clicking sound coming from my unit. Is it broken?**

No. The sound you hear is the Dragonfly Mosquito Trap releasing the “breaths” of CO<sub>2</sub> properly.

### **There is only a small amount of mosquitoes in the collection tray. Is my Dragonfly Mosquito Trap not working properly?**

The amount of mosquitoes in the collection tray is not indicative of the total number of insects your Dragonfly Mosquito Trap is destroying. You will not have large collections of mosquitoes with the Dragonfly Mosquito Trap. Due to flight path and shock, about 30% of electrocuted mosquitoes do not land in the collection tray to begin with. Wind and other scavenger insects will also remove significant numbers of mosquito carcasses.

If you go outside at night or dusk and hear faint “pops” and see blue flashes within your Dragonfly Mosquito Trap, you can be assured that your trap is killing mosquitoes and is working properly.

### **What if I have additional questions?**

Email your inquiries to [mail@biosensory.com](mailto:mail@biosensory.com) or call us + 1 860-423-3009. We will be happy to assist you.

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