

Model 415
Owner's Guide

[Limited Lifetime Consumer Warranty]

Directed Electronics, Inc. ("DEI") promises to the original purchaser to repair or replace with a comparable reconditioned model any DEI unit (hereafter the "unit"), excluding without limitation the siren, the remote transmitters, the associated sensors and accessories, which proves to be defective in workmanship or material under reasonable use during the lifetime of the vehicle provided the following conditions are met: the unit was professionally installed and serviced by an authorized DEI dealer; the unit will be professionally reinstalled in the vehicle in which it was originally installed by an authorized DEI dealer; and the unit is returned to DEI, shipping prepaid with a legible copy of the bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number and address; the authorized dealers name, telephone number and address; complete product description, including accessories; the year, make and model of the vehicle; vehicle license number and vehicle identification number. All components other than the unit, including without limitation the siren, the remote transmitters and the associated sensors and accessories, carry a one-year warranty from the date of purchase of the same. This warranty is non-transferable and is automatically void if: the original purchaser has not completed the warranty card and mailed it within ten (10) days of the date of purchase to the address listed on the card; the unit's date code or serial number is defaced, missing or altered; the unit has been modified or used in a manner contrary to its intended purpose; the unit has been damaged by accident, unreasonable use, neglect, improper service, installation or other causes not arising out of defects in materials or construction. The warranty does not cover damage to the unit caused by installation or removal of the unit. DEI, in its sole discretion, will determine what constitutes excessive damage and may refuse the return of any unit with excessive damage. **TO THE MAXIMUM EXTENT ALLOWED BY LAW, ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, ARE EXPRESSLY EXCLUDED; AND DEI NEITHER ASSUMES NOR AUTHORIZES ANY PERSON OR ENTITY TO ASSUME FOR IT ANY DUTY, OBLIGATION OR LIABILITY IN CONNECTION WITH ITS PRODUCTS. DEI DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. DEI SECURITY SYSTEMS, INCLUDING THIS UNIT, ARE DETERRENTS AGAINST POSSIBLE THEFT. DEI IS NOT OFFERING A GUARANTEE OR INSURANCE AGAINST VANDALISM, DAMAGE OR THEFT OF THE AUTOMOBILE, ITS PARTS OR CONTENTS; AND HEREBY EXPRESSLY DISCLAIMS ANY LIABILITY WHATSOEVER, INCLUDING WITHOUT LIMITATION, LIABILITY FOR THEFT, DAMAGE AND/OR VAN-**

DALISM. THIS WARRANTY DOES NOT COVER LABOR COSTS FOR MAINTENANCE, REMOVAL OR REINSTALLATION OF THE UNIT OR ANY CONSEQUENTIAL DAMAGES OF ANY KIND. IN THE EVENT OF A CLAIM OR A DISPUTE INVOLVING DEI OR ITS SUBSIDIARY, THE PROPER VENUE SHALL BE SAN DIEGO COUNTY IN THE STATE OF CALIFORNIA. CALIFORNIA STATE LAWS AND APPLICABLE FEDERAL LAWS SHALL APPLY AND GOVERN THE DISPUTE. THE MAXIMUM RECOVERY UNDER ANY CLAIM AGAINST DEI SHALL BE STRICTLY LIMITED TO THE AUTHORIZED DEI DEALER'S PURCHASE PRICE OF THE UNIT. DEI SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGES FOR THE LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, THE MANUFACTURER DOES OFFER A LIMITED WARRANTY TO REPLACE OR REPAIR THE CONTROL MODULE AS DESCRIBED ABOVE. Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights and you may also have other rights that vary from State to State.

This product may be covered by a Guaranteed Protection Plan ("GPP"). See your authorized DEI dealer for details of the plan or call DEI Customer Service at 1-800-876-0800. DEI security systems, including this unit, are deterrents against possible theft. DEI is not offering a guarantee or insurance against vandalism, damage or theft of the automobile, its parts or contents; and hereby expressly disclaims any liability whatsoever, including without limitation, liability for theft, damage and/or vandalism. DEI does not and has not authorized any person or entity to create for it any other obligation, promise, duty or obligation in connection with this security system.

Make sure you have all of the following information from your dealer:

A clear copy of the sales receipt, showing the following:

- Date of purchase
- Your full name and address
- Authorized dealer's company name and address
- Type of alarm installed
- Year, make, model and color of the automobile
- Automobile license number
- Vehicle identification number
- All security options installed on automobile
- Installation receipts

[Table of Contents]

Limited Lifetime Consumer Warranty	i
What Is Included	1
Important Information	2
Your Warranty	2
FCC/ID Notice	3
Using Your System	4
Arming	4
Disarming	5
Disarming the System Without a Transmitter	6
Valet Mode	6
Remote Valet	7
Panic Mode	8
Nuisance Prevention* Circuitry	8
Diagnostics	9
Arming Diagnostics	10
Disarming Diagnostics	10
Table of Zones	11
Rapid Resume Logic	11
Programming Options	12
Security & Convenience Expansions	13
Glossary Of Terms	14
Quick Reference Guide (Removable)	17

[What is Included]

- The control module
- A Stinger® dual stage shock sensor
- The red status LED indicator light
- The Revenger® soft chirp siren
- A push-button Valet® switch
- Your warranty card
- Failsafe® Starter Kill relay (may require additional labor)

[Important Information]

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

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. You can print extra or replacement copies of this guide from DEI's website at www.dei.com.

Your Warranty

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.**

FCC/ID Notice

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.

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

[Using Your System]

Arming

You can activate, or arm, the system by locking the doors with your factory keyless entry transmitter. When the system arms, you will hear a short siren sound, or chirp, and see the parking lights flash once. 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 Diagnostics section. This extra chirp is called Bypass Notification.

NOTE: If the ignition is turned on within 60 seconds of arming the system, the system will automatically disarm.

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. When the system arms the siren will chirp and the parking lights will flash once. The doors lock (if connected and programmed for passive locking).

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. Additionally, each time a sensor is triggered during the arming countdown, the 30-second countdown starts over.

When armed, your vehicle is protected as follows:

- Light impacts will trigger the warn 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).

NOTE: If programmed for 15 second entry delay, the system will provide an instant trigger 15 seconds after the door has been opened (see Programming Options)

- The starter interrupt prevents the vehicle's starter from cranking.

Disarming

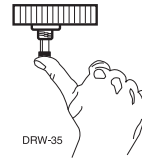
To disarm the system, unlock the doors using your factory keyless transmitter. You will hear two chirps, and the parking lights will flash twice. If the siren chirps either four or five times when disarming, refer to the Diagnostics section of this guide. This is called Tamper Alert.

Disarming the System Without a Transmitter

This feature allows you to override the system without the transmitter should it be lost, damaged or disabled. To do this, you must have the vehicle's ignition key and know where the Valet® button is located. Be sure to check with the installer for the location of the Valet® button.



Turn the ignition to the “run” position. Press and release the Valet® switch, within 10 seconds. After a few seconds the LED will stop flashing and the vehicle should start. If it does not, you may have waited too long. Turn the ignition off and try again.



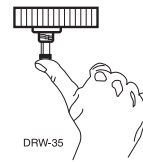
Valet® Mode

You can prevent your system from automatically arming and locking the doors, 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 steady if you have entered Valet Mode. To exit Valet Mode, repeat the steps above. The LED will turn off when exiting Valet Mode.

Remote Valet

Remote Valet is a convenient feature that makes bypassing the security system easier. This feature makes it possible to exit or enter Valet Mode using your factory keyless transmitter.

1. Open any door.
2. Press LOCK on the transmitter.
3. Press UNLOCK on the transmitter.
4. Press LOCK on the transmitter.

The status LED will stay on if you have entered Valet Mode, and it will go out if you exited Valet Mode.

NOTE: The Remote Valet feature will not work with all factory keyless entry systems. Some keyless entry systems do not work with a door open.

Panic Mode

If you are threatened in or near your vehicle, you can attract attention by triggering the system with your transmitter! Just press the lock button on your factory keyless transmitter twice within three seconds to enter Panic Mode. The siren will sound and the parking lights will flash for 30 seconds. To stop Panic Mode at any time, press the unlock button on your factory transmitter.

NOTE: The system can also be programmed so that pressing the lock button twice within three seconds will activate an optional accessory. If the unit is programmed to activate an optional accessory, Panic Mode will not be operational.

[Nuisance Prevention[®] Circuitry]

Your system has Nuisance Prevention Circuitry (NPC). This circuitry 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. Your system will interpret this pattern of triggers as false alarms. After the third trigger, your system 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 is continuously triggering will remain bypassed.

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

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 this circuitry can cause zones to be bypassed and appear to stop working. If five chirps are heard when disarming, false alarm protection has engaged. If you wish to clear the memory, turn the ignition key on.

[**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 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 false alarm 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 LED Flashes)	DESCRIPTION	DEALER-INSTALLED OPTIONS
1	Instant trigger - often used for hood/trunk pin switches	
2	Instant trigger - a heavier impact detected by the shock sensor	
3	Door switch trigger	
4	Optional sensor	
5	Ignition trigger	

If the Warn Away response is triggered, the LED will not report it.

[Rapid Resume Logic]

This DEI® 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, 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 (automatic arming 30-seconds after closing the last door).
- Arming/disarming confirmation siren chirps **on** or off.
- Passive door locking (with passive arming). This feature only works if passive arming has been turned on.
- Valet Pulse Count: The number of pulses of the Valet switch required to disarm the security system are programmable from one to five pulses. The default setting is **one pulse**.
- Siren Tones and Chirp Volume: The output of the 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 chirps can either be full volume or **six decibels quieter** than the full alarm blast.
- Siren duration: The length of the triggered sequence can be programmed for **30** or 60 seconds.
- Door Trigger **Instant** or delayed: In the standard configuration the unit will provide a progressive response if the door is opened while the system is armed. The siren will chirp and the parking lights will flash for a few seconds followed by a full trig-

ger response. In the delayed mode, nothing will happen for 15 seconds once the door is opened. After 15 seconds the unit will trigger the full trigger response.

- **Panic/Auxiliary Channel:** This unit has the ability to control an optional accessory, such as power window control. In the default setting pressing the lock button twice will activate Panic Mode. If the unit is programmed for auxiliary channel, pressing the lock button twice will activate the channel. This feature is optional and will require additional parts and labor and results in the loss of Panic Mode.

[Security & Convenience Expansions]

Here we have listed only some of the many expansion options available. Please consult your dealer for a complete list of the options available for use with your system.

Domelight Supervision: The domelight will illuminate for 30 seconds each time the system is disarmed using the transmitter. This is useful for seeing inside the vehicle at night prior to entering it.

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: Power window control is provided with the 529T or 530T systems. The 529T system will roll up two windows automatically when the system is armed, or roll two windows down when you transmit channel 2 or 3, The 530T can roll two windows both up and down. The 530T also provides one touch switch operation.

[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.

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 or sensors.

Valet® 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 Valet® Mode.

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. Often, two or more inputs may share the same zone.

[Notes]

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

QUICK REFERENCE GUIDE:

To arm the system

- You can arm the system by locking the doors with your factory keyless entry transmitter. When the system arms, you will hear a short chirp, and see the parking lights flash once.

To disarm the system

- To disarm the system, unlock the doors using your factory keyless transmitter. You will hear two chirps, and the parking lights will flash twice.

Disarming without a transmitter

- Turn on the ignition. Press the Valet switch the programmed number of times within 10 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® Mode

- Turn ignition to "run" 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.

To activate Panic Mode

- Press the lock button on your factory keyless transmitter twice within three seconds to enter Panic Mode. The siren will sound and the parking lights will flash for 30 seconds. To stop Panic Mode at any time, press the unlock button on your factory keyless transmitter.

NOTE: If the unit is programmed to use the auxiliary output, Panic Mode will not be operational.

Remote Valet

- Open any door. Press the lock button on your transmitter. Within one second, press the unlock button on your transmitter. Within one second, press the lock button on your transmitter again. The status LED will stay on if you have entered Valet Mode, and it will go out when exiting Valet Mode.

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. Its electronic products are sold and serviced worldwide.

Call **(800) 477-1372** for more information about our products and services.



DEI is an ISO 9001 registered company.

DEI is committed to delivering on time, the best products we know how to provide, and to constantly work with our customers and vendors to improve our products, quality, delivery and customer friendly features.



Directed Electronics, Inc.
Vista, CA 92083

© 1999 Directed Electronics, Inc. - All rights reserved
G415A 6/99