

Model 4400

➤ *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 authorized Directed dealer; the unit will be professionally reinstalled in the vehicle in which it was originally installed by an authorized Directed dealer; and the unit is returned to Directed, shipping prepaid with a legible copy of the bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number and address; the authorized dealers name, telephone number and address; complete product description, including accessories; the year, make and model of the vehicle; vehicle license number and vehicle identification number. All components other than the unit, including without limitation the siren, the remote transmitters and the associated sensors and accessories, carry a one-year warranty from the date of purchase of the same. 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 AUTHORIZED DEALERS OR INSTALLERS. DIRECTED SECURITY SYSTEMS, INCLUDING THIS UNIT, ARE DETERRENTS AGAINST POSSIBLE THEFT. DIRECTED IS NOT OFFERING A GUARANTEE OR INSURANCE AGAINST VANDALISM, DAMAGE OR THEFT OF THE AUTOMOBILE, ITS PARTS OR CONTENTS; AND HEREBY EXPRESSLY DISCLAIMS ANY LIABILITY WHATSOEVER, INCLUDING WITHOUT LIMITATION, LIABILITY FOR THEFT, DAMAGE AND/OR VANDALISM. THIS WARRANTY DOES NOT COVER LABOR COSTS FOR MAINTENANCE, REMOVAL OR REINSTALLATION OF THE UNIT OR ANY

CONSEQUENTIAL DAMAGES OF ANY KIND. IN THE EVENT OF A CLAIM OR A DISPUTE INVOLVING DIRECTED OR ITS SUBSIDIARY, THE 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 AUTHORIZED DIRECTED DEALER'S PURCHASE PRICE OF THE UNIT. DIRECTED SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGES FOR THE LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, THE MANUFACTURER DOES OFFER A LIMITED WARRANTY TO REPLACE OR REPAIR THE CONTROL MODULE AS DESCRIBED ABOVE. Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights and you may also have other rights that vary from State to State.

This product may be covered by a Guaranteed Protection Plan ("GPP"). See your authorized Directed dealer for details of the plan or call Directed Customer Service at 1-800-876-0800. 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 authorized any person or entity to create for it any other obligation, promise, duty or obligation in connection with this security system.

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

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

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

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transceiver diagram



standard transceiver configurations

1	Vehicle Interior Temperature Indicator
2	Numeric Display
3	AM/PM Indicator
4	Alarm Clock Mode Indicator
5	Timer Function Indicator
6	Transmit Range Indicator
7	Transmission Indication
8	Vibrate/Beep Mode Indicator
9	Power Saver Mode Indicator
10	Remote Start Timer Mode Indicator
11	No Function
12	Vehicle Page Mode Indicator
13	Full Trigger Shock Sensor Indicator
14	Hood/Trunk Open or Trigger Indicator
15	Parking Light Indicator
16	Door Open or Trigger Indicator
17	Arm/Lock Button
18	Disarm/Unlock Button
19	Remote Start Indicator
20	Hood/Trunk Open or Trigger Indicator
21	Panic Mode Button
22	Valet Mode Indicator
23	Remote Start Safety Shutdown Indicator
24	Battery Level Indicator
25	Auxiliary Button
26	Temperature-Controlled Remote Start Indicator
27	Silent Arm/Disarm Mode Indicator
28	Full Trigger Alert Indicator
29	Arm/Disarm Indicator
30	Function Button
31	Celsius/Fahrenheit Indicator

what is included

- Control module
- A.S.K. Receiver
- One four-button two-way transceiver
- One four-button transmitter
- Stinger™ DoubleGuard® two-stage shock sensor
- Revenger™ Soft Chirp™ six-tone programmable siren
- Red status LED indicator light
- Push-button Valet® switch
- Your warranty registration
- FailSafe® Starter Kill
- Shut-down toggle switch

important information

Congratulations on the purchase of your combination remote start alarm system. Due to the complexity of this system, it must only be installed by an authorized dealer. Installation of this product by anyone other than an authorized dealer voids the warranty. All dealers are provided with a preprinted dealer certificate to verify authorization.

By carefully reading this Owner's 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 our web site at www.directed.com.

→ **warning! safety first**

The following safety warnings must be observed at all times:

warning! THIS SYSTEM PROVIDES REMOTE NOTIFICATION OF SECURITY SYSTEM TRIGGER EVENTS. CONTACT POLICE OR SECURITY PERSONNEL IMMEDIATELY. NEVER CONFRONT A CAR THIEF OR VANDAL.

- Due to the complexity of this system, installation of this product must only be performed by an authorized Directed dealer.
- When properly installed, this system can start the vehicle via a command signal from the transceiver. 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 transceiver 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 Directed 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 Directed 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 Directed 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 IMME-

DIATELY CEASE THE USE OF THE UNIT AND SEEK THE ASSISTANCE OF AN AUTHORIZED DIRECTED DEALER TO REPAIR OR DISCONNECT THE INSTALLED REMOTE START MODULE. DIRECTED WILL NOT BE HELD RESPONSIBLE OR PAY FOR INSTALLATION OR REINSTALLATION COSTS.

→ **system maintenance**

This system needs no specific maintenance beyond transceiver battery replacement. The transceiver is powered by a 1.5V AAA battery.

The Battery Level indicator has three level indicators that serve as a visual indication of battery charge. When the battery reaches a low charge level that requires replacement, the transceiver will generate a single notification chirp, and the Battery Level indicator will flash continuously.



Battery Replacement

Gently pull the battery cover release tab, then slide the door down to expose the battery and remove the expired battery. Place the new battery into the transceiver observing the correct polarity. When power is returned the transceiver will light all icons in the LCD and generate all beeper tones once.

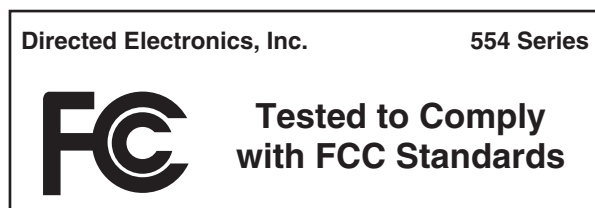
→ **your warranty**

Your warranty registration must be completely filled out and returned within 10 days of purchase. Your product warranty will not be validated if your warranty registration is not returned. Make sure you receive the warranty registration from your dealer. It is also necessary to keep your proof of purchase, which reflects that the product was installed by an authorized dealer.

→ **fcc/id notice**

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

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



DRW-372

→ **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 the product's intended use.

transceiver functions

The transceiver 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.

→ **standard button configurations**

 **Button**

The System Arm/Lock and Multi-Level Security Arming functions are controlled by pressing this button for one second.

 **Button**

The System Disarm/Unlock and High Security Disarm functions are controlled by pressing this button for one second.

 **Button**

Channel 2 output is controlled by pressing this button for three seconds. Hold the button down continuously while accessing Channel 2 output.

 **Button**

The panic feature is controlled by pressing this button for two

seconds. Press again to disable panic mode.

Button

The LCD backlighting will turn on when pressed for less than one second; when held for more than five seconds the transceiver will enter adjustment mode allowing the setting of the clock, timer mode, and audible melody selection. For more information, please refer to the *Function Button Configurations* section of this guide.

and **Buttons**

The remote start function of the system is controlled by pressing these buttons simultaneously for one second.

and **Buttons**

When pressed simultaneously these buttons activate remote start timer mode, engaging the remote start function every 24 hours.

and **Buttons**

When pressed simultaneously these buttons display the internal temperature of the vehicle on the LCD.

and **Buttons**

When pressed simultaneously with the system armed, the system enters temperature auto start mode and automatically remote starts the vehicle if the temperature inside the vehicle drops below 0 degrees Fahrenheit.

note: Disarming the system while in temperature auto start mode will cause the system to exit this mode.

and Buttons

The numeric display toggles between the time of the day and the alarm clock when these buttons are pressed simultaneously.

and Buttons

Press these buttons simultaneously to activate the parking timer. Each additional press will toggle through the available options (10 min., 20 min., 30 min., 1 hour, 1.5 hours, 2 hours, and off).

and Buttons

When pressed simultaneously these buttons toggle between beep notification and vibrate notification.

and Buttons

When pressed simultaneously these buttons activate battery saver mode, which will drop power consumption on the transceiver battery to zero when the alarm is inactive or disarmed.

standard icon configurations

Icon

The vehicle interior temperature icon displays the temperature of the inside of the vehicle when prompted.

Icon

The numeric display icon will show the hours and minutes.

Icon

The AM/PM icon indicates the time before or after noon.

Icon

The alarm clock mode icon indicates that the alarm clock mode is active.



The timer function icon flashes during timed functions including parking timer.



The transmit range indicator icon stays visible as long as the system is within operating range.



The remote transmission indicator icon displays when the transceiver is transmitting a signal.



The vibrate/beep mode icon appears when the transceiver is set to vibrate mode.



The power saver mode can be turned on or off with the transceiver. This icon displays the status.



The remote start timer mode icon indicates the 24-hour autostart feature is active and automatically remote starts 24 hours from the time activated.



The VRS mode icon has no function.



The vehicle page mode icon displays when the alarm module is paging the transceiver.



The full trigger shock sensor icon indicates that the shock sensor has been triggered by a hard shock.



The hood/trunk open or trigger icon illuminates when the hood or trunk trigger has been activated or the hood or trunk is open, and bypasses those zones until it is closed.



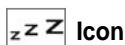
The parking light icon will flash twice when armed or disarmed. The icon also flashes during WarnAway and at the beginning and end of remote start cycles.



The door open or trigger icon illuminates when the door trigger has been activated or the door is open, and bypasses that zone until it is closed.



The remote start icon indicates when the vehicle is remotely started.



The valet mode icon appears when the system is in valet.



The remote start safety shut down icon indicates the vehicle may be in gear or other unsafe condition inhibiting remote start operation.



The battery level icon indicates the level of power remaining in the battery.



The temperature-controlled remote start icon indicates that the system has entered the temperature remote start mode and automatically starts the vehicle if the temperature of the vehicle drops below 0 degrees Fahrenheit.



The silent arm/disarm icon appears when the system has been armed or disarmed in the silent mode.



The full trigger alert icon illuminates when the security system has been triggered by a heavy impact, door trigger violation, optional sensor violation, or a hood/trunk trigger.

































The arm icon appears when the vehicle is armed and locked. The disarm icon appears when the vehicle is disarmed and unlocked.

Icon

Celsius/Fahrenheit icon indicates the current mode of the displayed temperature either in Celsius or Fahrenheit.

→ function button configurations

Function	Button	Icon	Audible Indication
Lamp On (10 sec)			
Power-Saver Mode*	 + 		Melody
Beep/Vibrate Mode	 + 		4 Vibrations/ 1 Beep
Time Adjust Mode (hour)**	 for 5 Seconds		2 Beeps
Time Adjust Mode (min)**	 1 Time***		
Alarm Clock Set Mode (hour)**	 2 Times***	 	
Alarm Clock Set Mode (min)**	 3 Times***	 	
Alarm Clock Music or Power on Music Selection**	 4 Times***	 	5 Selections 1/2/3/4/5
Alarm Clock Adjust Mode (on/off)**	 5 Times***	  	
Timer Count Down Adjust Mode (hour)**	 6 Times***	 	
Timer Count Down Adjust Mode (min)**	 7 Times***	 	

Timer Count		8 Times***			5 Selections	
Down Ending Melody Selection 1**					1/2/3/4/5	
RS Timer Count		9 Times***				
Down Mode (on/off)*						
Remote Start On		10 times***			5 Selections	
Melody Selection 2					1/2/3/4/5	
10 Min Parking		+	1 Time			Melody
Count Down Mode						
20 Min Parking		+	2 Times			Melody
Count Down Mode						
30 Min Parking		+	3 Times			Melody
Count Down Mode						
60 Min Parking		+	4 Times			Melody
Count Down Mode						
90 Min Parking		+	5 Times			Melody
Count Down Mode						
120 Min Parking		+	6 Times			Melody
Count Down Mode						
Parking Count Down		+	7 Times			Melody
Off Mode						
Alarm Clock Mode		+				Melody
On/Off****						
Celsius/Fahrenheit		+	+			Melody
Select Mode						

* This function will operate in the disarmed state only.

** The button will advance the selection upward. The button will advance the selection downward or select the off setting.

*** Be sure to hold down for five seconds prior to entering timer clock adjust mode operation.

**** Press once to have the alarm clock on. Press twice to have the alarm clock off.

remote operation

The 554 remote start system operates at 434 MHz and incorporates Directed's proprietary A.S.K. out-board two-way 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 transceiver as confirmation of receipt of a command or alarm system status.

When the transceiver receives a page it will generate a page notification to the user (notifications are audible beeps or transceiver vibration) and the LCD icons will display the current system status.

Command Page

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


Page Recognition Mode

The transceiver will leave a zone icon illuminated when it has received a triggered response and will wait for violation recognition. Press any button on the transceiver, the LCD information and alarm page alerts will be cleared.

note: The transceiver buttons will not send a command to the system until the alarm page is cleared.

using your system

→ active arming

Press  for one second to arm the system. The vehicle's lights will flash once, the doors will lock, the siren will chirp once, and while the system is armed, the status LED will blink approximately once per second to indicate the system is actively protecting the vehicle.

The transceiver will beep once (or vibrate). The arm icon (29) will appear and remain displayed on the LCD.

Bypass Notification

If the siren chirps again, the transceiver beeps again, and the status LED blinks in a pattern, a protected entry or sensor input is active and its icon will be displayed on the transceiver LCD. This is called bypass notification. Refer to the *Diagnostic* section of this manual for information about bypass notification.

→ passive arming

The system can be programmed to arm automatically. This is called passive arming. In passive arming mode the system will arm itself 30 seconds after the user exits the vehicle and closes all protected entry points.

Passive arming sequence

1. Turn the ignition off and exit the vehicle.
2. Close all protected entry points (doors, hood, trunk).
3. The status LED will blink at twice its normal rate indicating the system has begun the 30 second countdown.
4. After 20 seconds the siren will chirp once (unless programmed off) as an audible indication that the system is about to arm.
5. At 30 seconds the system will fully arm itself. At this time the lights will flash and the doors will lock (if programmed for passive locking).

The LED will flash and transceiver's arm icon (29) will appear and remain displayed on the LCD. However, the transceiver will not chirp or vibrate confirmation.

note: The system will not passively arm if a protected entry or sensor is active; unless forced passive arming has been programmed on. Refer to the *Programming Options* section for information about forced passive arming.

→ vehicle protection

Following are descriptions of the many ways this system protects the vehicle. Included are descriptions of the types of alarm pages and how to interpret them.

- **Door Locks (if available)** - The system will automatically lock the vehicle doors when armed.
- **Fail-safe Starter Kill** - The Fail-Safe Starter Kill will prevent the vehicles starter motor from cranking when armed.
- **Status LED** - The status LED blinks approximately once per second as a visual deterrent to potential vehicle theft.
- **Warn Away®** - Light impacts trigger the Warn Away® signal. When triggered, the siren chirps and the parking lights flash for a few seconds.
- **Triggered Sequence** - Heavy impacts trip a Triggered Sequence. The sequence consists of the siren sounding continuously and the parking lights flashing for the programmed duration.
- **Progressive Response** - 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 transceiver if you inadvertently open the door while the system is armed, while still providing instant response (even if the door is immediately closed).
- **Ignition Trigger** - Turning on the ignition key will trip the same progressive response as opening a door.

→ **warn away® response description**

A Warn Away® Response consists of an alarm page along with the responses described below.

- **Shock Sensor** - Light impacts to the vehicle will flash the vehicle lights and chirp the siren for a few seconds.
- **Remote Control Notification** - Ten quick beeps (or one vibration).
- **Remote Control LCD** - The full trigger alert icon (28) will dimly illuminate for two seconds
- The transceiver will enter Page Recognition Mode and operate alarm page alerts.

note: Icons 13 and 14 represent alarm system zone inputs. For more information about icons and the zones they represent refer to the *Standard Remote Configurations* section.

→ **triggered response description**

A Triggered Response can be activated by any of the triggers listed below and consists of an alarm page along with the response described for each trigger. The default Triggered Response duration is 30 seconds but can be programmed from 1-180 seconds by your installer with the Directed Bitwriter.

- **Sensor Trigger** - Heavy impacts to the vehicle will instantly sound the siren and flash the lights for the programmed duration and report Zone 2.

- **Door Trigger** - If a door is opened the siren will chirp for three seconds, then the siren will sound and the lights will flash for the programmed duration and report Zone 3. The three seconds allow the user time to disarm the system with a minimum of noise should a door be opened inadvertently while the system is armed.
- **Hood Trigger** - Opening the hood will sound the siren, flash the lights for the programmed duration, and report Zone 1.
- **Trunk Trigger** - Opening the trunk (if connected) will instantly sound the siren and flash the lights for the programmed duration and report Zone 4.
- **Ignition Trigger** - If the ignition is turned on the siren will chirp for three seconds, then the siren will sound and the lights will flash for the programmed duration and report Zone 5.

When a Triggered Response is activated the transceiver will:


- Repeat four quick beeps (or vibrate) for 15 seconds.
- The full trigger alert icon (28) will turn on for 15 seconds
- The zone icons will turn on and remain on until a transceiver button is pressed, clearing the page alert.
- The transceiver will enter page recognition mode and generate alarm page alerts.

note: Icons 13, 14, 16, and 20 represent alarm system triggered sequence zone inputs. For more information about icons and the zones they represent refer to the *Standard Remote Configurations* section.

→ arming/disarming while driving


The alarm system can operate while the vehicle is being driven for added safety when driving through areas of questionable security. The alarm will only respond to the door trigger inputs and the Fail-Safe starter kill will be activated.

Arming while driving

Press  for two seconds while the vehicle is running. The vehicle's siren will chirp, the lights will flash, and the doors will lock (if unlocked). Then a bypass notification chirp will be heard and the status LED will blink in a pattern of five indicating the ignition is on.



The transceiver will beep once (or vibrate), and the arm icon (29) will be displayed on the LCD.






Disarming while driving

Press  on the transceiver or simply turn off the ignition to disarm the system. The lights will flash twice, the doors will unlock, the siren will chirp twice, and the status LED will turn off. The transceiver will beep twice (or vibrate). The disarm icon (29) will be displayed on the LCD.

note: If the transceiver received a Warn Away® or triggered response page while armed, the first press of the unlock button will clear the page alert. A second press will turn the siren off, and a third press will disarm the system.

→ 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* section of this guide.) Pressing  (only in standard configuration) again within five seconds of arming the system will activate the Multi-Level Security feature. Each press of  will select a different security level, and the transceiver will beep or vibrate once and the arm icon (29) will flash on the LCD. The system will respond as follows.

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

- Continued pressing of  will begin the Multi-Level Security Arming cycle over again.

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.



→ **disarming**


Press  to disarm the system. The vehicle's lights will flash twice, the doors will unlock, the siren will chirp twice and the status LED will turn off. The transceiver will beep twice (or vibrate), and the disarm icon (29) will be displayed on the LCD.

note: If the transceiver received a Warn Away® or Triggered Response Page while armed, the first press of the unlock button will clear the page alert. A second press will turn the siren off, and a third press will disarm the system.

If the siren chirps and the transceiver beeps four or five times when disarming, the system is reporting a triggered response or NPC was activated while armed. Refer to the *Diagnostic* section of this manual for information about disarm diagnostics and how to interpret them.

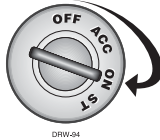
→ **high security disarm**

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 triggered, without disarming the system. If the system is triggered and the siren has been sounding for longer than six seconds, press any button on the transceiver to stop the page, then press  on the transceiver to 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

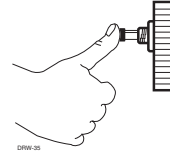
system. Pressing any button to clear the transceiver page and  within the first six seconds will stop the trigger response and disarm the system. The six second timer is there for your convenience in case the system was accidentally triggered.

→ **disarming without a transceiver (emergency override)**

If your transceiver is lost or damaged, you can manually disarm your vehicle security system. To disarm the system without a transceiver, 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 to the ON position. Press the Valet button the preset number of times (one to five times) within five seconds. The factory preset is one. After five seconds, the system will disarm. If the system does not disarm, you may have waited too long; turn the ignition off and on




and try again.

Location of Valet Button _____

Number of Presses _____

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.



→ silent mode

To temporarily turn off the arm or disarm chirps, use Silent Mode™. Simply press  for less than one second before arming or disarming, and the confirmation chirp(s) will be eliminated for that one operation only. When Silent Mode has been used the silent arm/disarm mode icon will indicate silent arm/disarm. If you want the arm/disarm chirps turned off permanently, your dealer can do this for you.

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

All arm/disarm page notifications will still be generated by the transceiver in Silent Mode.

→ panic mode

If you are threatened in or near your vehicle, you can attract attention by triggering the system with your transceiver. Just press  for two seconds, and you will enter panic mode. The siren will sound and the parking lights will flash. To stop Panic Mode press  on the transceiver again.

note: Once panic mode has been entered, the siren will sound for 30 seconds.

The transceiver will beep (or vibrate) continuously when the system enters panic mode. The transceiver will not generate a page notification when panic mode is exited.

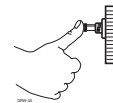
→ valet mode

You can prevent your security system from passive arming 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 transceiver, but all convenience functions (door locks, trunk release, remote starting, etc.) will continue to work normally.

To enter or exit Valet mode:





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



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

The transceiver will not generate a page notification when entering or exiting Valet mode using the Valet switch.

To enter or exit Valet mode using the transceiver:

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. The transceiver will generate alarm/disarm page notifications since the observing buttons are used when entering and exiting valet mode. The status LED is the only way to ensure the system has entered/exited valet mode.

remote start

This 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 remote start your vehicle when the keys are in the ignition, except when performing Valet® Take-Over, and (2) Never start the vehicle if it is not in either PARK or NEUTRAL.

To remote start the vehicle:

1. Simultaneously press  and  on the transceiver for one second.
2. The parking lights will flash to confirm that the vehicle will attempt to start.
3. A remote start page notification with a unique melody (or vibration) will be generated and the LCD will display the remote start (19) icon as long as the vehicle is running.

note: The transceiver will generate a Page Notification with a different unique two-tone beep (or vibrate) and the remote start (19) icon will turn off when the remote start shuts down.

4. In gasoline vehicles, the engine will start four seconds after the parking lights flash. In diesel vehicles, the engine will start when the WAIT-TO-START indicator on the vehicle's dash goes out.
5. Once the vehicle has started, it will run for the pre-programmed period of time (either 12, 24, or 60 minutes - see *Programming Options* section of this guide) or until a shut-down input is triggered. When using the Directed Bitwriter, the run time can be programmed from 1-60 minutes.

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.

When you are ready to drive the vehicle:



1. Insert the ignition key and turn it to the ON (not the START) position.





2. Press the brake pedal.

note: If the brake pedal is pressed before the key is in the ON position, the engine will shut down.

To shut down the remote start and turn off the engine:

While the vehicle is running during remote start operation, the system will monitor the vehicle and will automatically shut down the engine if the system receives any of the following shutdown inputs:



- The brake pedal is pressed.
- The hood is opened.
- The shutdown toggle switch is put into the OFF position.
- The pre-programmed run time (12, 24, or 60 minutes) has elapsed.
- Transceiver buttons  and  are pressed again to start the vehicle.

The transceiver will generate a page notification with a unique melody (or vibrate) and the remote start icon (19) will turn off when the remote start shuts down.

→ valet take-over







The Valet® Take-Over feature allows the vehicle to remain running after the key has been removed from the ignition. This feature is useful for occasions when you wish to exit and lock 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:



1. Before turning off the engine, simultaneously press and release  and  on the transceiver. A remote start page notification with a unique melody (or vibration) will be generated and the LCD will display the remote start icon (19) as long as the vehicle is running. Then wait three seconds.
2. Turn the ignition key to the OFF position. (The engine will stay running.)
3. The engine will run until the pre-programmed time elapses or a shut-down input is received. (See the previous *Remote Start* section for a complete list of shut-down inputs.)

note: This feature will not work if the brake pedal is pressed or if any shut down input is active.

→ setting the clock

To set the clock press and hold  for five seconds, the transceiver will chirp twice and the hour selection will start flashing. Immediately press  to advance the hour selection or  to reverse the hour selection. Once the correct hour is displayed press  again and the minute selection will start flashing. Then press  to advance the minute selection or  to reverse the minute selection. Once the correct time is displayed simply stop pressing any buttons for 10 seconds and the transceiver will automatically exit the clock mode.

→ **temperature check mode**

This system will report the interior temperature of your vehicle with the press of two buttons. To activate the temperature display press  and  simultaneously. You will hear a melody and the interior temperature will appear on the LCD screen for five seconds.

note: If the ignition is on, the temperature check clock-mode will not work.

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.

→ **starter anti-grind circuitry**

Whenever the vehicle is remote started, advanced anti-grind circuitry prevents 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: Anti-grind circuitry only works when the remote start system is operating the motor and the Failsafe® Starter Kill relay is installed.

→ **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 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 _____

→ **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 security 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.

→ **nuisance prevention circuitry**

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

Example

If the alarm triggers three times within a 60-minute period and each time the same sensor or switch triggers the alarm, NPC™ will interpret those triggers as false alarms. After the third trigger, NPC™ ignores, or bypasses, that sensor or switch (along with any other sensors or switches sharing the same zone) for 60 minutes.

If the bypassed sensor tries to trigger the 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 system will bypass the 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.

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. Refer to the *System Status Chirps* and *Table of Zones* sections of this guide for diagnostic information.

→ **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), the system will generate a Bypass Notification. This 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 Bypass Notification. Once the light turns off, however, the security system resumes normal monitoring.

→ disarming diagnostics

Extra chirps that are heard when disarming the system are indicating a Tamper Alert. If four chirps are heard when disarming the system, a triggered response was generated 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 and transceiver LCD will indicate which zone was triggered (see *Table of Zones* section). The security system will retain this information in its memory and chirp four or five times each time it is disarmed, until the next time that the ignition is turned on.

→ system status chirps

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

Action	Number of Chirps/ Remote Beeps	Description
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
Disarm	5	System disarmed NPC active

→ **table of zones**

A zone is represented by the LED flashes used by the system to identify a particular type of input. Standard input assignments are listed in the following table.

ZONE (Number of LED Flashes)	DESCRIPTION
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


→ interpreting zone diagnostics


Warn Away responses are not reported by the arming or disarming diagnostics. If you receive a Bypass notification when arming or a Tamper Alert notification when disarming, look at the LED or transceiver LCD. Active or triggered zones will be indicated by a pattern of blinks by the LED or the transceiver icon will indicate the triggered zone.

Example


If Zone 3 was active or triggered, the LED will blink three times with a two-second pause. Then it will blink three times again, and repeat until the ignition is turned on and the door icon (9) will be displayed on the transceiver.

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.

- Arming and disarming diagnostics (including Warn Away® responses) are reported by the transceiver on the LCD.
- When a Bypass Notification is generated during arming the transceiver LCD will flash until the alarm is reset by the ignition.
- To review zones that have been bypassed press  10 seconds after arming the system. The bypassed zones will flash until the alarm is reset by the ignition.

- When a Tamper Alert notification is generated upon disarming, the triggered zones will flash continuously on the transceiver LCD until reset by the ignition.
- To review the zones that have been triggered press the  button. They flash five times, then turn off.

code hopping

The receiver and transmitters use a mathematical formula called an algorithm to change their code each time the transceiver 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 transceiver “in sync” with the control unit even if you use the transceiver out of range of the vehicle. However, if the transceiver 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 transceiver simply press  several times within range of the vehicle. The alarm will automatically re-sync and respond to the transceivers normally.

owner recognition

Owner Recognition is a revolutionary new feature available only from Directed. Using a Directed 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 transceiver that is used with the system. Then, whenever a specific transceiver is used, the system will recall the settings assigned to that transceiver. 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 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, and Valet® Mode.

power saver mode

Your system will automatically enter Power Saver Mode while armed or in Valet® Mode, after a period of time in which no operation has been performed. This lowers the current draw on 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 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.

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 (transceiver 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. If your installer is programming the security system with the Directed Bitwriter, ignition lock and unlock are independent features that can be programmed separately.
- Passive door locking (with passive arming) or **active door locking** (only when arming with the transceiver). 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 security 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 security system with the Directed Bitwriter, 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 disarm the system with the transceiver. 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 FailSafe® Starter Kill relay has been installed.

- Siren tones and arm/disarm 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 arm/disarm chirps can be either full volume or **6 decibels quieter** than the full alarm blast.
- Using the 998T Bitwriter, 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.

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.

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

Hood Lock: Prevents the vehicle's hood from being opened without a key, keeping thieves away from the system's siren, the battery connections, and other components under the hood.

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.

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 Trunk Release: The accessory 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, sometimes an optional relay is required. If the factory release is not power-activated, Directed®'s 522T trunk release solenoid can often be added.

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.

Mobile Video: This system is compatible with Directed Video's MCB1000 Multi-Channel Controller, featuring on-screen security system programming and zone trigger information.

glossary of terms

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

Fail-Safe Starter Kill: An automatic switch controlled by your system that 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 if the starter interrupt switch itself fails. Your system has feature-ready circuitry for the starter interrupt, 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: A red light mounted at a discretionary location inside the vehicle. It is used to indicate the status of your system and as a visual deterrent.

Protected Entry: A protected entry is a door, hood, trunk, sliding window, camper door or any other opening into the vehicle that can be connected to the alarm with a switch.

Shock Sensor: This system has a dual zone shock sensor. This sensor is mounted in the vehicle and designed to pick up impacts to the vehicle or glass. Lighter impacts will generate a Warn Away

response while harder impacts will generate a full-trigger response.

Remote Control: A hand-held device that operates the various functions of your system and communicates system status.

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 parking lights flashing for the programmed duration.

Valet Switch: A small push button mounted at a discretionary location inside the vehicle. It is used to override the starter interrupt when a transceiver is lost or damaged, or to enter or exit Valet Mode and for programming when the 998T Bitwriter is not available.

Warn Away Response: Lighter impacts to the vehicle will generate the Warn Away response. It consists of several seconds of siren chirps and parking light flashes.

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

The company behind this system is Directed Electronics, Inc.

Since its inception, Directed Electronics has had one purpose, to provide consumers with the finest vehicle security and car stereo products and accessories available. The recipient of nearly 100 patents and Innovations Awards in the field of advanced electronic technology, Directed is ISO 9001 registered.

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