

Model 7900

► Owner's Guide

limited lifetime consumer warranty

Directed Electronics ("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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what is included

- A control module
- A Responder receiver/antenna
- One 2-way Color Remote Control P/N 7541V
- A Stinger Doubleguard shock sensor
- A 514N Neosiren
- The plug-in status LED
- The plug-in Valet/Program switch
- A hood pinswitch
- A toggle (override) switch
- One Remote Control charge

important information

Congratulations on the purchase of your combination remote start alarm system. Due to the complexity of this system, it must be installed by an authorized dealer only. 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.

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.

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.

remote control introduction

This 2way Remote Control system operates at 434MHz using binary data communication technology for sending and receiving of information.

In this section you will find information about remote control features, display screen icons, function buttons, communication and maintenance.

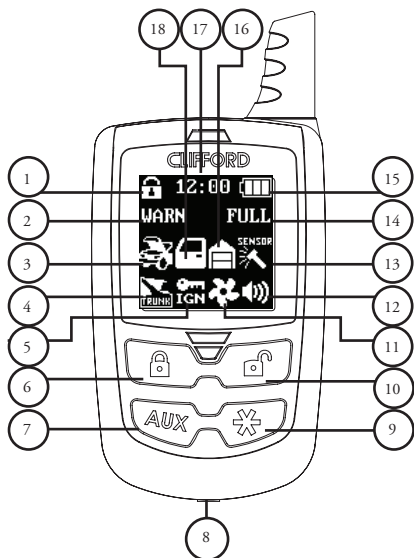
It is recommended that you review this section prior reading the user information in this manual. It is a guide to how the remote control functions.

remote control features

- Color on-screen animation
- Audible and visual output for Notifications
- Notification replay
- 12 Hour Clock
- Remote control battery level indicator
- Power saver sleep mode
- Beeps on/off
- Page Mode on/off
- Programmable alarm trigger animations & icons
- 2way garage door module capable

note: for detail on setting the clock and programming of other remote control features, refer to the remote control programming section in this manual.

remote control diagram



1. ARM & DISARM ICON
2. SENSOR WARN TRIGGER & CAR CALL ICONS
3. HOOD TRIGGER ICON
4. TRUNK OR HOOD ICONS (PROGRAMMABLE)
5. IGNITION TRIGGER ICON
6. ARM/LOCK BUTTON
7. AUXILIARY CHANNEL BUTTON
8. TRANSMITTER PROGRAMMING BUTTON (ON REAR)
9. REMOTE START BUTTON
10. DISARM/UNLOCK BUTTON
11. REMOTE START ON/OFF ICON
12. REMOTE CONTROL BEEPS ON/OFF ICON
13. SENSOR ZONE TRIGGER ICON
14. FULL TRIGGER FOR ALL ZONES & CAR CALL ICONS
15. REMOTE CONTROL BATTERY LEVEL INDICATOR ICON
16. GARAGE DOOR OPEN/CLOSE ICONS
17. CLOCK DISPLAY (12 HOUR)
18. DOOR TRIGGER ICON

remote control button functions

The remote control buttons are initially programmed to Standard Configuration for this system. The instructions in this manual correspond to a Standard Configuration remote control.

NOTE: If desired, the remote control button configuration can be customized by an authorized dealer.

standard configuration

Button

This button controls the arm, lock and panic functions.

Button

This button controls the disarm, unlock and panic off functions.

Button

This button controls the Silent mode and trunk release functions.

Button

This button controls the remote start function.

and **Buttons**

These buttons control the timer mode remote start function.

and **Buttons**

These buttons control the turbo timer/short run remote start function.



These buttons control the auxiliary channel 4 output.



These buttons control the auxiliary channel 5 output.



These buttons control the rear window defogger function.



These buttons control the auxiliary channel 6 output.



These buttons will replay the last Notification animation

remote control communication

Below are descriptions of the functions and features the remote control uses to communicate information.

- **Command send:** to send a command to the system, press the buttons for the desired function as described above. While the remote control is transmitting, the screen will play the transmit animation.

Note: If the remote control does not play the transmitting animation, the remote control did not transmit the command.

- **Command response:** one second after the system receives and implements a command; it will transmit a command response to the activating remote control. The remote control will play the

appropriate Notification output.

Note: If more than one remote control is programmed to the system, a command update will follow ten seconds later.

- **Command Update:** a command update is sent to keep additional remote controls in sync with the current system state. The command update remote control Notification will be a repeat of the command response.

Note: If only one remote control is programmed to the system, a command update IS NOT sent.

- **Page:** a Page is a single transmission five seconds long to all programmed remote controls.

A page is transmitted when the system state changes by means other than a command from a remote control. Usually it is due to an alarm warn or full trigger, a timer mode remote start, a remote start shutdown, or the Car Call feature is activated.

- **Notification:** a remote control Notification is the audible beeps and animation output after the remote control receives a command response, command update, or a page from the system.

- **Alarm Page Alert:** an alarm page alert is a single beep that repeats every sixty seconds after an alarm warn or full trigger page has been received. It will continue to beep until it has been cleared by the user.

- **Alarm Page:** Alert clear to clear an Alarm Page Alert, press any button on the remote control.

Until the alert is cleared, the buttons on the remote control will not transmit commands.

a. **During Notification:** press any button while the Notification is playing, the alert will clear and the animation will stop.

b. **After Notification:** press any button after the Notification, the alert will clear and the animation will replay without the beeps.

- **Out of Range:** If the remote control does not receive a command response with a few seconds of sending a command, it will assume it is out-of-range and will play the appropriate Notification.

car call feature



The Car Call feature allows any vehicle occupant to page all remote controls within range by pressing the button on the in-vehicle antenna for 3 seconds.

“Remote” The remote control Car Call Notification will consist of ten beeps followed by the Car call animation and flashing icons.

notification replay feature

The notification replay feature allows you to replay the most recent remote control Notification animation. This feature is convenient

for reviewing the detail for the Notification such as remote start on/off, alarm page etc.

To replay, simultaneously press and release the “” & “” buttons. The screen will replay the animation once without beeps

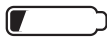
remote control maintenance

This remote control needs no specific maintenance beyond charging of the remote control battery. It is powered by a 4.3V/600mA Lithium Ion battery that will last approximately 2 weeks on a full charge under normal use. Excessive viewing of on-screen animations will quickly diminish the battery charge.

The Battery Level icon has four bars as a visual indication of battery charge. When the battery level icon displays one bar, the battery charger should be connected promptly to assure uninterrupted operation. The remote control battery level icon is displayed during each Notification and Notification replay.



FULL



CHARGE



EMPTY

charging the remote control battery

To charge the battery in the 2way color remote control plug the AC adapter into a 115V AC wall socket and the other end into the mini USB port of the Remote Control.

The charging time will depend on the battery charge level when connected. If completely discharged, the battery will reach ½ charge in about 25 minutes and full charge in approximately 2 hours.

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 Directed dealer.
- ▶ When properly installed, this system can start the vehicle via a command signal from the remote control remote control. 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 remote controls 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 IMMEDIATELY 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.



active arming



Press the button of the remote control for 1 second to arm the alarm.

“system” The siren will chirp once, the lights will flash once, the doors will lock if connected, and the led will begin flashing.

“remote” The remote control Notification will be one beep, play the arm animation and then display the status icons for 6 seconds.

note: In Valet mode, when locking the doors, the remote control Notification will be a single beep and the Valet mode animation.

Zone bypass

If the siren chirps twice when arming, it is an indication that an alarm zone is active and should be checked. The led will indicate the active zone by flashing in groups.

“remote” The remote control will beep twice and play the arm animation. The icon for the active zone will be displayed with the status icons.

note: refer to the diagnostics section for zone identification information



passive arming

This alarm can be programmed to arm automatically thirty seconds after exiting the vehicle. The following steps will start the passive arming operation.

- Turn the ignition off, exit the vehicle and close all protected entries (doors, hood and trunk).
- The led will flash rapidly to indicate the alarm will arm shortly.

“system” After twenty seconds the siren will chirp once. Ten seconds later the lights will flash when the alarm is armed.

“remote” The remote control will beep once, play the arm animation, and then display the status icons.

note: Passive arming will not start until all protected entries (doors, hood and trunk) are closed. If one is opened after passive arming begins, passive arming will stop, and then restart once it has been closed..

how your vehicle is protected when armed:

This alarm includes many layers of protection against theft. These include visual deterrent, exterior protection, entry point protection and engine immobilisation.

The visible status led warns thieves that the vehicle is protected

while exterior protection is provided via dual stage shock sensor. Entry point protection is provided by connection to the vehicle wiring system and engine immobilisation is provided by a hidden starter kill relay.

Alarm triggers will activate the siren and lights to draw attention to any trigger event and immediately send an Alarm Page to the remote control. The remote control will play an Alarm Page Notification that consists of beeps and animation to inform you of the trigger event.

alarm trigger response descriptions

warn-away responses

“system” The siren and lights will pulse for three seconds as a warning to potential thieves. The alarm will then reset and monitor for another trigger.

“remote” The remote control Notification will consist of ten beeps and then play the Shock Warning animation once.

full trigger responses

“system” The siren will sound and the lights will flash for thirty seconds. The alarm will then reset and monitor for another trigger.

“remote” The remote control Notification will consist of four beeps twice followed by the Shock Sensor animation. This will

repeat 3 times before displaying the status icons.

Note: the animation displayed for Full trigger Notifications can be changed to accommodate any additional system sensors.

exterior protection

The dual stage shock sensor monitors impacts to the vehicle exterior and will activate a response to the severity of the impact.

Lighter impacts will activate the Warn-away response and heavier impacts will activate the Full Trigger response.

protected entries

The doors, hood and trunk are protected entry points to the vehicle. If connected, they will immediately activate a Full trigger response as described above.

door trigger responses

“**system**” The siren will pulse for 3 seconds before activating the Full trigger response.

“**remote**” The remote control Notification will include the Door Trigger animation and door icon.

hood and Trunk triggers responses

“**system**” The alarm will immediately activate the full trigger response.

“**remote**” ” The remote control Notification will include the Hood or Trunk animation and hood or trunk icon.

interior protection

If the vehicle has been entered and the ignition turned on, the alarm will activate a Full trigger response and the starter kill will prevent the engine from starting.

ignition trigger responses

“**system**” The siren will pulse for 3 seconds before activating the Full trigger response.






“**remote**” The remote control Notification will include the Ignition Trigger animation and ignition icon.

multi-level arming

Multi-level arming allows you to choose the level of vehicle protection each time the alarm is armed.

It is also a convenient way to avoid sensor triggers when parking in environmentally questionable areas such as airports, construction zones or during inclement weather.

After arming, if within 1 second the system receives arm signals from the remote control it will chirp the siren and bypass selected zones for each signal.

- First  press: one chirp, the alarm is armed.
- Second  press: two short, one long chirp, Zone 2 shock sensor bypassed.
- Third  press: three short, one long chirp, Zone 4 optional sensor bypassed.
- Fourth  press: four short, one long chirp, Zone 2 and 4 are bypassed.
- Fifth  press: five short, one long chirp, ALL zones except Zone 5 ignition are bypassed.

note: The selected zones will remain bypassed until the next time the system receives an arm signal.



arming while driving

The alarm can be armed while driving to protect the occupants from unwanted entries or carjacking attempts in undesirable locations.

While armed, the alarm will trigger if a door is opened and the starter kill will not be activated.

to arm while driving

Press and hold the  button for 2 seconds


“system” The siren will chirp two times and the led will begin flashing.

“remote” The remote control Notification will be the arm animation.

If a door is open when armed the Notification will include zone bypass information as described in the active arming section.

Trigger: If a door is opened while armed, the alarm will activate the Door trigger response.

to disarm while driving


Press and hold the  button for 2 seconds, or turn the ignition off.

“system” The siren will chirp two times and the led will stop flashing.

“remote” The remote control Notification will be the disarm animation.



disarming

Press the  button of the remote control for 1 second to disarm the alarm.


“**system**” The siren will chirp twice, the lights will flash twice, the doors will unlock if connected, and the led will stop flashing.

“**remote**” The remote control Notification will be two beeps, play the disarm animation and then display the status icons.

Note: In Valet mode, when unlocking the doors, the remote control Notification will be the disarm animation



high security disarm

High security disarm will silence the siren and reset the alarm to the armed state if the remote control  button is pressed more than six seconds after the alarm is triggered. To disarm the alarm, the button must be pressed again.

If pressed within six seconds of a trigger, the alarm will disarm as a convenience in case of accidental triggers by the user.

high Security Disarm response

“**system**” The siren will stop sounding, the lights will stop flashing and the alarm will remain armed.

“**remote**” There is no remote control Notification for High Security disarms.

→ **disarming without a remote control**

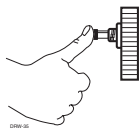
If your remote control should be lost, damaged or fail to operate the system, the ignition and Valet Switch can be used to disarm the alarm.

You must know where the Valet Switch is located and the correct number of presses required for the alarm to disarm.

Have your installer familiarize you with this procedure. The siren will be sounding while you are disarming which can be quite distracting.



1. Open the driver's door and enter the vehicle.
2. Turn the ignition to the on position
3. Within 5 seconds press and release the Valet Switch the correct number of times
4. 3 seconds later the alarm will disarm and the siren will turn off. If the alarm fails to disarm, return to step 2 above.



note: 1 press is the default number of valet switch presses required to disarm the alarm. Your installer can program 2-5 presses if desired.

NUMBER OF PRESSES _____




VALET SWITCH LOCATION _____

silent mode

Use Silent mode to temporarily delete arming or disarming siren chirps when operating the system at a time where silent operation is desired. Silent mode when arming also deletes the Warn-away response of the alarm system.

note: Although the Warn-away function is deleted, Full triggers of the alarm are still responded to normally

using Silent mode

Press the  button for less than one second immediately before pressing the  or  buttons.


“**system**” The normal arm and disarm light flash, door lock and led functions will occur, only the siren chirps are deleted.



“**remote**” The normal arm and disarm Notifications will occur.

panic mode

If you feel threatened while in or near your vehicle, Panic mode can be used to attract attention and deter the threat by sounding the siren and flashing the lights.

panic mode operation

To activate Panic mode, press and hold for two seconds the  button.

To stop Panic mode press and release the  or  button or wait for the siren duration to end. The siren and light output will cease and the alarm will return to the armed state.

“system” The system will activate the full trigger output. It will sound the siren and flash the lights for the programmed siren duration.

“remote” When Panic mode is activated the remote control Notification will be the Panic mode animation.

When Panic mode stops the remote control Notification will be the system state animation.



valet mode

Valet mode will bypass the alarm system security features but leave the convenience features operational. The alarm will not chirp, arm, or trigger, but the keyless entry, trunk release and remote start features continue to work normally. This is useful when the vehicle is washed/detailed or having other services performed

“system” While in Valet mode the led will turn on each time the ignition is turned off. To save battery power, the led will not stay on for more than one hour after each ignition off.

“remote” When entering Valet mode, the remote control Notification will be a single beep and the Valet mode animation.

When exiting Valet mode, the remote control Notification will be two beeps and the Disarm animation.

Use the following methods to enter and exit Valet mode.




valet switch:



- a. Turn the ignition on for 5 seconds
- b. Turn the ignition off
- c. Within 10 seconds press and release the Valet switch once
- d. The led will turn on when entering and off when exiting Valet mode



remote control:

1. Open any door.
2. Press  button, the system will arm.
3. Press  immediately, the system will disarm.
4. Press  button immediately, the system will enter/exit Valet mode.
5. The led will turn on when entering and off when exiting Valet mode.



auxiliary channels

This system includes four additional auxiliary channel outputs that can be programmed to control any number of vehicle systems and aftermarket add-on accessory modules.

Trunk release, power seats, power windows and sunroof, amp racks and audio/video systems can all be controlled at the touch of a remote control button.

activate an auxiliary channel

- a. Channel 2 or Trunk release: Press and hold the “AUX ICON” button for two seconds, the output will activate. The delay is built in so the trunk can not be accidentally opened.
- b. Channel 4, 5 & 6: Press for one second and release the remote control button combination for the desired auxiliary channel output, the output will activate.

Each time an auxiliary channel command is sent, the system will send a response to the remote control as confirmation after the output has been activated.

“**system**” The system will activate the desired auxiliary channel

“**remote**” The remote control Notification will be four beeps ascending in tone and channel animation for the activated auxiliary channel output

remote start functions

This system includes several ways to utilize the remote start feature for your convenience and comfort when driving or parked, while still maintaining a high level of vehicle security.

- **remote start** is used to warm the engine and control the interior temperature for entering and driving the vehicle.
- **valet takeover** activates remote start while the engine is running to maintain the vehicle interior temperature during short trips away from the vehicle.
- **turbo mode remote start** will keep the engine running for a short period of time after parking, allowing the turbo timer to cool down before the engine turns off.
- **timer mode remote start** is for use when parking the vehicle for an extended period of time in extreme cold. It will automatically start the engine at predetermined time intervals.

IMPORTANT: (1) Never use the remote start when the key is in the ignition except when using the Valet take over feature. (2) Never use the remote start if the gear shift is not in either PARK or NEUTRAL positions. (3) Never use the remote start in a garage or other enclosed area with inadequate ventilation. Breathing engine exhaust is hazardous to your health.

remote start operation

to remote start

- a. Press and release the  button of the remote control two times quickly.

- b. The lights will flash as confirmation the remote start command was received.
- c. The system will send a remote start response to the remote control.
- d. A few seconds later the engine will start. For diesel vehicles there may be a delay for the glow plugs to warm.
- e. Once started, the engine will run for the programmed run time and the lights will continue to flash or turn on.


“**remote**” The remote control Notification will be two beeps ascending in tone followed by the remote start animation.

to drive the vehicle

- a. Disarm the alarm and unlock the doors
- b. Enter the vehicle but DO NOT step on the brake pedal.
- c. Insert the key and turn the ignition to the run or on position
- d. Step on the brake pedal, the remote start will shut down and the engine will continue to run. You are ready to drive.

to turn the engine off

While the remote start is active, the system will turn off if any of the following occur:

- a. Press and release the  button of the remote control two times quickly.
- b. Step on the brake
- c. Open the hood

- d. Toggle the shutdown switch to off
- e. The run time expires


“system”

- a. The lights will turn off.
- b. The engine will turn off (except when the key is on)
- c. The system will send an engine off response to the remote control.

“remote” The remote control Notification will be two beeps descending in tone followed by the engine off animation.

valet takeover operation



To activate Valet takeover

- a. Park the vehicle and set the parking brake
- b. Leave the engine running and remove your foot from the brake pedal.
- c. Press and release the  button of the remote control two times quickly.
- d. The lights will flash or turn on to confirm the remote start has taken control of the engine.
- e. Remove the key. The engine will continue to run.
- f. Exit and secure the vehicle.
- g. The engine will run for the programmed remote start run time.

“**remote**” The remote control Notification will be two beeps ascending in tone followed by the remote start animation.

turbo mode remote start



To activate Turbo mode

- Park the vehicle and set the parking brake
- Leave the engine running and remove your foot from the brake pedal.
- Press and release the  and  buttons together.
- The lights will flash **o** r **r** turn on to confirm the remote start has taken control of the engine.
- Remove the key. The engine will continue to run.
- Exit and secure the vehicle.
- The engine will turn off when the programmed Turbo mode run time expires.

“**remote**” The remote control Notification will be two beeps ascending in tone followed by the remote start animation.

timer mode remote start

To activate timer mode

- Press and release the  and  buttons of the remote control once.
- The lights will flash four times as confirmation the Timer mode command was received.
- The system will send a remote start response to the remote control.
- A few seconds later the engine will start. For diesel vehicles

- there may be a delay for the glow plugs to warm.
- e. The engine can be turned off via remote control at this time without exiting timer mode. If not turned off, the engine will run for the programmed run time and will restart every three hours for 18 hours.

note: if programmed to temperature timer mode, the remote start will check the temperature every three hours, and will only start if the temperature is below 0 degrees F.

“**remote**” The remote control Notification will be two beeps ascending in tone followed by the remote start animation.

To exit timer mode

- a. With engine off, turn the ignition to the on position.
- b. Step on the brake
- c. Open the hood
- d. Toggle the shutdown switch to off
- e. The lights will flash four times to confirm timer mode has been exited.




“**remote**” There is no remote control Notification for exiting timer mode unless remote start is active at the time. If active, the engine off Notification will be played.

rear defogger

This system includes an output that can be programmed to automatically activate the vehicle rear window defogger when remote started. It can be turned on or off anytime with the remote control as weather necessitates.

note: This optional feature must be programmed on and connected to the vehicle rear defogger circuit to operate. Check with your installer for vehicle compatibility if you desire to have this feature included.

rear defogger operation

Press until the vehicle lights flash, the remote control  and  and  buttons simultaneously to turn the rear defogger output on and off.

“system”

- Rear defogger On: The vehicle lights will flash three times when the feature is turned on.
- Rear defogger Off: The vehicle lights will flash two times when the feature is turned off.

“remote” The remote control Notification will be the rear defogger animation for both on and off operations.

remote start 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.

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 record and report any triggers that occurred during your absence.

arming diagnostics

Each time this system is armed it runs a diagnostic routine to test for active alarm inputs. If inputs are active when arming, it will bypass the input and report the bypass to the user as described under active arming in the using your system section.

The status led will also flash the same number of times as the bypassed input as a visual indicator.

When the input returns to the inactive state, the system will begin monitoring it for an alarm trigger input.

This feature assures that the vehicle will always be armed and protected by the maximum available number of alarm inputs.

disarming diagnostics

If any alarm inputs were triggered while armed, it will be reported to the user during the disarming operation as described under Disarm after trigger in the using your system section.

The status led will also flash the same number of times as the triggered input as a visual indicator.

note: sensor inputs that are triggered too many times will be bypassed using a feature called NPC for Nuisance Prevention.



nuisance prevention circuitry

This diagnostic feature monitors the sensor inputs for excessive triggers and bypasses them automatically to avoid annoying repeated triggers.

how it works

If any sensor input is triggered 3 times within a one hour period, it will be bypassed for one hour. The input will still be monitored, but the alarm will not sound if a trigger is detected..

If the input is triggered while bypassed, the one hour bypass timer will start over. This will assure that a repeatedly triggered input will remain bypassed until stable for at least one hour.

resetting the sensor input

A bypassed sensor input will reset automatically if not triggered for one hour. To reset a bypassed sensor input manually the ignition must be turned on, disarming and rearming the alarm will not reset a bypassed input



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	Description
Arm	1	System armed
Arm	1 (3-second delay), 1	System armed with zone bypass
Disarm	2	System disarmed
Disarm	4	System disarmed with trigger alert
Disarm	5	System disarmed active NPC

zone identification


This system has several inputs (or zones) that can trigger the alarm while armed. Each zone input is identified by an icon on the remote control and by groups of flashes by the status led.

Use the following table to identify each zone by icon and number, and the sensor or vehicle circuit it is connected to.

alarm Zone	remote control icon	led flashes	Sensor or vehicle circuit	optional connection
1		1	Trunk switch	
2		2	Shock sensor	
3		3	Door switch	
4		4	Optional sensor	
5		5	Ignition switch	
6		6	Hood switch	

code hopping

The receiver and remote controls use a mathematical formula called an algorithm to change their code each time the remote control 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 remote control “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 remote controls 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 remote control that is used with the system. Then, whenever a specific remote control is used, the system will recall the settings assigned to that remote control. 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.

prapid 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.

remote control programming

The remote control can be programmed for your particular preferences. Programming is performed using the programming and function buttons as described below.

Function button operations during programming:


Press the  or  button to scroll and highlight menu and feature items.

- Press the  button to choose the highlighted item
- Press the  button to exit programming anytime

Enter programming

Press and hold for 3 seconds the round programming button on the rear of the remote control. The programming main menu will appear. Use the function buttons as described above to navigate and change the features.





exit programming

Press the  button anytime to save the settings and exit programming, or, if more than 10 seconds lapses between button presses, the remote control will automatically save the settings and exit programming mode.

sleep mode

The remote control can be put into sleep mode to save battery power




when it will not be used for long periods of time. It will not respond to any RF signals or function button presses when asleep.

1. Enter programming mode
2. Scroll to highlight the OFF icon
3. Press the  button to choose and access the POWER screen, CONFIRM is highlighted.
4. Press the  button to enter sleep mode or highlight exit and press the  button to return to the main menu.
5. Press the  button anytime to exit programming.

wake Up the remote control





To wake up the remote control press and hold the program button about 3 seconds or until a beep is heard. The display will play the brand introduction and enter normal operation mode.

set the 12 hour clock

1. Enter programming mode
2. Scroll to highlight the Clock icon
3. Press  to choose the Clock and access Clock set screen
4. Scroll and highlight a digit or A/P and press  to change the digit.
5. Press  anytime to save the new setting and exit.





page mode on/off

When Page is off, the remote control will not receive Pages or output Page Notifications or Alerts. It will only receive Command Responses.

1. Enter programming mode
2. Scroll to highlight OPERATION
3. Press  to choose the operation menu screen
4. Scroll to highlight PAGE and press  to choose.
5. Scroll to highlight the desired setting.
6. Press  to save and return to the Operation menu or  to save the setting and exit.

beeps on/off

When Beep is off, the remote control will only show animations or icons for Page Notifications. Alarm Page Alerts will be eliminated.

1. Enter programming mode
2. Scroll to highlight OPERATION
3. Press the  button to choose the operation menu screen
4. Scroll to highlight BEEP and press  to choose.
5. Scroll to highlight the desired setting.
6. Press  to save and return to the Operation menu or  to save the setting and exit

system programming options

This system includes programming options that can enhance or defeat some the features discussed in this manual. It also includes features not discussed that can expand the system's convenience and security capabilities.

Some optional features may require additional parts and labor to operate as designed. Cost should be discussed with your installer before implementing any optional features.

Following is a list of features with brief descriptions of programming options available

Security features

Six tone siren

The six tone siren can be programmed to play any or all of the six tones for a custom sound

Siren chirps

The arm/disarm chirps can be programmed off if permanent silent mode operation is desired

Siren duration

The length of time the siren sounds when the alarm is triggered is adjustable from 1 to 180 seconds

Valet disarm pulses

The number of pulses required on the Valet switch to disarm the alarm can be programmed from 1 to 5

Passive locking

The door can be programmed to lock when the alarm passively arms.

Forced passive arming

The alarm can be programmed to arm after one hour even if an entry point is accidentally left open.

Automatic Engine Disable

The starter kill can be programmed to automatically activate 30 seconds after the ignition is turned off to secure the vehicle if the alarm is not armed.

Nuisance Prevention Circuitry

The default is on. This feature can be programmed off so the alarm will not bypass the sensor inputs after three trigger events.

Convenience and remote start features

Ignition on locking

This feature will lock the doors three seconds after the ignition is turned on, unless a door is open. The default setting is on, and can be programmed off if the feature is not desired.

Ignition off unlocking

This feature will unlock the doors immediately when the ignition is turned off. The default setting is on, and can be programmed off if the feature is not desired.

Comfort Closure

The door lock output timing can be extended for vehicles with

an all close feature at the driver door key cylinder.

Ignition controlled dome light

This feature will turn the dome light on when the ignition is turned off. The default setting is on, and can be programmed off if the feature is not desired.

Auxiliary channel output linking

The auxiliary output channels can be programmed to automatically activate when arming, disarming or remote starting to control memory seats, power windows and sunroofs or other additional control modules.

Remote Start activation pulses

The number of remote control button presses required to activate the remote start can be programmed to either one or two.

Remote start run times

Remote start, Turbo mode and Timer mode runtimes can be programmed to various durations to fit your preferences, local laws or geographic location.

security & convenience expansion

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.

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 remote control 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 remote control 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 remote control

Turn on the ignition. Press the Valet button 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 2 seconds, 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 remote control 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.

Rear Window Defogger

Press the , , and  buttons simultaneously to turn the defogger on or off when remote starting. When a remote start is initiated, the parking lights will flash 2-times if the defogger is set to off, and will flash 3-times if the defogger is set to on.

Location of Valet button _____

Number of Valet button pulses for disarming _____

The company behind this system is Directed Electronics

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.

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

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