CAR SECURITY AND REMOTE START INSTALLATION GUIDE

1988-2003 Chevy Silverado Full Size Pickup
1988-2003 GMC Sierra Full Size Pickup
2002-2003 Chevy Avalanche

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SAFETY POINTS TO REMEMBER:

Remote starter and security installations should be attempted by experienced security installers only. Information contained is accurate to the best of our knowledge and experience. Information contained is without any representation of warranty. It is the installer's responsibility to test and confirm all circuits with a digital multi-meter. Proper installation remains the responsibility of the installer. Triple S Customs assumes no liability or responsibility resulting from an improper installation, even in reliance with the information contained in this guide.

Use caution when working around the ignition harness. If the vehicle is equipped with airbags, airbag wires are often tagged or wrapped in yellow tape or split loom. DO NOT cut these wires, probe these wires, or disconnect these harnesses for any reason. Doing so may cause the airbags to deploy causing serious injury or death.

Do not disconnect the battery if the vehicle has an anti-theft coded radio. If equipped with an airbag avoid disconnecting the battery if possible. Many airbag systems will display a diagnostic code through their warning light after they lose power. Disconnecting the battery requires this code to be erased. This may cause unnecessary trips to the dealer for service.

Never disconnect any of the vehicle's wiring harness connectors when the ignition is ON.

Only a digital multi-meter should be used to test and verify the vehicle's circuits. Testing the wrong circuit with a test light, test probe, or analog meter can permanently damage expensive automotive components or computers.

Be careful when inserting test probes into wiring harness connectors. Be careful not to damage the connector or spread the pins.

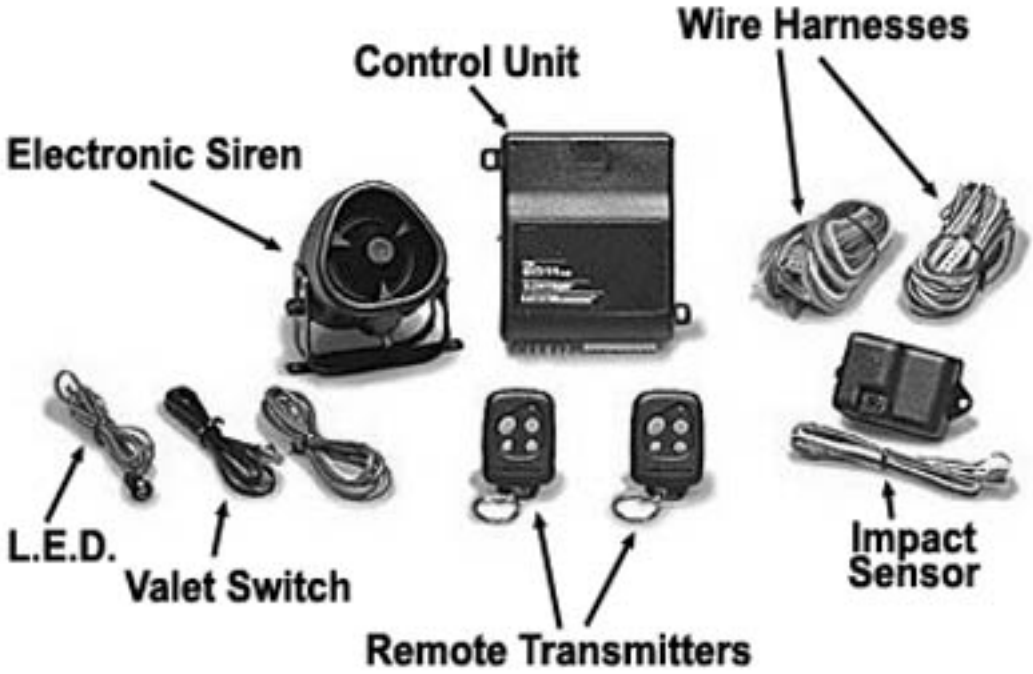
Never bypass fuses included with the alarm and remote start system. They are necessary safety items designed to protect both the system and the vehicle.

Operation of a remote start with the vehicle in gear is contrary to its intended mode of operation. Remote start systems are designed for fuel-injected, automatic transmission vehicles only. Installation of a remote start system in a vehicle with a manual transmission is dangerous and contrary to its intended use. Operating a remote start system while in gear may result in property damage or personal injury or both.

Never operate a remote start in an enclosed or partially enclosed area.

INTRODUCTION TO REMOTE START AND SECURITY SYSTEMS:

Opening the box of your first alarm and remote start system can be very intimidating. With all the different parts and wires, it can be confusing to even experienced mobile electronics installers. This section is dedicated to helping you understand the components that make up a remote start and security system and how they operate.



NOTE: This is only an example. Much more complex and much more simple systems exist, but this example is a starting point to build an understanding of alarm and remote start systems.

CONTROL UNIT

The control unit or "brain" of the alarm and remote start system is the heart of the system. This is often a black box that all harnesses and components connect to. The control unit is where the processing of various input and output functions takes place. The control unit monitors signals from trigger inputs and sensor outputs to trigger the alarm. The control unit also monitors signals from the remote transmitters to arm or disarm the system, lock and unlock the doors, remote start the vehicle, or operate other accessories such as the horn or trunk release.

WIRING HARNESS

The wiring harness may consist of one or more separate harnesses that plug into the control unit and connect to various vehicle circuits, sensors, or switches. NOT EVERY WIRE IS USED OR CONNECTED. Alarm and remote start systems are designed to integrate with a wide range of vehicles with many different types of circuits.

INTRODUCTION TO REMOTE START AND SECURITY SYSTEMS, cont.

REMOTE TRANSMITTERS
One or more remote transmitters are used to control the various functions of the alarm or remote start system.

ELECTRONIC SIREN
Security systems and some remote start systems include an electronic siren. Most sirens have a positive and a negative wire. The negative wire connects to chassis ground and the positive wire connects to the alarm's siren output wire. The electronic siren is the system's sounding device. The system sounds the siren when the system is armed or disarmed or when the alarm is triggered. Some electronic sirens have a self-contained battery to power the siren if power to the alarm is disconnected.

VALET SWITCH
The valet switch is used for a variety of functions depending on the complexity of the system. The valet switch connects to the control unit through a small harness. Generally, the valet switch is a momentary switch that plugs into the system's control unit. The valet switch supports functions of programming, sensor disable, and system override.

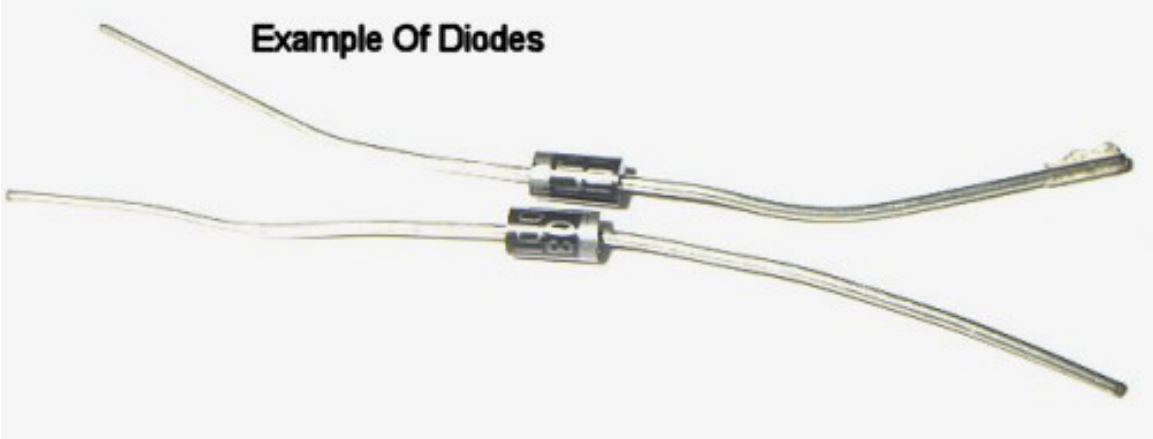
L.E.D.
The L.E.D. (light emitting diode) shows visual status of the system. It connects to the control unit usually through a small harness. It primarily serves as a theft deterrent. The L.E.D. shows that the system is armed and warns potential thieves.

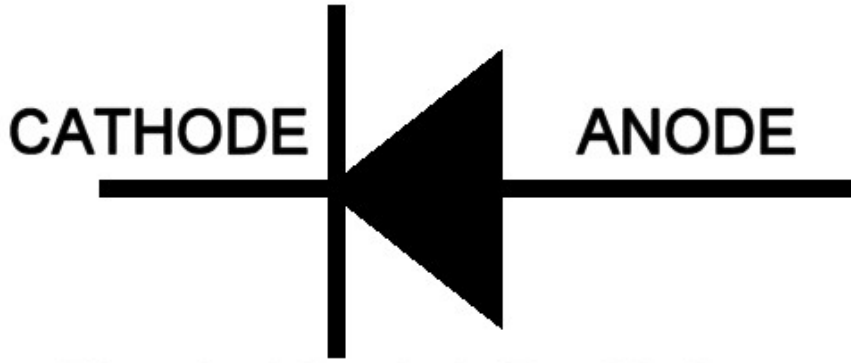
EXTERNAL SENSORS
Many security systems include external sensors, such as an external shock sensor. They connect to the system's control unit through a wire, cable, or ribbon harness. External sensors offer increased protection through their ability to be mounted in locations where they would best detect a disturbance to the vehicle.

EXTENDED RANGE ANTENNA
Some systems include an extended range antenna. Generally the antenna is mounted on the windshield and provides the user the benefit of increased range to control functions of the alarm or remote start.

INTRODUCTION TO DIODES:

- A diode is a device designed to allow electron flow in one direction only.
- When installing an alarm or remote start, diodes may be required to complete the installation. Diodes are primarily used to isolate independent circuits from each other. Diodes will not be required on every installation, but it is still a good idea to have a pack of 6-amp diodes on hand just in case.



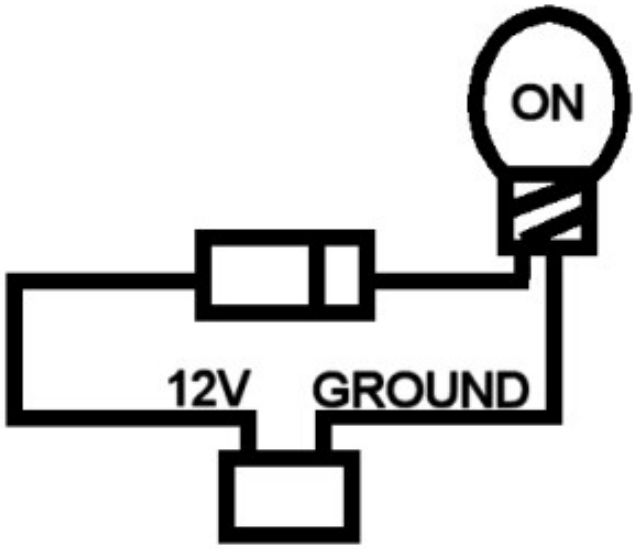


Electrical Symbols For Diodes

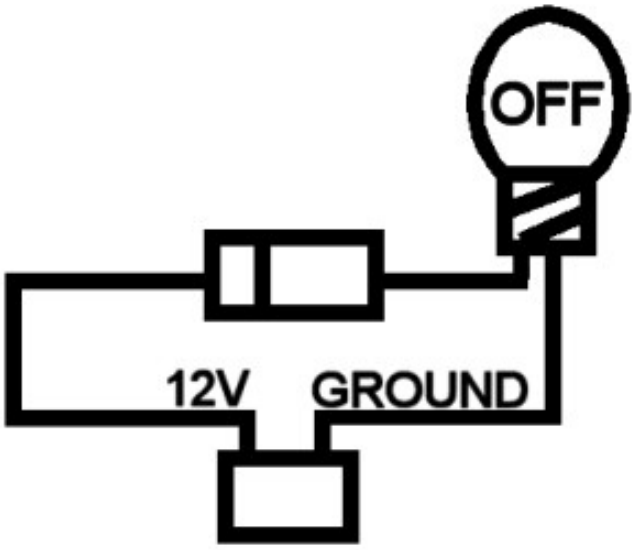
- A diode has two terminals called the anode and cathode. The silver band of the diode indicates the cathode side of the diode. Negative current flows through the cathode and out the anode but will not flow in the opposite direction. Also, positive current flows through the anode side and out the cathode side.

INTRODUCTION TO DIODES, cont.

- The concept of diodes is easy to understand with the help of the illustrations below. The first illustration consists of a battery, a light bulb, and a diode. The positive terminal of the battery is connected to the anode side of the diode. When the diode is connected this way, positive current is allowed to flow through the diode. A diode connected to allow positive current to flow is called forward biased. Also, the cathode side of the diode is wired to one terminal of the light bulb and the other terminal of the light bulb is connected to the negative terminal of the battery. This completes the circuit, positive current is allowed to flow through the diode to the light bulb and back to the battery's negative terminal, and the light bulb will illuminate.



- In the second illustration, the diode has been reversed. The positive terminal of the battery is connected to the cathode side of the diode. When the diode is connected this way, positive current is NOT allowed to flow through the diode. A diode connected to block positive current to flow is called reverse biased. This prevents the circuit from being completed and causes an open circuit. This prevents the light bulb from illuminating.

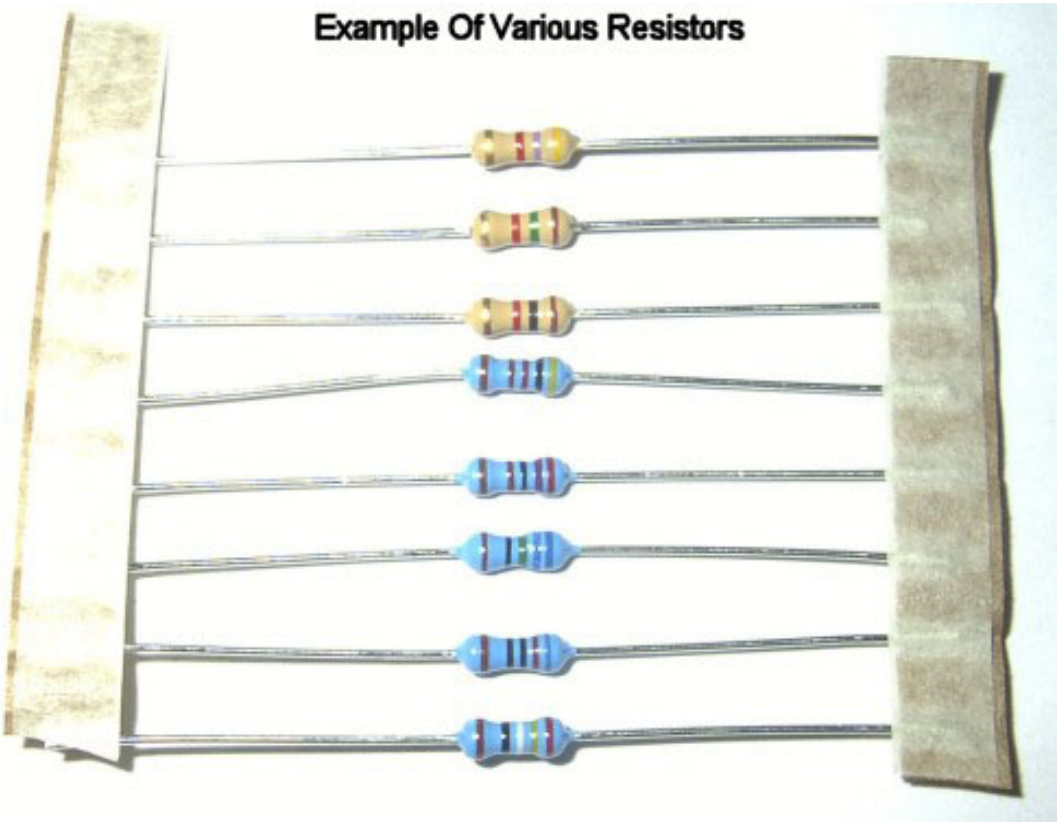


INTRODUCTION TO RESISTORS:

- A resistor is an electrical component designed to have a specific resistance (or opposition) to the flow of electrons, measured in ohms (Ω).

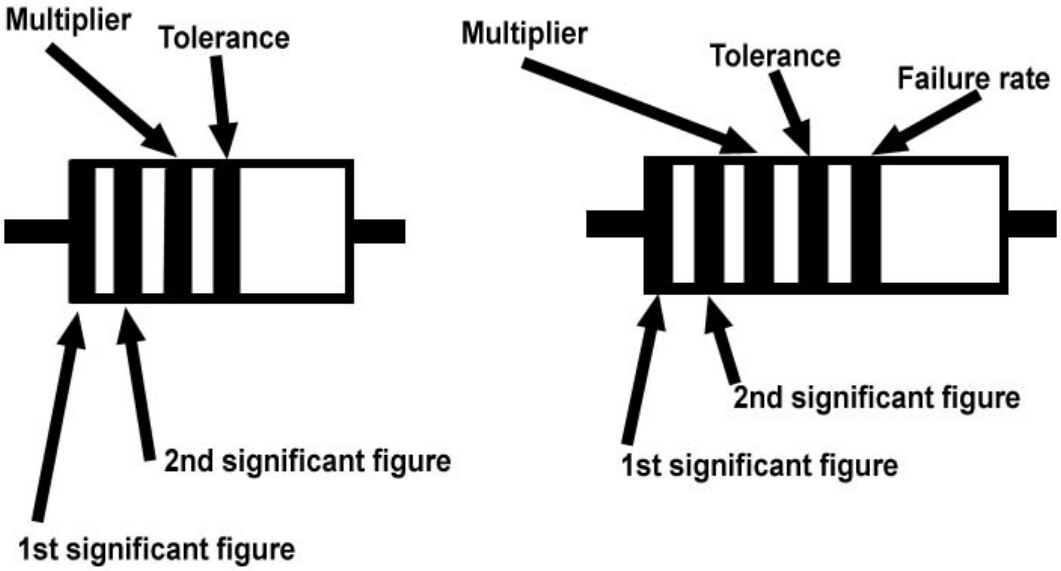
- When installing a remote start or security system, resistors of a specific resistance may be needed to interface with the vehicle's circuits. Some of a vehicle's circuits may require a reduced voltage to operate a specific accessory or function. A resistor can be added to reduce the trigger voltage to the circuit. Resistors will not be required on most installations, but will be required for installations on many newer vehicles. For example, on a 2002 Dodge Intrepid, a positive pulse through a 2700-Ohm resistor to the door lock wire will lock the doors. If resistors are not included with the system you purchased, they can be found at almost any electronics parts store such as Radio Shack.

- Carbon-film resistors are the type most commonly used in vehicle security and convenience applications. Color bands on the resistor will indicate the value in ohms as well as its tolerance in a plus or minus percentage of accuracy. Resistors also have a watt rating to indicate the amount of power it can handle. If you exceed the power rating of a resistor, it will overheat and burn.



Symbol used in wiring schematics to indicate a resistor: 

INTRODUCTION TO RESISTORS, cont.



Resistors with black body are composition, non-insulated.
Resistors with colored body are composition, insulated.
Wire wound resistors have the 1st color band double-width.

RESISTOR COLOR CODES

COLOR	SIGNIFICANT FIGURES	MULTIPLIER	TOLERANCE	FAILURE RATE (% of failure per 1000 hours of operation)
BLACK	0	1	± 20%	-
BROWN	1	10	± 1%	1.0
RED	2	100	± 2%	0.1
ORANGE	3	1,000	± 3%	0.01
YELLOW	4	10,000	± 4%	0.001
GREEN	5	100,000	-	-
BLUE	6	1,000,000	-	-
VIOLET	7	10,000,000	-	-
GRAY	8	100,000,000	-	-
WHITE	9		9	Solderable
GOLD	-	.01	± 5%	-
SILVER	-	0.01	± 10%	-
NO COLOR	-		± 20%	-

EXAMPLE:
If the 1st band is ORANGE and the 2nd band is GREEN and the 3rd band is RED and the 4th band is GOLD then:
ORANGE 1st band=3, GREEN 2nd band=5, RED 3rd band=100, GOLD 4th band=5% so:
35X100=3500 RESISTOR VALUE IS 3500 OHMS WITH A TOLERANCE OF 5%.

TROUBLESHOOTING RESISTORS:
Troubleshooting resistors is pretty straightforward. Resistors almost always open when they go bad. An open resistor in a series circuit will stop current from flowing in the circuit. An open resistor in a parallel circuit will increase the resistance and decrease the total current.

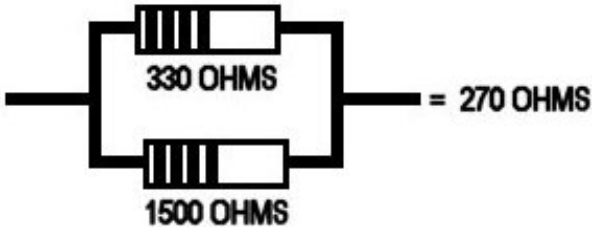
INTRODUCTION TO RESISTORS, cont.

RESISTOR VALUE	COLOR BANDS
249 OHMS	RED YELLOW WHITE BLACK BROWN
330 OHMS	ORANGE ORANGE BROWN GOLD
365 OHMS	ORANGE BLUE GREEN BLACK BROWN
390 OHMS	ORANGE WHITE BROWN GOLD
430 OHMS	YELLOW ORANGE BROWN GOLD
470 OHMS	YELLOW VIOLET BROWN GOLD
487 OHMS	YELLOW GRAY VIOLET BLACK BROWN
560 OHMS	GREEN BLUE BROWN GOLD
620 OHMS	BLUE RED BLACK BLACK BROWN
665 OHMS	BLUE BLUE GREEN BLACK BROWN
750 OHMS	VIOLET GREEN BROWN GOLD
820 OHMS	GRAY RED BROWN GOLD
867 OHMS	GRAY BLUE VIOLET BLACK BROWN
931 OHMS	WHITE ORANGE BROWN BLACK BROWN
1000 OHMS	BROWN BLACK RED GOLD
1200 OHMS	BROWN RED RED GOLD
1500 OHMS	BROWN GREEN RED GOLD
1870 OHMS	BROWN GRAY VIOLET BROWN BROWN
2000 OHMS	RED BLACK RED GOLD
2700 OHMS	RED VIOLET BLACK BROWN BROWN
3000 OHMS	ORANGE BLACK RED GOLD
4020 OHMS	YELLOW BLACK RED BROWN BROWN
4700 OHMS	YELLOW VIOLET RED GOLD
5360 OHMS	GREEN ORANGE BLUE BROWN BROWN
7150 OHMS	VIOLET BROWN GREEN BROWN BROWN
7500 OHMS	VIOLET GREEN RED GOLD
9100 OHMS	WHITE BROWN RED GOLD

In some cases, you'll need a resistor of a value other than what you have available. Different resistance values can be obtained by combining the resistors in a series or parallel connection.

Series Connection
When two or more resistors are wired in series, the total value is the sum of the resistor values.
R1 + R2 = Total resistance value

Parallel Connection
When two or more resistors are wired in parallel, the total value is the total of the value of the first resistor multiplied by the second resistor divided by the sum of the first resistor and the second resistor.
(R1 X R2) ÷ (R1 + R2) = Total resistance value



INTRODUCTION TO RELAYS:

- A relay is nothing more than a switch. A relay is an electromechanical switch. Simply put, a relay will be used for an alarm or remote start installation for one or more of the four purposes:
    - To turn something ON
    - To turn something OFF or disable something
    - To change the polarity of a wire
    - To increase the current supply of a wire.

- Relays involve the simple matter of switching. The difference between a switch that you turn on or off with your finger and a relay is the method of activation. You use your finger to turn a switch on or off, but a relay is activated electronically. This is how a car alarm or remote start system's functions can operate without having someone to turn a switch manually.

- Relays are often used in alarm or remote start installations to control functions like:
    - Starter interrupts or disables
    - Power door locks
    - Flashing parking lights
    - Power trunk, power hatch, or power fuel door releases
    - Horn honk
    - Multiple triggers
    - Garage door openers
    - Power window/sunroof control

Example of a Bosch SPDT 30-amp relay:

INTRODUCTION TO RELAYS, cont.

3 parts make up a standard relay. They are known as the COIL, CONTACTS, and the SPRING.

COIL:

- This is the part of the switch that allows the relay to be controlled electronically instead of by someone pressing a button or flipping a switch. The coil of a relay is made up of many turns of small gauge wire wrapped around an iron core. When the coil is energized it creates a magnetic field.

- Pins 85 and 86 make up the terminals of the coil. When 12V is connected to pin 86 and ground is connected to pin 85, the coil is activated.

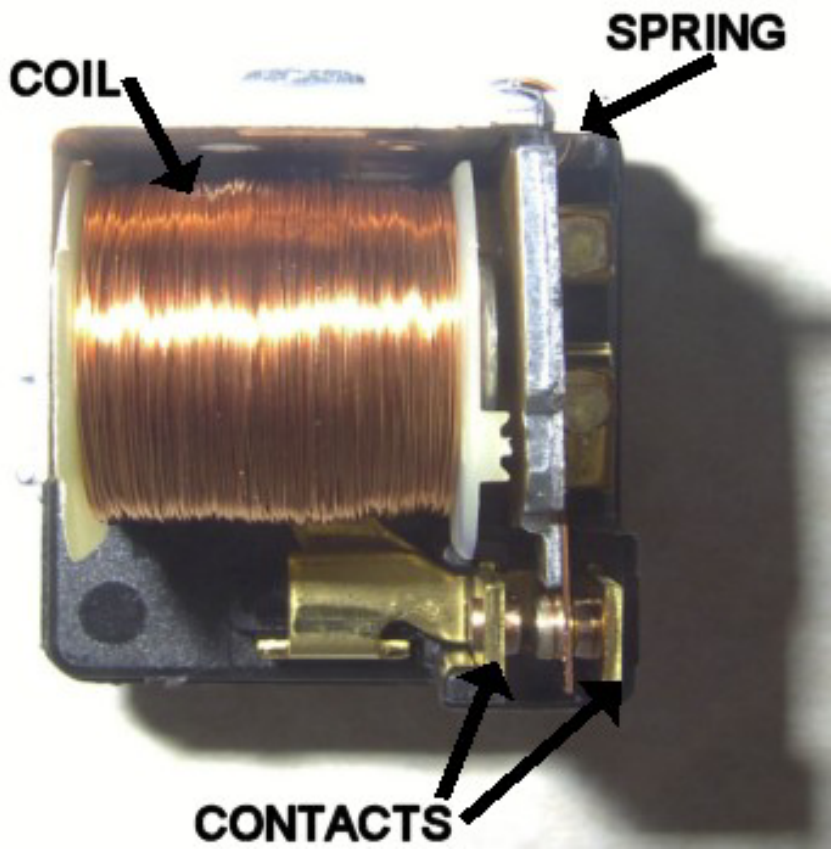
NOTE: Usually, it doesn't matter whether pin 85 or 86 is used for 12V or ground. But if the relay has an INTERNAL SPIKE SUPPRESSION DIODE, 85 must be the negative terminal and 86 must be the positive terminal. Most OEM vehicle relays are wired this way and it is a good habit of always using 85 for the negative terminal and 86 for the positive terminal.

CONTACTS:

These are the terminals that connect into the vehicle's electrical system. Functions include turning a vehicle on/off or disabling it, changing a wire's polarity, or increasing the current. Depending on if the coil is energized or not, pin 30 will be connected to either pin 87 or pin 87A.

SPRING:

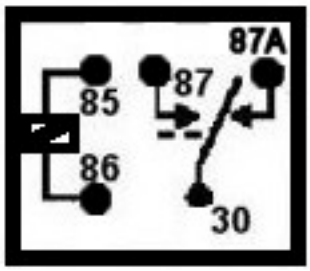
This is the part of the relay that keeps the common (pin 30) and the normally closed contact (pin 87a) connected while the coil is not energized. Magnetic force created by the energized coil will connect the common (pin 30) to the normally open contact (pin 87)



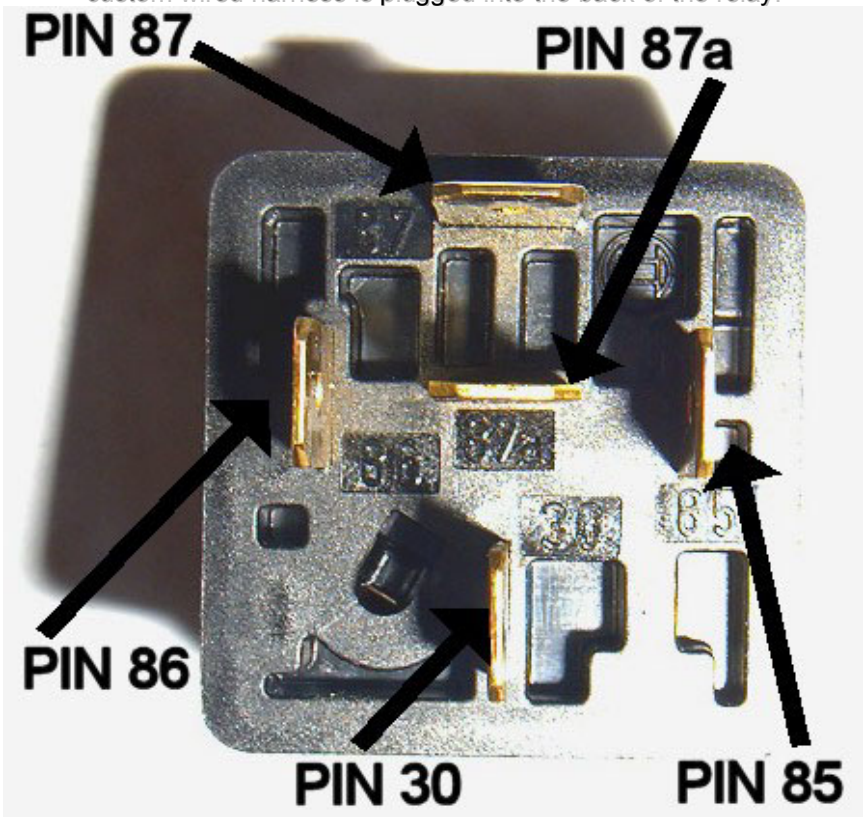
A look inside a relay

INTRODUCTION TO RELAYS, cont.

This is a schematic of a relay. A similar schematic is printed on the side of most relays.



This is a look at the back of a relay. Actual connections are connected to these terminals or a custom wired harness is plugged into the back of the relay.



BEFORE BEGINNING THE INSTALLATION:

- READ ALL INSTRUCTIONS!

- Take time to check out the vehicle thoroughly. Check what electrical items work and what items don't work. It helps to have someone help you with this to properly check the vehicle's brake lights, reverse lights, turn signals, hazard lights, parking lights, fog lights, and headlights. This may bring to your attention problems you were not previously aware of and prevent unnecessary troubleshooting when the installation is completed.

- Check the contents of the alarm or remote start system that you will be installing. Make sure the system is complete and that no components are visibly damaged.

- Consider what options will be installed. Many alarm and remote start systems have the option and ability for features such as starter kill, keyless entry, trunk release, horn honk, and dome light supervision. Some options will require additional parts or relays. It is always easier to install features when the system is first installed than later.

- Plan and allow extra time to complete the installation. Most professional installers will admit that their first security installation took 6-10 hours. It is recommended to schedule yourself a weekend to complete the installation so you do not feel rushed.

- Set up to do the installation in a sheltered, dry, and well-lit area where you will not be disturbed or bothered by other people or pets.

- Turn off the dome light. This prevents draining the battery while you complete the installation. If your vehicle does not have a dome light switch, you can remove the dome light bulb itself. Consult your vehicle's owner's manual on the best procedure to do this. Be careful, as the bulb gets very hot in a short time.

- Roll down the windows to avoid being accidentally locked out of the vehicle.

- Protect the vehicle by using floor mats, seat covers, and fender covers. It is also recommended to place an old rug or blanket on the floor on the driver's side of the vehicle. This will help lessen the strain on your knees and prevent any screws, clips, or small parts accidentally dropped from bouncing across the floor.

- Remove any watches, rings, or jewelry. This will help prevent accidentally scratching or damaging the vehicle or damaging the jewelry itself. Avoid wearing a belt or pants with rivets, metal zippers, or metal buttons that could scratch or damage the vehicle.

TOOLS AND ADDITIONAL PARTS REQUIRED:

COMMON TOOLS REQUIRED:

- Digital Multi-meter (never use a test light or analog meter to test automotive circuits)
- Wire cutters
- Wire strippers
- Quality wire crimping tool- such as Klein or Snap-On
- Soldering iron
- Cordless power drill
- Nut drivers or socket set in both metric and standard sizes.
- Drill bit set, 1/2" Unibit
- Torx bit set
- Allen bit set
- Phillips head screwdriver
- Small flathead screwdriver (for adjusting sensors)
- Panel removal tool (Available at most auto parts stores)
- Razor blades
- Droplight or flashlight
- Metal coat hanger (used to feed wires through rubber grommet in firewall)

ADDITIONAL PARTS AND MATERIALS OFTEN REQUIRED:

NOTE: Many of these parts or materials may be purchased at Radio Shack or better-equipped hardware stores.

- 3M vinyl electrical tape- 2 or 3 rolls
- Heat shrink tubing
- Plastic wire ties or zip ties in various lengths
- Vinyl split loom or tubing to conceal and protect wiring under the hood
- 60/40 resin core solder
- 12V 30A SPDT relays- the number of relays required will vary depending on the system being installed and the features or options installed with it.
- Door lock actuators- required only if adding remote keyless entry to vehicles without power door locks
- Pack of insulated butt connectors
- Pack of 6 amp diodes
- Pack of resistors of various impedances
- Spring-loaded pin switch- necessary if installing an under hood pin switch
- Immobilizer bypass module- only available at better-equipped car audio stores- required when installing a remote start on vehicles equipped with a factory immobilizer. Check your vehicle's owner's manual or this document to help you determine if your vehicle is equipped with a factory immobilizer system.

WIRING THE SYSTEM AND MAKING YOUR CONNECTIONS:

- What makes or breaks an alarm or remote start system is the installation. Even the best systems on the market will not properly protect a vehicle and function properly if they are poorly installed. A properly installed system begins with how the system's wiring is prepared.

- Most installers prefer to disassemble the vehicle first and find the wires they need before any components are mounted or connections are made. It is recommended that when disassembling the vehicle; place each part in a labeled box or bin. Do not leave pieces on the floor. They could get lost, stepped on, or broken.
    - It is recommended that the proper tool be always used to disassemble and reassemble parts of the vehicle. Many tool companies make specialized tools such as window crank removal tools and door panel removal tools that are available at better-equipped auto parts stores and hardware stores.
    - It is recommended that parts be placed in a labeled box or bag. This helps prevent parts from being lost, stepped on, or broken. This will also help make reassembly easier.

- Take time to test each wire to verify that it is the correct wire. Use a quality digital multi-meter. A digital multi-meter is a multi-purpose instrument that combines the features of an ammeter, voltmeter, and ohmmeter into one tool. Never use an analog volt-ohm meter or incandescent test light to test circuits. In today's computer equipped vehicles, the current draw that a volt-ohm meter or test light requires can permanently damage delicate vehicle computers. Always use a digital multi-meter to test circuits. Wire colors and sometimes wire polarities can vary from vehicle to vehicle. Also, take a note of how the vehicle's factory wires are wrapped. Are they wrapped in vinyl tape? Are they covered in split-loom? Are they covered in cloth tape? Wires should be carefully wrapped to match the vehicle's wiring. This will make the system "blend in" with the factory wiring, giving it a factory-installed appearance.

- Study the vehicle and find places to mount components such as the control unit, relays, and sensors. Make sure components won't be in the way of any moving parts. Make sure you can reassemble the vehicle without the alarm/remote start system's components being in the way. Nothing is worse than completing the installation and finding a panel won't fit back on because a relay or the control unit is in the way. Look under the hood to find a spot to mount the siren. Many engine bays are very cramped. Take time to plan how you will run your wires through the engine bay.

- Most installers prefer to screw down or use double-sided tape to secure the system's control module on a counter top or work bench to prep the system's wiring. Some installers chose to wrap the system's wires individually. However, many systems can have over 50 wires. In this case many installers will wrap wires that must go to a similar location together. For example, twist together wires that must go to a similar location like the driver's kick panel, the ignition harness, the passenger kick panel, the headlight switch, under the hood, or to any other location that you are routing wires to. Wrap the wires in tape or split loom to camouflage the wires and make them look like factory wiring. Cap off wires that will not be connected to prevent any shorts.

- Connections should only be made by crimp connectors or solder connections. When properly performed, both connections are reliable and trouble free.

- It is recommended that a Klein-style crimp tool be used for solderless crimp-on connectors instead of a cheap hardware store crimping tool.

WIRING THE SYSTEM AND MAKING YOUR CONNECTIONS, cont.

- When making crimp connections, the seam of the metal barrel in the solderless crimp-on connector should be in the concave part of the crimp tool's jaws.

- The only drawback to crimping is that oxidation can build up between the wire and the connectors over time. The oxidation causes degradation in electrical connection. This causes an increase in resistance, which can hurt the overall performance of the system.

- When soldering, solder should be applied so it flows over the connections. For best results, the tip of the soldering iron should be held below the wire while applying the solder from above. This allows the solder to flow from the top of the wire to the bottom more uniformly. Two or three balls of solder is not good enough because it may contain air bubbles and either brake off over time or have little electrical connection value. A good solder joint should be smooth and shiny. Once the soldering is completed, let the solder joint stand until cool. Tape and seal the solder joint after the solder joint has cooled.

- When soldering, use a drop cloth to prevent solder drips and burns on the vehicle's carpeting. Also a drop cloth makes clean up easier when installation is completed.

- Make certain that wires cannot be shorted to the chassis at any point.

- Cheap electrical tape is not a reliable insulator.
    - It often falls off in hot weather.

- Use good-quality electrical tape; such as 3M, or heat shrink tubing

- Never twist-and-tape wires together without soldering. Never use "wire nuts." Wire nuts are designed for a stationary, stable environment. The vibration of being on the road could cause a wire nut to eventually fall off the wire leaving the exposed wiring to short to ground, possibly causing severe electrical damage.

- Never use "fuse taps".
    - They can be easily defeated
    - They can possibly damage fuse box terminals

- Avoid using T-taps, especially in high current connections. Many installers get in the habit of using T-taps because they are quick and easy to use. However, over time they can come loose. Also they are not meant to be used in high-current connections such as the outputs from a remote start system to the vehicles ignition, accessory, and starter wires.

ATTENTION! Use caution when working around the ignition harness. If the vehicle is equipped with airbags, airbag wires are often tagged or wrapped in yellow tape or split loom. DO NOT cut these wires, probe these wires, or disconnect these harnesses for any reason. Doing so may cause the airbags to deploy causing serious injury or death.

WIRING INFORMATION: 1988 Chevy Full-Size 2-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (5-wire reverse polarity)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (5-wire reverse polarity)	BLACK/WHITE or BLACK/RED	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1989 Chevy Full-Size 2-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
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TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1990 Chevy Full-Size 2-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (5-wire reverse polarity)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (5-wire reverse polarity)	BLACK/WHITE or BLACK/RED	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1991 Chevy Full-Size 2-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (5-wire reverse polarity)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (5-wire reverse polarity)	BLACK/WHITE or BLACK/RED	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1988 Chevy Full-Size 4-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (+)	BLACK/WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1989 Chevy Full-Size 4-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (+)	BLACK/WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1990 Chevy Full-Size 4-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (+)	BLACK/WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1991 Chevy Full-Size 4-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (+)	BLACK/WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1992 Chevy Full-Size

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1993 Chevy Full-Size

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1994 Chevy Full-Size

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1995 Chevy Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE (Required when installing a remote start system)	WHITE or PINK/WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	PURPLE or PURPLE/WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1996 Chevy Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE (Required when installing a remote start system)	WHITE	Ignition Harness
THIRD IGNITION WIRE (Does not exist on all models	PINK/WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	PURPLE or PURPLE/WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1997 Chevy Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE (Required when installing a remote start system)	WHITE	Ignition Harness
THIRD IGNITION WIRE (Does not exist on all models	PINK/WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	PURPLE or PURPLE/WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1998 Chevy Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE (Required when installing a remote start system)	WHITE	Ignition Harness
THIRD IGNITION WIRE (Does not exist on all models	PINK/WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	PURPLE or PURPLE/WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.

WIRING INFORMATION: 1999 Chevy Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (+)	WHITE	Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (+)	BROWN	Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	TAN (DRIVER'S DOOR) BLUE/WHITE (PASSENGER DOORS)	Body Control Module Under Dash On Driver's Side
DOME LIGHT SUPERVISION	USE DOOR TRIGGER WIRE	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	Body Control Module Under Dash On Driver's Side
TACHOMETER WIRE	WHITE	Engine Control Module Near Battery
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT-TO-START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.
- If you have a 1999 Classis Pickup, refer to information on the 1998 model year.

WIRING INFORMATION: 2000 Chevy Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (+)	WHITE	Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (+)	BROWN	Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	TAN (DRIVER'S DOOR) BLUE/WHITE (PASSENGER DOORS)	Body Control Module Under Dash On Driver's Side
DOME LIGHT SUPERVISION	USE DOOR TRIGGER WIRE	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	Body Control Module Under Dash On Driver's Side
TACHOMETER WIRE	WHITE	Engine Control Module Near Battery
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT-TO-START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.
- If you have a 2000 Classis Pickup, refer to information on the 1998 model year.

WIRING INFORMATION: 2001 Chevy Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (+)	WHITE	Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (+)	BROWN	Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	TAN (DRIVER'S DOOR) BLUE/WHITE (PASSENGER DOORS)	Body Control Module Under Dash On Driver's Side
DOME LIGHT SUPERVISION	USE DOOR TRIGGER WIRE	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	Body Control Module Under Dash On Driver's Side
TACHOMETER WIRE	WHITE	Engine Control Module Near Battery
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT-TO-START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.

WIRING INFORMATION: 2002 Chevy Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (+)	WHITE	Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (+)	BROWN	Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	TAN (DRIVER'S DOOR) BLUE/WHITE (PASSENGER DOORS)	Body Control Module Under Dash On Driver's Side
DOME LIGHT SUPERVISION	USE DOOR TRIGGER WIRE	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	Body Control Module Under Dash On Driver's Side
TACHOMETER WIRE	WHITE	Engine Control Module Near Battery
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT-TO-START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.

WIRING INFORMATION: 2003 Chevy Full Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK (12 gauge)	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
THIRD IGNITION WIRE	PINK (18 gauge)	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
SECOND ACCESSORY WIRE	BROWN	Ignition Harness
POWER DOOR LOCK (-) **Base models only- for all other models special interface required, see page 72**	LT. BLUE	At Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (-) **Base models only- for all other models special interface required, see page 72 **	WHITE	At Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (-)	GRAY/BLACK	At Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	GRAY/BLACK (Driver Door) BLACK/WHITE (Passenger Door)	At Module Inside Each Individual Door
DOME LIGHT SUPERVISION	Use Door Trigger Wire	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	At Module Inside Driver's Door
TACHOMETER WIRE	Use any wire that is NOT PINK, BLACK, or BROWN	At Any Ignition Coil
BRAKE WIRE (+)	WHITE	Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
LEFT FRONT (+)	TAN	Speaker
LEFT FRONT (-)	GRAY	Speaker
LEFT REAR (+)	BROWN	Speaker
LEFT REAR (-)	YELLOW	Speaker
RIGHT FRONT (+)	LIGHTGREEN	Speaker
RIGHT FRONT (-)	DARKGREEN	Speaker
RIGHT REAR (+)	DARKBLUE	Speaker
RIGHT REAR (-)	LIGHTBLUE	Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.
- On base model trucks the door trigger wires are at the Body Control Module. On 4 door models, the left rear door trigger is LT. BLUE/BLACK, and the right rear door trigger is LT. GREEN/BLACK. Use all wires and diode isolate.
- To interface with the door locks on all vehicles that are NOT base models, go to page 75.

WIRING INFORMATION: 1988 GMC Full-Size 2-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (5-wire reverse polarity)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (5-wire reverse polarity)	BLACK/WHITE or BLACK/RED	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1989 GMC Full-Size 2-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (5-wire reverse polarity)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (5-wire reverse polarity)	BLACK/WHITE or BLACK/RED	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1990 GMC Full-Size 2-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (5-wire reverse polarity)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (5-wire reverse polarity)	BLACK/WHITE or BLACK/RED	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1991 GMC Full-Size 2-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (5-wire reverse polarity)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (5-wire reverse polarity)	BLACK/WHITE or BLACK/RED	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1988 GMC Full-Size 4-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (+)	BLACK/WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1989 GMC Full-Size 4-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (+)	BLACK/WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1990 GMC Full-Size 4-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (+)	BLACK/WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1991 GMC Full-Size 4-Door

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (+)	BLACK/WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	Door Pin Or Under Dash Light
TACHOMETER WIRE	PURPLE/WHITE	Silver Module Behind Glove Box
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver Kick Panel Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DK. BLUE	Behind Instrument cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1992 GMC Full-Size

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1993 GMC Full-Size

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1994 GMC Full-Size

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1995 GMC Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE (Required when installing a remote start system)	WHITE or PINK/WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	PURPLE or PURPLE/WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1996 GMC Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE (Required when installing a remote start system)	WHITE	Ignition Harness
THIRD IGNITION WIRE (Does not exist on all models	PINK/WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	PURPLE or PURPLE/WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (+)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1997 GMC Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE (Required when installing a remote start system)	WHITE	Ignition Harness
THIRD IGNITION WIRE (Does not exist on all models	PINK/WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	PURPLE or PURPLE/WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

WIRING INFORMATION: 1998 GMC Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW OR PURPLE	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE (Required when installing a remote start system)	WHITE	Ignition Harness
THIRD IGNITION WIRE (Does not exist on all models	PINK/WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	LT. BLUE	Harness Coming Into Vehicle From Driver's Door
POWER DOOR UNLOCK (2-door models: 5-wire reverse polarity, 4-door and models with OEM keyless entry: positive trigger)	WHITE	Harness Coming Into Vehicle From Driver's Door
PARKING LIGHTS (+)	BROWN	At Headlight Switch
DOOR TRIGGER WIRE (-)	PURPLE or PURPLE/WHITE	At Headlight Switch
TACHOMETER WIRE	WHITE	Large Module On Inner Fender Driver's Side
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness Running To Rear Of Vehicle
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT TO START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.

WIRING INFORMATION: 1999 GMC Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (+)	WHITE	Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (+)	BROWN	Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	TAN (DRIVER'S DOOR) BLUE/WHITE (PASSENGER DOORS)	Body Control Module Under Dash On Driver's Side
DOME LIGHT SUPERVISION	USE DOOR TRIGGER WIRE	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	Body Control Module Under Dash On Driver's Side
TACHOMETER WIRE	WHITE	Engine Control Module Near Battery
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT-TO-START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.
- If you have a 1999 Classis Pickup, refer to information on the 1998 model year.

WIRING INFORMATION: 2000 GMC Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (+)	WHITE	Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (+)	BROWN	Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	TAN (DRIVER'S DOOR) BLUE/WHITE (PASSENGER DOORS)	Body Control Module Under Dash On Driver's Side
DOME LIGHT SUPERVISION	USE DOOR TRIGGER WIRE	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	Body Control Module Under Dash On Driver's Side
TACHOMETER WIRE	WHITE	Engine Control Module Near Battery
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT-TO-START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.
- If you have a 2000 Classis Pickup, refer to information on the 1998 model year.

WIRING INFORMATION: 2001 GMC Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (+)	WHITE	Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (+)	BROWN	Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	TAN (DRIVER'S DOOR) BLUE/WHITE (PASSENGER DOORS)	Body Control Module Under Dash On Driver's Side
DOME LIGHT SUPERVISION	USE DOOR TRIGGER WIRE	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	Body Control Module Under Dash On Driver's Side
TACHOMETER WIRE	WHITE	Engine Control Module Near Battery
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT-TO-START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.

WIRING INFORMATION: 2002 GMC Full-Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (+)	WHITE	Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (+)	BROWN	Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	TAN (DRIVER'S DOOR) BLUE/WHITE (PASSENGER DOORS)	Body Control Module Under Dash On Driver's Side
DOME LIGHT SUPERVISION	USE DOOR TRIGGER WIRE	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	Body Control Module Under Dash On Driver's Side
TACHOMETER WIRE	WHITE	Engine Control Module Near Battery
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT-TO-START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.

WIRING INFORMATION: 2003 GMC Full Size Pickup

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK (12 gauge)	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
THIRD IGNITION WIRE	PINK (18 gauge)	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
SECOND ACCESSORY WIRE	BROWN	Ignition Harness
POWER DOOR LOCK (-) **Base models only- for all other models special interface required, see page 72 **	LT. BLUE	At Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (-) **Base models only- for all other models special interface required, see page 72 **	WHITE	At Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (-)	GRAY/BLACK	At Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	GRAY/BLACK (Driver Door) BLACK/WHITE (Passenger Door)	At Module Inside Each Individual Door
DOME LIGHT SUPERVISION	Use Door Trigger Wire	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	At Module Inside Driver's Door
TACHOMETER WIRE	Use any wire that is NOT PINK, BLACK, or BROWN	At Any Ignition Coil
BRAKE WIRE (+)	WHITE	Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
LEFT FRONT (+)	TAN	Speaker
LEFT FRONT (-)	GRAY	Speaker
LEFT REAR (+)	BROWN	Speaker
LEFT REAR (-)	YELLOW	Speaker
RIGHT FRONT (+)	LIGHTGREEN	Speaker
RIGHT FRONT (-)	DARKGREEN	Speaker
RIGHT REAR (+)	DARKBLUE	Speaker
RIGHT REAR (-)	LIGHTBLUE	Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.
- On base model trucks the door trigger wires are at the Body Control Module. On 4 door models, the left rear door trigger is LT. BLUE/BLACK, and the right rear door trigger is LT. GREEN/BLACK. Use all wires and diode isolate.
- To interface with the door locks on all vehicles that are NOT base models, go to page 75

WIRING INFORMATION: 2002 Chevy Avalanche

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
POWER DOOR LOCK (+)	LT. BLUE	Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (+)	WHITE	Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (+)	BROWN	Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	TAN (DRIVER'S DOOR) BLUE/WHITE (PASSENGER DOORS)	Body Control Module Under Dash On Driver's Side
DOME LIGHT SUPERVISION	USE DOOR TRIGGER WIRE	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	Body Control Module Under Dash On Driver's Side
TACHOMETER WIRE	WHITE	Engine Control Module Near Battery
BRAKE WIRE (+)	WHITE	Plug At Brake Pedal Switch Or Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
DIESEL WAIT-TO-START (-)	DARK BLUE	Behind Instrument Cluster
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
POWER ANTENNA	PINK	Radio
DASH LIGHT DIMMER	GRAY	Radio
LEFT FRONT (+)	TAN	Radio Or Speaker
LEFT FRONT (-)	GRAY	Radio Or Speaker
LEFT REAR (+)	BROWN	Radio Or Speaker
LEFT REAR (-)	YELLOW	Radio Or Speaker
RIGHT FRONT (+)	LIGHTGREEN	Radio Or Speaker
RIGHT FRONT (-)	DARKGREEN	Radio Or Speaker
RIGHT REAR (+)	DARKBLUE	Radio Or Speaker
RIGHT REAR (-)	LIGHTBLUE	Radio Or Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.
- When installing a remote start, the second ignition wire must be energized to prevent transmission damage.

WIRING INFORMATION: 2003 Chevy Avalanche

WIRE	WIRE COLOR	WIRE LOCATION
12V CONSTANT WIRE	RED	Ignition Harness
STARTER WIRE	YELLOW	Ignition Harness
IGNITION WIRE	PINK (12 gauge)	Ignition Harness
SECOND IGNITION WIRE	WHITE	Ignition Harness
THIRD IGNITION WIRE	PINK (18 gauge)	Ignition Harness
ACCESSORY WIRE	ORANGE	Ignition Harness
SECOND ACCESSORY WIRE	BROWN	Ignition Harness
POWER DOOR LOCK (-) **Base models only- for all other models special interface required, see page 33 **	LT. BLUE	At Body Control Module Under Dash On Driver's Side
POWER DOOR UNLOCK (-) **Base models only- for all other models special interface required, see page 33 **	WHITE	At Body Control Module Under Dash On Driver's Side
PARKING LIGHTS (-)	GRAY/BLACK	At Body Control Module Under Dash On Driver's Side
DOOR TRIGGER WIRES (-)	GRAY/BLACK (Driver Door) BLACK/WHITE (Passenger Door)	At Module Inside Each Individual Door
DOME LIGHT SUPERVISION	Use Door Trigger Wire	
FACTORY ALARM ARM	Arms with lock	
FACTORY ALARM DISARM (-)	LT. GREEN	At Module Inside Driver's Door
TACHOMETER WIRE	Use any wire that is NOT PINK, BLACK, or BROWN	At Any Ignition Coil
BRAKE WIRE (+)	WHITE	Harness In Driver's Kick Panel
HORN TRIGGER (-)	BLACK	Harness At Steering Column Coming From Steering Wheel
12V RADIO CONSTANT	ORANGE	Radio
12V RADIO SWITCHED	YELLOW	Radio
GROUND	BLACK	Radio
LEFT FRONT (+)	TAN	Speaker
LEFT FRONT (-)	GRAY	Speaker
LEFT REAR (+)	BROWN	Speaker
LEFT REAR (-)	YELLOW	Speaker
RIGHT FRONT (+)	LIGHTGREEN	Speaker
RIGHT FRONT (-)	DARKGREEN	Speaker
RIGHT REAR (+)	DARKBLUE	Speaker
RIGHT REAR (-)	LIGHTBLUE	Speaker

NOTE:

- This vehicle is equipped with GM's Passlock II anti-theft system. This must be bypassed when installing a remote start system.
- On base model trucks the door trigger wires are at the Body Control Module. On 4 door models, the left rear door trigger is LT. BLUE/BLACK, and the right rear door trigger is LT. GREEN/BLACK. Use all wires and diode isolate.
- To interface with the door locks on all vehicles that are NOT base models, go to page 75.
- When installing a remote start, the second ignition wire must be energized to prevent transmission damage.

INSTALLATION SEQUENCE:

ALL COMPONENTS MUST BE MOUNTED SECURELY.

WARNING! Do not use a 12V test light to locate or test any wires! A test light may cause serious damage to vehicle electronics. Only use a digital multi-meter to test circuits.

1. CONTROL UNIT:

- Install the control unit securely in a safe, dry place **inside** the vehicle.
- Never install the control unit under the hood.
- The control unit should be mounted in a suitable location that would be difficult for a potential thief to located, but allow for convenient installation position. Do not mount the control unit in the way of any moving parts
- Do not mount the control unit near any heat sources.
- Mount the control unit in a way that it does not vibrate or rattle.
- Avoid installing the unit anywhere easily visible under the driver's side dash. The first place a thief will go when attempting to steal a car is the driver's side under dash to access the starter and ignition wires. If the control unit is easily visible, it can be disconnected and defeated during a theft attempt.
- Some good locations are above or behind the glove box, under the center console, above the under dash fuse box, or in the dash behind the radio.
- For maximum remote range, mount the control unit high under the dash and as far away as possible from metal.

2. ANTENNA:

- The position and location of the antenna will affect remote control range.
- Do not shorten or lengthen the antenna
- Route the antenna wire away from the control unit
- Avoid running the antenna along any wire harnesses
- Keep the antenna and control unit as far away from metal as possible

3. WIRES FROM THE CONTROL UNIT:

- Wires should be carefully run from the control unit to each component.
- Wires should be wrapped in electrical tape, split loom, or plastic tubing to match the look of the factory wires.
- Wires should be run alongside factory wires to make the wires look as if they came that way from the factory.
- In most vehicles you will need to route your wiring to the ignition harness, the driver's kick panel, under the hood, and sometimes the trunk or passenger kick panel. Plan out what wires need to be routed to each location and carefully route your wires to that location and make your connections in that location before moving on.

4. SIREN:

- Running the siren wire from the alarm brain inside the car to the siren under the hood should be carefully considered. Unlike an amplifier power wire, the siren wire is relatively small gauge, which makes using an existing hole through the firewall a good option.
- An alternate method, if an existing hole cannot be found, is to drill a hole in the firewall. Be certain not to drill through any fluid lines or factory cables. Use a plastic grommet to protect the wires from being cut by the metal edge of the drilled holes.
- The siren must be mounted securely under the hood. Mount the siren where the siren cannot be seen or reached from below the vehicle. Mount it away from any heat sources or moving parts
- Point the siren down to avoid water collecting in it.
- Protect and conceal wiring by wrapping it with split loom or vinyl tubing and routing it alongside factory wiring.

? Having Trouble Running Your Wires Through The Firewall?

- Most vehicles have rubber grommets that are large enough to feed your siren wire through using a coat hanger.
- If the vehicle has an automatic transmission, there is usually a spot reserved for where the clutch cable would go through the firewall. This is usually an excellent spot to drill a hole.
- Avoid drilling a hole whenever possible. Some vehicles have wires, fuel lines, or brake lines that run inside the firewall, invisible from either side.

5. TACHOMETER WIRE:

- Remote starts have a tachometer wire input to monitor the tachometer signal when the vehicle is remote started
- A multi-meter capable of testing AC voltage is needed to test for the tachometer wire.
- The tachometer wire will meter between 1V and 6V AC.
- Common locations for the tachometer are the ignition coil, instrument cluster, engine computers, or test connector.

WARNING! Do not test tachometer wires with a test light or logic probe. The vehicle WILL BE DAMAGED.

To find a tachometer wire with a multi-meter:

1. Set meter to AC voltage.
2. Attach the (-) probe of the meter to chassis ground.
3. Start and run the vehicle
4. Probe the wire suspected of being the tachometer wire with the other probe.
5. If this is the correct wire, the meter will read between 1V and 6V.

? Having trouble finding a tachometer wire?

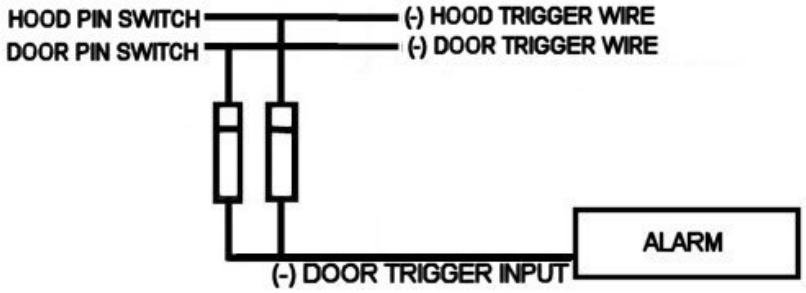
- On some vehicles, the ignition coil may be difficult to reach.
- Many vehicles have a tachometer wire available behind the instrument cluster.
- A fuel injector wire can also be used for a tachometer signal on most vehicles. Each injector will have two wires. Use the wire that is not common. For example, at one injector the wires may be BLACK/WHITE and RED. At the next injector the wires may be GREEN/WHITE and RED. At the next injector the wires may be BLUE/RED and RED. At the next injector wires may be PURPLE/WHITE and RED. In this case you would use any wire that is not RED.

6. HOOD TRIGGER WIRE:

- Some remote start systems have a hood trigger input to shut down or disable the remote start when the hood is opened. This is a safety feature.
- For a security system, the hood trigger input will trigger the alarm if the hood is opened. The intent of a hood trigger input is to protect the engine compartment and the contents that are susceptible to tampering such as the siren, battery, or starter.
- Generally, models equipped with a factory security system have a factory hood pin switch.
- This wire can often be found at the factory anti-theft unit or at the hood pin switch.

To find the hood pin trigger wire with your multi-meter:
1. Set to DC voltage
2. Attach the (+) probe to 12V constant
3. Probe the wire you suspect of being the hood trigger wire with the (-) lead
4. The meter should indicate 12V with the hood open if you have found the correct wire
5. The meter will then read 0V when the hood is closed.

NOTE: Most alarms have a separate input for a hood trigger. If not, the hood trigger can be hooked up to the door trigger input. Diode isolate as shown below.



Some vehicles do not have a factory hood pin. In order to protect the engine compartment a hood pin must be added. Some systems include a pin switch and pin switch bracket that can be used as a hood pin, or they are available at most car audio and electronics stores.

Example of a pin switch

The pin switch bracket is used to mount the hood pin switch. The bracket is typically and “L” shape and is mounted to the side of the firewall or inside fender area.

To install a hood pin switch:
1. Find a suitable mounting location for the pin switch mounting bracket on the framing around the hood inside the engine bay. The mounting location of the hood pin switch is vital to its performance and the level of protection it provides. The hood pin switch should be mounted as far to the front of the engine bay as possible to ensure instant triggering when the hood is opened.
2. Test for appropriate location. Measure the area below where the pin switch will be installed to ensure the pin switch can extend without hitting anything below it. Locate the pin switch in an area in which it will not be prone to being bent or broken such as by someone performing regular maintenance.
3. Use screws provided with the alarm/remote start system and mount the pin switch bracket.
4. Mount the pin switch with the provided hardware. Attach the hood trigger wire.
5. Arm the alarm and test the pin switch. Adjust height if necessary.

7. CONSTANT POWER:

- The alarm and remote start system has a 12V constant power input. This powers the alarm or remote start system. There are two possible sources from which to supply the system with constant power.
- The (+) terminal of the battery can be used. This is one of the best locations for constant power. Also, some new vehicles use low current wires at the ignition switch that should not be used to supply power for additional electrical components, such as an aftermarket alarm or remote start system. In these cases it is recommended to run a 10-gauge wire from the battery to supply power to the alarm, remote start, and any other components such as relays, window control modules, etc.

NOTE: If the battery is used to supply power, the terminal should NOT be disconnected. Make connections by removing lug nut from cable clamp without detaching clamp.

- The constant 12V supply of the ignition switch may be used to supply power to the system. The 12V constant wire at the ignition switch is usually the thickest wire in the ignition harness. Many installers prefer connecting the system's 12V constant input for the reason that it is a convenient location and it's connection is not readily visible or easily defeated. It is recommended that if additional accessories are installed such as power window control modules, the 12v constant power connection be made at the battery.
- **Always fuse within 12 inches of this connection whether it is made at the battery or the ignition harness**.

8. CHASSIS GROUND:

- This is one of the most important connections. A poor or improper ground causes 90% of all problems that may arise with an alarm or remote start. The best ground point in a vehicle is a place with a good physical connection to the same metal that the vehicle battery ground itself shares.
- **Avoid using the bracing underneath the dash. This is a high-resistance ground point and should not be used. It is preferred that a factory ground point (usually located in the driver's kick panel) is used.**
- **Some manufacturers in their installation manual recommend and insist on using the negative terminal of the battery for the alarm or remote start system's ground point.**
- Connect this wire to bare metal, preferably with a factory bolt rather than your own screw. Screws tend to either strip or loosen with time.
- Ground all components to the same point.
- If a screw must be used, connect chassis ground to bare metal and use a star washer to ensure a proper ground connection. Check for clearance on both sides before drilling

9. 12V IGNITION WIRE:

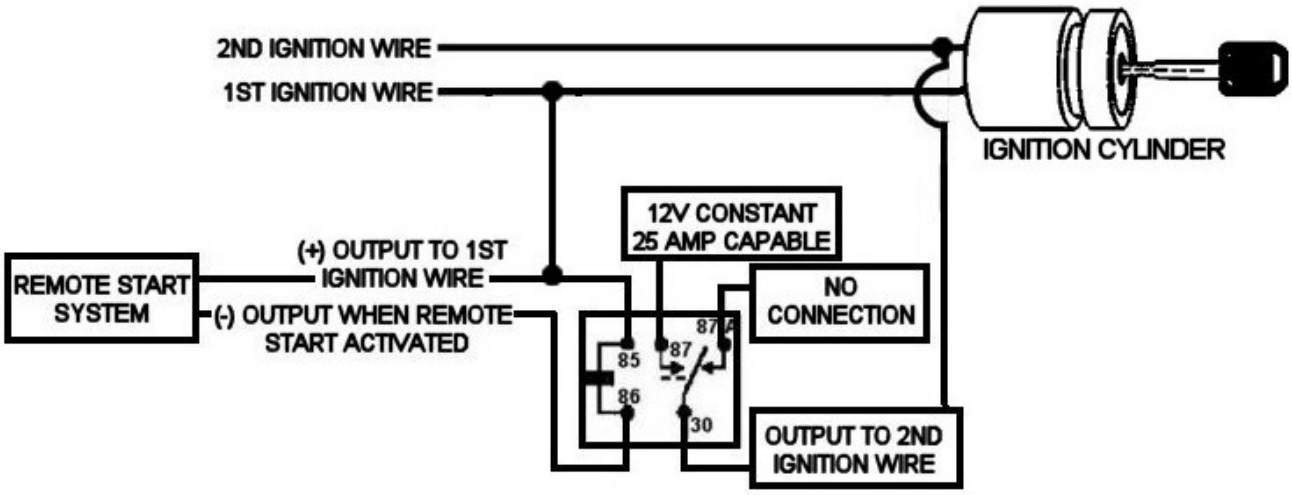
- Connect the system's ignition wire to a main ignition wire.
- The ignition wire is often found in the harness coming from the key cylinder.
- This wire is powered when the key is in the run or start position.
- This wire powers the ignition system and the fuel delivery system.

To find 12V ignition with a multi-meter:

1. Set meter to DC voltage
2. Attach the (-) probe of the meter to chassis ground
3. Probe the wire you suspect of being the ignition wire with the (+) probe. The steering column harness or ignition harness is an excellent place to find this wire.
4. Turn the ignition key to the run position. If your meter reads 12V go to the next step
5. Turn the key to the start position. The meter should remain steady. If it drops close to or all the way to zero, that is not the correct wire. Go back to step 3. If it stays steady at 12V that is the ignition wire.

NOTE: Some vehicles have more than one ignition wire that must be energized for the remote start process in order for the vehicle to run properly. If the system only has one (+) ignition output, use a relay for each additional ignition wire that must be energized.

NEVER connect two Ignition wires of the vehicle together to avoid using a relay. If the vehicle manufacturer wanted the Ignition 1 and 2 wires to be summed, they would have done it at the factory! This is not only unwise because of the current draw issues, but this is a perfect opportunity for the dealer to call the warranty void if ANYTHING relating to the electrical system goes wrong.



PIN	CONNECTION
85	(+) OUTPUT TO 1ST IGNITION WIRE
86	(-) OUTPUT WHEN REMOTE START IS ACTIVATED
87	12V CONSTANT FUSED 25 AMP CAPABLE
87A	NO CONNECTION
30	TO (+) SECOND IGNITION WIRE

10. 12V ACCESSORY WIRE:

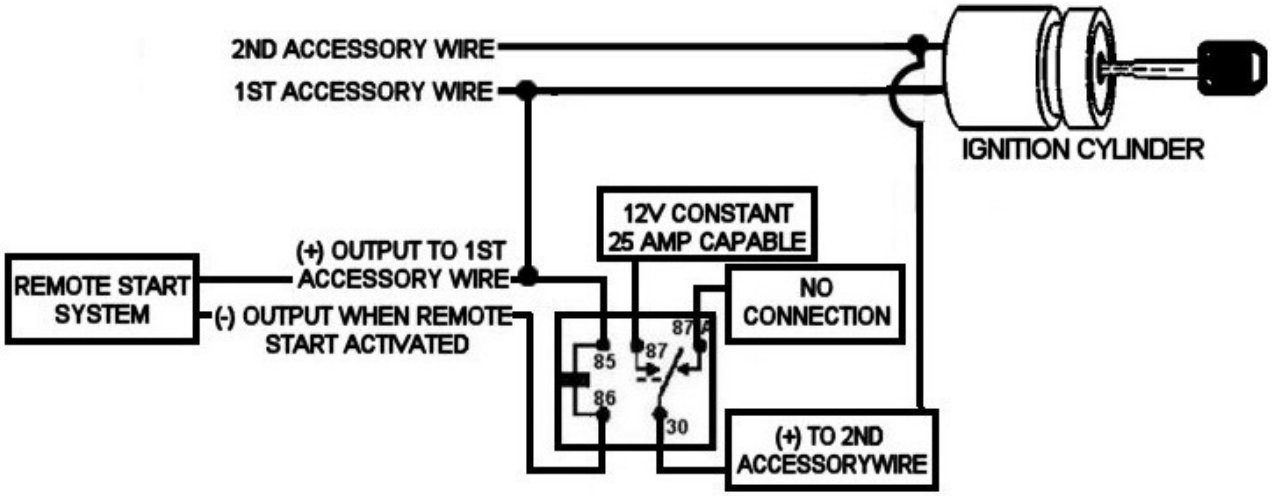
- This wire powers the vehicle's climate control system. This wire will need to be located only when installing a remote start system.
- This wire is powered when the key is in the accessory and run position.
- This wire will not show 12V during the cranking cycle.
- Most often found in the harness coming from the key cylinder.

To find 12V accessory with a multi-meter:

1. Set meter to DC voltage
2. Attach the (-) probe of the meter to chassis ground
3. Probe the wire you suspect of being the accessory wire with the (+) probe. The steering column harness or ignition harness is an excellent place to find this wire.
4. Turn the ignition key to the accessory and then the run position. If your meter reads 12V on each, go to the next step
5. Turn the key to the start position. The meter should drop to zero. If it does, this is the correct wire.

NOTE: Some vehicles have more than one accessory wire that must be energized for the remote start process in order for the vehicle to run properly. If the system only has one (+) accessory output, use a relay for each additional accessory wire that must be energized and wire as shown:

NEVER connect two Accessory wires of the vehicle together to avoid using a relay. If the vehicle manufacturer wanted the Accessory 1and 2 wires to be summed, they would have done it at the factory! This is not only unwise because of the current draw issues, but this is a perfect opportunity for the dealer to call the warranty void if ANYTHING relating to the electrical system goes wrong.



PIN	CONNECTION
85	(+) OUTPUT FROM REMOTE START TO 1ST ACCESSORY WIRE
86	(-) OUTPUT WHEN REMOTE STARTED
87	12V CONSTANT FUSED 25 AMP CAPABLE
87A	NO CONNECTION
30	TO (+) SECOND ACCESSORY WIRE

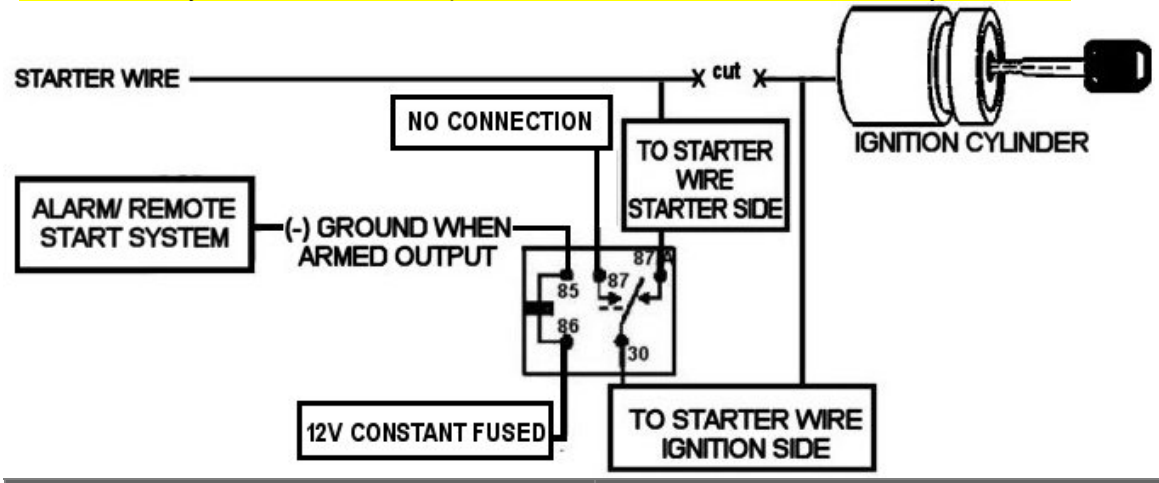
11. STARTER WIRE/ STARTER KILL:

- The starter wire provides 12V directly to the starter or a relay controlling the starter.
- The starter wire is often found in the harness coming from the key cylinder.

To find the starter wire with your multi-meter:
1. Set your meter to DC voltage
2. Attach the (-) probe to chassis ground.
3. Probe the wire you suspect of being the starter wire with the (+) probe.
4. Turn the key to the start position. If the meter reads 12V go to the next step
5. Cut the wire you suspect of being the starter wire
6. **Attempt to start the car. If the starter engages, reconnect it and go back to step 3. If the starter does not engage, that is the correct wire.**

- Most security systems include a starter disable. The security system controls a relay that interrupts the flow of power to the starter solenoid when the alarm is armed and an attempt is made to start the vehicle. However, it is important to note that if the vehicle has a manual transmission, this will not prevent the vehicle from being "roll started."
- The starter kill relay should be ran away from the steering column
- The starter kill relay should not be easily visible upon removing the under dash panel
- Solid wire connections must be made. For maximum dependability, solder and shrink tube the connections.
- Wires should be wrapped in 3M electrical tape or plastic tubing to match the factory wiring.

NOTE: If the system does not come pre-wired for a starter disable, use a relay as shown:



PIN	CONNECTION
85	(-) GROUND WHEN ARMED OUTPUT
86	12V CONSTANT FUSED
87	NO CONNECTION
87A	STARTER WIRE- IGNITION SWITCH SIDE
30	STARTER WIRE- STARTER SIDE

12. LED STATUS INDICATOR:

- Most alarm and remote start systems have an LED status indicator used for system programming and diagnostics. It also serves as a theft deterrent.
- The LED should be installed in a place visible from both sides and the rear of the vehicle.
- It is best to install the LED on a small removable panel like a blank switch or dash bezel.
- Check for clearance on both sides before any drilling.
- Use quick-disconnects near the LED if the panel is removable. This allows the panel to be removed without having to cut wires

13. OVERRIDE/ PROGRAM SWITCH:

- Alarm and remote start systems have an override switch to disable the alarm system if the remotes are damaged or missing. The switch is also used for feature programming.
- Care must be given to mounting the override switch since just by hotwiring the ignition and flicking the switch, a thief can disarm the alarm and steal the car.
- The alarm override switch should be mounted in someplace hidden but convenient.
- Good locations include behind the hood release lever, inside the ashtray opening, inside the center console (where it can't be accidentally bumped), or in the glove box.
- Before drilling, check for clearance on both sides.

14. SHOCK SENSOR:

- Shock or impact sensors are the most common sensors included with vehicle security systems. They are designed to detect various degrees of impact to the vehicle during a break-in attempt. Some shock sensors have a dual-stage response. A light shock to the vehicle may only chirp the siren and/or flash the parking lights to warn away a potential thief or intruder. A heavy shock will trigger the alarm. These sensors are most effective in detecting a punched-out door lock. However, when adjusted to be sensitive enough to detect breaking glass, they will false alarm.
- The shock sensor should be securely mounted underneath the dash.
- Use double sided tape or a wire tie to secure it to an air duct, wire harness, or trim panel.
- Avoid mounting it in the way of any moving parts or relays.
- Avoid mounting it near any heat sources.
- Avoid mounting it to the steering column or screwing it to metal, as it will cause poor sensitivity

15. RADAR, MICROWAVE, and FIELD DISTURBANCE SENSORS:

- These sensors are very useful in helping protect vehicle contents. They flood the area to be protected with a microwave energy field. When the field is disturbed by a large mass such as a human body, the sensor sends a trigger to the alarm control unit to trigger the alarm. The larger the object the faster the sensor will react. These sensors are ideal for protecting convertibles and vehicles with removable tops.
- Like most shock sensors, these sensors can also be dual stage sensors. This means they can warn at a distance and trigger to a full alarm if the interior space is entered.
- Radar, microwave, and field disturbance sensors generally cover an area similar to the head of a mushroom. It should be mounted in the center of the interior of the vehicle, facing upward.
- If your vehicle has a center console between the front seats, mounting the sensor under this console facing up may be an ideal location. Make sure that the sensor is not placed behind any metal parts or major harnesses of the car. The sensor will detect through fabric or plastic, and it needs to face towards the area that is to be protected.
- The sensor should always be adjusted outside, away from any fluorescent lights. These lights, as well as temperature, and weather conditions can affect the sensitivity of these sensors.

16. BRAKE SWITCH WIRE:

- Remote start systems have a brake wire input to monitor the brake light to prevent an unauthorized driver from driving the vehicle and to switch to normal engine operating condition.
- The remote start will shut down or fail to start any time the brake pedal is depressed.
- The remote start's brake switch input MUST be connected and the brake light must be in working condition.

To find the (+) brake wire with your multi-meter:

1. Set to DC voltage
2. Attach the (-) probe to chassis ground
3. Probe the wire you suspect of being the brake wire with the other probe.
4. Depress the brake pedal. The meter should read 12V with the pedal depressed and 0V with the pedal at rest.

? Having trouble finding or reaching the brake wire?

- On some vehicles, reaching the brake switch may be difficult or near impossible.
- The brake switch wire can usually also be found in the driver's kick panel in a harness running towards the rear of the vehicle.

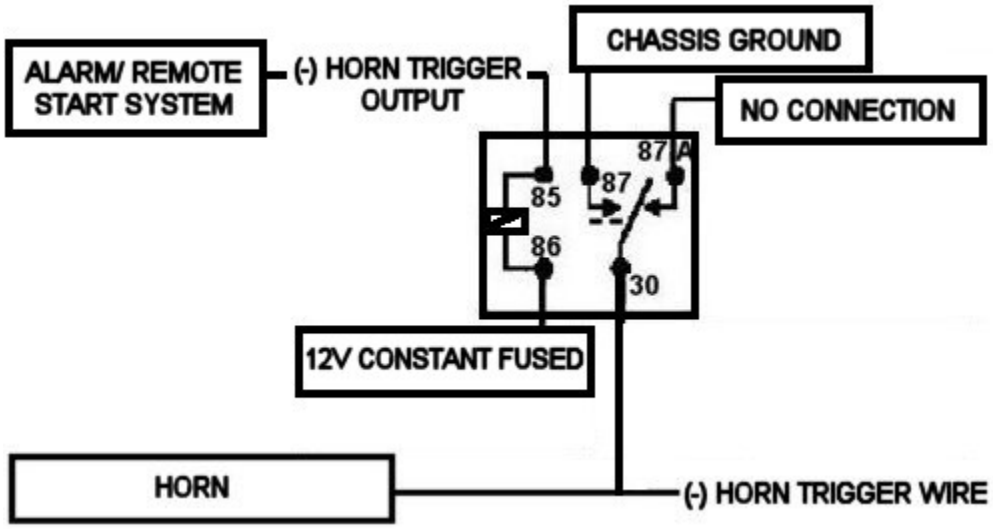
17. HORN HONK TRIGGER:

- Most alarm and remote start systems have a horn honk output or a siren output that can be programmed as a horn honk output.
- In some installations it may be desired that the system honk the horn when the doors are locked and unlocked or as a panic feature.
- The horn trigger wire is usually found in one of the bundles of wires at the steering column.

NOTE: Always take care when working around the airbag wires. Do not probe or cut into them.

To find the (-) horn honk trigger wire with your multi-meter:
1. Set to DC voltage
2. Attach the (-) probe to chassis ground
3. Probe the wire you suspect of being the horn honk trigger wire with the other probe. The meter should read 12V.
4. Honk the horn. The meter should drop to 0V when the horn is honked. If it does, that is the correct wire.

NOTE: Use a relay and wire as shown:

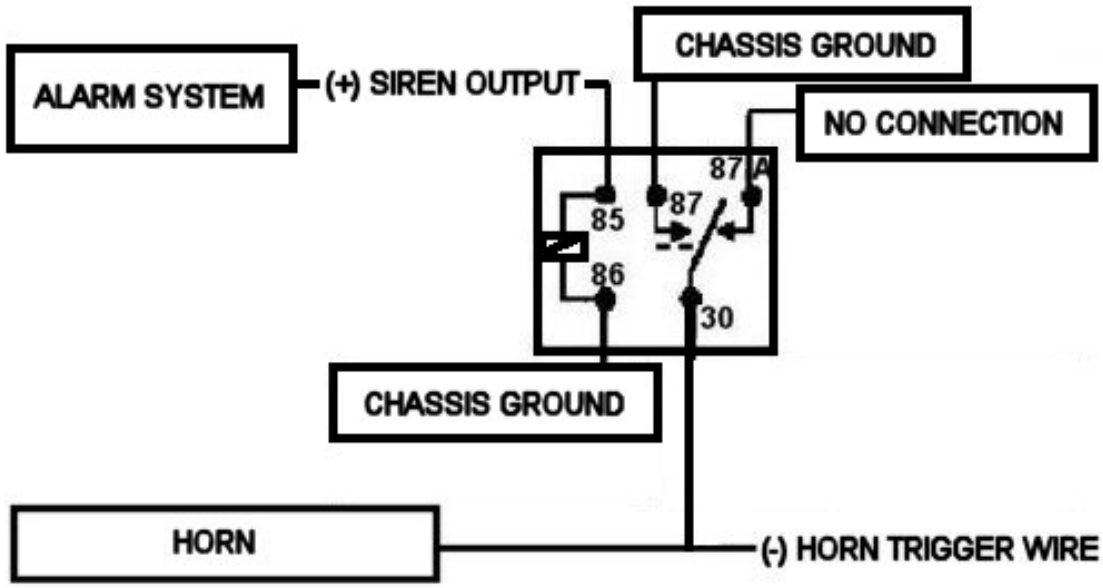


PIN	CONNECTION
85	(-) HORN TRIGGER OUTPUT
86	12V CONSTANT FUSED
87	CHASSIS GROUND
87A	NOT CONNECTED
30	(-) HORN TRIGGER WIRE

HORN HONK TRIGGER, cont.

- In some vehicles, there is little space under the hood to mount a siren. Or some people may prefer that the aftermarket system honk the horn instead of using a siren.
- Most aftermarket systems have a positive (+) siren output. The system may need to be programmed to honk the horn. Check your system's instructions.

NOTE: Use a relay and wire as shown:



PIN	CONNECTION
85	(+) SIREN OUTPUT
86	CHASSIS GROUND
87	CHASSIS GROUND
87A	NOT CONNECTED
30	(-) HORN TRIGGER WIRE

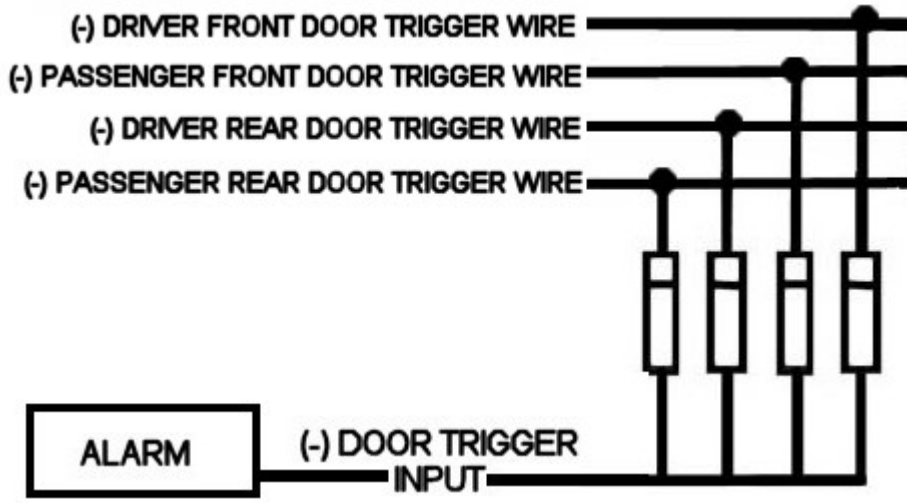
18. DOOR TRIGGER/DOMELIGHT SUPERVISION:

- The door trigger input on an alarm senses when a door is opened to trigger the alarm.
- General Motors vehicles use a (-) door pin trigger. This means when the door is open; the switch sends a negative voltage to the dome light circuit.

To find the (-) door trigger wire with your multi-meter:

1. Set to DC voltage
2. Attach the (+) probe to 12V constant
3. Probe the wire you suspect of being the door trigger wire with the (-) lead
4. The meter should indicate 12V with the door open if you have found the correct wire
5. The meter will then read 0V when the door closed.

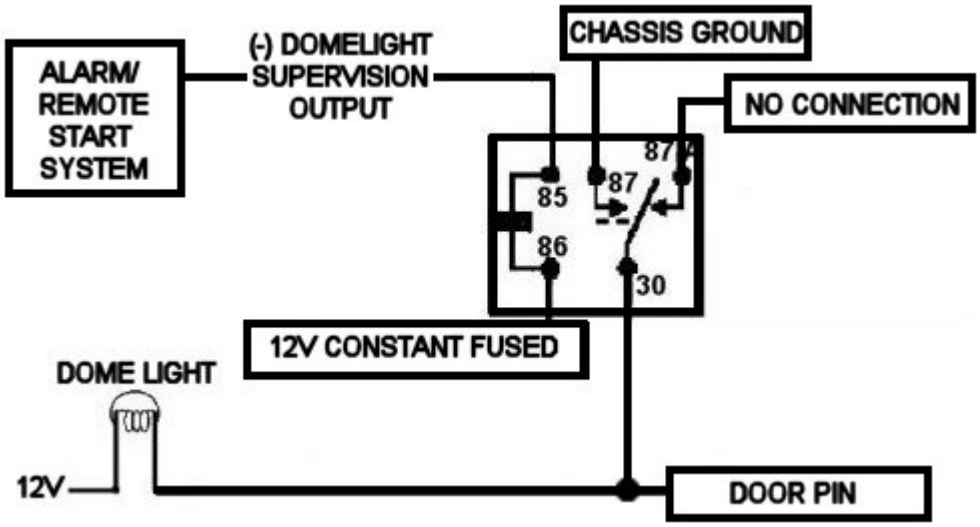
NOTE: 1999-Up models have a separate door trigger wire for each door. For security installations, diode isolate as shown:



- Most alarm and remote start systems include the option of dome light supervision. Dome light supervision will turn on the vehicle's dome light for a set time when the system unlocks/disarms the vehicle. This allows the user to check the interior of the vehicle for an intruder before entering.

DOOR TRIGGER/DOMELIGHT SUPERVISION, cont.

NOTE: For dome light supervision, use a relay and wire as shown:



PIN	CONNECTION
85	(-) DOMELIGHT SUPERVISION OUTPUT
86	12V CONSTANT FUSED
87	CHASSIS GROUND
87A	NOT CONNECTED
30	TO (-) DOMELIGHT SUPERVISION WIRE

NOTE: Never connect an alarm or remote start system's dome light supervision output directly to the dome light circuit. The outputs from almost all alarm and remote start systems are low-current outputs. Connecting directly to the dome light supervision wire without a relay could cause the unit to fail.

19. PARKING LIGHT OUTPUT:

- GM vehicles use a (+) parking light circuit. Connecting to this wire will flash the parking lights when the vehicle is armed, disarmed, when the alarm is triggered, or the remote start is activated.

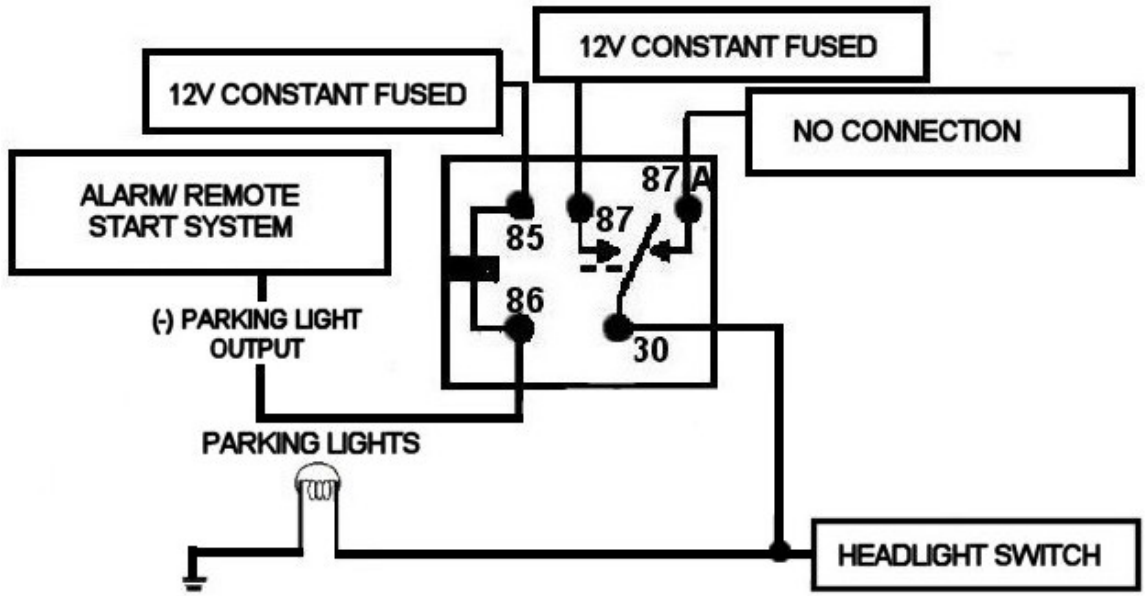
NOTE: Never connect the parking light output to the headlight circuit. Doing so may cause the headlights to burn out prematurely

To find the parking light wire with your multi-meter:

1. Set to DC voltage
2. Attach the (-) probe to chassis ground
3. Probe the wire you suspect of being the parking light wire
4. Turn on the parking lights. If your meter shows 12V, turn off the parking lights and make sure it goes back to zero.
5. If it does return to zero, turn the parking lights back on, and turn the dimmer up and down. If the meter changes more than a volt when using the dimmer, look for another wire. If it stays relatively close to 12V, that is the correct wire.

PARKING LIGHT OUTPUT, cont.

NOTE: If the aftermarket system only has a (-) parking light output, use a relay and wire as shown:



PIN	CONNECTION
85	(-) PARKING LIGHT OUTPUT
86	12V CONSTANT FUSED
87	12V CONSTANT FUSED
87A	NOT CONNECTED
30	TO (+) PARKING LIGHT WIRE

NOTE: 2003 Chevy Silverado, Avalanche, and GMC Full-Size Pickups use a negative trigger parking light circuit. DO NOT use a (+) parking light wire.

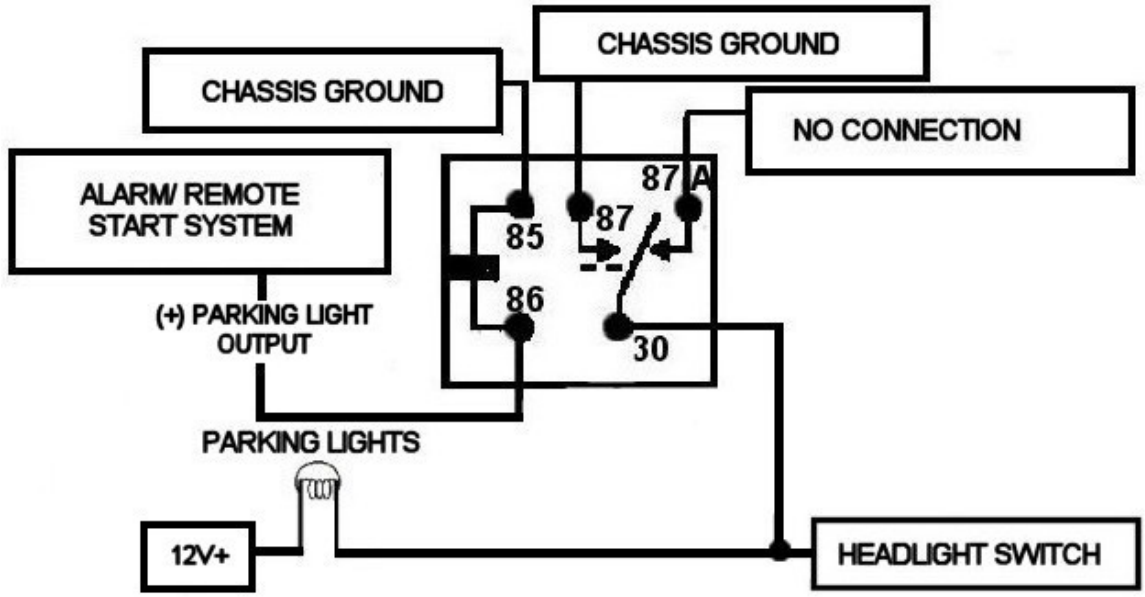
To find the (-) parking light wire with your multi-meter:

1. Set to DC voltage
2. Attach the (-) probe to chassis ground
3. Probe the wire you suspect of being the parking light wire. With the parking lights off the meter should read 12V.
4. Turn on the parking lights. The parking lights should read less than 0V.

NOTE: Most aftermarket alarm and remote start systems have a (+) parking light output wire. If the alarm and remote start system has a (-) parking light output wire, this wire may be connected directly to the vehicle's (-) parking light wire.

PARKING LIGHT OUTPUT, cont.

If the system only has a (+) parking light output, you must use a relay as shown:



PIN	CONNECTION
85	(+) PARKING LIGHT OUTPUT
86	12V CONSTANT FUSED
87	CHASSIS GROUND
87A	NOT CONNECTED
30	TO (-) PARKING LIGHT WIRE

20. POWER DOOR LOCK WIRES:

Positive trigger

- Some GMC and Chevy Full Size Pickups and 2002 Avalanche models with factory power door locks are positive (+) triggered. In most cases these wires can be found in one of the door boots.

To find the door lock wire with your multi-meter:

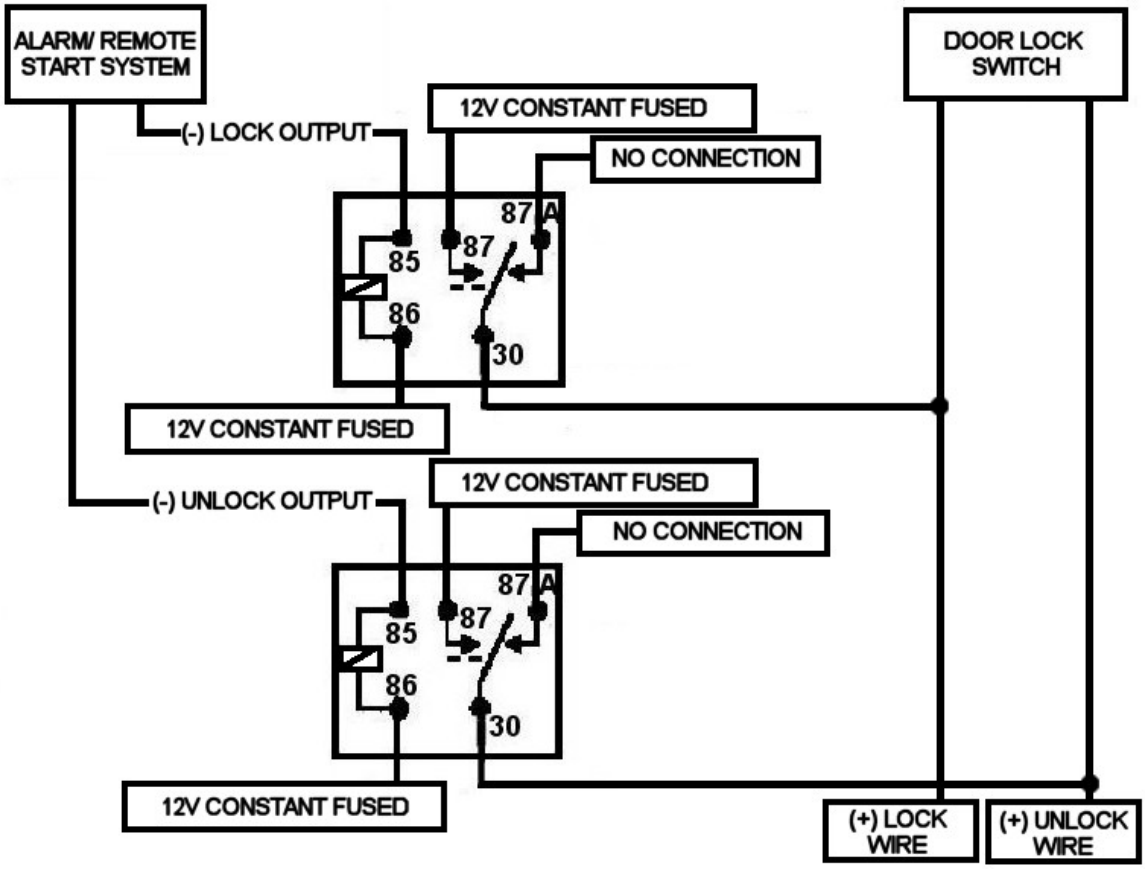
1. Set to DC voltage
2. Attach the (-) probe to chassis ground
3. Probe the wire you suspect of being the door lock wire
4. When the switch is at rest, the meter should read 0V
5. Lock the door with the switch. The meter should read 12V or close to it. If it does, that is the correct wire.

To find the door unlock wire with your multi-meter:

1. Set to DC voltage
2. Attach the (-) probe to chassis ground
3. Probe the wire you suspect of being the door unlock wire
4. When the switch is at rest, the meter should read 0V
5. Unlock the door with the switch. The meter should read 12V or close to it. If it does, that is the correct wire.

POWER DOOR LOCK WIRES

NOTE: If the system being installed only has (-) door lock outputs use relays and wire as shown:



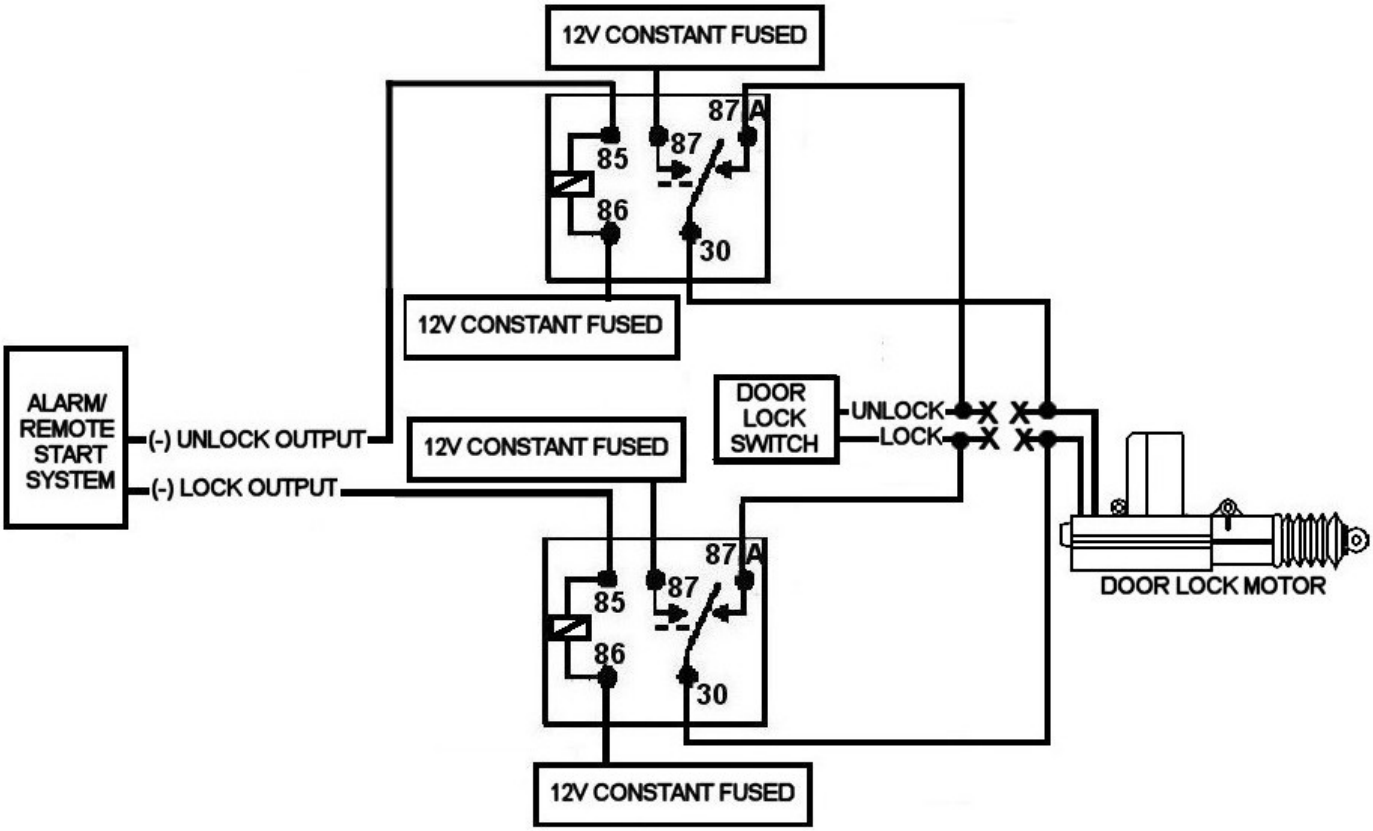
Reverse polarity door locks:

- Some Chevy and GMC Full Size Pickups use a reverse polarity door lock system. Interfacing with a reversing polarity door lock system requires two relays. It is critical to identify the proper wires and locate the master switch to interface properly.

1. Locate a wire that shows 12V on lock and a wire that shows 12V on unlock.
2. Cut one of the suspect wires and check operation of the locks from both switches. If one switch loses operation in both directions and the other switch operates in one direction only, you have located one of the target wires.
3. The switch that lost all operation is the master switch.
4. If both switches still operate, but one door has stopped responding entirely, you have cut a motor lead. Reconnect it and continue to test for another wire.
5. Once both wires have been located and the master switch identified, cut both wires and interface with two relays as shown below:

POWER DOOR LOCK WIRES, cont.

Use relays to interface with a reverse polarity door lock system as shown:



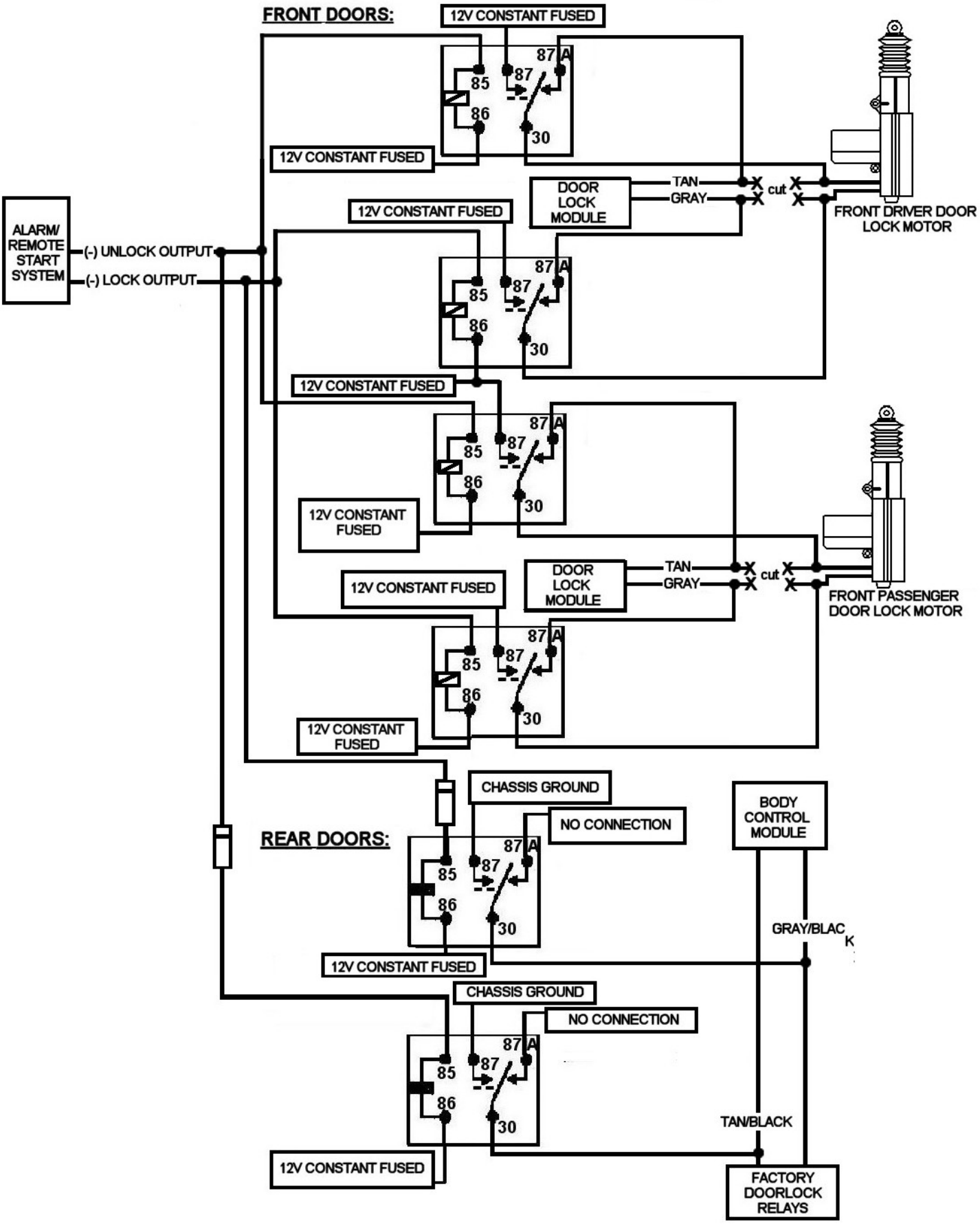
NOTE: If not connected correctly, the system or factory switch may be damaged.

2003 Silverado, Avalanche, and Sierra Power Door Locks:

On 2003 models, the door locks are controlled by a data bus system. Only on base models can the door lock wires be controlled from a central location. On base models, the door lock wires are negative trigger and can be found at the Body Control Module.

For models that are NOT base models, there is no central location to control the door locks. In order to integrate with the power door locks, wires must be routed into the driver's front door and the passenger front door to control the front doors. This involves removing the door panel on each front door. To control the rear doors, if equipped with rear doors, wires must be routed to the Body Control Module under the driver's side dash. The front doors are wired as a reverse polarity door lock system and the rear doors are wired as a negative trigger door lock system. Follow the diagram on the next page.

POWER DOOR LOCK WIRES, cont.



POWER DOOR LOCK WIRES, cont.

To remove the front doors on 2003 models:

1. Using a door panel removal tool (available at most auto parts stores) unsnap the side mirror triangle bezel, lift away and remove.
2. Carefully unsnap bezel around door release handle, lift away and remove.
3. Using a door panel removal tool, unsnap the window control panel, lift away, disconnect all harnesses, and remove. Remove 2 9/32" screws from behind.
4. Remove 1 9/32" screw from underneath door handle.
5. Remove 1 9/32" screw from bottom edge of door panel.
6. Using a small flat-head screwdriver, carefully remove the door lock/unlock indicator.
7. Lift the door panel straight up and away from the door, disconnect all harnesses, and remove.

NOTE: When removing door panel in step 7, DO NOT pull door panel straight away from the door. The door panel is held on with hooks that require the door panel to be pushed straight up to be released from the door. If you pull straight away from the door, these clips will break.

There are aftermarket door lock and factory security databus interface kits available on the market today. They are highly recommended as they save time and make the installation much easier**.**

Designed specifically for the 2003 Escalade, Avalanche, C/K Pickup, Silverado, Suburban, Tahoe, Full Size Pickup, Sierra, Yukon, Yukon Denali, Yukon XL, Yukon XL Denali, and Hummer H2 these databus interface kits provide:

- Complete integration to the factory doorlocks and security system with any aftermarket remote starter and/or alarm system.
- Factory personalization features such as: Drivers Seat, Mirror, and Radio station preset memory are maintained with the installation of this kit with any remote aftermarket system.
- Disarm/rearm GM factory security system as well as unlock and lock doors.
- Factory priority unlock feature: Drivers door unlock (First press) and passenger door unlock (Second press) is maintained
- Easy to install kit eliminates the need for relays and **does not require the door panels to be removed.**

ATTENTION: DO NOT PURCHASE A DATABUS INTERFACE MODULE FOR THE 2002-UP TRAILBLAZER, ENVOY, OR BRAVADA to use on a 2003 Escalade, Avalanche, C/K Pickup, Silverado, Suburban, Tahoe, Full Size Pickup, Sierra, Yukon, Yukon Denali, Yukon XL, Yukon XL Denali, and Hummer H2. It will not function properly and serious damage may occur.

These databus interface kits are available at most car audio and security stores as well as from many online retailers . Part numbers would be 456G or GMDL4.

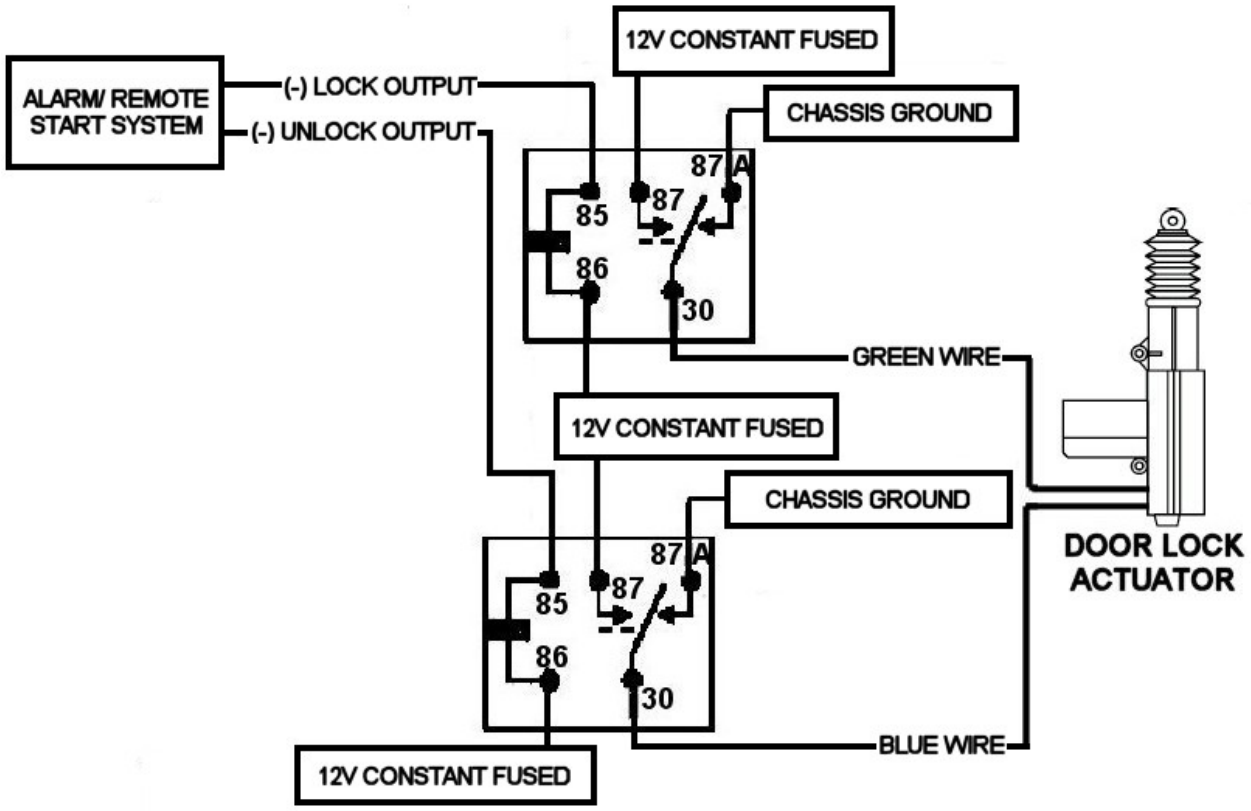
NOTE: The databus kit interfaces with the FACTORY doorlock and security system only. If you are installing a remote starter you will also need Passlock 2 bypass kit to bypass the Passlock 2 passive anti-theft system.

POWER DOOR LOCK WIRES, cont.

Adding Door Lock Actuators

- Vehicles without factory power door locks require the installation of an actuator in each door.
- This requires mounting the door lock actuator inside the door. This can be a difficult installation on some vehicles and extra time must be allowed to properly complete the installation.
- To install door lock actuators the door panel must be removed. A window crank removal tool and a door panel removal tool are recommended to help remove the door. Both tools are available at most auto parts stores.
- Most actuators come with mounting instructions. Read and carefully follow all directions.
- Locate the metal lock rod that moves when the doors are locked or unlocked. Notice how it moves when the locks are locked and unlocked. The actuator needs to be mounted so that it can pull and push that rod to lock and unlock the door. The actuator should be mounted in a way that it moves parallel to the locking rod of the door.
- The actuator must be mounted so that the door panel can be reinstalled without interfering with movement of the door lock actuators, windows, or the door handle.
- Some good spots are located towards the rear of the door
- Carefully wrap all wires and run them into the car.

2 relays can be used to interface the door lock actuators to the alarm (one for lock, one for unlock)

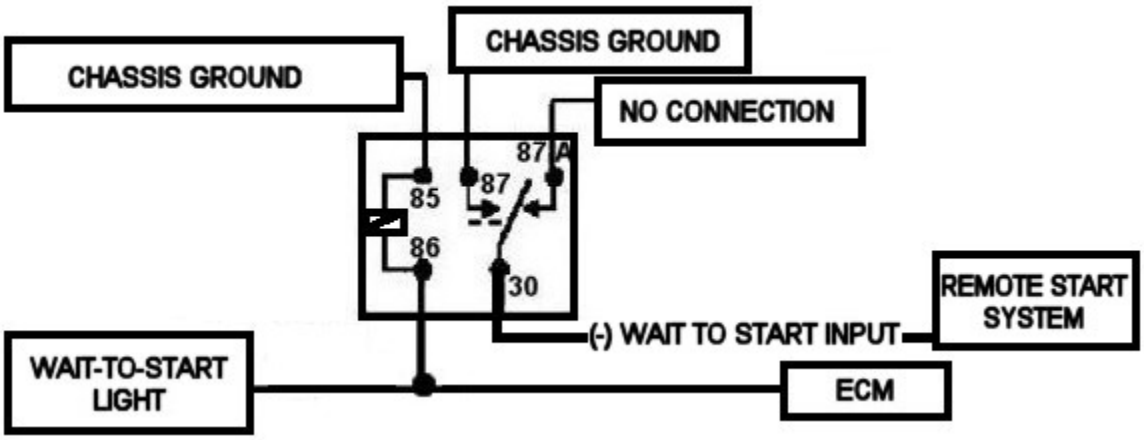


21. DIESEL VEHICLES/ WAIT-TO-START INPUT:

- Most remote start systems have the ability to be installed on a diesel vehicle. Check the installation manual included with the remote start system. Some systems can simply be programmed to be compatible with a diesel vehicle. Other systems have a (-) WAIT-TO-START INPUT wire that must be connected to be compatible with a diesel vehicle.
- For systems with a (-) WAIT-TO-START INPUT wire it is necessary to interface with the wire that turns on the WAIT-TO-START light in the dashboard. This wire illuminates the bulb until the vehicle's glow plugs are properly heated. When the light goes out the vehicle can be started.
- This wire is always available at the connector leading to the bulb in the dashboard.
- Connect this wire from the remote start system to the wire in the vehicle that sends the signal to turn on the WAIT-TO-START bulb in the dashboard.

To find the (+) WAIT-TO-START wire
1. Set the multi-meter to DC voltage.
2. Attach the (+) probe to 12V Constant
3. Probe the wire you suspect leads to the bulb with the (-) probe of the meter
4. Turn the ignition to the ON position
5. If the meter reads 0V until the light goes out and then reads 12V that is the correct wire

For vehicles with a (+) WAIT-TO-START wire, use a relay and wire as shown.

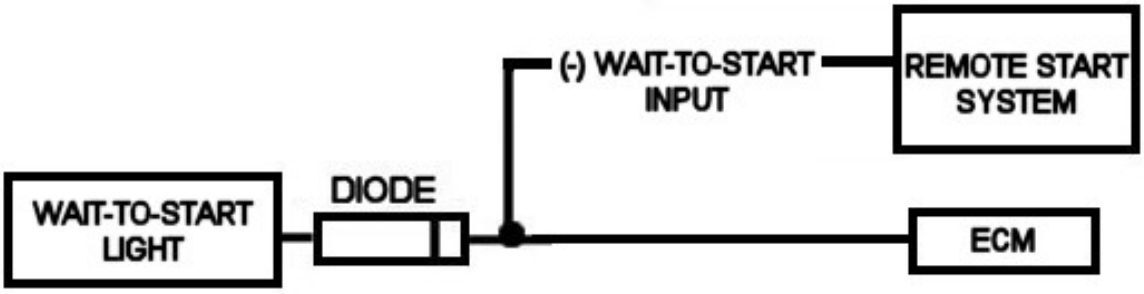


- 1997-Up Chevy and GMC Full Size Pickups have a negative wait to start wire

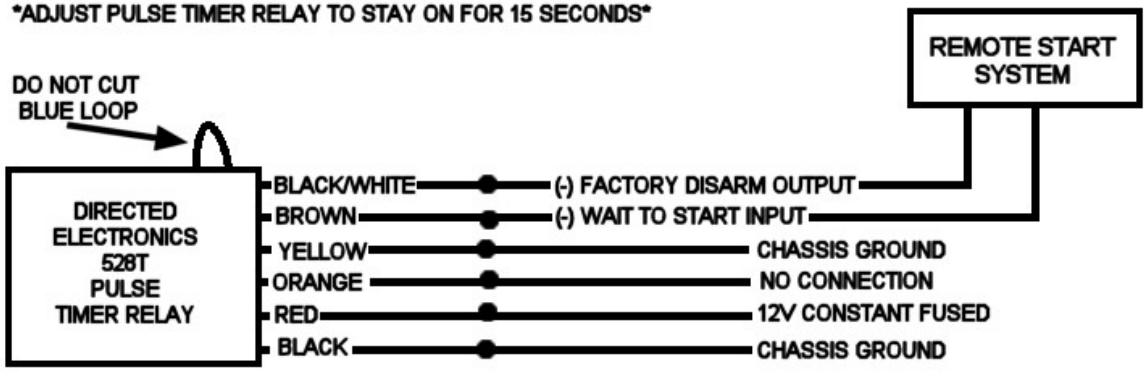
To find the (-) WAIT-TO-START wire
1. Set the multi-meter to DC voltage.
2. Attach the (+) probe to 12V Constant
3. Probe the wire you suspect leads to the bulb with the (-) probe of the meter
4. Turn the ignition to the ON position
5. If the meter reads 12V until the light goes out and then reads 0V that is the correct wire.

DIESEL VEHICLES/ WAIT-TO-START INPUT, cont.

For vehicles with a (-) WAIT-TO-START wire, use a relay and wire as shown.



NOTE: On 2003 diesel vehicles, the vehicle's WAIT-TO-START wire should not be directly interfaced with. Use a pulse timer relay to delay the remote start's activation so the vehicle's glow plugs can be properly heated. Directed Electronics makes a pulse timer relay that is readily available at many car audio and security specialty shops. Part number is 528T.

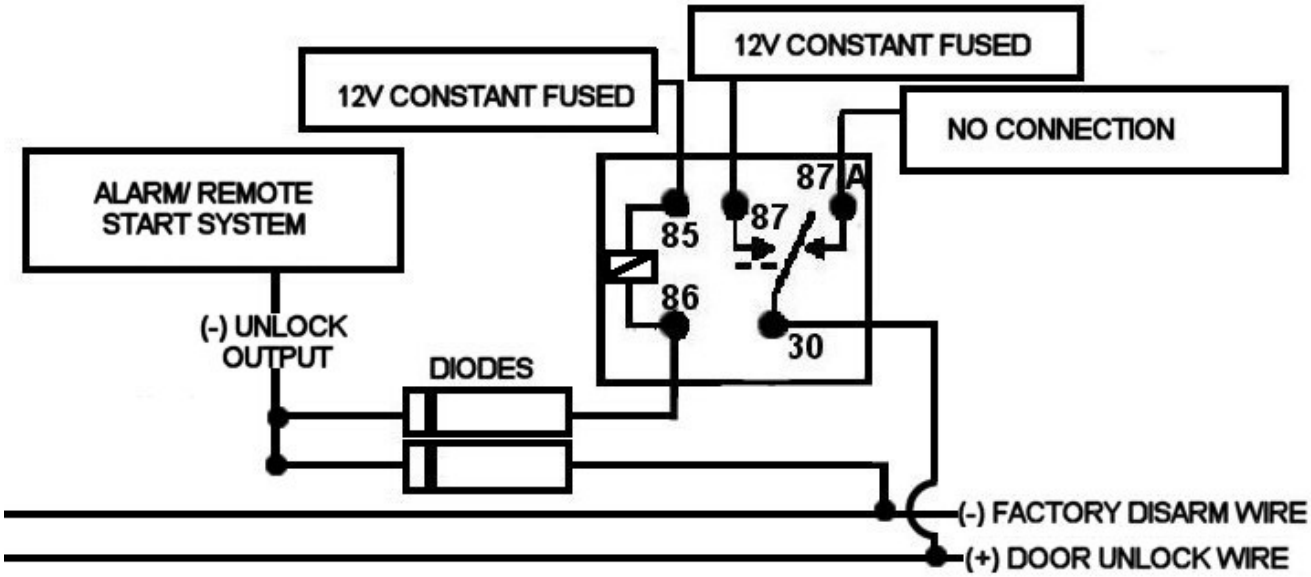


22. FACTORY ALARM DISARM:

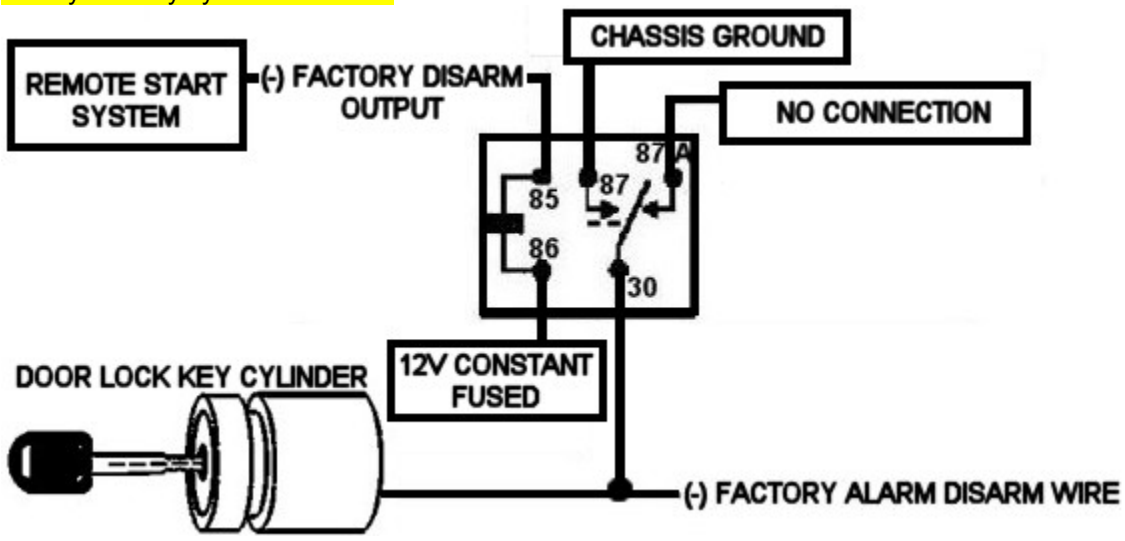
- Some Chevy and GMC Full Size Trucks and Chevy Avalanche vehicles come equipped with a factory security system. The factory security system arms when the doors are locked with the factory remote or when locking the doors using the lock switch when a door is opened.

To find the factory disarm wire with your multi-meter:
1. Set to DC voltage
2. Attach the (-) probe to chassis ground
3. Probe the wire you suspect of being the factory alarm disarm wire
4. When the switch is at rest, the meter should read 12V
5. Unlock the door with the key. The meter should read 0V or close to it. If it does, that is the correct wire.

NOTE: When installing an aftermarket alarm or remote start with keyless entry, the factory disarm wire must be pulsed at the same time as the unlock wire. Wire as shown:



Use a relay and use the remote start system's (-) factory disarm wire to disarm the factory security system as shown:



23. PASSLOCK II BYPASS:

- 98 and up Chevy and GMC trucks come equipped with a Passlock passive anti-theft system. The Passlock system uses a sensor inside the ignition switch that creates a resistance code (R-Code) when the key cylinder is rotated. When attempting to start the vehicle, the R-Code must be present of the vehicle immediately shuts down. When installing a remote starter in a GM vehicle equipped with Passlock 2, a bypass module or two relays must be used.

NOTE: A bypass module is **highly recommended,** as it is much easier and more convenient to install than using relays. But to use relays follow the included instructions:

- Testing procedure:

Setting the multi-meter to test resistance, the correct R-Code can be found

1. Interrupt the starter wire. This is important since testing requires turning the key to the crank position. If the vehicle is accidentally started while testing with the yellow Passlock wire cut, the system may enter "Fail-enable" mode. In Fail-Enable mode. The vehicle sees an open connection in the system and will start but the "Theft Warning" light stays constantly illuminated. If the system enters Fail-Enable mode, it must be reset by the car dealer.

2. Interrupt the YELLOW Passlock wire in the ignition harness of the vehicle.

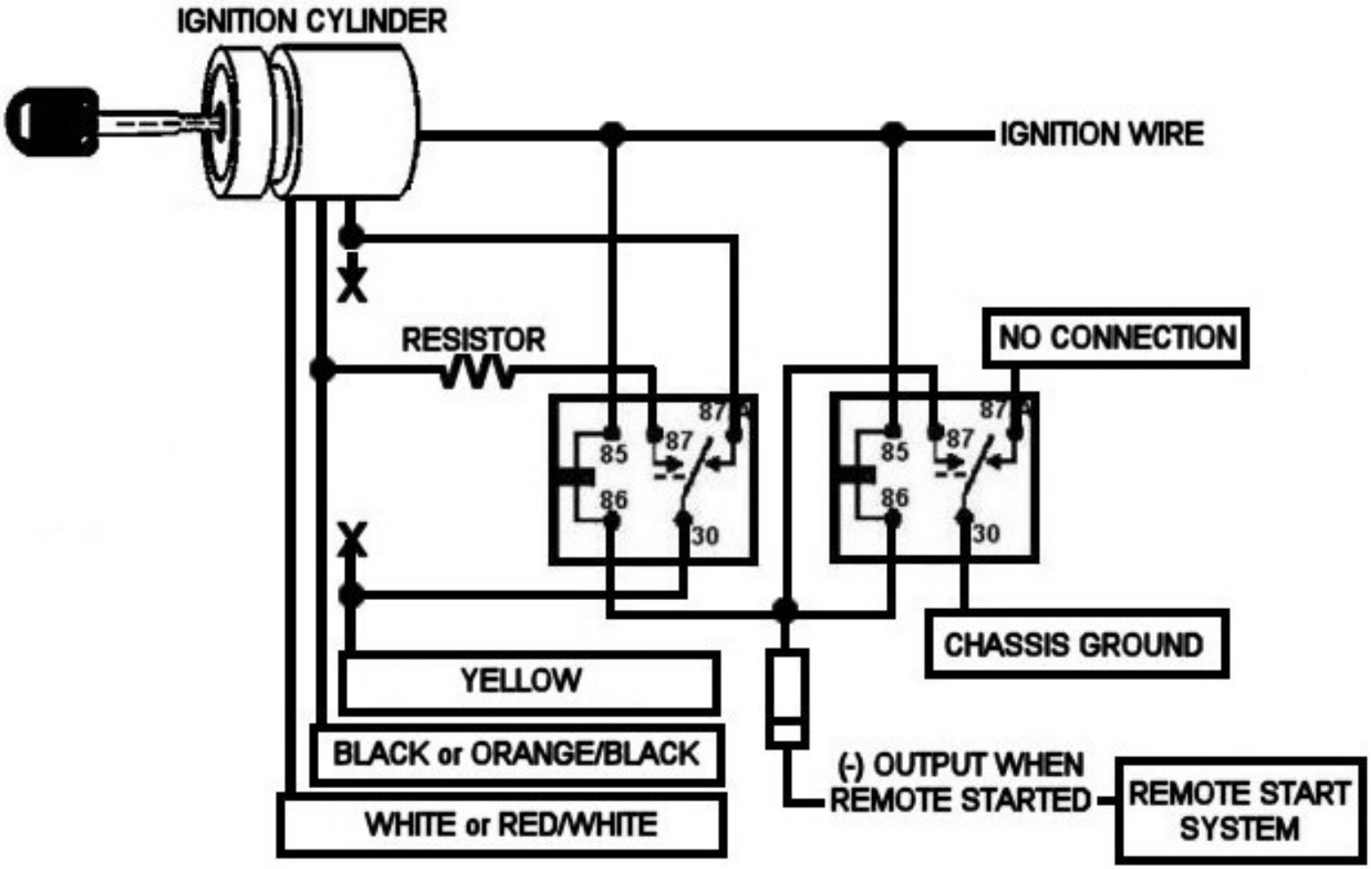
3. Connect the (+) lead of the multi-meter to the ignition side of the YELLOW Passlock wire.

4. Locate the other Passlock wire in the ignition harness. This wire is ORANGE/BLACK in trucks and SUVs. Without interrupting this wire, connect the (-) lead of the meter to this wire.

NOTE: Avoid touching the two Passlock wires together. Touching them together can give false readings.

5. Turn the key to the CRANK position. The meter will show the correct resistor value or R-Code.

PASSLOCK II BYPASS, cont.



24. TEST FEATURES AND FUNCTIONS:

- Program all necessary and desired features for the alarm or remote start system. Consult the installation manual on how this must be done.
- If a remote start has been installed, test the vehicle outdoors in a well ventilated area. Roll down the driver's window. Put the vehicle in park and set the emergency brake.
- Sit inside the vehicle and remote start the vehicle. Turn the climate control system on. Turn the fan to medium and turn the temperature to hot. Verify the fan is working and there is hot air coming out of the air vents. Next turn the temperature to cold and turn on the air conditioning and wait to verify that cold air is coming out of the vents.
- Verify adequate transmitter range by remote starting the vehicle from a distance of at least 100 feet. Shut down the vehicle from the same range.
- Sit in the vehicle and lock the doors with the remote. Wait 3-5 minutes and remote start the vehicle. If the vehicle's horn honks and lights flash, the factory security has been triggered. The remote start will need to be wired to disarm the factory security.
- Test the shutdown inputs. The remote start should shut down when the brake pedal is depressed. Also, most remote start systems have a hood trigger input. This will shut down the remote start or prevent the remote start from operating if the hood is up. This is a safety feature.
- If an alarm has been installed, arm and disarm the system and check that the siren chirps and parking lights function properly. If power door locks have been integrated, verify the doors lock when the alarm is armed and unlock when the alarm is disarmed.
- Test the door inputs. Make sure all doors trigger the system, not just the driver's door. If the trunk trigger has been interfaced, verify the trunk or rear hatch triggers the alarm when opened.
- If a starter disable has been installed, arm the vehicle, wait 30 seconds and try to start the vehicle. It should not start.
- If the alarm includes an impact sensor, arm the system, wait 30 seconds and try to trigger the alarm by firmly thumping your fist on the window pillar. **Be careful not to use enough force as to dent the vehicle's body!** Be sure to remove all rings and jewelry first. Adjust the shock sensor until the desired sensitivity is obtained.
- Verify the system can be disarmed using the alarm's override switch. Consult the alarm's owner's manual for the proper procedure.
- Test any additional features that have been installed.
- If all is satisfactory, make sure unit and harnesses are tied up properly and reassemble the vehicle.

TROUBLESHOOTING:

- Remote start will not activate
  - Check harnesses and connections. Check power and ground connections.
  - Make sure shutdown inputs (brake wire, hood pin) are not active.

- Ignition comes on, but starter does not crank
  - Check starter wire connection.
  - Check power and ground connections.
  - If a starter kill relay is wired make sure the starter wire is connected to the starter side of the relay.

- Starter cranks but does not start
  - Check ignition connection.
  - Make sure both ignition wires are being energized.
  - Make sure system's ignition and accessory wires are not connected backwards.
  - Some remote start systems require that the tachometer input wire be programmed before the remote start will operate properly.
  - The vehicle may be equipped with a factory immobilizer system. Try remote starting the vehicle with the key in the ignition. If the vehicle starts and runs, the vehicle is equipped with an immobilizer. This will need to be bypassed to remote start the vehicle.

- Climate control system does not work when remote starter is operating
  - Check to make sure the correct accessory wire is being energized.

- Starter continues to crank even though engine has started
  - Check tachometer wire connection
  - Make sure tachometer wire is programmed properly to remote start system

- CHECK ENGINE light, ABS light, or SERVICE ENGINE SOON light stays after remote starting the vehicle.
  - Check that the vehicle's ignition wires and accessory wires have all been properly interfaced and they are energized when the remote start is activated
  - Check that none of the vehicle's wiring harness connectors are unplugged

- Factory remotes do not operate when the vehicle is remote started.
  - On some vehicles, the factory keyless entry will not operate when the engine is running. This is normal and cannot be changed.

- System does not respond to remotes.
  - Check your power and ground inputs at the system's control unit.
  - Check that all connectors to the alarm/remote start are properly inserted.
  - Make sure the system's antenna is plugged in properly.
  - Make sure the remotes are properly programmed and the batteries are new.

- System has poor remote range.
  - Most systems provide two remotes. Try using the other remote. The problem may be caused by a weak remote battery.
  - Reposition antenna. Make sure the antenna is extended straight upward and not touching metal.

- Doors lock when they should unlock and unlock when they should lock.
  - The door lock outputs from the system are connected backwards.

- Vehicle's power door lock fuse blows when locking or unlocking the doors using the aftermarket keyless entry remote.
    - Check to be sure you have correctly identified the vehicle's door lock system and wires for your vehicle.
    - If the vehicle has a reverse-polarity door lock system, the switch side and motor side of the door lock wires are connected incorrectly.

- Parking lights do not flash.
    - Check that the correct parking light wire has been found and interfaced.

- Opening the driver door triggers the alarm but opening any of the passenger doors does not.
    - The vehicle has individual door trigger wires. You must find the trigger wire(s) for the passenger doors.

- Opening the doors triggers the alarm but opening the rear hatch or trunk does not.
    - There is a separate trigger wire for the trunk or rear hatch that must be connected to the alarm.

- A short time after arming the alarm, the alarm goes off for no reason.
    - You must diode isolate the vehicle's door trigger wires as described earlier in this document.
    - If you have already diode isolated the vehicle's door trigger wires, check to be sure the diodes are wired in the proper direction.

- The shock sensor is too sensitive/ not sensitive enough.
    - Adjust the sensitivity of the sensor according the manufacturers instructions.
    - Try moving or relocating the sensor to a different location.

- Starter disable doesn't work
    - Wrong wire has been interrupted.
    - Some systems require that the alarm be triggered before the starter disable is active.

- LED doesn't work
    - Is it properly plugged in?

- Override switch doesn't work
    - Is it properly plugged in?
    - Check the alarm's ignition wire. Make sure it is connected and hooked up to true ignition. True ignition will show 12V in the run and crank positions of the ignition switch.

- There is a clicking noise coming from the control unit.
    - The clicking that you hear is actually from relays inside the control unit. You are hearing the contacts of the relays opening and closing as the system responds to initial power up or other commands from the remote or vehicle. This may happen even with the system inactive, and is normal.

GLOSSARY OF TERMS:

ACTIVE ARMING: A method of arming a security system that requires the user to physically arm the system by pressing a button on a remote or entering a code on a keypad.

ARM: The act of causing a security system to reach a state in which it will protect the vehicle.

ARMING DELAY: The elapsed time between the moments a security system is told to arm and the moment it is actually armed. This normally applies to systems that are passively armed but can also apply to actively armed systems.

AMPERAGE: Unit of electrical current. Measured in amps.

AUTO RESET: The ability of a security system to automatically reset itself after being triggered.

BACK-UP BATTERY: A separate battery added to the security system as an alternate power supply to serve as a backup in case the vehicle's main battery is disabled. Back-up batteries are typically led-acid gel cell types. These components are most effective when well hidden from detection.

BRAIN: This term refers to the main control unit of a security system or remote start system.

CHANNEL: An output from an alarm or remote start system's remote that can be used to control a certain function such as a power trunk release, garage door opener, or power window roll-up.

CHIRP: The brief output from the siren of a security system to indicate if the system has been armed or disarmed.

CONTROL UNIT: The central processor of an alarm or remote start system. Also known as the "brain".

CURRENT SENSING: The form of a security system trigger input that relies on sensing a change in the power supply of the vehicle. More accurately called voltage sensing, this feature is found on many inexpensive alarms.

DIODE: A two terminal device that allows a voltage/signal to pass in one direction only.

DISARM: The action of placing a security system in an inactive or standby mode.

DOPPLER SENSOR: Another name for a field disturbance sensor, also known as a radar sensor.

DOMELIGHT: Light mounted in the interior of the vehicle that is turned on when a door is opened. Also called a courtesy light.

DOMELIGHT SUPERVISION: The ability of a security or remote start system to turn on the vehicle's dome light when the alarm is disarmed or when the doors are unlocked. This allows the user to check the interior for an intruder before entering the vehicle. The light is turned off after a predetermined amount of time or when the ignition switch is turned on.

EMERGENCY OVERRIDE: Also called valet mode. This allows the vehicle to be disarmed in the case of a lost or damaged remote or other emergency.

ENGINE DISABLE: Prevents the engine from starting when the system is armed. The starter, fuel pump, or ignition may be inhibited.

EVENT MEMORY: A feature with some security systems that informs the car owner of a theft attempt on the vehicle and which sensor responded to the attempt. This information is given to the user by chirps, LED, and/or parking lights. Some systems use a prerecorded voice.

FUSE: A device designed to provide protection for a given circuit or device by physically opening the circuit. Fuses are rated by their amperage and are designed to blow or open when the current being drawn through it exceeds its rating.

GLASS SENSOR: Detects sound of breaking glass. May pick up sounds of metal on glass and tampering with windows.

HARNESS: Collection of wires that plugs into the alarm or remote start system and connects to wires in the vehicle.

IGNITION CONTROLLED DOORLOCKS: Feature included on most alarm and remote start systems that will locks the doors when the ignition switch is turned on. This is to increase passenger safety.

IMPACT SENSOR: Detects blows and sharp impact to the body of the vehicle. Also known as a shock sensor.

INPUT: Any wire on a security or remote start system designed to accept a signal from some outside source such as the vehicle's wiring. Door trigger, hood trigger, trunk trigger, and sensor trigger, and sensor triggers are all examples of inputs.

LED (Light Emitting Diode): Small light that mounts in car interior and indicates the alarm or remote start's status. Flashes to serve as a theft deterrent.

LIGHT FLASH: Sometimes called parking light flash. A feature on alarm and remote start systems that will flash the vehicle's parking lights when the system is armed, disarmed, or remote started. May also indicate system status on some systems.

MULTI-METER: Tool used to measure voltage, resistance, and resistance.

OHM: Unit of measurement for electrical resistance.

OUTPUT: Any wire on a security or remote start system designed to produce a signal intended to be wired to some outside circuit. Siren wires, parking light flash wires, and door lock wires are all examples of outputs.

OVERRIDE SWITCH: Also called a valet switch. It is a hidden switch used for emergency override or to put the alarm in a state that will prevent the system from arming. Also used for system programming.

PAGER: A device designed to transmit a signal to the vehicle's owner to alert the owner that the alarm has been triggered.

PAIN GENERATOR: Also known as a piezo siren. Small, high frequency siren that sounds in the vehicle's interior when the alarm is triggered.

PANIC: Ability to sound the siren or horn to draw attention in case of emergency.

PASSIVE ARMING: Ability of an alarm system to arm automatically after a preset time after the ignition is turned off and/or all doors are closed.

PINSWITCH: Spring loaded switch that mounts in the door, trunk, or under the hood. Used to complete a circuit and trigger the alarm if the door, trunk, or hood is opened.

POLARITY: In electricity, refers to the condition of being either positive or negative.

PROGRAMMABLE FEATURE: The alarm system's ability to have its features changed to suit the user's needs. Some features must be programmed at the time of installation, while others can be made by the owner at will.

RADAR SENSOR: Detects movement within a predetermined area or zone inside or outside the vehicle.

RANGE: Maximum distance from the vehicle at which the remote transmitter will operate.

RELAY: An electromagnetic switch that allows small, relatively low-level signals to operate higher amperage devices. Also used when polarity-reversal is necessary.

REMOTE: A common name for the remote control unit transmitter used with a remote security or remote start system.

RESISTOR: A component designed to have a specific resistance.

SENSOR: A device designed to detect or sense an intrusion or attack upon a vehicle by monitoring such things as motion, vibration, impact, sound, or the presence or a foreign mass.

SIREN: A device designed to produce a loud warning sound when triggered by a security system.

TRIGGER: The common name for any type of stimulus that will cause a security system to produce an alarm. A trigger can come in the form of a pin switch, sensor, or a direct command from a transmitter or accessory button.

TRUNK RELEASE: The ability of a system to open the trunk/hatch by remote control.

ZONE: The specific area of a security system's coverage, or a term used to describe a specific trigger input.