

# MEGATRONIX : UP-210 : FACTORY ALARM INTERFACE WITH OEM KEYLESS ENTRY INSTALLATION & OPERATION INSTRUCTIONS

## 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 face up.

2. Mark and drill three holes to mount the siren.

3. Route the siren cable through the firewall to the control module.

### B. MOUNTING CONTROL MODULE:

Mount the control module in the underdash area where easy reaches yet secure. The module should mount in as high a position as possible. Fasten the module with tie-wraps or screws. Ensure the module completely secure and will not rattle or come loose.

NOTE: Antenna placement is very important! Ensure it is unwrapped and stretched out at least 6" straight. Keep away from metal.

### C. INSTALLING THE LED STATUS INDICATOR:

Mount the LED indicator status in a highly visible area such as top of the dashboard. Plug-in the LED to control module.

### D. INSTALLING THE OVERRIDE / VALET SWITCH:

Mount the override/valet switch in a hidden but easy reach location. Plug-in valet switch to control module.

### E. INSTALLING THE SHOCK SENSOR:

Mount the shock sensor in a place of easy reach location. Plug-in one end of the wires to shock sensor and another end to control module.

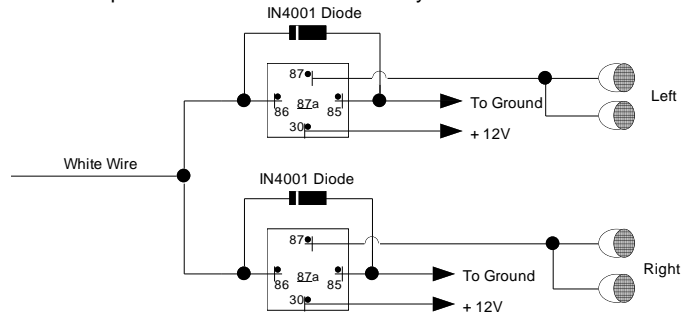
## WIRING

### A. MAIN 10-WIRE HARNESS:

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

When the alarm triggered, this wire provides pulse +12 volts, 10 Amp output. This wire must connect to the positive wire of the parking light.

NOTE: When the left & right parking light are on separate circuits then two 10A relays must use to connect each parking light side.



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

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

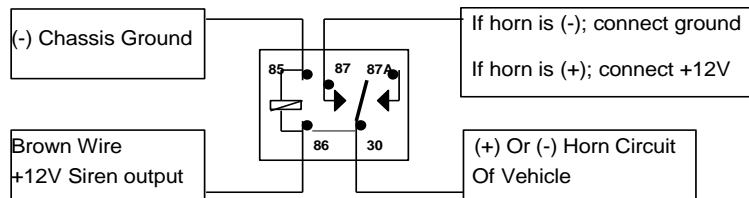
NOTE: If you plan to program the alarm with voltage drop sensing, this connection must connect to the permanent +12 volts live point of the "fuse controlling the interior courtesy light" of the vehicle. This connection is the voltage drop sensing feature.

3. BROWN WIRE -- SIREN DRIVE OUTPUT

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

#### Horn connection:

When using the vehicle's horn, an additional relay is required, and cut the resistor # 4. Caution: On many vehicles the factory horn does not design for continuous use, and it is recommended that use siren to these vehicles. Check to see if the horn is the same part that is used in a vehicle with the factory installed security system.



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 armed. The current capacity of this wire is 500mA. This output can control starter interrupt, when an intrusion detected and system triggered. The system prevents from any unauthorized starting.

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

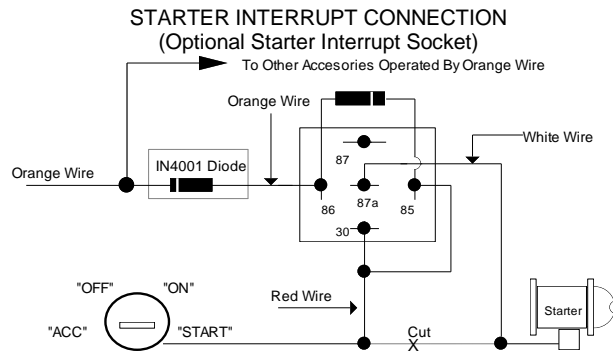
b). When found it, use voltmeter, connect one probe of the voltmeter to ground and the other to the starter wire. Switch the ignition key in the "start" position, it should receive "12 volts".

c). Cut the correct wire in half, and start the vehicle. The engine should not "crank over".

d). Extend the wire if needed with the exact same gauge wire. Connect the cut wire from the key switch to pin #30 (Red wire) of the relay, and connect the starter wire to pin #87a. (White wire) of the relay.

e). Connect the Orange Wire from the control module to pin #86 (Orange wire) of the relay.

NOTE: If more than one electronic device connects to the Orange Wire, it is necessary to isolate each device control wire (Orange wires) with a IN4001 diode.



**6. GRAY WIRE -- TRUNK TRIGGER BY-PASS**

This wire will determine if the vehicle's trunk has been opened using the OEM transmitter, and stop the alarm from triggering when the transmitter is used. Connect this wire to the +12 volt trunk release output from the OEM Keyless Entry module.

**7. GREEN WIRE -- NEGATIVE DOOR SWITCH SENSING INPUT**

This wire is the ground trigger input wire for negative door pin switch. (Typical GM, CHRYSLER ) Locate the "common wire" that connects the door pin switches. Make the connection of the Green Wire here.

IMPORTANT: When the optional dome light relay connected, the green or violet wire must connect to the pin 87a of the optional dome light relay.

**8. BLUE WIRE -- GROUND INSTANT TRIGGER INPUT**

This wire is the ground trigger input wire for hood/trunk pin switches.

**9. VIOLET WIRE -- POSITIVE DOOR SWITCH SENSING INPUT**

This wire is the positive trigger input wire for positive door pin switch.(Typical FORD MOTOR ) Locate the "common wire" for all door pins and make the connection of the Violet Wire here.

**10. YELLOW WIRE -- IGNITION SWITCH POWER (12V "ACCY" ON)**

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

**B: 3-PIN ARM/DISARM INPUT (1 or 2 wires disarm input)**

**Understanding disarm # 1 and # 2.**

Because of the complexities of the different factory remote keyless entry units on the market today, this system uses 2 disarm inputs. In all installations, whether installing with a 2 step unlock circuit, single steps unlock circuit, or a stand-alone passive alarm, both of these wires must be connected.

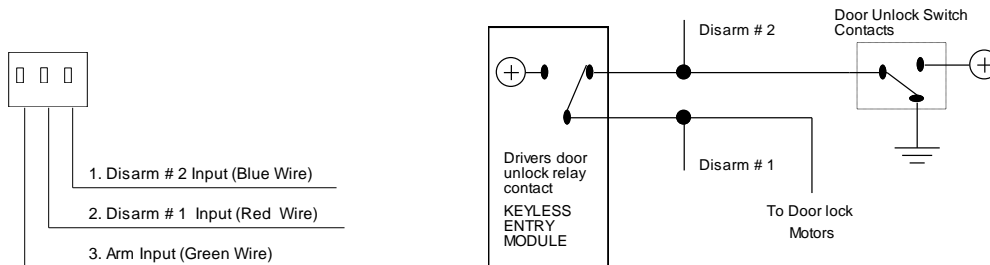
The following logic chart will help to demonstrate how these disarm inputs work. As shown in the chart, this system will disarm only when disarm inputs # 1 and # 2 are at opposing polarities.

In addition, when cut resistor # 2 (1 wire disarm), the alarm will not disarm while it is triggered. In vehicles with the single step unlock circuit, it is always best to keep resistor # 2 (2 wires disarm).

	Disarm # 1 Red Wire	Disarm # 2 Blue Wire	Result
Scenario A	Positive	Negative	System disarms
Scenario B	Positive	Positive	No change in alarm status
Scenario C	Negative	Positive	System disarms
Scenario D	Negative	Negative	No change in alarm status

This alarm can be programmed for either 1 wire or 2 wires disarm operation.

Many OEM keyless entry systems use on-board door unlock relays, which usually results in the ability to disarm the aftermarket security upgrade module by unlocking the doors using the door panel unlock switch. Wiring the system for 2 wire disarm will eliminate this problem.



**Green wire:** ( + or - ) Arm input

Connect this wire to the lock output from the OEM Keyless entry control module. You must check the polarity of the outputs of the Keyless entry module, and use resistor # 5 accordingly.

**Red wire:** Disarm input # 1

Connect this wire to unlock output wire from the OEM Keyless entry control module.

**Blue wire:** Disarm input # 2

This additional disarm input is used primarily when the Keyless entry system has an on board door unlock relay. In most cases, the on-board relay is wired in series with the door unlock motor leg from the door switches. In these cases, to prevent disarming when pressing the door mounted unlock switch, the second disarm input has been included.

When resistor # 2 is cut, the alarm will not disarm if both disarm inputs are switched simultaneously.

When the door switch pressed to the unlock position, both disarm inputs receive the +12 volt signal, and the system will not disarm.

When the Keyless entry system used to unlock doors, only disarm input will receive the +12 volt signal, and the system will disarm.

Connect the green wire to the unlock input of the Keyless entry systems with on board unlock relays. You must keep resistor # 2.

**C: 2-PIN PLUG OUTPUT:**

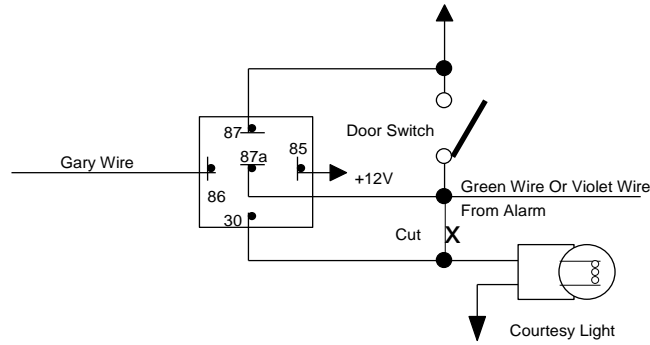
**Gray wire:** Domelight output

This wire will become grounded when the dome light control circuit is active. The current capacity of this wire is 200mA. This wire can control the operation of the interior lights in the vehicle. An optional relay (10amps) can be used on this system for interior light's operation.

a). Upon disarming, the interior lights will remain on for 30 seconds.

b). If the vehicle violates, the interior light will flashing for the same duration as the siren.

IMPORTANT: When the optional dome light relay is connected, the green or violet wire from alarm (Main 10 wires harness) must be connected to the pin 87a of the optional dome light relay.



**Blue wire:** Passive door lock output

Passive lock (-) pulse. This wire's use is optional. It sends a 200 mA , 0.8 second (-) pulse when the system passive arms. (If passive arming is disabled via the switch, this wire is also disabled.) If the customer wants the system to automatically lock the doors when the system passively arms, this wire can be connected to an optional relay.

IMPORTANT: Remember that the passive lock option can lock the key in the vehicle.

**D. 3 sec. / 5 min. shock sensor arming delay wire loop (Green wire loop).**

Remain green wire loop--Set the shock sensor arming delay at 3 seconds.

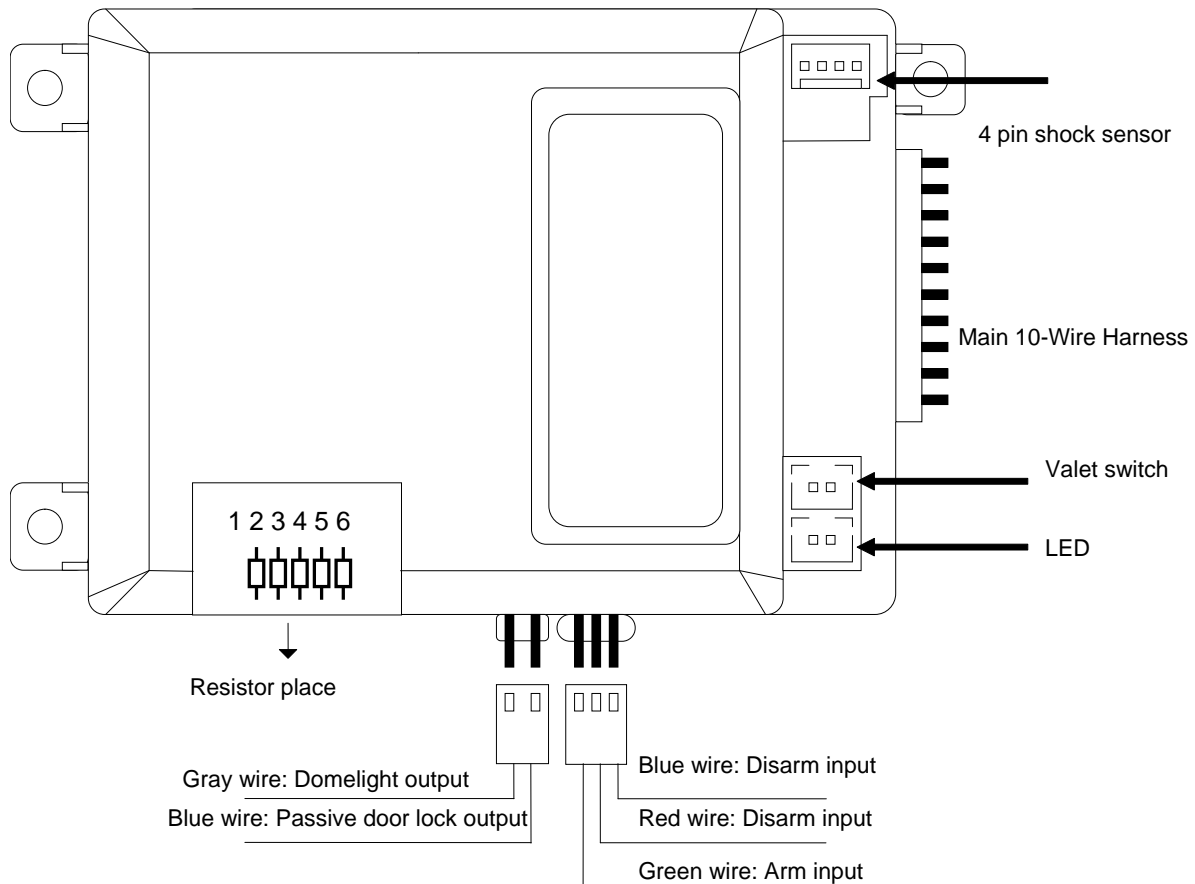
Cut green wire loop--Set the shock sensor arming delay at 5 minutes.

**E. While system arming, system detecting voltage sensor or not (Purple wire loop).**

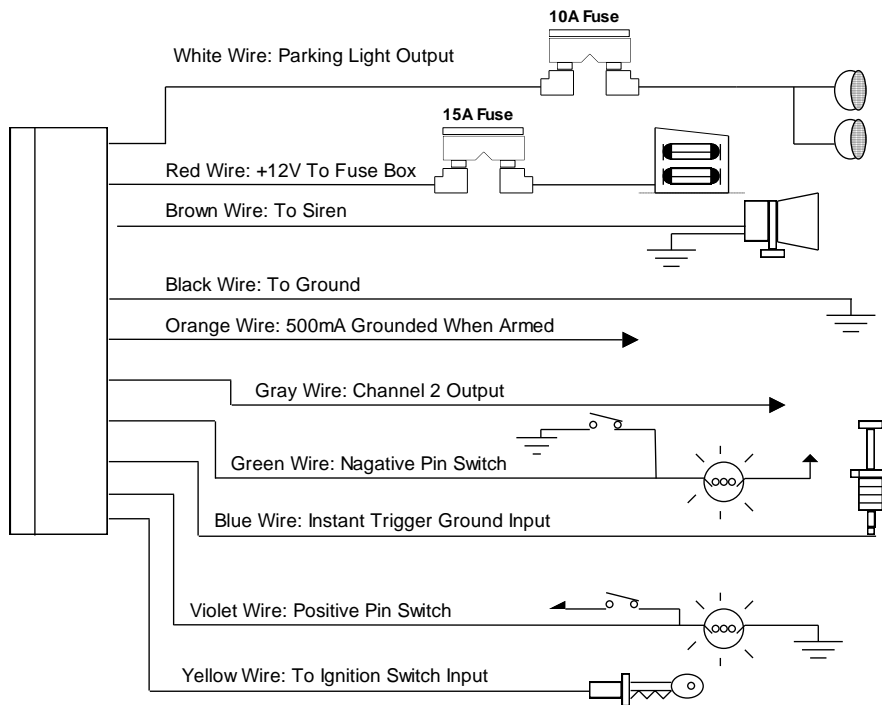
If arming your vehicle, the interior dooming light will turn on, please keep this loop.

If arming your vehicle, the interior dooming light will NOT turn on, please cut this loop.

**INSTALLATION DIAGRAM**



## WIRING DIAGRAM



## PROGRAMMING AND ADJUSTMENT

### A. 5 SELECTABLE FEATURES -

Side of the control module there is selectable 5 features, the settings are as follows:

5 SELECTABLE FEATURES	Keep resistor	Cut resistor
1. No Use		
2. 2 Wire / 1 Wire Disarm	2 Wire	1 Wire
3. 15 seconds entry delay	Yes	No
4. Constant Siren / Horn pulse output	Siren	Horn
5. Arm / Disarm Select - / +	Negative	Positive
6. Passive / Active Arming	Passive	Active

1. Resistor # 1 – NO USE
2. Resistor # 2 -- 2 WIRE / 1 WIRE DISARM SELECTOR  
This alarm can be programmed for either 1 wire or 2 wires disarm operation. Many OEM keyless entry systems use on-board door unlock relays, which usually results in the ability to disarm the aftermarket security upgrade module by unlocking the doors using the door panel unlock switch. Wiring the system for 2 wire disarm will eliminate this problem.
3. Resistor # 3 -- 15 SECONDS ENTRY DELAY  
This alarm can be programming for either instant trigger on the door zone, or for 15 seconds entry delay on the door zone.
4. Resistor # 4 -- SIREN / HORN SELECTOR  
This alarm can be programmed to drive an electronic siren (Siren will keep sounding without interrupt during alarming), or pulse the vehicle's horn. (Horn will interval stop during alarming.)
5. Resistor # 5 -- NEGATIVE / POSITIVE ARM SYSTEM  
This alarm can be programmed to accept either a positive or negative arm input signal. This allows for proper installation into vehicles using 3-wire ground (ground output to power door lock circuit), or 3-wire +12 volt door locking system. (System uses on-board relays that switch a high current +12 volts directly to the door lock motor legs.)
6. Resistor # 6 -- PASSIVE/ACTIVE ARMING SELECTOR  
If you want your alarm that arm automatically within 30 seconds after the ignition switch is turned off and all doors closed, Keep the resistor, if not, cut the resistor.

## OPERATION INSTRUCTION

### A. TRANSMITTER OPERATION:

1. Press transmitter's 'LOCK' button. = Arm & lock the door.
2. Press transmitter's 'UNLOCK' button. = Disarm & unlock the door.

### B. LED INDICATORS:

LED	Function
Off	Disarmed
Slow flashing	Armed
Fast flashing	Passive arming
On - (solid)	Valet mode
1 flash ... pause	Intrusion on current
2 flash ... pause	Intrusion on trunk or hood
3 flash ... pause	intrusion on door pin switch
4 flash ... pause	intrusion on shock sensor

**C. CHIRP INDICATORS:**

Chirp	Function
1 chirp	Arm
2 chirp	Disarm
3 chirp	Defective sensor reminder
4 chirp	Disarm / Intrusion

**D. PARKING LIGHT:**

Parking light	Function
1 flash	Arm
2 flash	Disarm
3 flash	Disarm / Intrusion

**E. ALARM OPERATING CONDITION:**

		ARMING	DISARMING	TRIGGER
1	Siren	1 Chirp	2 or 4 Chirps	Sounding
2	Parking Light	1 Flash	2 or 3 Flashes	Flashing
3	LED Indicator	Slow Flashing	Fast Flashing	Slow Flashing
4	Vehicle Doors	Locking	Unlocking	
5	Starter Interrupt	On	Off	On
6	Dome light		On 30 seconds	Flashing

**F. ACTIVE ARMING:**

1. Turn the ignition key off, exit the vehicle, and close all doors.
  2. Press the ' LOCK' button on transmitter.
  3. The siren will chirp one time, the parking light will flash one time, and the red LED will begin to slowly flash, indicating that the system is armed.
  4. Any time the door lock switch in the vehicle is used to lock the doors while the ignition key is turned off, the system will immediately arm. To lock the doors after entering the vehicle, make sure the ignition key is switched on first. Turning the ignition key on first will stop the system from arming.
- NOTE: DEFECTIVE SENSOR REMINDER: When you leave the vehicle, and a door (trunk or hood) has been left opened, the system will send three chirps to indicate defective sensor occurred. Closing the hood, trunk or door will correct the problem.

**G. PASSIVE ARMING:**

1. Turn the ignition key off, exit the vehicle, and close all doors.
2. The LED will begin to flash rapidly, indicating the system is automatically arming. As an added convenience, the 30 seconds automatic passive arming will not begin until all doors are closed, allow the passengers to exit the vehicle.
3. In 30 seconds, you will hear a single short chirp from the siren, and the vehicle's parking light will flash one time, indicating that the system has armed. At this time, the red LED will begin to flash slowly, providing a visual indication that the system is fully armed.
4. In many cases, when the alarm is allowed to automatically passive arm, there will be a 15 seconds delay after a door is opened before the alarm sound. However, if the system is programmed for instant trigger there will be no delay.

**Important:** When the system is programmed for passive arming, the system will always arm, even when the transmitter has not been used to lock the doors.

**H. PROTECTION WHILE THE SYSTEM IS ARMED:**

1. Opening any door, hood, or trunk will cause the alarm to immediately sound. The alarm will continue to sound for 30 or 60 seconds, then stop and automatically re-arm the vehicle. If the potential thief left a door opened, the alarm will sound for two more alarming cycles, then re-arm and ignore the opened zone.
2. Whenever the system is armed, the LED will slowly flash. This serves as a visual deterrent to potential thief.
3. Whenever the system is triggered, the vehicle's parking light will flash for alarming cycle, attracting added visual attention to the vehicle.
4. Whenever the system is armed, the vehicle's starter will not start.

**I. DISARMING THE SYSTEM:**

1. Press the 'UNLOCK' button on the transmitter.
  2. The siren will chirp two times to indicate the system is disarmed. If the optional illumination feature has been installed, the vehicle's interior light will turn on for 30 seconds or until the ignition key is turned on.
- NOTE: TAMPER DISARMING: If the alarm had been triggered, when you disarm the alarm, the siren will chirp 4 times and the parking lights will flash 3 times and LED will indicate which sensor has been triggered.

**J. OVERRIDE/VALET SWITCH:**

The override/valet switch contains several features.

**1. OVERRIDE FUNCTION:**

The override/valet switch is used in case of an emergency, such as a lost or malfunctions of the transmitter, you can still disarm the system. First turn the ignition switch on, within 15 seconds push the override/valet switch, the siren will stop and the system will be disarmed.

**2. VALET MODE:**

For the people who use key to arm/disarm the system, each time when they open the door under armed conditions they have to enter the valet mode to disarm the system.

If the vehicle is in for service or park in an area with parking attendants, the system will not 'armed' with the switch in valet mode.

- a). To do so, turn the ignition switch on then within 15 seconds (entry delay) push and hold override/valet switch 2 seconds, the red led will turns on indicating the system in 'valet mode'.

NOTE: If the system stays in 'valet mode', the transmitter still can remote operate to lock or unlock the doors. No alarm functions will operate.

- b). To return to normal operation, while the ignition switch is turned on, push and hold override/valet switch 2 seconds. LED will off.

**K. ELIMINATING/RETURN THE ARM / DISARM CHIRPS:**

The normal arming / disarming confirmation chirps can easily be turned on or off using the valet switch. Follow the steps.

1. Turn the ignition key 'ON', then 'OFF'.
2. Within 10 seconds of turning ignition key off, turn push valet switch 3 times.
3. If, before step 1, the chirps were on, then you will hear two short chirps, which indicate the chirps are turned off.
4. If, before step 1, the chirps were off, then you will hear one short chirp, which indicates the chirps are turned on.
5. Whenever the system's power has been disconnected, (for repair or maintenance) the chirps will be 'on' when the power is re-connected. To turn the chirps off, simply follow step 1, 2 and 3.

Note: Whenever the chirps are by-passed, the 4 chirps intrusion indicator will always operate. This feature will always warn you if the vehicle was intruded with in your absence.

**L. DOME LIGHT SUPERVISION:**

The alarm with a unique feature that will turn on your vehicle dome light as following:

1. Upon disarming, the interior lights will remain on for 30 seconds.
2. If the vehicle is intruded, the interior light will flashing for the same duration as the siren.

Note: Turn on the ignition switch or arming the alarm will turn off the dome light.

**M. TRIGGER THE ALARM:**

While the system is in armed conditions, open the doors, hood, trunk or trigger the shock sensor, the siren and parking light will turn on to trigger of an intrusion for 30 or 60 seconds. Then it will stop and automatic reset and re-arm.

If the one of sensors or detectors still active, the alarm system will sound a maximum of three alarming cycles.

Note 1: 'WARN AWAY' features: A pre-warning audible tone from siren and flashing parking light warn the intruder to turn back.

Note 2: Shock sensor exclusion: If activates the shock sensor (connected to 4-pin plug) three times consecutively this system will temporary exclude shock sensor until you disarm the system. This is to prevent your vehicle from triggering all the time. Such as when you park your vehicle in a crowded area where people un-intentionally intrude your vehicle.

**N. SAFETY LOCKOUT SYSTEM:**

This alarm is equipped with a safety lockout system that designs to keep the alarm from arming while you are driving.

**O. POWER ON ARMED SPECIAL FEATURE:**

Most of alarms will be disarmed when the car battery disconnected and re-connected immediately. However, this alarm will be triggered and sirens begin sounding. This prevents the thief stealing your vehicle once he disconnects car battery and re-connect. Setting the override/valet switch to "on" position or turning the ignition switch on will delete this feature.

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.