

KE 470

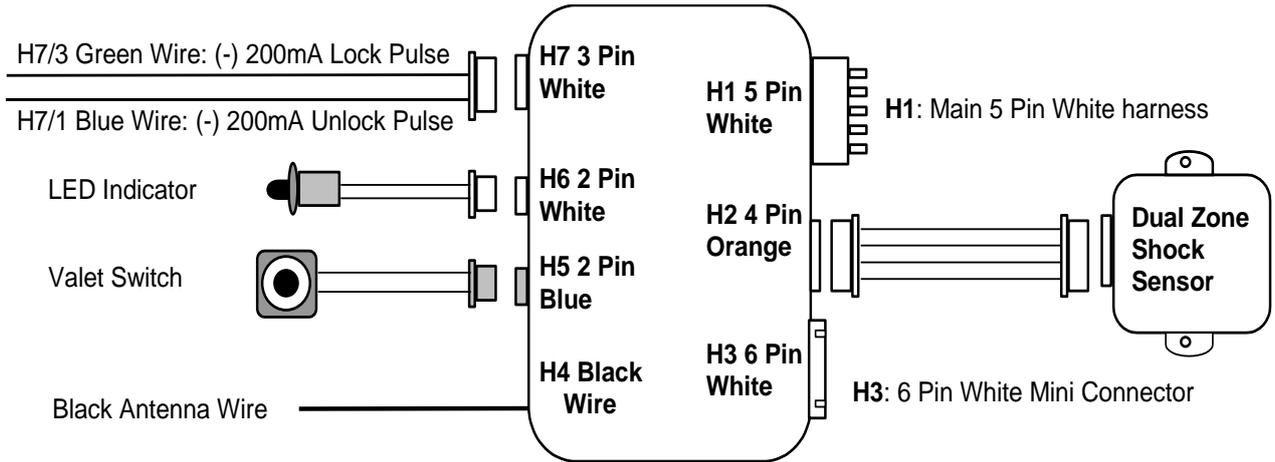
DELUXE 3-CHANNEL KEYLESS ENTRY SYSTEM

Installation And Operation Manual

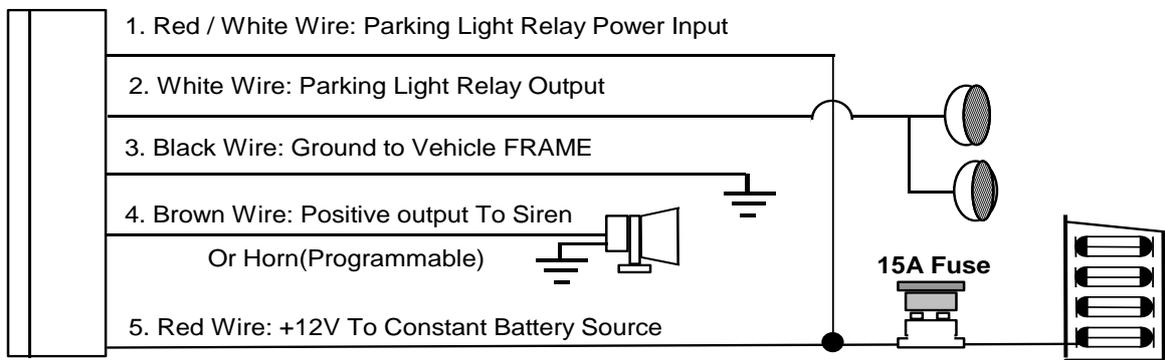


MEGATRONIX
CALIFORNIA, U.S.A.

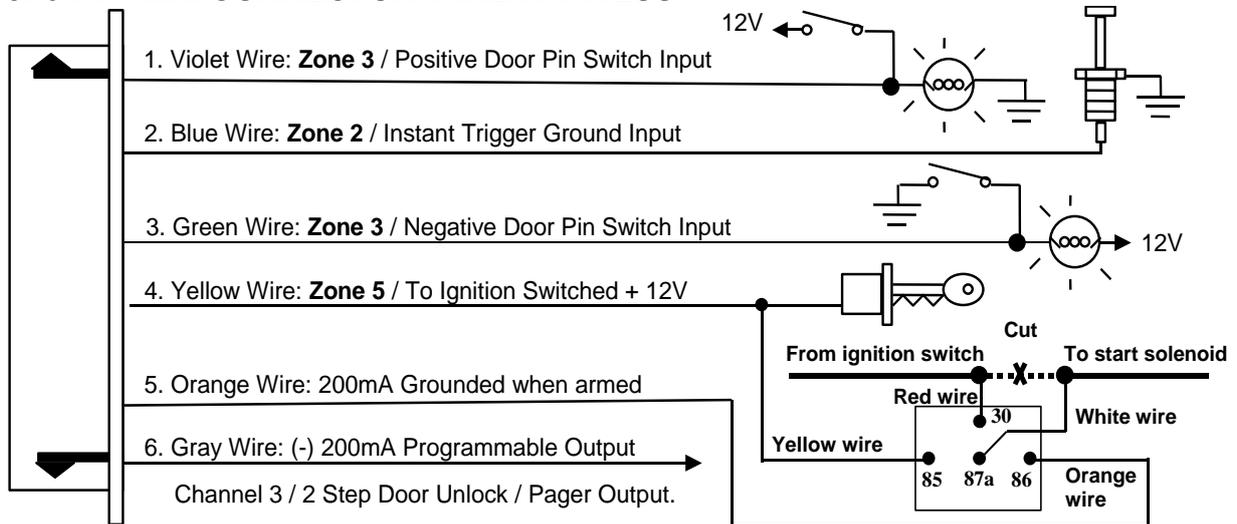
WIRING DIAGRAM



H1: MAIN 5 PIN WIRE HARNESS:



H3: 6 PIN MINI CONNECTOR WIRE HARNESS:



WIRING

Keep wiring away from moving engine parts, exhaust pipes, and high-tension cable. To prevent fraying, tape wires that pass through holes on the firewall. Watch out for sharp edges that may damage wires and cause short circuit.

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

H1: MAIN 5 PIN WIRE HARNESS:

H1/1. Red / White wire – Parking Light Relay Input –

The RED/WHITE wire is the input to the flashing parking light relay. The connection of the RED/WHITE wire will determine the output polarity of the flashing parking light relay.

If the vehicle you are working on has +12 volt switched parking light, you do not need to connect this wire. This wire is already connected to +12 volt.

If the vehicles parking light is with a ground switched, cut the RED/WHITE wire, connect the RED/WHITE wire to chassis ground.

H1/2. White wire – Parking Light Relay Output (+12 V 10A 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). The limitation of the WHITE wire is 10 Amp max. Do not exceed this limit or damage to the alarm and parking relay will result.

H1/3. Black wire – System Ground –

This is 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.

H1/4. Brown wire – Siren Drive or Horn Output – (Set Feature III – 1 Programming)

SIREN DRIVE OUTPUT (Factory default setting)

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

(+) Low Current HORN OUTPUT -- (Set Alarm Feature III – 1 To Horn Output)

This wire is provided to use the existing vehicle's horn as the alarm system's optional warning audible device. It is a transistorized low current output, and should only be connected to the low current positive (+) output from the vehicle's horn switch.

H1/5. Red wire – System Power (+12V Constant) –

The RED wire supplies power to the system. Connect this wire to a constant +12 volt source.

H2. 4 PIN ORANGE CONNECTOR FOR 2 STAGE SHOCK SENSOR



Route the red, black, blue and green wires in the 4 pin white connector from shock sensor to the control module, and plug one end into the shock sensor, and the other end into the mating orange connector on the side of the module.

H3: 6-PIN MINI CONNECTOR WIRE HARNESS.

H3/1. Violet wire – Positive Door Switch Sensing Input –

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

H3/2. Blue wire -- Ground Instant Trigger Input –

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

H3/3. Green wire – Negative Door Switch Sensing Input –

This wire is the ground trigger input wire for negative door pin switch. This wire is the connection for "grounding" type factory door pins. Locate the "common wire" that connects the door pin switches. Make the connection of the GREEN Wire here.

H3/4. Yellow wire – To Ignition Switched +12V –

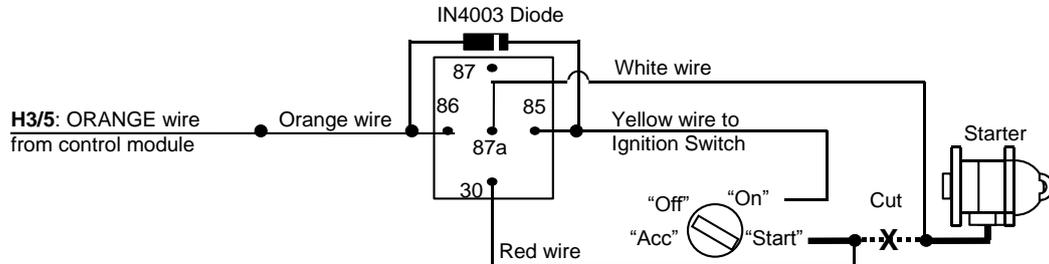
This wire is connected to a switched 12 volts source. This wire should receive "12 volts" when the ignition key is in the "ON" and "START" position. When the ignition is turned "OFF", this wire should receive "0" volts.

H3/5. Orange wire – (-) 200mA Grounded Output When Armed –

This wire will become grounded when the alarm is armed. The current capacity of this wire is 200mA. This output can control a starter disable. When an intrusion is detected and the system is triggered, the vehicle is prevented 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, use 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 in the "START" position.
 - c). After locating the correct wire, cut it in half, try to start the vehicle. The engine should not "crank over".
 - d). When the extend wires are needed, they must be exactly same gauge as the cut wire. Connect the cut wire from the key switch to the RED wire (pin #30) of the relay, and connect the starter wire to the WHITE wire (pin #87a) of the relay.
 - e). Connect the ORANGE Wire from the control module to the ORANGE wire (pin #86) of the relay.
 - f). Connect the Yellow wire (pin #85) of the relay to a switched 12 volts source from the ignition switch.
- NOTE: If more than one electronic device will be connected to the ORANGE Wire, it will be necessary to isolate the connection of each device control wires with a 1N4003 diode.



H3/6 . Gray wire – (-) 200mA Programmable Output – CHANNEL 3 OUTPUT (Factory default setting)

This will become a 1 second pulse ground by press and hold **Ⓜ / AUX** button on the transmitter for two seconds. The current capacity of this wire is 200 mA. This feature allows you to remotely control the trunk release or another electric device.

2 STEP UNLOCK OUTPUT (Set Feature III – 2 Programming to “2 Step Door Unlock Output)

The 2 step unlock feature will work for the most fully electronic door lock circuit. The vehicle must have an electronic door lock switch (not the lock knob or key switch), which locks and unlocks all of vehicle's doors. When wired for this feature, press the **🔓** button one time to disarm the alarm and unlock the driver's door only. If, press **🔓** button two times within 3 seconds, the alarm will disarm and all doors will unlock.

PAGER OUTPUT (Set Feature III – 2 Programming to “PAGER Output)

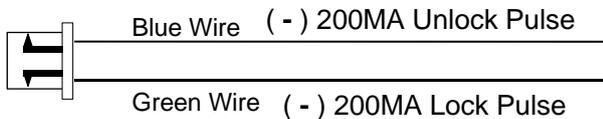
This wire provides a negative output, when the alarm is triggered. The current capacity of this wire is 200mA. For optional electronic device in this system, please connect to an additional relay. (i.e. Pager interface)

H4: RF ANTENNA - BLACK THIN WIRE (DO NOT CUT!!!)

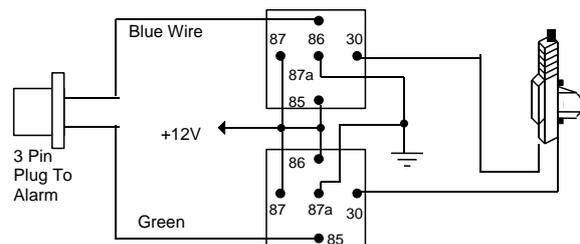
The black thin wire on control module is the receiver antenna wire. **Antenna placement is very important!** Ensure that it is unwrapped and stretched out with the last 6" straight and keep it away from large metal objects or chassis for best reception.

H7: 3 PIN DOOR LOCK CONNECTOR:

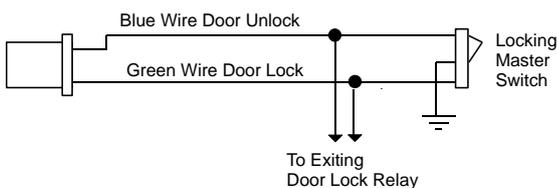
3 Pin Mini-Molex Connector



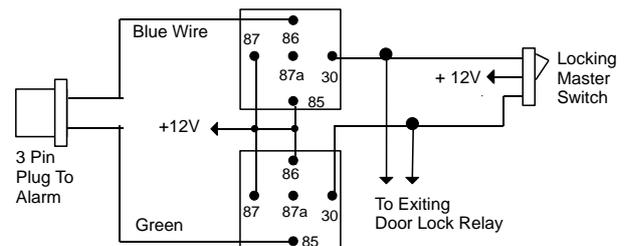
INSTALL NEW DOOR LOCK MOTOR



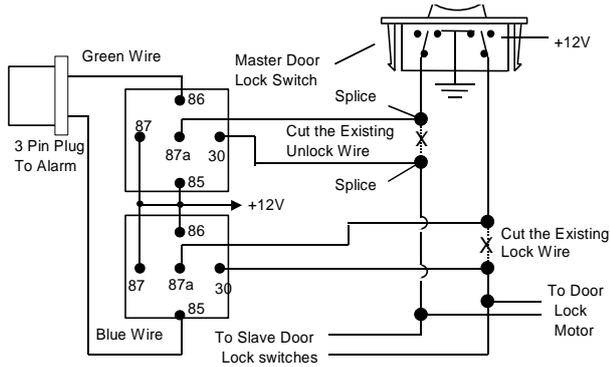
NEGATIVE TRIGGER DOOR LOCK SYSTEM



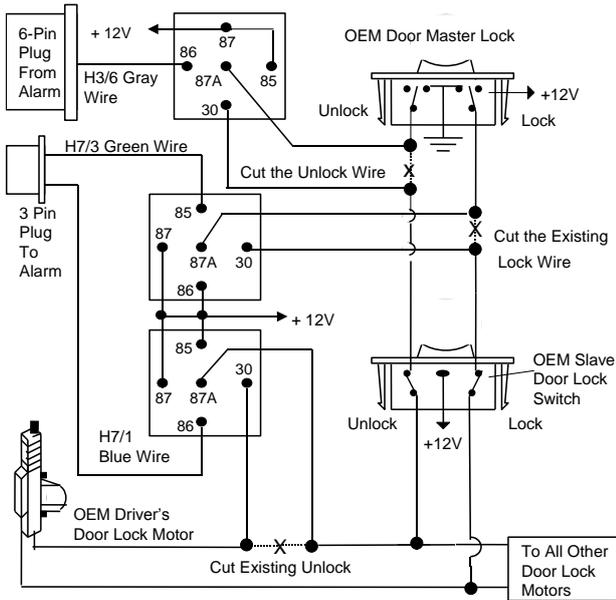
POSITIVE TRIGGER DOOR LOCK SYSTEM



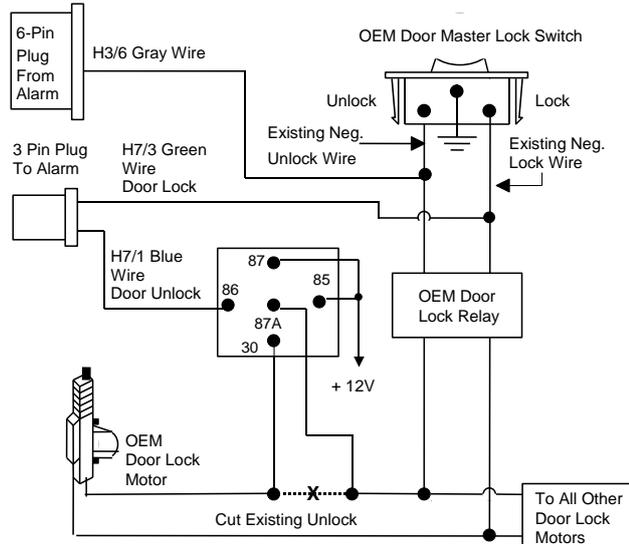
5-WIRE ALTERNATING DOOR LOCK



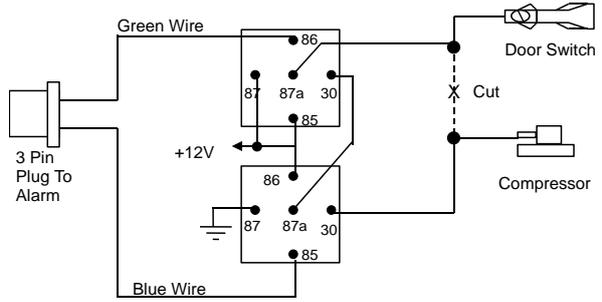
2 STEP DOOR UNLOCK WIRE CONNECTION FOR 5 WIRE ALTERNATING DOOR LOCKS



2 STEP DOOR UNLOCK WIRE CONNECTION FOR GROUND SWITCHED DOOR LOCKS



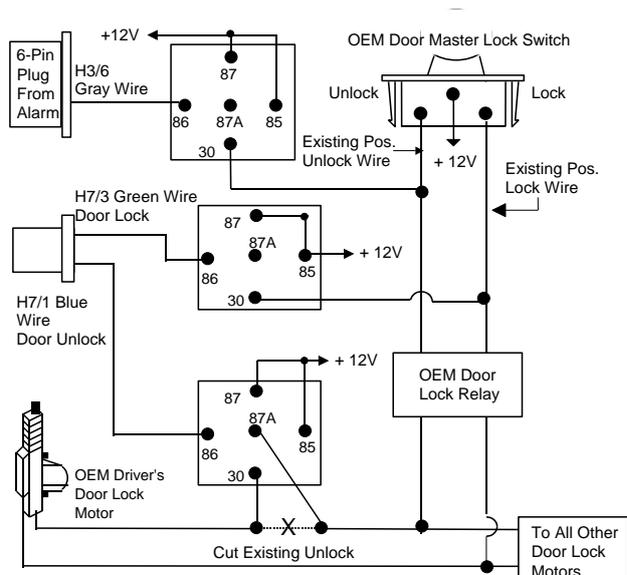
VACUUM OPERATED CENTRAL LOCKING



VACUUM OPERATED DOOR LOCKING SYSTEM: (TYPICAL OF MERCEDES BENZ AND AUDI)

Locate the wire under the driver's kick panel. Use the voltmeter connecting to ground, verify that you have the correct wire with the doors unlocked, the voltmeter will receive "12 volts". Lock the doors and the voltmeter will read "0 volt". Move the alligator clip to +12V and the voltmeter will receive "12 volts". Cut this wire and make connections. Be sure to program door lock timer to 3 seconds (See Feature II - 1 Programming).

2 STEP DOOR UNLOCK WIRE CONNECTION FOR POSITIVE SWITCHED DOOR LOCKS



PROGRAMMING

A. PROGRAMMING TRANSMITTER:

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

1. Turn the Ignition switch 'OFF/ON' 3 TIMES and stay in the ON position. Within 15 seconds.
2. Push the Valet switch 3 times and hold it in on the 3rd push until a long chirp is heard. Then release the valet switch. You are now in the Transmitter programming mode.
3. Press and hold any button of the transmitter until the siren responds with a confirming chirp, indicating the signal has been stored into memory.
4. If you have additional transmitters (up to 4) that need to be programmed, repeat step 3 for each transmitter.

Exit: Turn Ignition to 'OFF' position, or leave for 15 seconds. 3 long chirps & 3 parking light flashes confirm exit.

B. ALARM FEATURES PROGRAMMING:

ALARM FEATURE "I" PROGRAMMING:

1. Turn the Ignition switch 'ON/OFF' 3 TIMES and stay in OFF position.
2. Push the Valet switch 2 times and hold it in on the 2nd push until **one** chirp with a long chirp is heard. Then release the valet switch. You are now in the Alarm feature 'I' programming mode.
3. Press and release the transmitter button 'A' corresponding to the feature 'A' you want to change.
 - a. The siren chirps and LED pause will indicate newly setting.
 - b. The system would advance to [2] LED flash, [2] chirp. (The factory default setting is always [1] LED flash, [1] chirp.)
4. Depress the transmitter button 'A' again to change the feature again. Simple keep re-depressing the transmitter button 'A' again until the module advances to your desired setting.
5. Depress the transmitter button 'B' corresponding to the feature 'B' you want to program.

Press Transmitter Button	One Chirp / LED one pulse Factory Default Setting	Two Chirps / LED two pulse
1	Chirps on	Chirps off
2	Automatic Rearm On	Automatic Rearm Off
3	Instant Door Ajar Warning	45 seconds Delay Door Ajar error chirp

Exit: Turn the Ignition to 'ON' position, or leave it for 15 seconds. 3 long chirps are heard to confirm exit.

ALARM FEATURE "II" PROGRAMMING:

1. Turn the Ignition switch 'ON/OFF' 3 TIMES and stay in OFF position.
2. Push the Valet switch 4 times and hold it in on the 4th push until **two** chirps with a long chirp is heard. Then release the valet switch. You are now in the Alarm feature 'II' programming mode.
3. Press and release the transmitter button 'A' corresponding to the feature 'A' you want to program.

Press Transmitter Button	One Chirp / LED one pulse Factory Default Setting	Two Chirps / LED two pulse	Three Chirps / LED three pulse
1	0.9-second Door lock pulses	3.0-second Door lock pulse	Double pulse unlock
2	Active arming	Passive arming without passive door locking	Passive arming with passive door locking
3	With ignition controlled door locks & unlocks	Without ignition controlled door locks & unlocks	

Exit: Turn Ignition to 'ON' position, or leave it for 15 seconds. A 3 long chirps to confirm exit.

ALARM FEATURE "III" PROGRAMMING:

1. Turn the Ignition switch 'ON/OFF' 3 TIMES and stay in OFF position.
2. Push the Valet switch 6 times and hold it in on the 6th push until three chirps with a long chirp is heard. Then release the valet switch. You are now in the Alarm feature 'III' programming mode.
3. Press and release the transmitter button 'A' corresponding to the feature 'A' you want to program.

Press Transmitter Button	One Chirp / LED one pulse Factory Default Setting	Two Chirps / LED two pulse	Three Chirps / LED three pulse
1	H1/4 Brown Wire = Siren Output	H1/4 Brown Wire = Horn Output	

2 	H3/6 Gray Wire = Trunk (Channel 3) Output	H3/6 Gray Wire = Two Step Door Unlock Output	H3/6 Gray Wire = Pager Output
3  / AUX	Car Jacking Off	Car Jacking On	

Exit: Turn Ignition to 'ON' position, or leave it for 15 seconds. A 3 long chirps to confirm exit.

PASSWORD PIN CODE SETUP:

1. Turn the Ignition switch 'ON/OFF' 3 times and stay in the OFF position.
2. Push the Valet switch **8** times and hold it in on the **8th** push until **four** chirps with a long chirp is heard. Then release the valet switch.
3. Press and release the transmitter  / **AUX** button once, 2 LED flashes, 2 siren/horn chirps indicate you are in features "Password Pin Code Programming mode".
4. Within 15 seconds, begin to enter your chosen 9ths digit by pressing and releasing the valet Switch from 1 – 9 times.
5. Finish by turning the ignition switch to the "On" position.

If the new password code was accepted, the unit would report the newly entered code, by flashing the LED, The unit will report the new code three times with a one-second pause between each code.

Note: If 15 seconds of inactivity expire, the unit will revert to the last successfully stored code. 3 long chirps to confirm exit. Will revert to the last successfully stored code

Delete Password Pin Code (Override Without Password Pin Code: (Factory default setting))

1. Turn the Ignition switch 'ON/OFF' 3 times and stay in the OFF position.
2. Push the Valet switch **8** times and hold it in on the **8th** push until **four** chirps with a long chirp is heard. Then release the valet switch.
3. Within 15 seconds, press and hold the transmitter  / **AUX** button for 3 seconds. One long chirp to confirm Deleted the Password Pin Code.

OPERATION MANUAL

A. TRANSMITTER OPERATION:

Transmitter Button	System Function	Remark
	Arm & Lock door	
-	Arm & Delete The Shock Sensor	Press twice within 3 seconds.
	Car Locator	Upon Armed.
(3 seconds)	Panic function	Press and hold for 3 seconds
/ AUX -	Arm System and Hidden Alarm Function	Press within 3 seconds
	Disarm & Unlock Door	
-	Disarm & Two Step Door Unlock	Press twice within 3 seconds.
/ AUX (2 sec)	Pop Trunk Release	Press and Hold for 2 seconds
/ AUX (3 sec)	Panic function	If the H3/6 Gray Wire is not Trunk release Output (See Alarm Feature III-2)
+	Silent Arm / Disarm	Upon Ignition off
+ (2 seconds)	Activate Car-Jacking	Upon Ignition on

B. LED INDICATORS:

LED	Function
Off	Disarmed
Slow flash	Armed
Fast flash	Passive arming
On (solid)	Valet mode

LED	Function
2 flashes... pause	Trigger on trunk/hood
3 flashes... pause	Trigger on door switch
4 flashes... pause	Trigger on Dual Zone Shock Sensor
5 flashes... pause	Trigger on Ignition switch

C. CHIRP INDICATORS:

Chirp	Function
1 chirp	Arm
2 chirps	Disarm
3 chirps	Ajar Warning
4 chirps	Disarm / Intrusion
6 chirps	Car Locator

D. PARKING LIGHT:

Parking light	Function
1 flash	Arm
2 flashes	Disarm
3 flashes	Disarm / Intrusion
12 flashes	Car Locator

E. ALARM OPERATING CONDITION:

	Siren	Parking Light	LED	Doors	Starter disable	Pager
1. Arming	1 Chirp	1 Flash	Slow flash	Locking	On	
2. Disarming	2 or 4 Chirps	2 or 3 Flashes	Off or Fast flash	Unlocking	Off	
3. Trigger	Alarming	Flashes	Slow flash		On	On
4. Panic	Alarming	Flashes	Slow flash	Locking	On	

F. ACTIVE ARMING – LOCK & ARM:

1. Press button on transmitter.
2. The siren will chirp once and parking light will flash once indicating that the system is now armed. The vehicle doors will lock upon arming when interfaced with the security system.

AJAR WARNING: If the siren sounds 3 chirps, then you have left a door, trunk, or hood lid ajar. (See Feature “I - 3 Programming)

SILENT ARMING / DISARMING: Press the and buttons at same time on the transmitter to arm or disarm your security system. No chirp sound will be heard. Arm / disarm confirmation will be through the vehicles parking lights only.

SHOCK SENSOR BY-PASS: Pressing the button on the transmitter twice within 3 seconds will arm the security system and bypass the shock sensor connected to 4 pin plug. The system will chirp one additional time to confirm sensor bypass mode was activated. The sensor bypass feature is programmed to activate for one arming cycle only. The security system will return to normal operation during the next arming cycle.

HIDDEN ALARM FUNCTION: Press the / **AUX** button first; within 3 seconds press the button to activate the hidden alarm function. The security system will arm and with “Hidden Alarm Function”. The siren / horn will be silenced even if the sensor is triggered in the armed status.

G. PASSIVE ARMING: (See Feature “II - 2” Programming)

Active arming / disarming is controlling your security system via the remote transmitter. This security system is equipped with an optional Passive Arming feature, which allows the security system to arm 30 seconds after the last door is closed. Operation is as follows.

1. Turn the ignition to the "OFF" position and exit the vehicle.
2. After all entrances are closed, the security system LED will flash fast for 30 seconds. If you reopen any door / hood / trunk, the security system LED will stop flashing. It will begin flashing again once the vehicle entrances are all closed.
3. After the 30-second timer has elapsed, the security system will automatically "ARM". The siren will chirp [1] time and the parking lights will flash [1] time.

PASSIVE DOOR LOCKING: (See Feature "II - 2" Programming)

The vehicle doors will automatically lock after passive arming cycle has been completed.

H. ACTIVE DISARMING – UNLOCK & DISARM:

1. Press  button on the transmitter.
2. The siren will chirp twice and parking light will flash twice to indicating that the security system is now disarmed. The vehicle doors will unlock disarming when interfaced with the security system.

TAMPER DISARMING: If alarm triggered, upon disarm the system, siren chirps 4 times, parking lights flash 3 times.

TWO STEP DOOR UNLOCK: (See Feature III – 2 Programming.) This feature will independently unlock the driver door only when disarming the security system. Pushing the  button on the transmitter a second time within 3 seconds will unlock the entire vehicle.

AUTOMATIC RE-ARM (See Feature "I - 2" Programming): If this feature is selected, the security system will automatically re-arm itself 60 seconds after disarming with remote transmitter. Automatic rearm will cancel if any door is opened before the 60 second timer has elapsed.

I. DISARMING WITHOUT A TRANSMITTER

VERRIDE THE ALARM WITHOUT PASSWORD PIN CODE: (Factory Default Setting)

The Override function may be used if the remote transmitter is lost or inoperative.

1. Enter the vehicle and turn the ignition switch to 'ON' position. (Alarm will sound.)
2. Within 10 seconds push and release the valet switch

The alarm will stop sounding and enter the disarm mode. You can now start and operate the vehicle normally.

VERRIDE THE ALARM WITH PASSWORD PIN CODE:

Unlike valet switch that can be easily found and defeated, this security system allows the consumer to program a password pin code, offering a higher level of security.

1. Enter the vehicle and turn the ignition switch to 'On' position. (Alarm will sound.)
2. Within 5 seconds, enter your chosen 10ths digit by press and release the Valet Switch.

(When finished above procedures, system's siren stop alarming, parking light stop flashing, but the vehicle cannot be start and drive away.)

3. Turn the ignition switch "OFF" position.

[4] Chirps form siren/horn, [3] flash from parking light and LED will turn off to indicate the system was disarmed.

Note 1: You must override the alarm within 60 seconds. If not, the system will automatically re-arm.

J. VALET MODE:

The valet switch allows you to temporarily bypass all alarm functions, eliminating the need to hand your transmitter to parking attendants or garage mechanics. When the system is in valet mode, all alarm function are bypassed, however the remote panic feature and remote door locks will remain operational.

Enter Valet Mode: 1. Turn the ignition to "ON" position.

2. Push and hold valet switch for 2 seconds until the LED turns on. The LED will remain on as long as the system is in 'valet mode'.

Exit Valet Mode: 1. Return to normal operation, turn ignition 'ON'.

2. Push and hold valet switch for 2 seconds, the LED will turn off indicating the system has exited the valet mode.

K. PANIC FUNCTION:

The transmitter can be used as a remote panic switch to manually trigger the alarm in case of emergency.

1. Press and hold the  button on the transmitter for 3 seconds. The alarm will immediately sound.
2. To stop the alarm, press and hold  or  button on the transmitter, the panic mode will be turned off immediately.
3. If the button is not pressed, the alarm will automatically stop after 30 seconds.

Note: If the H3/6 Gray Wire is not Trunk release Output, (See Alarm Feature III-2 Programming), Press and hold the  / **AUX** button on the transmitter for 3 seconds. The alarm will immediately sound.

L. TRIGGER THE SYSTEM

When armed, your vehicle is protected as follows:

1. Light impacts will trigger the warn-away signal. A long chirp from siren/horn.
2. Heavy impacts / Doors open / Hood open / Trunk open / Turns on the ignition switch will trigger the programmed sequence.

The starter disable relay (if installed) prevents the vehicle's starter from cranking. The siren and parking lights will turn on to alerting of an intrusion for 30 seconds. Then it will stop and automatic reset and re-arm. If the one of sensors or detectors is still active, alarm system will sound a maximum of 6 times.

M. ANTI CAR-JACKING

Warning: If you do not need the car jacking function in this alarm system, be sure to set car jacking feature "OFF". This systems default setting is car-jacking "OFF". (See Alarm Feature III - 3 Programming.)

ACTIVE ANTI CAR JACKING:

1. Upon ignition is "On", press and hold the transmitter  and  buttons at the same time for 2 seconds. The parking lights will turn on for 1.5 seconds to indicate the system enters the car-jacking mode.
2. Once the system is in car-jacking mode, if you are forced from the vehicle, the system will be triggered when the door is opened and closed while the ignition is "ON".

TRIGGER THE CAR JACK MODE:

- a). 50 seconds after the system has been triggered, the siren will start chirping for 15 seconds.
- b). During this 15 second period of chirping, you will be alerted to push the valet switch once to turn off the car-jacking feature. If not, it will enter second timer car jacking.
- c). 65 seconds after the system has been triggered, the siren starts alarming and the parking light starts flashing.
- d). 90 seconds after the system has been triggered
 1. The siren still alarming and the parking light flashing, and
 2. The starter disable will activate to prevent the vehicle from starting.
 3. It will remain active until the vehicle's battery power is exhausted.

OVERRIDE THE SYSTEM TO TURN OFF CAR JACKING:

Turn the ignition switch from OFF to ON, and within 10 seconds push valet switch, the siren will stop and the system disarmed

Note: If password pin code is used to protect vehicle security, you will need to use it to disarm the system.

O. IGNITION CONTROL DOOR LOCKS. (See Feature II – 3 Programming.)

If the vehicles door locks have been interfaced to the security system, the system will automatically lock the vehicle's doors when the ignition is turned "ON" and /or unlock the vehicle's doors when the ignition is turned "OFF".

P. TRUNK RELEASE. (See Feature III – 2 Programming.)

Press and hold  / **AUX** button on transmitter for 2 seconds to remote control the trunk release or another electronic device.

Q. CAR LOCATOR

Press the  button on the transmitter to active car locator function on the alarm. The siren will chirp 6 times. The parking light will flash 12 times for you to locate your car.

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.

