

K-9 CAR ALARM

Owner's Guide & Installation Instructions

K9-Mundial

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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.

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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.

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- 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.

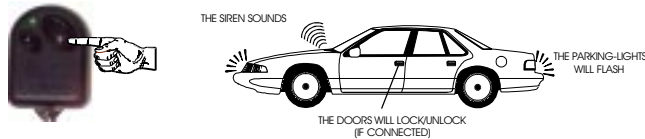
An activation has a 30 (or 60) second duration unless the system is disarmed using the transmitter or the Valet /Override switch. If all protected zones are secure at the end of the activation, the system will stop and rearm itself to detect further entry attempts. If a protected zone is still open at 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.

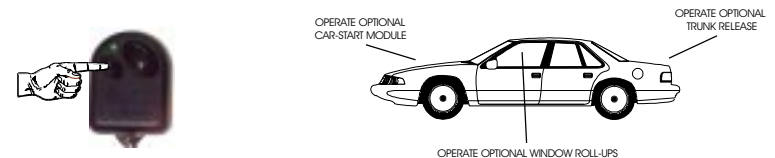
- Upon Deactivating Panic:**
- The siren and parking lights stop.
 - The system is disarmed.

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.**
(System MUST be Disarmed)

- 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".

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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.

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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.

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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

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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".

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#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.

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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

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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.

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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

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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 allow 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 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.

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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).

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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.

How to Program Transmitters to the System

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

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exit the system from Transmitter Programming Mode; in either case the system signals the exit with 1 long siren chirp.

Installation

Mounting The Main Control Module: The Main Control Module contains the electronics necessary for the security system's operation. Always mount this module in the vehicle's interior compartment, in a secure location that is not easily accessible. Ensure that moisture, vibration and temperature extremes are minimized. Acceptable locations may include mounting behind the dash, behind the glovebox or other interior panels.

Mounting The Siren: Find a location in the engine compartment away from the extreme heat of the engine and manifold. A suitable location will offer a firm mounting surface, will also allow sound dispersion out of the engine compartment, and not be accessible to a thief. The siren must be pointed downward to avoid moisture collecting inside it and to enhance sound dispersal.

Wiring Connections: The security system's wires should be securely connected to the appropriate vehicle wires with the proper terminals, connectors, or by soldering and insulating with quality vinyl electrical tape or heat shrink tubing. All wiring should be carefully routed to avoid the possibility of chaffing or otherwise being damaged. Make all required connections, then plug the harnesses into the control module.

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the system will revert to the state it was in previously. The Red wire also supplies +12 Volts to the built-in relay for flashing the parking lights.

CONNECTION: Connect the Red wire to a source which has +12 Volts at all times. Ensure that this source +12 Volts which is stable in all ignition key positions. Connection locations can be at the supply wire at the ignition switch, the supply wire *behind* the fuse block or the fuse/junction block. *Never* just insert the Red wire or any other security system wire behind a fuse. Also, please note that connecting directly to the battery's Positive terminal will expose this connection to failure due to a corrosive environment. The source connection must have at least a 15 Amp capacity at all times.

Yellow Wire - (+12 Volts Ignition Input): The Yellow wire is an ignition "on" input to the security system. This connection is critical to the proper operation of many of the security system's operations.

CONNECTION: This wire supplies +12 Volts to the control module whenever the ignition switch is "on". This connection should be made at the ignition switch harness, to the primary ignition circuit. Primary ignition has 0 Volts when the ignition key is in the "Lock", "Off" and "Accessory" positions; and +12 Volts in the "Run" and "Start" positions. Locate the correct wire at the ignition switch harness and securely splice the Yellow wire to it. This connection is critical to the proper operation of "Enhanced 3rd Channel Operation", which is explained in the Owner's Manual.

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Wiring Connections

Black Wire - (- Ground Input): The Black wire's function is to supply - Ground, which completes the circuitry and allows the security system to operate.

CONNECTION: Using the correct sized crimp-on ring terminal, connect the Black wire to the metal frame of the vehicle, preferably using an existing machine-threaded fastener. Make sure that the ring terminal attached to the Black wire has contact with bright, clean metal. If necessary, scrape any paint, rust or grease away from the connection point until the metal is bright and clean. If the control module has an insufficient ground connection, the security system can find partial ground through the wires that are connected to other circuits, but the alarm will not function correctly, giving the impression of a defective control module. The system can partially work, so a bad ground wire connection would be suspected. In some cases the alarm could arm and disarm properly -but not function correctly otherwise.

The Black wire attached to the control module is the antenna wire. Do not connect this wire to anything or the transmitter's range will be reduced or eliminated. Stretch the Black antenna wire out and as high as possible for the best operating range.

Red Wire - (+12 Volts Input): The Red wire's function is to supply Constant +12 Volts to the security system. When +12 Volts is first applied to the Red wire,

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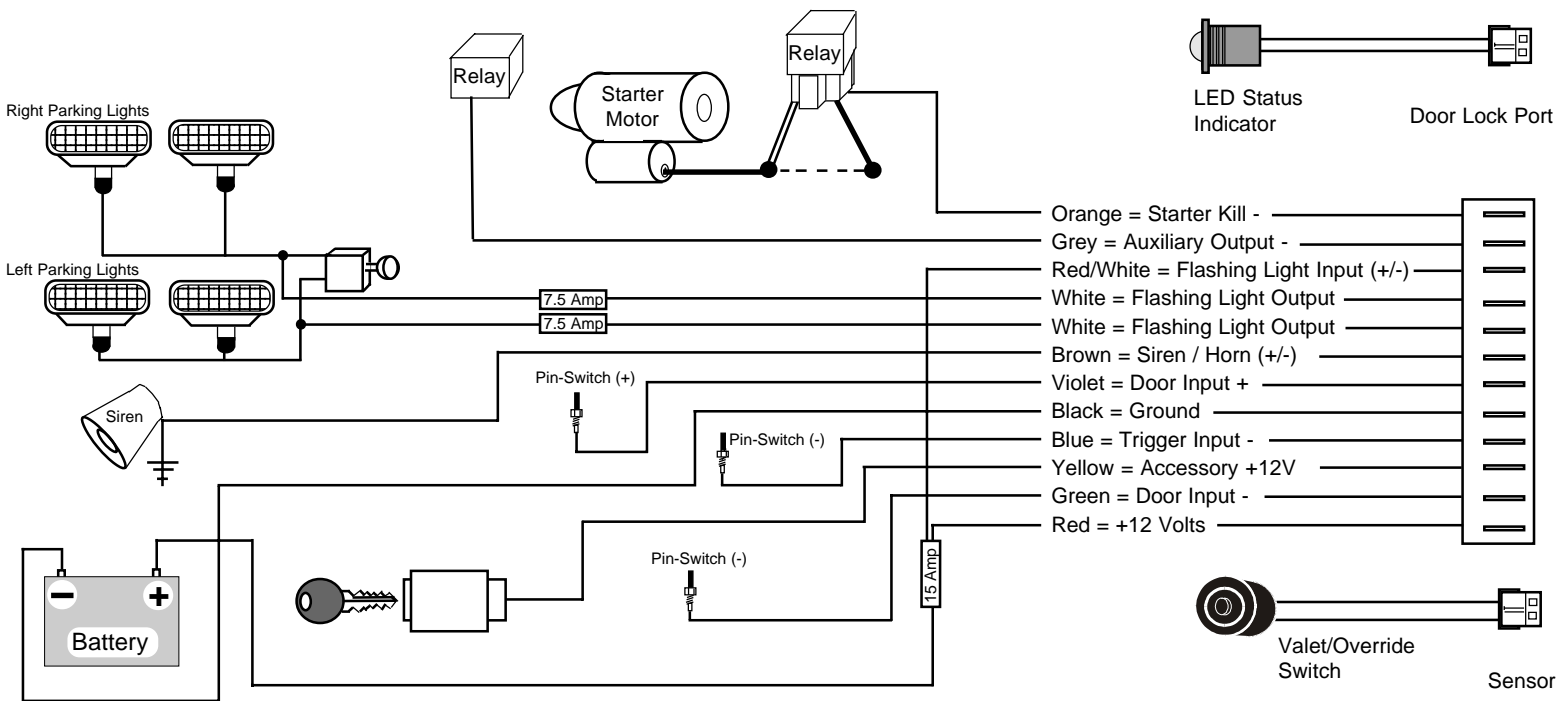
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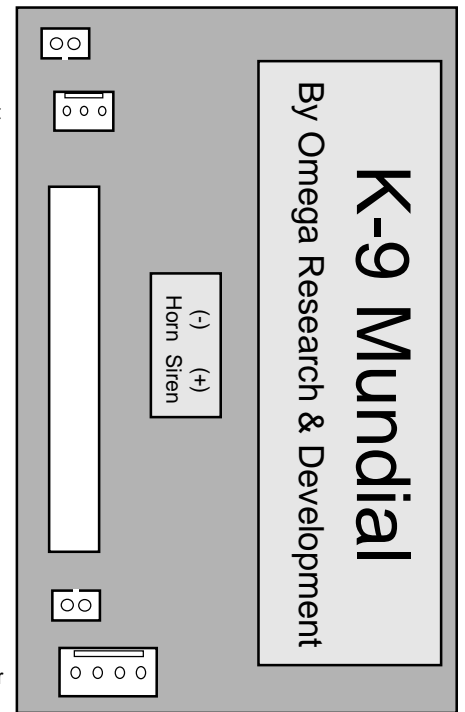
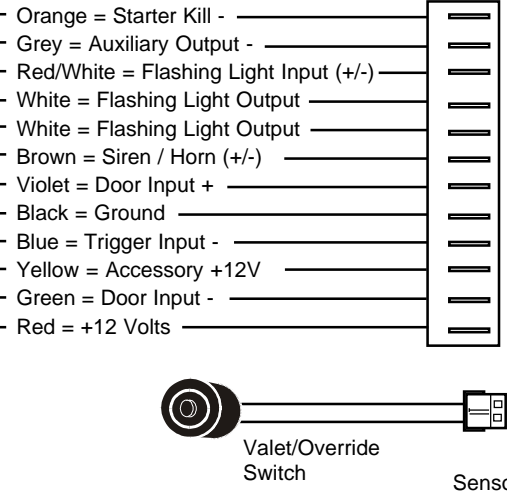
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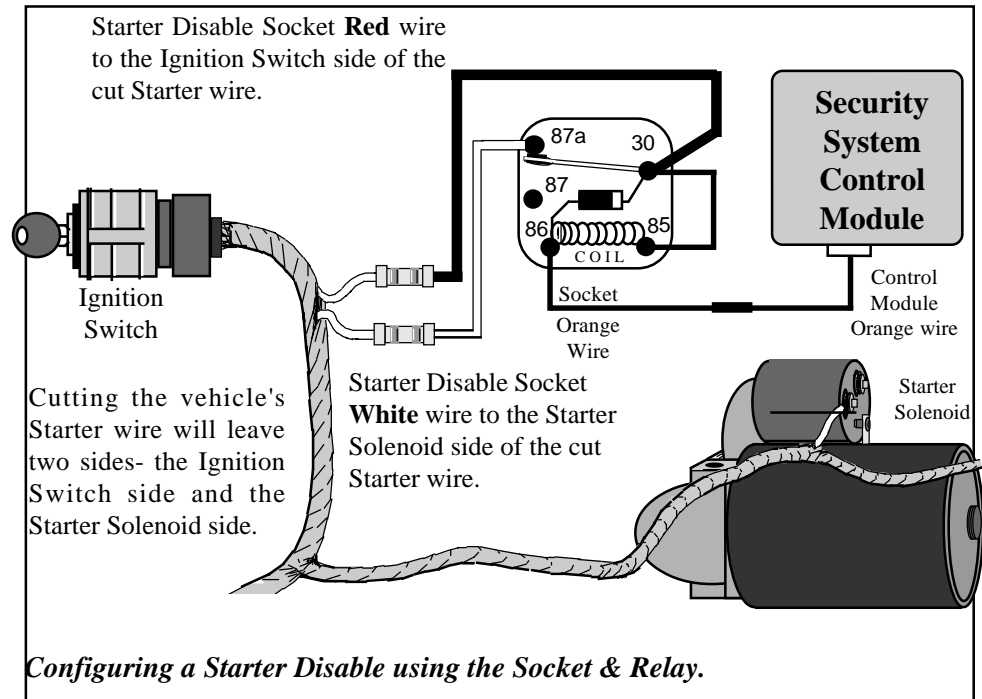
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Orange Wire - (Negative Output For Optional Starter Interrupt): The Orange wire is for a starter disable socket and relay. The function of this wire is to provide a 500mA - Ground Output whenever the security system is in an armed state. This output supplies - Ground to one side of the relay's coil. The other side of the relay coil will be supplied with +12 Volts from the ignition switch, but only if the ignition switch is turned to the "start" position. If this occurs, the coil will energize, activating the relay, which in turn will open the starter circuit. The starter interrupt prevents the vehicle from starting only if the alarm is armed (including while the alarm is activated), and will draw current from the vehicle's electrical system only if an attempt is made to start the vehicle.

CONNECTION: To interrupt the vehicle's starter circuit, the starter wire must be located and cut. It is recommended that this connection be done as close to the ignition switch as possible. Use a voltmeter, not a test light, to find the correct wire, which is the wire from the ignition switch to the starter solenoid. **CAUTION!** Avoid the airbag circuit! Improper use of a test light can cause deployment of the airbag, which may result in bodily injury! Test lights can also damage on-board computers and associated sensors.

The starter wire will read +12 Volts only when ignition key is in "start" position (cranking the engine). Cut this wire at a suitable location. Confirm that this is the correct wire by turning the ignition switch to the "start" position. The starter should not engage.

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Configuring a Starter Disable using the Socket & Relay.

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Connect the starter disable socket's Red wire to the ignition switch side, and its White wire to the starter solenoid side. Be sure that good, solid electrical connections are made as this generally is a high amperage circuit. Connect the security system's Orange wire to the Orange wire of the starter disable socket. **Note:** If the Orange wire touches 12 volts positive directly or has more than a 500ma ground load, the circuit will be damaged.

Brown Wire - (Audible Output): The Brown wire is the system's audible output. It is capable of being configured for either +12 Volts or Negative output, and it can be programmed to be a steady output or pulsed output. Configured +12 Volts it is a high amperage output to drive an electronic siren; configured Negative it is a low amperage output to operate a relay to sound the vehicle's existing horn. Typically, the former configuration is programmed as steady, and the later configuration is programmed as pulsed.

Using The Siren: Confirm that the control module is configured for its "as shipped" configuration of +12 Volts. The top of the control module has an access panel marked "(-) Horn" on its left side and "(+) Siren" on its right side. Open this panel by sliding it to the right, and pivoting it down. Below is a 3-pin standup; ensure that the attached jumper is installed on the right two pins, in the "(+)" position. Replace the access panel. This standup and jumper are shown in the Wiring Diagram Overview on pages 24-25.

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panel by sliding it to the right, and pivoting it down. Below is a 3-pin standup; remove the attached jumper from the right two pins (the "(+)" position), and reinstall it onto the two left pins (the "(-)" position). Replace the access panel. This standup and jumper are shown in the Wiring Diagram Overview on pages 24-25. Upon completion of all wiring connections, consult the Owner's Manual and program feature #7 for "Pulsed Horn" audible output setting.

CONNECTION: The Brown wire may be connected directly to the vehicle's horn switch wire, provided the circuit operates with .25 Amp of current or less. First, ensure that the vehicle's horn operates with the ignition switch "off"; if not, an optional relay and the "direct to horn" method is needed. If the horn sounds when the ignition is "off", the next step is to locate the vehicle's horn switch wire to determine the presence of an existing horn relay. **CAUTION! Avoid the airbag circuit!** The target wire is typically found around the steering column; the correct wire will show +12 Volts normally, and no voltage when the horn is being sounded. Once the vehicle's horn wire is identified, the electrical switching load must be determined.

The most direct method is to cut the wire and measure the switching load with a digital multimeter (DMM). Connect the meter's Black lead to the cut wire from the switch, and its Red lead to the cut wire to the horn. Set the meter to its highest scale first, then press the horn switch to obtain the switching load reading. If the results are a switching load of .25 Amp (250 milliamperes, or mA), then the control

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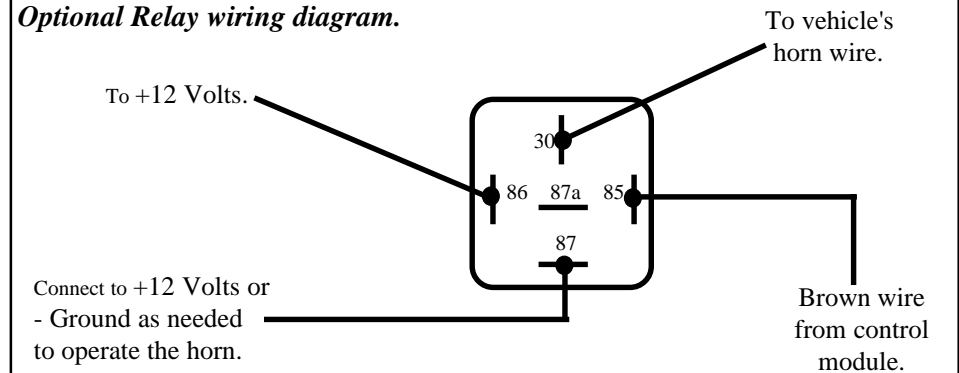
Mounting The Siren: Find a location in the engine compartment away from the extreme heat of the engine and manifold. A suitable location will offer a firm mounting surface, will also allow sound dispersion out of the engine compartment, and not be accessible to a thief. The last point is most important; it is advisable to seek a location for the siren which requires removal of engine compartment components, the battery, for example, to access the siren. This greatly reduces the "defeatability" of the security system. The siren must be pointed downward to avoid moisture collecting inside it and to enhance sound dispersal. The siren's wires should be carefully routed so as to be not easily detectable, and to ensure that the wires will not interfere with any moving parts in the engine compartment or underdash areas.

CONNECTION: The Brown wire must be connected directly to the siren's Red wire, and the siren's Black wire is connected to - Ground, which may be to any clean, bare metal point of the vehicle's chassis. The use of an existing grounding point is a good location. Do not configure the control module's 3-pin standup jumper for "(-) Horn" and connect the Brown wire to the siren's Black wire.

Using The Vehicle's Existing Horn: This will require that the control module be configured for "(-) Horn" and that programmable feature #7 be changed from "Steady Siren" to "Pulsed Horn. To change the Brown wire's polarity from the "as shipped" configuration of +12 Volts, locate the access panel marked "(-) Horn" on its left side and "(+) Siren" on its right side on top of the control module. Open this

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Optional Relay wiring diagram.



module's Brown wire may be connected directly to the vehicle's horn switch wire. Other alternative testing methods include disconnecting the horns, then operate the horn switch. Typically, a "clicking" sound from the vehicle can be heard as the horn button is pressed, and released, which confirms the presence of an existing horn relay. Yet another alternative is to consult a wiring schematic of the vehicle in question to determine if an existing horn relay is present. The least desirable testing method is the use of a standard +12 Volt test light. **CAUTION! Avoid the airbag circuit!** This is one of the few uses left for a standard test light in a modern

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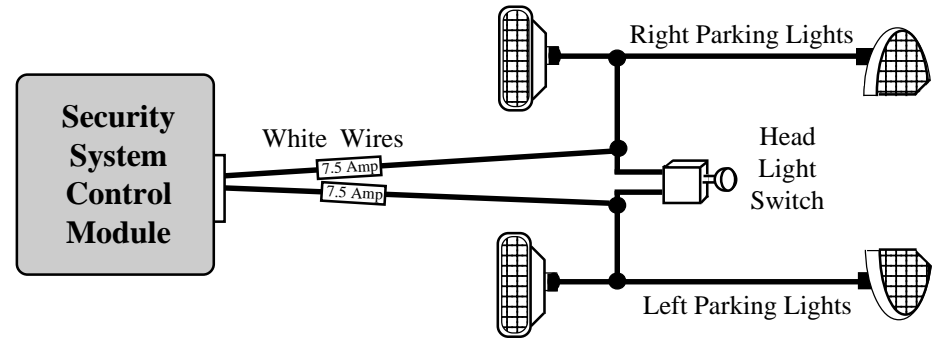
vehicle; use a digital multimeter (DMM) to identify the horn wire first. **Probing an airbag circuit with a standard test light can cause the Airbag to deploy!**

Connect the test light clip to - Ground, and probe the wire. If the horn sounds when probed, a direct connection may be made. If not, use the following diagram to configure an optional relay. When the control module is configured for "(-) Horn" output, exceeding its .25 Amp capability will cause damage to the control module.

White Wires - (+12 Volts Flashing Light Outputs): These are +12 Volts outputs for exterior flashing light confirmation and to attract attention to the vehicle if the security system is activated.

CONNECTION: Many vehicles have separate left and right side parking lights. When left & right parking lights are on separate circuits, simply connect one White wire to each parking light circuit. If the vehicle has a single parking light wire, connect both of these wires to the vehicle's parking light circuit. The parking light wire or wires can usually be found at the following locations: at the headlight switch, at the fuse/junction block, or in the rear body harness in the driver kick panel. The correct wire or wires will typically show +12 Volts when the headlight switch is in the "Parking Light" and "Head Light" positions (sometimes - Ground is found). When such a wire or wires are located, be sure to also test that it is non-rheostated: while metering the wire, operate the dash light dimmer control. The correct wire will show

Connecting directly to Left & Right Parking Lights.

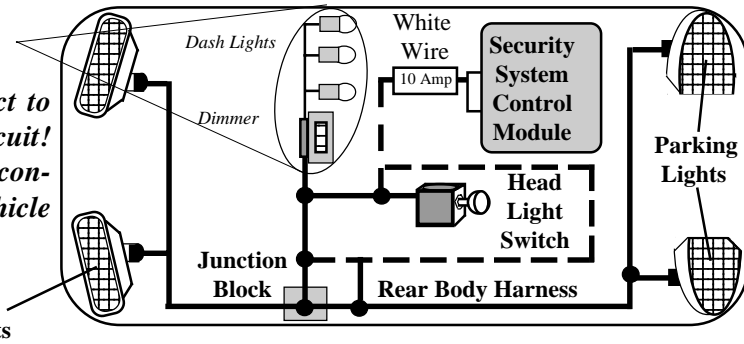


no change in voltage when the dimmer is operated. Do not attempt to flash the parking lights by connecting the White wire to a rheostated (dimmer) circuit! This will backfeed the parking lights through the rheostat or illumination control module, and cause damage to the vehicle or the system's control module. Also, if the White wire is shorted, the system's control module will be damaged. Some vehicles have a parking light relay which is triggered by a - Ground circuit wire from the headlight switch. When installing the system in these cars, connect the White wires to the vehicle's switch wire and simply connect the system's Red/White wire to - Ground.

Connection Hints for either Single or Double Circuit Systems.

3 Suggested Parking Light Connections:

Do not connect to the dimmer circuit! Damage to the control unit or vehicle can occur!



Flashing the headlights is not recommended- halogen headlights are not designed to be rapidly turned on and off.

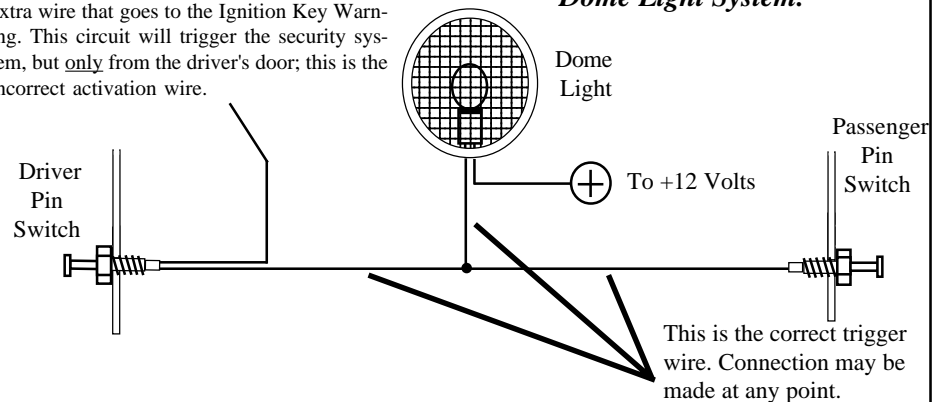
Red/White Wire - (+ or - Flashing Light Input): The wire supplies + 12 Volt or - Ground to the White wires for when the system flashes the parking lights.

CONNECTION: Connect to + 12 Volt or - Ground as needed; this is determined when testing the vehicle's parking light wire.

Green Wire - (- Ground Door Trigger Input): The Green wire's function is an open door input to the control module for vehicles having - Ground switching door pin switches. This circuit has effects on many security system operations, the primary being the activation of the system (sounding the siren and flashing the parking lights) if it is in an armed state. If the Last Door Arming features is utilized, closing the door will cause the Last Door Arming sequence will begin, and it will be suspended if a door is reopened.

Note: The Driver Pin Switch often will have an extra wire that goes to the Ignition Key Warning. This circuit will trigger the security system, but **only** from the driver's door; this is the incorrect activation wire.

Typical - Ground Type Dome Light System.



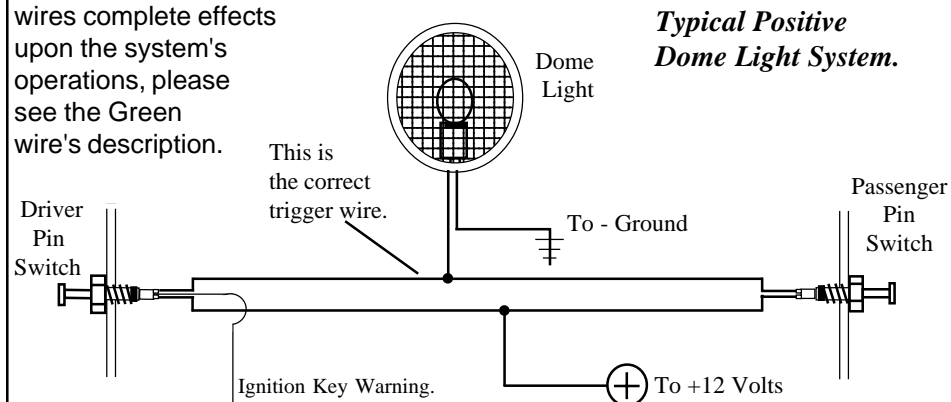
Opening a door during Automatic Rearming will also suspend that feature. If the system has been programmed to lock and unlock the doors with the ignition switch being turned "on" and "off", an open door will cancel the automatic locking or unlocking.

CONNECTION: Connect the Green wire to a wire in the vehicle which is common to all the door pin switches. The correct wire in this type of dome light/door jamb pin switch system typically has no voltage present and will also show - Ground when the doors are opened, and also up to +12 Volts when the doors are closed. The correct wire will show this change when any of the doors are opened. If the vehicle has delay dome lights, remember to take this into account when testing the wire. If the car has a delay dome light the system can be armed from the transmitter, and will start protecting the Green wire circuit when the dome light turns off. In Last Door Arming mode, the system arms 30 seconds after the delay dome light turns off. The diagram illustrates a basic negative courtesy light system.

If the pin switch is mounted in the metal structure of the vehicle, and the dome light goes out when the switch is removed, suspect a grounding-type dome light system. If the switch is mounted in plastic, a constant ground wire will also be present. While the traditional pin switch is mounted in the front door jamb area, also be aware that many vehicles utilize other types of switch devices to operate the interior lights. Some imports have a sliding type of switch and many have the pin or sliding switches in the rear door jamb area.

Also be aware of vehicles which diode-isolate each door. Typically, this is usually encountered with dash displays that indicate individual doors being ajar. The proper wire to connect in this type of system is the common wire which is routed to the dome light itself.

Violet Wire - (+12 Volts Door Trigger Input): The Violet wire's functions are identical to the Green Door Trigger wire, with the sole exception that it is an open door input to the control module for vehicles having +12 Volts door pin switches. For a description of the Violet wires complete effects upon the system's operations, please see the Green wire's description.



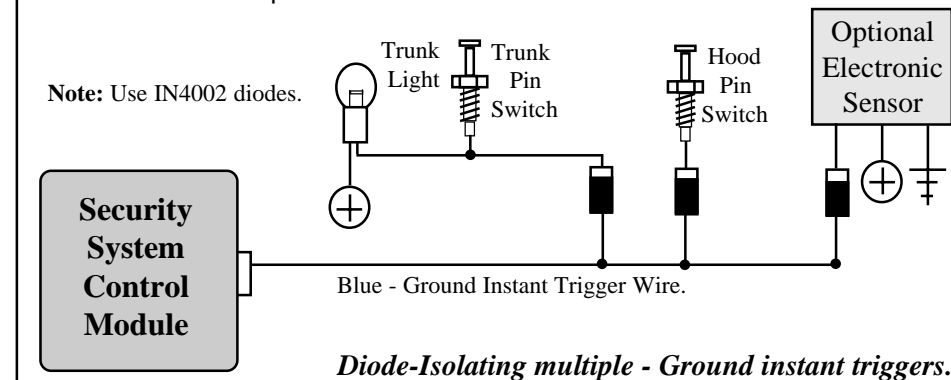
CONNECTION: Connect the Violet wire to a wire in the vehicle which is common to all the door pin switches. The correct wire for this type of dome light/door jamb pin switch system will have +12 Volts present when the doors are opened, and - Ground when the doors are closed. The correct wire will show this change when any of the doors are opened.

Blue Wire - (- Ground Instant Trigger Input): The Blue wire is a - Ground instant trigger used to detect entry into the hood or trunk area of a vehicle. If the security system is armed, grounding the Blue will activate it.

CONNECTION: The included pin switches may be installed to provide this trigger circuit Or, if there are existing switches (example: a light in the luggage compartment or a "Trunk Ajar" light in the dash), the Blue wire may be connected directly, provided this is a - Ground switching circuit. An indication of such a circuit is the wire having no voltage present when the hood or trunk is open, and up to +12 Volts when the hood or trunk is closed. This circuit cannot be used with mercury switch types of hood or trunk lights. If the vehicle is equipped with a usable trunk or hood circuit, locate the proper wire and splice the Blue wire directly to the vehicle's wire.

When wiring more than one of the vehicle's circuits and/or additional circuits to this wire, diode-isolation may be required to maintain each circuit's proper operation. An example would be wiring a hood pin switch and trunk light switch together. Without isolating, the trunk light will illuminate whenever the hood is raised. Also, diode-isolation is necessary when combining electronic sensors together, or, in the

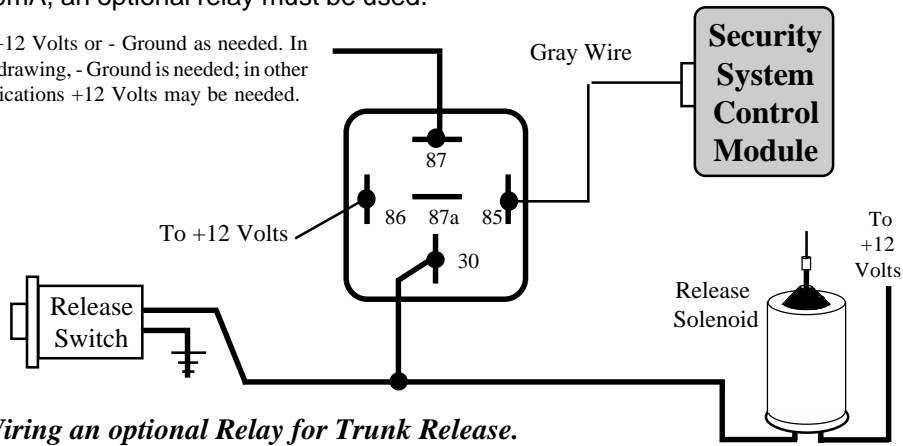
the same circuit with pin switches:



Gray Wire - (- Ground Output For Optional Trunk Release): The function of the Gray wire is to provide an optional output, the primary use being trunk release. Press and hold the small transmitter button for three seconds to activate this output. When activated the Gray wire will provide a 250mA Negative Ground pulse for 1 second; or, stay grounded for as long as the small transmitter button is depressed, for up to 15 seconds. Using this output can also disarm the system.

Also, if selected, the security system will automatically disarm, unlock the doors and flash the parking lights twice. The trunk release feature can be operated anytime with the ignition switch "off", but not when it is "on". Unless the vehicle's trunk release switch negatively triggers a release relay which draws no more than 250mA, an optional relay must be used.

To +12 Volts or - Ground as needed. In this drawing, - Ground is needed; in other applications +12 Volts may be needed.



Wiring an optional Relay for Trunk Release.

CONNECTION: An optional relay is required. Connect the Gray wire to relay pin 85, and connect +12 Volts to relay pin 86. Connect pins 87, 87a & 30 as indicated in the diagram.

Omega sensors are available which detect shock to the vehicle and radar sensors that can detect motion inside and outside the vehicle. When adding an optional sensor, follow the installation instructions included with the sensor. After installing, route the harness and connector from the sensor to the system control module. Plug the sensor's connector into the module's White 4-pin port marked "Aux".

Plug-In Power Doorlock Interface Port: This security system features a plug-in port for an optional doorlock interface. The 3 pin port on the alarm control module produces a - Ground pulse for lock, a +12 Volts pin for the optional relay coils only, and a - Ground pulse for unlocking the doors. The doorlock connections needed will depend upon the type of power doorlocks the vehicle has. The vehicle must have existing power doorlocks. If not present, power doorlocks may be added to the vehicle by utilizing one of several Omega power doorlock kits. The vast majority of power doorlocks are found as three system types: 3 wire - Ground pulse, 3 wire +12 Volts pulse and 5 wire reversal. The best way to identify a doorlock system is to examine the doorlock switch's wiring. The following pages will show schematic diagrams of how to connect an optional DLS (also requires two relays) to these power doorlock systems. The DLS is a dual relay socket with a harness and connector to plug into the alarm control module and non-terminated wires to splice into the vehicle's wiring. The DLS and two relays are the most universal doorlock interface available. The relays used with it are standard 30 amp single pole, double throw (SPDT) automotive relays.

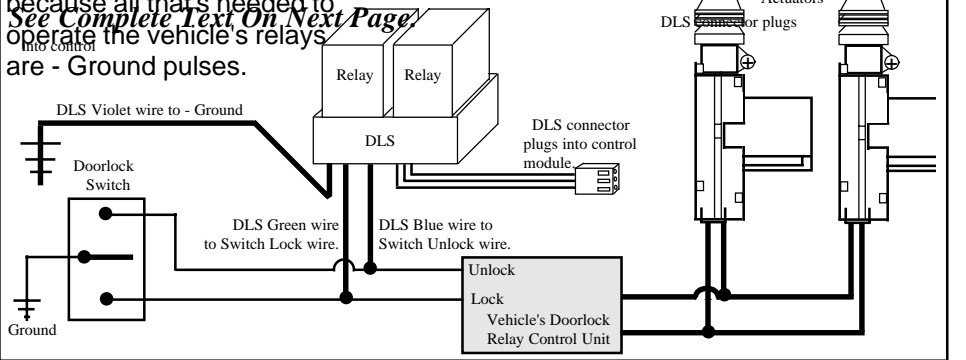
Prewired Plug-in Features

LED Status Indicator: Mount the LED Status Indicator in a location where it can easily be seen by the driver, and preferably where it can be seen from outside, as the LED Status Light provides a level of visual deterrence. A 3/8" hole must be drilled, and always check the mounting location for adequate depth. After mounting the LED Status Indicator, route the Red connector to the security system control module and insert it into the White 2-pin port on the control module.

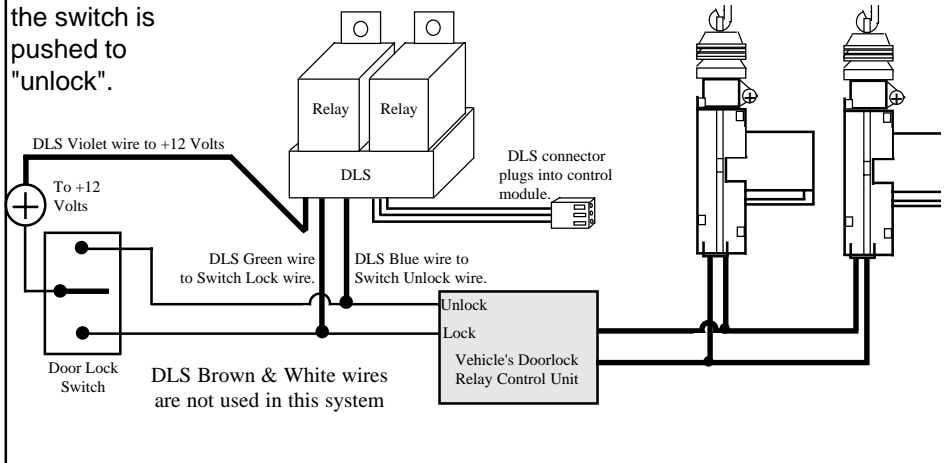
Valet Switch: Use the self-adhesive to mount the Valet/Override Switch in a hidden but accessible location. The Valet Switch allows the operator access to Valet Mode and allows an Emergency Override. The Valet Switch is also part of the programming operations for encoding transmitters and changing the 16 Programmable Features. After mounting the Valet/Override Switch, route the Blue connector to the security system control module and insert it into the Blue port on the control module.

Auxiliary Port For Optional Sensor: This security system features a plug-in port for an optional sensor device. This port supplies +12 Volts, - Ground output, a - Ground instant trigger input, and a - Ground prewarn trigger input. Most Omega Research and Development, Inc. sensors will plug directly into the control module.

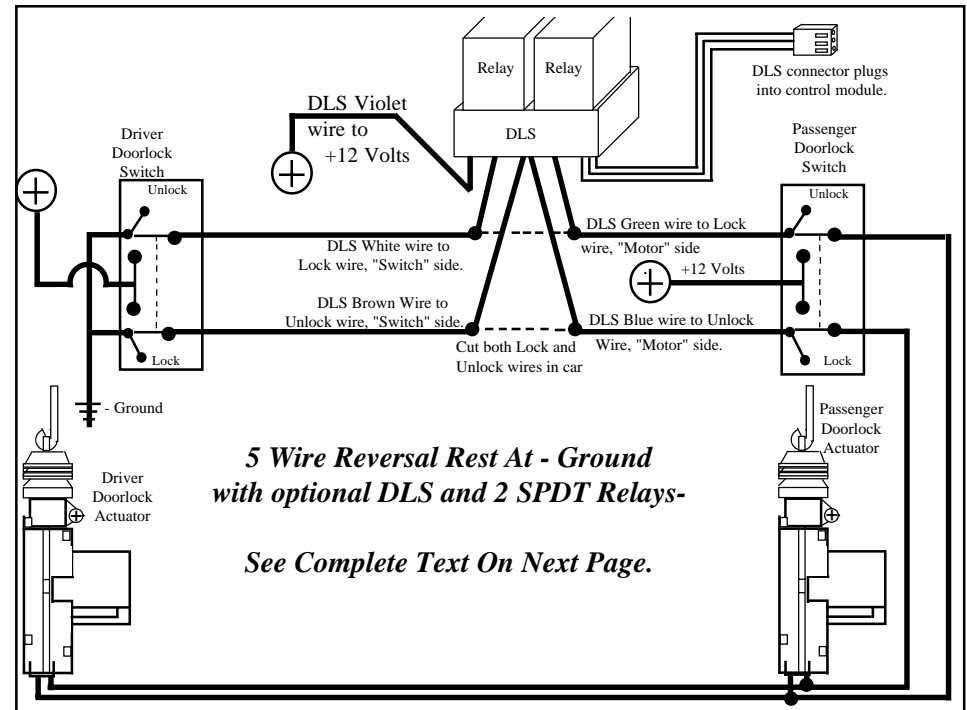
3 Wire - Ground Pulse Systems: This power doorlock system is indicated by the presence of three wires at the switch. Of these, one will show constant - Ground, regardless of whether the switch is being operated or not (at rest). Of the remaining two wires, one will show - Ground when the switch is pushed to the "lock" position, and the other wire will show - Ground when the switch is pushed to the "unlock" position. With the switch at rest, these two wires will read voltage, usually +12 Volts, but in some cases less. The wires from the switches operate doorlock relays or a 5 Wire Reversal Relay with Ground. The correct connection point is between the switches and the relays. In most cases, vehicles that have this type of power doorlock system may be wired direct, because all that's needed to operate the vehicle's relays are - Ground pulses.



3 Wire +12 Volts Pulse Systems: This power doorlock system is very similar to the 3 wire - Ground pulse system except the vehicle's doorlock switches use +12 Volts pulses to operate the doorlock relays/control unit. Examine the wires on the back of the switch. Of the three wires, one will be +12 Volts, regardless of the switch's position. Of the two remaining wires, one will show +12 Volts when the switch is pushed to "lock", and the other will show +12 Volts when the switch is pushed to "unlock".



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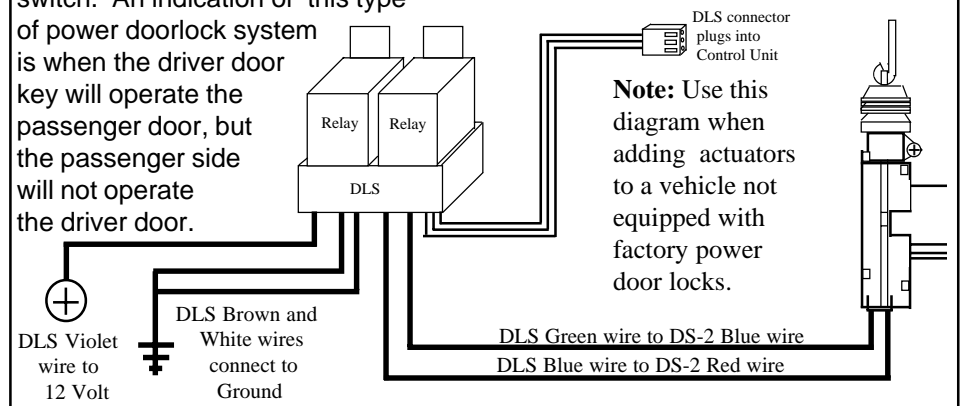
5 Wire Reversal Rest At Ground Systems: This power doorlock system differs from the negative and positive pulse systems in the fact that there are no relays or doorlock control unit. In this type of system, the switches themselves supply the positive voltage directly to the doorlock actuators, and, more importantly, provide the return ground path. The correct doorlock interface for this type of system is the optional DLS and 2 relays. The important thing to remember is the wires in this system *rest at ground*, which means that the wires must be "opened", or cut, to make the connections.

Examine the wires on the back of the switch. Normally five wires will be found. Of these wires, one will be constant 12 volts positive, regardless of the switch's position. Two wires will be grounded regardless of the switch's position. Of the two remaining wires, one will show 12 volts positive when the switch is pushed to "lock", and the other will show 12 volts positive when the switch is pushed to "unlock". These two wires are both routed to the doorlock actuators and are connected to either end of the actuator's motor winding. When the switch is pushed to one position, one of these two wires will have 12 volts. This voltage flows through the wire to the actuator's motor winding, and since the other wire is still *resting at ground* an electrical circuit is completed. When the switch is pushed to the opposite position the electrical flow is *reversed*. When the correct wires are found, they must be cut. Notice in the diagram (following page) that the driver's switch is the primary switch and referred to as the "switch" wires. The wires that go to the secondary switch are

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referred to as the "motor" wires. Even though the cut is made between the switches, the two sides are still correctly called the "switch" and the "motor" sides, with consideration of "Primary" and "Secondary" switch; please see the diagram.

Adding the optional DS-2 Actuator and the DLS and 2 Relays: Some vehicles have a type of power doorlock system in which mechanically locking and unlocking the driver's door will operate an electrical switch in the door which supplies voltage to actuators in the other doors. There is no actuator in the driver's door, only a switch. An indication of this type of power doorlock system is when the driver door key will operate the passenger door, but the passenger side will not operate the driver door.



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