VEHICLE SECURITY SYSTEM

Wiring Instructions

MEGA 550

Random Code System

"The Ultimate Protection"

CALIFORNIA
U.S.A.

INDEX

INTRODUCTION

This alarm system will provide years of dependable operation. Yet, the quality and longevity of the system is determined by the installation. For information on operating the system, read the owner's manual.

IMPORTANT POINTS FOR ALARM INSTALLATION

ALWAYS

- It is strongly suggested to use a voltmeter to check all electrical circuits in your vehicle instead of common testlight. Testlights can cause vehicle computer damage if the wrong wires are probed and can cause airbag systems to activate.
- Disconnect the car battery before working on the vehicle. Check behind the panels before drilling any holes. Ensure that no wiring harness or other components are located behind the panels that would otherwise be damaged.
- Use conventional quality connectors on any wiring. Poor wiring, i.e. taped joints, will possibly introduce unreliability into the alarm system and may result in false alarms or incorrect operation.
- Install wiring neatly underneath carpets or behind trim to prevent possible damage to wires.
- Use the correct fuse rating of 15 amps to replace the red wire inline fuse and use 10 amps to replace the white wire inline fuse.

IMPORTANT

This alarm has been designed to keep installation as simple as possible. However, in the event of any difficulties experienced, please seek the advice of a qualified person. For someone who is not familiar with automotive electrical installation methods and procedures, we would strongly advise that they seek qualified advice before proceeding.

Before any connections with the wiring of the vehicle, it is best to read the instructions carefully to understand where each individual wire be run to.

TOOLS REQUIRED:

Wire Crimper	Electric Drill & Bits	Wire Stripper
Socket Set	Pliers	Phillips Screwdriver
12 Volt Test Light	Electrical Tape	Voltmeter

GENERAL SPECIFICATIONS

Power Requirements	+ 12 Volts & Negative Ground.
Fuse Ratings • Red Power wire	15 Amps.
• White Parking Flash wire	10 Amps.
Current Consumption	Less than 15mA Armed or Disarmed.
Arming Delay	3 seconds.
Alarm Timer	60 seconds with 3 Cycles limitation.
Passive arming timer	30 seconds from last doors closing.
Trigger inputs	Minus. 0.6 if volt drop.
	Positive door trigger.
	Grounded pin switch trigger.
	Negative door trigger.
	Warm-Away trigger.
	80mA Electronic sensor ground.
Grounded output capacity (Orange wire)	500mA maximum.
Siren wire capacity (Brown wire)	2 Amps.
Bypass zones	5 Zones
Learning limitations	4 transmitters
Receiver channel	2 Channels
Digital code	56 bits of random codes

INSTALLATION

A. MOUNTING THE SIREN

1. In the engine compartment, place the siren In a location suitable for best sound results. **Be careful not to mount the unit near exhaust manifolds or other "hot" equipment and moisture area.** NOTE: Preferred siren position is facing forward (toward front of vehicle). Siren SHOULD NOT be face up.
2. Mark and drill three holes to mount the siren.
3. Route the siren cable through the fire wall to the control module.

B. MOUNTING CONTROL MODULE

The control module should be mounted under dash area where it is accessible yet secure. The module should be mounted in as high position as possible. The module may be secured by tie-wraps or with screws. Insure that the module is completely secure and will not rattle or come loose.

NOTE: 1. Antenna Placement is very important! Ensure that it is unwrapped and stretched out with the last 6" straight as far from metal as possible.

2. The overall performance of the transmitter will be determined by the location of the control module. The amount of metal that surrounds the receiver (metal of the vehicle's structure), regulates the receiver's ability to receive radio signals. A control module that is mounted under a rear window shelf with the antenna running along the rubber window molding will have greater receiver capabilities than a control module mounted up underneath a 100% steel dashboard.

C. INSTALLING THE LED STATUS INDICATOR

The LED status indicator should be mounted in a highly visible area such as the top of the dashboard, on top of the shifter console or on the dashboard face. There must be at least 5/8" of distance behind the mounting location as the LED housing will extend back that far. Once a suitable location is chosen, drill a 5/16" hole. Run the LED wires through the hole, then press the LED housing into the place. Route the LED wires to the control module.

D. INSTALLING THE OVERRIDE/VALET SWITCH

Mount the override/valet switch in a hidden but accessible location. Drill a 1/4" hole at the location chosen and use the nut and lock washer provided to secure the override/valet switch. Route these wires to the control module.

E. INSTALLING HOOD/TRUNK PIN SWITCHES (OPTIONAL)

To protect the hood, use the pin switch provided. Examine the perimeter of the hood seal and radiator, looking for a flat surface sheet metal. Drill a 9/32" (7mm) hole to mount the pin where it will make contact with the hood when it is closed.

To protect the trunk, examine the perimeter of the trunk seal and locate a flat surface sheet metal to mount the self-tapping pin. Drill a 9/32" hole and use a 7/16" or 11mm socket to self-tap the pin switch into place.

NOTE: 1. The pin switch must be mounted to a good chassis ground.

2. If the system is set up as current sensing, the trunk and hood light (if equipped) will trigger the system when the openings are lifted. There is no need to install pin switches.

F. DECALS

Peel the decals from the paper backing and apply them to the inside of your vehicle's window. This is an effective theft deterrent. Most thieves pass by vehicles which are equipped with security systems.

WIRING

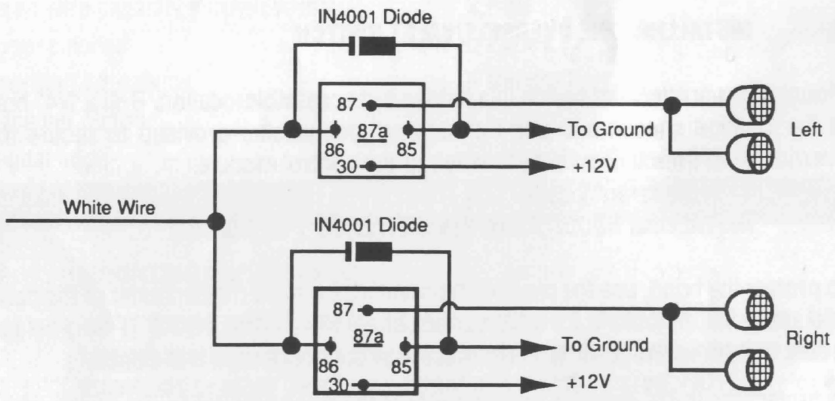
Keep wiring away from moving engine parts, exhaust pipes and high tension cable. Tape wires where they pass through holes in the fire wall to prevent short circuiting. Guard against sharp edges that may damage wires and cause a short circuit.

CAUTION: Do not connect the wire harness to the control module until all wiring to vehicle is complete.

A. MAIN 10-WIRE HARNESS

1. WHITE WIRE - FLASHING PARKING LIGHT OUTPUT (+12V 10 A)

When the alarm is triggered, this wire provides +12 volts, 10 amp output. This wire must be connected to the positive wire of the parking light.



2. RED WIRE - SYSTEM POWER (+12V CONSTANT)

The red wire supplies power to the system. Connect this wire to a constant +12 volt source from the fuse block.

NOTE: If you plan to program the alarm with current sensing, this connection "must" be made at the permanent +12 volt live point of the fuse controlling the interior courtesy light of the vehicle.

3. BROWN WIRE - SIREN OUTPUT

This is the positive (+) output connection for the siren. The current capacity of this wire is 2 amps. Make this connection to the (+) red wire coming from the siren. Connect the (-) black wire of the siren to a good chassis ground.

4. BLACK WIRE - SYSTEM GROUND

This is the main ground connection of the alarm module. Make this connection to a solid section of the vehicle frame. Do not connect this wire to any existing ground wires supplied by the factory wire loom, make the connection to the vehicle's frame directly.

5. ORANGE WIRE - STARTER INTERRUPT INTERFACE

This wire will become grounded when the alarm is armed. The current capacity of this wire is 500mA. This output can control the starter interrupt, when an intrusion is detected and the system is triggered to prevent the vehicle from any unauthorized starting.

a. Locate the wire coming from the starter solenoid (usually located on the starter) and going to the ignition switch.

b. When this wire is found, use a voltmeter, connect one probe of the voltmeter to ground and connect the other end of the probe to the starter wire, it should receive "12 volts" only when the ignition key is in the "start" position.

c. After locating the correct wire, cut it in half and try to start the vehicle. If the engine does not crank over," then the correct wire has been located.

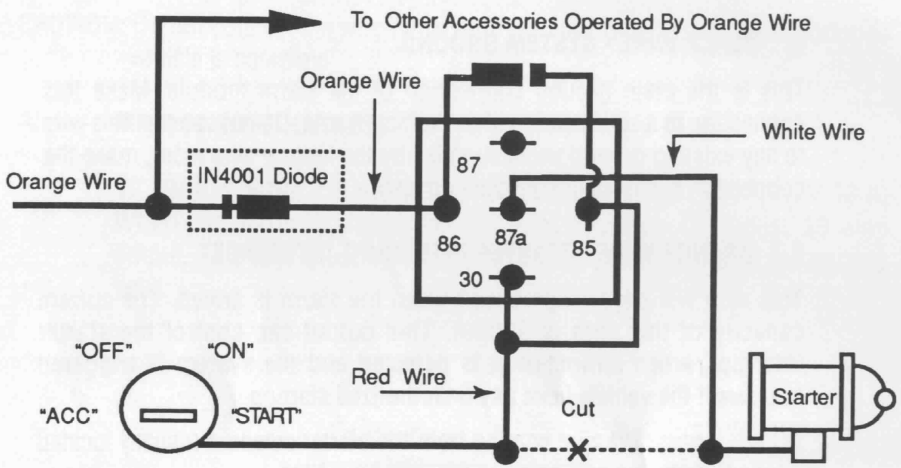
d. Extend the wires if needed with the same gauge wire and attach the cut wire from the key switch side to pin #30 of the relay, and attach the starter side wire to pin #87a.

e. Connect the orange wire from the control module to pin #86 of the relay.

NOTE: If more than one electronic device will be connected to the orange wire, it will be necessary to isolate each device control wires (orange wires)with a 1N4001 diode.

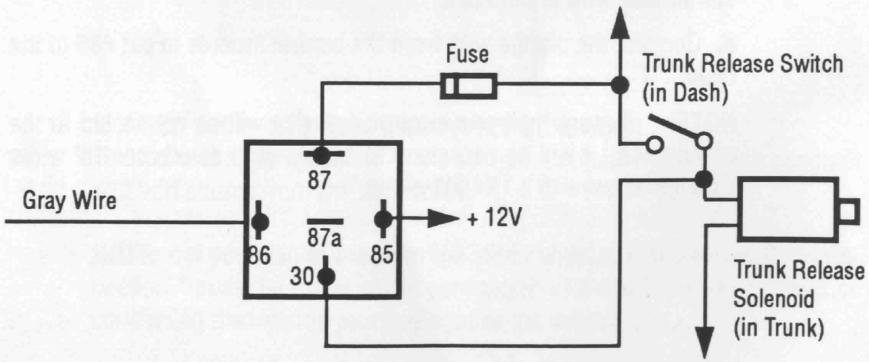
STARTER INTERRUPT CONNECTION

(Optional Starter Interrupt Socket)



6. GRAY WIRE - TRUNK RELEASE (CHANNEL 2) OUTPUT

This wire will output a 1 second grounded pulse by pressing the 2nd button of the transmitter for 3 seconds. The current capacity of this wire is 200mA. If your vehicle is equipped with an electric trunk release solenoid, an optional relay (20 amp) can be used with this system for remote operation of the trunk release.



7. GREEN WIRE - NEGATIVE DOOR SWITCH SENSING INPUT

This wire is the ground trigger input for negative door pin switch. This wire is for grounding type factory door pins (typical GM, Chrysler). Locate the "common wire" that connects the door pin switches. Make the connection of the green wire here.

8. BLUE WIRE - GROUND INSTANT TRIGGER INPUT

This wire is the ground trigger input for hood/trunk pin switches and additional ground output sensors such as microwave sensor, etc..

9. VIOLET WIRE - POSITIVE DOOR SWITCH SENSING INPUT

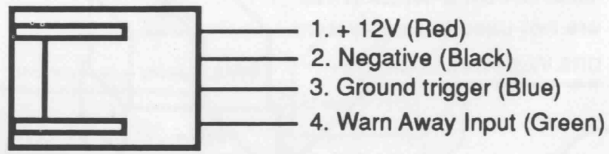
This wire is the positive trigger input for positive door pin switch. This wire is for "positive" type factory door pins (most Fords). Locate the "common wire" for all door pins and make the connection of the violet here.

10. YELLOW WIRE - SYSTEM SWITCHED POWER (12V "IGN" ON)

This wire is connected to a switched 12 volt source. It should receive "12 volts" when the ignition key is in the "on" and "start" positions. When the ignition is turned off, this wire should receive "0" voltage.

B. 4-PIN PLUG FOR OPTIONAL DETECTION DEVICES

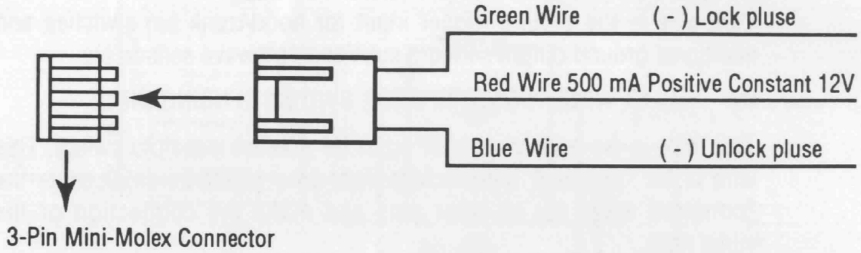
A 4-pin plug and the metal pins are supplied with this alarm. Attach each of the accessory detection device wires to these pins and then slide the pin back into the plug. Most of our detection devices come with this plug pre-wired. It Allows easy positive, negative, instant trigger, and warn-away trigger connections with quick disconnect ability for other detections devices.



1. **Red wire :** 12v. Positive - THIS WIRE Has 12 volts at all times. **Warning:** If pin touches ground directly it will damage this circuit.
2. **Black wire :** GROUND - The alarm armed, this pin becomes grounded.
3. **Blue wire :** Ground TRIGGER Input. The alarm armed, if the pin is grounded, it will trigger the alarm.
4. **Green wire :** Warn-away trigger input - If this pin is grounded, a prewarning tone & a light flash will warn the intruder away.

C. 3-PIN PLUG FOR DOOR LOCK CIRCUIT CONNECTION

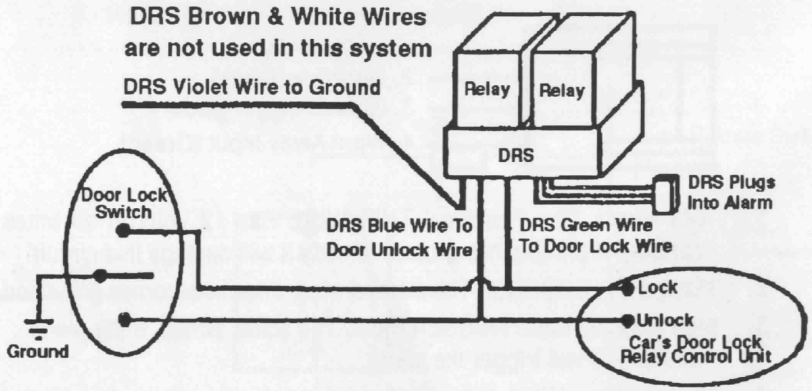
A 3-pin connection can be made on the side of alarm for door lock. It will provide either a pulsed ground output to the factory door lock control relay, or a pulsed + 12 volts output to the factory door lock control relay. The current capacity of these wire is 200 mA.



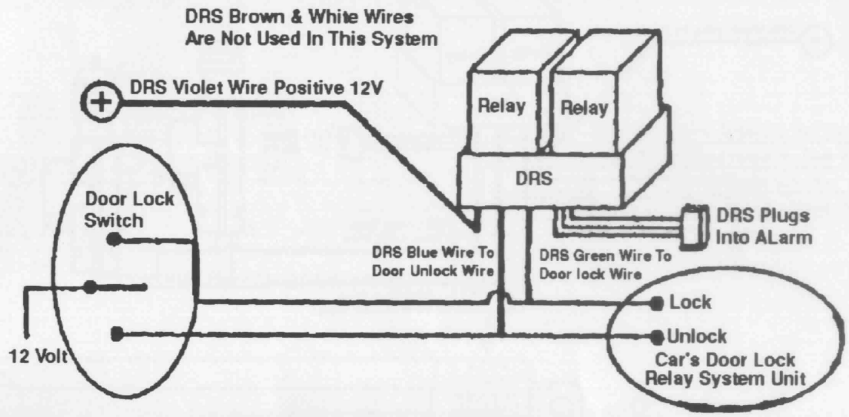
1. 3-WIRE AND 5-WIRE POWER LOCK SYSTEM:

Locate the door's central locking switch and record the color code of its wires. Look for the same wires under the dash or in the kick panel. (If there is no central locking switch, the door locks are activated by vehicle's door key.) Once you've found the correct wires, using a voltmeter, connect to ground or +12V to deter mine which is the "LOCK WIRE" and which is the UNLOCK WIRE.

a. 3-Wire "Negative Trigger" Power Lock System.



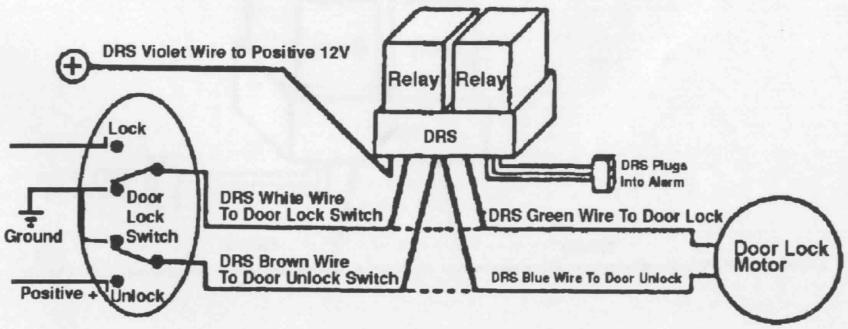
b. 3-Wire "Positive Trigger" Power Lock System.



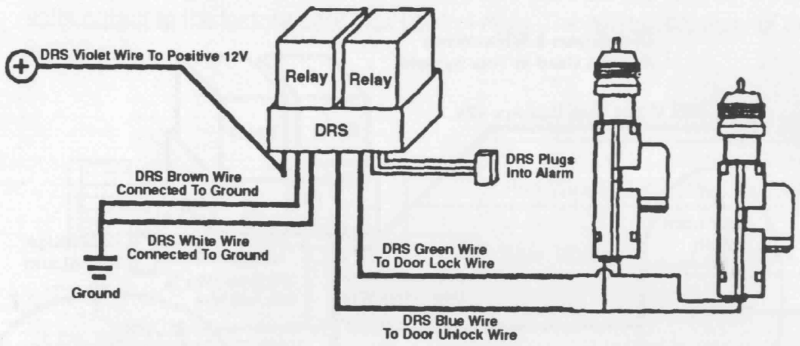
c. 5-Wire "Polarity Reversing" Power Lock System.

i Lock the doors with the door lock switch. If the test light pulses on, record the LOCK WIRE color and cut the wire.

ii Unlock the doors with the door lock switch. If the test light pulses on, record the UNLOCK WIRE color and cut the wire.



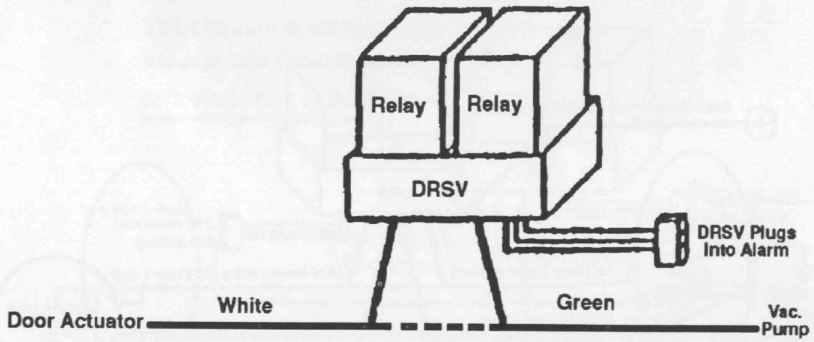
2. INSTALL NEW DOOR LOCK MOTORS:



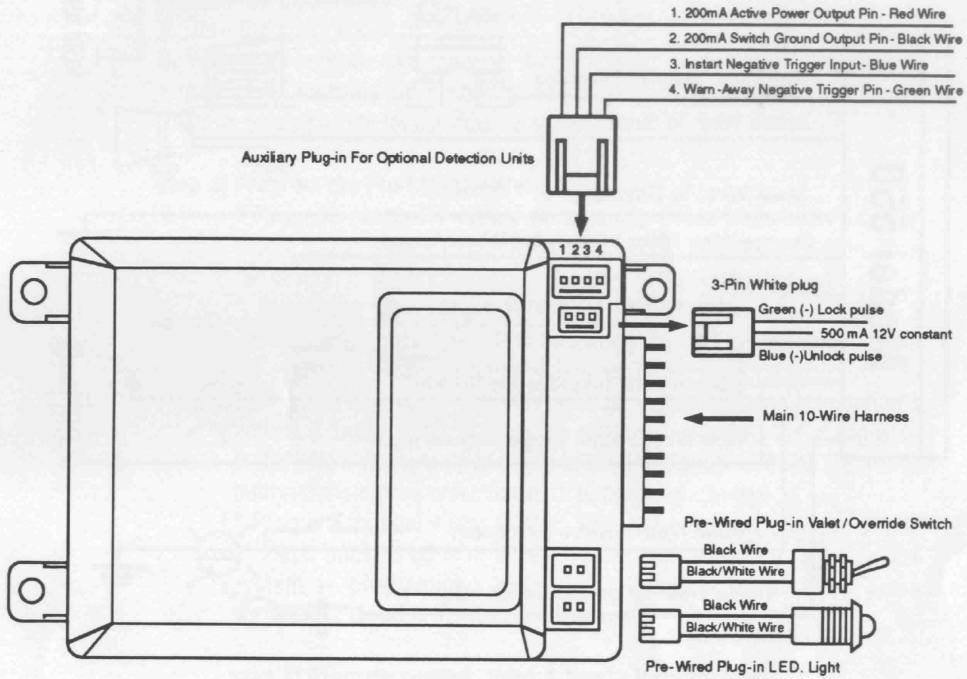
3. VACUUM OPERATED CENTRAL LOCKING SYSTEM:

(TYPICAL OF MERCEDES BENZ)

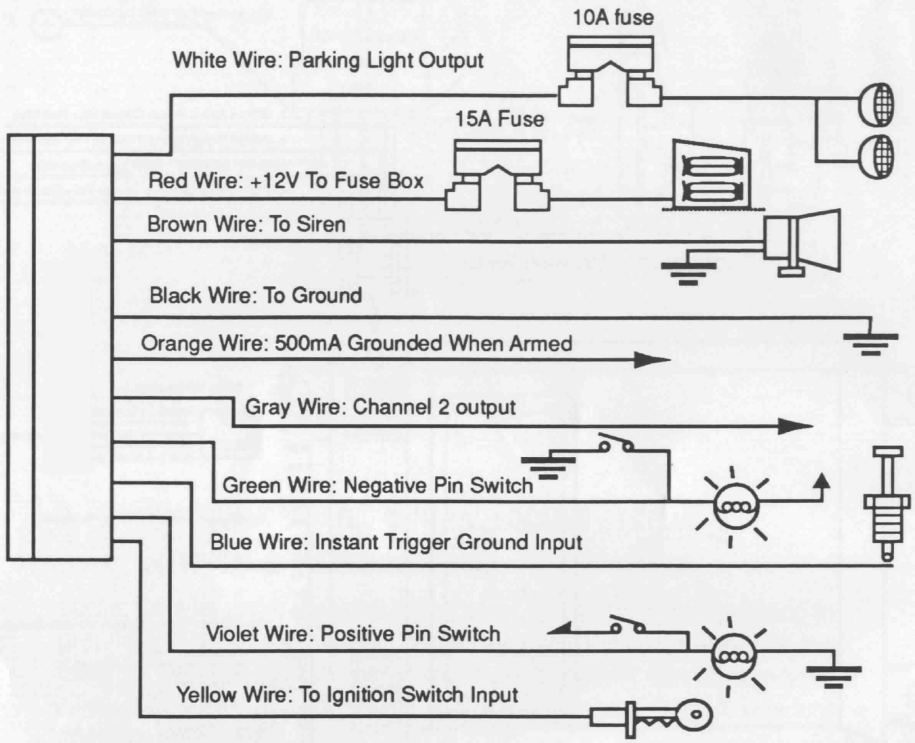
Locate the wire under the driver's kick panel. Use a test light connecting to ground, Verify that you have the correct wire with the doors unlocked, the test light will light. Lock the doors and the test light will turn off. Move the alligator clip to +12V and the test light will light again. Cut this wire and make the connections.



INSTALLATION DIAGRAM



INSTALLATION DIAGRAM



PROGRAMMING AND ADJUSTMENT

PROGRAMMING TRANSMITTER(S):

There are two choices for the user to program the transmitter(s), I. Designated channel setting, and 2. Auto channel setting.

1. **Designated Channel Setting:**

A. Turn the ignition switch 'on'.

B. Within 15 seconds turn the valet switch 'on-off' three times. There will be a long chirp followed by a short chirp, to confirm you are in Designated Channel Setting Mode for the next 15 seconds.

step a) Program the First transmitter

* Program channel 1 (arm/disarm/panic): Press transmitter's button 1 until it chirps once to confirm accepting the designated button. Now the system is ready to program channel 2 (trunk release).
* Program channel 2 (trunk release): Press transmitter's button 2 until it chirps once to confirm accepting the designated button. Now the system is ready to program channel 3.
* Program channel 3 (optional remote control) : Press transmitter's button 3 until it chirps once to confirm accepting the designated button. Now the system is ready to program channel 4. (NOTE: for 2-button transmitters press button 1 to program channel 3).
* Program channel 4 (car locator) : Press transmitter's button 4 until it chirps once to confirm accepting the designated button. Now the system is programmed. (NOTE: for 2-button transmitters press button 1&2 together to program channel 4).

step b) Program second, third & fourth transmitters

* turn the valet switch 'on-off' the system will chirp once, now it's ready to program the second transmitter.
* to program second, third & fourth transmitters, repeat step a) above.

Exit the programming mode.

During programming, if you don't respond for 15 seconds or anytime the ignition key is turned 'off'. the system will exit transmitter programming mode, which is indicated by 3 chirps.

2. **Auto-Channel Setting:**

A. Turn the ignition switch 'on'

B. Within 15 seconds turn the valet switch 'on-off' six times. There will be two long chirps followed by a short chirp, to confirm you are in Auto-channel

Setting Mode for the next 15 seconds.

Programming the transmitters.

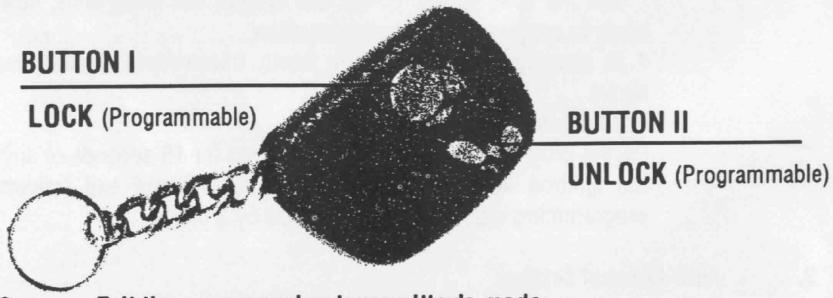
* Press & hold any button on the first transmitter until a long chirp is heard followed by a short chirp confirming the first transmitter is programmed.
* Press & hold any button on the second transmitter until a long chirp is heard followed by a short chirp confirming the second transmitter is programmed.
* To program third and fourth transmitters, follow previous step.

Exit the programming mode.

During programming, if you don't respond for 15 seconds or anytime the ignition key is turned 'off', the system will exit transmitter programming mode, which is indicated by 3 chirps.

Note 1 : For Designated Channel Setting, upon first installation it is strongly suggested that all 4 code spaces be used up on each channel. Because some codes are taught to the alarm at the factory while computer testing.

Note 2: This system has the capability of programming 4 transmitters, if the fifth transmitter is programmed, the first transmitter will automatically erased, but will keep the second, third & fourth transmitters.



3. Exit the programming transmitter's mode:

During programming, if you don't respond to previous step within 10 seconds, or any time the ignition key is turned 'off, or finished programming fourth transmitter's channel 4 it will exit programming mode, which is indicated by a long chirp.

B. PROGRAMMING SYSTEM FEATURES:

This system has 9 programming features, that can be turned 'ON' or 'OFF' through the feature programming mode.

1. Enter programming system feature mode: First the system should be in disarm condition.

a. Turn the ignition switch 'on' then 'off'.

b. Within 10 seconds turn the valet switch 'on - off' three times. You will hear a long chirp.

c. Again turn the valet switch 'on - off' three times. You will hear another long chirp. It is on first stage programming mode.

2. First stage programming features:

a. Turn valet switch 'on -off', the number of times that equals to the feature number you want. After turning the valet switch multiple times the siren will chirp the same number of times to confirm what feature number you are in.

Example: Turning valet switch 3 times, the siren will chirp 3 times.

b. Feature #3 in the example above.

Turning 'ON' feature #3:

Turn ignition to 'on'. The siren will chirp once to confirm the feature is turned 'ON'.

Turning 'OFF' feature #3:

Turn ignition switch to 'off'. The siren will chirp twice to confirm the feature is turned 'OFF'.

NOTE:

1. If you want to have this function by setting ignition switch 'on', and the ignition switch already at 'on' position before setting, you must turn ignition switch 'on'-'off'-'on'.

2. If you want to have this function by setting ignition switch 'off', and the ignition switch already at 'off' position before setting, you must turn ignition switch 'off'-'on'-'off'.

c. If you want to program ignition door lock on/off (siren chirp 5 times) when the system Is in active / passive arming (siren chirp 3 times), please turn valet switch 2 times. Because the system will add on the previous valet switch turning.

		Column A	Column B
Valet switch: 'on-off' time	LED flashing & chirp(s)	Turn ignition Switch to ON to activate column A features Confirmation: one chirp	Turn ignition Switch to OFF to activate column B features Confirmation: two chirps
1	1	With current sensor	No current sensor
2	2	With chirp(s)	No chirp
3	3	Active arming	Passive arming
4	4	Passive arming w/ door lock	Passive arming w/o door lock
5	5	Ignition w/ door lock	ignition w/o door lock
6	6	Door lock timer 1"	Door lock timer 3"

3. Second stage programming feature:

a. To enter second stage programming feature, just follow enter programming system feature mode, then turn the valet switch 'on' over 2 seconds, with 2 long chirps confirmation.

b. To program second stage's features, use first stage programming feature method.

		Column A	Column B
Valet switch: 'on-off' time	LED flashing & chirp(s)	Turn ignition Switch to ON to activate column A features Confirmation: one chirp	Turn ignition Switch to OFF to activate column B features Confirmation: two chirps
1	1	Disarm parking light off	Disarm parking light on 30"
2	2	With automatic re-arm	No automatic re-arm
3	3	Vehicle equip with domelight delay circuit	Vehicle doesn't equip with domelight delay circuit

4. Exit programming feature mode:

During programming, If you don't respond to previous step within 10 seconds, or any time press transmitter's channel 1(Lock Button), it will exit programming feature mode, which indicates by 3 long chirps.

5. System features:

a. Current sensor on/off:
If your vehicle Is equipped with an electric cooling fan (switch off the ignition and remove the key, the fan continues running) This feature must be set to the "off" position to delete the current sensor.

b. Chirp on / off: While arming or disarming, the system has an audible confirmation chirp to show the alarm condition, you can select this feature either on or off.

c. Active / Passive:
Set off passive - This system will be automatically armed after 30 seconds of last door closing. If you program the system with passive arming feature, be sure to connect main wire harness's green wire to the door pin switch.

Set on active— This system will not be automatically armed after 30 seconds on last door closed.

d. Passive door lock on/off:
In order to carry this feature, you must set the system on passive first.
Set it on: Vehicle's door will automatically lock after passive arming.
Set it off: Vehicle's door will remain unlocked after passive arming.

e. Ignition door lock on/off:
Set it on: The vehicle's doors will automatically lock after the ignition key is turned "ON" if all doors are closed. If any door remains open the doors will not lock from this feature to prevent accidentally locking yourself out of the vehicle. Each time the ignition switch is turned 'on', after 3 seconds the doors will lock. And when the ignition switch is turned 'off', the doors unlock.
Set it off: Without ignition controlled doorlock.

f. Door lock timer:
Some newer vehicles require a longer 'pulse' time to activate the door locks, this feature allows for normal pulse time of 1.0 second or increased pulse time to 3.0 seconds.

g. Disarm parking light ON/OFF:
Set it on: Upon disarm, the parking lights only flash two times.
Set it off: Upon disarm, the parking lights will be 'on' for 30 seconds. Or until the ignition switch is turned 'on' then the lights will go off.

h. Automatic rearm on/off:
Set it on: After disarmed, if you don't open vehicle's door nor turn the ignition switch 'on'; in 60 seconds the system will automatically arm. This feature allows the system re-arm in case you accidentally disarm your system.
Set if off: The system will not automatically re-arm.

i. Door closed domelight on/off:
Set it on: If your vehicle is equipped with domelight delay circuit. Setting this feature 'on' will also cancel defective door reminder chirp.
Setting off: If your vehicle is not equipped with dome light delay circuit i.e. when you close the door the domelight will not be on the system will enable the domelight to stay 'on' 30 seconds each time you close the door.

TROUBLESHOOTING

A. THE ALARM SYSTEM CANNOT PROGRAM THE TRANSMITTER CODES:

1. The yellow wire from the control module has no power when ignition is 'off', but has power when ignition is 'on'.

2. The override/valet switch wire plug is connected to the control module and must be at 'off' position.
3. Check LED status indicator wire connection.
4. Check the LED on the transmitter if it turns 'on' when pressing the button on the transmitter.

B. RF TRANSMITTER:

If the LED does not turn 'on' while pressing the button on the transmitter or the range of your transmitter deteriorates, it is possible that you need to replace the battery.

a. Release the screw from the back of the transmitter and remove upper transmitter case with a phillips screwdriver.

b. Remove old battery from transmitter.

c. Install a new 12 volt battery. Note the (+) and (-) marks in the battery area of the transmitter.

d. Replace upper transmitter case with care. Don't damage the inside components.

e. Tighten the screw on the back of the transmitter.

C. INSTALLER TEST MODE:

Auto test mode that will identify correctly connected door pins, hood and trunk pins, voltage drop sensing potential and can be used to adjust the sensitivity of electronic sensors.

1. TO ENTER TEST MODE:

a. Turn the ignition switch 'on/off'.

b. Within 10 seconds, turn the valet switch 'on & off' three times.

c. You will hear one long chirp from siren confirming you are now in the test mode.

2. TESTING THE SENSORS AND DETECTORS:

a. Current sensing circuit-- 1 Chirp

b. Trunk or hood circuit-- 2 Chirps

c. Door switch circuit-- 3 Chirps

d. Optional detector device-- 4 Chirps

3. EXIT TEST MODE:

a. Turn the ignition switch 'on , you will hear 3 long chirps from the siren, to confirm exit test mode.

D. TROUBLESHOOTING IN TEST MODE:

Note: Before testing, disconnect the 4 pin white detector plug.

1. Current (voltage drop) Sensing circuit:

Before testing the current sensing circuit, program current sensing feature on, disconnect the door switch wires (Green and Violet wires) to the control module.

Opening the door -1 tone from the siren, If not;

a.) A fail courtesy light occurred, open the door the courtesy light will be turned on. Close the door the courtesy light will be turned off if it's incorrect, repair your courtesy light bulb or door switch.

b.) Check the red wire from the control module, which must be connected to the vehicle fuse controlling the interior courtesy light.

Note: If you don't want to have Current Sensing, program Current Sensing feature off.

2. Hood and Trunk sensing circuit: Before testing Current Sensing feature must be off.

Opening the hood or trunk = 2 tones from siren, if not; check hood or trunk pin switch installation. The switch body must have good chassis ground. Then check the BLUE wire connection.

3. Door switch Sensing circuit:

Reconnect the door switch sensing green wire to the control module. Opening the door =3 tones from siren. If no tone from siren while the doors being opened or closed, a door switch failure has occurred, open the door the courtesy light will be turned on. Close the door the courtesy light will be turned off, if it's incorrect, repair the door switch.

4. Optional detector device:

After the above circuit testing is completed, re-connect the 4 pin white plug. If the device is triggered = 4 tones from siren, if not;

1. Check the correct wires connected to the module.
2. Check the connection points that are solid.
3. Check the adjustment switch of the detector.

E. EXIT THE TEST MODE:

Press the button on the transmitter arming / disarming the alarm to exit the test mode.