K9-Mundial-2

NOTE: This is a “place marker” cover. The production unit has a color cover.

Owner's Guide & Installation Instructions

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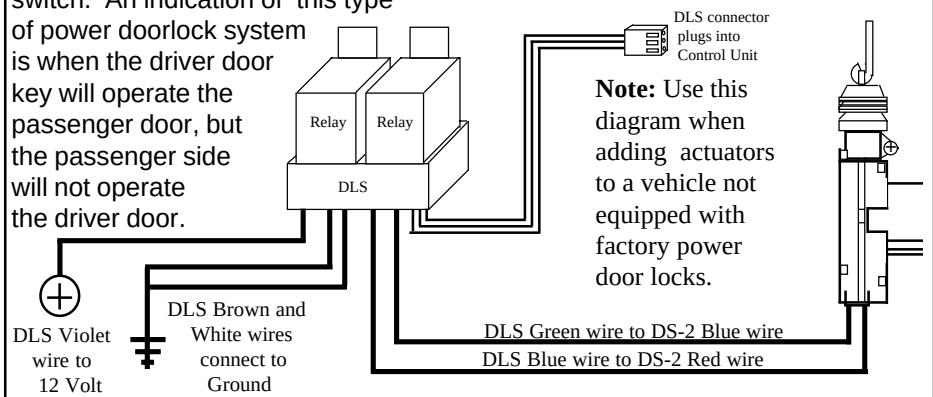
referred to as the "motor" wires. Even though the cut is made between the switches, the two sides are still correctly called the "switch" and the "motor" sides, with consideration of "Primary" and "Secondary" switch; please see the diagram.

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.



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

Introduction

Congratulations on the purchase of your vehicle security system. In learning to operate your system, please become familiar with these three components:

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 three buttons: an “Arm/Lock” button, a “Disarm/Unlock” button and a smaller button which operates an additional output, and which also can arm and disarm your system silently. Please refer to pages 4-10 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 10-12.

The LED Status Indicator Light: The LED Indicator shows the status of the system and serves as a visual deterrent to break-ins and theft; refer to pages 13-14.

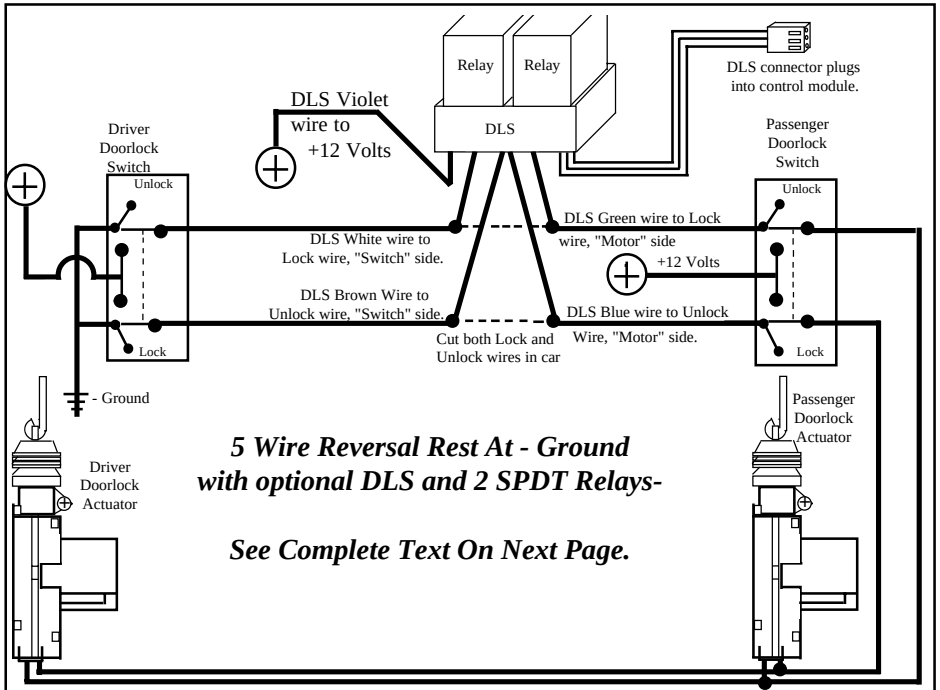
Arming the System

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.

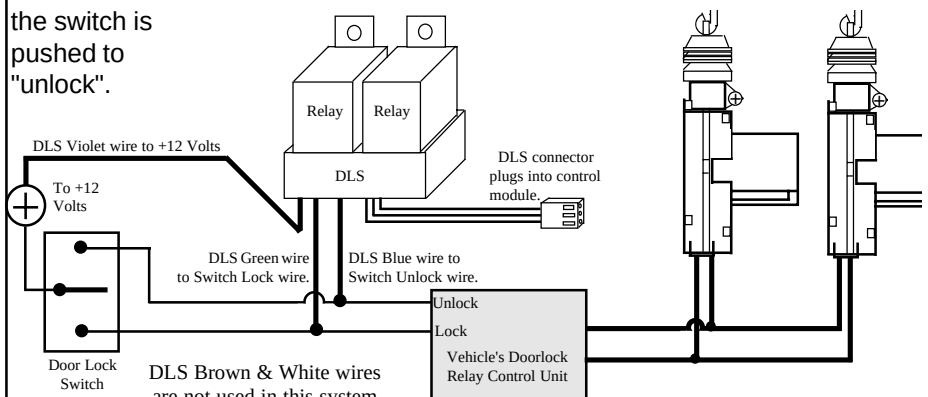
To Actively Arm the System: Press & Release the "Arm/Lock" Transmitter Button.

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.

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



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".



<u>To Passively Arm the System</u>: Turn Ignition Off, Then Open & Close a Door.

Automatic "Last Door Arming" is a <u>programmable feature</u> which allows the alarm to arm itself and, if desired, lock the doors upon arming. 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. Anytime that the ignition is turned off, and then a door is opened and closed:

- The siren will chirp one time.
- The LED Status Indicator will begin to flash rapidly.

Thirty seconds later:

- The siren will chirp one time again.
- The LED Status Indicator will begin to flash slowly.
- The starter interrupt will engage.

The alarm is now fully armed. The doors will lock at this time, but only if programmed to do so, and an optional interface must also be installed.

The system can not Last Door Arm if a protected zone is open. Should a vehicle door be opened during the arming countdown, the countdown will stop and start over again when the door is closed. "Automatic Rearming" (page 19) is a separate programmable operation similar to Last Door Arming, and should not be confused with it.

System Armed & Activated

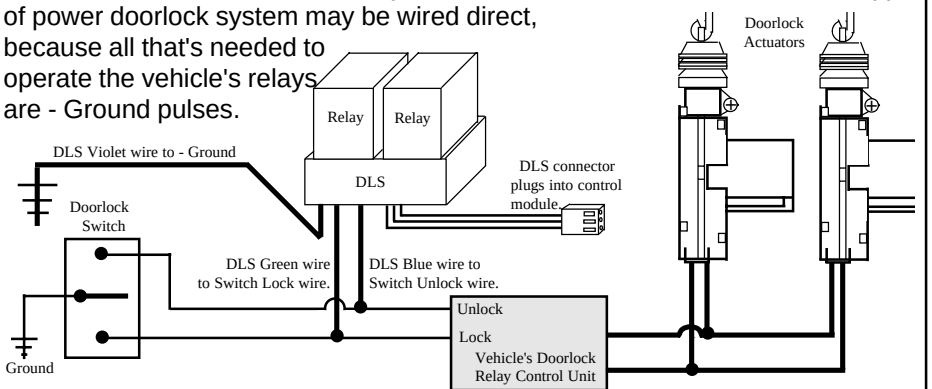
If the System is Activated:

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:

- The doors will immediately relock.
- The electronic siren, or optionally the vehicle’s horn, will start sounding.
- 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 itself, for up to six activated cycles before it resets itself and ignores the violated zone. If the programmable activated period is 30 seconds, a continuously violated zone will activate the alarm for 3 minutes total before resetting and ignoring the violated zone. If the programmable activated period is 60 seconds, the total activated time under the same circumstance would be 6 minutes. Once the system is activated, it will store a Zone Violation Code, which described on page 14.

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 doorlock control unit with built-in relays. 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.

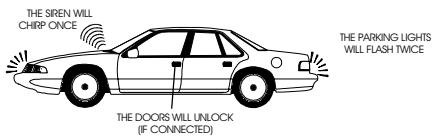


Omega sensors are available which detect shock to the vehicle and radar sensors that can detect motion inside and outside the vehicle. When adding an optional sensor, follow the installation instructions included with the sensor. After installing, route the harness and connector from the sensor to the 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.

Disarming the System

<u>To Disarm the System</u>: **Press & Release the "Disarm/Unlock" Transmitter Button.**



<u>Upon Disarm</u>:
- 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 or flash a Zone Violation code if the alarm was activated. (page 14)

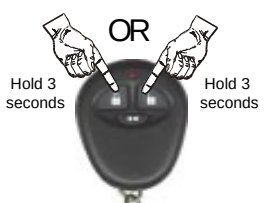
Safety Disarm: If the system is disarmed while it is activated, it will disarm, but not unlock the doors. This is the Safety Disarm feature; to unlock the doors in this situation, simply press the Disarm/Unlock Button again. Should the transmitter be

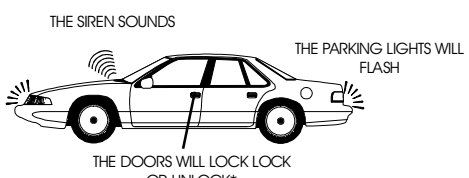
lost, damaged, or its batteries be exhausted, the Valet/Override Switch *& your vehicle's ignition key* may be used to disarm the system by performing an Emergency Override, which is explained on page 10-12.

Remote Panic Operation

Should it be needed in a threatening situation or you feel the need to attract attention, the system can be activated remotely by using the transmitter. Your system features "Enhanced Panic", which allows you to activate Remote Panic from either the "Arm/Lock" button or "Disarm/Unlock" button; the former locks the doors and the latter unlocks the doors when Remote Panic is activated.

To Activate Remote Panic: Press & Hold for 3 Seconds the "Arm/Lock" Button OR the "Disarm/Unlock" Button





Upon Activating Panic:

• The vehicle's doors will lock or unlock. (*if an optional interface is connected)

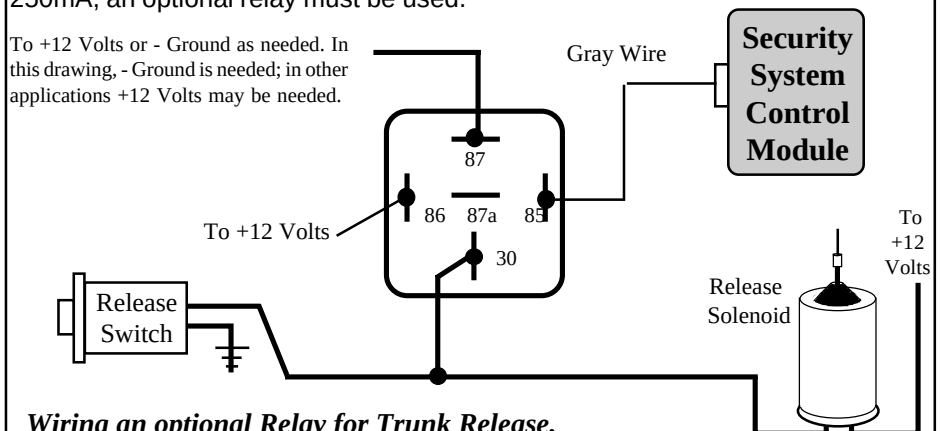
Prewired Plug-in Features

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 17/64" (6.5mm) hole must be drilled, and always check the mounting location for adequate depth. After mounting the LED Status Indicator, route its connector to the security system control module and insert it into the Red 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 18 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.

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.



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.

- The siren will sound.
- The vehicle's exterior parking lights will flash.

Remote Panic can be activated anytime, whether the vehicle's ignition is turned on or off, and 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 either the armed state (if activated by the "Arm/Lock" button) or in the disarmed state (if activated by "Disarm/Unlock").

To Deactivate Panic: **Press & Release either the "Arm/Lock" OR the "Disarm/Unlock" Button**

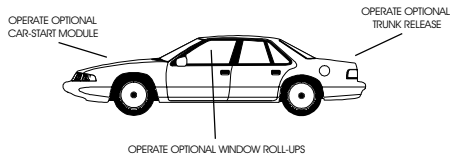
Deactivating Remote Panic from the "Arm/Lock" button results in the system being in the Armed state with locked doors. If the "Disarm/Unlock" button is used to deactivate Remote Panic the system will be in the Disarmed state, with unlocked doors.

The Auxiliary Channel

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

continued next page

<u>To Activate the Auxiliary Channel</u>: Press & Hold the Transmitter Small Button for 3 Seconds

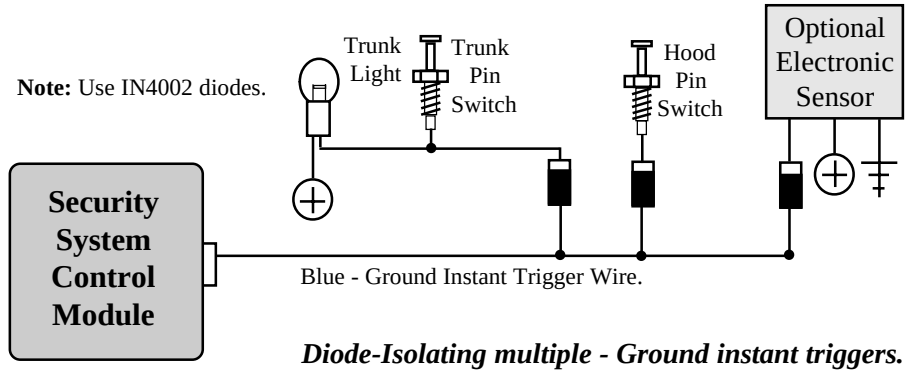


For safety, the Auxiliary Channel cannot be activated if the vehicle's ignition is "On". If the system is armed when the Auxiliary Channel is used, it will also disarm; or, there is also has a special programmable feature, Start Mode, which is designed to allow the addition of an optional remote starter module to start the vehicle while leaving the system armed (page 20-21). 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 and activated system.

the same circuit with pin switches:



Diode-Isolating multiple - Ground instant triggers.

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 Transmitter Small Button is depressed, for up to 15 seconds. Operating this output can also disarm the system.

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

Valet Mode prevents any active arming, from the transmitter, or passive arming, as in Last Door Arming. 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, loaning others your vehicle, maintenance, valet parking, washing, etc. The convenience features such as keyless entry, the auxiliary channel, and ignition-activated doorlocks can still be operated.

To Enter Valet Mode: (System MUST be Disarmed) **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.

The vehicle's ignition may be "On" or "Off" when entering Valet Mode.

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.

Again, the vehicle's ignition may be "On" or "Off" when exiting Valet Mode.

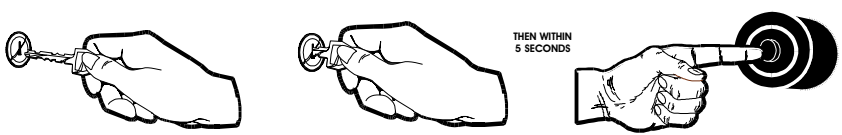
To Disarm the Security System Without The Transmitter:

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.

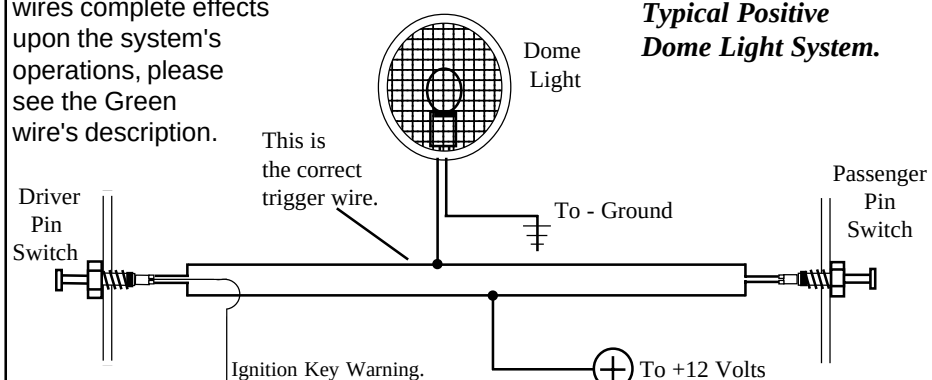


Note: When the Valet/Override Switch is pressed, when the system disarms releasing the switch will place the system in standby mode. Holding the switch for 3 seconds further after the activated system disarms will place the system into Valet Mode, preventing further arming. Once overridden, the disarmed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

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 to 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.

Typical Positive 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.

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 system is Last Door Arming or Automatic Rearming.

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. This indication can be from 1 Flash /pause up to 4 Flashes /pause, as the system can be operated by just one, or as many as four remote transmitters. A related feature, Unauthorized Transmitter Alert, warns you of recent transmitter programming, and protects your system from unauthorized transmitters being coded to operate it your without your knowledge.

Zone Testing & Zone Violation: Are related visual indicators, via the LED Status Indicator; the first shows currently violated zones while the system is disarmed, and the second, should the system be activated, shows which zone caused the activation after the fact. These are the codes for both operations:

1 Flash /Pause = is the current sensing zone circuit.
2 Flashes /Pause = is the hood or trunk zone circuit.
3 Flashes /Pause = is the door zone circuit.
4 Flashes /Pause = is the sensor zone circuit, including Prewarning Detection.

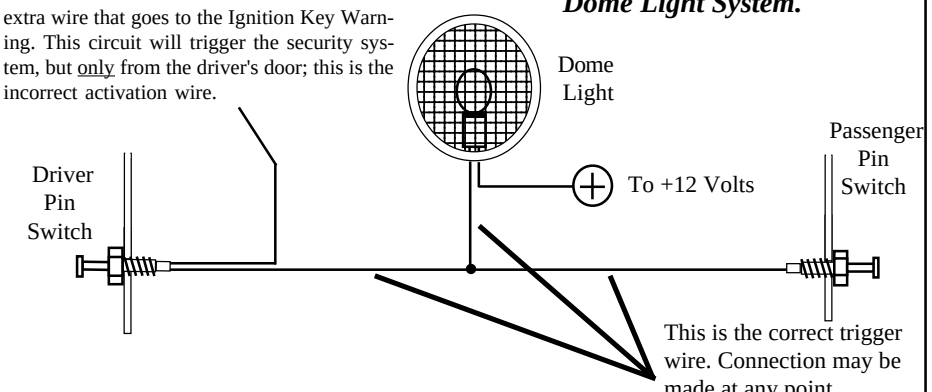
Zone Testing operates while the system is disarmed, and shows if a protected zone is in a violated state. In using Zone Testing, for example, while the system is disarmed, whenever a door is open the LED Status Indicator will flash 3 times between pauses. Should multiple protected zones be violated at the same time, all will be shown in sequence.

Zone Violation operates if the system has been armed, and then activated. During the activation, the LED Status Indicator will flash the Violation, and then revert to the normal slow flash when the system rests itself, then, upon disarming, the LED will change to flash the Violation Code, and will continue to do so until the ignition switch is turned "On". Should multiple activations occur during a single armed period, up to four Zone Violations will be shown upon disarming.

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 which will be suspended if a door is reopened.

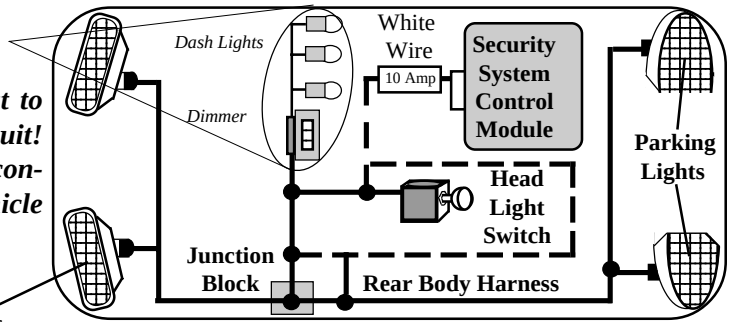
Typical - Ground Type Dome Light System.

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.



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!



Red/White Wire - (+ or - Flashing Light Input): This wire supplies + 12 Volt or - Ground to the White wires for when the system flashes the parking lights. **This wire is pre-connected to +12 Volts in the main wiring harness- if connection to - Ground is needed, cut and connect as needed.**
CONNECTION: Connect to + 12 Volt or - Ground as needed; this is determined when testing the vehicle's parking light wire.

Auxiliary Sensor & Prewarning

Auxiliary Sensor: 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 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 prewarning circuit.

Bypassing the Auxiliary Sensor: If desired, the system may be armed, but without the auxiliary sensor being part of the system's protection. Upon arming, immediately after the single arming confirmation chirp, simply press and release the Transmitter Small Button; the system will chirp the siren once again to confirm that the sensor is bypassed. When the sensor has been bypassed, it will not activate the alarm, nor will it cause a Prewarning Detection.

Prewarning Detection: This circuit requires connection to a dual zone sensor or detection device. When the sensor's prewarn zone is triggered the security system will respond by siren burst followed by a series of chirps, which altogether lasts about 2 seconds.

Silent Arming & Disarming

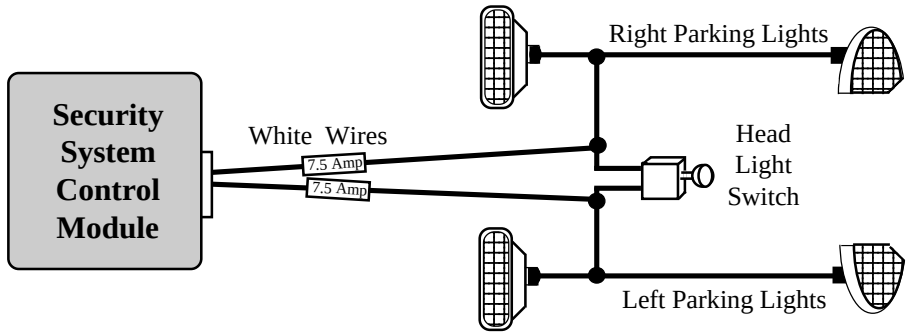
Should you wish to arm or disarm the system without the confirmation chirps, simply press and release the Transmitter Small Button twice. Using the Silent Arm/Disarm operation simply reverses the armed/disarmed status of the security system- if the system is disarmed when the double Transmitter Small Button signal is received, it arms; should the system be armed when the double signal is received, it will disarm.

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".

First Level: Anti-Carjacking activated using the transmitter:
If programmable feature #14 is "On", the Anti Car-Jacking operation may be activated by pressing and holding the transmitter's Disarm/Unlock Button and Small Button together for 4 seconds while the ignition is "On".

Connecting directly to Left & Right Parking Lights.



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

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 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

Second Level: Anti-Carjacking activated by a door:
If programmable feature #15 is "On", the system will initiate the Anti-Carjacking operation every time a vehicle door is opened and closed while the ignition is "On".

Third Level: Anti-Carjacking activated by the ignition:
If programmable feature #16 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:**

First Step: Turning the vehicle's ignition "Off".

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

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

Programmable Features

The system has 18 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 Arm/Lock Button turns the feature "on"; pressing the Disarm/Unlock Button turns the feature "off".

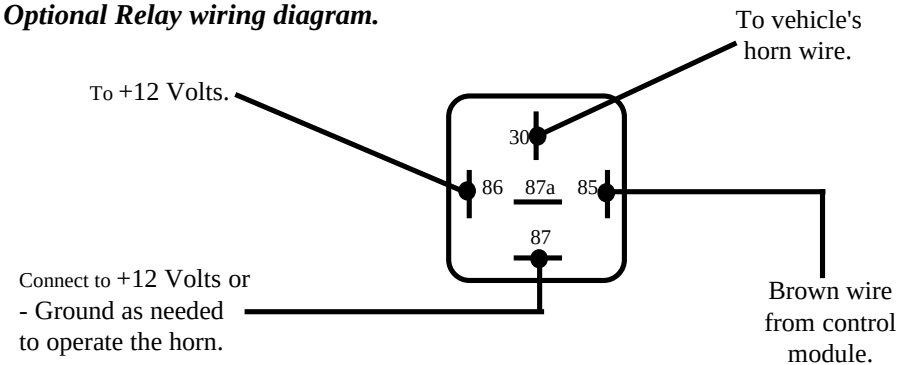
• = Default Factory Setting

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

Optional Relay wiring diagram.



the horn switch. Typically, a "clicking" sound from the vehicle can 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 vehicle; use a digital multimeter (DMM) to identify the horn wire first.* ***Probing an***

pins of the 3-pin standup; this is the “H”-marked side of the standup. The standup and jumper are shown in the Wiring Diagram Overview on pages 26-27. Upon completion of all wiring connections, consult the Operator’s Guide section of this manual and program feature #7 for the “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 if “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 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

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 Arm/Lock Button for the Steady Siren setting or press the Disarm/ Unlock Button for the Pulsed Horn setting.

8. Ignition Controlled Door Lock: (•On / Off)
   - Configures the system to lock the vehicle's doors when the ignition is turned on. The following feature controls unlocking, and these features will still operate when the system is in Valet Mode.

9. Ignition Controlled Door Unlock: (•On / Off)
   - Configures the system to unlock the vehicle's doors when the ignition is turned off.

10. 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 Arm/Lock Button for the 30 Second setting or press the Disarm/Unlock Button for the 60 second setting.

11. 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.

12. 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.

13. 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

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, such as the battery, for example, to access the siren. This greatly reduces the "defeat-ability" 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 shorting jumper next to the main wiring harness marked "H/S". Remove this jumper, and reinstall it on the two left

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 by a standup and jumper, and it can be programmed to be a steady output or pulsed output in the Features Programming Mode. When this output is 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 siren configuration is programmed as steady, and the horn configuration is programmed as pulsed.

Using The Siren: Confirm that the control module is configured for its "as shipped" configuration of +12 Volts. The control module has 3-pin standup with shorting jumper next to the main wiring harness connector; ensure that the attached jumper is installed on the right two pins, in the "S"-marked position. This standup and jumper are shown in the Wiring Diagram Overview on pages 26-27.

units. When this feature is utilized, instead of disarming the system when the Auxiliary Channel is activated, the system does not disarm. Additionally, some of the system's sensory zones are bypassed to prevent false activation 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 Disarm/Unlock Button for Start Mode or the Unlock/Disarm Button for Disarm.

14. Transmitter Activated Anti-Carjacking: (On / •Off)
    - This feature's operation is explained on pages 16-17.

15. Door Activated Anti-Carjacking: (On / •Off)
    - This feature's operation is explained on pages 16-17.

16. Ignition Activated Anti-Carjacking: (On / •Off)
    - This feature's operation is explained on pages 16-17.

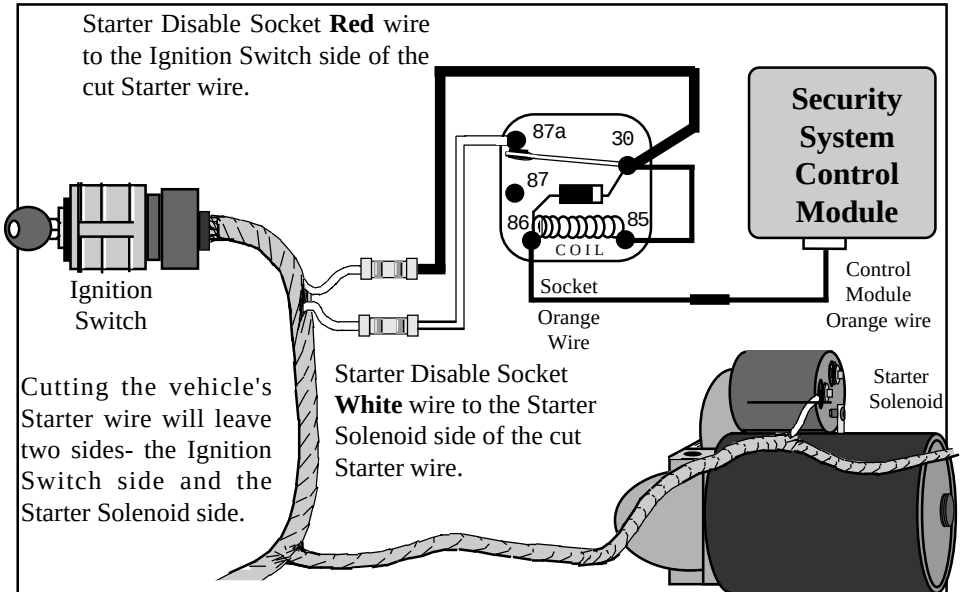
17. Confirmation Chirp: (•On / Off)
    - This feature allows the arm and disarm confirmation chirps to be turned off.

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.

18. 1 or 2 Button Arm/Disarm: (1 Button/•2 Button)
- This feature controls how the transmitter operates the security system. Having this feature on the “2 Button” setting has the system operating in a "dedicated button for arming and dedicated button for disarming" fashion. The "2 Button" setting is the correct one to be used with the included transmitters. If this feature is set for “1 Button”, a single transmitter button will alternate arming and disarming the system with each press of that button. This type of operation is also described as a "single button toggle" for the arming and disarming of the system. Optional transmitters are available for best use of this feature. For your reference, if this feature is changed to the “1 Button” setting, the included transmitters’ Arm/Lock Button will arm and disarm the system, the Disarm/Unlock Button will operate the Auxiliary Channel, and the Small Button will not operate anything.

How to Program Features

The 18 programmable features, explained in the previous pages, are very easily programmed by a procedure using the ignition key, Valet/Override Switch, and



Configuring a Starter Disable using the Socket & Relay.

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.

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 siren burst, then a single chirp confirming entry to Features Programming Mode.

Step 3: Within 7 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 siren chirps.

Step 4: After the system acknowledges the feature to be programmed, press either the Transmitter Arm/Lock Button to turn the feature on (the system's response will be 1 chirp), or the Disarm/Unlock Button to turn the feature off (the system's response will be 2 chirps).

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

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, which can be 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 siren burst to confirm Transmitter Programming Mode.

Step 3: Within 10 seconds, press the Small Button on each transmitter to be programmed. The response to each is 1 and 1, 1 and 2, etc., chirps.

If 17 seconds expire without any programming activity the system will automatically exit Transmitter Programming Mode. Turning off the ignition switch will also exit the system from Transmitter Programming Mode; in either case the system signals the exit with 1 long siren chirp.

Unauthorized Transmitter Alert: For the next 48 hours after transmitter programming, every time the vehicle's ignition is turned "On", the system will emit a series of siren chirps, and the LED Status Indicator will show the number of programmed transmitters for 90 seconds instead of 10 seconds. As the instructions above shows, programming extra transmitters to any vehicle security system is

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".

Wiring Connections

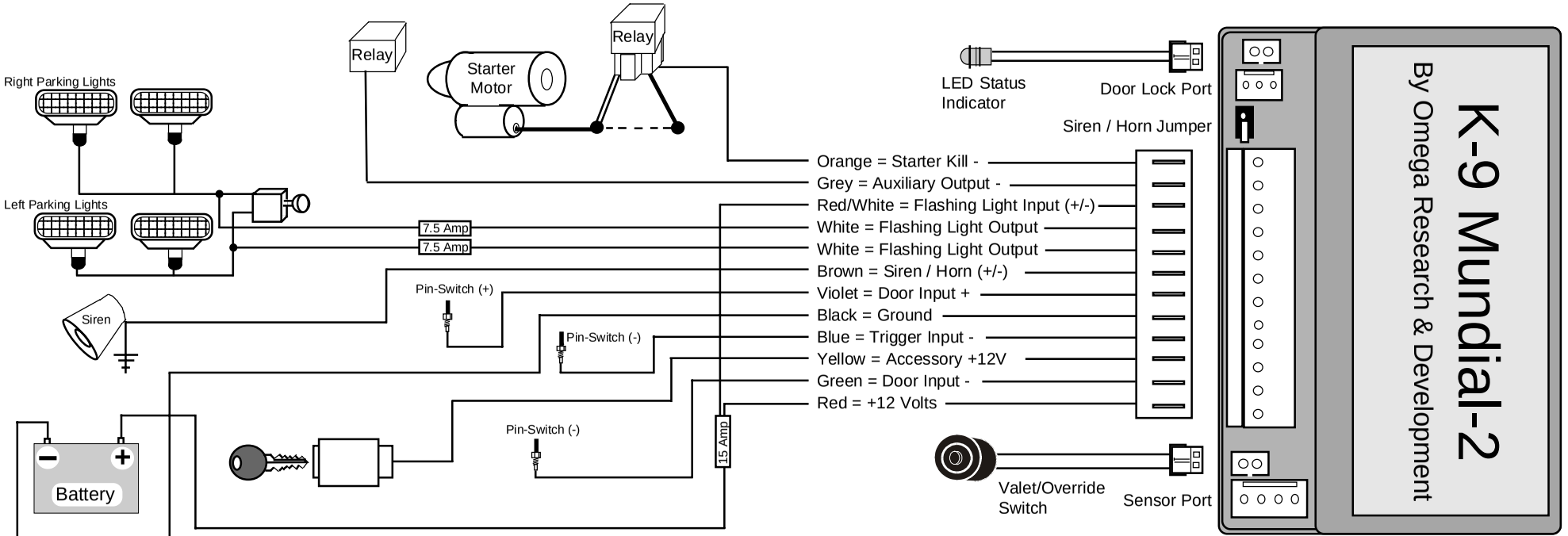
Black Wire - (- Ground Input): The Black wire's function is to supply - Ground, which completes the circuitry and allows the security system to operate.
CONNECTION: Using the correct sized crimp-on ring terminal, connect the Black wire to the metal frame of the vehicle, preferably using an existing machine-threaded 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,

easy; the exclusive patented Unauthorized Transmitter Alert feature protects against someone programming their own transmitter to operate your system.

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.


Right Parking Lights
Left Parking Lights
Relay
Starter Motor
Relay
7.5 Amp
7.5 Amp
Siren
Pin-Switch (+)
Pin-Switch (-)
Pin-Switch (-)
15 Amp
Battery
Orange = Starter Kill -
Grey = Auxiliary Output -
Red/White = Flashing Light Input (+/-)
White = Flashing Light Output
White = Flashing Light Output
Brown = Siren / Horn (+/-)
Violet = Door Input +
Black = Ground
Blue = Trigger Input -
Yellow = Accessory +12V
Green = Door Input -
Red = +12 Volts
LED Status Indicator
Door Lock Port
Siren / Horn Jumper
Valet/Override Switch
Sensor Port
K-9 Mundial-2
By Omega Research & Development