





Product Manual

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## About Aspectek<sup>™</sup>

Aspectek<sup>™</sup> is a world leading supplier of advanced electronic products with over 20 years of experience in research and development.

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Yard Sentinel Strobe<sup>™</sup> owner's manual © June 2014 Aspectek<sup>™</sup>. All rights reserved.

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## **Technical Support**

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## NOTES





This manual will provide you, the user, with directions for the safe and efficient operation of the Yard Sentinel Strobe<sup>™</sup>. Please read this manual carefully before using this product, and keep it for future reference.

## **IMPORTANT!**

Before you plug in your unit, it is important to understand sonic and ultrasonic signals.

The sonic signal is the alarm/harrassment sound humans can hear. Combining this sound with ultrasonic may give you better results for startling and repelling intruders and pests from your yard. However, if the sonic sound bothers your neighbours, you can turn this off using the "Sonic Volume" dial. Just turn the volume dial to zero.

The ultrasonic signal is the high-pitched frequency that only animals can hear. This sound will be emitted whenever your device is on (plugged in or on battery power). You can adjust the ultrasonic frequency using the Frequency dial, but you won't turn it off by adjusting either the Sonic Volume or Frequency dial.

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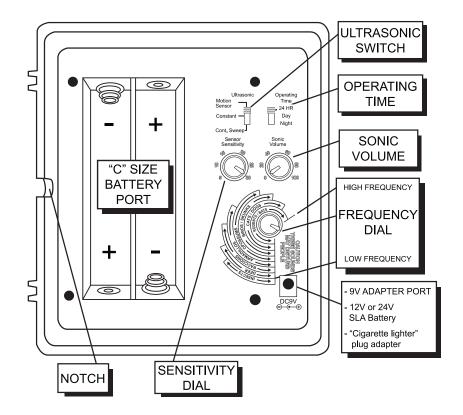
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## DIAGRAMS FREQUENCY DIAL SETTINGS FOR COMMON TYPES OF PESTS ws BIRDS / SA BIRDS / S CATS CATS RODENT RODENTS RABBITS DEER SUMS BIRDS / SA BIRDS CATS CATS ODEN ODEN RACCOONS BIRDS SUMS SUMS BIRDS / BIRDS / CAT CATS CATS & DOGS RODENTS

## DIAGRAMS

## INTRODUCTION

## SWITCHES AND DIALS



The Yard Sentinel Strobe<sup>™</sup> pest repellent by Aspectek<sup>™</sup> is the industry's most advanced outdoor anti-pest product. The product brings together peace of mind and affordability as a result of years of research and innovation. This device allows you to rid your yard, garden or outdoor area of pests humanely and without the use of poisonous chemicals.

### How does it work?

The Yard Sentinel Strobe<sup>™</sup> uses ultrasonic technology as well as a strobe light and a sonic alarm to repel pests from your yard. The device is environmentally friendly, safe for humans, and pets and won't even harm the pests you want to repel.

### Features:

Your device is equipped with several features:

- AC adapter
- 10 metre extension cord (33 feet)
- Battery-operational: Requires 4 C batteries (not included)
- Intelligent Power System (IPS): AC power will take priority over battery when both are installed. In the case of power failure, device will switch to battery backup when batteries are installed
- Ultrasonic: Adjustable frequencies so high that only pests can hear them
- · Sonic: Audible alarm and harassment noise
- Strobe Light: Ideal for repelling nocturnal animals
- Modes: Motion Sensor, Constant or Continuous Sweep
- · Infrared Motion Sensor: Detects pests in range and activates device
- Operating Time: Select Day, Night or 24 HR

## SAFETY AND MAINTENANCE

- 1. Please read the manual before using the product.
- 2. Do not restrict airflow around the unit. Do not position behind furniture or curtains. For best effect, position in open areas.
- 3. Do not attempt to open the unit beyond its functional use.
- 4. This is not a toy. Do not hold up to your ears with either the ultrasonic or sonic sounds activated.
- 5. Please consider other people and their privacy and peaceful enjoyment of property before using the security alarm.
- 6. This pest repellent is environmentally friendly, safe and harmless to pests and pets.
- 7. Keep the motion sensor lens clean by periodically wiping with a damp cloth.
- 8. Remove batteries when not in use to avoid leakage that could damage the unit.
- 9. Check all cables used to connect the device for cracks or damaged insulation. Do not use the device in case of defects or serious damage.
- 10. If repairs are required, original replacement parts should be used exclusively in order to avoid serious damage. Repairs or other work may only be carried out by authorized personnel. Please contact us for warranty information (*see page 17*).
- 11. Do not connect any power sources to 4C size battery holder except C size batteries, or it may damage the unit. Contact us for information about our our special extension cord with alligator clip and D/C power plug for connecting to a 12V D/C Sealed Lead-Acid (SLA) battery.

We enjoy receiving letters and emails from our valued customers. If you have a question, comment or suggestion about the product, please write to us. If you have a success story, let us know. With your permission we may publish it on our website.

## Aspectek<sup>™</sup>

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We stand by our products with a one-year limited warranty. If you are having trouble with your product, please don't return it to the merchant. Contact us, we would be happy to help you.



## CONTACT US

## **PRODUCT SPECIFICATIONS**

## A/C Adapter

Input: A/C 110-240V, Output: D/C 9V/500mA x 1 (included)

## Battery

 D/C power sources: four C size batteries or vehicle power source by connecting cigarette lighter socket or D/C 12V sealed lead-acid (SLA) battery. (D/C power accessories are sold separately.)

**Ultrasonic Frequency** 

15 kHz to 25 kHz (adjustable)

## **Output Sound Pressure**

0 to 110dB

## **Power Consumption**

- 0.18W to 1.5W when powered by AC adapter
- 0.07W to 0.8W when powered by batteries

## **Optimum Distance**

- Infrared sensor: up to 45 feet (14 metres) approximately
- Ultrasonic effective range: 5,000 sq. feet (465 sq. metres) or 70x70 feet (21x21 metres)

### Security Alarm/Harassment Noise Sound Pressure

0-110dB maximum (adjustable), +/-5dB

## **Operating Time**

Adjustable operating time for Day, Night or 24 HR

## Strobe Light

Strobe light deactivates automatically during the day and in light areas. Activates automatically at night or in dark areas.

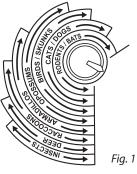
# Thank you for purchasing the Yard Sentinel Strobe<sup>™</sup>! You have two options to get your device started. Your unit came with an AC adapter. Remove the back cover from your device and plug in the adapter. You will see an opening at the bottom of the unit that you can run the cord through.

If you don't have an electrical outlet available in the area, you will need four C batteries (*not included*).

When you install power, the unit will wait a few moments at which point a red light will turn on. The light will stay on for about 20 seconds and then switch off. Your device is now ready to use.

All of your controls are located at the back of your device. Remove the cover to adjust the following settings as needed.

**Frequency Dial:** You will see several types of pests listed around the Frequency dial (*Fig. 1*) and the ranges of frequencies that are ideal for repelling them. You can turn this dial to the setting that best suits your needs. If you are trying to repel more than one type of pest, set it somewhere within the ranges of each of them. Adjust the frequency slightly every few weeks to avoid allowing the pest to adapt to the sound.



**Modes:** The Yard Sentinel Strobe<sup>™</sup> has three different modes. Try all three to see what works best on the animal you are trying to repel.

*Motion Sensor:* The Motion Sensor will activate the ultrasonic and sonic sounds, as well as the strobe light (at night), when it detects pests within its range.

*Constant:* The Constant setting will activate the ultrasonic and sonic noises at a set frequency, as well as a strobe light (at night). The motion detector will deactivate on this setting.

## QUICK SET-UP

*Continuous Sweep:* The Continuous Sweep will activate a range of random sonic and ultrasonic frequencies, as well as a strobe light (at night). The motion detector will be deactivated on this setting. This is helpful for repelling several different types of pests.

Ultrasonic

Fia. 2

Motion

Sensor

**Sensitivity Dial:** The Sensitivity dial adjusts the distance at which the device's motion sensor will work.

**Sonic Volume:** The Sonic Volume adjusts the loudness of the alarm and harassment sound. If this sound bothers you or your neighbours, turn it all the way down. The ultrasonic signal will still be effective in repelling pests.

## Guidelines to help you get the most out of the Yard Sentinel:

- 1. With batteries, set the Ultrasonic switch to Motion Sensor. Doing so will considerably prolong the battery life. Set the Motion Sensor Sensitivity to 20-25 for smaller animals (squirrels, mice, birds) and 15-20 for larger animals (dogs, raccoons, deer).
- 2. When plugged-in, use Constant, as it provides the best protection for repelling a specific type of animal.
- 3. If you need to repel several types of animals, set the switch to Continuous Sweep; the device will then randomly cycle through a whole range of frequencies.
- 4. It's advised to leave the unit operating 24HR. However, if required, change the switch to Night or Day.
- 5. If you don't want to hear the device, turn the Sonic Volume all the way down to zero.
- 6. Find the animal category you want to repel on the frequency dial and point the knob at the arrow on the left side of that category for birds, skunks, and deer, and on the right side for rodents, cats, dogs, and bats. Other animals would fall somewhere in between. Rabbits tend to respond to insects category. Take a look at the diagrams on Page 19 of this manual for a visual representation.



## Here are some preventive measures you can take to keep pests out of your home and yard:

- 1. Keep garbage lids closed tightly.
- 2. Store food in airtight containers.
- 3. Don't leave pet food and water out overnight.
- 4. Repair plumbing leaks and cracks.
- 5. Drain all liquids and wash containers before you put them in the recycle bin.
- 6. Accumulating paper products such as cardboard boxes, bags, newspapers, etc., should be avoided.
- 7. Keep grass short around the foundation of the house and the trees and shrubs planted away from the house.
- 8. Screen all vent opening such as crawl spaces, attics or laundry vents.
- 9. Repair and adjust windows and door screens.

## Mounting to a Wall:

Two screws and fasteners are included with this unit for mounting on walls. Drill the screws into a suitable wall or upright surface. Align the notches on the back cover with the screws and hang the unit.

If installing the unit outdoors, place it at the height of the pests if possible. If not, tilt the unit downwards slightly to capture the pests in the device's effective range (*see diagram on page 7*). The unit must be aimed at the direction of the pests with no objects (e.g. windows, walls or fences) in front of it.

## **Training a Pet:**

Some people try the Yard Sentinel Strobe<sup>™</sup> out on their pets to see if it works or to train their pet not to enter a particular area. It's important to remember that your pet is used to living comfortably in your home. He may be annoyed by the sound, but he may not be deterred from the room. As far as he is concerned your home is his proper place. An outdoor animal on the other hand is sensitive to noise and alert to danger. The same way an alarm will repel an intruder, the ultrasonic signal will repel an unwanted animal.

If you want to use the ultrasonic device to deter your cat or dog from a part of the house, you may have to train them. When the device activates, show them what to do. Demonstrate to them that it's time to leave the room when they hear the noise and that doing this will stop the noise. Dogs will, of course, be easier to train than cats.

<u>Note</u>: Just like your pet, wild animals will have certain habits and behaviours that can change over time. If they are accustomed to finding food in your backyard, they may continue to come even if they are disturbed by the ultrasonic, especially if they can't find food elsewhere. The Yard Sentinel Strobe<sup>T</sup> is designed to work in combination with other good pest management practices. For tips on how to keep pests away, *see page 15*.

### **PLACEMENT:**

It's important to place the device where it will be most effective. For ground animals, like raccoons, coyotes, etc., place the unit near the height of the animal you want to repel and facing the area where they most like to frequent. Don't place it on the ground as this will limit the effective range of the device. Using the screws, you can hang the unit on a wall, tree, fence, stairs, or even on top of your mail box. If your device is off the ground and higher than the animal's eye-level, tilt it downward somewhat. For animals that nest in trees – birds or squirrels – place the device on a tree or rooftop. The ultrasonic frequency has a range of up to 70 feet (21 metres), but the closer it is to the animal, the more effective it will be.

Ultrasonic signals cannot penetrate solid surfaces. Make sure there are no windows, doors, fences or other items between the device and the area you want to cover.

The ultrasonic sound emits in a forward direction from the device with a range of about 170 degrees horizontal and 60 degrees vertical.

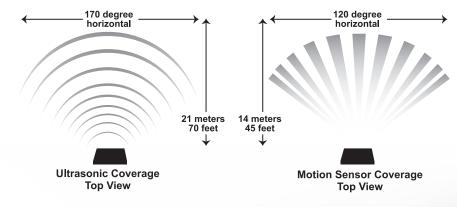


Fig. 3

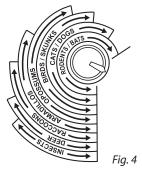
## **THE SCIENCE BEHIND IT**

The Yard Sentinel Strobe<sup>™</sup> comes equipped with a variety of useful features. You will need to experiment to see which features or combination of features give you best results in ridding your yard or other open area of pests.

## Ultrasonic:

The primary feature of your device is the ultrasonic signal. This is a high pressure sound that is only slightly audible to humans. However, it is very effective at startling and scaring away unwanted pests. Using a variable pulse generator, the ultrasonic emits a range of fluctuating sound waves to prevent the pest from becoming accustomed to the sound.

Using the Frequency dial: In order to use the ultrasonic signal to best effect, you will need to become familiar with the ultrasonic Frequency dial. Remove the back cover from your device. It should snap off just like a lid. The Frequency dial is located in the top middle. It is the largest dial (*Fig. 4*).



You will see a variety of ranges indicated around the dial. These ranges are identified by the animals they ideally repel. Choose a range that best reflects the type of animal you are trying to repel. **Insects and** 

large animals are repelled by lower frequencies (counter-clockwise). Rodents are repelled by higher frequencies (clockwise).

Ultrasonic signals travel in a forward direction. You will need to point the device towards the area where you are having a pest problem. The signal will range 170 degrees horizontally and 60 degrees vertically from the device (*Fig 3; page 7*).

## SETTINGS:

You can customize your device's settings for best results in your particular situation. The ultrasonic setting control switch is located on the top left of your control panel. Remove the back cover to access it.

*Motion Sensor:* The Motion Sensor will activate the ultrasonic and sonic sounds, as well as the strobe light (at night), when it detects pests within its range.

*Constant:* Besides activating the strobe light at night, this setting will cause the device to emit a frequency at random intervals (not more than 40 seconds on AC). The pause in between helps ensure the pest does not become accustomed to the sound. You control the frequency emitted using the Frequency dial. This is a good setting to use if you only want to repel one type of animal and if the animal sometimes goes out of range of the motion sensor. (Battery saver: On battery power, the device will activate for shorter durations at intervals of up to five minutes to preserve battery life.)

*Continuous Sweep:* Besides activating the strobe light at night, this setting emits cycles of random frequency (approximately from 15kHz to 25kHz) with a break of not more than 40 seconds. This is the ideal setting if you want to repel two or more different types of pests. (Battery saver: On battery power, the device will activate for shorter durations at intervals of up to five minutes.)

## **Frequency Dial:**

Various pests have different ranges of ultrasonic hearing. Sometimes you will need to experiment to find the range that best repels the pest you want to control. However, the Frequency dial illustrates a range of frequencies and the pests they are effective at repelling as a guide.

## **Sensitivity Dial:**

The "Sensor Sensitivity" dial controls the detection range of the device's Infrared Motion Sensor. You can adjust the range from near to far (5 to 45 feet / 1.5 to 14 metres). The ideal range will vary under different environments. Try setting it to maximum and reducing it if you find the device activates when there is no motion in the area.

### **Available Power Source Accessories:**

Some of our customers choose to use their device in remote areas without traditional power outlets. The Yard Sentinel Strobe<sup>™</sup> can be connected to a 12V D/C Sealed Lead-Acid (SLA) battery using our special extension cord with alligator clip and D/C power plug (*Fig. 8*). It can also be powered by a vehicle's "cigarette lighter" power outlet with our special adapter cord (*Fig. 9*).

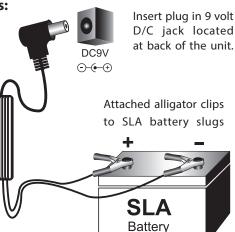


Fig. 8

For ordering information, see page 17.

In addition, we have 65 feet (20 metres) extension cords available (*Fig. 10*).

## Turning the Yard Sentinel Strobe<sup>™</sup> on/off:

The Yard Sentinel Strobe<sup>™</sup> does not have an on/ off switch. To turn it off, unplug it or remove the batteries. To turn it on, plug it in or insert batteries.

When the unit is plugged in or batteries are installed, it will trigger a red sensor light within 20 seconds. The light will stay on for about 20 seconds, after which the device will be ready to operate.



A/C Adapter

<u>Note</u>: If you have a cat or a dog you may have to turn the device off when they are in the yard. This depends on the frequency you are using because cats and dogs can have very different levels of hearing depending on age or size. Other types of pets such as rodents or insects may be more sensitive. Ultrasonic waves cannot penetrate surfaces, so put them in a box or leave them behind and out of range of the device.

### Sonic:

In addition to the inaudible ultrasonic signal, your device is equipped with a sonic signal. This helps to scare off any people or pests lurking around your property or large animals such as bears, coyotes, racoons, skunks and birds. At full volume, the sound can be heard up to 300 feet (91 metres) away. It can also act as a security alarm for your yard.

<u>How to use</u>: The sonic signal is controlled by the Sonic Volume dial. To turn it up, turn the dial all the way clockwise. If you find the sonic noise bothers you or your neighbours, you can turn it off by turning the volume dial all the way down (counter clockwise) or simply lower the volume at your discretion. Adjusting the Sonic Volume will not affect the ultrasonic signal which emits at a fixed rate.

### **Infrared Motion Sensor:**

Your device can be set to activate only when animals come into range. Set the mode switch to "Motion Sensor" to select this feature. When an animal or human enters the range of the device within 45 feet (14 metres), a red light will go on and the device will activate both the ultrasonic and sonic. The range of the sensor may vary due to ambient temperature. Sensor Sensitivity

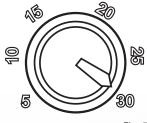


Fig. 5

*Note:* You can test your device to see if it is working by switching the mode to "Motion Sensor" and walking or waving your hand in front. If you see the red light, you will know the movement has been detected. If the Sonic Volume is turned up, you will also hear the alarm/harassment noise. The ultrasonic signal may also be slightly audible to some people.

The Motion Sensor is equipped with a dial that controls its sensitivity (see page 9, Fig. 5). Turn it all the way up to ensure it works as well as possible (30). If you find the device activates when there are no animals in the yard, turn it down to about 25.

## Strobe Light with Sundown Sensor:

Your device is equipped with a strobe light to help drive away nocturnal creatures, like raccoons. The Strobe Light is designed to be disorienting and works along with the ultrasonic/sonic sound to create an audio and visual assault on the animal's senses, driving them from your property. The Strobe Light flashes repeatedly in quick succession each time it is activated. The Strobe Light will only



come on at night. To deactivate the strobe, set the Operating Time switch to Day.

## **OPERATING TIME:**

Some pests, like birds, are active only in the daytime. Others, like raccoons, are active at night. You can choose whether to operate your device only in the daytime, nighttime or all day with the power-saving Operating Time feature (*Fig. 6*).

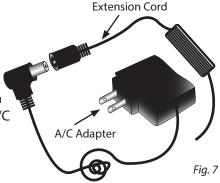
## **OPERATING THE YARD SENTINEL**

## Using the A/C Adapter:

Remove the back cover of the unit by gently pulling it off. Plug one end of the A/C adapter into the 9 volt D/C jack located beside the frequency dial. Plug the other end into any standard A/C outlet. Thread the A/C adapter cord through the notch at the bottom of the unit and then replace the back cover by snapping it into place (for diagram, see page 18). If you do not have a weather-proof electrical outlet, the adapter should be plugged in indoors. The device and the 9-volt port are weather resistant, but it is best to protect the Yard Sentinel Strobe<sup>T</sup> from heavy rains or snow.

## **Connecting the extension cord:**

To connect the extension cord, simply plug in the small side of the extension cord at the back of the unit where it indicates D/C 9V, then attach the other larger plug to the A/C adapter (*Fig. 7*).



## Installing the batteries:

The Yard Sentinel Strobe<sup>™</sup> can also operate on batteries. It uses four size C batteries. To install the batteries, remove the back panel by gently pulling it off. Install the batteries as shown on the diagram (*see page 18*) so the positive and negative poles match the poles printed on the unit. With the batteries in place, replace the back cover of the unit by pressing it until it snaps closed.

## Intelligent Power System (IPS):

The Yard Sentinel Strobe<sup>™</sup> is designed to provide uninterrupted protection even during a power failure. Install four C batteries and plug in your device. Your device will be powered through electricity. If the power fails, the device will automatically switch to battery backup.