

VIPER[®]



**NO ONE DARES
COME CLOSE[®]**

OWNER'S GUIDE

**M O D E L
3305V**

Congratulations

Congratulations on the purchase of your state-of-the-art security and remote start system. Reading this Owner's Guide prior to using your system will help maximize the use of your system and its many features. Please visit: www.viper.com – For general and additional guide information. For any additional questions please contact your authorized Directed dealer or contact Directed at **1-800-753-0600** (U.S. only). Additional support is also available at: <http://support.directed.com>.

What is included

Welcome to the best generation of security. Your system contains everything you need.

- 4- button 2- way LCD remote control
- 4- button 1- way remote control
- In-vehicle status LED indicator light and push-button Valet switch
- Owner's guide and Warranty card

Important information

Government Regulations



Read the *Government Regulations* section of this manual prior to operating this system.

Your Warranty

Your Responder LC system comes with a warranty. Make sure you receive the warranty registration card and proof of purchase from your dealer indicating the product was installed by an authorized Directed dealer. Please validate it online at www.prodregister.com/directed or complete and return the warranty registration card.

Replacement remote controls

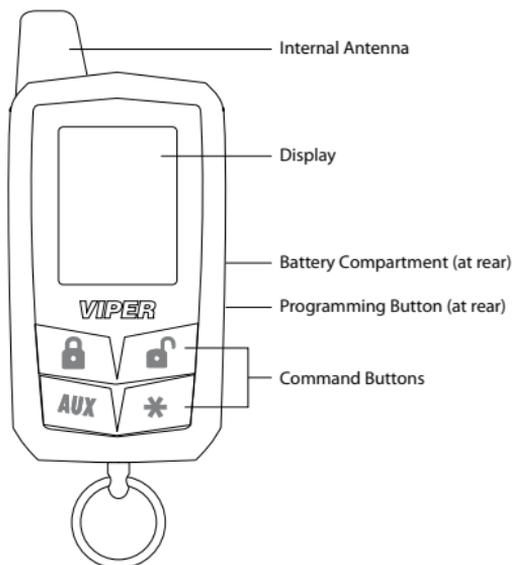
Your system comes with two remotes, the 7345V 2-way, and the 1-way companion remote 7145V. If additional remote controls are desired, please see your authorized dealer or visit us at: www.directedstore.com.

Contents

Congratulations	1
What is included.....	1
Important information	2
2-way LCD remote control.....	3
LCD Screen	4
LCD status icons / 2-way only	5
Remote control configuration.....	6
2-way standard configuration.....	6
Remote control functions	7
2-way and 1-way	7
Remote paging, 2-way	8
Signal paging features	8
Programming your 2-way remote control	10
Beeps and Vibration, On/Off.....	10
Illumination On/Off	10
Page notification.....	11
Vehicle Select.....	11
Using your system	12
Active arming.....	12
Passive arming	12
Multi-level security arming.....	14
Disarming	15
High Security Disarm.....	15
Disarming without a transmitter.....	16
Dome light control.....	16
Silent mode.....	17
Panic mode.....	18
Valet mode	19
Nuisance prevention circuitry	20
Auxiliary outputs	21
Diagnostics	21
Arming diagnostics	22
Disarming diagnostics	22
System status chirps	23
Table of zones	23
Interpreting zone diagnostics.....	24
Vehicle recovery system (VRS)	24
Arming the VRS	25
Triggered sequence, VRS	26
Disarming the VRS	26
Code hopping.....	28

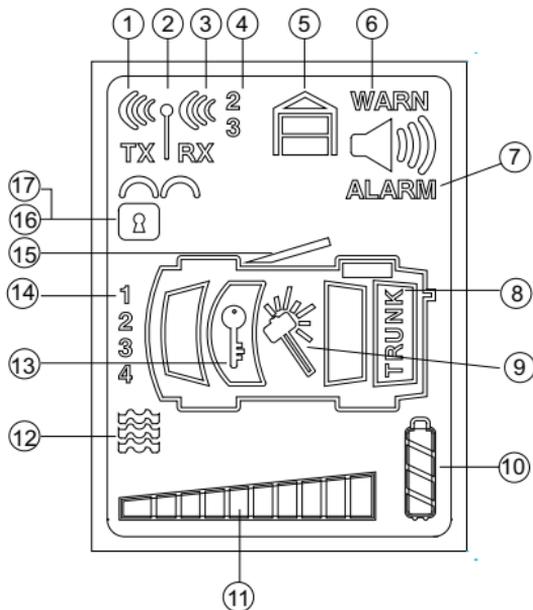
Owner recognition	28
Rapid resume logic.....	29
Power saver mode.....	29
Programming options	30
Installation options	33
Security & Convenience Expansions.....	34
System maintenance	36
Glossary of Terms.....	37
Patent Information	38
Government Regulations	39
Limited lifetime consumer warranty	41

2-way LCD remote control



Feature	Description
Internal Antenna	Used for transmitting and receiving information
Display	The LCD screen provides visual confirmation of the vehicle status using symbols and icons, such as alarm information.
Command buttons (4)	Used to perform arming, disarming, auxiliary channel and remote start commands
Programming Button	Used for customizing the remote control and for car selection.
Battery Compartment	1 AAA battery powers the 2-way unit. Remove door on unit rear to access.

LCD Screen



LCD Icon descriptions	
1. Transmit	10. Battery level indicator
2. Out-of-range	11. Remote sending
3. Receive	12. Vibrate mode
4. Auxiliary output 2 or 3	13. Ignition
5. Garage door (no function)	14. Vehicle number
6. Warn away	15. Door
7. Alarm	16. Arm
8. Trunk or Hood	17. Disarm
9. Sensor	

LCD status icons / 2-way only

	Icon	Description
1		On during remote command transmission to the vehicle.
2		On during remote command transmission to vehicle, but command page is not received.
3		On during receipt of page from the vehicle to the remote.
4		Displays which auxiliary is operating, or which security sensor is in Warn Away or alarm state.
5		No Function
6		Displays when a security feature is tripped, but not to full alarm.
7		Displays when a security is tripped to a full alarm state.
8		Trunk icon flashes a few seconds during full alarm and then remains displayed until page is cleared.
9		Shock sensor icon flashes a few seconds during Warn Away and full alarm, and then remains displayed until page is cleared.
10		Battery icon displays current charge capacity of the remote's battery.
11		Bar indicates remote is sending.
12		Vibrator icon displays if remote is programmed for vibrator notification. (See remote Programming section)
13		Ignition icon flashes a few seconds during full alarm, then remains displayed until page is cleared.

	Icon	Description
		Hood icon flashes a few seconds during full alarm, and then remains displayed until page is cleared.
14		Displays the vehicle (1 of 4) that the remote controls. See "Vehicle Select" section.
15		Door icon flashes a few seconds, and then remains displayed until page is cleared.
16		Arm icon flashes when doors are locking, and then remains displayed until the system is disarmed.
17		Disarm icon flashes when doors are unlocking, and then remains displayed until the system is armed.

Remote control configuration

2-way standard configuration	
Arm	
Disarm	
Channel 2/Silent Mode	AUX
Panic	
Channel 3	 and 

Remote control functions

The LCD remote control buttons are used to send commands to the system. The descriptions below reflect the standard configuration for this system. The buttons can be custom configured for the user's specific needs by the installer.

2- way and 1- way

- Press and release  to lock the doors and arm the vehicle.
- Press and release  to unlock the doors and disarm the vehicle.
- Press and release **AUX** then press  or  to activate Silent Mode™ or press and hold for approximately two seconds to activate optional auxiliary function such as trunk release.

The auxiliary output controls_____

- Press and hold  for two seconds, to activate Panic.
- Press and release  and  simultaneously to an activate auxiliary convenience or expansion option.

The auxiliary output controls_____

Remote paging, 2-way

The system operates at 434 MHz and incorporates Directed's proprietary out-board technology transceiver. The high frequency combined with Binary Data communication achieves superior range with two-way communication.

Signal paging features

A page is the signal the control module sends to the remote control as confirmation of receipt of a command or alarm system status. When the remote control receives a page it generates a page notification to the user (notifications are audible beeps and-or vibration), and the LCD icons display current system status.

Command Page

When a command (arm/disarm, or auxiliary channel) from the remote control is sent and received, the system will send a command page back to confirm receipt.

Alarm Page

If the alarm system is triggered while armed, an Alarm Page will be sent to the remote control. When the remote receives an Alarm Page, the LCD icons will display the alarm system status information and the remote control will generate beeps and-or vibration.

An Alarm Page alert is a series of 5 groups of 4 rapid beeps (shock, trunk, door, ignition, or hood trigger) and the LCD icon that caused the alarm will display. The remote will beep and or vibrate every 60 seconds to alert the user that the alarm system was triggered and will continue until the alarm page is cleared.

Page Recognition (Acknowledgement)

To clear a page alert/notification, quickly press any button on the remote control. This can be performed at any time during or after the page notification has occurred.

The remote control will not send a command to the system at this time; it will only clear future repeats of the page notification. The next time a button is pressed on the remote control it will send a command to the system.

Out of range notification

If a command is issued from the remote, but the remote is set to the incorrect vehicle or is beyond the range of the vehicle to receive the command, the remote responds with 3 sets of 2 quick beeps and the  icon will flash 3- times.

Programming your 2-way remote control

To enter programming mode:

Press and hold the **P** button located on the back of the remote control until one long beep sounds. You can now customize the remote's response feedback. If no buttons are pressed within 5 seconds, programming mode is exited; the remote sounds 2 beeps.

Beeps and Vibration, On/Off

Press  to select beep/vibration On or Off, or one of the below settings.

Beeps/Vibrate	Response	Icon*
Beeps only	1 beep	
Vibrate only	1 vibrate	
Beep & Vibrate	1 beep & 1 vibrate	 & 
No Beep & No Vibrate	1 long beep	

*Displays during programming

Illumination On/Off

Press  to select LCD backlight illumination On/Off. The LCD backlight will illuminate when a remote button is pressed, or an alarm status page is received.

LCD backlight settings	Programming
On	1 beep backlight On
Off	2 beeps backlight Off

Page notification

The remote control can notify the user of a page by emitting beeps if the vehicle's status changes, for example, if a door is unlocked, or any vehicle violation.

On the 2-way remote, press  to select page On/Off. One beep is page On. Two beeps is page Off.

When programmed off the remote does not give any notification that a page was received from the vehicle.

Page notification	Response
On	1 beep
Off	2 beeps

Note: If programmed Off, the remote receives no notification of alarm triggers. The remote only receives command, such as arm or disarm, information.

Vehicle Select

If multiple cars are used with the system: Press  for 1 second and release (holding for too long enters programming mode) to select which vehicle is to be controlled by the remote control. Repeat this procedure to scroll to next vehicle selection.

Note: If a Warn Away or alarm trigger occurs in a vehicle not selected, remote control functions automatically switch to that specific vehicle and remains in this vehicle select state. The Vehicle Select procedure must be used to return to the previous vehicle selection.

Using your system

The buttons described in this manual correspond to the standard configuration. However, the remote commands may be customized to suit your specific needs. See your installer for additional details.

Active arming

You can arm the system by pressing  of your remote for one second. When the system arms, from the vehicle you will hear a short siren sound, or chirp, and see the parking lights flash once. If the power door locks are controlled by the system, the doors will also lock. While the system is armed, the in-vehicle's status LED will flash approximately once per second, indicating that the system is actively protecting your vehicle. If you hear a second chirp after arming and note that the in-vehicle's status LED is flashing in groups, see the Diagnostics Section of this guide. This extra chirp is called Bypass Notification.

The LCD remote responds to active arming with one beep and the  icon will flash 5- times to indicate successful arming of the system.

If the LCD remote beeps twice after arming, the system has detected an active sensor that should be checked. For example, a door open icon will be displayed flashing 5- times on the LCD screen.

Passive arming

The system 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 detects that you have left the vehicle by opening and closing a door. Whenever the system is in its 30 - second passive arming countdown, the in-vehicle

status LED will flash twice as fast as it does when the system is armed. At the 20 - second point of the countdown, the siren will chirp to indicate that the system is about to arm. At the 30 - second point, the parking lights will flash to indicate that the system is armed.

The LCD remote responds to passive arming with one beep and the  icon will flash 3- times to indicate successful arming of the system.

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, if a door, hood or trunk is triggered during the arming countdown, the 30 - second countdown starts over.

When the system is armed:

- Light impacts trigger the Warn Away® signal. When triggered, the siren chirps and the parking lights flash for a few seconds.
- Heavy impacts trip a Triggered Sequence. The sequence consists of the siren sounding continuously and the parking lights flashing for a pre-programmed period, which can range in duration from 1 to 180 seconds.
- 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 LCD remote 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 progressive response as opening a door.
- The optional starter kill prevents the vehicle's starter from cranking.
- Any full trigger of the alarm system will immediately send an alarm page to your remote informing you that your vehicle should

be checked.

Multi-level security arming

Multi-Level Security Arming allows you to select which of the security system's inputs or sensors are active, or are bypassed when the system is armed. (See the Table of Zones section of this guide)

Press  one time to arm the system, siren chirps one time. Pressing  again activates Multi-Level Security Arming.

Each time  is pressed consecutively, a different security level is selected, as described in the below table:

Press 	Siren chirps	Zone bypassed
Twice	Twice followed by 1 long chirp	2
3 times	3 times followed by 1 long chirp	4
4 times	4 times followed by 1 long chirp	2 & 4
5 times	5 times followed by 1 long chirp	all zones except 5

Each press of the  button ascends to the next security level, the remote sounds 1 beep, and the lock icon flashes 5 times.

Multi-Level Security Arming applies to a single arming cycle. Once the system is disarmed and then re-armed, all the zones will be active again.

Disarming

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

The remote sounds 2 beeps and the unlock icon  flashes 5 times, when the system is disarmed.

When disarming after the system has been triggered, the remote sends a diagnostic notification, as described below:

- If a sensor triggered the system the remote emits 4 quick beeps, and the LCD screen flashes the zone indicator to display which sensor tripped the alarm.
- If a switch (Zone 1, 3 or 5) triggered the system, the remote emits 4 quick beeps, and the LCD screen flashes the zone indicator to display which switch tripped the alarm.
- If the system was triggered enough times that NPC (See Nuisance Prevention Circuitry) is active, the remote emit 5 beeps.

High Security Disarm

High Security Disarm makes it possible to silence and reset the system when it is triggering, without disarming. If the system is triggered, and the siren sounds for longer than six seconds, pressing the  button will stop the trigger and return the system to an armed state. The system does not disarm, but rather reset. This prevents you from disabling the system should you want to disarm without visually checking the vehicle. Pressing the  button again after resetting the system, will disarm the system. Pressing the  button during the first six seconds of the triggered sequence disarms the system immediately. The six sec-

ond timer is provided for your convenience, in case you accidentally trigger the system.

Disarming without a transmitter

This feature allows you to disarm the security system without the remote transmitter should it be lost, damaged, or disabled. In order to disarm the system without a remote transmitter, 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 and the number of presses of the Valet button required to disarm the system.

To disarm the security system:

1. Turn the ignition to the ON position.
2. Press and release the Valet button the preset number of times (one, the factory setting, to five times) within 15 seconds. After five seconds the system disarms. If the system does not disarm, you may have waited too long. Turn the ignition off and on and try again.

Location of Valet Button _____

Number of Pulses _____

The unit may respond to one to five pulses of the Valet button, when disarming. Check with your installer to discuss how you want the system configured.

Note: as a precaution, if programmed for passive arming the system should be placed into Valet Mode until a remote is available.

Dome light control

Security only

The dome light activates for 30 - seconds after the system is disarmed.

Ignition controlled

The dome light activates for 30 - seconds after the ignition is turned Off. (may be programed to On or Off, by the dealer installer)

Silent mode

To temporarily turn off the arm or disarm chirps, use Silent Mode™.

Press AUX for less than one second 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.

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 capable of triggering, but the Warn Away® response is bypassed.

The LCD remote responds with the normal arm/disarm notifications in silent mode. If the remote has beeps programmed On, it will beep.

Panic mode

If you are threatened in or near your vehicle, you can attract attention by triggering the system with your remote.

LCD remote

- Press  button for approximately two seconds, to enter Panic Mode. The siren will sound and the parking lights will flash for the programmed siren duration.
- To stop Panic Mode at any time, press  or  on the LCD remote again.

The LCD remote emits one beep and displays the  icon when the system is in Panic Mode.

4-button 1-way

Press  for approximately two seconds, to enter Panic Mode. The siren sounds and the parking lights flash for the programmed siren duration. To stop Panic Mode at any time, press the  or .

Valet mode

You can prevent your security 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 security system will not arm, even with the remote transmitter, but all convenience functions (door locks, trunk release, etc.) will continue to work normally.

To enter or exit Valet Mode:

1. Turn the ignition on.
2. Turn the ignition off.
3. Press and release the Valet switch within 10 seconds.

The status LED lights solidly if you are entering Valet Mode, and goes out if you are exiting Valet Mode.

The remote will respond with 5- flashes of the  icon and 2 beeps when exiting Valet® Mode.

To enter or exit Valet Mode with the remote:

Open any vehicle door, and then quickly press the following buttons in the sequence indicated.

4. Press .
5. Press AUX and then press  again.

The in - vehicle status LED lights solidly if you are entering Valet Mode, and goes out if you are exiting Valet Mode.

Nuisance prevention circuitry

Your system has Directed's Nuisance Prevention Circuitry® (NPC). It prevents annoying repetitive trigger sequences due to faulty door pin switches or environmental conditions such as thunder, jackhammers, or airport noise.

For example, if the alarm triggers three times within a 60 - minute period and each time the same sensor or switch triggers the alarm, NPC will interpret those 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 starts over. This ensures that a sensor that continually triggers will remain bypassed.

Doors are covered by NPC differently - if the alarm is triggered by an open door for three full cycles, the doors are bypassed until the trigger ceases.

NPC is On/Off programmable, except doors are always covered whether on or off. See your dealer and the Programming section of this guide for more information.

Arming and disarming the system does not reset this function. In order to reset a bypassed zone, the same zone must not trigger for 60 minutes, or when ignition is turned on. 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.

Auxiliary outputs

This system also supplies outputs that can control convenience options such as remote control trunk release and window automation. Consult your dealer for available options for your system.

Channel 2 Trunk release: When connected, pressing AUX for 1.5 seconds will remotely release the vehicle trunk lid.

Channel 3 auxiliary output: When connected, pressing  and  will immediately activate this output to control an additional convenience option.

The remote will respond with a page notification consisting of one long beep and displays the channel number for 4 - seconds on the LCD screen. This occurs at the remote after the system has received the command to activate any of the Auxiliary outputs.

Diagnostics

The microprocessor at the heart of your security system is constantly monitoring all of the switches and sensors that are 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. Refer to the System Status Chirps and Table of Zones charts for diagnostic information.

Arming diagnostics

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

Bypass Notification will not occur when using Silent Mode or if chirps have been programmed OFF. The security system will continually ignore the zone that was active until the input stops. Three seconds after the input stops, the system monitors that input normally.

For example, if your vehicle has interior light exit delay, and you arm it before the interior light goes out, you may hear Bypass Notification chirps. Once the light shuts off, 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 (see NPC section of this guide).

The in-vehicle status LED indicates which zone was involved. (See Table of Zones section of this guide.) The system retains this information in its memory, and continues to chirp four or five times each time it is disarmed, until the next time the ignition key is turned on.

System status chirps

The siren will chirp when arming/disarming the system. The pattern of chirps will audibly report the system's status as described below.

Action	Chirps	Description
Arm	1	System armed
Arm	3-second delay, 1	System armed with Bypass Notification
Disarm	2	System disarmed
Disarm	4	System disarmed with Tamper Alert
Disarm	5	System disarmed NPC active

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. Warn away responses are not reported in the table of zones.

Zone/LED Flashes	Description	Dealer installed options
1	Instant trigger: Often used for trunk pinswitch	
2	Shock sensor input: a light impact activates Warn away and a heavier impact activates full alarm.	
3	Door switch trigger	
4	Optional sensor inputs for Warnaway and full alarm notification.	
5	Ignition trigger	

Interpreting zone diagnostics

Warn Away responses are not reported by arming or disarming diagnostics. If you receive a Bypass notification when arming or a Tamper Alert notification when disarming, look at the in-vehicle status LED. Active or triggered zones will be indicated by a pattern of blinks by this LED.

For Example: If Zone 3 was active or triggered, the in-vehicle LED will blink three times with a two-second pause. Then it will blink three times again, and repeat until the ignition is turned on.

Your system stores the last six triggered zones in memory. If your system has been triggered but the LED has been reset by turning on the ignition, your dealer can still recall the last six zones that were triggered. Contact your dealer for details.

Vehicle recovery system (VRS)

The optional VRS® 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 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 carjacking occur, the VRS allows you to concern yourself with your personal safety without worrying about your property.

Directed has engineered this vehicle security system, the Failsafe® Starter Kill, and the VRS feature to provide the best combination of personal safety and property protection available. When properly

installed, the system can never inadvertently stop your vehicle in traffic or on railroad tracks while the vehicle is in operation. It is unlike other systems that shut down your engine while it is running. This system is designed to perform starter interrupt, or starter kill. The Failsafe Starter Kill cannot shut down an already-running engine – it can only prevent an engine from starting in the first place.

Important! Any installation that allows this product to shut down a vehicle's engine when it is running is contrary to the product's design and intended usage, and Directed 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 remote 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 initiate its triggered sequence (see below) if any door is opened and closed. If you are forced from the vehicle, 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 the 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 remote transmitter by force in a parking lot.

If the VRS system is armed while operating the vehicle and not disarmed prior to leaving the vehicle, it is still armed and will trigger the next time the vehicle is driven.

Triggered sequence, VRS

Fifteen seconds after the last door has closed, the in-vehicle LED will begin flashing. This delay is intended to allow you time to distance yourself from your vehicle in the event of a carjacking.

Forty-five seconds later, the siren begins chirping and the parking lights 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 starter kill. This will prevent the vehicle from being restarted, thus immobilizing it 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.

Disarming the VRS

Take the time to familiarize yourself with the VRS triggering sequence and the disarm procedure. It is important to recognize and identify the VRS trigger sequence 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 disarm it with one of the following procedures:

If the system has not entered the triggered sequence (siren has not started chirping):

1. Turn the ignition on.
2. Press  button on the remote control. The lights flash and the siren chirps. If the system has entered the triggered sequence (siren has begun chirping), pressing the disarm button of the transmitter will not disarm VRS.

To disarm the VRS during a VRS trigger sequence:

1. Turn the ignition on.
2. Press the Valet button the pre-programmed number of times to disarm the VRS system.

If the VRS has begun its chirping sequence, the ignition must be turned off, then On, to disarm. If you are driving the vehicle, pull over to a safe place and follow the triggered sequence disarm procedure.

Code hopping

The receiver and transmitters each use mathematical formulas called algorithms to change their codes 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 if 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  several times within range of the vehicle. The alarm will automatically re-sync and respond to the transmitters normally.

Owner recognition

Owner Recognition is a feature available exclusively from Directed. Using the Directed Bitwriter®, a hand-held programming tool, your dealer can program many of the system settings. The programmer 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.

Owner Recognition cannot be programmed without a Directed Bitwriter® and the necessary software. Check with your dealer for more information.

Rapid resume logic

This Directed 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.

Power saver mode

Your system will automatically enter Power Saver Mode while armed or in Valet® Mode, after a period of time in which no operation has been performed. This lowers the current draw to the vehicle's battery. Power Saver Mode takes over under the following conditions:

- Power Saver when the system is armed: After the system has been armed for 24 hours, the in-vehicle LED will flash at half its normal rate, decreasing the system's current draw.
- Power Saver in Valet Mode: When the system enters Valet Mode the in-vehicle LED illuminates steadily. If the vehicle is not used (ignition is not turned on) for a period of one hour while the system is in Valet Mode, the LED will shut off. If the system remains in Valet Mode, the LED will come back on the next time the ignition is turned on and then back off.

Programming options

Programming options control what your system does during normal operation, and require few 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 remote) or passive arming (automatic arming 30- seconds after the last door has been closed).
- Arming/disarming confirmation siren chirps **On** or off.
- 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 the doors are closed, and unlock when the ignition is turned off. The system will not lock the doors when the ignition is turned on with any door open. Ignition lock and unlock are independent features and can be programmed separately, when using the Bitwriter.
- Passive door locking (with passive arming) or **active door locking** (only when arming with the remote). Passive locking allows the vehicle's doors to lock when the security system passively arms (after the 30 second countdown). This feature only works if passive arming has been programmed. When programmed for passive arming and active lock, if the system is disarmed without a door being opened, the system will re-lock the doors when it passively rearms.

- Panic mode **enabled**/disabled with the ignition on: Some states have laws against siren capability in a moving vehicle.
- 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 been left ajar when leaving the vehicle. Forced passive arming ensures that the security system will be armed in every situation.

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.

- Automatic Engine Disable (AED) on or **Off**: The purpose of this feature is to protect the vehicle from being stolen at all times, regardless of whether or not the alarm is armed. If AED is programmed on, the starter of the vehicle will be disabled 30 seconds after the ignition is turned off. Once the key is turned off, the in-vehicle 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 disarm the system 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 the programmed number of times. AED is disabled when the system is in Valet Mode. This feature only functions if the Failsafe® Starter Kill relay has been installed.

- 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. If your installer is programming the security system with the Directed Bitwriter, the full triggered response can be programmed for any duration ranging from 1 to 180 seconds.

- 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. Because many states have laws regulating security systems, programming NPC® off may cause your system to violate state laws.
- 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, the progressive door trigger can be programmed off.
- Valet pulse count: The number of presses of the Valet button required to disarm the security system, AED, or the VRS system can be programmed from one to five presses.
- **Comfort Closure:** Windows will close upon locking the vehicle.

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  button unlocks the other doors.
- Vehicle Recovery System, (VRS): It is an anti-carjacking device designed to help in the safe recovery of your vehicle in case of a carjacking. Please refer to the Vehicle Recovery System section of this guide for a complete explanation of how the Vehicle Recovery System operates.

Security & Convenience Expansions

Listed are some of the many expansion options available. Please contact your dealer to find out about all the convenience options available to you.

Audio Sensor: Metal on glass, cracking glass, and breaking glass each produce distinctive acoustic signatures. The 506T audio sensor uses a microphone to pick up sounds, and then using proprietary acoustic software, analyzes the sounds to determine if the glass was struck.

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

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

Headlight and Parking Light Automation: The 545T Nite-Lite® will automatically turn on your parking and headlights when it gets dark. In addition, the 545T will turn your headlights on whenever the windshield wipers are used. A transmitter function can also be used to turn on your parking and headlights for a programmed time.

Power Trunk Release: The channel two output of the system can operate a factory power release for the vehicle's trunk or hatch. (An additional relay may be required.) If the factory release is not power activated, then Directed's 522T trunk release solenoid can often be added.

Power Window Control: Automatic power window control is provided.

ed with the 529T and 530T systems.

Tilt Sensor: The 507M tilt sensor can be added to your system to protect your car when its parked. An alarm is triggered if the vehicle is lifted, to protect expensive rims.

Remote Start System: For the ultimate in convenience, A Directed remote 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 vehicles.)

Ultrasonic Sensor: Provides a field of protection inside your car, the 509U Ultrasonic sensor, protects your belongings.

System maintenance

This system needs no specific maintenance beyond remote control battery replacement. The 2-way remote is powered by one 1.5V AAA battery. The 1-way remote is powered by two 3V, CR2016 batteries.

Battery Level Indicator, 2-way

The Battery Level indicator has four level indicators that serve as a visual indication of battery charge. When the battery reaches a low charge level that requires replacement, the remote control generates a single notification chirp, and the Battery Level indicator flashes continuously.



Battery replacement, 2-way

1. Gently pull the end of the battery door away from the top of the remote control then slide the door up to expose the battery.
2. Replace the expired battery with a new battery, observing the correct polarity.
3. Reinstall door and close to latch. When power is returned, the remote control plays a melody and all icons in the LCD are displayed. Press any button on the remote to stop the melody.

1-way remote

1. Using a small flat-head screwdriver, insert into slot located on the side of the remote control and carefully pry open the unit.
2. Turn unit over and carefully remove rear housing. Remove the battery from holder and replace with a new one.
3. Reassemble all parts and snap together.

Note Verify that the battery polarity is correct when replacing.

Glossary of Terms

Document Terminology

ASK	Amplitude Shift Keying—a method of transmitting data.
Companion 1-way Remote Control	A hand-held remote control, also called transmitter that operates the various functions of your system but does not provide message display..
Control Button (Valet Switch)	A small push button, also called the valet switch or valet button, that is connected to the “brain”. It is used to override disarm the alarm when a remote is not available, to enter or exit Valet Mode, and to program the system.
Control Module (unit)	The “brain” of your system. Usually hidden under the dash area of the vehicle. It houses the microprocessor which monitors your vehicle and controls all of the system’s functions.
FailSafe Starter Kill	A switch controlled by the security system which once activated prevents the vehicle’s starter from cranking, when the system is armed. The vehicle is never prevented from cranking when the system is disarmed, in Valet mode - or if the starter interrupt switch fails. Installation may require additional labor.
Input	A physical connection to the system. Input may be provided by a sensor, a pinswitch or through an existing system in the vehicle, such as ignition or courtesy lights.
LCD	Liquid Crystal Display, the screen on the 2-way remote control. It displays the vehicle status using symbols and icons, such as alarm information.
2-way remote control	A hand-held remote control, also called transmitter, that operates the various functions of your system and receives messages and pages from the system.
Siren	Noise generating device usually installed in the engine compartment of the vehicle. It generates the “chirps” and the six tones you hear when the alarm is triggered.

Status LED	A light mounted in the vehicle, used to indicate the status of your system such as triggers and faults in the system or sensors. It is connected to the "brain", and near or attached to the control button(valet switch).
Trigger or Triggered Sequence	When the alarm "goes off" or "trips", the system triggers a sequence of siren sounding and parking lights flashing for a programmed duration.
Warn Away®	Lighter impacts to the vehicle generate a Warning Zone response, several seconds of siren chirps and parking light flashes.
Zone	Input that the alarm recognizes as unique. Each input is connected to a particular zone. Two or more inputs may share the same zone.

Patent Information

This product is covered by one or more of the following United States patents:

Remote Start Patents:

5,349,931; 5,872,519; 5,914,667; 5,952,933; 5,945,936;
5,990,786; 6,028,372; 6,467,448; 6,561,151; 7,191,053;
7,483,783

Vehicle Security Patents:

5,467,070; 5,532,670; 5,534,845; 5,563,576; 5,646,591;
5,650,774; 5,673,017; 5,712,638; 5,872,519; 5,914,667;
5,952,933; 5,945,936; 5,990,786; 6,028,505; 6,452,484

Other patents pending.

Government Regulations

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 undesirable operation.

This equipment has been tested and found to comply 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. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, 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, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Remote Controls

To satisfy FCC RF exposure compliance requirements, this device should be used in hand-held, hand operated configurations only. The device and its antenna must maintain a separation distance of 20 cm

or more from the person's body, except for the hand and wrists, to satisfy RF exposure compliance. This device is designed to be used in a person's hands and its operating configurations do not support normal transmissions while it is carried in pockets or holsters next to a person's body.

Receiver antenna

To satisfy FCC RF exposure compliance requirements, the device and its antenna must maintain a separation distance of 20 cm or more from the person's body, except for the hand and wrists, to satisfy RF exposure compliance.

This device complies with the Industry Canada Radio Standards Specification RSS 210. Its use is authorized only on a no-interference, no-protection basis; in other words, this device must not be used if it is determined that it causes harmful interference to services authorized by IC. In addition, the user of this device must accept any radio interference that may be received, even if this interference could affect the operation of the device.

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

Limited lifetime consumer warranty

Directed Electronics. ("Directed") promises to the original purchaser to repair or replace (at Directed's election) with a comparable reconditioned model any Directed 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 purchased from an authorized Directed dealer, the unit was professionally installed and serviced by an authorized Directed dealer; the unit will be professionally reinstalled in the vehicle in which it was originally installed by an authorized Directed dealer; and the unit is returned to Directed, 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. ALL PRODUCTS RECEIVED BY DIRECTED FOR WARRANTY REPAIR WITHOUT PROOF OF PURCHASE FROM AN AUTHORIZED DEALER WILL BE DENIED. This warranty is non-transferable and is automatically void if: 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. Directed, 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 DIRECTED NEITHER ASSUMES NOR AUTHORIZES ANY PERSON OR ENTITY TO ASSUME FOR IT ANY DUTY, OBLIGATION OR LIABILITY IN CONNECTION WITH ITS PRODUCTS. DIRECTED DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. DIRECTED SECURITY SYSTEMS, INCLUDING THIS UNIT, ARE DETERRENTS AGAINST POSSIBLE THEFT. DIRECTED 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. 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 DIRECTED OR ITS SUBSIDIARY, THE 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 DIRECTED SHALL BE STRICTLY LIMITED TO THE AUTHORIZED DIRECTED DEALER'S PURCHASE PRICE OF THE UNIT. DIRECTED SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGE TO VEHICLE, 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 SUBJECT TO THE CONDITIONS AS DESCRIBED HEREIN. THIS WARRANTY IS VOID IF THE UNIT HAS NOT BEEN PURCHASED FROM DIRECTED, OR AN AUTHORIZED DIRECTED DEALER, OR IF THE UNIT HAS BEEN DAMAGED BY ACCIDENT, UNREASONABLE USE, NEGLIGENCE, ACTS OF GOD, NEGLIGENCE, IMPROPER SERVICE, OR OTHER CAUSES NOT ARISING OUT OF DEFECT IN MATERIALS OR CONSTRUCTION.

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 warranty is only valid for sale of product(s) within the United States of America and in Canada. Product(s) sold outside of the United States of America or Canada are sold "AS-IS" and shall have NO WARRANTY, express or implied.

For further details relating to warranty information of Directed products, please visit the support section of Directed's website at: www.directed.com

This product may be covered by a Guaranteed Protection Plan ("GPP"). See your authorized Directed dealer for details of the plan or call Directed Customer Service at 1-800-876-0800.