COMPREHENSIVE INSTALLER TECHNICAL GUIDE

For
Models:

EG-1200^{ATV}
EG-1400^{ATV}
EG-1600^{ATV}
Includes Model EG-1800^{ATV} Supplement

EG-1800^{ATV} Supplement Starts On Page 44

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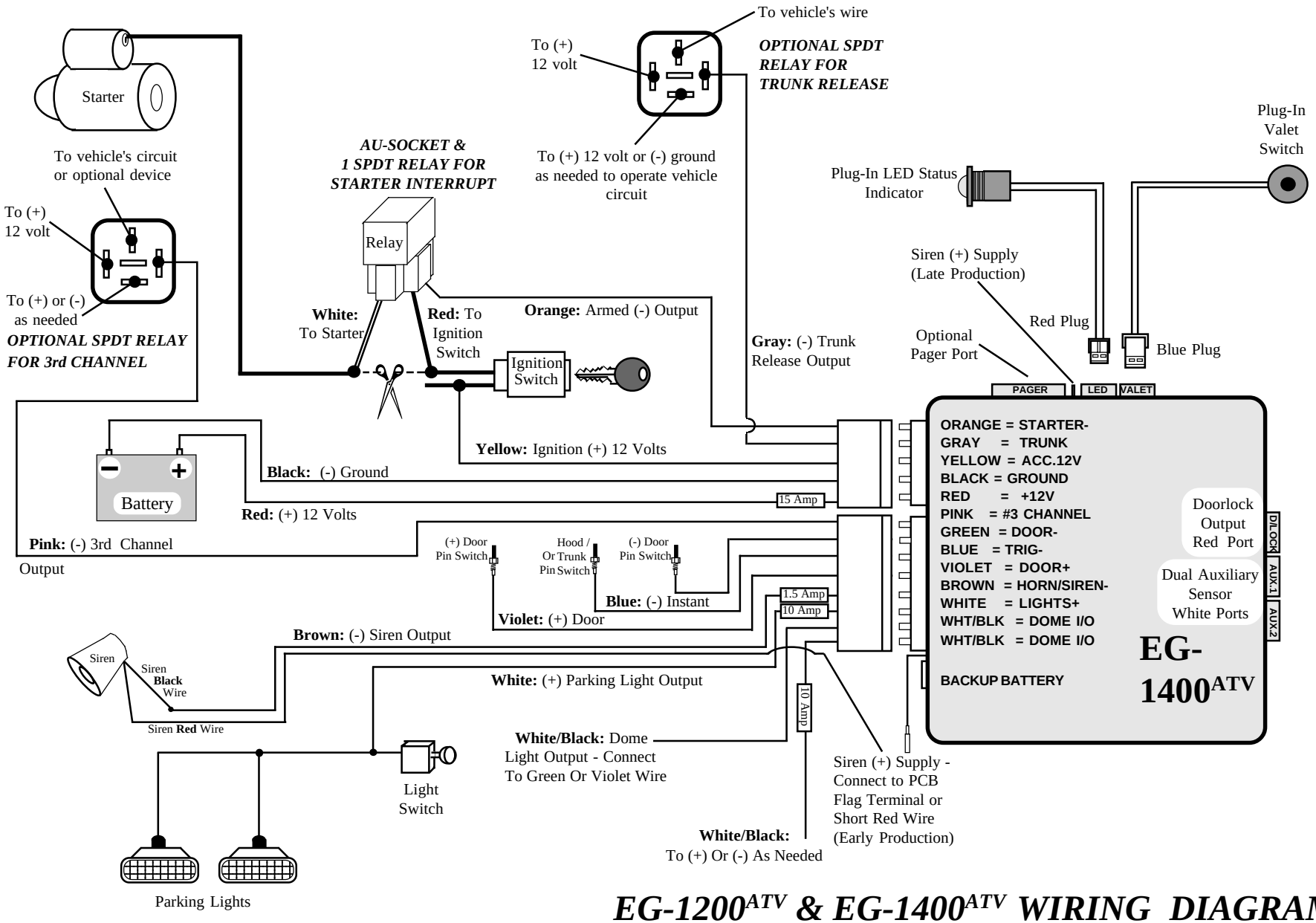
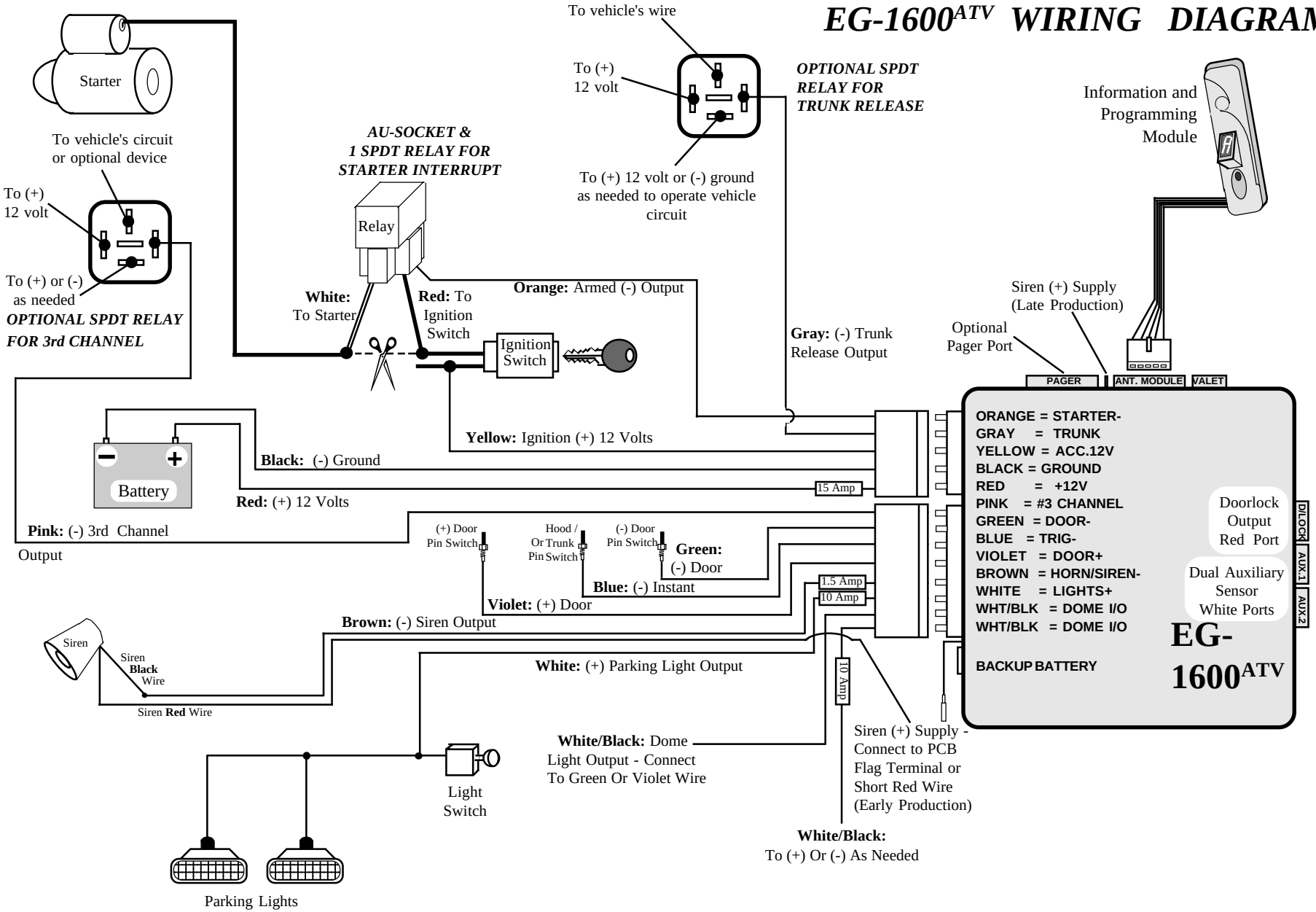


EG-1200ATV & EG-1400ATV WIRING DIAGRAM

EG-1600ATV WIRING DIAGRAM



Wiring Connections - 5 Wire Connector

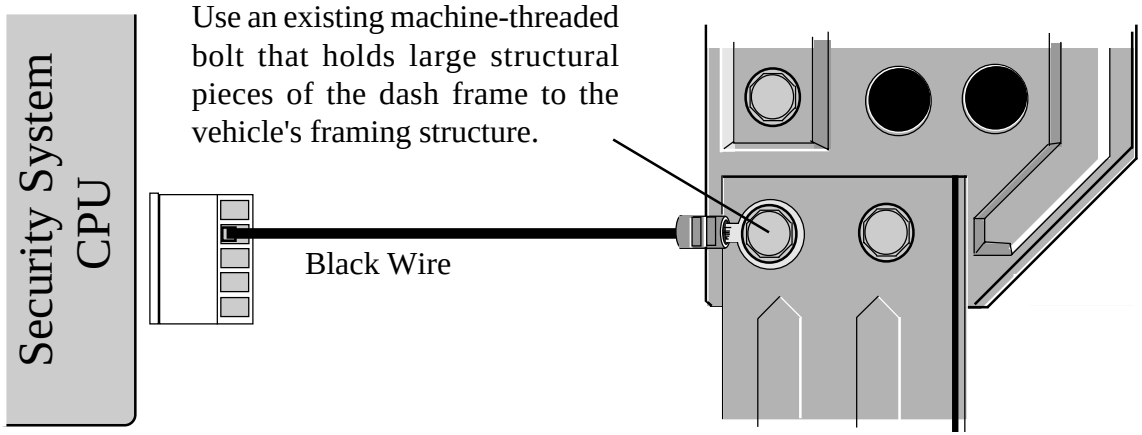
Chassis Ground **Black Wire**

The Black wire's function is to supply chassis ground to the CPU (Central Processing Unit or control module) for the security system's operation. We recommend that this wire be connected before any of the security system's other wires.

CONNECTION: If you are using an Omega Research and Development Quick Interconnect Harness, ground for the Black wire may be provided from an existing ground circuit within the vehicle or the Black wire may have a ring terminal already attached. A Quick Interconnect Harness is an adapter wiring harness which plugs into an existing pair of the vehicle's connectors, with circuits needed for the security system branching off to a connector which plugs into the system's CPU. The Quick Interconnect Harness allows an incredibly quick, accurate and clean installation. If ground is not provided through the Quick Interconnect Harness, follow these steps:

Using the correct sized soldered or crimp-on ring terminal, securely connect the Black wire to the metal structure of the vehicle, preferably using an existing machine-threaded fastener. The battery's negative post is a very poor choice for a grounding point due to the differences in the CPU and vehicle wire and terminal sizes, and because of the very corrosive environment around the battery. Make sure that the Black wire's ring terminal 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. The security system's CPU should be given its own grounding point (a *dedicated* ground). Never consider simply splicing the CPU Black wire into an existing "ground" wire, and avoid grounding to sheet metal unless absolutely necessary.

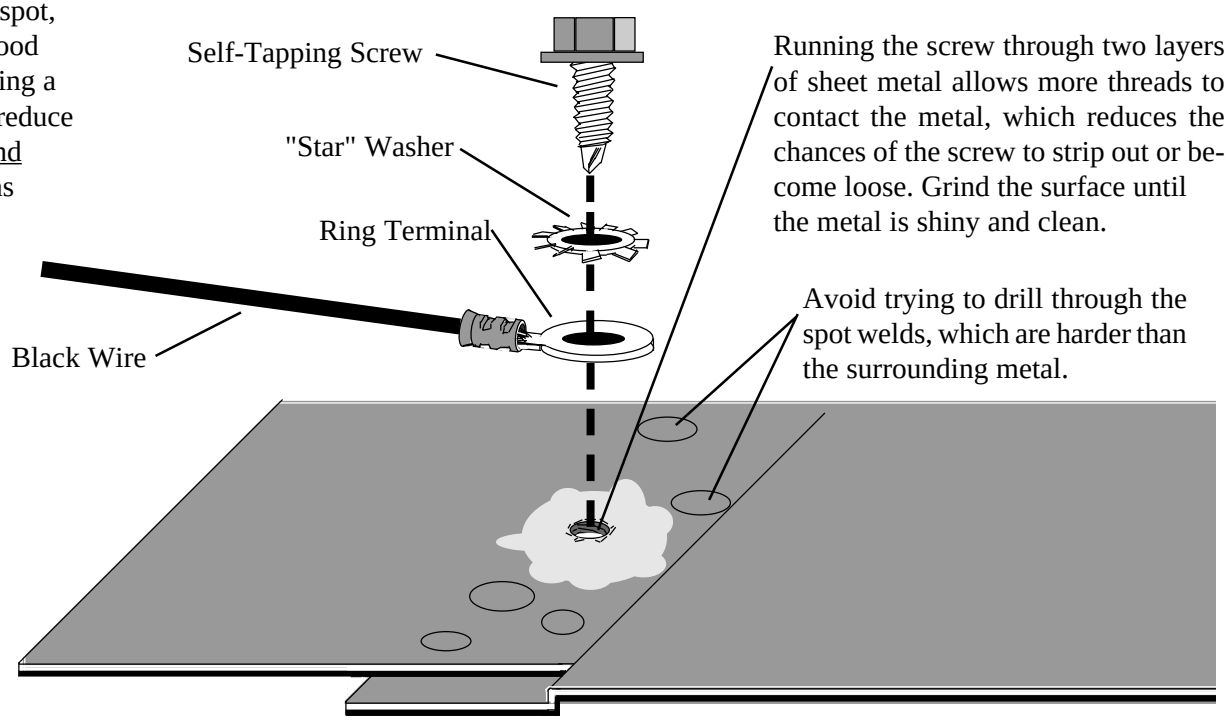
Grounding The Black Wire To An Existing Bolt.



Troubleshooting Tip: If the Black wire has a poor ground connection, the system can find partial ground through the wires that are connected to other circuits, but the system will not function correctly, making you think that you have a defective CPU. One example of this is when the system is armed, but the siren sounds with a low volume. The CPU is trying to ground itself through the siren instead of through its normal Black wire, which causes the low siren output. The system can partially operate when the Black wire is not properly grounded, so you would never suspect a poor ground wire connection. In some cases the security system could arm and disarm properly -but not function correctly otherwise.

In some cases, however, grounding to sheet-metal may be the only choice. To properly use a sheet-metal screw, locate a hidden area where two of the vehicle's sheet metal panels are overlapped and welded together. After ensuring that there is adequate depth behind this spot, drill an appropriate-sized hole. A Drill Bit or a good quality Self-Tapping Screw may be used. Wrapping a length of adhesive tape around the Drill Bit will reduce excessive Drill Bit penetration. At this point, grind the surface of the metal around the drilled hole, as the goal is a bright, clean contact area for the ring terminal. A Carbide Burr Bit or a Mandrel and Cut-Off Wheel may be used in a Drill or Die Grinder to accomplish this quickly. ***Caution:*** *Use proper eye protection!* Since the screw is being run through two layers of metal, some thread cutting must occur. A Screw-gun or Cordless Drill is very handy for this operation, as the screw may have to be ran in and reversed several times. Once the screw can be fully and tightly threaded into the hole, the star washer and a ring terminal are put on the screw, and it is securely tightened. A good practice to increase the longevity of the chassis ground connection is apply a protecting coating of silicone sealant over all of the parts.

Grounding The Black Wire To Sheet Metal.



Antenna Wire (EG-1200^{ATV} & EG-1400^{ATV}) **Black Wire**

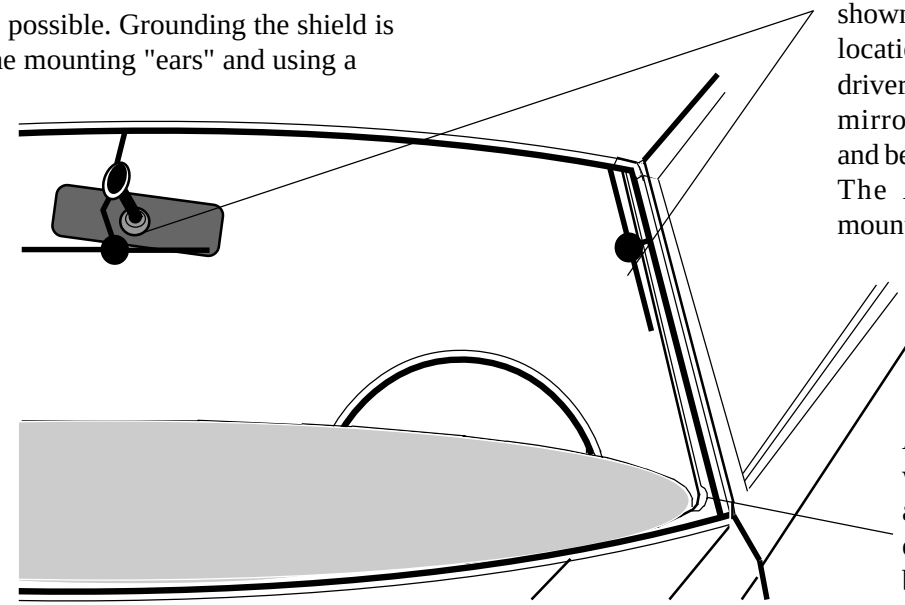
Note: The Black wire *attached to the control module* is the antenna wire. Do not connect this wire to anything or your transmitter's range will be reduced or eliminated. Vehicle security systems which are operated by Radio Frequency (RF) must comply with the Federal Communications Commission's (FCC) Rules part 15, which states that this device must not cause harmful interferences to other electronic devices and that the security system must accept any interference from other devices, even if this causes undesirable operation of the security system. This means that, at times, an RF-operated security system

Black Chassis Ground Wire
Black Antenna Wire

may suffer noticeably less transmitter range. In the severest of circumstances, this interference may cause the system to operate erratically, which may include arming and disarming or going into the panic mode due to the interference. This extreme form of interference, fortunately, is quite rare, as the FCC carefully regulates the radio frequencies that are assigned to, and transmitting output power of RF devices.

Interference comes from many sources, including some which occur naturally. Any device which is powered by electricity or which has electronic circuitry can produce electromagnetic or RF interference. Sometimes difficulty is encountered from electrical components and circuits within a vehicle, or by mounting two receivers too close together. In these instances, shielding the system's CPU to block the interference may solve the problem. This is easily accomplished by wrapping the CPU in either the flexible metal shielding designed for automotive audio noise problems or aluminum foil tape and grounding the shield. Care should be taken to avoid shorting any of the CPU's connectors or terminals and to ensure that as little of the antenna wire is blocked by the shielding as possible. Grounding the shield is accomplished by molding the material around one of the mounting "ears" and using a small bolt and nut to secure a ground wire with two ring terminals between the CPU and chassis ground.

There are several ways to increase the effective range of the security system's transmitter. The most basic approach is to remember to route the Black antenna wire as high in the vehicle as possible, avoiding metal as much as possible. The metal structure of the vehicle blocks the transmitter's RF signal, so if the CPU is mounted deep into the vehicle, such as in a kick panel, for instance, the transmitter's operating range will be limited unless the antenna wire is routed high and away from metal. On many cars, the "A" pillar interior trim panel overlaps the windshield. Tucking the antenna wire behind this trim is an excellent method of obtaining maximum range. Other options include taping the wire to the bottom of the dash pad or routing it below the rear package shelf panel. The antenna wire may also be extended, with the maximum recommended length added to the existing antenna wire being 26 inches (which may be doubled) of 22 gauge wire. It should be remembered, however, that too much transmitter range can also produce some undesirable operations. Such a security system is more likely to be accidentally disarmed, especially when the operator is too far away to hear the siren's confirmation chirps. Extreme operating range will also make the system's receiver more susceptible to extraneous interference. Adequate operating range of 50-100 is acceptable, and it is normal for the range to be greater in rural areas as compared to urban areas. The fact that range is often very poor in downtown areas, is the result of greater amounts of RF interference, compounded by the tendency of such signals to be reflected off the tall buildings.



The optional AU-ANT extended range antenna is shown mounted in two good locations: blocked from the driver's view by the rearview mirror (avoid sunshading) and beside the "A" pillar trim. The AU-ANT should be mounted as high as possible.

An extended antenna wire can be routed around or behind the dash pad and concealed behind the "A" pillar interior trim panel.

Antenna Options For Better Range.

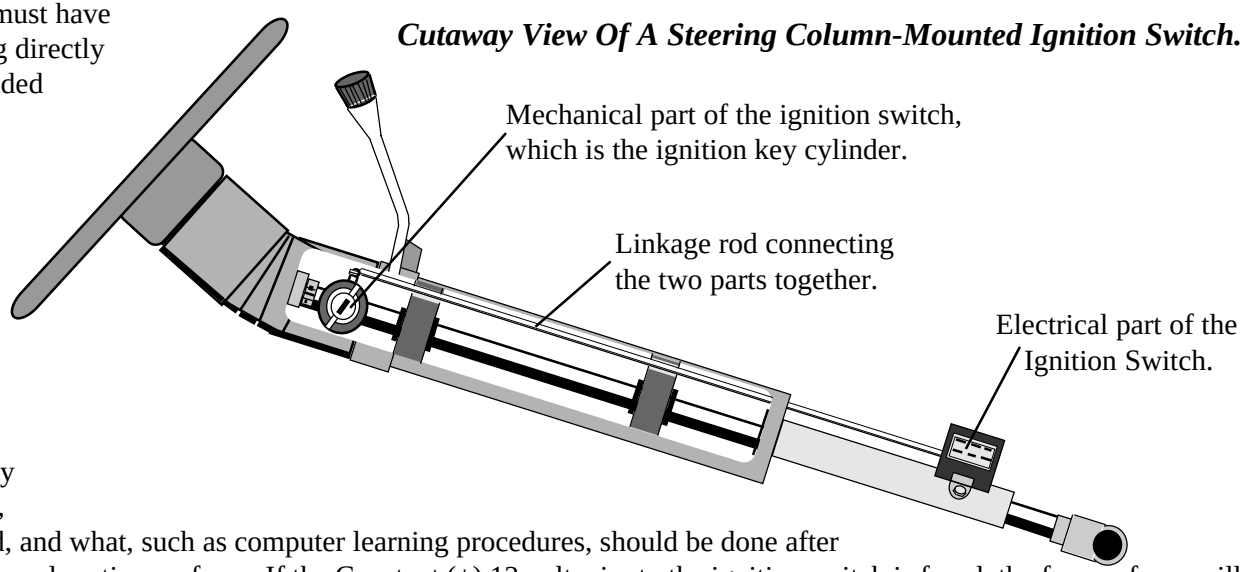
Constant Power Red Wire

The Red wire supplies constant (+) 12 volts for the security system's operation, which includes supplying the built-in relay contacts for flashing the parking Please note that when (-) ground and (+) 12 volts is first applied to the control module, the system will revert to the state it was last in.

CONNECTION: This connection, like the Ignition Power and Starter Disable, is best made as close to the ignition switch as possible. We urge you to use an Omega Research and Development Quick Interconnect Harness. A Quick Interconnect Harness is an adapter wiring harness which plugs into an existing pair of the vehicle's stock connectors, with circuits needed for the security system branching off to a connector which plugs into the security system. If you're not using a Quick Interconnect Harness, follow the remaining text.

Caution: *Be aware of, and avoid, any airbag circuitry. Due to the fact that an installer will not be in a normal, upright seated position, severe injury may occur in an accidental airbag deployment. Also, use of a volt-ohm meter or multimeter instead of a testlight will greatly reduce the risk of an accidental airbag deployment.* The target wire will have (+) 12 volt positive at all times and in all ignition switch positions. Another location can be at the constant (+) 12 volt wire *behind* the fuse block or the fuse/junction block. *Never* just insert this wire behind a fuse. The connection location must have constant (+) 12 volt, 15 amp capacity. Connecting directly to the battery's positive terminal is not recommended due to the corrosive environment. ***Caution:*** *The Constant (+) 12 volt wire at the ignition switch may not be fused! Extreme care must be taken not to short this wire!* If you plan on disconnecting the battery, *always* check the car's owner manual for any cautions or special procedures involved when disconnecting the vehicle's battery. The complexity of a modern vehicle's engine management and body computer systems, in addition to the presence of air bag systems, may have an effect on how the battery is disconnected, how long it is disconnected, how it is reconnected, and what, such as computer learning procedures, should be done after reconnecting. Also check the vehicle's owner's manual section on fuses. If the Constant (+) 12 volt wire to the ignition switch is fused, the fuse or fuses will be identified in that section of the owner's manual. Generally, older cars do not have fuses protecting the Constant (+) 12 volt wire(s) to the ignition switch, but rather, in most cases, a fusible link. Most newer vehicles, however, do have a fuse, usually in the form of a Maxifuse. This fuse, or fuses, are normally identified as "Ignition Switch" and are usually located in the engine compartment, housed in what may be described in the owner's manual as a "Underhood"

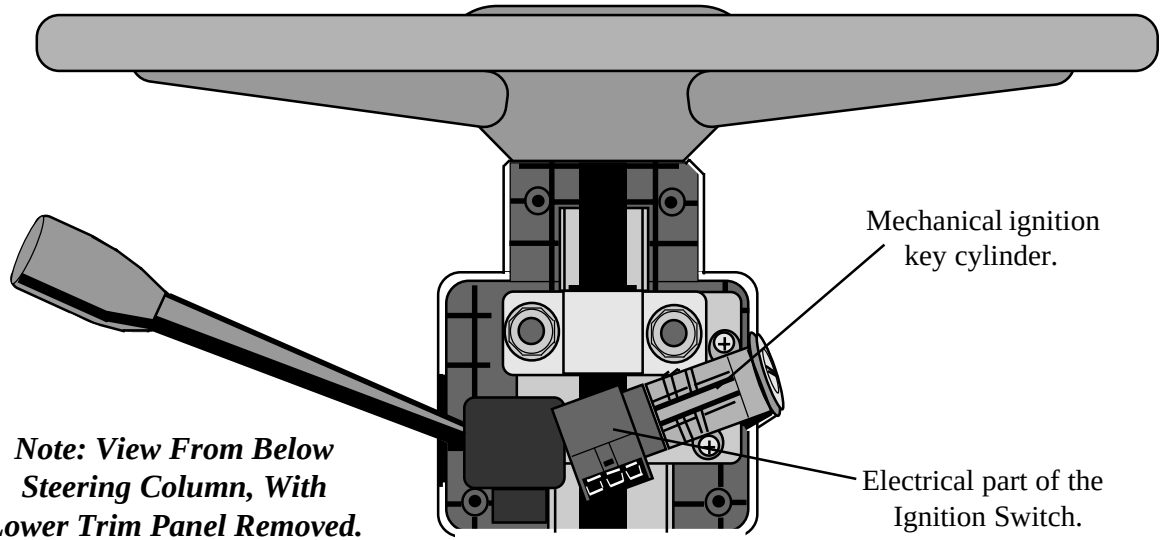
Cutaway View Of A Steering Column-Mounted Ignition Switch.



or "Engine Compartment" "Fuse Box", "Fuse/Relay Block" or "Electrical Center". ***Caution:*** *After removing an ignition switch fuse or otherwise turning off battery voltage to the ignition switch always use your voltmeter to verify that no voltage is present!*

Access to the ignition switch harness on most cars is obtainable by removing the underdash "hush panels" and/ or the lower dash trim panels. On some vehicles, notably General Motors and Ford/Lincoln/Mercury products, the *electrical* part of the ignition switch is mounted on top of the steering column, near its base. This switch is connected to the *mechanical* part (where the key is inserted) by a linkage rod. Other vehicles, such as Chrysler, Dodge, Plymouth and the vast majority of imports, the electrical and mechanical parts are together, which means that the ignition switch is high in the steering column, and that the lower steering column trim may need to be removed. If soldering this connection, as recommended, solder quickly with the proper iron and be aware that a heat sink may be needed to prevent excess heat in the wire from damaging the ignition switch.

Combination Ignition Key Cylinder And Ignition Switch.



Note: View From Below Steering Column, With Lower Trim Panel Removed.

Ignition Power — Yellow Wire

The Yellow wire is an ignition input to the security system. With the ignition switch “off”, the Yellow wire has no voltage, and the following can occur:

* The Zone Test feature will operate if the security system is not armed.
* The security system can be armed, either actively by the transmitter or passively by Last Door Arming.
* The Valet Switch will still function if the security system is disarmed.
* The Valet Switch will not disarm the system if it is in an armed or triggered condition.
* If a door is not open, when the ignition switch is turned "off" the security system will unlock the doors if programmed to do so.
* If the system is in Valet mode, when the ignition switch is turned "off", the siren will chirp once as a reminder.

When the ignition key “on”, the Yellow wire has voltage, and the following can occur:

* Automatic Transmitter Verification will operate when the ignition switch is turned "on".
* The security system cannot become armed, either actively from the transmitter or passively from Last Door Arming.
* The Valet Switch can be used to disarm an armed or triggered security system within 5 seconds of turning the ignition switch "on".
* If the system has a Zone Violation code stored, turning the ignition switch "on" clears the code.
* Remote trunk release will not operate unless a door is open.
* If the parking lights are on for the 30 second period as a result of disarming the system, if the ignition is turned "on" during this time, they will turn off.

CONNECTION: This connection, like the Constant Power and Starter Disable, are best made as close to the ignition switch as possible. If not using a Quick Interconnect Harness, follow these steps:

At the ignition switch wiring harness, locate 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. When the correct wire is located at the ignition switch harness, securely splice the Yellow wire to it. Not using the primary ignition wire can cause problems with features such as Last Door Arming Doors Lock At Ignition "On", and Unlock At Ignition "Off".

Grounded Output for Starter Interrupt — Orange Wire

The Orange wire is for a starter disable socket and relay. The function of this wire is to provide a constant 500ma ground output whenever the security system is armed. This ground output supplies one side of the relay's coil. The other side of the relay coil will be supplied with positive voltage from the ignition switch, but only if the ignition switch is turned to the "start" position. If this occurs, the coil will energize, triggering the relay, which in turn will open the starter circuit. The starter interrupt prevents the vehicle from starting only if the security system is armed (including while the security system is triggered) and will draw current from the vehicle's electrical system only if an attempt is made to start the vehicle.

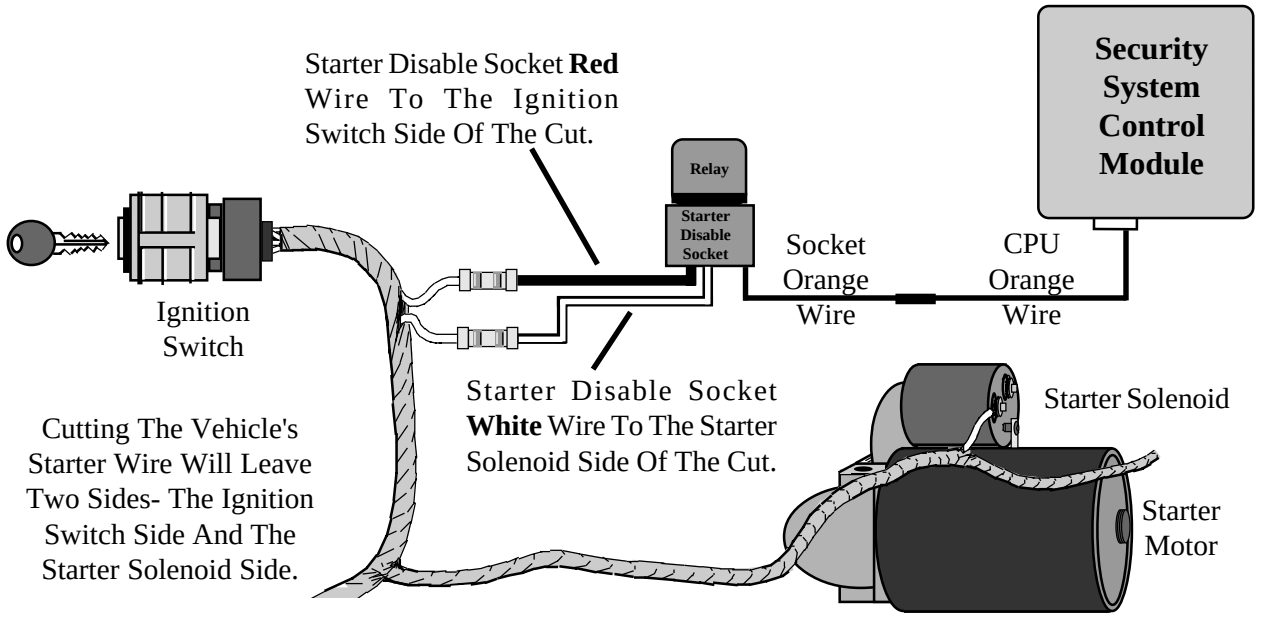
CONNECTION: This connection, like the Constant Power and Ignition Power circuits, are best done as close to the ignition switch as possible. We urge you to use an Omega Research and Development Quick Interconnect Harness. A Quick Interconnect Harness is an adapter wiring harness which plugs into an existing pair of the vehicle's stock connectors, with circuits needed for the system branching off to a connector which plugs into the security system. If you're not using a Quick Interconnect Harness, follow these steps:

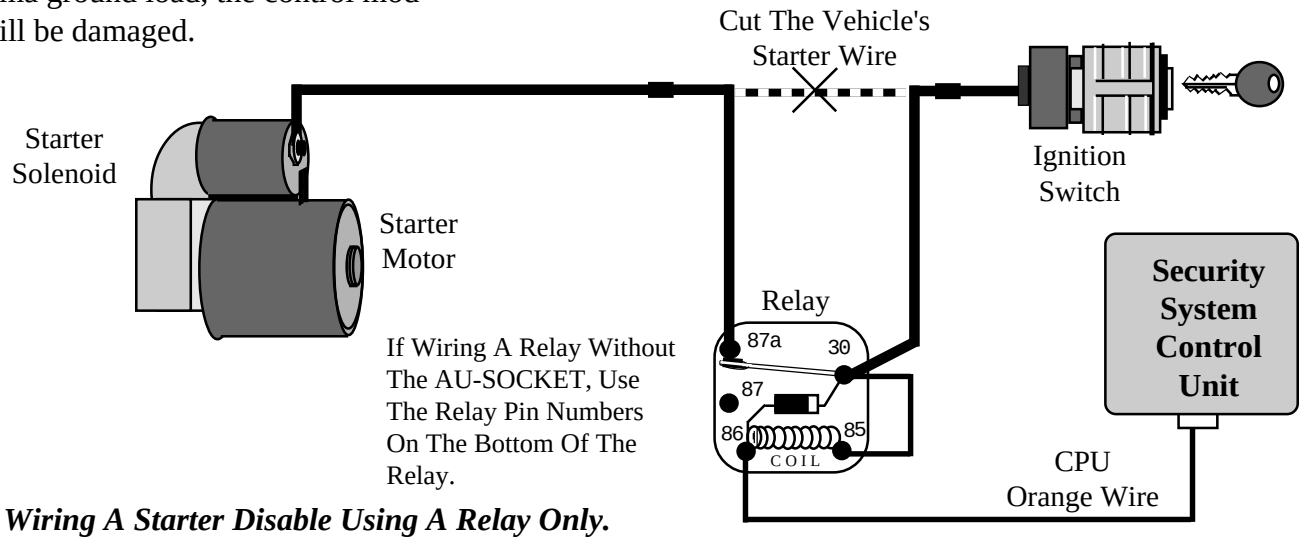
To interrupt the vehicle's starter circuit, the starter wire must be located and cut. We recommend that this be done as close to the ignition switch as possible. Use a voltmeter, not a test light, to find the correct wire. This wire runs from the ignition switch to the starter solenoid. ***CAUTION!*** *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 expensive onboard 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. Now that the starter wire has been cut, there are two sides - the ignition switch side and the starter solenoid side. 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 you make good, solid electrical connections as this 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 control module will be damaged.

Wiring A Starter Disable Using The AU-SOCKET And One SPDT Relay.





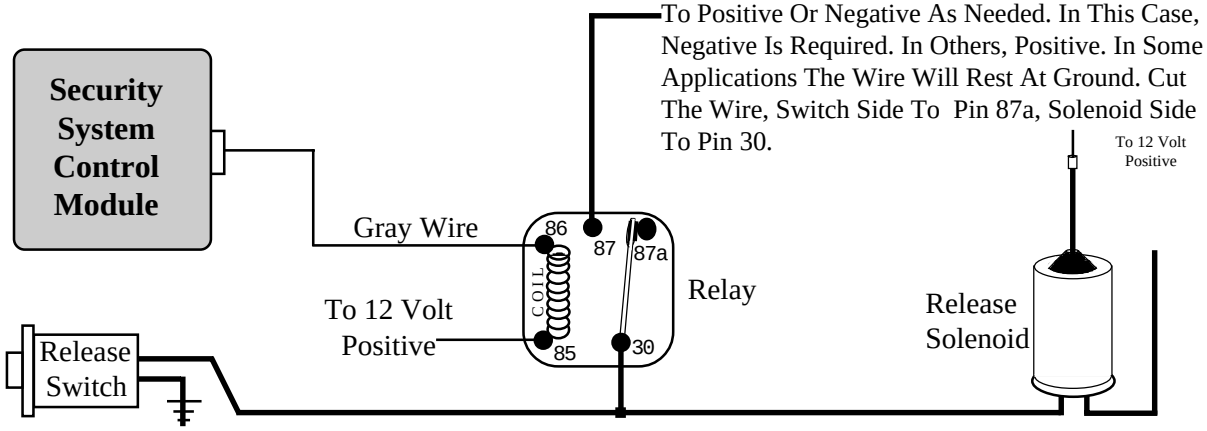
Wiring A Starter Disable Using A Relay Only.

Although a relay can be wired without using the starter disable socket, we recommend using the socket. Besides being easier and faster than wiring a relay, the socket includes a diode that prevents the relay from inductive lockup, which will prevent the vehicle from being started. If wiring a relay without the socket, use this diagram.

Trunk Release Output — Gray Wire

The function of the Gray wire is to provide an optional output, the primary use being trunk release. For model EG-1200^{ATV}, EG-1400^{ATV} and EG-1600^{ATV} press and hold the transmitter's small center button for three seconds to activate this output. When activated the Gray wire will provide a 250ma ground pulse for 1 second; or, stay grounded for as long as you depress the transmitter button(s), for up to 15 seconds. Also, the security system can be programmed to automatically disarm, chirp the siren twice, unlock the doors and turn the lights on for 30 seconds. The remote trunk release feature can be operated anytime with the ignition switch is "off", or it may also be operated while ignition switch is "on", provided that a door is open at the same time the transmitter's small center button is pressed. This prevents the trunk or rear hatch from being opened from the transmitter while driving. Whenever this output is used, the siren will chirp twice.

Unless the vehicle's trunk release switch negatively triggers a release relay which draws no more than 250ma, an optional relay must be used. Connect the Gray wire to relay pin (86), and connect constant 12 volt positive to relay pin (85). Connect pins 87, 87a & 30 as indicated in this typical diagram:



Wiring An Optional Relay For Trunk Release.

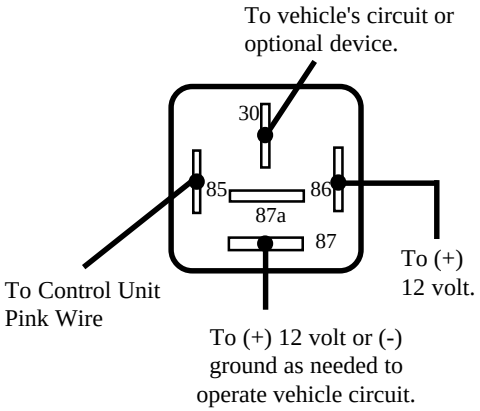
Wiring Connections - 8 Wire Connector

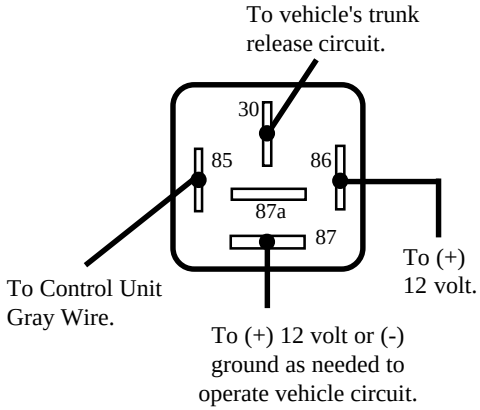
3rd Channel Output — Pink Wire

The function of the Pink wire is to provide an optional output similar to the Gray trunk release wire. Pressing the proper transmitter button for three seconds activates this output. Once activated, this output will last for one second, or, for as long as transmitter button is held down, with a maximum of 15 seconds. This function can be used to activate other optional modules (Example: car starting equipment or power window roll up units). For most applications an optional relay will be needed (use the diagram on the following page or the above diagram for the Gray wire). This output will not disarm the security system when activated. For the EG-1200^{ATV}, EG-1400^{ATV} and EG-1600^{ATV}, the small lower transmitter button is used to activate this output.

Gray Trunk Release Output Wire
Pink 3rd Channel Output Wire

Configuring An Optional Relay For Trunk Release Or 3rd Channel Output.





Negative Door Trigger Wire **Green Wire**

The Green wire's function is an open door input to the control module for vehicles having *negative switching* door pin switches. An open or closing door will affect the following operations:

A) When the security system is armed, opening a door will trigger the security system; causing the siren or horn to sound, the exterior lights to flash, and the doors to relock.

B) If the Last Door Arming feature is utilized, after turning "off" the ignition switch and closing the door, the Last Door Arming sequence will begin. Upon closing the last door, this is indicated by a siren chirp or horn honk, one parking light flash and a fast flashing LED Status Light. Thirty seconds after the last door closes, the siren will chirp again (or the horn will honk again) and the parking lights will flash once again, indicating that the system is armed.

C) Opening a door while the exterior lights are on after disarming the security system will cause the exterior lights to turn off 10 seconds after the opening of the door. If the Last Door Arming feature is utilized, closing the door will initiate Last Door Arming.

D) If the Doors Lock With Ignition "On", and Unlock With Ignition "Off" features are turned on along with the Open Door Bypass feature, if a door is open when the ignition switch is turned "on" with a door opened, the doors will not automatically lock; if a door is open when the ignition switch is turned "off", the doors will not automatically unlock.

E) Opening a door during the 90 second Automatic Rearming cycle, or the 30 second Last Door Arming cycle will suspend that automatic function for as long as the door is open. When the door is closed, the Last Door Arming sequence will restart.

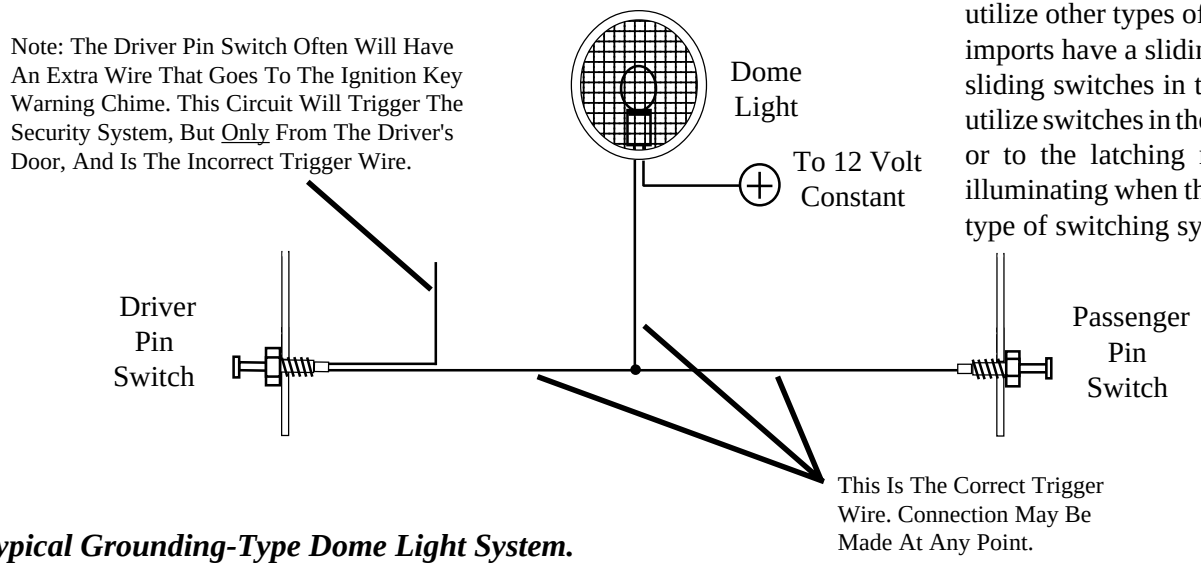
F) If this wire is grounded at the time the security system becomes armed from the transmitter, the circuit bypass feature will leave the Green wire circuit unprotected until the circuit becomes ungrounded.

G) If the system is triggered by the Green wire, on all models the LED Status Light will flash 3 times and pause until the ignition switch is turned “on”. The EG-1600^{ATV} will additionally display "d" on the Information and Programming Module's digital display. The system does not have to reset itself for this feature to operate.

H) When the ignition switch is "off", if the Green wire becomes grounded, the LED Status Light will flash 3 times and pause for as long as the door is open. This is the Zone Testing feature, which allows the installer or vehicle owner to visually see trigger circuits which are in a violated state.

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 will have no voltage present and will also show chassis ground when the doors are opened, and up to 12 volts when the doors are closed. The 12 volts present on the wire with the doors shut is simply voltage that the meter detects through the dome light bulb filament(s). When the door is opened, a path to ground is presented to this voltage (known as *ground potential*), which causes the voltage to flow to ground (this is referred to as *electrical current*). The completion of this circuit, caused by opening the door, resulting in current flow, causes the dome light bulb's filament to glow because of the filament's resistance to the electrical current.

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 Circuit Bypass feature will allow the system to be armed from the transmitter instantly 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 following diagram illustrates a basic negative courtesy light system:



Typical Grounding-Type Dome 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 imports have the pin or sliding switches in the rear door jamb area. In addition, some vehicles utilize switches in the doors, either connected to the exterior door handles or to the latching mechanism. A car that features the dome lights illuminating when the exterior door handle is lifted is an example of this type of switching system.

Also be aware of vehicles which diode-isolate each door. Typically, this is usually en countered 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.

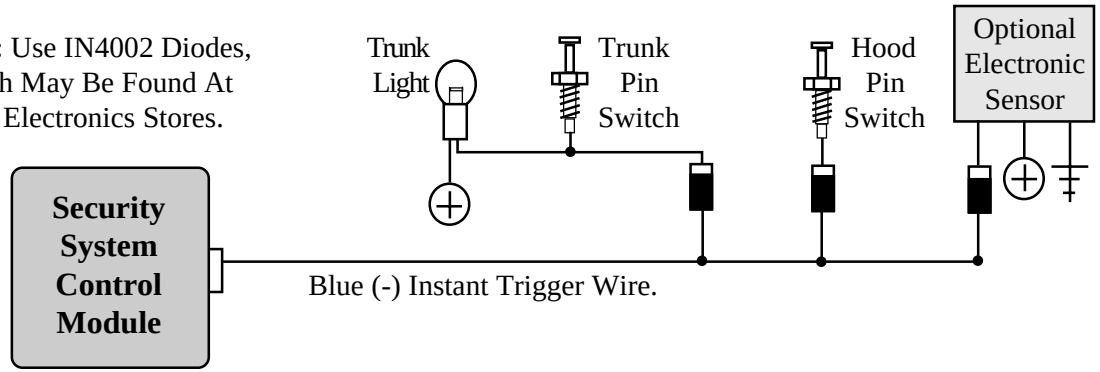
Negative Instant Trigger — Blue Wire

The Blue wire is a Negative instant trigger used primarily to detect entry into the hood or trunk area of a vehicle. Complete functions are:

A) When the security system is armed, grounding the Blue wire will trigger the system, causing the siren to sound, the exterior lights to flash, and the doors to relock.
B) If the Blue wire is grounded when the system is armed, the Circuit Bypass feature will leave the Blue wire circuit unprotected until it becomes ungrounded.
C) If the Blue wire becomes grounded during the 90 second Automatic Rearming cycle, or the 30 second Last Door Arming cycle, that automatic function will be suspended for as long as the door is open. When the door is closed, Last Door Arming will start.
D) When the Last Door Arming feature is utilized, if the Blue wire is grounded when the last door is closed, the Last Door Arming process will not start until the Blue wire is ungrounded.
E) If the security system is triggered by the Blue wire, the LED Status Light will flash 2 times and pause until the ignition switch is turned “on”. The EG-1600^{ATV} will additionally display "H" on the Information and Programming Module's digital display. The system does not have to reset itself for this feature to operate.
F) When the ignition switch is "off", if the Blue wire becomes grounded, the LED Status Light will flash 2 times and pause for as long as the Blue wire is grounded. This is the Zone Testing feature, which allows the installer or vehicle owner to visually see trigger circuits which are in a violated state.

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 negative 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 Blue wire direct.

Note: Use IN4002 Diodes, Which May Be Found At Most Electronics Stores.



Diode-Isolating Multiple Negative Instant Triggers.

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

Positive Door Trigger Wire — Violet Wire

The Violet wire's function is an open door input to the control module for vehicles having *positive 12 volt* door pin switches. An open or closed door will affect the following operations:

A) When the security system is armed, opening a door will trigger the security system; causing the siren or horn to sound, the exterior lights to flash, and the doors to relock.

B) If the Last Door Arming feature is utilized, after turning "off" the ignition switch and closing the door, the Last Door Arming sequence will begin. Upon closing the last door, this is indicated by a siren chirp or horn honk, one parking light flash and a fast flashing LED Status Light. Thirty seconds after the last door closes, the siren will chirp again (or the horn will honk again) and the parking lights will flash once again, indicating that the system is armed.

C) Opening a door while the exterior lights are on after disarming the security system will cause the exterior lights to turn off 10 seconds after the opening of the door. If the Last Door Arming feature is utilized, closing the door will initiate Last Door Arming.

D) If the Doors Lock With Ignition "On", and Unlock With Ignition "Off" features are turned on along with the Open Door Bypass feature, if a door is open when the ignition switch is turned "on" with a door opened, the doors will not automatically lock; if a door is open when the ignition switch is turned "off", the doors will not automatically unlock.

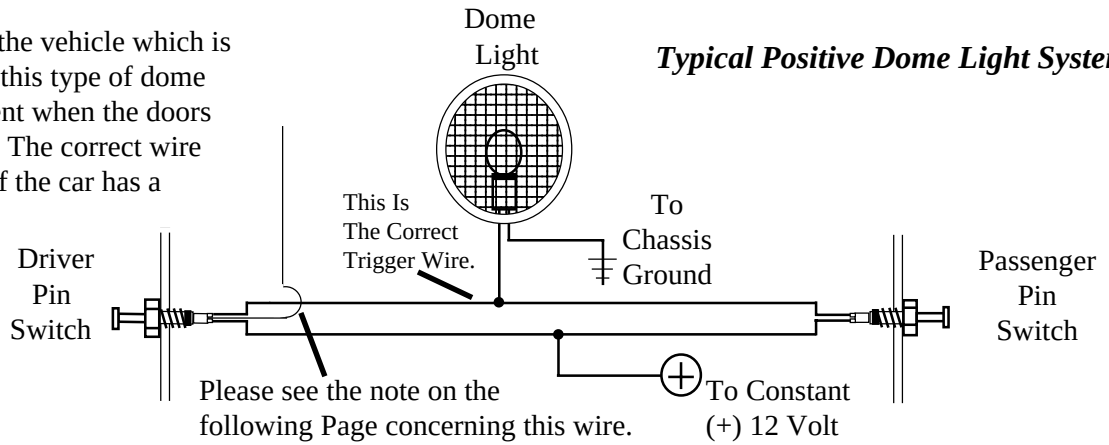
E) Opening a door during the 90 second Automatic Rearming cycle, or the 30 second Last Door Arming cycle will suspend that automatic function for as long as the door is open. When the door is closed, the Last Door Arming sequence will restart.

F) If this wire is grounded at the time the security system becomes armed from the transmitter, the circuit bypass feature will leave the Green wire circuit unprotected until the circuit becomes ungrounded.

G) If the system is triggered by the Violet wire, on all models the LED Status Light will flash 3 times and pause until the ignition switch is turned “on”. The EG-1600^{ATV} will additionally display "d" on the Information and Programming Module's digital display. The system does not have to reset itself for this feature to operate.

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 chassis ground when the doors are closed. The correct wire will show this change when any of the doors are opened. If the car has a delay dome light the Circuit Bypass feature will allow the system to be armed from the transmitter instantly and will start protecting the Violet wire circuit when the dome light turns off. In Last Door Arming mode, the system arms 30 seconds after the dome light turns off. This diagram illustrates a basic positive courtesy light system:

Typical Positive Dome Light System.



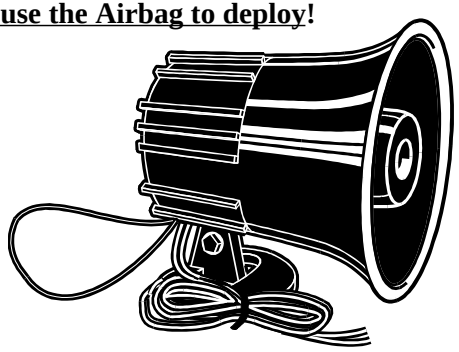
Note: The Driver Pin Switch Often Will Have An Extra Wire That Goes To The Ignition Key Warning Chime. This Circuit Will Trigger The Security System, But Only From The Driver's Door, And Is The Incorrect Trigger Wire. Please note that Positive Courtesy Light Pin Switches Will Have One Wire Which Will Remain (+) 12 Volts At All Times. At Least One Other Wire Will Have (+) 12 Volts When A Door Is Open, And No Voltage When All The Doors Are Closed. This Type Of Switch Will Operate The Dome Light Even If Removed From The Chassis Of The Vehicle.

Negative Siren/Horn Output — Brown Wire

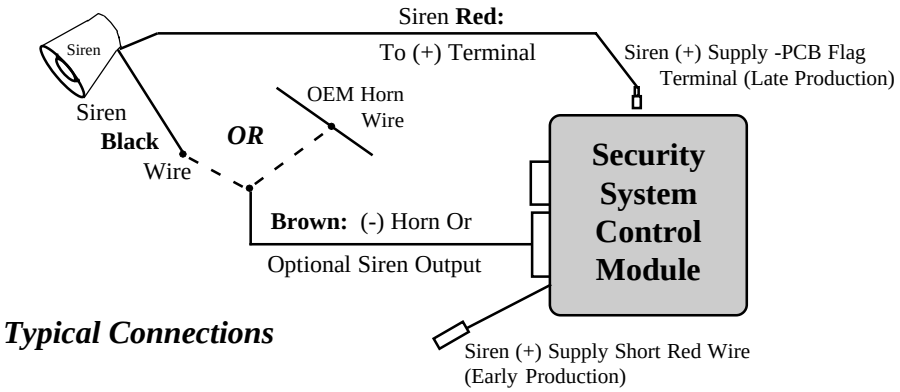
The Brown wire is a 1 Amp Negative output to operate the system's audible functions. This output is programmable, and may used to sound an electronic siren (program "steady", the factory setting) or the vehicle's existing horn (program "pulsed"). Instead of the siren, if the vehicle's horn is preferred, this output must be changed from steady to pulsed, allowing the use of the horn for the alarm's audible responses. If the vehicle does not utilize an existing horn relay, one must be added or the output's 1 Amp capacity may be exceeded, which will damage the control module. The electronic siren requires a continuous, steady output. The siren features six different siren tones, which change every 5 seconds. When configured for use with a horn, this output pulses for 10 seconds, then pauses for 5 seconds, repeating this cycle for the duration of the activated alarm period. This prevents the horn from overheating, thereby ensuring a maximum useful horn life to the vehicle owner. When this output is programmed for pulsed horn operation, an additional programmable feature allows loud or soft confirmation honks.

CONNECTION: If used with the electronic siren, the Brown wire may be connected directly to the siren's Black wire, and the siren's Red wire is connected to the Siren Positive Terminal on the system's control module. If used to sound the horn, the Brown wire may be connected directly to the vehicle's existing horn switch wire, which is typically found at the steering column. The correct wire will show Positive 12 Volts normally, and no voltage when the horn is honked. Direct connection of the Brown wire is to an existing horn switch-to-relay wire only. Once the vehicle's horn wire is identified, probe the wire with a standard test light connected to Negative chassis ground. If the horn honks when probed, a direct connection may be made. If not, use the following diagram to configure an optional relay. **CAUTION!** 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 Airbag circuit with a standard test light can cause the Airbag to deploy!**

AU-72 Electronic Siren: The AU-72 Electronic Siren has a 127 dB (decibel) sound level and features six police siren sounds which change every 5 seconds to produce twelve sounds per minute. These sounds may be programmed (described below) to customize the audible output of the alarm. The AU-72 also features softer confirmation chirps, which may be changed to full volume by cutting the Black loop wire on the siren. This siren's sound output is 127 decibels (dB) and rated at 12 Volts, 2 amps. The AU-72 measures 3 7/8" round and 4 1/8" deep and has twin 12' wiring leads

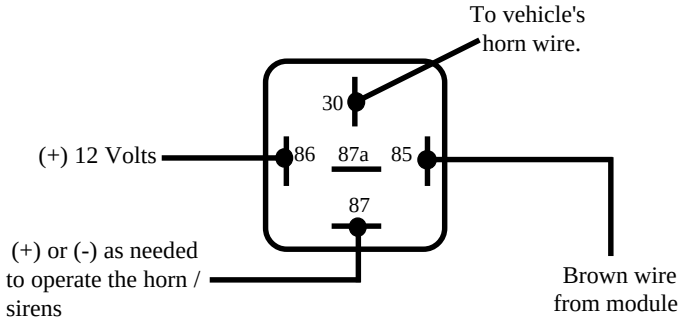


One alternative is to disconnect the horns, then operate the horn switch. A clicking sound from the vehicle will confirm the presence of a horn relay. Another alternative is to check a wiring schematic of the vehicle in question.



Typical Connections

Configuring A Relay, When Required



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. The Brown Siren/Horn output wire has a 1 Amp capacity, which, if exceeded, can damage the security system control module. Certain situations, among them multiple optional sirens or a vehicle which lacks a horn relay, an optional SPDT relay is required.

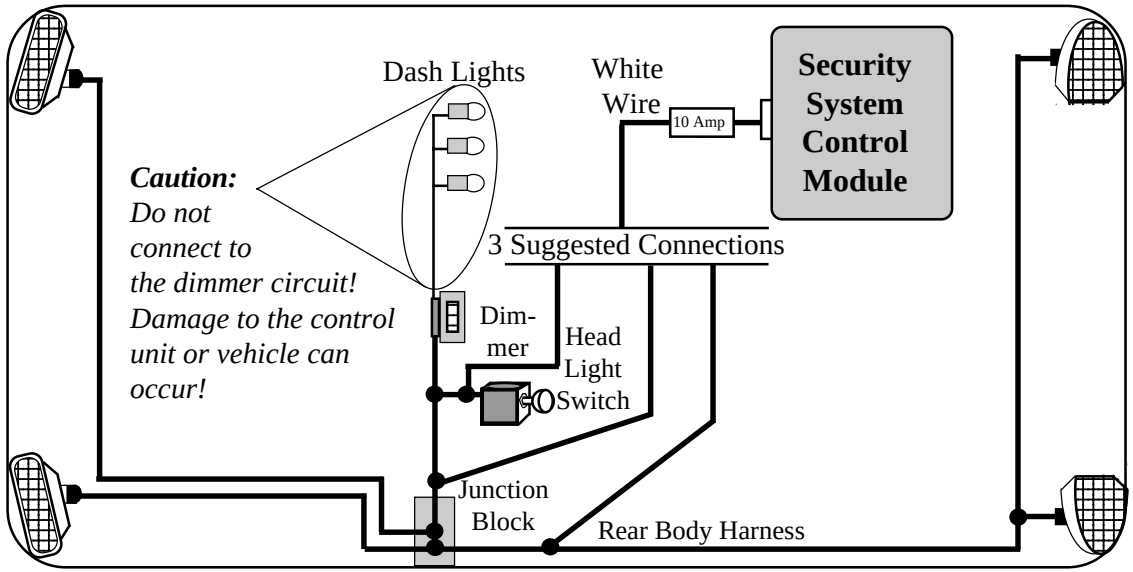
PROGRAMMING THE ELECTRONIC SIREN OPTIONS- The electronic siren has features which will allow customized options:

1) For louder Confirmation Chirps, cut the Black loop wire on the siren. This loop wire may be wired to a single pole, single throw switch mounted accessible to the driver, which will allow the softer/louder confirmation chirps as the driver desires.
2) To eliminate the chirps completely, cut and remove resistor R11 on the siren's Printed Circuit Board (PCB). See Programmable Siren Tones below for siren disassembly and reassembly (R11 is located on the top corner of the PCB).
3) To temporarily eliminate the Confirmation Chirps from the transmitter, press and release the small transmitter button before you press and release the large arm/disarm button. The Confirmation Chirps will be eliminated for that arm or disarm operation only.
4) Programmable Siren Tones (must have "M3760-3" IC; early production units' tones are non-programmable):
   a) Gain access to the top of the siren's Printed Circuit Board (PCB) by removing the two outer, exposed screws inside the siren bell. Pull out the grommet where the harness enters the bell and remove the magnet/PCB assembly.
   b) Access the back of the PCB by removing the single phillips screw in the center (do not lose the Black plastic spacer between the PCB and the magnet).
   c) Turn the back of the PCB so that the board number is viewed properly. Directly below the PCB board number are six vertical printed tracks. These tracks are in order, left to right, starting with the first siren sound heard to the sixth. Cutting a track will eliminate the like-numbered sound.
   d) Carefully reassemble the siren in reverse order of disassembly, making sure that the plastic PCB spacer and bell wiring grommet are reinstalled.

Positive Flashing Parking Light Output White Wire

The White wire is a positive 12 volts 7 amp output for exterior flashing light confirmation and to attract attention to the vehicle if the security system is triggered. Also, upon disarming, this circuit will stay on for 30 seconds to confirm disarming and to illuminate the way to the vehicle, which gives added security when approaching the vehicle at night.

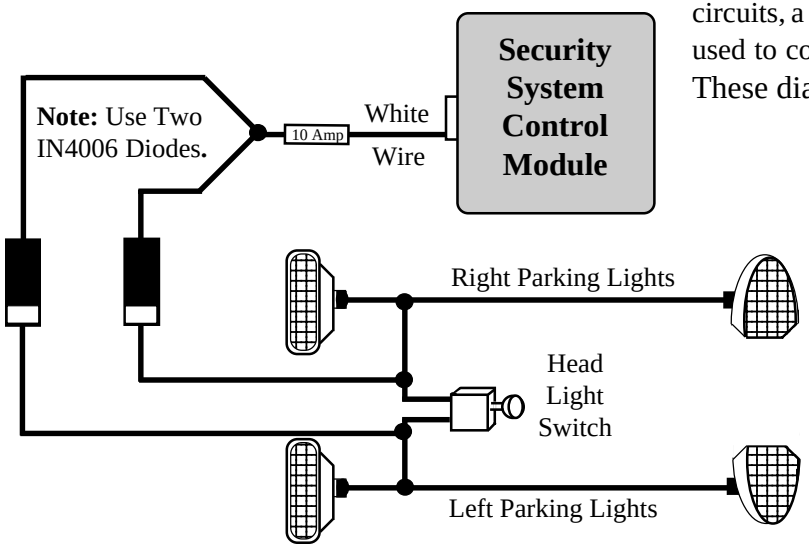
CONNECTION: Connect the White wire directly to the vehicle's positive 12 volts parking light circuit. This wire can usually be found at the following locations: at the Headlight Switch, at the Fuse/Junction Block, or in the rear body wiring harness which is usually found in the driver's kick panel. The correct wire will show positive 12 volts when the headlight switch is in the "Parking Light" and "Head Light" positions. When such a wire is 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. ***Caution:*** *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 possibly cause damage to the vehicle or system control unit.* Also, if the White wire touches chassis ground without the protection of the 10 amp fuse, the Printed Circuit Board and onboard relay will be damaged. Some vehicles, notably Toyotas, have a parking light relay which is triggered by a negative ground circuit from the headlight switch. These cars can still be connected directly to the White wire by finding the parking light circuit after the relay, usually at the Fuse/Junction Block.



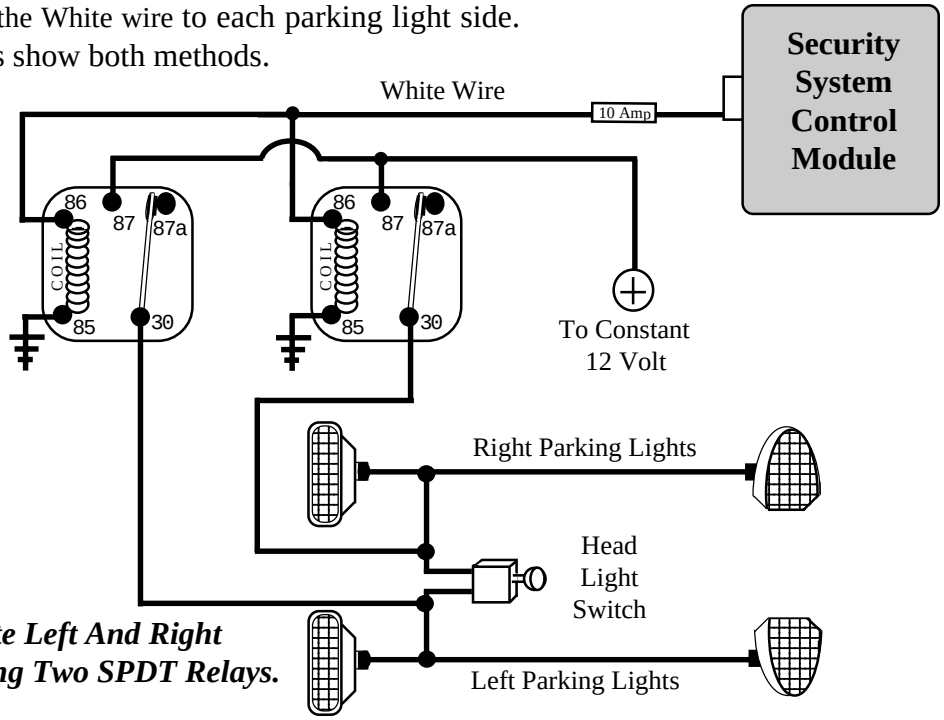
Connecting The White Wire Directly To Standard Parking Lights.

It is not recommended to flash the headlights instead of parking lights. The halogen headlights found in modern vehicles are not designed to be rapidly turned on and off. If connected to the security system, a reduction of their useful life may be noticed. If flashing the headlights is still desired, a relay must be used, since the headlight's current draw exceeds the 7 amp rating of the onboard relay. If flashing headlights and parking lights are desired, use the diagram for left and right parking lights using two relays - one relay will supply the parking lights and the other relay will supply the headlights. Any application that requires more than 7 amps of output must use an external relay.

Connecting Separate Left And Right Parking Lights Using Two Diodes.



Many European imports have separate left and right side parking lights. When left & right parking lights are on separate circuits, a pair of 6 to 10 amp diodes or a pair of relays must be used to connect the White wire to each parking light side. These diagrams show both methods.

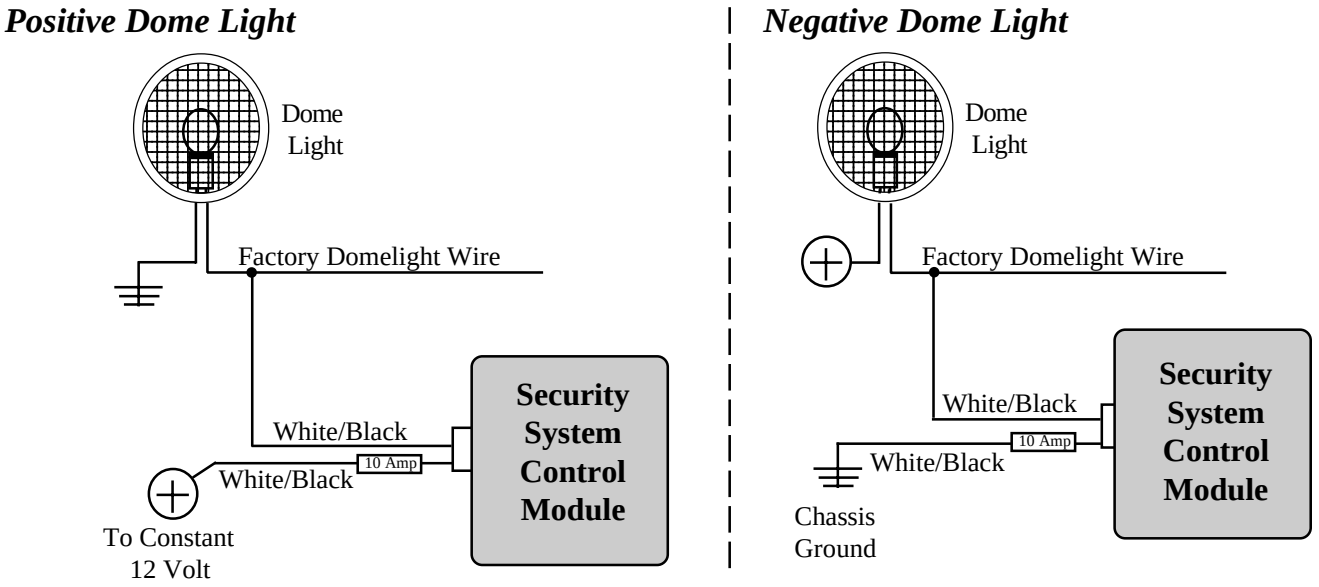


Connecting Separate Left And Right Parking Lights Using Two SPDT Relays.

Domelight Supervision — White/Black Wires

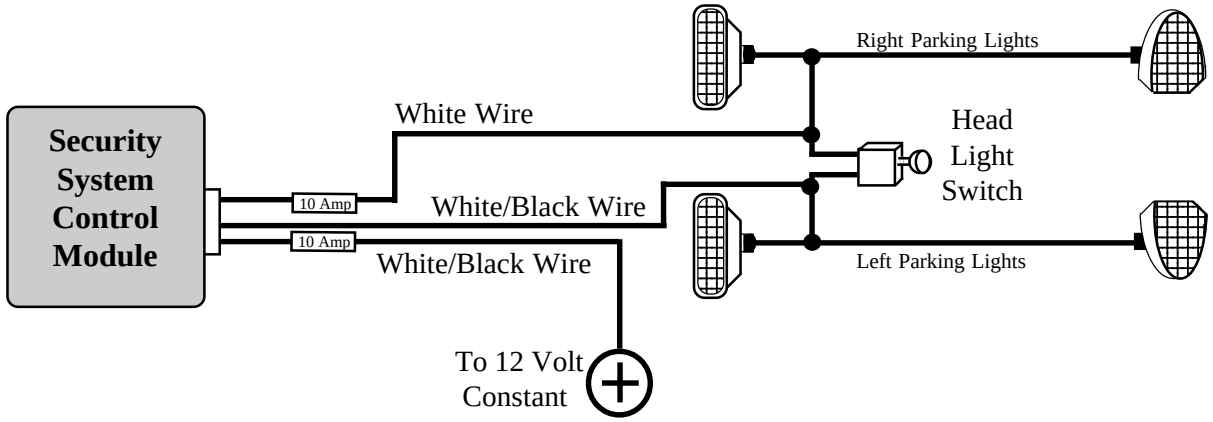
The two White/Black wires are intended for domelight supervision. This feature will turn on the vehicle's domelight upon disarming the security system to illuminate the interior of the vehicle. This output is identical to the White wire output except that the polarity is selectable to be positive or negative.

CONNECTION: The fused White/Black wire is an input to the control module. Connect this wire to 12 volts positive or chassis ground, whichever polarity is required to activate the vehicle's domelight. Connect the non-fused White/Black wire to the vehicle's domelight trigger wire. Usually this wire will be connected at the same point that the Green negative or the Violet positive door trigger wire is connected.



Connecting The White/Black Wires To Positive Or Negative Dome Lights.

The two White/ Black wires may also be used in a European split parking light application in place of the pair of diodes or the pair of relays. If this is desired rather than dome light supervision, use the following diagram:

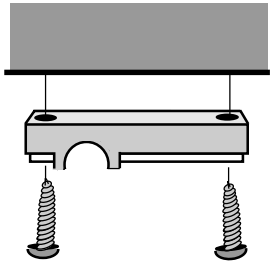


Optional Connection Of Separate Left And Right Parking Lights Instead Of Dome Lights.

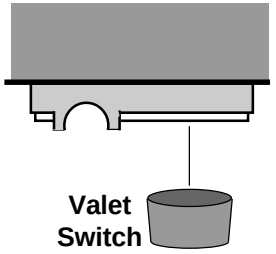
Wiring Connections - Plug-In Accessories

VALET SWITCH AND STATUS LED - EG-1200ATV & EG-1400ATV

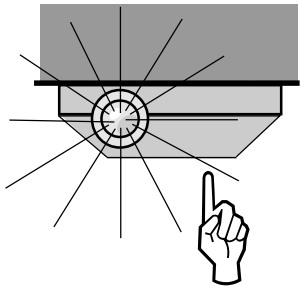
Install the Valet Switch and Status LED into the included combination holder and mount the holder under the dash using the two screws provided. Or, if desired, the Valet Switch and Status LED may be mounted separately by using the adhesive on back of the Valet Switch and drilling a 9/32" inch hole for the Status LED. If the LED is to also be mounted separately, select an easily-seen location (usually on the dash-small, empty panels for optional equipment, if present, are preferred) and carefully drill a 9/32" inch hole after checking for obstructions and the necessary clearance behind the panel (about 1/2"). Route the Valet Switch Blue and Status LED White connectors to the control module and plug into the appropriate ports.



The upper half of the combination holder may be mounted with the two screws provided, or, double-sided adhesive tape may be used.



Then, when the upper half holder is secured, insert Valet Switch into its bracket. Snap the combination holder bottom half to the upper half.



Insert the Status LED into the remaining round opening. Route the two connectors to the system's control unit and plug the into their respective ports.

INFORMATION AND PROGRAMMING MODULE - EG-1600ATV

This module is designed to be mounted on the windshield in view of the driver, and contains the Digital Status Indicator, the Visual Deterrent LED, and the Valet Switch. The Information and Programming Module also contains the system's receiver section, and mounting high on the windshield enhances the transmitter's operating range. Carefully clean the glass in the mounting area, then adhere the module to the glass. Plug one 5-way connector into the Information and Programming Module, route the harness to, and plug the remaining 5-way connector into, the main control module.

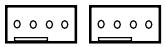
PAGER PORT - ALL MODELS

This port allows direct connection of the Omega Pager to the security system control module. The Omega Pager unit features include the identification of which zone activated the system, and the replication of the system's confirmation siren chirps (or horn honks). The Omega Pager includes the wiring harness for direct connection to the security system, and complete installation and operating instructions.

SENSOR PORTS - ALL MODELS

Excalibur Gold ATV security systems feature dual plug-in ports for the electronic sensor devices, which enhances the effectiveness of the system. These ports are dual-zoned: the first zone will respond by honking the horn (or chirping the optional siren) only; and the second zone will fully trigger, the system. These ports supply constant 12 volt power, grounded output when the system is armed, a negative instant trigger, and a negative prewarn trigger. Most Omega Research and Development, Inc. sensors will plug directly into the control module. Sensors are available that monitor shock to the vehicle and radar sensors that can detect moving objects inside and outside the vehicle. When adding a sensor, follow the installation instructions included with the sensor. After installing, route the harness and connector from the sensor to the security system control module. Plug the sensor's connector into either one of the module's

White port marked "Aux" - both have the same operation. It should be noted that when arming the system with the transmitter, the user has the ability to bypass the sensor, if desired. When bypassed, the system will not respond to either a prewarn nor an activation trigger.



White Auxiliary Sensor Ports
1. Red- Constant 12 Volt (+)
2. Black- (-) Ground While Armed
3. Blue- (-) Instant Trigger
4. Green- (-) Prewarning Trigger

BACKUP BATTERY PORT - ALL MODELS

This port allows the plug-in addition of a 9 volt alkaline battery to provide alternative power to operate the system if power to the control module is disconnected. A built-in protection circuit will not allow the 9 volt battery to back feed voltage into the vehicle's electrical system. Please note that the Siren Positive Terminal on the system's control module is supplied by the backup battery, so in the event of the vehicle's battery being disconnected, the electronic siren will still operate normally. The parking lights will not flash if the system is on backup battery power, as the parking lights would quickly drain the backup battery's power.

DOORLOCK OPERATIONS - EG-1200ATV

The E-1200ATV features a port for a doorlock interface. The Red 3 pin port on the system's control module produces a negative pulse for locking the doors, a constant 12 volt pin *for the optional relay coils only*, and a second negative pulse for unlocking the doors.

The doorlock interface needed will depend upon the type of power doorlocks the vehicle has. The vehicle must have existing power doorlocks. A vehicle that does not have power doorlocks may be equipped for remote keyless entry operation by adding a model DS-2 Electric Door Lock Actuator to each of the doors and an optional DLS and relays. Another option is the addition of an Omega Central Power Doorlock kit.

DOORLOCK OPERATIONS - EG-1400ATV & EG-1600ATV

The EG-1400ATV and EG-1600ATV adds the ability to be configured to unlock only the driver's door upon disarming. Then, if desired, a second press of the transmitter button will unlock all of the doors. The Red 4 pin port on the system's control module produces a negative pulse for locking the doors, a constant 12 volt pin *for the optional relay coils only*, a first negative pulse for driver door unlock, and a second negative pulse for unlocking all other doors.

The doorlock interface needed will depend upon the type of power doorlocks the vehicle has. The vehicle must have existing power doorlocks. A vehicle that does not have power doorlocks may be equipped for remote keyless entry operation by adding a model DS-2 Electric Door Lock Actuator to each of the doors. This, and an optional DLS or DLS-3 and relays will allow the Excalibur Gold security system to operate the doorlocks. Another option is the addition of an Omega Central Power Doorlock kit.

Red 3 Pin Doorlock Output Port
1. Green- (-) Lock Pulse
2. Red- Constant 12 Volt (+)*
3. Blue- (-) Unlock Pulse

* This Circuit Is To Supply Voltage To The Relay Coils Only (Pins 85 Or 86)

Red 4 Pin Doorlock Output Port
1. Green- (-) Lock Pulse
2. Red- Constant 12 Volt (+)*
3. Pink- (-) Unlock Pulse (1 Press)
4. Blue- (-) Unlock Pulse (2nd Press)

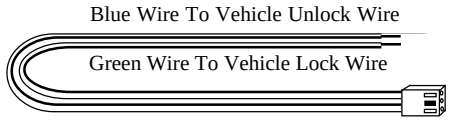
* This Circuit Is To Supply Voltage To The Relay Coils Only (Pins 85 Or 86)

DOORLOCK CONNECTIONS - ALL MODELS

The vast majority of power doorlocks are found as three system types: 3 wire negative pulse, 3 wire positive pulse and 5 wire reversal, rest at ground. Other power doorlock systems which may be encountered are the vacuum pump types found in most Mercedes vehicles and the single wire, dual-voltage which has appeared in some late model vehicles. The best way to identify a doorlock system is to examine the doorlock switch's wiring. The following sections will discuss the types of doorlock systems found and the available optional interfaces.

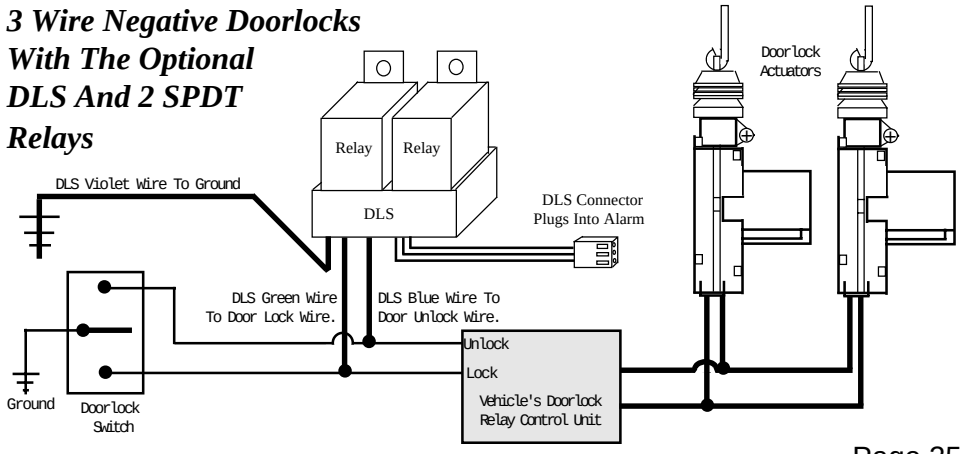
3 Wire Negative Pulse Systems: This power doorlock system is indicated by the presence of three wires at the switch. Of these, one will show constant ground, regardless of whether the switch is being operated or not (at rest). Of the remaining two wires, one will show ground when the switch is pushed 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 volt positive 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 or control unit.

An optional harness is available (model DLP-N3) which allows direct connection between the security system and 3 Wire Negative Pulse doorlock systems. Some doorlock systems, however, require more than the 500ma ground output that the security system's control module can accommodate. In these cases the optional model DLS and two relays must be used. When driver's door unlock priority is desired, the correct interface is the DLS-3.



Model DLP-N3 -Three pin connector with two 24" wires. Allows direct connection of the security system's negative pulse outputs directly to a vehicle's negative pulse doorlocks or to facilitate custom hard-wiring of optional relays.

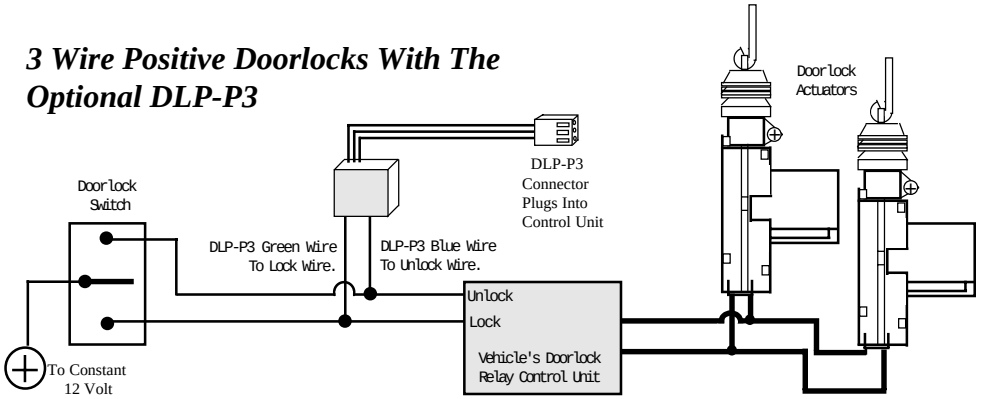
3 Wire Negative Doorlocks With The Optional DLS And 2 SPDT Relays



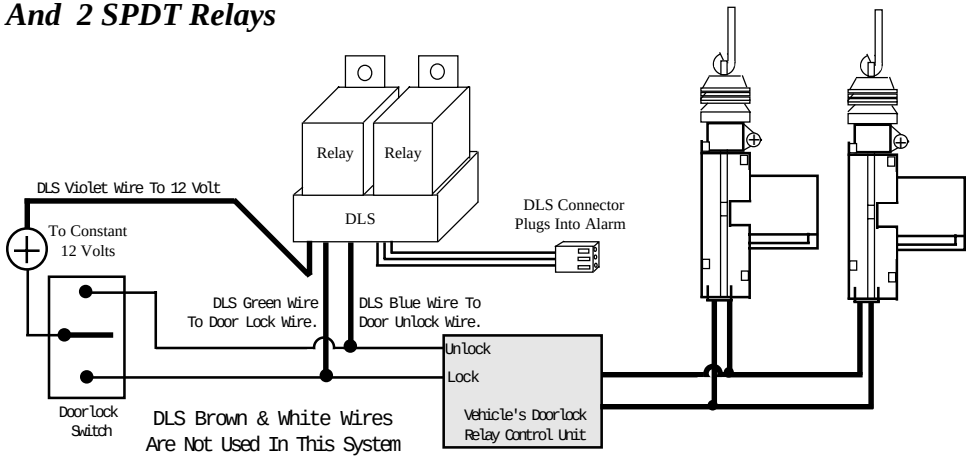
3 Wire Positive Pulse Systems: This power doorlock system is very similar to the three wire negative pulse system except the vehicle's doorlock switches use 12 volt positive pulses to operate the vehicle's doorlock relays or control unit. Examine the wires on the back of the switch. Of the three wires, one will be constant 12 volt positive, regardless of the switch's position. Of the two remaining wires, one will show 12 volt positive when the switch is pushed to "lock", and the other will show 12 volt positive when the switch is pushed to "unlock". Since the security system's output polarity must be reversed from negative ground to 12 volts positive, an optional doorlock interface must be used. Three interfaces are available - the models DLP-P3, the DLS and the DLS-3 with optional SPDT relays. The DLS-3 is discussed in detail later.

Model DLP-P3 - Three pin connector with a transistor converter network which changes the security system's negative pulse doorlock outputs to positive pulses, allowing direct connection a vehicle with positive pulse doorlocks. Overall length 20". Easier and more efficient than using relays for vehicles that have positive pulse doorlock systems.

3 Wire Positive Doorlocks With The Optional DLP-P3



3 Wire Positive Doorlocks With The Optional DLS And 2 SPDT Relays



Model DLS- 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 is one of the most universal doorlock interface available, allowing connection to 3 Wire Negative, 3 Wire Positive and 5 Wire Reversal systems. The relays used with it are standard 30 amp single pole, double throw (SPDT) automotive relays.

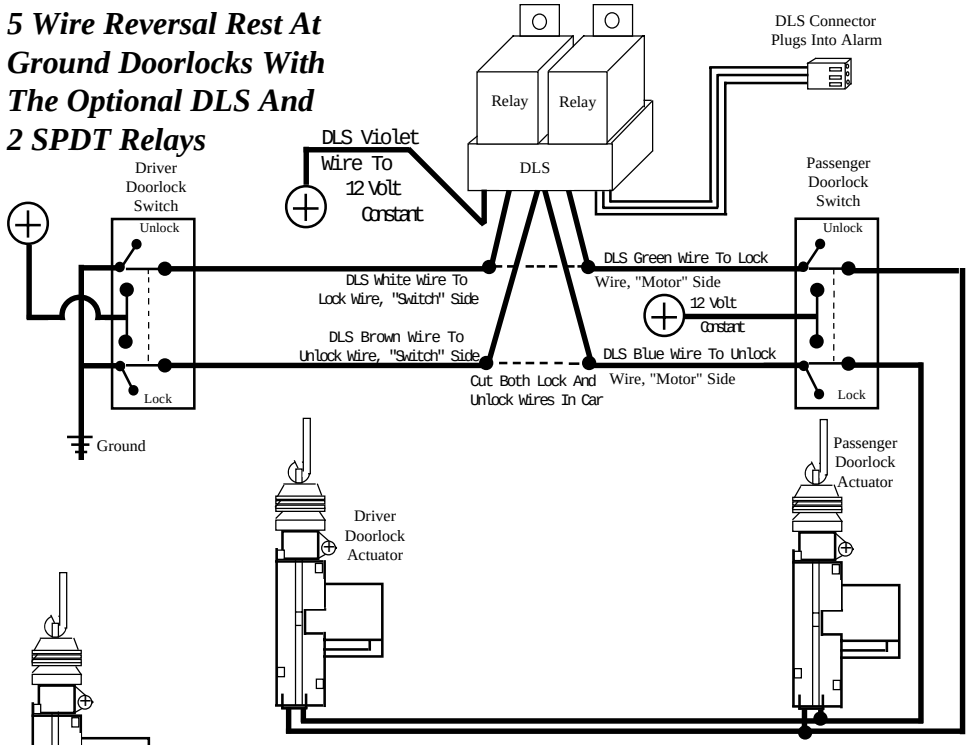
5 Wire Reversal Rest At Ground Systems: This power doorlock system differs from the negative and positive pulse systems in the fact that there are no relays or doorlock control unit. In this type of system, the switches themselves supply the positive voltage directly to the doorlock actuators, and, more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

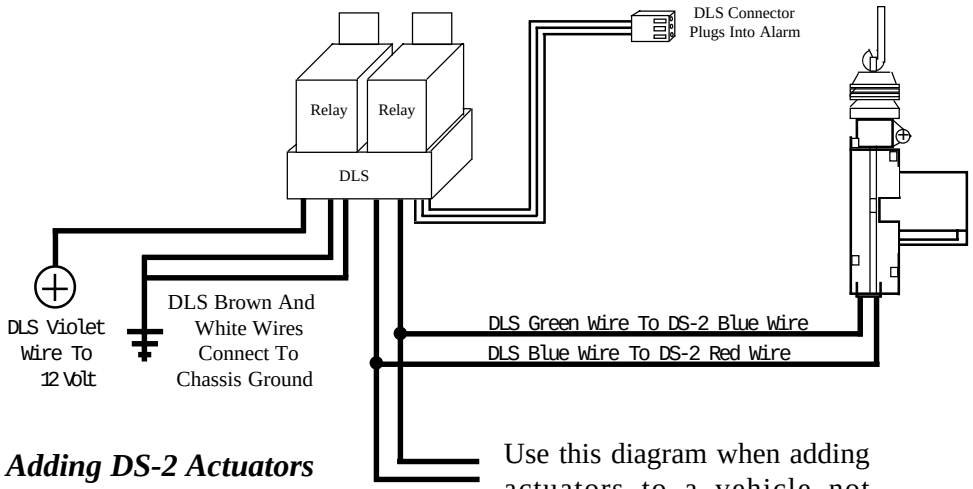
Examine the wires on the back of the switch. Normally 5 wires will be found. Of the wires, one will be constant 12 volt positive, regardless of the switch's position. Two wires will be grounded regardless of the switch's position. Of the two remaining wires, one will show 12 volt positive when the switch is pushed to "lock", and the other will show 12 volt positive when the switch is pushed to "unlock". When the correct wires are found, they must be cut. Notice in the

diagram 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 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.

Please note that when configuring driver's door unlock priority, the driver's door motor unlock wire will be found as a 5 wire reversal system, regardless of the system type found at the doorlock switches. Driver's door priority unlocking is discussed in the DLS-3 section later in this Comprehensive Installer Technical Guide.

5 Wire Reversal Rest At Ground Doorlocks With The Optional DLS And 2 SPDT Relays





Adding DS-2 Actuators And DLS And 2 SPDT Relays

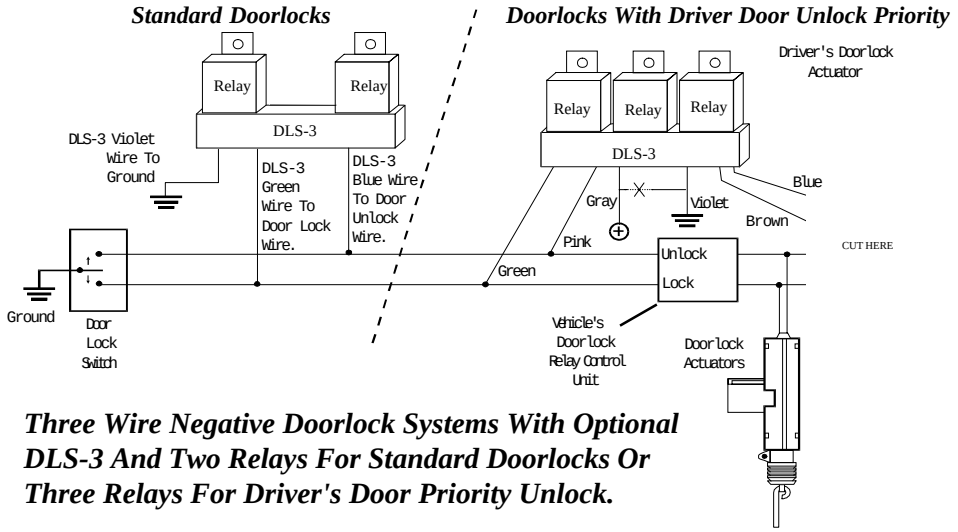
Use this diagram when adding actuators to a vehicle not equipped with factory power door locks. Route the wires from the other DS-2 actuators and connect all the actuators to the DLS in parallel.

Adding The Optional DS-2 Actuator And The DLS And 2 Relays:

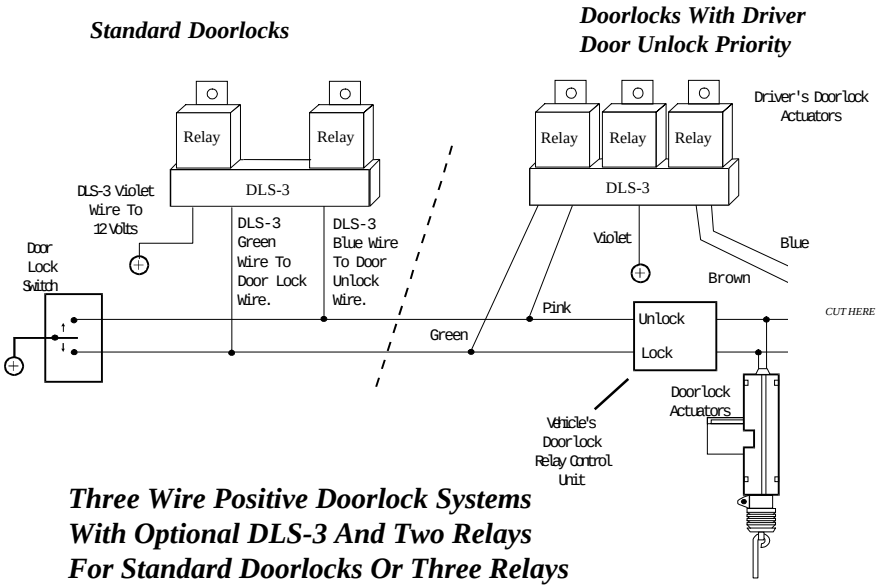
Some vehicles have a type of power doorlock system in which mechanically locking and unlocking the driver's door will operate an electrical switch in the door which supplies voltage to actuators in the other doors. There is no actuator in the driver's door, only a switch. An indication of this type of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

The Optional DLS -3 And 2 Or 3 SPDT Relays - Driver Door Unlock Priority:

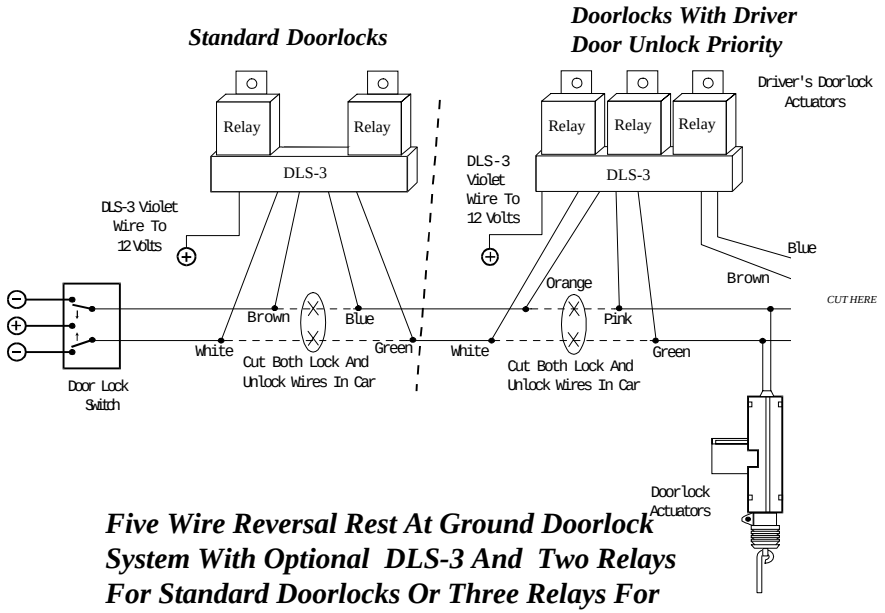
The DLS-3 is a triple relay socket (three relays are also needed) and is the most universal interface which allows the security system to lock the vehicle's doors, unlock only the driver's upon disarming (driver's door unlock priority) and, if desired, a second press of the transmitter's button will unlock all of the doors. The DLS-3 used with two relays can also be used in place of the DLS to lock and unlock all doors.



Three Wire Negative Doorlock Systems With Optional DLS-3 And Two Relays For Standard Doorlocks Or Three Relays For Driver's Door Priority Unlock.

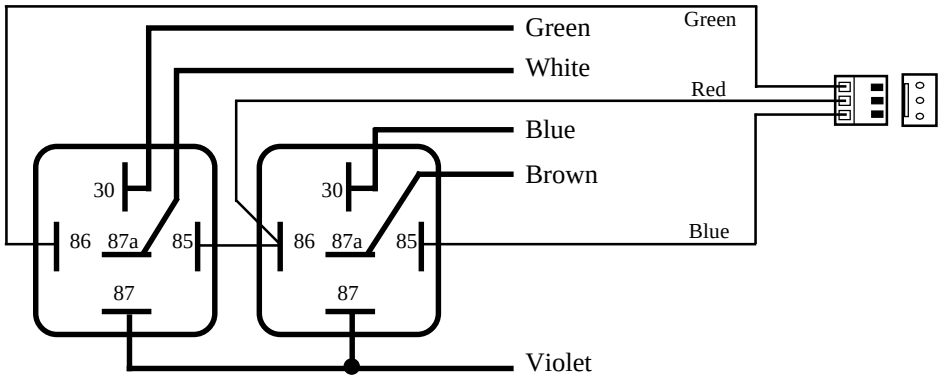


Three Wire Positive Doorlock Systems With Optional DLS-3 And Two Relays For Standard Doorlocks Or Three Relays For Driver's Door Only Unlock.

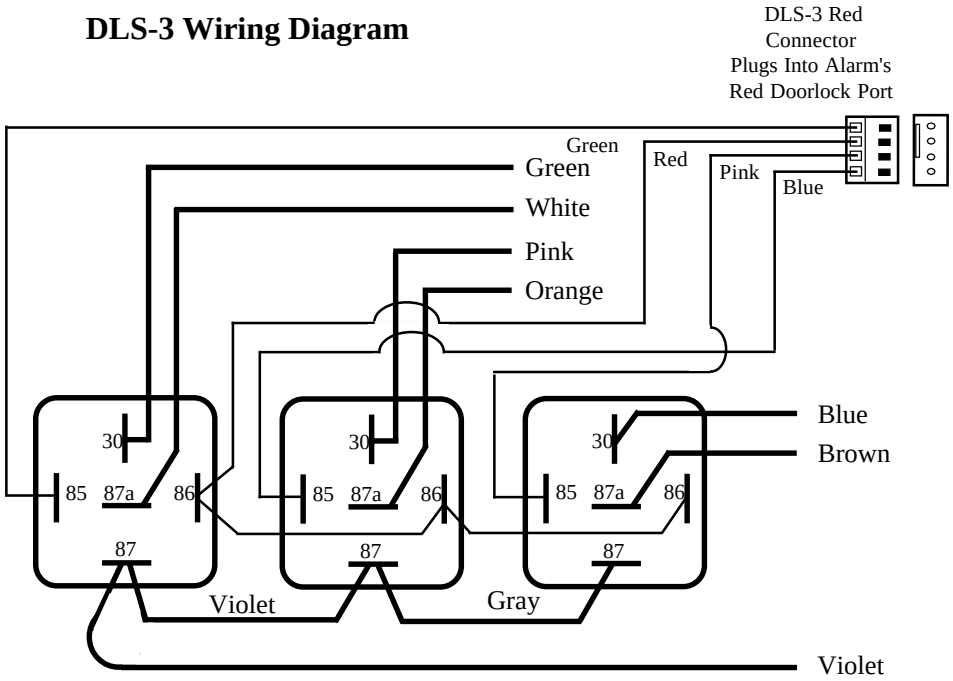


Five Wire Reversal Rest At Ground Doorlock System With Optional DLS-3 And Two Relays For Standard Doorlocks Or Three Relays For Driver's Door Only Unlock.

DLS Diagram



DLS-3 Wiring Diagram



Programming Features
EG-1200ATV

The EG-1200ATV has ten Programmable Features, easily changed through the Features Programming Mode. The Programmable Features are:

Feature #1- Last Door Arming and Automatic Rearming (Factory Setting Off).
Feature #2- Last Door Locking and Automatic Relocking (Factory Setting Off).
Feature #3- Ignition On / Off to Lock / Unlock Doors (Factory Setting On).
Feature #4- Open Door Bypass to Feature #3 (Factory Setting On).
Feature #5- 30 or 60 Second Activation Duration (Factory Setting 60).
Feature #6- Double Pulse Door Unlock (Factory Setting Off).
Feature #7- Steady Siren Or Pulsed Horn Output (Factory Setting Pulsed Horn*).
Feature #8- Horn Confirmation Honk Loud Or Soft (Factory Setting Soft).
Feature #9- Open Door Arming Alert (Factory Setting Off).
Feature #10- Transmitter Activated Anti-Carjacking (Factory Setting Off).
* Please note that this feature is changed from the default setting at the factory for using a siren.

To access Features Programming Mode and change any of the Programmable Features:

Step #1- Turn "off" the ignition.

Step #2- Within 7 seconds of turning "off" the ignition, press the Valet Switch 5 times.

Step #3- You have just entered into the Feature Programming Mode. To confirm this, the siren will respond with a long chirp. For the next 10 seconds the system is ready for you to select what feature code you want to access and turn on or off. The Feature Programming Mode will deactivate if a selection is not made within 10 seconds.

Step #4- Within 10 seconds of entering the Feature Programming Mode, press the Valet Switch the number of times that equal the feature number you wish to access. After pressing the Valet Switch multiple times the siren will chirp the same number of times to confirm what feature number you access for programming. Example: Press 5 times and the siren will chirp 5 times.

Step #5- To turn on the feature press the large transmitter button. The siren will chirp once to confirm that the feature is turned on. To turn off the feature, press the small center transmitter button. The siren will chirp twice to confirm the feature is turned off.

During this stage, if you keep turning the feature on and off, the Feature Programming Mode is extended for a further 10 seconds. Remember, 10 seconds without any programming activity will result in the system automatically exiting the Feature Programming Mode, which is indicated by two long siren chirps.

Step #6- If needed, repeat steps 4 & 5 to access another feature to turn it on or off.

Step #7- Turning on the ignition, or 10 seconds of no programming activity, will exit the system from Feature Programming Mode, which is confirmed by two long siren chirps.

1) Passive Arming and Automatic Rearming: If Feature #1 is turned "on", the Last Door Arming and Automatic Rearming Features will operate. Last Door Arming starts after the ignition switch has been turned "off" and at the last open door is closed. The moment the last door closes the alarm will chirp the siren, flash the lights, and begin a countdown (during this countdown the LED Status Light flashes fast). Thirty seconds after the last door was closed, the siren will chirp again, the parking lights flash once, and the LED will begin to flash slow, confirming that the alarm is fully armed. If a point of entry is reopened before the 30 seconds expires, the countdown stops, and will reset to start again when the door is reclosed.

Upon disarming an armed system, a 90 second Automatic Rearming countdown will start. During this countdown the LED will flash rapidly until any point of entry is opened, which will temporarily suspend the Automatic Rearming process until reclosed. At the end of the 90 second period the alarm will automatically arm itself (note that the doors will also lock if Feature #2 is turned "on"). Automatic Rearming is cancelled by turning the ignition switch "on" before the 90 second countdown ends. To temporarily suspend either Last Door Arming or Automatic Rearming (for example, while refueling) the owner should put the alarm in Valet Mode or leave the door open. It is not recommend to leave the ignition switch turned "on" for this purpose.

2) Passive Locking and Automatic Relocking: If Feature #2 is turned "on", and the Last Door Arming Feature is utilized, the doors will also lock when the alarm becomes armed 30 seconds after shutting the last door and also lock the doors when the alarm rearms from Automatic Rearming.

3) Ignition On / Off to Lock / Unlock Doors: If Feature #3 is "on", the doors will lock 2 seconds after the ignition switch is turned "on", and unlock instantly when the ignition switch is turned "off".

4) Open Door Bypass to Feature #3: If feature #4 is "on" the system will check the vehicle's door circuit. If it detects that any of the vehicle's doors are open at the time, the doors will not automatically lock when the ignition switch is turned "on", nor automatically unlock when the ignition switch is turned "off".

5) 30 or 60 Second Activation Duration: Feature #5 will select the length of time that the siren sounds and the lights flash when the alarm is activated or triggered. This can be used when local law requires shorter siren times for noise restrictions. Pressing the small transmitter button when programming this Feature will select the 30 second timing cycle.

6) Double Pulse Door Unlock: If Feature #6 is "on" the alarm's unlock output will pulse twice to unlock some of the newer doorlocking systems.

7) Steady Siren Or Pulsed Horn Output: Instead of the siren, if the vehicle's horn is preferred, this Feature changes the output from steady to pulsed, allowing the use of the horn for the alarm's audible responses. If the vehicle does not utilize an existing horn relay, one must be added or this output's 1 Amp capacity may be exceeded, which will damage the alarm. This Feature is defaulted to Pulsed Horn, but set for Steady Siren at the factory.

8) Horn Confirmation Honk Loud Or Soft: When the previous Feature is set for Pulsed Horn, the arming and disarming confirmation honks may be adjusted with this Feature. When programming this Feature, pressing the large transmitter button will select a longer output pulse, which will make the confirmation horn honk louder.

9) Open Door Arming Alert: When this Feature is utilized, if one of the vehicle's doors is open when the system is armed using the transmitter, the siren will chirp (or the horn will honk) 3 times instead of once upon arming the alarm.

10) Transmitter Activated Anti-Carjacking: This Feature adds Anti-Carjacking protection, and the ignition must be "on" for the Anti-Carjacking to operate. Press and hold both transmitter buttons for 3 seconds. The siren will start chirping 53 seconds later, and for the next seven seconds pressing the Valet Switch once will cancel the Anti-Carjacking Feature. At 60 seconds the siren will fully sound, and the parking lights will also flash. At 90 seconds the starter interrupt output will activate. Once the siren sounds and parking lights flash, Anti-Carjacking cannot be canceled unless the ignition is turned "off", then back "on"; the Valet Switch must be pressed once within 10 seconds of turning the ignition back "on". This is the only way to cancel or turn off the Anti-Carjacking Feature - once activated, the transmitter cannot be used to cancel or turn off the Feature.

Programming Transmitters
EG-1200^{ATV}

Up to 4 different transmitters may be programmed into the EG-1200^{ATV} system's memory bank. When a new transmitter code is programmed into the system, all previous codes will be deleted. If a third or fourth transmitter is desired, <u>all</u> of the transmitters must be programmed into system's memory. To program transmitters to operate the EG-1200^{ATV}, follow this procedure:

1) Turn "on" the ignition switch.

2) Within 5 seconds of turning "on" the ignition switch, press the Valet Switch 5 times.

Note: The system will respond with a long siren chirp or horn honk, confirming that it is ready to learn a transmitter code. If a code is not received or the ignition is turned "off", the learning process will automatically terminate, which will be indicated by two siren chirps or horn honks. When the first transmitter code is learned, all other prior codes will be erased.

3) To learn the first transmitter code, press the large transmitter button, (which will arm/disarm/panic the system), until you hear one long and one short siren chirp or horn honk to confirm that the code was learned. The two small button's functions will automatically be learned at the same time.

4) To program the second, third or fourth transmitter codes, repeat step 3. As each transmitter is learned, the long confirmation siren chirp or horn honk will be followed by two short chirps or honks for transmitter number two, three short chirps or honks for transmitter number three, and four short chirps or honks for transmitter number four. An attempt to add any further transmitter codes will be ignored.

5) Turning off the ignition switch or 10 seconds of no programming will turn off the transmitter learning program, which is confirmed by two long siren chirps or horn honks.

Whenever a transmitter is coded into the system, whether an existing one or previously unknown transmitter, the siren will chirp or the horn will honk for two seconds every time the ignition is turned "on", for 48 hours. Additionally, the LED Status Light will flash the number of transmitters which can operate the system for 90 seconds instead of 10 seconds.

Programming Features EG-1400^{ATV} & EG-1600^{ATV}

The EG-1400^{ATV} and EG-1600^{ATV} have a total of 25 Features which may be programmed via the Valet Switch and the transmitter in a special procedure. The Features Programming Mode is accessed through the turning "off" of the ignition switch and properly pressing the Valet Switch. Once in Features Programming Mode, the Valet Switch is further used to specify which of the 25 Features is to be changed, then the transmitter is used to program the selected Feature. If two failed attempts are made to enter the Features Programming Mode, two minutes must expire before attempting again (indicated by a double siren burst or double horn honk). To access the Features Programming Mode, follow this procedure:

Step 1 - Within 5 seconds of turning the ignition "off", momentarily press the Valet Switch 5 times. The security system will respond with sounding the siren (or horn) for a short period).

Step 2a - The Selectable Override Code must be entered before 15 seconds expires.
Press the Valet Switch the correct number of times - the factory-set default is one press for stage #1 and no press for stage #2. If the system is configured with the default setting, it will respond by sounding the siren for a short period, then two chirps (or one long then two short horn honks). In this case proceed to Step 3.

Step 2b - If the system has had the Selectable Override Code custom-programmed, once stage #1 been properly entered (which can be up to nine Valet Switch presses) the system will acknowledge the entry by sounding the siren (or horn) for a short period, then one chirp (or a short honk). You now have 8.5 seconds to initiate stage #2 of entering the Override Code. Momentarily press the Valet Switch equal to the Override Code number programmed for stage #2. The system will acknowledge the entry by sounding the siren for a short burst and two chirps (or the horn will sound one long, then two short honks).

Step 3 - You now have 15 seconds access the desired Feature. This done by pressing the Valet Switch the number of times that are equal to Feature number listed. For example, to change the Arming Delay to 45 seconds, press the Valet Switch twice as this is the second Feature on the list. The system will acknowledge the Valet Switch entry by chirping the siren (or honking the horn) a number of times equal to the number of Valet Switch presses.

Step 4 - You have 15 seconds to change the chosen Feature. Press the transmitter's large upper button to turn the Feature ON, or press the small center button to turn the Feature OFF. Turning the Feature ON is indicated by one siren chirp (or horn honk); turning the Feature OFF is indicated by two siren chirps (or horn honks). If 15 seconds of no programming activity expires (not pressing either transmitter button or selecting another Feature) will cause the system to exit the Features Programming Mode, which is indicated by two long siren chirps (or two long horn honks).

The 25 Programmable Features and their factory-set default settings are listed below. Following this each Programmable Feature and coding operation is explained.

1) Personal Coded Override: Default 1 & 0.
2) Last Door Arming: Default OFF.
3) Automatic Rearming: Default OFF.
4) Starter Interrupt 90 Seconds After Ignition "Off" Or Disarming: Default OFF.
5) Doors Lock Upon Last Door Arming: Default OFF.
6) Doors Lock Upon Automatic Rearming: Default OFF.
7) Doors Lock Upon Ignition "On": Default ON.
8) Unlock #1 Upon Ignition "Off": Default ON.
9) Unlock #2 Upon Ignition "Off": Default ON.
10) Open Door Bypass For The Previous Three Features: Default ON.
11) Confirmation Horn Honks (or Siren Chirps): Default ON.
12) Confirmation Horn Honks (or Siren Chirps) While In Valet Mode: Default OFF.
13) 30 Or 60 Second Activated Alarm Cycle: Default 60 Seconds.
14) Lights On 30 Or 5 Seconds Upon Disarm: Default 30 Seconds.
15) Disarm System Upon Trunk Release: Default ON.
16) Doorlock Pulse Time .8 Or 3 Seconds: Default .8 second.
17) Double Pulse Unlock (DPU™): Default OFF.

18) 3 Or 45 Second Arming Delay: Default 3 Seconds.
19) Pulsed Horn / Steady Siren Output: Default Pulsed Horn.
20) Loud or Soft Confirmation Horn Honks: Default Loud.
21) Total Closure Lock Output: Default OFF.
22) Ignition-Activated Anti-Carjacking Protection: Default OFF.
23) Door-Activated Anti-Carjacking Protection: Default OFF.
24) 3rd Channel Activated Anti-Carjacking: Default OFF.
25) Open Door Warning Upon Arming: Default OFF.

1) Personal Coded Override: Default 1 & 0. For a more secure Override Mode, the vehicle owner may customize this security system by selecting the number of Valet Switch presses needed to achieve the Override Mode. To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button a number of times equal to the desired Personal Code for stage 1 of the Override Mode. The system will respond to each transmitter button press with a siren chirp (or horn honk). After pressing the transmitter button the desired number of times, wait for the system to chirp the siren (or honk the horn) an equal number of times. Now press and release the transmitter's small center button a number of times equal to the desired Personal Code for stage 2 of the Override Mode. The system will again chirp the siren (or honk the horn) in the same fashion as the Code entered for stage 1. If the system has unknown customized Personal Override Code already entered, the factory-set default of one press can be obtained by resetting the system: on the bottom of the system control module is small hole with two solder contacts visible below. Use a small slotted screwdriver to short the solder contacts together until the system responds with a long siren chirp (or short blast of the horn).

2) Last Door Arming: Default OFF. To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that the Feature is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

3) Automatic Rearming: Default OFF. On occasion, people have accidentally disarmed their security system by unknowingly having the transmitter's button pressed while in a purse or pocket. To prevent such accidental disarming, if this Feature is utilized, the system will automatically rearm itself 90 seconds after disarming, unless the ignition switch is turned "on". Also, if Feature #5 (Doors Lock Upon Automatic Rearming) is utilized, the doors will also lock when the system automatically rearms. Automatic Rearming is confirmed by a fast flashing LED. Once the ignition switch is turned "on", the system will stay in the disarmed condition until you are ready to arm the system again from the transmitter or from the Last Door Arming Feature. Opening a door will also stop Automatic Rearming, but the countdown will resume when the door is shut. While the door is open, the LED Status Light will be on steady until the door is shut, upon which it will resume flashing fast, or, the ignition is turned "on", which will extinguish the light.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that Automatic Rearming is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

4) **Starter Interrupt 90 Seconds After Ignition "Off" Or Disarming: Default OFF.** Activating this Feature will cause the Starter Interrupt output to automatically engage 90 seconds after the ignition switch is turned "off", and also 90 seconds after disarming the system. This automatic engagement will occur even if the security system is in a disarmed state, but not if it is in Valet Mode. Once the Starter Interrupt output is activated, the system must be armed, then disarmed with the transmitter, or placed into the Easy Valet™ Mode by pressing and holding the Valet Switch for 2 seconds to disengage it.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that Automatic Rearming is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

5) **Doors Lock Upon Last Door Arming: Default OFF.** This Feature may only used if Feature #2, Last Door Arming, is utilized. Activating this Feature will add the locking of the doors when the security system automatically arms 30 seconds after the vehicle's last door is closed. If this Feature is not activated, the system will still automatically arm (if Feature #2 is ON), but the doors will not automatically lock. Connection of a power doorlock interface is required for this Feature.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that Automatic Rearming is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

6) **Doors Lock Upon Automatic Rearming: Default OFF.** This Feature may only used if Feature #3, 90 Second Automatic Rearming, is utilized. Activating this Feature will add the locking of the doors if the security system automatically rearms 90 seconds after being disarmed from the transmitter. If not activated, the system will still automatically rearm (if Feature #3 is ON), but the doors will not automatically lock. Connection of a power doorlock interface is required for this Feature.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

7) **Doors Lock Upon Ignition "On": Default ON.** This Feature, when activated, will cause the security system to automatically lock the vehicle's doors 1.75 seconds after the ignition switch is turned "on" (connection of a doorlock interface is required).

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

8) **Unlock #1 Upon Ignition "Off": Default ON.** This Feature, when activated, will cause the security system to automatically unlock either the driver's door or all of the vehicle's doors instantly when the ignition switch is turned "off". Please note that the exact operating parameters of the Feature depends upon the configuration of the security system and your vehicle's power doorlocks. This system may be configured to unlock only the driver's door upon disarming. Then, if desired, pressing the transmitter's large upper button again within 3 seconds will unlock all of the doors. Therefore, this Feature can operate one of two ways: first, if all of the doors unlock upon disarming, this Feature will unlock all of the doors when the ignition is turned "off". Second,

if your vehicle is configured to unlock the driver's door only upon disarm, this Feature will unlock only that door upon disarming. If the second configuration discussed previously is present, the next Feature allows the option of automatic unlocking of all of the doors when the ignition is turned "off".

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

9) **Unlock #2 Upon Ignition "Off": Default ON.** As discussed in the previous Feature, your security system is capable of a second door unlock output. If your system is configured to unlock the driver's door only upon disarming with the transmitter, this Feature may be utilized. This Feature, when activated, will unlock all of the other doors, after the driver's door, when the ignition switch is turned "off".

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

10) **Open Door Bypass For The 3 Previous Features: Default ON.** This Feature cancels any automatic doorlock operations associated with the ignition switch if a door is open at the time the ignition switch is turned "on" or "off". For example, if the security system is programmed to unlock the doors when the ignition is turned "off", if a door is opened before turning the ignition "off", the doors will not unlock.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

11) **Confirmation Siren Chirps (Or Horn Honks) On/Off: Default ON.** This Feature allows full-time removal of the audible confirmation siren chirps (or horn honks). Please note that silent arming or disarming may be done on a onetime temporary basis by pressing and releasing the transmitter's small center button before pressing and releasing the large upper button. Even if this Feature is used to remove the confirmation chirps (or honks), the audible Automatic Transmitter Verification™ feature will still operate.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

12) **Confirmation Siren Chirps (Or Horn Honks) While In Valet Mode: Default OFF.** While in Valet Mode, the system will still respond to the transmitter for the purpose of remotely locking and unlocking the vehicle's doors. This Feature controls the addition or elimination of an audible confirmation of the security system's response while in Valet Mode. If activated, the system will have confirmation siren chirps (or horn honks) if the transmitter is used to lock or unlock the while in Valet Mode.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

13) 30 Or 60 Second Activated Alarm Cycle: Default 60 Seconds. When an armed security system is activated, this Feature determines how long the siren (or horn) will sound, and how long the parking and dome lights will flash.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is now set for a 30 second activated alarm cycle. Pressing the large upper button will return this Feature to a 60 second cycle, with the system's response being one siren chirp (or horn honk).

14) Lights On 30 Or 5 Seconds Upon Disarm: Default 30 Seconds. This Feature sets the length of time that the parking and dome lights stay on upon disarming the security system. The longer time allows inspection of the area around and inside the vehicle when dark.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is now set for a 5 second parking and dome light period. Pressing the small center button will return this Feature to a 30 second period, with the system's response being two siren chirps (or horn honks).

15) Disarm System Upon Trunk Release: Default ON. This Feature causes the security system to automatically disarm when the small center button is pressed and held to operate remote trunk release. If this Feature is turned OFF, the trunk release will still operate, but the system will remain armed.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

16) Doorlock Pulse Time .8 Or 3 Seconds: Default .8 Second. Some vehicle's power doorlocking systems (example: pneumatic systems) require a longer output pulse to operate properly. This Feature allows the installer the flexibility to accommodate such systems without the added expense of an additional adaptor.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that the doorlock output pulse is now 3 three seconds. Pressing the large upper button will return this Feature to the .8 second pulse, with the system's response being a single siren chirp (or horn honk).

17) Double Pulse Unlock (DPU™): Default OFF. This is another Feature provided for the installer's benefit. Some newer vehicles require a double pulse to remotely unlock the doors and/or to disarm a factory-equipped security system.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with one siren chirp (or horn honk) to indicate that the doorlock output pulse is now a double pulse. Pressing the small center button will return this Feature to the single pulse, with the system's response being two siren chirps (or horn honks).

18) 3 Or 45 Second Arming Delay: Default 3 Seconds. Some installation situations require an extra period of time for the security system to become fully armed. Where needed, this Feature may be changed by the installer to delay the full arming of the system to 45 seconds. Please note when the 45 second arming delay is used, it adds 45 seconds to all three forms of arming: active arming from the transmitter, Last Door Arming, and Automatic Rearming.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that the arming delay is now 45 seconds. Pressing the large upper button will return this Feature to the 3 second arming delay, with the system's response being a single siren chirp (or horn honk).

19) Steady Siren Or Pulsed Horn Output: Default Pulsed Horn. Instead of the electronic siren, if the vehicle's horn is preferred, this Feature changes the output from steady to pulsed, allowing the use of the horn for the alarm's audible responses. If the vehicle does not utilize an existing horn relay, one must be added or this output's 1 Amp capacity may be exceeded, which will damage the alarm. This Feature is defaulted to Pulsed Horn, but set for Steady Siren at the factory. The electronic siren requires a continuous, steady output, which this Feature accommodates. The siren features six different siren tones, which change every 5 seconds. When configured for use with a horn, this output pulses for 10 seconds, then pauses for 5 seconds, repeating this cycle for the duration of the activated alarm period. This prevents the horn from overheating, thereby ensuring a maximum useful horn life to the vehicle owner.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, pressing the large upper button will return this Feature to the pulsed output, with the system's response being a single siren chirp (or horn honk). Or, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that the audible output is now steady.

20) Loud Or Soft Confirmation Horn Honks: Default Loud. If your security system is configured to sound the vehicle's horn, this Feature allows a degree of compensation for the variance which is found among vehicles in the length of the pulse required to honk the horn in a satisfactory manner.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that the confirmation horn honk is now set for the softer position. Pressing the large upper button will return this Feature to the louder position, with the system's response being a single siren chirp (or horn honk).

21) Total Closure Lock Output: Default OFF. If the vehicle is so equipped, this Feature allows the installer to take advantage of a preexisting Total Closure System. Consult with the installer on this option, as the vehicle must be properly equipped to take advantage of this Feature.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with one siren chirp (or horn honk) to indicate that the lock output is now 28 seconds. Pressing the small center button will return this Feature to the selected pulsed output, with the system's response being a two siren chirps (or horn honks).

22) Ignition-Activated Anti-Carjacking Protection: Default OFF. If this Feature is utilized, after turning the ignition switch "on" and starting the vehicle, you must press the Valet Switch within 60 seconds. If the Valet Switch is not pressed within this period, the system will begin chirping the siren (or honking the horn) 53 seconds after the ignition was turned "on". These chirps (or honks) are to remind you that the Anti-Carjacking Protection is about to engage; pressing the Valet Switch before the 60 seconds expires will stop the Anti-Carjacking Protection Feature. The chirps (or honks) will last for 7 seconds, after which time the siren (or horn) will fully engage, and the parking and dome lights will begin flashing to attract attention to the

vehicle. Thirty seconds after the siren (or horn) and lights engage, or, when the ignition is turned "off" the starter interrupt circuit will activate. Once the Anti-Carjacking is engaged, the only way to disengage it is to turn the ignition "off", then "on" again, and then press the Valet Switch within 5 seconds (or enter the Personal Coded Override).

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

23) Door-Activated Anti-Carjack Protection: Default OFF. This feature causes the Anti-Carjacking Feature described previously to be activated by the opening of a door at any time while the ignition switch is "on". This Feature may be used alone, or inconjunction with the previous "Ignition Activated Anti-Carjacking". If a door is opened while the ignition switch is "on", the Anti-Carjacking Feature will engage 53 seconds after the door is closed. The Valet Switch must be pressed within 60 seconds after the door is shut to cancel the Anti-Carjacking Protection Feature.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system'sresponse being two siren chirps (or horn honks).

24) 3rd Channel Activated Anti-Carjacking Protection: Default OFF. This Feature allows remote activation of the Anti-Carjacking Feature. When this Feature is utilized, pressing the transmitter's small lower button for 3 seconds will activate the 3rd Channel Output, but if the ignition switch is "on", this operation will also activate the Anti-Carjacking Feature, which is previously described.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system'sresponse being two siren chirps (or horn honks).

25) Open Door Arming Alert: Default OFF. When this Feature is utilized, if one of the vehicle's doors is open when the system is armed by using the transmitter, the siren will chirp (or the horn will honk) and the lights will flash 3 times instead of once upon arming the system. When a door is open upon arming, this Feature configures the system to have the same arming confirmation as if the hood or trunk were open.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

Programming Transmitters EG-1400ATV and EG-1600ATV

Up to 4 different transmitters may be programmed into the security system's memory. When a new transmitter code is programmed into the system, all previous codes will be deleted. If a third or fourth transmitter is desired, all of the transmitters must be programmed into system's memory. To program transmitters to operate your system, follow this process:

1) Turn "on" the ignition switch; within 5 seconds of turning "on" the ignition switch, press the Valet Switch 5 times. The system will respond with a long siren chirp (or long horn honk)
Note: If no further coding action is taken, or if the ignition is turned "off", the learning process will automatically terminate, which will be indicated by two siren chirps (or horn honks).

2a) The Personal Coded Override must be entered before 15 seconds expires. Press the Valet Switch the correct number of times - the factory-set default is one press for stage #1 and no press for stage #2. If the system is configured with the default setting, it will respond by sounding the siren for a short period, then two chirps (or one long then two short horn honks). In this case proceed to Step 3.

2b) If the system has had the Personal Coded Override custom-programmed, once stage #1 been properly entered (which can be up to nine Valet Switch presses) the system will acknowledge the entry by sounding the siren (or horn) for a short period, then one chirp (or a short honk). You now have 8.5 seconds to initiate stage #2 of entering the Override Code. Momentarily press the Valet Switch equal to the Override Code number programmed for stage #2. The system will acknowledge the entry by sounding the siren for a short burst and two chirps (or the horn will sound one long, then two short honks).

3) To learn the first transmitter code, press the large transmitter button, (which will arm/disarm/panic the system), until you hear one long and one short siren chirp (or horn honk) to confirm that the code was learned. The two small button's functions will automatically be learned at the same time. *When the first transmitter code is learned, all other prior codes will be erased.*

4) To program the second, third or fourth transmitter codes, repeat step 3. As each transmitter is learned, the long confirmation siren chirp (or horn honk) will be followed by two short chirps (or honks) for transmitter number two, three short chirps (or honks) for transmitter number three, and four short chirps (or honks) for transmitter number four. An attempt to add any further transmitter codes will be ignored.

5) Turning off the ignition switch or 10 seconds of no programming will automatically turn off the transmitter learning code program, which is confirmed by two long siren chirps (or horn honks).

Whenever a transmitter is coded into the security system, whether an existing one or previously unknown transmitter, the siren will chirp (or horn will honk) for two seconds every time the ignition is turned "on", for a period of 48 hours. Additionally, the LED Status Indicator will flash (EG-1400^{ATV}) or the Visual Deterrent LED will flash and the Digital Status Indicator will show (EG-1600^{ATV}) the number of transmitters which can operate the system for 90 seconds instead of 10 seconds. This operation is the Automatic Transmitter Verification^{TM} feature, which protects the system from someone programming an unauthorized transmitter to operate the system.

Total System Reset EG-1200^{ATV}

If desired, all of the features that can be programmed through the Feature Programming Mode can quickly be returned to the factory settings. Changing individual features were explained in detail in the previous section. However, a Total System Reset feature allows the installer, if needed, to quickly return all of the programmable features to the factory-set default positions. To perform a Total System Reset, follow these steps:

1) Locate the small round hole in the lower control module case. Two solder dots will be visible beneath this hole.

2) Short the two solder dots together and hold in a shorted condition (a slotted jeweler's screwdriver works well).

3) Shorting the solder dots for a few seconds will result in two siren bursts. All programmable features are now returned to the factory-set default positions.

Personal Coded Override Reset & Total System Reset EG-1400^{ATV} and EG-1600^{ATV}

The EG-1400^{ATV} and EG-1600^{ATV} also have a Total System Reset feature. The installer, if needed, may quickly return all of the programmable features to the factory-set default positions. However, the initial stage of the Total System Reset returns the Personal Coded Override to the factory default setting of 1 and 0 presses of the Valet Switch. To perform Personal Coded Override Reset and/or a Total System Reset, follow these steps:

1) Locate the small round hole in the lower control module case. Two solder dots will be visible beneath this hole.

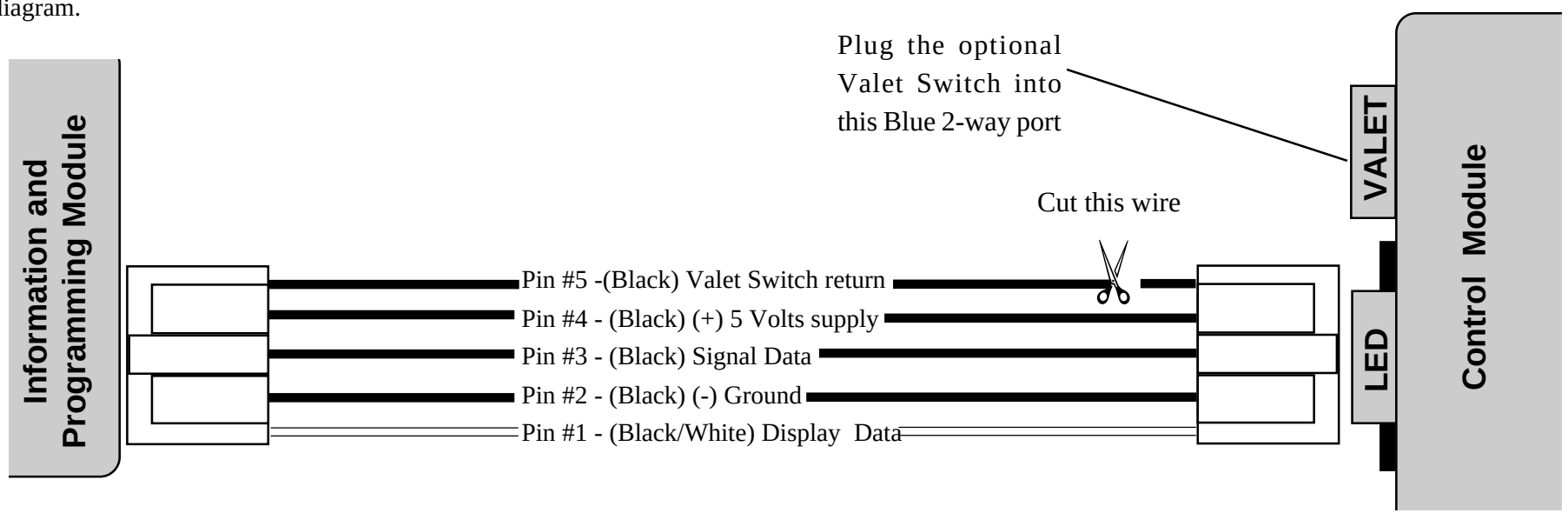
2) Short the two solder dots together and hold in a shorted condition (a slotted jeweler's screwdriver works well).

3) Momentarily shorting the solder dots together will result in one siren burst. The Personal Coded Override is now returned to the factory-set default position (1 and 0 presses of the Valet Switch).

4) Shorting the solder dots for several seconds will result in two siren bursts. All of the programmable features are now returned to the factory-set default positions.

Optional Hidden Valet Switch EG-1600^{ATV}

The Information and Programming Module is designed to be mounted on the windshield in view of the driver, and contains the Digital Status Indicator, the Visual Deterrent LED, and the Valet Switch. Although the Valet Switch may custom-programmed with a "press code" of the customer's choosing, the design of the EG-1600^{ATV} allows the use of an optional Valet Switch which may be hidden (the optional Valet Switch part number is #22LC). Simply plug the optional Valet Switch into the Blue 2-way port on the EG-1600^{ATV} control module. To disconnect the Valet Switch on the Information and Programming Module, cut the wire in the 5-way harness connecting the Information and Programming Module to the control module; this wire is indicated in the following diagram.



COMPREHENSIVE INSTALLER TECHNICAL GUIDE SUPPLEMENT

For
Model:

EG-1800^{ATV}

Security and Remote Starting System

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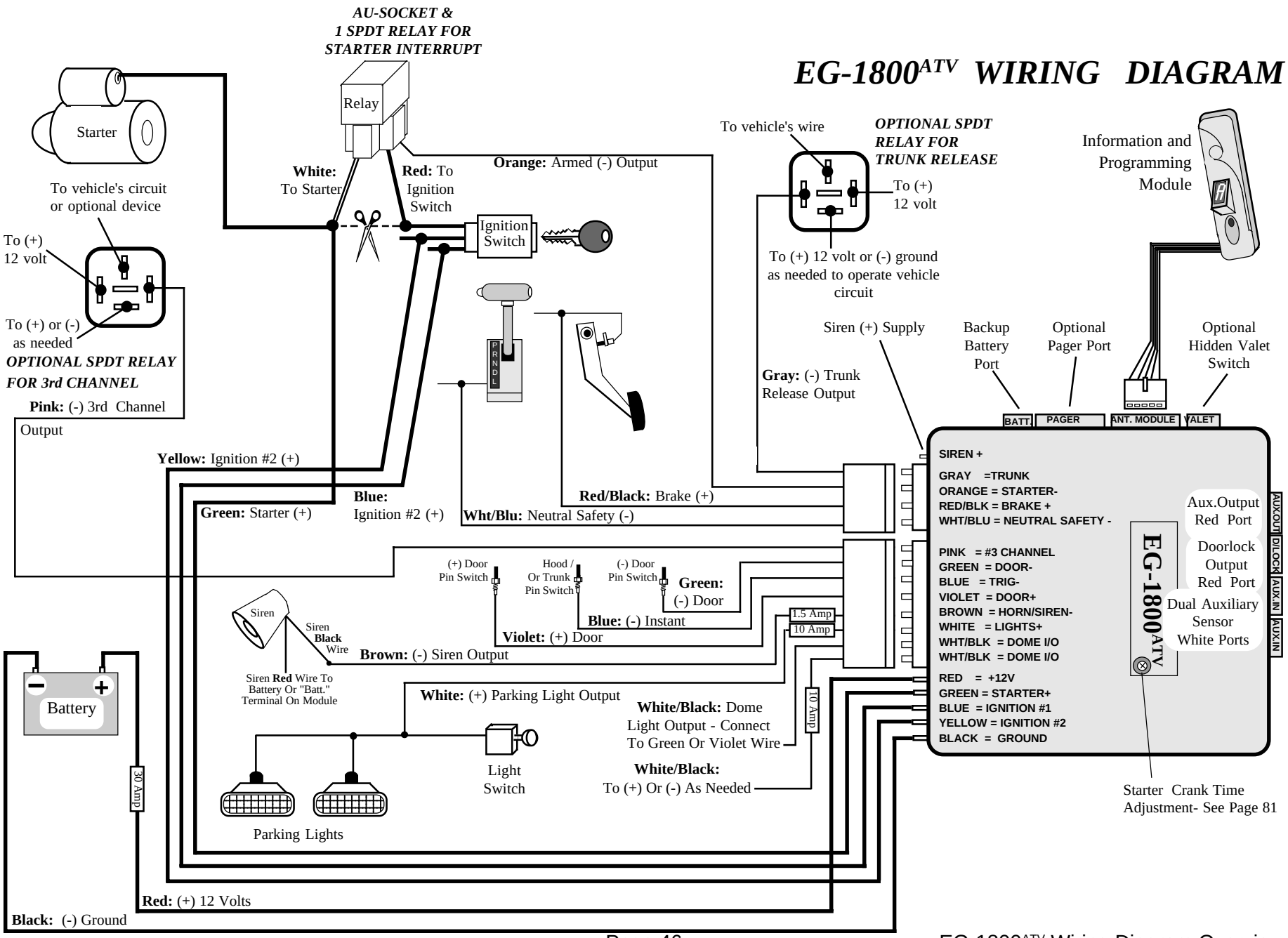


!! CAUTIONS & WARNINGS !!

Do not attempt to install the EG-1800ATV Remote Vehicle Security and Starting System into a manual transmission vehicle! Doing so could cause serious property damage, personal injury, and will void all warranties!

Be aware of, and avoid, any airbag circuitry! Due to the fact that an installer will not be in a normal, upright seated position, severe injury may occur in an accidental airbag deployment!

The use of a Digital Multimeter (DMM) or Volt-Ohm Meter (VOM) instead of a standard testlight is recommended. This can greatly reduce the risk of an accidental airbag deployment or onboard computer damage.

Battery gases are explosive! Avoid sparks and do not smoke while working near the vehicle's battery!

Always protect wires ran through the firewall from sharp metal edges and hot parts of the engine! Always fuse positive wires at the battery or power source!

Start the installation by affixing the WARNING DECAL to a readily visible area in the engine compartment!

Installation Considerations: This entire section should be read before starting the installation. An understanding of which control module wires to use and their functions is essential. Installations will vary from car to car , as some control module wires are required, while others are optional. Before starting the installation, it should be determined which control module wires will be used. Most installers will list these wires, then "map out" the installation by locating and noting the target wires in the vehicle. This will also determine the best location for the EG-1800^{ATV} control module, which is secured or mounted only upon completion of the installation.

The EG-1800^{ATV} duplicates, with onboard control circuitry and relays, the actions that occur within the ignition switch when the vehicle's key is used to start the engine. Because of this, most of the main wiring harness connections will be made at the ignition switch harness. This will be located around the steering column area. **Caution!** *Avoid the Airbag circuit!* Especially avoid any harness or wires encased in Yellow or Red tubing or sleeves. Do not use a standard test light, as it can deploy an airbag or damage onboard computers and sensors if the wrong circuits are probed.

The ignition switch wires usually are high amperage circuits, which means that high reliability connections must be made! The recommended connection method is proper soldering of all connections.

Wiring Connections - 5 Flag Terminals

Make all the wiring connections and procedures in the following order. Remember, proper, high reliability connections must be made!

Chassis Ground — Black Wire

Connect the Black wire to a very good, clean chassis ground. Recommended areas are to an existing machine thread bolt, either in the driver's kick panel area or a major structural member behind the dash. Small dash braces are not adequate, and the area must be clean, bright metal. Use the largest existing machine threaded bolt available. Using a sheet metal screw or grounding to sheet metal is inadequate. More comprehensive information regarding the chassis ground connection is found on Pages 6-7.

Constant Power — Red Wire

Connect this wire to Positive battery voltage. The most common source is the battery's Positive terminal. If the battery is selected as the power source, start at the battery and route the Red wire to the control module. Carefully route the long Red wire through the firewall, using an added or existing grommet. Avoid any hot or moving parts. The fuse holder should always be close to the power source connection, not the control module. An insulated terminal is provided for the control module end; this allows cutting the Red wire to length, if desired. Connect the ring terminal attached to the fuse holder to the battery's Positive terminal. After all of the other wiring connections have been made, insert the Green 30 amp fuse into the fuse holder.

Some vehicles have a single Constant 12 Volt circuit supplying the ignition switch. A schematic of the car's electrical system will show if this is the case. If so, the Red wire may be connected at the ignition switch wiring harness, but the fuse holder and 30 amp fuse must also be used.

The use of the 30 amp fuse and the fuse holder is required! Failure to properly install the fuse holder and the 30 amp fuse will void all warranties.

Ignition #1 Power Input/Output **Blue Wire**

This wire must be connected to the vehicle's Ignition #1 (also known as Primary Ignition) wire. The proper vehicle wire will measure Positive 12 Volts when the ignition key is in the "Run" and "Start" positions and no voltage in the "Off" and "Accessory" positions. This wire is found in the ignition switch wiring harness. If two or more Primary Ignition wires are present, an optional dual relay socket and one or two relays may be used on the additional wire(s). If more than three Primary Ignition wires are present, you will also need an optional additional relay for each wire.

Note that this circuit is both an input and output. The input operations are the same as found Pages 10-11, and the output operations are for remote starting the engine. When remote starting, this output supplies 12 Volts Positive to the vehicle's ignition circuit as soon as the remote start command is acknowledged by the EG-1800^{ATV}. This output stays active while the starter is engaged, and continues to supply power to the ignition circuit for the duration of the remote start engine run period. If the system detects a violated safety circuit, receives a transmitter command to stop running, or if the programmed run time expires, this output will stop supplying power, which stops the running engine.

Ignition #2/Accessory Power Input/Output **Yellow Wire**

Connect this wire to the vehicle's Ignition #2 or Accessory wire. This circuit in the vehicle can vary in its function. Its primary function is to supply power to the Heat, Ventilation and Air Conditioning (HVAC) system. The connection point for this wire is also found in the ignition switch wiring harness. In some cases the correct vehicle wire will show Positive 12 Volts in the "Run" and "Accessory" ignition key positions but in other vehicles it will show the voltage only in the "Run" ignition key position. This output should not be used if the vehicle's wire also shows voltage when the ignition key is in the "Start" position.

The Ignition #2/Accessory Yellow wire's operation differs from the Ignition #1 Blue wire's operation. When remote starting, this output supplies 12 Volts Positive to the vehicle's chosen circuit as soon as the remote start command is acknowledged by the EG-1800^{ATV} but this output stops while the starter is engaged. Once the engine starts and the starter disengages, this wire returns to having 12 Volts Positive output. From this point in the remote starting cycle the Yellow wire continues to supply power to the chosen vehicle circuit for the duration of the remote start engine run period. If the system detects a violated safety circuit, receives a transmitter command to stop running, or if the programmed run time expires, this output will stop supplying power.

Starter Output **Green Wire**

Connect this Green wire to the vehicle's Starter wire. This wire will show Positive 12 Volts when the ignition key is in the "Start" position only. This wire is also found in the ignition switch wiring harness. Some vehicles have a second Starter wire known as a "Cold Start" wire. When this second wire is present, if the two Starter wires are the same circuit you may connect both of these wires to the Green wire. If the two Starter wires are separate circuits an optional prewired dual relay socket and relay is recommended. When remote starting, this output supplies 12 Volts Positive to the vehicle's starter circuit.

The Green wire is best connected when installing the starter interrupt circuit. Its connection point must be on the starter side of the interrupt, not the Ignition Switch side. This easily accomplished when installing the starter interrupt by combining the Green Starter Output wire with the starter interrupt's White wire and then connecting both of these wires to the starter side of the cut vehicle wire. This is explained in further detail on Pages 51-52.

Wiring Connections - 4 Wire Connector

Brake Positive — Red/Black Wire

The Red/Black wire <u>must</u> be connected. It is a critical safety feature which disables the EG-1800^{ATV}'s remote start operations whenever the brake pedal is pressed. Connect the Red/Black wire to the brake switch wire which shows Positive 12 Volts when the brake pedal is pressed. The brake switch is typically located above the brake pedal, and usually mounted to the brake pedal support bracket. Always make this connection in a fashion ensuring its long-term reliability; soldering is highly recommended.

Upon completing the Red/Black wire's connection, thoroughly test the operation of this circuit. Attempt to remotely start the vehicle while holding the brake pedal depressed; the EG-1800^{ATV} should respond with one long and four short siren chirps. Release the brake pedal and remotely start the engine. Once running, pressing the brake pedal should stop the engine. **Always perform this test before proceeding to the next safety circuit test, the neutral safety input.**

Neutral Safety Negative — White/Blue Wire

This circuit is another critical safety feature which enables the EG-1800^{ATV}'s remote start operations. Connect the White/Blue wire to the vehicle's Negative neutral safety wire. The target wire will show Negative Ground whenever the gear selector is in the "Park" or "Neutral" positions. Once the target wire is located, securely connect the White/Blue wire to it.

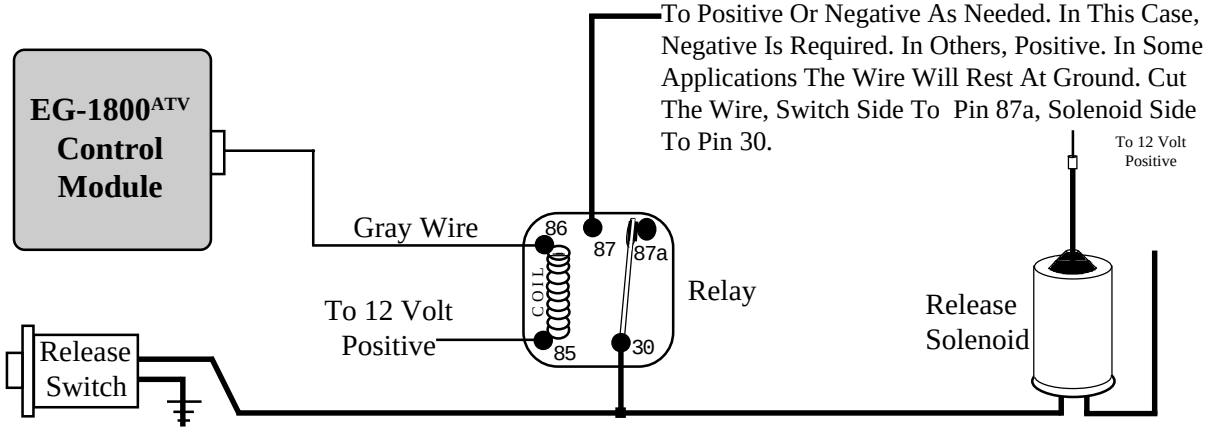
Some vehicles, however, do not have a grounding-type neutral safety switch. These vehicles instead have the starter circuit routed through a switch which closed only when the gear selector is in the "Park" or "Neutral" positions; in other gear positions the switch is open, thus preventing the starter from engaging. When installing the EG-1800^{ATV} in this type of vehicle, the White/Blue wire may be directly grounded, or connected to the parking brake warning circuit. If the later option is chosen, ensure that the parking brake warning circuit is grounded when the parking brake is applied. An electrical schematic of the vehicle or consulting Omega's vehicle wiring data base will save much time in determining the type of neutral safety circuit.

Regardless of the type of connection, the vehicle <u>must</u> be tested to ensure that it can not be remotely started while in forward or reverse gears. Before returning the vehicle to the owner, place the vehicle in a parking lot or other open area. Sit in the driver's seat and be ready to apply the brake, if needed. Engage the remote starter in each gear position. If this safety feature is operating properly, remote starting will only be possible if the gear selector is the "Park" or "Neutral" positions; in all other positions the EG-1800^{ATV} will instead respond with one long and one short siren chirp and the starter will not engage. **Never fail to perform this test!** If a fault is found in the neutral safety operation, it must be corrected before returning the vehicle to the owner. If the vehicle in question lacks a neutral safety circuit, one must be fitted before installing any type of remote starting system.

Trunk Release Output — Gray Wire

The function of the Gray wire is to provide an optional output, the primary use being trunk release. To operate this output, press and hold the transmitter's small center button for three seconds. When activated the Gray wire will provide a 250ma ground pulse for 1 second; or, stay grounded for as long as you depress the transmitter button, for up to 15 seconds. Also, the EG-1800^{ATV} is programmed to automatically disarm, chirp the siren twice, unlock the doors and turn the lights on for 30 seconds. The remote trunk release feature can be operated anytime with the ignition switch is "off", or it may also be operated while ignition switch is "on", provided that a door is open at the same time the transmitter's small center button is pressed. This prevents the trunk or rear hatch from being opened from the transmitter while driving. Whenever this output is used, the siren will chirp twice.

Unless the vehicle's trunk release switch negatively triggers a release relay which draws no more than 250ma, an optional relay must be used. Connect the Gray wire to relay pin (86), and connect constant 12 volt positive to relay pin (85). Connect pins 87, 87a & 30 as indicated in the following typical diagram:



Wiring An Optional Relay For Trunk Release.

Grounded Output for Starter Interrupt — Orange Wire

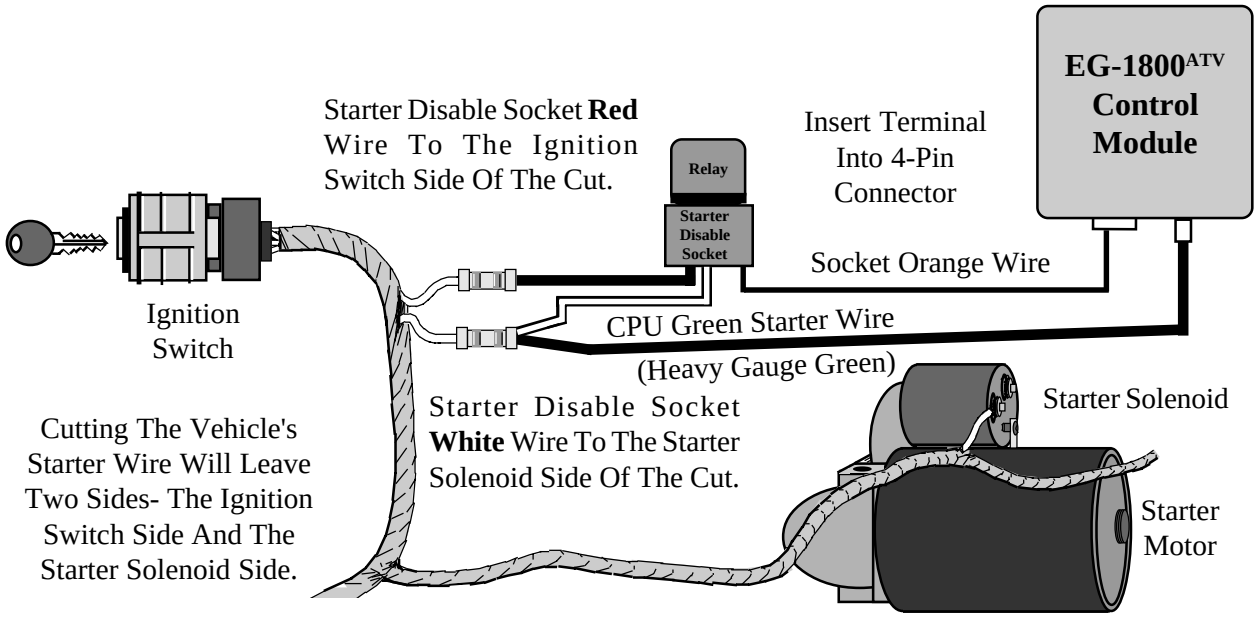
The Orange wire is for a starter disable socket and relay. The function of this wire is to provide a constant 500ma ground output whenever the security system is armed. This ground output supplies one side of the relay's coil. The other side of the relay coil will be supplied with positive voltage from the ignition switch, but only if the ignition switch is turned to the "start" position. If this occurs, the coil will energize, triggering the relay, which in turn will open the starter circuit. The starter interrupt prevents the vehicle from starting only if the security system is armed (including while the security system is triggered) and will draw current from the vehicle's electrical system only if an attempt is made to start the vehicle.

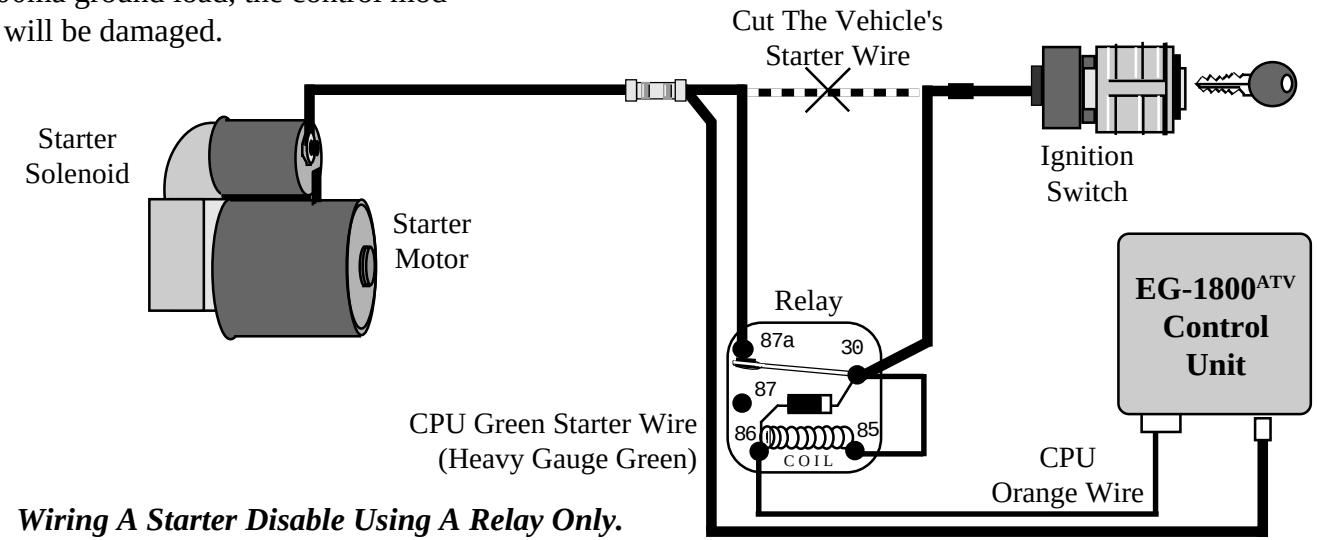
CONNECTION: This connection, like the Ignition Power circuits, are best done as close to the ignition switch as possible. An Omega Research and Development Quick Interconnect Harness may be used, if desired or this connection may be "hard wired". To interrupt the vehicle's starter circuit, the starter wire must be located and cut. We recommend that this be done as close to the ignition switch as possible. Use a voltmeter, not a test light, to find the correct wire. This wire runs 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 expensive onboard 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. Now that the starter wire has been cut, there are two sides - the ignition switch side and the starter solenoid side. 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 you make good, solid electrical connections as this 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 control module will be damaged.

Wiring A Starter Disable Using The AU-SOCKET And One SPDT Relay.





Wiring A Starter Disable Using A Relay Only.

Although a relay can be wired without using the starter disable socket, we recommend using the socket. Besides being easier and faster than wiring a relay, the socket includes a diode that prevents the relay from inductive lockup, which will prevent the vehicle from being started. If wiring a relay without the socket, use this diagram.

Wiring Connections - 8 Wire Connector

Negative Door Trigger Wire — Green Wire

The Green wire's function is an open door input to the control module for vehicles having *negative switching* door pin switches. An open or closing door will affect the following operations:

A) When the security system is armed, opening a door will trigger the security system; causing the siren or horn to sound, the exterior lights to flash, and the doors to relock.

B) If the Last Door Arming feature is utilized, after turning "off" the ignition switch and closing the door, the Last Door Arming sequence will begin. Upon closing the last door, this is indicated by a siren chirp or horn honk, one parking light flash and a fast flashing LED Status Light. Thirty seconds after the last door closes, the siren will chirp again (or the horn will honk again) and the parking lights will flash once again, indicating that the system is armed.

C) Opening a door while the exterior lights are on after disarming the security system will cause the exterior lights to turn off 10 seconds after the opening of the door. If the Last Door Arming feature is utilized, closing the door will initiate Last Door Arming.

D) If the Doors Lock With Ignition "On", and Unlock With Ignition "Off" features are turned on along with the Open Door Bypass feature, if a door is open when the ignition switch is turned "on" with a door opened, the doors will not automatically lock; if a door is open when the ignition switch is turned "off", the doors will not automatically unlock.

E) Opening a door during the 90 second Automatic Rearming cycle, or the 30 second Last Door Arming cycle will suspend that automatic function for as long as the door is open. When the door is closed, the Last Door Arming sequence will restart.

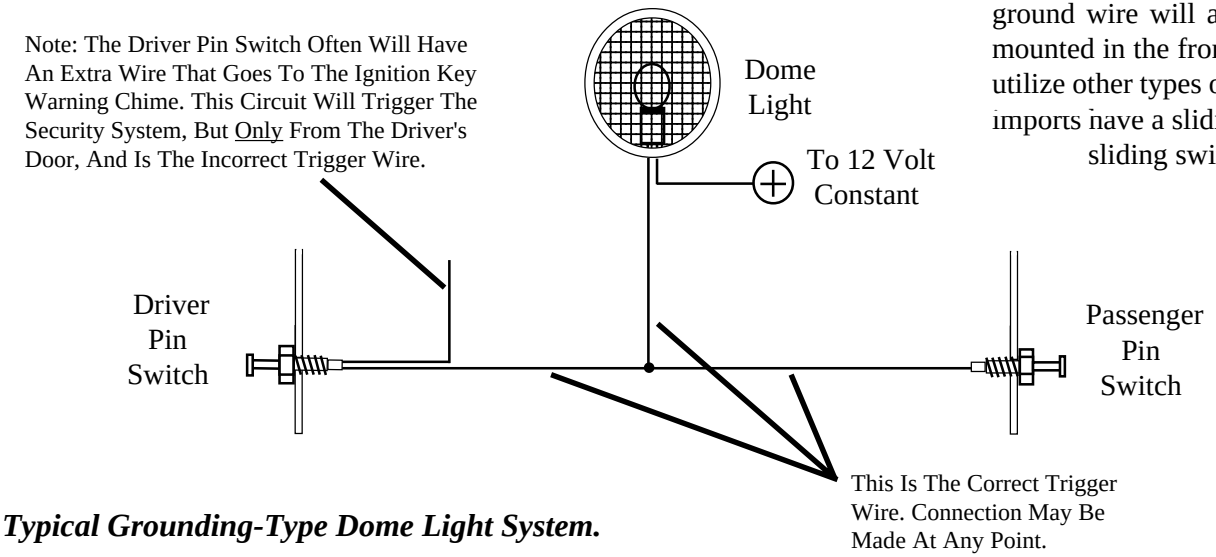
F) If this wire is grounded at the time the security system becomes armed from the transmitter, the circuit bypass feature will leave the Green wire circuit unprotected until the circuit becomes ungrounded.

G) If the system is triggered by the Green wire, the LED Status Light will flash 3 times and pause until the ignition switch is turned “on”. The Information and Programming Module's digital display will additionally show "d". The system does not have to reset itself for this feature to operate.

H) When the ignition switch is "off", if the Green wire becomes grounded, the LED Status Light will flash 3 times and pause for as long as the door is open. This is the Zone Testing feature, which allows the installer or vehicle owner to visually see trigger circuits which are in a violated state.

I) If a door is opened and remote starting is attempted, the vehicle will not start and the EG-1800^{ATV} will respond with one long and three short siren chirps. If a door is opened after the vehicle has been remotely started, the system will go into an alarm state and the engine will stop running.

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 will have no voltage present and will also show chassis ground when the doors are opened, and up to 12 volts when the doors are closed. The 12 volts present on the wire with the doors shut is simply voltage that the meter detects through the dome light bulb filament(s). When the door is opened, a path to ground is presented to this voltage (known as *ground potential*), which causes the voltage to flow to ground (this is referred to as *electrical current*). The completion of this circuit, caused by opening the door, resulting in current flow, causes the dome light bulb's filament to glow because of the filament's resistance to the electrical current. 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 Circuit Bypass feature will allow the system to be armed from the transmitter instantly 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 on the following page illustrates a basic negative courtesy light system.



Typical Grounding-Type Dome 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 imports have the pin or sliding switches in the rear door jamb area. In addition, some vehicles utilize switches in the doors, either connected to the exterior door handles or to the latching mechanism. A car that features the dome lights illuminating when the exterior door handle is lifted is an example of this type of switching system.

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.

Positive Door Trigger Wire — Violet Wire

The Violet wire's function is an open door input to the control module for vehicles having *positive 12 volt* door pin switches. An open or closed door will affect the following operations:

A) When the security system is armed, opening a door will trigger the security system; causing the siren or horn to sound, the exterior lights to flash, and the doors to relock.

B) If the Last Door Arming feature is utilized, after turning "off" the ignition switch and closing the door, the Last Door Arming sequence will begin. Upon closing the last door, this is indicated by a siren chirp or horn honk, one parking light flash and a fast flashing LED Status Light. Thirty seconds after the last door closes, the siren will chirp again (or the horn will honk again) and the parking lights will flash once again, indicating that the system is armed.

C) Opening a door while the exterior lights are on after disarming the security system will cause the exterior lights to turn off 10 seconds after the opening of the door. If the Last Door Arming feature is utilized, closing the door will initiate Last Door Arming.

D) If the Doors Lock With Ignition "On", and Unlock With Ignition "Off" features are turned on along with the Open Door Bypass feature, if a door is open when the ignition switch is turned "on" with a door opened, the doors will not automatically lock; if a door is open when the ignition switch is turned "off", the doors will not automatically unlock.

E) Opening a door during the 90 second Automatic Rearming cycle, or the 30 second Last Door Arming cycle will suspend that automatic function for as long as the door is open. When the door is closed, the Last Door Arming sequence will restart.

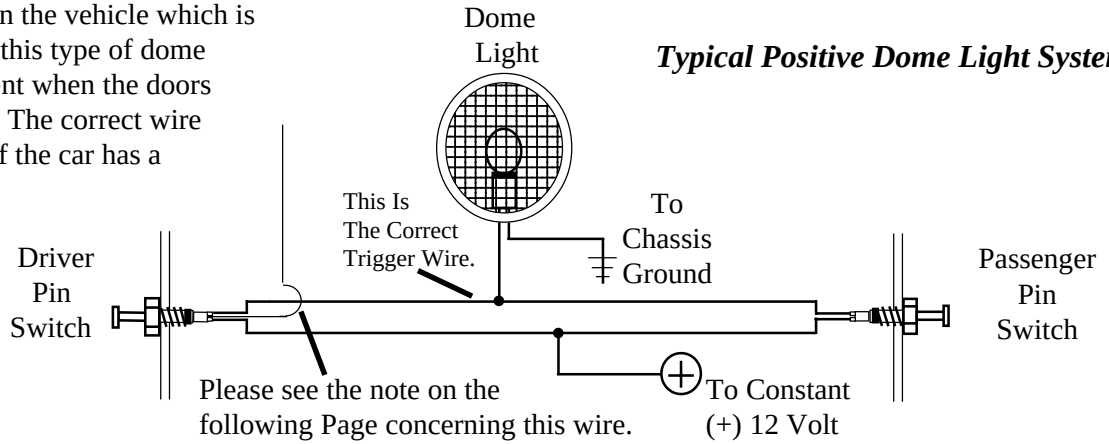
F) If this wire is grounded at the time the security system becomes armed from the transmitter, the circuit bypass feature will leave the Green wire circuit unprotected until the circuit becomes ungrounded.

G) If the system is triggered by the Violet wire, on all models the LED Status Light will flash 3 times and pause until the ignition switch is turned “on”. The Information and Programming Module's digital display will additionally show "d". The system does not have to reset itself for this feature to operate.

H) When the ignition switch is "off", if the Green wire becomes grounded, the LED Status Light will flash 3 times and pause for as long as the door is open. This is the Zone Testing feature, which allows the installer or vehicle owner to visually see trigger circuits which are in a violated state.

I) If a door is opened and remote starting is attempted, the vehicle will not start and the EG-1800^{ATV} will respond with one long and three short siren chirps. If a door is opened after the vehicle has been remotely started, the system will go into an alarm state and the engine will stop running.

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 chassis ground when the doors are closed. The correct wire will show this change when any of the doors are opened. If the car has a delay dome light the Circuit Bypass feature will allow the system to be armed from the transmitter instantly and will start protecting the Violet wire circuit when the dome light turns off. In Last Door Arming mode, the system arms 30 seconds after the dome light turns off. The following diagram illustrates a basic positive courtesy light system:



Typical Positive Dome Light System.

Negative Instant Trigger — Blue Wire

The Blue wire is a Negative instant trigger used primarily to detect an open hood or trunk of the vehicle. Complete functions are:

A) When the security system is armed, grounding the Blue wire will trigger the system, causing the siren to sound, the exterior lights to flash, and the doors to relock.

B) If the Blue wire is grounded when the system is armed, the Circuit Bypass feature will leave the Blue wire circuit unprotected until it becomes ungrounded.

C) If the Blue wire becomes grounded during the 90 second Automatic Rearming cycle, or the 30 second Last Door Arming cycle, that automatic function will be suspended for as long as the door is open. When the door is closed, Last Door Arming will start.

D) When the Last Door Arming feature is utilized, if the Blue wire is grounded when the last door is closed, the Last Door Arming process will not start until the Blue wire is ungrounded.

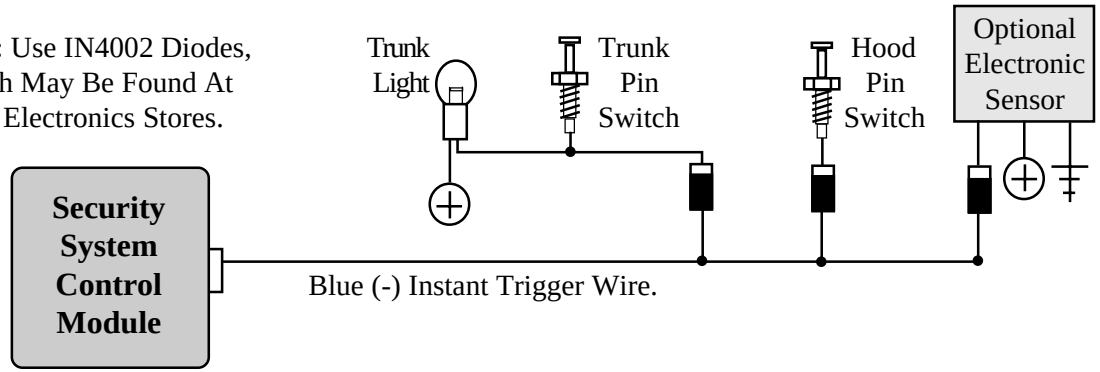
E) If the security system is triggered by the Blue wire, the LED Status Light will flash 2 times and pause until the ignition switch is turned “on”. The Information and Programming Module will additionally display "H" on the digital display.

F) When the ignition switch is "off", if the Blue wire becomes grounded, the LED Status Light will flash 2 times and pause for as long as the Blue wire is grounded. This is the Zone Testing feature, which allows the installer or vehicle owner to visually see trigger circuits which are in a violated state.

G) If the hood or trunk is opened and remote starting is attempted, the vehicle will not start and the EG-1800^{ATV} will respond with one long and two short siren chirps. If the hood or trunk is opened after the vehicle has been remotely started, the system will go into an alarm state and the engine will stop running.

CONNECTION: **This wire must be connected!** 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 negative 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 Blue wire direct.

Note: Use IN4002 Diodes, Which May Be Found At Most Electronics Stores.



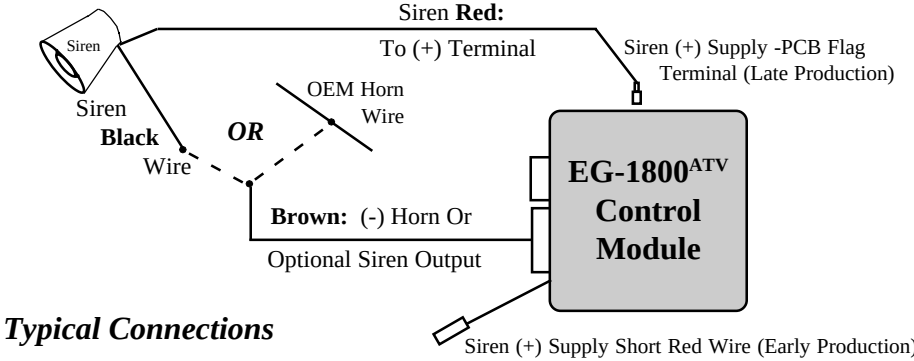
When wiring more than one of the vehicle's circuits and/or additional circuits to this wire, diode-isolation of the circuits may be required. An example would be wiring a hood pin switch and trunk light switch together. Without isolating, the trunk light will turn "on" whenever the hood is raised. Also,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

Diode-Isolating Multiple Negative Instant Triggers.

Negative Siren/Horn Output — Brown Wire

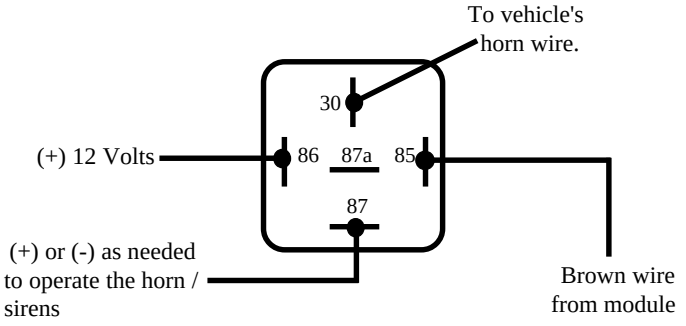
The Brown wire is a 1 Amp Negative output to operate the system's audible functions. This output is programmable, and may used to sound an electronic siren (program "steady", the factory setting) or the vehicle's existing horn (program "pulsed"). Instead of the siren, if the vehicle's horn is preferred, this output must be changed from steady to pulsed, allowing the use of the horn for the alarm's audible responses. If the vehicle does not utilize an existing horn relay, one must be added or the output's 1 Amp capacity may be exceeded, which will damage the control module. The electronic siren requires a continuous, steady output. The siren features six different siren tones, which change every 5 seconds. When configured for use with a horn, this output pulses for 10 seconds, then pauses for 5 seconds, repeating this cycle for the duration of the activated alarm period. This prevents the horn from overheating, thereby ensuring a maximum useful horn life to the vehicle owner. When this output is programmed for pulsed horn operation, an additional programmable feature allows loud or soft confirmation honks. Late-production units having a "M3760-3" siren IC may have the tones programmed; see Page 19.

CONNECTION: If used with the electronic siren, the Brown wire may be connected directly to the siren's Black wire, and the siren's Red wire is connected to the Siren Positive Terminal on the system's control module. If used to sound the horn, the Brown wire may be connected directly to the vehicle's existing horn switch wire, which is typically found at the steering column. The correct wire will show Positive 12 Volts normally, and no voltage when the horn is honked. Direct connection of the Brown wire is to an existing horn switch-to-relay wire only. Once the vehicle's horn wire is identified, probe the wire with a standard test light connected to Negative chassis ground. If the horn honks when probed, a direct connection may be made. If not, use the following diagram to configure an optional relay. **CAUTION!** 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 Airbag circuit with a standard test light can cause the Airbag to deploy!** One alternative is to disconnect the horns, then operate the horn switch. A clicking sound from the vehicle will confirm the presence of a horn relay. Another alternative is to check a wiring schematic of the vehicle in question.



Typical Connections

Configuring A Relay, When Required

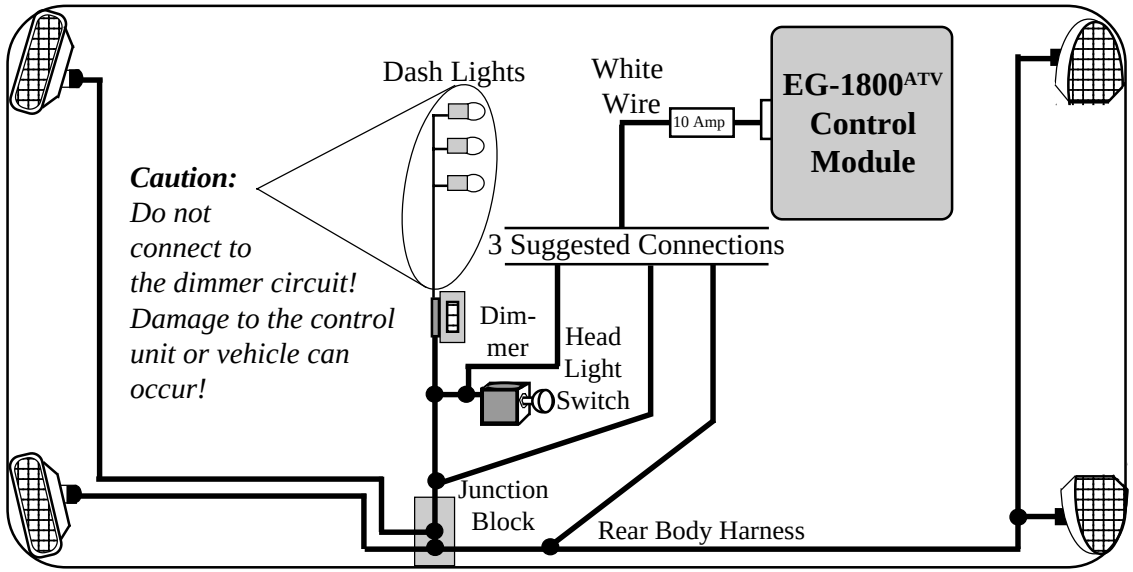


MOUNTING THE SIREN: Find a location in the engine compartment away from the extreme heat of the engine and manifold. A suitable location will offer a firm mounting surface, will also allow sound dispersion out of the engine compartment, and not be accessible to a thief. The siren must be pointed downward to avoid moisture collecting inside it and to enhance sound dispersal. The Brown Siren/Horn output wire has a 1 Amp capacity, which, if exceeded, can damage the security system control module. Certain situations, among them multiple optional sirens or a vehicle which lacks a horn relay, an optional SPDT relay is required.

Positive Flashing Parking Light Output — White Wire

The White wire is a positive 12 volts 7 amp output for exterior flashing light confirmation and to attract attention to the vehicle if the security system is triggered. Also, upon disarming, this circuit will stay on for 30 seconds to confirm disarming and to illuminate the way to the vehicle, which gives added security when approaching the vehicle at night.

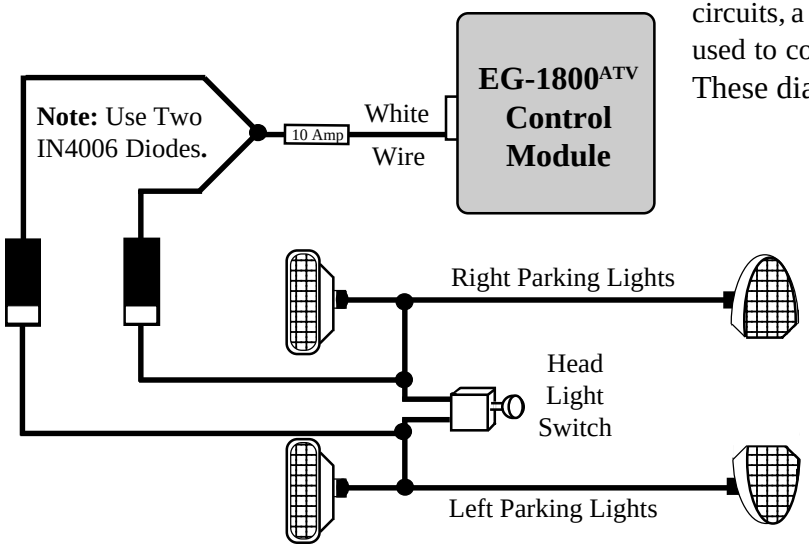
CONNECTION: Connect the White wire directly to the vehicle's positive 12 volts parking light circuit. This wire can usually be found at the following locations: at the Headlight Switch, at the Fuse/Junction Block, or in the rear body wiring harness which is usually found in the driver's kick panel. The correct wire will show positive 12 volts when the headlight switch is in the "Parking Light" and "Head Light" positions. When such a wire is 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. ***Caution:*** *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 possibly cause damage to the vehicle or system control unit.* Also, if the White wire touches chassis ground without the protection of the 10 amp fuse, the Printed Circuit Board and onboard relay will be damaged. Some vehicles, notably Toyotas, have a parking light relay which is triggered by a negative ground circuit from the headlight switch. These cars can still be connected directly to the White wire by finding the parking light circuit after the relay, usually at the Fuse/Junction Block.



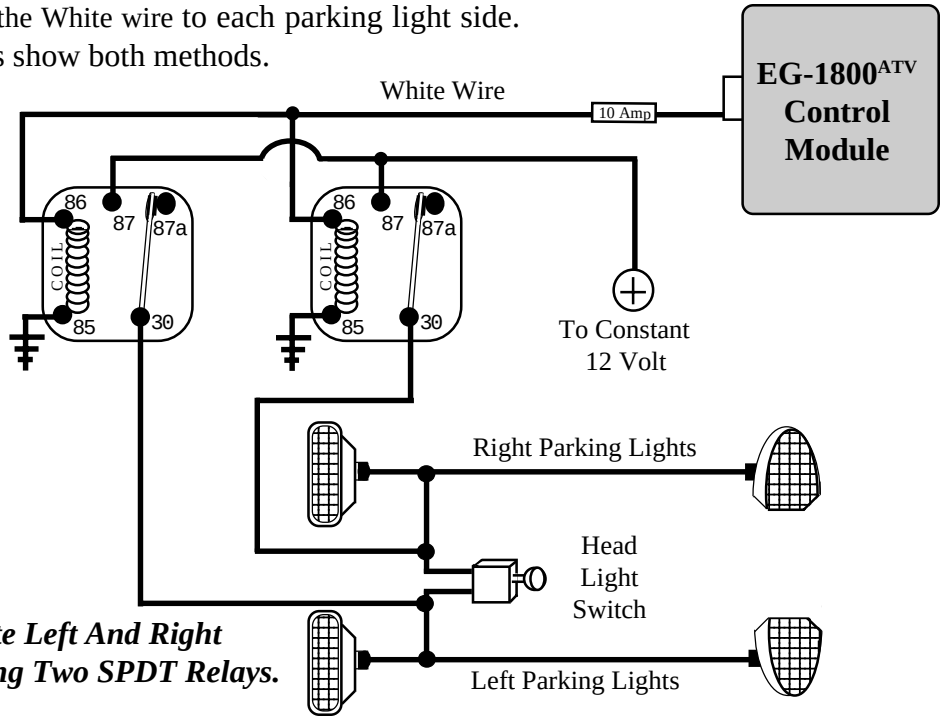
Connecting The White Wire Directly To Standard Parking Lights.

It is not recommended to flash the headlights instead of parking lights. The halogen headlights found in modern vehicles are not designed to be rapidly turned on and off. If connected to the security system, a reduction of their useful life may be noticed. If flashing the headlights is still desired, a relay must be used, since the headlight's current draw exceeds the 7 amp rating of the onboard relay. If flashing headlights and parking lights are desired, use the diagram for left and right parking lights using two relays - one relay will supply the parking lights and the other relay will supply the headlights. Any application that requires more than 7 amps of output must use an external relay.

Connecting Separate Left And Right Parking Lights Using Two Diodes.



Many European imports have separate left and right side parking lights. When left & right parking lights are on separate circuits, a pair of 6 to 10 amp diodes or a pair of relays must be used to connect the White wire to each parking light side. These diagrams show both methods.

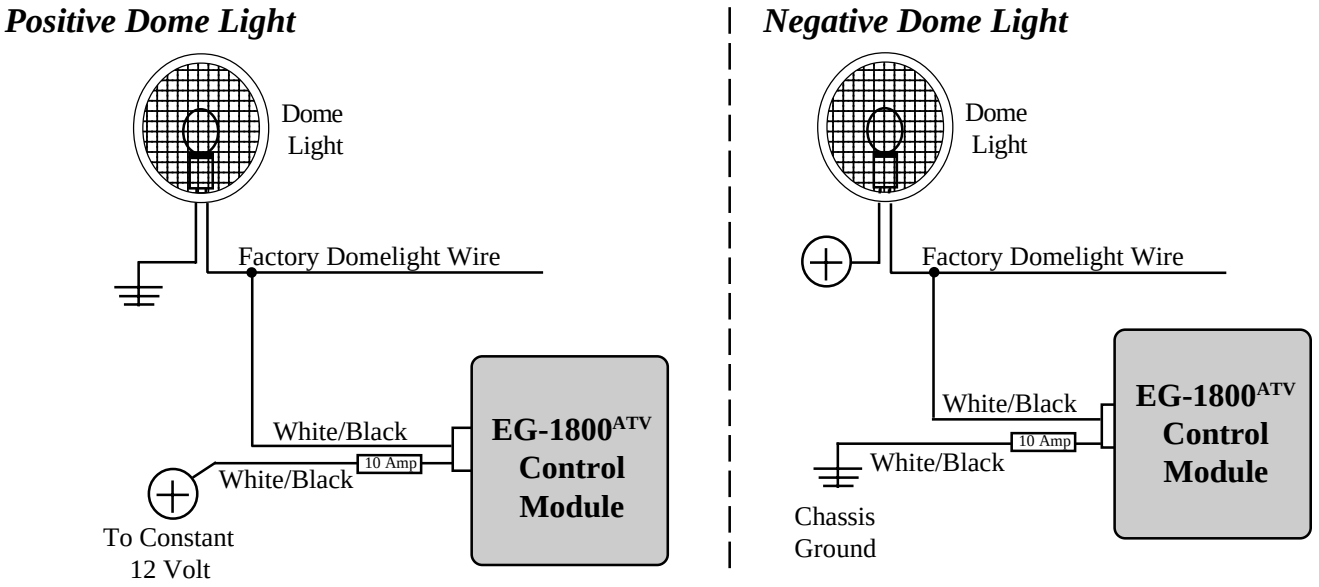


Connecting Separate Left And Right Parking Lights Using Two SPDT Relays.

Domelight Supervision — White/Black Wires

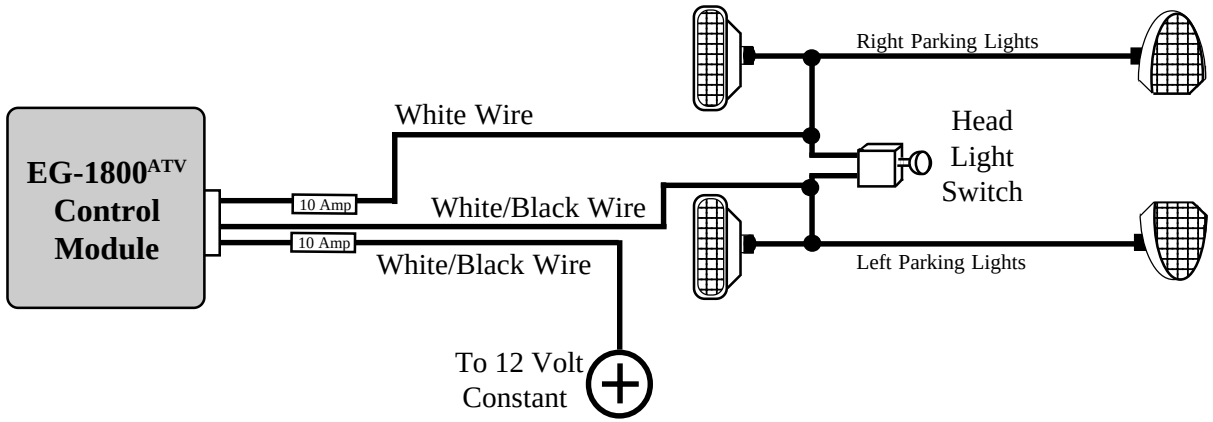
The two White/Black wires are intended for domelight supervision. This feature will turn on the vehicle's domelight upon disarming the security system to illuminate the interior of the vehicle. This output is identical to the White wire output except that the polarity is selectable to be positive or negative.

CONNECTION: The fused White/Black wire is an input to the control module. Connect this wire to 12 volts positive or chassis ground, whichever polarity is required to activate the vehicle's domelight. Connect the non-fused White/Black wire to the vehicle's domelight trigger wire. Usually this wire will be connected at the same point that the Green negative or the Violet positive door trigger wire is connected.



Connecting The White/Black Wires To Positive Or Negative Dome Lights.

The two White/ Black wires may also be used in a European split parking light application in place of the pair of diodes or the pair of relays. If this is desired rather than dome light supervision, use the following diagram:

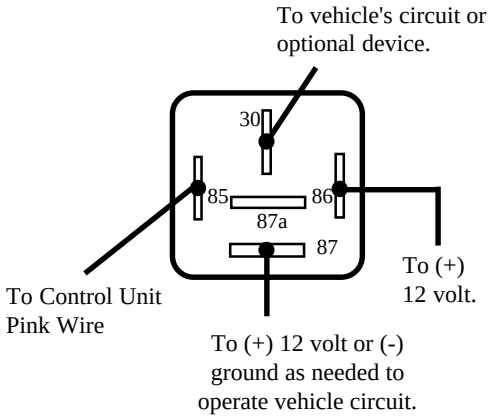


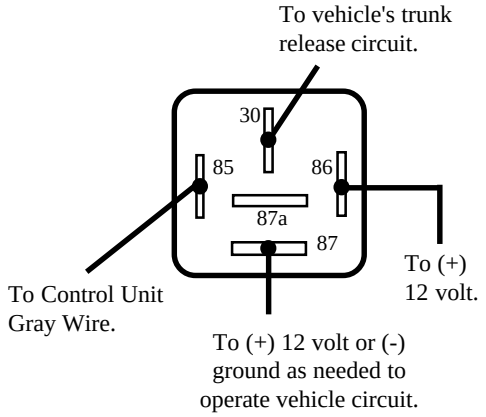
Optional Connection Of Separate Left And Right Parking Lights Instead Of Dome Lights.

3rd Channel Output **Pink Wire**

The function of the Pink wire is to provide an optional output similar to the Gray trunk release wire. Pressing the proper transmitter button for three seconds activates this output. Once activated, this output will last for one second, or, for as long as transmitter button is held down, with a maximum of 15 seconds. This function can be used to activate other optional modules, but for most applications an optional relay will be needed (use the diagram below or the diagram on Page 51). This output will not disarm the security system when activated. The small lower transmitter button is used to activate this output.

Configuring An Optional Relay For Trunk Release Or 3rd Channel Output.





Wiring Connections - Plug-In Accessories

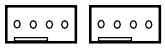
INFORMATION AND PROGRAMMING MODULE

This module is designed to be mounted on the windshield in view of the driver, and contains the Digital Status Indicator, the Visual Deterrent LED, and the Valet Switch. The Information and Programming Module also contains the system's receiver section, and mounting high on the windshield enhances the transmitter's operating range. Carefully clean the glass in the mounting area, then adhere the module to the glass. Plug one 5-way connector into the Information and Programming Module, route the harness to, and plug the remaining 5-way connector into, the main control module.

SENSOR PORTS

Excalibur Gold ATV security systems feature dual plug-in ports for the electronic sensor devices, which enhances the effectiveness of the system. These ports are dual-zoned: the first zone will respond by honking the horn (or chirping the optional siren) only; and the second zone will fully trigger, the system. These ports supply constant 12 volt power, grounded output when the system is armed, a negative instant trigger, and a negative prewarn trigger. Most Omega Research and Development, Inc. sensors will plug directly into the control module. Sensors are available that monitor shock to the vehicle and radar sensors that can detect moving objects inside and outside the vehicle. When adding a sensor, follow the installation instructions included with the sensor. After installing, route the harness and connector from the sensor to the security system control module. Plug the sensor's connector into either one of the module's

White port marked "Aux" - both have the same operation. It should be noted that when arming the system with the transmitter, the user has the ability to bypass the sensor, if desired. When bypassed, the system will not respond to either a prewarn nor an activation trigger.



White Auxiliary Sensor Ports
1. Red- Constant 12 Volt (+)
2. Black- (-) Ground While Armed
3. Blue- (-) Instant Trigger
4. Green- (-) Prewarning Trigger

BACKUP BATTERY PORT

This port allows the plug-in addition of a 9 volt alkaline battery to provide alternative power to operate the system if power to the control module is disconnected. A built-in protection circuit will not allow the 9 volt battery to back feed voltage into the vehicle's electrical system. Please note that the Siren Positive Terminal on the system's control module is supplied by the backup battery, so in the event of the vehicle's battery being disconnected, the electronic siren will still operate normally. The parking lights will not flash if the system is on backup battery power, as the parking lights would quickly drain the backup battery's power.

PAGER PORT

This port allows direct connection of the Omega Pager to the security system control module. The Omega Pager unit features include the identification of which zone activated the system, and the replication of the system's confirmation siren chirps (or horn honks). The Omega Pager includes the wiring harness for direct connection to the security system, and complete installation and operating instructions.

DOORLOCK OPERATIONS

The EG-1800^{ATV} has the ability to be configured to unlock only the driver's door upon disarming. Then, if desired, a second press of the transmitter button will unlock all of the doors. The Red 4 pin port on the system's control module produces a negative pulse for locking the doors, a constant 12 volt pin *for the optional relay coils only*, a first negative pulse for driver door unlock, and a second negative pulse for unlocking all other doors.

The doorlock interface needed will depend upon the type of power doorlocks the vehicle has. The vehicle must have existing power doorlocks. A vehicle that does not have power doorlocks may be equipped for remote keyless entry operation by adding a model DS-2 Electric Door Lock Actuator to each of the doors. This, and an optional DLS or DLS-3 and relays will allow the Excalibur Gold security system to operate the doorlocks. Another option is the addition of an Omega Central Power Doorlock kit.

Red 4 Pin Doorlock Output Port
1. Green- (-) Lock Pulse
2. Red- Constant 12 Volt (+)*
3. Pink- (-) Unlock Pulse (1 Press)
4. Blue- (-) Unlock Pulse (2nd Press)

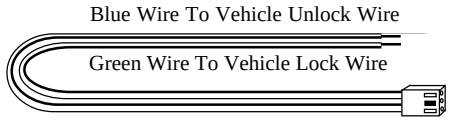
* This Circuit Is To Supply Voltage To The Relay Coils Only (Pins 85 Or 86)

DOORLOCK CONNECTIONS

The vast majority of power doorlocks are found as three system types: 3 wire negative pulse, 3 wire positive pulse and 5 wire reversal, rest at ground. Other power doorlock systems which may be encountered are the vacuum pump types found in most Mercedes vehicles and the single wire, dual-voltage which has appeared in some late model vehicles. The best way to identify a doorlock system is to examine the doorlock switch's wiring. The following sections will discuss the types of doorlock systems found and the available optional interfaces.

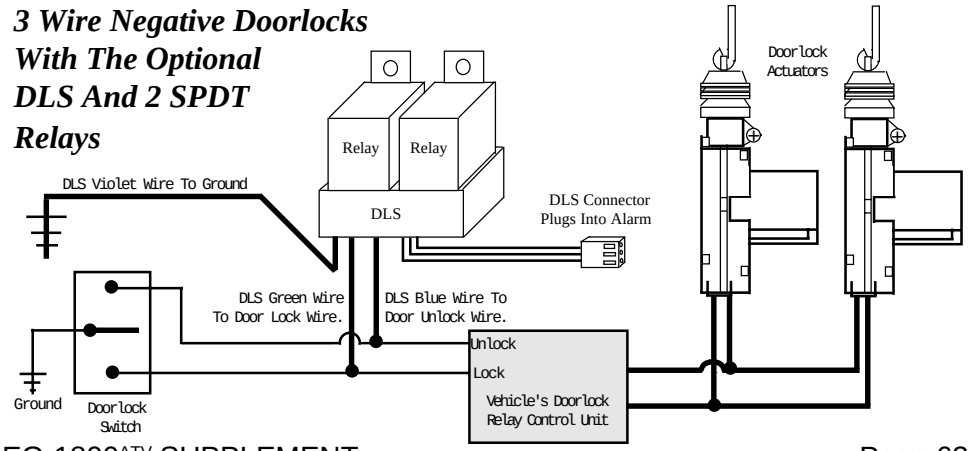
3 Wire Negative Pulse Systems: This power doorlock system is indicated by the presence of three wires at the switch. Of these, one will show constant ground, regardless of whether the switch is being operated or not (at rest). Of the remaining two wires, one will show ground when the switch is pushed 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 volt positive 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 or control unit.

An optional harness is available (model DLP-N3) which allows direct connection between the security system and 3 Wire Negative Pulse doorlock systems. Some doorlock systems, however, require more than the 500ma ground output that the security system's control module can accommodate. In these cases the optional model DLS and two relays must be used. When driver's door unlock priority is desired, the correct interface is the DLS-3.



Model DLP-N3 -Three pin connector with two 24" wires. Allows direct connection of the security system's negative pulse outputs directly to a vehicle's negative pulse doorlocks or to facilitate custom hard-wiring of optional relays.

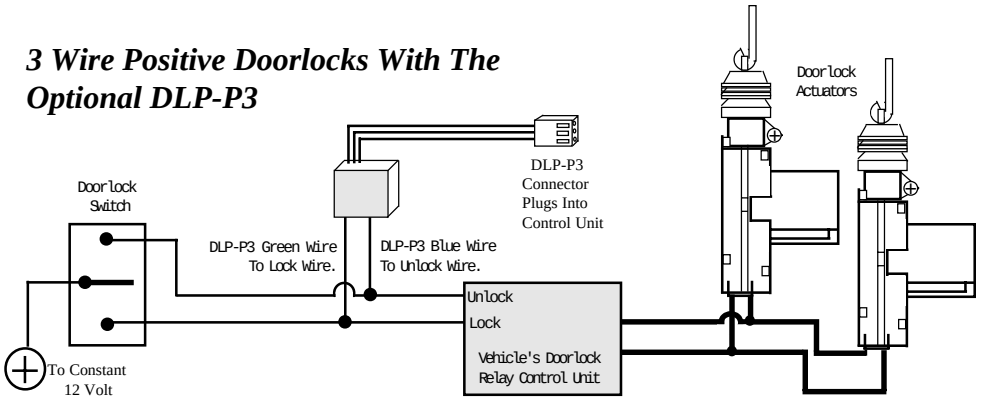
3 Wire Negative Doorlocks With The Optional DLS And 2 SPDT Relays



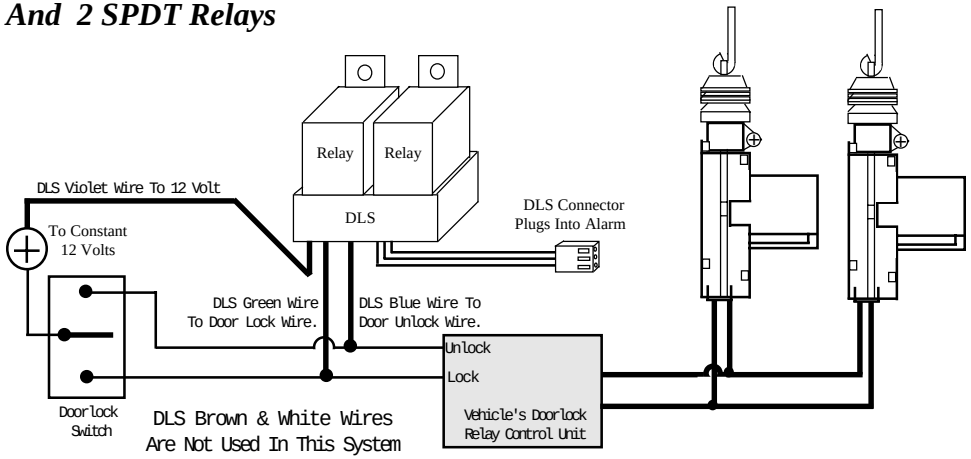
3 Wire Positive Pulse Systems: This power doorlock system is very similar to the three wire negative pulse system except the vehicle's doorlock switches use 12 volt positive pulses to operate the vehicle's doorlock relays or control unit. Examine the wires on the back of the switch. Of the three wires, one will be constant 12 volt positive, regardless of the switch's position. Of the two remaining wires, one will show 12 volt positive when the switch is pushed to "lock", and the other will show 12 volt positive when the switch is pushed to "unlock". Since the security system's output polarity must be reversed from negative ground to 12 volts positive, an optional doorlock interface must be used. Three interfaces are available - the models DLP-P3, the DLS and the DLS-3 with optional SPDT relays. The DLS-3 is discussed in detail later.

Model DLP-P3 - Three pin connector with a transistor converter network which changes the security system's negative pulse doorlock outputs to positive pulses, allowing direct connection a vehicle with positive pulse doorlocks. Overall length 20". Easier and more efficient than using relays for vehicles that have positive pulse doorlock systems.

3 Wire Positive Doorlocks With The Optional DLP-P3



3 Wire Positive Doorlocks With The Optional DLS And 2 SPDT Relays



Model DLS- 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 is one of the most universal doorlock interface available, allowing connection to 3 Wire Negative, 3 Wire Positive and 5 Wire Reversal systems. The relays used with it are standard 30 amp single pole, double throw (SPDT) automotive relays.

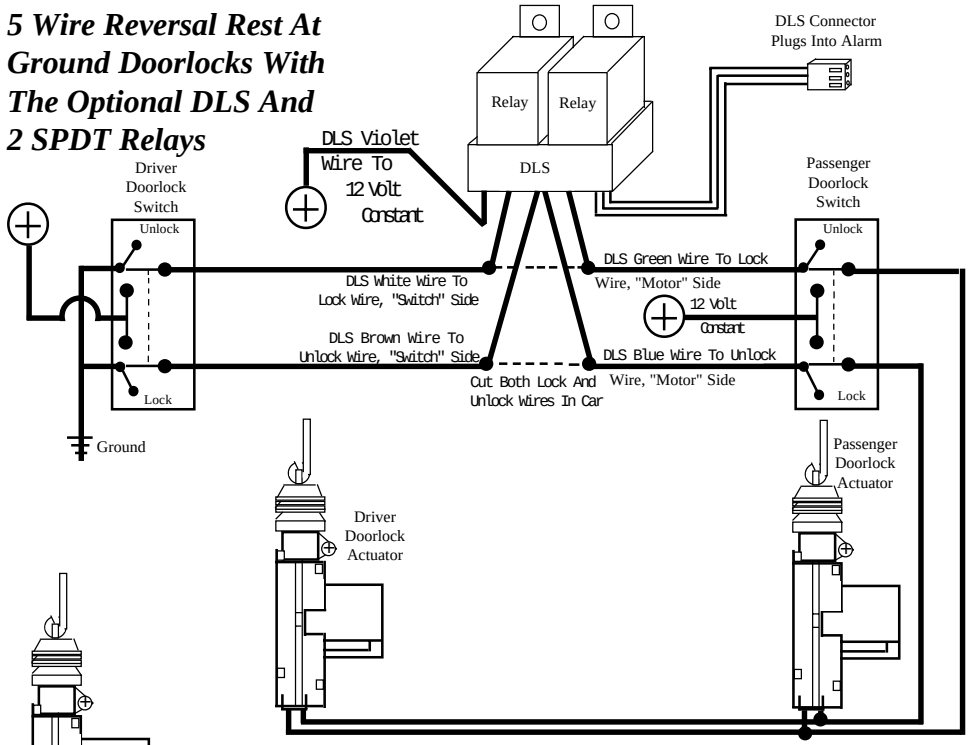
5 Wire Reversal Rest At Ground Systems: This power doorlock system differs from the negative and positive pulse systems in the fact that there are no relays or doorlock control unit. In this type of system, the switches themselves supply the positive voltage directly to the doorlock actuators, and, more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

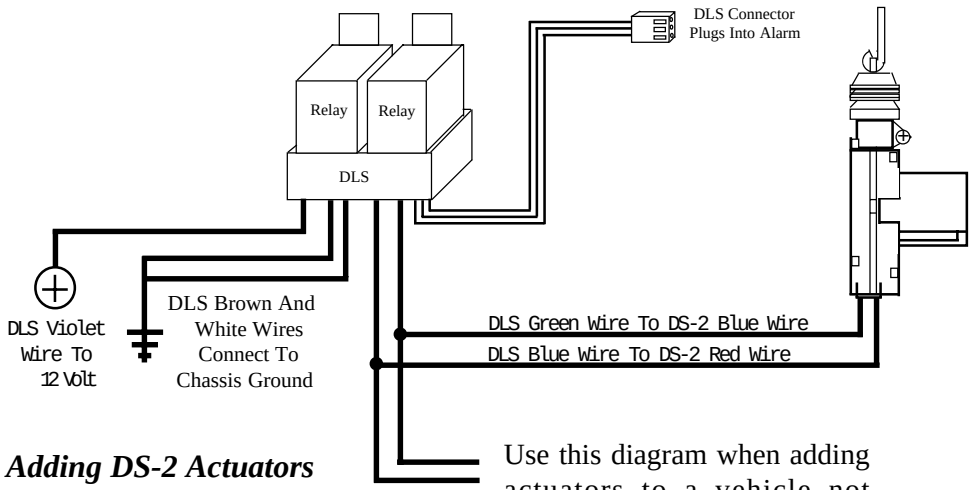
Examine the wires on the back of the switch. Normally 5 wires will be found. Of the wires, one will be constant 12 volt positive, regardless of the switch's position. Two wires will be grounded regardless of the switch's position. Of the two remaining wires, one will show 12 volt positive when the switch is pushed to "lock", and the other will show 12 volt positive when the switch is pushed to "unlock". When the correct wires are found, they must be cut. Notice in the

diagram 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 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.

Please note that when configuring driver's door unlock priority, the driver's door motor unlock wire will be found as a 5 wire reversal system, regardless of the system type found at the doorlock switches. Driver's door priority unlocking is discussed in the DLS-3 section later in this Comprehensive Installer Technical Guide.

5 Wire Reversal Rest At Ground Doorlocks With The Optional DLS And 2 SPDT Relays





Adding DS-2 Actuators And DLS And 2 SPDT Relays

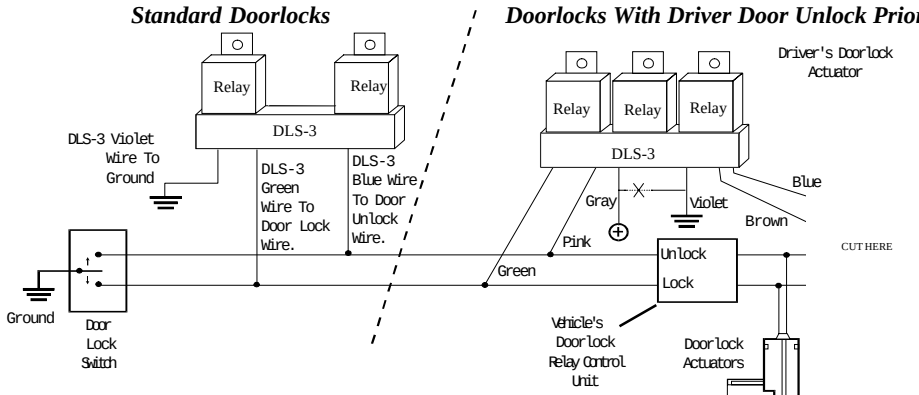
Use this diagram when adding actuators to a vehicle not equipped with factory power door locks. Route the wires from the other DS-2 actuators and connect all the actuators to the DLS in parallel.

Adding The Optional DS-2 Actuator And The DLS And 2 Relays:

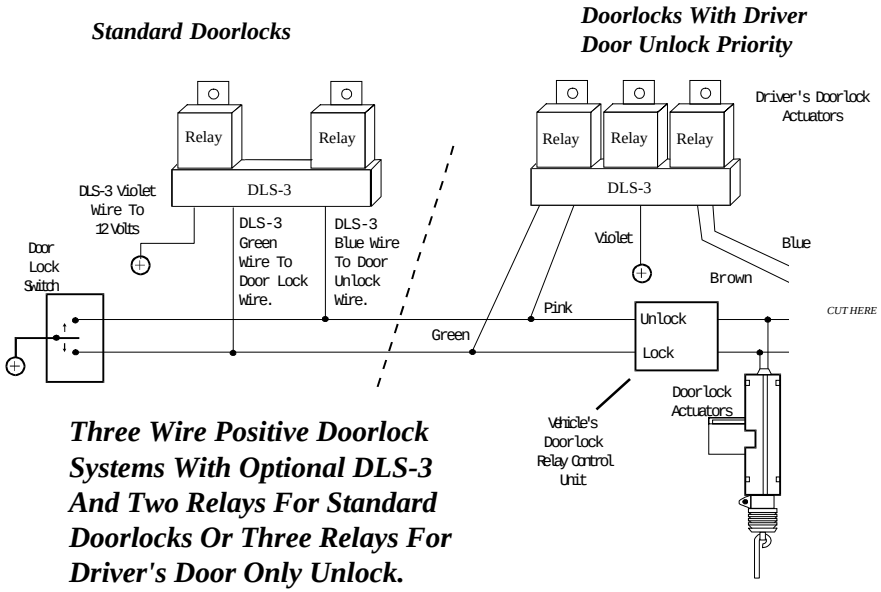
Some vehicles have a type of power doorlock system in which mechanically locking and unlocking the driver's door will operate an electrical switch in the door which supplies voltage to actuators in the other doors. There is no actuator in the driver's door, only a switch. An indication of this type of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

The Optional DLS -3 And 2 Or 3 SPDT Relays - Driver Door Unlock Priority:

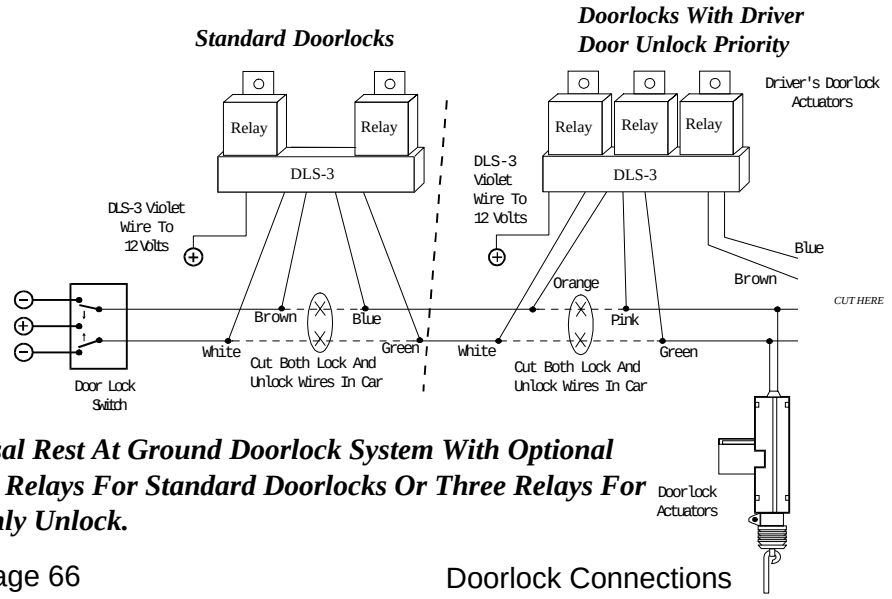
The DLS-3 is a triple relay socket (three relays are also needed) and is the most universal interface which allows the security system to lock the vehicle's doors, unlock only the driver's upon disarming (driver's door unlock priority) and, if desired, a second press of the transmitter's button will unlock all of the doors. The DLS-3 used with two relays can also be used in place of the DLS to lock and unlock all doors.



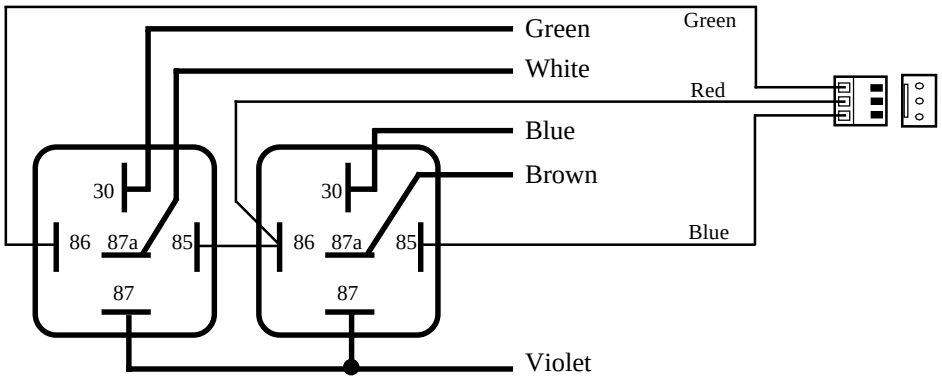
Three Wire Negative Doorlock Systems With Optional DLS-3 And Two Relays For Standard Doorlocks Or Three Relays For Driver's Door Priority Unlock.



Three Wire Positive Doorlock Systems With Optional DLS-3 And Two Relays For Standard Doorlocks Or Three Relays For Driver's Door Only Unlock.

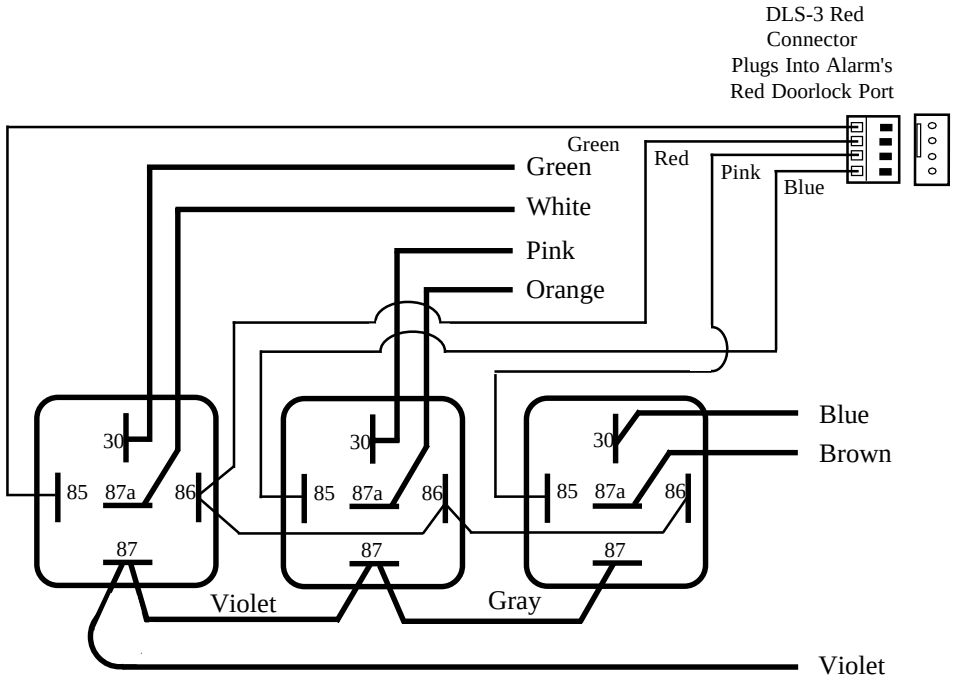


Five Wire Reversal Rest At Ground Doorlock System With Optional DLS-3 And Two Relays For Standard Doorlocks Or Three Relays For Driver's Door Only Unlock.



DLS Diagram

DLS-3 Wiring Diagram



Programming Features Manually
EG-1800ATV

The EG-1800ATV has a total of 30 Features which may be programmed via the Valet Switch and the transmitter in a special procedure. **The installer has access to features programming via the FPM-2 Features Programming Module, which can instantly program all features at once. This procedure is explained in a following section.** The Features Programming Mode is accessed through the turning "off" of the ignition switch and properly pressing the Valet Switch. Once in Features Programming Mode, the Valet Switch is further used to specify which of the 30 Features is to be changed, then the transmitter is used to program the selected Feature. If two failed attempts are made to enter the Features Programming Mode, two minutes must expire before attempting again (indicated by a double siren burst or double horn honk). To access the Features Programming Mode, follow this procedure:

Step 1 - Within 5 seconds of turning the ignition "off", momentarily press the Valet Switch 5 times. The security system will respond with sounding the siren (or horn) for a short period).

Step 2a - The Selectable Override Code must be entered before 15 seconds expires.
Press the Valet Switch the correct number of times - the factory-set default is one press for stage #1 and no press for stage #2. If the system is configured with the default setting, it will respond by sounding the siren for a short period, then two chirps (or one long then two short horn honks). In this case proceed to Step 3.

Step 2b - If the system has had the Selectable Override Code custom-programmed, once stage #1 been properly entered (which can be up to nine Valet Switch presses) the system will acknowledge the entry by sounding the siren (or horn) for a short period, then one chirp (or a short honk). <u>You now have 8.5 seconds to initiate stage #2 of entering the Override Code</u>. Momentarily press the Valet Switch equal to the Override Code number programmed for stage #2. The system will acknowledge the entry by sounding the siren for a short burst and two chirps (or the horn will sound one long, then two short honks).

Step 3 - You now have 15 seconds access the desired Feature. This done by pressing the Valet Switch the number of times that are equal to Feature number listed. For example, to change the Arming Delay to 45 seconds, press the Valet Switch twice as this is the second Feature on the list. The system will acknowledge the Valet Switch entry by chirping the siren (or honking the horn) a number of times equal to the number of Valet Switch presses.

Step 4 - You have 15 seconds to change the chosen Feature. Press the transmitter's large upper button to turn the Feature ON, or press the small center button to turn the Feature OFF. Turning the Feature ON is indicated by one siren chirp (or horn honk); turning the Feature OFF is indicated by two siren chirps (or horn honks). If 15 seconds of no programming activity expires (not pressing either transmitter button or selecting another Feature) will cause the system to exit the Features Programming Mode, which is indicated by two long siren chirps (or two long horn honks).

The 30 Programmable Features and their factory-set default settings are listed below. Following this each Programmable Feature and the programming operation is explained.

1) Personal Coded Override: Default 1 & 0.
2) Last Door Arming: Default OFF.
3) Automatic Rearming: Default OFF.
4) Starter Interrupt 90 Seconds After Ignition "Off" Or Disarming: Default OFF.
5) Doors Lock Upon Last Door Arming: Default OFF.
6) Doors Lock Upon Automatic Rearming: Default OFF.
7) Doors Lock Upon Ignition "On": Default ON.
8) Unlock #1 Upon Ignition "Off": Default ON.
9) Unlock #2 Upon Ignition "Off": Default ON.
10) Open Door Bypass For The Previous Three Features: Default ON.
11) Confirmation Horn Honks (or Siren Chirps): Default ON.
12) Confirmation Horn Honks (or Siren Chirps) While In Valet Mode: Default OFF.
13) 30 Or 60 Second Activated Alarm Cycle: Default 60 Seconds.
14) Lights On 30 Or 5 Seconds Upon Disarm: Default 30 Seconds.
15) Disarm System Upon Trunk Release: Default ON.
16) Doorlock Pulse Time .8 Or 3 Seconds: Default .8 second.
17) Double Pulse Unlock (DPU™): Default OFF.
18) 3 Or 45 Second Arming Delay: Default 3 Seconds.
19) Pulsed Horn / Steady Siren Output: Default Pulsed Horn.
20) Loud or Soft Confirmation Horn Honks: Default Loud.
21) Total Closure Lock Output: Default OFF.
22) Ignition-Activated Anti-Carjacking Protection: Default OFF.
23) Door-Activated Anti-Carjacking Protection: Default OFF.
24) 3rd Channel Activated Anti-Carjacking: Default OFF.
25) Open Door Warning Upon Arming: Default OFF.
26) Current Sensing: Default OFF.
27) Current Sensing Delay 3 Or 210 Seconds: Default 210 Seconds.
28) Remote Start Engine Run Time 10 Or 20 Minutes: Default: 10 Minutes.
29) Automatic Remote Engine Start: Default OFF.
30) Gasoline Or Diesel Engine: Default Gasoline.

The following pages describe each programmable feature and the programming procedure.

1) **Personal Coded Override: Default 1 & 0.** For a more secure Override Mode, the vehicle owner may customize this security system by selecting the number of Valet Switch presses needed to achieve the Override Mode. To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button a number of times equal to the desired Personal Code for stage 1 of the Override Mode. The system will respond to each transmitter button press with a siren chirp (or horn honk). After pressing the transmitter button the desired number of times, wait for the system to chirp the siren (or honk the horn) an equal number of times. Now press and release the transmitter's small center button a number of times equal to the desired Personal Code for stage 2 of the Override Mode. The system will again chirp the siren (or honk the horn) in the same fashion as the Code entered for stage 1. If the system has unknown customized Personal Override Code already entered, the factory-set default of one press can be obtained by resetting the system: on the bottom of the system control module is small hole with two solder contacts visible below. Use a small slotted screwdriver to short the solder contacts together until the system responds with a long siren chirp (or short blast of the horn).

2) **Last Door Arming: Default OFF.** To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that the Feature is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

3) **Automatic Rearming: Default OFF.** On occasion, people have accidentally disarmed their security system by unknowingly having the transmitter's button pressed while in a purse or pocket. To prevent such accidental disarming, if this Feature is utilized, the system will automatically rearm itself 90 seconds after disarming, unless the ignition switch is turned "on". Also, if Feature #5 (Doors Lock Upon Automatic Rearming) is utilized, the doors will also lock when the system automatically rearms. Automatic Rearming is confirmed by a fast flashing LED. Once the ignition switch is turned "on", the system will stay in the disarmed condition until you are ready to arm the system again from the transmitter or from the Last Door Arming Feature. Opening a door will also stop Automatic Rearming, but the countdown will resume when the door is shut. While the door is open, the LED Status Light will be on steady until the door is shut, upon which it will resume flashing fast, or, the ignition is turned "on", which will extinguish the light.

   To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that Automatic Rearming is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

4) **Starter Interrupt 90 Seconds After Ignition "Off" Or Disarming: Default OFF.** Activating this Feature will cause the Starter Interrupt output to automatically engage 90 seconds after the ignition switch is turned "off", and also 90 seconds after disarming the system. This automatic engagement will occur even if the security system is in a disarmed state, but not if it is in Valet Mode. Once the Starter Interrupt output is activated, the system must be armed, then disarmed with the transmitter, or placed into the Easy Valet™ Mode by pressing and holding the Valet Switch for 2 seconds to disengage it.

   To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that Automatic Rearming is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

5) **Doors Lock Upon Last Door Arming: Default OFF.** This Feature may only used if Feature #2, Last Door Arming, is utilized. Activating this Feature will add the locking of the doors when the security system automatically arms 30 seconds after the vehicle's last door is closed. If this Feature is not activated, the system will still automatically arm (if Feature #2 is ON), but the doors will not automatically lock. Connection of a power doorlock interface is required for this Feature.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that Automatic Rearming is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

6) **Doors Lock Upon Automatic Rearming: Default OFF.** This Feature may only used if Feature #3, 90 Second Automatic Rearming, is utilized. Activating this Feature will add the locking of the doors if the security system automatically rearms 90 seconds after being disarmed from the transmitter. If not activated, the system will still automatically rearm (if Feature #3 is ON), but the doors will not automatically lock. Connection of a power doorlock interface is required for this Feature.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

7) **Doors Lock Upon Ignition "On": Default ON.** This Feature, when activated, will cause the security system to automatically lock the vehicle's doors 1.75 seconds after the ignition switch is turned "on" (connection of a doorlock interface is required).

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

8) **Unlock #1 Upon Ignition "Off": Default ON.** This Feature, when activated, will cause the security system to automatically unlock either the driver's door or all of the vehicle's doors instantly when the ignition switch is turned "off". Please note that the exact operating parameters of the Feature depends upon the configuration of the security system and your vehicle's power doorlocks. This system may be configured to unlock only the driver's door upon disarming. Then, if desired, pressing the transmitter's large upper button again within 3 seconds will unlock all of the doors. Therefore, this Feature can operate one of two ways: first, if all of the doors unlock upon disarming, this Feature will unlock all of the doors when the ignition is turned "off". Second, if your vehicle is configured to unlock the driver's door only upon disarm, this Feature will unlock only that door upon disarming. If the second configuration discussed previously is present, the next Feature allows the option of automatic unlocking of all of the doors when the ignition is turned "off".

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

9) **Unlock #2 Upon Ignition "Off": Default ON.** As discussed in the previous Feature, your security system is capable of a second door unlock output. If your system is configured to unlock the driver's door only upon disarming with the transmitter, this Feature may be utilized. This Feature, when activated, will unlock all of the other doors, after the driver's door, when the ignition switch is turned "off".

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

10) **Open Door Bypass For The 3 Previous Features: Default ON.** This Feature cancels any automatic doorlock operations associated with the ignition switch if a door is open at the time the ignition switch is turned "on" or "off". For example, if the security system is programmed to unlock the doors when the ignition is turned "off", if a door is opened before turning the ignition "off", the doors will not unlock.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

11) **Confirmation Siren Chirps (Or Horn Honks) On/Off: Default ON.** This Feature allows full-time removal of the audible confirmation siren chirps (or horn honks). Please note that silent arming or disarming may be done on a onetime temporary basis by pressing and releasing the transmitter's small center button before pressing and releasing the large upper button. Even if this Feature is used to remove the confirmation chirps (or honks), the audible Automatic Transmitter Verification™ feature will still operate.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

12) **Confirmation Siren Chirps (Or Horn Honks) While In Valet Mode: Default OFF.** While in Valet Mode, the system will still respond to the transmitter for the purpose of remotely locking and unlocking the vehicle's doors. This Feature controls the addition or elimination of an audible confirmation of the security system's response while in Valet Mode. If activated, the system will have confirmation siren chirps (or horn honks) if the transmitter is used to lock or unlock the while in Valet Mode.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

13) **30 Or 60 Second Activated Alarm Cycle: Default 60 Seconds.** When an armed security system is activated, this Feature determines how long the siren (or horn) will sound, and how long the parking and dome lights will flash.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is now set for a 30 second activated alarm cycle. Pressing the large upper button will return this Feature to a 60 second cycle, with the system's response being one siren chirp (or horn honk).

14) Lights On 30 Or 5 Seconds Upon Disarm: Default 30 Seconds. This Feature sets the length of time that the parking and dome lights stay on upon disarming the security system. The longer time allows inspection of the area around and inside the vehicle when dark.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is now set for a 5 second parking and dome light period. Pressing the small center button will return this Feature to a 30 second period, with the system's response being two siren chirps (or horn honks).

15) Disarm System Upon Trunk Release: Default ON. This Feature causes the security system to automatically disarm when the small center button is pressed and held to operate remote trunk release. If this Feature is turned OFF, the trunk release will still operate, but the system will remain armed.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp (or horn honk).

16) Doorlock Pulse Time .8 Or 3 Seconds: Default .8 Second. Some vehicle's power doorlocking systems (example: pneumatic systems) require a longer output pulse to operate properly. This Feature allows the installer the flexibility to accommodate such systems without the added expense of an additional adaptor.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that the doorlock output pulse is now 3 three seconds. Pressing the large upper button will return this Feature to the .8 second pulse, with the system's response being a single siren chirp (or horn honk).

17) Double Pulse Unlock (DPU™): Default OFF. This is another Feature provided for the installer's benefit. Some newer vehicles require a double pulse to remotely unlock the doors and/or to disarm a factory-equipped security system.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with one siren chirp (or horn honk) to indicate that the doorlock output pulse is now a double pulse. Pressing the small center button will return this Feature to the single pulse, with the system's response being two siren chirps (or horn honks).

18) 3 Or 45 Second Arming Delay: Default 3 Seconds. Some installation situations require an extra period of time for the security system to become fully armed. Where needed, this Feature may be changed by the installer to delay the full arming of the system to 45 seconds. Please note when the 45 second arming delay is used, it adds 45 seconds to all three forms of arming: active arming from the transmitter, Last Door Arming, and Automatic Rearming.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that the arming delay is now 45 seconds. Pressing the large upper button will return this Feature to the 3 second arming delay, with the system's response being a single siren chirp (or horn honk).

19) Steady Siren Or Pulsed Horn Output: Default Pulsed Horn. Instead of the electronic siren, if the vehicle's horn is preferred, this Feature changes the output from steady to pulsed, allowing the use of the horn for the alarm's audible responses. If the vehicle does not utilize an existing horn relay, one must be added or this output's 1 Amp capacity may be exceeded, which will damage the alarm. This Feature is defaulted to Pulsed Horn, but set for Steady Siren at the factory. The electronic siren requires a continuous, steady output, which this Feature accommodates. The siren features six different siren tones, which change every 5 seconds. When configured for use with a horn, this output pulses for 10 seconds, then pauses for 5 seconds, repeating this cycle for the duration of the activated alarm period. This prevents the horn from overheating, thereby ensuring a maximum useful horn life to the vehicle owner.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, pressing the large upper button will return this Feature to the pulsed output, with the system's response being a single siren chirp (or horn honk). Or, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that the audible output is now steady.

20) Loud Or Soft Confirmation Horn Honks: Default Loud. If your security system is configured to sound the vehicle's horn, this Feature allows a degree of compensation for the variance which is found among vehicles in the length of the pulse required to honk the horn in a satisfactory manner.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps (or horn honks) to indicate that the confirmation horn honk is now set for the softer position. Pressing the large upper button will return this Feature to the louder position, with the system's response being a single siren chirp (or horn honk).

21) Total Closure Lock Output: Default OFF. If the vehicle is so equipped, this Feature allows the installer to take advantage of a preexisting Total Closure System. Consult with the installer on this option, as the vehicle must be properly equipped to take advantage of this Feature.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with one siren chirp (or horn honk) to indicate that the lock output is now 28 seconds. Pressing the small center button will return this Feature to the selected pulsed output, with the system's response being a two siren chirps (or horn honks).

22) Ignition-Activated Anti-Carjacking Protection: Default OFF. If this Feature is utilized, after turning the ignition switch "on" and starting the vehicle, you must press the Valet Switch within 60 seconds. If the Valet Switch is not pressed within this period, the system will begin chirping the siren (or honking the horn) 53 seconds after the ignition was turned "on". These chirps (or honks) are to remind you that the Anti-Carjacking Protection is about to engage; pressing the Valet Switch before the 60 seconds expires will stop the Anti-Carjacking Protection Feature. The chirps (or honks) will last for 7 seconds, after which time the siren (or horn) will fully engage, and the parking and dome lights will begin flashing to attract attention to the vehicle. Thirty seconds after the siren (or horn) and lights engage, or, when the ignition is turned "off" the starter interrupt circuit will activate. Once the Anti-Carjacking is engaged, the only way to disengage it is to turn the ignition "off", then "on" again, and then press the Valet Switch within 5 seconds (or enter the Personal Coded Override).

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

23) Door-Activated Anti-Carjack Protection: Default OFF. This feature causes the Anti-Carjacking Feature described previously to be activated by the opening of a door at any time while the ignition switch is "on". This Feature may be used alone, or inconjunction with the previous "Ignition Activated Anti-Carjacking". If a door is opened while the ignition switch is "on", the Anti-Carjacking Feature will engage 53 seconds after the door is closed. The Valet Switch must be pressed within 60 seconds after the door is shut to cancel the Anti-Carjacking Protection Feature.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system'sresponse being two siren chirps (or horn honks).

24) 3rd Channel Activated Anti-Carjacking Protection: Default OFF. This Feature allows remote activation of the Anti-Carjacking Feature. When this Feature is utilized, pressing the transmitter's small lower button for 3 seconds will activate the 3rd Channel Output, but if the ignition switch is "on", this operation will also activate the Anti-Carjacking Feature, which is previously described.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system'sresponse being two siren chirps (or horn honks).

25) Open Door Arming Alert: Default OFF. When this Feature is utilized, if one of the vehicle's doors is open when the system is armed by using the transmitter, the siren will chirp (or the horn will honk) and the lights will flash 3 times instead of once upon arming the system. When a door is open upon arming, this Feature configures the system to have the same arming confirmation as if the hood or trunk were open.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp (or horn honk) to indicate that this Feature is ON. Pressing the small center button will turn this Feature OFF, with the system's response being two siren chirps (or horn honks).

26) Current Sensing: Default ON. When this Feature is on, the system will activate while armed if a current draw is detected in the vehicle's electrical system. As an example, if a vehicle door is opened the system will detect the current draw made by the dome light illuminating.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps to indicate that this Feature is OFF. Pressing the large upper button will turn this Feature ON, with the system's response being a single siren chirp.

27) Current Sensing Delay 3 Or 210 Seconds: Default 210 Seconds. This Feature sets one of two time delays before the Current Sensing Feature will operate after arming the security system. Vehicles having delay dome lights or electric cooling fans may require the longer setting. If the optional Omega Pager is added, the 210 second setting is recommended.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps to indicate that the current sensing delay is now 3 seconds. Pressing the large upper button will return this Feature to the 210 seconds setting (3 minutes and 30 seconds), with the system's response being a single siren chirp.

28) Remote Start Engine Run Time 10 Or 20 Minutes: Default 10 Minutes. This Feature sets the period of time that the engine will run after being remotely started. If the engine is not stopped by transmitter or a safety circuit violation, the engine will automatically stop upon the expiration of the selected time period.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps to indicate that the engine run time is now 20 minutes. Pressing the large upper button will return this Feature to the 10 minute setting, with the system's response being a single siren chirp.

29) Automatic Remote Engine Start: Default OFF. This Feature will automatically start the engine, but it must be activated for each use. Turning this feature on is simply making it available for use.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's large upper button. The system will respond with a single siren chirp to indicate that this Feature is ON. Pressing thesmall center button will turn this Feature OFF, with the system's response being two siren chirps. The Owner's Manual Page 24 describes how to activate this feature for use.

30) Gasoline Or Diesel Engine: Default Gasoline. This Feature determines the parameters of ignition and starter outputs regarding gasoline or diesel engine operation.

To change the system from the default setting, follow Steps 1, 2, and 3. At Step 4, press and release the transmitter's small center button. The system will respond with two siren chirps to indicate that the diesel engine mode is selected. Pressing the large upper button will return this Feature to the gasoline setting, with the system's response being a single siren chirp.

Programming Features Using The FPM-2

The FPM-2 is "wireless" and allows the installer to instantly program all 30 features to the desired setting. Operation is very easy- preset the FPM-2's numbered switches to desired on/off positions, place the EG-1800^{ATV} into Features Programming Mode, then press the FPM-2's "PROGRAM" button. The FPM-2 transmits the data to the EG-1800^{ATV}'s control module; the system responds with two siren chirps to indicate a successful features programming operation.

Step 1- Set the operating frequency to 433MHz by setting the frequency DIP switch 1 ON and switch 2 OFF.

Step 2- Select "Code Jumping 2" by setting the code protocol DIP switch 2 ON and switches 1 and 3 OFF.

Step 3- Referencing the following features set list, position each of the 2 through 30 feature DIP switches to the desired setting of the like-numbered feature. The first feature, Programmable Coded Override, must be programmed manually by using the Valet Switch and transmitter.

The Programmable Features for the EG-1800^{ATV} are:

1) Personal Coded Override: Default 1 & 0 (must be manually programmed).
2) Last Door Arming: Default OFF.
3) Automatic Rearming: Default OFF.
4) Starter Interrupt 90 Seconds After Ignition "Off" Or Disarming: Default OFF.
5) Doors Lock Upon Last Door Arming: Default OFF.
6) Doors Lock Upon Automatic Rearming: Default OFF.
7) Doors Lock Upon Ignition "On": Default ON.
8) Unlock #1 Upon Ignition "Off": Default ON.
9) Unlock #2 Upon Ignition "Off": Default ON.
10) Open Door Bypass For The Previous Three Features: Default ON.
11) Confirmation Horn Honks (or Siren Chirps): Default ON.
12) Confirmation Horn Honks (or Siren Chirps) While In Valet Mode: Default OFF.
13) 30 Or 60 Second Activated Alarm Cycle: Default 60 Seconds (switch ON).
14) Lights On 30 Or 5 Seconds Upon Disarm: Default 30 Seconds (switch OFF).
15) Disarm System Upon Trunk Release: Default ON.
16) Doorlock Pulse Time .8 Or 3 Seconds: Default .8 second (switch ON).
17) Double Pulse Unlock (DPU^{TM}): Default OFF.
18) 3 Or 45 Second Arming Delay: Default 3 Seconds (switch ON).
19) Pulsed Horn / Steady Siren Output: Default Steady Siren (switch OFF).
20) Loud or Soft Confirmation Horn Honks: Default Loud (switch ON).
21) Total Closure Lock Output: Default OFF.
22) Ignition-Activated Anti-Carjacking Protection: Default OFF.
23) Door-Activated Anti-Carjacking Protection: Default OFF.
24) 3rd Channel Activated Anti-Carjacking: Default OFF.
25) Open Door Warning Upon Arming: Default OFF.
26) Current Sensing: Default ON.
27) 3 Or 210 Second Current Sensing Delay: Default 210 Seconds (switch ON).
28) 10 Or 20 Minute Engine Run Time: Default 10 Minutes (switch ON).
29) Automatic Remote Starting: Default OFF.
30) Gasoline Or Diesel Engine: Default Gasoline (switch ON).

Step 4- Access the Features Programming Mode- within 5 seconds of turning the ignition "off", momentarily press the Valet Switch 5 times. The EG-1800^{ATV} will respond with sounding the siren (or horn) for a short period.

Step 5a- The Personal Coded Override must be entered before 15 seconds expires. Press the Valet Switch the correct number of times - the factory-set default is one press for stage #1 and no press for stage #2. If the system is configured with the default setting, it will respond by sounding the siren for a short period, then two chirps (or one long then two short horn honks). In this case proceed to Step 6.

Step 5b- If the system has had the Personal Coded Override custom-programmed, once stage #1 been properly entered (which can be up to nine Valet Switch presses) the system will acknowledge the entry by sounding the siren (or horn) for a short period, then one chirp (or a short honk). You now have 8.5 seconds to initiate stage #2 of entering the Override Code. Momentarily press the Valet Switch equal to the Override Code number programmed for stage #2. The system will acknowledge the entry by sounding the siren for a short burst and two chirps (or the horn will sound one long, then two short honks).

Step 6- Press the FPM-2's "Program" button the Red LED will illuminate to indicate that the data is being transmitted. The system will respond with two short siren chirps (or two short horn honks) to indicate a successful features programming session; release the "Program" button. After 10 seconds of no programming activity expires the system will exit the Features Programming Mode, which is indicated by two long siren chirps (or two long horn honks).

Personal Coded Override Reset & Total System Reset EG-1800^{ATV}

The EG-1800^{ATV} has a Total System Reset feature. The installer, if needed, may quickly return all of the programmable features to the factory-set default positions. However, the initial stage of the Total System Reset returns the Personal Coded Override to the factory default setting of 1 and 0 presses of the Valet Switch. To perform Personal Coded Override Reset and/or a Total System Reset, follow these steps:

Step 1- Locate the small round hole in the lower control module case. Two solder dots will be visible beneath this hole.

Step 2- Short the two solder dots together and hold in a shorted condition (a slotted jeweler's screwdriver works well).

Step 3- Momentarily shorting the solder dots together will result in one siren burst. The Personal Coded Override is now returned to the factory-set default position (1 and 0 presses of the Valet Switch).

Step 4- Shorting the solder dots for several seconds will result in two siren bursts. All of the programmable features are now returned to the factory-set default positions.

Programming Transmitters

Up to 4 different transmitters may be programmed into the security system's memory. When a new transmitter code is programmed into the system, all previous codes will be deleted. If a third or fourth transmitter is desired, all of the transmitters must be programmed into system's memory. To program transmitters to operate your system, follow this process:

1) Turn "on" the ignition switch; within 5 seconds of turning "on" the ignition switch, press the Valet Switch 5 times. The system will respond with a long siren chirp (or long horn honk)
Note: If no further coding action is taken, or if the ignition is turned "off", the learning process will automatically terminate, which will be indicated by two siren chirps (or horn honks).

2a) The Personal Coded Override must be entered before 15 seconds expires. Press the Valet Switch the correct number of times - the factory-set default is one press for stage #1 and no press for stage #2. If the system is configured with the default setting, it will respond by sounding the siren for a short period, then two chirps (or one long then two short horn honks). In this case proceed to Step 3.

2b) If the system has had the Personal Coded Override custom-programmed, once stage #1 been properly entered (which can be up to nine Valet Switch presses) the system will acknowledge the entry by sounding the siren (or horn) for a short period, then one chirp (or a short honk). You now have 8.5 seconds to initiate stage #2 of entering the Override Code. Momentarily press the Valet Switch equal to the Override Code number programmed for stage #2. The system will acknowledge the entry by sounding the siren for a short burst and two chirps (or the horn will sound one long, then two short honks).

3) To learn the first transmitter code, press the large transmitter button, (which will arm/disarm/panic the system), until you hear one long and one short siren chirp (or horn honk) to confirm that the code was learned. The two small button's functions will automatically be learned at the same time. *When the first transmitter code is learned, all other prior codes will be erased.*

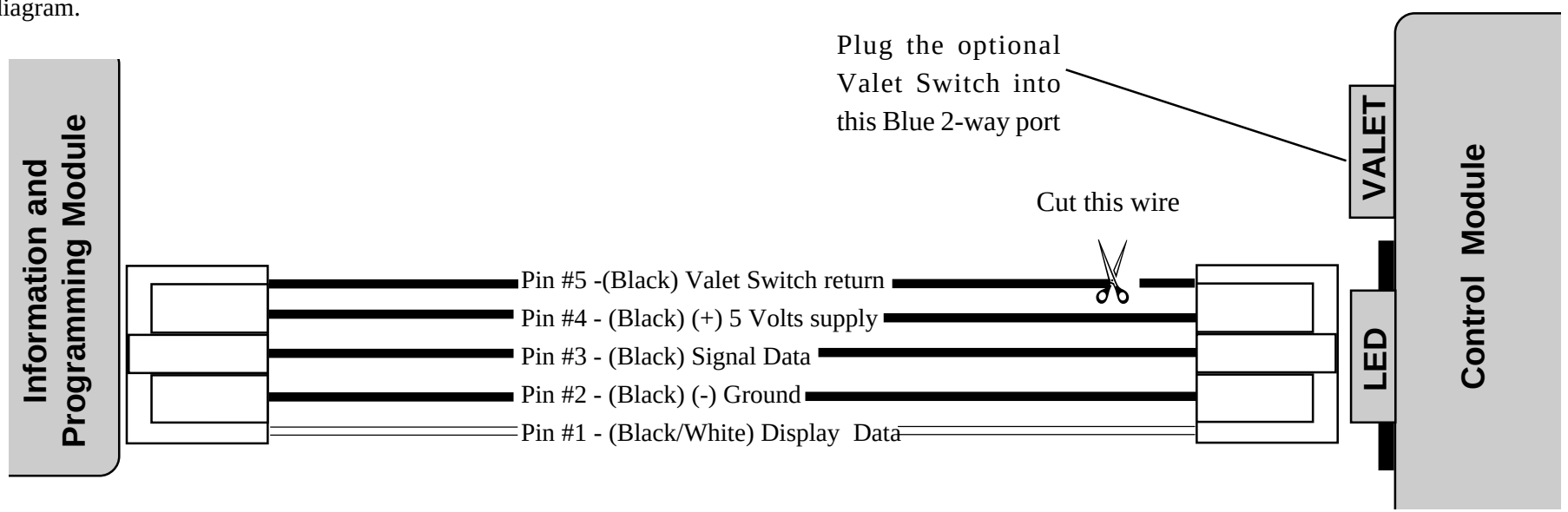
4) To program the second, third or fourth transmitter codes, repeat step 3. As each transmitter is learned, the long confirmation siren chirp (or horn honk) will be followed by two short chirps (or honks) for transmitter number two, three short chirps (or honks) for transmitter number three, and four short chirps (or honks) for transmitter number four. An attempt to add any further transmitter codes will be ignored.

5) Turning off the ignition switch or 10 seconds of no programming will automatically turn off the transmitter learning code program, which is confirmed by two long siren chirps (or horn honks).

Whenever a transmitter is coded into the security system, whether an existing one or previously unknown transmitter, the siren will chirp for two seconds every time the ignition is turned "on", for a period of 48 hours. Additionally, the Visual Deterrent LED will flash and the Digital Status Indicator will show the number of transmitters which can operate the system for 90 seconds instead of 10 seconds.

Optional Hidden Valet Switch

The Information and Programming Module is designed to be mounted on the windshield in view of the driver, and contains the Digital Status Indicator, the Visual Deterrent LED, and the Valet Switch. Although the Valet Switch may custom-programmed with a "press code" of the customer's choosing, the design of the EG-1800^{ATV} allows the use of an optional Valet Switch which may be hidden (the optional Valet Switch part number is #22LC). Simply plug the optional Valet Switch into the Blue 2-way port on the EG-1800^{ATV} control module. To disconnect the Valet Switch on the Information and Programming Module, cut the wire in the 5-way harness connecting the Information and Programming Module to the control module; this wire is indicated in the following diagram.



Personal Coded Override Reset & Total System Reset

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2) Short the two solder dots together and hold in a shorted condition (a slotted jeweler's screwdriver works well).

3) Momentarily shorting the solder dots together will result in one siren burst. The Personal Coded Override is now returned to the factory-set default position (1 and 0 presses of the Valet Switch).

4) Shorting the solder dots for several seconds will result in two siren bursts. All of the programmable features are now returned to the factory-set default positions.

Starter Output Adjustment

The EG-1800^{ATV} has an adjustable starter output. On top of the control module there is an opening allowing access to this adjustment. Use a small screwdriver (a slotted jeweler's screwdriver works well) to turn the adjustment. Turning the adjustment clockwise lengthens the duration of the starter output; turning it counter clockwise shortens the starter output duration. When remote starting, if the signal is acknowledged, the ignition turns on, but the starter fails to engage, always check this adjustment first; very rarely will it be necessary for it to be at the lowest (counter clockwise) position.

Satellite Relay Port

In some cases, a particular vehicle may require more than one Ignition #1 circuit or more than one Starter circuit to be powered up. The EG-1800^{ATV} has a Red 3-pin port providing these two circuits as Negative outputs, which allows easy addition of futher external relays. Certain Omega OEM anti-theft bypasses also utilize this port. Use this diagram to add additional relays; if needed, two additional Ignition #1 relays can be configured by jumpering the Blue output wire to both relay's pin #85.