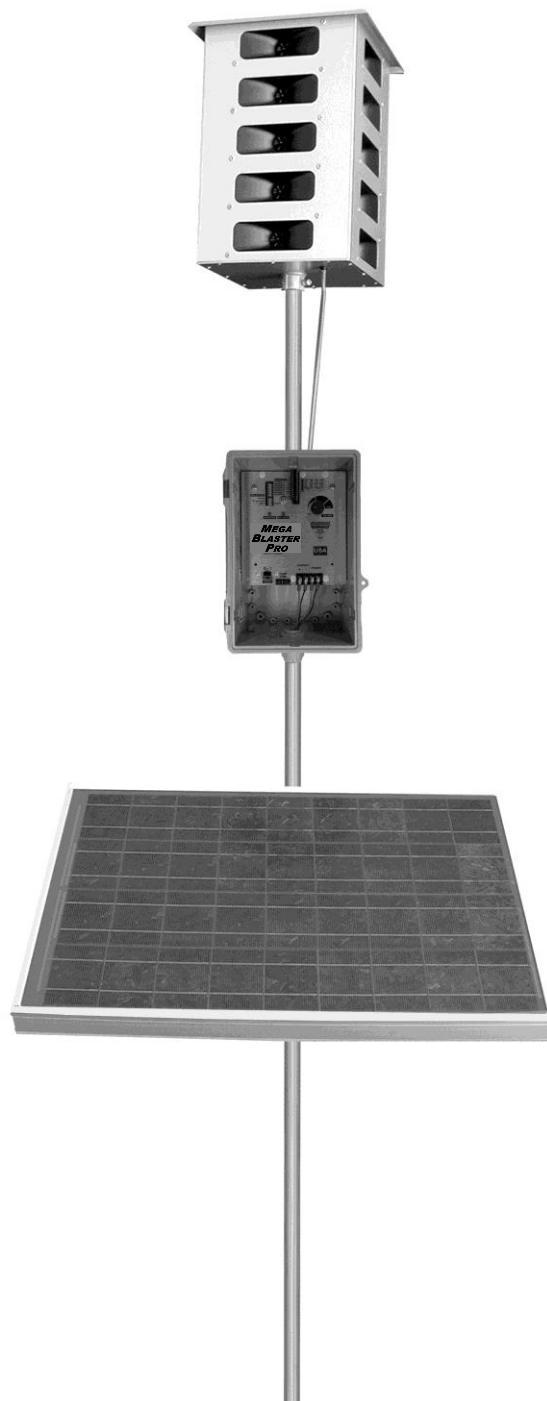


# ***MEGA BLASTER PRO***



## User's Manual

|                                    |    |
|------------------------------------|----|
| Overview                           | 2  |
| Bird Control Management Guidelines | 3  |
| Materials List                     | 4  |
| Assembly                           | 5  |
| Control Unit                       | 5  |
| Solar Panel                        | 5  |
| Placement                          | 6  |
| Building a Mounting Pole or Mast   | 7  |
| Installation                       | 8  |
| 20-Speaker Tower                   | 8  |
| Solar Panel                        | 8  |
| Control Box                        | 9  |
| Solar Panel Connections            | 9  |
| Settings                           | 10 |
| Recordings                         | 10 |
| Mode Settings                      | 10 |
| Warranty                           | 12 |



# Overview

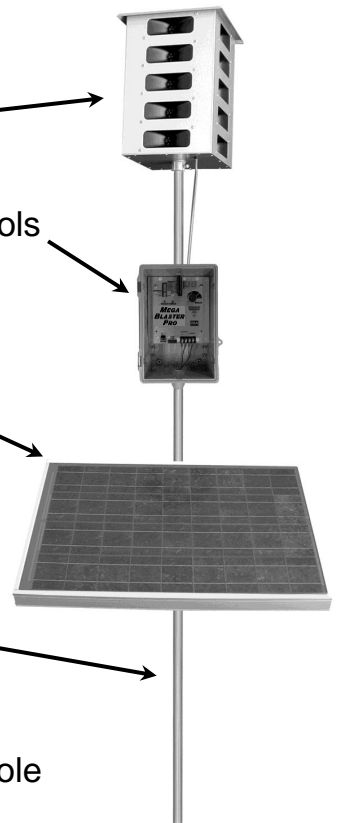
The Bird-X Mega Blaster PRO utilizes the innate power of the natural survival instincts of birds to effectively repel them. Digital recordings of distressed and alarmed birds, along with the sounds made by their natural predators are broadcast through high fidelity weather-resistant speakers over the top of areas. This action triggers a primal fear and flee response. Pest birds soon relocate to where they can feed without feeling threatened.

Your Bird-X Mega Blaster PRO system consists of:

**20-Speaker Tower** broadcasts the bird sounds

**Control Unit** produces the bird sounds and contains all operational controls

**Solar Panel** recharges the 12-volt deep cycle battery



Items needed but not included:

- (1) **Mounting Pole or Mast** tall enough to raise the 20-Speaker Tower at least 5 feet above the top of the areas, trees or other obstructions
- (1) **12-volt Deep Cycle Battery** (RV/Marine) Group 27 or larger wet cell
- (1) **T-Post** or similar (Optional) may be needed to support the mounting pole
- (1) **Bailing Wire or zip-tie** (Optional) to secure the Mounting Pole to the T-Post

***CAUTION: THE MEGA BLASTER PRO IS CAPABLE OF PRODUCING SOUNDS UP TO 125 DECIBELS. PROPER HEARING PROTECTION MUST BE WORN ANYTIME THE UNIT IS TURNED ON.***



# Bird Control Management Guidelines











**An active bird control management program is a key to successfully repelling pest birds. Bird feeding patterns may take several days or weeks to break. Follow all suggestions for maximum effectiveness. Read all instructions prior to installation.**

## **For best results:**

- **It is extremely important to fully protect your entire area from birds.** Any areas not fully protected will allow birds to begin feeding at the fringes of the sound coverage. They will soon become bolder and learn the sounds are nothing to fear. This will cause the effectiveness to diminish. Complete Bird-X product coverage forces birds to leave the area entirely.
- Install the Mega Blaster PRO unit at least two weeks before birds are attracted to your area. It is much easier to keep birds away before they have found a food source than it is to repel them once they have developed a feeding pattern.
- Most birds begin feeding from the perimeter of an area. Place Mega Blaster PRO units so the sound protection covers past the edges of the area.
- Birds will often use tall trees for roosting and observation. If birds are in bordering trees it is necessary to position the units so the sound protection covers the trees as well.
- Mount the 20-Speaker Tower at least five feet above trees, areas and structures for maximum coverage. The higher the better. Sound will disperse or reflect off structures or foliage. Mount control unit out of direct sun, if possible.
- When first installed, run Mega Blaster PRO units at FULL volume and on SHORT time off periods. This ensures maximum “bird stress” and creates a hostile environment.
- Watch for changes in bird activity and adjust the location of your Mega Blaster PRO unit if needed.
- **Check the battery and unit settings often to insure continuous bird control. Be certain that the system is not turned down or has a dead battery. Field hands or harvesters may turn down the volume.**
- Changing settings and switches often helps to prevent bird habituation. Periodically change the switch settings of the eight sounds (turning them ON or OFF). NEVER turn OFF the distress calls of the target birds you are trying to repel and always keep at least one predator bird sound turned ON.
- If different bird species enter the protected area and begin causing damage contact us immediately for an updated Sound Recording Card designed to repel the new invading birds.
- Remember that the Mega Blaster PRO system is a management tool, and should be used as part of your overall bird control strategy, sometimes in conjunction with other bird control techniques and devices.

**Be aware that under extreme drought or other adverse conditions, birds will disregard all deterrents and risks in order to survive**

# Materials List

| Item                                | Qty |  | Notes                        |
|-------------------------------------|-----|--|------------------------------|
| <b>Mega Blaster PRO Control Box</b> | 1   |    |                              |
| <b>Sound Recording Card</b>         | 1   |    | Pre-installed in control box |
| <b>20-Speaker Tower</b>             | 1   |   |                              |
| <b>Control Box Brackets</b>         | 2   |  |                              |
| <b>Control Box Mounting U-Bolts</b> | 2   |  |                              |
| <b>40-Watt Solar Panel</b>          | 1   |  |                              |
| <b>Solar Panel Mounting Bracket</b> | 1   |  |                              |
| <b>Solar Panel Mounting U-Bolts</b> | 2   |  |                              |
| <b>Control Box Connector Cable</b>  | 1   |   | 1/4" x 1-1/8" x 2"           |
| <b>Battery Box</b>                  | 1   |  | 2 Wire, 10 ft. Long          |

# Assembly

**Note: You will find it easier to pre-assemble the following components prior to installation in the field.**

## Control Unit

1. Lay the Control Unit face down
2. Attach the two Control Box Mounting Brackets to the back with the included screws (Figure 1)

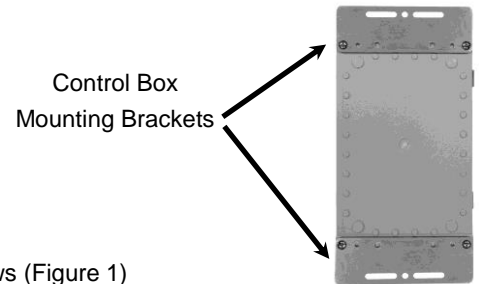


Figure 1

## Solar Panel

3. Install the two Solar Panel Mounting U-Bolts in the Head of the Solar Panel Mounting Bracket (Figure 2)
4. Loosen, but do not remove the Carriage Bolts securing the movable Clamp Plates on the Solar Panel Mount Bracket
5. Lay the solar panel on a flat surface with the glass side down
6. Lay the Mounting Arm across the Solar Panel with the Clamp Plates down. Position the Mounting Arm at an angle so the Clamp Plates slide under the lip of the Solar Panel (Figure 3A)
7. Rotate the Mounting Arm and secure it to the Solar Panel by tightening the Carriage Bolts (Figure 3B)

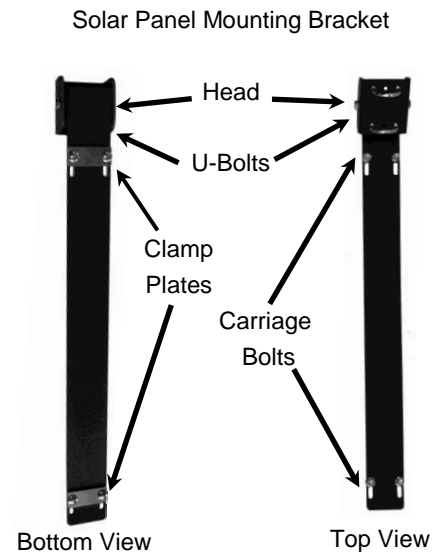


Figure 2

Clamp Plates slide under the lip of the Solar Panel

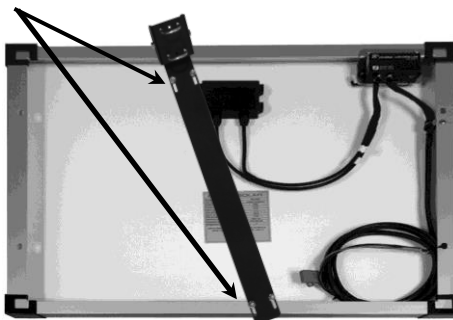


Figure 3A

Rotate Mounting Arm and tighten Carriage Bolts



Figure 3B

# Placement

Your Mega Blaster PRO will protect an area up to approximately 600 feet in all directions.

**Factors to consider when selecting the best location include:**

- Birds typically feed from the perimeter of the area and work their way in. Place Mega Blaster PRO units so the sound protection covers all the way to the edges of the area. For larger areas Mega Blaster PRO units should be positioned 400-500 feet inside the area and spaced every 1,200 feet.
- Mount the 20-Speaker Tower at least 5 feet above terrain, areas, trees and other obstacles.
- Placing the Mega Blaster PRO on top of a hill or small rise will give you much better coverage than at the bottom of a valley. The greater the height the further the sounds will travel.
- Wind can blow the sound waves. If the area you need to protect has consistent wind coming from the same direction, position your Mega Blaster PRO more “upwind.”
- Trees surrounding areas provide birds with a safe perch that allows them to fly in, grab food and fly out. It is much more difficult to eliminate bird damage if the birds are able to use the surrounding trees as a staging area for attacks on your areas. Your Mega Blaster PRO unit should be positioned close to any trees bordering your areas. If birds are roosting in the trees at night the TIME OF OPERATION should be set to 24 HOUR.
- Lakes, rivers and wetlands are a favorite resting and hiding place for birds. Your Mega Blaster PRO unit should be placed so the sound thoroughly covers any areas where birds frequent.
- Neighbors, businesses and others may not appreciate hearing the bird sounds. At the limits of the effective range the sounds from your Mega Blaster PRO are at a level people may find annoying. Avoid placing the unit where it becomes a nuisance.

# Building a Mounting Pole or Mast

**CAUTION: TALL POLES AND MASTS CAN BE HEAVY AND POTENTIALLY DANGEROUS. USE EXTREME CAUTION WHEN CONSTRUCTING OR WORKING AROUND TALL POLES AND MASTS. BIRD-X, INC., ASSUMES NO RESPONSIBILITY FOR DAMAGES OR INJURIES.**

## **Things to consider:**

- The 20-Speaker Tower is designed to mount onto a 1 in. (outside diameter) pipe at least 14 in. long. 1 in. conduit works well as it is light, rigid, inexpensive and available in 10 ft. lengths making it ideal for low areas, vineyards and bushes.
- You will want to take down your Mega Blaster PRO unit after harvest and store it in a dry location until the next season.

## **A suggestion for masts up to 20 feet tall:**

1. 3/4 inch Galvanized steel water pipe has a 1 inch outside diameter and is the correct size to fit inside the 20-Speaker Tower. It is often available in 20 ft. lengths from hardware and plumbing supply stores. If these are not available, 10 ft. lengths are common and can be fastened together with a threaded coupler. Assemble the poles on the ground.
2. Slide the 20-Speaker Tower over the pipe and tighten the set screw in the collar at the base.
3. Stand the pole assembly up just inside the drip line of a tree and securely tie the pole to a few heavy branches.
4. Drive a T-Post into the ground at the base of the pole and secure with wire.

## **For masts taller than 20 feet:**

1. Use 20 ft. lengths of galvanized steel water pipe or similar, securely fastened together with threaded reducing couplers.
2. Starting with 3 in. pipe, step the size down with each length of pipe.
3. The last 10 ft. can be 1 in. (O.D.) conduit hose clamped to the final section of galvanized pipe.

A semi-permanent mast support can be made by digging a hole 4 ft. deep and 4 ft. round. In the middle of the hole sink a length of galvanized water pipe large enough that your mast will easily fit inside. Make sure at least 2 ft. of pipe is above ground level. Fill the area around the pipe with packed sand, leaving the last foot filled with concrete to form a cap over the hole. Your mast can be dropped into the galvanized water pipe “receiver” for support. At the end of harvest the mast can be lifted out and positioned on the ground for easy disassembly and storage.

# Installation

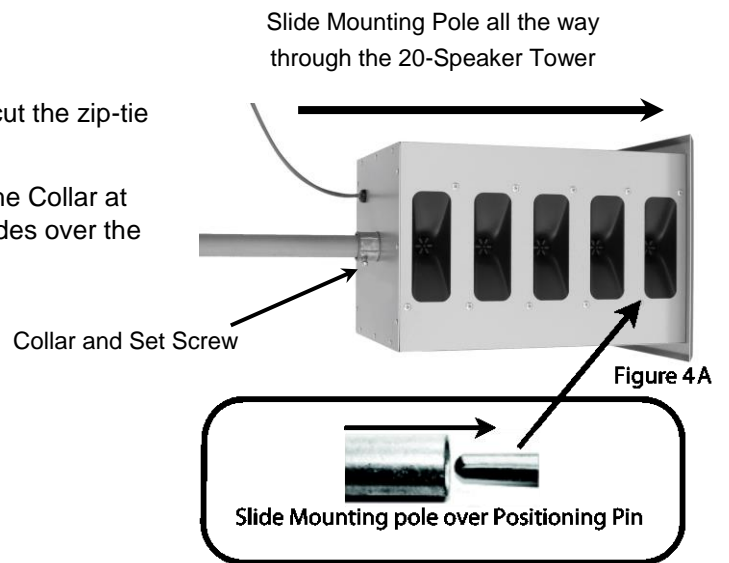
**Note: Foliage, trees, and other obstructions severely reduce the effective range of Mega Blaster PRO units. It is critical that the 20-Speaker Tower is mounted at least 5 feet above all obstructions to achieve the maximum protection.**

## Mounting Pole or Mast

1. The Mounting Pole or Mast will need to be supported by a T-Post, fence post, tree or other means. The Pole Support should be in place before proceeding.

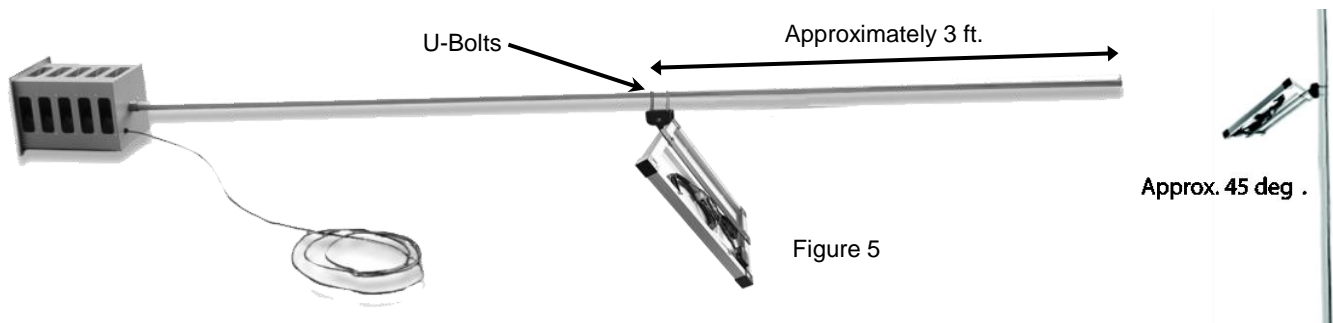
## 20-Speaker Tower

2. Lay the 20-Speaker Tower on its side on the ground and cut the zip-tie securing the speaker cables.
3. Slide the 1 in. (outside diameter) Mounting Pole through the Collar at the bottom of the 20-Speaker Tower (Figure 4A) until it slides over the positioning pin inside the top of the Tower (Figure 4B).
4. Tighten the Set Screw in Collar securely.



## Solar Panel

5. With the glass side of the solar panel facing the 20-Speaker Tower, slide the U-Bolts in the Solar Panel Mounting Bracket over the lower end of the Mounting Pole approximately three feet from the bottom of the pole and tighten the U-Bolts (Figure 5).
6. Lean up the Mounting Pole with the 20-Speaker Tower on top, against the Pole Support and fasten the Mounting Pole to the Pole Support securely with wire or other semi-permanent means.
7. Rotate the solar panel so it receives the most possible sunlight and tighten the Pivot Bolts so the panel is at approximately 45 degrees.





## Control Box

8. Attach the Control Box to the Mounting Pole with the U-Bolts.
9. Feed the Speaker Cables through the Cable Strain Relief at the bottom
10. Attach the Speaker Cables from the 20-Speaker Tower to the screws marked "SPEAKER" on the faceplate of the control panel.
11. Locate the Control Box Connector Cable (the grey 2 lead cables) and feed one end through the Cable Strain Relief.
12. Connect the RED wire to the screw marked "+" and the BLACK wire to the screw marked "-" under "12V BATTERY" on the faceplate of the control panel.
13. **MAKE SURE THE POWER SWITCH IS TURNED OFF BEFORE ATTACHING BATTERY.**
14. Connect the other end of the RED wire to the "+" terminal on the 12-volt Deep Cycle battery (not included). Connect the BLACK wire to the "-" terminal on the battery.
15. Hand tighten the Tapered Cinch Nut on the bottom of the Cable Strain Relief to help keep insects and moisture out.

Control Box Connector to Solar Controller on back of 40-watt Solar Panel

Cable Strain Relief

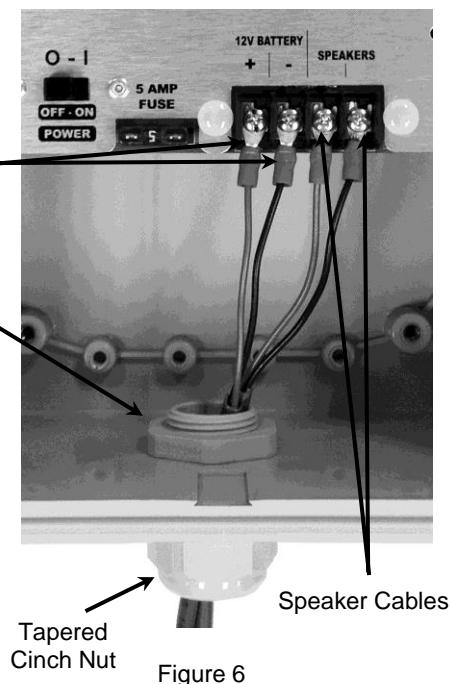


Figure 6

## Solar Panel Connections

16. Cut the black zip-ties securing the RED and BLACK wires on the underside of the solar panel. (Figure 7)
17. Connect the RED wire to the "+" terminal on the 12-volt battery and connect the BLACK wire to the "-" terminal on the battery.

**NOTE:** If you are using a "Sealed Gel" 12-volt battery (instead of a "Wet" Lead Acid battery) you will need to adjust Dip Switch 1 to the "ON" position, and Dip Switch 2 to the "OFF" position. (Fig. 8, 9 and 10) The Access Hole is located on the Underside of the Solar Controller flexible panel, attached to the back side of the solar panel. The factory preset setting is for a 12-volt "Wet" Lead Acid battery with Dip Switch 1 to the "OFF" position, and Dip Switch 2 to the "ON" position. It is recommended that you use a Group 27, Deep Cycle 12-bolt battery for optimum performance.

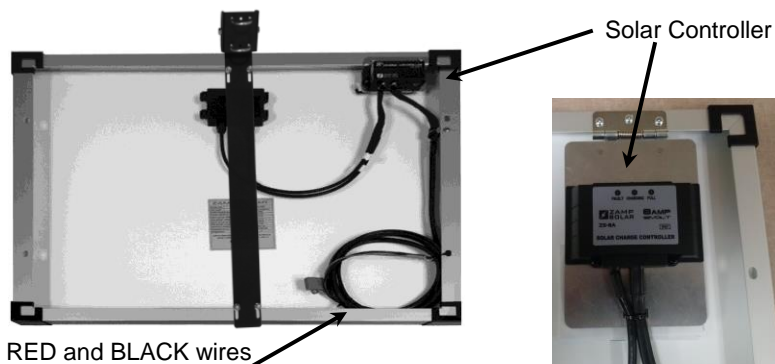


Figure 7

Access Hole Showing Dip Switch 1 and Dip Switch 2

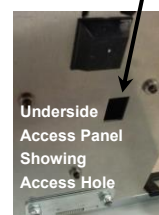


Figure 8, 9 and 10

**CAUTION:** The Mega Blaster PRO is capable of producing sounds up to 125 decibels. Hearing protection must be worn anytime the unit is on!



# Settings

Repelling birds requires regular monitoring and active management. Birds are intelligent and highly adaptable so it is important to create and maintain an environment the birds perceive as hostile and dangerous. This is achieved by playing the sounds frequently and at a high volume, otherwise the birds will not be fully repelled and will soon learn to adapt.

Below are the initial settings that should be used when your Mega Blaster PRO is first installed. Please see the “Bird Control Management Guidelines” section for more information.

## Recordings

There are eight separate bird sounds contained on the Replaceable Sound Card. The label on the sound card lists each sound with a number corresponding to the eight “RECORDINGS” dip switches to the left of the Sound Card. Initially all RECORDING switches should be turned ON. If the target birds begin returning, periodically change the switch settings for the eight sounds (turning them ON or OFF). **NOTE: NEVER turn OFF the distress calls of the target birds you are trying to repel and always keep at least one predator bird sound turned ON.**

## Mode Settings

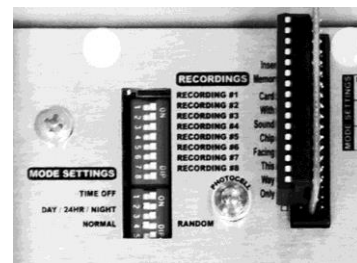
**TIME OFF INTERVAL** controls the time off periods between each playing of the bird recordings.

| Setting | Time Off Duration   | Switch #1 | Switch #2 |
|---------|---------------------|-----------|-----------|
| SHORT   | 17-50 Seconds       | ON        | OFF       |
| MEDIUM  | 1:00-4:15 Minutes   | OFF       | ON        |
| LONG    | 5:00-10:00 Minutes  | ON        | ON        |
| XLONG   | 10:00-30:00 Minutes | OFF       | OFF       |

When the Mega Blaster PRO unit is first installed the **TIME OFF INTERVAL** should be set to **SHORT** to create the greatest sense of danger and move the birds out of the area the fastest. Once the birds have left the area completely for a week or more you may try increasing the **TIME OFF INTERVAL** gradually, but you must monitor the birds carefully. Switch back to **SHORT** at the first sign birds are returning.

**TIME OF OPERATION** controls when the bird recordings play.

| Setting    | Switch #3 | Switch #4 |
|------------|-----------|-----------|
| DAY ONLY   | ON        | OFF       |
| 24-HOUR    | OFF       | ON        |
| NIGHT ONLY | ON        | ON        |



Recommended Settings

In most cases birds are only active during the day so the **DAY ONLY** is recommended. If birds are roosting in bordering trees at night you will need to set the **TIME OF OPERATION** for **24-HOUR**.

**RANDOM OPERATION** should always be turned **ON**. **VOLUME** should be set as high as possible.

# Troubleshooting

| Problem                 | Possible Cause   | Solution  |
|-------------------------|--|---|
| No Sound                | Volume turned down   | Turn volume up  |
|                         | Dead battery   | Charge or replace battery   |
|                         | Loose battery connection   | Verify all battery connections are tight  |
|                         | All RECORDINGS are turned OFF  | Verify all RECORDINGS are switched to ON  |
|                         | Sound Card not fully seated  | Remove sound card and reinstall, making sure it is fully inserted into the socket   |
|                         | Sound Card is installed backward   | Unplug the sound card and reinstall with the label facing to the left   |
|                         | TIME OF OPERATION set to DAY ONLY without enough light   | Change TIME OF OPERATION to 24-HOUR   |
|                         | Unit was not shut down before the battery was disconnected causing the unit to go into "SAFE MODE" | <ol style="list-style-type: none"> <li>1. Turn the POWER switch OFF</li> <li>2. Disconnect the battery</li> <li>3. Remove the sound card</li> <li>4. Wait 30 seconds</li> <li>5. Reinstall sound card</li> <li>6. Reconnect the battery</li> <li>7. Turn the POWER switch ON</li> </ol> |
| Was working but stopped | The battery is dead  | Connect the battery to a battery charger and see if it will hold a charge. Replace if necessary   |
|                         | Solar Panel is not getting enough sunlight   | Reposition the Solar Panel  |

# Limited Warranty

THIS MEGA BLASTER PRO UNIT IS WARRANTED 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.*



300 North Oakley Blvd.

Chicago, IL 60612

Toll-Free (800) 662-5021

Fax (312) 312-2480 [www.Bird-X.com](http://www.Bird-X.com)

[Info@Bird-X.com](mailto:Info@Bird-X.com)

©2014 Bird-X, Inc. All Rights Reserved.

Bird-X® is a patented trademark of Bird-X, Inc.

EPA Establishment Number 075130-OR-001

*Mega Blaster PRO P/N 655-0065-00 (Rev. C - 5/2016)*



# BIRD-X



## Bird-X Lasers

Uses randomized laser patterns in colors birds hate

Laser beams are well- documented to chase away pest birds. The beam seeks out their roosting-spots, alarming and confusing them, causing them to flee. New laser technology in convenient, economically-sized units for smaller areas.

- 5 milliwatt Bi-colored fat-beam laser power (green, red)
- State-of-the-art, fully registered, consumer-safe devices
- Works day and night: laser beams constantly change pattern and location to prevent acclimation Bird-X Lasers
- REMOTE CONTROLLED for safety and convenience; includes optional timer function.



BX-LASER-OUT

### BIRD-X LASER OUTDOOR - SPECIFICATIONS:

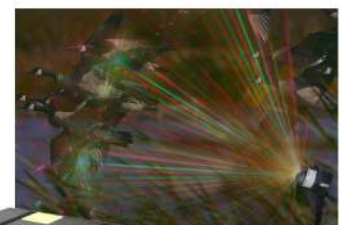
**Laser Power:** Red: 650nm100mW, green :532nm50mW  
**Unit Power:** 1mW RED+1mW GREEN  
**Laser Color:** Red + green  
**Net Weight:** 1.5kg  
**Power:** AC100-240V,50-60Hz  
**Electric Current:** 100mA  
**Classification:** CLASS 3R  
**Size (mm):** L(16.5)\*W(13.8)\*H(13.8) CM  
**Fuse:** 2A  
**Housing:** Cast aluminum  
**Beam Divergence:** 60°  
**Operating Temperature:** -20°C-40°C  
**Safe Temperature for Use:** -10°C-35°C



BX-LASER-IN

### BIRD-X LASER INDOOR - SPECIFICATIONS:

**Laser Power:** Red: 650nm100mW, green :532nm50mW  
**Unit Power:** 4.9mW RED+4.9mW GREEN  
**Laser Color:** Red + green  
**Net Weight:** 1.5kg  
**Power:** AC100-240V,50-60Hz  
**Electric Current:** 100mA  
**Classification:** CLASS 3R  
**Size (mm):** L(18.5)\*W(14.8)\*H(7.0) CM  
**Fuse:** 2A  
**Housing:** Cast aluminum  
**Beam Divergence:** 60°  
**Operating Temperature:** 0°C-40°C  
**Safe Temperature for Use:** 0°C-35°C



For more information about Bird-X, contact us at **800.662.5021**

or go to [www.bird-x.com](http://www.bird-x.com) to place your order and see a complete line of bird repellents





# INSTRUCTION MANUAL

## Bird-X Laser

### LASER BIRD REPELLER (OUTDOOR)



*Thank you for your purchase.  
For safe operation and best results,  
please read this manual before use.*

*Manufactured for:*



300 N. Oakley Blvd.  
Chicago, IL 60612  
USA

Phone 312-226-2473  
FAX 312-226-2480

E-mail [sales@bird-x.com](mailto:sales@bird-x.com)

[www.bird-x.com](http://www.bird-x.com)

# I. INTRODUCTION

**Bird-X, Inc.**, the world's leading bird control specialists and suppliers of unique, effective and ecologically safe bird repelling products, is proud to announce "The Next Generation" in bird control. We have successfully utilized the latest in Space Age Technology and electronics to develop the **Bird-X Laser Bird Repeller**. For safe operation, read this manual before powering or installing the fixture, follow the safety precautions listed below, and observe all warnings printed in this manual and on the fixture.

**Bird-X, Inc.** has been recognized worldwide as the bird control experts since 1964.

**Bird-X, Inc.** is the only company anywhere that sells a complete line of bird repelling products including a variety of ultrasonic and sonic machines, visual repelling devices, non-toxic chemical roosting inhibitors, iridescent diffraction foil, netting and spike strips. New products are continuously being developed.

**Bird-X, Inc.** specialists have become experts through extensive experience and research. As a result, sales consultants are able to analyze problems and make recommendations based on each customer's specific situation and needs. In addition, **Bird-X, Inc.** maintains and avails to customers a library of application case histories and other reference materials.

# II. WHY CONTROL BIRDS?

- A. **Bird droppings are unsightly** and cause dangerous, slippery working conditions.
- B. **Bird droppings are corrosive** to many materials including steel and concrete, especially when combined with the effects of salt (from oceans or roads) and/or harsh weather. This corrosion can and does weaken structural integrity.
- C. **Bird droppings are unhealthy** - even potentially fatal. At least sixty transmissible diseases have been associated with birds and their excrement.
- D. **Bird droppings cost money**. Time and materials for "cleaning up" represent costs unrecoverable by revenues.
- E. **Birds are destructive**. They deface floors, walls and equipment. They halt operations and make repairs necessary by entangling themselves in machinery or downing power lines. They spoil inventory by eating spillage, contaminating pallets of food, drugs or chemicals, or by bombarding aircraft and other durable goods with uric acidic excrement. They nibble at, or even tear out insulation.
- F. **USDA, OSHA, local health boards** and other governmental organizations can cite companies for bird mess problems. If the problems are not corrected, companies can be fined or shut down.

# III. BIRD MANAGEMENT PROGRAM

No two bird infestation problems are exactly the same. Treat yours as you would any well engineered project, and begin with research. Success depends on timing, organization and diversity.

Collect information related to the bird problem:

- A. **Survey the birds and their habits**. Gather specific data as to the type and population of birds, flight and time patterns, entries and exits, and nesting, feeding and roosting habits.
- B. **Inspect your property**. Discover what the birds find attractive about your area, and if the same conditions prevail in neighboring properties.
- C. **Remove all inducements**. Before installing the **Bird-X Laser**, make sure to clean the area of all evidence of birds: nests, fledglings, droppings, dead birds, and the residual scent. (Adult birds are likely to return to their young in order to protect them or to assist them in leaving the area.) Remove food spillage, garbage, nesting material and other items that may be appealing to birds.
- D. **Maintain a clean and changing environment**. For maximum effectiveness, periodically clean the area of nests and droppings, relocate or reposition the **Bird-X Laser**, vary the output, or turn off the unit for a short time.
- E. **Install early**. It is always best to install the **Bird-X Laser** before 'bird season' begins, as it is easier to keep the birds away than to rout them out once they have already established a living pattern.



- F. **Use products synergistically.** Two or more different kinds of devices (the **Bird-X Laser** plus a sound repeller and/or a physical barrier like spikes needle strips or sticky repellent gel) will produce a synergistic effect – i.e., in combination, the products will yield much greater effectiveness than the **Bird-X Laser** alone. Contact **Bird-X, Inc. at (312) 226-2473 (BAN BIRD)** for information on "companion" products.
- G. **Consider alternate locations.** Make educated guesses as to where the birds will go when they are repelled from their current infestation area. It may be very easy for birds to relocate to the other side of a warehouse, or to an adjacent loading dock. Units should be purchased to cover these alternate areas as well.
- H. **Note the legal and public relations environment.** Find out about related environmental laws in your area.

## IV. BIRD-X LASER BIRD REPELLER

### **BRIEF DESCRIPTION OF UNIT AND HOW IT WORKS**

LASER is an acronym for Light Amplification by Stimulated Emission of Radiation. Energy is amplified to extremely high intensity by an atomic process called stimulated emission. The term "radiation" is often misinterpreted because the term is also used to describe radioactive materials or ionizing radiation. The use of the word in this context, however, refers to an energy transfer using visible or invisible light.

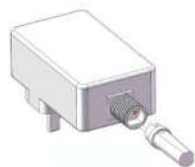
Lasers are a well-established method of deterring birds, most notably the use of handheld lasers on airfields to prevent devastating loss of time, equipment and lives from bird strikes. The **Bird-X Laser** development expands this proven technology and fills the need identified by our many years of customer input and experience with bird problems at municipal, industrial and commercial buildings: a unit that works constantly, eliminating the labor-intensity of hand held lasers, and exponentially increasing the potential uses.

**Bird-X Laser Bird Repeller** uses Class 2 "fat beam" laser diodes featuring strong 50 - 100 milliwatt (mW) beams in two colors: green and red, combined in a multicolor pattern. These colors are shown to be the most effective against pest birds. The beams create multiple patterns occurring in random order. Diode laser technology was developed quite early in the history of lasers, becoming widely available in the early 1980s. Diode laser is ideal for bird repelling because of many of its advantages – small size, lower power consumption and low cost. For safe operation, read this manual before powering or installing the fixture, follow the safety precautions listed below, and observe all warnings printed in this manual and on the unit.

### **SETUP AND INSTALLATION**

**Bird-X Laser** can be operated with 110v, 220v or 240 v power supply. It comes with a four-foot power cord, remote control, mounting bracket and an instruction manual. Unpack carefully and be sure that no damage has occurred during shipping. If anything is missing or appears to be damaged please contact us.

**Power Connection:** This unit has been designed to function on a main power supply of either 120V, 220V or 240 v and has been supplied with either a 120V, 220V or 240 v power plug (depending on your order), for use with your local voltage.



**Plug attachment:** Firmly attach the plug (supplied separately) to the unit's power cord by screwing it onto the screw-threaded attachment at the end of the cord – see diagram. When attaching the plug for the first time, make sure the 2 pin plug is the right way round. Match 'flat' and 'keyway' for proper contact. Check before tightening, as the fit only works in one direction. \*\* Use only the plug and power adapter supplied with the unit.

Check the label and verify the power plug for the correct voltage. Ensure you are using a grounded circuit. Ensure your source voltage matches the required voltage for your **Bird-X Laser** before plugging it in; incorrect voltage selection will detrimentally affect the unit's operation. When connected to the mains power supply power LED will be on and the laser will begin to warm up and then function. For remote control use including timer, see below.

**Installation/Mounting:** Screw mounting bracket (pictured, right) onto the screw thread of the laser unit, threading the power cord through the center hole. Secure mounting bracket to desired surface with screws appropriate for the surface (metal, wood, concrete etc.).



Adjust the angle as needed. Do not stare into the beam or look into it with any optical instrument. Turn it away from human sightlines.

The unit must be properly earthed. Outdoor electrical outlets should be fully waterproof.

Use in a well-ventilated area. Do not block any ventilation slots. If desired, block unwanted beams (the beams that would normally point *down*, for example), by adjusting the thumbscrews on the metal “door” covers on the front aperture.

### Laser Automatic Cycling

The Bird-X Laser has been pre-programmed to prevent acclimation of the pests to an unchanging stimulus. This consists of a cycle of ON / OFF operation with intervals varying between 5 and 15 minutes OFF time for every 5 minutes ON. This cycle will be maintained as long as the Bird-X Laser is in operation.

### First Time Use:

To turn on the Bird-X Laser:

1. The remote control may be used to turn the unit off and on, and also to operate for specified durations (2,4,6 or 8 hours). One remote will control multiple units (within its coverage range – if units are mounted at a distance from one another, the remote must be activated close enough to each unit for the signal to reach it.)

### Remote Control & On-Unit Control including Timer Operation:

The unit operation can be controlled in a number of ways:

- Direct
- Remote Control. The unit may be switched on and off using the remote control provided. This Radio Frequency remote has a range of approximately 65 feet. Pull out the antenna to boost signal in case of greater distance or obstructions.
- Timed operation (using the remote control).

2. Insert the battery into the Remote control. Remove the battery if the Remote will not be used for a long time; this will conserve battery life.



TIMER ON (START)



TIMER OFF (STOP)



INTERVAL SELECTION (HOURS)

To use the timer, press the remote’s TIMER ON button. Unit will flash twice to show it has received the signal. Pressing the TIMER ON button defaults to 2 hours of operation. To select a different duration, press the desired hour button following Timer START. To cancel timer operation, press the TIMER OFF button. Unit will flash twice to show it has accepted the signal.



## CARE/CLEANING

**To prolong the life of the unit, allow 30 minutes cooling after 6 - 8 hours of operation.**

Cleaning frequency depends on the environment. During cleaning (except for mirrors), or when the unit is not in use, close the aperture completely by using the thumbscrews to prevent dust.

Unplug the unit. Use a soft cloth to clean the outside casing and the lens. To clean mirrors (inside the front aperture) use a cotton swab and rubbing alcohol. Twirl slowly and press gently to avoid damage.

Be sure all parts are dry before plugging the unit back in.

## SPECIFICATIONS

**Laser Power:** Red: 650nm100mW; Green: 532nm50mW

**Unit Power:** 1mW RED+1mW GREEN

**Laser Color:** Red + green

**Net Weight:** 1.5kg

**Power:** AC100-240V,50-60Hz

**Electric Current:** 100mA

**Classification:** CLASS 2

**Size (mm):** L(18.5)\*W(14.8)\*H(7.0) CM

**Housing:** Cast aluminum

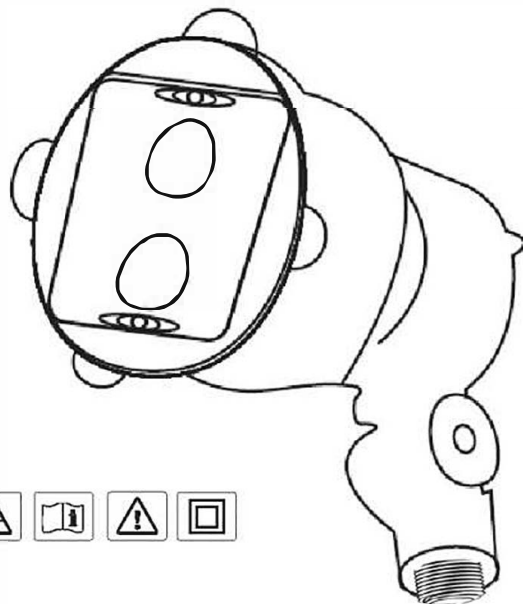
**Beam Divergence:** 60°

**Operating Temperature:** -20°C-40°C

**Safe Temperature for Use:** 0°C-35°C

**Waterproof Level:** IP65

**Origin:** Made in China



## **V. COVERAGE/VISUAL DISTRIBUTION PATTERN**

Total spatial coverage is dependent on environmental surroundings: more visible in the dark than in the light, more visible in a relatively open area than one with many bushes or trees that would block beams, etc. This laser beam has a maximum range of 1000 feet/300 meters in the dark. Maximum coverage is approximately 10,000 square feet. Keep in mind that this is unidirectional coverage, with beams emanating from the aperture in the shape of a slice of pie. Angle of spread = 30 degrees maximum either side from center (60 degrees total).

Depending on placement, a *second* unit will offer increased synergistic coverage; therefore multiple units are strongly recommended, especially in stubborn or long-term infestations.

## **VI. APPLICATIONS**

The **Bird-X Laser** is designed to act as an important aid in chasing birds from their infestations in privately-owned or restricted-access outdoor areas such as golf courses, corporate grounds, institutions, military installations, etc.

Other locations include: hangars, silos, barns, stadiums, arenas, boat houses and bell towers.

## **VII. TROUBLESHOOTING**

Every bird infestation presents a unique challenge. No two problems are identical, as numerous variables affect each one. Besides the obvious differences (such as type of bird, size of infestation, type of structure and physical location), there are many additional environmental factors that make it impossible to state rigid rules for the optimum utilization of the **Bird-X Laser**. There is no magic or "correct" use or placement to maximize the effectiveness of the unit; experimentation is often required to find the ultimate solution.

The use of variables creates changing environments to repel roosting birds – in fact, change is one of the best tools in the repelling of birds, as birds are creatures of habit and they do not grow accustomed to a dynamic environment. Change location of the laser unit, change direction the aperture faces, turn off unit, etc., on a *monthly* basis to prevent any acclimation, or change more often as necessary.

- If fixture does not project beams: Check main power supply.
- If beam seems weak/fuzzy:
  1. This could be due to a long time of operation without a break, or a high operating temperature, neither of which is recommended. If this is occurring in a normal temperature environment with periodic breaks, try turning off the unit to cool for 30 minutes before turning it on again. After 5 minutes (longer in cold weather) the beam should no longer be weak/fuzzy.
  2. This could be due to a dirty mirror. Check mirrors and clean (according to “cleaning” section).
- If problems cannot be solved please contact your dealer for service

In particularly stubborn and/or long-term infestations, it may be necessary to consider a combination approach to further decrease the desirability of the facility to birds. Please see the SYNERGY AND OTHER PRODUCTS section below.

Housekeeping is very important! As mentioned in the Bird Management Program, the problem area should be cleaned of all evidence of birds. Nest, fledglings, droppings, dead birds, and the residual scent should all be removed. Check the area for unusual incentives. Remove food spillage, garbage, nesting materials and other items that may be appealing to birds.

## VIII. PRECAUTIONS

This laser is Class II. The power of each laser point is no more than 1 milliwatt, which is not harmful to the human body or eye.

- Read and observe all safety labeling on this device.
- Never look directly into laser beams, or into the specular reflection(s) of any beam. Wear safety goggles to protect your eyes when necessary.
- DO NOT point towards other people.
- DO NOT direct laser beam up into the sky AT ANY TIME. Significant disruption to safe airplane operation may result, punishable by federal law.
- Wear antistatic wrist strap while servicing to prevent electrostatic damage.
- While this unit is weather-resistant under normal conditions, avoid exposure to extremes such as hurricanes. Do not leave where it may become flooded or immersed. Do not allow to be covered in snow.
- Do not place unit in or near water. Do not mount while standing in or surrounded by water.
- Do not spill liquids into or onto unit. If this happens, disconnect the power immediately.
- Power directly off of a switched circuit; never with a dimmer or rheostat (even a 0 to 100% switch).
- Disconnect unit from main power before inspecting, installing, making any type of connection, or replacing any components.
- Locate this unit with adequate ventilation, at least 15 cm from a wall, and mount in a safe, stable manner.
- To prevent fire or shock hazard, do not expose this unit to a high temperature or high humidity area. Unplug unit when not in use.
- Keep away from combustible materials.
- Lasers are regulated by the FDA. Accession numbers are on file. You may also visit the FDA web site for more information.
- For outdoor use, install at ground level or a few inches above the ground.
- Do not project beams onto specular (reflective) material – for example, mirrors.
- Do not project beams at room entrances.

- **Do not use near humans or pets.**
- **Conform to temperature ranges in “specifications”.** Diode laser is extremely sensitive to temperature, and output power is indirectly proportional to temperature. If temperature is too low, laser may need extra time to warm up to optimum output. If temperature is too high, turn up air conditioning. If temperature remains too high, it can cause damage or degradation to the diode and the long-term performance.
- **The Interlock Connector is a safety device for radiation, through which the factory has access to the area if repairs are needed if that does not allow the customer to access the source laser radiation, but in case repairs are needed, the factory has the key to access this area.**
- **Refer service to a qualified technician.**
- **Caution - Use of controls or adjustments or performance of procedures other than as specified herein may result in hazardous radiation exposure!**

## IX. REPLACEMENT PARTS

Remote Control (universal) # BIRD-X LASER-REMOTE

Safety Key (universal) # BIRD-X LASER-KEY

Battery for Remote Control: purchase a 12 volt 23 amp battery locally

## X. WARRANTY AND GUARANTEE

**Manufacturer's Warranty:** Bird-X Laser is warranted against defects in materials and workmanship for a period of six months from shipping date. At its option, Bird-X, Inc. will either replace or repair the defective unit. An extended warranty (total protected time of thirty months) is available; please contact Bird-X, Inc. for details.

**Performance Guarantee:** If customer is not satisfied with the Bird-X Laser's effectiveness within 30 days from the shipping date, it may be returned, at the customer's expense, FOR CREDIT ONLY. Prior written authorization and a returned goods authorization (RGA) number is necessary from Bird-X, Inc. Credits are subject to a 15% restocking fee. NO RETURNS, OTHER THAN UNITS WITH DEFECTS IN MATERIALS AND WORKMANSHIP, ARE ACCEPTED AFTER 30 DAYS FROM PURCHASE. RETURNS ACCEPTED ONLY WITH WRITTEN AUTHORIZATION FROM OUR CHICAGO OFFICE.

## XI. SYNERGY AND OTHER PRODUCTS

For best results, Bird-X, Inc. always recommends that the Bird-X Laser be used in conjunction with one or more other products. The combination of different types of control methods –particularly with long term infestations, in areas that are particularly desirable to birds, and/or particularly stubborn bird pests – has proven to maximize the effectiveness of bird control programs. Call Bird-X, Inc. at (312) 226-2473 or visit [www.bird-x.com](http://www.bird-x.com) for more information on companion products. *Copyright 2016 by Bird-X, Inc. All rights reserved.*

*Manufactured for:*



300 N. Oakley Blvd.  
Chicago, IL 60612  
USA

Phone 312-226-2473  
FAX 312-226-2480

E-mail [sales@bird-x.com](mailto:sales@bird-x.com)

[www.bird-x.com](http://www.bird-x.com)



## Digital Bird Repeller

# Bird Gard<sup>®</sup> SUPER PRO PA 4

### PRIOR TO INSTALLATION

Your complete Bird Gard<sup>®</sup> Super Pro PA4 kit includes a control unit, power adapter, battery cable with clips and four separate PA-type speakers. Open the control unit by pressing backward on the two latches on the side of the box.

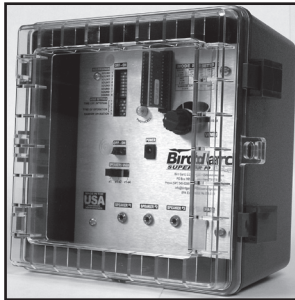


Fig. 1

Prior to operation, plug the power cable into the power jack on the control unit, and the four speaker plugs

into the speaker jacks, then route the speaker and power cables from their respective jacks on the control panel down through the slotted rubber grommet and through the opening in the lower part of the enclosure, see Fig. 1.

**IMPORTANT NOTE:** Be certain that the **OFF - ON** switch is in the **OFF** position and the volume control is set to the minimum (**LOW**) volume level (**counterclockwise**) as shown in Fig. 2 while plugging the speaker and power cords into the control unit.

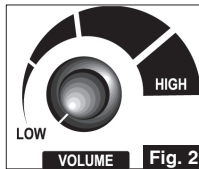


Fig. 2

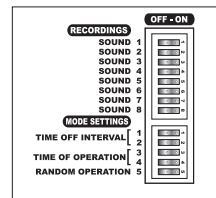
### INSTALLATION

- 1) Use the mounting hardware (included) to mount the control unit box to a wall, post or other vertical surface.
- 2) Plug the power adapter into an electrical outlet or attach the battery clip assembly to a 12V battery. The other end of the cable should already be plugged into the power jack located

below **POWER** on the front panel of the control unit box.

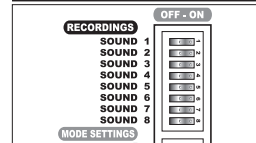
- 3) Mount the speaker(s) on a pole, post or surface that is aimed directly at the area to be covered. Speakers should be at least 1-3 feet above the top of the crop or area to be covered.
- 4) Set the Recordings, Mode Settings, Time Off Interval, Time of Operation, Random and Speakers Used switches to the desired settings. (See "**PROGRAMMING YOUR BIRD GARD**" for complete details on how to program your bird repeller).
- 5) Make sure the volume setting is set to **LOW** (all the way counterclockwise).
- 6) Slide the **OFF-ON** power switch to the **ON** position. The unit may take a few seconds before starting.
- 7) Adjust the volume to the desired level.
- 8) Close the cover and latch shut.

### PROGRAMMING YOUR BIRD GARD<sup>®</sup>



To program your Bird Gard<sup>®</sup> Super Pro PA4 unit you will need a small screwdriver, toothpick, or other small, rigid object to slide the switches in the switch array. The switch arrays are the switch banks located in the top left corner of the unit (under "**RECORDINGS**"). A switch is **ON** if the switch is moved to the right-hand side by sliding the switch to the right. The switch is **OFF** when moved to the left-hand side.

### RECORDING SWITCHES

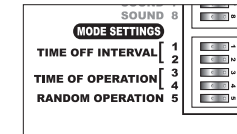


The Recordings switches are the first eight switches in the top switch array. Each switch has a Sound number to the left of it that corresponds with the bird/sound descriptions listed on the foil label located on the EPROM board to the right of the switch arrays. Bird Gard Super Pro

PA4 is designed to play each selected sound at a different randomly selected frequency each time it plays that sound. This feature is designed to add to the effectiveness of the unit and is independent of the Random Operation Switch Setting.

**NOTE:** The Bird Gard Super Pro PA4 features a replaceable EPROM board and chip. Notice that the sounds included on your Bird Gard Super Pro PA4 unit are listed on a silver foil label affixed to the chip. To remove, simply pull EPROM board and chip straight out from the embedded socket. Then insert a different EPROM board and chip by pressing firmly straight into the socket.

### MODE SETTING SWITCHES



The Mode Settings switches are the next five switches which control the various modes of operation: such as the amount of time

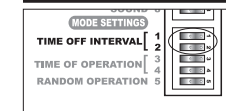
between playing bird distress calls, when the unit will operate (Day Only, Night Only, or 24-Hours), whether the unit will operate in the Random Mode.

#### Switch

#### Mode or Function

- |   |                              |
|---|------------------------------|
| 1 | Sets the Time Off Interval   |
| 2 | Sets the Time Off Interval   |
| 3 | Sets the Time the unit plays |
| 4 | Sets the Time the unit plays |
| 5 | Turns Random Mode On or Off  |

### TIME OFF INTERVAL SWITCHES



The two **Time Off Interval** switches are located just below the **Recordings** Switches in the **Mode Settings** switch

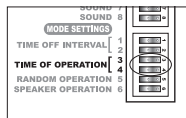
array. These switches control the length of time the unit will delay between recorded sounds. Please note that the unit will play for approximately 48 seconds each time it cycles on (the selected recordings will play either sequentially or non-sequentially, depending on the Random Mode setting) then it will go into a delay. The time the unit stays off depends on the Time Off and the Random Mode settings. If the unit is operating in Random Mode, the unit will delay anywhere from the minimum value to the maximum value for that Time Off setting (see below). If the unit is not in Random Mode, it will delay only the minimum value. To set the Time Off interval (or delay interval), use the following settings on switches 1 and 2 in the mode function settings.



| Switch 1 | Switch 2 | Time Off Period |
|----------|----------|-----------------|
| ON       | OFF      | Short           |
| OFF      | ON       | Medium          |
| ON       | ON       | Long            |
| OFF      | OFF      | Extra Long      |

| Mode   | Minimum  | Maximum   |
|--------|----------|-----------|
| Short  | 17 sec   | 50 sec    |
| Medium | 1 min    | 4:15 min  |
| Long   | 5:00 min | 10:00 min |
| XLong  | 10 min   | 30 min    |

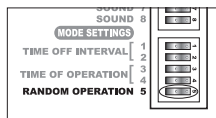
## TIME OF OPERATION SWITCHES



The **TIME OF OPERATION** switches (two) are **located just under the TIME OFF INTERVAL** switches in the switch array. 'Night Mode' operates the unit at night and 'Day Mode' operates the unit during the day. However, the photocell that senses the sunlight is susceptible to bright lights. Take care not to have bright lights shining towards the unit since this can prevent the unit from operating properly. In the '24-Hour Mode', the unit will operate continuously, regardless of the time of day. To set the time period for the unit to operate set **Switches 3 and 4** in the **Mode Settings** switches to the following:

| Switch 3 | Switch 4 | Mode              |
|----------|----------|-------------------|
| ON       | OFF      | Day Only          |
| OFF      | ON       | Night Only        |
| OFF      | OFF      | 24-Hour Operation |

## RANDOM OPERATION SWITCHES



The Random switch is located as shown in the switch array. When the Random Mode is turned ON, the unit will randomly play the selected recordings in

non-sequential order; the Time Off Interval will be a randomly selected period of time within the selected range (Short, Medium, Long, Extra Long); and the speakers will play one at a time in a random pattern (if the Speakers Used switch is set to operate all four speakers). When the unit is not operating in the Random Mode, it will play the selected recordings in their number order; the Time Off Interval will be the shortest time period within the selected range; and the speakers will play one at a time in a sequence from Speaker 1 to Speaker 4 (See Speaker Used Switch instructions following this section).

**The Random Mode is recommended to keep birds from adapting to a preset pattern of sounds.** To operate the unit in Random mode, set **Switch 5 in Mode Settings** as follows:

| Switch 5 | Mode            |
|----------|-----------------|
| ON       | Random mode ON  |
| OFF      | Random mode OFF |

**NOTE:** The unit will always play for approximately 48 seconds independent of the number of sounds that are selected.

## SPEAKERS USED SWITCHES

The **Speakers Used** switch is located just below the **OFF - ON** switch. The unit will always broadcast sounds out of **one speaker at a time**. You may choose to operate only **one speaker**, and this may be accomplished by moving the slide switch all the way to the left directly above "#1". To operate **two speakers**, simply slide the switch to the middle position directly above "#1-#2". Sounds will then broadcast out of **Speaker #1**, then **Speaker #2**, alternating between the two speakers. To operate **four speakers**, simply slide the switch all the way to the right directly above "#1-#4". Sounds will then broadcast out of **Speaker #1**, or **Speaker #2**, or **Speaker #3**, or **Speaker #4**, randomly broadcasting sounds from all four speakers, during each cycle.

## PROGRAMMING EXAMPLE

**Recording Switches:** 1, 3, 5 and 6 to "ON" position  
**Results:** Plays Sounds 1, 3, 5 & 6

**Mode Switches:**  
1 = "OFF" position } Time Off Interval is set to  
2 = "ON" position } Medium, every 1 to 4 minutes  
3 = "ON" position } Operates during daylight  
4 = "OFF" position } hours only  
5 = "ON" position } Sounds in random, non-sequential order

## VOLUME CONTROL

The unit has a volume control dial on the front panel of the unit. Turning the dial toward **LOW** will result in reduced sound output and rotating the dial toward **HIGH** will result in an increase in sound output.

**CAUTION:** Take care when turning the dial since the unit may be in an inactive state when the dial is rotated. It could then reactivate at a very high level of sound which could be painful to your ears.

## POWER SWITCH

The **ON - OFF** power switch enables the unit to operate. Slide the switch to the **ON** position to start the unit. If you turn the unit **OFF**, be sure to

leave it off for about 30 seconds before turning it back on to allow the electronics to properly reset.

## TROUBLESHOOTING

| PROBLEM  | SOLUTION  |
|--|---|
| Unit is on, but no sound is heard  | <ul style="list-style-type: none"> <li>• Check volume settings.</li> <li>• Check time of operation settings.</li> <li>• Check that at least one bird is selected to play.</li> </ul>  |
| Unit is on, but plays the same sound over and over, regardless of the settings | <ul style="list-style-type: none"> <li>• Reset the unit by turning it off for 30 seconds and then back on.</li> </ul>   |
| Unit is <u>not</u> operating properly in the DAY or NIGHT mode                 | <ul style="list-style-type: none"> <li>• Double check Mode switch settings.</li> <li>• Make sure photocell is not obstructed.</li> <li>• Make sure the photocell is not affected by bright lights in either the front or the back of the unit.</li> </ul> |
| Unit does <u>not</u> function properly when connected to a 12-Volt battery     | <ul style="list-style-type: none"> <li>• Check battery condition.</li> <li>• Turn power switch on unit to the OFF position. Reconnect the battery, wait 30 seconds, then switch the unit back on.</li> </ul>  |

## LIMITED WARRANTY

IF YOU ARE NOT COMPLETELY SATISFIED, CONTACT THE PLACE OF PURCHASE OR OUR CUSTOMER SERVICE DEPARTMENT WITHIN ONE (1) YEAR OF YOUR DATE OF PURCHASE FOR PROMPT AND COURTEOUS REPLACEMENT, REPAIR OR REFUND.

BIRD GARD, LLC'S LIABILITY HEREUNDER SHALL BE LIMITED TO REFUNDING THE PURCHASE PRICE PAID BY CUSTOMER OR REPLACING THE PRODUCT, IN BIRD GARD'S SOLE DISCRETION, AND UNDER NO CIRCUMSTANCES SHALL BIRD GARD BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES, OF ANY NATURE WHATSOEVER, ARISING FROM THE CUSTOMER'S USE OR OPERATION OF THE PRODUCT; PROVIDED, HOWEVER, THAT THIS LIMITATION MAY BE LIMITED BY STATE LAW.

EXCEPT FOR THE EXPRESS ONE-YEAR LIMITED WARRANTY SPECIFICALLY DESCRIBED HEREIN, BIRD GARD DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, RELATING TO THE PRODUCT, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR IMPLIED WARRANTY OF FITNESS; AND THE EXPRESS WARRANTIES ARE IN LIEU OF ALL OBLIGATIONS OR LIABILITIES ON THE PART OF BIRD GARD ARISING OUT OF OR IN CONNECTION WITH THE SALE, USE, OR OPERATION OF THE PRODUCT.

**Bird Gard**  
LLC

P.O. Box 1690 • 270 East Sun Ranch Drive  
Sisters, Oregon 97759 U.S.A.

Toll-Free: (888) 332-2328 • Fax: (541) 549-5286

Website: [www.birdgard.com](http://www.birdgard.com) • Email: [info@birdgard.com](mailto:info@birdgard.com)

©2010 Bird Gard, LLC. All Rights Reserved  
Bird Gard® is a patented trademark of Bird Gard, LLC.  
EPA Establishment Number 075130-OR-001