

421R Series
Owner's Guide

[Limited Lifetime Consumer Warranty]

For a period of one calendar year from the date of purchase of this auto-security device, Directed Electronics, Inc. promises to the ORIGINAL PURCHASER to repair or replace (with a comparable reconditioned model), free of cost, any electronic control module which proves to be defective in workmanship or material under normal use, SO LONG AS THE SYSTEM WAS SOLD, INSTALLED, AND SERVICED BY A PROFESSIONAL AUTO INSTALLER, AND REMAINS IN THE CAR IN WHICH THE SYSTEM WAS ORIGINALLY INSTALLED. If warranty service is necessary you must have a clear copy of your sales receipt containing all of the information shown on the following page.

After the first calendar year, from the date of purchase of this auto-security device, Directed Electronics, Inc., promises to the ORIGINAL PURCHASER to repair or replace (with a comparable reconditioned model) any electronic control module which proves to be defective in workmanship or material under normal use **FOR A CHARGE OF \$45.00**, SO LONG AS THE SYSTEM WAS SOLD, INSTALLED, AND SERVICED BY A PROFESSIONAL AUTO INSTALLER, AND REMAINS IN THE CAR IN WHICH THE SYSTEM WAS ORIGINALLY INSTALLED. If warranty service is necessary you must have a clear copy of your sales receipt containing all of the information shown on the following page.

This warranty contains the entire agreement relating to warranty and supersedes all previous and contemporaneous representations or understandings, whether written or oral. IN ANY EVENT, DEI IS NOT LIABLE FOR THE THEFT OF THE VEHICLE AND/OR ITS CONTENTS.

This warranty is void if the product has been damaged by accident, unreasonable use, neglect, improper service or other causes not arising out of defects in materials or construction. This warranty is nontransferable and does not apply to any unit that has been modified or used in a manner contrary to its intended purpose and does not cover batteries. The unit in question must be returned to the manufacturer, postage prepaid. This warranty does not cover labor costs for the removal, diagnosis, troubleshooting or reinstallation of the unit. For service on an out-of-warranty product a flat rate fee by model is charged. Contact your authorized dealer to obtain the service charge for your unit.

These systems are a deterrent against possible theft. Directed Electronics, Inc. is not offering a guarantee or insuring against the theft of the automobile or its contents and disclaims any liability for the theft of the vehicle and/or its contents. Directed Electronics does not authorize any person to create for it any other obligation or liability in connection with this security system.

TO THE MAXIMUM EXTENT ALLOWED BY LAW, ANY AND ALL WARRANTIES ARE EXCLUDED BY THE MANUFACTURER AND EACH ENTITY PARTICIPATING IN THE STREAM OF COMMERCE THEREWITH. THIS EXCLUSION INCLUDES BUT IS NOT LIMITED TO THE EXCLUSION OF ANY AND ALL WARRANTY OF MERCHANTABILITY AND/OR ANY AND ALL WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND/OR ANY AND ALL WARRANTY OF NON-INFRINGEMENT OF PATENTS, IN THE UNITED STATES OF AMERICA AND/OR ABROAD. NEITHER THE MANUFACTURER OR ANY ENTITIES CONNECTED THEREWITH SHALL BE RESPONSIBLE OR LIABLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, TOWING, REPAIR, REPLACEMENT, DAMAGES FOR LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, 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 which vary from state to state.

IMPORTANT NOTE:

This product warranty is automatically void if its date code or serial number is defaced, missing, or altered. This warranty will not be valid unless you have completed the warranty card and mailed it to Directed Electronics, Inc. within 10 days after purchase to the address listed on the warranty registration card.

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 system installed
- Year, make, model and color of the automobile
- Automobile license number
- Vehicle identification number
- All security options installed on automobile
- Installation receipts

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[Standard Configuration]



What is Included

- The control module
- A pair of two-button transmitters
- The red status LED indicator light
- A push-button Valet® switch
- A Failsafe® Starter Kill relay on-board the control module
- Your warranty card

Important Information

Congratulations on the purchase of this system. It has been designed to provide years of trouble-free operation. By carefully reading this guide prior to using your system, you will maximize the use of this product and its features. Additional or replacement copies of this manual may be obtained by logging on to DEI's website at www.directed.com.

System Maintenance

This system has been designed to provide years of trouble-free operation and requires no specific maintenance. Your remote is powered by a miniature 12V battery, type GP23A, that will last approximately one year under normal use. When the battery weakens, operating range will be reduced and the LED on the remote will dim.

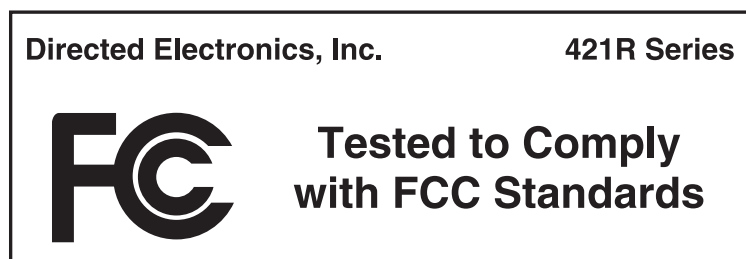
Your Warranty

Your warranty card must be returned and the barcode serial number must not be removed. If the warranty card is not returned, no warranty will be honored on your unit. 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.

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



DRW-239

[Transmitter Functions]

This system is programmable, making it possible to assign any transmitter button to any specific receiver function. The remote initially comes programmed with Standard Configuration, but may also be customized by an authorized dealer. The buttons in all of the instructions in this manual correspond to a Standard Configuration remote.

Standard Configuration

Button

Locking/arming and Panic Mode activation are controlled by this button. Pressing it for one second will lock/arm the system, while pressing it for 1.5 seconds will activate Panic Mode.

Button

Unlocking/disarming, Panic Mode deactivation and an optional auxiliary function are controlled by this button. Pressing it for one second will unlock the doors and disarm the starter kill. This button is also used to stop Panic Mode at any time. Additionally, an optional auxiliary function is controlled by pressing and holding it for 1.5 seconds.

This auxiliary output controls _____.

Buttons and



An optional auxiliary function that you have added to your system can be activated by pressing these buttons simultaneously.

This auxiliary output controls _____.

NOTE: If using an optional four-button remote, the Standard Configuration may be assigned to buttons III and IV of the transmitter.

[Using Your System]

Locking/Arming



Pressing  for one second will lock the doors and activate the Failsafe® Starter Kill. The red LED will begin flashing once per second and the parking lights will flash once. Pressing  again within 10 seconds of locking/arming the system will not lock the doors again, but it will flash the parking lights and honk the horn once, confirming that the system is locked/armed. After 10 seconds, the system can be locked/armed again, as usual.



Locking/arming your system protects your vehicle in the following ways:

- The vehicle doors will lock.
- Turning on the ignition will initiate the Panic Mode. The Failsafe® Starter Kill will also prevent the vehicle's starter from cranking.

NOTE: You must use your transmitter to lock the vehicle in order for the starter kill to be armed. Manually locking the vehicle does not arm the system; it will only lock the doors. If you have not used the transmitter to lock the vehicle doors (i.e. the vehicle has been locked using the lock/unlock switch) the transmitter cannot be used to unlock the doors.

Unlocking/Disarming

To unlock the driver's door (or all vehicles doors, depending on if your vehicle has driver's door unlock) and disarm the Failsafe® Starter Kill, press  for one second. The parking lights will flash twice and the red LED will go out. If pressing  the first time

did not unlock all vehicle doors, press  again within 10 seconds to unlock the remaining passenger doors and the parking lights will flash twice. Pressing  a third time within 10 seconds will flash the parking lights and honk the horn twice, confirming that the doors are unlocked and the starter kill is disarmed. After 10 seconds, the system can be unlocked/disarmed again, as usual.

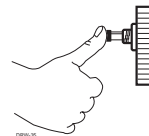
NOTE: If the system has been locked/armed with the remote, you must use the remote to unlock/disarm the system. Manually unlocking the vehicle does not disarm the starter kill; it will only unlock the doors.

Disarming the Starter Kill Without a Transmitter



If your remote transmitter is lost or damaged, you can manually disarm your the Failsafe Starter Kill. To disarm the starter kill without a transmitter, you must have the vehicle's ignition key and know where the Valet switch is located. Be sure to check with your installer at the time of installation for the location of the Valet switch.



To disarm the starter kill, turn the ignition key on and press the Valet switch within 15 seconds. The starter kill should now disarm. If it does not disarm, you may have waited too long; turn the ignition off and repeat the process.




Panic Mode

If you are threatened in or near your vehicle, you can attract attention by triggering the system with your remote! Just press and hold  for 1.5 seconds, and you will enter **Panic Mode**. The horn will honk and the parking lights will flash for 30 seconds. To stop Panic Mode at any time, press  on the remote.

NOTE: In order for Panic Mode to function, the vehicle's horn (or optional siren) as well as the vehicle's parking lights must be connected.

[Code Hopping™]

The receiver and transmitter use mathematical formulas called algorithms to change their codes each time the transmitter is used. This Code Hopping technology has been developed to increase the security of the unit. By following this set code sequence, the receiver and transmitter stay synchronized, even if the transmitter is used out of range of the vehicle. If, however, the transmitter is pressed many times out of range, or the battery is removed, the transmitter may get temporarily out of sync and fail to operate the system. To resynchronize the transmitter, simply press  several times within range of the vehicle. The system will automatically resynchronize and the transmitter will respond 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.

[Programming Options]

Programming options control what your system does during normal operation, and require few or no additional parts. However, some options may require additional installation labor. The following is a list of the program settings, with the factory settings in **bold**:

- Ignition-controlled door locks can be turned **on** or off. When turned on, the doors will lock three seconds after the ignition is turned on and unlock when the ignition is turned off.
- There is a ignition-controlled panic sequence that can be programmed **on** or off. If this feature is programmed on, Panic Mode will initiate and the starter kill will arm whenever the ignition is turned on while the system is locked/armed.

[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.

Domelight Supervision: If installed, the domelight will illuminate for 30 seconds each time the system is unlocked/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 fuel-injected, automatic-transmission 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 locked/armed, or roll two windows down. The 530T can roll two windows both up and down. The 530T also provides one touch switch operation.

Power Trunk Release: This expansion option allows you to operate a factory power release for the vehicle's trunk or hatch. If the factory release is not power-activated, DEI's 522T trunk-release solenoid can often be added.

[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 system functions.

Failsafe® Starter Kill: Located on-board the control module, this is an automatic switch controlled by the 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 or if the starter kill switch fails.

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.



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

Valet® Switch: A small push button switch mounted somewhere inside the vehicle that is used by the installer for programming the system. It can also be used to override the starter kill and other expansion options that have been added to your system. Consult your dealer for details.




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

QUICK REFERENCE GUIDE:

To lock/arm using your transmitter

- Pressing  for one second will lock the doors and activate the Failsafe® Starter Kill. The red LED will begin flashing once per second and the parking lights will flash once. Pressing  again within 10 seconds of locking/arming the system will not lock the doors again, but it will flash the parking lights and honk the horn once, confirming that the system is locked/armed. After 10 seconds, the system can be locked/armed again, as usual.

To unlock/disarm using your transmitter

- To unlock the driver's door (or all vehicles doors, depending on if your vehicle has driver's door unlock) and disarm the Failsafe® Starter Kill, press  for one second. The parking lights will flash twice and the red LED will go out. If pressing  the first time did not unlock all vehicle doors, press it again within 10 seconds to unlock the remaining passenger doors and the parking lights will flash twice. Pressing  a third time within 10 seconds will flash the parking lights and honk the horn twice, confirming that the doors are unlocked and the starter kill has been completely disarmed. After 10 seconds, the system can be unlocked/disarmed again, as usual.


Disarming the starter kill without a transmitter:

- Turn on the ignition. Press the Valet switch within 15 seconds. The starter kill should now disarm. If it does not disarm, you may have waited too long; turn the ignition off and on and try again.

To activate panic mode

- Press and hold  down for 1.5 seconds.

To exit panic mode

- Press .

The company behind this system is Directed Electronics, Inc.

Since its inception, DEI® has had one purpose, to provide consumers with the finest vehicle security and car stereo products and accessories available. The recipient of more than 20 patents in the field of advanced electronic technology, DEI is ISO 9001 registered.

Quality Directed Electronics products are sold and serviced throughout North America and around the world.

Call **(800) 274-0200** 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.

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