

K-9[®] CAR ALARM

Owner's Guide & Installation Instructions

K9-Mundial

COPYRIGHT: OMEGA RESEARCH & DEVELOPMENT 2000

Table of Contents

Owner's Guide	
Introduction	3
Arming & Disarming the System	4-6
Remote Panic Operation	7
The Auxiliary Channel	8
LED Status Indicator	11-12
Auxiliary Sensor	12-13
Programmable Anti-Carjacking Protection	13-14
Programmable Features	15- 18
How to Program the Features	19-20
How to Program Transmitters to the System	20-21
Limited Lifetime Warranty	Back Cover
Installation Instructions	
Installation	21
Wiring Connections	22-39
Required Plug-in Features	40-47
Wiring Diagram Overview	24-25

Page 2

Introduction

Congratulations on the purchase of your vehicle security system. In learning to operate your security system, please become familiar with the following three principal components: the Transmitter, the LED Status Indicator light, and the Valet/Override Switch.

The Transmitter: Each security system comes with two pre-learned transmitters, but can learn up to 4 different transmitters. Every transmitter has its own unique, invisible code, which changes with each use. Thus, your transmitter cannot be duplicated. The transmitter has two buttons: one large button and a smaller button. Refer to pages 4-8 for detailed transmitter operating instructions.

The Valet/Override Switch: This switch can be used to turn "Off" the alarm portion of the system, including the programmable Automatic Last Door Arming and Automatic Rearming features, by placing the system into "Valet Mode". The Valet/Override Switch can also be used in conjunction with the vehicle's ignition key to perform an "Emergency Override" of the system should the transmitter be lost. Both of these are explained on pages 8-10.

The LED Indicator Light: The LED indicates the status of the alarm and serves as a visual deterrent to break-ins and theft. Refer to pages 11-12.

Page 3

Arming & Disarming the System

The system may be "Armed" by one of two methods. The first method involves the use of a remote transmitter to "Actively" arm the system, provided the ignition switch is "off" and the system is not in Valet Mode. The second method is a programmable feature called "Last Door Arming" in which the alarm will "Passively" or "Self" arm. The system simply reverses its armed/disarmed status when the transmitter is used. If it is disarmed when the transmitter signal is received, it arms; if it is armed when the signal is received, it will disarm.

To Actively Arm/Disarm the System: Press & Release the Large Transmitter Button.



- Upon Arming:**
- The siren will chirp one time.
 - The parking lights will flash once.
 - The doors will lock. (If an optional interface is connected)
 - The starter interrupt will engage.
 - The LED Status Indicator will begin to flash slowly.

Page 4

Upon Disarm:

- The siren will chirp twice. (4 chirps if alarm has activated & reset)
- The parking lights will flash twice. (4 times if alarm has activated)
- The doors will unlock. (If an optional interface is connected)
- The starter interrupt will disengage.
- The LED Status Indicator will turn "Off", or begin flashing rapidly if the Automatic Rearming feature is programmed on. (page 16)

Note: If a protected zone is open when actively arming using the transmitter, the system will still arm, but bypass the open zone until the zone is secured.

To Passively Arm the System: Open & Close a Door.

Automatic "Last Door Arming" is a programmable feature which allows the alarm to arm itself and, if desired, lock the doors. If "On", this convenient feature offers a high level of security since the user does not need to actively arm the system each time the vehicle is exited. Any time a door is opened and closed:

- 1) The LED Status Indicator will begin flashing rapidly to confirm that the Last Door Arming countdown has begun.
- 2) 30 seconds later the system will arm, chirping the siren once, and locking the doors, if programmed to do so and if an optional interface is installed. The LED Status Indicator will begin flashing slowly to confirm that the system is armed.

Note: The system can not Last Door Arm if a protected zone is open. If a vehicle door is opened during the arming countdown, the countdown will stop and start over again when the door is closed.

Note: "Automatic Rearming" (page 16) is a separate programmable operation similar to Last Door Arming, and should not be confused with it.

If the System is Activated:

Regardless of method, once the system is in a fully armed state it monitors all protected zones, and if an intrusion attempt is detected it will activate, or "trigger". An activation consists of the following:

- 1) The electronic siren, or optionally the vehicle's horn, will start sounding.
- 2) The exterior parking lights will flash on and off repeatedly.

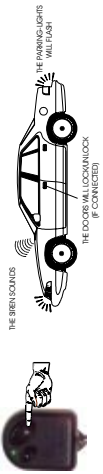
An activation has a 30 (or 60) second duration unless the system is disarmed using the transmitter or the Valet /Override switch. If all protected zones are secure at the end of the activation, the system will stop and rearm itself to detect further entry attempts. If a protected zone is still open at the end of the activation cycle, the system will continue to reactivate for up to 3 additional cycles. After the fourth cycle the system will again rearm, but bypass the violated zone until it is restored.

Remote Panic Operation

Should it be needed in a threatening situation, the system can be activated remotely by using the transmitter.

To Activate Panic: Press & Hold the Large Button for 3 Seconds.

To Deactivate Panic: Press & Release the Large Button.



Upon Activating Panic:

- The siren sounds and parking lights flash.
- The vehicle's doors will lock.

Upon Deactivating Panic:

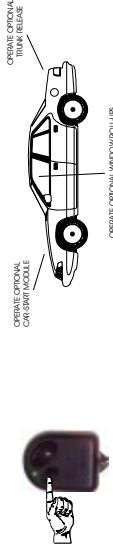
- The siren and parking lights stop.
- The system is disarmed.

The Panic cycle has a 60 second duration (regardless of the 30 or 60 second activation setting) unless a transmitter is used to stop it. At the end of the 60 second cycle, the system will reset and be in the armed state.

The Auxiliary Channel

The Auxiliary Channel may be used to operate an optional function. Possibilities include trunk release, remote car starting, or a window roll-up interface. Please see your Omega dealer for details on available options.

To Activate the Auxiliary Channel: Press & Hold the Small Button for 3 Seconds.



Note: The Auxiliary Channel cannot be activated if the vehicle's ignition is "On".
Note: If the system is armed when the Auxiliary Channel is used, it will also disarm. This is a programmable feature (pages 17-18).

Note: The Auxiliary Channel has output for as long as the Small Button is held.

Valet Mode & Emergency Override

The Valet/Override Switch can perform two distinct functions: accessing Valet Mode and performing an Emergency Override of an armed system.

Valet Mode prevents any active arming, from the transmitter, or passive arming, such as Last Door Arming, or automatic lock/unlocking activated by the Ignition. Valet mode is designed for situations in which it is not convenient for the alarm portion of the system to be operational; for example during extended stopovers for vehicle servicing, maintenance, valet parking, washing, etc. The convenience features such as keyless entry and the auxiliary channel can still be operated.

To Enter Valet Mode: **Press & Hold the Valet Switch for 3 Seconds.**

- The LED Status Indicator will light solid Red to confirm Valet Mode. Now the system cannot become armed.

Note: The vehicle's ignition may be "On" or "Off".

To Exit Valet Mode: **Simply Press & Release the Valet Switch.**

- The LED Status Indicator will turn off to confirm that the system has exited Valet Mode and returned to a "standby" mode. Normal arming operations may be resumed.

Note: Again, the vehicle's ignition may be "On" or "Off".

Page 9

The LED Status Indicator

The Red LED Status Indicator visually shows the status of the system and also provides a high level of visual deterrence. The Red LED Status Indicator Light is normally mounted in a location where it can be easily seen by the driver, as well as from outside the vehicle.

Security System Status: The primary function of the Red LED Status Indicator Light is to indicate the normal operating status of the security system:

- Off = The system is disarmed and not performing any automatic functions.
- On Constant = The system is in the Valet Mode.
- Flashing Slow = The system is fully Armed.
- Flashing Fast = The Last Door Arming or the Rearm process is in progress.

Automatic Transmitter Verification: For the first 10 seconds after the vehicle's ignition is turned "On", the LED Status Indicator will flash a number of times equal to the number of transmitters which are programmed in the system's memory and which can operate the security system:

- 1 Flash /pause = 1 remote transmitter is programmed to operate the system.
- 2 Flashes /pause = 2 remote transmitters are programmed to operate the system.
- 3 Flashes /pause = 3 remote transmitters are programmed to operate the system.
- 4 Flashes /pause = 4 remote transmitters are programmed to operate the system.

Page 11

To Disarm the Security System Without The Transmitter:

Valet Mode can only be achieved with a disarmed system. If the system is armed, and in the event that the transmitter is lost, damaged, or its batteries have become exhausted, the Valet/Override Switch & your vehicle's ignition key may be used to disarm the system by performing an Emergency Override:

Step 1: With the system in the armed condition, enter the vehicle via the driver's door (be aware that the alarm will activate when the door is opened).

Step 2: Using your key, turn the vehicle's ignition to the "On" position.

Step 3: Within 5 seconds, Press the Valet/Override Switch.

-The activated system will instantly disarm.



Note: When the Valet/Override Switch is pressed, when the system disarms releasing the switch will place the system in standby mode. Holding the switch for 3 seconds further after the activated system disarms will place the system into Valet Mode, preventing further arming. Once overridden, the disarmed system may still be placed into Valet Mode as described on the previous page.

Page 10

Zone Violation: If the system is activated, the Red LED Status Indicator will stop flashing slowly and change to flash & pause to indicate which protected zone was violated, causing the activation:

- 1 Flash /Pause = System was triggered through the current sensing circuit.
- 2 Flashes /Pause = System was triggered through the sensor circuit.
- 3 Flashes /Pause = System was triggered through the hood or trunk circuit.
- 4 Flashes /Pause = System was triggered through the door circuit.

When the system rearms itself the LED Status Indicator will change back to the slow flash armed indication, but the Zone Violation indication resumes upon disarming and will be displayed for 90 seconds. The alarm's Zone Violation circuit can store up to four consecutive zone violations. If there has been multiple zone violations, the LED will replay them in the order in which they occurred.

Auxiliary Sensor

Sensors: This security system is equipped with a plug-in port for an optional sensor to increase the effectiveness of the system.

The comprehensive line of optional sensors offered is comprised of impact sensors, glass tampering sensors, and microwave/radar sensors which can detect motion inside and outside the vehicle. Your Omega dealer can provide

Page 12

details on the complete line of sensors and help determine which sensor or sensors are best suited for your needs. Currently many sensors feature dual zone capability, which take advantage of the security system's prewarn circuit.

Prewarning Detection Circuit: This circuit requires connection to an optional dual zone detection device. When the sensor's prewarn zone is triggered the security system will respond by chirping the siren for 2 seconds.

Programmable Anti-Carjacking Protection

The system is equipped with three levels of programmable Anti-Carjacking protection. The Anti-Carjacking operation may be activated by the ignition, a combination of the ignition and an open door, or the transmitter. These three forms of Anti-Carjacking protection are programmable features, which are as received configured "Off".

#1: Anti-Carjacking activated using the transmitter:

If programmable feature #13 is "On", the Anti Car-Jacking operation may be activated by Pressing & Holding both buttons on the transmitter for 4 seconds while the ignition is "On".

Page 13

Programmable Features

The system has 16 programmable features which allow the system to be customized to suite many individual needs. The following pages provide a brief explanation for each feature, and notes its factory default setting. If the feature is not an "on or off" type feature, the transmitter buttons' functions in programming mode are noted. Otherwise, pressing the large button turns the feature "on"; pressing the small button turns the feature "off".

* = Default Factory Setting

1. **Current Sensing:** (*On / Off)
 - Enables the system to be activated if armed should the system detect a voltage spike in the vehicle's electrical system.
2. **Current Sensing Activation Delay:** (3 Seconds / *3 Minutes)
 - Allows option of a longer delay before activation by current sensing can occur. This is for use in vehicles with equipment, such as cooling fans, which stay on after the ignition has been turned off.
3. **Last Door Arming:** (*On / Off)
 - Configures the system to automatically arm itself 30 seconds after the last

Page 15

#2: Anti-Carjacking activated by a door:

If programmable feature #14 is "On", the system will initiate the Anti-Carjacking operation every time a vehicle door is opened and closed while the ignition is "On".

#3: Anti-Carjacking activated by the ignition:

If programmable feature #15 is "On", the system will initiate the Anti-Carjacking operation every time the vehicle's ignition is turned "On".

Once the Anti-Carjacking process has begun, the user has 63 seconds to press the Valet/Override Switch in order to cancel the process. If not cancelled, at 55 seconds the siren will begin to chirp for 8 seconds to alert the user that the system is about to enter into an activated condition. If the Anti Car-Jacking process is not cancelled before the 63 second countdown expires, the system will fully activate. In the activated condition the siren/horn will sound, the parking lights will flash, and at 95 seconds the starter interrupt will engage. Once the system is activated in the Anti-Carjack mode, the transmitters will NOT stop the operation, nor will the system reset automatically. **Once it is fully activated, the Anti-Carjacking operation can only be deactivated by:**

Step 1: Turning the vehicles's ignition "Off".

Step 2: Turning the vehicle's ignition back "On".

Step 3: Within 5 seconds Pressing the Valet/Override Switch.

Page 14

of the vehicle's doors is closed.

4. **Doors Lock With Last Door Arming:** (On / *Off)
 - Adds the automatic locking of the vehicle's doors to the previous feature.
5. **Automatic Rearming:** (*On / Off)
 - Configures the system to automatically rearm itself 90 seconds after it has been disarmed by the transmitter.
6. **Doors Lock With Automatic Rearm:** (On / *Off)
 - Adds the automatic locking of the vehicle's doors to the previous feature.
7. **Steady Siren Output Or Pulsed Horn Honk Output:** (*Siren / Horn)
 - Allows the selection of a constant output to sound the electronic siren or a pulsed output to properly sound the vehicle's horn. If programming, press the transmitter's large button for the Steady Siren setting or press the small button for the Pulsed Horn setting.
8. **Ignition Controlled Door Lock/Unlock:** (*On / Off)
 - Configures the alarm to lock and unlock the vehicle's doors when the ignition is turned on and off. This feature does not operate in Valet Mode.

Page 16

9. System Activation Cycle Duration: (•30 / 60 Seconds)
 - Configures the system's activation duration cycle to be either 30 seconds or 60 seconds. If programming, press the transmitter's large button for the 30 second setting or press the small button for the 60 second setting.
10. Double Unlock Pulse: (On / •Off)
 - Configures system to change the single unlock output pulse into a double unlock pulse. Some newer vehicles require a double pulse to unlock the doors, when needed this feature saves the expense of optional parts.
11. Open Door Bypass Alert: (On / •Off)
 - Configures the system to chirp the siren 3 times upon arming, instead of 1 time, to warn the user if a door is still open.
12. Auxiliary Channel Disarms System Or Engages Start Mode: (•Disarms / Start Mode)
 - This unique feature changes certain aspects of the system's Auxiliary Channel's operation so that it is more compatible with optional remote starter units. When this feature is utilized, instead of disarming the system when the Auxiliary Channel is activated, the system does not disarm. Additionally, certain of the system's sensory zones are bypassed to prevent false activation

Page 17

How to Program Features

The 16 programmable features, explained in the previous pages, are very easily programmed by a procedure using the ignition key, Valet/Override Switch, and transmitter. To access Features Programming Mode:

- Step 1: Turn the vehicle's ignition "On" then "Off".
- Step 2: Within 10 seconds of turning the ignition "Off", press the Valet/Override Switch 5 times. The system will sound a long, then short siren confirming entry to Features Programming Mode.
- Step 3: Within 10 seconds of entering Features Programming Mode, press the Valet/Override Switch the number of times equal to the number of the feature to be programmed. The system will repeat the feature number with same number of chirps.
- Step 4: After the system acknowledges the feature to be programmed, press either the large transmitter button to turn the feature on (the system's response will be 1 chirp), or the small button to turn the feature off (the system's response will be 2 chirps).

Page 19

- due to the remote starting operation. When this feature is set for the Start Mode, and the Auxiliary Channel is activated, the system will bypass the current sensing and sensor zones if the system is armed. This allows a remote start module to start the vehicle without activating the system. The door and trunk zones remain active, and if violated will trigger the system and turn the vehicle's engine off. If programming, press the small button for Start Mode or the large button for Disarm.
13. Transmitter Activated Anti-Carjacking: (On / •Off)
 - This feature's operation is explained on pages 13-14.
14. Door Activated Anti-Carjacking: (On / •Off)
 - This feature's operation is explained on pages 13-14.
15. Ignition Activated Anti-Carjacking: (On / •Off)
 - This feature's operation is explained on pages 13-14.
16. Chirp Confirmation: (•On / Off)
 - This feature allows the arm and disarm confirmation chirps to be turned off. When this feature is turned off, exceptions will be chirps during programming and the single chirp produced when the system arms by Last Door Arming and Automatic Rearming.

Page 18

How to Program Transmitters to the System

To program more features, simply repeat Steps 3 and 4. If 10 seconds expire without any programming activity the system will automatically exit Feature Programming Mode. Turning on the ignition switch will also exit the system from Feature Programming Mode; in either case the system signals the exit with 1 long siren chirp.

Whenever a transmitter, new or existing, is programmed to the system, all existing codes are erased for security. So all of the transmitters which are to operate the system, up to four, must be programmed at the same time.

- Step 1: Turn "On" the vehicle's ignition.
- Step 2: Within 10 seconds press the Valet/Override Switch 5 times. The system responds with 1 long siren chirp to confirm Transmitter Programming Mode.
- Step 3: Within 10 seconds, press the large button on each transmitter to be programmed. The response to each transmitter button press is 1 chirp.

If 17 seconds expire without any programming activity the system will automatically exit Transmitter Programming Mode. Turning off the ignition switch will also

Page 20

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.