RealGuard™

"An Agent's Best Friend!"

Wireless, Personal Security Alarm Systems for Real Estate Professionals

User's Manual

RG-4100

Patent pending.

May 2004 Revision 3

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Misiu Systems reserves the right to make changes of any kind to the products described in this manual and/or the manual without obligation to notify any person, institution or organization of such changes.

Caution!

Any changes or modifications made to this system not expressly approved by the manufacturer could void your authority to operate this equipment.

FCC Regulatory Information

15.105 Federal Communications Commission (FCC) Requirements, Part 15

This equipment has been tested and complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. The equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit difference from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You may find the following booklet, prepared by the Federal Communications Commissions, helpful: *How to Identify and Resolve Radio and TV Interference Problems.* This booklet is available from the US Government Printing Office, Washington, DC 20402.

Regulatory information / Disclaimers

Installation and use of this Wireless, Personal Security Alarm System must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

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.(2) This device must accept any interference received, including interference that may cause undesired operation.

Important Note (Co-Location)

FCC RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

Important Safety Instructions

Read all the safety and operating instructions before you begin using the RealGuard Personal Security System. Make sure you follow the operating and maintenance instructions carefully. Then keep this manual for future reference.

Make sure you heed all the warnings on the units and in this manual.

Health and Safety Warnings

Do not attempt to service any RealGuard unit yourself. Opening the covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Never push objects of any kind into any RealGuard unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.

Route the power cord so that it is not likely to be walked on or pinched by items placed upon or against it. Pay particular attention to the cord at plugs, receptacles, and the point where it exits from the product.

Do not handle the power cord or wire harness with wet hands.

Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool.

If water gets inside any unit, turn off the power switch and detach it from any electrical source. Before you use it again, contact Misiu Systems or its authorized service representatives to replace or repair the unit.

Connect the home unit only to a power supply of the type described in the operating instructions. When unplugging the home unit from the wall outlet do not pull the power cord, pull the plug adapter.

Do not use any of the units in conditions where there is danger of electrically ignited explosions.

Product Protection

Keep the RealGuard units away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Make sure to follow the manufacturer's instructions when installing this product. Use only mounting accessories recommended by the manufacturer.

Use only the attachments recommended by the product manufacturer. Other attachments may cause hazards.

Maintenance

Replacement Parts — **Unauthorized substitution of parts may result in fire, electric shock, or other hazards.** The RealGuard units contain no user-serviceable parts and should be returned to Misiu Systems or its authorized representatives for any service or repair requirements. When replacement parts are required, the parts should be genuine parts manufactured by Misiu Systems. Use of parts other than those provided by Misiu Systems can potentially void the warranty of the products or cause emissions beyond acceptable levels as prescribed by the FCC.

Cleaning the Units – Before cleaning any of the three units, make sure the it is not connected to an electrical outlet. Use only a damp cloth for cleaning it. Do not use liquid cleaners or aerosol cleaners. Benzene, thinner or any other organic solvents or disinfectants may damage or discolor the surface.

Damage Requiring Service — Unplug the wall unit and have your RealGuard system serviced by qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled on a unit, or objects have fallen into it.
- If a unit has been exposed to rain or water.
- If a unit has been dropped or damaged in any way.
- If a unit exhibits a distinct change in performance.
- If a unit does not operate normally according to the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and may require extensive work by a qualified technician to restore the product to its normal operation.

Note: Upon completion of any service or repairs to this product, Misiu Systems will perform complete testing to ensure that the product is reliable and that it conforms to applicable US and Canadian laws.

Battery Replacement and Disposal

Check batteries often, and replace them when necessary.

Defective batteries must be returned to a collection point for chemical waste disposal.

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1. What is RealGuard?

The RealGuard Personal Security System is a wireless personal security alarm system designed for real estate professionals. As a real estate agent, you can use the RealGuard system to give you a new level of personal safety during your regular course of business of showing properties to prospective buyers.

RealGuard includes three alarm units, which communicate with each other through remote, wireless transmitters and receivers:

- A **Personal Unit**, which you keep with you to use in case of an emergency.
- An **Auto Unit**, which is installed on your automobile.
- A **Home Unit**, which is installed in the home you are showing.

You can purchase additional Personal Units and Home Units to expand your existing system.

Personal Unit

The Personal Unit is the source of the alarm signal. You can carry it in your hand, keep it in your pocket or handbag, or attach it to your belt. In an emergency, you press the panic button and the unit sounds an ear-piercing siren. It also transmits an emergency signal to the Auto Unit, which sends the signal on to the Home Unit. All three units sound an audible alarm.

To turn off the siren, you press a sequence of four buttons. During setup, you select the sequence you want to use.

The Personal Unit contains a flashlight, which can be useful in the dark for opening doors and lockboxes, and seeing your way around areas of homes and properties that are not adequately lit.

Warning: Make sure you keep the unit away from your ears when you press the panic button. The alarm is very loud.

Auto Unit

The Auto Unit is installed in your automobile; it is the control unit for each RealGuard system. A unique coded signal set up for your system ensures that only **your** Personal Unit can activate **your** Auto Unit. When you press the panic button on the Personal Unit, it sends a signal to the Auto Unit, which sounds a horn installed under the hood. The Auto Unit passes the signal on to the Home Unit, which also emits a sound.

The manufacturer recommends that you have a profession install the Auto Unit. To find the names of authorized installation firms, contact Misiu Systems Customer Service or refer to Misiu Systems web site.

Installation includes:

- Mounting an external 5-Watt horn in the engine compartment of your vehicle.
- Mounting the Auto Unit behind the dashboard on the driver's side of the car with the help of the included mounting bracket.

The Auto Unit also is set up to operate with auxiliary devices, such as the optional RealGuard Automatic Vehicle Location (AVL) device for reporting address information to local law enforcement agencies.

Home Unit

The Home Unit is plugged into an electrical outlet in the listed home, **before** the home is shown to potential buyers. While each Personal Unit must be accompanied by its own Auto Unit, the alarm on the Home Unit operates for any agent who is using a RealGuard system.

The Home Unit can also be installed in brokerage offices or any other location to be secured by RealGuard Personal Security Alarms. It can be placed in an inconspicuous location on the property, such as behind a curtain, couch, or chair.

You can manually switch the Home Unit to receive its activation signal directly from a Personal Unit, in case you do not have your vehicle on the premises or the Auto Unit has not yet been installed.

2. Unpacking Checklist

As you unpack the RG-4100 RealGuard system, use the illustration below to check and identify the contents of the package. If any item is damaged or missing, please notify Misiu Systems Customer Service. Keep the packaging materials; you may need them to transport your product in the future.

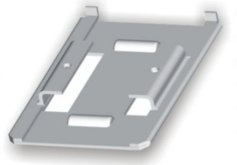
Personal unit
(RGR4101)

Auto unit
(RGA-4102)

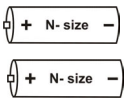
Home unit
(RGH-4103)

AC Adapter
(RG-4103
Model A)

Mounting bracket



N Size 1.5 V batteries
(2 Pcs)



User Manual
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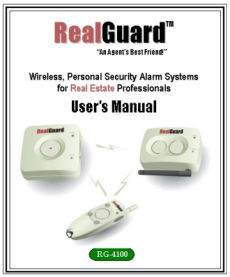


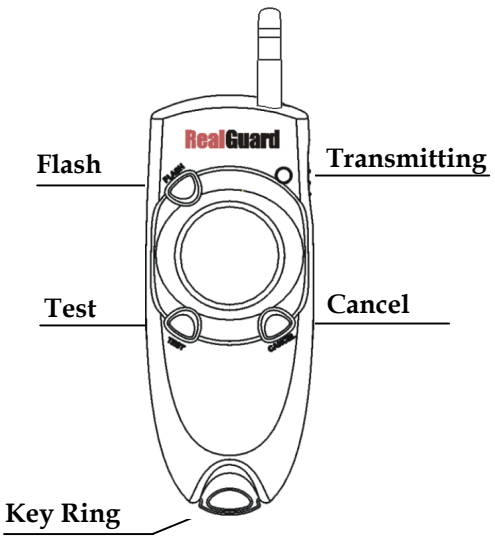
Horn

3. Personal Security System Controls

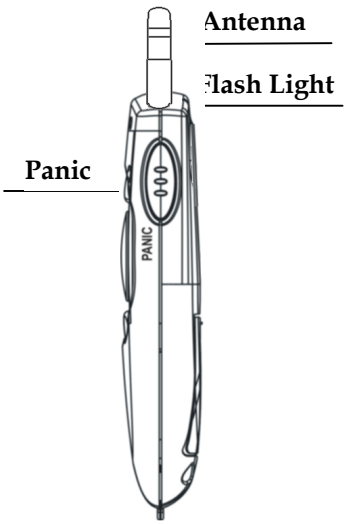
This chapter points out the control buttons and other features on the RealGuard Personal Security System units. Use this information to become familiar with the units before you begin installing the system.

Personal Unit

Top View

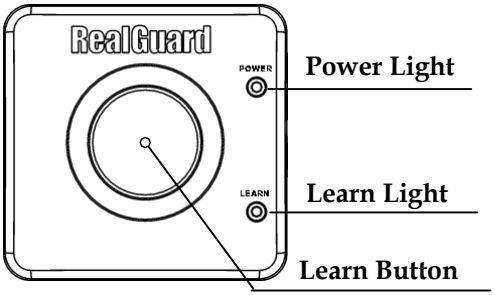


Side View

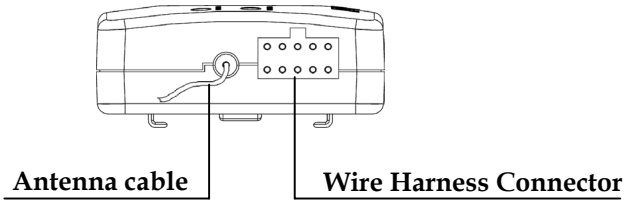


Auto Unit

Top View

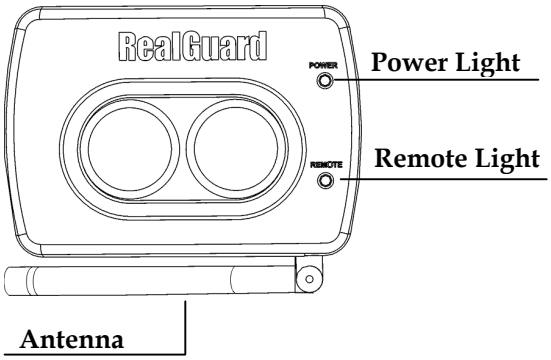


Side View

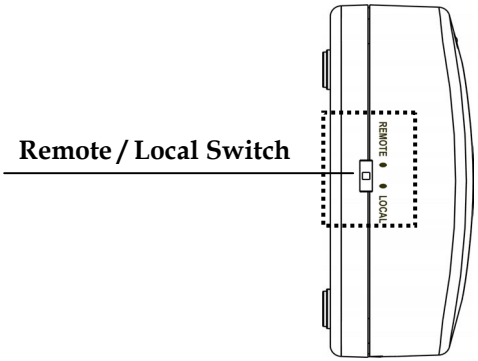


Home Unit

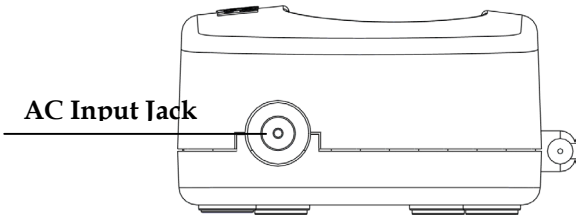
Top View



Back View



Side View



4. Installing the Units

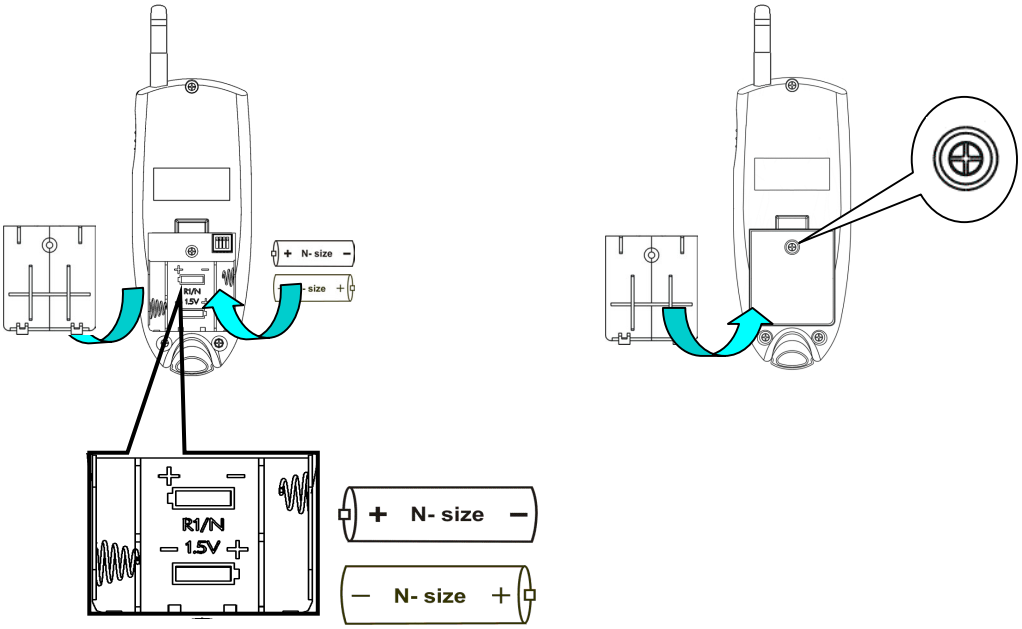
This chapter provides instructions for installing the three RealGuard units. Be sure to follow all the installation instructions carefully and in order to ensure that the units work correctly when you use them.

Personal Unit

Loading the Batteries

Cautions:
- Do not mix new and old batteries or batteries of different types.
- Do not use rechargeable batteries.

1. Turn the screw on the back of the Personal Unit counter-clockwise to loosen the battery compartment cover. Remove the cover.
2. Insert two N Size 1.5V batteries inside the battery compartment as indicated by the drawing inside the compartment.
3. Replace the cover, and tighten the screw on the cover.



Other Features of the Personal Unit

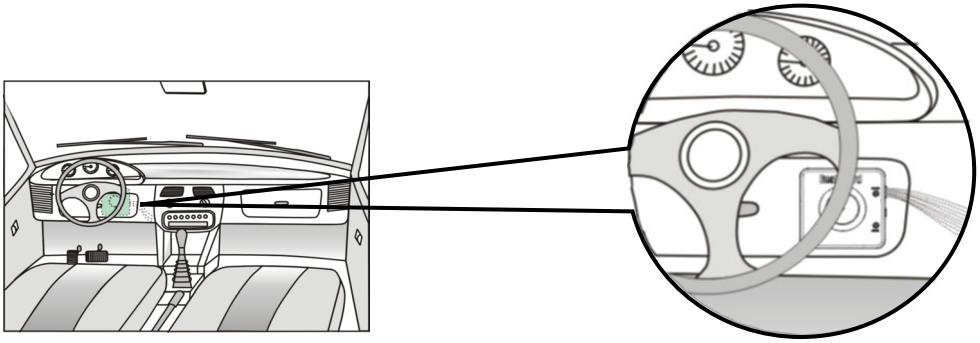
The Personal Unit can also be used as a key chain holder, as shown in the figure.

A wrist strap can be attached to the Personal Unit, as shown in the figure.

Auto Unit

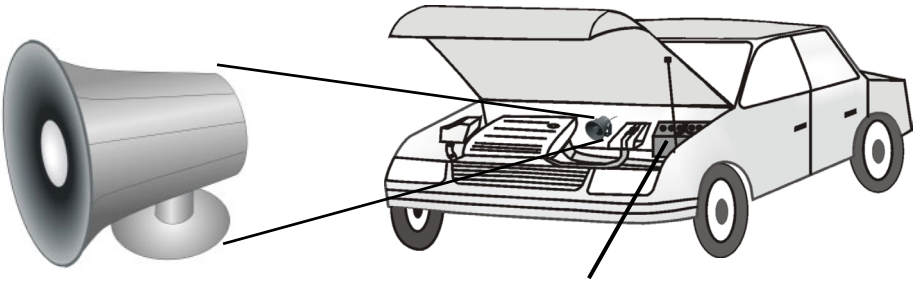
Installing the Unit in the Vehicle

The Auto Unit is designed to be installed under the dashboard on the driver's side, as shown in the illustration. Normally, there is sufficient room behind the steering column. Since the installation process varies widely from car to car, we recommend that you have a qualified automobile installation service firm install the Auto Unit. If you plan to do it yourself, make sure you use the information in your vehicle's user manual to help you.



Installing the Horn

The waterproof, outdoor horn sounds the alarm for the Auto Unit. Install the horn under the hood by mounting it securely to the firewall of the vehicle.



Connecting the Cables

The Auto Unit requires a 12V DC electrical supply, which is normally provided by the vehicle's electrical system. The power source must be able to provide power to the unit when the vehicle is not running. The Auto Unit controls the horn. It can also control a Auxiliary Alarm Unit or a Telematics Device (see page 13).

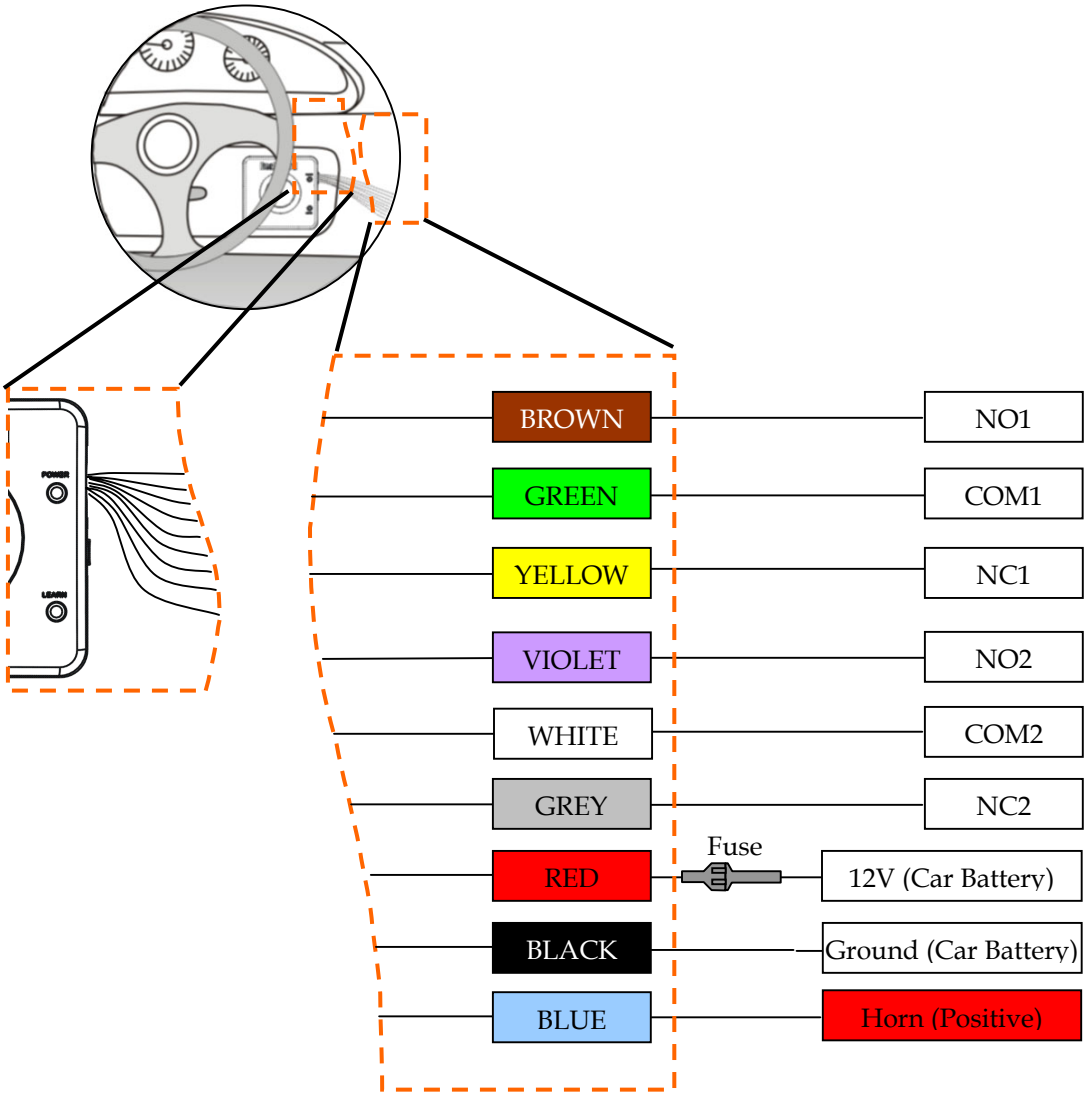
Use the diagram on the following page as a guide to connect the wires coming out of the Auto Unit.

1. Connect the **Red**, fused wire from the Auto Unit to a non-switched electrical source, such as the battery's positive connector. We recommend that you splice into the cable between the battery and the starter switch.

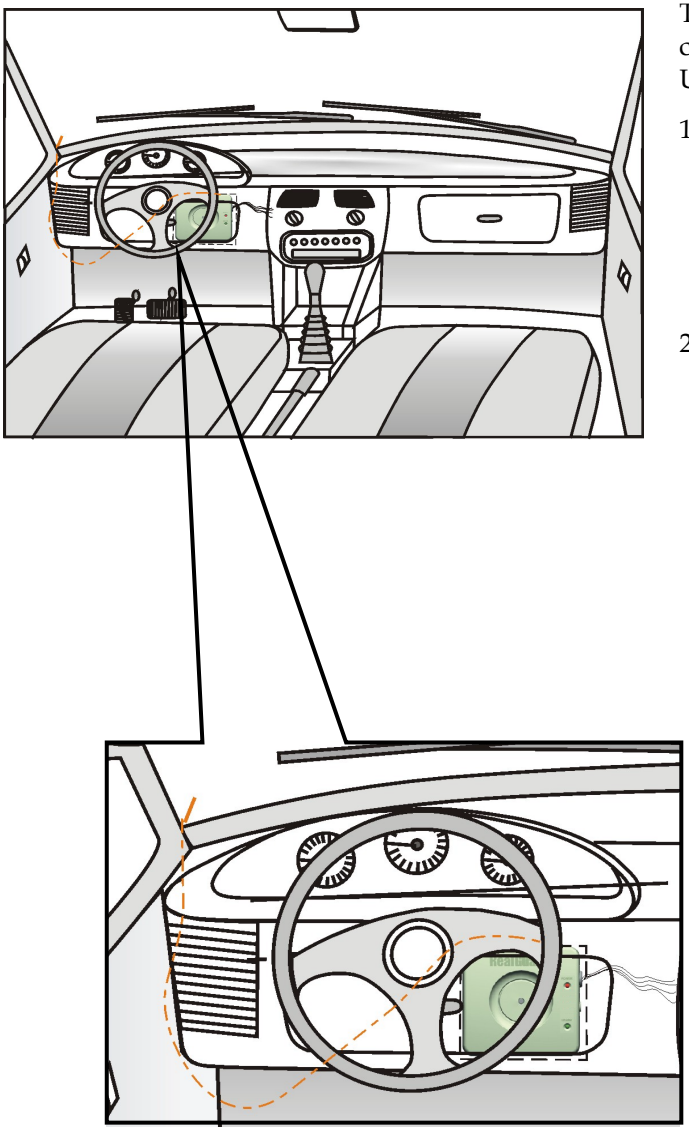
   Important: Test the system often (see page 17), and replace the 3A/250V fuse if the Auto Unit stops working.

2. Connect the **Black** wire to the battery's negative connector as a ground.
3. Feed the electrical leads of the horn through the firewall.
4. Connect the **Blue** wire from the Auto Unit to the **Red** wire from the horn. Ground the horn by connecting the Black wire
5. Ground the horn by connecting the **Black** wire to the frame of the vehicle.

The wires include leads for two auxiliary devices that would be turned on when the Auto Unit sounds an alarm. (NO1, COM1, NC1, NO2, COM2, NC2). If you are not using an auxiliary device, such as a Telematics device, tie off these wires and position them out of the way.



Installing the Antenna



The Antenna is the single loose wire coming out of the top of the Auto Unit.

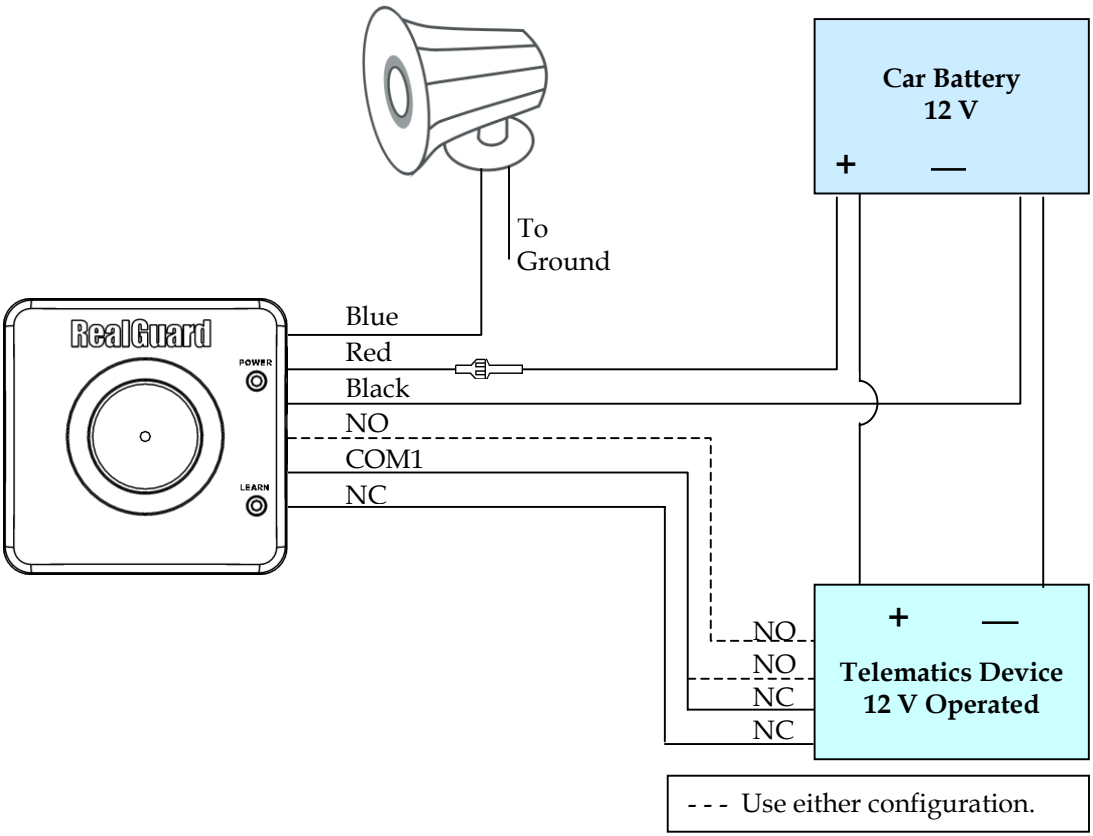
1. Route the antenna wire behind the dashboard such that a small portion of the antenna comes out on the dashboard of the vehicle to receive the alarm signal from the Personal Unit.
2. Make sure the tip of the antenna — at least ¼ inch — is near glass, outside the border of the vehicle's metal framework. Otherwise it will not receive the signal.

Using the Auxiliary Outputs (Optional)

The Auto Unit includes two sets of auxiliary outputs, each of which contains normally open (NO), normally closed (NC), and common ground (COM) leads. You can use either of these outputs to connect to an Auxiliary Alarm Unit or a Telematics Device. When the Auto Unit sounds an alarm, the auxiliary device is activated.

The example below shows the connections from the Auto Unit to the car battery and horn. It also shows the two possible methods of connecting an auxiliary device to the Auto Unit.

Note: The example is only for reference and may not be applicable for some installations. Check with a qualified automotive service technician before doing these types of connections.



Home Unit

The Home Unit is designed to be installed in homes that are listed for sale or rent by a real estate professional. They can also be installed in offices or other premises that will be visited by real estate professionals that use the RealGuard system.

1. Place the Home Unit in a convenient and unobtrusive position where its audible alarm can be heard by outsiders when it is activated.
2. Plug the AC Adapter into the AC Input Jack on the side of the Home Unit.
3. To turn on the unit, plug the AC Adapter into a common 110-Volt non-switched electrical connection. The unit will not operate unless it is plugged into a working electrical outlet.

5. Setting up and Testing the System

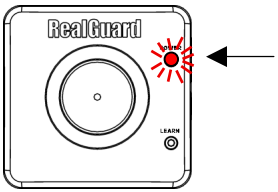
Coordinating Your Personal Unit and Auto Unit

Your Auto Unit must be trained to recognize the signal from your Personal Unit. After you have trained the Auto Unit, each time you press the Test button on the Personal Unit, all three units will emit a chirping sound.

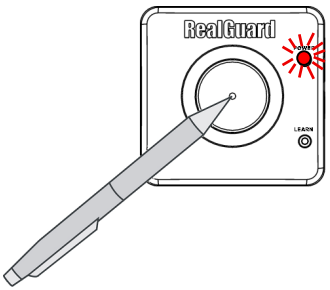
Note: Your Auto Unit can support up to eight Personal Units. You must train it to recognize each one.

Follow these instructions to complete the training. If you are using more than one Personal Unit with the Auto Unit, follow this procedure individually for each Personal Unit.

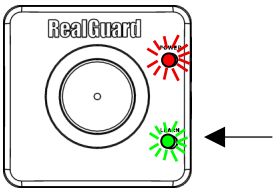
1. Make sure the red power light on the Auto Unit is lit. If the unit has been correctly installed, it is automatically powered on.



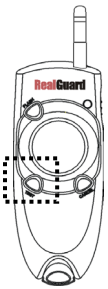
2. Set the Auto Unit in Learn Mode. To do so, insert a sharp object into the hole and press the Learn button. Use the point of a pen, a paperclip, a thumb tack, or some other object that is **not** a lead pencil. Lead can damage the components.



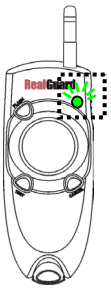
While the Auto Unit is in Learn mode, the green Learn light is lit. The unit remains in the Learn Mode for approximately 30 seconds and then automatically returns back to normal mode.



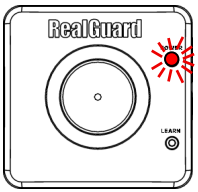
3. Press the Test button on the Personal Unit.



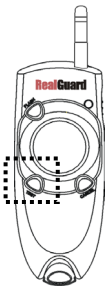
The Transmit light on the Personal Unit starts blinking for a few seconds indicating that it is sending a signal to the Auto Unit.



When the Auto Unit successfully recognizes the signal from the Personal Unit it turns off the Learn light.

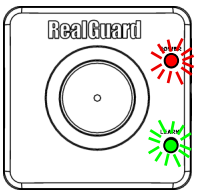


4. Press the Test button on the Personal Unit again.



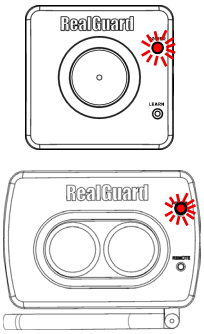
The unit will not make a sound, but the Learn light on the Auto Unit will blink for a few seconds indicating that the training was successful.

From then on, each time you press the Test button on the Personal Unit, all units in the system chirp.



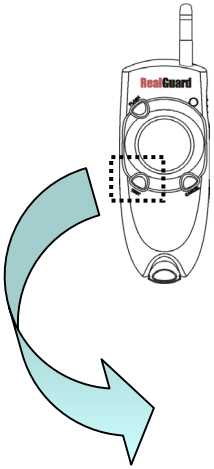
Testing the System

Test the system after you have completed all the installation. **Then test it periodically to make sure it is still working.** If the Auto Unit does not operate correctly during a test, replace the fuse on the power wire. (See page 10 for more information.)



Before testing the system, make sure:

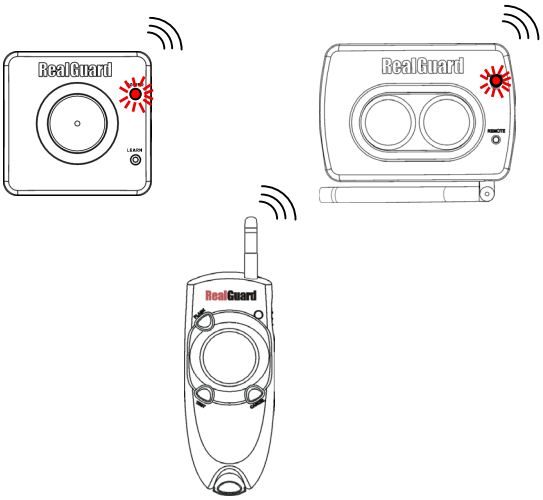
- Batteries have been installed in the Personal Unit.
- The Auto Unit is powered on and successfully trained. The red power light should be lit.
- The Home Unit is plugged in (so it is powered on). The red power light should be lit.



To test the system:

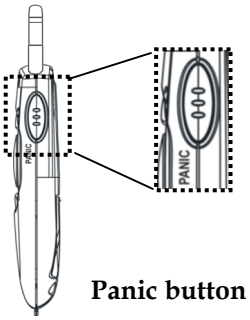
- Press the Test button on the Personal Transmitter Unit.

Immediately all the three units will give a short chirp sound indicating they are functioning properly. Now your Personal Security Alarm is ready for use.

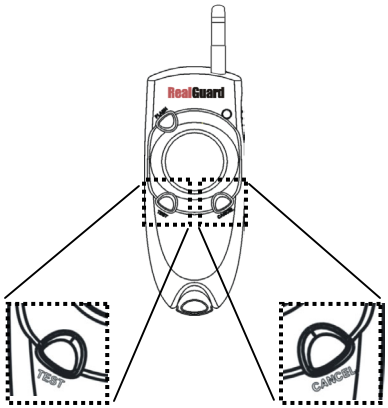


Selecting the Deactivation Sequence

Once you have pressed the Panic button on the Personal Unit, you can turn off the alarm by pressing a 4-button sequence: the Panic button followed by one of four optional 3-button sequences. Each of the 3-button sequences is a combination of the Test and Cancel buttons.



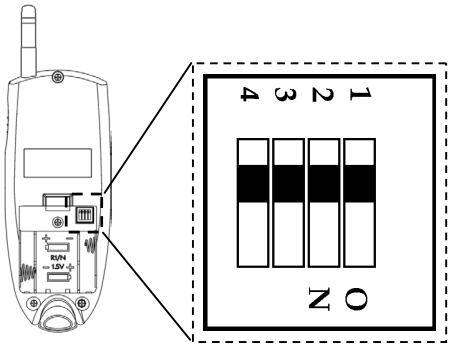
Panic button



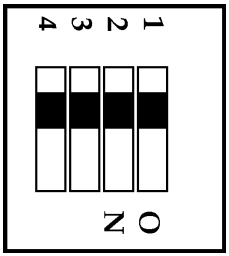
Test button **Cancel button**

You can use the deactivation sequence set up at the factory. Or, you can change the sequence to one of the other available sequences by changing the settings of the switches inside the battery compartment of the Personal Unit.

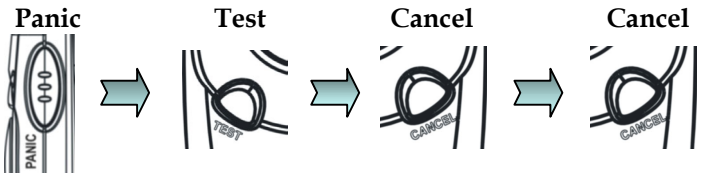
Note: On the switch set, only switches 3 and 4 are used. Do not change the settings of switches 1 and 2.



Sequence 1, the factory setting

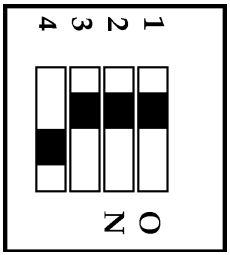


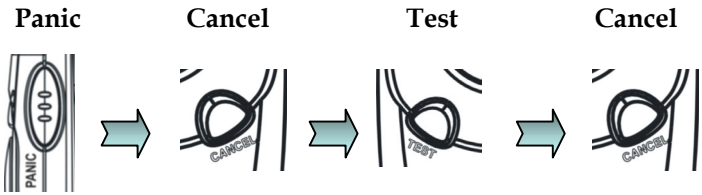
Press:



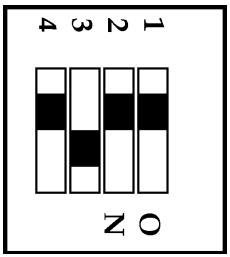
If you want to change the deactivation sequence setting, move the switches to the positions shown beside your choice. Use a sharp object, such as the tip of a ball point pen.

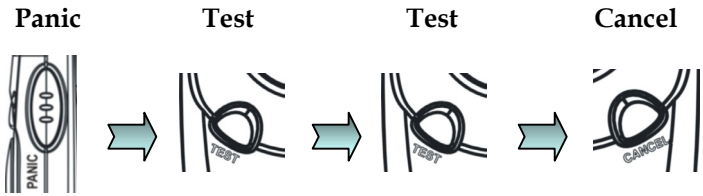
Sequence 2



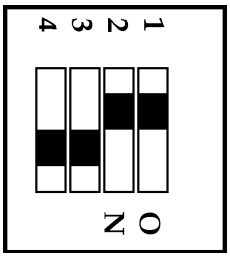


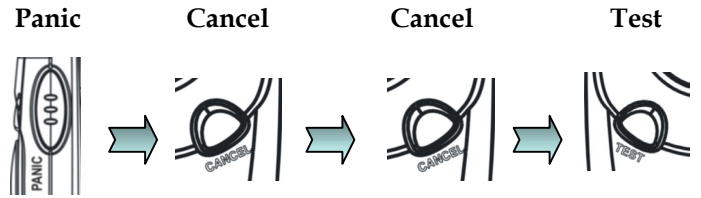
Sequence 3





Sequence 4





6. Using the Personal Unit

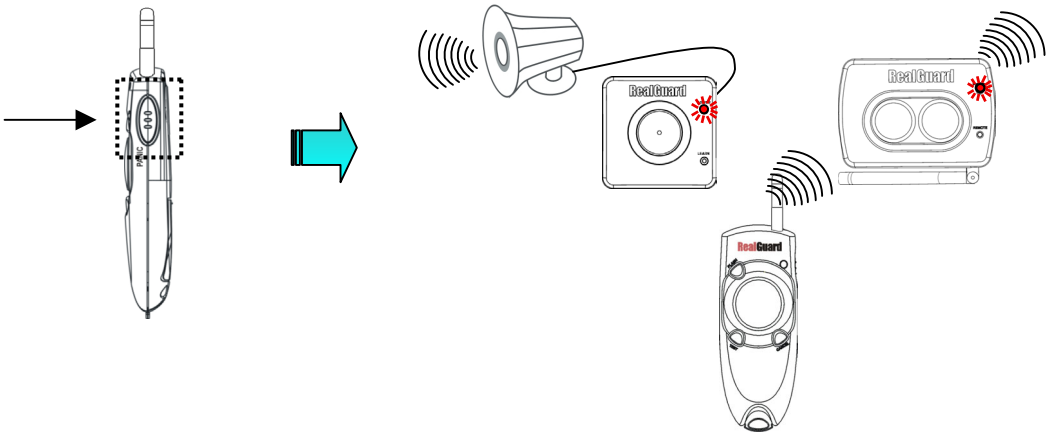
Activating the Alarm

IMPORTANT: Make sure all units are as far as possible from your ears when you sound the alarm. These sirens emit a high frequency sound of 103 decibels @ 1KHz to 2KHz, louder than a smoke alarm.

In case of an emergency:

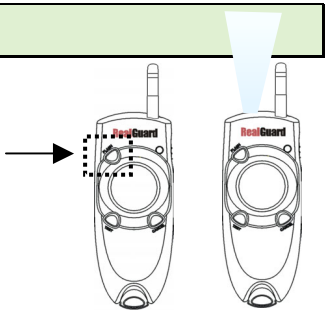
- Press the Panic button on the Personal Unit and keep it pressed for approximately 2 seconds.

All the three units will generate an ear-piercing siren sound and will continue until you use your deactivation sequence. (See page 18.)



Using the Flashlight

For your convenience, the Personal Unit contains a small flashlight. It is designed to stay on only as long as you are pressing the Flash button in order to save your batteries for emergencies.



- To turn the flashlight on, press the Flash button.
- To turn it off, release the Flash button.

WARNING: Do not shine the flashlight directly into your eyes. Damage can occur.

Changing the Alarm Mode of the Home Unit

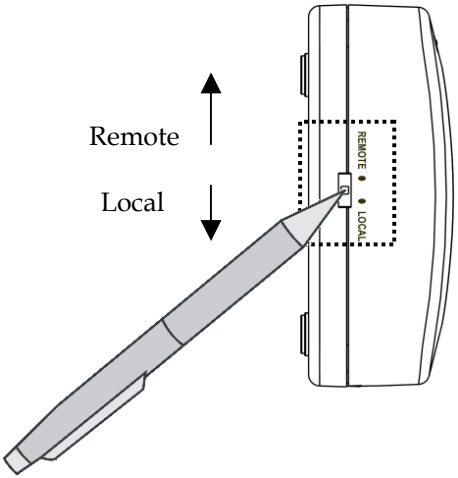
Every Home Unit responds to any Personal Unit. In normal operation, your vehicle (with your Auto Unit installed) must be nearby in order for the Home Unit's siren to sound when you press the Panic button. The feature is a safeguard against a prankster finding a Personal Unit and setting off false alarms in neighborhood homes.

However, if your vehicle is not in the vicinity, for example, if a friend gives you a ride to an open house you are hosting, you can changing the Home Unit to Local Mode, and your Panic button alone will activate the Home Unit.

Important: When you leave the home, make sure you change the Home Unit back to REMOTE mode, so it can only be activated by someone with a complete RealGuard system.

On the left side of the Home Unit is a slide switch that sets the unit to either Local Mode or Remote Mode.

To change the setting of the Alarm Mode, slide the switch to the proper setting by using any sharp object, such as the tip of a pen, a paperclip, or a small screwdriver.



Remote

Local

7. Technical Specifications

Personal Transmitter Unit (RGR-4101)	
Power supply	2 X 1.5V N Size Alkaline Battery
Transmission	
Frequency	915MHz
Buzzer	Piezoelectric
Display	
LED	3mm (Red)
Flash light	Bright white LED
Range	100 meters (line of sight)

Auto Transceiver Unit (RGA-4102)	
Power supply	12VDC car battery
Fuse	3A, 6.35 X 32mm (Glass Quick Acting Fuse)
Transmission / Reception	
Frequency	915MHz
Auxiliary Dry Contact Outputs	2 Sets NO/NC Selectable
Horn	5W siren
Display	
LED	2 X 3mm (Red & Green)
Range	100 meters (line of sight)

Home Receiver Unit (RGH-4103)	
Power Supply	6V AC, 60Hz
Reception	
Frequency	915MHz
Buzzer	2 X Piezoelectric
Display	
LED	2 X 3mm (Red & Green)
Range	100 meters (line of sight)

Dimensions	Width x Height x Depth
Personal Unit	4.4cm X 11cm X 2.6cm
Auto Unit	8.3cm X 8.5cm X 3.5cm
Home Unit	7.1cm X 10cm X 4.1cm

Power Consumption	
Personal Unit	
Idle Mode	0.02 ma
Alarm Mode	150 ma
Auto Unit	
Idle Mode	0.065W
Alarm Mode	15.5W
Home Unit	
Idle Mode	0.055W
Alarm Mode	0.2607W

Environmental	
Operating Range	
Temperature	0° ~ +50° Celsius
Relative Humidity	10% ~ 70%
Storage Range	
Temperature (battery removed)	-10° ~ +70° Celsius
Relative Humidity	10% ~ 80%

Net Weight	
Personal Unit	Tbd
Auto Unit	Tbd
Home Unit	Tbd

Specifications are subject to change without prior notice.

8. Limited Warranty

Misiu Systems, LLC, having its principal place of business at 3808 209th Place SE, Bothell, WA 98021 ("Manufacturer") warrants its RealGuard products (the "Products") as follows:

1. Limited Warranty

Manufacturer warrants that the Products sold hereunder will be free from defects in material and workmanship for a period of one (1) year from the date of purchase. If the Products do not conform to this Limited Warranty during the warranty period (as herein above specified), Buyer shall notify Manufacturer in writing of the claimed defects and demonstrate to Manufacturer satisfaction that said defects are covered by this Limited Warranty. If the defects are properly reported to Manufacturer within the warranty period, and the defects are of such type and nature as to be covered by this warranty, Manufacturer shall, at its own expense, furnish replacement Products or, at Manufacturer's option, replacement parts for the defective Products. Shipping and installation of the replacement Products or replacement parts shall be at Buyer's expense.

2. Other Limits

THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Manufacturer does not warrant against damages or defects arising out of improper or abnormal use or handling of the Products; against defects or damages arising from improper installation (where installation is by persons other than Manufacturer), against defects in products or components not manufactured by Manufacturer, or against damages resulting from such non-Manufacturer made products or components. Manufacturer passes on to Buyer the warranty it received (if any) from the maker thereof of such non-Manufacturer made products or components. This warranty also does not apply to Products upon which repairs have been effected or attempted by persons other than pursuant to written authorization by Manufacturer.

3. Exclusive Obligation

THIS WARRANTY IS EXCLUSIVE. The sole and exclusive obligation of Manufacturer shall be to repair or replace the defective Products in the manner and for the period provided above. Manufacturer shall not have any other obligation with respect to the Products or any part thereof, whether based on contract, tort, strict liability, or otherwise. Under no circumstances, whether based on this Limited Warranty or otherwise, shall Manufacturer be liable for incidental, special, or consequential damages.

4. Other Statements

Manufacturer's employees or representatives' ORAL OR OTHER WRITTEN STATEMENTS DO NOT CONSTITUTE WARRANTIES, shall not be relied upon by Buyer, and are not a part of the contract for sale or this limited warranty.

5. Entire Obligation

This Limited Warranty states the entire obligation of Manufacturer with respect to the Products. If any part of this Limited Warranty is determined to be void or illegal, the remainder shall remain in full force and effect.

Misiu Systems LLC
Customer Support: 425-487-6536
Website: http://www.realguard.com