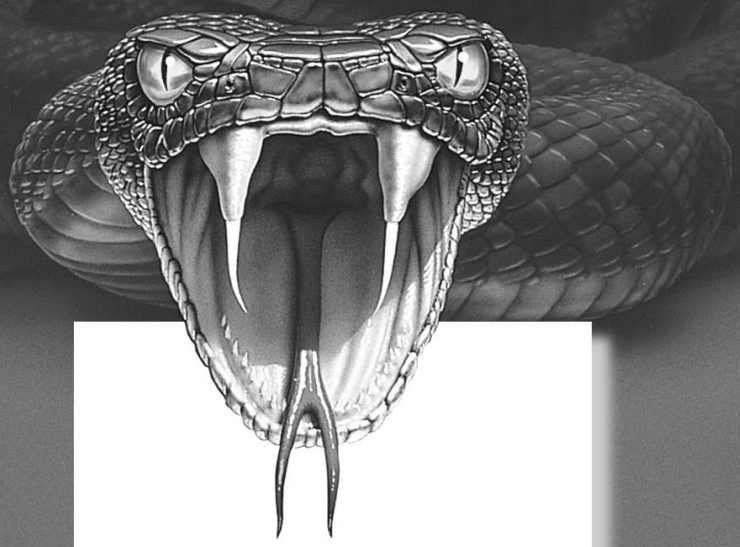
VIPER®



MODEL

540 ESP

OWNER'S GUIDE

11/01 and up

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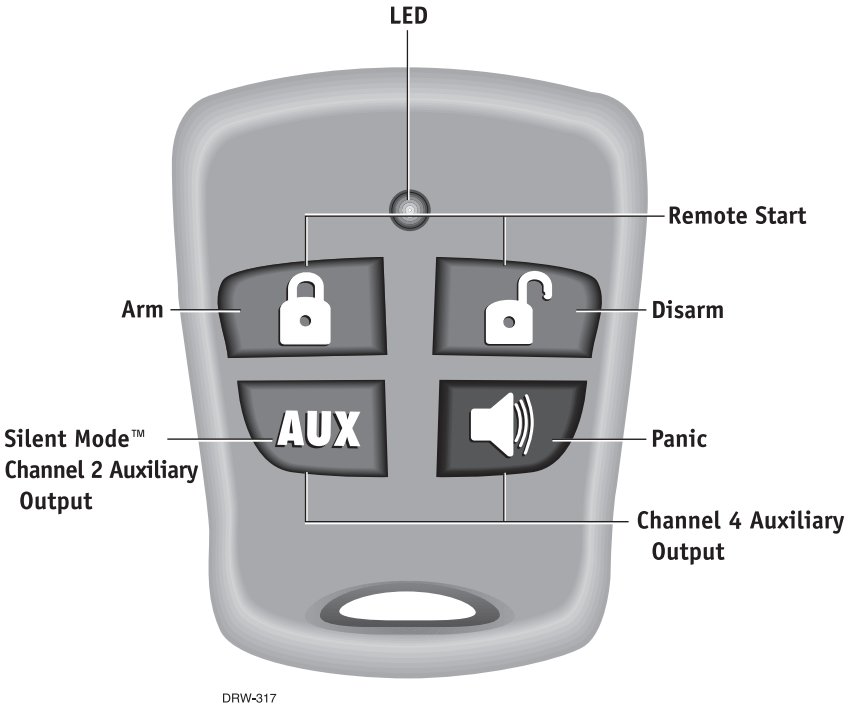
Standard Configuration



What is Included

- A control module
- Two four-button transmitters
- A Stinger™ DoubleGuard® two-stage shock sensor
- A Revenger™ Soft Chirp™ six-tone programmable siren
- A red status LED indicator light
- A push-button Valet® switch
- Your warranty card
- A shut-down toggle switch

Important Information

Congratulations on the purchase of your remote start keyless entry system. By carefully reading this guide prior to using your system, you will maximize the use of this system and its features.

You can print additional or replacement copies of this manual by accessing the DEI® internet website at www.dei.com.

System Maintenance

The system requires no specific maintenance. Your remote is powered by a miniature 12V battery, type GP23A, that will last approximately one year with normal use. When the battery begins to weaken, operating range will be reduced and the LED on the remote will dim.

Your Warranty

Your warranty card must be returned and the bar code serial number must not be removed. If the card is not returned, you do not have a warranty. You must also keep your proof of purchase, which reflects that the product was installed by an authorized dealer. Make sure you receive the warranty card from your dealer.

FCC/ID Notice

This device complies with Part 15 of FCC rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

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

Caution

This product is designed for fuel injected, automatic transmission vehicles only. Use of this product in a standard transmission vehicle is dangerous and contrary to its intended use.

Transmitter Functions

The receiver uses a computer-based Learn Routine to learn the transmitter buttons. This makes it possible to assign any remote transmitter button to any receiver function. The transmitter initially comes programmed with Standard Configuration, but may also be customized by an authorized dealer. The buttons in all of the instructions in this manual correspond to a Standard Configuration transmitter.

Standard Configuration

 Button

The arming function is controlled by pressing  for one second.

 Button

The disarming function is controlled by pressing  for one second.

AUX Button

Silent Mode™ and an optional auxiliary function are controlled by pressing AUX. Silent Mode™ works by pressing AUX for less than one second. An optional auxiliary function, such as trunk release, is controlled by pressing and holding AUX for 1.5 seconds.

The auxiliary output controls _____.

 Button

The panic function is controlled by pressing  for 1 second.

 and  Buttons

The remote start function of your system is controlled by pressing these buttons simultaneously.

AUX and  Buttons

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

The auxiliary output controls _____.

Using Your System

Warning! Safety First

The following safety warnings must be observed at all times:

- Due to the complexity of this system, installation of this product must only be performed by an authorized DEI dealer.
- When properly installed, this system can start the vehicle via a command signal from the remote control transmitter. Therefore, never operate the system in an enclosed area or partially enclosed area without ventilation (such as a garage). When parking in an enclosed or partially enclosed area or when having the vehicle serviced, the remote start system must be disabled using the installed toggle switch. It is the user's sole responsibility to properly handle and keep out of

reach from children all remote control transmitters to assure that the system does not unintentionally remote start the vehicle. **THE USER MUST INSTALL A CARBON MONOXIDE DETECTOR IN OR ABOUT THE LIVING AREA ADJACENT TO THE VEHICLE. ALL DOORS LEADING FROM ADJACENT LIVING AREAS TO THE ENCLOSED OR PARTIALLY ENCLOSED VEHICLE STORAGE AREA MUST AT ALL TIMES REMAIN CLOSED.** These precautions are the sole responsibility of the user.

- Use of this product in a manner contrary to its intended mode of operation may result in property damage, personal injury, or death. (1) Never remotely start the vehicle with the vehicle in gear, and (2) Never remotely start the vehicle with the keys in the ignition. The user must also have the neutral safety feature of the vehicle periodically checked, wherein the vehicle must not remotely start while the car is in gear. This testing should be performed by an authorized DEI dealer in accordance with the Safety Check outlined in the product installation guide. If the vehicle starts in gear, cease remote start operation immediately and consult with the authorized DEI dealer to fix the problem.
- After the remote start module has been installed, contact your authorized dealer to have him or her test the remote start module by performing the Safety Check outlined in the product installation guide. If the vehicle starts when performing the Neutral Safety Shutdown Circuit test, the remote start unit has not been properly installed. The remote start module must be removed or the installer must properly reinstall the remote

start system so that the vehicle does not start in gear. All installations must be performed by an authorized DEI dealer. **OPERATION OF THE REMOTE START MODULE IF THE VEHICLE STARTS IN GEAR IS CONTRARY TO ITS INTENDED MODE OF OPERATION. OPERATING THE REMOTE START SYSTEM UNDER THESE CONDITIONS MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY. YOU MUST IMMEDIATELY CEASE THE USE OF THE UNIT AND SEEK THE ASSISTANCE OF AN AUTHORIZED DEI DEALER TO REPAIR OR DISCONNECT THE INSTALLED REMOTE START MODULE. DEI WILL NOT BE HELD RESPONSIBLE OR PAY FOR INSTALLATION OR REINSTALLATION COSTS.**

Arming

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

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 pas-

sive arming countdown, the 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.

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

Arming your security system protects your vehicle as follows:

- Light impacts will trigger the Warn Away® signal. The siren will chirp and the parking lights will 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 transmitter if you inadvertently open the door while the system is armed, while still providing instant response (even if the door is immediately closed).
- Turning on the ignition key will trip the same progressive response as opening a door.
- The optional starter kill prevents the starter from cranking.

Multi-Level Security Arming

Multi-Level Security Arming allows you to select which of the system's inputs or sensors will be active and which will be bypassed when the system is armed. (See Table of Zones in this guide.) Pressing  (only in Standard Configuration) again within five seconds of arming the system will activate the Multi-Level Security feature. Each time  is pressed again, a different security level is selected. The different security levels are selected as follows:

- Pressing  once: The siren chirps once. The system is armed.
- Pressing  a second time within five seconds: The siren chirps twice followed by a long chirp. Zone 2 is now bypassed.
- Pressing  a third time within five seconds: The siren chirps three times followed by a long chirp. Zone 4 is now bypassed.
- Pressing  a fourth time within five seconds: The siren chirps four times followed by a long chirp. Zones 2 and 4 are now bypassed.
- Pressing  a fifth time within five seconds: The siren chirps five times followed by a long chirp. All of the input zones, except for the ignition input zone, are now bypassed.

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

Arming While Driving

Your system can be armed while driving the vehicle! Simply press  while the vehicle is running. The siren will chirp once to indicate that the security system is armed, and then once more to indicate that the ignition is on. The system will not respond to any input except the door triggers, and the starter kill relay (if installed) will not be activated. Once you have arrived at your destination, the system will disarm when the ignition is turned off. The siren will chirp twice and the LED will then stop flashing. The system can also be disarmed at any time by pressing  .

Disarming

To turn off, or disarm the security system, press  again. You will hear two chirps, and the parking lights will flash twice. If the power locks are controlled by the system, the doors will also unlock. The siren chirping either four or five times when disarming indicates Tamper Alert, which is described in the Diagnostics Section of this guide.

High Security Disarm

Your security system includes a High Security Disarm feature. After 6 seconds of trigger sequence, using the transmitter to disarm the security system will only stop the trigger sequence (the siren will stop and the parking lights will stop flashing). However, the system will remain armed and the doors will stay locked. This is extremely useful if you must stop the system from sounding, but

are unable to visually check the vehicle. This feature allows you to silence and reset the security system when it is triggered, without having to disarm the system.

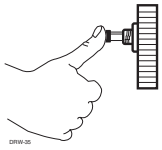
High Security Rearm

High Security Rearm is a feature that protects your vehicle in the event that the security system is inadvertently disarmed. Two minutes after disarming the security system with the remote transmitter, the system will automatically rearm and lock the doors if a vehicle door has not been opened. Rearming will take place regardless of whether the system has been programmed for active locking/arming or passive locking/arming.

Disarming Without a Transmitter

If your remote transmitter is lost or damaged, you can manually disarm your vehicle security system. To disarm the system without a transmitter, you must have the vehicle's ignition key and know where the Valet® switch is located. Be sure to check with your installer at the time of installation for both the location and the preset response (1-5 presses) of the Valet® switch.

To disarm the security system, turn the ignition key on and press the Valet® switch the preset number of times within 15 seconds. If the system does not disarm, you may have waited too long; turn the ignition off and repeat the process.



IMPORTANT! The Valet® switch can be programmed to respond to 1-5 presses for the disarm function. You must check with the installer to verify the programming for your individual unit.

LOCATION OF VALET® SWITCH

Silent Mode

Use the Silent Mode to temporarily turn off the arming or disarming confirmation chirps by briefly pressing AUX before either arming or disarming the security system. The confirmation chirp(s) will then be eliminated for that one operation only. To permanently turn off the confirmation chirps, contact your installation dealer.

NOTE: The Warn Away® Response to lighter impacts is bypassed if the system is armed using the Silent Mode. This ensures that the siren does not chirp in an environment where you don't want chirps to be emitted. The system is still capable of being triggered by heavier impacts; only the Warn Away® Response generated by light impacts is bypassed.

Panic Mode

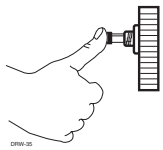
If you are threatened in or near your vehicle, you can attract attention by triggering the system with your transmitter! Just press  for 1 second, and you will enter Panic Mode. The siren will sound and the parking lights will flash for 30 seconds. To stop Panic Mode at any time, press  on the transmitter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

Valet Mode

Valet® Mode prevents your system from arming and triggering either automatically or when using the remote. In Valet® Mode, all convenience functions (door locks, trunk release, etc.) remain operational. This feature is useful when washing or servicing your vehicle.

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 will light steadily to indicate that you have entered Valet® Mode and will turn off when you have exited Valet® Mode.

Remote Valet

You can also activate Valet® Mode using the remote transmitter:

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

The status LED will light solid if you are entering Valet® Mode and will turn off if you are exiting Valet® Mode.

Remote Start

The remote start feature allows you to remotely start and run your vehicle for a programmable period of time. This makes it possible to warm up the engine, as well as adjust the interior temperature of the vehicle with the climate control system. If interior heating or cooling is desired, the climate controls must be preset, and the fan blower must be set to the desired level prior to remote starting the vehicle.

IMPORTANT! (1) Never remotely start the vehicle with the vehicle in gear, and (2) Never remotely start the vehicle with the key in the ignition.

Pressing  and  at the same time will begin the remote start sequence. The parking lights will flash to warn that the motor is about to start. It is important to release the transmitter buttons as soon as the parking lights flash. If the buttons are pressed longer than two seconds, the remote start sequence will stop. About three seconds after the parking lights flash, the system will engage the starter until the vehicle is successfully running. If the motor is not running after six seconds, the system will stop cranking the starter. After three seconds, the system will attempt to start the motor again. If your motor is not running after three attempts, the system will stop the remote start sequence. It is not necessary to disarm your system before remote starting the vehicle. The shock sensor will be bypassed whenever the system is running the motor.

IMPORTANT! It is unsafe to operate a vehicle's motor in a garage or other closed off area. Breathing the exhaust from the vehicle is hazardous to your health. Never activate the remote start in an enclosed space.

Once the remote start system has successfully started the motor, it will turn the climate controls on. The motor will run for the selected period of time and the parking lights will flash or light solid while the motor is running. (See Programming Options Section of this guide.)

Shutting Down The Remote Start System

Pressing  and  on the transmitter again, during remote start operation, will shut down the remote start system and the motor

will turn off. You can also shut down the remote start system by pressing on the brake pedal. You may want to enter the vehicle and drive it without shutting off the motor. It is possible to shut down the remote start and drive the vehicle without shutting down the motor.

To shut down the remote start:

DRW-94

1. Disarm the security system (if armed) by pressing .
2. Enter the vehicle and turn the ignition to the ON position.
3. Step on the brake pedal.


DRW-43

The remote start system will be shut down when you step on the brake pedal. The vehicle motor, however, will continue to run because the ignition has been turned on. The vehicle will now operate as usual.

Valet Take-Over

A vehicle equipped with the Valet® Take-Over system can remain running after the key is removed from the ignition. This feature is useful for occasions when you wish to exit the vehicle for short periods of time, but would like to leave the motor running and the climate controls on.

To perform Valet® Take-Over, before turning off the engine:

1. Press and release and on the transmitter (or press and release the optional Momentary switch).
2. Turn the ignition key to the OFF position. (The engine will stay running.)

3. The engine will run until the programmed time elapses or a shut down input is received.

   NOTE: This feature will not work while the brake pedal is being pressed.

Timer Mode

Timer Mode automatically starts your vehicle engine and runs it for a pre-programmed time period, every three hours for a total of six operation cycles. Timer Mode helps to ensure that your engine will start in the morning after being parked outside during a night of extremely cold temperatures.

IMPORTANT! This feature must only be used in open areas, never in an enclosed area such as a garage.

To enter Timer Mode:

1. Start the vehicle by pressing and releasing  and  .
2. Press and release AUX .
3. Within two seconds, press and release  and  again.
4. The engine will shut down and the parking lights will flash four times. The engine will then restart to confirm that Timer Mode has been entered.

The vehicle engine may be allowed to run for its pre-programmed time period, or it can be shut down while running during Timer Mode operation by pressing buttons  and  on the transmitter again. In either case, the vehicle will restart every three hours for a total of six operation cycles. If the system receives a shut-down input while the engine is running in Timer Mode, the engine will stop, but will restart, on schedule, again in three hours!

To exit Timer Mode:

Timer Mode can be exited by turning the ignition on with the key any time that the vehicle engine is not running. You can also exit Timer Mode using the transmitter by following these steps:

1. Start the engine by pressing  and  on the transmitter simultaneously.
2. Press and release AUX on the transmitter.
3. Within two seconds, press and release  and  on the transmitter again.
4. The vehicle engine will shut down and the parking lights will flash four times to confirm that Timer Mode has been exited. If the vehicle has already been remote started, you may skip Step One.

Disabling the Remote Start System

This feature allows your system's remote start unit to be temporarily disabled to prevent the vehicle from being remote started accidentally. This feature is useful if the vehicle is being serviced or stored in an enclosed area. To disable the remote start, move the supplied shutdown toggle switch to the OFF position. The switch can be installed in a location of your choice. Check with your installer for recommended locations.

LOCATION OF SHUTDOWN SWITCH_____

Nuisance Prevention Circuitry

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

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

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

The vehicle doors are protected by NPC™ differently. If your security system is triggered by an open door for three full cycles, the security system will bypass the vehicle doors until the trigger ceases.

> **NOTE:** Arming and disarming the system does not reset this function! The only ways to reset a bypassed zone are for it to not trigger for 60 minutes, or to turn on the ignition. If testing your system, it is important to remember that 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 on.

Safety Features

This system has several important safety features to ensure proper operation of the motor and prevent accidental damage to the engine or its components.

Over and Under Rev Protection

The system monitors the engine speed and will automatically shut the engine off if the RPMs rise above or fall below the programmed levels. This feature prevents damage to the motor due to fuel delivery system failures or other problems which may cause the engine to race.

> **NOTE:** The system uses a wire connected to the vehicle to sense engine speed. This wire must be connected in order for over and under rev protection to work.

Shut Down Inputs

This system uses several inputs to shut down the remote start operation of the motor or prevent remote start if certain inputs are active. The two most important are hood and brake inputs. The hood input will prevent the motor from starting, as well as shut it down, any time the hood is opened. The brake pedal will shut down the motor at any time during remote start operation, as well as preventing the remote start from activating while it is being pressed.

Starter Anti-Grind Circuitry

Whenever the vehicle is remote started, advanced anti-grind circuitry will prevent the starter from engaging, even if the key is turned to the start position. This prevents damage to the starter motor if the key is turned to the start position during remote start operation.

> **NOTE:** The starter anti-grind circuitry only works when the remote start system is operating the motor and the optional Failsafe® Starter Kill relay has been installed.

Diagnostics

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

Arming Diagnostics

If the security system is armed at the same time that an input is active (such as a door opening or sensor triggering), you will hear one siren chirp to indicate arming and a second siren chirp to indicate Bypass Notification. A Bypass Notification chirp means that the security system ignores the input that was active when the system was armed, until that input ceases. Three seconds after

that input ceases, the security system will resume normal monitoring. For example, if your vehicle has an interior light exit delay and you arm your security system before the interior light turns off, you may hear a second Bypass Notification chirp. Once the light turns off, however, the security system resumes normal monitoring.

> **NOTE:** Bypass Notification does not occur when the system is in Silent Mode or if the notification chirps have been programmed by the installer not to sound.

Disarming Diagnostics

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

Table of Zones

A zone is represented by the number of LED flashes used by the system to identify a particular type of input. Standard input assignments are listed below, along with spaces to write in any optional sensors or switches that have been installed.

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

ZONE (Number of LED Flashes)	DESCRIPTION	DEALER-INSTALLED OPTIONS
1	Instant trigger - hood pinswitch	
2	Instant trigger - a heavier impact detected by the shock sensor	
3	Door switch trigger	
4	Instant trigger - for optional sensors	
5	Ignition trigger	

NOTE: Your system stores the last two 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 two zones that were triggered. Contact your dealer for details.

Code Hopping

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

High Frequency

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

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 on the vehicle's battery and prevents the system from draining the 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 one hour period 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.

Owner Recognition

Owner Recognition is a revolutionary new feature available only from DEI®. Using a DEI® Bitwriter, 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 Bitwriter and the necessary software. Check with your dealer for more information.

Rapid Resume Logic

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

Programming Options

Programming options control your system's normal, operational set-up. Most options do not require additional parts, but some may require installation labor.

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

- **Active** arming (transmitter only) or passive arming (automatic arming 30 seconds after the last door has been closed).
- Arming/disarming siren chirps **on** or off.
- The ignition controlled door lock feature **on** or off: When this feature is programmed on, the doors will lock three seconds after the ignition is turned on, and unlock when the ignition is turned off. The system can also be programmed to prevent the door from locking when the ignition is turned on with any door open. If your installer is programming the system with the DEI® Bitwriter or a personal computer and the TechSoft™ Programmer, ignition lock and unlock are independent features and can be programmed separately.
- 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.

- Panic mode **enabled**/disabled when the ignition is turned on. (Some states have laws against sirens sounding in moving cars.)
- 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. Forced passive arming ensures that the system will be armed if a door has accidentally been left ajar when leaving the vehicle.

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

- Full trigger response **30** or 60 seconds: This determines how long the full triggered sequence lasts. Some states have laws regulating how long a security system can sound before it is considered a nuisance. If your installer is programming the system with the DEI® Bitwriter or a personal computer and the TechSoft™ Programmer, the full triggered response can be programmed for any duration ranging from 1 to 180 seconds.
- 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 LED will flash slowly (one-half its normal armed rate) to indicate the AED arming cycle. Thirty seconds later, the starter will be disabled. To start the car, it will be

necessary to arm the car with the remote and then disarm it with the remote. It is also possible to disarm the AED feature by turning the ignition key to the "run" position and pressing the Valet® button the programmed number of times. AED is also disabled when the system is in Valet® mode.

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

- Siren tones and chirp volume. The output of the Revenger™ Soft Chirp™ siren consists of six different tones in sequence. Any of these tones can be eliminated by a dealer, resulting in a unique, easily identifiable siren sound. The chirps can be either full volume or **6 decibels quieter** than the full alarm blast.
- The engine can be programmed to run for any duration ranging from 1 to 60 minutes. **12 minutes** is the default. After the programmed run time, the engine will shut down and will not restart, unless in Timer Mode.
- While the remote start system is running the engine, the parking lights of the vehicle can **flash on and off** or come on and light steadily.

Security & Convenience Expansions

Listed below are some of the many expansion options available. Please consult your dealer for a complete explanation of all the options available to you.

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

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

Electronic Hood Lock: Prevents the vehicle's hood from being opened whenever the system is armed, keeping thieves away from the system's siren, the battery connections, and other components under the hood.

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

Power Trunk Release: The AUX output of the system can operate a factory power release for the vehicle's trunk or hatch. Although the on-board relay can control most power trunk releases, in some cases an optional relay is required. If the factory release is not power-activated, DEI's 522T trunk release solenoid often can be added.

Power Locks: This system offers lock outputs that can control some manufacturers' power door lock systems. For other systems, additional parts may be required.

Power Window Control: Automatic power window control is provided with the 529T and 530T systems. These can operate power windows, and can roll them up automatically when the system is armed, roll them down, or both up and down.

Valet® Car★Com™: The Valet® Car★Com™ is a one-way pager system that can be added to any compatible DEI security system. With Valet® Car★Com™, many of the security and convenience features of your DEI security system can be operated from any touch tone telephone.

Glossary of Terms

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

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

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

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

Shock Sensor: This system is packaged with a Stinger™ DoubleGuard® shock sensor. This sensor is mounted in the vehicle and designed to pick up impacts to the vehicle or glass.

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

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

Trigger or triggered sequence: This is what happens when the alarm "goes off" or "trips." The triggered sequence of your system consists of 30 seconds of siren sounding and parking light flashing.

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

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

Notes

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

QUICK REFERENCE GUIDE:

Arming

- To arm, press  . When the system arms, you will hear a short chirp, and the parking lights will flash once.

Arming while driving

- To arm the system while driving, press  on your transmitter while the vehicle is running. The system will chirp once and then once more to indicate that the ignition is on.

Disarming

- To disarm, press  . You will hear two chirps, and the parking lights will flash twice.

High security disarm

- For high security disarm, press  on your transmitter and the siren will stop sounding. To completely disarm the security system, press  again and the system will chirp 4 or 5 times (reporting the trigger).

Disarming without a transmitter

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

Silent Mode™

- Pressing briefly before arming or disarming will eliminate the confirmation chirp(s) for that one operation only.

Panic Mode

- Press  for 1 second, and you will enter Panic Mode. The siren will sound and the parking lights will flash for 30 seconds. To stop Panic Mode at any time, press  on the transmitter again.

To remote start the vehicle

- Press  and  simultaneously. The parking lights will turn on (if connected) and the vehicle will start and run for the programmed period of time.

To disable the remote start system

- To disable the remote start, move the shutdown toggle switch to the OFF position.

Location of Valet® switch_____

Number of Valet® switch pulses for disarming_____

The company behind this system is Directed Electronics, Inc.

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

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

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

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

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