

**DIRECTED.** The company behind Avital® Auto Security Systems is Directed.

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

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



**AVITAL**®  
IT'S YOUR CAR - CONTROL IT FROM THE START



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

**OWNER'S GUIDE**

M O D E L  
**4115L**

# Congratulations

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Congratulations on the purchase of your remote start system. Reading this Owner's Guide prior to using your system will help maximize the use of your system and its many features.

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## Government Regulations and Safety Information



Read the **Government Regulations** and **Warning! Safety First** sections of this manual prior to operating this system.

**Warning!** Failure to heed this information can result in death, personal injury or property damage and may also result in the illegal use of the system beyond its intended purpose.

This product is designed for fuel-injected, automatic transmission vehicles only. Installing it in a standard transmission vehicle is dangerous and is contrary to its intended use. If your vehicle is equipped with a manual transmission cease use of this product and immediately return the vehicle to an authorized Directed dealer.

## **Your Warranty**

Your system comes with a warranty. The warranty terms are detailed at the end of this guide. Make sure that you receive the proof of purchase from your dealer, indicating the product was installed by an authorized Directed dealer. Please register online (see back cover for URL).

## **Replacement Remote Controls**

Please see your authorized dealer to order additional remote controls. Remote control part numbers are found on the back of the device.

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# Using Your System

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## Commands At a Glance

System State	Press/Release	Press/Hold for 3 sec.
ENGINE OFF	START ENGINE	CAR FINDER
ENGINE ON	UNLOCK DOORS	STOP ENGINE

### Start Engine

When the engine is OFF, **press** and release the remote control button to start the engine.

See "Using Remote Start" on page 3 for more feature details.

### Unlock Doors

When the engine is ON, **press** and release the remote control button. The doors unlock, the parking lights flash, the horn sounds (if connected) as confirmation.

**Note:** Horn honk may be an optional feature that requires additional parts and labor.

### Stop Engine

When the engine is ON, **press** and **hold** the remote control button for three seconds. The engine stops running and the parking lights turn off.

### Car Finder

When the engine is OFF, **press** and **hold** the remote control button for three seconds. The parking lights flash slowly several times allowing you to locate your vehicle.

# Using Remote Start

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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, and adjust the interior temperature of the vehicle with the climate control system. If interior heating or cooling is desired, the climate controls must be preset, and the fan blower must be set to the desired level prior to remote starting the vehicle.

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

## Starting the Engine:

1. Make sure the parking brake is set. **Press** and release the remote control button once\* (or the amount of times the system has been programmed to activate the remote start).
2. The parking lights flash to confirm that the vehicle is attempting to start. In gasoline vehicles the engine will start approximately four seconds after the parking lights flash, in diesel vehicles the engine starts after the WTS (WAIT-TO-START) timer has expired.
3. Once the vehicle has started, it will run for the pre-programmed period of time (12, 24, or 60 minutes) or until a shutdown input is triggered.

\* The factory setting is **one** press but this can also be programmed for two or three presses maximum (see your authorized Directed installer for the amount of presses programmed).

Record the number of presses to activate remote start here: \_\_\_\_\_

If the engine fails to start, refer to "Disabling the Remote Start System" and "Remote Start Diagnostics" sections of this guide.



**Warning!** It is unsafe to operate a vehicle's motor in a garage or other closed off area. Such operation can create a buildup of harmful gas. Breathing the exhaust from the vehicle is hazardous and may lead to injury or death.

## Key Takeover

When you are ready to drive the vehicle:

1. **Unlock** the doors.
2. **Enter** the vehicle. Do not step on the foot brake.
3. **Insert** the key, **turn** it to the RUN (not START) position. **Step** on the foot brake. The remote start is disabled and the parking lights turn off.
4. **Disengage** the parking brake and begin driving.

**Note** If your vehicle uses a Smart Key or PTS (Push-To-Start) system, please refer to the vehicle specific instructions included with the owner's guide of the interface module or consult your authorized dealer.

## Safety Features

The following safety features will disable the remote start when activated or not allow the engine to start if not properly set before starting.

- Foot Brake is depressed.
- Hood is open.
- Garage Mode is ON (see Disabling the Remote Start System).
- The pre-programmed run time (12, 24 or 60 minutes) has elapsed.

- Pressing and holding the button on the remote for three seconds while the remote start is active.
- Parking brake is disengaged .
- Engine over-rev protection (Tachometer mode only).

## Pit Stop

This remote start can keep the engine running during short trips away from the vehicle.

### Enabling Pit Stop Mode:

1. **Park** in a well ventilated area and **set** the parking brake.
2. With the engine running, **set** the transmission in the park position.
3. **Press** and release the remote control button once (or the amount of times the system has been programmed to activate the remote start). The parking lights turn on to confirm.
4. **Turn** off the ignition and **remove** the key, the engine continues running.
5. **Exit** and **secure** the vehicle, the engine runs for the programmed runtime.

**Important:** This feature will not work if the brake pedal is being pressed.

<b>Note</b>	If your vehicle uses a Smart Key or PTS (Push-To-Start) system, please refer to the vehicle specific instructions included with the owner's guide of the interface module or consult your authorized dealer.
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## Optional Rear Defogger

If connected, the Defogger circuit automatically activates after remote starting the vehicle.

**Note:** The optional rear defogger feature can be programmed to be



on during remote start by your installer, however, you do not have the capability to turn on and off the feature at will with the 1-button remote. The rear defogger will always be active during the remote start runtime.

## Optional Starter Anti-Grind Circuitry

This system includes an anti-grind circuit that can prevent damage to the starter motor if the key is turned to the start position while the remote start is ON.

**Note:** Anti-grind circuitry only works if an optional relay has been added and the remote start system is operating the motor.

## Disabling the Remote Start System/Garage Mode

Garage Mode is a safety feature that disables the remote start system if the vehicle is parked in a garage, being serviced, or used by someone unfamiliar with remote start systems.

When Garage Mode is ON, any attempt to start the engine, activate Timer Mode, or enter Pit Stop mode is denied, and remote start diagnostics flashes the parking lights nine times.

### Turn Garage Mode ON or OFF:

1. **Turn** the ignition on then off.
2. Within 10 seconds, **press** and release the Valet button once.
3. The parking lights flash:
  - Nine times quickly when turning on.
  - Nine times slowly when turning off.

## Remote Start Diagnostics

For user safety, the system must be properly configured or remote start will not activate. A Remote Start Fault may be caused by any of several

configuration issues. If the remote start fails to activate, refer to the table below for the command type and parking light flashes that will identify the configuration issue and solution.

Light Flash	Problem	Solution
5 flashes	Brake is on	Release the foot brake
6 flashes	Hood is open	Close the hood
8 flashes	Neutral safety is disconnected	Set the parking brake or move the shifter to the park position
9 flashes	Garage Mode is ON	Turn Garage Mode OFF

# Pairing a Remote Control

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Your system comes with the remote controls already programmed, however, if you are replacing or adding additional remote controls, they must be paired to the system prior to operating the system. To pair the remote, you need to know where the Control button is located. If the horn honk is not connected, the main unit LED needs to be visible for visual confirmation. If you cannot locate or access the main unit, it is recommended that you visit your authorized dealer to pair the remote. The system is capable of accepting up to four remote controls.

1. **Turn** key to the ON position
2. Within 10 seconds, **press** and release Control button once.
3. Within 10 seconds, **press** and **hold** the Control button. The LED on the module flashes one time and the horn honks (if connected) to confirm entry into remote pairing. Do not release the Control button.
4. **Press** the button on the remote control. The horn honks to confirm the remote has been paired.
5. **Release** the Control button.
6. **Turn** the key to the OFF position. The horn sounds one long honk (if connected) to confirm that remote pairing has exited.

The programming routine exits if any of the following occurs:

- The ignition is **turned off**.
- There is **no** activity for 30 seconds.
- The Control button is **pressed** too many times.

## Programming Options

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Feature options will control your system's normal operation. Some options may require additional parts and installation labor. The following is a list of the programmable options with the factory settings in **bold**.

- **12 minute** to 60 minute runtime. Your system can be programmed to allow the vehicle to run for up to 60 minutes when remote started. This can be set up to minute increments by your installer.
- Parking lights flashing or **constant**. Your system can be programmed to flash the parking lights or have them come on constantly during the remote start operation.
- Ignition controlled door locking **ON** or **OFF**. With this feature on, the doors will lock three seconds after the ignition key is turned on, and will unlock when the ignition key is turned off.  
**Important:** The door lock option must be installed for the ignition controlled door lock feature to work.

## Rapid Resume Logic

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This Directed system stores its current state to non-volatile memory. If the power to the system is disconnected and then reconnected, the system recalls the stored state from memory.

# Battery Information

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The remote control\* is powered by one 3V, CR2032 battery. When the battery begins to weaken, operating range is reduced and the LED on the remote control dims.

\* Some remote controls are powered using two coin cell batteries (CR-2016), so please verify which type and quantity is used before replacing.

## Replacing the Battery

1. Use a small flat blade (flat-head) screwdriver and **insert** it into the slot located along the bottom of the remote, near the key ring. Carefully **pry** open the case.
2. **Remove** the old batteries from the holding clip. **Orient** the new batteries for the correct polarity and **insert** into the holding clip.
3. **Reposition** the case parts, then snap together by **pressing** firmly and evenly on the front and back.

## Battery Disposal



Directed cares about the environment. If you need to dispose of the battery, please do so in accordance with your municipal requirements for battery disposal or return to Directed.

# Patent Information

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

Remote Start Patents:

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

Vehicle Security Patents:

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

Other patents pending.

# Government Regulations

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

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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

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

# Warning! Safety first

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Please read the safety warnings below before proceeding. Improper use of the product may be dangerous or illegal.

## Installation

Due to the complexity of this system, installation of this product must only be performed by an authorized Directed dealer.

## Remote Start Capable

When properly installed, this system can start the vehicle via a command signal from the remote control transmitter. Therefore, never operate the system in an enclosed area or partially enclosed area without ventilation (such as a garage). When parking in an enclosed or partially enclosed area or when having the vehicle serviced, the remote start system must be disabled using the "Disabling the Remote Start System/Garage Mode" procedure in this guide. It is the user's sole responsibility to properly handle and keep out of reach from children all remote control transmitters to assure that the system does not unintentionally remote start the vehicle. IT IS RECOMMENDED THAT THE USER INSTALL A CARBON MONOXIDE DETECTOR IN THE LIVING AREAS ADJACENT TO THE VEHICLE. ALL DOORS LEADING FROM ADJACENT LIVING AREAS TO THE ENCLOSED OR PARTIALLY ENCLOSED VEHICLE STORAGE AREA MUST BE CLOSED AT ALL TIMES. 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 CAUSE THE VEHICLE TO UNEXPECTEDLY LUNGE FORWARD RESULTING IN PROPERTY DAMAGE OR SERIOUS PERSONAL INJURY INCLUDING DEATH. 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.

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

## **Interference**

All radio devices are subject to interference which could affect proper performance.

## **Upgrades**

Any upgrades to this product must be performed by an authorized Directed dealer. Do not attempt to perform any unauthorized modifications to this product.

## **Water/Heat Resistance**

This product is not designed to be water and/or heat-resistant. Please take care to keep this product dry and away from heat sources. Any damage from water or heat will void the warranty.

# Limited lifetime consumer warranty

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Directed Electronics. ("Directed") promises to the original purchaser to repair or replace (at Directed's election) with a comparable reconditioned model any Directed unit (hereafter the "unit"), excluding without limitation the siren, the remote transmitters, the associated sensors and accessories, which proves to be defective in workmanship or material under reasonable use during the lifetime of the vehicle provided the following conditions are met: the unit was purchased from an authorized Directed dealer, the unit was professionally installed and serviced by an authorized Directed dealer; the unit will be professionally reinstalled in the vehicle in which it was originally installed by an authorized Directed dealer; and the unit is returned to Directed, shipping prepaid with a legible copy of the bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number and address; the authorized dealers name, telephone number and address; complete product description, including accessories; the year, make and model of the vehicle; vehicle license number and vehicle identification number. All components other than the unit, including without limitation the siren, the remote transmitters and the associated sensors and accessories, carry a one-year warranty from the date of purchase of the same. ALL PRODUCTS RECEIVED BY DIRECTED FOR WARRANTY REPAIR WITHOUT PROOF OF PURCHASE FROM AN AUTHORIZED DEALER WILL BE DENIED. This warranty is non-transferable and is automatically void if: the unit's date code or serial number is defaced, missing or altered; the unit has been modified or used in a manner contrary to its intended purpose; the unit has been damaged by accident, unreasonable use, neglect, improper service, installation or other causes not arising out of defects in materials or construction. The warranty does not cover damage to the unit caused by installation or removal of the unit. Directed, in its sole discretion, will determine what constitutes excessive damage and may refuse the return of any unit with excessive damage.

TO THE MAXIMUM EXTENT ALLOWED BY LAW, ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, ARE EXPRESSLY EXCLUDED; AND DIRECTED NEITHER ASSUMES NOR AUTHORIZES ANY PERSON OR ENTITY TO ASSUME FOR IT ANY DUTY, OBLIGATION OR LIABILITY IN CONNECTION WITH ITS PRODUCTS. DIRECTED DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. DIRECTED SECURITY SYSTEMS, INCLUDING THIS UNIT, ARE DETERRENENTS AGAINST POSSIBLE THEFT. DIRECTED IS NOT OFFERING A GUARANTEE OR INSURANCE AGAINST VANDALISM, DAMAGE OR THEFT OF THE AUTOMOBILE, ITS PARTS OR CONTENTS; AND HEREBY EXPRESSLY DISCLAIMS ANY LIABILITY WHATSOEVER, INCLUDING WITHOUT LIMITATION, LIABILITY FOR THEFT, DAMAGE AND/OR VANDALISM. THIS WARRANTY DOES NOT COVER LABOR COSTS FOR MAINTENANCE, REMOVAL OR REINSTALLATION OF THE UNIT OR ANY CONSEQUENTIAL DAMAGES OF ANY KIND.

IN THE EVENT OF A CLAIM OR A DISPUTE INVOLVING DIRECTED OR ITS SUBSIDIARY, THE VENUE SHALL BE SAN DIEGO COUNTY IN THE STATE OF CALIFORNIA. CALIFORNIA STATE LAWS AND APPLICABLE FEDERAL LAWS SHALL APPLY AND GOVERN THE DISPUTE. THE MAXIMUM RECOVERY UNDER ANY CLAIM AGAINST DIRECTED SHALL BE STRICTLY LIMITED TO THE AUTHORIZED DIRECTED DEALER'S PURCHASE PRICE OF THE UNIT. DIRECTED SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGE TO VEHICLE, DAMAGES FOR THE LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, THE MANUFACTURER DOES OFFER A LIMITED WARRANTY TO REPLACE OR REPAIR THE CONTROL MODULE SUBJECT TO THE CONDITIONS AS DESCRIBED HEREIN. THIS WARRANTY IS VOID IF THE UNIT HAS NOT BEEN PURCHASED FROM DIRECTED, OR AN AUTHORIZED DIRECTED DEALER, OR IF THE UNIT HAS BEEN DAMAGED BY ACCIDENT, UNREASONABLE USE, NEGLIGENCE, ACTS OF GOD, NEGLIGENCE, IMPROPER SERVICE, OR OTHER CAUSES NOT ARISING OUT OF DEFECT IN MATERIALS OR CONSTRUCTION.

Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights and you may also have other rights that vary from State to State.

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