

Crime Guard
Keyless Entry and Security®

INSTALLATION MANUAL

745i²

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Wiring Connections

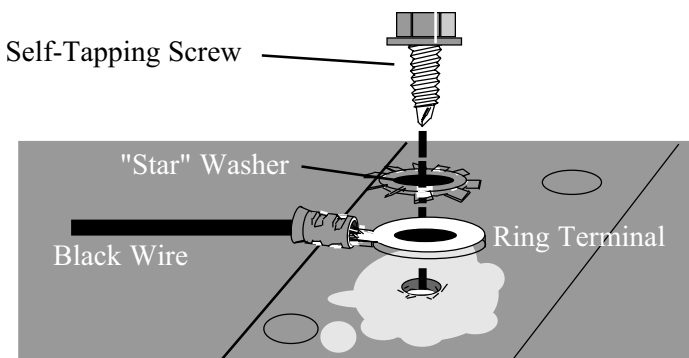
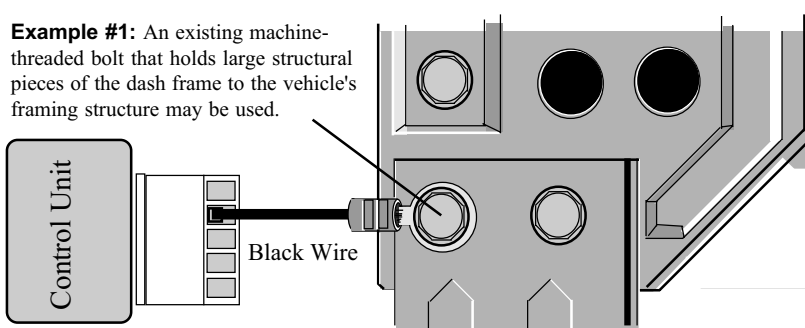
BLACK WIRE - (Ground): The function of the black wire is to supply the system with (-)negative chassis ground.

Connect the Black wire to a clean solid chassis ground using a crimp-on ring terminal. Scrape the metal surface to remove any rust, paint, grease, or debris. Do not ground alarm to the vehicle's battery or dashboard screws.

Note: If the ground connection is insufficient, the system can find partial ground through other connections. In this case the system may partially function, possibly arming & disarming, but would otherwise operate erratically giving the impression of being defective.

Warning: Do NOT ground the single black wire attached to the brain. This is the system's antenna wire. Grounding the antenna wire will severely affect the system's operating range.

Example #1: An existing machine-threaded bolt that holds large structural pieces of the dash frame to the vehicle's framing structure may be used.



Example #2 Grounding The Black Wire To Sheet Metal: Running the screw through two layers of sheet metal allows more threads to contact the metal, which reduces the chances of the screw to strip out or become loose. Grind the surface until the metal is shiny and clean.
-Avoid trying to drill through the spot welds, which are harder than the surrounding metal.

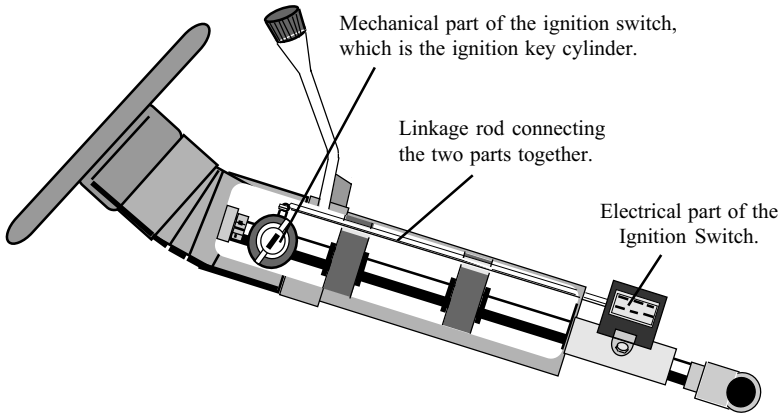
RED WIRE - (Positive +12 Volt Input): The function of the Red wire is to supply the system with a constant source of (+)12 volts.

Connect to a constant (+)12 volt positive wire located in the primary wire harness coming from the key switch.

-A connection here insures a good power source which is critical for correct unit operation.

- Do not connect behind a vehicle fuse or to the vehicle's battery.
- It is recommended that the red wire be the final system wiring connection.

Cutaway View Of A Steering Column-Mounted Ignition Switch.



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.

YELLOW WIRE - (Ignition Input): The function of the yellow wire is to supply the alarm with a (+)12 volt signal Only when the vehicle's ignition key is turned to the "On" & "Start" positions. The alarm verifies whether the vehicle's engine is running or turned "Off" through this line.

Connect the Yellow wire to a "key" switched (+)12 volt *ignition* wire located in the primary wire harness coming from the key switch.

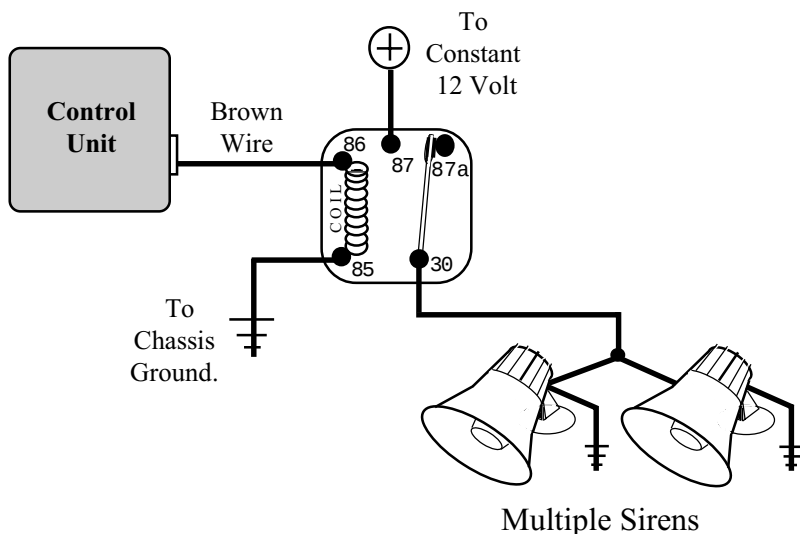
- The vehicle's ignition wire will show (+)12 volts only when the vehicle's ignition key is turned to the "On" & "Start" positions.
- The ignition wire will Not "drop" out while the starter motor is cranking.
- If the key is turned "off" so is the vehicle's ignition wire.

BROWN WIRE - (Positive Siren Output): The function of the Brown wire is to supply a (+)12 volt output directly to the electronic siren when the alarm is triggered and for confirmation chirps.

- Connect the system's Brown wire directly to the siren's Red wire.
- Connect the siren's Black wire directly to (-)chassis ground.

Warning: If the Brown wire touches ground damage will occur to the alarm.

Using A SPDT Relay To Drive Multiple Sirens.



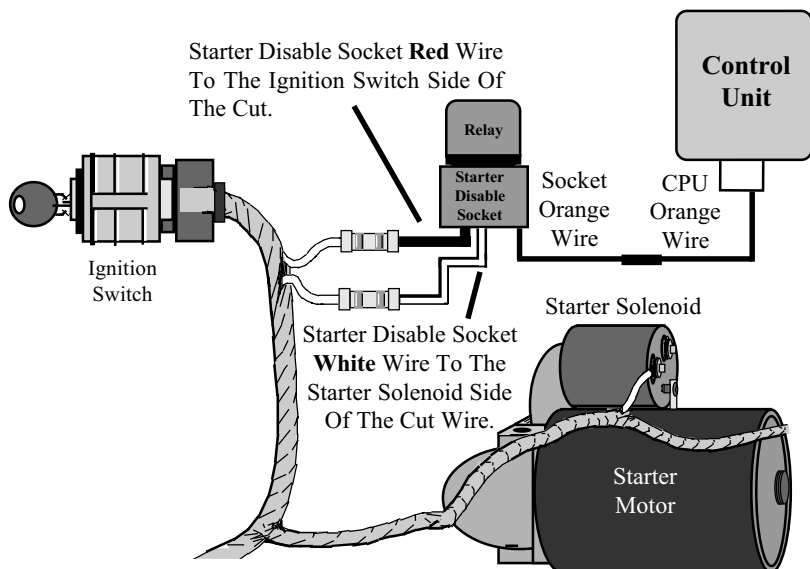
ORANGE WIRE - (Ground Output For Starter Interrupt): The function of the Orange wire is to provide one side of the included starter-disable relay's coil with a Constant 500ma (-)Ground Signal only while the system is Armed. The other side of the relay's coil will be supplied with a "Key" switched (+)12 Volts only when the ignition key is turned to the "start" position. This circuit will prevent the vehicle from being started only while the system is Armed, and will draw current from the vehicle's electrical system only if an attempt is made to start the vehicle while the system is Armed.

CONNECTION: Locate and cut the vehicle's starter motor wire.

- The starter motor wire will read (+)12 Volts only while the starter motor is actually "cranking". (When the vehicle's ignition key is turned to the "Start" position)
- Cut this wire at a suitable location. Confirm that this is the correct wire by turning the ignition key to the "Start" position. The starter should Not "crank".
- Connect the starter-disable socket's Red wire to the key switch side of the cut starter motor wire.
- Connect the starter-disable socket's White wire to the motor/solenoid side of the cut starter motor wire.
- Connect the system's Orange wire to the Orange wire of the starter-disable socket.

Note: Be sure that good, solid electrical connections are made since the starter motor circuit is generally a high amperage circuit.

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



WHITE WIRE - (Positive Flashing Light Output): The function of the White wire is to supply a pulsed (+)12 Volt signal to flash the vehicle's exterior parking-lights in order to attract attention to the vehicle if the security system is triggered and as a means of visually confirming system operations.

Connect the White wire to the vehicle's Positive 12 Volt parking-light circuit.

- The correct wire will show (+)12 Volts only when the headlight switch is in the "Parking Light" and/or "Head Light" positions.
- This wire can usually be found at the headlight switch, the fuse/junction block, or in the rear body harness in the driver side kick panel.

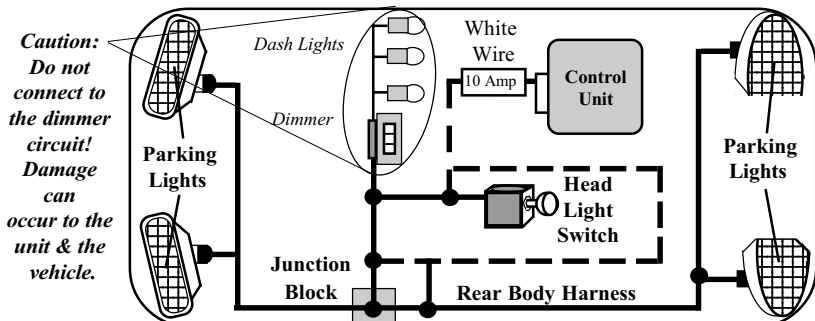
Note #1: When such a wire is located, be sure to also test that it is non-rheostated: While metering the wire, operate the dash light dimmer control. The correct wire will show no change in voltage when the dimmer is operated.

Note #2: Some vehicles, notably Toyotas, have a parking-light relay which is triggered by a (-)Negative Ground signal from the headlight switch. In these vehicles the White wire must be connected to the parking light circuit after the relay, usually at the Fuse/Junction Block.

WARNINGS:

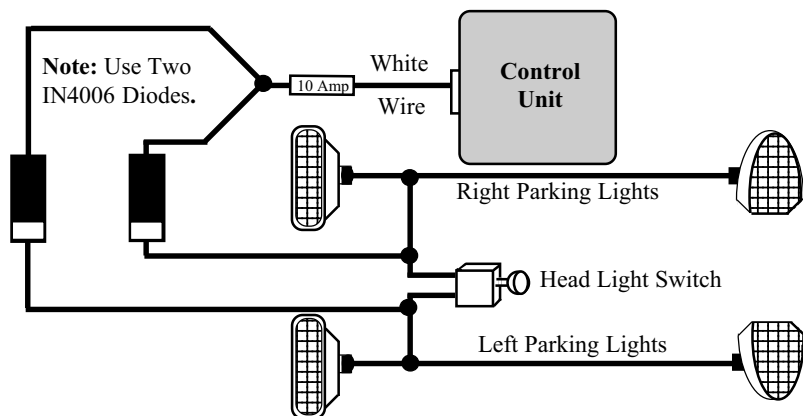
- If the White wire touches ground, damage will occur to the system.
- Do NOT connect the system's parking-light output wire to the vehicle's dash-dimmer circuit. Damage could occur to the vehicle and the unit.
- Do NOT directly flash the vehicle's headlights. Damage can occur to the unit since the high-amperage headlight circuit draws more current than what the unit's on-board relay can provide. An external relay is required.
- Do Not flash Halogen headlights. Halogen type bulbs are not designed for flashing applications and may therefore *burn out* prematurely.

3 Suggested Parking Light Connection Locations:

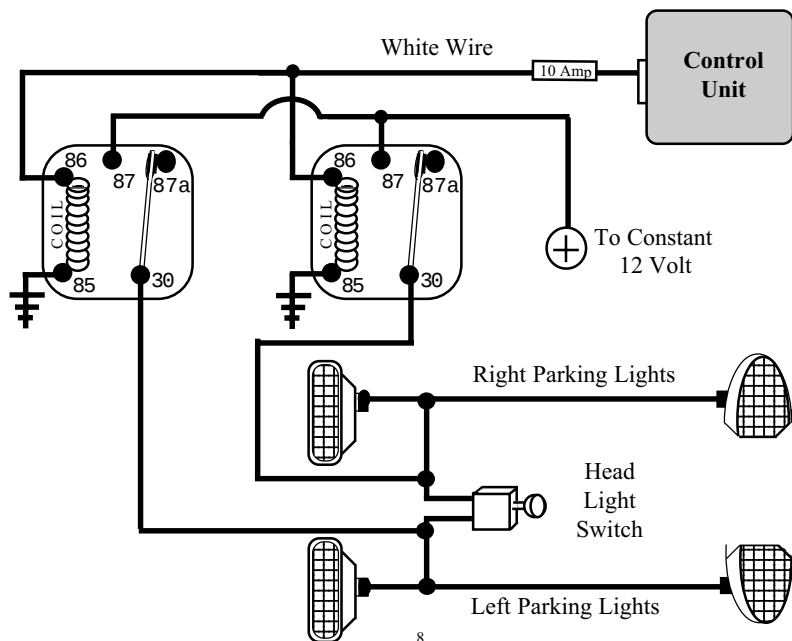


Many European imports have separate left & right side parking light circuits. When left & right parking lights are on separate circuits, a pair of 6 to 10 amp diodes or a pair of relays must be used to connect the White wire to each parking light side. Refer to diagrams.

Connecting Separate Left And Right Parking Lights Using Two Diodes.



Connecting Separate Left & Right Parking Lights Using 2 SPDT Relays.



GREEN WIRE - (Negative Door Trigger): The function of the Green wire is to supply the system with a (-)negative ground signal only when a vehicle door is open. The Green wire circuit is an instant trigger zone whose connection is vital for many system operations such as Last Door Arming, Automatic Rearming, Ignition Auto-Lock/Unlock, and door-zone protection.

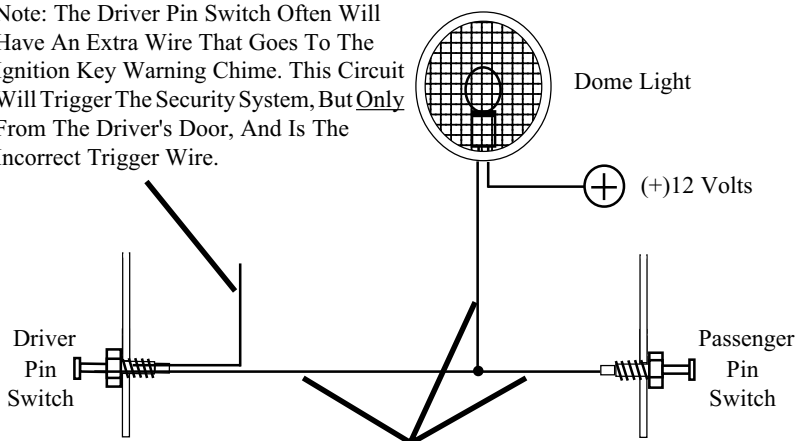
Connect the Green wire to the vehicle's (-)pin-switch/dome-light circuit which is common to all doors.

-The (-)negative ground type pin-switch/dome-light circuit will show *ground* Only when a vehicle door is *open*. *This circuit may possibly also show up to (+)12 volts when all the doors are closed*. The correct wire will show this change when any vehicle door is opened & closed.

Note #1: If there is a dome-light delay, the pin-switch/dome-light circuit may show (-)ground for the duration of the delay. In this case the Last Door Arming Feature will wait until the dome-light has turned “Off” before beginning the self-arming countdown. The open zone bypass feature will allow the system to be actively Armed using a remote control while the dome-light delay is “On” and will start protecting the Green wire circuit 5 seconds after the dome-light turns off.

Note #2: In vehicles equipped with dash displays or “door ajar” warnings, all of the doors may be *diode-isolated* from each other. Do Not bridge all of the door pin-switches together. In this case it is necessary to connect the Green wire to the wire which directly feeds the vehicle's dome-light.

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.

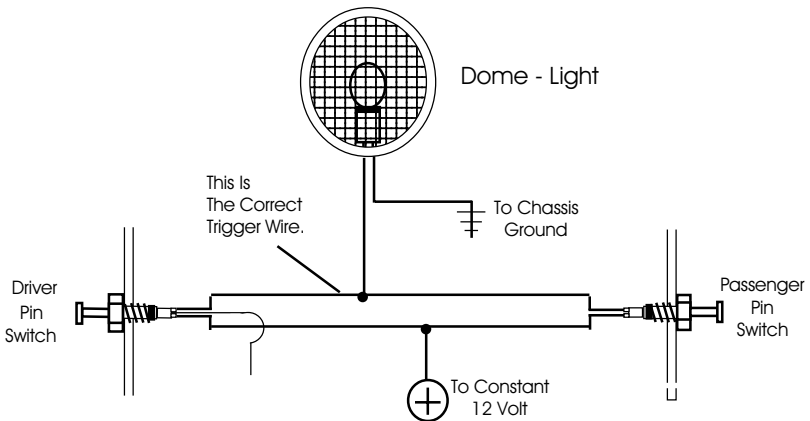


This Is The Correct Trigger Wire. Connection May Be Made At Any Point.

VIOLET WIRE - (Positive Door Trigger): The function & characteristics of the Violet wire are identical to those of the Green Door Trigger wire, with the sole exception that the Violet wire is for use in vehicles equipped with a positive (+)12 volt door pin-switch/dome/light circuit (i.e.: some Fords). In these vehicles the Violet wire will supply the system with a (+)12 volt signal only when a vehicle door is open.

Connect the Violet wire to the vehicle's (+)pin-switch/dome-light circuit which is common to all doors.

-The positive (+)12 volt pin-switch/dome-light circuit will show (+)12 volts Only when a vehicle door is *open*. *This circuit may possibly also show (-)Ground when all the doors are closed*. The correct wire will show this change when any vehicle door is opened & closed.



Note : The Driver Pin Switch Often Will Have An Extra Wire . This Circuit Will Trigger The Security System, But Only From The Driver's Door, And Is The Incorrect Trigger Wire.

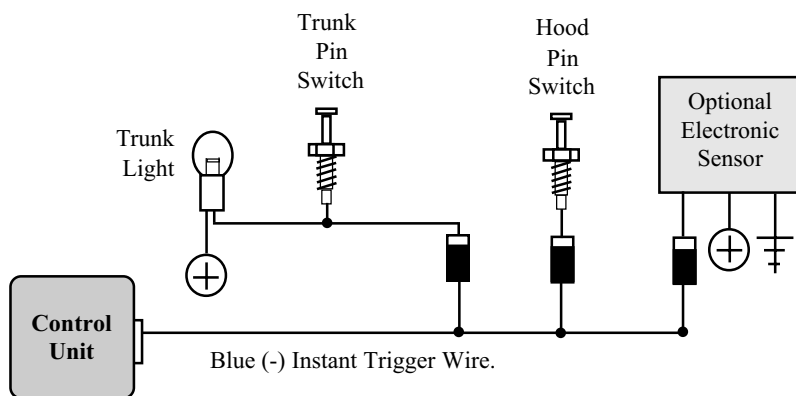
BLUE WIRE - (Negative Instant Trigger): The function of the Blue wire is to supply the system with a (-)negative ground signal from a hood or trunk pin-switch/light circuit only when the hood or trunk is open, or from an additional sensor. The Blue wire circuit is an instant trigger zone that will trigger the system if it becomes grounded while the system is armed.

Connect the Blue wire to a factory installed or aftermarket hood and/or trunk (-)pin-switch/light circuit. The Blue wire may also be connected to an additional sensor as well.

-The (-)negative ground type pin-switch/light circuit will show *ground Only* when the vehicle hood and/or trunk is *open*. *A factory installed hood/trunk light circuit may possibly also show up to (+)12 volts when the hood and/or trunk is closed*. The correct wire will show this change when the hood and/or trunk is opened & closed.

Note: The “Last Door Arming” process will not begin until the Blue wire is ungrounded. If the Blue wire becomes grounded during the “Last Door Arming” process, the countdown will stop and reset when the Blue wire is ungrounded. The system’s open zone bypass feature will allow the system to be actively Armed using the transmitter while the Blue wire is grounded and will start protecting the Blue wire circuit 5 seconds after it becomes ungrounded.

Diode-Isolating Multiple Negative Instant Triggers.



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

GRAY WIRE - (Negative Auxiliary Output #1): The function of the Gray wire is to provide an (-)250ma auxiliary output which may be used to operate a trunk release, car-start module, or window roll-up interface.

To activate the auxiliary channel:

Press & hold the upper Small button for 3 seconds

AUXILARY CHANNEL #1



Press & Hold The Upper Small Button For 3 Seconds.

- The system is programmed to disarm automatically when auxiliary channel #1 is activated.
- The Grey wire will provide a (-)ground pulse for 1 second or remain grounded for as long as the upper Small button on the transmitter is held pressed. (Maximum of 10 seconds)

Connection:

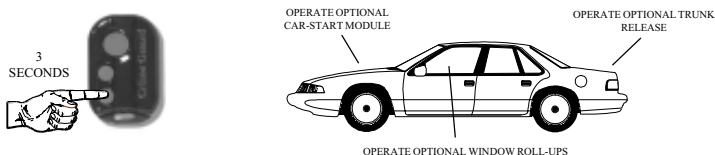
- 1) Connect the Gray wire to pin (#85) of the external relay.
- 2) Connect Constant (+)12 Volts to pin (#86) of the external relay. (Fused)
- 3) Connect pins #87, 87a & 30 as indicated in the diagram below:

Note #1: The auxiliary output can be activated anytime the vehicle's ignition key is turned "Off" and system is disarmed, or in Valet. The auxiliary channel can also be activated while the vehicle's ignition key is "On" as long as a door is open. This prevents the auxiliary output from being activated accidentally while driving.

Warning: If application requires more than a 250ma a relay must be used.

PINK WIRE - (Negative Auxiliary Output #2): The function of the Pink wire is to provide an optional output similar to the Gray trunk release wire. Pressing the lower Small 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 10 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 below for the Gray wire). This output will not disarm the security system when activated.

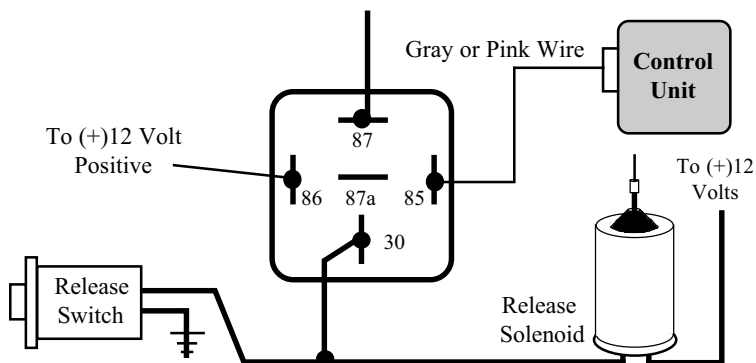
AUXILARY CHANNEL #2



Press & Hold The Lower Small Button For 3 Seconds.

Wiring An Optional Relay For Trunk Release.

Connect To (+)12 Volts Or (-)Negative Ground As Needed in the particular application. (In This Case Negative Is Required)



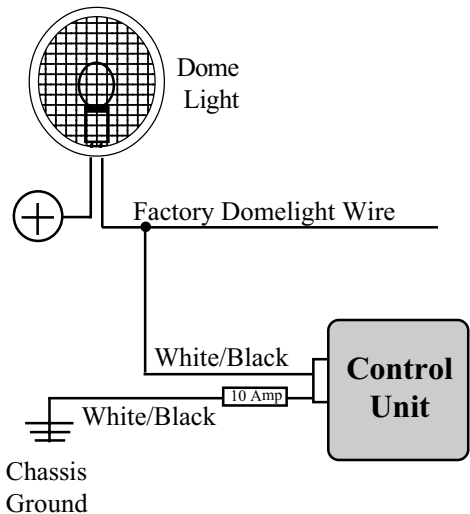
Note: In Some Applications The Solenoid Wire Will Rest At Ground.

- Cut The Wire:
- Connect The Switch Side To Relay Pin 87a.
- Connect The Solenoid Side To Relay Pin 30.
- Connect (+)12 Volts To Relay Pin 87. (Fused)

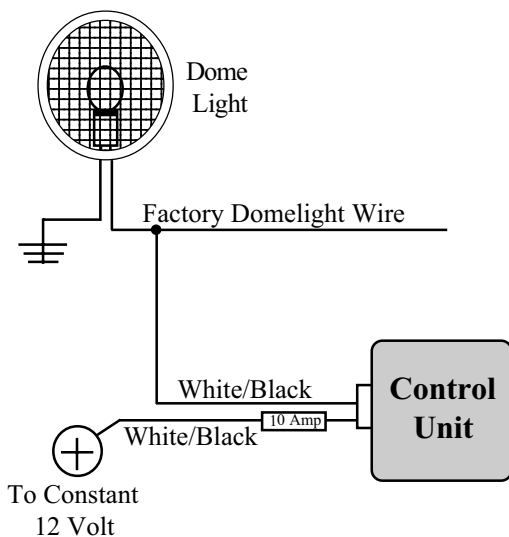
White/Black Wires - (Dome Light Supervision): The two White/Black wires are intended for domelight supervision. This feature will turn on the vehicle's domelight upon disarming the security system to illuminate the interior of the vehicle. This output is identical to the White wire output except that 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 unfused 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.

Negative Dome Light



Positive Dome Light



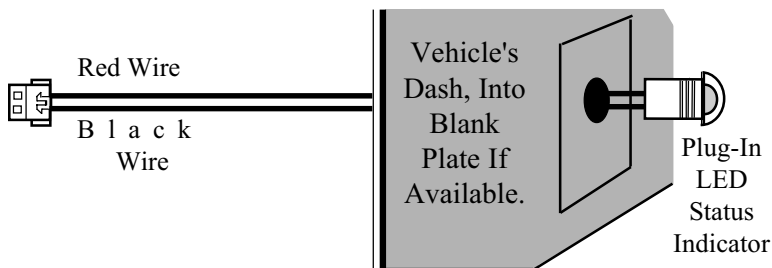
Plug-In Red LED Status Indicator Light

The Red LED Status Indicator Light visually confirms the status of the system and provides a high level of visual deterrence. The LED should be mounted in a location where it can be easily seen by the driver, as well as from outside the vehicle. Good mounting locations differ from vehicle to vehicle, but generally a spot on the driver's side or optimally in the center of the dash will suffice.

When mounting, we suggest checking for a blank, or "dummy" plate, such as used to fill an opening where optional switches or accessories would normally be located. Drilling into a large, expensive to replace piece of the dash should be avoided. The correct size mounting hole is 5/16".

The safest, most accurate way to drill the hole is to use a stepped drill bit, such as a Unibit. Drill in steps until the hole is the proper size. If using a single-sized bit, use a 1/8", then a 1/4", then a 5/16" bit to prevent the drilled material from cracking or splitting. After mounting the LED, route the Red connector to security system control module and insert into the Red plug on its side.

CAUTION! Check behind the panel being drilled into for obstructions before drilling! Taping the bit will prevent excess penetration.



Plug The White 2-Pin Connector Into The White 2-Pin Port On The Security System Control Module.

Plug-In Easy Valet™ Switch

Mount the Easy Valet™ switch in a hidden location that is accessible to the driver. Use the adhesive pad on the back of the switch to mount it to a flat surface. Although it is not absolutely necessary to mount the switch in a hidden location, because the ignition key is needed to disarm the system, a hidden switch makes it more difficult for a thief who has copied the ignition key. Route the wires to the system's control module, and insert the Blue connector into the Blue plug on the control module.

The function of the Easy Valet™ switch is to keep the system from arming during extended stopovers for service stations, maintenance, valet parking, car washing, etc.; and, in conjunction with the ignition key, to disarm the system if the transmitter is lost or inoperable.

To Enter “Valet” Mode: (With The System Disarmed)

Press & Hold the Easy Valet switch for 2 seconds.

-The siren will emit two chirps, the parking lights will flash twice, and the LED indicator will light solid Red to confirm that the alarm is in Valet.

Note: To remind the user that the system is in the Valet mode, the siren will emit a chirp every time the vehicle's ignition is turned “Off”.

To Exit “Valet” Mode:

Press & Release the Easy Valet switch.

-The LED indicator will turn “Off” to confirm exit from the Valet mode.

Disarming The Security System If The Remote Control Is Lost:

In the event a remote control is lost, damaged, or its batteries have become exhausted, the Easy Valet™ switch and the ignition key can be used to disarm the security system:

Step 1. With the system in the Armed condition, enter the vehicle via the driver's door (Be aware that the system will enter an alarm condition the instant the door is opened).

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

Step 3. Within 5 seconds, Enter the Override Valet Code by pressing & releasing the Easy Valet switch the programmed number of times (1-12). The system will Disarm 4 seconds later.

Plug-In Back-Up Battery

Back-Up Battery: This system includes a battery and plug-in harness for a backup battery circuit. The included 9 volt alkaline battery is all that is required to provide alternate power to operate the security system in the event that the vehicle's battery is disconnected. A built-in protection circuit will not allow the 9 volt battery to feed back into the vehicle's electrical system, or to flash the parking lights for confirmations or when the system is triggered, thereby conserving the 9 volt battery's power. Also, the starter interrupt circuit will stay activated to prevent the vehicle from being started and driven away.

Always make the security system's Black and Red wire connections first. To install, insert the battery into the built-in battery compartment inside the control unit. Snap the connector and harness onto the 9 volt battery and then plug the connector into the system's White port marked "Battery Backup".

Replacement 9 volt alkaline batteries can be purchased anywhere batteries are sold. We recommend the battery be replaced with another alkaline battery every 18 months or after the 9 volt battery has operated the security system on its own for any length of time.

Anticipated life for the back-up battery under following conditions:

1. 2 days as the system's only power source while Armed.
2. 25 triggered cycles: A trigger cycle has a 60 second duration during which the siren is sounding. The cycle ends when the system automatically resets to the armed state.
3. 50 separate remote control Arm/Disarm commands.
4. 18 months if the 9 volt battery circuit has not been activated.

DUAL-STAGE IMPACT SENSOR TO MAXIMIZE SECURITY:

Sensors: This Crime Guard security system is equipped with a plug-in dual-stage InfraSonic & Glass Tampering Sensor and two sensor ports to increase the effectiveness of the system.

The included sensor is just one in a comprehensive line of available sensors. Other available options are: impact sensors, pressure sensors, and microwave/radar sensors which can detect motion inside and outside the vehicle.

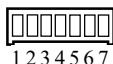
- The system is factory programmed to automatically by-pass the sensor zone if it is triggered 5 times while the system is Armed. This feature can be overridden.
- The optional sensor may be temporarily by-passed using the remote control.

Prewarning Detection Circuit: When the sensor's prewarn zone is triggered the security system will respond by chirping the siren 3 times and relocking all of the doors (If installed). If the prewarn circuit is triggered 5 times while the system is Armed, the circuit will automatically shutdown until the security system is Disarmed and Rearmed again. This will prevent the security system from being a nuisance to the general public.

Crime Guard™ Power Doorlock Interfaces

The doorlock interface needed will depend upon the type of power doorlocking system the vehicle is equipped with. **Note:** The vehicle must have existing power doorlocks. The addition of a power doorlock interface to a vehicle without power locks will not allow the security system to operate the doorlocks. However, power doorlocks may be added to the vehicle in the form of adding a model DS-2 actuator to each of the doors, along with a doorlock interface. This configuration will allow the security system only to operate the doorlocks through the DS-2 actuators.

This security system features on-board relays for locking & unlocking the doors and a negative second unlock pulse for unlocking the rest of the doors if the Driver's Door Priority Unlocking feature is utilized.



Door Lock Port

1. Pink: (-)Unlock #2 (2nd Press)
2. White/Black: Pin #87a On Lock Relay
3. Green/Black: Pin #30 On Lock Relay
4. Violet/Black: Pin #87 On Lock Relay
5. Brown: Pin #87a On Unlock Relay
6. Blue: Pin #30 On Unlock Relay
7. Violet: Pin #87 On Unlock Relay

• View From Wire Insert Side

* Red Wire Used Only To Power Coil On Relays.

3 Wire Negative Pulse Systems

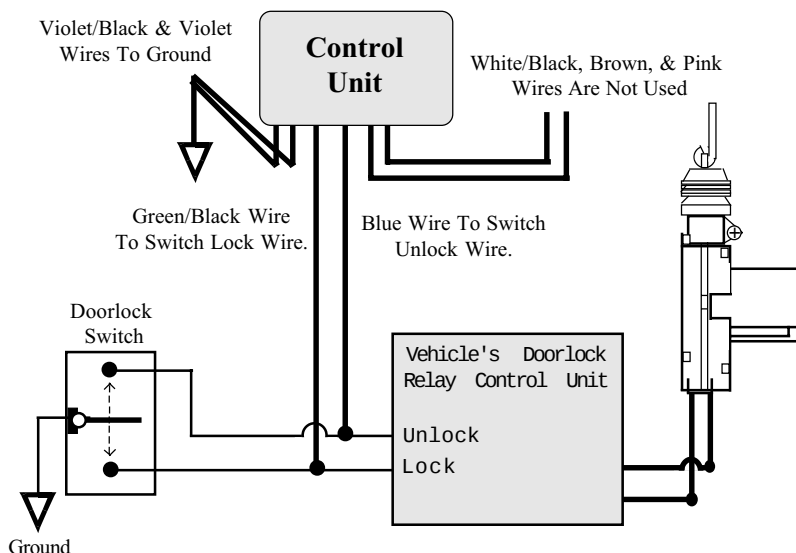
This power doorlock system is simplest of all doorlocking systems. A Negative pulse system will have only three wires at the switch.

Examine the wires on the back of the switch:

- 1) One wire will show (-)ground, regardless of the switch's position.
- 2) One wire will show (-)ground only when the switch is pushed to "lock".
- 3) One wire will show (-)ground only when the switch is pushed to "unlock".

Note: The lock & unlock wires coming out of the switch operate the vehicle's doorlock relays or a control unit with on-board relays, therefore the lock & unlock wires will read voltage, up to (+)12 volts, when the switch is at rest. The correct connection point is between the switches and the relays.

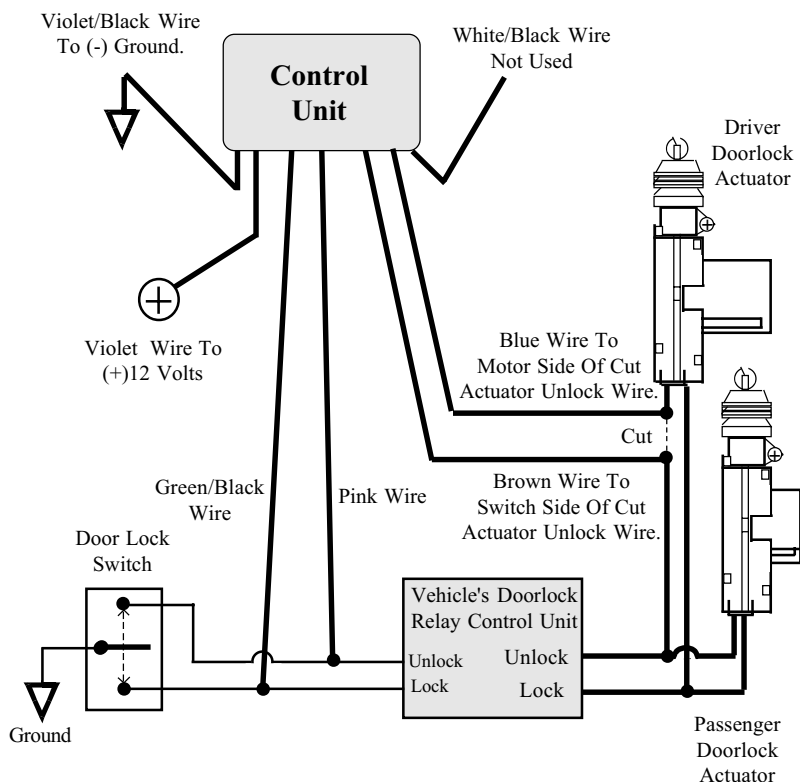
745i²: USING ON-BOARD RELAYS



3 Wire Negative Pulse Systems

DRIVER'S DOOR PRIORITY:

745i?: USING ON-BOARD RELAYS



3 Wire Positive Pulse Systems

This power doorlock system is very similar to the 3 wire negative pulse system except the vehicle's doorlock switches provide (+)12 volt positive pulses to operate the doorlock relays/control unit.

Examine the wires on the back of the switch:

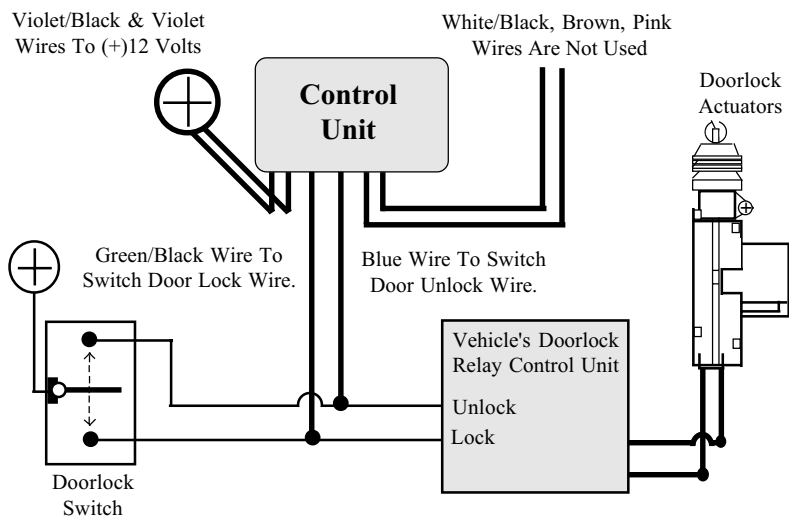
- 1) One wire will show (+)12 volts, regardless of the switch's position.
- 2) One wire will show (+)12 volts only when the switch is pushed to "lock".
- 3) One wire will show (+)12 volts only when the switch is pushed to "unlock".

Warning: The Positive pulse system can be easily confused with the 5-wire Reversal rest at ground type system. This is due to the fact that both systems show (+)12 volt pulses on the "Lock" & "Unlock" wires when the vehicle's switch is pressed respectively. It is critical to correctly identify which system is present in the vehicle since if in an attempt to operate the door locks (+)12 volts are pulsed into a Reversing polarity system, which rests at ground, a "short" will occur.

3 main differences between a Positive pulse and a Reversal system:

- 1) In a Reversal type system the Lock & Unlock wires *rest at a solid ground*, while in a Positive pulse system the Lock & Unlock wires *show partial ground* which is feeding through the relay's coils.
- 2) The switch in a Reversal system will have 5 wires, while the switch in a Positive pulse system will have 3 wires.
- 3) A *Positive pulse system has factory relays or a control unit, a Reversal type system does not.*

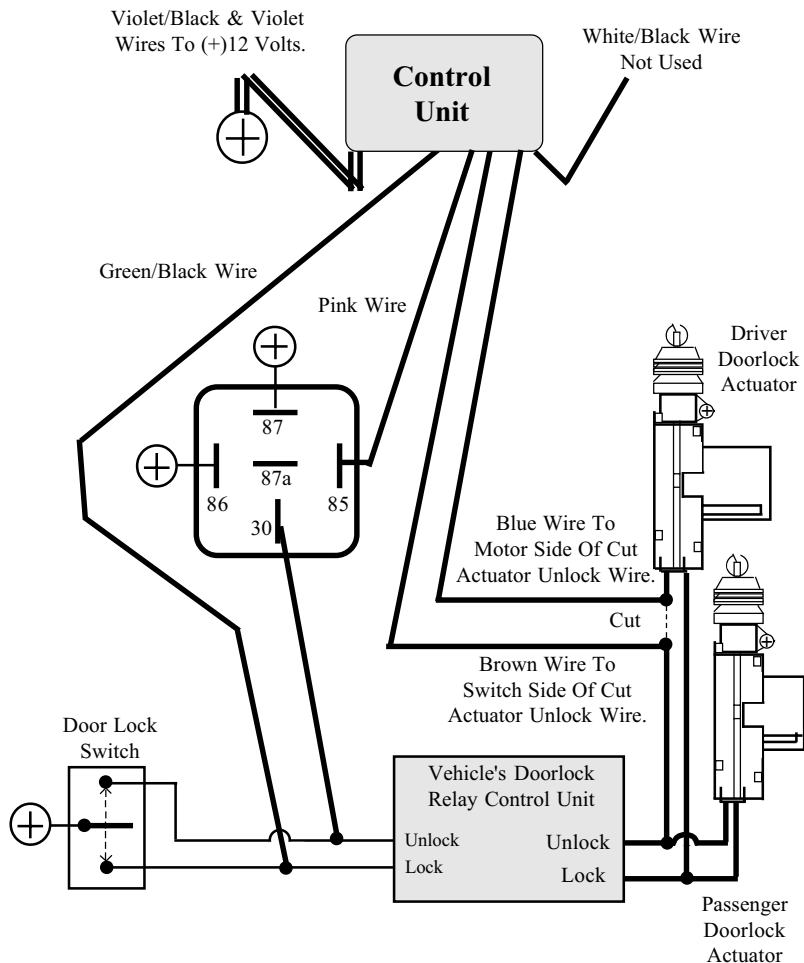
745i²: USING ON-BOARD RELAYS



3 WIRE (+)POSITIVE PULSE SYSTEM:

DRIVER'S DOOR PRIORITY:

745i²: USING ON-BOARD RELAYS



5 Wire Reversal Rest At Ground Systems

This power doorlock system differs from the negative and positive pulse systems in that there is no doorlock control unit or relays. 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. It is important to note that the lock & unlock wires in this system *actually rest at chassis ground*. This means that both the lock & unlock wires must be "opened", or cut, to make the proper connections.

Examine the wires on the back of the switch. (Normally 5 wires will be found)

- 1) One wire will show (+)12 volts, regardless of the switch's position.
- 2) Two wires will be grounded regardless of the switch's position.
- 3) One wire will show (+)12 volts only when the switch is pushed to "lock".
- 4) One wire will show (+)12 volts only when the switch is pushed to "unlock".

-When the vehicle's lock & unlock wires are found, they must be cut (one wire at a time). If the correct wires are cut the door lock system should not operate from the primary switch.

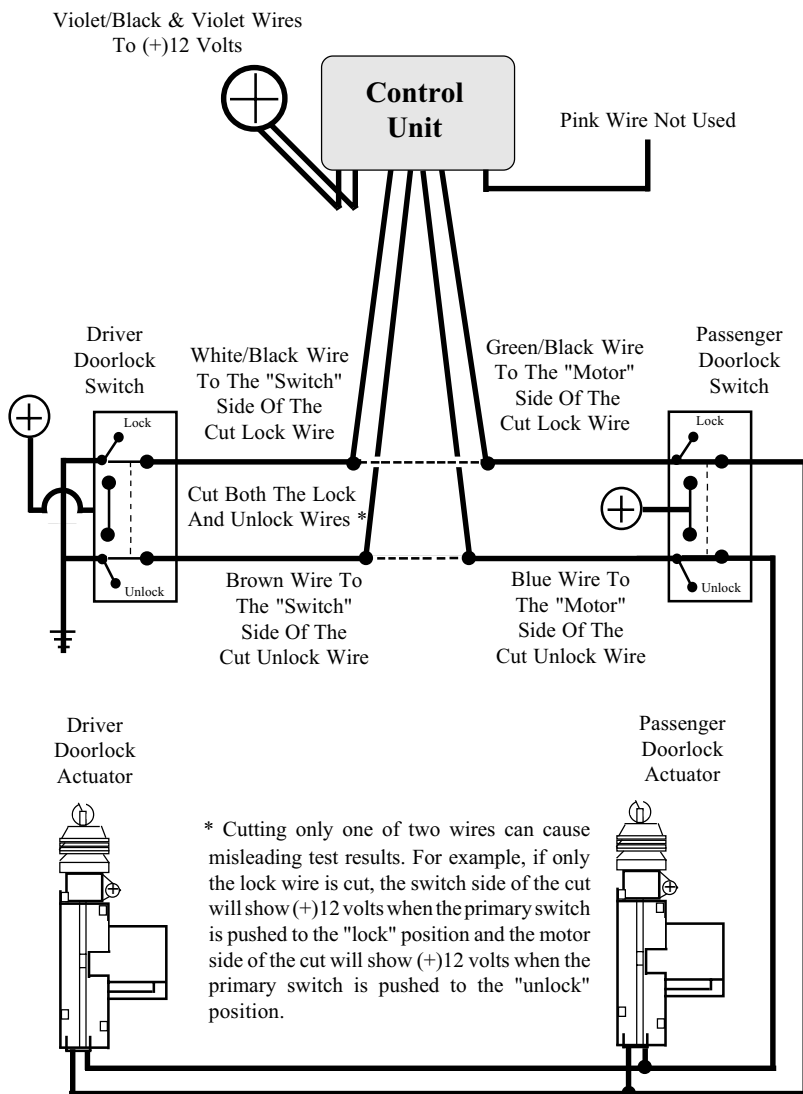
-Notice in the diagram that the driver's switch is the primary or "master" switch. The half of the cut wires which come from this primary switch are referred to as the "switch" side. The half of the cut wires which go to the secondary switch are referred to as the "motor" side. Even though the cut is made between the switches, the two sides are still correctly called the "switch" and the "motor" sides.

Warning: The 5-wire Reversal rest at ground system can be easily confused with the Positive pulse system. This is due to the fact that both systems show (+)12 volt pulses on the "Lock" & "Unlock" wires when the vehicle's switch is pressed respectively. It is critical to correctly identify which type of system is present in order to avoid damage to the vehicle and the unit.

3 main differences between a Positive pulse and a Reversal system:

- 1) In a Reversal system the Lock & Unlock wires *rest at a solid ground*, while in a Positive pulse system the Lock & Unlock wires *show partial ground*.
- 2) The switch in a Reversal system will have 5 wires, while the switch in a Positive pulse system will have 3 wires.
- 3) A Reversal system has *no factory relays or control unit*, a Positive pulse system *does*.

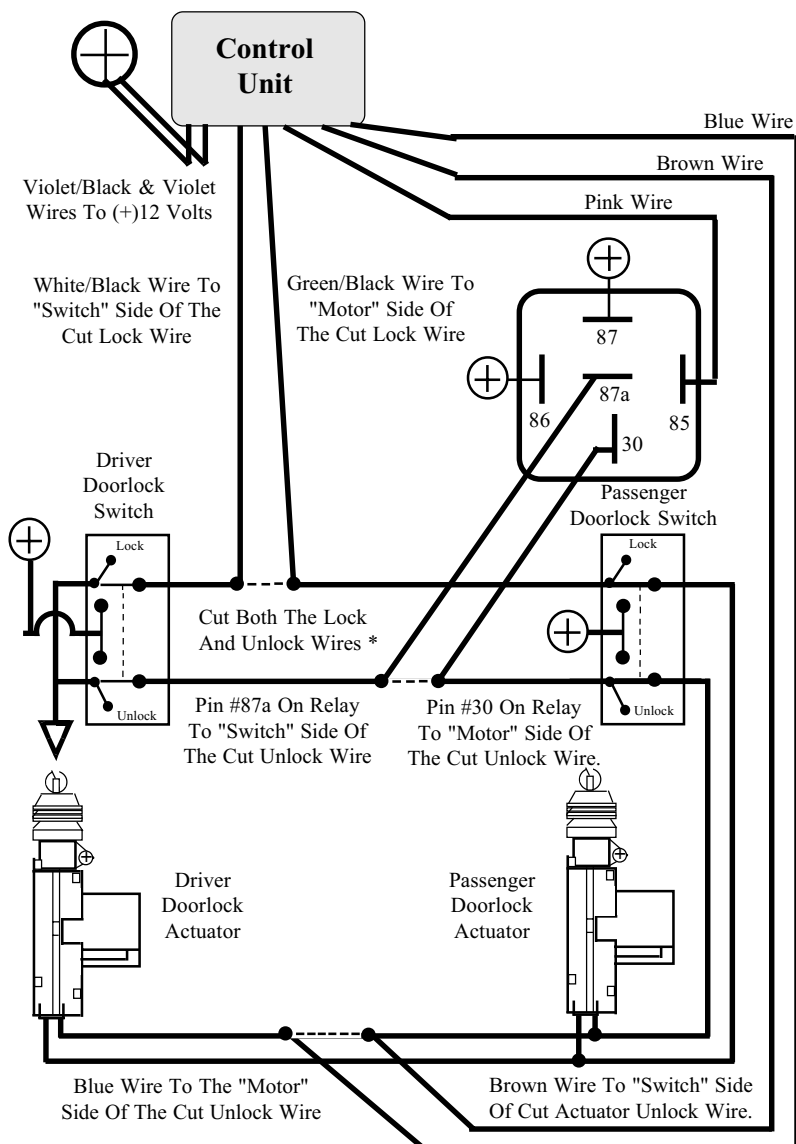
745i²: USING ON-BOARD RELAYS



5 Wire Reversal Rest At Ground Systems

DRIVER'S DOOR PRIORITY:

745i²: USING ON-BOARD RELAYS & AN EXTERNAL RELAY



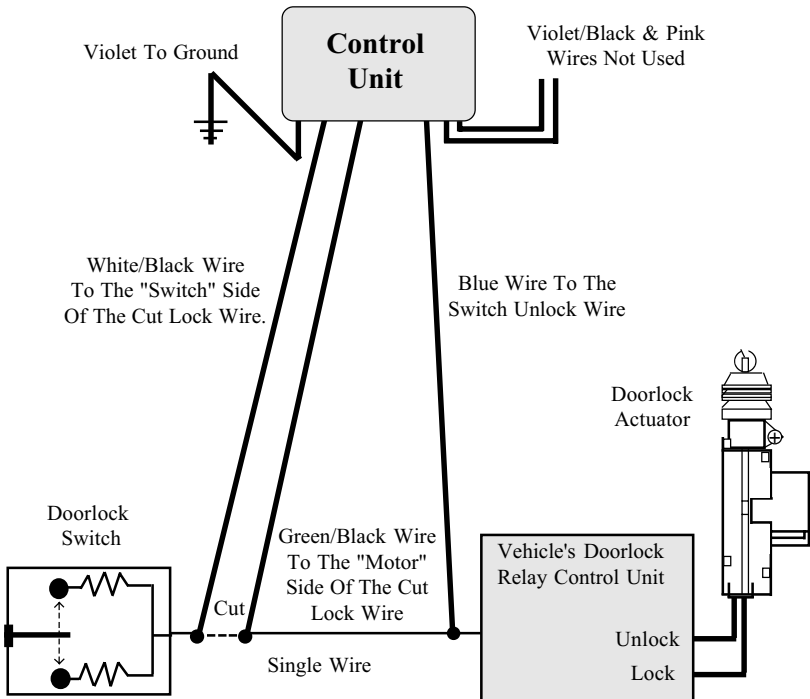
Nissan & 1991 Mazda MPV Negative Pulse & Open Single Wire System

The 1991-94 Nissan 240SX, the 1992-95 300ZX and the 1991 Mazda MPV are equipped with a negative pulse & open single wire door locking system. When the single door lock/unlock wire is grounded, the doors unlock. When the same wire is “opened” or cut, the doors lock.

Vehicle wire location & colors:

Vehicle:	Color:	Plug:	Location:
240SX	Orange/Black Orange/Blue	Wires coming from door	Drv's side kick pannel Pass side kick pannel
300ZX	Brown Brown/Yellow	Wires coming from door	Drv's side kick pannel Pass side kick pannel
MPV	Green/White	At door lock control module	Behind glove compartment

745i²: USING ON-BOARD RELAYS



Chrysler Positive Pulse Single Wire System

Specific Chrysler products utilize a resisted Positive Trigger Single Wire door locking system. When the vehicle door lock switch is activated to lock or unlock the doors, a positive (+)12 volt pulse is applied through one of two resistors on the same wire that leads to the BCM. The BCM receives the signal and reads the voltage. The vehicle door lock/unlock wire can best be picked up in the driver's side kick panel.

The following Chrysler products can be treated as a (+)single wire system:

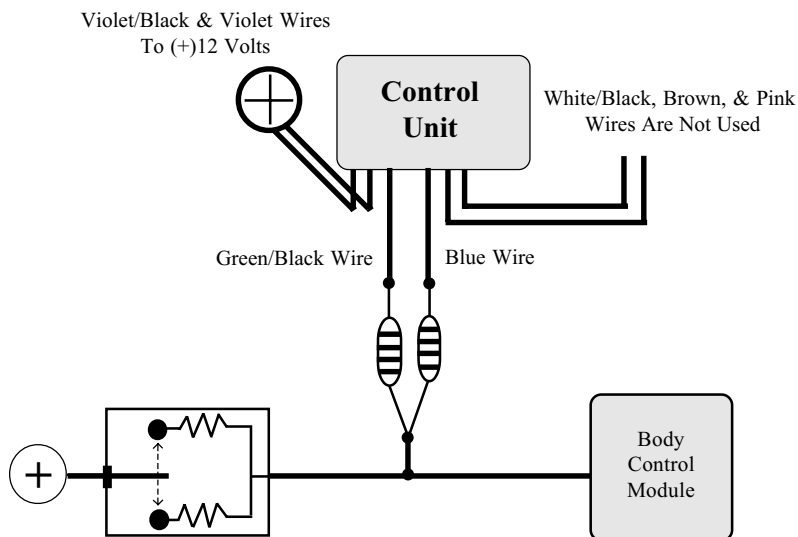
1. The 1995-96 Chrysler Cirrus, Dodge Stratus, Plymouth Breeze & Chrysler Sebring convertible incorporate this system.
2. The 1993-96 Chrysler Concord, New Yorker, LHS, Dodge Intrepid and the Eagle Vision may be wired either as a positive single wire type or as standard positive trigger type door lock system; however, the single wire approach is recommended because of the difficulty in accessing the positive trigger relays.

Vehicle wire location & colors:

Vehicle:	Cirrus / Stratus / Breeze	Sebring convertible
Color:	White/Lite-Green	White/Lite-Green
Plug:	Brown 16-pin	20-pin Connector
Location:	Drv's kick panel	BCM in Drv's kick
Resistor Values: Lock: 620 Ohm / Unlock: 2.7k Ohm		

Vehicle:	New Yorker / Concord / LHS / Vision / Intrepid
Color:	Orange/Violet
Plug:	Blue or Black 16-pin
Location:	Drv's kick panel
Resistor Values:	Lock: 2.7k Ohm / Unlock: 620 Ohm

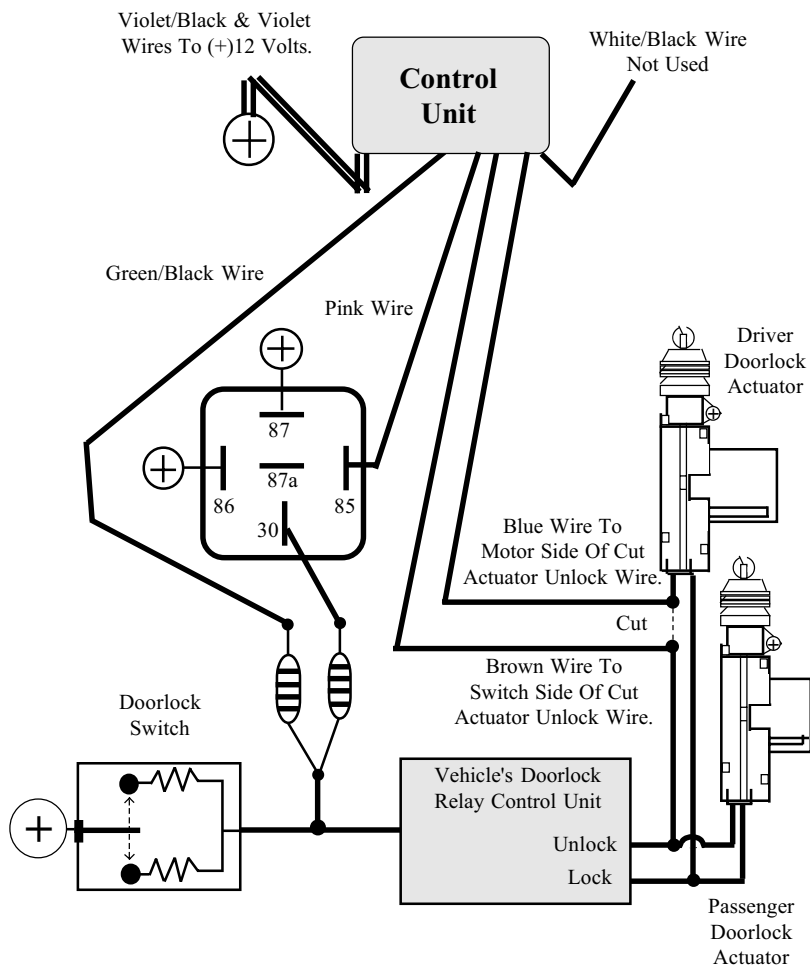
745i²: USING ON-BOARD RELAYS



Chrysler Positive Pulse Single Wire System

DRIVER'S DOOR PRIORITY:

745i2: USING ON-BOARD RELAYS



Chrysler Negative Pulse Single Wire Doorlocks

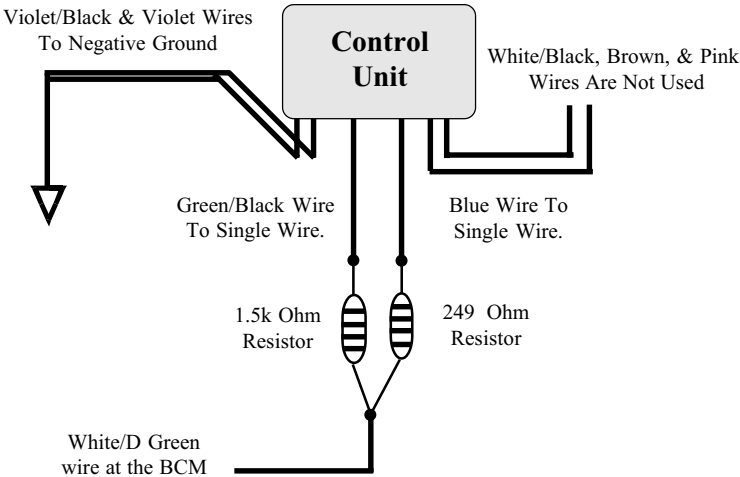
The Chrysler Town & Country, 1996 Dodge Caravan and the Plymouth Voyager are equipped with a resisted negative single wire door lock system. When the vehicle door lock switch is activated to lock or unlock the doors, a negative ground pulse is applied through a resistor.

Vehicle wire location & colors:

Vehicle:	Town & Country / Caravan
Color:	White/Dark Green
Plug:	Tan 40-pin (pin #5)
Location:	At <u>BCM</u> : Behind the fuse/reley block under Drv dash

Vehicle:	Voyager
Color:	White/Dark Green
Plug:	Black 14-pin
Location:	At fuse block in Drv's kick pannel

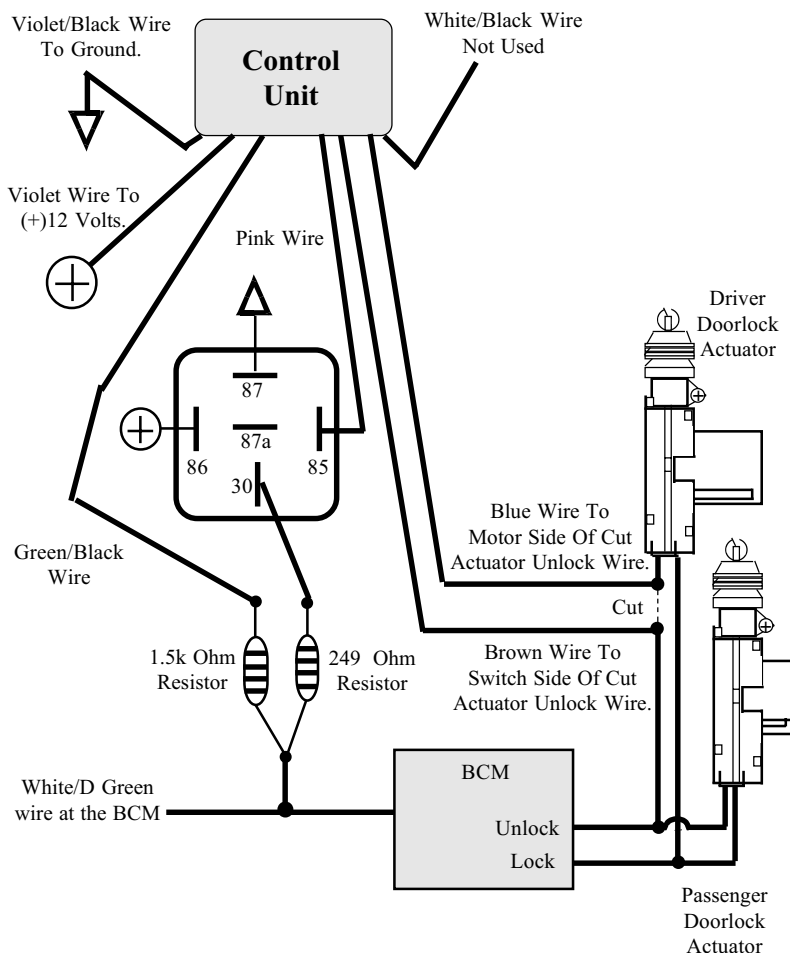
745i²: USING ON-BOARD RELAYS



Chrysler Negative Pulse Single Wire Doorlocks

DRIVER'S DOOR PRIORITY:

745i²: USING ON-BOARD RELAYS



EXPLANATION OF PROGRAMMABLE FEATURES:

This Crime Guard security system is equipped with a remote control learning mode and 20 programmable features which allow the system to be customized to each application in order to better fit your needs.

• = Default Factory Setting

1. Transmitter Learning Mode: (4 Remotes Maximum)

-Allows the programming of remote controls to operate the system.

2. Programmable Override Valet Code: (• 1 Press Override)

-Allows programming of personal emergency override valet code. This personal code can be used, in conjunction with the vehicle's ignition key, to Disarm the system in the event that a remote control is lost or inoperable and to disengage the anti car-jacking process once it has been triggered.

3. Chirp Confirmation: (•On/Off)

-Allows the permanent activation/deactivation of the system's siren chirp confirmation when performing functions (i.e.: Arm/Disarm chirp confirmations).

4. Alarm Condition Cycle Duration: (•30/60 Seconds)

-Allows the option of a 30 or 60 second alarm condition cycle.

5. Automatic Sensor Zone By-Pass: (•On/Off)

-Allows the system to automatically by-pass the sensor zone if the sensor is triggered 5 times while the system is Armed. The by-passed sensor would be reinstated the next time the system Arms.

6. Auxiliary Channel #1 Disarms System: (•On/Off)

-Allows auxiliary channel #1 to automatically Disarm the system when it is activated.

7. Automatic "Last Door" Arming: (•On/Off)

-Allows the system to automatically Arm itself 30 seconds after the vehicle's ignition is turned "Off" and the last door is closed.

• = Default Factory Setting

8. Doors Lock With “Last Door” Arming: (On/•Off)

-Allows the system to lock the vehicle doors when it automatically Arms itself 30 seconds after the vehicle’s ignition is turned “Off” and the last door is closed.

9. Parking-Light Illumination Upon Disarm: (On/•Off)

-Allows the system to illuminate the vehicle’s parking lights for 30 seconds upon Disarm.

10. Starter Interrupt Operates In Valet Mode: (On/•Off)

-Allows the system to engage the starter interrupt (If installed) when the remote transmitter is used to lock the vehicle doors while the system is in the Valet mode.

11. Door Lock/Unlock Pulse Duration: (•.8/3 Seconds)

-Allows the selection of a .8 second or a 3 second door lock/unlock pulse duration.

12. Ignition Activated Anti Car-Jacking: (On/•Off)

-Allows Anti Car-Jacking process to be activated through the ignition.

13. Door Activated Anti Car-Jacking: (On/•Off)

-Allows Anti Car-Jacking process to be activated through a vehicle door in addition to the ignition.

14. Remote Control Activated Anti Car-Jacking: (On/•Off)

-Allows Anti Car-Jacking process to be activated using a remote control.

15. Automatic Rearm: (•On/Off)

-Allows the system to automatically Rearm 90 seconds after the system is Disarmed using a remote control.

16. Doors Lock With Automatic Rearm: (•On/Off)

-Allows the system to lock the vehicle doors when it automatically Rearms itself 90 seconds after the system is Disarmed using a remote control.

• = Default Factory Setting

17. Zone Activation Delay Upon Arming: (•3/45 Seconds)

-Allows the option of having the system's trigger zones become active 3 or 45 seconds after Arming. Affects both "last door" & remote Arming.

18. Doors Lock When Ignition Is Turned "On": (•On/Off)

-Allows the system to lock the vehicle doors when the ignition is turned "On".

19. Doors Unlock When Ignition Is Turned "Off": (•On/Off)

-Allows the system to unlock the vehicle's doors when the ignition is turned "Off".

20) Unlock #2 When Ignition Turned Off: (•On/Off)

-Allows the system to unlock the rest of the vehicle's doors when the ignition is turned "Off" if the driver's door priority unlock feature is used.

21. Open Door Bypass W/ Ignition Door Locking: (•On/Off)

-Allows the system to cancel the door lock command when the vehicle's ignition is turned "On" if it detects an open door.

PROGRAMMING THE 745i²:

Up to 4 different remote controls and 20 features may be programmed into the security system's memory through the programming mode. To enter the programming mode follow the three steps listed below. Once in programming mode, Press & Release the Easy Valet switch the number of times equal to the number of the feature to be programmed. The siren will emit a number of chirps equal to the number of the feature to confirm that the desired feature has been selected.

Once selected, the feature's setting can be chosen by Pressing the appropriate button on the remote control. It is possible to "toggle" the feature's setting back and forth until either a different feature is selected or programming mode is exited. Features can be selected in any order, but it is always necessary to enter the feature's number into the Easy Valet switch by Pressing the Easy Valet switch the number of times equal to the number of the feature. (Refer to pages #19-21 for explanation of features)

For Example: If the user desires to program feature #15 then feature #3:

- a) First enter the programming mode.
- b) To access feature #15 (Automatic Rearm On/Off), Press the Easy Valet Switch 15 times. The siren will emit 15 chirps to confirm selection.
- c) Next, Press the appropriate remote control button to choose feature #15's setting. The siren will chirp to confirm.
- d) To access feature #3 (Chirp Confirmation On/Off), Press the Easy Valet Switch 3 times. The siren will emit 3 chirps to confirm selection.
- e) Press the appropriate remote control button to choose the feature #3's setting. The siren will chirp to confirm.
- f) Follow the same procedure to select any other feature for programming.
- g) Exit programming mode when finished.

To Enter Programming Mode:

Step 1: Turn the vehicles's ignition "On".

Step 2: Turn the vehicle's ignition "Off".

Step 3: Press & Release the Easy Valet switch 5 times within 7 seconds.

-The siren will chirp to confirm entry into the programing mode.

To Exit Programing Mode: Turn the vehicles's ignition "On".

- The siren will chirp to confirm exit from programming mode.

Important Note: If at any time 10 seconds elapse without programming input, the system will automatically exit programming mode. The siren will chirp to confirm exit from the programming mode.

1) Transmitter Learning Mode

Programming A Remote Control To Operate the Primary Vehicle:

Press & Release the Large button on each remote control to be programmed. All of the remote's channels will be learned.

Programming A Remote Control To Operate A 2nd Or 3rd Vehicle:

Up to three systems may be independently operated using a single remote control. The remote's button functions are different for each vehicle. This prevents Arming & Disarming the multiple systems simultaneously.

(Refer to the following chart for button function assignment)

<u>Arm/Disarm</u>	<u>Aux Channel #1</u>	<u>Aux Channel #2</u>
Large Button	Small Button	Small Button
Small Button	Large Button	Small Button
Small Button	Large Button	Small Button

To program: Press & Release either of the small buttons on each remote control to be programmed. The system will automatically learn all of the remote's channels in a different order.

Important: When a new remote control is programmed into the system, all previous remotes in memory will be automatically deleted. If a third or fourth remote control is desired, all of the remotes must be programmed into system's memory.

2) Programmable Override Valet Code: (• 1 Press)

To enter a new valet override code: (1-12 Presses: 12 Maximum)

a) Press & Release the Large button on the remote control.

-The siren will chirp once to confirm system is ready to accept new code.

b) Press & Release the Easy Valet switch 1-12 times before 5 seconds elapse. This number will be the new override code.

-The siren will chirp 1-12 times to confirm the number entered.

Note: If no additional features need to be programmed, exit programming mode by allowing the 10 second time limit to expire without input.

Do Not exit programming mode by turning "On" the ignition.

3) Chirp Confirmation: (•On/Off)

Chirps “On” = Press & Release Large Button. (Siren chirps once)

Chirps “Off” = Press & Release Small Button. (Siren chirps twice)

4) Alarm Condition Cycle Duration: (•30/60 Seconds)

30 Seconds = Press & Release Large Button. (Siren chirps once)

60 Seconds = Press & Release Small Button. (Siren chirps twice)

5) Automatic Sensor Zone By-Pass: (•On/Off)

By-Pass On = Press & Release Large Button. (Siren chirps once)

By-Pass Off = Press & Release Small Button. (Siren chirps twice)

6) Auxiliary Channel #1 Disarms System: (•On/Off)

Aux with Disarm = Press & Release Large Button. (Siren chirps once)

Aux No Disarm = Press & Release Small Button. (Siren chirps twice)

7) Automatic “Last Door” Arming: (•On/Off)

Arming On = Press & Release Large Button. (Siren chirps once)

Arming Off = Press & Release Small Button. (Siren chirps twice)

8) Doors Lock With “Last Door” Arming: (On/•Off)

Lock On = Press & Release Large Button. (Siren chirps once)

Lock Off = Press & Release Small Button. (Siren chirps twice)

9) Parking-Light Illumination Upon Disarm: (On/•Off)

Illumination On = Press & Release Large Button. (Siren chirps once)

Illumination Off = Press & Release Small Button. (Siren chirps twice)

10) Starter Interrupt Operates In Valet: (On/•Off)

Interrupt On = Press & Release Large Button. (Siren chirps once)

Interrupt Off = Press & Release Small Button. (Siren chirps twice)

11) Door Lock/Unlock Pulse Duration: (•.8/3 Seconds)

.8 Second = Press & Release Large Button. (Siren chirps once)

3 Seconds = Press & Release Small Button. (Siren chirps twice)

12) Ignition Activated Anti Car-Jacking: (On/•Off)

Car-Jacking On = Press & Release Large Button. (Siren chirps once)

Car-Jacking Off = Press & Release Small Button. (Siren chirps twice)

13) Door Activated Anti Car-Jacking: (On/•Off)

Car-Jacking On = Press & Release Large Button. (Siren chirps once)

Car-Jacking Off = Press & Release Small Button. (Siren chirps twice)

14) Remote Activated Anti Car-Jacking: (On/•Off)

Car-Jacking On = Press & Release Large Button. (Siren chirps once)

Car-Jacking Off = Press & Release Small Button. (Siren chirps twice)

15) Automatic Rearm: (•On/Off)

Rearm On = Press & Release Large Button. (Siren chirps once)

Rearm Off = Press & Release Small Button. (Siren chirps twice)

16) Doors Lock With Automatic Rearm: (•On/Off)

Lock On = Press & Release Large Button. (Siren chirps once)

Lock Off = Press & Release Small Button. (Siren chirps twice)

17) Zone Activation Delay Upon Arming: (•3/45 Sec)

3 Seconds = Press & Release Large Button. (Siren chirps once)

45 Seconds = Press & Release Small Button. (Siren chirps twice)

18) Doors Lock When Ignition Turned “On”: (•On/Off)

Lock On = Press & Release Large Button. (Siren chirps once)

Lock Off = Press & Release Small Button. (Siren chirps twice)

19) Doors Unlock #1 When Ignition Turned Off: (•On/Off)

Unlock On = Press & Release Large Button. (Siren chirps once)

Unlock Off = Press & Release Small Button. (Siren chirps twice)

20) Unlock #2 When Ignition Turned Off: (•On/Off)

Unlock On = Press & Release Large Button. (Siren chirps once)

Unlock Off = Press & Release Small Button. (Siren chirps twice)

21) Open Door Bypass w/Ignition Lock: (•On/Off)

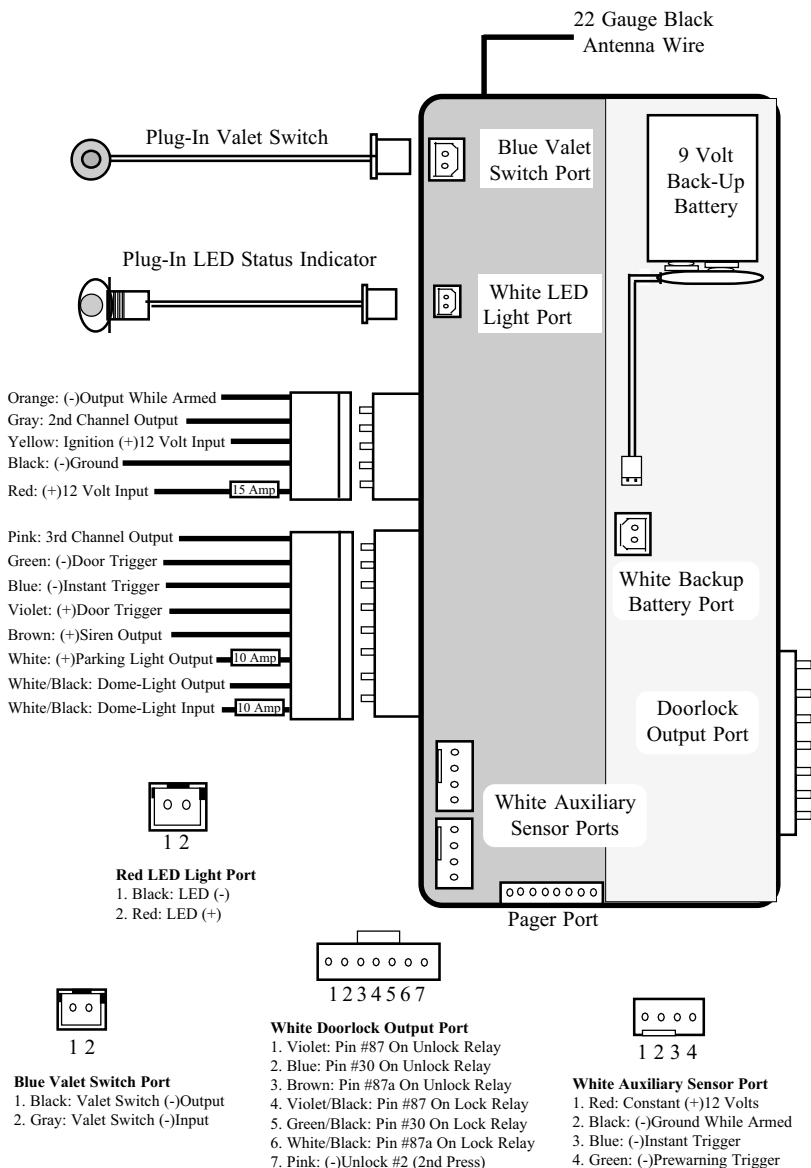
Bypass On = Press & Release Large Button. (Siren chirps once)

Bypass Off = Press & Release Small Button. (Siren chirps twice)

• = Default Factory Setting

Crime Guard 745i

Wiring Configuration For The Crime Guard 745i.



LIMITED LIFETIME WARRANTY

Products manufactured and sold by CRIME GUARD KEYLESS ENTRY & SECURITY (the "Company"), are warranted to be free from defects in materials and workmanship under normal use. If a product sold by the Company proves to be defective, the Company will repair or replace it free of charge within the first year and thereafter all parts to be repaired will be free with only a nominal charge for Crime Guard Keyless Entry & Security, Inc.'s labor and return shipping, to the original owner during the lifetime of the car in which it was originally installed.

All products for warranty repair must be sent postage prepaid to Crime Guard Keyless Entry & Security, Inc., P.O. Box 508, Douglasville, Georgia 30133, or send via UPS to: 981 N. Burnt Hickory Rd., Douglasville, Georgia 30134, with bill of sale or other dated proof of purchase. This warranty is nontransferable and does not apply to any product damaged by accident, physical or electrical misuse or abuse, improper installation, alteration, any use contrary to its intended function, unauthorized service, fire, flood, lightning, or other acts of God.

This warranty limits the Company's liability to the repair or replacement of the product. The Company shall not be responsible for removal and/or reinstallation charges, damage to or theft of the vehicle or its contents, or any incidental or consequential damages caused by any failure or alleged failure of the product to function properly. **UNDER NO CIRCUMSTANCES SHOULD THIS WARRANTY, OR THE PRODUCT COVERED BY IT, BE CONSTRUED AS A GUARANTEE OR INSURANCE POLICY AGAINST LOSS.** The Company neither assumes nor authorizes any person or organization to make any warranties or assume any liability in connection with the sale, installation, or use of this product.

This device complies with F.C.C Rules part 15. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and, (2) This device must accept any interference that may be received, including interference that may cause undesired operation.

The manufacturer is not responsible for any radio TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.