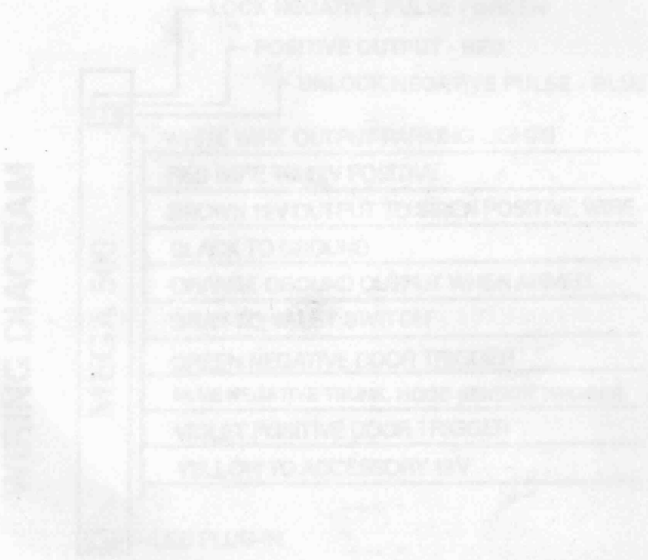

R410-150-320

MEGALARM®

VEHICLE SECURITY SYSTEM

Wiring Instructions

Model MEGA500C

Rolling Code System
433.92 MHZ

"The MEGA Protection"™

From
MEGATRONIX
U.S.A.

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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 12 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	13.8 volts
Fuse Ratings- Red Power Wire	15amp
White Parking Flash wire	10amp
Current Consumption	less than 15mA Armed or Disarmed
Arming Delay	3 seconds
Alarm Timer	60 seconds with 2 Cycle Limitation
Passive arming timer	30 seconds from last doors closing
Grounded output capacity (Orange wire)	500mA maximum
Siren wire capacity (Brown wire)	2 Amps
By-pass zones	3 Zones
Receiver channel	1 Channel
Digital code	Tri-State
Learning Limitations	4 Different 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 status LED 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

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. These are 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:
1. Do not connect the wire harness to the control module until all wiring to vehicle is complete.
2. This alarm will be armed when connecting the main 10-wire harness. After the unit is completely installed, connect the override/valet switch to the control module first and set the override/valet switch to "ON" position, then connect the main 10-wire harness to module.

A. MAIN 10-WIRE HARNESS

1. 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.

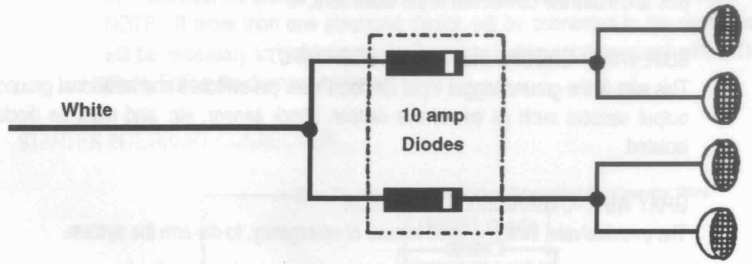
NOTE: If you plan to program the alarm with current sensing, this connection "must" be made at the permanent +12 volt live point of the fuse controlling the interior courtesy light of the vehicle.

2. 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.

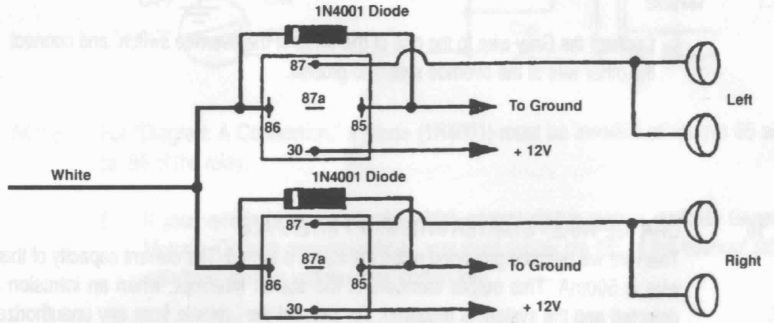
3. YELLOW WIRE - SYSTEM SWITCHED POWER (12V "ACC" ON)
This wire is connected to a switched 12 volt source. This wire should receive "12 volts" when the ignition key is in the "on" and "start" positions. When the ignition is turned off, this wire should receive "0" voltage.

4. WHITE WIRE - FLASHING PARKING LIGHT OUTPUT (+12V 10A)
When the alarm is triggered, this wire provides pulse +12 volts, 10 amp output. This wire must be connected to the positive wire of the parking light.

NOTE: When left & right parking lights are on separate circuits then diodes or relays must be used to connect each parking light side. Must use relays for headlights because headlights can draw up to 20 amps.



NOTE: When the optional parking light relays or headlight relay connected to the white, a diode (1 N4001) must be installed to the pin 85 and pin 86 of the relay.



5. 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.

6. 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.

7. VIOLET WIRE - POSITIVE DOOR SWITCH SENSING INPUT

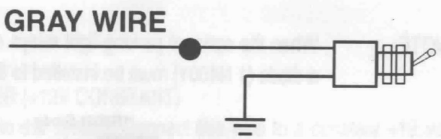
This wire is the positive trigger input for positive door pin switch. This wire is for "positive" type factory door pins (most Fords). Locate the "common wire" for all door pins and make the connection of the violet here.

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, shock sensor, etc. and must be diode isolated.

9. GRAY WIRE -OVERRIDE/VALET SWITCH

The override/valet switch is used in case of emergency, to dis-arm the system.



Connect the Gray wire to the one of the wires of the override switch, and connect the other wire of the override switch to ground.

10. 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.

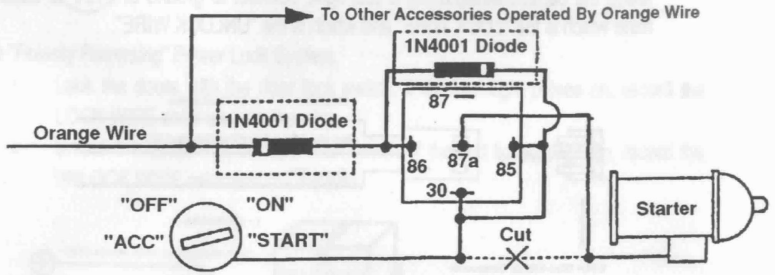
c). After locating the correct wire, cut it in half and try to start the vehicle. If the engine does not crank over," then the correct wire has been located.

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. Follow the diagram enclosed.

STARTER INTERRUPT CONNECTION



NOTE: For "Diagram A Connection," a diode (1N4001) must be installed to the pin 85 and pin 86 of the relay.

6. If your vehicle is equipped with a high current starter system (typically General Motors). On high current ignitions, you must supply pin #85 of the interrupt relay with "true" ignition voltage from ignition key.

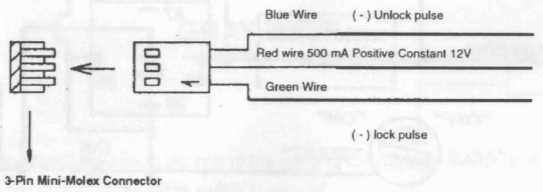
B. RF ANTENNA - BLACK THIN WIRE

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.

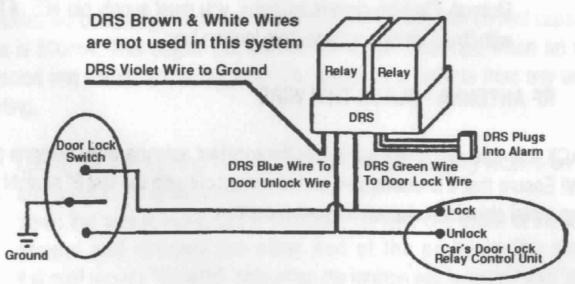
C. 3-PIN PLUG FOR DOOR LOCK CIRCUIT CONNECTION

A 3-pin connection can be made on the side of alarm for door lock. 3-pin white plug for door lock connector will provide a pulsed ground output to the factory door lock control relay. The current capacity of this wire is 200 mA.

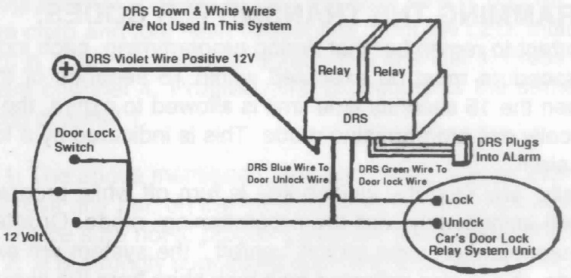
1. 3-WIRE AND 5-WIRE POWER LOCK SYSTEM:
   Locate the door's central locking switch and record the color code of its wires. Look for the same wires under the dash or in the kick panel. (If there is no central locking switch, the door locks are activated by vehicle's door key.) Once you've found the correct wires, using a test light, 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.



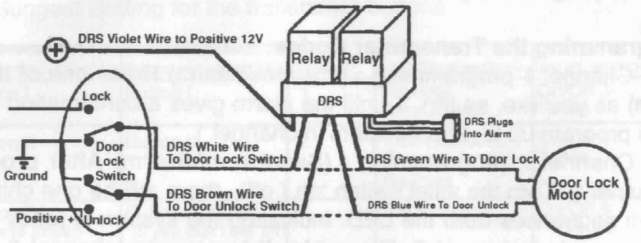
b). 3-Wire "Positive Trigger" Power Lock System.



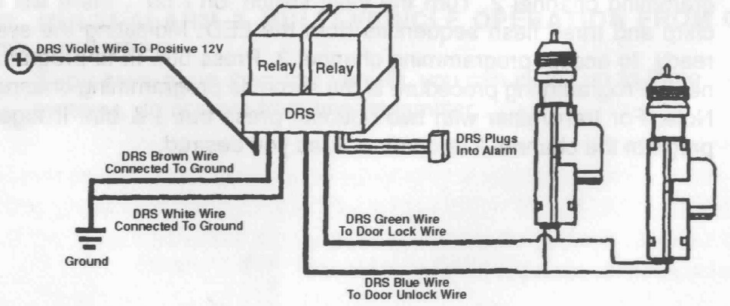
c). 5-Wire "Polarity Reversing" Power Lock System.

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:



PROGRAMMING AND ADJUSTMENT

A. PROGRAMMING THE TRANSMITTER CODES:

It is important to remember that during programming, each individual step of the procedure must be executed within 15 seconds of the previous step. When the 15 seconds time limit is allowed to expire, the system will automatically exit programming mode. This is indicated by a long " chirp " from the siren.

Additionally, any time the ignition key is turn off while programming, the system will immediately exit the programming mode. Or after you learn all the channels, turn valet switch " on/off " the system will exit programming mode, this is also indicated by a long chirp from the siren.

1. Enter the Programming Mode:

First the system should be in disarm condition, turn the ignition switch ' on ', then the valet switch ' on / off ' three times. You will hear one chirp, one flash sequence from the LED, indicating the system is ready to accept programming channel 1, or arm/disarm and panic functions.

2.Programming the Transmitter Codes: (Each channel has up to 4 code spaces)

a.). Channel 1 programming : (For arm/disarm) Press one of the buttons (btn) as you like, as btn. 1 until the alarm gives a confirmation chirp. You can program up to 4 transmitters in channel 1.

b). Channel 2 programming : (Silent arm/disarm) After programming channel 1. Turn the valet switch 'on / off' , there will be one chirp and two flash sequences from the LED. Indicating the system is ready to accept programming channel 2. Press btn. II to program channel 2. Programming procedure is the same as programming channel 1.

c). Channel 3 programming : (For channel 3 upgrade model) After programming channel 2. Turn the valet switch 'on / off' , there will be one chirp and three flash sequences from the LED. Indicating the system is ready to accept programming channel 3. Press btn. III to program channel 3. Programming procedure is the same as programming channel 1.

Note: For transmitter with two buttons, press btn. I & btn. II together to program the channel 3 or channel 4, as you desired.

d). Channel 4 programming : (for car locator, upgrade model) After programming channel 3. Turn the valet switch 'on / off' , there will be one chirp and four flash sequences from the LED. Indicating the system is ready to accept programming channel 4. Press btn. IV to program channel 4. Programming procedure is the same as programming channel 1.

Note 1: The above mentioned programming is only an example, you can use any btn. on the transmitter to program Channel 1, 2, 3, and 4. But be sure not to program different channels on the same btn.

Note 2: It is strongly suggested upon first installation, that all 4 code programming spaces be used up on each channel. Because some codes are taught to the alarm for testing purposes, when the alarms are being computer tested at the factory.

Note 3: If the channel 2, channel 3 or channel 4 is undesirable, please use channel 1's button to program the undesirable channel again. (Also to use up 4 code programming spaces)

Suggest Setting for the transmitter buttons

4 BTN. TRANSMITTER	2 BTN. TRANSMITTER	CHANNEL	SYSTEM FUNCTION	VALET SWITCH	LED
Button I	Button I	1	Remote Arm/Disarm	On/Off 3-Times	1-Flash
Button II	Button II	2	Trunk Release Passive Arming By-Pass	On/Off 4-Times	2-Flash
Button IV (upgrade model)	Button IV (I+II) *(If you didn't set btn I & II on channel 3)*	4	Car Locator	On/Off 6 Times	4-Flash

B. MULTI-ALARM & MULTI-VEHICLE OPERATION FROM ONE TRANSMITTER

If you have more than one vehicle, you can install up to three alarm systems, to operate from one transmitter.

C. 4 PROGRAMMABLE WIRE LOOPS

Open slide door of the control module to locate the progammable wire loops, and make preliminary setting as follows:

Wire Loop Color	Function	With Wire Loop	Cut the Wire Loop
Green	Current sensing	ON	OFF
Yellow	Passive door lock	W/ door lock	W/O door lock
Gray	Arming select	Passive Arming	Active Arming
Blue	Ign. Cntrl. Doorlock	ON	OFF

1. GREEN WIRE LOOP - CURRENT SENSING SELECTOR

The "GREEN WIRE LOOP" is for programming the current sensing circuit. This will activate the alarm through the courtesy light activation while opening any door.

a. If your vehicle is equipped with an electric cooling fan (switch off the ignition and remove the key, the fan continues running) the "GREEN WIRE LOOP" must be cut and taped at the end.

b. Some GM vehicles have a 2-minute computer timing circuit to check the vehicle's door to see if it is closed, allowing the vehicle's door handle touch control to turn on your dome lights when you touch the door handle. This action will trigger the alarm while the alarm is armed. Prevent this situation: on these cars, the "GREEN WIRE LOOP- should be cut and taped at the end.

2. YELLOW WIRE LOOP - PASSIVE DOOR LOCK SELECTOR

The vehicle's door will automatically lock after 10 seconds when passive armed, The above features can be selected as you desire.

3. GRAY WIRE LOOP-ARMING SELECTOR

This wire loop is used to program the passive/active arming circuit.

a.) For permanent passive arming only, keep the gray wire loop.

b.) For permanent active arming only, cut the gray wire loop and tape at the end.

4. BLUE WIRE LOOP-IGN. CONTROLLING DOORLOCKING

The vehicle's door will automatically lock after ignition key is turned "on" if all doors are closed. If any door is open then doors will not lock from this feature to prevent accidentally locking yourself out of the vehicle. The doors will automatically unlock after the ignition key is turned "off." The above features can be selected as you desire.

TROUBLESHOOTING

A. NO CHIRP FROM THE SIREN AFTER PLUGGING THE MAIN WIRE HARNESS INTO THE ALARM HOUSING:

1. Check the red wire from the control module which must have power.
2. Check the black wire from the control module which must have a good chassis ground.
3. The brown wire from the control module must be connected to the red wire of the siren and the black wire coming from the siren to a good chassis ground.

After checking, reconnect the main wire harness.

B. THE ALARM SYSTEM CANNOT PROGRAM/LEARN 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.

After checking, re-program the transmitter codes.

C. RF TRANSMITTER:

1. 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.

2. If arming and disarming cannot be accomplished from at least 20 feet from the vehicle repeat the following steps to "fine tune" your transmitter:

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

b. Insert a small plastic screwdriver into the turning capacitor (A).

c. Press and hold down the transmitter button (B) at normal switching distance from the vehicle (make sure the transmitter LED is lit up).

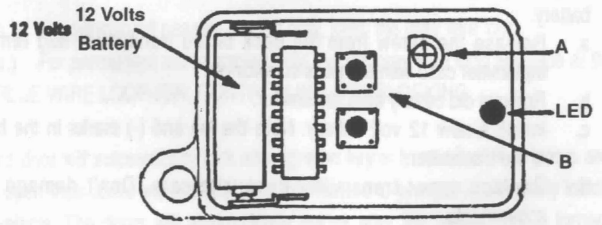
d. Slowly and slightly rotate the turning tool clockwise and listen for the alarm to "chirp." If you hear no "chirp" from the siren within 1/8" of rotation STOP! Start rotating the turning tool in a counter clockwise direction until you hear the "chirp" from the siren.

e. Once the alarm is active stop, the turning process release and re-press the transmitter button (B):

i.) If no "chirp" from siren you have overturned the tune point of the turning capacitor. Slowly rotate the turning tool in the opposite direction until you hear a "chirp" from the siren and test again.

ii.) If it has a "chirp" from the siren then replace upper transmitter case with care not to damage the inside components.

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



D. 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.)ENTER TEST MODE:

a.)Under disarm condition turn the ignition switch 'on / off'

b.)Turn the valet switch 'on & off' three times

c.)You will hear one chirp from the siren, which confirms you are now in the test mode.

2.)TESTING THE SENSORS AND DETECTORS

Audible tones Circuit/Trip function

1 Tone indicates - current sensing circuit

2 Tone indicates - trunk or hood circuit

3 Tone indicates - door switch circuit

3. EXIT TEST MODE:

Turn the ignition switch 'on , you will hear 2 chirps from the siren, to confirm exit test mode. Or you can press the arm/disarm btn. to exit the test mode.

TROUBLESHOOTING:

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

1.) Current Sensing circuit:
Before testing the current sensing circuit, disconnect the door switch sensing (Green and Violet wires) to the control module.

Opening the door =1 tone from the siren.

If no tone from siren after opening the door:

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.

2.) Door switch Sensing circuit:
Reconnect the door switch sensing wire to the control module.

a.) Opening the door= 3 tones from siren.

b.) Closing the door - no tone from siren.

i.) If the tone from siren works oppositely, the voltage sensor wire has been incorrectly connected, change the GREEN wire to VIOLET wire or from the VIOLET wire to GREEN wire.

ii.) 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.

3) Hood And Trunk sensing circuit:
Opening the hood or trunk=2 tones from siren
If no two tones from siren, check hood or trunk pin switch installation. The switch body must have good ground chassis. Then check the Blue wire connection.

E. EXIT THE TEST MODE:

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