

## **Mosquito™ Ultra-Sonic Teenage Deterrent System**

### **Fact Sheet/Frequently Asked Questions**

#### **What is the Mosquito™ ?**

The Mosquito™ is an electronic security device that provides a simple, safe and benign way to disperse crowds of teenagers. It is designed to annoy only teenagers while leaving adults totally unaffected.

#### **How does the Mosquito™ system work?**

The Mosquito™ is essentially a sounder unit that emits a very high frequency modulated tone (17.5–18.5 kHz) that is completely harmless even with long term use.

#### **What are the main reasons for using the Mosquito™?**

The main uses of the Mosquito™ are to accomplish one or all of the following:

- reduce the occurrence and costs of vandalism
- reduce the occurrence and costs of graffiti
- reduce the aggravation of teens loitering in areas where they do not belong
- increase the safety of teenagers by warning them away from dangerous areas

#### **Where is the Mosquito™ being used:**

The Mosquito™ is currently in use at the following types of locations:

- Outside community convenience stores where teens gather and cause problems.
- Industrial estates during evening hours and weekends when business are vulnerable to vandalism and graffiti
- Car parks
- Railway stations
- Railway tunnels and other dangerous areas
- School premises during evening hours, weekends and holidays
- Parks during hours of darkness to prevent groups of teenagers from using that area for alcohol and drug consumption
- Any other location where kids congregate and cause damage
- The Mosquito meets all known US noise standards.

#### **I am not a teenager, will the Mosquito™ annoy me?**

This is very unlikely and research has shown that the majority of people over the age of 25 have lost the ability to hear at this frequency range. It should be borne in mind, however, that the unit usually has the desired effect – moving crowds of teens away – within just a few minutes, at which time the unit can be turned off. So even if you are able to hear the noise to some degree, you would not have to put up with it for long.

#### **What about dogs and small children?**

Although dogs and small children have very acute hearing and are easily able to hear at this frequency, extensive testing shows that it does not appear to bother them.

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#### **How quickly does it work?**

The longer someone is exposed to the sound and the closer they are to the source, the more annoying it becomes. Field trials have shown that teenagers are acutely aware of the Mosquito™ and usually move away from the area within 5-10 minutes. The field trials also suggest that after several uses, the groups of children / teenagers tend not to loiter in the areas covered by the Mosquito™ - even when it is not turned on.

#### **What is the range of the Mosquito™?**

The effective range for the Mosquito™ MK II M-85 is around 50 feet. The closer one gets to the unit the more effective the noise becomes. There are more powerful models available that have much longer ranges – up to 300 feet.

#### **What about teenage customers and my neighbors?**

It takes 2-3 minutes for the presence of the sound to become annoying, even on teenagers. Genuine teenage customers who will only be within range for seconds while going in and out of the area will not find the sound of significant consequence. As the transmission of the sound is directional and as high frequency short wavelengths do not travel effectively through solid objects, it is unlikely that there will be any adverse effect on neighbors.

#### **Who installs the Mosquito™?**

Although the unit is simple to install, there are several considerations such as which setting to use, the angle that it is mounted at and the position it is mounted at, that may require a professional alarm/security engineer to determine.

#### **How robust is the unit?**

The unit is housed in a die-cast alloy and steel vandal-proof casing and is therefore very strong. Kids Be Gone recommends that the unit is mounted at least 10 feet above ground level to reduce the risk of vandalism. For added security, we can provide a security cage to cover the unit.

#### **How do I turn the Mosquito™ on and off?**

The Mosquito™ MK II has been designed with a range of built-in input terminals. These will allow you to connect the system to a range of triggers (input devices) such as a timer, remote control, PIR, CCTV system, etc. The Mosquito™ will run for 20 minutes after each activation and then shut down and wait for a further input trigger.

#### **How loud is the Mosquito™?**

The Mosquito™ MKII M-85 has been designed to run at 5 dB above background noise levels. This is done by using an onboard AGC system that measures the ambient noise and adjusts the sound output level accordingly.

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A comparison of the noise emitted by the three Mosquito™ models with common everyday sounds is as follows:

- Near total silence - 0 dB
- A whisper - 15 dB
- Normal conversation - 60 dB
- Mosquito Mark II Standard (M-85) - 85 dB
- A lawnmower - 90 dB
- Mosquito Mark II Maximum Volume (M-100) - 100 dB
- A car horn - 110 dB
- A rock concert or a jet engine - 120 dB
- Mosquito Mark II Law Enforcement (M-130) - 130 dB
- A gunshot or firecracker - 140 dB

#### **How safe is the Mosquito™?**

The Mosquito™ has been tested by various United Kingdom and European Union government agencies, environmental groups and human rights groups and has been found to be completely safe – there is no risk of long-term hearing damage from The Mosquito™.

#### **Does the Mosquito™ meet noise standards in the United States?**

Noise ordinances in the United States are enacted at the local level – either city or county. The Mosquito™ MK II M-85 meets all known noise ordinances in the United States.

#### **In summary:**

- The Mosquito™ is not a weapon.
- The Mosquito™ is not painful – it is simply annoying to those who can hear it.
- The Mosquito™ will not make people run away from an area – it will simply annoy those who can hear it - eventually causing them to move away.
- The Mosquito™ will not cause hearing damage.
- The Mosquito™ meets all known US noise standards.

## Ultrasonic noise thwarts loitering teens

By [Susan Milton](#)

STAFF WRITER

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ORLEANS — Among teens, the buzz in Orleans is really an irritating screech.

The noise comes from a small, black box mounted near a second-story window at the Hot Chocolate Sparrow. It's an early version of the Mosquito, the "ultrasonic teen repellent," distributed in the United States by a company called Kids Be Gone. The company has sold nearly 1,000 Mosquitoes for \$1,500 each.

The outside speaker broadcasts sound at a high frequency for three to 10 minutes. It annoys and drives away people 12 to 25 years old who are within 30 to 50 feet.

While teens cover their ears, older people can't hear a thing. Due to the loss of hair cells in aging ears, they can no longer hear sounds at that frequency. Younger people and animals aren't bothered, either, according to the device's British manufacturer, Compound Security Systems Ltd.

Hot Chocolate Sparrow owners Marjorie and Bob Sparrow paid \$600 online for the Mosquito soon after a National Public Radio report about the teen deterrent in May 2006.

"It's something that we've used occasionally to keep people from congregating outside after we close," Marjorie Sparrow said yesterday.

The shop closes at 11 p.m. with the staff cleaning until midnight. "We used it for a while to prevent vandalism and theft. We haven't used it for months," she said.

The sound doesn't affect young customers or workers, Marjorie Sparrow said. It doesn't travel through walls, according to the manufacturer.

## Teens feel stereotyped

On Thursday, however, a car full of teens in the Sparrow's parking lot off Old Colony Way said they had heard it. They first noticed it last year, said Cameron Fitzpatrick, 18, of Eastham.

Skateboarder Chase Gallagher, 13, Orleans, objected to the device's use by his favorite hangout.

"I feel stereotyped. I don't get it," he said. "(The Sparrow) wants customers, don't they?"

The Mosquito, invented by Howard Stapleton, has swept through Great Britain since December 2005. Convenience store chains use it to keep teens from loitering, shoplifting and scaring away other customers, a problem familiar to the Sparrows.

Teens have long clustered in the private parking lot the coffee shop shares with CVS and other

neighbors. Problems peaked in 2006 when businesses complained there were as many as three dozen teens meeting friends and listening to music while hanging out around their cars. Several teens were charged with trespassing and banned for a year.

Enter the Mosquito, though it didn't send teens fleeing, as reported in other locations.

"My husband thinks (teens) just moved further away to another bench," Marjorie Sparrow said. Her husband estimates the device's range at perhaps 35 feet, not 50 feet, she said.

The Mosquito was news to Orleans Deputy Police Chief Scott Macdonald.

"This is the first I've heard about it," he said. "I wasn't even aware the technology existed."

He has noticed a change over the past month or so in the daily police log — no loitering or trespassing complaints near the Sparrow.

## **Mall won't use Mosquito**

The idea of a teen repellent gets a mixed reaction

In the United States, "we are seeing condo associations and schools using it after-hours, on private property or indoors," Daniel Santell said from Kids Be Gone. "It's targeting groups that are in places they're not supposed to be."

Worried about the impact on customers, Simon Properties doesn't use the device at the Cape Cod Mall or any other Simon mall in the Northeast.

"We regard teen shoppers as an important consumer segment as demonstrated by our retailer mix, which includes Hollister, Pacific Sunwear, Urban Behavior and FYE Gameroom," a mall spokesman said.

Overseas, there have been complaints about projecting noise into public spaces such as sidewalks.

Civil liberties groups in England, Australia and Scotland describe the Mosquito as a weapon that infringes on the basic rights of young people, and claim it could even have unknown long-term health effects. The company says there are none.

And the concept sometimes works to teens' advantage.

On the Web, teens can download cellphone rings that can only be heard by young people.

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## **What's that sound?**

Decibel equivalents of the Mosquito units and common sounds - if you're young enough to hear it.

- 0dB: Near total silence
- 15dB: A whisper
- 60 dB: Normal conversation at 3-5 feet
- 85 dB: Mosquito Mark II Standard (M-85) within one meter (other models go up as high as 130 dB)
- 90 dB: A lawnmower
- 110 dB: A car horn
- 120 dB: A rock concert or a jet engine
- 140 dB: A gunshot or firecracker

Source: Compound Security Systems Ltd.

FAQs: <http://www.kidsbegone.com/Mosquito-FAQ.php>