

# ***VIPER***®

***Model 480XV***

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➤ ***Owner's Guide***

# *limited lifetime consumer warranty*

Directed Electronics, Inc. ("Directed") promises to the original purchaser to repair or replace 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 professionally installed and serviced by an authorised Directed dealer; the unit will be professionally reinstalled in the vehicle in which it was originally installed by an authorised 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 authorised 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. 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 AUTHORISED 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 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 DIRECTED SHALL BE STRICTLY LIMITED TO THE AUTHORISED 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, 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 territories 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 or country to country.

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. Directed does not and has not authorised 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 and installation certificate, showing the following:

- Date of purchase
- Your full name and address
- Authorised dealer's company name and address
- Type of alarm installed
- Year, make, model and colour of the vehicle
- Vehicle registration number
- Vehicle identification number
- All security options installed on the vehicle

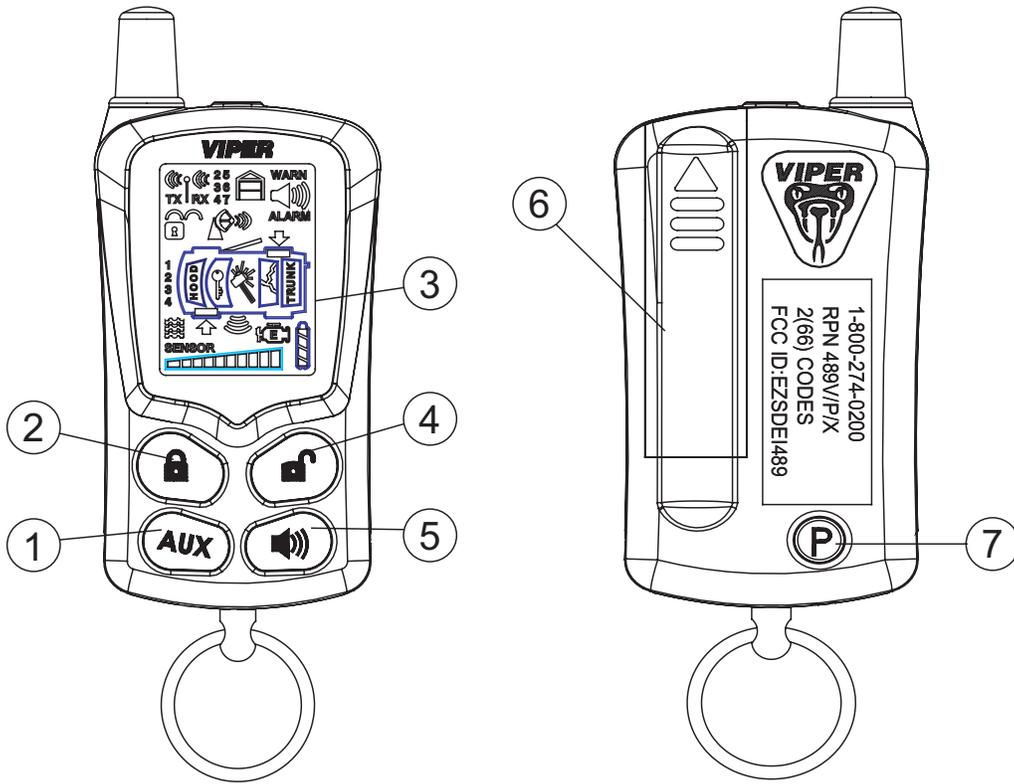
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# 2-way LCD remote control



1. Auxiliary Channel Button

2. Arm Button

3. LCD Screen (see *LCD Screen*)

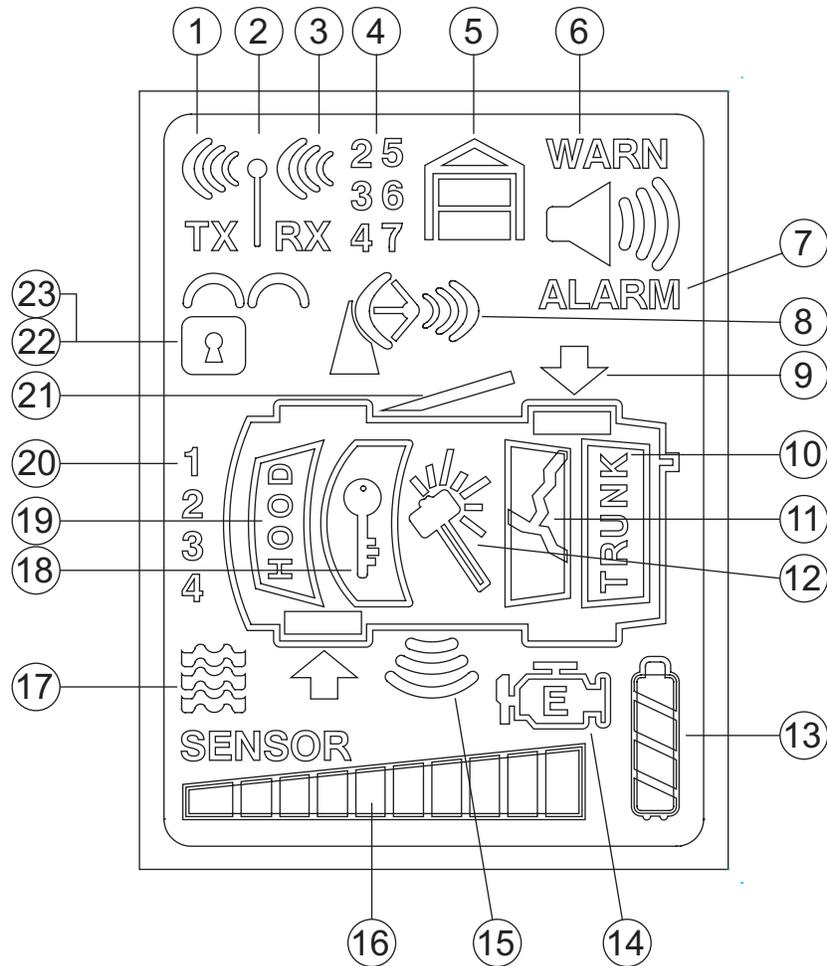
4. Disarm Button

5. Not Used

6. Battery Compartment

7. Program Button

# LCD screen



1. Transmit	13. Battery
2. Out of range	14. Remote start (option)
3. Receive	15. Field disturbance sensor
4. Auxiliaries	16. Ultrasonic sensor setting
5. Garage door (519H option)	17. Vibrate On
6. Warn Away®	18. Ignition
7. Alarm	19. Hood (Bonnet)
8. Ultrasonic sensor	20. Vehicle number
9. Tilt sensor	21. Door
10. Trunk (Boot)	22. Arm
11. Glass breakage sensor	23. Disarm
12. Shock sensor	

# *standard remote configuration*



controls the **Lock–Arm** function.



controls the **Unlock–Disarm** function.



controls **Silent Mode™** and an **Channel Output (2)**.



Not Used.



and



pressed together control an **Channel Output (3)**.



and



pressed together control an **Channel Output (4)**.



and



pressed together control an **Channel Output (5)**.



and



pressed together control an **Channel Output (6)**.

 (located on back of the remote) selects the vehicle to control and also provides user selection of LCD remote response .

## *what is included*

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- Control module and ultrasonic sensors
- 1 four-button 2-way LCD transmitter
- 1 four-button transmitter
- Wire harnesses
- 515ESP Battery Backup siren
- Blue status LED indicator light
- A push-button Valet switch
- Your warranty registration
- 548T transceiver/antenna

## *important information*

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

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

*note: Your system MUST be installed by an Authorised dealer in accordance with the instructions we supply them. The Viper 460XV system is designed to be installed in any petrol or common rail diesel vehicle with a 12-volt battery.*

*note: The Installation Certificate must be completed by your installer at the authorised dealer. Other than the remote controls, this system has no user-serviceable parts. Your authorised dealer can correct any system wiring problems and, if needed, can return any malfunctioning component to Directed Electronics for repair/replacement under the terms of the Limited Lifetime Warranty printed at the beginning of this guide.*

*note: Making changes to the existing system will invalidate the certificate of installation.*

## → **system maintenance**

This system needs no specific maintenance beyond remote control battery replacement. The LCD remote is powered by a 1.5V

AAA battery.

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 will generate a single notification chirp, and the Battery Level indicator will flash continuously.



FULL



REPLACE



EMPTY

### **Battery Replacement**

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 and remove the expired battery. Place the new battery into the remote

control observing the correct polarity. When power is returned the remote control will display all icons in the LCD and generate all beeper tones once. Press any button on the remote to terminate the beeper tone review.

### **your warranty**

It is necessary to retain your sales receipt, which reflects that the product was installed by an authorised dealer. For full details regarding your warranty coverage, please refer to the consumer warranty section of this guide.

## *2-way LCD 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. Also, the user can configure the LCD remote for certain responses (see *Programming LCD Remote* section).

### **standard configurations**

#### **Button**

The arming function is controlled by pressing this button for one second.

#### **Button**

The disarming function is controlled by pressing this button for one second.

 **Button**

Silent Mode™ and an optional auxiliary function are controlled by pressing this button. (Silent Mode™ works by pressing this button for less than one second before arming or disarming. An optional auxiliary function, such as boot release, can be controlled by pressing this button for 1.5 seconds.)

**This auxiliary output controls \_\_\_\_\_.**

 **Button**

Not used.

 **and**  **Buttons**

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

**This auxiliary output controls \_\_\_\_\_.**

 **and**  **Buttons**

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

**This auxiliary output controls \_\_\_\_\_.**

### and Buttons

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

**This auxiliary output controls**\_\_\_\_\_.

### and Buttons

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

**This auxiliary output controls**\_\_\_\_\_.

### **Program Button** (on rear of LCD remote)

Use this button to select the vehicle to control from the remote. Also use this button to configure response characteristics from the LCD remote (see *Programming 2-Way Remote*).

## **standard LCD icon configurations**

### **Icon**

The transmit icon will be displayed while the remote control is transmitting a command to the vehicle.

### **Icon**

The signal icon will be displayed if a command is transmitted to the vehicle but the command page is not received.



The receive icon will be displayed while the remote control is receiving a page from the vehicle.



The auxiliary and sensor icons will display which auxiliary is operating, or which security feature is in Warn Away® or alarm state.



The garage door icon—for future use.



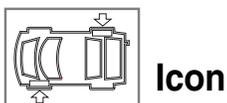
The above Warn Away® displays when a security feature has been tripped, but not to full alarm. These will display for 5-seconds.



The above icons will display for 5-seconds when a security feature has been tripped to a full alarm condition.



The ultrasonic sensor (detects motion within the vehicle) icon will display for full alarm by flashing 5-times and displaying continuously until the page is cleared.



The tilt sensor icon will display for full alarm by flashing 5-times and displaying continuously until the page is cleared.



**Icon**

The trunk (boot) icon will flash until the beep and/or vibrate stops then it will display continuously until the page is cleared.



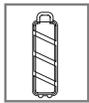
**Icon**

The glass breakage sensor icon will display for full alarm by flashing 5-times and displaying continuously until the page is cleared.



**Icon**

The shock sensor icon will display for both Warn Away<sup>®</sup> and full alarm by flashing 5-times and displaying continuously until the page is cleared.



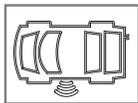
**Icon**

The battery icon always displays the current charge capacity remaining in the remote's battery.



**Icon**

The remote start (option) icon displays when the vehicle is being remote started.



**Icon**

The field disturbance sensor icon will display for both Warn Away<sup>®</sup> and full alarm by flashing 5-times and displaying continuously until the page is cleared.



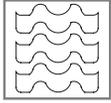
**Icon**

The ultrasonic sensor bar icon always displays the current sensitivity setting of the ultrasonic sensor.



### Icon

The ultrasonic sensor “sensor” icon will display for both Warn Away® and full alarm by displaying continuously until the page is cleared.



### Icon

The vibrate icon will always display if the remote is programmed for vibrate notification.



### Icon

The ignition icon will display if the ignition is turned on when the vehicle’s doors are locked (alarm condition).



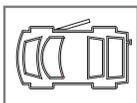
### Icon

The hood (bonnet) icon will flash until the beep and/or vibrate stops then it will display continuously until the page is cleared.



### Icon

The vehicle icon always displays the current vehicle (maximum of 4 vehicles) being controlled by the remote. If a Warn Away® or alarm trigger should occur at one of the other vehicles, that vehicle’s number will be displayed and the LCD will display that vehicle’s status.



### Icon

The door icon will flash until the beep and/or vibrate stops then it will display continuously until the page is cleared.



### **Icon**

The arm icon will flash when the system is locking the doors and display continuously until the system is disarmed.



### **Icon**

The disarm icon will flash when the system is unlocking the doors and display continuously until the system is armed.

## ***transmitter functions***

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This system uses a computer-based learn routine to learn the transmitter buttons. This makes it possible to assign any transmitter button to any system function. The transmitter initially comes programmed with Standard Configuration, but may also be customised by an authorised dealer. The buttons described in this manual correspond to a Standard Configuration transmitter.

## ***remote operation***

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

### **→ system 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 will generate a page notification to the user (notifications are audible beeps and-or vibration) and the LCD Icons will display the 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 (ultrasonic sensor, boot, door, ignition, or bonnet trigger) and the LCD icon that caused the alarm will display. This will repeat 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 set of 2 quick beeps and the  icon will flash 3-times.

## *programming LCD remote*

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### → To enter programming mode

Press and hold the  button until one long beep is heard. Programming mode to customise the remote's response is now entered.

**note:** If no buttons are pressed within 5-seconds, programming mode will exit with 2-beeps.

### → Beeps/Vibration On/Off

Press  to select beeps/vibration On/Off. Beeps alone, or vibration alone, or beeps and vibration, or no beeps or vibration can be selected. Refer to the table below for these settings.

Beep/Vibrate settings	Programming response	Icon display*
Beeps only (default)	1-beep	Siren icon On
Vibrate only	1-vibrate	Vibrate icon On
Beep & Vibrate	1-beep and 1-vibrate	Vibrate and siren icon On
No Beep and No Vibrate	1 long beep	Vibrate and siren icons Off

**\*note:** This is the icon displayed 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 a alarm status page is received.

LCD Backlight settings	Programming response
ON	1-beep, backlight ON
OFF	2-beeps, backlight OFF

### → Page notification

The remote control can be programmed to notify the user of a page (audibly beeping if the vehicle's status changes, e.g. door unlocked, engine started, vehicle violation, etc.). On the LCD

remote press  to select page On/Off. One beep is page On, Two beeps is page Off. When programmed off the remote will not give any notification that a page was received from the vehicle.

**note:** If programmed Off, **no alarms** will be notified to the remote. Command information (armed/disarmed) will be notified to the remote.

### → **To exit programming mode**

The LCD remote control will exit programming mode after 5-seconds of inactivity and will emit 1 long beep.

## *using your system*

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The buttons described in this manual correspond to the standard configuration. Remember, this is not the only way your transmitter may be set up. It can be customised to meet your needs.

### → **active arming**

You can activate, or arm, the system by pressing  on your transmitter for one second. When the system arms, you will hear a short siren sound, or chirp, and the indicator lights will flash once. If the vehicle's central door locking has been connected to the system, the doors will lock.

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

**note:** If any protected entry point (such as a door or a switch-protected (boot or bonnet)) is open, the system will not passively arm (unless forced passive arming is programmed on). See Programming Options section of this guide. Additionally, each time a protected entry is triggered during the arming countdown, the 30-second countdown starts from the beginning.

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

- Movement inside the passenger compartment will trigger the system. The triggered sequence is 30 seconds of constant siren and indicator light flashing.
- If a door is opened, the system will immediately trigger.
- Turning on the ignition key will trip the same two-stage response as opening a door.
- The built-in triple circuit Immobiliser prevents the vehicle's ignition, starter and fuel pump from operating.
- Any full trigger of the alarm system will immediately send an alarm page to your remote informing you that your vehicle should be checked.

## → **one-time bypass**

This feature stops the alarm from arming or activating any outputs that are programmed to activate when the alarm is armed.

One-time bypass will defeat the following actions:

Passive arming: If programmed ON the alarm will not arm itself.

If the remote is used to arm the alarm after exiting the vehicle:

Window roll up: If programmed ON this output will not activate.

Linked Auxiliary Outputs: If programmed to activate on arm, they will not activate.

To activate one-time bypass:

1. After parking turn the ignition off.
2. Turn the ignition On for more than 1-second and less than 3-seconds.
3. The siren will chirp once to indicate one-time bypass has been activated.

To cancel one-time bypass perform one of the following:

Arm then disarm the alarm.

Turn the ignition On for more than 3-seconds.

## → transmitter sensor disable

To temporarily disable a sensor input, arm the system. Press the  button again and the system will respond with 3 indicator flashes. This means all sensor warn-away triggers are bypassed. Press the  button again and the system will respond with 4 indicator light flashes. This means all sensor warn-away and full triggers are bypassed.

## → autoimmobilisation

The built-in Triple Circuit Immobiliser will automatically arm (indicated by a slow LED flash), 30 seconds after the ignition is turned off. (This feature is a Thatcham and EC requirement and, therefore, is not user-programmable.) To disarm the Immobiliser when it has AutoImmobilised, either use the remote control to arm and then disarm the system, or turn the ignition on and press the  or  button or enter your 4-digit PIN code.

## → disarming

To disarm the system, press . You will hear two chirps, and the indicators will flash twice. If the vehicle's central locking is 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 and means the system has triggered while you were away.

## → high security disarm

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

The remote will indicate disarm notification with 2 beeps and 5 flashes of the  icon. If disarming after the system has been triggered, the remote control will send a diagnostic notification as a reminder. These diagnostic notifications are:

1. If a sensor triggered the system, the remote will emit 4 quick beeps and the LCD screen will indicate which sensor (5-flashes) tripped the alarm.
2. If a switch (Zone 1, 3, 5, or 6) triggered the system, the remote will emit 4 quick beeps and the LCD screen will indicate which switch (5-flashes) tripped the alarm.

## → **disarming without a transmitter**

This feature allows you to disarm the system without the transmitter should it be lost, damaged, or disabled. In order to disarm without a transmitter, you must have the vehicle's ignition key, know where the Valet switch is located, and have the PIN code. Check with the installer for the location of the Valet switch.

Please refer to the Disarm/Valet Mode section of this guide for instructions to enter the pin code.

**Location of Valet switch**\_\_\_\_\_.

**PIN code**\_\_\_\_\_.

The LCD remote will indicate disarm notification with 4 quick beeps and 5 flashes of the  and triggered zone icons.

## → **entering your PIN**

Entering your PIN code using the valet switch allows you to disarm the system without using the transmitters. Your 4-digit PIN code is noted on the back page of this manual. If you would like to change this PIN for one that is easier for you to remember please visit your installing dealer.

1. Turn the ignition key to the ON position.
2. Within 10 seconds, enter the first number in your PIN. Press and release the Valet switch the same number of times as the first digit in your PIN.

**Example:** If your PIN is 2345, press the Valet switch two times.

3. Turn the ignition key OFF.
4. Turn the ignition key to the ON position.
5. Enter the second number in your PIN (press the Valet switch three times).
6. Turn the ignition key OFF.
7. Turn the ignition key to the ON position
8. Enter the third number in your PIN (press the Valet switch four times).
9. Turn the ignition key OFF.
10. Turn the ignition key to the ON position.
11. Enter the last number in your PIN (press the Valet switch five times).
12. Turn the ignition key OFF. If you have entered the correct code you will hear two chirps. Should you hear five rapid chirps, the correct code has not been entered. Begin entering your PIN from the beginning.

## **interior light control**

### **security only**

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

### **Ignition controlled**

The interior light activates for 30-seconds after the ignition is turned Off.

### **door controlled**

The interior light activates for 30-seconds after the system sees a door has closed. (If door was held open for longer than 3 minutes the interior light will not illuminate.)

### **full**

The interior light activates for 30-seconds after seeing door closure, ignition, or security disarm. (This is the factory setting.)

### **→ silent mode**

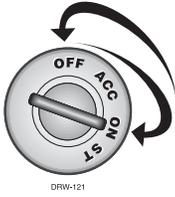
To arm or disarm the system without siren chirps, use Silent Mode™. Simply press **AUX** for less than one second before arming or disarming, and the confirmation chirp(s) will be eliminated for that one operation only. If you want the arm/disarm chirps turned off permanently, your dealer can do this for you.

**note:** The Warn Away® response from any optionally installed sensors are bypassed if the system is armed using Silent Mode. This ensures that no chirps will be emitted by the siren in an area you want chirp-free. The system is still fully capable of triggering. Only the Warn Away® response is bypassed.

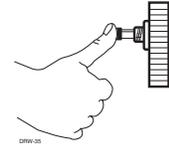
### **→ valet mode**

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, boot release, etc.) will continue to work normally.

### To enter Valet Mode:



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



The status LED will light solidly to indicate the system has entered Valet Mode.

### To exit Valet Mode:

1. Turn the ignition on. The system will then automatically exit Valet mode.

### To enter or exit Valet Mode using the transmitter:

1. Open any vehicle door.
2. Press  .
3. Press  .
4. Press  again.

The status LED will light solidly if you are entering Valet Mode, and it will go out if you are exiting Valet Mode.

# *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, etc.) the unit will chirp once when arming and then one more time a few seconds later. This is called Bypass Notification.

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

The security system will ignore the input that was active when the system was armed, until the input goes away. Three seconds later the system will monitor that input normally. For example, if your vehicle's boot was open, and you arm the system, you will hear Bypass Notification chirps. If you close the boot it is then monitored normally without the need to disarm and then rearm the system.

## → **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. The status LED will indicate which zone was involved. (See *Table of Zones* section of this guide.) The system will retain this information in its memory, and continue 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.

<b>Action</b>	<b>Number of Chirps</b>	<b>Description</b>
Arm	1	System armed
Arm	1 (3-second delay), 1	System armed with Bypass Notification
Disarm	2	System disarmed
Disarm	4	System disarmed with Tamper Alert

## → 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.

<b>Zone - Number of LED Flashes</b>	<b>Description</b>	<b>Dealer-Installed Options</b>
1	Boot trigger	
2	Ultrasonic Sensors	
3	Door switch trigger	
4	Optional sensor input 1	
5	Ignition trigger	
6	Bonnet trigger	
7	Optional sensor input 2	

## → 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 LED. Active or triggered zones will be indicated by a pattern of flashes by the LED.

## Example

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

**note:** 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.

## *code hopping*

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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  of the transmitter several times within range of the vehicle. The alarm will automatically re-sync and respond to the transmitters normally.

## *high frequency*

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Your system transmits and receives at 433 MHz. This provides a cleaner spectrum with less interference and a more stable signal.

## *owner recognition*

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Owner Recognition is a feature available exclusively from Directed. Using the Directed Bitwriter<sup>®</sup>, 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.

**note:** Owner Recognition cannot be programmed without a Directed Bitwriter<sup>®</sup> and the necessary software. Check with your dealer for more information.

## *rapid resume logic*

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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, Autoimmobilised, VRS<sup>®</sup>, and Valet Mode.

## *power saver mode*

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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 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 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 turn off.

# *programming*

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

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 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 closed. The system will not lock the doors when the ignition is turned on with any door open.
- Ignition controlled door unlock on or **off**. With this feature on the doors will unlock when the ignition is turned off.
- Passive door locking (with passive arming) or **active door locking** (only when arming with the transmitter). 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 on.
- 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.

- Vehicle Recovery System (VRS): Refer to section later in this guide.
- PIN code change: Your 4-digit PIN code is noted on the back page of this manual. If you would like to change this PIN for one that is easier for you to remember please visit your installing dealer.
- Siren chirp volume: Battery back-up siren consists of a dual-tone sequence. The siren chirps can be either full volume or **six decibels quieter** than normal.

## *vehicle recovery system (vrs<sup>®</sup>)*

The optional VRS<sup>®</sup> feature is designed to ensure that any unauthorised 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<sup>®</sup> cannot prevent a carjacking attempt; however, it does ensure that if your vehicle is taken by an unauthorised user, it will be disabled (after several progressive warnings) as safely as possible. Should a carjacking occur, the VRS<sup>®</sup> allows you to concern yourself with your personal safety without worrying about your property.

Directed has engineered this vehicle security system, 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 in a dangerous position 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 full triple-circuit immobilization.

**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 indicator 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. 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 control.

**note:** 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.

## → **vrs<sup>®</sup> triggered sequence**

**Fifteen seconds** after the last door has closed, the system's status 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 indicator lights begin flashing.

**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<sup>®</sup> will immediately turn on the triple circuit immobiliser to prevent the vehicle from being restarted.

**Three minutes** after the constant siren output begins, the flashing indicator lights and the siren will stop. The immobiliser 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 familiarise yourself with the VRS® triggering sequence and the disarm procedure. It is important to recognise 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):

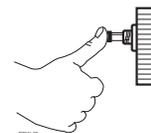


1. Turn the ignition on.
2. Press the  button on the remote for one second. The lights will flash and the siren will chirp twice.

If the system has entered the triggered sequence (siren has begun chirping), pressing the  button of the remote will not disarm VRS®. To disarm the VRS® during a VRS® trigger sequence:



1. Turn the ignition on.
2. Begin entering your 4-digit PIN code as noted in the *Entering Your PIN* section of this guide.



# *programming options*

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See your dealer for further details on the options listed below available with this system.

**Comfort Closure:** Windows will close upon locking the vehicle.

**Dual Sensor Trigger:** If programmed, both the onboard and at least one of the optional sensors need to be triggered within 1-second of each other for full alarm.

**note:** In dual sensor mode, the LCD remote will report showing both zones that tripped the alarm. The in-vehicle LED will flash to indicate only the last sensor of the pair which tripped the alarm.

**Forced Passive Arming:** If passive arming is on and a door is left open the system will be armed after 1-hour.

**High Security Disarm:** If the system is triggered this feature allows the user to silence the siren and reset the system to the armed state without having to visually check the system status.

**Remote Start Reporting:** This channel 3 programmable option allows for the 2-way LCD transmitter to report when the vehicle has been remote started provided the 561T remote starter has been installed.

**Retained Accessory Power:** This output from the security system can be connected to vehicle accessories, such as the vehicle radio. After the ignition has been turned off, it will continue to supply power until a door has been open and closed.

## *ultrasonic sensors*

Your security system incorporates two Ultrasonic sensors, which are most commonly mounted at the top of the A-pillars facing the rear of the vehicle. These sensors detect movement inside the vehicle by sensing air disturbance. They should trigger the alarm if a thief gained access to the interior of your vehicle. Please make sure all windows are closed on the vehicle or the ultrasonic sensors could false alarm due to air movement.

The sensor bar indicator  on the LCD of the remote displays the current sensor sensitivity setting. Increased sensitivity is indicated if the bar is filled to the right.

**note:** Return your vehicle to your dealer for ultrasonic sensor sensitivity adjustment.

## *security & convenience expansions*

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

**Glass Tamper Sensor:** Metal on glass, glass cracking, and breaking glass each produce distinctive acoustic signatures. The 506T glass tamper sensor uses a microphone to pick up sounds, and then analyzes them with proprietary acoustic software to determine if the glass has been struck.

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

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

**Electric Window Control:** Automatic electric window control is provided with the 529T and 530T systems.

**Valet Start System:** For the ultimate in convenience, the Valet 561T\* 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-bonnet lockout, brake pedal shutoff, and automatic timer shutoff are all included. (This feature is only for automatic transmission, fuel-injected vehicles.)

\*This accessory is not evaluated by Thatcham.

# *glossary of terms*

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**ASK** Amplitude Shift Keying—a method of transmitting data.

**Control 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.

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

**In-vehicle status LED:** A 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.

**LCD:** This is a Liquid Crystal Display used on your remote transmitter to display your vehicles status/alarm information.

**LED:** A 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.

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

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

**Trigger or Triggered Sequence:** This is what happens when the alarm "goes off" or "trips". The triggered response of your system consists of the siren sounding and indicator light flashing for the programmed duration.

**Valet Button:** 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 enter or exit Valet mode.

**Zone:** A zone is a separate input that the alarm can recognise as unique. Each input to the system is connected to a particular zone. Two or more inputs often share the same zone.



# health check

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Directed Electronics recommends you return to your installing Viper dealer to have your system checked for correct operation. The first check is due one year after the installation date and at yearly intervals thereafter.

*note: There may be a small charge incurred for this service.*

**DEALER STAMP  
1 YEAR CHECK**

Signed \_\_\_\_\_ Dated \_\_\_\_\_

**DEALER STAMP  
2 YEAR CHECK**

Signed \_\_\_\_\_ Dated \_\_\_\_\_

**DEALER STAMP  
3 YEAR CHECK**

Signed \_\_\_\_\_ Dated \_\_\_\_\_

**DEALER STAMP  
4 YEAR CHECK**

Signed \_\_\_\_\_ Dated \_\_\_\_\_

**DEALER STAMP  
5 YEAR CHECK**

Signed \_\_\_\_\_ Dated \_\_\_\_\_

**DEALER STAMP  
6 YEAR CHECK**

Signed \_\_\_\_\_ Dated \_\_\_\_\_

Your factory set 4-digit PIN code is noted below. See this manual for information on using your PIN code.

place sticker here

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

E&OE, specification is subject to change without notice. Some vehicles require optional parts/wiring and a few are incompatible with some features.



Directed Electronics is an ISO 9001 registered company.

Directed® is committed to delivering world-class quality products and services that excite and delight our customers.

*driven to excel*  
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