#### **AFTER INSTALLATION**

GooseBuster's sounds have a cumulative effect and uneasiness and agitation may build for 15 to 20 minutes before geese actually leave.

#### SECONDARY HARASSMENT TECHNIQUES

If geese are still present after one hour, turn off the unit and restart it *with* harassment procedures (see following) to jump-start your program. According to the U.S. Fish and Wildlife Service Animal Damage Control Office in Sandusky, OH, harassment is legal as long as it does not cause physical harm to geese or their eggs. If geese are harassed each time they appear, they will quickly find other accommodations. Geese don't like to be disturbed at nap, feeding or playtime. With any other suitable place to go they should opt to vacate the protected area. Harassing the occasional goose will keep others from returning. A final benefit to reinforcing GooseBuster with harassments: geese will learn a <u>pattern of avoidance</u> so that GooseBuster may be used alone in the future.

#### **TYPES OF HARASSMENT**

Use multiple people performing various multiple movements; variation is most important.

Walk or run toward the geese while waving your arms.

Stare at geese while approaching.

Drive a lawnmower or other groundskeeping equipment toward them, or operate machinery nearby.

"Fish" with a large surface lure near geese on ponds.

Jog near geese (or be lucky and have joggers already running nearby). Use pyrotechnics, cracker shells and fireworks (no permit required for use on geese, but check local noise/fireworks ordinances). If they're on a pond, use cracker shells and/or drag a floating rope across the pond right after turning GooseBuster on to force the geese to fly to another site. Water normally provides safe haven from predators and disturbance, but this can be overcome with a bit of ingenuity and effort. Exclude them from water — prevent them from entering or leaving water areas with low fencing or fishing line strung at 6 and 12-inch heights during brood rearing and flightless periods of year. Geese will avoid an area with no access to water's safety and nourishment.

<u>Use dogs</u>, any breed that will chase geese and return on command, but you have a responsibility to prevent any harm to geese, goslings or eggs. <u>Use insecticide</u> to make the grass less desirable for goslings' regular diet of insects.

<u>Use companion products</u> — visual devices like GatorGuard\* (floating alligator head replica), Terror Eyes\*, IrriTape\* and Prowler Owl\*, anywhere near geese, most preferably near nests under construction and before incubation begins. Also consider GooseChase\*, a food-grade, biodegradable taste aversion sprayed on grass. \*Available from Bird-X, Inc.

## POST-REMOVAL ACTIVITY

Turn the unit off until other geese appear. Chase off returning geese immediately. Then leave GooseBuster set to EXTRA LONG ON

to prevent new geese from moving into areas abandoned by former residents. Once GooseBuster has routed geese, use it only as needed (*not* activated full time) to reinforce their avoidance and to insure longest-term effectiveness.

#### **SPECIFICATIONS**

Dimensions: Speakers: Weight: Power Requirements: Sound Pressure: Frequency: Compliance:	Control Unit 9" x 9" x 5.25", Speakers 10" x 8" x 5" 8 ohms, 30 watts 16 pounds 1 amp 110 or 220VAC adapter, or 12VDC 0 - 110 dB @ 1 meter (each speaker) 500 ~ 1,500 Hz Supply power source is UL, CUL and CE listed. EPA Est. 075130-OR-001	
Reorder Part #s:	#GB: #GB-220: #GB-12: #Solpan2:	110v unit 220v unit 12vDC accessory kit (12v battery <u>not</u> included) Solar Power Panel to recharge 12v battery (12v battery <u>not</u> included)

#### TROUBLESHOOTING

PROBLEM	POSSIBLE SOLUTIONS
	Check volume setting.
Unit is on, but there is	Check that the unit is scheduled to be on (per timer).
no audible output.	Check that you are not in the middle of a silent period between rounds of sounds.
	Check that all four speakers are connected.
Unit does not	Check battery condition.
function properly when connected to a 12-volt battery.	Turn power switch on unit to the OFF position, reconnect the battery, wait 30 seconds, then switch the unit back to LONG ON.

### LIMITED WARRANTY:

This GOOSEBUSTER unit is guaranteed against defects in material and workmanship for six months from date of purchase (extended warranty available). Bird-X will replace or repair, provided defect occurs under normal use. *Returns accepted only with authorization from our Chicago office.* 



Toll-free 800-662-5021

EPA Est. No. 075130-OR-001



## WHY GOOSEBUSTER?

Presently between 3.5 and 5.5 million non-migratory Giant Canada geese reside in the U.S. and lower Canada. They are joined by an additional 9 to 11 million migrant Canada geese from northern Canada each fall to late spring. This population is growing exponentially at the rate of 30% each year, and the resulting mess they create (at least a pound of droppings per day per goose!) is both unsightly and unhealthy. Moreover, it increases the fecal coliform levels in ponds and can contaminate adjacent water and ground.

#### **HUMANE BIRD CONTROL**

No birds were harmed in the development of this product, nor will any be harmed by its operation.

## OUR CREDENTIALS

The development of GooseBuster was based on the scientific lab and field studies conducted by Dr. Philip Whitford, a noted expert in the field of animal behavior. Dr. Whitford holds an endowed chair in the Biology Department of Capital University, Columbus, OH. He has studied Canada goose behavior and vocal communications since 1979 and has published more than 60 articles (23 on Canada geese and other waterfowl), given many professional presentations and produced two videos on the complex behavior and communication patterns of Canada geese. He has a Ph.D. in biological sciences (animal behavior) and B.S. and M.S. degrees in wildlife management. [On request, Dr. Whitford is available for professional consultation. Please contact Bird-X, Inc. for availability and fees.]

### SOUNDS

The use of distress cries to repel birds is a well-established and proven technique. However, GooseBuster is the *first and only* device to use the actual *alert* and *alarm* calls of Canada geese recorded under natural conditions, evoking immediate recognition and instinctive responses. "Alert" signifies uneasiness or concern about potential danger sources; "Alarm" denotes immediate danger requiring <u>instant</u> evacuation, without lingering to identify the source. Calls differ in frequency, duration and intervals. Sound combinations, sequences and speaker selection change randomly, causing geese to perceive *multiple* birds in motion in several locations. These built-in changes

also make it virtually impossible for the geese to habituate.

#### COVERAGE

It is important to utilize a sufficient number of units to cover the entire area. One unit can cover five to seven acres, but adding a <u>second</u> unit increases coverage dramatically. Field-testing has demonstrated that the synergistic additive effect <u>more than doubles</u> coverage to 15 to 21 acres. Broadcasting calls from more than one source presents a greater sense of danger to the geese while significantly reducing per-acre cost.

## **COMPONENT ASSEMBLY**

Your GooseBuster includes a control unit, AC timer, AC power adapter, mounting hardware, and four speakers each with 100' of wire. Optional 12vDC accessory kit includes DC timer with battery cables. [An optional Solar Power Panel to continuously recharge a 12v battery is also available; battery <u>not</u> included.]



Open the control unit by lifting (releasing) the two latches on the side of the enclosure. Be certain that the power switch is OFF. Plug the four speaker wires and the AC power adapter (or DC timer with battery cables) into their respective jacks on the control panel, then route all wires down through the bottom hole cutout of the enclosure. Latch the cover.

### INSTALLING THE CONTROL UNIT

Mount the control unit box to a wall, post or other vertical surface using the enclosed mounting hardware. Plug the power adapter into an electrical outlet. [*DC units:* Attach the battery clips to a 12v battery.] Mount multiple control units about 1,000 feet apart. NOTE: Periodically moving the control unit(s) every few days further increases the geese's uneasiness and desire to vacate.

### **INSTALLING SPEAKERS**

For optimal results, mount speakers approximately three feet off the ground. A four-foot fence post pounded one foot into the ground works well. Use standard nails or screws in the holes in the speaker bases. If possible, partially hide speakers in brush, high grass, flowerbeds or shrubs. Because the infesting geese are uncertain as to the source of the calls, they're more likely to leave. If geese are emerging from water, aim the speakers at the water, perpendicular to the shoreline. If geese are on a neighboring property, point the speakers at the borders. [NOTE: In all cases, point the speakers at the infested area. Studies show that geese quickly discern boundaries of properties

where they are harassed. Relocating speakers, even slightly every few days, increases the geese's discomfort level and encourages their departure.]

### SPEAKER SEQUENCING

GooseBuster output sequences from one speaker to the next (only one speaker will sound at a given time). When testing or operating a unit, do so with <u>all four speakers connected</u> so a speaker missing its turn does not delay sounds. Sequencing increases effectiveness by imitating natural sound patterns of both a single agitated goose *in motion* and *several* agitated geese.

### SETTINGS

• Power Switch/Time Interval. *Initially* — set to LONG ON (5-10 minute interval between series of calls). *After initial routing* — <u>change</u> to EXTRA LONG ON (10-30 minute interval) to prevent their return. Once the unit is OFF, leave it off for a minimum of 30 seconds to allow the electronics to reset. To test the unit (i.e., hear its sound), slide the switch to TEST for an immediate sound output. Do not leave unit on TEST during actual operation.

• Volume. *Initially* — set to highest volume. *After initial routing* — modulate volume up and down periodically to provide variability.

• Timer Use. Use when there is a predictable daily arrival pattern. Set unit to LONG ON and set to activate from one hour before to one hour after arrival time. To use the AC timer, plug your GooseBuster into the AC timer and the timer into a protected outdoor rated outlet, and then see the enclosed timer instructions. To use the DC timer, which is shipped attached, refer to the enclosed DC timer instructions.

### ADDITIONAL SOUNDS

Besides the goose calls, for maximum effectiveness, the GooseBuster offers two additional sound options: COYOTE and GUN SHOT. (See switches on faceplate.)

When these switches are selected ON, various coyote sounds and specially recorded hunters' gunshots will be incorporated into the whole randomized GooseBuster output, along with the natural goose alarm and alert calls. These optional sounds will play occasionally and may not play in every sequence — but they will play sometimes, if selected.

Initial settings: In unrestricted circumstances, initially setting both additional sound switches to ON will bring best results. This creates the most realisitic and randomized combination of sounds most frightening to geese.

However, if you do not wish to include either of these sounds — for example, if the GooseBuster is deployed in an urban or public setting

where coyote sounds or the recording of a shotgun may cause surprise or alarm to people — then set either or both of these additional sound switches to OFF.

Ongoing goose control: Once the problem geese have left the area, we recommend that you turn these additional switches OFF for long-term maintenance, and save them only for use with difficult geese or new arrivals.

# OVERVIEW OF GOOSE REACTION

Testing has shown considerable variation in *initial* goose reaction to GooseBuster, from immediate and total departure to mild verbal and physical response. Results depend on <u>past experience of geese</u>, <u>length of residency</u> and <u>season</u>. Regardless of initial reaction, complete goose control is commensurate with *your* commitment to invest both time and effort. Your strongest efforts are needed at the outset; they will diminish as you achieve success. GooseBuster uses geese's long-term memory against them — once scared away repeatedly, they rarely return.

*Establish Zero Tolerance:* <u>Always</u> drive <u>all</u> geese (original infester, returning birds and newcomers) completely off the property immediately. Success is achievable if you *prevent* geese from claiming stakes rather than waiting — often for as short a time as 20 minutes — until they establish proprietorship.

## WHEN TO INSTALL

Relocation efficiency will be greatly influenced by the season you install.

If you install in...

• Late summer to early winter, when all geese can fly and goslings don't require special feeding areas, you will experience quickest success. New arrivals will leave abruptly in a panic, encouraging original residents to bolt as well.

• *Late winter to early spring,* as nesting season approaches and geese claim territories, it will take more effort. The earlier you deploy GooseBuster the better, to persuade the geese to move before they begin nesting. Once they've settled in, especially with pronounced nest site loyalty, it's much harder to get them to go.

• *Mid-spring,* when nests are constructed and eggs are laid, you'll face even greater challenges. But even then the majority of geese, faced with constant harassment, will abandon their nests.

• *Late spring to mid-summer,* as eggs hatch but goslings cannot yet fly, you'll benefit from another period of less resistance. Adult geese will readily lead their young away from perceived danger.

• *In any season,* GooseBuster will induce other birds to broadcast <u>their</u> alarm calls, imparting a greater sense of danger to the geese.