

***ElkGuard***™

**Self-Contained  
Wireless Security System**

Installation  
&  
Programming  
Manual

### **FCC STATEMENT:**

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause Interference to radio and television reception. It has been type tested. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- \* If using an indoor antenna, have a quality outdoor antenna installed.
- \* Reorient the receiving antenna until interference is induced or eliminated.
- \* Move the receiver away from the security control.
- \* Move the antenna leads away from any wire runs to the security control
- \* Have the device or controller plugged into a different outlet so that it and the receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user or installer may find a booklet titled "Interference Handbook" prepared by the Federal Communications Commission helpful: This booklet is available from the U.S. Government Printing Office, Washington, DC 20402. The user shall not make any changes or modifications to the equipment unless authorized by the Installation Instructions or Users Manual. Unauthorized changes or modifications could void the user's authority to operate the equipment.

### **List of Available Devices**

<b><u>Part #</u></b>	<b><u>Description</u></b>	<b><u>FCC ID Number</u></b>
106057	ElkGuard Wireless Alarm System - "Local Only" No Communicator	FCC ID: O2K-106058
106058	ElkGuard Wireless Alarm System with Cellular "GSM" Communicator Includes: Cellular "GSM/GPRS" Radio Modem Transmitter Module	FCC ID: O2K-106058 FCC ID: MIVGSM0108
106064	Wireless Mini Door & Window Switch Transmitter (RR1)	FCC ID: O2K-106064
106065	Wireless Universal Transmitter w/ext input & Vib analyser (RR2)	FCC ID: O2K-106065
106068	Wireless 4 Button Keyfob Transmitter (RK4)	FCC ID: O2K-106068
106053	Wireless 3 Button Keyfob Transmitter (RK3)	FCC ID: O2K-MK304
106050	Wireless 1 Button Bracelet / Neckless Panic Transmitter (RK1)	FCC ID: O2K-106050
106054	Wireless Emergency Button Transmitter (RPB)	FCC ID: O2K-106054
106056	Wireless Door Bell Button Transmitter (RDB)	FCC ID: O2K-106056
106051	Wireless PIR with Pet Immunity (R15PET)	FCC ID: O2K-106051
106062	Wireless PIR - Non Pet Immune (R15)	FCC ID: O2K-SP1R304
106066	Wireless Radio Keypad (RKP)	FCC ID: O2K-106066
106060	Swivel Mounting Bracket for Wireless PIR	N/A

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# Application, Features, & Specifications

ElkGuard is a fully self contained security system. It features an on-board motion sensor, loud siren, and wireless receiver for remote sensors and Arm/Disarm keyfobs. There are several power options, including "AC Power" primary and "Battery Only" modes. In the "Battery Only" mode ElkGuard is capable of operating for up to 3 months between recharges, depending upon activity and communication options selected. The ability to operate for long periods of time without AC power sets ElkGuard apart from its competitors and means less maintenance for the customer. ElkGuard is manufactured to world class standards using the latest surface mount technology and state of the art in-circuit probe testers, together with strict process controls and adherence to an ISO9001 Quality Assurance Program, ensuring a quality product and a long service life.

ElkGuard is available with or without a Cellular GSM radio communicator. The GSM radio allows ElkGuard to communicate to a central monitoring station wirelessly, making it totally independent of landline phones. This feature alone affords ElkGuard with unprecedented ease of installation and portability.

Complete control of the ElkGuard is available from waterproof remote wireless keyfobs, which provides the user with separate on and off buttons plus a panic button.

ElkGuard not only visually reports all events to the user via its large, bright alphanumeric display, it actually speaks to the user to report events and advises on the action to take.

ElkGuard contains the latest microprocessor technology ensuring the highest level of security and dependability. The wireless keyfobs utilize proprietary encryption algorithms to remove the risk of code duplication by would be intruders through the use of "Code Grabbers." Detection devices such as wireless passive infrared detectors and wireless reed switches also offer a high level of security through the use of programmable supervision techniques and constant monitoring of their battery condition.

ElkGuard also helps resolve the growing issue of manpower and experience when it comes to installation. A basic install can be completed in minutes using only a screwdriver to mount the equipment. Minimal programming is required allowing a comprehensive system to be installed in under one hour.

## Features

- Built In Passive Infrared (PIR) Motion Detector
- Built In Wireless Receiver for sensors and keyfobs
- Up to 23 supervised and encrypted wireless devices inclusive of 1 keyfob min.
- 6 Character alphanumeric display
- Capable of operating on battery for 3 months or longer between recharges (in Battery Only mode)
- Available with or without Cellular GSM Alarm Communicator
- Voice Annunciation (status, events, user instructions)
- Multiple arming modes (ARMED, STAY, STAY2)
- Adjustment volume of system sounds and voice annunciation
- Optional Strobe Light with alarm memory
- Optional External Speaker for Siren
- Memory and Visual indication of Last Alarm Event
- Non-Volatile Program Memory

## Specifications

- Dimensions (H x W x D): 20.5 x 4.5 x 3.3 Inches
- Operating Voltage: 12Vdc
- Standby Battery: 12V 3.3 Ah
- Weight: 5.75 lbs (including battery)
- Plug-in Power Pack/Charger: 18VAC 400mA Class 2 Transformer

## Mounting

Select a mounting location for the ElkGuard in a main area of the building or home with consideration of the following recommendations:

- 1) ElkGuard needs to be high enough in the corner of the room for the motion detector to cover the most space possible. The ideal mounting height is at least 70" from the floor to the bottom of the unit.
- 2) The Cellular GSM Radio version of ElkGuard requires access to a nearby GSM transmission tower. It cannot function without adequate signal strength. Some buildings or locations may not be conducive to GSM coverage OR the location within the building may be so critical that the location of ElkGuard will need to be adjusted to obtain the best possible signal strength.
- 3) Even though ElkGuard is capable of operating on battery for 3 between recharges (in Battery Only mode), connection to an AC electrical outlet (if available) is certainly a good practice as it would eliminate the need to remember to periodically recharge the unit manually.

The design of the ElkGuard makes it ideal for mounting in the corner of a room or to any flat surface. A different set of mounting holes are used when mounting the unit in a corner versus a flat surface as illustrated in Figure 3 on the following page.

To access the mounting holes first remove the speaker grill by holding the main unit and pulling the speaker grill away from the main cover at the top using the opening tab as shown below.

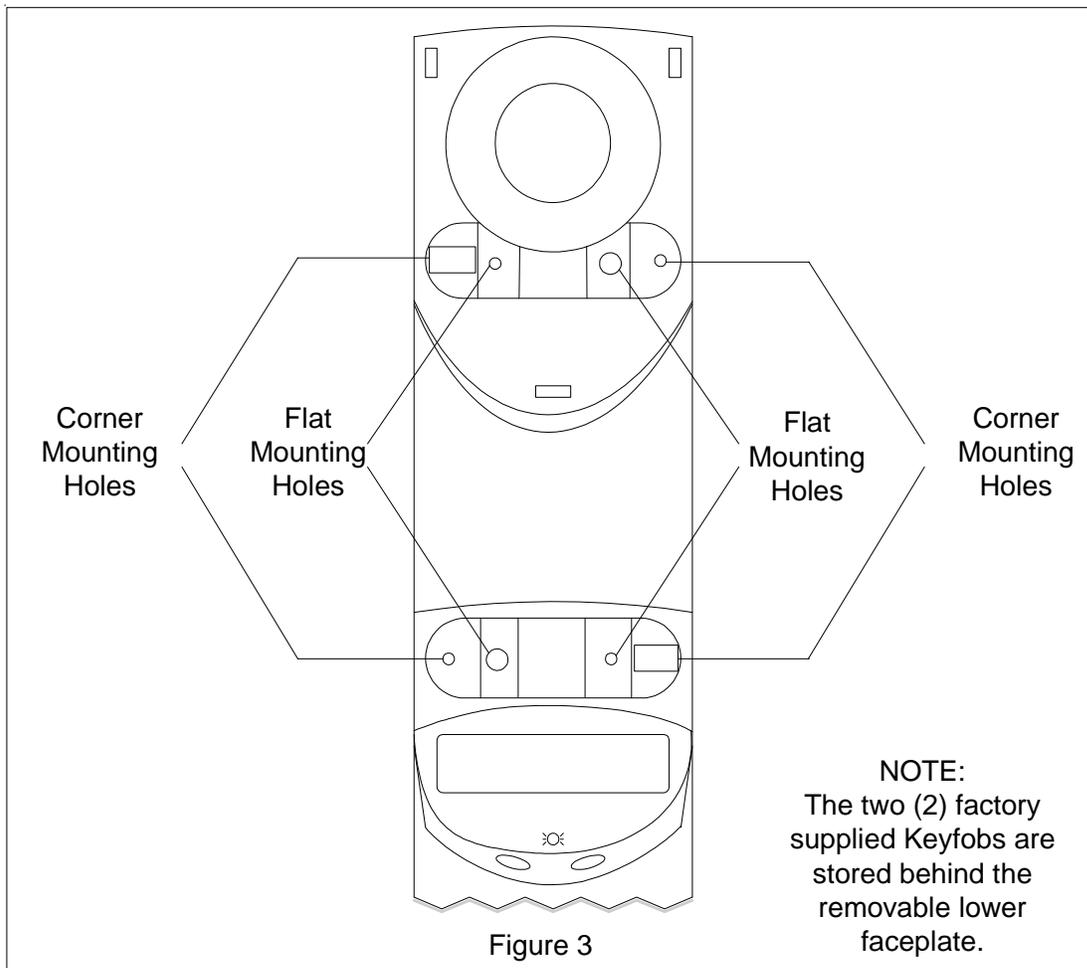


Figure 1

Next, remove the display face plate by holding the main unit and pulling the face plate away from the main unit using the opening tabs located on each side of the face plate as shown below.



Figure 2



After removing the speaker grill and faceplate, position the unit on the wall vertically level where it will be mounted and mark the appropriate mounting holes. This will indicate where to drill the holes for the anchors. Use a 3/8" drill bit.

Squeeze the anchor tabs down and press the anchor into the hole. The anchors will fit tight so try not to bend the anchor. Repeat for all of the holes you drilled.

When all the mounting anchors are in place, insert the screws through the mounting holes and into the anchors. Do not overtighten the screws. Anchors can be stripped out if screws are over tightened.

Snap the speaker grill and display face plate back into place.

After mounting the unit, plug in the AC transformer for 24 hours. This will ensure the onboard battery is fully charged.

# Start Up

To power up ElkGuard insert one of the two round barrel keys into the lock on the bottom edge of the unit. Turn the key clockwise 1/4 turn and the unit will momentarily display its Version Number, followed shortly thereafter by "Learn". If the unit was previously in any state other than disarmed, this mode will time out in 30 seconds. During this time the triggers for the main motion detector are ignored. After the time has expired the unit will resume the mode quietly (without usual arming sounds).

## Version Number

Upon initial power up the display will show the current firmware version of the unit. The first production units began at version 1.0. Please note that any modifications or additional features as a result of a firmware version change will be highlighted or noted within this manual..

# User Modes

ElkGuard has four different modes, DISARMED, ARMED, STAY, and STAY2. This allows the user to set different levels of security when they are home or away. It is very easy to scroll through the available armed modes by pressing Arm/Lock key on the keyfob multiple times. To disarm simply press the Disarm/Unlock key on the keyfob. The chart below suggests the type of sensor definition that should be used for specific protection areas and also illustrates in which Arm Mode the sensor definitions will be active.

SENSOR DEFINITIONS							
INT -	This is for interior sensors that are intended to be ACTIVE with the System in the ARMED mode but NOT ACTIVE in the STAY or STAY2 modes. Typically used for PIR motion sensors.						
NTINT -	This is for specific Interior Sensors that are to be Active with the system in the ARMED and STAY modes but NOT ACTIVE in the STAY2 mode. Typically this should only be used for sensors in unoccupied areas (high security areas) because they will be Active in the STAY mode and a false alarm could occur if someone accidentally crossed into the area.						
PERIM -	This is for Perimeter Sensors (doors and windows) that are to be Active always when the system is in the ARMED, STAY, and STAY2 modes.						
CHIME -	This is currently usable for NON ALARM Sensors and is only active when the ElkGuard is in a DISARMED state.						
ICHIME, NCHIIME, PCHIME -	As shown below, these 3 Sensor definitions provide various reactions depending upon the current mode or state of the ElkGuard.						
Sensor Definitions and Response							
ARM MODE	INT	NTINT	PERIM	CHIME	ICHIME	NCHIME	PCHIME
Disarmed				C	C	C	C
Armed (Away)	A	A	A	C	A	A	A
Stay			A	C			S *
Stay2		A	A	C		S *	S *
LEGEND	A = Alarm - In the Arm Modes shown the Sensor will activate an alarm if tripped. C = Chime - Sensor will only cause a single chime tone to sound if tripped. S * = Special Alert - Sensor will cause 5 Special Alert Tones to sound if tripped. blank = Inactive - Sensor is inactive and cannot create an alarm or sound the chime.						



**NOTE: ElkGuard will not permit arming to the STAY or STAY2 modes if no sensors are defined as INT or NTINT. Refer to the programming section of this manual for more information.**

# Device Allocation

ElkGuard can have up to 24 devices learned into the system (this is inclusive of the main PIR detector that is built into the main unit.) This provides up to 23 remote wireless devices like keyfobs, door/window sensors, and motion detectors. ElkGuard will accept any combination of motion detectors, sensors, and keys, however you must always have at least one keyfob programmed.

## Device Categories

### Main Motion Detector

The ElkGuard features a PIR motion sensor integrated into the main unit. This sensor is permanently allocated as SENSOR 1. Depending on the ElkGuard operating mode and the programming attributes the PIR on the main unit can be locked out (or excluded from the system). NOTE: When "Locked Out" the Main PIR is incapable of sensing or reacting to movement.

PROGRAM mode, PULSE or RANGE options selected	No Lockout
PIR configured as EXCLUD in any operating mode.	Full Lockout
DISARM mode and PIR not configured as CHIME.	Locked out for 4 minutes
All other modes	Locked out for 5 seconds

### Wireless Keys

Wireless Keys are considered any type of wireless device that the user operates by a button. There are several different types of keys. The chart below outlines the different types of keys, the programming options available for each type, and if the device is supervised by the main unit.

Key Type	Description	Program Options	Supervision
User Keyfob	3 Button Pendant Keyfob	KEY, DURESS, NO PAN	Not Supervised
Medical Transmitter	Pendant Medical Button	MEDIC	Not Supervised
Panic Transmitter	Single Panic Button	KEY (Panic), DURESS	Selectable
Doorbell	Single Button Doorbell	BELL	Not Supervised

For more information on the programming options listed in the chart above please refer to the Programming section of this manual.

### Sensors

Detector Type	Description	Supervision
Motion Detectors	PIR Motion Sensors	Selectable
Reed Switch	Door and Windows Contacts	Selectable

For information on the programming options available for the detectors listed in the chart above, please refer to the Programming section of this manual.

# Alarms

## Intruder Alarms

Activation of the intruder alarm will cause the internal siren to sound for the programmed time. An optional external speaker may also be wired to ElkGuard for additional sound. Also, an optional strobe light may be wired to ElkGuard for visual indication of events. The strobe light can flash for 1 hour if the unit is powered only by the battery, or for 12 hours if the unit is connected to the AC transformer power. Refer to the section titled: Optional Auxiliary Connections for more information.

Pressing the Disarm/Unlock button immediately after an alarm will disarm ElkGuard. For the next 5 minutes the display will indicate the source of the alarm, and the time at which the alarm occurred.



Note: ElkGuard features a 6 character display. When displaying messages with more than 6 characters the message will scroll across the display in segments. In this manual messages that contain more than 6 characters are shown with a (<) sign to indicate the separate segments.

Display	Description
ALARM< SENSOR<1	ALARM was set off by the main motion detector
ALARM< SENSOR< 2-22	ALARM from a learned device such as a reed switch, wireless motion detectors, etc.
TAMPER< SIREN < BOX	Siren Tamper If used in ARMED mode the unit will sound a full alarm and report to central station when applicable. Used in STAY, STAY2, or DISARMED mode the unit will sound a low volume warning sound & report. The warning will sound again if tripped again. Otherwise, Siren Tamper Exclude will be displayed and the unit will beep. Arming and Disarming the system will clear the display.
TAMPER< SENSOR < 2-23	Sensor has reported a tamper alarm. If the unit is in ARMED mode it will sound a full alarm & report. In STAY, STAY2 and DISARMED modes the unit will sound a low volume warning sound. Tamper deactivation will cause an alarm restore and re-arm for subsequent Tamper activations. Event log will clear after ARM/DISARM cycle.
PANIC < KEY < 1-23	PANIC ALARM from a learned keyfob, fixed panic or medical key. When the alarm is silenced the display will show which key activated the alarm.
MEDIC < KEY < 1-23	PANIC ALARM from a medical key. The display will show "PRESS < OFF < TO < CANCEL < MEDIC < ALARM" for several minutes. When the system is disarmed the display will show which key caused the alarm.
RADIO < JAMMED	Radio jamming signal detected. If a radio signal is detected in the operating bandwidth of the ElkGuard the unit will go into ALARM mode if enabled.
RADIO < TAMPER	Radio message that is not an original message has been received. (If RADSUM = ON). <ol style="list-style-type: none"> <li>1. A code that is a retransmitted code of an original message has been received to try to defeat the system.</li> <li>2. 20 multiple messages have been received by the system to crack the encryption. Arming/Disarming the system will reset the count.</li> </ol>

## System Troubles

System troubles are not indicated in ARMED, STAY, or STAY2 modes. If DISARMED or upon DISARMING any existing trouble condition will be displayed along with a time stamp. The message will be displayed by the unit for 5 minutes.

 Note: ElkGuard has a 6 character display. When displaying messages with more than 6 characters the message will scroll across the display in segments. In this manual messages that contain more than 6 characters are shown with a (<) sign to indicate the separate segments.

Display	Description
BATTERY < KEY (or PANIC or BELL)	Low Battery from the device (keyfob, Panic, etc.). Low battery is in the device and needs to be changed.
BATTERY < SENSOR < 2-22	Low Battery in the detector. Low battery is in the device and needs to be changed
FAIL < SENSOR < 1-22	Only works with supervised devices. A radio message has not been received in supervised number of hours. The device needs to be checked to ensure it is working properly.
OPEN < SENSOR < 2-22	Reed Switch is open on ARMING. The reed switch programmed for Check mode operation is un-secure when entering ARMED, STAY, or STAY2 modes. The device should be checked to see if it is secure. A warning tone will sound at the end of EXIT DELAY when ARMED.
LOW < MAIN < BATTERY	The main battery in the ElkGuard is low. This condition is cleared when AC power goes from off to on or when the battery passes a load test.
FAULT < MAIN < BATTERY	The main battery in the ElkGuard failed a load test immediately after being charged. This alarm can only be cleared by switching the master switch off then on.
DIALER < RADIO < FAIL	ElkGuard failed to communicate with the Radio GSM Communicator.

## Panic/Duress Operation

Audible Panic alarms (including siren and optional strobe light) may be activated by pressing the special panic button on the 3 or 4 button keyfobs if they have been programmed as "KEY". Audible Panic alarms may also be activated by pressing the single button on the emergency transmitter, provided the emergency transmitter is programmed as "KEY".

A silent Duress alarm (without any siren or strobe activation) can be activated by pressing the special panic button on the 3 or 4 button keyfobs if they have been programmed as "DURESS". The system will also be armed or disarmed at the same time. A silent Duress alarm may also be activated by pressing the single button on the emergency transmitter, provide the emergency transmitter has been programmed as "DURESS".

Silent Duress means that the system will arm or disarm while a silent Duress alarm is being sent to the central station.

# Battery Management

It is the responsibility of the installer to program ElkGuard to operate in one of several power selection modes. The primary modes are: 1) AC Mode - ElkGuard operates on AC power (from plug-in charger) with the built-in standby battery taking over for brief power outages. OR 2) Battery Mode - ElkGuard operates solely on Battery power (this will require an occasional connection of the plug-in AC charger to recharge the battery).

## AC Mode as Primary

In this mode ElkGuard expects to have a full time connection to AC power. It will constantly trickle charge the internal battery to keep it ready for standby operation. Under the following conditions ElkGuard will switch to a higher voltage “fast charge” method to quickly bring the battery back to full charge.

- On initial connection to AC or after a momentary AC outage ElkGuard will switch to fast charge for 24 hrs.
  - When ElkGuard detects its main battery as being low it will switch to fast charge for 24 hours.
  - Every 30 days ElkGuard will switch to fast charge for 12 hours
  - Following any event that causes the Siren to sound ElkGuard will switch to fast charge for 12 hours.
- Exception: If a FAULT<MAIN<BATTERY is detected, ElkGuard will limit charging of the main battery to 6 hours. This is to help prevent overcharging a battery which has become weak or is near its end of life.

NOTE: Replace the internal battery after 3 to 5 years of use. A definite indication that the battery should be replaced is when ElkGuard displays a low battery condition while it is connected to AC power. That means that the battery is no longer able to accept a charge and that it has exceeded its useful life.

## Battery Mode as Primary

When configured to this mode (**the factory default**) and with no full time connection to AC power, ElkGuard's internal battery is designed to provide up to 3 months of operation before it must be recharged. ***The actual amount of battery time is affected by ElkGuards' activity; i.e. alarms, armings, disarmings, etc.***

Whenever ElkGuard displays “Low Main Battery” it indicates that it is time to connect the unit to its AC power charger in order to recharge the battery. Plug the AC power charger into a 110V AC outlet and plug the charging connector into ElkGuard for at least 24 hours.

## How can ElkGuard operate so long on battery power only?

When ElkGuard is programmed to the Battery Power Only (BATT) or AC Off mode, it utilizes a proprietary “hibernation” mode in which it keeps all but the most essential electronics shut down. Alarms, arms/disarms, and select other signals will wake the unit up to full power operation, and stay that way until activity ceases.

## How is the Battery Mode operating time affected by alarms and daily activity?

\* Alarm Activations - Each alarm activation reduces the battery operation time by approx. 2 weeks.  
i.e. After two (2) alarms the battery operating time would be reduced by 1 full month.

\* Arming/Disarming - Each arm/disarm cycle reduces the battery operation time by approx. 2 days.  
i.e. Arming/disarming ElkGuard daily would reduce the operating time by half, from 3 mths to 1 1/2 mths.



**IMPORTANT: Be certain that ElkGuard is programmed to the factory default Battery Power “BATT” mode (AC Off mode) if it will not be connected to a full time AC power connection. Otherwise ElkGuard will not hibernate and will consequently only operate for approximately 24 to 48 hours on its battery when AC power is not present.**

## Battery Load Test

ElkGuard will automatically perform a battery load test:

- Upon power up of the main unit
- Every 24 hours
- Upon disarming
- 3 hours after the completion of a recharge cycle (only at the end of a recharge cycle and no siren was activated after the recharge cycle.)



*IMPORTANT: Each time ElkGuard is connected to its AC power charger it initiates a 24 hr "fast charge" using a higher voltage charge cycle. It then drops back to a maintenance or "trickle" charge at the end of 24 hrs. For this reason, we do not recommend frequent or repeated unplugging and plugging of the ElkGuard unit to its AC power charger unless: A) It displays a Low Main Battery message. OR B) Unless it has been operated on battery only for a substantial period of time. Repeated unplugging and plugging of the AC power charger without sufficient time for the battery to be depleted can eventually damage the battery due to the higher voltage "fast charging".*

## Nonvolatile Memory

ElkGuard uses EEPROM memory, which is designed to be retained in the event the unit is turned off or resets due to abnormal conditions. Data stored in nonvolatile memory includes: All programmed devices and options associated with the device (keys and detectors). The arm state of the system when the problem occurred to allow the state to be restored after a power cycle or reset.

## System Feedback

Shown below is the audible and visual feedback from the system when armed in the various user arming modes.

Mode	Display	Internal Siren	External Siren (Optional)	External Strobe (Optional)
ARMED	ARMED	Say "Armed" if V-ARM is enabled. 1 chirp at end of exit delay.	1 Chirp at end of exit delay	Flash for 2 seconds
STAY	STAY	Say "Armed - Stay" if V-ARM is enabled. 1 chirp at end of exit delay.	N/A	Flash for 5 seconds
STAY2	STAY2	Say "Armed - Stay2" if V-ARM is enabled. 1 chirp at end of exit delay.	N/A	Flash for 5 seconds
DISARMED	DISARMED	Say "Disarmed" if V-ARM is enabled. 3 chirps if V-ARM is disabled.	3 Chirps when disarming from ARMED mode.	Flash for 4 seconds

# Programming

There must always be at least one keyfob programmed into the system. The unit is shipped with 2 keyfobs which are already programmed into the system.

## Entering Programming Mode

Programming mode may be accessed in two different ways:

### **Method 1**

Turn the system on by using the master on/off key switch.

ElkGuard will briefly display its firmware version number and will then flash "LEARN" for 10 seconds.

### **Alternate Method 2**

If the system is already on and disarmed, the programming mode can be accessed by doing the following:

1. Press and hold down the right button on the main unit.
2. Once "ElkGrd" is displayed, continue to hold the right button while pressing the Disarm/Unlock key on a programmed keyfob.
3. The unit should go into programming mode showing "Key 1".

## Exiting from Programming Mode

Once all programming changes are complete there are two (2) ways to exit programming mode.

1) Navigate forwards to the last program option labeled "**P-EXIT**" and then press the Arm/Lock key on a programmed keyfob. It is also possible to backup or navigate backwards while in programming mode. See Program Mode Navigation below.

2) You may also exit programming mode by power cycling the unit with the master on/off key switch.

NOTE: The ElkGuard will automatically exit programming mode after 10 minutes of inactivity.

## Programming Mode Navigation and Selection

When navigating through the programming menus devices and system options are displayed steady. The current programmed value for each device/option is displayed flashing.

- The DISARM/UNLOCK button on the keyfob is used to advance forward through the program menus.
- The ARM/LOCK button on the keyfob is used to select and advance into a displayed menu. The current value of that menu option will be displayed in a flashing mode. Repeated presses of the Arm/Lock button will then scroll through the various values or options for that particular menu.
- The PANIC button on the keyfob is used to pick or store the value currently being displayed. The new value will then flash indicating that it is now the programmed value for that option.
- On the Main unit there are two pushbuttons. While in the programming mode the left most button can be used to navigate backwards through the program menus. This is handy to go backwards, particularly if you are trying to get to the P-EXIT (program exit) menu or if you just accidentally step forward past a menu that you wished to program.

## Learning New Devices

Learning a new wireless device requires the Master On/Off key. Proceed with the following:

- Step 1 Enter programming mode using Method 1. The display will show the version # and flash LEARN for 10 seconds. *NOTE: If unit is ever completely defaulted (erased), it will display "LEARN KEY 1" until at least 1 keyfob has been programmed. This can be done by simply activating the Learn Procedure with the keyfob that you want to be Key 1.*
- Step 2 Press the Arm/Lock button on any existing programmed keyfob to advance the display to "READY". This now indicates that the unit is waiting for a wireless transmission from the new device.
- Step 3 Proceed to the device to be learned and perform the Learn Procedure (see chart below) while the display is showing Ready. After a LEARN message is received from a new device it will be added to the next available empty slot. It is not possible to specify the slot number.

The chart below outlines the Learn Procedure for specific devices:

Device	Learn Procedure
Keyfob, Doorbell, or Emerg. Button	Hold the panic button down for approx. 8 seconds
PIR, Reed Switch Dr/Wnd Sensors	Disconnect battery in device for 10 seconds, then reconnect.



OPTIONAL: Reed Switch devices (door/window sensors) may be learned as a "checked" item. If the sensor is not closed when the system is armed it will announce and display the sensor number. In order for a sensor to become learned as a "checked" item it must be in the secure or closed position (non violated) when it is learned.

Once the device is learned into the system, it will automatically be set to the default definition for that type of device. Sensor devices default to INT, but can be changed to NTINT or PERIM by pressing the arm/lock button. Key devices default to KEY, but can be changed to MEDIC, DURESS, etc. by pressing the arm/lock button. When the desired mode is selected press the Panic button to save the new mode selection. The new mode will flash indicating the programming change has been stored into memory. To learn another device simply press the Disarm/Unlock button to go back to the main menu at "LEARN".

## Erasing/Replacing Devices

To erase a device:

- Step 1 Enter programming mode using either Method 1 or 2. When using method 1 you must wait for approx. 10 seconds until the LEARN goes away. Once the unit displays Key 1 you may press the Disarm/Unlock button to step through to the device to be erased. When the device you wish to remove appears on the display, press the Arm/Lock button. The current definition for that device will be displayed flashing. Press the Arm/Lock button until ERASE is displayed, then press the Panic button. The display will now show LEARN, allowing you to program a new device in that slot. This allows a faulty device to be replaced while keeping the same slot number.

To replace the old device with a new one at this slot number repeat steps 2 and 3 from the top of this page. To exit from programming follow the procedure for exiting.



The last keyfob cannot be used to erase itself. The only way to erase everything is to default the ElkGuard. When the unit is defaulted a keyfob will need to be programmed into the system.

## Programming Notes

The display will flash FULL if an attempt is made to program a device when there are not additional programming slots available. Existing programmed devices may be viewed in sequence and erased if desired.

# PROGRAM MENU OPTIONS

(Displayed in this order as you scroll forward through programming)

## Keys 1-23    Keyfobs, Medical Key, Emergency Panic Key, Doorbell    (Default = KEY)

Definition	Description
KEY	User Keyfob (Arm, Disarm, and Panic) Panic is Audible. This definition should also be used for single (1) button Emergency Transmitters when audible Panic is desired.
DURESS	User Keyfob (Arm, Disarm, and Panic) Panic is Silent. "Duress" activation
MEDIC	User Keyfob (Arm, Disarm) Panic button activates silent Medical Alarm - no audible
BELL	For single (1) button Doorbell Transmitter. Choice of 3 sounds
NO PAN	User Keyfob (Arm, Disarm) Panic button is disabled except in Program mode.
ERASE	Allows you to permanently remove a key from the system.

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

## SENS 1    Main Detector in the System    (Default = INT)

Definition	Description
INT	Sensor will be active in the ARMED (Away) mode but not in the Stay or Stay2 modes.
NITE	Sensor will be active in the ARMED and STAY2 modes.
PERIM	Sensor will be active in the ARMED, STAY, or STAY2 modes (All Arm modes).
FIRE	<i>NOT APPLICABLE - Fire detection devices are not currently available.</i>
CHIME	No Alarm - Sensor only provides a Chime Tone in the Disarmed mode.
ICHIME	Sensor will Alarm in ARMED (Away) mode.
NCHIME	Sensor will Alarm in ARMED (Away) mode.
PCHIME	Sensor will Alarm in ARMED (Away) mode.
ERASE	Permits you to permanently remove a sensor from the system. Changing any sensor to this will effectively ERASE or remove it.

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

## SENS 2-23    Detector 2-23    (Default = INT)

Definition	Description
INT	Sensor will be active in the ARMED (Away) mode but not in the Stay or Stay2 modes.
NITE	Sensor will be active in the ARMED and STAY2 modes.
PERIM	Sensor will be active in the ARMED, STAY, or STAY2 modes (All Arm modes).
FIRE	<i>NOT APPLICABLE - Fire detection devices are not currently available.</i>
CHIME	No Alarm - Sensor only provides a Chime Tone in the Disarmed mode.
ICHIME	Sensor will Alarm in ARMED (Away) mode.
NCHIME	Sensor will Alarm in ARMED (Away) mode.
PCHIME	Sensor will Alarm in ARMED (Away) mode.
ERASE	Permits you to permanently remove a sensor from the system. Changing any sensor to this will effectively ERASE or remove it.

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**RANGE**      **Sets the Range of the Main Unit Motion Detector**      **(Default = LOW)**

Option	Description
LOW	Low range of 8 meters (26.25 ft)
HIGH	High range of 14 meters (45.93 ft)

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**PULSE**      **Sets the Pulse Count on the Main Unit Motion Detector**      **(Default = 3)**

Option	Description
1 PULS	Number of times (1-4) the main unit motion detection beam needs to be crossed before an alarm occurs
2 PULS	
3 PULS	
4 PULS	

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**SIGNAL**      **Signal Check of detectors, keyfobs, etc.**

ElkGuard has the ability to show the signal strength of programmed devices. After the unit receives a signal from an enrolled device it will display the signal strength and beep the corresponding number of times.

Press the arm/Lock button at "SIGNAL" for the System to be ready to receive a signal from the device.

Display	Description
SEND	Waiting to receive the signal from the device
SENS 2-23 LEVEL 1-9	Detector received signal strength at level shown on the display
KEY 1-23 LEVEL 1-9	Key received signal strength at level shown on the display

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**RADJAM**      **Radio Jamming**      **(Default = OFF)**

In the case that the system is receiving a continuous source of Radio Frequency Interference (RFI) it will generate a chime in modes DISARMED, STAY, STAY2. In ARMED mode it will go into a full alarm.

Option	Description
ON	Radio Jamming Detection Enabled
OFF	Radio Jamming Detection Disabled
SILENT	Dialer report only. (no local siren, display or logging). Limit of 10 reports ; cleared on arming.

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**RADSUB**      **Radio Message Substitution**      **(Default = OFF)**

Radio Message substitution refers to any radio signal that is not an original message from a valid ElkGuard device. This may be an original code that has been retransmitted in an attempt to defeat the system or a message transmitted multiple times to attempt to crack the encryption. In the event an intentional message substitution is detected, the system can generate a CHIME in DISARMED, STAY or STAY2 modes. A full alarm will be activated if the system is ARMED.

Option	Description
ON	Enabled
OFF	Disabled

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**SUPVIS      Supervision Status      (Default = 24)**

A system trouble will occur if a valid supervisory message has not been received from the detector within a specific period.

Option	Description
1, 4, 8,16,24	Supervision alarm will occur if no supervisory message has been received within a set time period (period = hours)
OFF	Supervision alarm disabled

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**LOKOUT      Detector Lockout      (Default = OFF)**

Alarm lockout prevents multiple sirens sounding due to an alarm from the same device. The external siren will not sound again until the system is disarmed with the Disarm/Unlock button. The internal siren will always sound unless the lockout option is on and then the internal siren will behave like an external siren.

Option	Description
ON	Enabled
OFF	Disabled

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**ENTRY      Entry Delay Time      (Default = 15)**

The amount of time, in seconds, before the ElkGuard goes into Alarm mode once a detector has been activated. If the system is disarmed during this time the unit will not go into Alarm mode.

Option	Description
5-30	Time in seconds; values in 5 second steps

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**EXIT      Exit Delay Time      (Default = 30)**

The amount of time, in seconds, before the sensors become active once the Arm/Lock button has been pressed. Provides time for users to exit from the building. A warning tone is sounded at the end of the time.

Option	Description
5-60	Time in seconds; values in 5 second steps

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**SIREN      Siren Reset Time      (Default = 5)**

The amount of time, in minutes, that the siren or sirens will sound before automatic reset (cut-off) once the unit goes into actual Alarm.

Option	Description
1, 2, 3, 4, 5	Reset time in minutes

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

### Chirps External Siren Chirps (Default =ON)

If set to ON, this causes the external siren to chirp on ARM and DISARM, providing audible feedback to the user. The siren never chirps when disarming from the Stay or Stay2 modes, even when this option is enabled.

Option	Description
ON	Enabled (External Siren will chirp on ARM and DISARM)
OFF	Disabled (External Siren will NOT chirp on ARM and DISARM)

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

### V-ARM Voice Annunciation ARM/DISARM (Default =ON)

Option	Description
ON	Armed and disarmed events annunciated
OFF	Armed and disarmed events not annunciated

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

### V-ALRM Voice Annunciation Alarm (Default =ON)

Option	Description
OFF	Alarm events not annunciated
ON	Alarm events annunciated

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

### V-BATT Voice Annunciation Low Battery (Default =ON)

Option	Description
OFF	Low Battery events not annunciated
ON	Low Battery events annunciated

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

### V-FALT Voice Annunciation Fault (Default =ON)

Option	Description
OFF	System faults not annunciated
ON	System faults annunciated

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

### V-DEMO Factory use Only! (Default =OFF)

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

ElkGuard can contact the Central Alarm Station Monitoring Station wirelessly using it's built-in Cellular GSM Communicator. The following options are available.

**\*OPEN    Open/Close Reports    \* Leave ON for Cellular reporting \*    (Default =ON)**

Open/close reports are messages sent to the monitoring station each time the system is ARMED and DISARMED. This includes the ID number of the keyfob/user. This option should NOT be turned OFF as it is important for maintaining the current system status. NOTE: Additional monthly charges will only be accessed if the Central Station and customer wish to receive printout or logs showing the event trails. Restores can also be sent for alarm events when a key Disarm/Off button is subsequently pressed.

Option	Description
OFF	All disabled
ON	Open/Close reports enabled (sent at end of exit delay)
RESTOR	Alarm Restores enabled
RES+OC	Alarm Restores and Open/Close Reports enabled

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**\*LOWBAT    Low Battery Reporting    (Default =MAIN)**

Option	Description
NONE	No low battery reporting
MAIN	Report low main battery
SENSOR	Report low detector batteries (including Fixed Panic Buttons)
ALL	Report low main unit battery and all detector batteries

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**CLIENT    Central Station Acct #    \* Not used for Cellular reporting \*    (Default =0000)    \***

Press Arm/Lock button to view the programmed account number.  
 Press Arm/Lock button to step through the values for the first digit.  
 Press Panic/Red button to store the digit. The second digit will now flash.  
 Repeat for remaining digits.  
 Press Panic/Red button to store the last digit, now the first digit will flash.  
 Repeat programming procedure to make corrections, or press Unlock/Disarm to return to top menu in programming.

0000-FFFF	Client acct number. Valid digits are 0 to 9, B, C, D, E, F. Hexidecimal A is not allowed.
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\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

**\*** These programming locations only pertain to the communication/reporting feature.

**\*PHONE1 Phone Number 1** \* Not used for GSM 'GPRS' reporting \* (Default = - )

Intended for use with ext. telephone POTS dialer. This location may be used in the future.

Press the Arm/Lock button to display the current programmed number in successive 6-digit segments. Number can be up to 20 digits. The first 6-digits lock in with the first digit flashing. Pressing the Disarm/Unlock button will leave these digits unchanged and step to the next location. Pressing the Arm/Lock button will step through the values available for the 1st digit. Pressing the Panic/Red button when the correct value is displayed locks in that digit and moves forward to the 2nd digit which will now flash. Repeat for each digit. When done press the Disarm/Unlock button to leave and step on to the next option.

Valid Characters	
-	In 1st digit location indicates the Phone number is disabled
-	In any other digit location it indicates a 3 second pause
0 thru 9	Dialed digits 0 thru 9 respectively
*	DTMF tone produced by the * key on a phone
#	DTMF tone produced by the # key on a phone

\* Disarm/Unlock button advances to next menu - Arm/Lock button selects menu and advances through its options - Panic button stores the desired option.\*

**\*PHONE2 Phone Number 2** \* Not used for GSM 'GPRS' reporting \* (Default = - )

Intended for use with ext. telephone POTS dialer. This location may be used in the future.

**\*GSM SG GSM Signal Strength**

Displays signal strength in a range of 0-9, where 0 indicates no signal and 9 indicates a strong signal.

**\*ABORT Dialer Abort Delay** (Default = 0)

An optional delay time to disarm after a false trip before signal will be is transmitted to the Central Station.

Option	Description
0 - 60	Time in seconds, programmed and displayed in 5 second increments.

\* DISARM/UNLOCK button advances to next menu - Arm/Lock button selects menu and advances through its options - Panic button stores the desired option.\*

**\*MEDIC Medical Key Abort Delay** (Default = 0)

Programmed time a user can abort sending a medical alarm message to the monitoring station.

Option	Description
0 - 60	Time in seconds, programmed and displayed in 5 second increments.

\* DISARM/UNLOCK button advances to next menu - Arm/Lock button selects menu and advances through its options - Panic button stores the desired option.\*

**\*T-CALL Dialer Test Call** (Default = OFF)

Option	Description
OFF	Test calls disabled.
1, 7, 14, 30	Test call period in day increments shown at left.

\* DISARM/UNLOCK button advances to next menu - Arm/Lock button selects menu and advances through its options - Panic button stores the desired option.\*

**\*DIALER GSM Mode Selection** (Default = GPRS )

Selects the GSM mode. For North American operation the only valid selection is currently GPRS.

Option	Description
GPRS	Transmits digital data using the GSM network. (Global Packet Radio)
RDIAL	Radio Dialer - Not currently available for North American operation.
GSMCID	<del>Not for North American operation.</del>
GSMSMS	<del>Not for North American operation.</del>
OFF	Disables the dialer functionality of ElkGuard

\* DISARM/UNLOCK button advances to next menu - Arm/Lock button selects menu and advances through its options - Panic button stores the desired option.\*

**\*** These programming locations only pertain to the communication/reporting feature.



## AC PWR or POWER Mode \* IMPORTANT \* (Default = OFF (“BATT” in V1.2))

Selects the expected power operating mode. This was titled “AC PWR” in Ver. 1.0 of ElkGuard. In Ver. 1.2 this has been re-titled “POWER” with some new options available. The default setting is OFF (BATT), which selects “Battery Primary” operation. It is NOT RECOMMENDED that this option be changed to ON (AC ON) unless it is possible to connect ElkGuard to a full time AC power outlet. Please review the option descriptions below.

While in the programming mode, press the Arm/Lock button to view the available options. Press the Panic button when the correct option is displayed. Press the Disarm/Unlock button to back out and move on to another programming location. Press the Disarm/Unlock button to leave the option unchanged and move on.

Version 1.0 Option	Version 1.2 Option	Description (factory default is OFF (“BATT” in Version 1.2))
OFF (no AC)	BATT	Battery is used as the primary power. If there is no activity the unit will hibernate at ultra low power consumption with the GSM radio totally powered off. Upon any alarm, trouble, or keyfob action the unit will wake up to handle the event. Should anything need to be reported the GSM radio will be powered up. Once every 24 hours the GSM Radio will be powered up for 3 minutes to log onto the network and check for any remote signals.
n/a	BAT-30	Similar to BATT option except GSM Radio is only powered up every 30 minutes for logging on and checking of remote signals. <u>This option not available in version 1.0 of ElkGuard.</u>
n/a	BAT-1H	Similar to BATT option except GSM Radio is only powered up every 1 hour for logging on and checking of remote signals. <u>This option not available in version 1.0 of ElkGuard.</u>
n/a	BAT-2H	Similar to BATT option except GSM Radio is only powered up every 2 hours for logging on and checking of remote signals. <u>This option not available in version 1.0 of ElkGuard.</u>
ON	AC-ON	AC (plug-in transformer) is used as the primary power. ElkGuard and the GSM radio remain fully powered up, ready to handle any events or receive any remote control commands over the network. ElkGuard MUST be connected to AC power 24/7 using its plug-in transformer. The charging circuit will maintain the battery at optimum charge for backup operation during brief AC power outages. 24 to 48 hours of battery standby time is available in this mode.
n/a	SLR-30	* <b>Future</b> * Solar Cell option [Contact Elk for availability] Operation is similar to BATT except the Solar Cell would be used to trickle charge the battery when there is sufficient sunshine. If there is no activity the unit will hibernate with the GSM radio totally powered off. Should anything need to be reported the GSM radio will be powered up. Once every 30 minutes the GSM Radio will be routinely powered up for 3 minutes to log onto the network and check for any remote signals.
n/a	SLR-1H	Same as option SLR-30 except GSM Radio is only powered up every 1 hours for logging on and checking of remote signals. <u>This option not available in version 1.0 of ElkGuard.</u>
n/a	SLR-2H	Same as option SLR-30 except GSM Radio is only powered up every 2 hours for logging on and checking of remote signals. <u>This option not available in version 1.0 of ElkGuard.</u>

\* DISARM/UNLOCK button advances to next menu - Arm/Lock button selects menu and advances through its options - Panic button stores the desired option.\*

**In the OFF (BATT) setting it is possible for ElkGuard to operate for up to 3 months on a fully charged battery. However, operating time cannot be guaranteed as it is affected by operating conditions such as: repeated arming & disarming, alarms, troubles, and the age and condition of the battery itself. Below are some examples of how operating conditions affect the battery operating time.**

- Alarm Activations - Each alarm activation will reduce the battery operation time by approx. 2 weeks.  
EG: After two (2) alarms the battery operating time would be reduced by 1 full month.
- Arming/Disarming - Each arm/disarm cycle will reduce the battery operation time by approx. 2 days.  
EG: A daily arm/disarm will reduce the battery operation time by 1/2, from 3 mths to 1 1/2 mths.

**REMINDER! ElkGuard must be periodically connected to AC power to recharge its internal battery.**

Continued on next page >

\* These programming locations only pertain to the communication/reporting feature.

**Verify that the AC PWR (POWER) option is set to the OFF (BATT) mode if ElkGuard it is not going to be connected to a full time AC power outlet. This will allow the unit to operate on battery for a longer period of time, up to 3 months, by hibernating with the GSM radio turned off when there is no activity. If this option is set to ON (AC-ON), the unit will NOT hibernate, and the GSM radio will stay powered up, requiring considerably more current. The primary reason you might want to keep the GSM radio powered up is to allow remote commands to be sent and received at any time. However, this results in the unit only being able to last 24 to 48 hours on battery when the AC fails.**

HINT: Even when ElkGuard will be connected to full time AC power it is possible to extend the battery standby time during unexpected power outages. This can be accomplished by setting the AC PWR [POWER] to OFF (BATT), just as you should when AC power is not connected full time. This will keep the unit awake with the GSM radio powered only while AC power is present. Should the AC power fail the unit will revert to hibernation just like it would have without AC on the battery primary mode. Just remember that it will not be possible to send or receive remote commands while the unit is in hibernation.

**DEFAULT      Reset to Factory Defaults**

Erase devices and/or default options as required.

If ALL or Key is selected, ElkGuard will jump to the start of Program Mode, displaying LEARN /KEY1.

Option	Description
ALL	Erases all programmed devices and defaults all options
OPTION	Defaults all option values
KEY	Erases all keys
SENSOR	Erases all detectors; defaults SENSOR 1 (units PIR)

\* DISARM/UNLOCK button advances to next menu - ARM/LOCK button selects menu and advances through its options - Panic button stores the desired option.\*

 If you factory default “ALL” the following procedures will be required to initialize the unit before any key learning or programming may be performed.

1. Turn the Master Power Switch “OFF”
2. While Holding Down both buttons on the main unit, turn the master power switch to “ON”
3. “FACTORY” will flash on the display
4. Press “Button 3 / Panic Button” and continue to hold until “1-“is displayed.
5. Press the “OFF” button on the key fob, until “1- \*” is displayed.
6. Turn the Master Power Switch “OFF” and then “ON”
7. Display flashes “Learn”
8. Press “Button 1/ OFF” on Key fob until the Key fob is learned, “Key 1” will be displayed.

**P-EXIT      Program Mode Exit**

To exit from programming mode there are two choices.

- 1) Navigate to this programming location and then press the Arm/Lock button.

 It may be helpful to know that the left button of the main unit (just below the display) will permit you to navigate backwards in the programming mode. This is particularly helpful if you accidentally skip past a particular location or if you are near the first locations and need to navigate quickly to the end of the locations.

- 2) The other choice for exiting the programming mode is to simply turn off (or power cycle) the main unit using the master key switch. However, be aware that when the unit is powered up there is a 10 second period in which the unit does nothing but wait to see if you would like to LEARN a new device. After this 10 seconds with no keyfob or button presses the unit will resume normal operation.

# OPTIONAL AUXILIARY CONNECTIONS

ElkGuard has three optional auxiliary outputs and 1 optional tamper input available from a plug-in connector on the back of the unit. Packed with the unit is a mating wiring harness that plugs into connector. See instructions below.

## Red Wire - +12Volts 'fused' (common for the Strobe, Siren speaker, and Aux,) Outputs \*\*\*

### Black Wire - Strobe or lamp ( open collector switched 0V ) Output. \*\*\*

For a 12 VDC strobe light to provide Visual indication during operation. For Arming and Disarming this output is momentary only. Constant status not provided. For Alarms this output remains constant until system is disarmed.

- > Connect strobe lamp positive (+) to the RED "Positive" (+) wire, strobe negative (-) to the Black (-) switched wire.

**Arming:** 12 VDC for 2 seconds upon arming the system.  
**Disarming:** 12 VDC for 4 seconds upon disarming the system  
**Alarm / Panic:** 12 VDC when an alarm event occurs. It continues to provide 12 VDC until the system is disarmed. (This output is not turned off or affected by the "SIREN" reset time)  
**Duress:** No voltage output when a Duress alarm event occurs

### Blue Wire - External Speaker Siren ( open collector switched 0V ) Output. \*\*\*

For a single 8 Ohm external speaker. Provides an external audible indication for Alarms and system Arming and Disarming (momentary only).

- > Connect 1 speaker wire to the BLUE wire and the other speaker wire to the RED wire.

**Arming:** External speaker will beep once upon arming.  
**Disarming:** External speaker will beep three times upon disarming.  
**Disarm after Alarm:** If an alarm has occurred the external speaker will beep 5 times when disarmed.  
**Alarm / Panic:** External speaker will sound continuously until the end of the "Siren Reset" time or until the system is disarmed.  
**Duress:** Nothing - External speaker is silent when a Duress alarm occurs

### White Wire - Aux. ( open collector switched 0V ) Output. \*\*\*

For a relay or external self contained piezo type low current draw siren. Provides a constant output upon an alarm.

- > Connect negative (-) of the device to the WHITE wire and the positive (+) of the device to the RED wire.

**Alarm / Panic:** Output will be continuously on until "Siren Reset" time or system is disarmed.  
**Duress:** Nothing - Output will NOT be on for a Duress alarm.

**Warning: Do NOT exceed a combined current draw of 2 Amps. It is not recommended that these optional outputs be used if ElkGuard is being installed without a continuous AC power source. The battery backup time and the amount of time the unit could operate after an alarm would be seriously degraded.**

## Yellow and Green Wires - Siren Box Tamper Input

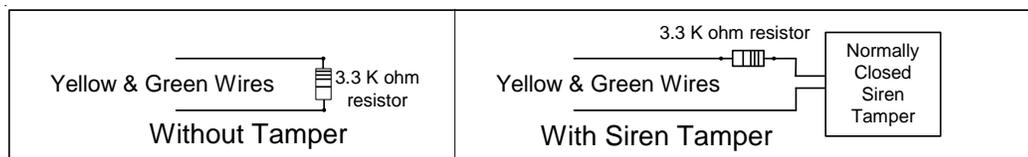
Designed to supervise an outdoor siren box. ElkGuard continually monitors this supervised input regardless of the armed status of the system. It will give audible and visual notification if this input has been violated.

**Armed:** If tamper is violated in the Armed mode, the internal sounder and ext. siren output will activate until the "Siren Reset" time expires or until the system is disarmed. The display will scroll "Tamper Siren Box"

**Disarmed:** If tamper is violated in the disarmed mode the internal sounder will sound for 4 Seconds. The display will scroll "Tamper Siren Box"

**Tamper Fault:** If tamper has been violated and cannot be re-secured, the system can still be armed. The tamper will be automatically bypassed. Upon disarm the display will scroll "Tamper Siren Box" until it is secure.

Connect the Yellow wires as shown to the siren box tamper switch. (See Diagram) NOTE: The 3.3K Ohm Resistor must be securely attached to each end of the yellow leads even if the siren box tamper is not utilized.



## Red Individual Wires (2) - Permanent 'hidden' connection point for AC Transformer

There are two single RED wires on the back of the unit with the ends insulated by heat shrink tubing. Internally, these wires are parallel to the AC Power connector. These wires permit a more permanent installation of ElkGuard by allowing a 2 conductor cable to be spliced between these wires and the AC Transformer wires. No Polarity required. Run this 2 conductor wire inside the wall or otherwise hide it from view for a cleaner installation.

## WARRANTY AND LIMITATIONS

Elk Products, Inc. ("Manufacturer") warrants to the original purchaser (the "Customer") that the ElkGuard self contained wireless alarm control and its associated component products shall be free from defects in material and workmanship for a period of one (1) year from the date of manufacture. In addition, in the event said product is found to be defective during the first 180 days, manufacturer may allow an over the counter exchange, subject to inspection and approval by one of it's representatives. Manufacturer's obligations under this Warranty shall be limited to repairing or replacing, at its option, free of charge, any product returned to Manufacturer freight prepaid. Manufacturer shall have no obligation under this Limited Warranty or otherwise if (1) the Product has been damaged by negligence, accident, mishandling, lightning or flood, transients or surges, or other Acts of God, (2) the Product has not been operated in accordance with its operating instructions, (3) the Product has been altered or repaired by anyone outside Manufacturer's authorized facilities (4) adaptations or accessories have been made or attached to the Product which, in Manufacturer's sole determination, have adversely affected its performance, safety or reliability. Products such as Controls and Batteries have their own warranties. After the expiration of this warranty period, product will be subject to an inspection fee, after which the customer will be notified of the applicable repair charges prior to commencing any actual repairs.

### OBTAINING WARRANTY

If a Product should malfunction or fail during it's warranty period, contact Manufacturer or one of its authorized distributors for a Return Authorization (RA) number. Returned Products must include a complete description of the problem, along with the RA number clearly marked on outside of the package. Manufacturer will not be responsible for any unnecessary items included with any returned Product.

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