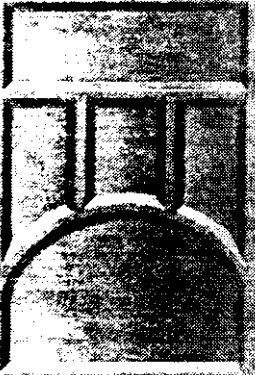


## System Reference Card



### The company behind this system is Directed Electronics, Inc.

Since its inception, the company known as Directed Electronics, Inc. (DEI) has had one purpose—to bring the proven advantages of microprocessor and I.C. technology to the automotive industry.

As a recipient of numerous patents, DEI has established new standards in electronic design, automated manufacturing, and dealer support. The electronic products are sold and serviced worldwide.

Call (800) 274-0200 for more information about our products and company.



Directed Electronics, Inc.  
2560 Progress Street Vista, CA 92081-8491  
1102 Directed Electronics, Inc. All rights reserved.  
©1991 DEI

# 439 Series Owner's Guide

This device complies with part 15 of 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 undesired operation.

**CAUTION:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

# Table of Contents

System Maintenance	3
Your Warranty	3
What Is Included	3
Transmitter Channels	4
Using Your System	5
Arming	6
Arming While Driving	7
Disarming	7
High Speed Alarm	8
Valer Alerts	9
Diagnostics	11
Table of Zones	12
Code-Hopping - Explained	13
Light Frequency	13
Owner Recognition	13
Rapid Re-arm Logic	14
Programming Options	14
Installation Options	15
Vehicle Recovery System (VRS <sup>®</sup> )	17
Arming the VRS	17
VRS Trailing Sequence	18
Disarming the VRS	19
Glossary Of Terms	20
Security & Convenience Expansions	21
Quick Reference Guide (Removable)	29

© 1997, Intercoast Electronics, Inc.

Cut along dotted line and fold where indicated for a quick and easy reference to keep in your purse or wallet.

## QUICK REFERENCE OPERATING CARD:

### To arm using your remote

- ▶ You can activate, or arm, the system by pressing Button 1 of your transmitter for one second. When the system arms, you will hear a short siren sound, or chirp, and see the parking lights flash once. If the vehicle's power door locks have been connected to the system, the doors will lock.

### To disarm using your remote

- ▶ To disarm the system, press Button 1 again. You will hear two chirps, and the parking lights will flash twice. If power locks are connected to the system, the doors will unlock. If the siren chirps either four or five times when disarming, see Diagnostics section. This is called Tamper Alert!

### Arming While Driving

- ▶ Press Button 1 on your transmitter while the vehicle is running. The system will chirp once, and then once more to indicate that the ignition is on.

### Disarming Without a Transmitter

- ▶ Turn on the ignition. Push the Valet<sup>®</sup> switch, the programmed number of times within 15 seconds. The system should now disarm. If it does not, you may have waited too long. Turn the ignition off and on and try again.

### To enter or exit Valet<sup>®</sup> Mode

- ▶ Turn ignition to "run" position, then turn to "off" position. Press and release the Valet<sup>®</sup> switch within 10 seconds. The status LED will light solid if you are entering Valet Mode, and it will go out if you are exiting Valet Mode.

### To activate panic mode

- ▶ Hold Button 1 down for 15 seconds.

### To exit panic mode

- ▶ Press Button 1 or the disarm button on the transmitter.

### To activate Silent Mode<sup>™</sup>

- ▶ Press Button 11 briefly before arming or disarming, and the confirmation chirps will be eliminated for that one operation only.

be required.) If the factory release is not power activated, the DEI's 592T trunk release solenoid can often be added.

**Valet® Start System:** For the ultimate in convenience, the Valet® start system can start your vehicle, monitor engine functions, and power your climate control system with a push of a button! Over-rev protection, open-hood lockout, brake pedal shutoff, and automatic timer shutoff are all included. (Only for automatic transmission, fuel-injected gasoline vehicles)

**Power Window Control:** Automatic power window control is provided with the 5301 or 5301 systems. These can operate power windows, and can roll them up automatically when the system is armed, down when you transmit channel 2 or 3, or both up and down. The 5301 also provides one touch switch operation.

**Headlight and Parking Light Automation:** The 5451 Nine Line® will automatically turn on your parking and head lights when it gets dark. In addition, the 5451 will make sure your headlights are on whenever the windshield wipers are used. A transmitter function can also be used to turn on your parking and head lights for a programmed time.

## What is included

- 3-Channel Receiver
- A pair of four-button transmitters
- A Singer® Doubleguard® dual output shock sensor
- The Reverger® Soft Chirp® six-tone programmable siren
- The red status LED indicator light
- A push-button Valet® switch
- Your warranty card
- Falsefire® Starter Kill relay circuitry (they require additional labor)

CONGRATULATIONS on your purchase of a state-of-the-art vehicle security system. This system has been designed to provide years of trouble-free operation. Due to the complexity of this product, it must be installed by an authorized dealer only. Installation of this product by any other person other than an authorized dealer voids the warranty. All dealers are provided with a preprinted dealer certificate to verify that they are authorized.

THE SYSTEM REQUIRES NO SPECIAL MAINTENANCE. Your remote control is powered by a miniature 12V battery (type GP23A, that will last about a year under normal use. When the battery weakens, operating range will be reduced and the LED on the remote will light dim.

YOUR WARRANTY card must be returned and the bar code serial number must not be removed. If the warranty card is not returned you don't have a warranty. It is also necessary to keep your proof of purchase which reflects that the product was installed by an authorized dealer. **Make sure you receive the warranty card from your dealer.**

This owner's guide should help you to get the most out of your system. Please take the time to read it thoroughly prior to using the system.

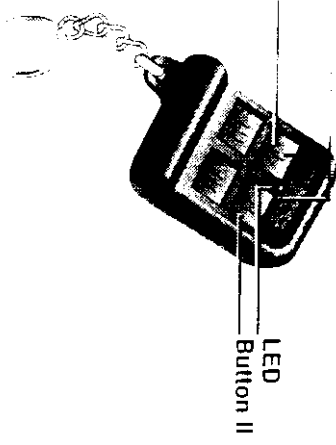
## Transmitter Channels

The receiver uses a computer-based Learn Routine to learn the transmitter buttons. This makes it possible to assign any button on the remote to any receiver function. Two of the possible transmitter configurations are illustrated below:

### Standard Configuration

The standard configuration is how the transmitters come programmed initially. If you would like a custom configuration, see your dealer.

#### Button I & II



of siren sounding and parking light flashing.

**Valer® Switch** A small push button switch mounted somewhere inside the vehicle. It is used to override the alarm when a transmitter is lost or damaged, or to put it into Valer® mode.

**Warn Away® Response** Lighter impacts to the vehicle will generate the Warn Away response. It consists of several seconds of siren chirps and parking light flashes.

**Zone** A zone is a separate input that the alarm can recognize as unique. Each input to the system is connected to a particular zone. (When two or more inputs may share the same zone.)

## Security & Convenience Expansions

Here we have listed only some of the many expansion options available. Please consult your dealer for a complete explanation of all the options available to you.

**Field Disturbance Sensor:** An invisible dome of coverage is established by the 508D "radar" sensor. Your system can react to any intrusions into this field with the triggered sequence.

**Backup Battery:** The 520T keeps the system armed, triggers the alarm and keeps the starter kill active if main battery power is disconnected.

**Audio Sensor:** Metal on glass, glass cracking, or breaking glass produce distinctive acoustic signatures. The 5461 audio sensor uses a microphone to pick up sounds, and then analyzes them with proprietary acoustic software to determine if the glass has been chipped.

**Power Trunk Release:** The channel two output of the system can operate a factory power release for the vehicle's trunk or hatch. (An optional relay may

### Arm/Disarm/Panic

The arm/disarm/panic functions are usually controlled by Button I.

### Function Two

The Silent Mode®, Remote Valet®, trunk release functions are usually controlled by Button II. (Silent Mode and Remote Valet work by pressing Button II for less than one second. Trunk release requires you to press Button II for 1-5 seconds.)

# Glossary of Terms

**Control Unit** The "brain" of your system. Usually hidden underneath the dash area of the vehicle. It houses the microprocessor which monitors your vehicle and controls all of the alarm's functions

**Failsafe\* Starter Kill** An automatic switch controlled by the security system which prevents the vehicle's starter from cranking whenever the system is armed. The vehicle is never prevented from cranking when the system is disarmed, in Valet\* mode, or should the starter kill switch itself fail. Your system is ready for this feature, however installation of this feature may require additional labor.

**Input** A physical connection to the system. An input can be provided by a sensor, pinswitch or to existing systems in the vehicle, such as ignition or courtesy lights.

**LED** Red light mounted somewhere in the vehicle. It is used to indicate the status of your system. It is also used to report triggers and faults in the system to sensors.

**Shock Sensor** This system is packaged with a Doubleguard® Shock Sensor. This sensor is mounted in the vehicle and designed to pick up impacts in the vehicle or after.

**Siren** Noise generating device usually installed in the engine compartment of the vehicle. It is responsible for generating the "chirps" you hear, as well as the six tones you hear while the alarm is triggered.

**Transmitter** Hand held, remote control which operates the various functions of your system.

**Trigger or Triggered Sequence** This is what happens when the alarm goes off or "trips". The triggered response of your system consists of 30 seconds.

**Function Three**  
This function is assigned to the transmitter buttons as shown in the diagram. They are provided to control any convenience or expansion options you wish to add to the system.

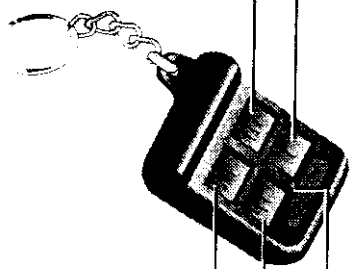
## Separate Arm/Disarm/Panic

A remote configured in this way will operate like many factory keyless entry remotes. This configuration makes it possible to arm the system with one transmitter button, disarm it with another, and activate Panic Mode with a third.

Arm \_\_\_\_\_ LED

Panic \_\_\_\_\_ Disarm

Channel II \_\_\_\_\_



## Function Two

Silent Mode\*, Remote Valet\*, and trunk release are all controlled by function two. In the diagram above, function two is assigned to transmitter Button IV. Silent Mode\* and Remote Valet work by pressing Button IV for less than one second. Pressing Button IV for 1-5 wth activate the trunk release function.

## Function Three

This function can be assigned to any transmitter button configuration desired. The default setting is Buttons I and II. They are provided to control any convenience or expansion options you wish to add to the system.

## Using Your System

The button numbers used in the descriptions correspond to the standard configuration. Remember, this is not the only way your transmitter may be set up. It can be configured to meet your needs.

### Arming

You can activate, or **arm**, the system by pressing Button 1 of your transmitter for one second. When the system arms, you will hear a short siren sound, or **chirp**, and see the parking lights flash once. If the vehicle's power door locks have been connected to the system, the doors will lock.

While the system is armed, the status LED will flash about twice a second, showing that the system is actively protecting your vehicle. If you hear a second chirp after arming, and see the status LED flashing in groups, see the separate section. This extra chirp is called **Bypass Notification**.

The system also can be programmed to arm itself automatically (called **passive arming**). If the system is programmed for passive arming, it will automatically arm 30 seconds after the ignition is turned off and the system "sees" you leave the vehicle by opening and closing a door. Whenever the system is in its 30-second passive arming countdown, the status LED will flash twice as fast as it does when the system is armed. The siren will chirp one time 20 seconds after the last door has been closed. The system is not actually armed at that point. The system arms and the doors lock (if connected and programmed for passive locking) at the 30 second mark, but the siren will not chirp. The entry chirp provides you with a 10 second warning prior to arming.

**NOTE:** If any protected entry point (such as a door or a switch-protected trunk or hood) is open, the system will not passively arm (unless forced passive arming is programmed on. See Programming Options section). Additionally, each time a sensor is triggered during the arming countdown, the 30-second countdown starts over.

### Disarming the VRS

Take the time to familiarize yourself with the VRS' triggering sequence and the disarm procedure. It is important to recognize the VRS and know how to disarm it in case of accidental activation.

Once the VRS is armed, it does not disarm automatically. You must disarm it the next time you operate the vehicle. You must manually disarm it following this procedure:



If the system has not entered the triggered sequence (siren has not started chirping), turn the ignition key on. Press the arm button on the transmitter for one second. The lights will flash and the siren will chirp twice.



If the system has entered the triggered sequence (siren has begun chirping), pressing the disarm button of the transmitter will not disarm VRS. You must turn the ignition to the on position and press the Valetprogram button the programmed amount of times to disarm the VRS system.

the system will trigger as the door is opened and closed. This is how the system works to combat intersection carjacking. To protect against parking lot carjacking, arm VRS before leaving the vehicle. The system will now trigger automatically the next time you or anyone drives the vehicle. This helps to protect the vehicle if someone takes your keys and alarm remote by force in a parking lot.

**NOTE: If the system is armed while driving and not disarmed prior to leaving the vehicle, it is still armed and will trigger the next time the vehicle is driven.**

**VRS - Triggered Sequence**

*Fifteen seconds* after the last door has closed, the system's status LED will begin flashing. This delay is to allow you to put distance between yourself and your vehicle in the event of a carjacking.



*Forty-five seconds later*, the Soft Chirp® Recovery siren will begin chirping and the parking lights will begin flashing. This time could be used to notify authorities that your vehicle has been hijacked, and tell them what the VRS will do next.



*Fifteen seconds* after the siren chirps begin, the siren's output will change to a continuous blast.

From this point on, when the ignition key is turned off, the VRS® will immediately turn on the Faltsafe® starter kill. This will prevent the vehicle from being overboosted from immediately starting at that spot.

*Three minutes* after the constant siren output begins, the flashing parking lights and the siren will stop. The starter kill will remain active until the system is disarmed. If the door is opened or the ignition is turned off and on in an attempt to restart the car, the siren and light flashing will begin again.

**When armed, your vehicle is protected as follows:**

- Light impacts will trigger the Warm Away® signal. When triggered, the siren will chirp and the parking lights will flash for a few seconds.
- Heavy impacts will trigger the system. The **triggered sequence** is 30 or 60 seconds of constant siren and flashing parking lights.
- If a door is opened, the system will immediately start chirping the siren and flashing the parking lights. Three seconds later, the siren output changes to a continuous blast. This **progressive** response gives you time to disarm the system with your transmitter if you inadvertently open the door while the system is armed, while still providing instant response (even if the door is immediately closed).
- Turning on the ignition key will trip the same two stage response as opening a door.
- The optional **starter kill** prevents the vehicle's starter from cranking.

**Arming While Driving**

Your system can be armed while driving the vehicle! Simply press Button 1 on your transmitter for 1.5 seconds while the vehicle is running, or the ignition is on. The system will chirp once and then once more to indicate that the ignition is on. The system will not respond to any input except the door triggers and the starter kill relay (if installed) will not be activated. The system will disarm automatically when the ignition is turned off. The siren will chirp twice and the LED will stop flashing.

**NOTE: If programmed for the optional Vehicle Recovery System (VRS) feature, arming with the transmitter will arm the VRS feature. (see VRS page 17)**

**Disarming**

To disarm the system, press Button 1 again. You will hear two chirps, and the parking lights will flash twice. If power locks are connected to the system, the doors will unlock. If the siren chirps either four or five times when disarming, see Diagnostics section. This is called **Tamper Alert**.

## High Security Disarm

This system proudly offers High Security Disarm. High Security Disarm is a feature that makes it possible to silence and reset the system when it is triggered without disarming the system. If the system is triggered, and the siren has been sounding for longer than six seconds, pressing the disarm button on the transmitter will stop the trigger and return the unit to the armed state. The system will not disarm, but rather reset. This prevents you from disabling the system should you wish to disarm it without visually checking the vehicle. Pressing the disarm button again, after resetting the system, will disarm the system. Pressing the disarm button on the transmitter during the first six seconds of the triggered sequence will disarm the system immediately. The six second timer is provided for your convenience should you trigger the system by mistake.

### Disarming Without a Transmitter

This feature allows you to disarm the system without the transmitter should it be lost, damaged or disabled. In order to disarm without a transmitter, you must have the vehicle's ignition key and know where the Valet\* button is. Be sure to check with the installer for the location of the Valet button.

Turn ignition to "on" position. Push the Valet switch the selected number of times, one to five times, within 15 seconds. The system should now disarm. If it does not, you may have waited too long or you may have turned the ignition off and on again by accident.



**IMPORTANT! The unit can be programmed to respond to 1 - 5 pulses on the Valet\* button for the disarm function. Be sure to check with the installer for the desired programming.**

### Silent Mode™

To temporarily turn off the arm or disarm chirps, use **Silent Mode™**. Simply press Button II briefly before arming or disarming, and the confirmation chirp(s) will be eliminated for that one operation only. If you want the arm/disarm chirps turned off permanently, your dealer can do this for you.

© 1997 Directed Electronics, Inc.

## Vehicle Recovery System (VRS™)

The optional Vehicle Recovery System feature is designed to ensure that any unauthorized user of your vehicle (even if using your keys and remote control) will not be able to permanently separate you from your vehicle.

The VRS feature cannot prevent a carjacking attempt, however, it does ensure that if your vehicle is taken by an unauthorized user, it will be disabled (after several progressive warnings) as safely as possible. Should a carjack attempt occur, the VRS allows you to *concern yourself with your personal safety without worrying about your property.*

DEI® has engineered this vehicle security system, the Fallsale® Starter Kill, and the VRS® feature to provide the best combination of personal safety and properly protection available. When properly installed, the system can never inadvertently stop your vehicle in traffic, on railroad tracks, or other location while the vehicle is in operation. It is unlike any system that shuts down your engine while it is running. This system is designed to perform starter interrupt, or starter kill. The Fallsale® Starter Kill cannot shut down an already running engine; it can only prevent an engine from starting in the first place.

Any installation which allows this product to shut down a vehicle's engine as it is running is contrary to the product's design and intended usage, and DEI® hereby expressly disclaims any liability resulting therefrom.

### Arming the VRS.

To arm the VRS, turn the ignition to the "ON" position and press the ARM button on the transmitter for one second. The parking lights will flash and the siren will chirp once. This can be done before driving or while driving the vehicle. Once the system is armed, it will go into its triggered sequence (see below) if any door is opened and closed. If you are forced from the vehicle

© 1997 Directed Electronics, Inc.



- Progressive door trigger on or off: When the system is armed and a door is opened, the system responds with ten chirps prior to beginning the full triggered sequence. If an instant trigger is desired, progressive door trigger can be programmed off.
- Valet pulse count: The number of presses of the Valet™ program button required to disarm the security system or the VRS™ system can be programmed from 1-5 presses. The default setting is **one** press.
- Siren tones and chirp volume: The output of the Revergent™ Soft Chirp™ siren consists of six different tones in sequence. Any of these tones can be eliminated by your dealer, resulting in a unique, easily identifiable siren sound. The siren chirps can be either full volume or **6 decibels** quieter than the full siren chirp.

## Installation Options

- The system has many options that may require extra parts and labor. Some of the possibilities are listed here.
- **Progressive unlocking:** In most cars with electric power door locks, the system can be configured so that when the system is disarmed, only the driver's door unlocks. A second press of the disarm button within 15 seconds of disarming unlocks the other doors.
- **Vehicle Recovery System (VRS™):** VRS is an anti-carjacking device designed to help in the safe recovery of your vehicle should you be carjacked. Please refer to the Vehicle Recovery System section of this manual below for a complete explanation of how the Vehicle Recovery System operates.

**NOTE:** The Warn Away™ response to lighter impacts is bypassed if the system is armed using Silent Mode. This ensures that no chirps will be emitted by the siren in an area you want chirp-free. The system is still fully able to trigger. Only the Warn Away response is defeated.

### Panic Mode

If you are threatened in or near your vehicle, you can attract attention by triggering the system with your transmitter. Just press Button 1 for 1.5 seconds, and you will enter **Panic Mode**. The siren will sound and the parking lights will flash for 30 seconds. To stop Panic Mode at any time, press Button 1 on the transmitter again.

### Valet™ Mode

You can prevent your system from automatically arming and triggering by using Valet™ Mode. This is very useful when washing the vehicle or having it serviced. In **Valet Mode**, the system will not arm, even with the transmitter, but all convenience functions (door locks, trunk release, etc.) will work normally.

### To enter or exit Valet™ Mode with the Valet switch

Turn ignition to "on" position, then turn to "off" position. Press and release the Valet switch within 10 seconds. The status LED will light solid if you are entering Valet Mode, and it will go out if you are exiting Valet Mode.



## Remote Valet®

The operations described in this section refer to transmitter buttons. The button numbers used in the descriptions correspond to the standard configuration. Remember, this may not be how your transmitter is set up.

Open any door

Press Button I (or the armdisarm button)

Press Button II (or the function 2 button)

Press Button I again

The status LED will light solid if you are entering Valet Mode, or will go out if you are exiting Valet Mode.

## Nuisance Prevention® Circuitry

**Your system has DEER's Nuisance Prevention® Circuitry (NPC). It prevents annoying repetitive trigger sequences due to faulty door pin switches or environmental conditions such as thunder, jackhammers, airport noise, etc. Here's how it works:**

The alarm triggers three times. Each time, the same sensor or switch is triggering the alarm. The three triggers are within 60 minutes of each other. NPC will interpret this pattern of triggers as false alarms. After the third trigger, NPC ignores, or bypasses, that sensor or switch (along with any other sensors or switches sharing the same zone) for 60 minutes.

If the bypassed sensor tries to trigger the system while it is being bypassed, the 60-minute bypass period will start over. This ensures that a sensor that continuously triggers will remain bypassed.

Doors are covered by NPC differently. If the alarm is triggered by an open door for three full cycles (one and one half minutes) the door will be bypassed until the trigger ceases.

the key is turned off, the LED will flash slowly (one half its normal armed rate) to indicate the AED arming cycle. Thirty seconds later, the starter of the vehicle will be disabled. To start the car, it will be necessary to arm the car with the remote and then disarm it with the remote. It is also possible to disarm the AED feature by turning the ignition key to the "run" position and pressing the Valet® button once. AED is disabled when the system is in Valet® mode.

**NOTE: This feature will only function if the Fallsafe® Starter Kill relay has been installed.**

- Forced passive arming on or off: If your system is programmed for passive arming and the forced passive arming feature has been programmed on, the system will passively arm after one hour, even if a protected entry has been left open. This feature is useful if a door has accidentally been left ajar when leaving the vehicle. Forced passive arming ensures that the system will be armed in every situation.

**NOTE: When the system passively arms after one hour, the entry point that has been left open, and anything connected to the same zone, is bypassed and cannot trigger the system. However, the remaining inputs to the system are fully operational.**

- Full trigger response 30 or 60 seconds: This determines how long the full triggered sequence lasts. Some states have laws regulating how long a security system can sound before it is considered a nuisance.
- Nuisance Prevention® Circuitry on or off: Please refer to the NPC section of this manual for a complete explanation of how NPC operates. If NPC is programmed off, the security system will respond to inputs from any sensor indefinitely.

**NOTE: As many states have laws regulating security systems, programming NPC off may allow your system to violate state laws.**

## Rapid Resume Logic

This DE® system will store its current state to non-volatile memory. If power is lost and then reconnected the system will recall the stored state from memory. This means if the unit is in Valet® Mode and the battery is disconnected for any reason, such as servicing the car, when the battery is reconnected the unit will still be in Valet Mode. This applies to all states of the system including arm, disarm, VRS, and Valet Mode.

## Programming Options

Programming options control what your system does during normal operation, and require little or no additional parts. However, some may require additional installation labor.

The following is a list of the program settings, with the factory settings in **Bold**.

- **Active arming** (only with the transmitter) or passive arming (audible chirp 30 seconds after the last door has been closed)
- Arming/disarming confirmation siren chirps **on** or **off**
- Passive door locking (with passive arming) or **active door locking** (only when arming with the transmitter). This feature only works if passive arming has been turned on
- The ignition-controlled door lock feature **on** or **off**. With this feature on, the doors will lock three seconds after the ignition is turned on, and unlock when the ignition is turned off. The system will also prevent the doors from locking when the ignition is turned on with any door open
- Panic mode **enabled/disabled** with the ignition on. Some states have keys against even capability in a moving vehicle
- Automatic Engine Brake® (AEB) on or **off**. The purpose of the feature is to protect the vehicle from being stolen at all times, regardless of whether or not the alarm is armed. If AEB is programmed on, the starter of the vehicle will be disabled 30 seconds after the ignition is turned off. The



**NOTE: Arming and disarming the system does not reset this function! The only ways to reset a bypassed zone are for it to not trigger for 60 minutes, or to turn on the ignition. If testing your system, it is important to remember that the NPC programming can cause zones to be bypassed and appear to stop working. If five chirps are heard when disarming, NPC has been engaged. If you wish to clear the NPC memory, turn the Ignition key on.**

NPC is programmable. See "Programming Options" section of this guide

## Diagnostics

The microprocessor at the heart of your system is constantly monitoring all of the switches and sensors connected to it. It detects any faulty switches and sensors and prevents them from disabling the entire system. The microprocessor will also record and report any triggers that occurred during your absence.

### Arming Diagnostics

If the system is armed with an input active (door open, sensor triggering, etc.) the unit will chirp once when arming and then one more time a few seconds later. This is called **Bypass Notification**.

**NOTE: Bypass notification will not occur when using Silent Mode™ or if chirps have been programmed OFF.**

The system will ignore the input that was active when it was armed until it goes away. Three seconds later it will monitor that input normally. For example, if your car has interior light exit delay, and you arm the system before the interior light goes out, you may get Bypass Notification. Once the light goes out, however, the doors are monitored normally.

### Disarming Diagnostics

Extra disarm chirps are the Tamper Alert. If four chirps are heard when disarming, the system was triggered in your absence. If five chirps are heard, a zone was triggered so many times that Nuisance Prevention™ Circuitry has bypassed that zone. In either case, the status LED will indicate which zone was involved (see Table of Zones section). The system will retain this information in its memory, and chirp four or five times each time it is disarmed, until the next time the ignition key is turned on.

### Table of Zones

The zone number is the number of LED flashes used by the system to identify that input. The standard input assignments are listed below, along with spaces to write in any optional sensors or switches you have had installed.

Zone Number of LED Flashes	Description	Dealer-Installed Options
1	Instant Trigger - often used for hood/trunk pin switches	
2	Instant Trigger - a heavier input detected by the Paralegator™ Shock Sensor	
3	Door switch trigger	
4	Instant trigger for optional sensors	
5	Ignition trigger	

### Code-Hopping™ Explained

The receiver and transmitters each use a mathematical formula called an algorithm to change their code each time the transmitter is used. This technology has been developed to increase the security of the unit. The control unit knows what the next codes should be. This helps to keep the transmitter "in sync" with the control unit even if you use the remote control out of range of the vehicle. However, if the transmitter has been pressed many times out of range of the vehicle, or the battery has been removed, it may get out of sync with the control unit and fail to operate the system. To re-sync the remote control simply press the arm/disarm button of the remote control several times within range of the vehicle. The alarm will automatically re-sync and respond to the transmitters normally.

### High Frequency

Your system transmits and receives at 434 MHz. This provides a cleaner spectrum with less interference and a more stable signal. Enjoy a phenomenal increase in range, even in areas with high radio interference.

### Owner Recognition

Owner Recognition is a revolutionary new feature available only from DEI. Using a personal computer, your dealer can program many of the system settings. The computer makes it possible to program different settings for each transmitter that is used with the system. Then, whenever a specific transmitter is used, the system will recall the settings assigned to that transmitter. Owner Recognition lets up to four users of the system have different settings that meet their specific needs. It is almost like having four separate alarms in your vehicle, one for each user.

**NOTE: Owner Recognition cannot be programmed without a personal computer and the necessary software. Check with your dealer for more information.**