



Installation Manual

Model: PLUS-4900

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference; and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

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

For Technical Assistance, please call (800) 638-3600,
or visit www.magnadyne.com

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Warning! Do not plug the 10-pin or 5-pin wire harness into the alarm control module before you begin installing the alarm. The wire harnesses must be plugged into the alarm control module after all connections are made. Failure to follow this procedure could cause some confusion with transmitter operation and or alarm function operation.

Component Installation

Mounting the Control Module:

Find a suitable location to secure the alarm control module within the passengers compartment of the vehicle. Never mount the alarm control module in the engine compartment or in the trunk. In addition, never mount the alarm control module in the direct path of the heater. Secure the alarm control module by using wire ties or drill two 1/8" holes and secure the module to the frame of the vehicle with the screws provided.

Installing Hood/Trunk Pin Switches:

Provided with the alarm kit is one pin switch and one mounting bracket. To install the switch either in the truck or under the hood, find a suitable location where the switch will make contact with the hood or trunk lid and will not get wet. Use the bracket provided or drill a 1/4" hole in the desired location.

Mounting the Siren:

Find a suitable mounting location in the engine compartment to secure the siren. Select a location that provides a direct sound path to the ground for maximum siren effect. Use the self-tapping screws to secure the siren. Connect the Black wire from the siren to the frame of the vehicle. In many cases, you can connect the Black wire to one of the siren mounting screws. Run the remaining brown wire from the siren through a grommet in the vehicle firewall to the location of the alarm control module.

Valet Switch

Select a mounting location for the switch that is easily accessible to the driver of the vehicle. The switch does not have to be concealed. However, concealing the switch is always recommended, as this provides an even higher level of security to the vehicle. Mount the valet switch in a hidden but accessible location. Route the valet switch wires to the control module.

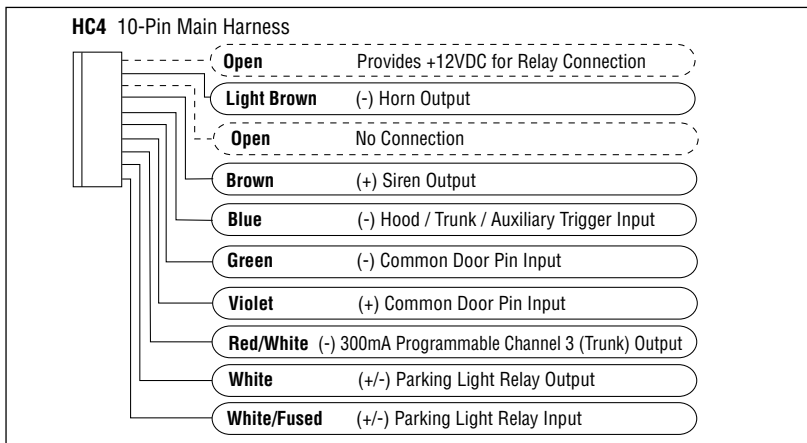
LED Status Indicator

The LED status indicator should be mounted in a highly visible area. There should be at least 6mm of space behind the mounting location for LED housing. Once a suitable location is chosen, drill a 1/4" hole. Run the LED wires through the hole then press the LED housing into the place. Route the LED wires to the control module.

Wiring

The main wire harness contains 8 wires which all have a specific purpose. Follow the wiring recommendations enclosed for each wire. Wires not used should be released from the harness connector or taped off to prevent accidental shorting.

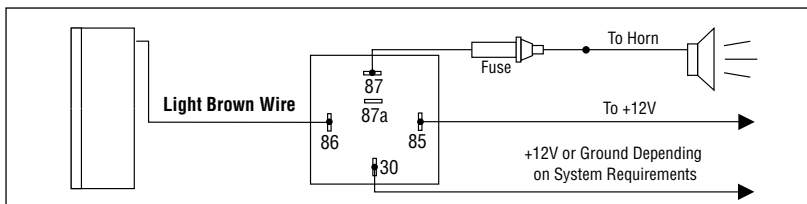
White 10-Pin Connector



Light Brown Wire: (Pulsed Ground for Car Horn)

The light brown wire is a pulsed ground output designed to activate the vehicle's existing car horn system in place of or in addition to a siren sounding device. Connect the light brown wire to the negative trigger wire on the vehicle's horn relay.

WARNING! Maximum output of this wire is 300mA. Horn systems requiring positive voltage or more than 300mA to trigger the horn relay will require an additional relay to increase current capabilities.



Brown Wire: (Siren + Output)

Connect the brown wire to the positive wire from a siren. Ground the remaining wire from the siren for proper operation.

Blue Wire: (Optional Grounding Sensor Input)

The blue wire is an instant grounding trigger input for optional hood/trunk grounded pin switches or any electronic sensor.

Green Wire: (Grounded Door Pin Switch Input)

The green wire connects to the common wire of the vehicle that switches on the dome light. Normally this wire is located at one of the door jamb switches. For some vehicles it may be necessary to connect the green wire directly to the switched turn on wire at the dome light. The green wire connects to negative switched circuits only.

White 10-Pin Connector (Continued)

Violet Wire: (Positive Door Pin Switch Input)

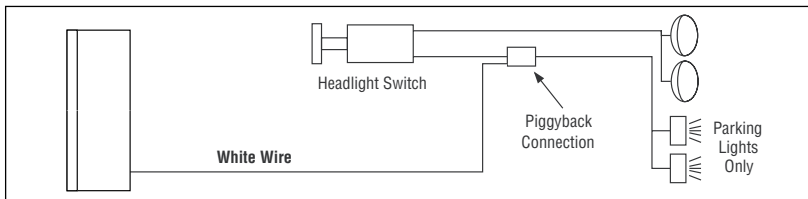
The violet wire connects to the common wire of the vehicle that switches on the dome light. Normally this wire is located at one of the door jamb switches. For some vehicles it may be necessary to connect the violet wire directly to the switched turn on wire at the dome light. The violet wire connects to positive switched circuits only.

Red/White Wire: (-) 200mA Programmable Channel 3 Output

(See Alarm Feature Programming Part 3) (Factory default setting on momentary ground) This wire is built-in user programmable timer output provides a ground through this wire. You may program the built-in timer to send ground signal for any time interval between 1 second and 2 minutes. For instance, this timer output may be used to turn on the headlights with the remote control. Also, on certain Mercedes Benz, BMW, Jaguar and Volkswagens you can use this unique timed output to allow remote closure of all power windows and sunroof without the need for an external module.

White: (Pulsed Parking Light Relay Output)

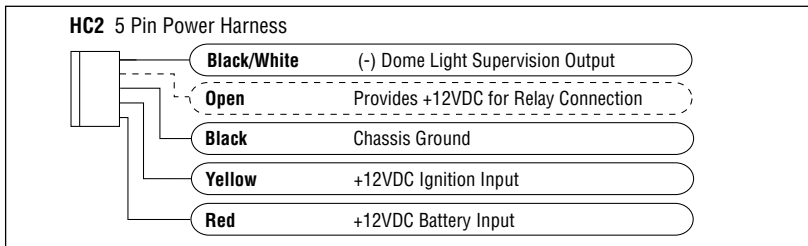
Connect the white wire to the parking light wire coming from the headlight switch. Do not connect the white wire to the dashboard lighting dimmer switch – Damage to the dimmer will result. Use a volt meter to test the connection point before connecting the red/white wire. While checking, rotate the dimmer switch to make sure you do not have the dimmer lead. The limitation of the white wire is 10 Amp max. Do not exceed this limit or damage to the alarm and parking light relay will result.



White W/ Fuse: (Parking Light Relay Input)

The White w/fuse wire is the input to the flashing parking light relay. The connection of this wire will determine the output polarity of the flashing parking light relay. Connect the White wire w/ fuse wire to (+) battery to have (+) output from the relay or connect the white wire to frame ground to have ground output from the relay.

White 5-Pin Connector



White 5-Pin Connector (Continued)

Black/White Wire: (Programmable Output. Default Setting Domelight Supervision)

The Black/White wire is a low current (300mA) grounded output wire that is pre-programmed to activate the vehicle's interior lighting system when the security system is disarmed. An additional relay may be required for proper installation (See Optional Accessory Connection for proper wiring). This wire can also be programmed to operate as a channel #4 output (See Alarm Feature Programming Part 2 for programming instructions)

Red Wire: (Main Power Input)

Connect the red wire directly to the (+) battery post for best operation of the alarm system. For best current sensing capability from the alarm's current sensing circuit, connect the red wire to the constant power wire coming from the interior dome light.

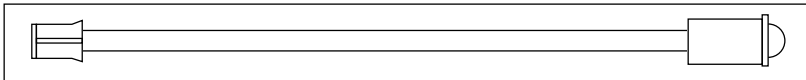
Black Wire: (Main Ground Input)

Connect the black wire directly to the frame of the vehicle. Use a bolt and nut to secure the wire. Scrape away any grease or paint that might prevent a good connection.

Yellow Wire: (Switched +12 Volts From the Ignition Switch)

Connect the yellow wire to a +12 volt wire that is switched on and off by the ignition key. The correct wire will indicate +12 volts when the ignition key is in the on and start positions. Do not connect the yellow wire to the "ACC" wire coming from the ignition switch.

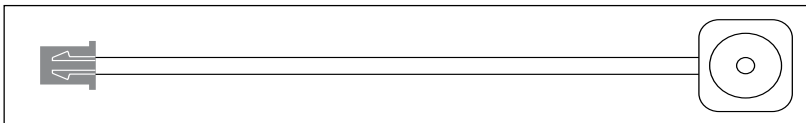
White 2-Pin Connector



LED Status Indicator:

The LED indicator status should be mounted in a highly visible area such as top of the dashboard, on top of the shifter console or on dashboard face. Leave at least 6mm space behind the mounting location for LED housing. Once a suitable location is chosen, drill a 1/4" hole. Run the LED wires through the hole then press the LED housing into the place. Route the LED wires to the control module.

Blue 2-Pin Connector

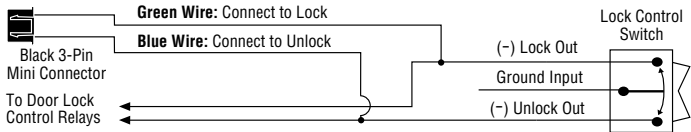


Valet Switch

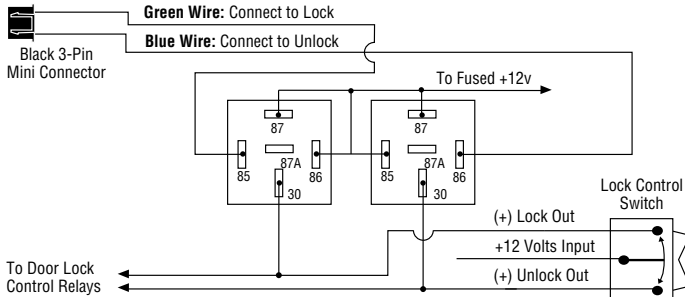
Select a mounting location for the switch that is easily accessible to the driver of the vehicle. The switch does not have to be concealed, however, concealing the switch is always recommended, as this provides an even higher level of security to the vehicle. Mount the valet switch in a hidden but accessible location. Route the valet switch wires to the control module.

Black 3-Pin Connector

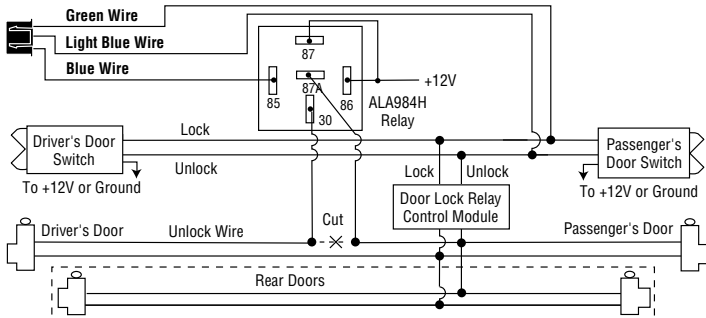
3 Wire Ground Trigger Door Lock System



3 Wire Positive Trigger Door Lock System

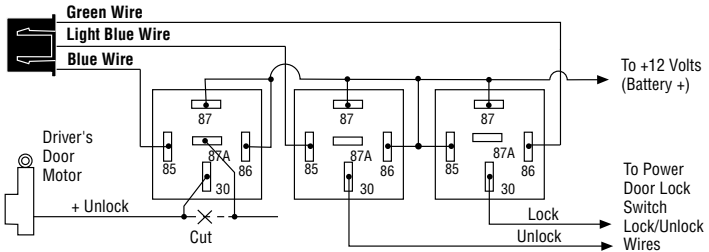


Unlock Driver's Door First for 3-Wire Negative Door Lock Systems

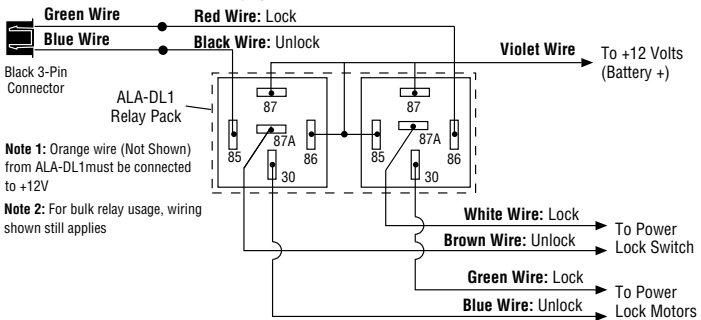


Black 3-Pin Connector (Continued)

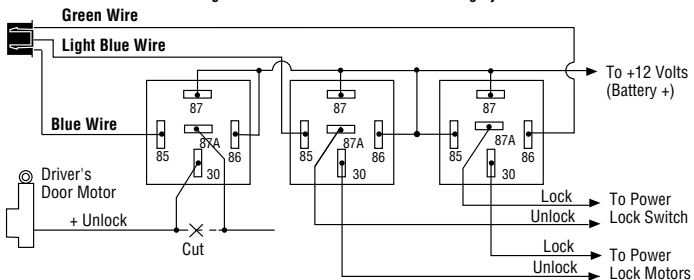
Unlock Driver's Door First Wiring for 3-Wire Positive Door Locking Systems



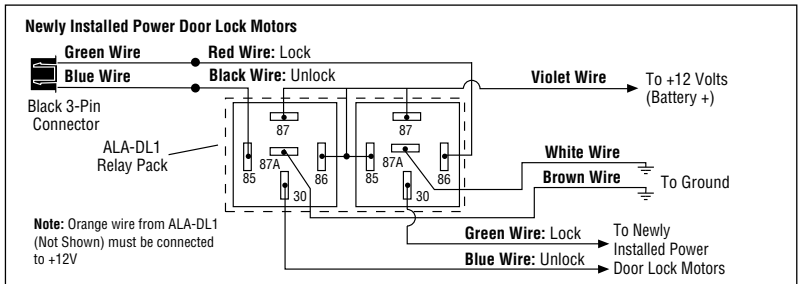
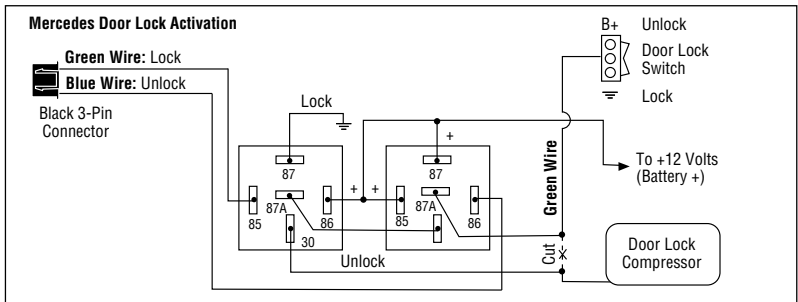
5 Wire Ground at Rest Door Locking Systems



Unlock Driver's Door First Wiring for 5-Wire Ground at Rest Door Locking Systems



Black 3-Pin Mini Connector (Continued)

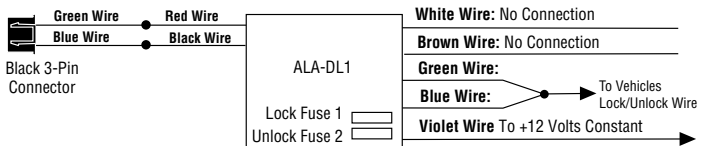


One Wire Multiplexing Door Locking Systems

Some vehicles (Chrysler, Mazda and others) use one wire to lock and unlock the doors. Example: When the door lock controller sees a signal thru a resistor it will unlock. If a signal is received without a resistor the doors will lock. Some use 2 resistors. One for lock and one for unlock. We have developed patented plug-in fuse resistors for this application. Simply remove the fuse from our door lock module and replace with correct resistor value fuses that matches the vehicles door lock switch.

ALA-DL1 Wiring:

1. Connect both the green (lock) and the blue (unlock) wires to the vehicles one wire lock/unlock wire.
2. Connect our violet polarity input wire to +12V or to ground. To match vehicles door lock polarity.
3. The white and the brown wires will not be used.



Note: Orange wire (Not Shown) from ALA-DL1 must be connected to +12V.

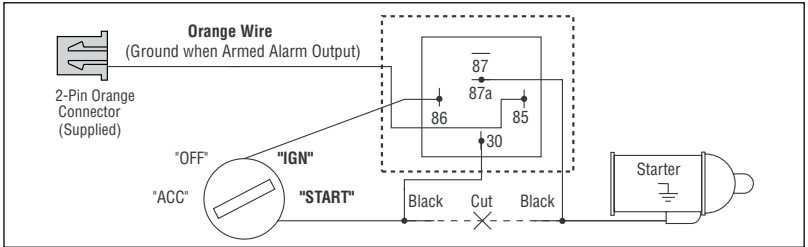
Orange 2-Pin Mini Port

Starter Disable Wiring Using a Common Relay

Using the wiring information and diagram below, connect the optional starter disable relay as follows:

- Locate the "Start Only Wire" coming from the ignition key switch and cut it.
- Connect the ends of the cut start wire to pins #30 and 87a of the relay pack.
- Connect the single gray wire harness supplied (with 2-pin black connector) to pin #85 on the relay.
- Connect pin #86 to the true ignition switched wire from the ignition key.

To test the starter disable system refer to the starter disable testing procedures located in the testing section of this manual.

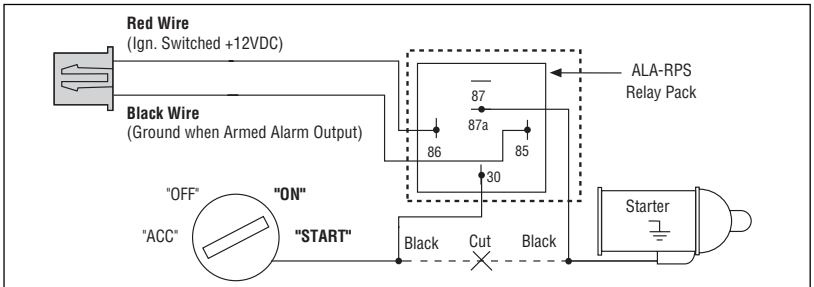


Starter Disable Wiring Using ALA-RPS Relay Pack

Using the wiring information and diagram below, connect the optional starter disable relay as follows:

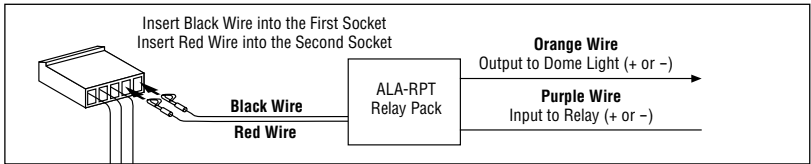
- Locate the "Start Only Wire" coming from the ignition key switch and cut it.
- Connect the ends of the cut start wire to the black wires coming from the ALA-RPS relay pack.
- Plug in the orange 2-pin plug into the orange socket located at the rear of alarm module.

To test the starter disable system refer to the starter disable testing procedures located in the testing section of this manual.

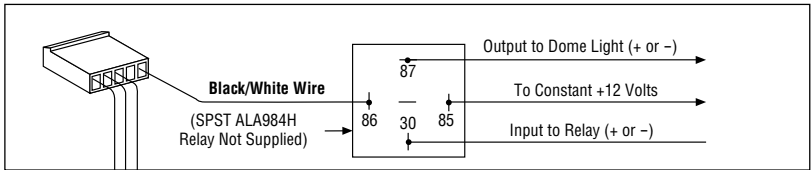


Optional Accessory Connection (Continued)

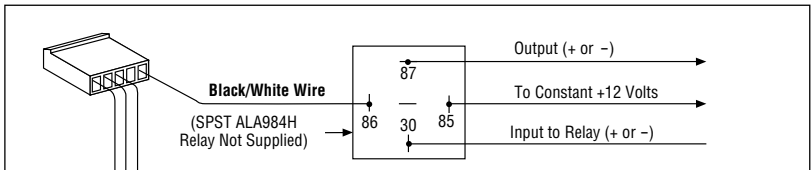
Dome Light Supervision Using Optional ALA-RPT Relay Pack:



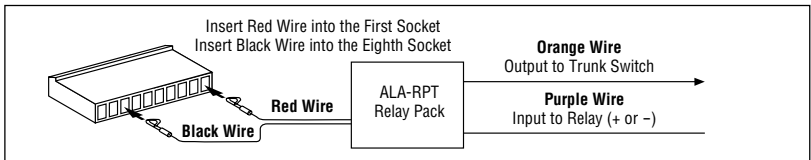
Dome Light Supervision Using Optional 30 Amp Relay:



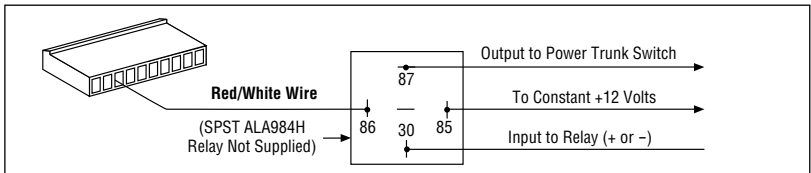
Channel 4 Output Using 30 Amp Relay: (Valid Only when Black/White Wire is Programmed for CH#4 Output)



Power Trunk Activation Using Optional ALA-RPT Relay Pack



Power Trunk Activation Using Optional 30 Amp Relay

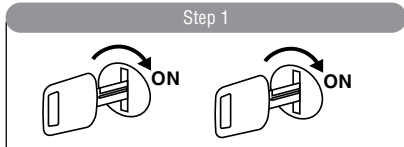


Programming the Transmitter

Programming the Remote Transmitter

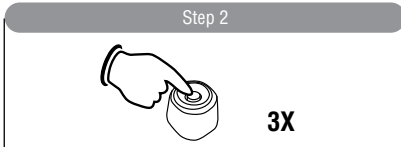
Note: This mode will only retain the last 4 remote transmitters programmed. If the transmitter memory is exceeded, the security system will start deleting transmitters from memory in chronological order.

Step 1



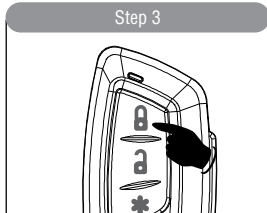
Turn the ignition switch from the OFF position to the ON position.

Step 2



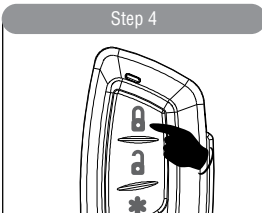
Before 15 seconds has passed, push and release the valet switch 3 times. You will hear a single chirp from the siren/horn. You are now in transmitter programming mode.

Step 3



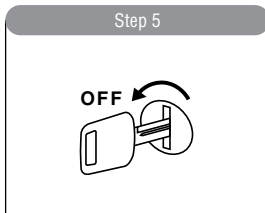
Press the "Lock" button on the first transmitter until you hear a confirmation chirp/beep. The transmitter is now programmed to the control module.

Step 4



Repeat step 3 for each additional transmitter.

Step 5

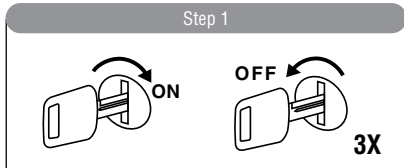


When finished, either turn off the ignition key or wait for 15 seconds to get out of transmitter programming mode. You will hear 1 short + 1 long chirps/beeps to indicate you are out of the transmitter programming mode.

Alarm Feature Programming (Part 1)

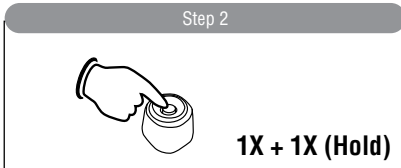
Examine the 3 different feature charts enclosed and decide which feature will get changed. Circling the feature to be changed will make the programming process much easier to perform.

Step 1



Turn the ignition switch from the OFF position to the ON position 3 times leaving it in the OFF position the third time.

Step 2










Before 15 seconds has passed, push and release the valet switch 1 time then push the valet switch a second time and hold it down until 1 short and 1 long chirp or beep is heard, then release it. You are now in Alarm Feature Programming Part 1 programming mode

Alarm Feature Programming (Part 1) (Continued)

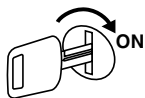
Step 3

Remote Feature Programming

Use the transmitter buttons as illustrated to adjust the features required. Keep repressing the transmitter button that relates to the feature you want to adjust until the correct amount of chirps/beeps is heard. Move on to the next feature.

Button	One Chirp LED One Pulse <i>(Factory Default Setting)</i>	Two Chirps LED Two Pulses	Three Chirps LED Three Pulses	Four Chirps LED Four Pulses
	Chirps On, All Outputs	Chirps Siren Output Only	Chirps Horn Output Only	Arm/Disarm Chirps Off
	Manual Arming	Automatic Arming without Passive Door Locking	Automatic Arming with Passive Door Locking	
	Automatic Rearm Off	Automatic Rearm On		
	Instant Door Ajar Warning	45 Seconds Delay Door Ajar Warning	Door Ajar Warning Off	
	Car-Jack Mode Off	Manual Car-Jack Mode	Automatic Car Jack Mode	
	Pathway Illumination Feature "Off"	Parking Light "On" for 30 Seconds Upon an Unlock Signal	Parking Light "On" for 30 Seconds Upon an Unlock Signal and 10 Second Upon a Lock Signal	
	Ignition Key Controlled Door Lock and Unlock On	Ignition Key Controlled Door Lock Only	Ignition Key Controlled Door Unlock Only	Ignition Key Controlled Door Lock and Unlock Off

Step 4



Turn On the Ignition

3 long chirps and 3 flashes of the parking lights will confirm exit of the programming mode.

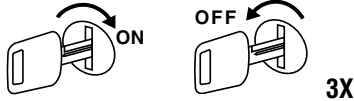
Note: Waiting 15 seconds after the last command will also cause the system to automatically exit the programming mode.

*Instant / 45 Seconds Delay Door Ajar Warning

This feature controls the error chirp that is generated if the system is armed with the door trigger active. This is useful in a vehicle that has a long dome light delays after the door has been closed. If the system is armed before the dome light has turned off, the security system will generate the door trigger error chirp. Use this feature to disable the door open error chirp.

Alarm Feature Programming (Part 2)

Step 1



Turn the ignition switch from the OFF position to the ON position 3 times leaving it in the OFF position the third time.

Step 2



3X + 1X (Hold)

Before 15 seconds has passed, push and release the valet switch 3 times then push the valet switch a fourth time and hold it down until 2 short chirps/beeps + 1 long chirp/beep is heard then release it. You are now in Part 2 programming mode.

Step 3

Remote Feature Programming

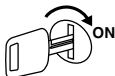
Use the transmitter buttons as illustrated to adjust the features required. Keep depressing the transmitter button that relates to the feature you want to adjust until the correct amount of chirps/beeps is heard. Move on to the next feature.

Button	One Chirp / LED One Pulse (Factory Default Setting)	Two Chirps / LED Two Pulse	Three Chirps / LED Three Pulse	Four Chirps / LED Four Pulse
	0.8 Second Door Lock Pulses	0.6 Second Door Lock Pulses	3.5 Second Door Lock Pulse	Door Lock with "Comfort Feature" See Note Below
	5 Chirps = 0.8 Second Double Pulse Unlock 6 Chirps = 0.6 Second Double Pulse Unlock			
	Channel #3 Output is Single Pulse	Channel #3 Output is Latched Until the Ignition Key is On	Channel # 3 Output is On for 15 Seconds then is Off	Channel # 3 Output is On for 30 Seconds then is Off
	Light Blue Wire Has (-) 2nd Unlock Output Function	Light Blue Wire has (-) Factory Alarm Disarm Output Function		
	Black/White Wire has (-) Domelight Supervision Output	Black/White Wire has (-) Channel #4 Single Pulse Output		

Comfort Feature:

Some vehicles have a special "Comfort Feature". When you lock the door with the key, you have to hold the key in the lock position for about 5 to 7 seconds and the windows will close automatically. If you wish the vehicle's Comfort Feature to be activated when you remotely lock the doors, program Door Lock with Comfort Feature "ON".

Step 4



Turn On the Ignition

3 long chirps and 3 flashes of the parking lights will confirm exit of the programming mode.

Note: Waiting 15 seconds after the last command will also cause the system to automatically exit the programming mode.

On-Board Shock & Optional 2nd Sensor Sensitivity Adjustment

On-Board Shock Sensor Only:

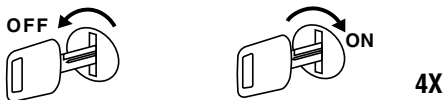
Follow steps 1 thru 3 to make sensitivity adjustments to the On-Board Shock Sensor

On-Board Shock Sensor and Optional 2nd Sensor Installations:

If the installation is using (2) sensors, follow steps 1 thru 3 under "2nd Sensor Adjustment" to make sensitivity adjustments to the 2nd sensor.

On-Board Sensor Adjustment

Step 1

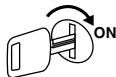


Turn the ignition switch from the OFF position to the ON position 4 times leaving it in the OFF position the fourth time. The Horn/Siren will beep (1) time. You are now in "On-Board Shock Sensor Adjustment Mode".

Step 2

1. Light impacts to the body and glass will trigger the "pre-warning indicator". The horn/siren will chirp 3 times. Hard impacts to the body or glass will trigger the "Full Trigger Indicator". The horn/siren will chirp 1 time.
2. Rotate the sensitivity adjuster "Clockwise" to increase the impact sensitivity.
3. Rotate the sensitivity adjuster "Counterclockwise" to decrease the impact sensitivity.

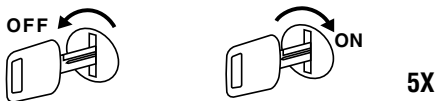
Step 3



Turn the ignition switch from the OFF position to the ON position to exit the sensor adjustment mode. The horn/siren will chirp 3 short chirps and 1 longer chirp. You have exited "On-Board Sensor Adjustment Mode".

Optional 2nd Sensor Adjustment

Step 1

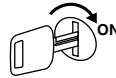


Turn the ignition switch from the OFF position to the ON position 5 times leaving it in the OFF position the fifth time. The Horn/Siren will beep (2) times. You are now in "External Sensor Adjustment Mode".

Step 2

1. Light impacts to the body and glass will trigger the "pre-warning indicator". The horn/siren will chirp 3 times. Hard impacts to the body or glass will trigger the "Full Trigger Indicator". The horn/siren will chirp 1 time.
2. Rotate the sensitivity adjuster "Clockwise" to increase the impact sensitivity.
3. Rotate the sensitivity adjuster "Counterclockwise" to decrease the impact sensitivity.

Step 3



Turn the ignition switch from the OFF position to the ON position to exit the sensor adjustment mode. The horn/siren will chirp 3 short chirps and 1 longer chirp. You have exited "On-Board Sensor Adjustment Mode".

Reference Wiring Diagram

PLUS 4900 Wiring Diagram

