

Avital 2300
Owner's Guide

[Limited Lifetime Consumer Warranty]

For a period of one calendar year from the date of purchase of this auto-security device, Directed Electronics, Inc. promises to the ORIGINAL PURCHASER to repair or replace (with a comparable reconditioned model), free of cost, any electronic control module which proves to be defective in workmanship or material under normal use, SO LONG AS THE SYSTEM WAS SOLD, INSTALLED, AND SERVICED BY A PROFESSIONAL AUTO INSTALLER, AND REMAINS IN THE CAR IN WHICH THE SYSTEM WAS ORIGINALLY INSTALLED. If warranty service is necessary you must have a clear copy of your sales receipt containing all of the information shown on the following page.

After the first calendar year, from the date of purchase of this auto-security device, Directed Electronics, Inc., promises to the ORIGINAL PURCHASER to repair or replace (with a comparable reconditioned model) any electronic control module which proves to be defective in workmanship or material under normal use **FOR A CHARGE OF \$45.00**, SO LONG AS THE SYSTEM WAS SOLD, INSTALLED, AND SERVICED BY A PROFESSIONAL AUTO INSTALLER, AND REMAINS IN THE CAR IN WHICH THE SYSTEM WAS ORIGINALLY INSTALLED. If warranty service is necessary you must have a clear copy of your sales receipt containing all of the information shown on the following page.

This warranty contains the entire agreement relating to warranty and supersedes all previous and contemporaneous representations or understandings, whether written or oral. IN ANY EVENT, DIRECTED ELECTRONICS, INC. IS NOT LIABLE FOR THE THEFT OF THE VEHICLE AND/OR ITS CONTENTS.

This warranty is void if the product has been damaged by accident, unreasonable use, neglect, improper service or other causes not arising out of defects in materials or construction. This warranty is nontransferable and does not apply to any unit that has been modified or used in a manner contrary to its intended purpose and does not cover batteries. The unit in question must be returned to the manufacturer, postage prepaid. This warranty does not cover labor costs for the removal, diagnosis, troubleshooting or reinstallation of the unit. For service on an out-of-warranty product a flat rate fee by model is charged. Contact your authorized dealer to obtain the service charge for your unit.

These systems are a deterrent against possible theft. Directed Electronics, Inc. is not offering a guarantee or insuring against the theft of the automobile or its contents and disclaims any liability for the theft of the vehicle and/or its contents. Directed Electronics does not authorize any person to create for it any other obligation or liability in connection with this security system.



TO THE MAXIMUM EXTENT ALLOWED BY LAW, ANY AND ALL WARRANTIES ARE EXCLUDED BY THE MANUFACTURER AND EACH ENTITY PARTICIPATING IN THE STREAM OF COMMERCE THEREWITH. THIS EXCLUSION INCLUDES BUT IS NOT LIMITED TO THE EXCLUSION OF ANY AND ALL WARRANTY OF MERCHANTABILITY AND/OR ANY AND ALL WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND/OR ANY AND ALL WARRANTY OF NON-INFRINGEMENT OF PATENTS, IN THE UNITED STATES OF AMERICA AND/OR ABROAD. NEITHER THE MANUFACTURER OR ANY ENTITIES CONNECTED THEREWITH SHALL BE RESPONSIBLE OR LIABLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, TOWING, REPAIR, REPLACEMENT, DAMAGES FOR LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, 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 which vary from state to state.

\$2,500 Limited Theft Protection Guarantee

Terms and Conditions. Available only in the USA. In the event that your vehicle is stolen and not recovered, Directed Electronics, Inc. will refund to the original purchaser of the Avital system up to \$2,500 of your insurance deductible. This vehicle protection guarantee is valid only if:

- (1) The installation was performed by an authorized Avital dealer.
- (2) The warranty registration card is completed and mailed within ten (10) days of purchase.
- (3) At the time of the theft, the system was fully functional and not in "valet mode."
- (4) The vehicle and its contents were insured at the time of the theft.
- (5) The insurance company and the police have been notified and a written stolen vehicle report was issued by the Police Department.
- (6) No less than thirty (30) days **after** the police report was issued, you mail Directed Electronics, Inc. clear photocopies of the following documents:
 - a. Proof of Purchase OR provide the system model and name of the company that installed the system.
 - b. The stolen vehicle report issued by the police.
 - c. Insurance coverage documents for the stolen vehicle, clearly showing all the details, including the vehicle identification number and the insurance deductible amount.
 - d. A dated declaration signed by you the owner of the vehicle, attesting that the vehicle has been stolen for more than thirty (30) days and has not been recovered.

This vehicle theft protection is effective for one (1) year from the date of purchase and is limited to one claim. This vehicle theft protection guarantee is valid only for the theft of the entire vehicle and specifically excludes any other considerations, including, but not limited to, damage caused to the vehicle, theft of parts, contents or any other consequential damages. Once Avital Technologies verifies that all the above listed terms and conditions have been met, a check for the insurance deductible (up to \$2,500) will be mailed within thirty (30) days.

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
- Two 4-button remote remotes
- A impact sensor on-board the control module
- A high-powered siren
- A fault-proof starter interrupt relay on-board the control module
- An LED system status indicator
- A push-button Valet® switch

[Important Information]

Congratulations on the purchase of your state-of-the-art vehicle security system. This system has been designed to provide years of trouble-free operation. By carefully reading this guide prior to using your system, you will maximize the use of this product and its features.

System Maintenance

Your vehicle security system has no specific maintenance requirements. The remote is powered by a lightweight 3-volt lithium battery that will last approximately one year under normal use. When the battery begins to weaken, the LED on the remote will dim and you will notice reduced operating range when using the

remote. To access the battery for replacement, remove the rear cover of the remote with a small, flat-blade screwdriver.

Your Warranty

Your warranty card must be returned and the barcode serial number must not be removed. If the warranty card is not returned, no warranty will be honored on your unit. It is also necessary to keep your proof of purchase, which reflects that the product was installed by an authorized dealer. Make sure you receive the warranty card from your dealer.

FCC/ID Notice

This device complies with Part 15 of FCC rules. Operation is subject to the following 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.

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

[Remote Functions]

This system is programmable, making it possible to assign any remote button to any specific receiver function. The remote initially comes programmed with Standard Configuration, but may also be customized by an authorized dealer.

Standard Configuration

Button

Pressing  arms the security system and locks the vehicle doors (if connected).

Button

Pressing  disarms the security system and unlocks the vehicle doors (if connected). If configured for progressive unlocking, pressing  will only unlock the driver's door, and a second press of  will unlock the remaining passenger doors.

Button

Trunk release and silent arm/disarm are controlled by pressing . The trunk release is controlled by pressing and holding for 1.5 seconds.)

Button

Pressing and holding  for 1.5 seconds activates the Panic Mode.

and Buttons

An optional accessory can be activated by pressing  and  simultaneously.

This accessory output controls_____.

and Buttons

Another optional accessory can be activated by pressing  and  simultaneously.

This accessory output controls_____.

[Using Your System]

The buttons described in all instructions in this manual correspond to a standard configuration remote, unless otherwise specified.

Arming

You can arm the security system by pressing  for one second. When the system arms, the siren will chirp and the parking lights will flash once. If the power door locks are controlled by the system, the doors will also lock. Once armed, the status LED will flash once per second to indicate that the system is actively protecting your vehicle. If you hear a second chirp after arming and notice

that the status LED is flashing in a grouped pattern, this signals Bypass Notification. Bypass Notification is described in detail in the Diagnostics section of this manual.

Arming without remote

Your security system can also be programmed for Passive Arming. With Passive Arming, the system automatically arms itself 30 seconds after the ignition has been turned off and the last protected entry has been closed. During the 30-second Passive Arming countdown, the status LED will flash twice as fast as it does when the system is armed. If the system is programmed for Passive Arming, care must be taken to prevent the keys from being locked in the vehicle.

NOTE: If any protected entry point, such as a door or switch-protected trunk or hood, is open, Passive Arming will not engage. If a protected entry is opened during passive arming, the countdown starts over.

Arming the security system protects your vehicle in the following ways:

- Light impacts trigger a **warn away** response, causing the siren to chirp and the parking lights to flash for a few seconds.
- Heavy impacts trip a **trigger sequence**, which consists of the siren sounding continuously and the parking lights flashing for 30 seconds.
- If a door is opened, the siren immediately starts chirping and the parking lights start flashing to provide an instant response. Three seconds later, the siren output changes to a continuous blast. This two-stage **progressive response** allows you time to disarm the security system with your remote, in

case the door is inadvertently opened while the system is armed.

- Turning on the ignition key triggers the same two-stage progressive response as opening a door.
- The starter interrupt prevents the vehicle's starter from cranking.

Disarming

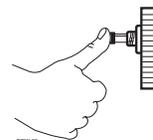
Press  to disarm the security system. If the power locks are controlled by the system, the doors will also unlock. Disarming is confirmed when the parking lights flash twice and the siren chirps twice. If the siren chirps more than two times and the LED continues to flash after pressing the  button, the system was triggered in your absence. Refer to the disarming diagnostics section to determine the cause.

Disarming Without a Remote

If your remote is lost or damaged, you can manually disarm the security system. To disarm the system without a remote, 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 the location of the Valet switch.



To disarm the security system, turn the ignition key on and press the Valet switch within 15 seconds. The system should now disarm. If the system does not disarm, you may



have waited too long to press the Valet switch; turn the ignition off and repeat the process.

Location of Valet Switch_____

Panic Mode

If you are threatened in or near your vehicle, you can press  for 1.5 seconds to trigger Panic Mode on your security system and attract attention. The siren will sound and the parking lights will flash for 30 seconds. To stop Panic Mode at any time, press , , or  on the remote.

Remote-Controlled Silent Arm/Disarm

Use the remote-controlled silent arm/disarm to temporarily turn off the arm or disarm chirps by briefly pressing  before pressing , or . The confirmation chirp(s) will then be eliminated for that one operation only. To permanently turn off the arm and disarm chirps, contact your installation dealer.

NOTE: The warn away response to lighter impacts is bypassed if the system is armed using the silent arm/disarm. This ensures that the siren does not chirp in an environment where you do not want chirps to be emitted. The system is still capable of being triggered by heavier impacts; only the warn away response generated by light impacts is bypassed.

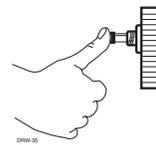
Valet Mode

Valet Mode prevents your security system from arming and triggering either automatically or with the remote. In Valet Mode, the system will not arm, but all convenience functions (door locks, trunk release, etc.) remain operational. This feature is useful when washing or servicing your vehicle. You can access Valet Mode either manually or from the remote.

To enter or exit Valet Mode with the Valet switch:



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 will turn off if you are exiting Valet Mode.

Remote-Controlled Valet

You can also enter or exit Valet Mode by using the remote :

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

The status LED will light solidly if you have entered Valet Mode and will turn off if you have exited Valet Mode.

Nuisance Prevention[®] Circuitry

Your security system has Nuisance Prevention Circuitry™ (NPC™) to prevent annoying false alarms. This circuitry is designed to prevent repetitive trigger sequences due to faulty door pinswitches or environmental conditions such as thunder, jackhammers, airport noise, etc.

Here's how it works: If the alarm is triggered by the same sensor or switch three times within a 60 minute period, your system interprets this pattern of triggers as false alarms. After the third trigger, NPC™ ignores, or bypasses, that sensor or switch (along with any other sensors or switches sharing the same zone) for 60 minutes. If the bypassed sensor is triggered again while it is already being bypassed, the 60-minute bypass period will start over, ensuring that a sensor that is continually being triggered will remain bypassed.

The vehicle doors are protected differently by NPC™. If your security system is triggered by an open door for three, full 30-second cycles (one and one half minutes), the system will bypass the doors until the trigger ceases.

NOTE: Arming and disarming the system does not reset the NPC™. The only ways to reset a bypassed zone are for that zone not to be triggered for 60 minutes or to turn the ignition key on. When testing your system, it is important to remember that NPC™ can cause zones to be bypassed and appear to not work. If five chirps are heard when disarming the system, NPC™ has been engaged. To clear the NPC™ memory, simply turn the ignition key on.

[Diagnostics]

The microprocessor at the heart of your system has the ability to constantly monitor all of the switches and sensors connected to it. It can detect any faulty switches or sensors and prevent them from disabling the entire system. It can also record and report any triggers that occur when you are away from your vehicle.

Arming Diagnostics

If the system is armed at the same time that an input is active (door opening, sensor triggering, etc.), you will hear one chirp to indicate arming and a second chirp a few seconds later to indicate Bypass Notification. A Bypass Notification chirp means that the system ignores the input that was active when the system was armed, until that input ceases. Three seconds after that input ceases, the system will resume normal monitoring. For example, if your vehicle has an interior light exit delay and you arm the system before the light turns off, you may hear a Bypass Notification chirp. Three seconds after the light turns off, however, normal monitoring resumes.

NOTE: Bypass Notification does not occur when the system is in silent arm/disarm mode or if the chirps have been programmed not to sound.

Disarming Diagnostics

Your system has a Tamper Alert feature that notifies you of system triggers that occur while you are away from your vehicle. If you hear four chirps when you disarm, this indicates that the system was triggered in your absence. If you hear five chirps when you disarm, this indicates that a specific zone was triggered so many times that the NPC™ has bypassed that zone. In both cases, the pattern of the flashing status LED indicates which zone was triggered (see Table of Zones). The system retains this information in its memory and will continue to chirp four or five times each time the system is disarmed, until the next time 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	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 number of LED flashes used by the system to identify a particular type of input. Standard input assignments are listed in the following table, along with spaces to write in any optional sensors or switches that you have had installed.

ZONE (Number of LED Flashes)	DESCRIPTION	DEALER-INSTALLED OPTIONS
1	Instant trigger for optional hood or trunk pins	
2	A heavier impact detected by the on-board shock sensor	
3	Door switch trigger	
5	Ignition trigger	

NOTE: The LED does not report when the warn away response has been activated; it only reports triggered sequences.

[Stealth Coding™ Technology]

The receiver and remote use mathematical formulas called algorithms to change their codes each time the remote is used. This Stealth Coding™ Technology has been developed to increase the security of the unit. By following this set code sequence, the receiver and remote stay synchronized, even if the remote is used out of range of the vehicle. If, however, the remote is pressed many times out of range, or the battery is removed, the remote may get temporarily out of sync and fail to operate the system. To resyn-

chronize the remote, simply press  several times within range of the vehicle. The system will automatically resynchronize and the remote will respond normally.

[High Frequency]

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

[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.

This system's programming options are listed below, with the factory default settings in **bold**:

- **Active arming** (only with the remote) or passive arming (automatic arming 30 seconds after the last vehicle door is closed).
- **Active door locking** (only when arming with the remote) or passive door locking (selectable only when Passive Arming has been programmed).
- Arming and disarming confirmation siren chirps can be pro-

grammed **on** or off.

- Ignition controlled door lock feature, **on** or off. With this feature on, the doors will lock three seconds after the ignition key is turned on, and unlock when the ignition is turned off. The system also prevents the doors from locking when the ignition is turned on while any vehicle door is open.

[Security & Convenience] Expansions

Listed below are some of the many expansion options available for use with your system. Please consult your dealer for a detailed explanation of all the available options.

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

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

Field Disturbance Sensor: An invisible dome of coverage is established by the 508D "radar" sensor. The security system will respond to any intrusions into this field by initiating the 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  output of the system can operate a factory power release for the vehicle's trunk or hatch. An optional relay is required. If the factory release is not power-activated, then Directed Electronic's 522T trunk release solenoid can be added in most cases.

Power Window Control: Automatic power window control is provided with the 529T and 530T systems. These options operate power windows, by rolling them up, down, or both up and down. The 530T also offers one-touch switch operation.

Valet™ Start System: For the ultimate in convenience, the Valet Start System can start your vehicle, monitor engine functions and activate your climate control system with a push of a button! Over-rev protection, open-hood lockout, brake pedal shutoff and automatic timer shutoff are included. (This option is available only for fuel-injected, automatic-transmission vehicles.)

[Installation Options]

Installation options may require additional parts or labor. Please consult your dealer.

Progressive Unlocking: With electric power door locks, the system can be configured so that when disarmed, only the driver's door unlocks. A second press of the disarm button within 15 seconds of disarming unlocks the remaining doors.

Horn Honk: If connected, the horn will sound if the alarm is either triggered by an intrusion or activated by Panic Mode. (In most vehicles, this feature requires that an additional relay be installed.)

Interior Light Illumination: The interior dome light can be configured to illuminate for 30 seconds after the alarm is disarmed. If the system is rearmed during that 30-second period, the interior light illumination will terminate until the alarm is disarmed once again.

[Glossary of Terms]

Control Module: The "brain" of your security system. Usually hidden underneath the dash area of the vehicle. It houses the micro-processor that monitors your vehicle and controls all of the security system's functions.

Fault-Proof Starter Interrupt: Located on-board the control module, this is an automatic switch controlled by the security system that prevents the vehicle's starter from cranking whenever the security system is armed. The vehicle is never prevented from cranking when the security system is disarmed, in Valet Mode, or if the starter interrupt fails.

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

LED: A red light mounted inside the vehicle, at a location determined by the installer. The LED indicates the status of your system and also reports triggers and faults in the system or sensors.

Shock Sensor: A dual-stage shock sensor, located on-board the control module, that detects impacts to the vehicle.

Siren: A noise generating device, usually installed in the engine compartment of the vehicle. The siren generates the chirps and tones heard when the system is triggered.

Remote: A hand-held, transmitter control that operates the various functions of the security system.

Trigger or Triggered Sequence: The "setting off" or "tripping" of the alarm. A triggered sequence consists of the siren sounding and the parking lights flashing for 30 seconds.

Valet Switch: A small, push-button switch mounted inside the vehicle, at a location determined by the installer. This switch is used to override the alarm when a remote is lost or damaged, or can be used to put the system into Valet Mode.

Warn Away Response: Light impacts to the vehicle generate the warn away response, which consists of several seconds of siren chirps and flashing parking lights.

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

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



QUICK REFERENCE GUIDE

To arm using your remote:

- Press  of your remote for one second. When the system arms, you will hear a short siren sound, or chirp, and see the parking lights flash once. If the vehicle's power door locks are controlled by the system, the doors will lock.

Disarming:

- Press  again. You will hear two chirps, and the parking lights will flash twice. If the power door locks are controlled by the system, the doors will unlock.

Disarming without a remote:

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

Remote-controlled silent arm/disarm:

- Press  briefly before arming or disarming, and the confirmation chirp(s) will be eliminated for that one operation only.

Panic Mode:

- Press  for 1.5 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 again.

To enter or exit Valet Mode with the Valet switch:

- Turn the ignition to the ON position, then turn to the OFF position. Press and release the Valet switch within 10 seconds.

Remote-controlled Valet:

- You can also enter or exit Valet Mode by using the remote remote. First, open any vehicle door. Then press . Press . Press  again. The status LED will light solidly if you have entered Valet Mode and will turn off if you have exited Valet Mode.



The company behind this system is Directed Electronics, Inc.

Since its inception, Directed Electronics, Inc. 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 Electronics, Inc. is ISO 9001 registered.

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

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



DEI is an ISO 9001 registered company.

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

driven to excel
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